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PARLIAMENTARY DEBATES

SINGAPORE

OFFICIAL REPORT

FOURTEENTH PARLIAMENT

FIRST SESSION

Tuesday, 28 February 2023

The House met at 10:30 am

VOLUME 95

NO 88

ATTENDANCE

PRESENT:

Mr SPEAKER (Mr Tan Chuan-Jin (Marine Parade)).

Mr Abdul Samad (Nominated Member).

Ms Janet Ang (Nominated Member).

Mr Ang Wei Neng (West Coast).

Mr Baey Yam Keng (Tampines), Senior Parliamentary Secretary to the Minister for Sustainability and the Environment and Minister for Transport.

Mr Chan Chun Sing (Tanjong Pagar), Minister for Education.

Miss Cheryl Chan Wei Ling (East Coast).

Mr Mark Chay (Nominated Member).

Mr Chee Hong Tat (Bishan-Toa Payoh), Senior Minister of State for Finance and Transport.

Miss Cheng Li Hui (Tampines).

Mr Chong Kee Hiong (Bishan-Toa Payoh).

Mr Desmond Choo (Tampines).

Mr Eric Chua (Tanjong Pagar), Senior Parliamentary Secretary to the Minister for Culture, Community and Youth and Minister for Social and Family Development.

Mr Chua Kheng Wee Louis (Sengkang).

Mr Darryl David (Ang Mo Kio).

Mr Christopher de Souza (Holland-Bukit Timah), Deputy Speaker.

Ms Foo Mee Har (West Coast).

Ms Grace Fu Hai Yien (Yuhua), Minister for Sustainability and the Environment.

Mr Gan Kim Yong (Chua Chu Kang), Minister for Trade and Industry.

Ms Gan Siow Huang (Marymount), Minister of State for Education and Manpower.

Mr Gan Thiam Poh (Ang Mo Kio).

Mr Gerald Giam Yean Song (Aljunied).

Mr Derrick Goh (Nee Soon).

Ms He Ting Ru (Sengkang).

Mr Heng Chee How (Jalan Besar), Senior Minister of State for Defence.

Mr Heng Swee Keat (East Coast), Deputy Prime Minister and Coordinating Minister for Economic Policies.

Prof Hoon Hian Teck (Nominated Member).

Mr Shawn Huang Wei Zhong (Jurong).

Ms Indranee Rajah (Tanjong Pagar), Minister, Prime Minister's Office and Second Minister for Finance and National Development and Leader of the House.

Mr S Iswaran (West Coast), Minister for Transport and Minister-in-charge of Trade Relations.

Dr Janil Puthucheary (Pasir Ris-Punggol), Senior Minister of State for Communications and Information and Health and Government Whip.

Dr Amy Khor Lean Suan (Hong Kah North), Senior Minister of State for Sustainability and the Environment and Transport.

Prof Koh Lian Pin (Nominated Member).

Mr Kwek Hian Chuan Henry (Kebun Baru).

Mr Desmond Lee (West Coast), Minister for National Development, Minister-in-charge of Social Services Integration.

Mr Lee Hsien Loong (Ang Mo Kio), Prime Minister.

Mr Leong Mun Wai (Non-Constituency Member).

Mr Liang Eng Hwa (Bukit Panjang).

Mr Lim Biow Chuan (Mountbatten).

Assoc Prof Jamus Jerome Lim (Sengkang).

Ms Sylvia Lim (Aljunied).

Dr Lim Wee Kiak (Sembawang).

Ms Low Yen Ling (Chua Chu Kang), Minister of State for Culture, Community and Youth and Trade and Industry.

Ms Mariam Jaafar (Sembawang).

Mr Masagos Zulkifli B M M (Tampines), Minister for Social and Family Development, Second Minister for Health and Minister-in-charge of Muslim Affairs.

Dr Mohamad Maliki Bin Osman (East Coast), Minister, Prime Minister's Office and Second Minister for Education and Foreign Affairs.

Mr Mohd Fahmi Aliman (Marine Parade).

Mr Muhamad Faisal Bin Abdul Manap (Aljunied).

Assoc Prof Dr Muhammad Faishal Ibrahim (Nee Soon), Minister of State for Home Affairs and National Development.

Mr Murali Pillai (Bukit Batok).

Ms Nadia Ahmad Samdin (Ang Mo Kio).

Dr Ng Eng Hen (Bishan-Toa Payoh), Minister for Defence.

Mr Louis Ng Kok Kwang (Nee Soon).

Ms Ng Ling Ling (Ang Mo Kio).

Miss Rachel Ong (West Coast).

Mr Ong Ye Kung (Sembawang), Minister for Health.

Ms Joan Pereira (Tanjong Pagar).

Mr Leon Perera (Aljunied).

Ms Denise Phua Lay Peng (Jalan Besar).

Ms Hazel Poa (Non-Constituency Member).

Ms Poh Li San (Sembawang).

Mr Pritam Singh (Aljunied), Leader of the Opposition.

Ms Rahayu Mahzam (Jurong), Senior Parliamentary Secretary to the Minister for Health and Minister for Law.

Mr Saktiandi Supaat (Bishan-Toa Payoh).

Mr Seah Kian Peng (Marine Parade).

Mr Sharael Taha (Pasir Ris-Punggol).

Ms Sim Ann (Holland-Bukit Timah), Senior Minister of State for Foreign Affairs and National Development and Deputy Government Whip.

Mr Sitoh Yih Pin (Potong Pasir).

Ms Hany Soh (Marsiling-Yew Tee).

Ms Sun Xueling (Punggol West), Minister of State for Home Affairs and Social and Family Development.

Mr Alvin Tan (Tanjong Pagar), Minister of State for Culture, Community and Youth and Trade and Industry.

Ms Carrie Tan (Nee Soon).

Mr Desmond Tan (Pasir Ris-Punggol), Minister of State, Prime Minister's Office.

Mr Tan Kiat How (East Coast), Senior Minister of State for Communications and Information and National Development.

Mr Dennis Tan Lip Fong (Hougang).

Dr Tan See Leng (Marine Parade), Minister for Manpower and Second Minister for Trade and Industry.

Ms Jessica Tan Soon Neo (East Coast), Deputy Speaker.

Dr Tan Wu Meng (Jurong).

Dr Tan Yia Swam (Nominated Member).

Mr Patrick Tay Teck Guan (Pioneer).

Mrs Josephine Teo (Jalan Besar), Minister for Communications and Information and Second Minister for Home Affairs.

Mr Raj Joshua Thomas (Nominated Member).

Ms Tin Pei Ling (MacPherson).

Mr Edwin Tong Chun Fai (Marine Parade), Minister for Culture, Community and Youth and Second Minister for Law.

Mr Vikram Nair (Sembawang).

Dr Vivian Balakrishnan (Holland-Bukit Timah), Minister for Foreign Affairs.

Dr Wan Rizal (Jalan Besar).

Mr Don Wee (Chua Chu Kang).

Mr Lawrence Wong (Marsiling-Yew Tee), Deputy Prime Minister and Minister for Finance.

Mr Xie Yao Quan (Jurong).

Ms Yeo Wan Ling (Pasir Ris-Punggol).

Mr Yip Hon Weng (Yio Chu Kang).

Mr Melvin Yong Yik Chye (Radin Mas).
Mr Zaqy Mohamad (Marsiling-Yew Tee), Senior Minister of State for Defence and Manpower and Deputy Leader of the House.
Mr Zhulkarnain Abdul Rahim (Chua Chu Kang).

ABSENT:

Mr Cheng Hsing Yao (Nominated Member).
Mr Edward Chia Bing Hui (Holland-Bukit Timah).
Dr Koh Poh Koon (Tampines), Senior Minister of State for Manpower and Sustainability and the Environment.
Dr Shahira Abdullah (Nominated Member).
Mr K Shanmugam (Nee Soon), Minister for Home Affairs and Law.
Mr Teo Chee Hean (Pasir Ris-Punggol), Senior Minister and Coordinating Minister for National Security.
Mr Tharman Shanmugaratnam (Jurong), Senior Minister and Coordinating Minister for Social Policies.
Mr Alex Yam (Marsiling-Yew Tee).

PERMISSION TO MEMBERS TO BE ABSENT

Under the provisions of clause 2(d) of Article 46 of the Constitution of the Republic of Singapore, the following Members have been granted permission by the Speaker to be absent from sittings of Parliament (or any Committee of Parliament to which they have been appointed) for the periods stated:

Name	From	To
	(2023)	(2023)
Mr K Shanmugam	22 Feb	01 Mar
Mr Tharman Shanmugaratnam	26 Feb	05 Mar
Mr Cheng Hsing Yao	28 Feb	28 Feb
Mr Edward Chia Bing Hui	28 Feb	28 Feb
Dr Shahira Abdullah	28 Feb	28 Feb
Mr Teo Chee Hean	28 Feb	02 Mar

[Mr Speaker in the Chair]

ORAL ANSWERS TO QUESTIONS

CONSIDERATIONS FOR CONVERTING SINGLE-SEX SCHOOLS TO CO-ED SCHOOLS AND FOR RELOCATING SCHOOLS

- 1 **Mr Yip Hon Weng** asked the Minister for Education (a) what are the considerations when selecting (i) primary schools for relocation to new towns and (ii) single-sex schools to become co-ed schools respectively; and (b) how far in advance will such decisions be made known to parents so that they can plan ahead for Primary One admissions for their children.
- 2 **Mr Gerald Giam Yean Song** asked the Minister for Education (a) whether the Ministry has plans to relocate schools other than Anglo-Chinese School (Primary) that are currently located in higher income neighbourhoods like Bukit Timah to the HDB heartlands; and (b) what are the Ministry’s consideration in deciding to relocate schools.
- 3 **Mr Gerald Giam Yean Song** asked the Minister for Education (a) whether the Ministry has plans to convert more single-sex primary and secondary schools to co-educational schools; and (b) if so, what are the considerations for doing so.

The Minister for Education (Mr Chan Chun Sing): Mr Speaker, Sir, may I have your permission to take the first three Parliamentary Questions (PQs) together, please?

Mr Speaker: Please do.

Mr Chan Chun Sing: Mr Speaker, Sir, when planning the locations of new schools and reviewing the distribution of schools across Singapore, including possible relocations, the Ministry of Education (MOE) takes into account current and projected residential populations to meet educational needs both at the national and at the local levels. In deciding whether or which school to relocate, we are also mindful that each relocation case and its circumstances are unique.

In general, all new schools that MOE opens are co-ed, as is the case of schools opening in recent years in Punggol or those slated to be opened in Tengah. This is to ensure that these new schools meet the local demand for school places for both boys and girls, especially since home-school proximity is an important consideration at the primary school level.

In the specific case of ACS (Primary) School, ACS Board of Governors had discussed with MOE on a possible move of one of their two primary schools in the Bukit Timah area to the heartlands to serve a different community and to inject more diversity into their student profile. In the course of these discussions, MOE offered a Tengah school site to the ACS Board of Governors (BOG), but explained that it would not be tenable for the school not to take in girls at its Tengah location as that would constrain school options for families in the area. MOE was glad that the ACS Board was open to this request, and subsequently, ACS Board informed MOE that ACS (Primary) School would be the relocating school.

MOE does not have a plan to proactively convert existing single-gender schools to co-ed schools, but we have had several such cases over the decades. As the circumstances for each case are different, MOE takes a customised approach and discusses with key decision-makers in each school to facilitate the transition and provide the necessary support.

Where there are major changes for schools, including relocation and turning co-ed, MOE will give advance notice as far ahead as possible once plans are firmed up, and will work with the schools on transition arrangements to minimise impact and inconvenience for existing students and their families.

Mr Speaker: Mr Yip Hon Weng.

Mr Yip Hon Weng (Yio Chu Kang): Thank you, Mr Speaker. I declare that I am on the board of governors of a mission school and the parent of children in an ACS school but not ACS (Primary). I thank the Minister for his reply. Can I find out what is the Ministry's thinking on single-sex schools and whether the long-term direction of the Ministry is to allow the establishment of more single-sex schools to introduce more options in the education landscape or that we are moving towards more co-ed schools?

Mr Chan Chun Sing: Mr Speaker, Sir. I will make two points. First, MOE neither have or not have a preference between single-sex or co-ed school. Many of these schools have a history and that is why they are where they are now. Having said that, there have also been a number of single-gender schools that have turned co-ed, which may or may not involve relocation in recent years. These include Canossa Catholic Primary School, De La Salle School, St Anthony's Primary, Geylang Methodist Primary, Fairfield Methodist Primary. So, each case is unique and we will work with the stakeholders accordingly.

The second point I will make is that I would reiterate what I have said just now. For every new town, we need to find and create spaces that provide for the local community needs. So, for example, we will prefer the schools to be co-ed because that would better meet the local community needs. Imagine you have three new schools in a new town. Imagine we have a total of six children – three boys, three girls. If all the three schools are co-ed, the chances are that each of the school will have 50% boys and girls. But if one of the schools is not co-ed and it is a single-sex school, then, mathematically, what it means is that the other two remaining schools, chances are that, will have an imbalance between the boys and the girls.

Mr Speaker: Mr Gerald Giam.

Mr Gerald Giam Yean Song (Aljunied): Thank you, Mr Speaker. I declare that I am an alumni of ACS but not ACS (Primary), and I am the parent of a student in one of the ACS secondary schools.

Given the shrinking cohorts of students, will more schools in older estates in the future be moved to new estates in this fashion? And did MOE conduct any consultation with existing and future Tengah residents who are likely to be the parents of future ACS (Primary) students? Lastly, what would happen to the ACS (Junior) site on Winstedt Road after the school moves out in 2039? I understand that there might have been some recent enhancements done to the campus and would that go to waste when the campus is returned to MOE.

Mr Chan Chun Sing: Mr Speaker, Sir, on the first question, the answer is that we will look at the demand according to each of the redevelopment plans in the respective new towns. We also have plans to rejuvenate the old towns. So, whether it is a new town or a old town, we will have to look at the current demand and the projected demand in planning for our schools.

The second to the third question – what will happen to the site at Winstedt Road after 2039 – I think the answer is that it will be returned to the state.

The Member's second question is?

Mr Gerald Giam Yean Song: My second question is related to the third question because if there were some enhancements done on the site, then would it be a waste.

Mr Chan Chun Sing: Yes, so from now to 2039, we have a good 15 to 16 years to go. So, after 2039, the site will be returned to the state. On the other question on whether the ACS board consulted its stakeholders, I think the ACS board did consult the relevant stakeholders but it had to keep it to within a tight circle, given some of the sensitivities with this move, particularly, price sensitivities related to the property market.

Mr Gerald Giam has also brought up a very important point. In making any decision, we have to consult not just the current generation of stakeholders but also future stakeholders. And in any democracy, as I mentioned the other day, one of our biggest challenges is that it may not always be possible for you to consult your future stakeholders because they are not there yet. Because the future residents of Tengah have not even gotten their flats yet and they may or may not know whether they will be residents of Tengah.

Having said that, there is where leadership comes in, from both MOE and the ACS board. We have to project not just the needs of the current generation, but also the needs of the future generation. Since the announcement has been made, I think our ground feedback has generally been positive, particularly for the people staying in the West to have the added options of the new schools, including ACS in Tengah. Not just ACS in Tengah but also the broader plans of the siting of the various new schools in the Tengah and Hong Kah area.

SOCIAL WORKER CASELOAD AT FAMILY SERVICE CENTRES

4 **Mr Louis Ng Kok Kwang** asked the Minister for Social and Family Development for FY2021/2022, what is the average and median social worker to caseload ratio at family service centres.

The Minister for Social and Family Development (Mr Masagos Zulkifli B M M): Mr Speaker, in Financial Year (FY) 2021, the average and median social worker to caseload ratios at Family Service Centres (FSCs) were 1:19 and 1:20 respectively.

Mr Speaker: Mr Louis Ng.

Mr Louis Ng Kok Kwang (Nee Soon): Thank you, Sir. I thank the Minister for the reply. I spoke up about the workload of social workers during my Budget debate speech last year. Two clarifications. One, it seems like the caseload has dropped, so could I ask what efforts the Ministry of Social and Family Development (MSF) has put in, in terms of reducing the amount of work for our social workers? And two, whether there is also a similar reduction in the amount of administrative work that social workers are doing in the last FY?

Mr Masagos Zulkifli B M M: I do not have specific answers to those points raised. Generally speaking, we look at the sector very carefully, all the time, and we look at work environment. It is not just about the workload. We look at the organisation, the environment in which they work in. We look at the kind of challenges they meet and in fact, whether the challenges are those that they enjoy overcoming.

One of the areas we always look at is how to uplift the management quality so that when you come to work, every Monday is a Friday and every Friday is a Monday. It is that kind of place where you want to come to work and really feel sad that it is a Friday and you are going for your weekend. We are not there yet, but I can say that some of the FSCs are doing far better than others and we really want to uplift their quality of work. Certainly, the load with which our social workers are facing is one of the many factors that we are looking at.

ADDITIONAL MEASURES TO ENCOURAGE PRUDENT BIDDING OF MOTORCYCLE COES

5 **Ms Mariam Jaafar** asked the Minister for Transport considering the continued rise in motorcycle COEs whether additional measures to the changes implemented in March 2022 to encourage prudent bidding are being considered.

The Senior Minister of State for Transport (Dr Amy Khor Lean Suan) (for the Minister for Transport): To help buyers obtain their motorcycles sooner, motorcycle dealers bid for and hold onto some Category D Temporary COEs or TCOEs, which can be used to first register a motorcycle before subsequent transfer to a buyer upon purchase.

With rising Cat D COE quota premiums, there were some concerns that dealers were speculatively bidding and holding on to TCOEs. Thus, in March 2022, the Land Transport Authority (LTA) adjusted the Cat D COE bid deposit from \$200 to \$800, and shortened the Cat D TCOE validity period from six months to three months, to encourage prudent bidding behaviour.

We will continue to monitor the situation closely and consider further actions, if necessary.

Mr Speaker: Ms Mariam Jaafar.

Ms Mariam Jaafar (Sembawang): I thank the Senior Minister of State. We agree that the Government has done quite a bit in trying to contain the issue of motorcycle COEs, including the move on prudent bidding. It did have an impact for a few months after the implementation. But motorcycle COEs are now going up again. This is a really important issue to the people who actually rely on their motorcycles to do their work. Can the Ministry say more if it is willing to consider raising the bid further? Or if that is not the issue, are there any other moves that can help to bring down motorcycle COEs?

Dr Amy Khor Lean Suan: I thank the Member for her supplementary questions. Let me say that we share the same concerns. I think many other Members of Parliament, including the Government Parliamentary Committee Chairman Mr Saktiandi Supaat has also raised these concerns.

As I have said, we understand the concerns of the potential buyers of, for instance, motorcycles, particularly if it is for their livelihood. So, we closely monitor the situation. As I have also noted in my earlier reply, we have made some moves in March with regard to the validity period – we shortened it and raised the bid deposit. To reduce the quarter-to-quarter volatility for the COE premiums, we have changed the method of computation for COE quota, which would also help in terms of the motorcycle COE premiums.

But some of these changes, the impact may take some time to flow through. We are monitoring the situation and we are prepared and will consider further actions if necessary.

Mr Speaker: Mr Pritam Singh.

Mr Pritam Singh (Aljunied): Thank you, Mr Speaker. Just a question for the Senior Minister of State, in view of the reply to the hon Member Ms Mariam Jaafar. In the last decade, I understand LTA had allowed for the transfer of up to 25% of COEs originally put aside for Cat D motorcycles and allowed them to be transferred to the Open Category. That number then was reduced to 10% and I think now, the

transfer is not allowed anymore – or at least, that policy has ceased, that is, the move from motorcycle COEs to the Open Category, to Cat E.

Can I ask has LTA ever transferred COEs from the open category to Cat D, for the motorcycles, to raise the number of COEs available for motorcycles?

Dr Amy Khor Lean Suan: I would say that, as the Member has pointed out, we have stopped the contribution of the number of the COEs from the motorcycle category, Cat D, into Cat E; whilst the others would have continued to contribute a certain percentage. I stand to be corrected but I do not think that there has been instances where we have actually done the reverse.

AVERAGE TIMESPAN OF MANUALLY-HANDLED COURT CASE COMPARED TO ONE MANAGED UNDER INTEGRATED CASE MANAGEMENT SYSTEM

6 Mr Leon Perera asked the Minister for Law (a) what is the average timespan of a manually-handled court case as compared to one managed under the Integrated Case Management System (ICMS); (b) what is the number of State Courts cases that have been adjourned over the ICMS system failure on 7 February 2023; and (c) what is the typical frequency and duration of ICMS maintenance.

The Senior Parliamentary Secretary to the Minister for Law (Ms Rahayu Mahzam) (for the Minister for Law): Mr Speaker, the State Courts' Integrated Case Management System (ICMS) was officially launched in 2015. The State Courts decide on matters relating to their case management systems, such as procurement and maintenance. The following is based on information received from the State Courts.

The ICMS is used to manage all criminal cases in the State Courts. Judges and litigants may use ICMS to access case records, schedule hearings, upload documents, file applications and generate Court orders. An average of around 184,000 criminal cases were filed each year from 2018 to 2022 on ICMS.

The ICMS currently undergoes scheduled weekly and monthly maintenance, which takes about four or 10 hours, respectively. Scheduled maintenance is carried out after Court operating hours to minimise disruptions to users.

After the disruption to ICMS happened, the State Courts activated their business continuity plans to ensure that Court hearings could proceed despite the disruption. This included printing hard copy documents, where appropriate, for parties to refer to and Judges recording their notes on Microsoft Word.

As a result, the vast majority of criminal cases were not affected. The average time to manage these cases manually on 7 and 8 February 2023, as compared to the average time if the cases had been managed under ICMS, was not specifically tracked.

Only 16 of the 2,037 criminal cases scheduled on 7 and 8 February 2023, that is, less than 1% of the scheduled cases, had to be adjourned. Minimal disruption was caused to these adjourned cases.

Mr Speaker: Mr Perera.

Mr Leon Perera (Aljunied): I thank the Senior Parliamentary Secretary for her reply. Just two supplementary questions and I understand, of course, that you will have to relay this information from the State Courts. The first question is: is there a plan to overhaul the system? It seems to me that weekly maintenance that can take between four and 10 hours is quite burdensome and there is also feedback from some lawyers that the system is a bit clunky and slow, and sometimes, glitchy – that was reported in the media article. So, I am wondering if there is going to be a more thorough overhaul coming up in the future.

And my second question is, I understand that the system for requesting criminal case management conferences is, right now, not integrated with ICMS. You would have to go to a separate page on the Attorney-General's Chambers (AGC) website. So, is there a plan to integrate that functionality into ICMS?

Ms Rahayu Mahzam: I thank the Member for the question. I want to clarify on the point of the timing for the maintenance. Actually, it is four hours for the weekly maintenance and 10 hours for the monthly one, which are done during times when the Courts are not in operation. That takes about 328 hours of downtime, out of a total of 8,760 hours in a year. So, it is about only 3.7% of the hours in a year. In a way, it is a small number.

The second point I want to mention is the fact that we note some of the feedback given by the lawyers. I know that it was largely coming out from the article, so I am not sure if it is necessarily representative. But that is something we can look into and I take the feedback back. I think it is something that we want to continually improve on. There are suggestions made on the integration of the Criminal Case Management System (CCMS). That is something we can take back and look into.

NUMBER OF CHILDREN UNDER AGE 12 WHO WERE INJURED IN TAXIS AND PRIVATE HIRE CARS

7 Mr Louis Ng Kok Kwang asked the Minister for Home Affairs of the number of children under 12 years old who were injured in taxis and private hire cars respectively in the past five years, how many were not (i) wearing seat belts and (ii) seated in child car seats at the time of the accident.

The Minister of State for Home Affairs (Assoc Prof Dr Muhammad Faishal Ibrahim) (for the Minister for Home Affairs): Mr Speaker, under the Road Traffic Act, we require all passengers to wear seat belts when travelling in motor vehicles. For passengers under 1.35 metres in height, we require them to be properly secured using approved child restraints, which include child car seats, or using seat belts when seated in booster seat cushions. The latter applies for all motor vehicles except taxis.

Between 2018 and 2022, 48 children under 12 years old were injured in taxis. As the use of child restraints and seat belts when seated in a booster cushion for passengers under 1.35 metres in height is not required for taxis, we do not have readily available data on whether children were seated in child restraints or wearing seat belts during an accident.

For private hire cars, between 2018 and 2022, 63 children under 12 years old were injured in private cars. At the time of the accident, 35 were not wearing seat belts and 28 were not secured using child restraints or seatbelts while on a booster cushion.

Mr Speaker: Mr Louis Ng.

Mr Louis Ng Kok Kwang (Nee Soon): I thank the Minister of State for the reply. Could I ask whether the Ministry of Home Affairs (MHA) can start tracking, in terms of number of children who are injured in taxi accidents? I think we need to understand that the magnitude of problem, and then, decide whether there needs to be a shift in the policy.

And second clarification relates to the first. Could I ask MHA, from a safety standpoint, why is that this exemption for taxis under the Road Traffic (Motor Vehicles, Wearing of Seat Belts) Rules of 2011? From a safety standpoint, why is that an exemption? I know I have asked the Ministry of Transport (MOT) that, but perhaps, I could hear from MHA what their perspectives are.

Assoc Prof Dr Muhammad Faishal Ibrahim: Sir, I thank the Member for the supplementary questions. This is not the first time the Member has been asking, and in fact, one is we take his suggestion. And second, since the time he started to ask until today, I think we can agree that there have been positive developments.

And if you look back at the answers provided by my colleagues from MOT as well as MHA, you realise that because there are diverse needs within the society, for the transport aspect of it. But at the same time, we also look at the safety of the passengers. And today, you have the ride hail app, which provides that option to those who may want to take this option. At least, three companies have provided that option. This is a very positive development. During some of the pilots that either MOT or MHA had, the response was quite mixed.

So, I think it is something that we need to navigate carefully, but my personal view is that things have moved positively and we need to continue this journey, putting in mind the diverse needs of our people with safety at the forefront.

IMPLICATION IF CIVIL SERVANTS USE CHATGPT TO WRITE REPORTS AND SPEECHES

8 **Mr Yip Hon Weng** asked the Prime Minister with the use of ChatGPT by civil servants to write reports and speeches (a) what are the types of reports that will still be done exclusively by civil servants; and (b) how will the Government ensure and validate the accuracy of ChatGPT-assisted reports and speeches.

The Senior Minister of State for Communications and Information (Dr Janil Puthucheary) (for the Prime Minister): Mr Speaker, Sir, as part of our efforts to utilise technology to encourage innovation and productivity in the public sector, the Government is exploring how large language models, such as those underlying ChatGPT can help officers do their work more effectively. One such effort is the development of Pair, in which we see potential in helping civil servants with parts of the writing process, such as summarising long reference material, exploring related ideas, or improving the clarity of writing.

Pair is still being developed. The Government aims to pilot this with a number of agencies and will carefully evaluate the results before determining how best to roll it out to the broader civil service. To ensure data security, the Government has struck an agreement with Azure OpenAI, the large language model provider, for Government information to remain confidential. In addition to these technical safeguards, work that contains highly confidential or sensitive information will still be written exclusively by civil servants.

As suggested by the name "Pair", the intent is for it to serve as an assistive tool that civil servants can leverage to improve their productivity, rather than entirely automating the writing process. Ultimately, civil servants using the tool are still directly responsible for making policy decisions, as well as crafting, refining and customising the content of documents to ensure that they are relevant, accurate and appropriate.

The Government is committed to ensuring that we are well-positioned to benefit from innovations, such as ChatGPT, while managing the associated risks.

Mr Speaker: Mr Yip.

Mr Yip Hon Weng (Yio Chu Kang): Thank you, Mr Speaker. I thank the Senior Minister of State for his reply. I have two supplementary questions. First is, how much productivity gain is expected to be achieved as a result of this initiative; and two, will the affected civil servants be redeployed to other portfolios or take on other forms of work.

Dr Janil Puthucheary: Sir, it is a little bit too early to calculate the expected gain in productivity. The tool is still being developed. The second question about redeployment, our experience in other parts of Government, with the use of productivity enhancement tools or automation, has resulted not in redeployment of personnel, so much as redevelopment of job roles and the tasks that officers are engaged in.

This has been our experience for a number of years across the number of Ministries and agencies. It remains to be seen what the effect will be of this tool, as I said, it is early days yet.

COMPLAINTS RECEIVED RELATING TO SECOND-HAND SMOKE FROM NEIGHBOURS

9 **Mr Louis Ng Kok Kwang** asked the Minister for Sustainability and the Environment in each year since 2019, how many complaints relating to secondhand smoke from neighbours has the Ministry received.

The Senior Minister of State for Sustainability and the Environment (Dr Amy Khor Lean Suan) (for the Minister for Sustainability and the Environment): The National Environment Agency (NEA) received about 400 instances of feedback on smoking in homes in 2019. In 2020 and 2021, the number increased to about 2,000 each year, as more people worked from home during the COVID-19 pandemic. Feedback on smoking in homes has since decreased to about 900 instances in 2022.

Mr Speaker: Mr Louis Ng.

Mr Louis Ng Kok Kwang (Nee Soon): Thank you, Sir. Could I just ask the Senior Minister of State for the data of the 900 instances last year, how many are first-time complaints and how many are repeated complaints?

Second, while it is increased and then decreased, I think the data still shows that pre-pandemic, and now, post-pandemic the data look like it is doubled the number of complaints. So, I have asked this before, could I ask again, what is the threshold that we are looking at before we will really look into changing our policies? Is there a specific number of complaints we need to receive, like high-rise littering, before something changes?

Dr Amy Khor Lean Suan: I do not have the number of repeat complaints and first-time complaints, but of the 900 instances of feedback, 622 are actually unique feedback. So, that is the information I have. As regards to threshold, let me first again reiterate, as I have done many times, that we take a serious view about second-hand smoke and we sympathise with every case that is affected by second-hand smoke.

So, we take a multi-prong approach, both at the local level as well as at the national level. At the local level, every time there is an instance of such a case, we go down, send advisory, encourage or verbally advise the smoker, as well as look at whether enforcement can be done, if the second-hand smoke is actually emitting from the common corridor. And this is what we have done.

On the national level, we have done many things, just at this Budget, we have announced that there will be an increase in tobacco tax, and we hope that that would deter smoking and reduce the prevalence of second-hand smoke too; amongst others, legal age limit and so on.

So, it is not the threshold. We continue to look at how we can improve the situation and mitigate the cases, and every case does matter to us. I think we also need to, not to trivialise the issue because it is serious, but we need to put this in context and have a proper perspective. And that is, 900 is out of 21,300 smoking feedback for 2022.

In addition, we all know that we live in a very high-rise, highly dense, highly urbanised society. If you look at it, first, the number of residential developments, for instance, is ever increasing. So, it is not static. And we are talking about, just for HDB flats, more than a million HDB flats.

We need to take that in perspective, every case we take it seriously and we do sympathise with the resident. We will do whatever we can to address this, but we also need to put this in perspective and be pragmatic about it. It cannot be that we spent an inordinate amount of expenses and effort when enforcement may not be effective. So, we continue to look at what else we can do, including legislation for smoking at homes.

Mr Speaker: Mr Louis Ng, a very quick one. You just have about a minute plus.

Mr Louis Ng Kok Kwang: Just a quick one. I mean, to put things into perspective, every other day, one person in Singapore dies that is attributed to second-hand smoke. And I think that is a perspective that we should really look into.

Dr Amy Khor Lean Suan: Indeed, as I have said to the Member, we take every case seriously. So, when we take the case seriously, it means that we are also very serious. We are also concerned about the outcome of second-hand smoke.

10.59 am

Mr Speaker: Thank you. On that serious note, order, end of question time. The Clerk will now proceed to read the Orders of the Day.

[Pursuant to Standing Order No 22(3), provided that Members had not asked for questions standing in their names to be postponed to a later Sitting day or withdrawn, written answers to questions not reached by the end of Question Time are reproduced in the Appendix.]

ESTIMATES OF EXPENDITURE FOR THE FINANCIAL YEAR 1 APRIL 2023 TO 31 MARCH 2024

(Committee of Supply – Paper Cmd 20 of 2023)

Order read for consideration in Committee of Supply [3rd Allotted Day].

[Mr Speaker in the Chair]

COMMITTEE OF SUPPLY – HEAD V (MINISTRY OF TRADE AND INDUSTRY)

(A vibrant economy and a resilient workforce)

The Chairman: Head V, Ministry of Trade and Industry. Mr Liang Eng Hwa.

11.00 am

Economic Outlook and Challenges

Mr Liang Eng Hwa (Bukit Panjang): Mr Chairman, I beg to move, "That the total sum to be allocated for Head V of the Estimates be reduced by \$100."

Sir, as in every MTI COS debate, we start by taking stock of the economy. So, let me kick off by asking the Minister on how has the economy fared in 2022 and what he sees as the outlook for 2023.

In the Budget Statement debate, Deputy Prime Minister and Finance Minister painted a mixed outlook going forward. Major economies like US and EU are seeing slower growth and may enter into recession. The war in Ukraine may escalate or prolong, which could further weigh on global trade, hold up energy and food prices and dampened consumer and business confidence. The bright spark is the reopening of the China economy, which could boost demand for the global economy.

However, the intense rivalry and competition between major powers has led to countries taking unilateral actions to decouple in trade, technology, finances and investments. To shore up their economic security, we have seen countries like US introduced the Chips Act; and China implemented the Export Control Law to reduce dependencies on other countries.

Sir, globalisation is no longer what it used to be and we are entering into a period of geopolitical instability. Domestically, Singapore is also running up against serious internal resource constraints; among others the ageing resident workforce, rising wages, decarbonisation, high rental and land costs, higher taxes among others.

Against this backdrop, can I ask the Minister how would Singapore navigate and respond to this increasingly complex and uncertain operating environment? How do we stay competitive and how should our businesses prepare for these challenges?

Sir, we are increasingly seeing the emergence of transformative technologies disrupting existing business models and industries. The proliferation of disruptive technologies such as AI, blockchain, Web3 are expected to have uneven impact across businesses; with some embracing the changes and others falling behind. The gap will likely widen.

The global shifts towards renewable energy are another challenge that businesses must contend with. The journey to transit to low or zero carbon is expected to be a taxing one for businesses especially the SMEs. Besides higher carbon taxes, the immediate impact would be the initial higher energy costs and the additional resources needed for the shift.

Next, comes the manpower crunch that businesses faced. Notwithstanding layoffs in the tech sector, the labour market continues to tighten. The turnover of foreign labour, where the experienced workers go on home leave whilst the newer inexperienced workers take on, add to the tightness of the manpower situation. I am also concern about the overdrive mode of our domestic economy, especially in the service sector. It would further squeeze to the limited manpower availability and drive up costs.

Sir, there may well be more businesses to do out there for the businesses, but companies are just unable to find the manpower to benefit these opportunities in the near term.

Improving productivity and efficient utilisation of resources are the only way out to create new capacity for further growth. The ITMs are our main playbook to improve productivity and to press on with innovations and internationalisation. Can I ask the Minister for an update on our industry transformation efforts so far?

Sir, at last year's Budget, the Minister for Trade and Industry unveiled the Singapore Economy 2030 vision and strategies. Under this vision, there are four key pillars identified which would drive new growth, namely services, manufacturing, trade and enterprises. I would like to ask the Minister how have we progressed towards this vision?

Sir, while we should be concerned about our inherent constraints and strive hard to overcome them, our economic fundamentals and propositions remain strong. Our handling of the pandemic and the balanced approach that we have taken has lifted our credentials. We are the early movers to reinstate air travel which helps to strengthen our air hub status and our premier status as an international convention centre.

Investors see attractiveness in our overall economic proposition and are even prepared to pay the premium to invest or hub in Singapore. Before the pandemic, we do not have a single facility that produce vaccine. But in the next two years, five pharmaceutical companies will be setting up plants here, which can churn out a billion doses of vaccines annually. It will create new job opportunities and new economic value add.

Credit goes to EDB, MTI and the other agencies for continuing to attract quality investments to Singapore despite the intense competition and more challenging circumstance.

Sir, the Government has announced the planned implementation of the BEPS 2.0 Pillar Two in 2025; where would see higher corporate tax rate. We would need to sharpen our competitive edge to attract and retain investments. The \$4 billion top up of the National Productivity Fund, which has had its scope expanded to include investment promotion as a supportable activity, is one of the new tool kits. Can I ask the Minister how he sees the impact to our attractiveness as an investment destination with this move?

Sir, venturing beyond our shores, is also another growth strategy to help overcome our domestic limitations. The Global Enterprises Initiative and the SME co-investment fund are targeted to support and help businesses scale up and be globally competitive.

Can I ask the Minister how are we supporting our firms to capture opportunities from the region and other emerging markets? Also, what steps is Singapore taking to strengthen our trade, economic and digital linkages with other economic partners?

Sir, our economic successes have brought us benefits but also problems as well. But it is always a better position having to deal with the problems of success than to deal with problems of failures. Fortunately for us, we are in a position to build on our past successes and strengths to secure an exciting future for all of us in the new era.

Question again proposed.

Economic Structure and Global Business Hub

Mr Saktiandi Supaat (Bishan-Toa Payoh): Sir, Singapore must plan to re-establish our position as a global business hub, in this post-COVID era.

Last year, MTI announced our Singapore Economy 2030 vision across four key pillars of Services 2030, Trade 2030, Manufacturing 2030 and Enterprise 2030. Among other things, we aim to grow our export value from \$805 billion to at least \$1 trillion from 2020 to 2030 and double our offshore trade value from US\$1 trillion to US\$2 trillion over the same period.

These are challenging targets considering the economic conditions and headwinds. Global unemployment is expected to rise by millions both this year and next, which may force countries to become more protectionist. Soaring interest rates discourage investments into R&D and training. Also not forgetting the phased carbon tax and measures that will be coming in force to secure Singapore's longer-term future.

Can the Ministry provide an update on our progress towards the four key pillars of Singapore Economy 2030? Based on prevailing investment trends, can I see the Minister's crystal ball or trend forecast in terms of how will the structure of the Singapore economy evolve over the next decade? Does it create jobs, disrupt potential jobs and set the tone for our future generations?

The Chairman: Mr Sharael Taha, both cuts, please.

Driving Real Productivity Improvements

Mr Sharael Taha (Pasir Ris-Punggol): Thank you, Mr Chairman. The National Productivity Fund was established in 2010 and has been instrumental in driving productivity in Singapore's businesses. Deputy Prime Minister Wong mentioned that the National Productivity Fund will be topped up with an additional \$4 billion and the scope of the fund will be expanded to include investment promotion as a supporting activity.

While we expand the scope of the fund to anchor more quality investments into Singapore, how do we ensure that the funds are effectively used by businesses to drive real productivity improvements that will lower the cost of doing business in Singapore?

Given that \$4 billion is half of what we spend on the Ministry of National Development (MND) and about the same amount that we spend on the Ministry of Social and Family Development (MSF), what will be the measure of success for the National Productivity Fund?

Attracting Investments

Mr Chairman, the cost of doing business in Singapore is continuously rising. This is especially due to the rising cost of labour which can be attributed to the tight labour market. Aspiration of workforce to have higher pay each year and our collective desire to pay our lower-wage workers better through the Progressive Wage Model.

Our strong currency also means Singapore-based businesses are finding it harder to compete through costs in the global market. Furthermore, additional headwind such as the impending carbon tax and the implementation of base erosion and profit-sharing BEPS 2.0 Initiative, would add even more cost to doing business in Singapore. While businesses in Singapore face these pressures, in the meantime, the US and other countries are rolling out subsidies to build up their industries and hence, reduce Singapore's attractiveness for investments. As tax equalisation in BEPS 2.0 also implies that we have one less instrument to assist us in attracting investments into Singapore, how can we generate non-tax incentives to enhance our business competitiveness to continue to attract foreign investments when we lose preferential tax rates as one of our competitive levels?

Silver Industries

Ms Sylvia Lim (Aljunied): Sir, across the world, we see exciting innovations catering to the needs and well-being of seniors. These range from technology to monitor health conditions at home, to senior-friendly food, to robotic pet dogs that keep lonely seniors mentally and emotionally engaged.

Singapore is one of the most rapidly ageing societies in the world and faces a manpower shortage in the care sector. While various agencies such as the MOH, GovTech and IMDA have led the way in certain areas, can more be done to collaborate with the private sector and encourage local enterprises and startups to expand into such technology?

There is some evidence that the testing and tailoring of aged care innovations could bring about profits for local businesses. For example, a Singaporean-based company called SilverActivities designs and evaluates games, applications and devices suited primarily for seniors. Their products are designed to stimulate, train and preserve the seniors' cognitive functions such as memory, problem-solving, language

and learning.

Nursing homes have given glowing testimonials of their products. Companies such as SilverActivities have the potential to expand out into international markets when the time is right. In a recent blog article published by Enterprise Singapore entitled "Silver economy: Is the business of ageing a sunrise industry?", the author pointed out that in the Asia Pacific region, the silver economy market was projected to be worth US\$4.6 trillion by 2025, just two years from now. Market opportunities were identified to be in telemedicine, healthtech, elderly nutrition and assisted living.

There are opportunities for Singapore to pioneer, pilot and grow silver industry players that may in time export these goods and services to other countries facing the same demographic challenge. How is the Government catalysing the potential of the Silver Economy?

Biotech Industry

Ms He Ting Ru (Sengkang): Thank you, Sir. Mr Chairman, it was evident during the global panic in the earlier phases of the pandemic that Singapore has to be self-reliant with resources to combat and resist the spread of the next wave of infectious diseases, and that it is important to have a strong biotech and biomedical industry of our own.

Our efforts to promote and grow the sector have been in place since 2000. And we have seen increases in manufacturing value add and growth in jobs in the sector. Indeed, figures from 2018 showed that we employ five times more biomedical researchers per capita than the US. The sector also was a bright spot during the economic hard times of the pandemic years.

It is also the case that the Government has invested a lot in the sector. The sector does well when it comes to manufacturing, although commentators have said that there is room for improvements for innovation capability.

Yet, in spite of this view, some of our biotech enterprises are doing promising, innovative work in interesting areas. For example, as Singaporeans, we are proud of our food heritage and it seems a match made in heaven for our companies to focus on what is going into our bodies and how our bodies react to what we consume. Thus, the research and innovative work done by startups and early stage companies into precision gut microbiomes here in Singapore deserves our full support.

I believe that there are currently efforts to maintain Southeast Asia's first and only gut microbiome transplant bank, along with building the world's largest multi-ethnic Asian gut microbiome database. The gut microbiome is neglected at our own peril, as it has also been found to play important roles in regulating our immune systems and controlling brain health and function.

This field therefore appears to hold promise when it comes to providing insight tailored to the specificities of a population and has implications for more efficient use of our resources in our health efforts, from developing effective preventive health strategies to managing or minimising chronic illness, to having more tailored and accurate public education advice when it comes to dietary habits suited to the genetics of our mostly Asian population.

The work is cutting edge and is especially cogent in light of the launch of Healthier SG last year. It would also make sense to have such knowledge and input be taken on board into our public health systems in an age of rising health and other care costs.

Are our systems sufficiently set up to be able to support such companies to be able to first secure the necessary funding to first research, then develop and market cutting edge products for us to export to the rest of the world?

While I note Minister of State Low Yen Ling's reply to me in a Parliamentary Question (PQ) outlining the steps taken to address concerns over potential manpower and talent shortages, particularly at the senior, C-suite levels, I would like further clarification about the success rate of our schemes after more than two decades in training Singaporeans to equip enough of us with the right skillsets to be able to found, lead and expand our companies to make Singapore a prominent player within the biomedical and biotech fields.

11.15 am

Accessible Support for Small Businesses

On accessible support for small businesses, it is an economically difficult time especially for small and micro-businesses as they battle rising costs and inflation amongst other global headwinds in the wake of COVID-19. Additionally, these businesses would also be particularly hard hit by our green transformation.

Climate change is an amplifier. While it might sometimes melt into the background as other more pressing and tangible economic concerns take precedence, its impact and undercurrents do not go away. Small and micro-businesses will soon feel the trickle-down effects of increased environmental regulations and pressures. And it is important that sufficient and flexible support is provided for them to build capacity on sustainability matters in these times.

This is also, as Senior Minister of State Teo mentioned last week, that we will be enhancing our public procurement strategy, to take into account public sector sustainability efforts. Our small and micro-businesses should not feel confused or overwhelmed by the diverse schemes and other support options available to them with the attendant KPIs and targets.

Additionally, could the Government introduce a variety of nudges and incentives to encourage small businesses to more quickly integrate sustainability, in particular environmental sustainability, into their businesses.

I would also like to ask how the Government has taken steps to ensure that access to funding and support to navigate and successfully apply for green financing schemes are provided. For example, the Enterprise Innovation scheme could have sustainability integrated as part of the criteria for tax deductions as well as for grants under the co-investment fund. The Enterprise Sustainability programme can also be expanded to include support to access sustainable financing opportunities.

Sustainability should be a driving focus of innovation and economic resilience and the Government is a key enabler to making this core to our small businesses.

EXIM Bank

Finally, on an EXIM bank. During last year's debate, during the Second Reading of the Carbon Pricing (Amendment Bill), my Sengkang colleague Assoc Prof Jamus Lim and I both spoke about the need for an EXIM bank and the role that such a bank can play in our efforts to assist our homegrown businesses, in particular our SMEs, internationalise. This is especially important as our domestic economy has natural limits due to our small size. The role of such a bank can be particularly helpful as we move along the great green transition, where we can seek help for our businesses in a changing world where climate concerns take front and centre.

We further noted that while former MTI Minister Lim Hng Kiang expressed reservations about financial and implementation risks that would be involved in setting up an EXIM Bank, apart from the Workers' Party's proposals, MTI's own Economic Strategies Committee has also called for such a bank. Additionally, structuring an EXIM bank well could in fact give us a key competitive advantage.

To address concerns about an EXIM bank turning into something akin to an aid agency, exposures to overseas customers could also be managed by lending to a borrower and having the borrower provide vendor financing to its international customers, as a borrower would be more familiar with the market in which it operates.

Singapore has limited options when it comes to sustainable energy. Our green financing needs would quite naturally be cross-border in nature. Many EXIM banks from China to Thailand and Hungary have also rolled out green financing facilities, also because EXIM banks have proven to have played a role in preventing complete collapse during times of economic crisis. They also provide some level of security to businesses by being the lender on record rather than have naturally higher-risk private banks or financial institutions be lenders through difficult times.

An EXIM bank can also play a part in developing and exporting green standards by being a sustainable lender or a ranger for capital market instruments. This means the EXIM bank would have full direct information about sustainability-related covenants and information on lenders and issuers to which they issue their products or lend funds to. It can then use these to address data challenges that can cause gaps in regional or even global green and sustainability financial markets. This would thus be a way in which Singapore can use to punch above our weight and bringing the world along in the transition to green financing.

The Chairman: Edward Chia. Not here.

SME Assistance during COVID-19

Mr Shawn Huang Wei Zhong (Jurong): During the COVID-19 pandemic, many Singapore SMEs faced significant challenges. For most, the pandemic has led to a significant decrease in demand for many products and services which has resulted in a decline in revenue.

They faced cash flow problems and find it difficult to meet their financial obligations, pay employees and invest in the future. This was especially so for those with high rental costs and depend mainly on physical stores and delivery.

The supply chain disruptions were severe and many could not access the resources and materials they need to operate. For many others, finished products could not be shipped or distributed. Most SMEs were not equipped for remote work. There were challenges communicating, coordinating and managing the businesses which led to problems with productivity and reliability of service. This is especially so for those who have not embarked on their digital transformation to complete their sales and marketing online.

During such challenging circumstances, what measures did the Government take to help local SMEs tide through the COVID-19 pandemic?

Managing Rising Business Cost in Singapore

Businesses face several difficulties especially when operating costs are rising faster than expected with a higher inflation environment. As costs increase, businesses may need to raise prices to maintain their profit margins. However, there is usually a lag in price adjustments especially for those in the contract manufacturing or with ongoing or unfulfilled contracts. The cost of goods and operating costs continues to rise but these companies continue to face outstanding obligations leading to reduced profit margins.

Under such circumstances, many companies will face cash flow problems which is further exacerbated by higher borrowing costs and a tighter credit market. In a tightened financial market, businesses will have difficulty accessing financing especially those with high levels of debt or have a poor credit rating.

As such, what can businesses do to adapt to rising operating costs and tightened financial markets and what will the Government do to help them?

Helping Businesses Cope with Rising Costs

Mr Derrick Goh (Nee Soon): Chairman, our SMEs continue to navigate a challenging environment including rising costs. Financial markets are currently pricing the US Federal Funds Rate to reach 5.25%, reinforcing the view that interest rates will remain higher for longer. The interest burden for businesses are expected to at least be double compared to last year.

Locally, the GST increase would also impact smaller SMEs who are not GST-registered and a higher CPF salary ceiling announced in this Budget will add further pressures to businesses. In this regard, what further measures will MTI provide to support SMEs and encourage them to adapt in such a challenging environment?

Generally, SMEs are vulnerable to interest rate hikes and are keen to know if MTI will consider continued interest rate subsidies under the Enterprise Financing Scheme before they decide on whether to take more risk to pursue growth opportunities?

I have received feedback from SMEs welcoming Deputy Prime Minister's response during the Budget debate, where he said that agencies will continue to streamline and improve the application process for Government assistance schemes, balancing convenience and accountability. On this point, can MTI share more details on what refinements to the existing administrative processes for Government schemes are being considered? Will there be more forums for SMEs to provide further feedback?

From "Handouts" to Sustenance

Ms Janet Ang (Nominated Member): Mr Chairman, we would all agree that the Job Support Scheme, SGUnited Jobs and Skills, Enterprise Financing Scheme and other COVID-19 measures have helped our businesses tide over the difficult COVID-19 years.

We have after close to three years emerged from COVID-19 but unfortunately, we have to now deal with escalating food and energy prices and high inflationary pressures. Our companies are struggling with high business costs and manpower challenges. While the extension of the Enterprise Financing Scheme (EFS) and Energy Efficiency Grants (EFG) will help businesses sustain, many may not be able to afford to invest to build their business for the future because of the high interest rates.

Will MTI consider allowing SMEs to negotiate a temporary shortening of payment terms or payment advancement over a limited period? How can Government encourage our financial services ecosystem to support our SMEs to still invest in their businesses for the future?

With Budget 2023, it is clear that the Government is moving away from "handouts" to a Budget that "invests to build for growth, sustainability and resilience". The \$4 billion top-up to the National Productivity Fund (NPF) will help to support the much-needed productivity enhancements and the reskilling of workers. It will however require companies to drive change like job redesign, digitalisation, automation, reskilling and so on, and change is hard work. It is likened to many of us trying to get fit and learning to use "new muscles" and new diets. It will take time but to do this, we must. It is the foundation to staying healthy and competitive.

If driving productivity is hard work, transformation and innovation is even more hard work. It will take leadership at the very top to make it happen.

I am encouraged to hear the story of Jumain Sataysfaction, a Singapore food manufacturer whose bosses had an "a-ha!" moment when they participated in the Meatless Meat Challenge organised by Singapore Polytechnic's Food Innovation and Resource Centre (FIRC), Singapore Food Manufacturers' Association (SFMA) and Enterprise Singapore (EnterpriseSG). They worked closely with the polytechnic students to finalise their concepts for creating a new product range with plant-based options. The Singapore Polytechnic (SP) students with their lecturers' coaching translated the concepts into actual food products with relevant marketing and communication strategies. A new plant-based satay product was created and aptly named "SOVEG". SOVEG will soon be showcased at the upcoming Gulfood exhibition in Dubai. So, it is possible.

The new Enterprise Innovation Scheme announced by Deputy Prime Minister will help reduce the financial barrier for SMEs to embark on innovation projects like SOVEG. But to bring an innovation from creation to the market will take investments. How will MTI facilitate and encourage our Singapore companies to get started in their innovation journey and take it from creation to production to market?

Well, while it is a welcomed move to have the Government to step in to encourage innovation and share risks with SMEs on their innovation journey, there are many business leaders who are sceptical about the take-up rate and the short-term impact as innovation does take time to bear fruit and most SMEs are looking at "today" rather than "tomorrow". Innovation indeed is not easy. So beyond grants and financial assistance, how else is MTI going to help to develop a strong and vibrant innovation ecosystem?

We hear too often that Singapore's market is too small. Our companies highlight uncertainty as the key barrier when internationalising. The uncertainty of demand, unfamiliarity of business climate and the ability to find suitable partners are some of the issues.

To support Singapore companies with their aspirations to internationalise, Enterprise Singapore (ESG) collaborated with SBF to set up Global-Connect@SBF. Let me share the story of Hot Spicy Mama, an SME offering tasty Singaporean flavoured ready-to-eat condiment products. In 2022, Global-Connect@SBF assisted Hot Spicy Mama to sell their products in Qatar and will be helping them to explore other markets in Middle East and South Asia. Beyond Singapore seems to be the way to go, but for those who are venturing overseas, Budget 2023 seems a little light on internationalisation.

Will MTI consider SBF's recommendation to extend the Market Readiness Assistance (MRA) grant to cover manpower costs for related overseas market promotion, business development, or market set-up activities? How will the Government provide geopolitical intelligence support for our businesses in their market risk assessment and in navigating the geopolitical challenges as well as facilitating their internationalisation efforts?

Last year, MTI Minister Gan Kim Yong painted the vision of Singapore Economy 2030, refreshed Industry Transformation Maps (ITMs), signed digital economic agreements and green economy agreements to rally our tripartite partners to seize the many opportunities in our turbulent world and stay relevant in the global economy. I would like to ask Minister to give an update of the progress of Singapore Economy 2030 vision and the sectorial strategies as laid out in the ITMs?

Strategy without execution is daydreaming. So, execute we must. There is no silver bullet. Together, Forward Singapore is the only way to go.

The Chairman: I am glad you are referring to the F&B businesses and not something else. Ms Jessica Tan.

11.30 am

Manpower/Talent Challenge

Ms Jessica Tan Soon Neo (East Coast): Mr Chairman, high inflationary pressures in 2022 have impacted the labour market. As Singapore emerges out of the pandemic, businesses require more manpower to operate at higher levels. Yet, some businesses we have spoken to, find themselves unable to fill positions for skilled jobs. Businesses from the manufacturing sector find themselves short of adequate talent, impacting the operations of businesses.

As of 2022, manufacturing accounts for approximately 20% of Singapore's GDP. Widespread operational constraints will impact the industry, leading to a decrease in output as they struggle to fill needed jobs. Operational constraints will also impact our attractiveness to foreign investments and affect Singapore's position on the global value chain. What should businesses do to adapt to the tight labour market and manpower challenges?

The Jobs Growth Initiative (JGI) scheme was successful in encouraging local hires amidst the COVID-19 crisis. Firms expanded their local workforce. With our tight labour market, businesses shared that talent is constantly moving around companies or industries. How do we help businesses find the appropriate talent to ensure consistent operations?

Our talent base needs to be skilled to match the growing sectors that require talent. I had asked a list of questions on the capability of the new Job-Skills Integrators, how will they be supported and funded to work with businesses and workers. Does their role include working with businesses to align career planning and training to upskill their employees to stay relevant as the businesses transform.

If we are able to plan for the reskilling and training of our talent in alignment with the profile of talent required to support the economic opportunities and growth, we will be able to grow a strong talent base and capabilities and provide fulfilling careers for workers.

Overcoming Manpower Challenges

Mr Shawn Huang Wei Zhong: It is imperative to develop our local leadership and talent. Local talent has a better understanding of the local market, including customer needs, cultural nuances and regulatory requirements. This can help businesses to better meet the needs of their customers and compete more effectively in the local market. This is especially so in Asia where the diversity of cultures and operating environment vary substantially.

However, when there is a tight local labour market, businesses will face much difficulty. There is a much smaller pool of available candidates, businesses struggle to find workers with the specific skills and experience that they require.

This is further exacerbated when there is an increased competition for talent within a single industry. Businesses will have to compete for the same pool of candidates. Many will have to offer higher salaries or better benefits to attract and retain employees and driving up business costs.

If businesses are unable to fill critical roles or have to rely on inexperienced workers, this can lead to lower productivity and profitability. Eventually, without a sufficient supply of skilled workers, businesses will struggle to expand or take on new projects.

As such, what can businesses do to adapt to the tighter labour market and manpower challenges? What is the Government doing to develop talent locally and preparing them to take on leadership roles and help their companies grow?

Achieving Vision of Manufacturing 2030

Prof Hoon Hian Teck (Nominated Member): Mr Chairman, the manufacturing share of total GDP increased from about 15% in 1965 to nearly 30% by the early 1980s, but it has been declining since the late 1980s to hover around 20% today. The vision of Manufacturing 2030 is to be a global business innovation and talent hub for Advanced Manufacturing. However, while the manufacturing sector share of total GDP has stayed around 20%, its share of total resident employment has been on a steady decline since around 1990 and now hovers around 12%. The question to be asked is what must be done to create the manpower to achieve the vision of Manufacturing 2030.

As Singapore gets closer to the world technology frontier, the pace of technological diffusion slows down, thus moderating Singapore's per capita GDP growth. It will be the development of indigenous innovation such as the innovative activities and vision in Manufacturing 2030 that shall provide the additional growth to the Singapore economy in its mature phase. Central to achieving the vision, is the supply of both innovators and workers who make career choices to work in manufacturing.

First, what can be done to increase the supply of workers who make career choices to work in manufacturing? As the standard of living and wealth increase and educational attainments are higher, workers' preferences tend to shift. There are job tasks that people willingly perform when they are relatively less well-off but which they shun when they are richer.

An important idea from the assignment model of matching workers' skills and abilities to job tasks, is that a competitive labour market leads workers with different skill sets to be matched with job tasks of different complexities based upon their comparative advantage. Such a competitive equilibrium is socially efficient. However, suppose that workers' job preferences shift for reasons that are unrelated to comparative advantage. Let us say a job in the financial services sector now becomes more attractive than the job in the manufacturing sector. In that case, the size of the economy's total GDP will be suboptimal as people without comparative advantage choose to work in the financial services sector. The employment share of the manufacturing sector will then be sub-optimally low, while the employment share of the financial services sector will be sub-optimally high.

What might be done to facilitate the entry of more workers with the aptitude and skills to job tasks in the manufacturing sector?

Second, what can be done to help increase the supply of innovators? Factors such as the family environment and exposure to inspiring role models affect the likelihood of an individual to become an innovator. There could also be intrinsic abilities to innovate that might not be distributed equally among individuals. From a policy point of view, what can be done to harness the intrinsic abilities of individuals to innovate from an early age and provide the opportunity for them to develop these talents.

Can more scholarships, internships and exposure opportunities be given to students at the different stages of their education ladder to discover whether they have the passion for innovating? This must be done in conjunction with the different stages of innovation, from basic research to applied stages and on to the marketing of the new products or processes.

Translating inventiveness into the actual flow of ideas requires not just intrinsic talent but also education and training. There is also an issue of access to financial resources that can inhibit innovation. A talented individual who could potentially become a major contributor to creating new ideas that will lead to new products that can be marketed, might be born into a financially constrained family. What can be done to reach such individuals to help them achieve their potential to contribute to indigenous innovation?

Mr Chairman, an integration of all these efforts from the early stages of education to creating new ideas at the workplace will help to develop the country as an innovative global business hub to realise the vision of Manufacturing 2030.

Industry Transformation and Emerging Sector

Mr Saktiandi Supaat : Our Manufacturing and Services sectors have traditionally been strong drivers of our economy. Manufacturing contributes 20% to 25% of annual Gross Domestic Product (GDP), while our diversified services sector represented 74.1% of jobs at end-2022.

However, weakening growth around the world, protracted supply disruptions and synchronised interest rate hikes have slowed down our manufacturing output recently. Given the large and diverse range of services that fall under the umbrella of the Services sector, the Government should pay attention to equitable growth across different service industries in addition to the sector as a whole.

How have our Manufacturing and Services sectors performed over the past year and what is the Government doing to develop the sector and create good jobs given rapid changes in product cycles and consumer behaviour?

Our Advanced Manufacturing sector is well-known for exporting petrochemicals, pharmaceuticals and precision engineering products but changes to carbon transition will disrupt this. Singapore has also been a leader in financial services. But other developing economies are growing these capabilities and will vie for the pie at lower costs.

What are the growth and/or emerging industries and how can our firms seize opportunities in these areas?

The Chairman: Ms Jessica Tan. Two cuts, please.

Industry Transformation

Ms Jessica Tan Soon Neo: Mr Chairman, the global economy continues to be challenged with inflationary pressures. To stay competitive, Singapore needs to remain attractive to global investors. Global companies choose to invest in Singapore for our skilled labour, as seen in our Manufacturing and Services sectors. We have also focused on developing our local companies in these sectors. How have our Manufacturing and Services sectors performed?

In order for our local companies to remain competitive, they need to innovate and stay up to date with technological developments to create more efficient processes. With rising costs of operations, businesses will need support.

Amidst global uncertainties, in the past year, we saw retrenchment and unemployment levels go up as businesses restructured their operations. Some workers might be at risk of redundancy and retrenchment. Our talent base is limited. Businesses need to transform and build capabilities in order to create better jobs and remain attractive. While reskilling is important for workers to transition to more relevant jobs, there needs to be alignment of jobs in demand and training. What steps is the Government taking to develop the sector further to create good jobs in these sectors?

Emerging Sectors

Mr Chairman, Singapore's economy grew by 3.6% in 2022, amid a challenging economic environment and external backdrop. Good growth will create good jobs and sustainable businesses, and keep our economy resilient. Last year in the Ministry of Trade (MTI)'s Committee of Supply (COS), Minister Gan revealed Singapore Economy 2030 vision to strengthen our local businesses for sustainable growth in the

services, manufacturing and trade sectors, as well as the Enterprise 2030 strategy to foster a vibrant ecosystem of Singapore enterprises that are future-ready and globally competitive. What is the progress of the strategies of Singapore Economy 2030? What are the growth and emerging sectors and how can businesses seize opportunities in these areas?

Last year, the Industry Transformation Maps (ITMs) for five sectors from the Advanced Manufacturing and Trade cluster were refreshed. The refresh of ITMs aimed to better support companies in research, innovation and digitalisation. They also set out to help SMEs by providing avenues for partnerships and better position companies for global opportunities. Can MTI share more details on how companies are doing and will be able to benefit from these ITMs?

The objective of the refreshed ITMs is to encourage the use of Industry 4.0 technologies. How are companies transforming and leveraging digital and tech solutions? How has the Government invested to transform and groom companies to adopt new solutions to remain competitive?

Businesses in Transforming Industries

Mr Raj Joshua Thomas (Nominated Member): Sir, the 23 Industry Transformation Maps outline ambitious but achievable targets to ensure our business sectors remain competitive. These are now undergoing a refresh and complementary industries have also been clustered to encourage synergies between them. Could the Minister provide an update on when the remaining refreshed ITMs will be launched?

Enterprise Singapore administers the Enterprise Development Grant (EDG) to, amongst other things, assist companies with transformation. Would the Minister be able to share some insights into the effectiveness of the EDG in supporting businesses' transformation?

Separately, while it is important for the Government to support businesses as they transform, it is also important to ensure that they do not become reliant on Government support. The Government had put in significant resources to ensure that companies remain afloat during the pandemic, like the Job Support Scheme and Jobs Growth Initiative. These schemes have since tapered off, but other schemes continue to provide funding to companies.

I would like to ask if the Ministry is aware of the number of unprofitable businesses that rely on Government funding schemes to stay in business and whether there are any plans to deal with this. When such businesses eventually face the risks of going under as Government schemes ceases or are tightened, there is a risk that the directors of these companies who had guaranteed loans may become personally liable and face bankruptcy. Will the Ministry consider measures to assist such individuals, as they are also victims of the pandemic, albeit belatedly suffering the effects.

As businesses transform, there may arise a need or opportunities for mergers and acquisitions (M&A). The EDG currently supports the planning, assessment or potential mergers and acquisitions and post-M&A integration. However, the biggest cost in M&A is in the actual work done to close and effect the M&A, including drafting the M&A contract – but this is specifically not allowed under EDG. Would the Ministry consider extending EDG to support this as well.

11.45 am

The Chairman: Mr Shawn Huang, both cuts, please.

Future of Manufacturing 2030

Mr Shawn Huang Wei Zhong: Mr Chairman, building up advanced manufacturing capabilities is important for a country in order to remain competitive and successful in the global economy.

Advanced manufacturing capabilities can contribute to economic growth by driving innovation, creating new products and services and increasing productivity and efficiency. This can lead to new business opportunities, job creation and increased competitiveness in the global market.

These capabilities drive technological advancement by enabling the development of new materials and production techniques. This can also help to enhance a country's reputation as a leader in technological innovation. It is critical for national security as these capabilities enable the production of key components and systems that are essential for defense and other critical applications.

For environmental sustainability, many new materials and advanced process are required to develop new products that contribute to environmental sustainability, enabling the production of more efficient and environmentally friendly products and reducing waste and emissions.

Today, there are significant potential for growth and innovation for robotics and space. Robotics can be used to automate production processes, increase efficiency and enhance quality control while space manufacturing can enable the production of advanced materials and components that are critical for space exploration and other applications.

These sectors will drive significant technological advancement as new products and services are developed and new materials and production techniques are used. As such, how are we building our manufacturing capabilities for the future?

Building an Innovative Country

Mr Chairman, developing innovative capabilities is essential for the progress and relevance of the enterprise as well as for the collective ecosystem of the industry. There are many downstream benefits such as better trained manpower, competitive learning and more rapid adoption of technology as well as sharing of best practices and collaboration for the joint development of innovative technologies.

Innovation is a key driver of economic growth and enterprises play a critical role in driving innovation. By developing new products, services and processes, enterprise can create new markets, attract investment and create jobs.

In a globalised economy, enterprises that are more innovative are better able to compete on a global stage. By investing in innovation, enterprises can gain a competitive edge and contribute to the country's overall competitiveness.

Innovation can also lead to increased productivity and efficiency, which can help to reduce costs and increase profits. This can help enterprises to reinvest in their businesses, create new opportunities and contribute to the country's economic growth.

Innovative enterprise are more able to contribute to social progress by developing products and services that meet the needs of a growing and diverse population. They can help to improve access to education, healthcare and other critical services and create new opportunities for individuals and communities, especially in the area of employment.

How is the Government supporting enterprises in growing their innovative capabilities?

Enterprise Digitisation and Innovation

Mr Derrick Goh: Sir, the pandemic has accelerated digitalisation and transformed the way business is done. Budget 2022 provided a big push for our SMEs in their digitalisation journey, with \$200 million to enhance schemes for them to build digital capabilities.

While this is gaining momentum, in tandem also with the commendable efforts in digitalising our heartland merchants and residents by the SG Digital Office, little has been said specifically on SME digitalisation in Budget 2023.

Given this, what is MTI's assessment of the digitalisation progress of our SMEs so far?

The need for SMEs to embark on or continue their digitalisation journey is an urgent one. What initiatives and measures is the Minister considering to further accelerate the digitalisation of SMEs in this Budget?

Transition to Low-carbon Future

Ms Foo Mee Har (West Coast): Mr Chairman, over the past year, Singapore has clearly stepped up in its green ambition.

We have committed to net-zero emissions by 2050 and passed the Carbon Price (Amendment) Bill in this House. We will raise carbon tax from \$5 per tonne of emissions to \$50 to \$80 by 2030 to provide an economy-wide price signal to reduce emissions.

The public sector has also stepped up and made the commitment to reach net-zero carbon emissions five years earlier, by 2045.

These decisive commitments made in last 12 months should now translate to decisive actions.

We have seen sustainability efforts gather pace across Government agencies as well as large corporations. However, the picture is mixed with SMEs. According to UOB's SME Outlook Study in 2022, whilst three in five of Singapore's SMEs believe in the importance of incorporating sustainability practices, they face challenges in implementation.

Sir, the net-zero goal will increasingly become a prerequisite in the expectations of customers, investors as well as regulators across the world. It is urgent that we support our SMEs to take action to stay competitive and relevant.

Companies are increasingly subjected to tighter sustainability reporting and regulations, particularly those with trading partners such as the EU, which have placed higher standards. As more trading partners follow similar measures in meeting their own goals of net zero by 2050, our businesses will face growing pressures to adapt or face obsolescence.

It is critical that the Government supports industry to achieve a better understanding of the impact of a low-carbon future on their business and help them with the know-how and innovations that are available to make the green transition.

I would like to call on the Government to help them with four interventions: (a) promote sector-based sustainability road maps, frameworks and uniform standards to level up knowledge and understanding; (b) support our companies with pre-identified sector-based green solutions to fast-track adoption, including supporting them in test-bedding new ideas and experimenting with new technologies; (c) leverage the ecosystem to build scalable green capabilities and collaborations, including knowledge-sharing platforms; and (d) build a framework to help companies comply with reporting requirements and compliance practices that are required by their counter parties.

Sir, making the green transition will incur substantial investments by these companies. I would like to ask the Minister what strategies will the Government adopt to help companies cope with higher business costs arising from investment in low-carbon equipment, using sustainable supplies and adopting green processes? They also need to make provisions for the carbon tax hike.

Sir, the introduction of the new Enterprise Financing Scheme Green (EFS-Green) to support local firms with a range of financing needs is a great initiative. However, companies have pointed out that the financing terms, which are intended to fund green transition, actually do not go far enough to spur adoption.

With the Government sharing up to 70% of the risk with partner financial institutions, I would like to ask the Minister what expectations have been laid down with participating financial institutions to provide preferential loan terms and interest rates under EFS-Green?

Sir, addressing climate change requires both mitigation and adaptation.

A Harvard Business Review report argued that whilst climate change mitigation efforts have been front and centre, more efforts must be dedicated to climate adaptation to help people, animals and plants survive because of the rising climate volatility.

I would like to ask the Minister how much is the Government's effort towards climate adaptation to help companies evolve organisational practices and infrastructure to deal with the inevitable climate risks such as floods, droughts, heat waves?

Equipping the Singaporean workforce to take on jobs in the green economy must be a key priority. As countries compete for green talents to meet Environmental, Social and Governance (ESG) needs in the coming years, Singapore must both attract the best of sustainability as well as develop our own capabilities to nurture our pool of talent to take up green jobs.

I would like to ask how many of such positions does the Government project to become available over the years? How can Singaporeans receive the necessary training and credentials to secure green jobs?

Energy Security

Mr Saktiandi Supaat: Mr Chairman, oil and gas prices have been on a rollercoaster for more than 10 years. The COVID-19 demand crash, followed by the supply collapse caused by the Ukrainian war, plunged the world into an energy crisis which threatened countries with blackouts and freezing winters.

Given the inherent volatility in energy production, supply and trading today, it is reassuring to hear our long-term plans to accelerate solar deployment, work with regional partners to develop regional power grids, import low-carbon electricity by 2035 and explore new alternative sources of energy.

It is encouraging that our National Hydrogen Strategy anticipates that hydrogen could supply up to half of power needs by 2050.

However, the ordinary Singaporean and company would be equally concerned with the shorter-term affordability of electricity. An update on the status and timelines of the consultation to enhance the regulatory regime for electricity retailers would be helpful.

How will Singapore safeguard our energy security and advance our energy transition despite our physical constraints and at the same time, balance the green transition? How are we preparing to deal with increased volatility in the global energy markets?

Ms Jessica Tan Soon Neo: Mr Chairman, Singapore is a small country with limited natural resources. Our energy needs are mostly imported, with few options for renewable energy. Most of Singapore's energy is generated by natural gas. Lowering our carbon emissions while ensuring our energy security and reliability is a challenge.

In Budget 2023, Deputy Prime Minister Wong shared that Singapore is working towards the transition to solar energy and cleaner energy sources. He also mentioned working with our neighbours to develop regional power grids.

It is important for our transition to alternative sources of energy to be a gradual one. Our current sources of renewable energy are not sufficient to support all households and businesses. Even in resource-rich countries, the switch to renewable energy is not immediate and takes a few years.

While more research is being conducted for more viable approaches to renewable energy, we will need to educate and prepare households and businesses for this switch to greener energy. For businesses in particular, the adoption of renewable energy options might incur greater operational costs.

How is the Government investing to build Singapore's energy security to enable reliable and affordable sources of energy for businesses in line with our economic goals and environmental needs?

Energy Security and Transition

Ms Mariam Jaafar (Sembawang): Sir, the protracted energy crisis continues to be a major challenge for the world. Faced with the need to keep prices low, countries are stockpiling energy and going back to coal. If this continues, it will be a vicious cycle, putting the planet's net-zero transition in jeopardy.

The notion that energy security has to be secured at the expense of energy transition is a false one. We need to address both in parallel.

In Singapore, this dilemma is an existential one that could erode our competitive position in the world economy. Businesses are citing energy prices as one of the main drivers of business cost in Singapore. At the same time, other geographies are luring industrial investments with cheap energy price, and luring clean energy investments by providing very attractive tax credits for producing clean energy.

Despite our challenges, Singapore has committed to drive energy efficiency and to decarbonise. But because 40% of our overall emissions comes from the power sector, decarbonising the power sector therefore has to be an even more urgent priority. For example, we have put solar panels all over many of our HDB blocks.

12.00 pm

Can I ask the Minister how many of the solar panels are actually in operation today?

Can the Minister also provide an update on Singapore's efforts to enhance our energy security and accelerate our energy transition, including driving energy efficiency, deployment of solar energy, development of emerging low carbon technologies such as hydrogen and carbon capture, utilisation and storage (CCUS) and the import of renewable energy?

SMEs and Sustainability

Mr Don Wee (Chua Chu Kang): Mr Chairman, decarbonisation is a generation defining business opportunities and our Singaporean companies are well-positioned to lead the way.

According to the UOB SME Outlook Study 2022 Report, many SMEs understood the importance of sustainability. We need Enterprise Singapore to provide more assistance to SMEs so that they know how to measure emissions as many MNCs buyers have started to request their SME suppliers to furnish their carbon emission data.

What are the quantifiable aims of the Enterprise Sustainability Programme (ESP)? How does Enterprise Singapore promote this ESP to the 290,000 SMEs in Singapore?

I understood that many business consultants help to promote these Government schemes to the SMEs and assist these SMEs with the application of grants or reimbursements. These consultants' earnings are predicated on the loan amounts approved or amounts of grant received by the SMEs. If a particular scheme's approval process is lengthy or if there is no certainty that the grant can be approved after a huge amount of capital expenditure is incurred, the business consultants will only promote more straight-forward schemes, like Enterprise Financing Scheme, and not the ESP nor the Enterprise Innovation Scheme (EIS). I also hope that Enterprise Singapore can process the reimbursements according to the mini project milestones completed so that these SMEs' cash flow constraints can be alleviated.

Lastly, how can more support be provided to the small accounting and auditing practices which provide sustainability accounting or assurance services to the SMEs?

Sustainability Reporting

Prof Koh Lian Pin (Nominated Member): Sustainability reporting has been gaining traction and more large corporations are publishing their sustainability reports to both meet regulatory needs and also to show commitment to climate goals.

How is the Government planning to help SMEs in this shift towards greater accountability towards their carbon emissions to ensure they are able to meet the carbon accounting requirements of large corporations?

Transitory Allowance for Emissions-intensive and Trade-exposed Sectors

At Budget 2022, the Singapore Government announced a revised carbon tax framework effective from 2024. It also announced a transition framework to give existing emissions-intensive trade-exposed companies (EITE) more time to adjust to our new carbon tax policy, and to help maintain their business competitiveness.

Can the Government elaborate on the efficiency standards and decarbonisation targets that EITE companies would have to meet to receive transitory allowances for part of their emissions?

How long will these allowances be used for, and how will they affect the effectiveness of our revised carbon tax for incentivising decarbonisation?

Green Economy

Singapore is building a robust green talent pipeline in Government, industry and academia, as part of the Singapore Green Plan 2030. Green jobs ensure Singapore's long-term economic resilience and provide important social values. However, business costs have been increasing due to persistent inflationary pressures and other economic challenges.

What are the Government's efforts to increase the awareness and accessibility of sustainability-related information, knowledge base and opportunities to support our businesses and workforce in the green transition. How will the Government ensure sufficient green jobs and green growth opportunities for Singaporeans in the coming decades? How will the Government help businesses embark on sustainability initiatives while reducing costs?

Skilling for Green Economy

Ms Mariam Jaafar: Sir, to support our net-zero transition, and to turn the green economy into an engine of growth, we face a significant skills challenge. There is a high demand for talent to field green jobs and greening jobs, but there is a significant gap in supply. There is a need for a more urgent agenda in green skilling that addresses these gaps.

Existing skilling efforts must be sharpened and accelerated. The green skilling agenda must address gaps in green technical skills including deep engineering skills and supply chain skills, and move from awareness building to application orientation. Can the Minister provide an update on how Singapore will develop the skills needed for a green economy in its workforce?

Singapore as an International Green Hub

Mr Derrick Goh: I mentioned during the Budget debate that I am glad that the Government continues to encourage SMEs to look towards the longer term to transform and capture opportunities in the new economy, even as they are focused on overcoming near-term challenges.

A key thrust I raised was about helping our SMEs develop Environmental, Social and Governance (ESG) capabilities.

SMEs must adopt greener practices in their service and products, as well as measure, track and report their own carbon footprint. Such measurement is not easy to do but is essential to stay relevant in tomorrow's green supply chain.

Beyond internal transformation, SMEs should venture out to pursue green prospects. For example, countries in the region are boosting electric vehicle (EV) initiatives. This means opportunities for Singapore SMEs with capital and know-how. to help fellow businesses in the region to accelerate their green transition.

As transformation requires not just a push factor like carbon tax, can MTI further explain the pull factors that will be put in place to encourage and help SMEs in their green transition so that they can stay relevant and capture opportunities in the green economy?

I am glad that existing schemes, such as the Energy Efficiency Grant for the food and retail sectors, are retained. Nonetheless, while these two sectors presumably consume more energy, I hope more SMEs across sectors can be included as all local businesses should be brought onto the green journey. The reality is that SMEs, especially smaller ones, may not know how or where to start.

On this note, can MTI consider expanding the scope of current schemes and grants to spur our SMEs in more sectors?

In a nascent and growing market where standards have yet to achieve global consensus, there are opportunities for Singapore and our businesses to lead in the development of a credible regulatory framework and standards for carbon credits. These efforts will help establish Singapore as a growing and leading green hub, leveraging on and furthering our status as a trusted international centre for professional services.

To this end, can MTI share more on how businesses, including SMEs and the service sector, can play an expanded role, as part of plans to establish Singapore as an international green hub?

Green Economy – Opportunities and Risks

Ms Jessica Tan Soon Neo: Mr Chairman, to achieve our target of net zero emissions by 2050 will require all in Singapore to work together.

Businesses are important stakeholders in our green transition. To make the transition will involve adoption of innovative measures and technology for businesses to be more sustainable and efficient. Often, this means that businesses will have to incur more costs. However, businesses are already facing increasing costs of operations and labour. In 2022, and now in 2023, the unit business cost in manufacturing and service sectors rose by 9.6% and 8.8% respectively. It is projected that these costs will continue to increase in 2023.

As we work towards decarbonisation, what are the Government's key measures to support businesses in the green transition? How will the Government make it viable for businesses to embark on sustainability initiatives to reduce cost? What support can be given to businesses to address current business costs pressures as they make the investments for the transition?

Being able to report their carbon emissions will increasingly become a requirement for doing business in many countries as well as with larger companies. SMEs may struggle to account for and report their carbon emissions if they are unable to deal with such costs. Does the Government have plans to support SMEs in their sustainability reporting?

Workforce in Power and Gas Industry

Mr Abdul Samad (Nominated Member): Chairman, I want to record my appreciation to all my fellow workers in the power and gas industry for their tireless efforts to keep and ensure our lights on and the gas keeps flowing for our homes and businesses at all times, with or without COVID-19.

Our fellow workers regularly face brunt from the public whenever price hike is announced. When we, as workers, do not even have control over the price.

As a General-Secretary of Union of Power and Gas Employees, in short UPAGE, we represent about 6,000 workers in this industry, ranging from technicians, technical officers, engineers, admin assistants, managers, and even chief executive officers (CEOs). Our strong tripartism model also involves having regular discussions with the Energy Market Authority (EMA) led by their CEO.

Chairman, prior to today, my fellow members have been pestering me for any recognition or even monetary awards from the Government, just like our healthcare workers, for their efforts to ensure highly reliable electricity and gas supplies during the COVID-19 period. We all know our hospitals are equipped with many highly sophisticated machines and needs highly reliable electricity and gas supplies for them to operate efficiently. Have we ever imagined how it will turn out if we have power failure that would have failed the machines in hospitals during the COVID-19 pandemic?

Our workers also work round the clock but observed that we are hardly mentioned nor fairly rewarded. Hence, I am humbly appealing to the Minister to consider rewarding our workers for their efforts just as the Ministry of Health did for their healthcare workers earlier in November 2021.

Our power and gas industry workforce is not as large as that in the healthcare industry. Hence, it would not burn a big hole in MTI's pockets to reward us.

Chairman, the workers in this industry have gone through and overcome many changes and challenges together. Our next big thing is getting our fellow workers ready for new skill sets required for the new energy solutions. Calling and rallying workers to attend training is never an easy feat. In 2018, when SP Group embarked on Project Fusion, which meant future skills in everyone, my fellow union leaders and me, were given sarcastic remarks and bombarded by members and workers. We were labelled as pro-management. However, we believed in this project as it was meant to prepare our workforce for the job roles of tomorrow and the future.

The training focuses on technological and technical fronts. With such focus, it will result in higher value-add jobs and meaningful careers leading to better wages, work prospects and welfare. Our leaders led by example and stepped forward earlier to attend the designated courses and progressively brought everyone on board.

I am humble to share that we have succeeded in rallying 3,500 workers in acquiring new skills and achieved over 800,000 training hours. Amongst them, 200 workers have completed upskilling programmes and are applying their newly acquired skills in their new jobs. Importantly, management reciprocated by revising their wages after certain periods into their new job roles. We will not stop here but will continue to press on.

Another example is City Energy, previously known as CityGas, who have decided to expand their business and move into new energy solutions, like green hydrogen and electric vehicles charging. In order to prepare for this transformation, both the union and the management formed company training committees, followed by rallying and re-energising their workers in order to develop a strategically adept and proficient workforce.

UPAGE leaders will press on to advocate for our members' rights and long-term employability, in an efficient and a productive way. So, would the Minister for Trade and Industry who takes care of the energy industry, please do not disappoint us.

Empowering Trade Associations and Chambers

Mr Raj Joshua Thomas: Sir, I declare my interest a trade associations and chambers (TAC) president. Strong TACs can act as force multipliers for their respective Industry Transformation Maps (ITMs), helping to communicate their objectives to businesses in their sector and to understand and encourage participation in the various schemes under the ITMs. However, not all TACs are the same. Some TACs are more able to play this role, while others, to be honest, are simply social clubs or talk shops, and yet others are plagued by internal politics and personal agendas and do not have much in terms of services to their members.

Would the Ministry consider introducing independent standards certification for TACs, perhaps based on the Singapore Chinese Chamber of Commerce and Industry (SCCCI)'s Growth and Competency Framework that was launched last year?

This could achieve two objectives: first to encourage TACs to level up in a structured manner and second, to help the other tripartite partners identify TACs that can play a bigger role in industry transformation.

These certified TACs could then be engaged by the Government to carry out such roles as administering industry-specific schemes and grants, and/or taking the lead in certain appropriate initiatives.

My second question, Sir, is a follow-up to a point I made in my Budget debate speech. The key tripartite partner at the national level representing businesses is the Singapore National Employers Federation (SNEF). On the MTI's pro-enterprise panel and other initiatives, the key business representative is the Singapore Business Federation (SBF).

Even if a distinction could be made that SNEF represents labour concerns and SBF represents commercial interests, I would submit this is an entirely artificial distinction, simply because labour and manpower considerations are one of the most important commercial consideration of any business, and often, it is also the largest item of expenditure. Hence, is there a need for two apex TACs?

In this regard, I would like to ask if the Ministry would consider merging SBF and SNEF in order to have a unitary national-level body representing businesses at tripartite and other forums.

12.15 pm

Strengthening Trade Associations and Chambers

Mr Desmond Choo (Tampines): Thank you, Chairman, businesses today have to cope with very different challenges compared to those in the past. The demands of the new workforce have seen a pivotal shift. Digital transformation has shaken the business landscape. Geopolitical tensions must now be navigated. Businesses also need to be on the constant lookout for opportunities in overseas markets to diversify. These are consequential and intractable issues. And this particularly affects our SMEs which comprise the vast majority and backbone of our economy in Singapore.

This is where trade associations and chambers of commerce (TACs) have important roles to play. Over the years, especially through our history, TACs, such as SNEF and the Singapore Chinese Chambers of Commerce and Industry (SCCCI) have been instrumental in the development of Singapore's business landscape by catalysing the building of capabilities in companies, especially SMEs. Their efforts in galvanising businesses to gain early mover advantages in then-emerging markets and capitalising from the digital transformation wave is what enabled Singapore to enjoy its status as a key business hub in the region.

In more recent years, TACs have also played their part in supporting a stronger Singapore. For example, the success of the CDC Voucher scheme would not have been possible without the support from TACs. For example, the Federation of Merchants' Association Singapore (FMAS) worked alongside the CDCs in optimising redemption procedures and onboarding hawkers and merchants onto the scheme. There are now over 17,000 participating hawkers and merchants, and this would not have been possible without the help of TACs. On the TAC's efforts in the SME front, over 25,000 SMEs received assistance from SME Centres run by TACs through business counselling, capability development workshops, and upgrading initiatives in 2022.

This clearly illustrates the vital role that TACs play in helping Singapore and its businesses. How can our TACs magnify their roles in rallying industries and guiding businesses to overcome and emerge stronger from challenges? How can we enable our TACs to better serve their members better?

TACs can also work with its partners to provide more overseas work opportunities for Singaporeans. As mentioned in my earlier Budget speech, overseas work experiences are highly valued by our younger people. With the extensive linkages enjoyed by our TACs across the globe, more can be done in terms of partnerships between companies to open up secondment programmes. By establishing such programmes between local and overseas companies or even between local and overseas TACs, benefits, such as skillset transfers and networking opportunities can come about.

However, the TACs face two challenges: talent shortages and funding.

First, what are the resources that TACs can tap on to strengthen their internal leadership development and training? Critical to a TAC's proper functioning is a strong secretariat because TACs' leadership are mostly comprised of business leaders contributing on a voluntary basis. Perhaps, the Ministry could look into expanding the public sector's secondment or attachment schemes to TACs. Such arrangements would be of mutual benefit to both TACs and the public sector with the exchange of skillsets and providing our people with broadened viewpoints.

Another way to ensure a larger talent pool for TACs could be through establishing structured internship opportunities between our institutes of higher learn (IHLs) and TACs. There may also be scope to look into improving training for current employees of TACs to ensure that skillsets remain updated and relevant vis-a-vis the issues to be tackled by TACs.

Next, on funding the TACs. First, the Ministry can consider funding TACs to assist Singaporean businesses to expand overseas. Indeed, the Ministry has done so with SBF via the GlobalConnect@SBF. Can the Ministry provide an update on the progress? While businesses must continue to capture opportunities in big markets, such as China and India, more must be done. For example, businesses must act fast to gain a first-mover advantage in emerging markets, such as Africa or Latin America. Is the Ministry considering expanding on programmes, such as GlobalConnect@SBF to other TACs?

Enhancing Consumer Protection

Mr Melvin Yong Yik Chye (Radin Mas): Mr Chairman, I declare my interest as President of the Consumers Association of Singapore (CASE).

In my Budget debate speech, I highlighted the need to strengthen consumer protection, particularly in our current inflationary environment. Today, I would like to propose how we can do so in three areas.

First, we should mandate prepayment protection for sectors which collect large sums of prepayments. Today, mandatory prepayment protection is already practised in some sectors, such as private education and massage establishments.

According to complaints received by CASE, consumers have suffered more than \$6 million in prepayment losses since 2018. In 2022 alone, consumers reported more than \$645,000 in losses due to sudden business closures. This was a 24% increase from the \$520,000 in losses reported by consumers in 2021.

Homeowners are a particular concern. Renovation contractors collect large sums of monies upfront, yet the industry lacks mandatory prepayment protection. This places homeowners at significant risk, should anything adverse happen to the contractor.

Today, CASE accredits renovation contractors under the CaseTrust mark. Accredited contractors protect consumers' deposits against sudden business closure through a deposit performance bond. There are currently 138 accredited contractors, but this is only a fraction of the estimated 6,700 renovation contractors operating in Singapore. I urge the Ministry to expand mandatory prepayment protection to this industry.

Second, we should mandate a cooling-off period for the beauty industry. Today, the laws already provide for a mandatory cooling-off period for certain industries, such as insurance and direct sales.

Complaints on pressure sales tactics and misleading and false claims account for 25% of beauty-related complaints received by CASE in 2022.

A mandatory cooling-off period will address the problem of pressure sales tactics by giving consumers sufficient time to consider or reconsider their purchases. If they do not wish to proceed with their beauty packages, they have the right to cancel and to obtain a refund.

Lastly, we should mandate seller verification on e-marketplaces.

Last November, it was reported that a consumer bought an automated laundry rack on a major e-marketplace, only to receive a piece of cardboard and some clothes hangers. Unfortunately, such scams are only the tip of the iceberg.

According to the Police, more than \$21 million were lost by consumers in e-commerce scams last year. Mandating seller verification for e-commerce will ensure accountability of sellers for their product listings, reduce the risks of scams and aid resolution of consumer disputes.

The Chairman: Mr Gan Kim Yong.

The Minister for Trade and Industry (Mr Gan Kim Yong): Mr Chairman, let me first thank Members for your comments, suggestions and your views. After more than three years of fighting the COVID-19 virus, we have now arrived at DORSCON Green. Economic activities have largely resumed, and life has more or less returned to normal. I must record my thanks and appreciation to our workers who have kept our economy going and our essential services flowing during the pandemic.

But even as we emerged from the COVID-19 pandemic, new challenges surfaced. The outbreak of the Russia-Ukraine war compounded the supply chain disruptions triggered by COVID-19, driving up prices of energy, food and almost everything else. Global inflation soared, which led many countries to tighten their monetary policies, causing the global economy to slow down. As a small and open economy, Singapore felt the effects of these global developments keenly.

Mr Liang Eng Hwa asked how the Singapore economy performed in 2022. Let me give a quick recap. Our economy grew 3.6% in 2022.

Outward-oriented industries, such as electronics, chemicals, and finance and insurance, were affected by weaker external demand. However, as countries emerged reopened their borders, the strong recovery in air travel and international arrivals have given a boost to our aviation- and tourism-related sectors, as well as consumer-facing sectors, such as retail trade and food and beverages (F&B) services. The professional services sector also benefitted from the lifting of travel restrictions, as businesses could better service and engage their customers overseas.

Singapore's position as a global business hub remained strong, as companies anchored their corporate and manufacturing activities here to strengthen the resilience of their supply chains and operations. We secured record commitments of \$22.5 billion in Fixed Asset Investments, in areas, such as semiconductors, aerospace and agri-food, as well as generated \$6.2 billion in Total Business Expenditure. When the committed investments are fully implemented, we expect them to create over 17,000 jobs, and more than \$20 billion in value-added per year for Singapore.

Our employment situation also improved, with the annual average resident unemployment rate falling to a four-year low of 2.9% in 2022. Nominal median gross monthly income for resident full-time workers grew by 8.3% in the same period. After taking into account inflation, real median income grew by 2.0%. While higher wages add to the costs for businesses, the key is to ensure that productivity increases to support higher wages. In this way, both businesses and workers will benefit.

Mr Liang Eng Hwa also asked about the outlook for 2023 and the challenges that businesses need to prepare for. We expect the Singapore economy to grow by 0.5% to 2.5% in 2023.

Growth in the major advanced economies, such as the US and Europe, will slow amidst tightening financial conditions, which will crimp consumption and investment spending. The possibility of recessions in these economies cannot be ruled out. On the upside, Asian economies are expected to continue growing. Southeast Asian economies will benefit from the ongoing recovery in domestic and tourism demand, while China's reopening is likely to provide some lift to global demand.

Global supply chains have recovered from the worst effects of the pandemic, but they continue to be affected by the Russia-Ukraine war and reshaped by efforts to re-shore or "friend-shore" operations and production. As a result, transport and logistics costs are likely to remain elevated.

Several Members highlighted that businesses are having difficulties managing rising costs. Mr Derrick Goh and Mr Shawn Huang asked how the Government will assist businesses in overcoming these challenges.

The current inflationary environment is a global phenomenon. The Singapore Government has adopted a range of measures to mitigate the impact of inflation. We have undertaken several rounds of monetary policy tightening and rolled out three support packages last year, totalling more than \$3.5 billion, to address cost-of-living concerns. In addition, Deputy Prime Minister Lawrence Wong has also announced several measures this year to support our businesses, including an extension of the enhancements to the Enterprise Financing Scheme to help enterprises access credit, as well as an extension of the Energy Efficiency Grant to encourage businesses to invest in raising their energy efficiency. Minister of State Low Yen Ling will share more details in her speech.

Given that we are a small and open economy, we cannot be totally insulated from these global inflationary pressures. For us to remain competitive, we must continue to improve efficiency and raise productivity.

If we look beyond the near term, there are major structural shifts in our operating environment that will create both challenges and opportunities for Singapore.

The multilateral open trading system is under pressure and geopolitical tensions are increasingly shaping countries' economic strategies. These developments will undoubtedly have implications on the global economy as well as Singapore's economy.

New technologies are disrupting industries and business models, such as Artificial Intelligence (AI) for example. As AI technology improves and becomes integrated in more applications, such as ChatGPT, which many of us are familiar with and I hope none of us are using it to prepare our speeches. [Laughter.] These applications could take over tasks in areas such as marketing and sales, IT and engineering, and change the way we do business.

12.30 pm

I agree with Mr Don Wee, that climate change is the defining challenge of our time. The transition to net-zero emissions will be one of the deepest and broadest transformations to our economy. It will affect almost every industry, every company, from energy to manufacturing, transport to financial services.

Several Members have spoken about manpower constraints. Indeed, manpower has always been a constraint. Our local workforce is ageing and we are faced with the stark reality of a slowing local workforce growth. If we are to keep our economy vibrant, we must continue to deepen our skills and accommodate new arrivals to complement our local workforce, so that we can allow our companies to grow. This will require difficult trade-offs to be made carefully, not just at the company-level, but also as an economy and as a society.

While these shifts may seem daunting, we are moving forward from a strong position, given our robust fundamentals. These include our efficient infrastructure, extensive physical and trade connectivity, a highly-skilled workforce which we continuously invest in, and our nimble and enabling policy environment. These were the same fundamentals that saw us through the COVID-19 pandemic and which demonstrated to our businesses and investors that Singapore is a reliable partner, even in a crisis. We can, therefore, take heart that if we are willing to work hard and work together, we can turn challenges into opportunities.

Last year, I spoke about the Singapore Economy 2030 vision, in particular about our Manufacturing 2030 and Trade 2030 strategies. Today, I will introduce our Services 2030 vision, and elaborate on what we are doing as part of our Enterprise 2030 strategy.

On Services 2030, our Services cluster encompasses very diverse sectors. It includes outward-oriented sectors such as Information and Communications, and Professional Services, as well as domestic-facing ones, such as the Retail Trade and F&B services. It is also a very large cluster, accounting for around 70% of our Gross Domestic Product (GDP).

Our Services 2030 vision seeks to harness the growth opportunities in digitalisation and sustainability, and anchor Singapore as a leading, vibrant hub for businesses, lifestyle and tourism. In particular, the Modern Services cluster comprises some of the fastest-growing sectors in our economy. Within this decade, we aim to grow the Value-Added (VA), from the Modern Services cluster by at least 50% and create more than 100,000 additional jobs.

A good example is the Professional Services sector within these Modern Services. It is a diverse group too, including company headquarters, professional services firms providing consulting, legal and accounting services. Together, they contribute to Singapore's vibrant business and innovative ecosystem.

Today, I am pleased to announce the launch of the Professional Services Industry Transformation Map 2025, or ITM 2025, which will play an important role in strengthening Singapore's role as a leading business hub. Our Professional Services sector is well-positioned to seize opportunities for business growth driven by digitalisation, sustainability, emerging markets and new customer segments in Southeast Asia. The Government will work with stakeholders to help Singaporeans upskill and reskill, so that they, too, can tap on opportunities and realise their career aspirations in this sector. Minister of State Alvin Tan will elaborate on our strategies in this regard, including the Professional Services ITM 2025.

The Professional Services ITM is one of the 23 ITMs that the Government introduced in partnership with the Future Economy Council Clusters, to support industry transformation. Several members, including Mr Pritam Singh during the Budget debate, asked about our ITMs. The 23 ITM sectors have led the way in terms of economic growth and industry transformation. However, the COVID-19 pandemic had inevitably affected the progress of some of them.

Across the 23 ITMs, from 2016 when they were introduced to 2021, their VA, in real terms, grew by 2.9% per annum. This was marginally above the performance of the economy as a whole, which was at 2.8% per annum. However, if we only look at the period just prior to COVID-19, from 2016 to 2019, the VA in real terms for the 23 ITMs sector, grew by 3.5% per annum, which was a fair bit higher than the performance of the economy as a whole, averaging 3.1% per annum.

The ITM sectors, as a whole, also did better for productivity, which grew by 4% per annum for the period 2016 to 2021, compared to the overall economy at 3.5% per annum. On jobs, despite the impact of COVID-19, there was a net creation of about 134,000 resident jobs from 2016 to 2021. Some ITM sectors performed better than others. The Financial Services sector achieved real VA growth of 6.8% per annum from 2016 to 2021, exceeding the real VA growth target of 4.3% set for the period from 2016 and 2020. Close to 26,000 PMET jobs were created during this period, far exceeding the target of 12,000 jobs.

On the other hand, under the Precision Engineering ITM, we had set a nominal VA growth target of 8% and a job creation target of 3,000 PMET jobs by 2020. Over the period 2016 to 2021, the sector exceeded its VA target and achieved growth of 11.2% per annum. But it did not do as well in job creation, creating over 2,000 PMET jobs, partly because of the COVID-19 pandemic.

While COVID-19 has disrupted the progress of our ITMs, we have since embarked on a refresh of the ITM strategies – the ITM 2025 refresh. To take into account our experience during the pandemic and address emerging priorities, such as sustainability and the need for greater economic resilience. We should allow some time for these strategies to take root, and then assess again the progress of the ITM 2025 strategies.

In essence, ITMs reflect the story of our economic development and constant transformation to respond to challenges and stay ahead of the curve. Ms Jessica Tan and Mr Saktiandi Supaat rightly pointed out that these same challenges can also create opportunities that businesses can capture. Two aspects stand out: digitalisation and sustainability.

COVID-19 gave a decisive push for many businesses to adopt digital tools, such as digital shopfronts and e-payments. Going forward, digitalisation will remain critical in helping companies raise productivity and optimise their operations, and to alleviate higher costs and manpower challenges. As supply chains increase in complexity and unpredictability, digital capabilities will also allow companies to have greater visibility of their operations and pre-empt bottlenecks. More importantly, digital technology can unlock companies' ability to innovate and develop new services and products. Examples of such transformation are everywhere.

Let me just take, for instance, telehealth. We saw the sector take off during COVID-19, as people turned to seeing their doctors online instead of visiting the clinics physically. Today, Singapore has a growing telehealth ecosystem, with several companies that have started to expand their operations overseas. One example is Doctor Anywhere, which was founded in 2017. The homegrown company grew its user base in Singapore by three-fold and expanded to Malaysia and the Philippines in the midst of COVID-19. Today, it is present in six key Southeast Asian markets, and in time to come, I am sure Doctor Anywhere will be everywhere.

In the area of sustainability, investors and customers are raising their expectations. This may be a challenge, but many Members also rightfully highlighted the opportunities this presents for our companies. Having a clear sustainability strategy and statement will increasingly be an advantage when serving global markets, and companies need to urgently re-think how to transform their business models and operations to thrive in a low-carbon world. There are ready solutions, such as more energy-efficient equipment, for which Government funding support is available.

Koda, a leading Original Design Manufacturer of furniture, is a good example of a company that is transforming itself to compete in a low-carbon world. The company has implemented a comprehensive environmental tracking and management system for its furniture manufacturing operations. It is also developing a comprehensive sustainability strategy. Minister of State Alvin Tan will elaborate on how we are supporting our companies to seize opportunities in digitalisation and sustainability in his speech.

Even as we press on with the transformation of industries, we must continue to strengthen Singapore's position as a global hub for businesses, innovation, investors and talents. This has allowed us to attract global companies and investors to invest in Singapore, creating opportunities and jobs, even in the depths of the COVID-19 pandemic. We must work even harder to secure Singapore's competitiveness as an investment location. This is crucial, as the international tax landscape is also going through a significant and fundamental change with the introduction of Base Erosion and Profit Shifting 2.0, or BEPS 2.0 in short. Several Members rightly pointed out that Singapore will, indeed, be affected.

We need to carefully assess the impact of BEPS 2.0 on affected Multinational Enterprises, or MNEs, here, and on our overall competitiveness as a global business hub. Deputy Prime Minister Wong has announced our intention to implement Pillar 2 from 2025 and introduce a Domestic Top-up Tax at the same time, to top-up the effective tax rate of MNE groups in Singapore to 15%. Giving companies notice now will allow affected MNEs time to assess the impact on their operations, and for our economic agencies to work with them to address their concerns and support their continued growth in Singapore. As Deputy Prime Minister Wong has said, we will also continue to monitor international developments and adjust our implementation timeline as needed.

Mr Sharael Taha asked about the use of non-tax incentives to enhance our competitiveness. Ministry of Trade and Industry (MTI) has continuously sharpened our toolkit to ensure that Singapore remains competitive in attracting and retaining investments. In this regard, the Government has topped up the National Productivity Fund, or NPF in short, and will expand its scope to include investment promotion as a supportable activity. This is in addition to its existing focus on productivity improvements, and continuing education and training.

I agree with Mr Sharael Taha on the importance of ensuring that projects supported by the NPF lead to real productivity improvements. We currently fund a diverse portfolio of programmes and schemes under NPF, ranging from sector-specific ones like the Construction Productivity and Capability Fund (CPCF) under the Building and Construction Authority (BCA), to horizontal programmes, like the SkillsFuture Enterprise Credit scheme. These schemes have, thus far, achieved positive results.

One example is the Increase SME Productivity with Infocomm Adoption and Transformation, it is a long name, but in short, it is iSPRINT programme. iSPRINT programme helped about 10,000 SMEs leverage infocomm technology solutions to improve their business operations and increase productivity. A 2016 study showed that the median firm saw an increase in revenue of 3.1% after adopting solutions under the scheme, compared to firms that had not adopted the solutions. iSPRINT has ceased in 2018, but SMEs can continue to tap on the SMEs Go Digital programme, which provides a range of support to meet businesses' digitalisation needs.

Apart from productivity indicators, each NPF project also has specific KPIs that they must meet, in areas like upskilling of individuals and development of industry platforms, such as centres of excellence – all of which contribute to productivity growth. We will continue to ensure that funds are used judiciously to support investment promotion, enhance our productivity and deliver tangible benefits to our businesses and workers.

Apart from providing support through the NPF, I want to emphasise that investment promotion incentives which are aligned with international rules will remain relevant and important to companies not subject to the global minimum effective tax rate under the BEPS Pillar.

12.45 pm

Therefore, we have extended our Pioneer Certificate, Development and Expansion Incentive and Investment Allowance tax incentives for an additional five years until 31 December 2028. This will allow us to attract investments which are expected to generate significant economic contributions to Singapore over time.

Besides companies, we also want to attract high calibre investors who can strengthen our ecosystem. Such investors bring with them capital that support the growth of our local businesses and create good jobs for more Singaporeans. They also provide valuable networks to connect us to the region and beyond as well as contribute their entrepreneurial skills to our business ecosystem.

The Global Investor Programme (GIP) is one way through which we attract and anchor these investors in Singapore. The programme has delivered tangible outcomes for Singapore. Over the past 11 years, GIP investors have brought in around \$5.5 billion in total business expenditure, generating over 24,000 jobs in Singapore.

To ensure that Singapore captures even more value from the capital, businesses and networks that the investors bring, the Economic Development Board will enhance the GIP by raising the investment quantum to ensure greater contributions from these investors and to direct more funds and resources into our local ecosystem. In addition, the scope of the GIP-select funds will be adjusted to capture more value from a wider pool of investors. EDB will share more details in due course.

To build a strong Singapore Economy 2030, we cannot just rely on foreign investments. Nurturing a deep bench of local enterprises that are innovative, future-oriented and which can find success beyond Singapore shores is a key priority.

Ms Janet Ang asked how MTI is assisting local companies to seize new opportunities and compete successfully in international markets. One way we do so is through our strong trade connectivity, leveraging on the network of 27 Free Trade Agreements (FTAs) that we have. Such agreements help reduce uncertainties, risks and friction that businesses face when venturing into overseas markets.

For example, Prima Food's ready-to-cook products are now sold in over 40 markets, facilitated by preferential access through our FTAs. Prima also exports products like wheat flour and premixes to Japan under the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), which provides tariff savings of about 20%.

We are also making inroads in pioneering new agreements in emerging areas to create opportunities for our businesses.

To date, we have signed four Digital Economy Agreements and concluded the first Green Economy Agreement with Australia last year.

Enterprise Singapore also has a range of schemes to help Singapore companies address common pain points and support them through the different stages of their internationalisation journey.

In 2022, we supported 2,000 enterprises to embark on internationalisation activities, which was 25% more than the year before. To help companies break into new markets, we will make further enhancements to our existing programmes.

For the Market Readiness Assistance scheme (MRA), we had in 2020 introduced a time-limited higher grant cap of \$100,000 until 31 March 2023, which is next month. I am heartened to hear from Ms Janet Ang of the value that the industry sees in the MRA. As many companies' internationalisation plans have been disrupted by the pandemic, we will extend the enhanced grant cap by another two years until 31 March 2025.

Ms He Ting Ru suggested having an Exim Bank for our local companies. We have indeed provided financing support to enterprises through various financing schemes to help them venture into overseas markets. These include the Enterprise Financing Scheme or EFS-Trade Loan and EFS-Project Loan. Ten years ago, we also set up Clifford to provide financing for local companies doing infrastructural projects abroad.

To improve access to financing for local enterprises expanding to emerging markets, we will pilot the expansion of the pool of participating financial institutions for the EFS to include selected foreign-based financial institutions and multilateral development banks with strong expertise and appetite in emerging markets such as the International Finance Corporation and the Asian Development Bank.

Specific to green financing, we recently launched EFS-Green, in addition to MAS' green financing initiatives.

To support enterprises' use of e-commerce platforms, we will enhance the Double Tax Deduction for Internationalisation by expanding the scope of qualifying costs to include costs incurred to support growth via e-commerce. These may include costs arising from business advisory, product listing and marketing content development.

Beyond schemes and trade agreements, we have also facilitated partnerships between global companies and local enterprises to help local enterprises internationalise.

One example is Singapore garment manufacturer Teo Garments and 3D apparel design solution provider Browzwear's partnership with Lidl & Kaufland Asia, the sourcing arm for Schwarz Group, a food and retail industry leader in Europe. This has allowed our companies to scale and gain access to the European market, leveraging on Lidl & Kaufland's extensive consumer base.

Companies that are further along in their growth and internationalisation journeys often require bespoke support to fully unlock their potential and develop into truly global companies.

One such example is Sing Fuels, a home-grown marine bunker and lubricant trader that supplies to more than 350 ports globally. Through its partnership in Scale-Up, our flagship programme to support high-growth enterprises, Sing Fuels has sharpened its business growth plans, developed a market entry strategy into Africa for the lubricant business and also set up a clean energy arm, which trades and undertakes research and development into more sustainable fuels.

Sing Fuels is also leveraging on EDB's Corporate Venture Launchpad to develop a technology platform that addresses operational and capital challenges in the marine fuel industry.

We hope to support more local companies like Sing Fuels, which fly Singapore's flag high internationally while contributing significantly to our economy and creating good jobs for Singaporeans.

We introduced the Singapore Global Enterprises (SGE) initiative at the COS last year to build a strong slate of locally-grown high-growth companies that can compete against the best in the world.

The needs of these companies will differ vastly and they often require dedicated and customised support to meet their specific challenges. Building upon the flagship Scale-Up programme, Enterprise Singapore will partner these companies on their growth journeys in the following ways.

First, we will continue to strengthen and deepen the companies' capabilities in developing new products, penetrating new markets and improving their work processes.

To help them build sustained innovation as a core competitive strategy, we will support them in undertaking R&D and innovation activities. We will also support companies in expanding their global footprint and diversifying their supply chains.

To facilitate this, companies may receive customised financial support from Enterprise Singapore, such as through the co-funding of the establishment of their in-house R&D and innovation centres and efforts to build supply chain resilience.

Second, we will develop and deepen our talent pool. Existing schemes like the Singapore Global Executive Programme help local high-growth companies enhance their human capital capabilities and attractiveness as employers.

We will also expand the coverage of the Skills Future Enterprise Credit to include Scale-Up and the Singapore Global Executive Programme. This will allow eligible employers to use their credit to offset qualifying expenses under these programmes.

Third, Enterprise Singapore will introduce Scale-Up X, which are new specialised capability building programmes in areas such as nurturing leadership, enhancing readiness for investments and initial public offering listings and sharpening internationalisation strategies and execution plans.

The bench of promising Singapore enterprises has grown in recent years. We aim to work with a pool of about 100 to 200 of such enterprises. For the more ambitious companies, we will give them an additional boost through the SGE initiative so that they may become global leaders in their respective fields.

I look forward to the rise of a new generation of SGEs as more Singapore companies make their mark globally. We will be with you every step of the way.

Our efforts under the Singapore Economy 2030 vision can only be achieved if we have a high-quality workforce with industry-relevant skill sets and capabilities.

As the structural shifts that I had earlier described take root in our economy, we can expect existing jobs to be transformed at a faster pace even as new jobs are being created.

Ms Mariam Jaafar and Prof Koh Lian Pin asked specifically how the Government is equipping the Singapore workforce to take on jobs in the green economy. To prepare companies and workers for the transition to a greener future, the Government has worked with tripartite partners to roll out training programmes at various levels, including broader-based courses such as Enterprise Singapore's Enterprise Sustainability Programmes for business executives and sector-specific programmes such as Workforce Singapore's Career Conversion Programme for sustainability professionals.

Given the fast-evolving landscape of the green economy, there is a need to ensure that our training programmes remain relevant.

Therefore, MTI, in partnership with SkillsFuture Singapore will set up a Green Skills Committee to bring together industry players and training providers to develop green skills in the local workforce that are relevant to industry needs.

For a start, we will focus on immediate needs such as training workers to conduct sustainability reporting and equipping them with the skills to operate in new growth areas in the energy sector such as renewable energy and energy storage systems.

We will continue to work closely with the industry to identify new demand areas for green skills as this platform grows.

Second Minister Tan See Leng and Minister of State Alvin Tan will share more on our efforts to ensure our workforce is well equipped to take on the opportunities under our Singapore Economy 2030 vision.

Sir, let me conclude: 2023 will likely not be an easy year for businesses and the Government will not hesitate to provide targeted support where needed. However, we must not lose sight of the longer-term future. Achieving our Singapore Economy 2030 vision will require hard work and in some cases, sacrifices. Companies and workers alike must be prepared and ready for transformation. In the face of rising costs, biting resource constraints and a more challenging international environment, this is the only viable path to long-term growth and success.

If there is one thing the COVID-19 pandemic has taught us, it is that when the situation calls for it, Singapore as a country and Singaporeans can be agile and resilient, prepared to make difficult decisions for the greater good and help one another along the way.

All of us – employers, workers, unions, trade associations and the Government – can all do our part to ensure that Singapore continues to punch above our weight on the global stage and build a strong and vibrant economy for our future generations. *[Applause.]*

The Chairman: Second Minister Tan See Leng.

The Second Minister for Trade and Industry (Dr Tan See Leng): Mr Chairman, Sir, last year, I announced the Enterprise 2030 strategy to build and sustain a vibrant ecosystem of Singapore enterprises that are future-ready and able to compete globally.

Minister Gan shared our plans to groom the most promising local enterprises into Singapore Global Enterprises. I will elaborate on how we are helping these and other local enterprises to thrive.

We will do so by supporting firms to maximise their human capital and develop innovation capabilities.

First, maximising human capital. Singapore has consistently invested in our human capital through upskilling our workforce and remaining open to world-class talent.

1.00 pm

This strategy has paid off well. It has allowed us to grow a vibrant business and trading hub, with competitive Singaporean enterprises and good jobs for Singaporeans.

Look at the data over the last decade. From 2012 to 2022, the real resident median income grew by 2.6% per annum. This translates into a cumulative growth of almost 30% over 10 years. This is real income growth with the effect of inflation already accounted for. Real resident household incomes have also risen across the same period.

Benchmarked against Organisation for Economic Co-operation and Development (OECD) countries, our resident employment rate is among the highest while our resident unemployment rate has remained among the lowest. These are results which we celebrate.

These have arisen because of the policies which we have put in place over the years. By investing in ourselves and in our people, while remaining open to global talent and global businesses, we have grown the pie and created good outcomes for Singaporeans.

Ms Jessica Tan and Mr Shawn Huang asked about the tight labour market and what businesses can do to adjust to manpower challenges. I would like to reassure them that we have a suite of policies in place to support businesses.

Let me give an update on four of these policies today. These are targeted at various levels of talent within our enterprises, all the way from the intern to the CEO.

First, the Enterprise Leadership for Transformation programme (ELT). ELT is targeted at the senior leadership of our promising SMEs – the owners, the founders or successors and key members of their management. ELT supports these business leaders to achieve the next bound of growth by helping them develop their business strategies and leadership capabilities.

ELT was first announced at Committee of Supply 2020 as a three-year pilot. Since its launch in October 2020, more than 400 business leaders from 300 companies have been onboarded.

One such example is 1-Group, a homegrown lifestyle, F&B and hospitality group with over 30 brands under its portfolio. Through the ELT programme, the company sharpened its Southeast Asia internationalisation strategy. Leveraging new contacts made from an ELT market immersion trip to Vietnam, 1-Group has successfully partnered an in-market hospitality solutions company to expand into Vietnam.

To support more firms like 1-Group, I am happy to announce that the ELT programme will be extended till FY2025. This will allow more SME business leaders to benefit from the programme.

Second, the Tech@SG pilot. Launched in 2020, the Tech@SG pilot is targeted to support high-growth tech startups as part of their expansion in or foray into Singapore. Under Tech@SG, they can secure up to 10 new Employment Passes (EP) for their core team members.

The Tech@SG scheme has served Singapore well. In the past three years since its launch, over 100 companies have come onboard. These companies span across 13 different countries and across domains such as fintech, e-commerce and cybersecurity. Together, these Tech@SG companies have created more than 1,500 local jobs. This is in spite of the COVID-19 pandemic. This is a testament to Singapore's continued attractiveness to global talent.

SpeQtral is a local startup founded in 2018 that has benefited from Tech@SG. It is a spin-off from the Centre for Quantum Technologies at NUS, SpeQtral specialises in quantum key distribution. This is a nascent technology that enables users to establish secure communications networks with an additional quantum-secured encryption layer. SpeQtral came onboard as a Tech@SG firm in December 2021 and has since tapped on the programme to bring in external experts in this nascent field. At the same time, it has also hired locally to expand its footprint here in Singapore.

With the positive results from Tech@SG, I am happy to announce the mainstreaming of the Tech@SG pilot. There will be no change to the qualifying criteria to ensure selectivity. Schemes like Tech@SG must be complemented by training of local talent, which we will continue to support through schemes like the TechSkills Accelerator (TeSA) programme operated by IMDA. In time, locals will be able to take on these technology jobs.

Third, the Singapore Global Executive Programme (SGEP). This scheme is targeted at fresh and recent local graduates. This programme will support such young local talent to pursue structured career progression pathways in high-growth companies, including rotations to core functions and global attachments. I had announced this at the COS last year. I am glad to share that the programme was launched last December.

Fourth, the Global Ready Talent Programme (GRT). Launched in 2019, this programme aims to build a talent pipeline to support Singapore enterprises with their overseas expansion. It does so by co-funding local, young talent to take on both local and overseas internships.

To date, the programme has supported over 19,000 internships in over 2,500 local companies despite the disruptions brought about by COVID-19. Now that the countries across the world have reopened their borders, EnterpriseSG (ESG) is further curating the GRT to ensure it remains relevant and nimble in the post-COVID-19 new normal.

So, in summary, the four schemes I have described – the ELT, the Tech@SG, the SGEP and GRT – all these schemes will allow our enterprises to maximise their human capital at all levels – from the intern to the CEO. These enterprise-specific schemes complement the broader manpower schemes which we have in place, for example, the ONE Pass and COMPASS, and which I will give an update on in my Ministry of Manpower (MOM) COS speech tomorrow.

My hope is that this suite of policies which MTI and MOM have worked closely together will help us to unlock the human capital that Singapore requires for our next phase of growth.

To realise our Singapore Economy 2030 vision, we need to continue to invest in our collective human capital. We must be willing to learn, to imbibe, from the best by remaining open to global talent. And we need to push the boundaries and we should not be afraid to take risks.

And this brings me to my second point, which is on innovation. Ms Janet Ang and Mr Shawn Huang have asked about MTI's efforts in developing innovation capabilities in our enterprises. In Research, Innovation and Enterprise (RIE) 2025, we are striving towards expanding the base of innovative enterprises and enabling the creation of globally competitive products and services out of Singapore.

This involves three pivotal moves. First, we are working with enterprises to strengthen their capability and capacity for market-oriented innovation. Second, we are scaling up and strengthening the Innovation and Enterprise (I&E) platforms to enable enterprises to better tap on our public research institutions and other innovation ecosystem players. Third, we are forging strong connections to major innovation hubs and key demand markets.

We have been making steady progress. As Members have heard from Deputy Prime Minister Wong in his Budget speech, under the Enterprise Innovation Scheme (EIS), tax deductions will be enhanced to support businesses to engage in R&D and innovation-related activities.

In particular, innovation conducted through our polytechnics and the Institutes of Technical Education (ITEs) will now benefit from tax deductions. The same will also apply for innovation conducted through our existing Centres of Innovation (COIs) set up in partnership with selected polytechnics and A*STAR's SIMTech.

Previously, some of these innovation activities may not have qualified for tax deductions for R&D. This new provision will encourage our businesses, especially SMEs, to kickstart their innovation journey by tapping on the technical know-how and capabilities within these partner institutions. Hence, I look forward to more translational outcomes from such private-public collaborations.

Beyond financial support, many companies are also looking for advice and strategic direction to guide their investments in innovation. While big companies can set up distinguished Boards comprising leading industrialists and luminaries to provide such direction, many SMEs do not have such a luxury.

And that is why we launched the Innovation Advisors Programme (IAP) four years ago in 2019 and we have been refining it consistently. This programme supports companies in partnering industry veterans to develop and to bring to market differentiated product offerings.

The programme is run by IPI, which is a subsidiary of EnterpriseSG. I am happy to report that to date, IPI has onboarded 31 advisors and facilitated 88 projects under this programme.

ProfilePrint is a local agrifood tech enterprise that has benefited. ProfilePrint engaged the assistance of Innovation Advisor, Mr Phey Teck Moh, a seasoned mentor and angel investor, to help review their business model and go-to-market plans. With Mr Phey's help, the company closed its Series A1 funding round in August last year and it added Cargill, which is one of the world's leading global food suppliers, to its panel of strategic shareholders.

Beyond these enterprise-centric programmes, we also have broader programmes to develop the innovation and enterprise ecosystem. Last October, I was happy to launch the Technology for Enterprise Capability Upgrading, or T-Up Eagles Award.

This recognises students' achievements and contributions to our SMEs during their work attachments under the T-Up Integrated Work Study Programme (IWSP). Now under this programme, seconded A*STAR researchers get to work closely with students from the Singapore Institute of Technology (SIT) attached to the same SME.

And since the programme's launch about two years ago, 24 SIT students have benefitted from this mentorship. I hope this will address Prof Hoon Hian Teck's questions on how we are developing young talent.

For mid-career professionals, we have the Innovation and Enterprise Fellowship Programme (IFP). Launched in 2020, the IFP is a 12- to 18-month training programme administered by SGInnovate and is aimed at developing local talent or Fellows.

Mid-career professionals, including Researchers, Scientists and Engineers (RSEs), who are selected as Fellows will be trained to become "ambidextrous", familiar with both technology and business aspects in areas such as cybersecurity, robotics and biomedical sciences.

IFP has achieved positive results in the past three years. More than 90 Fellows from academia and industry have been onboarded to the IFP, with many of them joining deep-tech startups and taking up technology commercialisation roles upon graduation from the IFP.

1.15 pm

Dr Yvonne Koh, who holds a PhD in Microbiology, is one of the Fellows who have benefited from this programme. Under the IFP, Dr Koh joined Lightstone Singapore, which is a venture capital firm that invests in life sciences technologies and companies. The experience provided her with exposure to a global venture investment team.

After Dr Koh graduated from the IFP in November 2021, Lightstone Singapore offered her a position as an investment professional, where she continues to source and assess global investment opportunities, and also support new company creation in Singapore.

Following this successful pilot, and to support more Fellows like Dr Koh, I am happy to announce enhancements to the IFP.

We are expanding the programme to include three public sector partners, namely, the National Additive Manufacturing Innovation Cluster (NAMIC), the Experimental Drug Development Centre (EDDC) and the Diagnostics Development Hub (DxD Hub). This means an increased capacity to take on and benefit more local talent. These are significant moves that underscore our commitment to support firms in innovation.

Let me now turn to energy. Last year, I explained the various emergency measures we took to manage the energy crisis. These measures have stabilised the electricity markets for now, but this is unlikely to be the last energy crunch that we will see, as the world embarks on its energy transition.

Mr Saktiandi Supaat, Ms Mariam Jaafar and Ms Jessica Tan asked how Singapore would safeguard our energy security with increased volatility in global energy markets and advance our energy transition at the same time. MTI is adopting three key strategies to support the critical transformation needed.

First, developing new energy supply sources to diversify and decarbonise our energy supply. Second, strengthening our energy market structure so as to ensure that the market continues to function well under volatile conditions. And third, building strong international collaborations to secure our energy supply and our energy technologies.

Currently, Singapore relies on natural gas for about 95% of our power generation. We will improve the energy efficiency of new and repowered natural gas power generation units through new emission standards. This will be introduced later this year.

However, further abatement and diversification of our energy supply will need to be achieved through tapping on renewable energy both within Singapore and beyond our shores, and through the use of new low-carbon alternatives.

First, Singapore is tapping on regional power grids to access cleaner energy sources abroad. Singapore plans to import up to four gigawatt (GW) of low-carbon electricity by 2035. This will constitute around 30% of Singapore's electricity supply then.

To date, EMA has received more than 20 proposals under its Request for Proposal, or RFP, to import electricity to Singapore. EMA remains on track to meet our imports target.

Over the last two weeks, several companies have submitted their final proposals for large scale electricity imports from various countries. Projects which received support from the source countries and meet our requirements will receive EMA's conditional approval. We expect to grant the first conditional approval soon.

To prepare for the large-scale imports, EMA is also conducting smaller-scale trials. Such projects will help us learn, build confidence and pave the way for our larger scale electricity import projects.

These include the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project, which commenced on 23 June 2022. In addition, YTL Power Seraya and Tenaga Nasional Berhad Pasir Gudang Energy intend to export 100 megawatt of electricity from Malaysia to Singapore.

Last month, I witnessed their exchange of agreement ceremony with Malaysia's Minister of International Trade and Industry. We hope to see this project commence this year.

Second, MTI launched Singapore's National Hydrogen Strategy which sets out plans to develop hydrogen as a major decarbonisation pathway for our power and industry sectors, to support Singapore's commitment to achieve net-zero by 2050.

Like LNG, hydrogen can be imported from various sources around the world, which enhances our energy security and our resilience. It is also a potential alternative to fossil fuels in the maritime and aviation sectors.

A key prong of our strategy is to experiment with the use of advanced hydrogen technologies on the cusp of commercial readiness. EMA and MPA have launched an expression of interest for utilising ammonia for power generation and to support maritime bunkering needs. Since then, we have received strong interest from industry players as well as international partners.

Third, we are accelerating solar deployment as we speak, and we are deploying energy storage systems to store and dispense intermittent solar power at different times to maintain grid reliability. As of end 2022, we have deployed around 800 megawatt-peak (MWp) of solar power, compared to around 500 MWp in mid-2021. As of the first half of last year, Singapore is already one of the most solar dense cities in the world and we are on track to achieving our solar panel deployment target of at least 2 gigawatt-peak (GWp) by 2030.

Earlier this month, I also officially launched a 285-megawatt hour (MWh) energy storage system on Jurong Island, which can meet the electricity needs of around 24,000 4-room HDB households for one day, in a single discharge.

Lastly, we are exploring if other forms of low-carbon energy supply, such as nuclear and geothermal are suitable for Singapore.

Mr Abdul Samad asked what job opportunities will arise from new energy solutions and what we are doing to prepare our workforce for these jobs. New energy solutions, such as solar, energy storage systems and smart grids, will create more skilled jobs for our workforce, including Power System Integration engineers and Energy Storage System software developers.

As Ms Poh Li San has rightfully pointed out, Singapore should invest more in talent development for our energy transition.

EMA is working closely with Government agencies, institutes of higher learning (IHLs), training providers and the Union of Power and Gas Employees (UPAGE) to develop and deepen core skills required by workers for the more imminent energy transition areas, like solar energy and energy storage systems.

The new Green Skills Committee that Minister Gan mentioned will identify and develop more programmes for newer forms of energy technology, like hydrogen and carbon capture as they become ready.

Speaking in both my capacities as Second Minister for Trade and Industry and the Minister for Manpower, we are aligned. And I urge all of our workers to join these programmes to reskill and upskill in clean energy areas.

I would also like to join and echo Mr Abdul Samad in extending our acknowledgement and appreciation to our workers in the power and gas industries, who worked hard to ensure that we had uninterrupted gas and electricity supply during the COVID-19 pandemic.

Mr Abdul Samad suggested a one-time reward for power and gas workers. During the pandemic, many of our essential workers stepped forward to play their part. Our healthcare workers, in particular, served at the frontline against COVID-19.

The COVID-19 Healthcare Award announced in November 2021 was in recognition of our healthcare workers' contributions and dedication. I would encourage employers in the power and gas industries to consider the contributions of their workers and to fairly recognise and reward their workers.

The global energy market continue be turbulent in the coming years because of geopolitics and climate action. But based on what we have learnt from the recent energy crisis, we will update our regulatory approach to strengthen the foundations of our energy market.

First, to ensure that there is sufficient power generation and capacity to serve demand, the Government will call for competitive tenders for new generation capacity and we will build new capacity if there is insufficient interest from private generation companies.

Second, EMA had put in place the Standby Fuel Facility during the recent energy crisis. We will institutionalise this as a permanent feature. I hope that this will address Ms Poh Li San and Dr Lim Wee Kiak's query if Singapore has a fallback plan should there be disruptions to our energy supplies. We are also exploring ways to centrally aggregate gas procurement and obtain more secure and longer-

term contracts.

Lastly, EMA intends to enhance the regulatory requirements on electricity retailers to strengthen consumer protection and the retailers' ability to withstand market volatility. EMA is seeking feedback on the proposed enhancements and plans to announce the final changes later in the year.

The energy transition is challenging, given the increased volatility in global energy markets. No one country can do it alone, and we need to work together to advance our collective interests.

Singapore has partnered with like-minded countries to support one another in our decarbonisation efforts.

Last year, we signed Memoranda of Understanding (MOUs) on energy cooperation with Indonesia, Brunei, Cambodia, Lao PDR and Vietnam. We have also signed Memoranda of Cooperation with Japan and a Green Economy Agreement with Australia.

These G2G partnerships have helped to facilitate commercial collaborations, which demonstrate the interest and viability of renewable energy co-development projects for cross-border electricity trade. Such projects are beneficial for our region. Not only will they help to unlock the region's renewable energy potential, which can serve the domestic demand of source countries, they can also catalyse economic growth, by stimulating clean energy investment flows and generating new green jobs in source countries.

To boost the viability of clean energy trade projects, Singapore is also partnering with the US on a Feasibility Study on Regional Energy Connectivity. This is part of the US' Net Zero World Initiative. The US will collaborate with Singapore and Southeast Asian partners to explain the benefits of greater connectivity, as well as assess the technical, legal, and commercial steps that we need to take to realise ASEAN's vision of a regional power grid network.

We should not forget the role that international organisations also play. They shape our understanding of the dynamism in global energy markets and they help us to seize opportunities in the energy transition.

Last year, we announced that Singapore and the IEA, or the International Energy Agency, are exploring the possibility of establishing a regional cooperation centre here in Singapore. This will help broaden IEA's outreach to the Asia-Pacific and accelerate the region's low-carbon energy transitions.

Singapore also has strong partnerships with the International Renewable Energy Agency, or IRENA. We will continue strengthen and broaden our relationship with them.

The global energy transition is a challenging but critical undertaking that the world will need to manage this existential climate crisis. MTI will work closely with our industry stakeholders and our international partners to enhance our energy resilience in a low-carbon world.

Ms Janet Ang asked how we can help businesses through this transition. I have shared at length at how we are transforming the way in which we produce electricity and energy. But managing demand is also key to achieving a more sustainable future.

There are multiple schemes such as the Energy Efficiency Fund and Energy Efficiency Grant which help our businesses to become more energy efficient. Business and individuals will have to play their part to use more energy-efficient equipment and conserve energy in their daily lives.

1.30 pm

Sir, let me conclude with a few words in Mandarin.

(In Mandarin): [Please refer to [Vernacular Speech](#).] As the Chinese saying goes, "When you are constrained, be flexible and be willing to make changes. If you change, you can find a solution, and its effects can last a long time."

Singapore lacks natural resources. Our prosperity today cannot be achieved without our proclivity to transform constraints into opportunities.

We need to address the immediate challenges of the day, but also constantly keep an eye on the future, to ensure that Singapore continues to stay relevant in this fast-changing world.

(In English) We must constantly keep an eye on the future and think and reinvent for the long term about how we can grow sustainably. Together, with all of your support, we will continue to build a better, a more resilient and an even more vibrant Singapore. [Applause.]

The Chairman: Minister of State Alvin Tan.

The Minister of State for Trade and Industry (Mr Alvin Tan): Mr Chairman, Minister Tan reminded us to keep an eye on the future. What will our economic future be like?

Earlier, both Ministers offered a glimpse by outlining our trade and enterprise strategies under our Singapore Economy 2030 vision. I will share about the other two pillars under this vision, which Mr Saktiandi Supaat and Ms Jessica Tan asked about.

Let us start with manufacturing.

Manufacturing remains the bedrock of our economy, forming its largest component. In 2022, it accounted for about 22% of GDP and 220,000 local jobs. Our established strength in manufacturing has allowed our economy to remain resilient in spite of the pandemic.

In 2021, we launched our Manufacturing 2030 vision to grow our value-added (VA) by 50% from 2020 to 2030. We have made significant progress since.

In 2022, our manufacturing VA increased by more than 15% from 2020. The sector also received a record S\$17 billion in total fixed asset investment, driven primarily by investments in the semiconductor industry. We expect these projects to create more than 4,600 jobs over the next five years.

To have enough workers to fill these newly created jobs, we will partner industry to develop a strong talent pipeline. We are working with trade associations and chambers like the Singapore Precision Engineering and Technology Association (SPETA) and the Singapore Semiconductor Industry Association to offer quality internship opportunities for Institute of Technical Education (ITE) students to raise job awareness of and enhance these students' experience in the sector.

As of September last year, we have created 806 internship opportunities across 71 companies, exceeding our target of securing 200 internships across 50 companies by end 2022.

Last year, Deputy Prime Minister Heng and I, together with SPETA and the Institute for Human Resource Professionals, launched our Manufacturing Employers' Handbook, which provides companies with human capital best practices and tools to help them structure career progression pathways for their employees.

Despite a more challenging global environment, we plan to continue growing our manufacturing sector. How?

First, we will do even more to attract frontier investments here.

We remain an attractive manufacturing location for many best-in-class firms like BioNTech, which chose to locate here because of our strong fundamentals, like our pro-business environment and a strong rule of law. We will continue to strengthen our manufacturing ecosystem and toolkits to maintain our competitiveness.

Minister Gan announced earlier we will extend our Pioneer Certificate Incentive, Development and Expansion Incentive and the Investment Allowance tax incentives to end 2028. This further reinforces our commitment to strengthen incentives to attract leading edge investments here.

Prof Hoon Hian Teck also asked how we are creating the manpower required for Manufacturing 2030.

The short answer is we will attract more Singaporeans to the sector. How?

First, we piloted the Accelerated Pathways for Technicians and Assistant Engineers (Manufacturing) Grant to help selected manufacturing companies hire, train and offer career progression for ITE graduates to become proficient technicians in the sector. We will extend this pilot by another two years to March 2025 to allow even more companies to be onboarded.

Mr Liang Eng Hwa, Mr Saktiandi Supaat and Ms Jessica Tan asked about emerging sectors in Singapore and opportunities for businesses in those areas. Mr Shawn Huang is right also to highlight the potential of robotics and space.

We aim to be a frontrunner for tech-enabled manufacturing in areas like biotech and robotics while also exploring the space industry.

On biotech, our biotech sector may be nascent but we expect it to grow by 8% annually.

Ms He Ting Ru asked about the opportunities and support to further develop this sector. We are doing so in several ways.

First, nurturing our talent pipeline. A*STAR's Singapore Therapeutics Development Review (STDR) initiative and Technology for Enterprise Capability Upgrading (T-Up) programme is one such thing. Since 2003, more than 950 A*STAR research scientists and engineers have been seconded to support over 850 local SMEs in product development under T-Up. Of this pool, close to 70 of them have been seconded to 45 biotech-related companies and 16 have joined the companies full-time at the end of their T-Up projects.

One example is A*STAR scientist Dr Lionel Low, who was seconded in 2019 to Tessa Therapeutics. Dr Low has now since joined Tessa Therapeutics full-time as Director of Research and Development.

Minister Tan also announced that we are expanding our Innovation and Enterprise Fellowship Programme (IFP) to include public sector partners like the Experimental Drug Development Centre.

The second thing that we are doing is to grow our biotech venture ecosystem financing and funding. We are working with venture capitalists (VCs) to channel more investments into Singapore-based biotech startups.

In 2021 and 2022, Enterprise Singapore's SEEDS Capital invested \$70 million and catalysed another \$300 million from 40 private equity and VC funds into 70 deep-tech startups while Startup SG Tech extended \$10 million in funding to 30 projects.

Just as our biotech sector is showing promise, we are also making strides in robotics.

Singapore has the second most robot-intensive manufacturing sector in the world, just after South Korea. Our manufacturing, construction and healthcare sectors here use robots to improve productivity, safety and quality.

In manufacturing and construction, robots can ease on-site manpower constraints. For example, construction company Gammon uses Spot, a four-legged robot built by Boston Dynamics to scan sections of mud and gravel at construction sites to check work progress.

We will strengthen our national robotics ecosystem through the National Robotics Programme (NRP). In fact, last month, Minister Tan and I celebrated NRP's sixth anniversary at Singapore University of Technology & Design (SUTD) with startups and industry players. There is great energy and promise in our robotics sector.

Our biotech and robotics solutions have applications for the silver industry too – a sector Ms Sylvia Lim asked about.

For example, Alexandra Hospital successfully trialed Florence, a robotic nursing assistant co-created with NCS to perform tasks, including taking vital signs of patients at their bedside and delivering medication and items. This frees up time for nurses to perform other value-added tasks for their patients.

Another example is MiRXES, a homegrown A*STAR spin off firm that focuses on early detection of cancer using its proprietary microRNA platform. MiRXES launched GASTROClear in 2019, the world's first approved molecular blood test for stomach cancer, which has been used by over 30,000 patients to help detect early-stage cancer before an endoscopy is prescribed. Enterprise Singapore's Scale-up SG programme helped MiRXES internationalise and expand to North and Southeast Asia in 2022.

These firms are doing good work to help address challenges in ageing societies like ours and in many parts of the world. We will continue to help them thrive in this emerging global silver industry.

We have seen how tech-enabled manufacturing solutions improve the lives in the silver industry. This also inspires us to explore new frontiers like space. We thank Mr Shawn Huang for acknowledging the space industry's growth potential. We have been gradually growing our space industry since the early 2000s.

Today, the global space industry is valued at over US\$400 billion, set to increase to over US\$1 trillion by 2030. In 2013, we established our national space office – the Office for Space Technology and Industry (OSTIn). OSTIn brings together players from different disciplines to build our nascent space ecosystem and develop emerging and disruptive technologies. We have good local capabilities in satellite engineering, remote sensing and satellite communications (satcom) and have launched over 15 satellites thus far.

DSO National Laboratories collaborated with OSTIn, local space research partners and international industry partners to launch our first locally developed Synthetic Aperture Radar microsatellite into space last year.

We can also apply space-based technologies to other sectors such as aviation and maritime.

Our space industry has also created attractive jobs and anchored foreign companies here. Today, we have approximately 2,000 professionals and researchers in our space sector and more than 60 local and international space companies based here.

At the Global Space and Technology Convention organised by Singapore Space and Technology Limited two weeks ago, Minister Iswaran announced that Mangata Networks, a satcom company, is establishing its maritime global headquarters here and will create at least 160 new and exciting jobs.

Our space industry is fuelled with potential. As I see our students strolling in, please come and join our space sector and join our rocket ship.

We have made good progress for Manufacturing 2030, including in biotech, robotics and space. As we programme our satnav back to Earth, let us land on Services 2030 – our plan to grow our services sector.

Mr Derrick Goh asked how we have been helping our SMEs digitalise.

Our Services 2030 vision is to grow our services sectors by making them more digital and sustainable and to anchor Singapore as a leading hub for business, lifestyle and tourism.

By 2030, we aim to entrench Singapore as a hub of firms, a hub of flows and a hub of talents.

A hub of firms – where we continue to attract multinational enterprises and large local enterprises to use Singapore as a base for their Global-Asia operations.

A hub of flows – where we strengthen our position as a global trading, financial and lifestyle hub, build on our networks of international trade agreements to connect Singapore and Southeast Asia to the world and further our digital and green economy agreements.

Finally, a hub of talents – where we build a strong Singaporean workforce and continue attracting global talent.

Let me elaborate using three sub-sectors.

First, professional services.

Minister Gan spoke of how our refreshed Professional Services Industry Transformation Map (ITM) will help our professional services firms transform so Singapore remains a hub for firms. From 2020 to 2025, we expect our professional services sector to achieve VA growth of 3% to 4% per annum, to \$27 billion and create 3,800 additional PMET jobs annually for locals. To achieve this, our Professional Services ITM 2025 will focus on three areas.

First, we will strengthen Singapore's appeal as a business hub for companies to build their headquarters here.

Headquarters create meaningful jobs for Singaporeans in various areas, including corporate functions such as marketing, legal and finance and accounting. We have a pool of ready talent to provide these services.

We are already attracting leading global firms because of the strong fundamentals I mentioned earlier, but to help existing headquarters in Singapore improve their in-house corporate functions, EDB has designed two online assessment tools for marketing and also for finance and accounting. These resources help companies assess their corporate functions and recommend ways to transform job roles.

EDB's Corporate Venture Launchpad also help Singapore-based companies nurture new venture concepts here. SembCorp Industries Ltd has benefited from this programme and spun off new ventures.

Last year, we injected an additional \$20 million into this scheme to onboard more firms to start new ventures.

Second, we will help our professional services SMEs become more digital. If you are a professional services SME, please continue to use our Productivity Solutions Grant and Enterprise Development Grant and platforms like IMDA's Chief Technology Officer-as-a-Service.

Third, we will help our companies create jobs and upskill our workforce to meet rising demands in sustainability.

EDB is partnering consulting and engineering services firms to set up regional sustainability Centres of Excellence. These centres will groom talent, develop sustainability expertise and drive R&D capabilities and activities for Southeast Asia.

Our Design Singapore Council has also developed the Good Design Research Initiative as well, to help designers and firms like Ginlee Studio and bioSEA design for environmental impact.

We will also help Singaporeans take on new jobs in the professional services sector by reskilling and redeploying workers through initiatives like our Career Conversion Programmes. For example, if you are looking to upskill and explore new roles in the accountancy sector, you can approach the Accountancy Careers Hub to pick up new skills and receive career guidance to advance your career within the industry.

1.45 pm

With these ITM 2025 building blocks in place, our professional services sector is looking professional and bright!

Just as our Professional Services sector is distinguishing itself globally, a vibrant tourism scene will also differentiate us from other business hubs. In the next decade, we will build our tourism sector in three ways.

First, we will continue to refresh and invest in new products and events. Our tourism sector received just over S\$2 billion of new investments and reinvestments last year, even during the pandemic. This reflects strong confidence in our competitiveness as a top tourism destination and ensures we continue to have new and updated hotels, attractions and events.

We will also partner world-class event organisers and frontload our investments to build a strong leisure and business events pipeline that appeal to different interests and sectors. This year, we welcome international leisure events debuting here, such as Van Gogh: The Immersive Experience and Sneaker Con Southeast Asia; and will witness the return of top business events like Gastech Exhibition & Conference.

As SportSG announced last November, Singapore will also host the inaugural Olympic Esports Week in June. This has the potential to grow Singapore as an eSports Hub, attracting investments, creatives and talents in an emerging sector.

Second, we will continue to build our tourism businesses' tech capabilities and workforce. We will partner industry to create virtual experiences and experiment with extended and augmented reality to complement real-world offerings. Singapore Tourism Board (STB) and Gardens by the Bay are currently trialing the Lost Fairy, an augmented reality storytelling experience. Visitors at the Floral Fantasy are transported into a magical fantasy world, providing a refreshing and gamified visitor experience.

We will also continue to help our tourism sector use tech to raise their productivity. By end-March, 90 hotels, which covers about 40% of Singapore's hotel room stock would have adopted self-check-in solutions that are integrated with STB's E-Visitor Authentication system. This system uses facial recognition technology to authenticate guests' identities, verify the validity of their stay and automatically transmit relevant data to the Immigration & Checkpoints Authority (ICA). Guests will experience a more seamless check-in process with waiting time shortened by up to 70%.

We will also continue to prepare our tourism workers for post-pandemic recovery. Our Enhanced Training Support Package provided close to 60,000 training places by end-2021. When borders reopened last year, STB and NTUC's e2i launched our Tourism Careers Hub to provide career coaching and employment and training support for our tourism workers. As of end-2022, more than 500 workers were placed into our tourism sector.

Third, we have ambitions to be a globally known sustainable urban destination. Last Friday, Senior Minister Teo spoke about our industry sectoral roadmaps that guide companies in their sustainability journey, including for tourism. Ms Foo Mee Har also asked about developing sustainability roadmaps.

Last year, we launched our Hotel and Meetings, Incentives, Conferences & Exhibitions (MICE) Sustainability Roadmaps to help both these sectors build new green skills and track their carbon footprint. Tech has also played a part in greening our tourism sector. For example, Pontiac Land Group partnered a local startup under our Singapore Tourism Accelerator to pilot a user-interface platform that integrates data on energy, water, waste and carbon emissions across Pontiac Land's four properties in Singapore and helps them to monitor their sustainability efforts.

And with that, I am proud to announce that Singapore has recently been certified as a sustainable destination based on the Global Sustainable Tourism Council's Destination Criteria. What does this mean? This certification validates our policies in stewarding Singapore to become a sustainable urban destination by 2030, in line with our Singapore Green Plan 2030.

I am also happy to share that Sentosa Development Corporation will be making our Lazarus Island a light touch destination over the next three years, where visitors can experience its rustic charm while minimising their impact to biodiversity and the environment.

We will start this April, by launching Tiny Away Escape @ Lazarus Island by Big Tiny, comprising five eco-tourism accommodation units on the island. Big Tiny operates sustainably through using renewable energy, energy efficient appliances and a biodigester which converts food from waste to compost on-site within 24 hours. In the coming months, we will also launch other offerings at Lazarus Island like non-motorised water activities and also glamping. So, come visit us!

I hope our continued investment in our tourism businesses and workforce will give Members confidence that our tourism businesses are well-equipped to thrive.

Our efforts, to green our tourism sector is part of our larger plan to tackle climate change. We remain committed to achieve net zero emissions by 2050 and have taken decisive steps towards our climate goals, which brings me to our Green Economy.

Prof Koh Lian Pin asked about the transition framework for companies in emissions-intensive trade-exposed sectors. The framework aims to help our businesses transition into low-carbon operations, while mitigating the risk of carbon leakage, which could happen when companies shift operations to other jurisdictions with lower or no effective carbon prices. I would like to assure Prof Koh that the allowances will only be for a portion of companies' emissions. It will be determined based on internationally recognised efficiency benchmarks, where available; or the facilities' decarbonisation plans that are aligned with our net zero commitments.

We are engaging affected companies on details of the transition framework, including how to apply these efficiency benchmarks. We will finalise these details ahead of changes to the carbon tax regime taking place in 2024.

Ms Foo Mee Har, Ms Jessica Tan, Ms Janet Ang and Prof Koh asked how we are helping businesses transition to a low-carbon future and equipping our workforce for jobs in the green economy. Members also asked how we are helping our SMEs embark on decarbonisation, carbon accounting and sustainability reporting.

We aim to transform our economy, work with the international community to achieve our collective climate targets and remain relevant in a low-carbon future. Our Green Economy Strategy will help our businesses do so. How?

First, as we digitalise our economy, we are also greening our businesses and industries. We will extend the enhanced support under our Enterprise Development Grant (EDG) for sustainability projects, to encourage more local companies to identify and seize opportunities in the green economy. Sustainability projects will continue to receive funding support of up to 70% for three more years. Other projects under EDG will revert to a support level of up to 50% from April this year, along with the Productivity Solutions Grant and Market Readiness Assistance scheme.

Sustainability reporting is increasingly important for companies to demonstrate their sustainability performance and commitment to the environment. Consumers and investors want greater transparency through sustainability disclosures. They are more conscious of the environmental and social impact of their products and investments. Companies can start by measuring carbon emissions, which will enable them to monitor, improve and subsequently report their sustainability impact.

If you are an SME keen to measure your carbon emissions, please explore EnterpriseSG's Productivity Solutions Grant. EnterpriseSG and Infocomm Media Development Authority (IMDA) will also continue to explore ways to support more advanced solutions through the Advanced Digital Solutions scheme, which we will announce details for in the second half of 2023.

EnterpriseSG will also work with Accounting and Corporate Regulatory Authority (ACRA) and industry partners to develop programmes to help enterprises embark on sustainability reporting. We will also help businesses strengthen their knowledge on sustainability through courses and new playbooks. EnterpriseSG will develop new Enterprise Sustainability Programme (ESP) thematic courses in topics like Decarbonisation and Sustainable Finance, and expand the number of ESP Foundational Course partners. We will announce new course providers and the new courses will commence in the second quarter of this year.

To complement this, EnterpriseSG will also develop playbooks for businesses to learn more about sustainability topics and how to take steps to become more sustainable.

Ms Foo Mee Har also suggested building knowledge-sharing platforms. She would be pleased to know that EnterpriseSG will set up a sustainability website for enterprises to access such resources.

Ms Foo also suggested helping companies test-bed new ideas and experiment with new technologies. In November, we launched Green Economy Regulatory Initiative (GERI) to speed up innovation in the green economy. There will be more details there.

Mr Derrick Goh asked how we are positioning Singapore as a leading international green hub. We are building our credentials as a carbon services and trading hub. We are now home to more than 80 organisations providing carbon services – the highest concentration of service providers here in Southeast Asia. We partner other countries to develop trusted and robust international markets for carbon credits. This will increase investments, create jobs in the green economy and support global decarbonisation efforts. These efforts will make us a credible sustainability services hub, with a strong ecosystem for carbon services, green finance, sustainability reporting and professional services.

Finally, we will continue to prepare our workers for the green economy, a point Ms Mariam Jaafar raised. Minister Gan already announced the new Green Skills Committee.

Mr Chairman, in conclusion, our journey may be fraught with challenges but it is also filled with opportunities. As we write the next chapter of our economic story, we must build on our existing foundations, yet be bold enough to trailblaze new industries in this new era.

Our edge in digitalisation and sustainability will help us achieve our Manufacturing and Services 2030 visions. This will enable our businesses to capture new markets and position Singapore as the gateway to Southeast Asia, creating good jobs and opportunities for Singaporeans.

While we attract new investments here, we must also help our local and heartland enterprises compete globally. Next, Minister of State Low Yen Ling will share how we will support our enterprises to weather the economic challenges and move forward together.

The Chairman: Minister of State Low Yen Ling.

The Minister of State for Trade and Industry (Ms Low Yen Ling): Mr Chairman, Minister Gan Kim Yong and Second Minister Tan See Leng have both shared about the Enterprise 2030 strategy. The vision and the plan is to build a vibrant ecosystem of Singapore enterprises that are future-ready and globally competitive. Let me elaborate on how we will stand behind our Singapore enterprises and support them on their journey to becoming stronger and better.

Mr Shawn Huang asked about how Government has supported businesses throughout the pandemic. Throughout the crisis, the Government came up with many schemes to help businesses survive and adapt to the changing economic conditions.

First, we extended critical life support for major cost items that businesses needed to incur to stay up and running. We launched the Jobs Support Scheme (JSS) in Budget 2020 to boost wage support for employers to help them keep their local employees in those uncertain times. Members would remember, from the start of the pandemic till March 2022, the JSS paid out a total of \$28.1 billion to 180,000 employers.

Second, we provided financing support to help ease the cashflow and financing constraints of businesses as they faced slowing economic growth, weaker trade and higher prices. For example, we introduced the Temporary Bridging Loan Programme (TBL), which supported \$23 billion worth of loans to more than 30,500 companies.

Third, we enhanced our assistance for business transformation which was important for the survival and growth of our enterprises. Between 2020 and 2022, a total of 55,500 local companies embarked on productivity, capability development and internationalisation projects.

This year, we expect global growth to moderate amid tight financial market conditions and elevated energy prices as mentioned by Minister Gan and 2nd Minister. As a result, business costs and cashflow constraints remain top of mind for our SMEs. We understand that being able to access financing is critical for our SMEs, critical for our businesses, as Mr Shawn Huang, Mr Derrick Goh and Ms He Ting Ru have highlighted in their cuts.

I want to assure Members that MTI and our economic agencies – we will not let up our efforts to ensure that enterprises have suitable access to financing. The Enterprise Financing Scheme (EFS) launched in 2019 to support companies in their various stages of growth has aided thousands of businesses. In 2022, 12,000 businesses secured financing through Government schemes like the EFS and the Temporary Bridging Loan Programme. Ninety-nine percent of these companies were SMEs and the majority, or more than 80% of the applicants were successful in getting the funds they need.

As Deputy Prime Minister Lawrence Wong announced in his recent Budget speech, we will extend the prevailing enhancements to the various schemes under the EFS by one year, until 31 March 2024. The schemes are namely the EFS-SME Working Capital Loan, EFS-Trade Loan and EFS-Project Loan. Let me elaborate.

We will extend the current enhanced maximum loan quantum parameters of \$500,000 for the EFS-SME Working Capital Loan and \$10 million for the EFS-Trade Loan. For the EFS-Trade Loan, we will also maintain the current enhanced Government risk-share level at 70%. The extension of these enhancements will help our enterprises cope with higher working capital and cashflow needs, given the current

economic uncertainties and supply chain pressures that has led to lengthened payment cycles.

Furthermore, we will extend the period of support for domestic construction projects under the EFS-Project Loan scheme. As the construction sector is still recovering from the pandemic, we will continue to support them to cope with the higher costs of construction materials. This will enable our construction companies to secure vital financing to carry out existing projects and secure new ones, as construction activity steadily picks up the pace towards pre-pandemic levels.

All of the enhancements that I have mentioned, the enhancement to our financing schemes will help our SMEs and businesses to cope with near-term cashflow constraints and secure necessary financing for different business needs.

The EFS-Venture Debt scheme was introduced in 2015 to help catalyse the Singapore market for venture debt, which is a form of alternative debt financing typically for high-growth startups. To expand our support to a wider range of financing tools, the Government will enhance the EFS-Venture Debt programme to include venture debt loans that is backed by RCPS, which is Redeemable Convertible Preference Shares. This will benefit startups that require more flexible loan repayment plans, including early-stage and high-growth startups in fast-expanding sectors, such as deep tech.

Mr Chairman, the COVID-19 pandemic and the start of the Ukraine-Russia war last year have led to a heightened business cost environment in many parts of the world. Domestic energy and electricity prices are likely to remain elevated in the near term, as the global energy market stays volatile.

On the back of steeper electricity and fuel costs, we launched EEG, Energy Efficiency Grant, five months ago in September 2022. This grant provides local enterprises in the Food Services, Food Manufacturing and the Retail sectors with up to 70% support to invest in energy-efficient equipment in pre-scoped categories, such as LED lighting, air conditioners and refrigerators.

I would like to assure Mr Derrick Goh that we are all committed to supporting companies across all sectors to become more energy efficient. The EEG complements our wide range of energy efficiency initiatives. For instance, the National Environment Agency (NEA)'s Energy Efficiency Fund supports businesses in the manufacturing sector, while the Building and Construction Authority (BCA)'s Green Mark Incentive Scheme for Existing Buildings 2.0 covers building owners. In addition, we have the Resource Efficiency Grant for Emissions which targets emissions-intensive facilities, such as manufacturing facilities and data centres.

On top of all these grants, we have the Energy Efficiency Technology Centre, which is a collaboration between NEA and SIT, the Singapore Institute of Technology, that help our SMEs make informed decisions on the measures they can take to improve their energy efficiency.

As Deputy Prime Minister Lawrence Wong announced in his Budget speech, we will extend EEG by one year till 31 March 2024, to help our businesses cope with higher electricity prices. This will also enable companies in their transition to a lower-carbon future. The Ministry of Sustainability and the Environment (MSE) will provide more details about the Government's plans for NEA's EEF. I want to assure all Members that we are taking a holistic, whole-of-Government approach to encourage our businesses to adopt energy-efficient practices.

I am glad to report that many SMEs in the Food Manufacturing, Food Services and Retail sector, are tapping on EEG. Since its launch five months ago, we have received more than 1,000 applications from nearly 500 companies for EEG. Amongst them is Mexipolis Pte Ltd. This is a F&B business, which used EEG to buy an energy-efficient cooking hob for their restaurant that could cut their energy cost of cooking by some 30%. Another company is food manufacturer Soltem Foods Pte Ltd, which bought energy-efficient refrigerators to reduce their power bills. I want to assure Members that MTI and all our economic agencies review the effectiveness of our various measures regularly and monitors the economic conditions closely. We will not hesitate to finetune our schemes or introduce new measures when the need arises.

I have shared the Government's plans to bolster support for enterprises in the year ahead. I would like to assure the House and Mr Derrick Goh that we are continuing to ensure that enterprises can easily identify and access the support schemes that they may require. Since 2020, the GoBusiness portal has provided our SMEs with one-stop access to more than 100 Government support schemes and information on more than 200 licences that is issued by some 30 Government agencies. So, anyone starting a business can easily incorporate their company's business using the GoBusiness portal, as well as directly apply for the licences they need, all at their fingertips.

The portal's e-Adviser feature helps the businesses to identify the relevant support schemes for their needs, from eligibility criteria for grants and loans, to tax incentives and even business solutions. Last year, 40,000 businesses benefitted from the help that GoBusiness portal offers to select and apply for the right support scheme. So, all this done at our fingertips, which translate to cost savings and time savings, which are very critical for SMEs owners.

Mr Chairman, Minister Gan spoke about the importance of taking a hard look at how companies can transform their businesses to take advantage of new growth opportunities. We strongly encourage all Singapore enterprises who are looking for support to grow their business, to scale their business, to get onto the GoBusiness.gov.sg to tap onto the available help.

In my Committee of Supply (COS) speech last year, I talked about how the heartland enterprises constitute an important fabric of our society, because they inject vibrancy into our neighbourhoods, they provide jobs and opportunities for promising local businesses to grow. In a midst of a changing consumer and enterprise landscape, heartland enterprises need to stay relevant and competitive.

To energise and support our heartland shops, we announced a four-year initiative called "Our Heartland 2025". Over the past 12 months, Our Heartlands 2025 have made great strides across three focus areas: one, deepening the digital and manpower capabilities of heartland shops; two, upgrading the capabilities of the trade associations and chambers (TACs) to better support the enterprises; and three, revitalising the heartlands to improve liveliness and attract more customers into our heartland shops, our precinct.

As Mr Derrick Goh pointed out, there still lies a great potential for heartland enterprises to innovate, digitalise and to build capabilities. The transformation of our heartlands is a multi-year effort, and we will continue to help our heartland enterprises sharpen their competitive edge and improve their skill. Let me now quickly highlight two core capabilities that the Government will help our heartland enterprises to grow this year.

Firstly, digital capabilities, I am happy to announce that we will press on with the Heartlands Go Digital 3.0, following the sustained success of the Heartlands Go Digital programme. Heartland enterprises have made significant progress to upgrade their digital capabilities since the launch of Heartlands Go Digital in October 2020.

Today, nine in 10 heartland shops across Singapore offer at least one e-payment solution. In addition, two-thirds are onboard various digital platforms, such as Google Business Profile, Carousell, Fave, Shopback and so on, to serve their customers.

Let me now cite the example, World Tea House, which is a heartland shop in Tampines that specialises in fruit tea drinks made from fresh ingredients. This shop participated in the Heartlands Go Digital programme in 2022 last year to onboard their business onto the Fave digital platform. Within just six months, World Teahouse observe an average 25% increase in a customers' spending per e-Fave transaction.

The use of Fave eCards allowed the tea house to reach out to the platform's large and younger consumer base. While many heartland enterprises are content with their current suite of digital solutions, some are ready to do even more. Heartlands Go Digital 3.0 will expand partnerships with new private sector partners and Institutes of Higher Learning (IHLs) to deepen the digital and manpower capabilities of our heartland shops across a holistic range of capability development areas. And this includes digital marketing, visual merchandising, service excellence and financial management know-how provided through business advisory services, in-shop training and group-based upgrading projects across different precincts and trades.

Second, innovative capabilities. We want to encourage more innovative shops to embark on product or business model innovations. And this will boost the revenue of heartland shops and attract more footfall to the heartlands. We will launch the Heartland Innovation and Transformation Programme to support enterprises in their journey of growth in the heartlands.

In recent years, specific initiatives, such as the Heartland Innovation Challenge and Visual Merchandising Programme, have supported many heartland enterprises. Earlier on, hon Member Ms Janet Ang highlighted SOVEG, which is a type of meatless satay and Hot SpicyMama condiments, all during lunchtime. I thought I would top it off with a gelato example. This is a local company, a gelato shop that is called Denzy Collective and they are a heartland shop.

They collaborated with Tampines West Merchants' Association (TWMA) and Temasek Polytechnic to create fresh gelato flavours sustainably. How do they do so? Using blemished fruits supplied by the merchants in Tampines West, Denzy Collective transformed these ingredients into a new, exotic flavour of gelato called Christmas Orange. And with the help of Temasek Polytechnic, the new gelato was launched with very attractive branding and marketing.

I know it is 2.00 pm, hang in there. And to let our Members savour this very refreshing innovation, we have arranged for Denzy Collective's Christmas Orange gelato to be served in the Parliament's Members Room immediately after MTI's COS.

We hope all the Members will enjoy it and continue to extend your support to all our heartland enterprises as they strive to improve, innovate and delight their customers. Mr Chairman, I have set aside two cups for you, to thank you for your chairmanship.

Building on the momentum of all these efforts, we hope to spur greater innovations and entrepreneurships in our heartlands. The Heartland Innovation and Transformation programme, or HIT for short, will help aspiring heartland entrepreneurs to test bait innovative ideas in a conducive innovation ecosystem. Through this programme, we aim to address two specific challenges that heartland enterprises continue to face: one, access to shop and retail spaces in heartland precincts to test innovative ideas; and two, access to resources for innovation.

First, we will construct and make available modular temporary spaces in mature heartland precincts. Under the HIT initiative, aspiring and innovative entrepreneurs can use these spots to test out new business ideas. We will first pilot this at Ang Mo Kio Town Centre, which we envision to be a Heartland Innovation and Entrepreneurship Town. This will complement HDB's efforts to provide access to flexible shop and retail spaces across precincts. Senior Minister of State Sim Ann will announce the details of the scheme as part of the Ministry of National Development's COS.

Second, we will provide a conducive ecosystem to build enterprise innovation capabilities and scale. This includes a range of innovation and entrepreneurship courses conducted by partners, such as IHLs and the Heartland Enterprise Centre, Singapore (HECS) to build our enterprises' know-how and knowledge. Furthermore, we will offer opportunities for heartland shopkeepers and merchants to learn from the best practices of successful entrepreneurs who are familiar or well-versed in the heartlands, and know the merchants' association and the community well.

Mr Chairman, as we broaden our support for heartland enterprises, we are also deepening partnerships with key partners to boost our drive for transformation. All over the world, the pace of digital acceleration is happening. Our enterprises must continue to adapt and transform to stay relevant and competitive.

The Government recognises that it cannot drive business transformation efforts alone. We need like-minded partners to work with us to multiply our outreach and support more enterprises. Central to this approach are our trade associations and chambers (TACs). TACs will continue to be the torchbearers for new industry initiatives and we remain committed to strengthening these partnerships with them.

2.15 pm

Several Members of Parliament, including Mr Raj Joshua Thomas and Mr Desmond Choo, asked about how we can boost the capabilities of TACs and how these organisations can take on more roles in the industry and enterprise transformation.

We have been doing this and will continue to do more.

In 2022, the Singapore Chinese Chamber of Commerce and Industry (SCCCI) launched the TAC Competency Framework and Growth Model that Mr Thomas talked about. This provides resources for TACs to identify existing gaps and the critical skills they need for their growth journey.

At the COS last year, I also announced three initiatives to strengthen our TACs' human capital and digital capabilities. I am happy to update and share that these programmes have gotten off to a good start.

For example, the next generation of TAC leaders comprising 10 TAC Fellows from eight different TACs are being groomed and developed under the TAC Fellowship Programme. As part of the six-month programme, they will co-create solutions together to address common challenges and develop ideas to capture new opportunities.

Our network of 11 SME Centres partner our TACs to uplift and support our SMEs. Last year, the SME Centres helped more than 27,000 enterprises through their business advisory services and capability building workshops.

Moving forward, we will double up our existing efforts to support our TACs in their industry development. Let me elaborate on our plans to leverage two key opportunity areas.

First, enterprise digitalisation. We will launch the Digital Transformation Programme this year. The programme will assist our SMEs in developing their digital transformation roadmap, curate suitable technology solutions and access training support to digitalise.

Through SGTech, we will intensify our bottom-up industry efforts to spur enterprise digitalisation with a "3S" framework: (a) strategy; (b) solution; and (c) skills.

This new centre represents SGTech's strong commitment to spurring enterprise digitalisation. It also builds on SGTech's past efforts like its partnership with Meta and Enterprise Singapore to help local SMEs leverage technology to transform and prepare for the post-COVID-19 economy.

The other key opportunity area that we will focus on is sustainability. The Singapore Chinese Chamber of Commerce and Industry (SCCCI), the Sustainable Energy Association of Singapore (SEAS) and SGTech formed a Sustainability Alliance last year. Moving ahead, the Alliance will kickstart initiatives to uplift the sustainability capabilities of other TACs and their members.

First, it aims to enable SMEs to start tracking their carbon emissions. In addition, SGTech will develop a guided programme for SMEs to reduce their environmental footprint. The Sustainable Energy Association of Singapore will advise on energy solutions. We encourage other TACs to join in and tap on this Sustainability Alliance.

Mr Chairman, there are many pockets of opportunities for enterprises to develop their competence, expand overseas and transform. The various initiatives helmed by our TACs are vital stepping stones to attain greater heights. We would like to spur our enterprises to take advantage of these opportunities.

On this note, the Government is also committed to deepening our partnership with the industry and TACs to enhance consumer protection. Fair trading practices and strong consumer confidence are key pillars of a healthy economy.

MTI regularly reviews our consumer protection regime to ensure that consumers' interests are safeguarded. I would like to thank President of the Consumers Association of Singapore (CASE), Mr Melvin Yong, for his useful suggestions to address consumer concerns and emerging issues in areas such as e-commerce.

As we continue to examine the current policies, we are prepared to do more to strengthen our consumer protection regime without affecting well-intentioned businesses. We will continue to work closely with our partners, including CASE, in this effort.

Mr Chairman, as we close ranks in partnership with our enterprises and our TACs, we have made steady progress on our journey to transform and to seek new growth potential. Together, we can face the challenges ahead and ride new waves of opportunity and new waves of change as one people, in partnership and in solidarity, to overcome and succeed as one.

The Chairman: Clarifications? Mr Liang Eng Hwa.

Mr Liang Eng Hwa: Thank you, Sir. Minister Gan spoke about MTI's effort to strengthen trade connectivity and support for our companies going international. Given our external developments and as part of the Resilience Measures, I think it is important to also anchor ourselves as a hub for global traders.

I would like to ask Minister Gan about Trade 2030 that he announced last year. How has that helped us grow our trade volumes and also expanded our external trade with the rest of the world?

Mr Gan Kim Yong: Mr Chairman, let me thank Mr Liang for his question.

Indeed, I talked about Trade 2030 last year. This year, I had intended to give an update, but the Chairman is very strict on guillotine times. So, I do not have the space to squeeze in —

The Chairman: Two cups of ice cream and you will get two minutes.

Mr Gan Kim Yong: So, in exchange for two cups of ice cream, he has given me two more minutes. I will use these two minutes to explain our Trade 2030 strategy.

I introduced it last year and we have made good progress. In fact, the last month, we just launched our ITM 2025 for wholesale trade. Particularly, we also have brought in several global traders, like Mr Liang pointed out, that will help us anchor ourselves in the global supply chain.

One of them is Ecopetrol, which is the largest oil company in Colombia. They have decided to set up Asia Pacific headquarters in Singapore to conduct their trade in the region. Another company from France, Sucden, which is in soft commodities — they have also set up Asia Pacific headquarters in Singapore as well as set up a new division dealing with grains and oil seeds.

I think these are interesting developments. Despite COVID-19, they have decided to expand their trade network and use Singapore as an anchor.

There are also new opportunities emerging from sustainability. Biofuels, for example. We have a Spanish company called Cepsa, which has also expanded their operation in Singapore and is looking at using Singapore as their Asia trading hub. These all work towards strengthening Singapore's position as a trading centre.

We are also encouraging our traders to not just do trade as traditional trading activities but to look at innovation, develop new products of their own so that they become the leaders in this particular field that they are specialised in.

One example is Olam Food Ingredients. This company has been working on innovation with our research institutions and tried to develop new products. They are also working with our restaurants to see how they can develop food that is more sustainable, that caters not only to the Asian palate but are also more convenient and healthier editions of the food, in line with the Healthier SG approach.

I think these are innovations that we will encouraged our traders to embark on so that they develop their own products and services and become leaders in their own field. I think through this, we will continue to grow our trading hub status.

The Chairman: Mr Saktiandi Supaat.

Mr Saktiandi Supaat: Thank you, Mr Chairman. I would like to ask the Ministry two or three clarification questions, if I can, Chairman.

The first is in regard to the Green Skills Committee that the Minister mentioned earlier. How is it different from the Jobs-Skills Integrator? Is it working in tandem? I think what would be interesting would be to note what age groups will be impacted, whether they will benefit from this as well? Because I think Minister of State Alvin Tan mentioned that there are 850 internships for ITE students. So, the question is whether there will be ITE absorption into the manufacturing sector and also into the green sector.

My second question is in regard to Minister Tan's answer. I think he elaborated about the green transition, the carbon transition, the energy transition. My question is going forward, beyond this Budget, will there be any additional spending on physical infrastructure needed for the energy transition as Singapore prepares to absorb some of this solar and other alternative energy inputs coming to Singapore going forward? What is our strategy on that front and our spending needs?

Mr Alvin Tan: I thank Mr Saktiandi for his clarifications. The Green Skills Committee (GSC), as the Minister has mentioned, will be set up by the second quarter of this year. How is it different from Jobs-Skills Integrators? Jobs-Skills Integrators will serve sectors which are a little bit more fragmented and less regulated, such as precision engineering, retail, wholesale, trade.

The GSC is different in such that the focus will be on emerging green skills. These are in areas of green growth opportunities such as smart grid technology, even for workers that are graduating from Institutes of Higher Learning (IHLs) or ITEs, for example, in electric vehicle (EV) technology. Those are very emerging technologies.

The committee will need to map this green skills development with a framework and a training roadmap and size the implementation and training needs as the economy grows in this regard.

The GSC will focus first on two green skill areas, as the Minister mentioned. First is on sustainability reporting and assurance and the second is on energy. Let me just dive very quickly into these two.

We are looking at skills on the first front – sustainability reporting, disclosures, advisory and compliance. So that is one sector, one first key area.

The second is on energy. We know that and we envision that there will be a demand for skills associated with generation storage and deployment of renewable energy, for example, battery energy storage systems design, modelling and simulation and distributed energy resources management.

So, sustainability reporting and assurance first because this is emerging and, of course, as infrastructure changes, energy as well.

The Chairman: Mr Desmond Choo. Sorry, Minister Tan.

Dr Tan See Leng: I will answer the second question. I thank the Member for his clarification. To support our energy transition, there are a couple of initiatives that we are doing.

One, obviously, is, as I have said in my speech, in terms of coming up with our energy market structure where we require the generation companies (gencos), in terms of the upgrading of CCGTs, to move to a more energy-efficient and lower emission, type of newer generation CCGTs. As a result of that we will request for proposals and interests.

The change in terms of the markets, in terms of our regulation, allows us to plant that capacity, in the event that our existing gencos do not want to participate in it.

If you talked about the kind of costing, at this particular point in time, given the fact that as a result of providing more market certainty to all of our gencos, we think that there is a higher chance of them participating in the RFP to build these new CCGTs.

On the second part of it, in terms of our resilience, given the heightened uncertainties, the volatilities in the energy market, we need to also ramp up our capacity for standby facility. For instance, we have a standby LNG storage facility to ensure that we will not in any way be compromised if there are shortages in terms of the global supply chain.

The third part is that we will also continue to invest in our grid development as well as energy storage systems and in terms of building interconnectors, when we import renewable energy from around the region.

We will be providing more insights throughout the year in successive meetings. I hope that gives you a bit of a preamble as to what is to come.

The Chairman: Mr Desmond Choo.

Mr Desmond Choo: Thank you, Mr Chairman. Just one point of clarification. I am very glad to hear that TACs have been helping our companies to digitise and be more sustainable. Can I check with Minister of State Low Yen Ling how the Ministry is helping TACs to play an advisory role to support our businesses to internationalise?

2.30 pm

Ms Low Yen Ling: Mr Chairman, I want to thank the Member, Mr Desmond Choo for his clarification. I had intended to respond to those questions that he mentioned in the cuts, but I sort of ran out speech time. So, allow me to very quickly and succinctly reply to him.

I want to assure Mr Desmond Choo and the Members that we are working hand-in-hand with our various TACs to support the growth and expansion of our Singapore enterprises overseas. For example, the Singapore Business Federation (SBF), they started the Global-Connect@SBF initiative in November 2019. And if you think about it, fortunately we started that before COVID-19 because that really helped a lot of companies to go overseas although the companies were here in Singapore.

Last year, Global-Connect@SBF advised and facilitated 2,800 SMEs in their efforts to expand overseas and helped enable 122 overseas business agreements for SMES. And under this Global-Connect@SBF, we set up three Singapore Enterprise centres, one each in Jakarta, Ho Chi Minh and Bangkok. And these centres are important one-stop shop that offers our SMEs business advisory, market information and business matching for their global growth.

I want to assure him that the Global-Connect@SBF has expanded its service offerings to help our SMEs better navigate the increasingly complex trade environment. For example, on top of advising our SMEs on how to use the Free Trade Agreement, Global-Connect@SBF will provide outreach and advise on customs compliance through workshops and Industry consultation clinics.

And with the reopening of international borders, we are certainly working hard not just in MTI but across all our economy agencies to spur more of our Singapore enterprises to take the first steps overseas to expand their presence in existing markets so that we can collectively develop a vibrant ecosystem of Singapore enterprises which are future-ready and globally competitive.

The Chairman: Mr Derrick Goh.

Mr Derrick Goh: Chairman, I thank both the Ministers and both the Ministers of State for their clear speeches. Indeed, I am encouraged to hear the continued push by MTI for SMEs to digitise.

Two quick clarifications. One is for the Minister of State's clarification on – and their assessment of the successes of the state of digitisation of our SMEs, given that there are very big ones, there are medium ones and there are small ones.

Second clarification for the Minister of State is, if there can be more proactive engagement with smaller SMEs, especially those who are keen to digitise but do not know how or where to, beyond the mere availing of portals as well as SME centres, can there be a more proactive push given that as SMEs do compete with each other too and may not be most keen to help each other in this regard.

Ms Low Yen Ling: Mr Chairman, I want to thank the Member Mr Derrick Goh for his question.

And we agree with him that in MTI and our economic agencies, we take a differentiated approach to support our companies, whether they are micro-enterprises or they are SMEs or larger local companies with the potential to become a Singapore Global Enterprise. And, for example, if I talk about the 15,000 heartland shops in all our precincts and it is really heartening that during COVID-19, they hunkered down, they worked with us and I want to say a big thank you to TACs like the Federation of Merchants Association Singapore (FMAS) that Mr Desmond Choo talked about and the Heartland Enterprise Centre Singapore (HECs) for working with us. Because they are very important opinion multipliers and like what Mr Derrick Goh mentioned, they are not only the voice of the companies but they will know the pain points and what are some of the emerging trends and opportunities.

And I touch on TACs because I always say that the TACs play a very important "ABC" role and the Government sees a lot of benefit and value in working closely with a TAC. And I think the various TAC chiefs will agree with us that in the last three years because we have to work together, bridge the communications to overcome COVID-19, the various series of heightened measures, we have now fostered a very strong working relationship with the TACs.

And the two announcements that I have mentioned, we will strengthen the nexus with SGTech, so that SGTech can also support the other TACs in facilitating and catalysing enterprise digitalisation, not just in a broadbased manner, but actually sectorial and sub-sectorial. For example, in the case of the heartland shops, we work very closely – our heartland division in Enterprise Singapore work very closely with FMAS and HECS to design the solutions that are suitable for heartland shops. And that is why we are very heartened that in less than – we launched the Heartlands Go Digital in October 2020, in less than 16 months, we saw that more than 90% of our heartland shops have at least one e-payment solution and more than two-thirds are on platforms, whether is it website, live-streaming, some of them are doing live-streaming and they are on e-commerce.

And last year, I cited Heng Foh Tong which is an herbal tea heartland shop. In the past, they relied on customers as footfall, physical footfall, but now, because they have come on board the platform, Heng Foh Tong products are sold in 10 countries. So, we are glad that we have this critical base of companies whether is it heartland shops, SMEs, larger local companies who see the benefits of going digital and now we will continue to work with them to push it further so that they can leverage on technology to scale to global markets.

The Chairman: Mr Alvin Tan.

Mr Alvin Tan: This is supplemental to Member Derrick Goh's question – SMEs that are currently new to digital technology can adapt or adopt startup digital packs under the SMEs Go Digital programme which helps SMEs to start right with foundational digital tools such as accounting or digital marketing. Mr Derrick Goh asked, about how many? Well, to date, more than 37,000 SMEs have signed up for this startup digital packs.

The second data point which is quite useful for his understanding is also a programme called Growth Digital, which helps SMEs expand into overseas markets. And SMEs can get a head start in this in going global by tapping on established B2B as well as B2C e-commerce platforms. And to date, more than 2,900 enterprises are transacting on these e-commerce platforms. We are growing this, we are helping them to digitalise and they are early indicators of success.

The Chairman: Mr Liang Eng Hwa, would you like to withdraw your amendment?

Mr Liang Eng Hwa (Bukit Panjang): Thank you, Sir. Allow me to thank Minister Gan Kim Yong, Minister Tan See Leng, Minister of State Low Yen Ling and Minister of State Alvin Tan for their super comprehensive replies and responses. I do not believe they come from ChatGPT, the responses. But we wish MTI every success in your vision 2030. So, with that, I beg leave to withdraw my amendments.

Amendment, by leave, withdrawn.

The sum of \$1,708,401,500 for Head V ordered to stand part of the Main Estimates.

The sum of \$7,967,036,100 for Head V ordered to stand part of the Development Estimates.

COMMITTEE OF SUPPLY – HEAD Q (MINISTRY OF COMMUNICATIONS AND INFORMATION)

(A vibrant economy and a resilient workforce)

The Chairman: Head Q, Ministry of Communications and Information. Ms Tin Pei Ling.

Building and Protecting Singapore

Ms Tin Pei Ling (MacPherson): Chairman, I beg leave to move "that the total sum to be allocated for Head Q of the Estimates be reduced by \$100".

Singapore has great ambitions to achieve a thriving digital economy and smart nation. In past Parliamentary debates, I argued that talent and data are, in my opinion, the most basic yet most important success factors. We need data to innovate and we need people to get things done. This remains true.

But along with new capabilities come new opportunities and challenges. For example, vast amounts of data could be used to train Artificial Intelligence (AI) to improve productivity and reduce human errors but it could perpetuate biases if we are not careful with the quality of data used. Scale and speed of how information can get transmitted online help to share knowledge and impart new skills regardless of where the parties are and when, and perhaps even rally people to raise resources to help strangers or foreign countries in crisis. But if misused, it can also propagate, extend and magnify harm to the innocent.

Therefore, legislation becomes a powerful tool to protect the vulnerable from harm online. It can provide clarity to what is considered harmful, what recourse does a victim have and who should be responsible for what actions needed. And on responsibility, it is increasingly clear that protecting users is no longer just the responsibility of the Government or the individuals, but platforms too have gained the expertise and perspective over time to join the fight against online harms.

With this understanding, the Online Safety Bill was passed in this House last year. Could the Ministry of Communications and Information (MCI) provide an update on the implementation progress thus far? What are MCI's next steps in ensuring the safety of Singapore users beyond social media services? For example, during the debate last year, I raised my concerns about having adequate protection in the Metaverse and the need for legislation and protection mechanisms to catch up with technological development.

We must protect our people online just as we do in the real world. But in doing so, we also need to calibrate carefully so that we do not inadvertently suffocate innovation or over-burden well-meaning businesses wanting to scale and thrive. This is also aligned to the spirit of Government's efforts in encouraging businesses to go digital in Singapore. Hence, it is important for regulations and compliance to be clear in its objectives, streamline processes and paperwork so that whatever is needed to be done addresses the objectives on point, not more than what is needed. Otherwise, we risk hampering smaller enterprises' digitalisation journey and lose out further, because large enterprises are typically better resourced to meet these requirements.

For example, how do we balance data protection and data for innovation? I will talk more about this in my other cut. And in encouraging enterprises or individuals to digitalise and upskill through monetary incentives, we need to ask might the application or accountability process be so tedious such that they end up remaining in their comfort zones and stick to just being "good enough" and avoid digital transformation altogether? Could the MCI share more about its efforts in removing barriers and encouraging Singaporeans and enterprises to go digital?

Government interventions can also shape market development. Schemes such as Tech Pass, TechSkills Accelerator (TeSA), Professional Conversion Programme (PCP) help to boost tech talent supply. Government expounding on the need for more tech talents and highlighting the specific profiles in demand serve to inform and influence students' decisions in what to major or specialise in. Such "intervention" is useful as it helps to connect the industry and education and align the demand and supply.

Sir, the digital future is upon us. The challenges and opportunities presented will require a wise and competent Government that can harness the power of technology to build Singapore while putting in place guardrails to protect our people. How then will the Government ensure a good balance between protection and facilitation?

Question proposed.

Cyber Addiction

Ms Hany Soh (Marsiling-Yew Tee): In a Straits Times article published in October 2014, it was revealed that an online survey conducted across 9,417 respondents in countries like India, Singapore, UK, USA, Germany and France found Singaporeans to be the second-most Internet addicted people in the world. Since then, I reckon the numbers of cyber addictions are likely on the rise, as Singaporeans in general have experienced longer screen time, having been cooped up at home during the circuit breaker, coupled with more home-based learning through laptops and tablets which are being introduced to our children and with more companies now being more supportive of telecommuting and flexible work arrangements for its employees.

I wish to ask, have any recent studies been done if the numbers are indeed on the rise and do we know which age groups are more prone to cyber addictions? What are the measures taken by our Government in countering cyber addictions, especially for youths and young children? How can MCI play a part in equipping schools, parents and the community at large in raising awareness on the risks of cyber addictions and the methods of prevention?

Digitalisation for Seniors

Mr Gerald Giam Yean Song (Aljunied): Sir, digitalisation has taken off in a big way in Singapore. Unfortunately, this has also left many elderly and less tech-savvy citizens behind. What takes digital natives a few seconds to complete can be painfully difficult for some seniors. Many struggle to come up with strong passwords and have difficulty typing them. Tapping a phone screen or double clicking a mouse poses dexterity challenges.

The solution, however, is not to run manual and digital services in parallel forever. That would negate the productivity benefits brought about by digitalisation. Instead, firms and Government agencies should provide in-person assistance to seniors to navigate their digital services.

2.45 pm

I am aware that ServiceSG centres have been set up to assist seniors with Government digital services. However, there are only six such centres, which may not be within easy reach of all residents. Can more ServiceSG centres be set up in every neighbourhood? More importantly, how is the Government raising awareness among residents of their availability? Are private sector organisations like banks expected to provide such services for their less digitally savvy customers?

Many seniors are already wary of using technology. The threat of scams amplifies their fears. While seniors are not the only victims of scams, they tend to feel much more vulnerable. Their adult children, Government advertisements and the media are constantly sounding warnings to them. That message has sunk in to such an extent that many of them avoid using digital services like Internet banking altogether, for fear of being scammed. However, without Internet banking accounts, they will encounter many roadblocks in an increasingly cashless society.

How is the Government tackling the challenge of getting seniors to embrace digital technology while also ensuring they are informed about basic precautions to avoid falling victim to scams?

Online Safety

Mr Baey Yam Keng (Tampines): Vulnerable groups are disproportionately affected by harmful online content which can include hate speech, cyberbullying, online harassment, disinformation, scams and fraud, and predatory behaviour.

We tend to assume that the vulnerable are the elderly who are digital dinosaurs. However, according to recent data released by the Singapore Police Force, young adults aged 20 to 39 made up 53.5% of all scam victims who were cheated of \$660.7 million in 2022.

Young people may be familiar with technology, using it every day but they may lack the maturity, life experiences and alertness to protect themselves. The frequent exposure will also increase the opportunities for those with malicious intent.

For example, children are at risk of being exposed to inappropriate content, such as violence, pornography, and extremist propaganda. We just learnt of the 15-year-old self-radicalised student who wanted to carry out knife attacks and behead non-Muslims in Singapore, as well as becoming a suicide bomber.

Women can also be targeted with online harassment and abuse, including threats of violence, sexual harassment and revenge porn.

People with disabilities may be targeted with online abuse and hate speech. They may also face barriers in accessing online content and services due to inaccessible web design and digital platforms.

LGBTQ+ individuals are also at risk of being targeted with hate speech and discrimination online. This can lead to feelings of isolation and distress and can contribute to mental health issues, such as anxiety and depression.

In 2020, I did an IG live chat with Keegan, a 19-year-old resident of mine who was undergoing hormone replacement therapy. Keegan was brave enough to want to share his journey in gender transition and how his family had supported him. While there were many voices of encouragement for him, I understand that unfortunately, Keegan also experienced online hate speech and attacks.

Overall, harmful online content can have a significant impact on vulnerable groups. The groups span a wide spectrum and their challenges and needs could be very specific. The Government should raise general awareness of these issues and take steps to protect vulnerable individuals from online harm. It is also important to work with the respective communities and organisations which are familiar with the subject matter. May I ask the Ministry for its strategies and plans in this area?

Archives for Legislative Use

Mr Pritam Singh (Aljunied): Thank you, Chairman. Sir, in the second half of last year, I wrote to the National Archives in Singapore to request two Government files, the challenge of attracting international talent and the evolution of the work pass framework. Both these documents were referred to by a writer in the bibliography of his book, "The History of the People's Action Party", which is now on public sale. The National Archives said that they did not have the documents but that they were in the hands of the Ministry of Manpower (MOM).

I wrote to MOM. However, MOM replied to say that it does not, as a general policy, grant public access to Government files that have not been made public through the National Archives. It also said that Members of Parliament similarly do not have access to Government files and can seek information from the Government through a Parliamentary Question. It also shared that for the book in question, the Ministry granted special permission to cite relevant information in some Government files, subject to conditions to do research in the writing of the book.

I find it incongruent that such information on important national policies can be extended to a researcher but not to legislators for whom the background to policy can be critical. Would the Government be prepared to loosen its criteria for request to such file, which have already been made conditionally public to others for research purposes to all sitting Members of Parliament?

The Chairman: Ms He Ting Ru, take your two cuts together, please.

Declassifying National Archives

Ms He Ting Ru (Sengkang): Thank you, Sir. When we talk about building resilience as a nation, we should also avoid hindering the public's ability to scrutinise and deeply learn about our history so that we and our children may develop a more precise understanding and draw insights from it to formulate better decisions for the future.

I would like to ask the Minister for an update on the number and proportion of Government documents that are at least 25 years old and are part of the public archives contained in a publicly accessible National Archives online.

First, if declassification continues to be slow, is the Government using or working on one day using new tech, like, AI, to accelerate the process? Secondly, I understand that request on National Archives online take up to 12 weeks. Why are these documents not automatically visible since they are already declassified? This lowers the barriers for research and will foster a broader ecosystem on the study of our history.

The Leader of the Opposition earlier spoke what the difficulties he faced when making requests to access certain Government files, despite the documents being made available to researchers previously. Could we thus refine the request process to make clearer the mechanisms available to individuals who wish to appeal against rejections of their requests, by allowing an independent process by which the appeal is adjudicated? This process can also take into account concerns about other decisions surrounding declassification issues.

When former Member for Aljunied GRC, Mr Low Thia Khiang, filed a cut on this topic in 2014, he noted that the 30-year rule was adopted by many countries, including the United Kingdom and Israel. Since then, the UK has completed the transition to a 20-year rule and Israel has moved to a 15-year declassification regime for most of its non-security-related foreign policy documents, while remaining sensitive to its current security situation. As Mr Low mentioned, we surely are in a better position than Israel.

Thus, it is that we repeat our call for such documents to be declassified, 25 years from the date of record and to make them freely accessible to all.

Government Advertising KPIs

Mr Chairman, in today's interconnected world, state agencies, like other public facing entities and corporations need to conduct outreach. This is understandable. Singaporeans need and deserve timely accurate and useful information about public services, and also about the work that our Public Service does.

What Singaporeans are less informed about is the effectiveness of public relations, outreach and advertising campaigns, run by state agencies. Campaigns and actions run on public money should be accountable to the public, not just in terms of whether there is wrongdoing. There is little indication that this is the case, but it is also about how the money is spent and how effective that expenditure is.

Responding to a Parliamentary Question posed last year, the Ministry of Communications and Information (MCI) estimated that Government spend \$150 million to \$175 million in advertising in FY2019, with increases of between 30% and 50% in FY2020 and FY 2021. MCI estimated then, for the first half of FY 2022, were between \$50 million and \$75 million.

Recently, Singaporeans have also noticed prominent advertising campaigns relating to Ministry of National Development (MND)'s efforts to keep public housing affordable. While public awareness and education efforts are necessary, these are still large sums of money. Additionally, the reply to the same Parliamentary Question above also notes that MCI does not track clicks and impressions as each Ministry is responsible for its own advertising budget and effectiveness.

It appears to be a missed opportunity here. MCI should assess the effectiveness of the various different campaigns and outreach programmes across Ministries into which Singapore puts our funds. This will give a better holistic view on how these programmes and campaigns are evaluated and thus adjusted to improve effects or, if necessary, cut for under performance. What are the obstacles in either tracking the effectiveness of these campaigns or publishing reports of KPIs? How else could we address the concerns above? After all, fiscal prudence also means that we need to be able to maximise the bang for our buck, when it comes to spending public funds.

The Chairman: Mr Leon Perera, both cuts, please.

Government Advertising

Mr Leon Perera (Aljunied): Mr Chairman, extrapolating from a Parliamentary Question reply, the Government's total spending on advertising in 2022 may have been well over \$100 million. I will make two points.

Firstly, there has been concern expressed about an SGAG Instagram post that was only labelled "#sp". The Instagram function to show that an IG post is sponsored was not used in that particular instance.

For transparency, would the Government agree to have clear labels on all advertisements indicating the responsible agency? After all, political ads are required to have labels issued by the Protection from Online Falsehoods and Manipulation (POFMA) Office.

Secondly, I agree that there is a legitimate public interest served in Government advertising that serves to nudge citizens to do beneficial things, like take up healthy habits or apply for a useful scheme, for example.

But some advertising seems to not embody a nudging intent. Some ads seem to be aimed more at fostering "feel good" vibes towards an agency, and some even seem aimed at persuading the public to see the Government in a good light, with no clear public interest served in terms of ultimately nudging positive behaviours.

I only have time for one example. This is an advertisement on the housing programme. This ad, referred to by the hon members Mr Leong Mun Wai and Ms Hazel Poa earlier in this House, is aimed at persuading the public that, "We are committed to keeping HDB flats affordable and accessible for Singaporeans" and presents various factoids about Build-To-Order (BTO) launches and prices.

But what is the public interest served here? To raise awareness so people apply for BTOs? But is this necessary? The application rates for BTOs are already very high and rising. Is there a need to raise awareness? So, what behaviour exactly are we nudging with this ad?

Moreover, the ad seems more aimed at persuading people that the Government is doing a good job, keeping housing affordable and accessible, which is an opinion about public policy and one might say, politics.

If the reply is that such advertising raises public confidence and trust in the agency or Government and hence, conduces more public participation in schemes, surely, the best way to establish trust is good service delivery and surely that trust cannot be bought with advertising.

So, as to free up more revenue for the Budget, I would suggest that ads be run only where there is a measurable behavioural trade-off. A return on investment test should be applied. Revenue should not be spent on ads that generate "feel good" vibes or which aim to persuade people that the Government is doing a good job. The latter is more akin to political advertising and should not be funded with public money.

Advertising Standards

Mr Chairman, the practice of making false environmentally-friendly claims in advertising is dubbed greenwashing. In Singapore, it would seem that action is very rarely taken against advertisers who make dubious claims with the intent to deceive consumers that their products are "environmentally-friendly", "carbon neutral" and so on.

Some countries have legislated on this issue. For example, France's Climate Law prohibits companies from advertising that their products are carbon neutral, unless they can provide public information to back that up. South Korea's government is simplifying its process to fine companies that make false claims about environmental impact. The UK government has created a Green Claims Code and done some enforcement around that.

While what counts as greenwashing is not always clear, I would like to propose some solutions here.

First, our Singapore Code of Advertising Practice should explicitly cover greenwashing, with the Government developing legislation to bring clarity on what constitutes greenwashing in advertising. Consumers Association of Singapore (CASE) and industry bodies can support this, with the Government playing an arbiter role and also taking reference from definitions found in laws overseas while adapting them locally.

When ready, we can develop relevant legislation, which could include the mandatory provision of supporting documents for companies that choose to make green claims.

The Monetary Authority of Singapore (MAS) is an early adopter of initiatives to tackle greenwashing, which could provide lessons. In 2022, MAS announced that funds that are sold to retail investors in Singapore under the label of meeting environmental, social, governance (ESG) standards will now have to back up their claims with new disclosure and reporting guidelines.

Aside from legislating and enforcing against false advertising under the Consumer Protection (Fair Trading) Act and sector-specific laws like the Estate Agents Act and the Medicines Act, much more also needs to be done on engaging the public to remind them that spotting and reporting potential offences is a public good and will benefit society.

Engagement will also better help us understand what the key on-the-ground issues with greenwashing are, even as we eventually aim to legislate and enforce against greenwashing.

Trusted Content

Ms Jessica Tan Soon Neo (East Coast): Mr Chairman, the advancement in technology has given rise to people accessing news online both from mainstream media as well as other sources.

3.00 pm

Based on a survey conducted in Singapore from the end of January to February in 2022, 83% of respondents indicated that they get their news online, including through social media.

Public funding is being provided to our local media organisations to enable them to better service audiences in a digital age. There is increasing competition for eyeballs online.

What are our local media organisations doing to capture the attention of news readers online to retain and grow share?

With the potential of harmful influences online, how are our local media organisations building and strengthening their capabilities to engage audiences online and to maintain trust, especially amongst younger demographics?

Digitally-inclusive Singapore

Ms Tin Pei Ling: Sir, the digital future is certain. But we must not inadvertently create a new inequality or widen the existing gap, between those who can access and exploit the new digital technologies, and those who cannot.

Our digitalisation efforts today are for the youths today and seniors tomorrow. But we still have a generation of senior Singaporeans who struggle to keep up with the pace of digitalisation, despite everyone's best efforts. Some are fearful of being left out or left behind totally.

Hence, as we digitalise, we must continue to help the more vulnerable or less privileged amongst us to: one, maintain access to critical services and information online/offline; two be empowered with data connection and devices if they wished to go digital; three, be equipped with the right skills; and four, build up confidence in the digital world.

The Government must continue to make available support and schemes that address these four areas. Therefore, I would like to ask:

How has the Government progressed in ensuring Singaporeans have access and have the know-how to harness the benefits of going digital?

What are the "wins" and opportunities for improvement?

Therefore, the Government should also design and proliferate solutions that connect seniors to the wider community, and design it in a way that is easy for them to use and not daunting. In the MacPherson constituency, we tried doing this with the MacPherson Care app. It has not easy, but we will continue to persevere. But we should also encourage such efforts across the nation too.

Therefore, I would like to ask: how will the Government encourage similar ground-up community initiatives to solve real life problems?

Information Literacy

As we continue on our journey towards digitalisation, information literacy is increasingly important. Legislations such as the Protection from Online Falsehoods and Manipulation Act (Pofma) has accorded the Government the ability to respond to egregious falsehoods that are against the public interest. However, fake news, malicious falsehoods and scams continue to sprout, 就好像打不死的蟑螂.

A whole-of-society effort is needed to combat misinformation. Educating the public on how to discern fake news and falsehoods such that it becomes a natural intuition is the best way to inoculate our population against the poison of falsehoods.

Currently, there are lessons in school to raise awareness on online falsehoods and scams, but there is room to dive deeper and encourage greater critical thinking through quizzes and project work as students mature and advance. That being said, adults are just as vulnerable – it is not easy to discern which information source is credible. The Government has several good initiatives such as the "Fight Fake News" website and the Source, Understand, Research and Evaluate (S.U.R.E) steps in four languages.

What else is the Government doing to raise awareness of the importance of information literacy and educating the public to be discerning readers?

Inclusive Digitalisation

Mr Baey Yam Keng: Sir, I had my first mobile phone in 1995 when I started working. At that time, it was technically a portable wireless telephone that people used for making calls and sending short messages (SMSes). Today, the mobile phone is a lot more than that. In fact, I do not think many people use their mobile phones just to make a call or send an SMS today. We use it to check our social media, do our shopping, make our bank transfers, play games, take photos, among the many things that we multitask in modern day life. The handheld device connects us to a whole digital world.

The spaces we can reach through digital means have become larger, as we perform almost all transactions, connect with anyone anywhere in the world, through a small screen at a fingertip.

However, there are individuals in Singapore who find difficulty navigating a small screen. To them, their world has become smaller.

Recently, I attended a session conducted by Infocomm Media Development Agency's (IMDA) digital ambassadors at Brahm Centre in Tampines. A mock-up grocery store was set up for senior residents to make purchases via e-payment. The ambassadors were very patient and provided one-on-one service to show the seniors step by step. I know my residents found it useful. But I just hope that they will have the confidence to do e-payments in real life. However, I also noticed that some residents were still hesitant.

I remember years ago, when automated teller machines (ATMs) became available, it also took me a while to trust that the machine would dispense the right amount of money and update my bank account accordingly. And I was a young man then. Imagine the apprehension of a much older person facing the digital world today.

Hence, I was heartened that Minister Josephine Teo spoke about the "Digital first, but not Digital-only" approach as a kinder and more appropriate position to take. I fully applaud that. While we should go as far as what the digital world could take us, the Government should lead by example to still make essential services available through non-digital means. The Government will have to allocate some manpower resources to offer counter services, a hotline manned by a real person, process cheque payment and so on.

I would like to ask the Minister to elaborate how we are preparing Singaporeans in a "Digital first, but not Digital-only" approach.

The Chairman: Mr Alex Yam. Not here. Ms Hany Soh.

Enhance Seniors' Digital Literacy

Ms Hany Soh: Chairman, in Mandarin, please.

(In Mandarin): [Please refer to [Vernacular Speech](#).] Digital services are becoming increasingly common in our society. However, many seniors are still reluctant towards digital living. They are afraid of falling into online scam traps from inadvertently pressing a wrong button. While digital services carry certain risks, they also bring many conveniences.

With a smartphone, we are able to know what is happening in the world and learn new knowledge without going out.

What plans does the Infocomm Media Development Authority (IMDA) have to further improve the digital know-how and skills of the seniors?

In Woodgrove, I am very grateful to the team of digital ambassadors at the SG Digital Community Hub. Prior to the upgrading of the Fuchun Community Club, they worked from 10 am to 6 pm daily to help our seniors, guiding seniors on a one-to-one basis to help them move towards digital living. During this period of time when our Community Club is under renovation, they continue to work closely with Citizens' Consultative Committee to go outdoors and set up digital assistance booths at a series of activities organised by the Woodgrove community, to encourage senior citizens to embark on a digital Journey. Take for example the recent Community Emergency Preparedness Day held at 888 Plaza jointly organised with the Singapore Civil Defence Force (SCDF). The digital ambassadors present on that day encouraged our residents to download the SCDF's My Responder app which offers many benefits such as the location of the closest AED when someone needs CPR urgently.

The Chairman: Mr Christopher de Souza, take your two cuts together.

Assisting Seniors with Digitalisation

Mr Christopher de Souza (Holland-Bukit Timah): Sir, as we seek to future-proof our economy and build digital infrastructure to be the bedrock of a secure and resilient digital economy, we must journey alongside seniors in the digitalisation process to ensure that the process is safe and secure for each individual especially with the advent of fake news and the prevalence of online scams we need to protect the most vulnerable population against a blind venture into the digital unknown.

In the process of allowing seniors to go digital, may I ask if the SG Digital Office and IMDA will continue to connect at a human level to ease and smoothen the digital transformation for our seniors.

Assistance Needed for Digitalisation

Sir, as our city state transitions to adapt to the fast-evolving digital space, we must build a robust digital infrastructure that incorporates every facet of society and ensure that no one gets left behind. The initiative by the SG Digital Office to allow hawkers to go digital is an important aspect of this.

Would MCI and IMDA consider how this can apply to a larger number of shops and small businesses in the heartlands? The process must be paced to allow SMEs to understand how the transition will operate within the context of their business. Assisting SMEs and heartland operators in this regard is key.

Digital for Life

Ms Jessica Tan Soon Neo: Mr Chairman, the Digital for Life movement was set up to promote digital inclusion, encourage and support Singaporeans from all walks of life to embrace digital technologies to participate in the digital world and enrich their lives. An important aspect that the Digital for Life movement is to promote good digital habits which includes cyber safety, media literacy and how to manage risks and handle online harms.

I have been fortunate to engage with the Digital for Life partners and I am heartened to see the Digital for Life's vibrant and diverse ecosystem of partners from the people, and the private and public sectors.

But as digitalisation becomes increasingly embedded in our lives, how is the Government enhancing partnerships with the people, and the private and public sectors to enhance the Digital for Life movement to scale digital inclusion to enable the less digitally-savvy to participate digitally in their daily lives and to allow them to take advantage of the opportunities presented?

Digital Empowerment

Ms Rahayu Mahzam (Jurong): Mr Chairman, I have had the good fortune of working with the teams at MCI and IMDA in the past as they developed the Digital for Life efforts, including the DfL Festival. I can attest to the creativity and dedication of the teams in creating various meaningful platforms and opportunities for learning and collaboration, as we work to enhance digital literacy and capabilities within the community.

One of the beautiful things about the DfL effort is the community of partners that have been rallied to support digital empowerment. I brought my grassroots leaders to the DfL Festival at Heartbeat@Bedok last year and they were inspired by the array of programmes available for the community. They made friends with a few DfL partners and have since brought back ideas to Bukit Batok East (BBE) and worked with some partners.

I had received a kind donation of laptops from Tian Kong and Kancanarama Buddhist Temple and we worked with Byte, a DfL partner, to organise a Byte Void-Deck Technology Lab (VDTL) Coding Programme for young children at Bukit Batok East (BBE). My grassroot leaders also organised an Inclusive Family Carnival and brought in IMDA so that seniors and those in the special needs community could get access to mobile data plans as part of the Data for All initiative. I must also mention that the digital ambassadors had joined us for many community programmes, creating awareness and providing support in digital empowerment for my residents at Bukit Batok East (BBE).

In observing the engagements, I note that there is a need to use different modalities for different demographics and to tier the empowerment strategies to fit the various levels of capabilities. There is also value in thinking about good and thoughtful design of digital changes that allows for meaningful transition in a way that does not overwhelm those who are not digitally savvy.

Former Nominated Member of Parliament, Prof Lim Sun Sun, shared her views in an article in The Straits Times last year about the lessons we could take from the design of the CDC vouchers. She mentioned the principle of skeuomorphism, where functions or objects in digital interfaces resemble their physical counterparts. This makes the digital interfaces more familiar to users, and to some extent more intuitive. She lauded the design of the denominations of the vouchers and the consideration for the digitally less adept. In fact, she said the thoughtful design may also help ease later adopters into accepting more advanced modes of digital payment.

Indeed, the roll-out of the CDC vouchers was an opportunity for me to engage many of the elderly residents as well as the heartland shop owners on digital capability. Some of my elderly Bukit Batok East (BBE) residents would come to my community club office to get the print-out of the CDC vouchers but there were also some who sought to learn how to download the vouchers and use their phones to pay for their purchases

We will continue to slowly build capability at different levels so that people do not feel left out and can also grow in this digitalisation process.

This journey needs to continue, not just for Bukit Batok East (BBE) but also the whole nation. There is a lot more that we can do to ensure efforts are inclusive to address different needs and different capabilities. The Digital for Life movement is a great effort and platform that can bring Singaporeans from all ages and all walks of life to embrace digital learning as a lifelong pursuit.

3.15 pm

I would therefore like to ask about the progress of the DfL movement so far. What is next and what can we look forward to in doing more so that no one is left behind?

The Chairman: Mr Sharael Taha, your three cuts, please.

Bridging the Digital Divide

Mr Sharael Taha (Pasir Ris-Punggol): Thank you, Chairman. The new NEU PC Plus Programme and Home Access programme ensure that children from lower-income families are not disadvantaged and have access to digital hardware and home broadband.

With increased digitalisation and the future of work changing, our school-going children must acquire digital competencies that will ensure that they are ready for the future workplace.

How do we ensure that our school-going children not only have access to hardware but are also digitally proficient? In particular, how do we bridge the digital divide and ensure that children from lower-income families are not disadvantaged and will have the opportunity to develop their digital proficiency?

Digitalisation – Reducing Business Cost

Through the efforts of MCI to grow the Information and Communications (I&C) sector and drive digital maturity, many firms have adopted digital technology. MCI has been developing the digital ecosystem and advancing digital utilities such as PayNow and Singpass and also providing support for broad-based enterprise digitalisation.

Beyond just adopting digital technology, how can we ensure that digitalisation enables Singapore to remain globally competitive even as businesses face rising costs. Many businesses cite costs of implementation as a barrier to adopt digital technology. How do you assist companies to bring about cost savings from their digital investments?

For companies that have embraced digitalisation and want to further enhance their capabilities, how are we supporting them to do so?

Retaining Tech Talent

In January, globally, Microsoft cut 10,000 jobs. Google parent, Alphabet, removed 12,000 of its employees. Amazon shed 18,000 jobs and Salesforce axed 10% of its workforce.

According to a Straits Times news report, technology firms laid off 1,270 resident Singaporean workers between July and mid-November 2022. Many of the layoffs were due to economical uncertainty and aggressive overhiring during the tech boom years.

Given the volatility of the labour market as tech companies rationalise their operations, how are we ensuring that our tech workforce stays resilient, especially with the rapid evolution of technology?

Connecting Citizens to Opportunities

Mr Eric Chua (Tanjong Pagar): Chairman, we live in an era of technological disruptions. These disruptions are changing the way we live, work and interact with each other.

At the workplace, the adoption of artificial intelligence, robotics and machine learning technologies will unfortunately translate into structural unemployment for segments of our economy as jobs that have been around for generations get relegated to the history books.

The way business has been conventionally conducted in industries such as retail and media are also being ruthlessly upended. Technological disruptions often exacerbate the digital divide, thereby further deepening the rifts between the young versus the old, the haves versus the have nots. Even in non-IT sectors, employers increasingly expect employees to possess adequate IT competencies.

For instance, it is not a stretch for organisations to expect employees to exhibit basic mastery in areas such as cybersecurity.

For example, an organisation's cyber defence is only as strong as its weakest link. An employee that succumbs to phishing emails, unintentionally introduces malware into a company's network, thereby opening the doors for corporate espionage or sabotage activities, would likely not be viewed upon favourably by his or her supervisors.

Increasingly, a good command of IT skills is fast becoming a core skill employers look out for.

Employees may be expected to leverage technology in enhancing collaboration across teams at the workplace. Employers may increasingly expect employees to be proficient in using collaboration tools and platforms to work closely with their colleagues and business partners. Employers may also expect employees to harness technology to innovate business processes, improve customer service experiences and enhance overall productivity.

How can we help Singaporeans grow relevant digital competencies such that they can keep up and stay ahead of the curve in a world of continuing technological disruptions?

How do we make "learning and adapting to ever-changing technologies" a way of life amongst our working population? How do we help more senior members of our workforce manage the stresses of adapting to new technologies and tools?

After all, it is only human for one to be anxious about the unknown and to fear making mistakes. This is particularly so in work environments such as in the healthcare industry, where any mistakes in the use of technology can result in grave consequences.

The Chairman: Mr Abdul Samad. Not here. Ms Janet Ang.

Trust and Talent in Digital Economy

Ms Janet Ang (Nominated Member): Mr Chairman, digital transformation is a strategic imperative for all businesses in the new economy.

Over the past several years, the Government has partnered industry to drive "SMEs Go Digital" with pre-approved solutions, business grants as well as consultancy support. Yet, only 19% of our companies in the National Business Survey have listed "Digital Transformation" as one of their top five priorities.

How well have our SMEs adopted digitalisation and what else is MCI and IMDA doing in 2023 to further drive digital transformation, especially amongst our SMEs?

E-payment with PayNow was a lifesaver for businesses during the pandemic. Can MCI update us on the progress of e-payment adoption as well as e-invoicing and e-signature?

In the most recent Singapore Business Federation (SBF) survey, businesses have called out that the lack of talent and know-how are barriers for SMEs to digitalise and transform. Can the Minister update us on how the implementation of CTO-as-a-Service has supported the SMEs with regards to digital leadership and know-how?

TechSkills Accelerator (TeSA) and Career Conversion Programmes have focused on developing and reskilling local talent to meet the demands for information and communications technology (ICT) skills. How successful have we been developing the required skills to meet our needs?

At the same time, how successful have we been in attracting strategic global tech talent with the ONE Pass programme?

MCI is the Government's communications agency. I have heard positive feedback on the efforts made to make Budget 2023 simple to understand for the ordinary Singaporean and businesses.

That said, what measures are in place to ensure that Government agencies do not spend on advertising on what can be perceived as self-promotion of the Government or to show it in a positive light? How does MCI measure the effectiveness of its spending?

Partnering Industries for the Future

Ms Tin Pei Ling: Sir, Singapore ranks among the top countries for technology infrastructure and adoption.

We have the highest average internet connection speed in Asia and the number of 4G subscriptions in Singapore is almost one and a half times that of our population. Last year, Senior Minister of State Janil reported at the COS that we are on track for nationwide 5G coverage in Singapore by 2025. Could we get an update on the implementation of 5G coverage and if it could be expedited so that Singapore can capture the value created with 5G sooner?

As coverage expands, how stable has 5G been and how will the Government help citizens and businesses to utilise and maximise the benefits that 5G can offer? How will the Government partner the industries to create more use cases that will further propel our economy forward?

Data is fundamental to innovations. As articulated in my cut to PMO last week, adequate data protection is most certainly necessary. But there is apprehension and perhaps confusion around the use of data and companies would understandably also be wary of sharing data stemming from competition concerns.

Thus, how can we avail and share data in a secure environment that allows experiments and product testing without compromising data privacy and security? Could the Government play a greater role in working with industry players to facilitate this?

Given the rapid advancement of technology such as blockchain and cryptography, might there be scope for more curated Government data to be accessed in a safe, controlled and anonymous manner?

As we look at 5G and the likes of Web 3.0 now, we must continue to look ahead and think of 6G, Web 4.0 and beyond. These require industry engagements, jointly imagining the future and charting out what infrastructure or building blocks are needed to enable that future. How will the Government partner the industries to co-imagine the future and build the digital infrastructure needed that is secure, versatile and green?

The Chairman: Ms Jessica Tan, both cuts, please.

Digital Infrastructure and Investment

Ms Jessica Tan Soon Neo: Thank you, Mr Chairman. Sir, the fibre-based Nationwide Broadband Network (NBN) has provided the foundation for Singapore to become an intelligent and Smart Nation. It has made possible the high broadband penetration to households and businesses in Singapore and enables access to services.

The pandemic has demonstrated the value of investing in the broadband infrastructure as the NBN has been instrumental in providing the connectivity for Singaporeans to work, learn and access services from their homes.

With the acceleration and speed of digitalisation in Singapore and our Smart Nation ambition, the demand, volume and complexity of our infrastructure will grow exponentially. What are our next steps and investments for the next generation of NBN to build capacity and high-speed connectivity for future needs, to realise potential opportunities and to be prepared for unexpected challenges?

Beyond capacity and speed of connectivity, security risks, privacy and environmental sustainability will also have to be key considerations as we plan for our future NBN.

Digitalisation of Businesses

Mr Chairman, the COVID-19 pandemic disrupted many businesses and demonstrated the importance of digital technology to enable businesses to continue to operate.

While businesses do understand the importance of transformation and digitalisation of their business, current economic conditions and rising business costs faced by businesses, especially SMEs, do pose challenges. What is the progress of the digitalisation of businesses in Singapore, especially amongst SMEs?

There are a slew of initiatives and programmes to support businesses to digitalise, just to name a few – CTO-as-a-Service, Digital Leaders' Programme, Industry Digital Plans (IDP) and Advanced Digital Solutions (ADS). How have these programmes enabled businesses to digitalise, to seize opportunities and to raise their competitiveness? How is MCI supporting businesses to digitalise?

The Chairman: Order. I propose to take the break now.

Thereupon Mr Speaker left the Chair of the Committee and took the Chair of the House.

Mr Speaker: Order. I suspend the Sitting and will take the Chair at 3.50 pm.

Sitting accordingly suspended

at 3.26 pm until 3.50 pm.

Sitting resumed at 3.50 pm.

[Deputy Speaker (Mr Christopher de Souza) in the Chair]

Debate in the Committee of Supply resumed.

[Deputy Speaker (Mr Christopher de Souza) in the Chair]

Head Q (cont) –

The Chairman: Minister Josephine Teo.

3.51 pm

The Minister for Communications and Information (Mrs Josephine Teo): Mr Chairman, earlier in the debate, I outlined the lessons learnt from our Smart Nation journey as we strengthen our digital social compact. MCI plays a key role in overseeing this compact, ensuring that it remains robust amid technological disruption and that it benefits all Singaporeans.

Our theme for Committee of Supply this year is therefore "Empowering Singaporeans to thrive in our digital future". To do so, we must sustain the two aspects of our digital social compact: the aspirational and the protective.

Our aspiration is for all Singaporeans to seize the opportunities created through digital developments. To achieve this, we must build the foundational infrastructure to support our digital economy and society.

Sound infrastructure planning has been a cornerstone of Singapore's success. For example, the shape of our city for the next 50 years has been mapped in URA's Long Term Plan. The Land Transport Master Plan 2040 outlines our transport ambitions for the next two decades. Few countries think this far ahead, much less organise themselves to realise such plans.

To succeed in our digital future, we need an equally thoughtful and committed approach to digital infrastructure.

To this end, MCI will develop a Digital Connectivity Blueprint, which may be a world first, if not one of very few. This blueprint will lay out the full scope of our long-term infrastructural ambitions, cutting across broadband, mobile and Wi-Fi networks, as well as our undersea cables. It will lay the groundwork for us to transcend our resource constraints and create economic opportunities for all Singaporeans.

Given the fast-changing nature of digital, it would be unwise for Government to attempt this exercise on our own.

I have therefore asked Senior Minister of State Janil Puthuchery to co-chair an advisory panel comprising business and industry leaders, to bring them on board early and to make sure that our blueprint incorporates their needs. I expect this phase of our work to take six to nine months. Senior Minister of State Janil will outline the specifics of our plan.

Of course, it is not just infrastructure that must be primed for the future. Our people and businesses must be ready too.

The importance of digitalisation is not lost on our businesses. Ninety-three percent Singapore firms have adopted at least one digital technology and the demand for tech talent across the economy is strong. But there are still areas where businesses face hurdles, especially as the global baseline of digital adoption rises and competition heats up.

To strengthen support for businesses, we will develop a Digital Enterprise Blueprint. This will comprehensively lay out how we are promoting and supercharging digital transformation at the national, sectoral and firm levels. Senior Minister of State Tan Kiat How will share more about our plans.

In pursuing our digital ambitions, we must not neglect the equally important protective dimension of our digital social compact: the dimension of trust and safety. Without this, confidence in digital will erode. There are three issues of concern.

The first has to do with inclusion. The path of digital development must be wide enough to accommodate as many as possible. Those who fall off this path will find it hard to support and participate in digital developments, much less embrace its benefits.

The second is about keeping digital technologies safe for Singaporeans. The digital realm has created opportunities for malicious actors to manipulate, deceive and coerce. Compromise of our digital infrastructure and services could severely disrupt our economy and our lives. Such occurrences breed a sense of danger and distrust.

The third concerns how we keep our society united and resilient. We recognise the risk of digital technologies being exploited to undermine social cohesion through this misinformation. Left unaddressed, this can deepen fault lines, polarise societies and fuel intolerance as well as hatred.

Today, I will explain what MCI is doing to address these issues.

First, on inclusion, which Ms Tin Pei Ling and Mr Sharael Taha have asked about. In terms of connectivity, 92% of our households have access to a computer and 98% have broadband. This is far more than many countries can say. However, MCI believes we can reach a higher bar in terms of access as well as inclusion.

One group we remain concerned about are lower-income households. For most households, digital connectivity has become as essential as water and electricity. But for some, connectivity can still feel costly.

Since 2020, we have helped over 46,000 households stay connected through the NEU PC Plus and Home Access schemes. We will streamline these schemes into one, ease the application process and provide more affordable digital access for those who need it most.

To that end, we will introduce a new DigitalAccess@Home scheme from April this year. It will provide subsidised broadband and digital devices to eligible low-income Singaporean households. The Government has set aside about \$80 million over the next four years to fund this scheme, which will be able to support 60,000 households.

Under this scheme, the cost of broadband will be reduced to as low as \$5 per month for eligible households living in HDB rental flats under the Public Rental scheme. Those living in 1- to 3-room flats will pay \$10, while those in 4-room or larger flats will pay \$15 monthly. For another \$5 monthly, they can double their bandwidth from 500 Mbps to 1 Gbps.

In addition, households which include ComCare Assistance beneficiaries will automatically qualify for the highest level of subsidy and pay the least. Households with students on MOE's Financial Assistance Schemes may also enjoy the highest level of subsidy depending on income. We will work with these agencies to auto-qualify these schemes' beneficiaries.

To achieve digital inclusion, broadband access must be accompanied by device access. This is often a bigger barrier as the costs are higher and harder to spread out.

Under the DigitalAccess@Home scheme, beneficiaries can enjoy subsidies of between 25% and 75%. This will reduce out-of-pocket costs for devices. Depending on the level of support, beneficiaries will pay between \$75 and \$250 for a tablet, and between \$220 and \$710 for a laptop.

For larger households with school-going children, we are partnering the people sector, through organisations like Engineering Good and SGBono, to provide up to 1,000 refurbished laptops per year to support them. From the demand seen in existing programmes, this number should be sufficient to meet current needs.

Mr Chairman, allow me to describe the gist of our updated policy in Mandarin and how we should think about our seniors in our digital future. I will also outline what it means to be "digital first, but not digital only", which Mr Baey Yam Keng and Ms Janet Ang have asked about.

(In Mandarin): [Please refer to [Vernacular Speech](#).] Singapore has achieved very high levels of digital access amongst our households, to the envy of many nations.

However, the Government believes that we can do more. Therefore, we will allocate about \$80 million over the next four years to introduce the new Digital Access@Home programme to better support low-income households with access to broadband and digital devices. That said, digital access alone does not equate to digital inclusion. For example, there are many seniors around us who own the latest handphone model but do not know how to use many of its functions.

Hence, the Government is advocating for a "Digital First" and not "Digital Only" approach for now. This means that we will continue to provide non-digital options for essential services. Many people have told me that this message was very reassuring, helping to ease their anxieties. However, some have also asked me if it means that our seniors no longer need to learn digital skills.

As a matter of fact, the latest survey shows that the digital skills of seniors have improved over the past two years. The percentage of seniors in their sixties who have basic or higher digital proficiencies has risen from 28% to 44% – an increase of 16%. More seniors in their seventies or older are developing their digital proficiency, with the percentage rising from 7% to 29% -- an increase of 22%. The data shows that our seniors understand that the digital future is materialising, and they should – and they can – adapt, just as they have successfully adapted to many aspects of Singapore's modernisation in the past.

These figures, and the various ForwardSG citizen consultations, also show that we should not rush that process. In imparting digital skills to our seniors, the learning process should consider their ability to absorb information and make good use of peers to support their learning. The content should be in line with the practical needs of the seniors, such as teaching them e-payment. The design of digital technologies should incorporate their perspectives and be intuitive for their use.

In other words, we should not underestimate the learning spirit or ability of our seniors. What they need is time, opportunity, encouragement, and empathy.

Therefore, be it the Government, businesses, or community groups, let us help our seniors to pick up digital skills and be with them on this journey every step of the way.

4.00 pm

(In English) Mr Chairman, let me emphasise this. While some seniors need help with digital skills, we should not dismiss their ability to be part of our digital future. What they need are time, opportunity and empathy.

Take Mr Richard Yip, a 72-year-old grandfather of three who discovered NLB's MakeIT programme through NLB's app. Members may recall that the MakeIT programme allows residents to experiment with fabrication technologies at libraries around Singapore. Mr Yip was intrigued by the 3D printing technology on offer at Jurong Regional Library. He started using it to print small solid pieces such as insects and dinosaurs, which his grandchildren loved and which made him incredibly popular with them. Over time, Mr Yip progressed to using coding and robotic microcontrollers to create moveable toys for his grandchildren, making him even more popular. He is now an advocate for 3D printing, describing it as a "dream come true" for seniors like him.

To questions by Ms Hany Soh, Mr Christopher de Souza, Mr Seah Kian Peng and Mr Yip Hon Weng, IMDA's SG Digital Office (SDO) was established at the start of the pandemic to provide digital training to seniors in areas like digital services, e-payment and cybersecurity. Much of this involves one-on-one coaching or small group learning in community spaces where seniors are comfortable.

To date, SDO's Digital Ambassadors have trained more than 210,000 seniors to use smartphones for basic tasks and daily needs. By now, many seniors in the heartlands recognise our Digital Ambassadors as "the friendly people in purple shirts".

Since this January, SDO has also worked with the PA's Active Ageing Council to create digital support groups promoting peer learning among our seniors.

To Mr Gerald Giam's question, the Government will be planning for more ServiceSG touchpoints in tandem with demand. In the meantime, the SDOs, our community centres (CCs) as well as libraries do provide basic support.

Mr Yip's example also shows how our libraries are equipping Singaporeans with digital skills. Under NLB's Libraries and Archives Blueprint 2025 (LAB25), libraries will work more closely with leading tech companies to do so.

At the inaugural ExperienceIT showcase at the full opening of the Punggol Regional Library later this year, Amazon Web Services will help put together an experiential exhibit introducing visitors to machine learning and artificial intelligence. This collaborative approach is a consistent thread in our efforts to uplift digital skills.

For example, since 2020, MOE and IMDA have made Code For Fun, an enrichment programme on Computational Thinking available to all upper primary students. This is an important social leveller that reached 50,000 students in 2022.

Ms Jessica Tan and Ms Rahayu Mahzam have asked how we are enhancing the Digital for Life movement (DfL).

Since the movement was launched in 2021 to mobilise ground-up efforts, more than 130 partners have pledged support and kickstarted around 140 initiatives. More than 270,000 have benefited from these initiatives.

There is now growing momentum among DfL partners to introduce new programmes. For example, Microsoft will offer classes to expose children from low-income families to topics such as Internet of Things (IoT) and Mixed Reality.

As the DfL movement gathers pace, MCI is conducting a series of Forward SG engagements with people, private and public (3P) sector partners to target specific areas of need. In the next phase of engagements, we will focus on topics such as parenting in a digital age and enhancing user experience in digital Government services.

Mr Chairman, let me now turn to safety and security.

According to Microsoft's 2023 Global Online Safety Survey, 77% of Singaporeans have experienced at least one online risk in the past year.

At the Committee of Supply (COS) debate for the Ministry for Home Affairs (MHA), I shared plans to introduce an Online Criminal Harms Act. This builds on the Online Safety (Miscellaneous Amendments) Bill, which was passed in Parliament last November and came into force recently.

At last year's debate, I explained that the change in law was to enable the introduction of a code of practice for social media services. IMDA has been engaging industry partners to finalise this code and expects it to be implemented by the second half of the year.

In debating the Bill, I also indicated that we would look beyond social media services to other widely used online communications services.

To Ms Tin Pei Ling's and Ms Janet Ang's questions, we will take another step to strengthen online safety through a new Code of Practice for App Stores. App stores may carry apps with harmful content, especially for children. This could include content depicting explicit sexual activities or inciting violence. As with social media services, app stores should be expected to have systems and processes in place to deal with harmful content. The new code will take time to be developed and involve industry engagement. We will work out the details and update Members in due course.

In the debate on the Bill, there was also strong interest from members for MCI to look into online games.

When the new Code for App Stores is introduced, the risks of exposure to harmful content through games on these stores will be curtailed. Apps with egregious content may also become unavailable for download. But games may also be accessed through platforms other than app stores. We will have to study how to deal with this.

A possible measure is to introduce a classification scheme for online games, much as we already do for video games. This will clarify the age-appropriateness of games and help parents exercise better supervision over their children's online gaming. We will work towards these moves over the next 12 to 18 months.

We have also started a detailed landscape survey on online gaming to assess if more can be done, for example, to reduce the risk of cyber addiction, which Ms Hany Soh was very concerned about.

This survey is necessary because there is no international consensus on the nature of the problem or the effectiveness of measures. The concerns in Singapore are also not fully understood.

A survey covering both parents and children will allow us to better understand the issues and shape our response. This may include working with the people sector to support the vulnerable groups which Mr Baey Yam Keng had identified. The survey will examine exposure of children to unwanted interactions and inappropriate content on gaming platforms. It will also examine the social and psychological impacts of gaming, extending beyond problematic content. This requires extensive work and we will do our best to be timely.

Next, I will briefly discuss cybersecurity.

Cybersecurity has become a crucial aspect of national security, especially for a country as digitally connected as Singapore.

During last year's debate, I announced that the Cyber Security Agency of Singapore (CSA) was reviewing the Cybersecurity Act, which only came into effect in 2018. Since then, CSA has held discussions with its stakeholders, including owners of Critical Information Infrastructure (CII). We have also engaged trade associations and key industry players. We have made good progress and will start formal industry consultations next month.

One area under review is how we will adapt our regulatory framework to allow the safe and secure use of virtualised systems beyond CII. Specifically, CSA has identified cloud services and data centres as foundational digital infrastructure we need to better protect. As this is a new area, our discussions with the industry will be important in ensuring that our regulations remain effective.

With increasing industry digitalisation, demand for cybersecurity services has been growing domestically and overseas. CSA is hence examining how we can develop our entire cybersecurity ecosystem, ranging from nurturing talent to promoting innovation and capability development.

We will provide updates on this as well as the Cybersecurity Act review later this year.

Let me briefly discuss our approach to emerging technologies, which Ms Tin had asked about.

By now, Members are all aware of seminal developments in AI, including tools like ChatGPT. While AI brings many benefits, it also brings risks we must mitigate. This is important because AI is increasingly commonplace.

Members will recall that in 2019, Singapore launched a Model AI Governance Framework. Last year, we also launched AI Verify, the world's first AI Governance Testing Framework and Toolkit. We will build on these initiatives to strengthen the guardrails that ensure responsible AI development and deployment.

Let me mention two Advisory Guidelines that will be published by the Personal Data Protection Commission (PDPC) later this year.

The first is on the use of personal data in AI systems.

This will encourage AI users to abide by standards of transparency and explainability so that customers will know when and how AI is being used to process their personal data. It will also contain best practices on how industry can use personal data to train, test and monitor AI systems.

The second is on children's personal data.

This will set out clear actionable standards for social media services and companies whose products interface with children. For instance, they must obtain parental consent before collecting data from children under the age of 13 and implement protective defaults such as making sure that children's profiles are not made public.

There are many more questions about AI that deserve our attention.

Members will recall that Open Government Products (OGP) has integrated ChatGPT into Microsoft Word and plans to trial its use among some civil servants. As more use cases are developed, we will monitor developments to support AI innovation whilst protecting our people.

Emergent technologies that are immersive, decentralised and anonymous, including the metaverse and Web 3.0, could also introduce new types of online risks. We will continue to review our measures to keep in step with technological trends.

I will now turn to the third theme of my speech – promoting trust to build social resilience.

To withstand online misinformation, Singaporeans must have trusted and easily accessible sources of information. In their absence, we cannot assume that our society will hold together. A citizenry that is informed and information-literate helps to strengthen social resilience. This is a key reason for supporting our Public Service media.

To Ms Jessica Tan's question, our local media's digital capabilities have strengthened considerably in the last few years. To grow online outreach, especially to the young, they have used digital technologies to tell stories in innovative ways.

For example, Mediacorp has used augmented reality in its coverage of the Russian-Ukraine war. The Straits Times has used interactive graphics to report on how our HDB flats have changed over the decades and the impact of rising sea levels on our shoreline. Some of these efforts have won international acclaim.

4.15 pm

Our vernacular media are also making efforts to go where audiences are. For example, Mediacorp has launched a digital-first Chinese-language debate programme, "Frontline Connects" or 《前线开讲》 that caters primarily to younger audiences online. Berita Harian has produced podcasts discussing social and geopolitical issues, and Tamil Murasu is on track to launch its mobile app this year.

These efforts have paid off especially with younger viewers. An MCI survey showed that 82% of 15- to 24-year-olds regularly consumed local mainstream news via online platforms in 2021, a jump of around 30-percentage points since 2018.

That said, our media has lots more to do. As Singaporeans' news consumption habits continue to evolve, both SPH Media Trust (SMT) and Mediacorp will have to continue demonstrating progress. True transformation will not come just through new technologies but from mindset changes. Journalists will need to develop new skills and have the support of management in this process. The road ahead is long and difficult, and we should not underestimate the effort required.

When it comes to promoting information literacy, the National Library Board (NLB) also plays a critical role. To questions by Ms Tin Pei Ling, since 2013, NLB's flagship information literacy programme, SURE, has been helping citizens navigate our dense information landscape.

Complementing these efforts, NLB launched the "Read to be SURE" campaign in November 2021 to further promote critical thinking. The campaign helps Singaporeans hear from different voices on topical issues such as cryptocurrency or gender equality. Since inception, it has garnered over 220,000 engagements.

Mr Chairman, let me conclude by touching on the international significance of our efforts in digital. Today, Singapore is considered one of the leading countries in digital developments, at the frontier of digital infrastructure and regulation. This has brought real economic pay-offs.

In addition, by positioning ourselves as a thought leader, we are better able to partner like-minded countries and shape new international norms in digital. Promising developments include our chairmanship of the United Nations Open-Ended Working Group on ICT Security, the Digital Economy Agreements with Australia, the UK and South Korea, or the US-Singapore Partnership for Growth and Innovation, the Smart City Initiative with Shenzhen, the ASEAN Data Management Framework which we initiated and the Digital Forum of Small States (Digital FOSS) which we championed.

These initiatives are opportunities for our voice to be heard and our economic space to expand. There are no guarantees that we will succeed in every project, nor can we be sure that global developments will always be favourable. But our foundations are strong, and our investments will bear fruit. Working with our partners at home and abroad, I am confident we can empower Singaporeans to thrive in our digital future.

The Chairman: Senior Minister of State Dr Janil Puthucheary.

The Senior Minister of State for Communications and Information (Dr Janil Puthucheary): Chairman, MCI wants to empower every Singaporean to thrive in our digital future. In my speech, I will explain two ways in which we are laying the foundations to do so.

One, by investing in the underlying digital infrastructure to connect all of us and power the digital services and products we use; and two, by building up strong research and innovation capabilities to create new value from emerging technologies. These are long-standing priorities for MCI.

Infrastructure and innovation form the basis for our continued access to quality digital services and content. For businesses, these allow them to connect to more customers, raise productivity and generate new business value. Our work in these areas is therefore never quite done. We need to build on our progress, adapt and invest in the future as technology and the world around us and our people's needs change.

With this in mind, we continue to enhance Singapore's digital infrastructure to not only meet current demands for speed, capacity and reliability, but to cater for anticipated needs and reap future benefits as technology and the use cases evolve.

Understanding future demand will help us make calculated bets as we invest in Singapore's digital infrastructure. It is not always straightforward as technology advances in disruptive and non-linear ways. We have had to carefully assess technological developments, actively consult the industry and boldly imagine the use cases that consumers and industry would participate in and want to experience here.

The development of our nationwide fibre broadband network (NBN) is a good example of such a calculated, future-oriented bet to build digital infrastructure. When we made the decision to develop the NBN back in the mid-2000s, most people were comfortable with the 30 megabits per second speed that our copper-based infrastructure already provided. It was more than sufficient for browsing the web, checking your emails. Holding virtual conferences and lessons over platforms like Zoom or streaming media content over services like Netflix were not common as they are today, almost 20 years since we began our NBN journey.

But without knowing the specific details of what would happen over the next 20 years, we envisaged that services like online collaboration, e-learning and high-definition entertainment would transform the way we live, work and play. The Government therefore invested in the NBN to provide the high-speed connectivity required to support these services for the betterment of Singaporeans' lives.

We began rolling out the NBN in 2008 and provided nationwide fibre coverage to homes by 2013. Today, one gigabit per second plans are the standard among households and 98% are on broadband. The NBN's value was all the more apparent during COVID-19. Its buffer capacity enabled us to cater for increased network traffic from the surge in digital interactions, with the vast majority of us working or learning virtually from home at one point or another. This allowed us to maintain some continuity in the economic and social activity.

It took nearly 20 years for us to realise the full potential of NBN. That same forward-looking perspective we adopted for the NBN underscored our more recent decision to build 5G standalone mobile networks. We foresee many possibilities in 5G for businesses, workers and consumers as a result of faster speed, lower latency and higher device connection density compared to 4G. We facilitated the

early roll-out of 5G standalone networks by allocating spectrum for our telcos to build them while setting clear performance, coverage, security and resilience requirements.

To Ms Tin Pei Ling's question on the progress of the 5G roll-out and development of use cases, the Infocomm Media Development Authority (IMDA) had recently measured to confirm that we have reached 95% nationwide outdoor coverage on Singapore's first two 5G standalone networks.

With the roll-out progressing well ahead of schedule, our focus is currently on supporting the industry to tap on 5G's capabilities to enhance their operations and service offerings. For example, IMDA has awarded new and innovative projects under its 5G Innovation Programme.

One such project is the Hyundai Motor Group Innovation Centre in Singapore. Unlike the fixed production lines in traditional manufacturing, Hyundai Motor Group's upcoming facility will have over 100 mobile robots deployed across the factory floor to simultaneously transport material required for vehicle manufacturing. 5G is what enables seamless real-time data transmission between the back-end automated control system and the robots.

5G makes possible new manufacturing processes that will both enhance productivity and quality control. For workers, it reduces labour-intensive activity and minimises the safety risks they bear in manually transporting heavy material. It also creates opportunities for them to take on higher value roles. Hyundai Motor Group intends to hire robotics engineers, data analysts and process engineers for the 'intelligent' manufacturing facility.

For consumers, the more agile manufacturing process allows for hyper-customisation of 'built-to-order' vehicles to cater to different needs and preferences. This is Hyundai Motor Group's first such facility in the world. They have shared with us that beyond Singapore's position as a manufacturing and logistics hub, the Government's support for innovation and cutting-edge digital infrastructure make us an attractive investment location. I look forward to the facility's launch and the benefits that it will bring to Singaporeans.

Another newly-awarded project is Weston Robot's electric Unmanned Surface Vessel for autonomous river cleaning. 5G enables the video analytics and high data throughput necessary for the vessel to detect and clean rubbish outside of its pre-programmed path, and to respond to emergency situations such as oncoming boats. Much like the vehicle manufacturing example, this project will help to reduce manual labour by enabling operators to pilot multiple vessels from a command centre and thereby also allowing cleaning services companies to manage manpower constraints in the sector.

These use cases represent the initial fruits of our early investments in 5G. Just as the full value of our investments in the NBN was realised over time, we can expect more applications of 5G in the coming years as the rollout is completed, the ecosystem matures and demand shifts.

Today, we find ourselves having to consider similar bets to those we made for NBN and 5G, to ensure that our digital infrastructure stack is poised to power Singapore's next bound of growth. This infrastructure stack includes wired and wireless networks which together provide connectivity within Singapore, subsea cables that connect us to the rest of the world, data centres that store and compute data which enable digital services, digital utilities which are foundational digital services such as digital identity, e-payment and e-invoicing, document attestation and data exchanges, all of which enable citizens and businesses to transact seamlessly and securely in the digital economy and "physical-digital" infrastructure such as Internet-of-Things (IoT) devices that enable the exchange of data between physical objects and digital networks.

It is important that we continue planning for all these components in a holistic way. For example, for IoT deployment to grow, there must be security and sufficient capacity in our broadband and mobile networks. For users to experience seamless connectivity at home or on-the-go, the Wi-Fi and mobile speeds must be comparable. When it comes to digital infrastructure, the whole can be greater than the sum of the parts, provided we plan well and coordinate properly. We need to make the different layers and different components of the infrastructure stack work well together to sing together as a chorus to maximise our investments in each component.

The Digital Connectivity Blueprint that Minister Josephine Teo briefly mentioned is being developed with this idea as well as future needs in mind. The blueprint will outline what is next for Singapore's connectivity infrastructure, including the broadband, mobile and Wi-Fi networks that power our domestic connectivity and subsea cables that provide international connectivity.

The blueprint will also identify interconnections with other digital infrastructure components that complement this connectivity layer such as data centres and digital utilities. These interconnections are vital to maximising the value of the infrastructure stack.

As Ms Tin Pei Ling noted, it is important that we partner with industry to chart this path. Shaping the Digital Connectivity Blueprint alongside the Government is a newly set up Advisory Panel on Digital Infrastructure that I co-chair with Mr Irving Tan who has rich experience in the tech sector.

The panel brings together industry and business leaders who will help us to understand and account for the wide range of perspectives in the evolving digital arena. Collectively, the members bring to the table insights on technical and business viability, international competitiveness, as well as potential business and consumer demand.

Both Ms Jessica Tan and Ms Tin Pei Ling spoke about the importance of considering security and environmental sustainability as we plan for our future digital infrastructure. This is in line with the approach that the Government will and has been taking. The panel's deliberations will be guided not just by economic imperatives but security, resilience, inclusion and sustainability too.

Our partnership with industry goes beyond the panel. Also informing the blueprint are MCI's engagements with the wider industry, including on the NBN. Ms Jessica Tan asked about our next steps to enhance the NBN. As announced last year, we will be embarking on a full-scale upgrade to deliver speeds of up to 10 gigabits per second, which is 10 times faster than today.

The decision to upgrade the NBN was prompted by trends toward more content generation by end-users and immersive interactions between users in the digital space. These have the potential to transform sectors such as education and entertainment. We want to ensure that our infrastructure can support such bandwidth-intensive activities.

4.30 pm

This is a significant endeavour on a nationwide scale. It is important that we undertake it efficiently and in close partnership with the industry. Industry players generally recognise these trends, the bandwidth requirements they bring and the importance of planning ahead for our NBN infrastructure. MCI and the advisory panel will continue to engage the wider industry on the upgrade approach and consider their feedback as we chart our way forward.

Sir, in keeping with our forward-looking approach, the Government has been making investments to build up a vibrant research and innovation ecosystem, to explore how emerging technologies can position our people, businesses and nation well for the future.

While we roll out our 5G networks, we are already embarking on research into the next generation of communications technologies like 6G. We want to understand how they can enhance Singapore's digital connectivity and generate economic and social benefits for us in the future, just as 5G is beginning to do so today. Such upstream investments include the Future Communications Connectivity Lab, a testbed which IMDA partnered the Singapore University of Technology and Design (SUTD) to launch in Singapore last year.

A more familiar tech area to many would be Artificial Intelligence, or AI, especially with the AI-driven chatbot, ChatGPT, gaining attention for its ability to generate content from law essays to code. When employed effectively, AI brings benefits for businesses and individuals, such as increased efficiency through the automation of tasks and better decision-making through the provision of data-driven insights and predictions.

The Government has been steadily investing in AI research and innovation and Singapore today is ranked among the top 10 countries based on publications at AI conferences and our researchers are internationally recognised. These research capabilities have yielded useful applications. For example, the researchers at AI Singapore's Speech Lab have significantly improved the accuracy of transcribing our Singaporean colloquial speech to English text, taking into account our unique accents, terms and mix of languages used. The solution has been adopted by the Ministry of Social and Family Development (MSF) and the Singapore Civil Defence Force (SCDF) for their hotline services, improving back-end case management.

Under the Government's Research, Innovation and Enterprise (RIE) 2025 plans, we will strengthen our research and innovation ecosystem in three areas: first, by expanding our base of research talent. We will continue to support our public research institutions in attracting and nurturing talent to drive innovation across the value chain. For example, the Smart Nation and Digital Government Office is partnering the National Research Foundation to launch a call for AI Investigatorships in the coming months. These Investigatorships are targeted at top-tier AI researchers who, in the course of their research, can also mentor and groom other promising talent.

Two, enhancing the links between our research institutions and businesses, so that we can translate the fruits of our research into competitive advantages for businesses. Our grant calls under the Future Communications R&D Programme support translational research. The aim is for these demand-led projects to generate products for the industry. And lastly, we are boosting cooperation with international partners to help sharpen our research and innovation efforts. In December last year, Singapore and South Korea signed a memorandum of understanding (MOU) on AI, facilitating bilateral AI research and information exchange.

As Minister Josephine Teo has emphasised, there must be safety and trust in the digital space for our businesses and people to feel confident tapping on new technologies. We are, therefore, also supporting the industry to pursue research and innovation in cybersecurity. An avenue through which the Cybersecurity Agency of Singapore does this is the Cybersecurity Industry Call for Innovation, or CyberCall. One company that benefitted from CyberCall is MicroSec, which found a new way to secure low-powered IoT devices. Their solution has been deployed to improve the cybersecurity of 16,000 home devices, such as smart sockets in the HDB Punggol Northshore Project.

Building the trust and safety necessary for innovation to thrive goes beyond cybersecurity. Users must be assured that businesses are employing technologies, such as AI, responsibly. The Minister has outlined in her speech how MCI is supporting businesses in providing such an assurance to customers.

In addition to research into emerging technologies, there is research that contributes to knowledge and appreciation of our history and heritage, to inform who we are as a nation and a society. Government records are a key part of such research. Mr Pritam Singh asked if the Government is prepared to release classified information that has already been extended for research purposes, to all sitting Members of Parliament. This is with reference to his request to an agency where the information sought had yet to be transferred to the National Archives of Singapore (NAS) for preservation.

To be clear, the file in question is not available for public access and remains classified. This is distinct from public archives that are public records, that have been transferred to NAS and can be requested for inspection by any person, for the purpose of reference or research as set out in section 18(2) of the National Library Board Act.

For records that remain classified and are not part of the public archives, agencies may grant access to specific information for specific purposes, such as to write a book, and subject to conditions, such as complying with the Official Secrets Act, and submitting the information to be quoted for vetting prior to release.

In this particular instance, the agency had allowed the researcher access to relevant information from the records, with the understanding that the researcher would only publish and cite specific information with the agency's permission. As a matter of policy, the Government does provide researchers access to information for legitimate research purposes.

But doing so, does not mean that the entire record has been declassified, nor that it is generally available to the public. If someone has a specific reason to access closed records, a request can be made, and the request will be assessed by the Government on its merits. If Mr Singh would like more information on the background, thinking or the rationale behind a Government policy, there are several routes he can take. One way is to approach the relevant Ministry to provide further details and a clarification.

In addition, Mr Singh and Members of this House also have the option to file a Parliamentary Question, and receive a formal reply from the Government. There is a separate process where Ministries and agencies transfer their classified records to the NAS for long-term preservation and declassification when it is in the public interest to do so.

This is pertinent to the question Ms He Ting Ru asked about making archival material more accessible. The NAS has been working with Government agencies to declassify and make available more Government records. The metadata of around 780,000 records are publicly accessible on Archives Online; and this has been increasing over the years.

In addition, since 2016, Government agencies have reviewed more than 7,000 Government records that were not yet declassified. This was in response to 2,130 requests by members of the public. Eighty-three percent of these records have been approved for access. In total, some 68,000 file records have been declassified and made accessible to the public.

In one example, the Government had agreed to declassify and release documents in Dr Goh Keng Swee's famous "Albatross File". This is a file that Dr Goh Keng Swee kept in the run-up to Singapore's separation from Malaysia.

The process of declassification began some time ago, and took some time, given the complexity of the material. A subset of the material was part of a public exhibition, and a larger set of declassified "Albatross" documents will be released in a book on Separation, to be published later this year. They will include cabinet papers and Dr Goh's notes of his conversations with Malaysian leaders. We are committed to ensuring greater access to Government records, so that they can be a reference for the public to research and obtain information on Singapore.

Sir, let me sum up. Building our digital infrastructure and research and innovation capabilities are foundational to a vibrant digital future for Singapore. With these strong foundations, our businesses and people have the ingredients to generate new opportunities and enhance their competitive edge, which Senior Minister of State Tan Kiat How will speak more about. I want to end by reiterating that our efforts to shape a bright digital future are premised on a very human objective, to improve the lives of Singaporeans.

And with an eye to the future and close collaboration among all of us, I have every confidence that we can and will create a bright digital future for generations of Singaporeans to come.

Mr Deputy Chairman: Senior Minister of State Mr Tan Kiat How.

The Senior Minister of State for Communications and Information (Mr Tan Kiat How): Mr Chairman, the Digital Economy has generated strong growth for Singapore, in particular, the Information and Communications, or I&C, sector has grown by 13.4% and 8.6% in 2021 and 2022 respectively. Going digital is no longer a "good to have" for our firms and workforce. To stay ahead of competition and meet the needs of their customers, our firms must go digital or risk being left behind.

But we are doing so from a position of strength. Ninety-three percent of our firms have adopted at least one digital solution. Firms have improved their overall digital maturity over the years. However, given the uncertain economic outlook and near-term cost pressures, firms – especially our SMEs – may be tempted to press the "pause button" on their digitalisation plans. I urge these firms to reconsider.

Firms may find it difficult to catch up later. In fact, I encourage firms to press "fast forward", to deepen digital capabilities and sharpen their competitiveness during this period. The Government will support you wherever possible.

Ms Jessica Tan, Ms Janet Ang and Mr Sharael Taha asked how we are helping our businesses. We will do so in two ways. First, putting in place an enabling digital ecosystem. Second, assisting our firms in staying cybersafe, even as they use digital solutions more intensively. Let me elaborate on the first prong. We are putting in place enablers at the national, sectoral and firm levels.

At the national level, we are scaling up the adoption of digital utilities, like PayNow and InvoiceNow, which are foundational services that support core business functions of our firms. Since its launch in 2019, 55,000 businesses have adopted InvoiceNow, which saves an average of \$8 for each error-prone and time-consuming invoice replaced. We launched the InvoiceNow Transaction Bonus last November. Firms which have sent 10 or more e-invoices using InvoiceNow, will receive a cash grant of \$200. I encourage more firms to make full use of this bonus.

At the sectoral level, we launched 20 Industry Digital Plans, or IDPs, since 2017. Eighty-five percent of SMEs told us that they registered time savings and 75% of them reduced their dependence on manual labour. We are refreshing the IDPs. I launched the refreshed Food Services IDP in November last year. This year, we will refresh the Retail IDP, the Security IDP and launch the Legal sector IDP.

Mr Eric Chua and Mr Abdul Samad asked about helping the broader workforce keep up with technological changes. I am glad to share that the refreshed IDPs contain an updated Digital Training Roadmap that will guide our SMEs to upskill their workers, to allow them to make full use of the digital solutions that they adopt.

At the firm level, we are helping SMEs with different levels of digital maturity, as noted by Mr Christopher de Souza. Since 2017, Infocomm Media Development Authority (IMDA)'s SMEs Go Digital programme has supported more than 88,000 SMEs.

Since the Chief Technology Officer-as-a-Service, or CTO-as-a-Service, platform was launched last year, we have steadily expanded the platform as a single touch-point for digitalisation. Today, CTO-as-a-Service provides SMEs with access to a wide range of pre-approved digital solutions, alongside IMDA's digital consultants and additional support by partners, such as SGTech, which was mentioned by Minister of State Low Yen Ling earlier.

In total, more than 21,000 users have accessed CTO-as-a-Service to find appropriate resources to meet their needs. More than 900 firms have taken the next step to engage consultants to develop their digital roadmap. More than nine in 10 expressed satisfaction with the service.

Let me speak on the second prong: to keep our firms safe. Cyber threats have increased and risk wiping out years of hard work in seconds.

I am pleased to announce that we will help our SMEs to develop their cybersecurity health plans to safeguard against digital risks. This is the cybersecurity equivalent of staying healthy. Prevention is better than cure. Taking proactive steps to be "healthy", such as designing solutions to minimise the risks of cyber threats. Ensuring regular check-ups or monitoring across a firm's digital systems so that early actions can be taken.

4.45 pm

Through the CTO-as-a-Service platform, SMEs can now engage cybersecurity consultants as "Chief Information Security Officers" (CISOs). These CISOs will work with the SMEs to develop tailored cybersecurity health plans based on the firm's risk profile and risk appetite. Eligible SMEs will receive up to 70% funding support.

Building on this foundation, MCI will develop the Digital Enterprise Blueprint to bring these efforts together in a comprehensive roadmap which will chart the next bound effort for our Digital Economy. We will be consulting industry leaders, associations, companies, unions and other stakeholders across different sectors. Their continued support and partnership will be crucial.

Mr Chairman, let me speak in Mandarin.

(In Mandarin): [Please refer to [Vernacular Speech](#).] During COVID-19, many bosses of SMEs have experienced the benefits of digitalisation.

Government will continue to work with our SMEs in their digitalisation journey, especially through schemes such as the SME Go Digital and Hawkers Go Digital.

However, I have heard that due to uncertain economic outlook and rising costs, some bosses are thinking of slowing down the pace of digitalisation transformation. While I understand their concerns, I urge them to think twice. This is because digitalisation is like going against the flow. If you do not move forward, you will be left behind. As businesses all around the world are digitalised rapidly, if we stop for a while, we risk being overtaken by our competitors and even replaced.

The Government will continue to guide and support SMEs in the next bound of the journey through the refreshed IDPs and the Digital Enterprise Blueprint, while helping safeguard your businesses against digital risks with the upcoming Cybersecurity Health Plans.

(In English): We are committed to helping Singaporeans access exciting opportunities in the digital economy. Before I elaborate on our plans, let me address the points raised by Mr Sharael Taha on the recent tech lay-offs.

As a major tech hub, Singapore has been impacted too. But we have fared better than many parts of the world. Southeast Asia continues to be an important market for tech companies. These firms have long-term plans to scale up their presence here. Singapore has done well to capture this growth, anchoring these companies and their higher value tech development and corporate functions here in Singapore. These roles are often considered core to the companies' business and are more resilient to broad-based headcount rationalisation.

For example, the average rate of re-entry into employment of retrenched residents for the I&C sector was higher than the overall economy. Seven in 10 of retrenched locals in the I&C sector were able to find another job within six months. Indeed, the I&C sector is one of our fastest growing sectors in our economy. The sector's workforce has grown 36%, from 130,000 professionals in 2017, to around 177,000 in 2022. Our local workforce, in particular, has increased by 42% within these past five years.

In the first three quarters of 2022, total employment in the sector grew by 13,700, with thousands of vacancies still available. The increasing digitalisation across the economy has also contributed to healthy demand for tech manpower.

Locals account for more than 70% of overall tech jobs in Singapore, both the tech sectors as well as non-tech sectors. Today, locals in tech jobs earn 65% above the national median wage with good wage growth. The Ministry of Education (MOE)'s recent survey showed that Institutes of Higher Learning (IHLs) graduates from ICT courses have higher starting median pay compared to their peers. We believe the long-term prospects for our tech workforce remains strong and we will continue to support Singaporeans in accessing these opportunities.

But the tech space is a fast moving one and there are many competitors to Singapore's tech hub status. We need to help our tech workforce stay competitive and relevant for the needs of tomorrow.

I would like to speak on two aspects. First, how we are working closely with industry partners to identify jobs that may be disrupted or emerging new tech roles. Secondly, we are pushing for a mindset shift within the industry towards skills-based hiring and development, rather than being overly focused on academic qualifications.

On the first aspect, the I&C Jobs Transformation Map launched last year identifies the impact of emerging technological trends on the I&C workforce. Employers are guided to redesign jobs, and upskill or reskill their tech workforce, to access these emerging job roles.

On our part, IMDA will appoint training partners to develop reskilling programmes for these areas. One example is 5G mobile technology. IMDA appointed the National University of Singapore (NUS) and Singapore Polytechnic (SP) to set up the 5G Academy together with telcos and other companies. Since 2020, the 5G Academy has trained around 10,000 professionals, exceeding the initial target of 5,000.

Mr Mohamed Najib is a good example. He is a product executive who joined Singtel in 2015. Through the 5G Academy, he was able to gain relevant 5G and cyber security skills to future proof his career. He now leverages his skills to enhance the security and performance of Singtel's products.

We all need to shift our mindset to support Singaporeans like Mr Najib to fully realise the potential. But tech employers still prefer university graduates. One study found that 38% of hirers expected applicants to have a Bachelor's Degree for an entry-level position. Firms are missing out a good pool of capable tech talent at a time when there is a global shortage. Furthermore, success involves more than just academic qualifications, but it is the hard and soft skills, like technical skills, attitude at the workplace and the ability to work in teams. This is also aligned with our effort to strengthen the social compact. We want to give every Singaporean the best chance to succeed.

The TechSkills Accelerator for ITE and Polytechnics, or TIP Alliance, in short, brings together IHLs and industry partners to look beyond academic qualifications and focus on skills-based hiring. In just six months, leading employers have committed 500 good opportunities for our ITE and polytechnic graduates.

Mr Ihsan Nursaqif is one such beneficiary. He initially studied information technology (IT) at ITE and then, later on cyber and digital security at Temasek Polytechnic. He is now doing a work-study degree in Applied Computing at the Singapore Institute of Technology. At every step, he is supported by his employer, NCS, as part of its Fusion programme. The TIP Alliance will continue to create more pathways for others like Mr Ihsan, through internships, apprenticeships and other programmes.

Let me now turn to questions by Mr Leon Perera who asked about greenwashing. It can take many forms, but most commonly refers to the act of making misleading claims that products are more environmentally sound than they are. This is fundamentally an issue of false and misleading claim by a firm on its product, for example, how effective the product or how safe the product is. This is an area that the Government is concerned as well.

These issues are taken under the Consumer Protection (Fair Trading) Act or CPFTA in short. The relevant authorities and Ministries will study these. But let me speak from MCI's perspective since Mr Perera filed the cut with MCI.

From MCI's perspective, we work very closely with the Advertising Standards Authority of Singapore (ASAS) which is an industry body that guides how advertising of products should be conducted through the Singapore Code of Advertising Practice (SCAP). For example, the Children's Code for Advertising F&B products guides advertisers to avoid promoting unhealthy consumption habits or irresponsibly pressuring children to buy. So, the Code sets out how the advertising should be conducted but false claims or misleading claims of the product will be dealt with under the Consumer Protection (Fair Trading) Act

Next, let me turn to the questions by Ms Janet Ang, Mr Leon Perera and Ms He Ting Ru who asked about Government advertising.

The Government is not unique in spending on advertising to promote awareness to the public. Many companies advertise to ensure that their brands reach their intended audiences. However, unlike private companies which can choose their target segments for marketing, the Government has to ensure that our messages reach out to all Singaporeans. The Singapore public also expects the Government to do its utmost to reach them via the channels and languages which they are comfortable with, such as vernacular languages, including dialects. Many Singaporeans, like our parents' and grandparents' generation, do not speak English but they are just as Singaporeans as all of us. And we want to make sure that they fully benefit from all the Government programmes and initiatives that we roll out.

But the Government does this prudently. We use established industry metrics, including impressions, click-through rate, cost-per-click, and number of views for digital media advertising. For print, radio and Free-to-Air television advertising, surveys are conducted to measure metrics like message recall.

Last year, the Government spent between \$175 million and \$200 million or around 0.2% of total Government expenditure on advertising. Government's advertising spend increased during COVID-19. This was necessary to keep the public informed on the pandemic crisis as it unfolded and the Government's responses. Members may recall the COVID-19 vaccination campaigns, like "Get your shot, Steady Pom Pi Pi" featuring Phua Chu Kang and "Pak Jiam Buay" by our getai celebrities. We expect Government's spending on advertising to come down after COVID-19.

Respective Ministries are better placed to assess their advertising approach based on the outcomes that they seek to achieve. Ministries have to rigorously evaluate their advertising budgets and be accountable for their programmes.

In response to Ms He Ting Ru's point, advertising is typically part of a broader programme and effort by the Ministry and its outcomes should also be evaluated against whether those programmes and initiatives have met the needs or desired outcomes. That is how we should see the effectiveness of advertising campaigns, not just looking at the specific advertising programmes.

In October 2018, MCI introduced a whole-of-Government demand aggregation contract for media buying for advertisement. This enhances value-for-money for the Government as a whole. At the end of the day, Government's advertising spend is to ensure that all Singaporeans can make full use of the Government's many schemes and programmes.

Mr Perera referred to the Ministry of National Development (MND)'s print advertisement on accessible and affordable BTOs. Ms He Ting Ru also asked whether such ads are necessary and are they evaluated for effectiveness.

First, let me say that we appreciate that during this period, coming out of COVID-19, that Singaporeans are feeling anxious about the availability and affordability of BTOs. I fully empathise with these Singaporeans. There is a reason why MND proactively puts out facts and figures, including BTO launches, the median prices of BTO flats, so that all Singaporeans, especially young Singaporeans, know about the pipeline of BTO flats coming up and make the best decision that they can, based on available information.

These ads show factually, for example, the median price of a 4-room BTO flat in a non-mature estate is about \$347,000 before grants. This information helps our Singaporeans make the best decision that they can and will reassure them that public housing is available and affordable. This is in the public interest.

There is no point made in the MND infographic to get Singaporeans to feel good about the Government. But it is the first time that I am being told that you feel good after looking at our MND infographic and I thank Mr Perera for feeling that way. I am sure my MND colleagues and HDB colleagues who are working very hard to make sure that they build BTO flats, clear the backlog, I think they appreciate it. So, thank you very much for feeling good about it.

Mr Perera referred to SGAG. SGAG ads show paid partnership. This is already being done.

Ministries currently track the industry performance metrics to evaluate their campaigns. Additionally, MCI also requires Ministries to evaluate the effectiveness of their campaigns. MCI does this for MCI-led advertisements, but MCI does not yet have a system to enable centralised tracking and we are exploring the best way to achieve it.

5.00 pm

Mr Chairman, could I seek your indulgence for a few more minutes, please?

The Chairman: If you can keep it short, please, because there will be clarifications. Perhaps under five minutes.

Mr Tan Kiat How: I will. Thank you, Mr Chairman, for your indulgence. COVID-19 has taught us that public communication is crucial to maintaining high public trust in the Government. These made a difference to Singaporeans and we take this public trust seriously.

I would like to emphasise that Government Ministries' spending or advertising is guided by impartiality. Campaigns by Government agencies are for the purpose of informing, or educating the public, Government Ministries are mindful that their advertising must not be towards a political end in Singapore and we take this seriously.

Let me conclude. Mr Chairman, creating a bright digital future for Singapore is at the heart of MCI's work. Minister Josephine Teo spoke about building a more inclusive and safer digital space for all. Senior Minister of State Janil Puthuchear covered the next bound of our digital infrastructure, and research and innovation. I touched on empowering our businesses and workforce to seize opportunities in the growing Digital Economy.

These efforts help us build a digital Singapore, where opportunities are open to all; where everyone can access basic needs and lead fulfilling and dignified lives – a home that we and our future generations can be proud of. Together, I am confident that our efforts will enable Singaporeans to thrive in a digital future and take Singapore forward.

The Chairman: Ms Tin Pei Ling.

Ms Tin Pei Ling: I thank the Minister and the two Senior Minister of State for the replies. I have two supplementary questions.

The first one is related to human capital development. The scheme, such as Digital Home Access at Home, as well as the Three P events such as the DFL will go a long way in raising awareness and helping to propel population better for the digital future.

But I would like to ask: what are some of the more proactive measures or programmes that may be put in place to help upskill our school-going children so that they can keep up with the rapid technological advancement and be ready for that digital future that we speak of?

The second question, since we are talking about vernaculars, so allow me to speak in Mandarin.

(In Mandarin): [Please refer to [Vernacular Speech](#).] I would like to ask the Minister this question: How does the Government ensure that spending on advertising and engaging influencers is meaningful, which will benefit the public, and is not for the purpose of self-commendation? Are there any KPIs to ensure that the fund has achieved their intended purpose?

Mr Tan Kiat How: Let me address the second question by Ms Tin. I will speak in Mandarin since she spoke in Mandarin.

(In Mandarin): [Please refer to [Vernacular Speech](#).] The Government uses various online and offline channels to disseminate information to different groups of audience, and about half of the advertising budget is used on digital platforms such as Mothership, SGAG, and other small-scale social media platforms.

Many Government agencies will also engage KOLs, or influencers to advertise. Take Michelle Chong for example. Her online persona Ah Lian is very popular among the young. Ah Lian's friendly image has helped many government agencies to reach out to people who were hard to reach, reminding them to be vigilant against online scams.

Local netizens are very sharp. If they feel that the influencers are purely advocating for the Government, they would not be interested.

The Chairman: Minister Josephine Teo.

Mrs Josephine Teo: Thank you, Mr Chairman. I thought that I will respond briefly to Ms Tin's question of what we are doing to help school-going children to acquire the digital skills.

Firstly, I think it is a very pertinent question because we have said on multiple occasions that digital access is one thing. If people are not able to acquire the skills that allow them to maximise the benefits of digital engagement, then it still does not go far enough.

We have spent quite a lot of time talking about seniors. With school-going children, there are two separate tracks of efforts that are proceeding in parallel. One group is in collaboration, of course, with the Ministry of Education, through the school system. I mentioned earlier in my speech that there is a very specific enrichment programme that has been implemented for some years now. We are constantly looking at how its contents can be refreshed and made even more relevant, as well as broadening its coverage.

The other track of effort has to do with providing additional support for children from disadvantaged backgrounds. For this purpose, we are very fortunate to have the support of our partners – through the DfL movement. Not only do these companies bring together their knowledge and understanding of how technology is changing our lives, they are usually also able to mobilise volunteers. Quite frequently, these volunteers are drawn from within their staff strength.

So, these are two broad strands of efforts that are ongoing, and we will certainly continue to look at ways to strengthen them further.

The Chairman: Mr Leon Perera.

Mr Leon Perera: Thank you, Mr Chairman, and I thank the Senior Minister of State Tan Kiat How for his reply. I have a few clarifications. Before that I also want to clarify that I did not feel good about —

The Chairman: I am sorry, Mr Perera, I cannot hear you.

Mr Leon Perera: I wanted to clarify that the ad did not necessarily make me feel good. In fact, I felt a little bit concerned for the reasons I shared in my speech.

But my clarification is really going back to advertising that is driving behaviours amongst citizens versus advertising that is driving a belief or conviction. If you look at the ad that I showed earlier, the main aim seems to be to convince people that the Government is making housing affordable and accessible.

My question is: what is the problem statement that the ad is responding to? Is it that not enough people are applying for Build-To-Order (BTO) HDB flats? That cannot be, right? The BTO-flat application multiple has been rising, and it is very, very high. It seems to be more aimed at driving people to change their opinion of the Government. So, should there not be guardrails between advertising that drives towards changing people's opinion of the Government versus changing certain behaviours on the part of consumers? For example, if you have advertising to say, "Hey, you know" —

The Chairman: Mr Perera, if I could ask you to ask your clarification question concisely, please?

Mr Leon Perera: I think I will leave it at that.

The Chairman: Thank you.

Mr Leon Perera: Thank you, Mr Chairman.

Mr Tan Kiat How: Mr Chairman, let me just look at some of the ads and campaigns we have done during the COVID-19 pandemic – getting our seniors to go for their vaccination, telling people about the safe management protocols and so on. Even some of our campaigns which some Singaporeans may think are a little bit cheesy, for example, being kind to one another, making sure that you prevent dengue by preventing mosquito breeding in our homes.

These are for making sure that Singaporeans understand the facts and make sure that we encourage good behaviour among Singaporeans. So, it benefits our community. I am not sure how Mr Perera thinks that it is not a good idea in getting more people to be kinder to another, to be more courteous to one another, to take care about the cleanliness and hygiene in our homes, to benefit our neighbours.

On the MND's ads, it is about telling facts to Singaporeans about the BTO flats launches that are coming up, and some have worked examples of how they can apply the CPF grant; how they can use proximity grants when living near the parents – giving them information to make the best decision that they can.

I really do not quite understand where Mr Perera is coming from. These are just facts to help Singaporeans make the best decision for themselves. And I am sure Singaporeans can do so.

The Chairman: Ms Jessica Tan.

Ms Jessica Tan Soon Neo: I thank the Senior Minister of State for sharing about the cybersecurity health plan. It will go some ways to encouraging SMEs to understand their cybersecurity risks because it will develop. There will be a health plan for the SMEs.

But just like all health plans, the real benefit is when you do something about it after you get your health plan.

So, can I ask the Senior Minister of State what more can we do to shift the mindset of SMEs who need to focus on some of the business challenges to also give that right emphasis to be looking at cybersecurity and making their companies safe so that they can be competitive?

[Mr Speaker in the Chair]

Mr Tan Kiat How: Mr Chairman, I thank the Member for asking a very pertinent question. Even as we support the digitalisation efforts of our SMEs, getting them to stay safe online is important consideration and priority. Cybersecurity is not just about individual firms. You may not be the target. You might be a consequence of an attack. Vulnerabilities exploited in one firm could affect many in the supply chain and many of their customer segments.

The cybersecurity health plan will go a long way in encouraging SMEs to strengthen the cybersecurity posture.

In addition to the cybersecurity health plan which I spoke about just now in my speech, the CSA has been working with industry associations and companies, on various efforts. For example, it launched the Cyber Essentials and the Cyber Trust marks last year to recognise enterprises which have adopted good cybersecurity measures that correspond to their risk profiles.

These are visible indicators for enterprises to demonstrate to their suppliers, to their customers, that they have a certain level of cybersecurity measures in place, which in turn gives their business partners and customers the confidence and trust to transact with them. This enables enterprises to better differentiate themselves from other firms, their competitors and offering a competitive advantage ahead of their peers.

This is an important point that I hope SMEs and firms can also consider. It is also how you signal to your business partners and your customers that you are differentiated from the rest.

The Chairman: Mr Pritam Singh.

Mr Pritam Singh: Thank you, Chairman. Just three quick clarifications: one for Minister Josephine Teo and two for Senior Minister of State Janil Puthuchear.

For Minister Teo, I note the upgraded Digital Access at Home scheme that she spoke of, and I think the auto-qualifying aspect of it is certainly excellent. I may have missed what the Minister said about the eligibility criteria. Can I just confirm that the criteria is still the same as the previous rendition of this scheme, which was, I believe, total gross household income of \$1,900 and per capita income of \$650? Does that remain, or has that also changed? That is my clarification question for the Minister.

I have two clarification questions for Senior Minister of State Janil Puthuchear.

First, thank you for responding to my cut. I understand what the Senior Minister of State said with regard to the two files not being in the possession of the NAS, but they are in the possession of the Ministry.

My first clarification pertains to a file which is in the possession of the NAS when a member of the public, even a sitting Member of Parliament, for example, puts in a request for that file. Would the NAS have to then seek permission from the originating Ministry, or is it at liberty to release that file provided the reasons are legitimate? That is my first clarification.

The second clarification question is more of a comment actually in response to what Senior Minister of State Janil Puthucheary said about the Albatross Files. I think I have to give credit where credit is due. The release of these documents, legacy historical documents, are important for the nation as part of the nation-building process. Particularly in the case of the Albatross Files, I think they will show, as I understand, that separation was negotiated over a number of months and it was not a case of Singapore being kicked out. At least, that is what one commentator shared on National Day last year in an article in TODAY newspaper.

I think the fundamental point is I think more of the release of such information is something that the good people at the National Archives should be acknowledged for.

5.15 pm

Dr Janil Puthucheary: Sir, when a request is made for the declassification, the National Archives of Singapore works together with the relevant Ministry and agency officers to examine the matter and takes into account issues to do with national security and defence, but also concerns to do with personal privacy, commercial information and sensitivities around protecting the process of how that material was derived.

Mr Pritam Singh will appreciate that whether something is in the public interest for general release, does not only relate to the content of the document. It can also relates to the personnel that were involved in writing that document, managing the information, how that document relates to other material that is in the Archives or in other parts of the document store, as well as the process of that happening.

So, there are a number of considerations. There is not a single template or algorithm to decide for all documents and it is done in conjunction with the Ministries and agencies.

Mrs Josephine Teo: Mr Chairman, I thank Mr Pritam Singh and also appreciate his comments that the scheme is to be welcomed.

The income criteria that is applicable, I think it is not directly comparable because it is a merger of two schemes. In any case, the eligibility criteria is gross household income of less than or equal \$1,900 per month. But if a household has school-going children or a person with disability, we actually bump it up to \$3,400. This is to recognise the greater needs of such families.

Ms Hany Soh: I want to thank the Minister and our two Senior Ministers of State. I also want to take this opportunity to thank the whole of MCI team.

I hope that you are not affected by the comments made by certain Members, just now, at the COS. Let us not forget the fact that during the COVID-19 period, the MCI team worked very hard around the clock to make sure that the correct and most accurate information is spread across the entire Singapore, uniting all Singaporeans to be together.

Following up with two questions to MCI. I understand that in relation to the topic of scams, this was largely discussed during the MHA COS, but I also want to know how is MCI securing our communications channels to shield citizens from scams?

The next question is given how technologies, which include the rise of online platforms, have disrupted the media industry worldwide, how is MCI helping our homegrown film and media companies to transform as well as to seize more new opportunities?

Mrs Josephine Teo: Mr Chairman, firstly, I would like to thank Ms Hany Soh for her acknowledgement of my colleagues' efforts during the COVID-19 pandemic. I think not only are they gratified, more importantly, they appreciate the fact that they were able to make a contribution to help Singapore through a very difficult period.

To your question on scams, you are right. Minister of State Sun Xueling had covered it in fairly great detail during the COS debate for MHA yesterday. One of the things that she described was the multilayered approach that we take in fighting scams. There are interventions at the level of the individual. There are also interventions at the level of financial services – the banks, primarily. Another very important layer that you described is intervention within the telco infrastructure.

Some of the things that we have done include blocking scam calls as well as SMSes. We have progressively implemented default blocking of overseas calls that are spoofing local numbers – this has been in place since last July – as well as the in-network scanning of SMS content for malicious URLs – links that could be carried within these SMS messages. This has been in place since last October.

Just to give you a sense of the scale of the impact of these measures, just during the time that I took to deliver my COS speech – I believe it was something like 28 minutes – during that time, we would have blocked about 40,000 malicious calls. Just in that time, 40,000.

What that means is that each month, we are getting 57 million fewer spoof calls. They have been blocked.

Since this January, we have, of course, mandated the SMS Sender ID Registry for those that use alphanumeric headers for their SMSes. So, that is something that has been worked on.

As was also mentioned in the media today, we are looking at whether an option can be made available to subscribers to decide that they do not want to be on the receiving end of overseas calls at all because the vast majority of scam calls originated from abroad.

In some instances, people know very well that they do not have an overseas network. They have no reason to be receiving an overseas call. In order to prevent themselves from falling victim, they would rather not receive these calls. That is an option that we are studying together with the telcos. We hope to be able to update you soon.

The Chairman: Ms He Ting Ru.

Ms He Ting Ru: Thank you, Sir. Just one clarification for Senior Minister of State Tan.

I think he mentioned earlier that Government advertising schemes have to target everyone. It appears to me that this is a bit of a missed opportunity to be a bit more targeted and efficient in the spending that we do on our advertising.

I think nobody here disagrees that for COVID-19, for example, we have to target the whole of nation and not just Singaporeans, but also people who live in our communities regardless of their citizenship status. The point that I was making is whether we can get better outcomes with the money that we spend.

So, would MCI, for example, consider having more targeted advertisement – or rather not just MCI but all the Ministries in general – would they consider having more targeted advertising campaigns rather than take a very broad-stroke approach to ensure that we are just spending more wisely?

Mr Tan Kiat How: Mr Chairman, I thank Ms He for her question and her suggestion. Actually, we are on the same page on this. For us, we do want to get the maximum return on investment (ROI) on the marketing spend and the advertising spend – not just on advertising and marketing, but in general, from all Government expenditure.

Maybe just allow me to just elaborate on a couple of points that may be useful for Ms He. First, I spoke about the Government spending about 0.2% of our total expenditure on advertising and marketing. This is probably much lower than many private sector companies. It would probably be above 5% of their total sales, for big companies.

This is just a benchmark. We are not trying to be like the big MNCs or private sector companies, but it is a sanity check for us to say that we are not overspending.

Secondly, I mentioned earlier that every Ministry, as part of its programme budget – for example, Healthier SG, getting people to sign up and pre-enrol to have a general practitioner (GP) or in terms of encouraging people to have Mozzie Wipeouts to safeguard the neighbourhoods from dengue – every Ministry has its own set of outcomes they want to achieve for the programmes.

Advertising is part of that overall budget. They will have to justify rigorously, evaluate the various options and justify those budgets internally. And they use a number of measures. I mentioned some just now for the digital media space, including impressions, clickthrough rates, cost per click, number of views and so on to measure how well those campaigns are doing.

So, first and foremost, we are on the same page on this. That is something we will continue doing and I thank Ms He for her suggestion. On whether MCI ought to look at this centrally and holistically, I mentioned in my earlier reply that we are indeed exploring ways to do so and we will consider how to do so effectively.

The second is about more targeted advertising. That is something that we also try to do, targeting our campaign so that the messages reach the intended audience. It is not just about a more efficient use of the advertising money, but also it is more important to reach out to segments of Singaporeans to inform them of specific set of considerations that they need to have or need to think about for that specific programme.

For example, I go back to COVID-19 vaccination. How do we target to reach seniors, especially those who may not speak English, may not even speak Mandarin or the vernacular languages but in dialects? How do you reach out to them? Targeted advertising in a way that resonates with them – this is something we were looking at.

But at the same time, we also have to balance between being very personal and targeted, with personal privacy. I am sure Ms He and her colleagues have also due consideration of personal privacy and data protection.

We try to be targeted and personalised but at same time protecting the privacy of the person. So, it is a balance but I agree with Ms He that this is something that we are looking at.

The Chairman: Ms Tin Pei Ling, would you like to withdraw the amendment. Yes, Minister?

Mrs Josephine Teo: Was there one more question that was not answered?

Ms Hany Soh: Yes, there was one question that was not answered. This is in relation to the support for local companies. I can repeat the question.

Mr Tan Kiat How: Do you mind repeating? I am sorry.

Ms Hany Soh: Given how technology, which includes the rise of online platforms, has disrupted the media industry worldwide, how is MCI helping our homegrown film and media companies transform and seize more new opportunities?

Mr Tan Kiat How: Firstly, I apologise for missing that question. In response to the question by the Member, indeed, we are supporting the global ambitions of our homegrown media companies, especially our homegrown media studios, by strengthening capabilities through close partnerships between them and the larger players in the industry like the MNCs and by encouraging them to adopt the latest technologies.

One good example is the Capability Partnership Programme (CPP), which was launched in 2018 to facilitate collaboration between our local companies and reputable international media companies to bring "Made with Singapore" content to the world. I think we are very proud of many of our "Made with Singapore" content, for example, the recent "Ajoomma".

The CPP has since benefited around 120 local media firms and over 830 media talents. As a next step, we will continue to strengthen this partnership between our media firms with global media studios.

We also supporting our media firms in adopting technologies to raise production capabilities. I announced the \$5 million Virtual Production Innovation Fund last year to encourage innovation and adoption. We will support virtual production produced short-form content. As part of the call for proposals, we received over 40 ideas in the recent call for proposal (CFP). We are evaluating them and IMDA will announce the results soon.

We will also be launching a virtual production challenge, partnering with Epic Games. Shortlisted participants will undergo Epic Games training with funds supporting production of narrative-based content using their real-time 3D content tool engine, the Unreal Engine.

We are working very closely with the media industry to create local intellectual property (IP) – "Made with Singapore" content that can travel to the rest of the world, helping our firms to use technology to produce content more efficiently and meet the more sophisticated needs of consumers around the world.

The Chairman: Ms Tin, if you can withdraw your amendment?

Ms Tin Pei Ling: I would like to thank the Minister and the two Senior Ministers of State for the very comprehensive replies to all our questions and of course, a big thank you to the entire MCI team as well.

I think, despite all the questions that have been asked, respect goes to all of you for being on the ground, in the trenches, facing off the challenges that you have to face and making that inclusive digital future a reality. With that, I would like to withdraw my amendment.

Amendment, by leave, withdrawn.

The sum of \$1,844,175,000 for Head Q ordered to stand part of the Main Estimates.

The sum of \$44,628,100 for Head Q ordered to stand part of the Development Estimates.

COMMITTEE OF SUPPLY – HEAD K (MINISTRY OF EDUCATION)

(A Vibrant Economy and a Resilient Workforce)

The Chairman: Head K, Ministry of Education. Mr Patrick Tay.

5.30 pm

Education and the Way Forward

Mr Patrick Tay Teck Guan (Pioneer): Sir, I beg to move, "That the total sum to be allocated for Head K of the Estimates be reduced by \$100".

The past few years have undoubtedly been a test of mettle. Especially so for our educators and school staff who have worked tirelessly to ensure our students are safe and schools remained open during the pandemic, all while balancing their own demands and caregiving needs. Not to forget the staff in MOE headquarters who have toiled in the background, coordinating and supporting our schools' responses. I tip my hat to all of you for taking every challenge in your stride as you continued steadfastly to mould the future of our nation.

With business and economic disruptions occurring at a more rapid pace, identifying the skills demanded in the future and equipping our learners with these in a timely manner will be a perennial challenge. COVID-19 showed us how quickly our modes of working can be upheaved but it also showed us that if we can react rapidly, we can seize opportunities even in challenging times.

As our education system evolves, I hope that we do not just do more, but do better. I would like to highlight three areas that we must do better in, in what I shall call the "three betters".

First, better career guidance for youth who have just left school and new entrants into the workforce through career coaching. Second, better access to quality Continuing Education and Training, also known as CET. Third, better recognition of skills and competencies by employers.

Our mainstream school students have access to education and career guidance throughout their education journey, all the way up to their time in Institutes of Higher Learning (IHLs). However, once they leave the IHLs, they may no longer have access to subsidised professional career coaches, which is unfortunate.

Coaches work with us to explore our strengths and weaknesses, build confidence and chart our career paths. They are invaluable resources throughout our careers and the start of our career journey should be no exception. We owe it to our youth, especially those who have given up much during the pandemic years, to help them get a strong footing on the career ladder.

Understandably, our IHLs, or what Minister endearly calls Institutions of Continuous Learning (ICLs) may want to concentrate their resources on current students. By the same token, only the unemployed and retrenched have access to employability and career advisory as supported by Ministry of Manpower. I hope that the Government will consider allowing youths as well as workers in general to make use of their SkillsFuture credit for career coaching services, since this aligns with its aim which is to encourage individuals to take ownership of their skills development and lifelong learning. This will also mitigate against skills, jobs and expectations mismatch which is a cause of our structural unemployment problem here in Singapore.

The next area we can do better in is access to quality CET and to make CET a way of life. If we think about it, CET is very similar to Iron Man's Mark suits. On his own, Tony Stark is human, though a brilliant and resourceful one. But when he puts on his Mark suits, he becomes Iron Man, Earth's Best Defender. Similarly, when adult learners participate in CETs, we upskill and reskill ourselves, allowing us to respond constantly to evolving industry needs and challenges.

Just as Tony Stark upgrades his Mark suits to prepare for future and more lethal attacks, we upgrade our skills and employability with each CET qualification obtained, improving our chances to bullet-proof ourselves against curve balls and seize opportunities in the future economy. Thus, I urge MOE to dedicate more and latest resources into encouraging and catalysing both employer-supported and individual-initiated training so that we can weather any storm and fight new challenges.

And just as Tony Stark is selective about the modifications that he makes to his suits, we must also ensure that the CET offered are well-designed to attract adult learners who have to balance work and other commitments. CETs must be relevant to the demands of industries or they will not be effective at improving employment outcomes. CET providers and industry must collaborate closely so that our CET offerings can be adjusted in response to rapidly changing needs of our economy. NTUC is more than happy to support this collaboration via our network of unions and company training committees.

But even the best Mark suits are of no use if no one wants to put them on. We must help Singaporeans recognise and embrace lifelong learning as a continuous process. Through school, we build strong foundations; through work, we gain practical experience; and through CET, we stay up-to-date and remain competitive.

Mainstream education, CET providers and industries must work together to develop curricula and programmes that would equip learners with skills and knowledge they need to succeed now and in the future. This will help our learners realise the value of ongoing personal and professional development and industries to have access to a highly skilled and capable workforce.

In the same vein, I further submit that we should require employers to provide training leave for workers to undergo training and skills upgrading.

Finally, better recognition of skills and competencies by employers. Singapore's system of meritocracy has been debated many times. While it encourages us to strive for better outcomes, it has led to an endless paper chase as degrees and diplomas are used as proxies for individuals' skills. But these papers only reflect skills at a particular point in the learner's life cycle and are not the be-all and end-all.

Employers need to recognise that the mark of a high-performing individual is in his skills and competencies. Instead of an unhealthy overemphasis on academic qualifications, we should reward learners who continuously develop themselves via CET programmes and modular courses. Employers, likewise, should also take the opportunity to leverage training opportunities, such as those offered by our NTUC's Training and Placement ecosystem, to train and develop workers thus strengthening their own talent pipeline.

Mindset shifts will take time especially when it comes to deeply ingrained beliefs and habits. There are no silver bullets. However, I am optimistic that we are moving in the right direction and we can achieve this with concerted effort from Government and society.

In conclusion, it is therefore submitted that we can do better in our quest to develop future-ready learners. We need to have better career guidance and coaching, better access to quality CET and better recognition of skills and competencies by employers and training leave to do all these. Together, these will encourage lifelong learning and enable learners to take ownership of their own career development. Ultimately, both the learners and society will benefit when our workforce is equipped with the skills needed for a changing labour market.

Question proposed.

Future of Education

Ms Denise Phua Lay Peng (Jalan Besar): Chairman, education is very close to my heart. I made almost 30 speeches in this House on education, including on schools for the future, removing the PSLE, through-train schools, tuition, special education and lifelong learning. I will touch briefly on the future of education today.

Sir, I am excited by the five required key shifts articulated by Education Minister Chan, shifts for the future of education. As always, a visionary. These five key strategic shifts include moving education from the first 15 to the next 50 years, harnessing strengths of the whole of society in education and other strategic moves. But as we know, behind every big vision are thousands of plodding steps needed to make the vision a reality. There are not only current structures, systems and processes but also current mindsets to reckon with.

Many of the required key shifts articulated by Minister Chan sound like the proverbial new wine that needs to be stored into wineskins. We have heard of how one does not pour new wine into old wineskins, lest the new wine will burst the old wineskins and both wine and skins are destroyed, lost. So, would the Minister please share his analysis of what might be the driving and restraining forces of making these key shifts, the new wine, in education and what needs to be done to secure a good future for Singapore's education system?

Next, I wish to offer three suggestions today for MOE's consideration.

On over-emphasis of exams and academics. I urge the Ministry to research and develop an alternate system to the current (a) school admission and (b) staff recruitment system by employers for example, which predominantly uses exam grades and paper qualifications as the proxy for competencies. As long as most businesses and schools do not have an effective alternate system of assessing competencies and proficiencies, the focus on the traditional exams and academics will continue. We already know of tech companies and creative industries which prioritise portfolios, evidence of desired skills and experience over school results and use these for hiring decisions.

Next, on innovation. I urge the Ministry to allow for and support the blooming of alternate education school models. Seriously study the potential of through-train schools without the PSLE, micro schools – with school sizes of say 100 to 300 students, quality home schools and lifelong learning schools especially for students with disabilities who are unlikely to be well-served by the mainstream SkillsFuture offerings. The use of approaches such as the individualised education plans, blended pedagogy, technology and harnessing the whole of society can similarly be applied and quality need not be compromised. So, let us be bold and take some calculated risks.

Next, on adult learners. I urge the Ministry to conduct a deep study of a specific segment of mid-career and middle-aged Singaporeans and develop programmes to uplift those at risk. Now, much has been spoken of the success of Singapore's 15-year-olds in PISA, the OECD's Programme for International Student Assessment. However, not much is said of the Programme for the International Assessment for Adult Competencies (PIAAC) or the OECD Survey of Adult Skills. The last PIAAC report was published in 2016. It shows that while Singapore adults aged 16 to 34 fare well, our older adults aged 45 to 65 performed lower than the OECD average in literacy and numeracy. So, as lifespan and retirement age rises, more aggressive steps are needed to uplift this segment of at-risk Singaporeans.

So, in conclusion, Sir, for our education to be relevant and ready for the future, we must identify and work on the game changers to significantly move the needle.

The Chairman: Ms Phua, please wrap up.

Ms Denise Phua Lay Peng: If any country can do it, I believe Singapore can.

Transforming Early and Primary Education

Ms Carrie Tan (Nee Soon): Mr Chairman, more private preschools are increasingly incorporating nature and outdoor-based learning for children. Besides better physical development, it also helps children improve mental well-being and develop higher intuitive intelligence. This refers to the ability to think holistically, to think paradoxically, to listen and connect to oneself and others and the ability to lead by influence rather than design.

The role of nature is thus essential. Nature provides the best classroom for such learning and all schools should be enabled to harness nature-based learning so that all children can benefit and not just those whose parents can afford private preschools. I urge MOE to make outdoor and nature-based learning the main approach in early and primary education.

As the world evolves with new climate realities, we cannot be playing catch-up in preparing our young for future jobs in the Green Economy. It is imperative that we equip our young to be "nature natives" and not just "digital natives".

Beyond occasional visits to farms and community gardens, children in preschool and kindergartens can be introduced to the sciences by playing in nature and be guided to observe how plants, animals and other elements in nature interact in symbiotic relationships. They can learn spelling by identifying plants and creatures, be taught teamwork collaboration through play-based lessons and fun projects in the outdoors.

In lower primary, students can learn conventional subjects like science, mathematics, commerce and communication through nature-based approaches such as tending to food gardens and harvesting produce to be sold in a school cooperatives or other enterprise or social projects. Upper primary students can be facilitated to learn organising skills, collaboration and leadership by leading these projects. Real world application-based learning from a young age will help an increasingly evolved and questioning generation to see relevance in their education. Incorporating more play also imbues joy and helps foster stronger desire to deepen their pursuit of knowledge as they mature into tertiary years.

We can begin by sending interested educators to receive training in naturalistic pedagogy and pioneer a detailed curriculum for pre- and primary school. This can segue into the International Baccalaureate (IB), General Certificate of Education (GCE) or Institute of Technical Education (ITE) options depending on the inclinations and aptitude of the youth.

To begin this transition, schools planned to be closed due to low demand can be re-designed to pilot this model. Parents can voluntarily sign up if they are keen to give their children an alternative approach to education.

Coupled with a longitudinal study of a cohort of children from age three to 16, the improvements to well-being and learning are observed along the way, MOE can scale the pilot to offer more spaces to willing parents progressively until it is accepted by most. This will ensure that the transformation of our education system is evidence-based and at a measured pace in partnership with parents.

5.45 pm

Diversity in Schools and Student-initiated Learning

Ms Hazel Poa (Non-Constituency Member): Mr Chairman, first of all, I declare that I run a company operating education centres and a private school.

Allow me to quote extracts from Everychild.sg's White Paper developed by Singaporean parents: "...the cultural norm among many Singaporean families is for a parent ... to plan to take time off during the child's PSLE year, rather than during the first 1 – 2 years of the child's life... many Singaporean parents ... prioritising giving their child undivided attention at the age of 11/12, which appears to the child to be tied to performance expectations, rather than the more unconditional and intimate love of infancy and early childhood. We would be naive to think this does not have a negative impact on children's mental health, emotional development, self-esteem and future relationships."

This is the third time I am urging MOE to consider piloting a through-train programme for primary and secondary school students, bypassing the PSLE and I have no intention of stopping. There should be no sacred cows in education. The learner, especially the well-being of the child, comes first.

Another sacred cow to slay is the size of our schools. There is no "one-size-fits-all" solution in school size policies. In our international school scene, families may choose from a variety of schools that best fit their children's profiles. There are primary schools that take in less than 200 students to big schools with a few thousand strong student population. For local students, we only offer big schools. MOE merges schools because of falling birth rates and changing demographics of housing estates.

I urge MOE to consider a range of school sizes for the sake of our changing learning demographics too. We want to move towards inclusive learning where neurotypical and neurodivergent children play and study well together. Small schools have the advantage of developing deeper connections between staff and students. Just being able to know everyone by name can build a stable, safe environment for children who feel left out and whose needs go unaddressed in big spaces and also, big class sizes. Can we not refurbish old school buildings that have been left abandoned for years, to a couple of small schools for a pilot programme?

Lastly, I want to bring up the Student Initiated Learning (SIL) programme. Last year in October, MOE in response to my question, replied that SIL is "time is set aside for students to pursue their own interests and learn outside the curriculum. This is to encourage students to be more curious and self-directed in their learning" and that "Preliminary feedback indicate that SIL is valued by schools and students".

The feedback that I have received on the ground is that the reception to SIL is uneven. For example, I do hear of instances where students who are not keen on the scheme choose to "learn" things that they already know. As this is a new initiative with an approach quite different from what is traditional in our schools, teething problems are of course to be expected.

I am fully supportive of encouraging students to be more self-directed in their learning. However, I do feel that making this scheme compulsory is a contradiction to the whole idea of student-initiated learning. Let students have a chance to opt out of the programme if it does not work for them. Do not let them feel this is just another programme imposed on them from above. Making this programme optional will also allow us to get a more accurate picture of the level of acceptance.

And whilst our teachers and students take time to get used to the idea of student-initiated learning and how it can benefit them, perhaps schools can offer some structured programmes that students have voted for as mid-way measures?

Another suggestion is to allow students to use Medisave to learn from classes at SkillsFuture and related online courses. Let us help students build a customised, relevant skills-based portfolio. They can match their learning interests from any class and vendor around the world.

Flexible Through-train Programme for Schools

Assoc Prof Jamus Jerome Lim (Sengkang): Although I personally dislike taking tests – and as an educator, I lean toward minimizing the use of quizzes and exams – I am actually pretty decent at them. My wife, for all her innate talent and creativity, and bless her heart, turns out to be pretty bad at them. Yet tests are a common feature in the education landscape, both here and around the world, and most of us endure them, for good or ill.

The ubiquity of tests and the varied performance of otherwise, like comparably-talented individuals, has resulted in an active debate about the value of high-stakes, standardised tests.

One important reason for such variability – and for anyone who has experienced that stomach-churning sensation come testing time – is that test anxiety is real, can negatively affect performance and is unrelated to actual ability. Another is that individual motivation differs when confronted with the prospect of a test and this motivation is only weakly associated with performance.

Studies of university admissions based on making test results optional reveal no evidence of changes in application volume or yield rate, but conversely, improvements in the diversity of applications. Indeed, when COVID-19 struck, a host of universities chose to suspend testing as a requirement for entry and have chosen to retain this practice even after the pandemic. This list includes august institutions, such as Amherst, Brown, Cornell, the University of Chicago, Harvard, Stanford, WashU in St Louis, Williams and Yale.

All this has led to a re-examination of the merits of high-stakes tests. Diane Ravitch, an education policy analyst that once was an advocate of testing and who oversaw the development of such tests in US schools, now call for an abandonment of standardised testing.

The evidence aside, the reality is that a reliance on grades and test results are becoming less and less critical in many important settings.

When I was in graduate school, it was common knowledge that those who excelled in the coursework component of the programme would not necessarily go on to become the best researchers. The top student in our first year dropped out in our second, to become an actuary, rather than see through the rest of the PhD programme. In contrast, one of our other mates, who had failed several of our first-year comprehensive exams, eventually went on to graduate, is now a practicing economist at a central bank and routinely publishes papers in academic journals.

Beyond academia, more and more companies are eschewing formal traditional test-based metrics. Google famously does not hire on the basis of grades and no longer even requires a college degree, preferring to evaluate applicants on the basis of actual work produced.

The Workers' Party proposal is to introduce an optional 10-year through-train programme (10 YTS) from primary 1 through secondary 4 allows parents who wish to allow their children to bypass the PSLE to do so. Thus, their first major examination will be at secondary 4.

Children develop at different rates and this option allows certain kids to learn at a pace that is more suited for them. Importantly, offering the extra room for children to blossom and to reach their full potential before they turn 16 could actually be even more important than allowing them to skip a major test at the age of 16.

Certain schools already have a variation of 10 YTS. The Integrated Programme (IP) already allows students in secondary schools to skip the "O" Levels and proceed directly to their ultimate high-school exam, such as the "A" Levels – Catholic High, Hwa Chong, Raffles Institution (RI), Victoria, St Nicholas, among others; the IB – Anglo-Chinese School (ACS) and St Joseph Institution (SJI); or the high-school diploma, which is the case for NUS High. This proposal merely suggests an extension of the programme to a different high-stakes standardised test.

Importantly, this option will complement, but not replace, non-10 YTS tracks. Students who wish to continue taking the PSLE may still do so. Perhaps more critically, this proposal does not mean that frequent teacher feedback, in the form of other feedback via other than high-stakes standardised testing should be de-emphasized. In fact, there is solid evidence that such feedback, along with other practices such as increased instructional time and specialized tutoring, is what distinguishes effective schools from those that are less effective. The key is not the frequency by which tests are administered, but rather to treat the interaction between teacher and student as an interactive, ongoing dialogue.

Subject-based Banding

Mr Darryl David (Ang Mo Kio): Chairman, full Subject-based Banding (SBB) introduced in 2020 is an important element of the goal of MOE to instill in students a love of learning. An extension of MOE's 2018's SBB, it allows students to take the English Language, Mathematics, Science and Mother Tongue languages at a more demanding level at secondary 1, based on their performance in these subjects at the PSLE.

From 2020 to 2024, the full SBB has been introduced to allow students to learn each subject at a level suited to their strengths, interests and learning needs. This move is also the result of positive feedback from students and parents, I believe, and teachers as well, and also indicators from the O and N-Level examinations.

With the full SBB, I believe that the Express and Normal Academic streaming has been ended. Instead, students will be in mixed form classes, allowing them to engage with peers with various interests, aptitude and strengths. This will also open multiple pathways for students based on their aptitudes and interests.

Can MOE provide updates on the progress of SBB? What are some of the challenges faced in SBB? Is there a plan to enhance the programme and perhaps offer other subjects in the future?

The Chairman: Mr Baey Yam Keng, you can take your two cuts together.

Full Subject-based Banding in Secondary Schools

Mr Baey Yam Keng (Tampines): Sir, I commend MOE's introduction of Subject-based Banding (SBB) in 2014. It recognises that each of us could have a different attitude towards different subjects. These allow students to learn at a pace and level according to their academic abilities in specific subjects rather than their overall academic performance. More importantly, it will help our students nurture the joy of learning.

In 2020, full SBB was piloted in 28 schools and will be implemented in all secondary schools from 2024. MOE has taken a careful and measured approach in rolling out this programme. Indeed, it should be so, as we must be sure of the benefits of any change in policy.

One of the major challenges of full subject-based banding is the availability of resources to cater to the specific needs of each band. Different bands may require different teaching resources such as textbooks, laboratory equipment and teaching staff, which may be difficult to provide for all students in each band.

I would like to ask MOE to share their experience of full SBB and how the challenges would be overcome when it is rolled out to all secondary schools.

Compared to the past when students stay within their own class for all subjects, full SBB means that students could have different classmates for different subjects. While these will allow students to learn with different schoolmates and make more friends, it could have an impact on the forging of a form class spirit. After we graduate, we tend to have class gatherings, now students might need to have

gatherings by subject band classes, or would they not even feel close enough with their classmates in different band classes.

I feel that a dilution or even loss of affinity towards a class would be a sad consequence of full SBB. Therefore, may I know what MOE has observed about our students' school experience under full SBB?

When students are used to be able to study different subjects at different bands, they will need to follow through in terms of similar flexibility in learning and accessibility to more pathways and learning opportunities to the post-secondary education.

I know that for A-Level subjects that we have offered at H1, H2 or even H3 levels. How about Polytechnic and ITE curriculum? I would appreciate if the Ministry could share any plan in this area.

Review of A-level Curriculum

With easy access to the wealth of information on the Internet and availability of Artificial Intelligence (AI) like ChatGPT, education has to go beyond acquisition of knowledge. We have to learn how to find information, process information, turn the information into knowledge and learn how to apply the knowledge.

Our students need a wide range of 21st century skills and competencies to thrive in a complex and fast-changing world of today. I am glad that MOE has been progressive in its education philosophies. The recent reviews of curriculum content and assessment demand has led to the removal of mid-year examinations for all primary and secondary levels from 2023. I believe this has been very much welcomed by students but perhaps only by some parents. This is when I urge parents to support MOE in this and fill up the freed up time and space that the kids have with more tuition and enrichment.

I would like to ask MOE whether the curriculum review will also be extended to post-secondary levels, the A Levels is already a much shorter course of two years compared to primary and secondary schools. Within two years, students have to take two mid-year examinations, more promo and one prelims exam, on top of their common tests. Will we be able to relieve some of the examination preparation and stresses?

GCE "A" Levels

Mr Darryl David: The "A" Level system has been the traditional academic pathway post-secondary school for majority of students who are aiming for university education. Over the last two decades, however, there have been many options that have emerged: speciality schools, Integrated Programme (IP) through train programme, International Baccalaureate (IB) and the polytechnic courses have also become more attractive and diverse.

I believe that tweaks have been made to the "A" Levels over the years in 2007 under the revised curriculum. Students were allowed to select subjects from three levels, Higher 1 (H1), Higher 2 (H2) and Higher 3 (H3). Subjects are divided into knowledge skills and content-based subjects. Knowledge skills subjects include General Paper (GP), Knowledge and Inquiry and Project Work and content-based subjects divided into languages, Humanities and the arts, and Mathematics and Science.

Under MOE's regulations, students sitting for the "A" Levels in a junior college (JC) are required to take at least one subject that is from a contrasting discipline. Students also take a Mother Tongue Language.

In 2022, MOE announced that more places in junior colleges (JCs) will be made available for students entering with talents apart from their grades through the direct school admission (DSA) exercise from this year. The number of DSA places for non-Integrated Programme students have also gone up from 10% to 20% of the yearly cohorts at Government and Government-aided JCs, including Anderson Serangoon JC, Eunoia JC and Victoria JC. These are indeed moves in the right direction.

My question is: can MOE share if the "A" Levels are still relevant in today's education landscape and how it would compare to other post-secondary qualifications, such as the IB and even polytechnic diploma in terms of admissions to our Singapore universities?

Access to Education

Ms He Ting Ru (Sengkang): Sir, following the concerns raised during the Budget debates last week about social mobility in Singapore, it is clear that we need to maintain and even redouble efforts to improve access to education and opportunities. At this point, I would like to declare my interest in an enterprise in the education space in markets including Singapore.

In order for our schools and universities to thrive, they must be mindful to make themselves accessible to students from a wide variety of backgrounds. Top universities, like the Ivy League and Oxbridge universities often make their admissions statistics widely available and publish targets on increasing access to admit more students from vulnerable or lower-income backgrounds. The careers services of such universities also often heavily emphasise and rely on alumni to maintain guidance for students and former students who have since graduated.

Indeed, I was myself involved in being a student mentor at my university, providing mentorship for promising sixth formers, or "A" Levels students, who would be the first in their family to attend university. I also continue to occasionally receive emails from current or recent students of the university, seeking careers advice on topics relating to different career pathways and options.

It is with this in mind that we managed to successfully launch a mentorship programme for students in Sengkang two years ago and many of our participants found it helpful to be able to discuss their educational and career options with mentors from a wide variety of backgrounds. I am happy to see more constituencies outside Sengkang starting to roll out mentorship programmes.

Could we therefore start to publish detailed information annually on the progress made towards admitting students from a more diverse background, so that we know if our efforts are paying off? This would also make it easier for our fellow Singaporeans to measure the success of and thus understand moves, such as relocating popular schools out of central Singapore, in an effort to be more inclusive.

We could also move to have our alumni more heavily involved in advising current or even prospective students into our popular schools and IHLs, not because there is a benefit to be gained, but because they wish to genuinely share the benefit of their life experience with younger fellow Singaporeans.

Moving on to enrichment programmes, it is true that MOE, the Ministry of Social and Family Development (MSF) and other agencies are working towards increasing access to tuition. While a good start, these programmes typically focus on more academic programmes, and leave students from lower-income families still unable to attend robotics or AI classes, forest school, for example, and other types of holiday camps which have proven to be equally if not more beneficial for children's holistic development. This would be especially important in today's fast-changing environment, where the ability to pass examinations is only part of a measure of life success.

We also need to think outside of the box and go beyond the traditional smaller scale tutoring system. We should also take a leaf out of the book of heavily-tutored countries like South Korea, whose Educational Broadcasting System holds highly accessible lectures for high school students preparing for university admissions examinations. It was estimated that this service significantly reduced spending on private tutoring by 816 billion won back in 2011.

Admission to Primary School

Mr Lim Biow Chuan (Mountbatten): Sir, in the past few years, I have been approached by parents who complain that they are unable to secure a place in a primary school in a nearby school for their children. Instead, their child was posted to a primary school that is several kilometres away from their home.

This has caused them great inconvenience as the child would have to take public transport or wake up very early in the morning to take the school bus to the primary school which the child was posted to. Sometimes, the school may not have a school bus connection to the child's home. Hence, these parents appealed for their child to be admitted to a school that is nearer to their home.

Sir, I am sympathetic to these cases. Young children should not have to wake up too early and travel a longer distance than necessary to their school.

I urge MOE to review the Primary 1 admission scheme. MOE can maintain the priority scheme under the current Phase 1, 2, 2A, 2B and 2C. But pupils admitted to the primary school under any of the above priority schemes, should be subject to a 1- or 2-kilometre distance limit to the school. The younger students will then get more rest at home and this will reduce the need for the school to arrange for school transport for the pupils and reduce worries that a bus operator may not perform the expectation as we saw recently in St Stephen's School.

Primary 1 Registration Reform

Mr Chua Kheng Wee Louis (Sengkang): In his Budget speech, Deputy Prime Minister Lawrence Wong spoke about building a fairer and more inclusive society. This has to start with our children and with our primary schools where social mixing has arguably been on the decline.

I was heartened by MOE's to tweak the Primary 1 (P1) registration framework by doubling the number of places reserved in each school under Phase 2C 2022 onwards. This allows more children who have no family connections to the school to get admitted into a school near their home.

But I believe the changes do not go far enough. Why are we still entrenching the mindset that just because my father or mother went to a certain school and so did I; hence, I must get my son or my daughter into the same school as well. Since MOE recognises that going to a school nearby is in the educational interest of each child, as the Ministry has really made clear in its news release, then the P1 registration framework should be redesigned to make sure that we honour this commitment to every Singaporean child entering Primary 1.

This was why I suggested in 2021 that MOE should consider using citizenship and home-school distance as a primary means of allocating vacancies for all three phases of the P1 registration, while retaining the existing Phase 2A and 2B criteria for determining balloting priority. Minister Chan's reply was that MOE needs to avoid causing disruptions to parents and take care not to drastically affect the groups given priority under the current framework. But if inherited parental privilege is protected at the expense of another child being turned away from a school that is only a few hundred metres away from their home, can we truly say that our system is fair for all?

In the past, MOE has been constrained by a need to respect the history and legacy of many schools which started off as community initiatives. But the impending move of ACS (Primary) to Tengah and the largely positive response is drawn from parents and alumni tells me that attitudes are shifting. CNA also recently broadcast a very thought-through talking point video which questioned If a complex and confusing P1 registration process actually perpetuates educational inequalities. We can and we must take bolder steps to simplify the P1 registration framework and make it truly accessible for all.

The Chairman: Mr Muhamad Faisal Abdul Manap, you can take your two cuts, please.

Edusave Award

Mr Muhamad Faisal Bin Abdul Manap (Aljunied): MOE's Edusave Award is a recognition to Singaporean students who have demonstrated good character, leadership, conduct, learning disposition and academic performance. However, I note that Singaporean students who are studying in the full-time madrasahs are not eligible for the Edusave Award. This is because of the full-time madrasahs' status as a private education institution and not a public school. This was the reply given when I asked in 2015. At this point, I would like to declare that I have a child who attends full-time madrasah.

Sir, I am aware that the Islamic Religious Council of Singapore (MUIS) presents the Madrasahs Student Awards yearly to the top 5% of the best performing and top 5% of most improved madrasah Singaporean students from each level in academic and religious subjects. What I would like to propose is for MUIS to continue giving awards, but only for religious subject as they are a statutory board which regulates Islamic education system in Singapore. Separately, full-time madrasah students excelling in non-religious subject should be eligible for MOE's Edusave Award like Singaporean students in public schools.

My suggestion is meant not just to boost financial support for our madrasah students and their family. It is also meant to foster a greater sense of solidarity amongst all our students regardless of whether they are attending madrasah or Government school. This will, in turn, add to our existing efforts to maintain inter-religious, and inter-racial harmony in Singapore.

Financial Assistance Scheme

MOE's Financial Assistance Scheme (FAS) aims to provide financial support to Singapore students, from the low-income households studying in the public schools or public-funded schools.

Sir, I am of the view the FAS also be accessible to the following two groups of less privileged students. First, students of the six full-time madrasahs. Were parents choose to enrol their child in a full-time madrasah, it is to aspire the child to be equipped with both academic and religious knowledge. Our public schools do not provide the latter.

I note that MUIS does provide financial assistance in the form of Progress Fund Madrasah Scheme (PROMAS). Nonetheless, as part of our ongoing efforts in making our society more inclusive, I would like to propose that MOE extends the FAS to all Singaporeans students who need it, regardless of the type of institution they are attending.

Secondly, I propose that FAS should also be made available to needy students who are Permanent Residents provided one of their parents or stepparents is a Singaporean. I have come across cases of low-income Singaporeans parents who has a child or stepchild who is a Permanent Resident and are struggling in their child's education expenses. Some even ended up with school fees arrears, even though they are paying subsidised fees. A good number of these Singaporean parents had attempted to acquire Singapore citizenship for their child or stepchild, hoping to alleviate the financial cost. However, many have been unsuccessful.

I note that between 2019 to 2021, around 30% to 40% of all marriages involving Singaporean citizens were transnational marriages. Some of these marriages do lead to children who may not have Singapore citizenship. Sir, I believe my proposal of extending the FAS to cover children in such circumstances is in line with our mission of strengthening our social compact.

Support for Students' Well-being

Dr Wan Rizal (Jalan Besar): Chairman, as an educator, I have seen first-hand how students' mental states can impact their learning engagement and ability to achieve their full potential. Students today face a unique set of challenges unlike those faced by few years generations. Rapid technological advancements, economic uncertainty and a dynamic job landscape are just a few examples of the challenges our students must navigate today.

Students also deal with increasingly complex, social and personal pressures that impact their well-being. For example, social media have fundamentally changed how students interact with each other and the world around them. While social media can be a powerful tool for communication and self-expression, it can also create an environment of constant comparison and pressure to present a perfect image of oneself. This can lead to feelings of anxiety, low self-esteem and depression among youths.

In light of these challenges, we need to work towards identifying areas for improvement and develop more relevant and effective strategies to support our students' well-being. Could the Ministry please update on its efforts in promoting and supporting the wellbeing for our students in schools and IHLs?

Stress in Education

Mr Leon Perera (Aljunied): Mr Chairman, recent reforms such as the new PSLE scoring system, the introduction of some aptitude-based admissions and the removal of mid-year examinations are commendable steps to make education more equitable, holistic and less exam-focused. However, we should ask what more we can do to reduce unhealthy competitive stress in schools.

6.15 pm

According to a survey by Rakuten Insight in Singapore in May 2022, 63% of those aged 16 to 24 had a higher level of stress or anxiety for the past 12 months, the highest of any age group. A 2017 OECD study found that 66% of students across all OECD countries said they were worried about poor grades at school but in Singapore, among Singaporean students, it was far higher at 86%.

Sir, I will make a few suggestions to better manage the unhealthy competitive stress that some students experience, especially the less academically able or financially better-off ones.

Firstly, to further improve access to enrichment programmes for lower-income children, we could leverage technology to scale up access to quality education. To address the fact that better-off children can access better private tuition and enrichment classes, MOE should facilitate the production of engaging and easily accessible educational materials that are freely available online to students such as podcasts and explainer videos. These could complement students' in-school education.

For example, according to the 2014 publication, Regulating Private Tutoring for Public Good, from the University of Hong Kong, South Korea's educational broadcasting system was established in 1990, with high-quality radio and television programmes, including, since 2004, lessons to prepare for standardised university entrance exams. In 2011, 3.9 million Koreans used the system, reducing private tutoring spending by about S\$870 million.

Secondly, we can make internships compulsory for post-secondary institutions and consider this even for secondary schools. I have come across the perception in some quarters that students from better-off families have better access to internships due to their parents' networks. This is where MOE can come in to better improve the link between companies looking for internships and those less popular post-secondary and secondary schools who can offer interns.

Spending time as an intern, imbibing work cultures and norms, helps divert some mental energy away from the excessive focus on academics.

The Chairman: Dr Shahira Abdullah. Not here. Ms Mariam Jaafar.

Post-secondary Pathways

Ms Mariam Jaafar (Sembawang): Sir, since its inception, the Polytechnic Foundation Programme (PFP) for Normal (Academic) students who have done well has been a success, with the vast majority of students progressing to their diploma course, for which they are also better prepared for the different learning style and discipline that helps them to succeed in polytechnic. It is certainly something that has been appreciated by my residents.

It is a great example of how we can give a headstart for Normal (Academic) students who are traditionally seen as being behind the Express cohorts. It has taken away stress and opened doors, giving them flexibility to choose a pathway that is based on their aptitudes and interests.

Given this success and in light of concerns over the diverging employment outcomes of ITE versus polytechnic and university graduates, could the Minister consider expanding the PFP scheme to allow more students to benefit?

Indeed, the flexibility provided by the PFP would ideally be in a future of full subject-based banding, pervasive in the system rather than a special scheme. Can the Minister provide an update on how admission pathways to various post-secondary education institutions will be updated in line with the shift to full subject-based banding to make it easy for all students to develop to the best of their potential?

Flexible Post-secondary Pathways

Dr Wan Rizal: Chairman, the job landscape is dynamic and evolves rapidly and job requirements are changing along with it. When you consider external constraints like the pandemic, jobs can become redundant or evolve altogether.

Thus, there is a need for us to have a flexible curriculum that develops our students with a wide range of skills and helps them pursue their passion outside their main areas of study.

In my Budget speech recently, I mentioned that Jobs-Skills Integrators scheme is a gamechanger because they will change the mindset that skills training can translate into good employment outcomes. I hope we can embed it in our ITEs and polytechnics, where students can stack skill modules on top of their specialised course. It may increase their employment opportunities and allow them to remain agile in a dynamic job space.

My greatest hope is that it will also address the issue of increasing income wage gap between the non-graduates and the graduates.

I would like to ask if MOE would consider more flexibility within curriculum hours to allow students to take up elective modules to develop their interests outside their area of specialisation.

Education Technology

Mr Darryl David: Chairman, COVID-19 was a painful and challenging experience, but it did provide opportunities too.

Technological developments in education and corresponding education technology (EdTech) had to be accelerated due to the pandemic. Digital technologies and the use of technologies to enhance and supplement conventional learning became much more prevalent.

Students and teachers had to quickly pivot to home-based learning (HBL) when the COVID-19 pandemic struck in 2020 and the switch to digital learning platforms has indeed gained strength.

Even as face-to-face lessons have continued now, teachers have pivoted to online learning to supplement face-to-face lessons. The use of tools like Kahoot, Mentimeter and Slido for quizzes and polls and virtual bulletin boards such as Padlet are some examples of how teachers and educators are harnessing technology for interactive and responsive learning.

Currently, MOE's EdTech Plan guides the development of a technology-enriched school environment for teaching and learning. It adopts a responsive agile approach and structure to help MOE respond rapidly to technological and contextual changes to ensure the effective use of EdTech for quality teaching and learning.

On the education front, AI Singapore aims to build national literacy in AI and develop EdTech through working with various classroom stakeholders and partners.

Besides tech to enhance and support learning, tech advancements like ChatGPT will also impact teaching and learning too. The Minister for Education addressed the issue of AI and ChatGPT at a recent Parliamentary Sitting, but I would like to ask if MOE could give an update as to what it learnt from the experience of the COVID-19 pandemic in terms of EdTech and how EdTech can be harnessed and used to enhance the teaching and learning journey.

Also, how will we be retraining and upskilling our educators in tech and preparing students and parents for these changes as well.

Reducing Curriculum Content

Mr Lim Biow Chuan: Sir, last year, I spoke about exam stress in schools and called on MOE to reduce the content curriculum of the students. I wish to repeat the call to MOE this year.

With more technological advances, it is easier to do research over the Internet and secure the answers to most queries. The need to acquire so much knowledge is really no longer necessary because most information is easily available on the Internet. What a student needs to learn is how to navigate the Internet so that he is able to obtain reliable and accurate information.

The advent of ChatGPT will also change the way students learn. In a Straits Times article just last week, Google was reported to say that one of the most valuable qualities that they look for in an employee is a "growth mindset". Google did not say they were looking for people with great academic grades or people who know everything. Google said they were looking for people who express curiosity – for people who continue to learn. The Straits Times article was not about a high flying employee who was a scholar but about a user experience engineer without a degree.

Sir, students ought to be given more time to develop their own interests during their formative years in school.

MOE should consider reducing school curriculum so that students will enjoy learning in order to acquire knowledge rather than learning to pass exams or to gain good grades. This will then cut down the stress from projects, continual assessments and exams.

May I ask whether MOE will consider reducing the school curriculum further and to allow students to learn using more technology. A reduction in school curriculum and exams or assessments would reduce the stress on today's students.

The Chairman: Dr Shahira Abdullah. Not here. Dr Wan Rizal.

Integrating Technology in Education

Dr Wan Rizal: Sir, the pandemic has shown the important role of technology in education. Schools shifted to home-based learning, highlighting the need for a robust technology infrastructure and content-ready digital resources to support teaching and learning.

As technology continues to advance rapidly, it has become increasingly important to integrate it into teaching and learning practices to prepare students in the modern world.

In the Parliament recently, I asked the Minister about the use of AI tools like ChatGPT. I started out having some resistance of my own, but having seen the capability, I am encouraged that it can help students. Sure, you will not get an A or B grade, but if it can give a student who is struggling, to give them that nudge to a C or a pass, to get them to open a book or their notes and cross-check the AI solution for content accuracy, then I say, let us do it. Teach them the skills to discern, to edit, to incorporate critical thinking to the original AI solution.

Thus, I would like to ask the Minister what efforts the Ministry made to support the integration of technology, including AI, into teaching and learning practices.

The Chairman: Shawn Huang, both cuts, please.

Resilient Students for Complex Future

Mr Shawn Huang Wei Zhong (Jurong): Mr Chairman, I would like to declare that I am the founding director and board member of Tasek Jurong Limited, a charity and Institution of Public Character (IPC) for disadvantaged youths and Singaporeans.

The world is changing at an unprecedented rate and our students will be facing challenges and opportunities that were not even imagined a few years ago.

The pace of technological innovation, the rise of automation, the impact of climate change and the increasing interconnectedness of the global economy are just a few examples of the complex issues that our students will need to navigate as they move into adulthood.

To prepare our students for this complex world, we need to focus on building their resilience and adaptability as well as their skills and knowledge. This means not only providing a strong academic foundation but also fostering their creativity, critical thinking and problem-solving abilities.

It also means equipping them with the social and emotional skills that are essential for success in life.

These include self-awareness, self-management, social awareness, relationship skills and responsible decision-making. These skills will help our students to develop strong and positive relationships and to navigate the challenges and opportunities of the complex world that lies ahead.

We are certain that we will require a partnership framework to augment the school system. As such, how can we build partnerships with parents, the industry and the wider community to nurture resilient and holistic students who can thrive in a complex future?

Support for Students with Higher Needs

Students with higher needs, including those from disadvantaged backgrounds, require more support to ensure that they have an equal opportunity to succeed. There are a number of reasons why this is the case.

Students from disadvantaged backgrounds are more likely to face barriers to learning such as challenging family circumstances, access to learning resources as well as proper nutrition. These barriers can make it more difficult for them to engage in school and achieve their potential.

Students with higher needs may require additional support to overcome specific challenges such as learning disabilities or mental health issues. Without this support, they may struggle to keep up with their peers and may become disengaged from the learning process. They simply need a better learning environment, more opportunities and time.

Providing support for students with higher needs is not only a matter of inclusive values of the education system but also an economic imperative. Studies have shown that students who receive additional support are more likely to complete their education, to go on to further studies or employment and to make a positive contribution to society.

It is essential that we provide more support for students with higher needs, including those from disadvantaged backgrounds. This may involve additional resources such as funding, extra staff, equipment as well as targeted interventions that are specifically tailored to the needs of individual students.

As such, how are we better support our students with higher needs and those from disadvantaged circumstances?

Persons with Disabilities' Access to SkillsFuture Programmes

Mr Gerald Giam Yean Song (Aljunied): Sir, I declare that I am an owner and director of a company that provides software for the administration of SkillsFuture-funded courses.

Persons with disabilities (PwDs) need access to training and lifelong learning just as much as their able-bodied counterparts. However, they sometimes face access barriers to attending courses.

According to the Disabled People's Association, PwDs have encountered SkillsFuture-funded courses that use charts and diagrams with no text descriptions, creating difficulties for visually-impaired persons.

Accessibility should be embedded in all SkillsFuture-funded courses. There should be a set of guidelines to ensure that reasonable accommodations are provided. MOE could also establish a disability support office to provide support to PwDs and training providers to implement reasonable accommodations for SkillsFuture courses.

I appreciate that SG Enable is curating courses suitable for the disability community and the Enabling Academy will assist in creating accessible courses. However, to be fully inclusive, PwDs need access to all courses which are open to the general public, not just a curated subset.

6.30 pm

Can I ask the Minister what proportion of SkillsFuture courses are currently accessible to PwDs? How is SSG ensuring that most SkillsFuture courses are accessible and will there be a standardisation of accessibility in all SkillsFuture courses?

Enhancing Support for Students with Special Education Needs

Ms Rahayu Mahzam (Jurong): I have shared my experiences and journey with my son, Ayden, several times in Parliament. My family and I have been truly blessed with the support of many people in the ecosystem. We have also learnt a lot from the people who have walked the journey before us. Their experiences and feedback over the years have helped create awareness and shape the support structure that we now have for our children with special needs.

In particular, within the school setting, there have been meaningful developments in identifying needs, making the appropriate referrals and providing support to students with special educational needs within the mainstream schools and the special education schools. This will of course always have to be a work-in-progress. There should be continuous efforts to enhance the support in the ecosystem.

I would like to take this opportunity today to share some of my own personal perspectives as well as insights I have gleaned from my interactions with many different stakeholders in the community, in the hope that we can continue to build a better education landscape for students with special education needs (SEN) and achieve better outcomes. It is imperative that our education system adequately equips all our children, including those with SEN, with the necessary life skills and prepare them for future challenges.

Firstly, I feel it is important for us to think about the current efforts to integrate students with SEN with other children. Integration is an important element as we should teach our children to learn and interact with people with different abilities. All our children are unique and they should grow up appreciating and respecting each other's strengths and value they bring to society.

However, in integrating students with SEN with the rest of the community, we should do some calibration as there may be a tension between creating the common spaces and learning opportunities while at the same time paying sufficient attention to the additional support and teaching that needs to happen to build the skills of those with SEN. There may be a great desire to be inclusive but this may bring SEN students into a setting that does not necessarily empower them or equip them with the skills or address their needs. They may be put in the same classroom and there may be some additional support to help them with that particular assignment or activity. But is the curriculum for them robust enough to build their own skills to be independent? How are they interacting with other students and how are other students interacting with them? How are we assessing their abilities to subsequently navigate living in the larger community? How do we ensure that we are adequately stretching them to reach their full potential? These are some considerations that I hope that the Ministry is looking into and could give some insights on.

Secondly, on a related point, I would like to understand what is in the horizons for students with SEN. For the larger community, there is always a forward-looking agenda, one that looks at growth sectors and economic opportunities and a curation of existing educational or skill-building pathways that prepares us for the future. There should be a similar approach for our students with SEN. I appreciate that there are diverse needs among students with SEN. At the basic level, we need to ensure that they are equipped with the necessary skills to be able to live as independently as possible and navigate through life. This is crucial.

Additionally, do we also have a plan as to which sectors in the future students with SEN could possibly enter and excel in? Are we looking at the current jobs that the different groups of SEN students are landing and their career progression? I am hoping with these insights, we could then better develop our curriculum to ensure our SEN students can be channeled into meaningful sectors where they can grow and contribute like everyone else.

Lastly, I would like to revisit a point I made in Parliament previously. An integral part of all the efforts in integration, in building appropriate skills is the special needs educators. We need to ensure we have professional, good and skilled teachers in schools specialising in special educational needs so that we can translate the vision into reality.

I have met many special needs educators who are deeply committed to their work, go the extra mile to lookout for the students under their care and most importantly, they have a very big heart for the children. I would like to take this opportunity to pay tribute and say a big thank you to all the teachers and staff in the special education sector.

I hope the Ministry continues to help enhance this profession by developing progression pathways and improving remuneration of the teachers in the special needs sector. This will encourage more individuals to come forward to be part of the workforce and hopefully, create a larger pool of capable educators who can look into more specific issues and enhance the support for our students with special educational needs.

The points I have raised above are not new. With the increasing awareness and more people coming forward to be part of this cause, I believe it is a good opportunity for us rethink our efforts in enhancing the education for our children with SEN and ensure they are able to integrate with the larger community.

During one of a meeting I attended, Ms Denise Phua said something that stuck with me. I am paraphrasing a little but she said, "let us ensure that as we are developing our plans in preparing our workforce and our people for the future economy and future challenges, we think about those with special needs and they are not just a footnote or an after thought".

I acknowledge that work ahead is not easy but it is important and needs to be done. I have been encouraged by the efforts of the Ministry and other agencies and I hope that we can continue on the vision of preparing all our children for what is to come and moulding the future of our nation.

Students with Special Educational Needs

Ms Denise Phua Lay Peng: Sir, about 80% of children with Special Educational Needs (SEN) attend mainstream schools in Singapore, with more in-school support in recent years. Kudos to MOE. The educational outcomes for students with SEN in mainstream schools however, primary, secondary and post-secondary settings are currently inconsistent. Beyond social integration, many of them also need a diet of additional lessons in life skills such as work habit development, communications and social skills. The rest, 20% of students with SEN, are educated in some 20 Special Education (SPED) Schools. Many exit at the age of 18 unless they are assessed to be capable of getting a work skills certificate.

Sir, I shared in this House my view of what a SPED school of the future can look like. Today, I offer seven further suggestions.

For students with SEN in mainstream schools, I urge the MOE to:

One, put aside resources to study and analyse the educational outcomes of SEN students in mainstream schools in primary, secondary and post-secondary school settings.

Two, develop an assessment framework to regularly evaluate if the current intervention approach is providing each SEN student the holistic education that they need.

Three, adopt a holistic individual education plan for each mainstream student with SEN, covering not just their academics but also other indicators of student well-being.

Four, tap on expertise in the SPED system to systematically address the gaps not covered in the mainstream set up. Provide a budget to make that happen.

To better support students in SPED schools, I urge MOE to:

One, extend the formal SPED school exit age to age 21 for all SPED schools, beyond the current age 18. The current criteria for staying till age 21 is based on whether one can stay on to get a work skills certification. That ought to be changed. SPED students need longer learning runways to build vocational and other life skills for survival especially in this rapidly fast-paced and wired world.

Two, jointly work out and pilot a lifelong learning SPED school model with a taskforce of thinkers cum doers with a track record to create a school like no other in the world.

And three, support SPED schools in specific areas of need. Review salaries to attract and retain good staff. Expand the pool of potential SPED educators by allowing MOE NIE candidates to apply to join SPED schools. Keep to very essential and core admin reports and meetings so that educators and school leaders can focus on educating their students.

Sir, education for children with SEN has made tremendous progress in the last decade, thanks to MOE and partners. I urge MOE to continue to expand its vision to meet the lifelong learning needs of this special community so they will thrive and not be left behind.

Support for Teachers' Well-being

Dr Wan Rizal: Sir, as an adviser for Singapore Teachers' Union (STU), I have joined the STU in several dialogues with delegates and teachers. We hear their feedback, aspirations and concerns. Teaching can be challenging yet rewarding but also requires much physical, emotional and mental energy. Sometimes it may lead to stress and even burnout. We must protect our teachers.

Together with STU, I have a few suggestions.

First, could MOE establish clearer guidelines on work hours and designated times for teachers? One way is the introduction of a whitespace for marking, lesson planning and student guidance or counselling work.

Second, could the Ministry cultivate teacher agency so teachers can negotiate deployment to achieve win-win outcomes for the teacher and the school? The teacher agency could also help teachers plan for their re-employment years so that they make purposeful decisions in keeping with their life stage and priorities.

Third, could MOE establish a zero-tolerance policy with clear protocols for handling harassment or abuse of teachers?

Notwithstanding the questions posed earlier, could the Minister share MOE's plan to support the growth and well-being of teachers?

Education for Future Economy

Mr Sharael Taha (Pasir Ris-Punggol): Chairman, industries are now skills-focused and appreciate usable skills over paper qualifications. Industries value students who acquire the skills in school and are ready to be productive when they join the workforce. With the rapid evolution of technology, there is a need for schools to be well connected to the industry and nimble enough to make frequent tweaks to the syllabus such that students leave school with the right skillset required for the industry at that point of time.

I am heartened to see more schools having career days, where they invite people from the industry to share their experience and the skill sets that are required in the industry. Individual ITEs have also reached out to industry partners to try to understand industry better such as ITE College Central's engagement with the aerospace industry, just to name one.

Beyond individual school effort, how can MOE better facilitate collaborations between schools and industry partners to help students in our schools gain an even deeper appreciation of the skills and competencies needed in the future workplace?

Singapore – An Education Hub

Mr Mark Chay (Nominated Member): Mr Chairman, I am a director and shareholder of various private education institutions and I consider myself privileged to be part of the stellar education system that Singapore boasts.

As we all know, Singapore is home to some of the world's best universities. Our public school system is among the world's best and our students consistently scoring near the top in education rankings in OECD countries. But our local and international schools offer a wide range of curricula which provide quality and holistic learning experiences aimed at equipping students with the necessary skills for the future workforce, and our excellent tertiary institutions and research facilities make Singapore an ideal place to pursue higher education and participate in innovative research initiatives.

Our global reputation for academic excellence is not the only reason why Singapore is one of the top destinations for international students looking to pursue high quality education. There are at least three other reasons why Singapore has grown to be the academic hub that it is.

First, Singapore has excellent transport links with many other countries, which makes it easy for international students to travel to and from their home countries. Second, we have a highly developed and efficient system of infrastructure and public services, which make for a high quality of life for its residents. And third, the promotion of English as the primary language spoken in Singapore means that international students can easily integrate into the country without having to learn a new language.

In the same vein, the significance of international students cannot be understated. They bring diversity and cultural richness to Singapore's society. Additionally, with the influx of students from different countries, these educational institutions provide an invaluable opportunity for cross-cultural exchange and collaboration. Furthermore, international students can help expand the global reach of Singapore's private education sector, increasing the international visibility as a leader in high quality education.

Mr Chairman, private education institutions (PEIs) have a vital role to play in Singapore's success as an education hub. These institutions offer Singaporean students the chance to pursue specialised vocational diplomas or degrees from foreign universities whilst in Singapore as an alternative to attending our local universities. PEIs can also provide tailored curriculums adapted to a student's specific needs.

Given this, I would like to ask MOE to share its plans to improve the quality and credibility of education concerning PEIs. In addition, could MOE share how it plans to work with other Government agencies such as ICA and MOM to ensure necessary approvals such as student pass applications and training work pass applications are processed seamlessly?

Singapore International Schools in ASEAN Capital Cities

Assoc Prof Jamus Jerome Lim: I wish to suggest that the Ministry consider funding a network of international schools located in all major regional capitals within ASEAN. These schools will offer the full Singapore curriculum similar to that of any local MOE school, from the kindergarten through to the secondary school level.

Students that attend such schools would be able to transfer relatively seamlessly from a school back in, say, Jakarta or Bangkok, back to one in Jurong or Buangkok. They would pay comparable supplemental fees just as any student enrolled in a local school would. And they would take the same common exams – PSLE, “O” or “N” Levels – at the appropriate time and level.

6.45 pm

Why would the taxpayer wish to subsidise schools located in other countries?

For starters, students attending these schools would be Singaporeans more likely than not. It makes sense that they be provided with a subsidised Singaporean education as others in their cohort are. Moreover, these children are often simply following their parents overseas as they are being posted rather than making any conscious decision of their own to relocate.

Furthermore, the subsidy has an additional benefit from the perspective of the parents. By reducing the frictions associated with moving their families to a different country, it offers positive incentives for our local professionals to relocate and thereby upgrade their experience and exposure to the region, which is often cited as a reason for local middle managers being skipped over for promotion.

In a response to a Parliamentary Question I filed late last year, Minister of State Gan explained that MOE already provides funding and teaching support to one international school in Hong Kong.

She said that MOE did so because there were a sizable number of Singaporean children there and that this assistance helped with the reintegration of these kids back to our educational system here. So, there is already a precedent to this suggestion.

She also mentioned, however, that there was a lack of demand for such education elsewhere, which was why it was not offered beyond Hong Kong. To this, I will only add two thoughts.

First, it strikes me as unusual that Singaporeans living in Hong Kong, an otherwise modern and sophisticated educational system, would demand more Singapore-style education there rather than in other ASEAN capitals with comparatively weaker educational systems.

Second, such demand itself is, in fact, endogenous. If such schools existed, it would encourage more locals to consider taking on regional postings, which in turn would generate the requisite demand.

Through Enterprise Singapore, the Government is expending much treasure to support our firms in their regionalisation efforts. It has also worked hard to encourage our professionals to consider regional postings. What I am suggesting here today is simply another step towards lowering the barriers to making our local talent ever more international and ever more competitive.

Developing Resilient Adult Learners

Ms Mariam Jaafar: Sir, declare that I am a managing director and partner in a consulting firm that does work in the skills development space.

I spoke during the debate on the Budget Statement of how reskilling programmes are critical to building resiliency in our workforce and our people as the economy and job market become more unpredictable.

It has been several years now since we laid down the importance of lifelong learning in Singapore. Over the years, the Government has sharpened its support of SkillsFuture to prioritise the development of skills needed to be competitive in the future economy, as seen in the one-time top-up SkillsFuture credit and additional SkillsFuture credit for Mid-Career Support.

Support is now more geared towards getting adult learners into new jobs and the range of courses supported has also been refined.

Identifying the right set of skills to offer courses for is important, but there are many factors that influence the attitudes of and persistence to succeed for adult learners – from structural factors like range, availability and delivery methods of the courses, including pre- and post-employment support, as well as environmental factors such as a growth mindset, family and financial responsibilities and time constraints. Each individual context is different.

Can the Minister share how the Government now measures the success of the SkillsFuture programme? What are the metrics and where do we stand? How will the Government continue to evolve its support to develop resilient adult learners?

Streamlining SkillsFuture Singapore

Prof Koh Lian Pin (Nominated Member): Chairman, the Skills Demand for the Future Economy (SDFE) Report 2022 highlights the importance of upskilling workers to stay relevant and take on new opportunities. IHLs, private education institutions and other training providers play important roles in developing and curating training courses to respond to this need, especially in terms of sustainability skill sets for Government officers, industry leaders, practitioners and other stakeholders.

As demand for subsidised for SkillsFuture-funded programmes continues to grow, it can put increasing strains on training providers. Is the Government considering streamlining SkillsFuture Singapore processes to ease the administrative burden on training providers?

Skills Framework

Mr Mark Chay: Mr Chairman, I am a director and shareholder of various private education institutions and I have had some experience with the Skills Framework, which is designed to provide key information on sectors, career pathways, occupations or job roles, and existing and emerging skills required for the occupations or job roles. It also provides training programmes for skills upgrading and mastery.

There are currently 34 industries with a defined skills framework. It helps provide critical information on the general career pathway, the roles within these sectors and the skills required to meet those roles. These frameworks were progressively launched from 2016.

The Skills Framework is a masterpiece that took great effort by the relevant stakeholders such as the employers, Government agencies, trade associations and so on to assemble. It is therefore pertinent to ensure that the framework is reviewed and updated from time to time to ensure that this remains in step with applicable and emerging trends and developments.

Given the above, I would like to ask MOE if there are any statistics on the actual adoption by the employers of the Skills Framework in hiring employees within the stated sector? Also, are there any statistics on how the Skills Framework has allowed Singaporeans to either gain employment or progress in their existing roles after undergoing training in these areas?

A critical piece for the success of continuing education is access to courses, namely, through Approved Training Organisations (ATOs) and Private Education Institutions (PEIs).

Currently, two different regimes govern private training institutions in Singapore – the ATO framework and the Enhanced Registration Framework (ERF) for PEIs. Under the ERF, certain PEIs who meet high-quality assurance standards would also be granted the "EduTrust" mark.

As Singapore's economy develops rapidly and there is a need to ramp up capacity to allow Singaporeans to be trained, would SSG consider streamlining the processes that would enable a training institution to offer SSG/WSQ courses without having to apply for separate certifications?

For instance, can the process be streamlined so PEIs with EduTrust qualifications qualify to become an ATO? I understand that currently, all IHLs are exempted from such checks and can offer SSG/WSQ courses without having to qualify under the ATO framework separately.

Enabling Lifelong Learning

Ms Foo Mee Har (West Coast): Chairman, I would like to declare my interest as the CEO of the Wealth Management Institute, a training provider serving the finance sector.

There has been much scrutiny on the effectiveness of SkillsFuture in achieving its mission of supporting workers to upskill, build deep capabilities as well as transition to new careers or different industries.

Sir, there are currently over 27,000 courses funded by SkillsFuture Singapore listed on its site. These courses are delivered by a large number of over 790 training providers ranging from large autonomous universities such as NUS to private training organisations of varying size and focus.

Given the sheer volume of training programmes and players involved, it is hard to ascertain the training impact of all the programmes under the SkillsFuture umbrella.

As we gear up to make training truly count, an important step is to evolve the SkillsFuture framework to clearly differentiate training programmes and training providers in terms of quality standards, key performance indicators (KPIs) and funding.

For example, the Government may consider differentiating training programmes along three broad categories for better targeting and funding model.

Category A: for programmes that would be designed to support jobseekers' reskilling needs, matched to industry talent demands. Therefore, these programmes are likely to be intensive and need to be purposefully designed to be effective.

Category B programmes would be about upskilling and building mastery amongst practicing professionals and craftsmen, an important part of continuing education and training for working adults.

Category C programmes support skills discovery, including the learning of new hobbies and interests, many of which can be supported through the People's Association community platform.

Sir, by having a tiered approach to SkillsFuture, the Government can then be more targeted in its funding and prioritise resources for maximum impact. The requirements on the rigour of the programmes should also vary according to the learning objectives of the programmes.

For example, for category A programmes, courses would have to be full-fledged certified programmes that lead to verifiable credentials recognised by the industry.

These programmes should be organised along Industry Transformation Maps and be subjected to a rigorous assurance process by relevant industry panels and associations to ensure relevance.

The teaching faculty should come primarily from the industry to impart highly practice-based skills, using work-related simulations and practices as well as internships as core components of the training programme. Job placement should be a key performance indicator.

Most importantly, trainees who gain admission to these category A programmes and successfully graduate should be sought after by future employers as they are deemed to possess the necessary skills and competencies required of the new role, having gone through the training.

Sir, one of key struggles of SkillsFuture training providers is the funding model. It is currently based on training subsidies provided to trainees. This system incentivises the training providers to maximise student numbers and not the quality of the training.

Furthermore, as training subsidies can change from time to time, impacting demand, sometimes, in short notice, training providers find it challenging to invest in their programmes as they are unsure of their future income stream.

The Government should review the funding model for training providers under SkillsFuture to foster capability development, quality standards and impactful learning outcomes.

Sir, to focus training efforts, the Government should consider a category of training providers. Let us call them lead training providers (LTPs) for each of the industry groups.

Rather than having a plethora of small players, LTPs should be selected based on their commitment to build scale and capabilities to deliver a full suite of training programmes tailored to the industry. LTPs should be chosen by the industry and serve as the respective industries' centre of excellence for training and education so that scalable training may be delivered to meet the manpower needs of the respective sectors dynamically.

These LTPs should be eligible for substantially more funding support for developing their infrastructure and industry relevant programmes. At the same time, they should be subjected to a vigorous governance and review process by SkillsFuture Singapore.

Sir, the next phase of SkillsFuture must be to systematically nurture a core of top quality lead training providers with strong capabilities and scale to serve its sector over the long term.

Matching Jobseekers' Skills to Vacancies

Mr Sharael Taha: Sir, there is a mismatch between jobseekers with the vacancies available in the labour market today, especially with new roles in the growth industry.

The Industry Transformation Map provides a high level overview of what are the skills that are required in industries. However, when it comes to applying in on the ground, potential jobseekers are overwhelmed. They are overwhelmed by what courses to take to find better jobs or be better at their jobs.

While we unanimously agree that upskilling and retraining will be critical to our future success, the challenge is how do our jobseekers upskill and how do we then match jobseekers with their newly acquired skill set to vacancies?

How can MOE strengthen the training and placement programme, particularly in the fragmented sectors, to better match jobseekers' skills to vacancies?

7.00 pm

Jobs-Skills Integrators

Mr Darryl David: Mr Chairman, SkillsFuture is a national initiative in Singapore that aims to equip Singaporeans with the necessary skills to succeed in a fast-changing economy as it prepares Singaporeans through a comprehension scheme involving elements such as the SkillsFuture Credit, the SkillsFuture Work-Study Programmes, SkillsFuture Series courses.

While there have been developments such as the appointment of the Institute of Adult Learning (IAL) appointed by SkillsFuture Singapore, to lead the national Innovative Learning 2.0 initiative, there must also be careful selection of high-quality courses by participants so that learning becomes meaningful. I believe in July 2022, the five polytechnics signed a Memorandum of Understanding with NTUC through to elevate the quality of training and better support adult learners to adapt to the changing needs of the economy.

The SkillsFuture series courses are available at an affordable cost and provide individuals with the opportunity to acquire new skills and knowledge quickly. However, course fees are only one determiner of the success of these courses in training adult learners.

Can MOE provide an update on the initiatives to support continuing education, and additionally, how can we continue to build, develop, and support resilient adult learners who can be agile amidst the unpredictable economic and job environment?

While we equip them with skills, can the Government also do more to help ensure that they are able to translate this new training and skills into actual jobs?

Recently, Deputy Prime Minister and Finance Minister Lawrence Wong mentioned Jobs-Skills Integrators in his Budget speech. I understand that these Jobs-Skills Integrators are institutions which ensure training will improve employment and earnings prospects by working with industry, training and job placement partners.

I would like to ask how trade associations and chambers, unions, and training providers can be involved in this initiative. Also, specific groups of workers may also face peculiar challenges when upgrading. There could be sectors that require particular attention. How can older workers be helped to upskill while continuing to work?

The Chairman: Minister of State Gan Siow Huang.

The Minister of State for Education (Ms Gan Siow Huang): Mr Chairman, Singaporeans will need greater agility and resilience in learning, amidst the rapid pace of industry transformation and more dynamic demand for skills

Several Members including Mr Darryl David and Ms Mariam Jaafar asked how we will enable workers to adapt quickly to the changing job environment. The SkillsFuture movement is our national effort to build a culture of lifelong learning and equip Singaporeans with the skills they need to adapt and thrive. It requires ownership by employers, individual learners, and training providers, as well as close partnership of the tripartite partners.

In my speech, I will outline how we are supporting companies, individuals and training providers to be a part of this collective movement to secure our future.

First, on companies. Over the years, more companies are stepping forward to train and develop our workforce, lending strength to our SkillsFuture movement.

Last year, about 20,000 companies participated in and benefitted from SSG-supported programmes; 96% of these were SMEs.

For FY2022, SSG estimated that about one-third of its total expenditure on training support would go towards employer-sponsored training.

Since 2020, about 16,000 companies have tapped on SkillsFuture Enterprise Credit, a one-off \$10,000 credit per firm, to send their employees for SSG-supported training programmes.

To ensure relevance and responsiveness of upskilling, we will continue to work closely with companies as a key partner in workforce development.

Workplace Learning, in particular, is a key strategy that we are pursuing as it allows workers to upskill in-situ and on the job, minimising operational disruption to companies and workers.

Since 2018, the National Centre of Excellence for Workplace Learning (NACE) has been helping companies to systematically build workplace learning capabilities. In 2022, NACE supported close to 500 companies, of which 80% were SMEs. This year, NACE will partner NTUC to pilot the Workplace Skills Recognition (WPSR) Programme.

First, NACE will introduce a new tier of workplace learning certification, the Workplace Learning: READY (WPL:READY) mark, to recognise companies with basic capabilities in workplace learning. NACE, NTUC and SSG will reach out to SMEs to equip them with capabilities to analyse their training needs, develop plans and processes to support workplace learning, and most importantly, train and recognise the competencies of their workers in specific skills.

Second, for SMEs that have attained the WPL:READY mark, NACE and NTUC will work with them to fast track the assessment and recognition of skills that the workers have acquired at the workplace. Workers in these SMEs can attain WSQ certification without having to attend external WSQ courses, once they are assessed to have acquired the necessary skills on the job.

Workers and employers in the Progressive Wage Model (PWM) sectors can benefit significantly from such an initiative. SSG and NTUC will start this pilot with SMEs in two PWM sectors – retail and food services.

Let me illustrate how this pilot will benefit workers and employers in the retail sector.

Under the PWM, a Retail Assistant needs seven skills in order to take on the role of a Senior Retail Assistant. Today, these skills can be acquired through WSQ training programmes.

With Workplace Skills Recognition, the Retail Assistant who is working in a WPL:Ready mark company could be trained and assessed in these skills on the job.

They can also be given the appropriate WSQ certifications for the skills that they have demonstrated at their workplace.

The certifications will enable the Retail Assistant to qualify for future promotion to the Senior Retail Assistant role under the PWM framework. Through this pilot, we hope that companies will be able to sustain upskilling of more workers.

Mr Patrick Tay suggested that employers provide training leave for their workers to undergo skills training. We will consult our tripartite partners and study the idea of training leave further, taking into account and consideration the impact on businesses, especially SMEs.

Besides supporting individual companies in upskilling their workers, we also want to help companies appreciate the broader shifts at the industry level and the impact on them.

The Industry Transformation Maps (ITMs) set out roadmaps for 23 industries, integrating restructuring efforts between the Government and various industry stakeholders. All 23 ITMs have been refreshed, with updated jobs and skills strategies, to respond to a post-COVID-19 world.

In addition to the ITMs, companies can also reference SSG's Skills Demand for the Future Economy Report published in November last year.

Using big data, the report provides an update on key developments and trends in the Green Economy, the Digital Economy, and the Care Economy, as well as changes in the skills that are needed across industries. I strongly encourage employers to take a look at the report if they are thinking about the new skills that their workers might need.

We will need to do more at the industry-level to coordinate training and placement efforts in sectors that are less regulated and have more SMEs, as mentioned by Deputy Prime Minister Lawrence Wong in the Budget speech.

SSG, together with Workforce Singapore, Enterprise Singapore and the Economic Development Board, will pilot Jobs-Skills Integrator (JSIT) in three sectors – precision engineering, wholesale trade and retail. We will appoint suitable intermediaries such as industry associations, employment agencies and institutes of higher learning (IHLs) as JSITs.

Mr Darryl David and Mr Sharael Taha, as well as many others, asked for details of the JSIT pilot. We will start the pilot in the precision engineering (PE) sector, with Nanyang Polytechnic's (NYP) School of Engineering leading the effort. NYP has a Centre for Digital and Precision Engineering, which has been playing a key role in training students and adult learners, for the PE sector. Over the years, it has established strong partnerships with various training providers, as well as industry stakeholders.

The PE sector has a high concentration of SMEs as well as mature workers. The sector is also known to have jobs and vacancies that are quite hard to fill. At the same time, industry transformation in this sector requires some employees to move into new roles in the future.

As the JSIT for the PE sector, NYP will engage companies to understand their manpower and skills needs and review existing training programmes to meet the needs of the industry.

NYP will partner the Singapore Precision Engineering and Technology Association (SPETA) to engage companies in the association's network.

NYP will also work with employment agencies and other training providers to enhance placement support and training for companies in the sector.

For SMEs in the PE sector that find it challenging to track industry developments, articulate your skills needs to training providers and find workers with the right skills, NYP can serve as your first port of call for advice on emerging skills needs and industry-relevant training programmes for your workers. You can benefit from new manpower pipelines, with trained and skilled workers who can meet the demands of hard-to-fill or newly created jobs.

For workers in the PE sector, NYP will work with partners to offer careers and skills advisory services and industry-relevant training programmes to support you in your career development.

For jobseekers, NYP can connect you with employment agencies and potential employers who can provide more information about the PE sector.

You can access industry-relevant training programmes and employment facilitation services that are curated by NYP to support you in your journey.

Through this pilot, we hope to better meet the industry's need for skilled workforce, while enabling more workers to take up upskilling to meet their career aspirations and to stay employable.

Let me now turn to how we are supporting individuals in their upskilling journey. Last year, about 560,000 individuals participated in SSG-supported programmes. This is a higher number than the pre-COVID-19-pandemic level.

Mr Patrick Tay suggested allowing individuals to use their SkillsFuture Credit for career coaching services. We will study this suggestion.

Mr Darryl David asked how we ensure individuals who undergo reskilling and upgrading will be able to find jobs. During the pandemic, SSG ramped up train-and-place programmes, which combine skills training with employment facilitation to help individuals move into new industries or job roles that are relevant to their training.

The outcomes for these programmes have been encouraging. Among the close to 20,000 individuals who completed the SGUnited Skills and the SGUnited Mid-Career Pathways – Company Training programmes, more than 60% were successfully placed in jobs within six months of course completion.

Since last year, the SkillsFuture Career Transition Programme (SCTP) was introduced to help train and place mid-career workers into new job roles. Apart from facilitated training, the programme provides career advisory and employment assistance to support mid-career workers in their job search. SSG provides baseline subsidy of up to 70% of the course fees, and enhanced subsidy of up to 90% of course fees for Singaporeans aged 40 and above. This will provide significant support for mature workers which Ms Denise Phua spoke about.

Ms Ong Choon Mei, a former financial advisor, who successfully switched to the HR sector, is an SCTP beneficiary. Taking a career break to explore other opportunities last year, she enrolled in the SCTP in Applied HR and Business Digitalisation, a four-month course conducted by Singapore Polytechnic. SSG's course fee subsidy reduced the full course fee from more than \$5,000 to about \$600, and Choon Mei did not have to pay any money out of her pocket as she could use her SkillsFuture Credit to pay for the course fee.

As at December 2022, we have successfully launched 82 SCTP courses, in 10 sectors with good employment opportunities, including infocomm and technology, professional services, and healthcare. From April to December 2022, there have been over 1,000 enrolments.

7.15 pm

A vibrant, high quality and market-responsive training and adult education (TAE) sector is key to the success of the SkillsFuture movement and lifelong learning in Singapore.

The types of programmes we fund and the outcomes we tie our funding to, are important levers for us to achieve this. Ms Foo Mee Har suggested introducing a quality framework that would require us streamlining courses and grouping them into three broad categories with distinct objectives, including funding allocation and key performance indicators (KPIs). Her suggestion reflects our current plan to a very large extent, as SSG has started its transition towards outcomes-based funding.

Let me explain. By end-2024 when the transition is completed, SSG will provide the highest tier of subsidies at 70% of course fees for programmes that deliver strong manpower outcomes, in terms of securing employment and career progression. These courses include full qualification programmes and stackable modules that are recognised by the industry.

SSG will continue to provide subsidies at up to 50% of the course fees for standalone courses that are designed to provide just-in-time, bite-sized skills top-up. These includes the SkillsFuture Series courses that are aim at developing emerging skills.

SSG will cease to provide course fee subsidies to non-certifiable courses, including self-improvement courses. To foster a culture of lifelong learning, individuals can continue to use their SkillsFuture Credit for these courses.

Across all three categories, SSG will track the quality and outcomes through audits, and by seeking learner and employer feedback. SSG will do more to enhance the quality of the feedback and to share this with individuals, so that they can make informed choices. But we will also need the involvement of learners and companies to close the feedback loop with us and improve the system for all.

Beyond its funding framework, SSG also looks at developing capabilities in the Training and Adult Education (TAE) sector. In 2018, SSG developed the TAE Industry Transformation Map (TAE ITM), in consultation with industry and training providers, to drive innovation and enhance productivity in the sector.

One of the priorities under the refreshed ITM is to raise the industry relevance and market responsiveness of training. The Skills Frameworks, which Mr Mark Chay asked about, facilitate this by providing critical information on sector transformation and a common skills language for workers, employers and the training providers. A previous survey conducted on around 1,900 companies found that 44% had adopted the skills frameworks. The skills frameworks have been especially useful in our Progressive Wage Model (PWM) efforts.

SSG is also driving innovation and digitalisation of the TAE sector. Prof Koh Lian Pin asked whether we could reduce the administrative burden on training providers. Indeed, as part of TAE ITM, SSG will continue to do so by promoting process digitalisation. For example, SSG is now replacing manual attendance-taking processes with e-attendance taking via Singpass.

Mr Gerald Giam asked about how SSG ensures that SSG-funded courses are accessible to persons with disabilities (PwDs). As far as is practicable, training providers will admit PwD learners into existing courses by making necessary adjustments. SSG is working with SG Enable under the Ministry of Social and Family Development (MSF) and other stakeholders, such as Social Service Agencies (SSA) to

further expand CET opportunities for PwDs. This includes providing grants for training providers to customise courses for them. We appreciate that PwDs have very varied learning needs and training providers assess them, on a case-by-case basis, to provide customised training support.

Government spending on CET has nearly doubled since the launch of the SkillsFuture movement, from around \$0.5 billion in FY2016, to \$0.9 billion in FY2022. As a percentage of Gross Domestic Product (GDP), our spending is comparable to the other Organisation for Economic Co-operation and Development (OECD) countries and we continue to grow our investment in this area.

Several Members asked about the outcomes that the SkillsFuture movement has achieved. Having invested significantly in this, what have our efforts led to? Wage and employment outcomes are the most tangible and concrete measurable outcomes arising from skills training. We monitor these outcomes through programme-specific surveys and studies.

For example, our annual survey on SkillsFuture Work-Study Programmes consistently showed that more than 90% of the trainees were employed within six months after completing the programme. Their median salaries were also higher than what they received at the start of the programme. In 2019, the Ministry of Trade and Industry (MTI) published a study showing positive effects of the Singapore Workforce Skills Qualification (WSQ) training on labour force participation and wages in Singapore.

However, wage and employment outcomes do not always tell us the full picture. Reskilling may have helped workers, who were otherwise at risk of displacement, to keep their jobs or to move to new roles. These positive outcomes might not show up if we only looked at wages and job placements. This is why we should take a broader view of the impact of the SkillsFuture movement and signpost progress over time.

One dimension is whether the training helps workers to be more effective. In the Training Quality and Outcome Measurement, or TRAQOM, survey that SSG conducts on the courses it supports, more than nine in 10 trainees said that the training enabled them to perform better at work. We will continue to assist companies in developing workers and support individuals in their upskilling journey. Importantly, we must have a continuing, active conversation across different stakeholders on the skills that are needed, which types of training are helpful and impactful, and where the gaps might be. Strengthening the impact of the SkillsFuture movement is a collective effort, and we must join hands on it to succeed.

Mr Chairman, allow me to say a few words in Mandarin.

(In Mandarin): [Please refer to [Vernacular Speech](#).] Workplace learning is a key area of support for businesses.

The National Centre of Excellence for Workplace Learning (NACE) will work with NTUC to help SMEs strengthen their workplace learning capabilities and certify their employees' skills. Employees can obtain accreditation without enrolling in designated courses. The programme will first be launched for SMEs in the Retail and Food Services sectors.

We must also enhance coordination in employee training and employment. In some industries, we will designate certain organisations as Jobs-Skills Integrators (JSIT). We will first appoint Nanyang Polytechnic as JSIT for the Precision Engineering industry. Nanyang Polytechnic will engage businesses to understand their manpower and skills needs, and work with training providers to ensure that trainees are equipped with the skills needed by the industry. The JSIT will also work with employment agencies to strengthen employment assistance for job seekers.

(In English): Let me now respond to cuts filed by Members on other topics and give an update on MOE's Green Plan.

Assoc Prof Jamus Lim suggested funding and subsidising international schools in major ASEAN capital cities. We have set up a Singapore International School in Hong Kong, whether we will do so in other cities, depends on whether there is a critical mass of schooling age Singaporean children who are concentrated in an area and whether their parents want to put them through the Singapore curriculum or prefer other options.

Mr Mark Chay asked about MOE's plans to improve the quality and credibility of private education institutions (PEIs), and whether applications for student passes and other approvals can be more seamless. MOE and SSG regularly review the Government's standards required of PEIs under the mandatory Enhanced Registration Framework (ERF) and EduTrust schemes. The onus, though, is on PEIs to regularly review their curricula and course offerings to ensure that they prepare their graduates well.

Today, foreign students who are accepted by an EduTrust-certified institution to pursue full-time courses in Singapore can apply for a Student's Pass through ICA's eService. This is a one-stop process and most applicants are notified of the outcome within one month.

Mr Mark Chay also asked whether different registration processes can be streamlined. I would like to clarify that ERF and registration to be a SSG training provider serve different purposes. PEIs are educational institutions that offer programmes, such as diplomas and degrees which students may invest substantial time and money in.

The ERF ensures that PEIs have baseline standards in areas, such as corporate and academic governance, with a focus on consumer protection, while the EduTrust scheme further distinguishes PEIs with a consistently high standard of governance. The registration of training providers for their courses to be funded by SSG, on the other hand, ensures that train providers have appropriate track record and processes to conduct training, that the trainers have requisite adult pedagogical training, and course contents fully cover the skills and competencies under the skills framework.

Finally, on the topic of Singapore Green Plan, MOE launched the Eco Stewardship Programme (ESP) in 2021 to strengthen environmental education in our schools. There are four pillars in the Eco Stewardship Programme, namely Curriculum, Culture, Community and Campus.

In 2023, our focus will be on food sustainability. MOE will support schools in areas, such as emphasising sustainability in food production in our curriculum, and setting up of facilities for students to apply what they learnt on food production and food waste management. The IHLs will also continue to enhance skills training and research in sustainability related areas.

Mr Chairman, MOE is committed to building a culture of lifelong learning and equipping Singaporeans with the knowledge and skills that they need to thrive in school and at work. To this end, we will build on partnerships with the industry, unions, training providers, sector agencies and the community. Together, we will forge our collective future.

COMMITTEE OF SUPPLY REPORTING PROGRESS

7.27 pm

The Minister for Education (Mr Chan Chun Sing): Chairman, may I seek your consent to move that progress be reported now and leave be asked to sit again tomorrow?

The Chairman: I give my consent.

Resolved, "That progress be reported now and leave be asked to sit again tomorrow." [Mr Chan Chun Sing].

Thereupon Mr Speaker left the Chair of the Committee and took the Chair of the House.

Mr Chan Chun Sing: Mr Speaker, Sir, I beg to report that the Committee of Supply has made progress on the Estimates of Expenditure for the financial year 2023/2024 and ask leave to sit again tomorrow.

Mr Speaker: So be it. Leader.

ADJOURNMENT

Resolved, "That Parliament do now adjourn to a date to be fixed." – [Ms Indranee Rajah].

Adjourned accordingly at 7.28 pm.

WRITTEN ANSWERS TO QUESTIONS FOR ORAL ANSWER NOT ANSWERED BY END OF QUESTION TIME UPDATE ON TRIAL OF SUSTAINABLE AVIATION FUEL FOR F-16 JETS

10 **Mr Leon Perera** asked the Minister for Defence (a) whether he can provide an update on the progress of the trial using sustainable aviation fuel for F-16 jets as announced in 2021; and (b) whether there are plans to expand the use of sustainable aviation fuel for use in all F-16 jets and other aircraft.

Dr Ng Eng Hen: RSAF has completed a trial on the use of blended Sustainable Aviation Fuel for its F-16s. A mixture of blended Sustainable Aviation Fuel and conventional jet propellant fuel resulted in carbon emission reduction of approximately 27%. While no deterioration in engine performance and no fuel-related engine defect were detected, the cost of the blended fuel was three times that of conventional Jet Propellant-8 fuel.

Given the significant escalation in operating cost, RSAF will not be adopting the use of the blended Sustainable Aviation Fuel for its aircrafts for now. It will monitor market developments and review the case again if prices fall to levels where its requirements can be met in a cost-effective manner.

SUMMONSES ISSUED FOR SMOKING IN PUBLIC PARKS AND BEACHES

12 **Ms Mariam Jaafar** asked the Minister for Sustainability and the Environment what is the number of summonses that have been issued for smoking in public parks and beaches since 1 October 2022.

Ms Grace Fu Hai Yien: Between 1 October 2022 and 31 January 2023, about 460 enforcement actions were taken against offenders for smoking in public parks and beaches.

ELIGIBLE SECONDARY SCHOOL STUDENTS USING EDUSAVE TO PURCHASE PERSONAL LEARNING DEVICES

13 **Mr Leon Perera** asked the Minister for Education what is the percentage of eligible secondary school students who have used Edusave to purchase their personal learning device since the introduction of the National Digital Literacy Programme.

Mr Chan Chun Sing: About 95% of Singapore Citizen (SC) students at secondary schools have tapped on their Edusave accounts to purchase their personal learning device under the National Digital Literacy Programme.

OLDER, MORE POLLUTIVE MOTORCYCLES REMAINING IN USE ON SINGAPORE'S ROADS

14 **Ms Mariam Jaafar** asked the Minister for Sustainability and the Environment (a) how many older, more pollutive motorcycles remain in use on Singapore's roads; (b) how many of these older motorcycles will not meet the higher emissions standards that will come into effect in April 2023; and (c) whether the Government will consider more incentives to encourage owners to deregister these motorcycles.

Ms Grace Fu Hai Yien: To reduce air pollution, we announced in 2018 that motorcycles registered before 1 July 2003 will have to meet tightened in-use emission standards from 6 April 2023. Since 2018, the National Environment Agency has offered owners of these motorcycles an incentive of up to \$3,500 if they deregister their motorcycles before 6 April 2023.

From April 2018 to January 2023, 23,328 older motorcycles were deregistered, with 4,490 still in use. Based on recent inspection data, we expect one in five of these motorcycles will not be able to meet the tightened in-use emission standards.

WRITTEN ANSWERS TO QUESTIONS

RISE IN NUMBER AND PROPORTION OF MOTORCYCLE LOANS WITH ZERO DOWNPAYMENT

1 **Ms Mariam Jaafar** asked the Prime Minister whether MAS has seen a rise in the number and proportion of motorcycle loans with zero downpayment required.

Mr Tharman Shanmugaratnam (for the Prime Minister): There is no minimum downpayment for a motorcycle loan required in legislation. However, individual financial institutions (FIs) may require a minimum downpayment as part of their credit risk management. Currently, none of the local banks offers motorcycle loans with zero downpayment.

The Government does not collect data on loans which may be used to purchase motorcycles, whether they are granted by FIs, licensed or exempt moneylenders, or unregulated motorcycle dealers.¹

Note(s) to Question No(s) 1:

¹ All FIs and non-FIs, for example, motorcycle dealers, that extend motorcycle financing on a hire-purchase basis are required to comply with disclosure requirements under the Hire Purchase Act.

HOMES WITH ANNUAL VALUES BETWEEN \$13,000 AND \$21,000 AND ABOVE \$21,000

2 **Mr Leong Mun Wai** asked the Deputy Prime Minister and Minister for Finance for each year since 2010, what is the percentage of homes that have an Annual Value (i) of between \$13,000 and \$21,000 and (ii) above \$21,000 respectively.

Mr Lawrence Wong: The available information extends to the last five years. In 2018, around 10% of all residential properties in Singapore had Annual Values (AV) between \$13,000 and \$21,000, while around 20% had AVs above \$21,000. In 2023, the proportions are around 30% and 25% respectively, as AVs have increased significantly due to higher market rentals.

The eligibility for Government social support schemes is not affected by the revision of AVs in 2023, as AVs as of 2022 are used to determine scheme eligibility in 2023. The Government will continue to review our social support schemes, including eligibility criteria, to ensure that Singaporeans in need of support receive it.

PENALTY FOR ILLEGAL DISPLAY OF FOREIGN NATIONAL EMBLEMS IN LINE WITH DISRESPECTFUL USE OF SINGAPORE'S NATIONAL SYMBOLS

3 **Mr Leong Mun Wai** asked the Minister for Home Affairs whether the Government will consider amending the National Emblems (Control of Display) Act 1949 to increase the current penalty of \$500 for the illegal display of foreign national emblems by an individual to be in line with penalties for disrespectful use of Singapore's national symbols or that for defacing a national monument.

Mr K Shanmugam: Under the National Emblems (Control of Display) Act 1949, the penalty for the illegal display of foreign national emblems by an individual is a fine of up to \$500 or imprisonment for up to six months, or both.

The penalty is assessed to be sufficient for now and there are, currently, no plans to increase it.

MANDATORY UNIT PRICING FOR ESSENTIAL FOOD ITEMS IN SUPERMARKET AND GROCERY STORE CHAINS

4 **Mr Leon Perera** asked the Minister for Trade and Industry whether the Ministry will consider implementing mandatory unit pricing for necessary food items in supermarket and grocery store chains to promote price transparency and as a check against shrinkflation.

Mr Gan Kim Yong: The Price Kaki app, developed by the Consumers Association of Singapore (CASE), allows consumers to compare the prices of items sold at supermarkets. On 1 January 2023, CASE introduced a unit pricing feature on Price Kaki, with the aim of covering over 6,000 items by this year. This feature helps consumers to more easily compare the prices of products with different package sizes and across different brands. This will provide insights on the feasibility and net benefits of unit pricing in Singapore, which we will study carefully, together with CASE.

PROPORTION OF CARS BY OPEN MARKET VALUE

5 **Mr Leong Mun Wai** asked the Minister for Transport for each year since 2010, what is the percentage of cars with an Open Market Value of (i) between \$40,000 and \$60,000, (ii) between \$60,000 and \$80,000, (iii) between \$80,000 and \$100,000 and (iv) above \$100,000.

Mr S Iswaran: Of the cars registered from 2010 to 2022, the proportion in each Open Market Value band, on average, is as follows.

Open Market Value	Proportion of Cars Registered, Average from 2010 to 2022
\$40,001 - \$60,000	16%
\$60,001 - \$80,000	4%
\$80,001 - \$100,000	2%
\$100,001 and above	2%

PROFILE OF SINGLE UNWED PARENTS AT TIME OF BIRTH OF CHILD

6 **Mr Louis Ng Kok Kwang** asked the Minister for Social and Family Development for each year from 2019, how many single unwed parents were at the time of the birth of their child (i) below 35 years old, (ii) between 35 and 36 years old and (iii) 36 years old and above respectively.

Mr Masagos Zulkifli B M M: The number of citizen mothers with non-marital births decreased from 621 in 2019 to 543 in 2021 for mothers below 35 years old, and from 136 to 107 for those aged 36 and older. The number of such mothers aged 35 was about 20 in both 2019 and 2021, while the data for 2022 is not yet available.

OUTCOME OF APPEALS TO USE MEDISAVE BEYOND CURRENT LIMITS FOR ASSISTED CONCEPTION PROCEDURES

7 **Mr Louis Ng Kok Kwang** asked the Minister for Health for the past five years (a) how many appeals have been received from couples to use MediSave beyond the current limits to pay for Assisted Conception Procedures; (b) how many and what percentage of appeals received are successful; and (c) what are the top three reasons for rejecting the appeals.

Mr Ong Ye Kung: Out of about 7,000 Assisted Conception Procedures (ACP) cycles a year that tap on MediSave, the Ministry of Health (MOH) receives about 30 appeals to use MediSave beyond the prevailing withdrawal limits in a year. As MediSave is primarily intended to help Singaporeans put aside savings for their basic healthcare needs in retirement, MOH will accede to appeals to use MediSave beyond the ACP withdrawal limits only in exceptional cases, taking into account factors such as the family's financial and social situation. For example, we have in the past approved appeals from couples who encountered unexpected medical complications during a cycle and were unable to afford the cost of treatment.

INCLUSION OF VOSORITIDE IN DRUG LIST UNDER MEDICATION ASSISTANCE FUND

8 **Mr Dennis Tan Lip Fong** asked the Minister for Health whether the Ministry will consider working with the manufacturers of the drug Vosoritide (i) for the registration of the drug or (ii) to allow the drug to be listed under the Medication Assistance Fund to enable children who are suffering from achondroplasia to have more affordable access to the drug and coverage under local medical insurance policies.

Mr Ong Ye Kung: Achondroplasia is a genetic condition that causes abnormal bone and cartilage growth, leading to short stature and disproportionate growth. The drug Vosoritide, sold under the brand name Voxzogo, is intended to increase linear growth in children with achondroplasia.

The Medication Assistance Fund (MAF) scheme was implemented in August 2010 to support patients who require moderate- to high-cost treatments which have been assessed to be clinically and cost-effective. Vosoritide is currently not registered in Singapore and no application has been submitted to the Health Sciences Authority (HSA). The Ministry of Health has, therefore, not assessed the drug for clinical and cost-effectiveness, nor conducted pricing negotiations with the manufacturer.

Manufacturers who wish to register medications for supply in Singapore may submit an application and the scientific data to HSA for quality, safety and efficacy evaluation.

RULES FOR HDB FLAT APPLICATIONS BY SINGAPORE CITIZENS WITH NON-RESIDENT SPOUSE, PARENTS OR CHILDREN

9 **Mr Leong Mun Wai** asked the Minister for National Development (a) why are Singapore Citizens buying HDB flats with their non-resident spouse, parents, or children who are aged between 21 and 35 only eligible to apply for a flat if the spouse has a Long Term Visit Pass or a work pass of at least six months validity from the date of issue at the time of application; and (b) why are these Singapore Citizens not allowed to purchase larger than a 2-room flexi flat directly from HDB.

Mr Desmond Lee: The minimum citizenship criterion for a family to purchase any new HDB flat is one Singapore Citizen (SC) aged 21 and above, and one Singapore Permanent Resident (SPR).

Single SCs aged 35 and above can purchase an HDB flat on their own. They may buy a new 2-room flexi flat in the non-mature estates, or a resale flat of any flat type, excluding 3Gen flats, in both mature and non-mature estates. These options are similarly made available to SCs aged 35 and above who have married a non-resident (NR) spouse, that is, those who do not meet the minimum citizenship criterion as a family to purchase a new HDB flat.

SCs aged below 35 are not eligible to purchase an HDB flat on their own, without another SC or PR family member to form a family nucleus. Nevertheless, we recognise that some SCs aged between 21 and 35 may wish to set up a family here with their NR family member, that is, a spouse, parent or child. For these SCs, HDB allows them to purchase a resale HDB flat, on the condition that the NR

family member is allowed to stay in Singapore on some form of long-term visa, such as Long-Term Visit Pass or work pass of at least six months. This ensures that only NRs who are allowed to stay in Singapore on a long-term basis can be listed as essential occupiers for the family to qualify for the purchase of an HDB flat.

We recognise the many different housing aspirations across the diverse group of Singaporeans who wish to purchase HDB flats. Given the limited land space and resources, some form of prioritisation is necessary to ensure sustainable development of our finite resources. The Ministry of National Development will continue to review our housing policies to meet the evolving needs of our society.

DATA ON HAWKERS ON HAWKERS CLAIMING WORKFARE INCOME SUPPLEMENT AND EFFORTS TO SUPPLEMENT INCOMES OF HAWKERS

10 **Mr Leong Mun Wai** asked the Minister for Manpower (a) what are the number and percentage of hawkers currently claiming the Workfare Income Supplement; (b) what efforts are being made to reach out to hawkers and other self-employed persons who may be eligible but are not claiming the Workfare Income Supplement; and (c) what more can the Government do to supplement the incomes of hawkers so that they do not need to raise prices to cover lost incomes amidst rising costs.

Dr Tan See Leng: The Workfare Income Supplement scheme encourages lower-income Singaporean workers, including Self-Employed Persons (SEPs) like hawkers, to work and build up their retirement savings. SEPs can receive up to \$2,800 in Workfare payments each year to supplement their incomes as well as MediSave savings. Workfare is not meant to offset business cost increases for SEPs.

All SEPs, including hawkers who meet the eligibility criteria, will receive Workfare payments automatically without needing to apply. About 50% of stallholders in markets and hawker centres received Workfare for work done in 2020.¹ The majority of the remaining stallholders did not receive Workfare because they were not eligible, for example, they earned more than the prevailing income threshold or did not meet the age criterion, while a minority did not make the required MediSave contributions in order to receive Workfare.

The requirement to contribute to MediSave ensures that SEPs take personal responsibility in saving for their healthcare needs, especially in retirement, while receiving support through Workfare. The CPF Board gives SEPs the flexibility to contribute to their MediSave within two years after the end of the work year.

CPF Board regularly engages lower-income SEPs about Workfare. Letters are sent in all four languages to remind SEPs who are eligible for Workfare to make the required MediSave contributions. Workfare is also publicised through the Ministry of Manpower and CPF Board's websites as well as social media campaigns.

To sustain our hawker trade, all stakeholders can play a part. Besides Workfare, the Government supports stallholders by providing a conducive business environment, such as keeping our rentals low. Support is also provided directly to households under the Assurance Package, where they can use the Community Development Council vouchers to offset their purchase of cooked food.

Note(s) to Question No(s) 10:

¹ Complete data on stallholders who are Workfare recipients for work years 2021 and 2022 are not yet available, as SEPs have up till 31 December 2023 and 31 December 2024 respectively to make their required MediSave contributions to receive Workfare.

VERNACULAR SPEECHES

Vernacular Speech by Dr Tan See Leng()

Vernacular Speech by Ms Hany Soh()

Vernacular Speech by Mrs Josephine Teo()

Vernacular Speech by Mr Tan Kiat How()

Vernacular Speech by Ms Tin Pei Ling()

Vernacular Speech by Mr Tan Kiat How()

Vernacular Speech by Ms Gan Siow Huang()