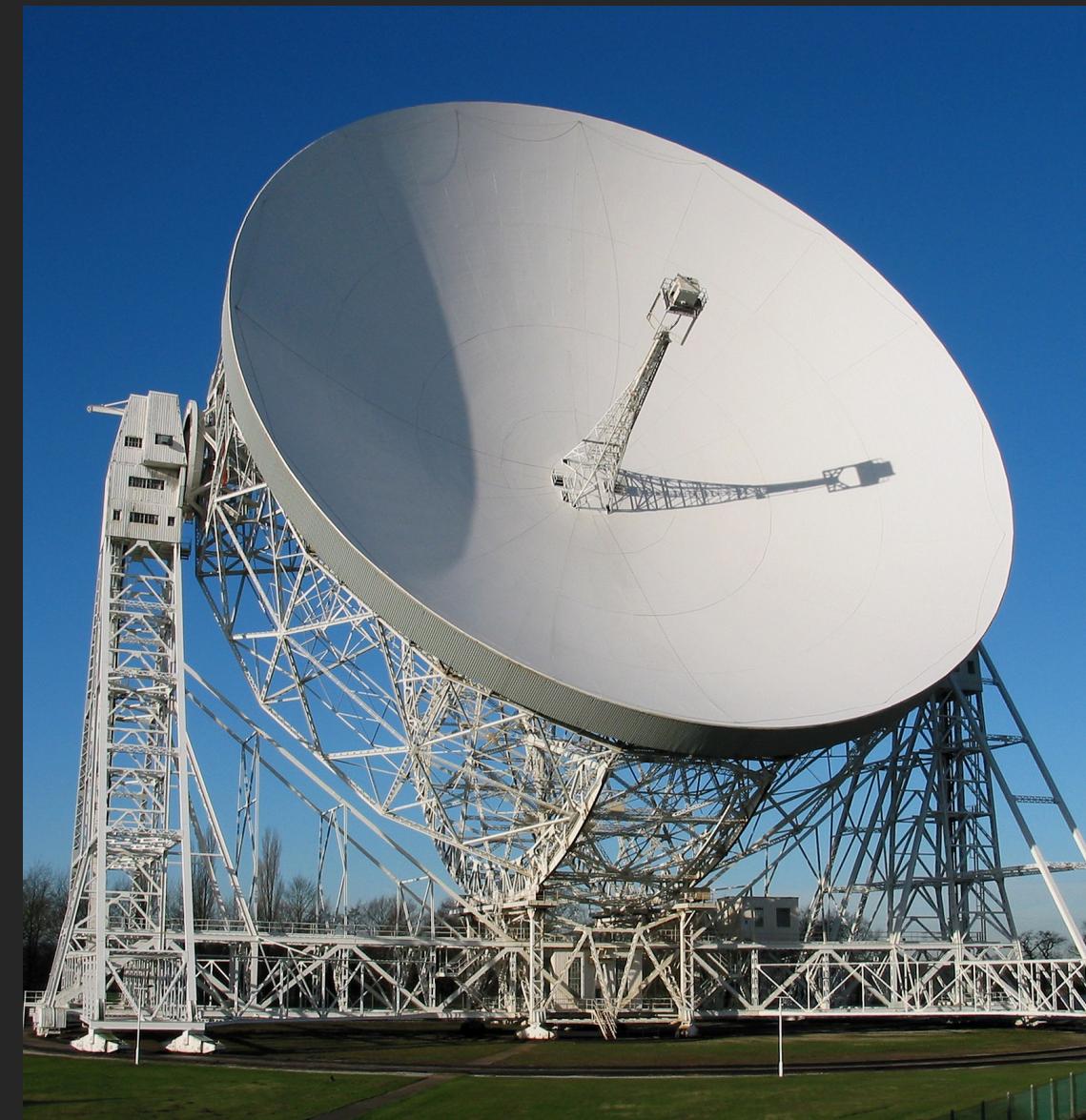


Inspiring young people to consider a career in engineering



Prof Danielle George MBE, CEng, FIET,
FRSA, FCGI
Past President of the Institution of
Engineering and Technology



The STEM skills shortage

MANCHESTER
1824

Changing the face of engineering and technology



Providing real life role models in STEM to inspire the next generation

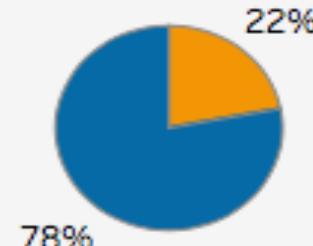
The leaky pipeline...



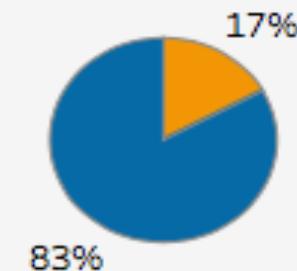
GCSE physics entrants



A level physics entrants



Engineering and technology first degree entrants



Get outside the bubble

Expo 2020
Dubai

The IET Power
15

Primary school
engagement



Children's
Fiction Prize

The 150 Show

Manufacturing
Futures Prize

Raising awareness outside the bubble

MANCHESTER
1824

Difference Makers



Manufacturing Futures Prize



Reaching new audiences

MANCHESTER
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Children's Fiction Prize



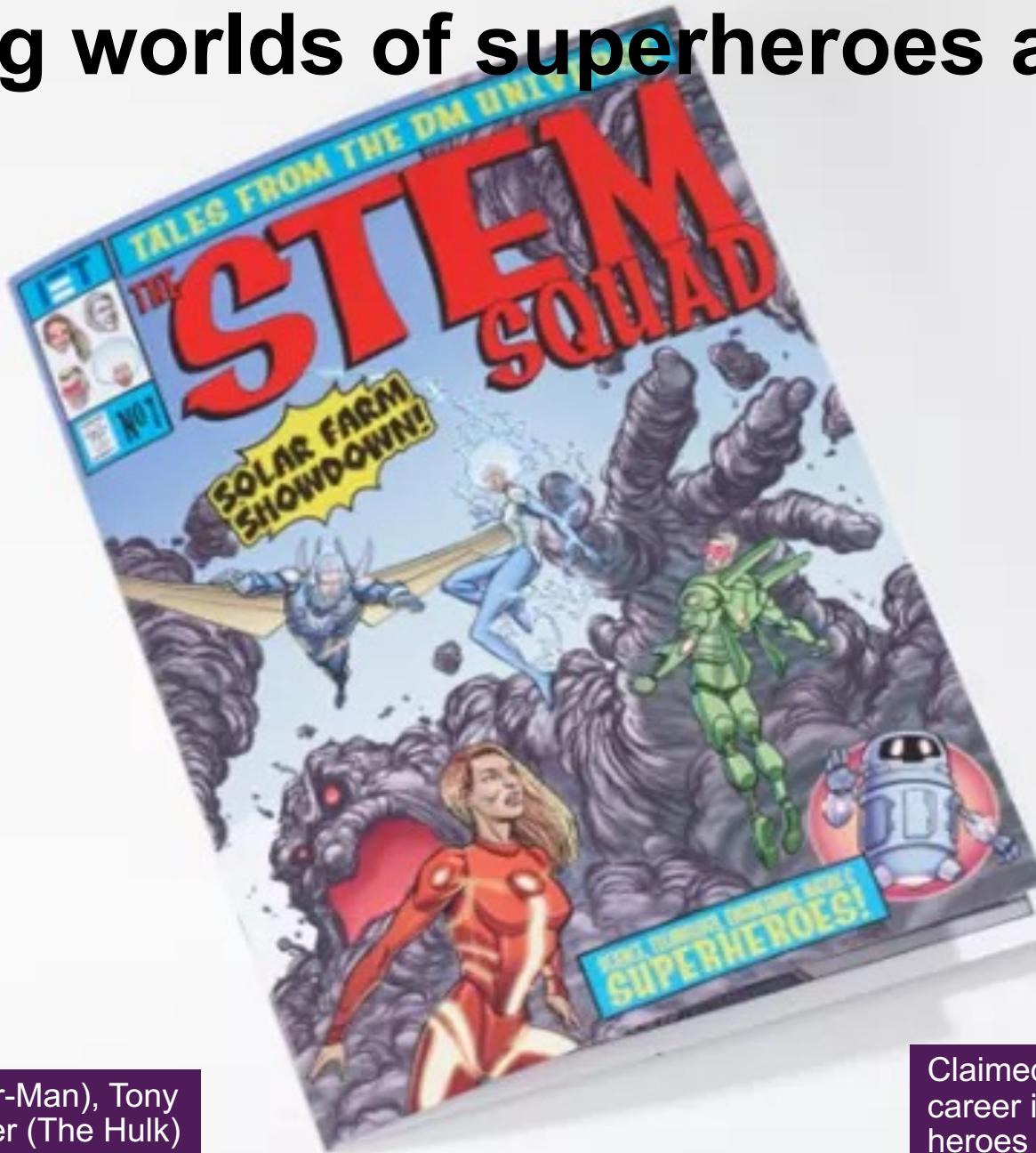
Expo 2020 Dubai



The colliding worlds of superheroes and STEM

60%

Didn't realise Peter Parker (Spider-Man), Tony Stark (Iron Man) and Bruce Banner (The Hulk) are scientists or engineers



65%

Claimed that they'd like to pursue a career in STEM after being told their heroes are scientists or engineers

The Super Realoes winner



#EngineeringKidsFutures

We're urging the government to embed engineering into current primary school learning

We're teamed up with more than 150 world-leading engineers, STEM ambassadors, professional institutions and celebrities

By empowering more young people to consider a career in STEM, we can solve the skills gap we're experiencing in the UK



**We need the brightest minds to solve global challenges
and engineer our future**

An open letter to the Government to help tackle the UK's engineering skills shortage

Dear Prime Minister

CC: Secretary of State for Education, The Rt Hon Nadhim Zahawi MP

I am writing to you regarding the teaching of science, technology, engineering and maths (STEM) in UK primary schools and how government, academia and industry - can come together to ensure teachers are equipped and empowered to inspire children about the vital, but often missing, E – engineering.

Children eagerly learn about science and maths, but the connection to engineering - the link between these subjects, their purpose and application to the world in which we live - is not currently being made. **We need to ensure there are clearer learning outcomes for these subjects linked to engineering.**

As you have already identified, one of the most powerful things we, as a nation, can do to [Build Back Better](#) is to invest in science, engineering and technology. However, this investment cannot be restricted to a focus on outputs; **we must invest in our children, who will be our engineering innovators of the future.**

...

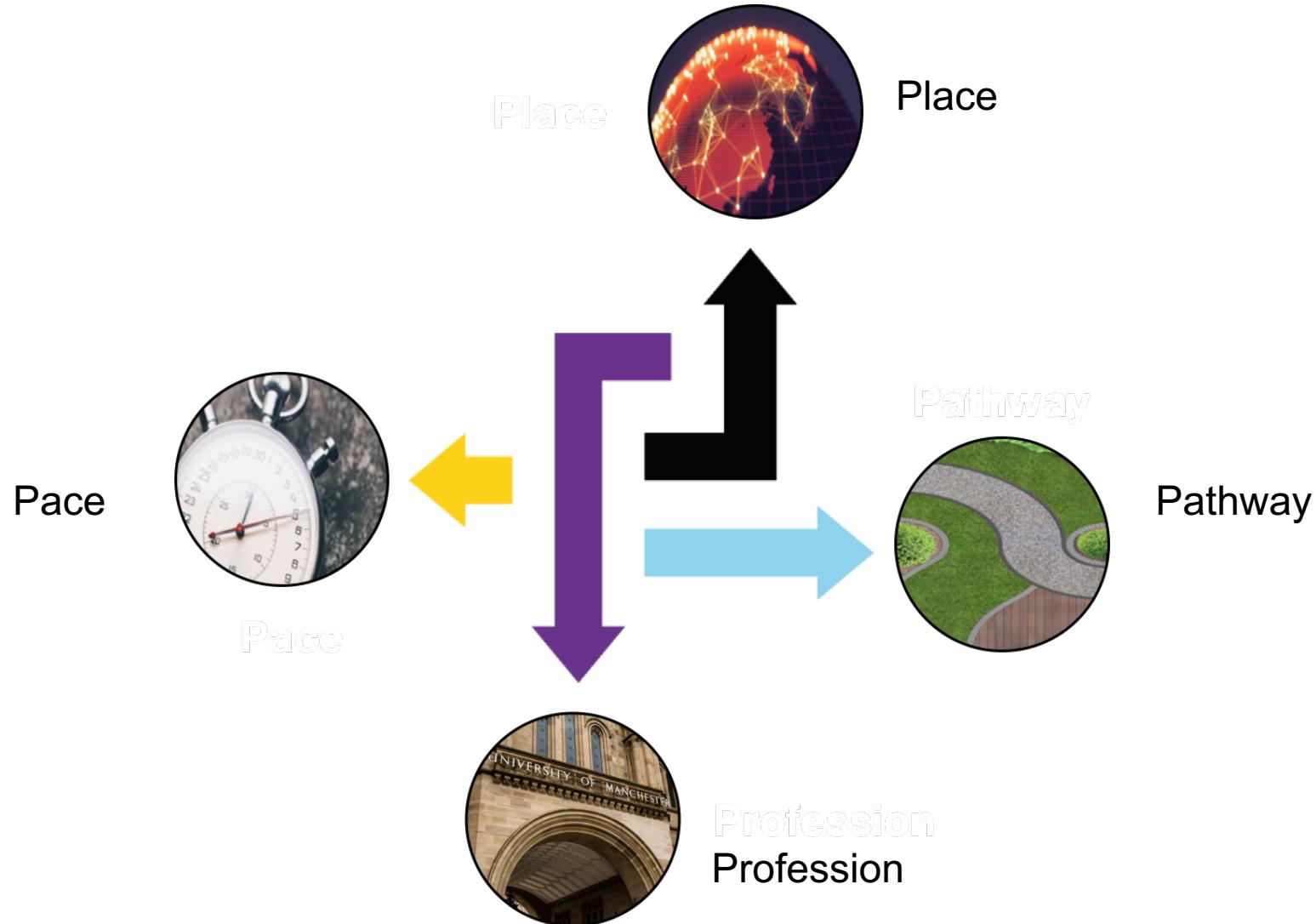
This isn't a way; this is **the only way** to ensure we are nurturing our children's curiosity about the rapidly advancing world around them from the earliest age. Yes, science and maths play a fundamental role, but we must teach them that the application of these subjects is called **engineering**.

Yours sincerely

Blended Learning

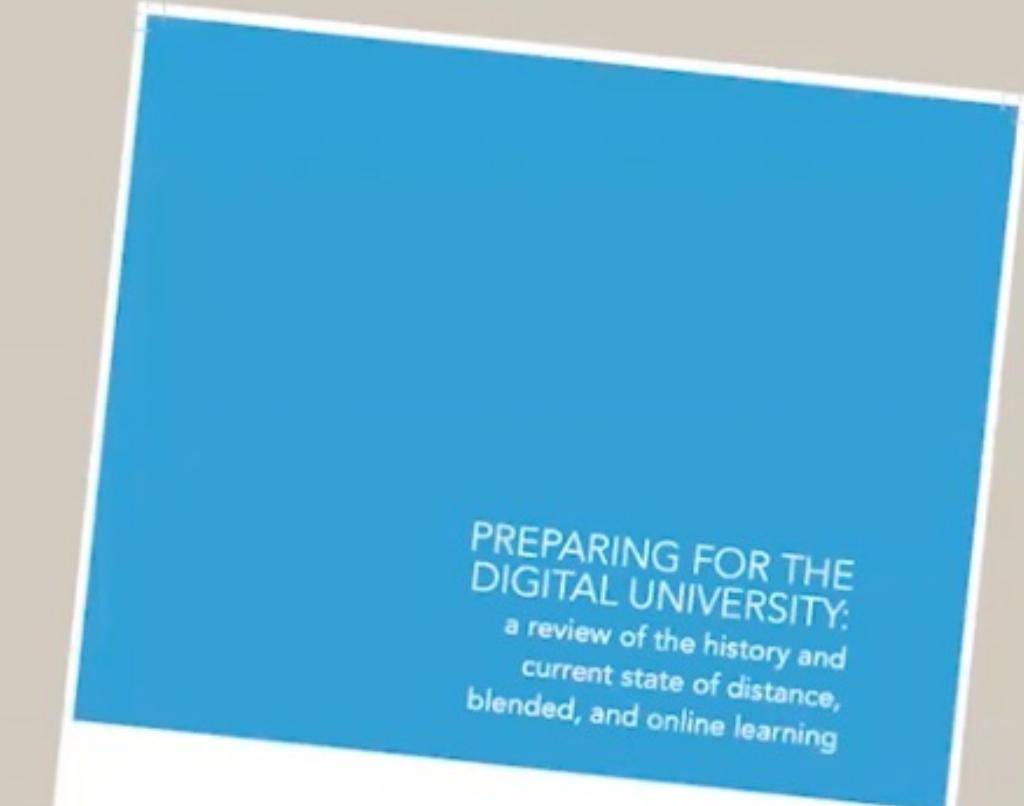


Flexible Learning



“combining f2f and online modes of delivery has a higher effect on student academic achievement than either one of the modes independently”

- Siemens, Gašević and Dawson



PREPARING FOR THE
DIGITAL UNIVERSITY:
*a review of the history and
current state of distance,
blended, and online learning*

GEORGE SIEMENS, PHD
DRAGAN GAŠEVIĆ, PHD
SHANE DAWSON, PHD

ATHABASCA UNIVERSITY,
UNIVERSITY OF EDINBURGH,
UNIVERSITY OF TEXAS ARLINGTON,
UNIVERSITY OF SOUTH AUSTRALIA



Department
for Education

Lifelong Loan Entitlement

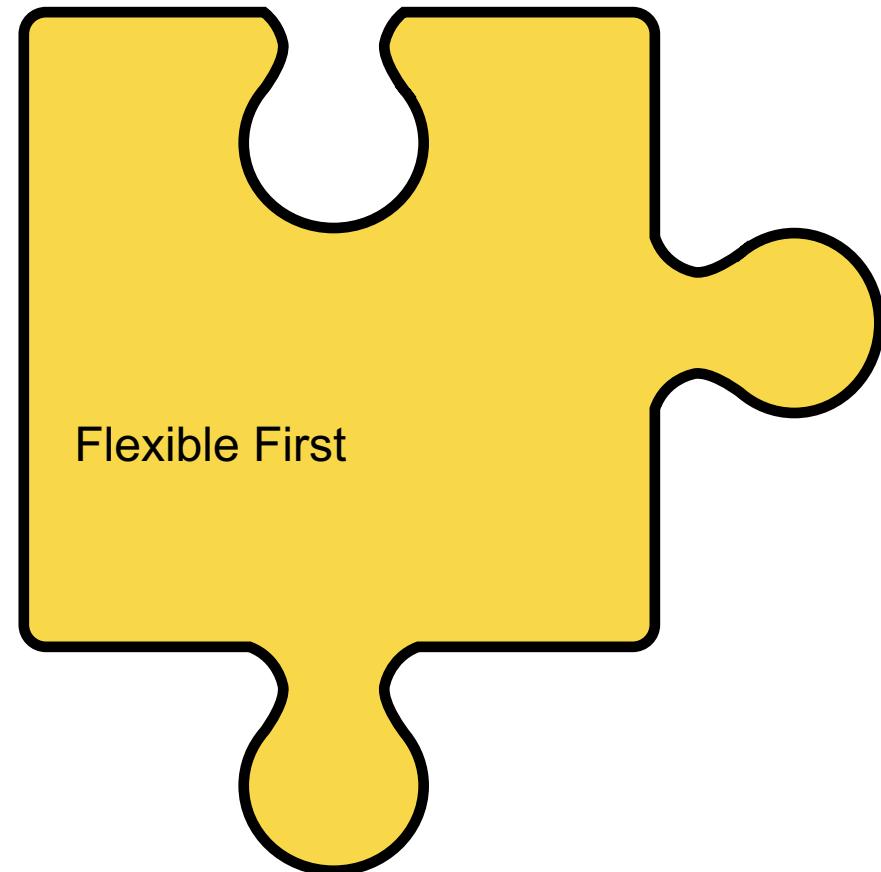
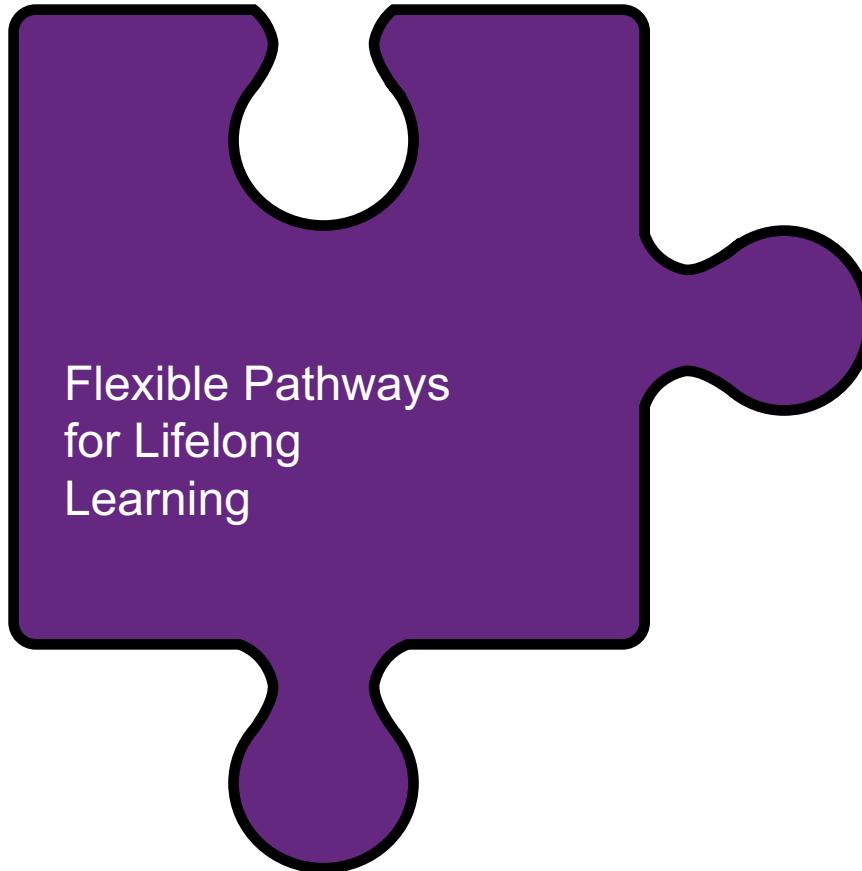
Government consultation

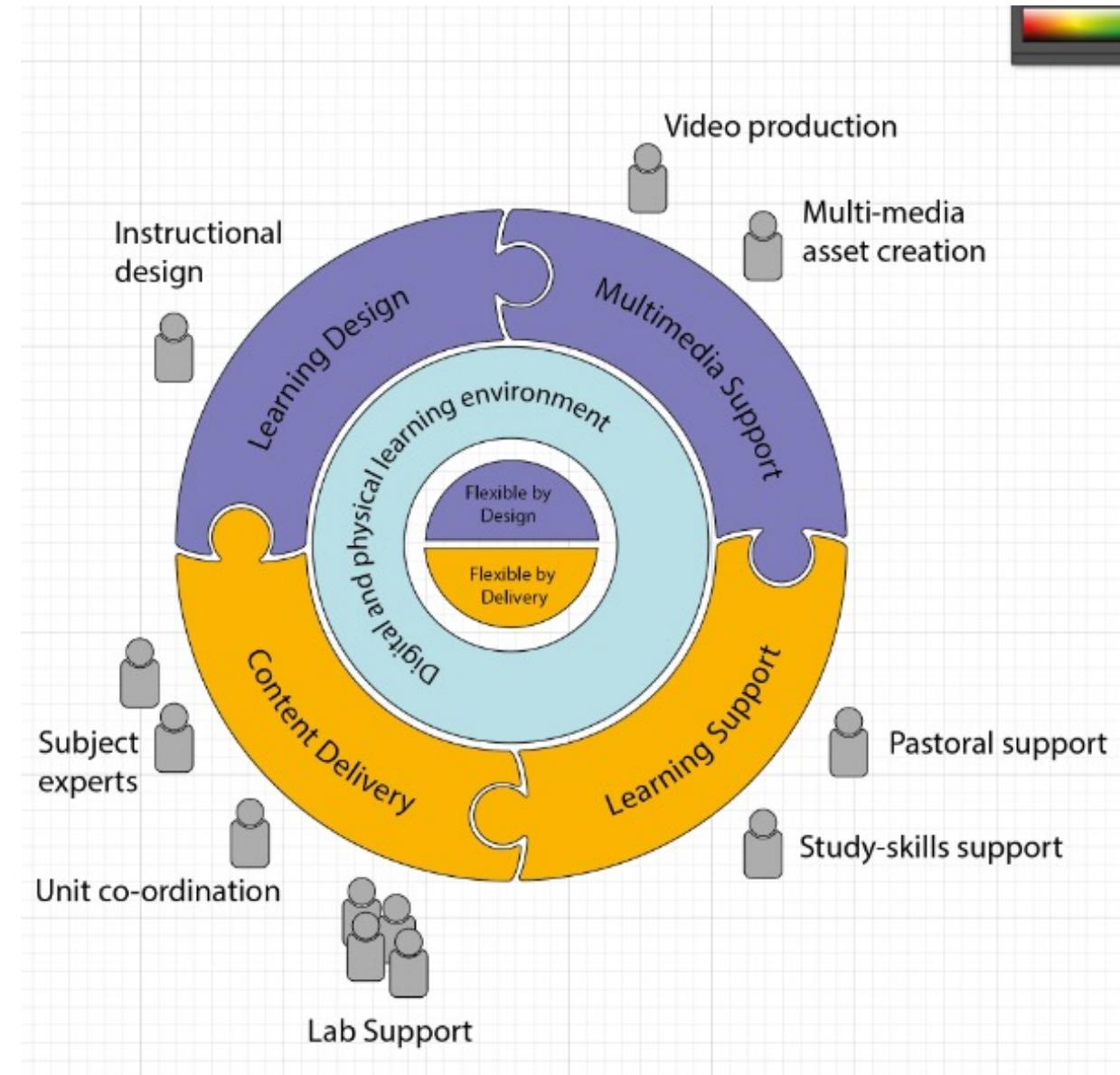
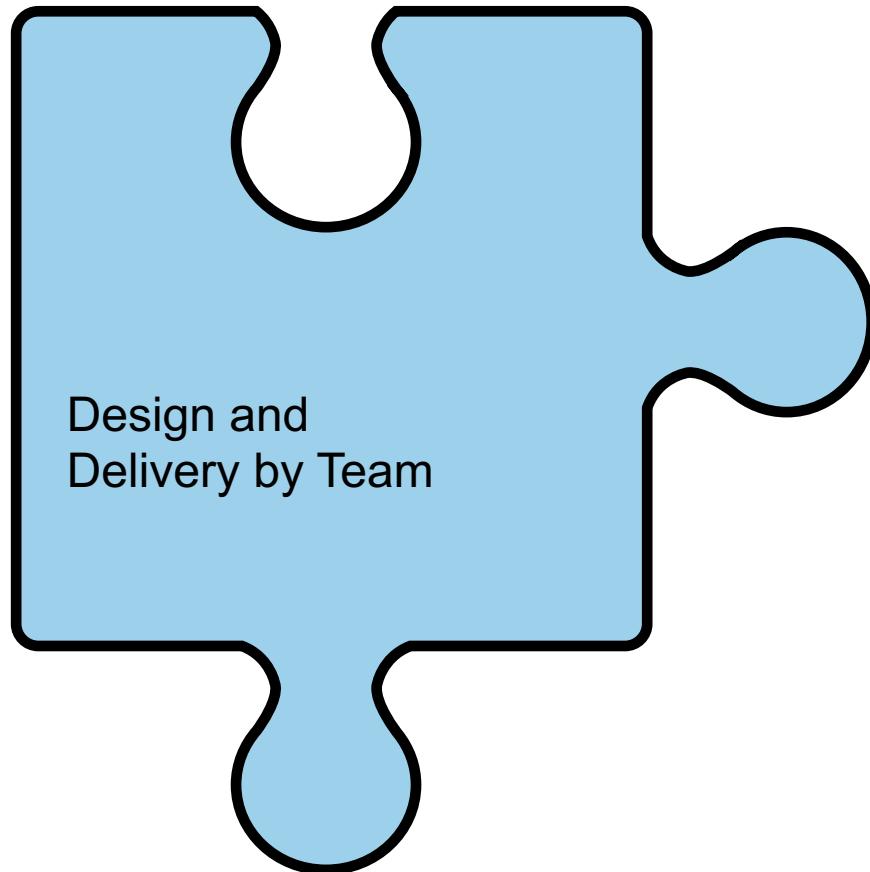
Launch date 24 February 2022

Respond by 6 May 2022

CP 618

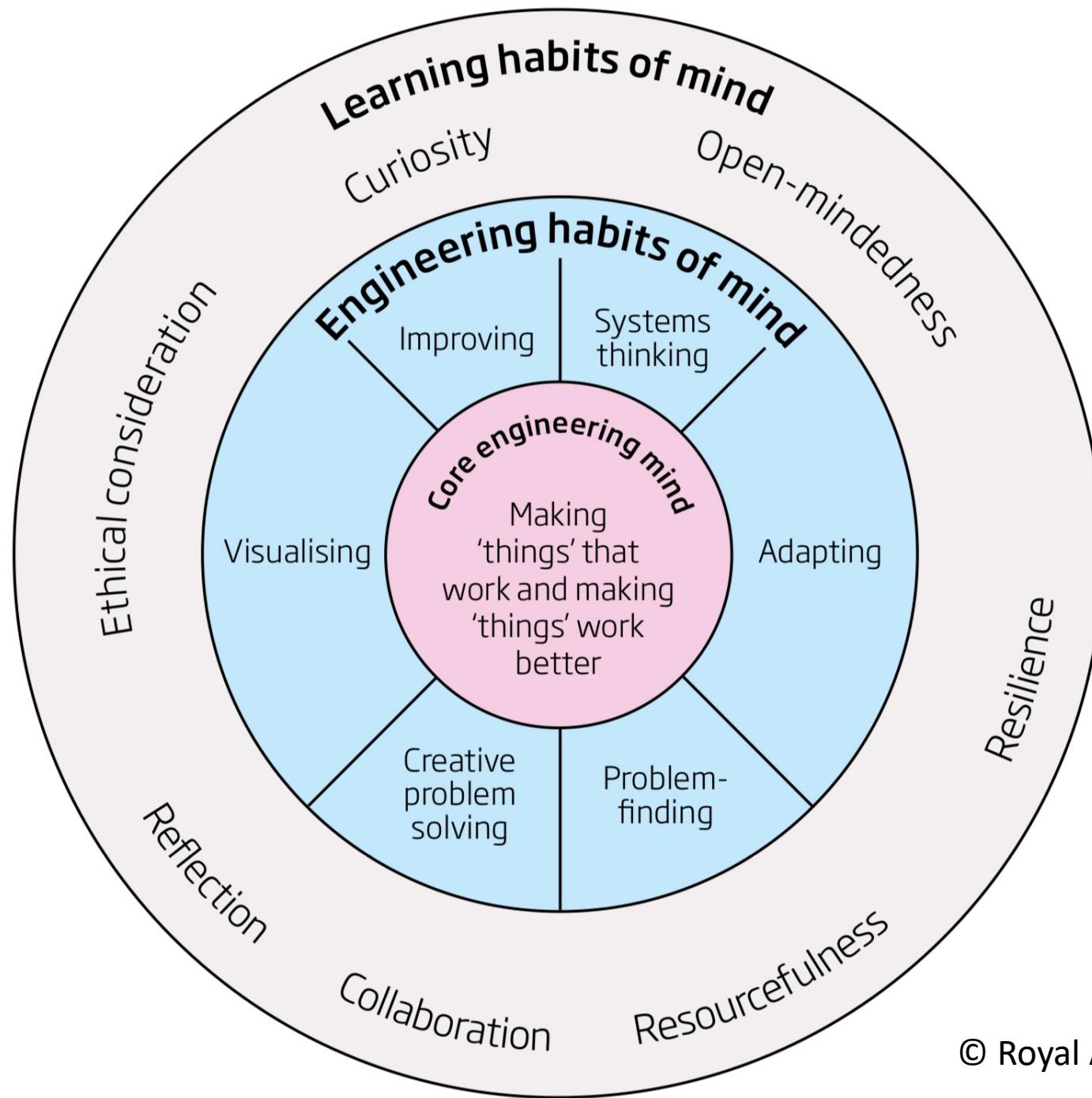
“ The Government’s ambition is for every student with the aptitude and the desire to go to university, to get the support they need, but also for everyone to be given a real choice in life, and not to feel there is only one route, or one shot at success. Many learners need to **access courses in a more flexible way, to fit study around work, family and personal commitments in response to employers’ needs.** ”







Virtual labs as prep





Inspire the
innovators of
tomorrow