Organisation for Economic Co-operation and Development

**DSTI/STP(2017)24**

**For Official Use** **English - Or. English**

**13 September 2017**

**DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INNOVATION**
**COMMITTEE FOR SCIENTIFIC AND TECHNOLOGICAL POLICY**

# EC/OECD Science, Technology and Innovation Policy Survey 2017

*This document sets out the EC-OECD Science, Technology and Innovation Policy Survey 2017, which will be administered by the OECD Secretariat at the start of October. This final version of the survey incorporates delegates' comments on two earlier drafts (see [DSTI/STP(2017)12] and [DSTI/STP(2017)14/REV1]) and is presented for declassification by CSTP delegates.*

***Action required: For declassification by written procedure. Any objections to the declassification of this document should be sent to the Secretariat by 6pm (Paris time) 4 October 2017. In the absence of objections by this time, this document will be considered declassified.***

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**JT03418679**

# EC/OECD Science, Technology and Innovation Policy Survey 2017

## Introduction

1. This document sets out the 2017 edition of the EC-OECD Science, Technology and Innovation Policy Survey, which is due to be administered by the OECD Secretariat at the start of October.

2. A first draft of the EC/OECD STIP survey [DSTI/STP(2017)12] was sent to delegates of the Committee for Scientific and Technological Policy (CSTP) and the European Research Area Committee (ERAC) in early June as part of a first consultation round on the survey's questions and structure. Thirteen countries submitted comments and suggestions.

3. A second draft of the survey [DSTI/STP(2017)14/REV1] incorporated this country feedback and was sent to CSTP and ERAC delegates in July/August for further consultation. Twelve countries submitted comments and suggestions. Some of this feedback has led the Secretariat to fine-tune a small number of questions and prompts, as shown below. Most feedback received has implications for other aspects of the survey, e.g. the policy instrument fiches, which will be amended accordingly.

4. The final version of the 2017 survey is set out below, with changes from the version circulated in the second consultation round highlighted in red.

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# Survey questions and prompts

**Table 1. Governance**

| | Policy topics | Accompanying Question | Prompts |
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| 1. Governance | 1.1. Governance debates | Briefly, what are the current main issues of debate around how national STI policy is governed? | Your answer should provide a synthetic open text of 2 to 3 paragraphs describing the current main debates around the governance of STI policy that took place during the two last years. A policy debate may include various positions or options regarding STI matters in different national settings such as Parliament, government bodies and events, in the press, among scientific actors, etc. They may or may not have been followed up by concrete actions. Of particular interest are the different positions of the various stakeholders and the different options considered during the debates. Initiatives resulting from these debates should be reported in the different questions on policy initiatives, as relevant. This statement will be used as a key input into the 2018 STI Outlook report and European Semester process. |
| | 1.2 National STI plan or strategy | What strategies or plans exist, if any, to provide an overarching strategic direction to national STI policy? | National research and/or innovation strategy and plan; National economic development strategy and/or plan with a strong emphasis on research and/or innovation; change in priorities and strategic agenda. |
| | 1.3 Horizontal policy coordination | What arrangements exist to support cross-government coordination in STI policy? | Overarching/central coordination body; Inter-ministerial Councils; Priority-setting mechanisms; Strategic advisory body and councils; Ad hoc expert groups. |
| | 1.4 Strategic policy intelligence | What arrangements or policy initiatives exist to strengthen the evidence base for STI policy-making and governance (besides evaluation and impact assessment)? | Dedicated strategic policy intelligence body (High-level expert groups, Advisory councils with analytical capacity, etc.); Regulation, standards and rules related to evidence-based policy making; Scoreboards, indexes and data for measuring research and innovation; technology assessment; technology foresight; Policy monitoring; Benchmarking and peer review exercises. |
| | 1.5 Evaluation and impact assessment | What arrangements or governance structures exist to initiate, perform or encourage the use of STI evaluation and impact assessment? | Dedicated evaluation or impact assessment (IA) body; Regulation, standards and rules related to evaluation/IA; Centralisation or harmonisation of evaluation/IA procedures; Evaluation/IA guidelines; Shift in evaluation/IA instrumentation (international peer review, bibliometrics, patent counts, IA studies etc.).All initiatives to support, improve and harmonise evaluation and impact assessment in public research, including adoption of the San Francisco Declaration (DORA), Leiden Manifesto, or similar initiatives. Revision of assessment frameworks of public research by research funding organisations. System level revision of individual appraisal systems in higher education or public research institutes. Changes in the use of metrics in evaluation processes; Reviews of impact assessment processes of public research, etc. |
| | 1.6 International STI policy strategy and framework | What strategies, plans or frameworks exist, if any, to promote and guide international research and innovation activities? | National research and/or innovation strategy and plan regarding the internationalisation of research and innovation activities; bilateral research and innovation cooperation agreements; participation in multilateral initiatives; joint infrastructures or research centres; strategy and tools to enhance participation in European Union programmes, etc. |

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| 1.7 International STI policy instruments | What instruments exist, if any, to implement the international governance of STI policy? | Dedicated funding programmes; Cross-border programmes and schemes, joint research programmes across borders, joint implementation of calls for proposals (joint peer review, common pot funding), alignment of national activities towards the research agenda of transnational research programmes, as well as the opening up of national programmes towards other country national, etc.; international policy co-operation frameworks and agreements for R&D; removal of obstacles to the movement of resources; setting of international standards and regulations, and transfer of authority to intergovernmental organisations and supranational authorities; joint infrastructures, etc. Please note that ERA-related initiatives (Art 185, JPIs, ERA-NET+) should be reported as relevant in the questions of the specific ERA module. |
| 1.8 Any other developments or initiatives related to STI governance | What other developments and initiatives not already covered in previous questions have had an influence on or have been put in place in relation to STI governance? | All other initiatives not yet reported in previous questions or developments having led to relevant initiatives. This can include for instance other institutional changes (including informal institutional changes) or changes in framework conditions shaping national STI governance. |

**Table 2. Public research system**

| | Policy topics | Accompanying Question | Prompts |
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| 2. Public research system | 2.1 Public research debates | Briefly, what are the main issues of debate in current national research policy? | Your answer should provide a synthetic open text of 2 to 3 paragraphs describing the current main debates around the public research system and relevant policy that took place during the two last years. A policy debate may include various positions or options regarding public research matters in different national settings such as Parliament, government bodies and events, in the press, among scientific actors, etc. They may or may not have been followed up by concrete actions. Of particular interest are the different positions of the various stakeholders and the different options considered during the debates. Initiatives resulting from these debates should be reported in the different questions on policy initiatives, as relevant. This statement will be used as a key input into the 2018 STI Outlook report and European Semester process. |
| | 2.2 Public research strategies | What strategies or plans exist, if any, to provide strategic direction to national research policy? | National strategy and/or plan related to the research system or significant part of it; National economic development strategy and plan including the public research dimension. |
| | 2.3 Competitive research funding | What are the main competitive schemes and programmes for funding research in universities and public research institutes? | Mechanisms and principles governing competitive research funding schemes (e.g. grant programmes). |
| | 2.4 Non-competitive research funding | What are the main non-competitive schemes and programmes for funding research in universities and public research institutes? | Mechanisms and principles governing non-competitive research funding schemes (block/institutional funding, with or without performance-based criteria; performance agreements, excellence centres, etc.). |

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| 2.5 Third-party funding | What policy initiatives exist to promote third-party funding of public research? | Legal, regulatory, administrative reform of the universities allowing increased revenues from third parties; Incentives to promote increased revenues / attract funding from outside stakeholders, including the business sector and charity foundations; Tax-based initiatives to encourage scientific philanthropy. |
| 2.6 Structural change of the public research system | What policy initiatives exist, if any, to support or lead structural changes in the public research system? | Incentives, regulations, guidelines and other types of intervention to provoke, promote, and orient changes in the landscape of public research actors (mergers, organisational separation, closure), their missions (increase/decrease of autonomy of universities) and their linkages formal partnerships between research actors, etc.). |
| 2.7 Exploratory and high risk research | What policy initiatives exist, if any, to support specific areas of exploratory and high-risk long-term research? | Dedicated scheme, programme, incentive or instrument to support disruptive and highly uncertain research; research in emerging fields (e.g. thematic programmes, budget earmarking, etc.). |
| 2.8 Open science and open access | What policy initiatives exist to support open science and open access? | Implementation of new infrastructures and standards to enable digital storage of publications (new services such as IT and cloud computing services, national resource Centre, database and repositories of scientific information etc.) and open access to research data; Structures to enable access to publicly funded research output; New licenses or extra funding to support greater access to publications; legal reforms (e.g. law/regulation making open access obligatory in funding programmes); development and use of alternative metrics; implications on career management. |
| 2.9 Large research infrastructures and equipment | What are the main policy initiatives for funding new and existing large research infrastructures and equipment? | Specific research infrastructure projects and investments; Research infrastructure roadmaps; Equipment sharing schemes and mechanisms; Inventories and databases of infrastructure and equipment. Please note that initiatives related to ESFRI infrastructures should be reported in M1.6 |
| 2.10 Internationalisation in public research | What are the main policy initiatives for promoting internationalisation in public research? | Incentives to encourage the internationalisation of domestic universities and PRIs, e.g. direct funding of national universities and PRIs; International research and PhD mobility schemes and programmes; Financial support to international collaborative R&D; National initiatives to support financially and/or technically applications to and participation in international research programme (incl. EU Framework Programmes); Incentives to attract and retain foreign universities and PRIs; International infrastructure projects; International research organisations (university campuses, research centres and labs, etc.) |
| 2.11 Interdisciplinary research | What are the main policy initiatives for promoting interdisciplinary research? | Dedicated (or significant part of) interdisciplinary research programmes or interdisciplinary calls in research programmes; Schemes to promote exchanges between projects of different disciplines; Incentives to develop transversal skills for researchers, as well as to raise awareness of other research fields; Research and education infrastructures that facilitate knowledge circulation between disciplines; Selection/evaluation criteria that better reward output from multidisciplinary research, etc. |
| 2.12 Research integrity and reproducibility | What are the main policy initiatives for promoting research integrity and reproducibility? | Dedicated structures and bodies to prevent misconduct such as an office/committee of research integrity; national mediator / ombudsman; codes of conduct and guidelines; education, training and awareness raising initiatives on scientific conduct; initiatives such as surveys to scientists in order to monitor the level of integrity; protection of and guidelines for whistle blowers; improvement of access to research data such as clinical trial registries; support and incentives for reproducibility studies; initiatives to deal with identified research misconduct and abuses, etc. |

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| 2.13 Gender and diversity in research | What policy initiatives exist to incorporate gender and diversity dimensions in research content? | Any initiatives for supporting the gender and diversity dimensions of research by integrating it as part of research design and process. This entails the analysis of sex, gender and diversity in populations being integrated into basic and applied research, taking into account the biological characteristics and social and cultural features of both women and men as well as that of diverse minorities, social groups, etc. |
| 2.14 Any other developments or initiatives related to public research | What other developments and initiatives not already covered in previous questions have had an influence on or have been put in place in relation to public research? | All other initiatives not yet reported in previous questions or developments having led to relevant initiatives. This can include for instance other institutional changes (including informal institutional changes) or changes in framework conditions shaping national STI policy in the area of public research. |

**Table 3. Innovation in firms and innovative entrepreneurship**

| | Policy topics | Accompanying Question | Prompts |
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| 3. Innovation in firms and innovative entrepreneurship | 3.1 Business innovation policy debates | Briefly, what are the main policy debates around government support to business innovation and innovative entrepreneurship? | Your answer should provide a synthetic open text of 2 to 3 paragraphs describing the current main debates around the business innovation system and relevant policy that took place during the two last years. A policy debate may include various positions or options regarding business innovation matters in different national settings such as Parliament, government bodies and events, in the press, among business sector representatives, etc. They may or may not have been followed up by concrete actions. Of particular interest are the different positions of the various stakeholders and the different options considered during the debates. Initiatives resulting from these debates should be reported in the different questions on policy initiatives, as relevant. This statement will be used as a key input into the 2018 STI Outlook report and European Semester process. |
| | 3.2 Business innovation policy strategies | What strategies or plans exist, if any, to strategically direct national policy on business innovation and/or innovative entrepreneurship? | National innovation strategy and plan; National economic development strategy and plan including business innovation and/or innovative entrepreneurship. |
| | 3.3 Financial support to business R&D and innovation | What are the main policy initiatives for providing financial support to business R&D and innovation? | Dedicated (or significant part of) budget, scheme, programme, subsidies or instruments (direct or indirect, incl. tax incentives) to finance or provide incentive to raise funding for business R&D and innovation; debt financing instruments (loans, credit guarantees schemes or risk-sharing mechanisms). |
| | 3.4 Non-financial support to business R&D and innovation | What are the main policy initiatives for providing non-financial support to business R&D and innovation? | Dedicated (or significant part of) scheme, programme, incentive or instrument to support or promote business innovation, through the provision of information, technical expertise, training, mentoring, networking, marketing and advertising support etc.; Access to support facilities, e.g. research equipment, ICT, networks, housing etc.; Access to a range of information and support services, e.g. training; Policy instruments aiming to raise firms' visibility and recognition, e.g. awards, prizes, high impact events, contests etc. |

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| 3.5 Access to finance for innovation | What policy initiatives exist to promote firms' access to finance for innovation? | Dedicated (or significant part of) scheme, programme, incentive or instrument to promote firms' access to finance for innovation; Incentives for business angels, venture capital investors (tax reliefs, etc.); Public investment in venture funds; Public venture funds; Specific regulations to promote venture capital, etc. |
| 3.6 Entrepreneurship capabilities and culture | What policy initiatives exist to foster a spirit and culture of entrepreneurship in business firms or in individuals and to provide them with appropriate skills? | Policy programmes to implement a culture of entrepreneurship for all (men, women, diverse social groups) may include awareness campaigns or education initiatives (mass-media campaigns and big events, e.g. broadcasting programmes etc.); Integrated communication operations (including more participatory strategies or face-to-face communications); Promotion of exemplary entrepreneurship or business achievements (e.g. awards, prizes etc.); Partnerships between schools/universities and organisations such as venture capital firms and accelerator programmes); Entrepreneurship prizes and contests open to all. |
| 3.7 Stimulating demand for innovation and market creation | What policy initiatives exist to stimulate demand for firms' innovations and to support market creating innovation? | Dedicated (or significant part of) scheme, programme, incentive or instrument to support the demand for innovation (e.g. user-driven programmes, public procurement, customer programmes). Dedicated (or significant part of) scheme, programme, incentive or instrument to support the early adoption and scale up of breakthrough ideas and new radical innovations (in terms of products, processes, business models etc.) with the potential to disrupt existing and create new markets. |
| 3.8 Foreign direct investment | What policy initiatives exist to attract knowledge-intensive foreign direct investment and promote transfers to domestic firms? | Direct financial support (e.g. grants, loans, R&D subsidies, etc.); Tax incentives for non-domiciled, foreign-owned firms (e.g. corporate tax, R&D tax etc.); Provision of services and facilities (e.g. administrative or networking support etc.); Investment promotion policies (e.g. campaigns, events, websites, 'brand name' of the country, investment promotion agencies, etc.) to attract knowledge intensive FDI; Provision of infrastructures (e.g. clusters, technology platforms, one-stop-shop etc.); Public procurement of R&D and innovation; Supply of human resources. Any initiatives/ programmes to maximise knowledge spillovers from FDI: Support to domestic supplier backward linkages (e.g. supplier development programme, SME-multinationals partnership and networks, Industrial Linkage Programme, etc.); Training, coaching and mentoring for upgrading suppliers in cooperation with multinationals; specific regulation promoting/incentivising technology transfer from multinationals (e.g. local content regulation, domestic procurement rules, etc.); Domestic supplier databases. |

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| | 3.9 Targeted support to SMEs | What are the main policy initiatives specifically targeting research and innovation activities in SMEs? | Dedicated (or significant part of) scheme, programme, incentive or instrument specifically targeted to support innovation in SMEs; Specific grants and subsidies; Small Business Innovation Research (SBIR)-type of schemes; Innovation vouchers for SMEs; Public procurement for innovation targeted towards SMEs; Intellectual Property Rights (IPRs) support to SMEs; technology extension services, specific support to low tech companies, programmes for cooperation between large companies and SMEs; Specific conditions for SMEs in R&D tax credits; any incentives or subsidies or network support to link domestic SMEs to foreign sources of R&D and innovation, etc. *Specific support measures for young innovative enterprises should be reported in Q3.10.* |
| | 3.10 Targeted support to young innovative enterprises | What policy initiatives exist to provide support services to young innovative enterprises and start-ups? | Dedicated (or significant part of) scheme, programme, incentive or instrument to support financially and/or technically innovation in start-ups (e.g. specific programmes for start-ups, specific features for start-ups in schemes and programmes; Specific criteria or eligibility conditions); Instrument to support the emergence and/or development of young innovative enterprises, incl. for growth and scaling-up. |
| | 3.11 Any other developments or initiatives related to innovation in firms and innovative entrepreneurship | What other developments and initiatives not already covered in previous questions have had an influence on or have been put in place in relation to innovation in firms and innovative entrepreneurship? | All other initiatives not yet reported in previous questions or developments having led to relevant initiatives. This can include for instance other institutional changes (including informal institutional changes) or changes in framework conditions shaping national STI policy in the area of business innovation and innovative entrepreneurship. |

**Table 4. Public-private knowledge transfers and linkages**

| | Policy topics | Accompanying Question | Prompts |
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| 4. Public-private knowledge transfers and linkages | 4.1 Transfer and linkages debates | Briefly, what are the main policy debates around knowledge transfer and linkages? | Your answer should provide a synthetic open text of 2 to 3 paragraphs describing the current main debates around the knowledge transfer system and relevant policy that took place during the two last years. A policy debate may include various positions or options regarding knowledge transfer and linkages in different national settings such as Parliament, government bodies and events, in the press, among scientific actors, etc. They may or may not have been followed up by concrete actions. Of particular interest are the different positions of the various stakeholders and the different options considered during the debates. Initiatives resulting from these debates should be reported in the different questions on policy initiatives, as relevant. This statement will be used as a key input into the 2018 STI Outlook report and European Semester process. |

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| 4.2 Transfer and linkages strategies | What strategies or plans exist, if any, to strategically direct national policy on knowledge transfer and linkages? | Dedicated national plan or strategy for knowledge transfer and co-production between different actors of the research and innovation actors (science-industry, business-to-business, intermediary organisations, etc.) |
| 4.3 Collaborative research | What are the main policy initiatives for promoting research collaboration between the public and private sectors? | Dedicated (or significant part of) scheme, programme, incentive or instrument to support collaborative research between the public and private sectors (e.g. dedicated research programme for supporting collaborative projects; PPPs or regulation promoting PPPs; joint labs and other research-industry research organisations); Mixed public private governance in research programmes and bodies; open innovation schemes. |
| 4.4 Cluster policies | What policy initiatives exist to promote geographical and/or thematic innovative clusters? | All initiatives to support thematic and/or place-based clusters: Provision and implementation of networking infrastructures (e.g. new research centres, demonstrators, science parks, technology incubators, "innovation' hubs, technology platforms, etc.); Financial support to clusters activities, projects and cluster organisations; Incentives to strengthen liaisons between national and/or international clusters; Regional policies to strengthen STI actors' capacities and clustering; Incentives or support to networking activities between national clusters. |
| 4.5 Commercialisation of public research results | What policy initiatives exist to encourage commercialisation of public research results? | Dedicated (or significant part of) scheme, programme, incentive or instrument to support transfer of academic inventions via the sale, transfer or licensing of intellectual property, often on an exclusive basis, to existing firms or new ventures (e.g. academic spin-offs). Major policy initiatives may include a reform of universities and IPRs for publicly funded research results, the establishment or consolidation of technology transfer offices and licensing offices at universities an PRIs, a revision of performance criteria of institutions and R&D personnel, training and mentoring for academic staff, creation of spin offs, incubators and accelerators, the provision of new demonstrator or proof-of-concept funding, etc. |
| 4.6 Intersectoral mobility | What policy initiatives exist to encourage mobility of human resources between the public and private sectors? | Policy initiatives to foster industry-science mobility of academics and researchers (reform of the rules governing public sector employment, the implementation of secondment schemes, policy initiatives to improve pension portability, various incentives for researchers and/or companies, subsidised 'internship', etc.) |
| 4.7 Intellectual property rights in public research | What policy initiatives exist to ensure intellectual property rights in public research are conducive to promoting innovation? | Reform of IPRs legislation, and/or revision or strengthening of IPRs enforcement practices in public research (Bayh-Dole act type of reform, professor privilege, etc.); Dedicated financial and non-financial scheme, programme, incentive or instrument to support IPR in public research (subsidies, training, information campaign, etc.); Dedicated body to support IPR in public research |
| 4.8 Any other developments or initiatives related to knowledge transfers and linkages | What other developments and initiatives not already covered in previous questions have had an influence on or have been put in place in relation to knowledge transfers and linkages? | All other initiatives not yet reported in previous questions or developments having led to relevant initiatives. This can include for instance other institutional changes (including informal institutional changes) or changes in framework conditions shaping national STI policy in the area of knowledge transfers and linkages. |

**Table 5. Human resources for research and innovation**

| | Policy topics | Accompanying Question | Prompts |
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| 5. Human resources for research and innovation | 5.1 STI human resources debates | Briefly, what are the main policy debates around human resources for research and innovation? | Your answer should provide a synthetic open text of 2 to 3 paragraphs describing the current main debates around the STI human resources system and relevant policy that took place during the two last years. A policy debate may include various positions or options regarding human resources for research and innovation in different national settings such as Parliament, government bodies and events, in the press, among scientific actors, etc. They may or may not have been followed up by concrete actions. Of particular interest are the different positions of the various stakeholders and the different options considered during the debates. Initiatives resulting from these debates should be reported in the different questions on policy initiatives, as relevant. This statement will be used as a key input into the 2018 STI Outlook report and European Semester process. |
| | 5.2 STI human resources strategies | What national strategies or plans exist, if any, to foster human resources for research and innovation? | Dedicated national plan or strategy for fostering human resources for research and innovation |
| | 5.3 STEM skills | What are the main policy initiatives for nurturing general STEM skills? | Revision of academic curricula to improve teaching in specific fields (e.g. mathematics, science, technical skills, etc.); Introduction of new learning practices and new instructional tools (e.g. increased use of ICT, cooperative learning exercises etc.); Additional training of teachers; Involvement of outside stakeholders; Assessment and evaluation of student performance in STEM, etc. |
| | 5.4 Doctoral and postdoctoral researchers | What policy initiatives exist to specifically support doctoral and postdoctoral research and education? | Dedicated support to doctoral programmes and postdoctoral programmes; Rules and schemes for doctoral and postdoctoral programmes evaluation; Support to industry involvement in PhD training schemes (e.g. industrial PhD programmes, fiscal incentives etc.); Reform of academic curricula (e.g. training of transferable skills for future researchers etc.); Career guidance and information to students regarding funding/job opportunities in the public and private sectors; Schemes for financing/promoting PhD in business or public firms; Schemes for financing/promoting the employment PhD graduated in business or public firms |
| | 5.5 Research careers | What policy initiatives exist to make research careers more attractive? | Creation of new job opportunities in Public Research Institutions (PRIs) and academia (e.g. new chairs, new job positions, secondments etc.); Tenure system; Improved financial rewards (e.g. stipends, social benefits, tax incentives etc.) and non-financial incentives (e.g. autonomy, independence, reputation, provision of support staff, facilities etc.) for researchers; Reform of employment conditions of researchers in the public and private sectors to ensure "flexicurity', sectoral mobility and life-long employability and to promote transparency in career paths (e.g. tenure track systems, legal status, pension portability etc.), etc. |

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| 5.6 International mobility of human resources | What policy initiatives exist to encourage international mobility of the highly skilled? | Policy initiatives to foster international mobility of academics and researchers (incl. reform of the rules governing public sector employment, reform of researcher recruitment rules, policy initiatives to improve international pension portability, various incentives for researchers and/or companies, subsidised 'internship', extension of fellowships in connection with a research stay abroad, etc.) |
| 5.7 Gender balance | What policy initiatives exist to promote gender balance and other under-represented groups in research and innovation activities? | Targeted measures aiming to reduce gender gaps or to better include under-represented groups in S&T education or doctoral studies; Measures to ensure work-family balance and equal work opportunities in universities and PRIs (e.g. part-time arrangements, parental leave, etc.); Women's access to senior positions in academia, high level offices, research councils, etc.; Quotas, regulations and rules for ensuring gender balance and inclusion of under-represented groups. |
| 5.8 Any other developments or initiatives related to human resources for research and innovation | What other developments and initiatives not already covered in previous questions have had an influence on or have been put in place in relation to human resources for research and innovation? | All other initiatives not yet reported in previous questions or developments having led to relevant initiatives. This can include for instance other institutional changes (including informal institutional changes) or changes in framework conditions shaping national STI policy in the area of human resources for research and innovation. |

**Table 6. Research and innovation for society**

| | Policy topics | Accompanying Question | Prompts |
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| 6. Research and innovation for society | 6.1 Policy debates on innovation for societal goals | Briefly, what are the main issues of debate in current public policy to support innovation for societal wellbeing and cohesion? | Your answer should provide a synthetic open text of 2 to 3 paragraphs describing the current main debates around the use of research and innovation to improve social wellbeing and cohesion and relevant policy that took place during the two last years. A policy debate may include various positions or options regarding research and innovation for society in different national settings such as Parliament, government bodies and events, in the press, among scientific actors, etc. They may or may not have been followed up by concrete actions. Of particular interest are the different positions of the various stakeholders and the different options considered during the debates. Initiatives resulting from these debates should be reported in the different questions on policy initiatives, as relevant. This statement will be used as a key input into the 2018 STI Outlook report and European Semester process. |
| | 6.2 Research and innovation for society strategy | What strategies or plans exist, if any, to promote innovation for societal well-being and cohesion? | Dedicated national plan or strategy for fostering research and innovation to improve societal wellbeing and cohesion. |
| | 6.3 Research and innovation for health and healthcare | What policy initiatives exist, if any, specifically dedicated to supporting innovation for tackling health and aging issues? | Dedicated (or significant part of) scheme, programme, incentive or instrument to improve health and health care, incl. through changes in practice and organisation of patient care, development and diffusion of new treatment practices and hospital procedures |
| | 6.4 Research and innovation for sustainable development | What policy initiatives exist, if any, to specifically address sustainable development challenges through research and innovation? | Dedicated research and innovation policy initiatives to address sustainable development challenges in the area of climate change, environment, water, energy, transport, circular economy, smart cities, migration, etc. Institutional/operational level changes and structures (e.g. Clean Energy Agreement, Green Growth Committee, Energy Research Centre, regulatory changes, IP fast track system, Sustainable Transport Strategy, Water Research Council etc.); Programme/initiative level support (e.g. Green Public Procurement, Basic and Applied Science Funds, "Green" R&D schemes, Technology Vouchers, Government grants to fund a network or consortia, special loans, tax reliefs for innovators, performance targets, awareness raising and training, standards etc.). Joint research programming initiatives addressing sustainable development challenges between OECD Member Countries and/or with third countries. |
| | 6.5 Research and innovation for developing countries | What policy initiatives exist, if any, specifically dedicated to supporting research and innovation in developing and less advanced countries? | Dedicated (or significant part of) scheme, programme, incentive or instrument to develop research and innovation in developing and less advanced countries; international technology transfer schemes to the benefit of developing countries; cooperative and joint research and innovation programmes (or institution such as a jointly operated research centre) with developing countries; initiative to address the UN Sustainable Development Goals through research and innovation |

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| 6.6 Multi-stakeholder engagement | What policy initiatives exist to promote a broad and diversified public engagement in research and innovation policy making with a view to improving the integration of social values in research and innovation processes and results? | All initiatives aimed at strengthening a strong societal orientation of research and innovation activities (broad and diversified public engagement, research ethics, etc.) to better ensure the benefits of research and innovation are broadly shared across society. This includes initiatives promoting the uptake of the responsible research and innovation (RRI) approach by stakeholders and institutions (specific funding for RRI actions, incentives, norms, standards for applying RRI criteria, RRI toolkits and guidance, awareness raising campaigns, RRI training, RRI certification and monitoring). |
| 6.7 Science, technology and innovation culture | What are the main policy initiatives for promoting a culture of science, technology and innovation in society at large? | Policy programmes to implement a science, technology and innovation culture for all may include awareness campaigns or education initiatives. Awareness campaigns consist of mass-media campaigns and big events (e.g. science day, exhibitions, broadcasting programmes etc.), integrated communication operations (including more participatory strategies or face-to-face communications), the promotion of exemplary STI achievements (e.g. awards, prizes etc.), S&T museums, etc. Education initiatives encompass the introduction of participatory learning techniques (e.g. hand-on learning exercises or mentorship at school etc.), major revisions of educational curricula or reforms of instructional practices in primary and secondary schools etc.; Innovation prizes and contests open to all. |
| 6.8 Any other developments or initiatives related to research and innovation for society | What other developments and initiatives not already covered in previous questions have had an influence on or have been put in place in relation to innovation for society? | All other initiatives not yet reported in previous questions or developments having led to relevant initiatives. This can include for instance other institutional changes (including informal institutional changes) or changes in framework conditions shaping national STI policy in the area of research and innovation for society. |

**Table 7. ERA-related initiatives (questions only for EU Member States and countries associated to Horizon 2020)**

*Although most of the ERA priorities have been covered in the previous core modules, there are a number of ERA related aspects that are specific to ERA countries only. These specific dimensions are covered in this module.*

| | Policy topics | Accompanying Question | Prompts |
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| M1. ERA-related initiatives | M1.1 ERA-related debates in national setting | Briefly, what are the main policy debates around the strengthening of the ERA and, more generally, the coordination of national and other EU countries' research and innovation policies? | Your answer should provide a synthetic open text of 2 to 3 paragraphs describing ~~all types of~~ the main debates/initiatives that translate, even indirectly, a national "position" in terms of the ERA priorities. A policy debate may include various positions or options regarding public research matters in different national settings such as Parliament, government bodies and events, in the press, among scientific actors, etc. They may or may not have been followed up by concrete actions. Of particular interest are the different positions of the various stakeholders and the different options considered during the debates. Initiatives resulting from these debates should be reported in the different questions on policy initiatives, as relevant. This statement will be used as a key input into the 2018 STI Outlook report and European Semester process. |

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| M1.2 ERA-related strategies | What strategies or plans exist, if any, to contribute to the strengthening of the ERA and, more generally, to improve the coordination of national and other EU countries' research and innovation policies? | National strategy and/or plan related to the research system or significant part of it; National economic development strategy and plan including research. |
| M1.3 Joint research agenda | What national policy initiatives exist to promote or support the development of joint research agendas with other EU countries? | All national policy initiatives taken to support participation in for instance Joint Programming Initiatives, Article 185 initiatives, ERA-NETs, EJPs, JTIs or other relevant activities outside the scope of Horizon 2020 and ERA. |
| M1.4 International evaluation standards | What national policy initiatives exist to support the adoption of mutual recognition of evaluations that conform to international peer-review principles in national funding decisions? | International peer review principles relate to Excellence, Impartiality, Transparency, Appropriateness for purpose, Efficiency and speed, Confidentiality and Ethical and integrity considerations. See the European Peer review Guide at http://www.vr.se/download/18.2ab49299132224ae10680001647/1315408483304/European+Peer+Review+Guide.pdf. |
| M1.5 Cross-border interoperability of national programmes | What national policy initiatives exist to facilitate cross-border interoperability of national programmes and instruments, including for co-operation with non-EU countries where relevant? | Mutual recognition of evaluation procedures, alignment of selection procedures, development of common terminology, and other rules and procedures for implementing R&I programmes (e.g.ad hoc instruments, timelines, budget commitment, eligibility criteria, funding rates, etc.). |
| M1.6 ESFRI infrastructures | What ESFRI infrastructure initiatives does your country participate in and how are these choices made and implemented? | Dedicated funding for ESFRI infrastructure initiatives, coordination of national and ESFRI roadmaps, reviews of large infrastructures. Please note that all national infrastructure roadmaps should be reported under Q2.9 |
| M1.7 Any other ERA-related developments or initiatives related to innovation for society | What other developments and initiatives not already covered in previous questions have had an influence on or have been put in place in relation to the ERA? | All other initiatives not yet reported in previous questions or developments having led to relevant initiatives. This can include for instance other institutional changes (including informal institutional changes) or changes in framework conditions shaping national STI policy in relation to the ERA. |

**Table 8. Digitalisation**

Respondents should answer the questions M2.2 to M2.6 by reporting only those initiatives that are wholly or significantly dedicated to digitalisation. Other initiatives that may be related to or support digitalisation but are not specific to it should be reported in the 'core' sections of the questionnaire, as relevant.

| | Policy topics | Accompanying question | Prompts |
|---|---|---|---|
| M2. Digitalisation | M2.1 Digitalisation of STI policy | In what ways, if any, is digitalisation ~~affecting~~ transforming STI policy and governance arrangements (incl. goals, design and delivery)? | Your answer should provide a synthetic open text describing how digitalisation calls or provides opportunities for changes in the goals, design and delivery of STI policy and governance arrangements. Digitalisation is changing innovation processes in multiple ways: for example, new business models are emerging, actors in the innovation system are collaborating in new ways and increasingly at a global scale, and innovation cycles are becoming shorter. The transformation of innovation processes enabled by digitalisation may require changes in policy approaches and processes (changes in application procedures to allow support for new core innovation fields; adaptation of processes to ensure they are sufficiently rapid and efficient to be relevant to innovators; creation of new instruments or revision to new ones relevant to digital innovation; reform of intellectual property rights, etc.). At the same time, digitalisation provides new opportunities such as improved analytics to inform policy making and implementation, e.g. to help with the allocation of funding, the evaluation of funding portfolios, programmes and policies (e.g. for tracking impacts in society), etc. |
| | M2.2 Digital transformation of firms | What policy initiatives exist, if any, to help firms upgrade their organisational and technological capabilities to undergo digital transformation? | Dedicated (or significant part of) scheme, programme, incentive or instrument to support firms, particularly SMEs, to upgrade their digital technology competences and organisational and management capabilities to better benefit from and/or adapt to the digital transition of economies. For instance, initiatives could include various types of technology diffusion schemes (e.g. through technology extension services, specific incentives and/or subsidies to purchase new digital equipment and infrastructure or upgrade existing ones, etc.), training and coaching, collaboration and partnership programmes, and other business support services. |
| | M2.3 Near-to-market digital technology | What policy initiatives exist, if any, to support near-to-market digital technology development ~~relevant to manufacturing and services~~? | Dedicated (or significant part of) scheme, programme, incentive or instrument to strengthen research and innovation in key sectors and technologies for the digital innovation economy. Examples of policy initiatives include direct and indirect funding of research and innovation in firms, specialised research and innovation centres, cluster policies, and platforms and forums, all dedicated to digital technology development. |
| | M2.4 High-performance computing | What policy initiatives exist, if any, to assist firms' and research institutes' access to and use of high-performance computing and advanced modelling resources? | Dedicated (or significant part of) scheme, programme, incentive or instrument to support firms' or research institutes' access to and use of high-performance computing and advanced modelling resources. This might include, for instance, schemes to link firms, sometimes with a preference for firms in certain sectors or firms of certain sizes, to centres possessing supercomputers, combined with technical assistance on computation; and schemes to share such specific and advanced equipment (between firms, public research institutions, etc.). |
| | M2.5 Artificial intelligence | What policy initiatives exist, if any, to support research on artificial intelligence? | Dedicated (or significant part of) scheme, programme, incentive or instrument that supports research on artificial intelligence. |

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| M2.6 Digital skills in the scientific workforce | What policy initiatives exist, if any, to help ensure the scientific workforce will have the necessary skills to drive and reap the benefits of the digitalisation of science? | Dedicated (or significant part of) scheme, programme, incentive or instrument to support the acquisition or nurturing of digital skills among the scientific workforce. The application of new technologies in scientific research laboratories and infrastructures (incl. IoT, AI, machine learning, robotics, visualisation of data, etc.) presents opportunities for new science to be conducted in ways as yet unknown, providing perhaps the greatest challenge for how science is carried out. Yet, there is an increasing realisation of a skills gap in data handling that needs addressing at all levels in the process of science. |