

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

2019 EC/OECD Science, Technology and Innovation Policy Survey

This document presents the structure of the 2019 edition of the EC/OECD STIP Survey and describes the foreseen timeline for its administration. The survey will be conducted via the same online questionnaire tool developed for the 2017 edition, which now allows the survey's national contact point (NCP) to invite multiple country respondents and keep track of their inputs.

The results of the survey will inform the OECD's STI Outlook 2020 publication and other ongoing PWB projects. The policy data will also be uploaded into the STIP Compass portal (<http://stip.oecd.org>), which since its launch in April 2018 has been used widely within the policymaking and academic communities for a variety of purposes.

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Introduction

1. This document presents the final version of the 2019 EC/OECD Survey following consultation on an earlier draft [DSTI/STP(2019)9]. It builds upon feedback provided by CSTP delegates and staff from the OECD and EC Secretariats.

2. The document is structured as follow. In a first section, additional changes to the earlier draft of the survey are outlined. This is followed by a description of the survey administration process, including its timeline, the potential for distributing responsibility for answering, and the support the OECD Secretariat will provide to countries. The next section lays out the survey's questions, followed by sections that outline the taxonomies and facets used to describe policy initiatives, their beneficiaries, and the policy instruments used.

1. What are the main changes to the survey?

3. The structure of the 2017 survey was designed to remain stable in the long term, not only to deliver on the promise of decreasing the burden on countries, but also to create a time series in STIP Compass. For this reason, practically all data submitted in the 2017 STIP Survey and updated through the monitoring tool will be used to prefill the 2019 edition of the survey.

4. The main changes to the survey were summarised in the earlier consultation document [DSTI/STP(2019)9] and will not be repeated here. The core survey in this final version has now been reduced to 50 questions (down from 64 in 2017 and 102 in 2016). Two significant adjustments from the earlier version are worth highlighting, however:

- The question module “Emerging trends in STI policy” specific to the 2019 edition of the survey (page 7) has been added. The 2017 edition of the survey had two modules with 15 questions. The 2019 edition will see only one module with seven questions that aim to gather policy data on themes tackled in the current PWB and that are also of interest to the EC’s agenda.
- Two new instruments have been created, i.e. “Regulatory oversight and ethical advice bodies” (page 16) and “Emerging technology regulation” (page 32). These instruments aim to collect data on regulatory aspects, which were captured weakly in the 2017 edition of the survey. At the same time, regulatory instruments have become increasingly important for STI policy, particularly for the “PWB” themes covered in the 2019 question module.

5. Furthermore, several enhancements have been made to the survey’s underlying taxonomies, notably the facets used to characterise essential aspects of policy instruments. Several labels have been edited to clarify their meaning. In some instances, facets or possible selections have been added to collect data of interest for PWB project.¹ These additions will be made visible in the online survey tool (i.e. shown in a different colour or tagging them as “new survey option”).

¹ For instance, in the “National strategies, agendas and plans” policy instrument, respondents will now be able to indicate whether strategies have quantifiable targets in priority areas (e.g. R&D as a % of GDP, CO2 emissions).

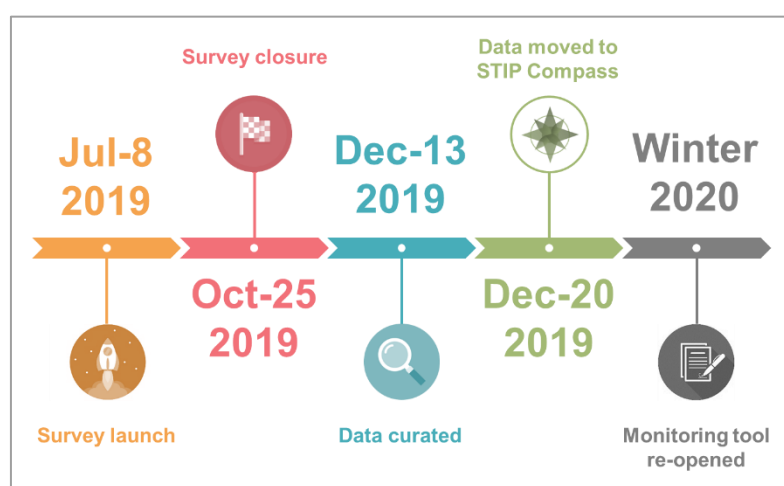
2. Survey administration process

6. The survey administration will largely resemble that of the 2017 edition. Responses will be gathered using the online questionnaire tool based on the Limesurvey open source software, which has been further tailored to allow the survey's National Contact Point (NCP)² to create user accounts and monitor inputs from other country respondents (see [DSTI/STP(2018)8]). A few additional IT improvements will be introduced based on lessons learned from the 2017 edition of the survey. Particularly worth highlighting are: i) the online questionnaire tool will be hosted in a more powerful server in the cloud to minimize errors in data submission; and ii) in the periodic email sent by the tracking system, hyperlinks will be added to the listed initiatives allowing NCPs direct access to review initiatives that have been updated in the online tool.

Timeline for the 2019 edition of the survey

7. Figure 1 shows the timeline of the survey including its key dates and milestones. The 2019 survey is starting to be implemented in the online tool and database. By mid-June the online survey tool will be ready for testing before it is launched on 8 July. By this time, the monitoring tool (used to update policy data reported in the 2017 survey) will be closed down. Data will be used to prefill most of the 2019 survey. NCPs, delegates and other users with active accounts in the monitoring tool will receive new access details to answer the online survey. Countries will have 18 weeks to answer the survey before its closure on 25 October. Thereupon, the EC and OECD Secretariats will start curating the data. This processing should conclude by 13 December. The cleaned data will be then transferred to the STIP Compass portal by 20 December. The monitoring tool will be re-opened in the first months of 2020 allowing the data to be progressively updated.

Figure 1. Timeline for the administration of the 2019 EC/OECD STIP Survey



Answering the survey

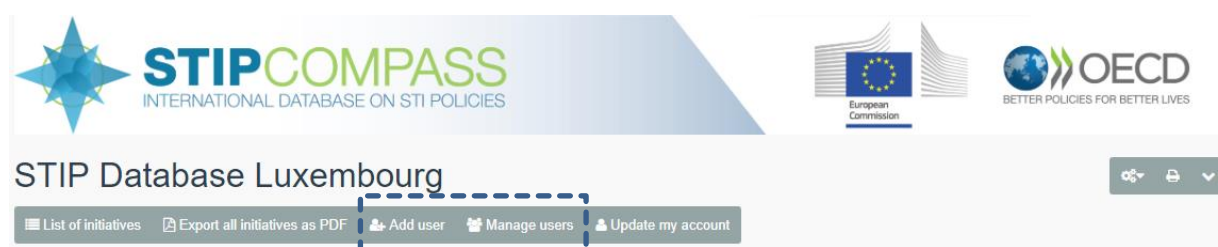
8. The 2019 edition of the survey will further leverage opportunities to distribute efforts in gathering data. The online tool now has user management functionalities that

² These have been designated by CSTP delegates in the October 2018 meeting. Delegates can change their NCP by informing the OECD Secretariat at STIPolicy.data@oecd.org.

allow NCPs to create accounts for other government officials who typically answer the survey. As previously announced the Secretariat has created accounts in the monitoring tool for delegates of other OECD bodies to request policy data relevant to their specific PWB projects. In this way, we have requested the GSF to submit policies in the “Public research system” policy area. Likewise, we approached the TIP working party and the CIIE for data on policies supporting innovation in firms and technology transfer. Upon the launch of the survey in July, additional accounts will be created for BNCT delegates, which could submit policy data to questions in the 2019-specific module on biotechnology, nanotechnology and the ethics of emerging technologies, among others.

9. In this context, NCPs can use the online tool for the 2019 survey to add, remove or contact users with access to their country’s survey (Figure 2). In addition, upon the launch the survey the tool will generate and send the email every week (instead of fortnightly as it was the case before) that informs NCPs of changes made to their survey database, allowing them direct access (via hyperlinks) to review the initiatives that have been updated.

Figure 2. Adding and manager users in the online survey tool



Support from the OECD Secretariat

10. Besides receiving the new access details for the online survey tool, NCPs will receive an email from the OECD Secretariat confirming the launch of the survey and providing information on available resources to support country respondents in answering the survey. These include:

- A short **description** and explaining of the survey and its structure.
- **Tutorials and documentation** explaining how to use the online survey tool to answer the survey.
- Answers to **Frequently Asked Questions (FAQs)** on the scope of the survey, accessing and using the online survey tools and definitions for “policy initiative” and “policy instrument”, among others.
- **“Good practice” examples** of correctly reported policy initiatives and answers to the “policy debates” open-text questions.
- **Help desk** contact details.

11. The launch email will also link to a dedicated website that will be created to host these resources. This site will also provide an up-to-date overview of countries’ progress in responding the survey. To complement these resources, the OECD Secretariat can host on-demand webinars in which NCPs and possibly additional country respondents can participate to discuss how data should be reported. Delegates that are interested in scheduling a webinar are invited to contact the OECD Secretariat at STIpolicy.data@oecd.org mentioning suitable dates.

The 2019 EC/OECD STIP Survey Questions

3. Core questions in the survey (policy themes)

12. Table 1 provides the classification of policy themes along with the corresponding questions included in the 2017 Survey. To reduce further the burden on countries, the number of questions has been further decreased and now stands at 50.

Table 1. Core STIP Survey questions and STIP Compass policy themes

Policy Area	Policy Theme	Question in the 2017 EC-OECD STI Policy Survey
Governance	Governance debates	Briefly, what are the main ongoing issues of debate around how national STI policy is governed in your country?
	National STI plan or strategy	What strategies or plans exist, if any, to provide an overarching strategic direction to national STI policy?
	Horizontal policy coordination	What arrangements exist to support cross-government coordination in STI policy?
	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)?
	Evaluation and impact assessment	What arrangements or governance structures exist to initiate, perform or encourage the use of STI evaluation and impact assessment?
	International STI governance policy	What arrangements exist to support the international governance of STI policy (e.g. joint strategies and agreements, horizontal coordination or regulatory oversight bodies)?
Public research system	Public research debates	Briefly, what are the main ongoing policy debates around government support for your country's public research system?
	Public research strategies	What strategies, roadmaps or plans exist, if any, to provide strategic direction to national research policy?
	Competitive research funding	What are the main competitive schemes and programmes for funding research in universities and public research institutes?
	Non-competitive research funding	What are the main non-competitive schemes and programmes for funding research in universities and public research institutes?
	Third-party funding	What policy initiatives exist to promote third-party funding of public research?
	Structural change of the public research system	What policy initiatives exist, if any, to support or lead structural changes in the public research system?
	Open science and enhanced access to publications and research data	What policy initiatives exist to support open science and enhanced access to publications and research data?
	Research infrastructures and large equipment	What are the main policy initiatives for funding new and existing research infrastructures and large equipment?
	Internationalisation in public research	What are the main policy initiatives for promoting internationalisation in public research?
	Interdisciplinary research	What are the main policy initiatives for promoting interdisciplinary research?
	High risk research	What policy initiatives exist, if any, offering dedicated support to high-risk research?
Research integrity and reproducibility	What are the main policy initiatives for promoting research integrity and reproducibility?	

	Embedding sex- and gender-specific analysis in research	What policy initiatives exist to incorporate sex and gender specificities in research content (e.g. questioning gender assumptions in research methods)?
	Business innovation policy debates	Briefly, what are the main ongoing policy debates around government support to business innovation and innovative entrepreneurship?
	Business innovation policy strategies	What strategies or plans exist, if any, to strategically direct national policy on business innovation and/or innovative entrepreneurship?
	Financial support to business R&D and innovation	What are the main policy initiatives for providing financial support to business R&D and innovation?
	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?
	Access to finance for innovation	What policy initiatives exist to promote firms' access to finance for innovation?
Innovation in firms and innovative entrepreneurship	Entrepreneurship capabilities and culture	What policy initiatives exist to foster a spirit and culture of entrepreneurship in business or in individuals and to provide them with appropriate skills?
	Stimulating demand for innovation and market creation	What policy initiatives exist to stimulate demand for firms' innovations and to support market creating innovation?
	Digital transformation of firms	What policy initiatives exist, if any, to help firms upgrade their organisational and technological capabilities to undergo digital transformation?
	Foreign direct investment	What policy initiatives exist to attract knowledge-intensive foreign direct investment and promote transfers to domestic firms?
	Targeted support to SMEs	What are the main policy initiatives specifically targeting research and innovation activities in SMEs?
	Targeted support to young innovative enterprises	What policy initiatives exist to provide support services to young innovative enterprises and start-ups?
		Transfer and linkages debates
	Transfer and linkages strategies	What strategies or plans exist, if any, to strategically direct national policy on knowledge transfer and linkages?
Science-industry knowledge transfer and sharing	Collaborative research and innovation	What are the main policy initiatives for promoting collaboration and co-creation for research and innovation?
	Cluster policies	What policy initiatives exist to promote geographical and/or thematic innovative clusters?
	Commercialisation of public research results	What policy initiatives exist to encourage commercialisation of public research results?
	Intersectoral mobility	What policy initiatives exist to encourage mobility of human resources between the public and private sectors?
	Intellectual property rights in public research	What policy initiatives exist to ensure intellectual property rights in public research are conducive to promoting innovation?
	STI human resources debates	Briefly, what are the main ongoing policy debates around government support for human resources for research and innovation?
	STI human resources strategies	What national strategies or plans exist, if any, to foster human resources for research and innovation in your country?
Human resources for research and innovation	STEM skills	What are the main policy initiatives for nurturing general STEM skills?
	Doctoral and postdoctoral researchers	What policy initiatives exist to specifically support doctoral and postdoctoral research and education?
	Research careers	What policy initiatives exist to make research careers more attractive?

	Digital skills for researchers	What policy initiatives exist, if any, to help ensure researchers will have the necessary skills to drive and reap the benefits of the digitalisation of science?
	International mobility of human resources	What policy initiatives exist to encourage international mobility of the highly skilled?
	Gender balance and inclusiveness	What policy initiatives exist to promote the participation of women and other under-represented groups in research and innovation activities?
Research and innovation for society	Policy debates on innovation for societal challenges	Briefly, what are the current main policy debates around how national policy for research and innovation can help address societal challenges? If applicable, please elaborate on how the Sustainable Development Goals (SDGs) are being incorporated into STI policy design and implementation.
	Research and innovation for society strategy	What strategies or plans exist, if any, to promote innovation for societal well-being and cohesion?
	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?
	Multi-stakeholder engagement	What policy initiatives exist to promote a broad and diversified public engagement in research and innovation activities and policy making?
	Science, technology and innovation culture	What are the main policy initiatives for raising awareness in STI activities across society at large?

4. Additional questions module (policy themes)

13. In the 2017 edition of the survey, there were two additional “modular policy areas”: Digitalisation (seven questions) and ERA-related initiatives (eight questions). These “one-off” modules (specific to an edition of the survey) were included to cover policy issues of particular interest to ongoing EC and OECD projects and priorities and will not be included in the 2019 edition of the survey. Instead a single module of seven questions on “Emerging trends in STI policy” has been added (Table 2).

Table 2. Additional questions module for the 2019 survey and corresponding STIP Compass policy themes

Module name	Policy Theme	Question in the 2019 EC-OECD STI Policy Survey	Prefill from 2017 question?
Emerging trends in STI policy	Guiding visions	Briefly, looking out at least 10 years into the future, what long-term guiding visions shape STI policymaking today in your country?	No
	Biotechnology flagships	What flagship policy initiatives exist, if any, specifically dedicated to supporting research and innovation in industrial biotechnology?	No
	Nano and converging technology flagships	What flagship policy initiatives exist, if any, specifically dedicated to supporting research and innovation in nanotechnology and converging technologies?	No
	Artificial intelligence (AI)	What strategies (or plans, roadmaps) and other types of policy initiatives, if any, make up your national AI policy?	2017 module question on artificial intelligence

Ethics of emerging technologies	What policy initiatives exist, if any, to address ethical challenges raised by emerging technologies (e.g. artificial intelligence, neuro-technology, gene editing)?	No
Policy experiments	What policy initiatives, if any, introduce formal policy experimentation to test novel approaches and/or methods for STI policy design and/or implementation (e.g. randomised control trials, pilots and testbeds)?	No
Mission-oriented innovation policies	What policy initiatives, if any, coordinate and target cross-government policy measures to address complex societal challenges (e.g. climate change)?	No

The 2019 EC/OECD STIP Survey Taxonomies and Facets

5. Policy initiative fiche (unit of reporting)

14. Table 3 lists the policy initiative fiche's fields and describes the type of data collected. In the 2017 edition, this fiche was composed of 15 fields, of which only seven were mandatory. The 2019 edition has an additional field "Policy initiative is a structural reform", which allows for the reporting of one-off reforms, e.g. legislation or the creation/reform of a ministry, that do not have an end date.

Table 3. Fields in the Policy Initiative Fiche in the 2017 EC-OECD STI Policy Questionnaire

Field title	Type of field
Name in English*	(free text)
Name(s) in original language	(multiple free text fields, one per name)
Acronym	(free text)
Start date*	(year)
Policy initiative is a structural reform	(yes/no; if yes, the next field is disabled)
End date	(year)
Short description*	(free text)
Objectives*	(multiple free text fields, one per objective)
Background including shifts in the policy initiative	(free text)
Type(s) of policy instruments*	(multiple choice selection)
Direct beneficiaries*	(multiple choice selection)
Name of responsible organisation(s)*	(multiple free text fields, one per organisation)
Estimated budget expenditure range per year*	(multiple choice selection)
Internet link(s)	(multiple free text fields, one per link)
Evaluated	(yes/no)
Link to evaluation	(free text)

Note: * Indicates the field is mandatory.

6. Direct beneficiaries

15. Table 4 includes the list of beneficiaries that can be indicated in the policy initiative fiche. The table classifies them in categories used in the questionnaire interface and in the STIP Compass portal. When submitting policy information, this classification allows the list to be more easily browsed when entering the data in the questionnaire interface. Likewise, in STIP Compass, this grouping also allows the data to be aggregated and summarised in visualisations. The list of beneficiaries of the 2017 edition of the survey was for the large part left unchanged in the 2019 edition. The main improvement is the reordering of categories to place the most frequent beneficiaries (target groups) higher up in the list for an easier selection in the online questionnaire tool.

Table 4. Direct beneficiaries (target group) taxonomy

Category	Direct beneficiaries (target group)
Research and education organisations	Higher education institutes Public research institutes Private research and development lab
Researchers, students and teachers	Established researchers Postdocs and other early-career researchers Undergraduate and master students Secondary education students PhD students Teachers
Firms by size	Firms of any size Micro-enterprises SMEs Large firms Multinational enterprises
Firms by age	Firms of any age Nascent firms (0 to less than 1 year old) Young firms (1 to 5 years old) Established firms (more than 5 years old)
Intermediaries	Incubators, accelerators, science parks or technoparks Technology transfer offices Industry associations Academic societies / academies
Governmental entities	International entity National government Subnational government
Economic actors (individuals)	Entrepreneurs Private investors Labour force in general
Social groups especially emphasised	Women Disadvantaged and excluded groups Civil society

7. Policy instruments

16. Table 5 lists and classifies the policy instruments survey respondents can associate to policy initiatives. This table classifies instruments using a functional approach, though many other classifications are possible (e.g. by the aforementioned themes and by target

group). This classification aims to be straightforward to use in the questionnaire, providing a list of innovation policy instruments that follow OECD literature and that capture the data countries have submitted in prior editions of the STIP Survey. The main improvements in the 2019 edition of the survey is the creation of the “Regulatory oversight and ethical advice bodies” and “Emerging technology regulation” policy instruments to better collect data on regulatory aspects. In addition, the most frequently used instruments are now placed higher up in the list to facilitate selection in the online questionnaire tool.

Table 5. Policy instruments taxonomy

Category	Instrument
Governance	
	National strategies, agendas and plans
	Creation or reform of governance structure or public body
	Policy intelligence (e.g. evaluations, reviews and forecasts)
	Formal consultation of stakeholders or experts
	Horizontal STI coordination bodies
	Regulatory oversight and ethical advice bodies
	Standards and certification for technology development and adoption
	Public awareness campaigns and other outreach activities
Direct financial support	
	Institutional funding for public research
	Project grants for public research
	Grants for business R&D and innovation
	Centres of excellence grants
	Procurement programmes for R&D and innovation
	Fellowships and postgraduate loans and scholarships
	Loans and credits for innovation in firms
	Equity financing
	Innovation vouchers
Indirect financial support	
	Corporate tax relief for R&D and innovation
	Tax relief for individuals supporting R&D and innovation
	Debt guarantees and risk sharing schemes
Collaborative infrastructures (soft and physical)	
	Networking and collaborative platforms
	Dedicated support to research infrastructures
	Information services and access to datasets
Guidance, regulation and incentives	
	Technology extension and business advisory services
	Emerging technology regulation
	Labour mobility regulation and incentives
	Intellectual property regulation and incentives
	Science and innovation challenges, prizes and awards

17. The tables below introduce facets (descriptive characteristics) for each policy instrument. Note that a **highlighted facet** indicates that multiple selections are possible.

GOVERNANCE

1. National strategies, agendas and plans

Facet	Facet choices
Focuses on the following area(s) of the national innovation system	<p>Research</p> <p>Business (innovation and/or entrepreneurship)</p> <p>Education and skills</p> <p>Governance</p> <p>Other</p>
Foresight exercise included	<p>Yes</p> <p>No</p>
Strategy mainly prioritises	<p>STI policy governance (e.g. vertical and horizontal coordination, evaluation)</p> <p>R&D intensity (e.g. GERD as a % of GDP)</p> <p>Clusters and regional support (including regional/local R&D investments)</p> <p>Specific areas/sectors (e.g. new industrial policy, R&D targets for clean tech)</p> <p>Business innovation and innovative entrepreneurship</p> <p>Access to finance for innovation (e.g. venture capital, business angels, financial markets)</p> <p>Public research capabilities</p> <p>Digitalisation</p> <p>Skills for research and innovation</p> <p>Technology transfers and commercialisation</p> <p>Societal challenges (e.g. social inclusiveness)</p> <p>Environmental challenges (e.g. sustainability)</p> <p>International cooperation on STI</p> <p>Stakeholder participation and consultation</p> <p>Other</p>

Note: for each selection that is made, we would like there to be two additional non-mandatory fields:

i) Quantifiable target (if set by the strategy): (short open text field)

ii) Deadline for achieving target: (year selection)

Example, if 'Environmental challenges' is selected:
 Quantifiable target 1: R&D investment in clean technologies of 100 M€
 Deadline 1: 2021
 Quantifiable target 2: CO2 emissions reduced by 10%
 Deadline 2: 2022

Specific business sector(s) targeted	<p>None specifically targeted</p> <p>Agriculture</p> <p>Mining and quarrying</p> <p>Food</p> <p>Energy</p> <p>Electronics</p> <p>Pharmaceuticals</p> <p>Automotive and road transportation</p> <p>Marine</p> <p>Aerospace</p> <p>Education</p> <p>Health and healthcare</p> <p>Telecommunications and IT</p> <p>Finance</p> <p>Defence</p> <p>Public administration</p> <p>Other primary industries</p> <p>Other manufacturing</p> <p>Other services</p>
Societal challenge(s) emphasised	<p>None specifically emphasised</p> <p>Health</p> <p>Ageing populations</p> <p>Inclusiveness (e.g. inequality, job insecurity)</p> <p>Food security</p> <p>Energy security</p> <p>Climate change</p> <p>Environmental sustainability</p> <p>Other</p>
Degree of coordination in implementing strategy (select the highest that applies)	<p>1- Strategy communicated to public bodies</p> <p>2- Public bodies are expected to plan activities based on strategy</p> <p>3- Strategy provides recommendations to public bodies which they have to adopt or reject via formal procedures</p> <p>4- Strategy dictates public bodies' activities or budgets</p>
Follow-up mechanism	<p>Action plan</p> <p>Dedicated budget allocations</p> <p>Linked to new law or regulation</p> <p>Periodic monitoring and/or evaluation of progress</p> <p>Dedicated coordinating/monitoring public body</p> <p>None</p> <p>Other</p>

2. Creation or reform of governance structure or public body

Facet	Facet choices
Description of changes in institutional arrangements	(free long text)

3. Policy intelligence (e.g. evaluations, benchmarking and forecasts)

Facet	Facet choices
Type of information	Evaluations Forecasting and foresight studies Reviews Technology assessments Roadmaps Scoreboards, indicators and benchmarking Other
Provides input to	Problem definition Policy objective formulation Policy design Policy implementation Policy assessment Other
Study performed by	Public administration Public research institute Academia Private firms or consultants Civil society organisation Intergovernmental organisation Other

4. Formal consultation of stakeholders or experts

Facet	Facet choices
Stakeholders contribute to	Problem definition Policy objective formulation Policy design Policy implementation Policy assessment Other

Method
Online survey
Offline survey
Conferences and public hearings
Participatory workshops and seminars
Focus groups
Interviews
Expert groups
Online discussion fora
Other
Number of participants
Less than 25
25 to 100
101 to 250
More than 250

5. Horizontal STI coordination bodies

Facet	Facet choices
Type of coordinating public body	Ministry Coordination or advisory council / committee Agency (e.g. research council, innovation agency) Ad-hoc working group or network of representatives Other
Reports to	International organisation (e.g. European Commission, UNESCO) Head of national government Ministry Legislative branch (e.g. parliament) Agency / council Other
As mechanisms, the coordination body	Provides opportunities for ministries and/or public bodies to meet Provides opportunities to involve non-state stakeholders Undertakes studies scoped jointly by ministries Identifies and arbitrates policy divergences Issues specific recommendations to ministries Implements joint programming Decides budget allocations

Sectors of public administration involved	Science, technology and innovation Economic affairs Education Finance Transport and infrastructure Environment Energy Culture Defence Foreign affairs Labour Agriculture Justice Social affairs Health Other
The coordination body is composed of	Government representatives Academia representatives Business representatives Civil society representatives A technical secretariat (e.g. STI policy analysts)
Discussions or reports are publicly available	Yes No

6. Regulatory oversight and ethical advice bodies

Facet	Facet choices
Type(s) of oversight or advice	Fundamental rights Ethical principles (e.g. integrity, accountability, impartiality) Guidelines Regulations Other

Challenge(s) addressed	Risks to human safety Environmental sustainability Privacy protection Social disruption (e.g. job insecurity) Unethical use (e.g. dual-use technologies) Security (e.g. discrimination) Limited competition (e.g. monopolies, oligopolies) Other
Activities	Monitor compliance Provide formal input to policymakers Provide guidance, advice and support to stakeholders Gather opinions from stakeholders on ethical principles, regulation improvements, etc. Provide expert ethical opinion Engage in long-term technology assessment Identify areas of oversight reform Cross-government coordination in developing/adopting guidelines, regulations, etc. Setting and adopting international standards Other
Reports to	International organisation (e.g. European Commission, UNESCO) Head of national government Ministry Legislative branch (e.g. parliament) Agency / council None (independent body) Other
The coordination body is composed of	Mostly government representatives Mostly academia representatives Mostly business representatives Mostly civil society representatives A technical secretariat (e.g. policy analysts) A mix / other (please describe)
Reports are publicly available	Yes No

7. Standards and certification for technology development and adoption

Facet	Facet choices
Geographical dimension	National International
Objective(s)	Compatibility and interoperability Variety reduction Quality and performance Other
Standards developed through	Dedicated national public body/bodies Multi-stakeholder platforms and fora Financial support to public research and commercialisation Other
Adoption fostered by	Legislation (e.g. product market regulation) Guidelines Eligibility criteria for public funding (e.g. grants, tax relief and procurement) Business advisory services (e.g. consulting and training) Collaborative platforms Information services and databases Public outreach activities (e.g. awareness campaigns) Other
The following services associated to the standards have public support	Measurement Certification Training None of the above Other

8. Public awareness campaigns and other outreach activities

Facet	Facet choices
Medium	Public events School campaigns Conferences, workshops and/or training courses Museums Television Radio Competitions Printed publications Websites Social media Science fairs Open days (e.g. visits to universities or energy plants) Other
Aspect(s) being promoted	Science Entrepreneurship Technology Innovation Research careers Skills for STEM Gender equality Other

DIRECT FINANCIAL SUPPORT

9. Institutional funding for public research

Facet	Facet choices
Funding includes a teaching component	Yes No
Performance-based element to the allocation	Yes No

Criteria for funding	<ul style="list-style-type: none"> Research publications and outputs (excellence) Research impact Student enrolment or attainment rates Total staff Research-active staff Number of co-publications R&D expenditure Research infrastructure Commercialisation of research-generated intellectual property Employability of graduates Scientific partnerships and collaborations Social inclusion (e.g. women and other under-represented groups) of student and research staff Alignment with national research priorities Budget allocated to institution in previous years Other
Funding is attached to	<ul style="list-style-type: none"> Institutional performance contract National performance-based research assessment Strategic programme or other policy initiative None of the above
Penalties and rewards associated to performance	<ul style="list-style-type: none"> Financial penalties Bonuses and incentives None of the above
Funding amount allocated for an average time-period of	<ul style="list-style-type: none"> 3 years or less 4-6 years 7 years or more

10. Project grants for public research

Facet	Facet choices
Maximum grant duration	<ul style="list-style-type: none"> 12 months or less 13-24 months 25-36 months More than 36 months
Maximum amount of grant awarded in euros	<ul style="list-style-type: none"> Less than 100K 100K-500K 500K-1M More than 1M

Type of activity	<ul style="list-style-type: none"> Basic research Applied research Multidisciplinary research Experimental development Demonstration / testing
Requires a form of collaboration	<ul style="list-style-type: none"> No With other public research actors With industry partners With international partners With users of research outputs (e.g. technology, innovation) With other partners
Selection criteria	<ul style="list-style-type: none"> Track record of applicant Scientific impact anticipated Societal impact anticipated Commercial impact anticipated Third-party income and co-funding (e.g. contract research, other grants) The participation of early-career researchers Geographical location (to promote regional or cluster policy) Social inclusion in research (e.g. women and other under-represented groups) Alignment with national research priorities Other
Type(s) of proposal screening	<ul style="list-style-type: none"> Internal: review by grant manager (i.e. funding agency) External peer review: including members of the scientific community External peer review: including business society representatives External peer review: including research users and stakeholders Experimental methods (e.g. lotteries, sandboxes)
Success rate (share of grants awarded as a % of total applications)	<ul style="list-style-type: none"> Too early to estimate Less than 10% 10-19% 20-29% 30-39%% 40% or higher

11. Grants for business R&D and innovation

Facet	Facet choices
Maximum grant duration	<input type="checkbox"/> 12 months or less <input checked="" type="checkbox"/> 13-24 months <input type="checkbox"/> 25-36 months <input type="checkbox"/> More than 36 months
Maximum amount of grant awarded in euros	<input type="checkbox"/> Less than 100K <input checked="" type="checkbox"/> 100K-500K <input type="checkbox"/> 500K-1M <input type="checkbox"/> More than 1M
Type of activity	<input type="checkbox"/> Basic research <input checked="" type="checkbox"/> Applied research <input type="checkbox"/> Experimental development <input type="checkbox"/> Non-technological innovation <input type="checkbox"/> Demonstration / testing
Requires a form of collaboration	<input type="checkbox"/> No <input checked="" type="checkbox"/> With higher education institutes or public research institutes <input type="checkbox"/> With industry partners <input type="checkbox"/> With SMEs <input type="checkbox"/> With international partners <input type="checkbox"/> With intermediaries (e.g. accelerators) <input type="checkbox"/> With users of R&D or innovation outputs <input type="checkbox"/> With other partners
Selection criteria	<input type="checkbox"/> Track record of applicant <input checked="" type="checkbox"/> Feasibility of project <input type="checkbox"/> Anticipated return on investment <input type="checkbox"/> Societal impact anticipated <input type="checkbox"/> Geographical location (to promote regional or cluster policy) <input type="checkbox"/> Social inclusion (e.g. women and other under-represented groups) <input type="checkbox"/> Alignment with national strategic priorities (e.g. targeted business sectors and technologies) <input type="checkbox"/> Other
Contribution (e.g. matching funds) required from beneficiary	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

12. Centres of excellence grants

Facet	Facet choices
Maximum duration of funding for individual unit/centre	5 years or less 6-10 years More than 10 years Indefinite
Share of public funding (as a % of total funding of the centre of excellence)	100% 90-99% 70-89% 50-69% Less than 50%
Focus	Field of science Key technology (basic research) Key technology (commercial applications) Promoting early-stage researchers Enhanced access to research results and research data Networking/co-operation (e.g. science-industry) Recruiting foreign researchers and other international linkages Societal challenge(s) Sharing equipment and infrastructures Demonstration and testing facilities
Criteria for funding	Alignment to national research priorities Result of a national performance-based assessment Novelty of research or its application Existing research capacity Track record Scientific impact anticipated Commercial impact anticipated Societal impact anticipated Ability for the centre to acquire additional funds Structural inclusion of beneficiaries in host institutes
Requires a form of collaborative research	No Science-science Science-industry Industry-industry Other

Ownership of Intellectual Property (IP) stemming from science-industry research	No IP registered Some IP owned exclusively by the public sector Some IP owned exclusively by the private sector Some IP co-owned between public and private actors Not applicable
Penalties and rewards associated to performance	Financial penalties Bonuses and incentives None of the above

13. Procurement programmes for R&D and innovation

Facet	Facet choices
Type of programme	Reform of regulatory conditions for innovation procurement Improving the capacity and competence of the innovation procurement process Dedicated innovation procurement fund Dedicated R&D procurement fund Other
R&D/innovation objective(s)	None specified Create demand for technology or innovative products and services Promote specific research priorities Help innovators bridge the pre-commercialisation gap Facilitate access to private third-party funding by providing preliminary financial support Tackle societal or environmental challenges Support innovative SMEs, researchers or other programme beneficiaries Other
Programme focus	No specific focus Public sector innovation Promote science-industry cooperation Support innovative SMEs Green growth Strategic business sector Strategic technology Societal challenges Other

14. Fellowships and postgraduate loans and scholarships

Facet	Facet choices
Type of financial assistance	<p>Repayable</p> <p>Non-repayable</p>
Type of individual sponsored	<p>Master student</p> <p>Doctoral student</p> <p>Post-doctoral researcher</p> <p>Established researcher</p>
Promotes international mobility of students and researchers	<p>Outgoing</p> <p>Incoming</p> <p>Both outgoing and incoming</p> <p>No</p>
Promotes intersectoral mobility (e.g. between the academic and private sectors)	<p>From academia to the private sector</p> <p>From the private sector to academia</p> <p>No</p>

15. Loans and credits for innovation in firms

Facet	Facet choices
Average term	<p>1-3 years</p> <p>4-6 years</p> <p>7-9 years</p> <p>10 years or more</p>
Type(s) of finance targeted	<p>Working capital</p> <p>Financing expansion</p> <p>Investing in innovation</p> <p>Other</p>
Specific loan/credit objective(s)	<p>None specified</p> <p>Developing new products and processes</p> <p>Upgrading an existing product or process</p> <p>Acquiring a technology</p> <p>Other</p>

Mechanisms used
Loan with a subsidised interest rate
Loan to be reimbursed in case of success
Equity-backed loan
Other

16. Equity financing

Facet	Facet choices
Type of financing	Venture capital (growth and late stage) Seed capital (early stage) Other
Mechanism(s)	Fund Tax incentives Regulatory framework Other
Type of fund	None Direct public equity fund Fund-of-funds Co-investment fund Other
Focus	None Support innovative start-ups and SMEs Attract international entrepreneurs Support access to international markets Foster public research spin-offs Social entrepreneurship Other

17. Innovation vouchers

Facet	Facet choices
Minimum voucher amount	Less than 2K EUR 2K-6K EUR 6K-10K EUR More than 10K EUR Varies depending on conditions

Maximum voucher amount	Less than 2K EUR 2K-6K EUR 6K-10K EUR More than 10K EUR Varies depending on conditions
Eligibility criteria	Firm is registered in the country Firm size Firm has not received more than a certain amount of public aid over a defined period of time Firm has not entered in any commitments with the knowledge provider that will carry out the project Knowledge provider is certified Exporting firm
Type of knowledge provider	Higher education institutes Public research institutes Private business Other
Brokerage services are provided	Yes No
Contribution (e.g. matching funds) required from recipient	Yes No
Possible to pool vouchers from several firms	Yes No

INDIRECT FINANCIAL SUPPORT

18. Corporate tax relief for R&D and innovation

Facet	Facet choices
Applicable provisions (i.e. eligible expenses)	Expenditures on R&D Expenditures on other innovation activities Expenditures on training and upskilling of employees Incomes from IP licensing or asset disposal

18. Note: NESTI already provides detailed information on tax relief instruments. The Secretariat plans to integrate this data into STIP Compass and display it where appropriate.

19. Tax relief for individuals supporting R&D and innovation

Facet	Facet choices
Applicable provisions (i.e. eligible expenses)	
	Donations to public research activities
	Investments in start-ups and SMEs
	Other

20. Debt guarantees and risk sharing schemes

Facet	Facet choices
Scheme managed by	
	Government
	Private sector
	Other
Type(s) of finance targeted	
	Working capital
	Financing expansion
	Investing in innovation
	Other
Specific loan/credit objective(s)	
	None specified
	Developing new products and processes
	Upgrading an existing product or process
	Acquiring a technology
	Other
Claims rate (latest estimate)	
	Too early to estimate
	less than 1%
	1-2%
	3-5%
	More than 5%

COLLABORATIVE INFRASTRUCTURES (SOFT AND PHYSICAL)

21. Networking and collaborative platforms

Facet	Facet choices
Focus	<ul style="list-style-type: none"> Business innovation-oriented Technology-oriented Geographic clustering Research-oriented Education-oriented Building international linkages Addressing societal or environmental challenges Other
Share of the platform's funding coming from the private sector (as a % of total funding)	<ul style="list-style-type: none"> More than 75% 51-75% 26-50% 1-25% 0%
Exchanges take place via	<ul style="list-style-type: none"> Online platform Meetings and events Sharing infrastructures or facilities Mobility of personnel, researchers or students Other
Objective(s)	<ul style="list-style-type: none"> Promote economic growth (e.g. productivity, competitiveness) Promote business partnerships (e.g. consortia-building) Promote research partnerships Define research priorities Coordinate R&D developments Share R&D data Coordinate on intellectual property practices (e.g. co-patenting and licensing) Set standards Demonstrate technological developments and innovations Foster fundraising and investor networking Other

Ownership of IP stemming from science-industry research

- No IP registered
- Some IP owned exclusively by the public sector
- Some IP owned exclusively by the private sector
- Some IP co-owned between public and private actors
- Not applicable

22. Dedicated support to research infrastructures

Facet	Facet choices
Main focus of support	<ul style="list-style-type: none"> National infrastructure(s) International infrastructure(s)
Objective(s)	<ul style="list-style-type: none"> Address national research priorities Support the internationalisation of public research Promote partnerships among HEIs/PRIs Foster science-industry collaboration Address societal or environmental challenges Promote regional or cluster policy Other
Funding used for	<ul style="list-style-type: none"> Acquiring major scientific equipment Building new facilities Renewing or modernising existing facilities Increasing user access to infrastructure Gaining access to existing international infrastructures Hiring research and technical staff Training research and technical staff Building knowledge repositories of scientific data and archives Building computing systems and virtual infrastructures Other

23. Information services and access to datasets

Facet	Facet choices
Openness	<ul style="list-style-type: none"> Publicly available Restricted access

Type of data disseminated

Data collected through the provision of public services (administrative data) (e.g. medical data of patients)

Job postings

Information on STI actors (e.g. researcher resumes, profiles of firms, research groups and institutes)

Academic articles and other types of scientific production

Intellectual property registries (e.g. patent databases)

Research results and raw research data

Information on grants, scholarships and other types of government support

Directory of firms, investors, R&D institutes and other types of STI actors

Guidelines

Crowdfunding initiatives

Other

GUIDANCE, REGULATION AND OTHER INCENTIVES***24. Technology extension and business advisory services***

Services provided by

Higher education institutes

Public research institutes

Public body from national government

Public body from regional or local government

Private consultants and business experts

Intermediaries (e.g. technology transfer offices, incubators)

Other

Modality

Consultancy

Training

Networking with investors, clients, suppliers, etc.

Other

Type of advisory service
Intellectual property protection (e.g. filing and litigation)
Intellectual property commercialisation (e.g. licensing and royalty agreements)
Support the adoption of existing technologies
Implement technology best practices or support meeting national or international standards
Quality management and process efficiency
Environmental impacts and energy use
Human resource development
Product development
Support to drafting applications for grants and other policy instruments
Support to business plan preparations
Marketing (including market research)
Fundraising
Export promotion
Other

25. Emerging technology regulation

Facet	Facet choices
Role of government	<ul style="list-style-type: none"> Market regulator (e.g. antitrust law) Technology/innovation enabler (e.g. interoperability standards) Risk mitigation (e.g. consumer and social protection) Deliverer of public services (e.g. requirements in procurement, education) Protector of public values
Challenge(s) addressed	<ul style="list-style-type: none"> Risks to human safety Environmental sustainability Privacy protection Social disruption (e.g. job insecurity) Unethical use (e.g. discrimination) Security (e.g. dual-use technologies) Limited competition (e.g. monopolies, oligopolies) Other
Type(s) of regulation	<ul style="list-style-type: none"> Formal law or regulation International agreement Self-regulation (e.g. codes of conduct, scientific advice, standards) Regulatory experiments (e.g. sandboxes) Other
Regulatory approach	<ul style="list-style-type: none"> Technology or input-based regulation (e.g. moratoria, standards of use) Performance or output-based regulation (e.g. safety thresholds)

Level of governance	<p>Local</p> <p>Regional</p> <p>National</p> <p>International</p>
Approach to monitor compliance	<p>The regulator develops and maintains technologies for data collection, transmission and/or analytics</p> <p>Regulated parties are incentivised to adopt monitoring technology that is not managed by the regulator</p> <p>Regulated parties are simply required to share compliance data (no regulator support)</p>

26. Labour mobility regulation and incentives

Facet	Facet choices
Type of mobility	<p>Intersectoral (public to private sector or vice-versa)</p> <p>International</p> <p>Within country</p>
Programme objective(s)	<p>Promote international knowledge flows</p> <p>Attract back diaspora (e.g. emigrating talent)</p> <p>Attract foreign talent</p> <p>Build industry-science linkages</p> <p>Promote research excellence</p> <p>Improve performance of host institutes/firms</p> <p>Other</p>
Mechanism	<p>Regulatory (e.g. immigration legislation and quotas)</p> <p>Guidelines</p> <p>Service or information (e.g. web portal)</p> <p>Economic (e.g. salary subsidy)</p> <p>Networking (e.g. coordinating staff exchange)</p> <p>Other</p>
Portion of salary subsidised by the instrument	<p>No</p> <p>Less than 40%</p> <p>40-80%</p> <p>More than 80%</p>
Average duration of salary subsidy	<p>Not applicable</p> <p>No subsidy</p> <p>less than 6 months</p> <p>6-18 months</p> <p>More than 18 months</p>

Screening scheme	
	Not applicable
	Employer-led
	Government-led (e.g. points based)
	Hybrid (government and employer)
Intended mobility destination	
	None specified
	Higher education institutes
	Public research institutes
	Private research and development labs
	Firms
	Other

27. Intellectual property regulation and incentives

Facet	Facet choices
Mechanism(s)	
	Legislation
	Streamlined administrative procedures
	Intellectual property regime reform (e.g. patent law)
	Subsidies for intellectual property operations (e.g. filing and renewal costs)
	Supporting IPR clinic services (e.g. consultancies and guidance)
	Training
	Data dissemination (e.g. patent registries)
	Awareness campaigns
	Other
Area(s) of the intellectual property system promoted	
	Registration and ownership
	Commercialisation (e.g. licensing)
	Enforcement
	Litigation
	Internationalisation
Type(s) of intellectual property promoted	
	Patents
	Copyrights
	Trademarks
	Industrial designs
	Utility models
	Geographical indications
	Open source
	Other

28. Science and innovation challenges, prizes and awards

Facet	Facet choices
Selection type	<ul style="list-style-type: none"> Ex-ante (based on a solution to a proposed challenge) Ex-post (based on a scientific achievement or developed innovation)
Type of challenge	<ul style="list-style-type: none"> Health Ageing population Social inclusion Food security Energy security Climate change Environmental sustainability Research challenge, i.e. centred on a specific domain of science or technology Business challenge, i.e. centred on a specific market need Other
Type of reward	<ul style="list-style-type: none"> Monetary Honorific (e.g. label, recognition) Exposure to a network of investors Provision of business innovation and technology advice Other