

STI policy instruments taxonomy

Category	Instrument	Definition	Sources
Direct financial support	Institutional funding for public research	Non-competitive grants funding HEIs and PRIs according to various criteria (e.g. research capacity and performance indicators) to fulfil their research missions. Block funding provides these organisations with stable resources and a certain degree of autonomy in their research activities.	(European Commission, 2010) (Innovation Policy Platform, 2017e)
	Project grants for public research	A direct allocation of funding to HEIs or PRIs seeking to finance all or part of a research project. Grant schemes can vary from very simplistic, one-off funding allocations, to complex strategic programs built on formal public-private partnerships.	(Cunningham and Gök, 2012) (Cunningham et al., 2013) (OECD/Eurostat, 2005) (OECD, 2015)
	Grants for business R&D and innovation	A direct allocation of funding to firms seeking to finance all or part of a project involving R&D and/or innovation activities. Grant schemes can vary from very simplistic, one-off funding allocations, to complex strategic programs built on formal public-private partnerships.	(Cunningham and Gök, 2012) (Cunningham et al., 2013) (OECD/Eurostat, 2005) (OECD, 2015)
	Centres of excellence grants	Competitive grants funding the core activities of higher education and public research institutes and focusing on the promotion of high quality scientific research. Funding may be associated to a performance contract.	(OECD, 2014)
	Procurement programmes for R&D and innovation	The process whereby public bodies commission R&D activities or innovative goods and services from third parties. These bodies may include government agencies at different national and sub-national levels, as well as state-owned enterprises.	(Appelt and Galindo-Rueda, 2016) (Innovation Policy Platform, 2017f; 2017g) (Rigby, 2013)
	Fellowships and postgraduate loans and scholarships	Initiatives providing financial support to encourage researchers to establish careers in public sector research and industry (fellowships) and for higher education students at master's level or above (loans and scholarships).	(Innovation Policy Platform, 2017a)

	Loans and credits for innovation in firms	Government-subsidised programmes that allow firms to raise working or investment capital by borrowing under better conditions compared to the market. Subsidised loans and credits are often geared toward specific objectives, such as export promotion (i.e. export credit) or the acquisition of new equipment.	(Rigby and Ramlogan, 2013) (Innovation Policy Platform, 2017b)
	Equity financing	Government-subsidised investment in which small and innovation-intensive companies sell equity (shares) to raise capital. They use this capital to fund their growth, as they often have limited capacity to generate revenue at this early stage of the entrepreneurial process.	(Rigby and Ramlogan, 2013) (Innovation Policy Platform, 2017c; 2017d)
	Innovation vouchers	Vouchers are small grants allocated to SMEs to purchase services from external knowledge providers. Vouchers are often employed to fund business advisory and technology extension services, among others.	(Innovation Policy Platform, 2011)
Indirect financial support	Corporate tax relief for R&D and innovation	Incentives that reduce the tax burden of firms who invest in eligible R&D and innovation activities, representing an indirect way of financial support. Examples include corporate tax income benefits, reductions in tariffs for imported research equipment and reimbursements of value added tax.	(Appelt et al., 2016) (Köhler et al., 2012)
	Tax relief for individuals supporting R&D and innovation	Incentives that reduce the tax burden of individuals who donate monies to public research activities (e.g. conducted by universities) or who directly invest in R&D and innovation activities (e.g. R&D intensive start-up).	
	Debt guarantees and risk sharing schemes	Schemes working to cover some portion of the losses experienced by lenders when firms default on loans. These are widely-used as financial instruments for supporting SME growth.	(Calice, 2016) (Innovation Policy Platform, 2017h)
Guidance, regulation and other incentives	Technology transfer and business advisory services	Instruments that support innovation and entrepreneurship activities by stimulating improvements in businesses. These may cover aspects such as operations, production, quality, logistics, workforce skills, learning capabilities and the adoption of new technologies and often have the objective of increasing firm productivity and efficiency.	(Youtie and Shapira, 2014)

	Labour mobility regulation and incentives	Instruments that promote the recruitment across sectors and/or countries of highly qualified individuals including scientists and engineers. Sample initiatives include funding for international research projects, talent attraction programmes and coherent and efficient migration regimes.	(Jones, 2012) (Innovation Policy Platform, 2017i)
	Intellectual property regulation and incentives	Instruments regulating and promoting the adoption of intellectual property rights and practices. This includes the registration and commercialisation of intangible assets that are the result of human innovation and creativity.	(Rigby and Ramlogan, 2012)
	Science and innovation challenges, prizes and awards	A monetary (or other) incentive offered to STI actors in recognition of their contributions to research and innovation. Inducement prizes reward a solution to a research/innovation challenge. Recognition awards are ex-post prizes given to highly innovative companies and researchers in order to foster their role in the ecosystem or to signal specific projects/ventures.	(Gök, 2013)
Collaborative platforms and infrastructure	Clusters and other networking and collaborative platforms	Instruments aiming to gather together actors within the innovation system. For instance, entrepreneurs, investors and companies sharing common geographical locations. Another example includes science-industry platforms seeking to support the commercialisation of knowledge.	(Cunningham and Gök, 2012)
	Dedicated support to new research infrastructures	Instruments that support the creation of new facilities, resources and services used by the science community to conduct research and foster innovation. They include: major scientific equipment, e-infrastructures such as data and computing systems and communication networks.	(OECD, 2008) (ESFRI, 2016)
	Information services and databases	Online platforms providing access to collections of data on research and innovation activities. This includes resources such as archives or scientific data and directories of actors in a given innovation ecosystem.	(European Commission / OECD, 2016)
Governance	National strategies, agendas and plans	Strategies articulate the government's vision regarding the contribution of STI to a country's social and economic development. They set priorities for public investment in STI and identify the focus of government reforms, for instance in areas such as funding of public research and promoting business innovation.	(OECD, 2016)

	Creation or reform of governance structures or public bodies	Significant changes in the institutional arrangements concerning STI policy processes. Possible examples include mergers of STI-related ministries, reform of an innovation agency or creation of a new oversight body.	
	Policy intelligence (e.g. evaluations, reviews and forecasts)	Tools for advancing policy learning that aim to improve the design and implementation of policies or that seek to fine-tune STI governance arrangements. Possible examples include policy evaluations, benchmarking studies, system reviews, technology assessments and foresight exercises.	
	Formal consultation of stakeholders or experts	Programmes allowing non-government actors (e.g. the research community, business, civil society, regional and local governments) to express their views or provide expert advice that inform policy-making processes.	(European Commission, 2017)
	Horizontal STI coordination bodies	Public body ensuring the coherence of STI policy making by setting up mechanisms to co-ordinate different levels of governments. For instance, research and innovation councils and committees may mediate between different ministries and agencies, provide policy advice, set policy priorities and/or oversee policy evaluation.	(OECD, 2002) (OECD, 2017)
	Standards and certification for technology development and adoption	Support provided for the development and adoption of local and international standards, including metrology, inspection, certification, accreditation and conformity assessments.	(Blind, 2013)
	Public awareness campaigns and other outreach activities	Instruments promoting the awareness of STI activities and entrepreneurial and innovation culture within non-governmental actors. Examples include science fairs in public schools and open days in universities or power plants.	(European Commission / OECD, 2016)

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