OUTCOME REPORT ON THE FIRST GLOBAL FORUM OF NATIONAL ADVISORY COUNCILS[1]

In recent years, innovation and innovation processes have changed in nature and in scope. They have become more open, participatory, geographically disperse and globally connected. They have expanded their scope to address environmental impacts, climate change, and poverty among others. This has presented governments and stakeholders with renewed governance challenges, particularly the need for coordination across policy areas, among stakeholders and through different levels of government. The establishment of National Advisory Councils on science, technology and innovation (STI) policies is one alternative that a large number of governments worldwide has chosen as a policy response in order to have a more effective innovation governance. Other alternatives chosen, which are not mutually exclusive, are the appointment of chief scientists, the establishment of innovation agencies, and setting up expert commissions.

In August 2014, in a conference on Science Advice in New Zealand, the International Network for Government Science Advice (INGSA) was created. It aims at providing "a forum for policy makers, practitioners, academies, and academics to share experiences, build capacities and develop theoretical and practical approaches to the use of scientific evidence in informing policy at all levels of government".[2] No such network exists for heads and members of STI Advisory Councils. That is why, in an effort supported by Canada's International Development Research Centre (IDRC), and coordinated by Chile's Consejo Nacional de Innovación para el Desarrollo (CNID) and the Science, Technology and Innovation Council of Canada (STIC), the First Global Forum of National Advisory Councils was held in Santiago, Chile, on 22 and 23 September 2015.

---

[1] Report prepared by Alejandro Foxley, Raúl E. Sáez and Andrea Valenzuela of CIEPLAN (Corporation for Latin American Studies), Santiago, Chile. This report has been supported by the International Development Research Centre of Canada.

[2] See http://www.globalscienceadvice.org/about-ingsa/.

The topics discussed in this First Global Forum were organized under three major headings: 1) Description and comparative analysis of the roles and responsibilities of the Councils and governance of the innovation system; 2) Means of influencing government policy; and 3) Opportunities of collaboration among the Councils. It was attended by representatives from the Councils of Brazil, Canada, Chile, Egypt, Korea, Mexico, South Africa, Uruguay, and from IDRC-Canada and the Inter-American Development Bank. Japan was present through a video presentation.

The goal of this paper is, firstly, to report on the contents of the meeting and, secondly, to suggest topics for future meetings of this global forum of National Advisory Councils.

I.   Issues discussed

In the meeting, the representatives of the National Advisory Councils discussed several issues that they considered to be crucial on the basis of their work and their Council's experience. In the context of a rich exchange of views several topics arose that were debated at length throughout the meeting and which can be organized in two groups: 1) issues related to institutions and their structure; and 2) the challenges Councils face in order to be effective in influencing policy decisions. In this section we look at each of these in turn.

1. Institutional and structural issues

The institutional and structural issues discussed in the Santiago meeting include the roles and mandates of Councils in their respective countries, the composition of their boards and how close they are to the highest levels of government where policy (and political) decisions are made.

The specific mandates of Councils vary from country to country. They set the frameworks to conduct a wide variety of activities such as providing advice and making proposals for the

design, implementation and evaluation of innovation policies. Several examples of different roles of Councils were presented in this First Forum. At a minimum, Councils provide guidance to their respective governments on STI policies. They often draft the government's plan or strategy on innovation policy and establish the priorities. For example, Escobar and Valenzuela (2015) report that in a sample of 51 countries,[3] 63% of Councils provide advice, while 55% produce plans and policy priorities. As tangible outputs, White Papers are useful means for providing vision and guidance, as well as setting the priorities for STI policies and subsequent spending goals. Formal innovation plans and sector reports are other examples of ways of expressing recommendations, although they tend to be more specific, and are usually based on the priorities set in White Papers.

In other cases, Councils also have a coordination role across the different government agencies involved in some way or another in STI. This was referred as crucial by the participants given that, in general, there are a large number of agencies responsible for policy implementation, funding, and research, among other tasks. Councils need to be effective in this coordination role, which is not a simple task considering that often governments provide funding and define mandates directly to those implementing institutions. In some countries, like in Japan and Korea, Councils are involved in the allocation of the government's STI budget, and are also responsible for the dissemination of the importance of innovation. In others, their means of influencing policy decisions are based on specific policy proposals. Korea is an interesting example of monitoring special concerns, such as gender equality, and using specific indicators to measure progress and appropriate stimulus measures to address those concerns. Specifically, Korea has convened the S&T Gender Innovation Regular Debate Forum. As mentioned in the Santiago meeting, Councils can reinforce the performance of national innovation systems by reducing the overlapping of tasks, and by facilitating communication and good working relationships among members of the

---

[3] See Escobar and Valenzuela (2015).The sample includes 10 countries from the Americas, 28 from Europe, 8 from Asia and 5 from Africa.

STI community. They can also be a place for national dialogues on STI, while seeking consensus on the direction and priorities of STI policies.

Coordination failures are widespread. Information asymmetries are one of its causes. In order to address these information problems, Brazil has created a public web platform connecting researchers and industries according to common interests and projects. Councils that have the authority to allocate funding have an advantage over those who do not when it comes to this coordinating role, because they are provided with an enforcement instrument.

Global Forum participants in Santiago focused their presentations on the types and number of activities implemented by each Council, depending on its mission/vision statements, in addition to their structure and their relationship to other stakeholders. They also addressed at length the issue of their Board's membership as well as their relationship to the government, because of the implications of the latter for their effectiveness and influence.

When it comes to the membership of a Council's Board, it is important to keep in mind the multidisciplinary nature of STI (biotechnology, energy, neurosciences, just to name a few). Thus, diversity and representativeness of the innovation community are important, whether in the form of permanent or temporary positions in the Board. Advisory Councils tend to have an average of 20 permanent members, where the percentage of people belonging to the government does not exceed 35%.[4] In other words, a majority of Council members come from a variety of spheres: academia, the private sector, end-users of technology, etc. This raises interesting issues that were also discussed in Santiago, such as the pros and cons of private sector or industry representatives in Councils.

On the positive side, Global Forum participants highlighted the private sector's role as research funders, as innovators with substantial potential contributions to R&D efforts, and as

---

[4] See Escobar and Valenzuela (2015).

users of new technologies. However, they also mentioned the possibility of conflicts of interest and capture of the Council by industry lobbies (and other groups) as one possible negative outcome of having private sector representatives in the Board. Another issue is how to find the "right" representation of the business community. Therefore, how a Council manages the participation of stakeholders with diverse interests, either in permanent (Brazilian and South African cases) or transitory (Japanese model) positions in the Board, is an important issue. The recent trend of hiring independent consultants on STI by the government and Councils was also addressed. It was felt that they could make useful contributions as external advisors, providing new ideas and independent opinions. However, this required an adequate management of the risk of consultants only confirming the governments' a priori views and objectives.

Given the diversity of Councils' mandates, there is also a variety of models regarding their position in the innovation system's structure and relationship to the government.[5] In some countries (Japan and Korea) they are very close to the highest level of the government (represented by the Prime Minister or the President). In other cases, they are dependent on sectoral ministries such as economy and industry, education, finance or science and technology. In over 70% of cases reviewed by Escobar and Valenzuela, Councils are close to the highest level of government.[6] On the other hand, representatives of some of the countries attending the meeting described the structure of their innovation system as composed by several Councils, Commissions and Agencies led by at times by the government, by scientists or by academics, forming a complex network of institutions. In these structures, National Advisory Councils tend to be a *primus inter pares*.

---

[5] See the Annex for more details on selected examples of institutional structures for innovation policy.
[6] See Escobar and Valenzuela (2015).

2. <u>Councils' Challenges</u>

This First Global Forum also addressed a number of challenges related to the Councils' work, such as finding an effective communications strategy in order to disseminate their vision, be heard and capable of informing and influencing government decisions regarding STI. The challenges of funding and evaluation of their work were also debated.

STI Advisory Councils face the challenge of providing guidance on and influencing policies that will take time to develop and implement, and the results of which will be seen in the medium to long-term while governments stay in office for a much shorter period of time. Therefore, they have a difficult time in influencing governments whose concern is in policies that will have a short-term effect. In some countries, such as Mexico, innovation plans are designed to coincide with the period of an administration (six years). Other countries, such as Japan and Korea, plan their innovation policies based mainly on their fundamental medium and long-term goals, without limiting themselves to a specific deadline set by the government in office.

Participants in the Global Forum also made useful suggestions for improving the effectiveness of their messages:

1. Substantiate the short-term benefits of long-term plans. It is important that short-term benefits based on a consistent long-run vision be highlighted. Mexico and South Africa mentioned this as an important issue regarding their respective experiences.

2. Use evidence in making the case that investment in STI reduces poverty, inequality and unemployment. This is in line with the recent expansion of the scope of innovation policies, which now also includes the relatively new field of social innovation. Improving the quality of life should be the end-goal of innovation.

3. Relate the Council's work to the broader picture. Councils should be inclusive and take into consideration all institutional and organizational efforts being made in their

countries by the government, agencies and the private sector in order to introduce innovation in their practices. In this way, they will end up having a substantial influence on their country's STI policies.

4. Aim at creating a culture of innovation inside the country and disseminate concrete results of its work.

Brazil is a successful experience in being quite effective when national authorities decided to focus in solving current or foreseen very specific problems, like increasing food production to address hunger, or invest in oil-exploring technology after the oil price shocks of the 1970s.

On a more practical level, vocabulary used and choice of specific points to be highlighted, among others, are important components of a communications strategy, as pointed out by Canada's representatives. Normally, government authorities have limited time to concentrate on one subject, so capturing their attention at once is crucial. Effective communication skills should avoid excessively technical vocabulary so that there is a common understanding across sectors (researchers of different backgrounds, public sector specialists, private sector experts, among others). Simplicity is a plus.

The timing of specific advice is also crucial in order for it to be effective. Canada's STIC, for example, only provides advice at the request of the Cabinet. Finally, exposure, credibility and the scope of the advice provided influence effectiveness. One of the main elements related to this is the confidentiality of advice. The advantage of confidentiality is that advice can be provided in a straightforward and honest way, without concern about public and media reactions. This requires a definition of what type of advice should be confidential.

It is also important, as mentioned by several participants in the Santiago meeting, not to forget that decision making in innovation is a political decision because it is based on a hierarchical

organization of a country's priorities, and on the availability of funding. Therefore, advice has inevitably a political connotation, in addition to technical.

On the other hand, facing budgetary constraints has been the main issue for most countries as funding for innovation tends to be scarce, and in most cases supported almost entirely by the government. In fact, according to UNESCO data for the year 2011, in around 55% of countries for which information is available, government R&D funding predominates over business (private) and higher education spending. The biggest concern expressed by critics of public funding of technical innovation is that the government perhaps could redirect those resources towards other high-priority goals, such as fighting poverty or reducing income inequality, goals that also need additional financing. In the literature on innovation financing, there is a debate regarding whether public funding complements or substitutes private spending. The former is clearly more likely, although the role of private sector funding should increase over time.

In fact, the case of Korea was highlighted in the meeting as an example of successful shifting from a situation in which most of the financial effort was done by the public sector, to one in which the private sector carries most of the load. In 40 years, the public/private ratio of R&D spending switched from 3/1 to 2/5. The fact that in Korea, the private sector makes the largest contribution to STI funding is noticeable considering that many innovation outputs, such as mitigation of environmental damage or new knowledge in key strategic national activities, have the characteristics of a public good. But Korea's representatives in the Forum argued that a strong base of researchers in private industry, a culture of and commitment to innovation, and a high sense of national priorities, both in the private and public sectors, were the differentiating factors in their successful experience regarding substantial innovation coming out of the private sector.

In an era of budget consolidation and slower growth, participants in the Santiago meeting noted that the shift towards more selective and competitive funding that already started some

years ago, will be reinforced. However, in order to avoid overreacting, there should be a permanent dialogue between Councils and Budget Authorities regarding, among others: i) the priorities for STI policies; ii) the methodology used to allocate funding among stakeholders; iii) the development of performance indicators of government-funded projects; iv) the need to find the right balance between performance-based funding, and the autonomy of research institutions; and finally, v) insuring the required stability of funding, particularly in times of budgetary restrictions. In fact, Advisory Councils can be effective intermediaries between the STI community and Finance Authorities regarding these budgetary issues.

Such a dialogue would be enhanced by including representatives of the Finance Ministry in the Council's Board with voice and voting rights. Chile, Finland, Japan, Korea, Singapore, Spain, Sweden and Turkey are examples of countries where the Minister of Finance is either a member of the Council or participates in discussions concerning the allocation of public funding to innovation programs.

Connected to funding issues, the topic of evaluating the organization and performance of Councils was also discussed. Some proposals were related to examining the quality of the information provided to stakeholders (although no measures were proposed), and to check whether the advice was implemented by the government.

Evaluations of Councils or related entities have taken place in countries not present in this Global Forum.[7] These national case studies can provide examples of the adoption and design of effective evaluation methodologies. But developing evaluation instruments, in turn, raises a number of additional issues. The first one is who should perform them. Options are the ministry to which the Council is related to, or a special Agency or Committee, or the Council itself (self-evaluations). On the other hand, hiring independent experts can be useful in order to have an

---

[7] These countries are Australia, Finland, Iceland, Israel, Italy, Luxembourg, the Netherlands, Norway, Poland, and United Kingdom.

external view. The second issue is the type of evaluation required: qualitative, quantitative or a mixture of both. The qualitative approach, for example, aims at collecting information on the perception of the Council's accomplishments. The quantitative approach, on the other hand, examines tangible results from funding allocation, such as research publications and patent applications.

II.   An agenda for future collaborative work

The diversity in levels of development and investment in STI, in institutional structures and in geographical origin of the Global Forum´s participants, is a unique feature that provides an opportunity for mutual learning, to jointly address global challenges, and adopt best practices. The participants found the Global Forum a useful and rewarding experience, and agreed to move forward and organize future meetings.

This Global Forum faces the challenge of finding a niche in the global context of STI policies. This will require setting up an agenda of global and shared challenges not addressed in other international fora, and exchange views and experiences on best practices.

On the basis of the discussion in the Santiago meeting, the following lines of collaborative work can be suggested for the future, some of which were proposed by the Forum's participants. Some of them are topics that require further analysis and exchanges, while others point to actions that could be taken under the umbrella of the Forum.

a) Topics for further analysis

1) A careful examination of the diverse institutional arrangements, particularly the position of National Advisory Councils in a country's innovation institutional structure. The focus could be on examining which institutional arrangements have contributed

to more effective Councils in terms of their influence in guiding and coordinating STI policies.

Successful frameworks for the relationship between Advisory Councils and other STI institutions, ministries and the private sector that have led to higher levels of investment in STI could be carefully studied, taking into account the fact that there must be a strong coherence between the advice-policy decision level, and the implementation phases. From the cases presented in the Annex to this report, it appears that National Advisory Councils which have a strong relationship, either through funding or hierarchical dependence, with implementing Ministries or Agencies, have been relatively more effective in putting into effect their policy priorities. Also, a direct relationship to, or dependence from, the highest level of the Executive Branch seems to result in the successful implementation of an STI agenda. Evidence-based advice seems to be more effective than otherwise, so National Advisory Councils should be associated with one or several research agencies.

2) An additional set of issues that could be discussed in future meetings relates to the financing of science, technology and innovation. Should it be mostly governmental or mostly private? Are the two types of financing complements or substitutes in terms of their emphasis on different aspects of science, technology and innovation? There appears also to be a divide between resource-rich and resource-poor countries in terms of the share of the private sector's contribution. Is this just a spurious relationship? This theme raised significant interest and was proposed as a topic for the agenda of the Second Meeting.

3) The future Forum meetings could compare STI strategies as a key component of strategies to reduce poverty and inequality. This is in line with the expanding scope of

STI policies, and that, in the end, the objective of innovation is to improve the quality of life. How can STI contribute to more effective social policies? In this sense, the Global Forum could stress the new forms of innovation.

4) The Global Forum could also work on global challenges or collective goals. This relates to the point made in the Forum as to the importance today of purpose-driven STI. One example is the Sustainable Development Goals adopted by the UN's General Assembly in September 2015. Meeting them by 2030 will require a significant contribution from science, new technologies and innovation. Members of the Global Forum could discuss and exchange views on how they will or could contribute to their countries' plans to meet those goals.

5) How to effectively communicate and disseminate their views and proposals emerged as a challenge common to all participants. As discussed above, this is an essential component of STI policy. In order to influence STI policy, Councils must be able to effectively communicate their policy views to government authorities, the STI community, other stakeholders in general, and society as a whole. Collaborative work on this issue was seen as useful, and documents on best practices could be prepared for the next meeting.

6) The contribution of small and medium-sized firms (SMEs) to STI can be effectively enhanced by connecting them to innovation and production networks or global chains. Large enterprises can subcontract the development of new technologies to SMEs, or they can provide the appropriate demand signals for SMEs to develop such technologies. However, there are a number of market failures which prevent this from happening. One of them is information asymmetries. Large firms are usually not aware of the capabilities of small and medium innovative entrepreneurs, and the

latter are not necessarily aware of the needs of large firms. Advisory Councils can address this and other market failures. The resulting demand-driven innovation would complement the supply-side STI policies that Councils often promote. Future meetings of the Forum could examine successful case studies of Councils that have played this role of linking SMEs to large companies that are in the technological frontier by their participation in advanced value chains.

b) Proposals for action

1) Developing comparable performance indicators was suggested by Canada as another area of collaboration and motivation for future meetings. This would allow for monitoring of innovation performance, assess the effectiveness of policies (and adopt corrective steps if necessary) and establish common benchmarks which participating countries may establish as goals. However, there was no consensus on the usefulness of such an exercise. It was pointed out that there already are indexes such as the Composite Science and Technology Innovation Index (COSTII) for 30 OECD countries. This issue will need additional and more detailed examination.

2) Public access to reliable data on STI, gathered from different sources, including researchers themselves, was seen as an effective way for joint work of the Councils with stakeholders, and among the latter. In addition, these platforms contribute to lowering the costs of information and knowledge, of networking and of research duplication. In the meeting, Brazil presented their model of shared repository. Such repositories also exist in countries like France and Spain. In their next meeting, the

members of the Global Network could discuss best practices concerning these open-access electronic platforms.

3) The implementation of training programs or visits by scholars in other Councils, was proposed as a joint practical objective. Such an exercise would allow for cross-fertilization, and learning from each other's experience. It would certainly help towards building networks of experts.

III.   **Next meeting**

As unanimously agreed in the Santiago meeting, the Second Global Forum of National Advisory Councils will be held in 2016 in Korea, back-to-back with the Asian innovation forum. Chile offered to work on specific subject(s) to produce an agenda for the next meeting. South Africa offered to host the Third meeting and Mexico the Fourth one.

ANNEX
SELECTED CASE STUDIES OF INSTITUTIONAL STRUCTURES FOR INNOVATION POLICY

Several case studies of successful models of institutional structure can be used to illustrate the complexities involved in institution-building. Some of them are from countries present at the First Global Forum, others not.

Canada's innovation system structure is based on STIC's leadership and its relationship to the highest levels of government. STIC directly communicates its advice and views to the Prime Minister's Office. It has a close relationship with Industry Canada, a government department whose mandate is to foster a growing, competitive, and knowledge-based Canadian economy, by providing funding and conducting research on a wide range of areas.[8] Other important institutions in Canada`s innovation system are mainly funding and research institutions such as the Canada Foundation for Innovation, the Natural Sciences and Engineering Research Council of Canada, and the National Research Council. In the area of sustainable innovation, the Sustainable Development Technology Canada is the agency that provides funding for firms that search for clean technology-based innovation.

Korea's innovation system is somewhat more complex. At the top level we find the Presidential Advisory Council on Science and Technology (PACST), which advises the executive branch of government. Then, underneath it, Korea has another institution responsible for decision making and coordination, the National Science and Technology Council (NSTC). Under NSTC, is the Korea Institute of Science and Technology Evaluation and Planning (KISTEP), which is the agency in charge of planning and coordinating innovation policies, allocating the budget, performing evaluations, among other activities. It reports to the Ministry of Science, ICT and Future Planning. Other ministries related to innovation policies are the Ministry of Strategy and Finance, which in turn is advised by two institutes in order to make evidence-based decisions; and the Ministry of Trade, Industry and Energy. On the other hand, research, funding and innovation-promotion activities are performed by agencies such as the Korean Research Council, the Korea Institute for Industrial Economics and Trade, and the National Research Foundation.

In Japan's institutional structure, the Council for Science, Technology and Innovation (CSTI) has significant leverage in policy design and implementation. It is chaired by the Prime Minister and is located within the Prime Minister's Cabinet Office, as in Canada. One of its main characteristics is that it participates in budget allocation for innovation. In Japan, each ministry is in charge of innovation policies within their scope of action. This is the case of the Ministries of Education, Science and Technology, of Economy, Trade and Industry, and of Agriculture, Forestry and Fisheries. Other important institutions with the mandate to conduct research, are the National Institute of Advanced Industrial Science and Technology and the National Institute of Science and Technology Policy.

Among those that did not attend the First Global Forum, it is of interest to briefly review the institutional structures of Switzerland, the UK and Sweden, as they are ranked according to the

---

[8] These include industry, science, technology and innovation, commerce, telecommunications, consumer affairs, corporations, competition and restraint of trade, weights and measures, bankruptcy and insolvency, intellectual property, investment, small business and tourism.

Global Innovation Index as the top three countries in terms of inputs and outputs of innovation,[9] and those of Australia and Finland as natural resource-rich countries, that have become high-income countries.

The Swiss Science and Innovation Council (SSIC) provides direct advice to the Federal Government and, in order to promote national consensus-building around innovation policies, it also organizes public hearings and consultations with stakeholders, conferences and workshops. It provides evidence-based opinions, grounded on work done by two research centers affiliated with the Council. SSIC does not conduct self-evaluations, rather it coordinates the evaluation of other agencies and the policy measures adopted by the government. Given that policy implementation is mostly in the hands of the Swiss Federal Government, there is a close relationship between advice and policy. Finally, an important distinguishing feature of the Swiss system, is that it strongly promotes public-private partnerships with institutions such as industrial associations, advisory committees (formal or informal), and the "Economie Suisse" business group, dedicated to contribute with ideas for policy making.

The UK Council for Science and Technology (CST) also provides direct advice to the Prime Minister and is supported by a Secretariat associated to the Department of Business, Innovation and Skills. The latter is directly involved in policy implementation, mainly through funding. As a result, the Council is closely related to implementation activities. Policy delivery is the responsibility of the UK Research Councils, entities in charge of research, funding and coordination in areas as diverse as arts and humanities, engineering and the physical sciences. The UK's innovation system also includes public-private partnerships involved, for example, in promoting innovation by firms, through government financial and administrative incentives, and in focusing on smart specialization strategies.[10] In the latter case, the goal is to identify local comparative advantages.

In Sweden, the Ministers of Education and Finance are members of the Swedish Innovation Council. Other ministries associated to implementation and coordination of policies are the Ministries of Defense, and of Enterprise and Innovation. Sweden has established a government agency specialized in innovation research and funding throughout the system, focusing particularly in applied research. VINNOVA, the Swedish Government Agency for Innovation Systems, has a large budget (USD 300 million), and supports both public and private initiatives.

Finland's innovation institutions are ranked as the top in the world, according to the Global Innovation Index. In this country there is a close relationship between the Research and Innovation Council, and implementing agencies such as the Ministry of Education and Culture, and the Ministry of Employment and the Economy. The latter is in charge of Tekes, the main agency responsible for funding and coordination of Finland's stakeholders, with a budget of around USD 695 million. Another important institution is Sitra (the Finnish Innovation Fund) which operates directly under the Finnish Parliament, and funds private investment in innovation.

The Prime Minister's Science, Engineering and Innovation Council (PMSEIC) is Australia's National Advisory Council. It has a close relationship with implementing agencies (e.g. the

---

[9] Inputs refer to institutions, research and human capital, infrastructure, market and business sophistication. Outputs can be technology, knowledge and/or creative outcomes from innovation processes.
[10] Smart Specialization Strategies is a European Union-wide program.

Department of Industry, Innovation and Science), and agencies responsible for research funding and the implementation of training and innovation programs (e.g. Innovation Australia). The private sector also contributes through the Business Council of Australia, a research center constituted mostly by business representatives.

REFERENCES

Advisory Council for Science, Technology and Innovation (AWTI) (2015), *About Us*, The Netherlands. Available at http://www.awti.nl/english/about-us/item159.

Arnold, E. and B. Mahieu (2012), *A Good Council? Evaluation of the Research Council of Norway*, Technopolis Group.

Astrom, T., K. Eduards, H. Vergara and H. Segerpalm (2006), *Strategic Evaluation on Innovation and the Knowledge Based Economy in Relation to the Structural and Cohesion Funds, for the Programming Period 2007-2013*. Report to the European Commission.

CST, Council for Science and Technology (2015) *Publications: Corporate Reports.* Available at https://www.gov.uk/government/publications?keywords=&publication_filter_option=corporate-reports&topics%5B%5D=all&departments%5B%5D=council-for-science-and-technology&official_document_status=all&world_locations%5B%5D=all&from_date=&to_date.

Erawatch, Platform on Research and Innovation policies and systems (2015), *Luxinnovation GIE-National Agency for Innovation and Research*. Available at http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/lu/supportmeasure/support_mig_0003.

Erawatch, Platform on Research and Innovation policies and systems (2015), *National Research Council.* Available at http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/it/organisation/organisation_mig_0006. Italy.

Erawatch, Platform on Research and Innovation policies and systems (2015), *Prime Minister's Science, Engineering and Innovation Council*. Available at http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/au/organisation/organisation_mig_0003.

Erawatch, Platform on Research and Innovation policies and systems (2015), *Research Council of Norway*. Available at http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/no/organisation/organisation_mig_0004.

Erawatch, Platform on Research and Innovation policies and systems (2015), *Science and Technology Policy Council Iceland*. Available at http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/is/organisation/organisation_mig_0001.

Erawatch, Platform on Research and Innovation policies and systems (2015), *The National Centre for Research and Development*. Available at http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/pl/organisation/organisation_mig_0009.

Escobar, B. and A. Valenzuela (2015), "Autoridades nacionales para la promoción de innovación. ¿Cuán efectivos son los diferentes modelos nacionales?", *Working Paper*, CIEPLAN.

European Commission (2006), *Country Profile: Japan*, Private Sector Interaction in the Decision Making Processes of Public Research Policies.

European Commission (2006), *Country Profile: Switzerland*, Private Sector Interaction in the Decision Making Processes of Public Research Policies.

European Network of Innovation Agencies (2015), *VINNOVA-Sweden*. Available at http://www.taftie.org/content/vinnova-sweden.

Forss, K. and C. Taxell (2007), *Science and Technology Policy Council 2003-2006: External Evaluation Report.* Ministry of Education, Science and Culture, Iceland.

International Network for Government Science Advice (2015), *About INGSA.* Available at http://www.globalscienceadvice.org/about-ingsa/.

Ko, Youngjoo and HoChull Choe (2011), *Mini Country Report /South Korea*, Korea Research Institute of Chemical Technology.

Lach, S., S. Parizat and D. Wasserteil (2008), *The Impact of Government Support to Industrial R&D on the Israeli Economy*.

Ministry of Education and Culture (2015), *Evaluation of the Research and Innovation Council of Finland*. Available at http://www.minedu.fi/OPM/Julkaisut/2014/TIN_arviointi.html?lang=en.

Office of the Chief Economist (2014), *Australian Innovation System Report*, Department of Industry, Government of Australia.

Research, Innovation and Enterprise Council (RIEC) of Singapore (2015), *Overview.* Available at http://www.nrf.gov.sg/about-nrf/governance/research-innovation-and-enterprise-council-(riec).

Science, Technology and Innovation Advisory Council (2013), *State of the Nation 2012. Canada's Science, Technology and Innovation System: Aspiring to Global Leadership*.

Secretaría de Estado de Investigación, Desarrollo e Innovación (2015), *Consejo de Política Científica, Tecnológica e Innovación*, Ministerio de Economía y Competitividad, Gobierno de España. Available at http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.7eeac5cd345b4f34f09dfd1001432ea0/?vgnextoid=b606837762673410VgnVCM1000001d04140aRCRD.

Sinno, F. (2012), *The Finnish Innovation System: National and Sub-National Innovation Policies*, Greater Europe Desk, Office of International Coordination, Government of South Australia.

Sweden Official Site (2015), *Innovation in Sweden*. Available at https://sweden.se/business/innovation-in-sweden/.

Swedish Research Council (2015). *Vetenskapsradet.* Available at http://www.vr.se/inenglish/.

Swiss Science and Innovation Council (2015), *Swiss Science and Innovation Council*. Available at http://www.swir.ch/en/.

UK Government of Official Site (2015), *Council for Science and Technology.* Available at https://www.gov.uk/government/organisations/council-for-science-and-technology.

UK Department for Business Innovation and Skills (2014), *Innovation Report 2014*.

United Nations (2015), *Sustainable Development Goals*. Available at https://sustainabledevelopment.un.org/?menu=1300 .

WIPO, Cornell University and INSEAD (2015), *The Global Innovation Index 2015: Effective Innovation Policies for Development*.