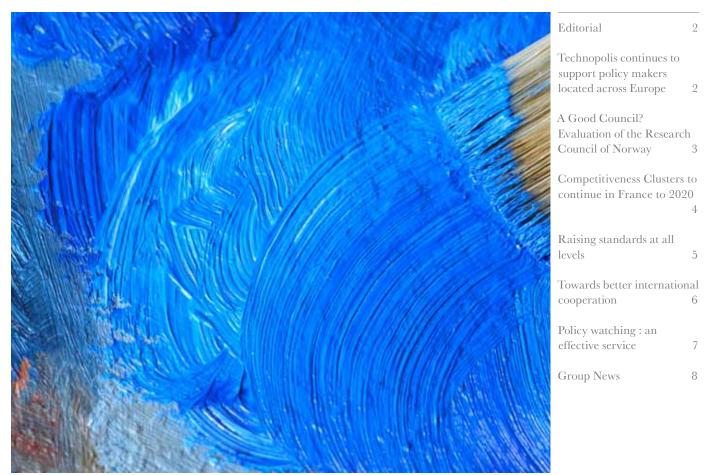
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The newsletter of Technopolis group!

A European research business focusing on the evaluation and development of policy in the fields of research and innovation

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Blue sky thinking for Europe





ur second evaluation of the Research Council Norway illustrates how funding organisations can transform and improve over the course of a decade to deliver better programmes. Innovation policy is not just about delivering the right funding programmes, but also about providing the appropriate framework conditions for the recipients of innovation policy. Raising formal standards is key to support competitiveness and innovation for instance. Our work in that area has grown considerably as described in the article on page 5. Facilitation of networking and clustering is another framework condition, where the French flagship programme Pôle de Compétitivité has set an important European example. Our

recent evaluation shows that not all clusters are ready to promote French competencies at a world-class level. Delivering good policies also needs constant improvement of competences in the public sector, a key objective of our Turkish office's support to develop capacity for policy analysis across various public authorities in Turkey and in the Western Balkans. This Technopolitan gives a flavour of these and other topics that are at the heart of our customer support.

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Technopolis continues to support policy makers located across Europe

Supporting the European Training Foundation (ETF) in Turkey

Technopolis has been selected to support their project activities for a period of three years between 2013 and 2016. Boosting the human capital of Turkey has long been a policy priority in Turkey. The ETF supports the capacity for policy analysis of both the Ministry of National Education (MoNE) and the Council of Higher Education (YOK) to ensure that reforms of education and training are implemented with the available EU support in a coherent manner. Technopolis Group Turkey is able to conduct policy studies, technical assistance and support services for the national bodies and international organisations in the field of education and training in Turkey.

Assessing R&D Infrastructure in Western Balkan Countries (WBC)

Commissioned by the World Bank, Sirin Elci, Director of Technopolis Group Turkey is conducting an assessment of the R&D Infrastructure in Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, Kosovo, Montenegro and Serbia. The study is carried out under the Western Balkans Regional Strategy on Research and Development for Innovation implemented by the World Bank in collaboration with the Steering Committee representatives of the WBCs. It aims to provide input to the studies being conducted to strengthen the research and innovation capacity of the WBCs to foster competitiveness and growth.

The assessment will be based on the findings from the field research carried out in the region. The survey and interviews have been collecting data on human resources, budgets, funding sources, R&D and innovation activities, infrastructure and services, national, regional and international networking and collaborations, impact of national innovation systems and policies on their performances, impact of the EU policies and programs, needs and requirements for improvement and development (enhancement of research, innovation, research commercialisation, collaborations, etc.). The field research was conducted in close cooperation with and assistance of the Steering Committee representatives.

The R&D entities in WBCs have a strong tradition and competencies in conducting basic and applied research in a wide range of S&T fields. There is an ongoing effort to upgrade the existing research infrastructure through the funds from national governments and international organisations. The Senior leaders of the entities are aware of the need for transformation and improvement, and they want to increase the quality and quantity of their research activities as well as the commercialisation of research results.

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Gaining insights with Energy in Sweden

Technopolis continues to develop leanings for the energy sector with two contrasting programme evaluations for the Swedish Energy Agency. They both aim to contribute to the client's overarching goals of improved energy efficiency and sustainability but they do so by dealing with utterly different material.

The first is a meta evaluation – assessing all the 90 or so evaluations performed by the Agency since 2000. The aim is to find out what can be learned from all of those evaluations, to increase knowledge so that the questions which the client will ask through future evaluations lead to more valuable answers.

The second project evaluates social and behavioural research. The research is being completed by 10 teams at Swedish universities under the banner of "The Sustainable Municipality". Municipalities have many different ideas about increasing sustainability so these 10 projects are diverse, ranging from the macro perspective, such as studying networks for change, right down to specific policies, such as ones for cycling

This evaluation aims to improve the understanding of the key factors that can influence sustainability in municipalities. The key factors include the influence of the process of cooperation, how knowledge is produced and disseminated to different actors in society, how local actors work towards sustainability and how local, regional and national actors cooperate and interact.

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A Good Council?

Evaluation of the Research Council of Norway

The Research Council of Norway (RCN) is almost unique in having responsibility for funding the full spectrum from 'basic' research in universities to innovation in industry, making it a rare combination of a research council and an innovation agency. Its performance matters to Norway but it also represents a major social experiment, of interest to research and innovation policymakers everywhere.

The government established RCN in 1993 by merging Norway's pre-existing research councils with the NTNF innovation agency. The major reason was the failure of these organisations to coordinate the implementation of a set of cross-cutting national research priorities in areas such as ICT, life sciences and management.

Technopolis evaluated RCN in 2001. The key question was existential: Was this radical merger to create a single organisation funding innovation and basic research a good idea, or should RCN be broken up - by assumption into a traditional research council and a separate innovation agency? Our evaluation said that the merger was the right thing to do but that it had not been sufficiently well done. RCN's six divisions operated autonomously, wasting the opportunity to provide coherent funding across research and innovation. RCN received funds from sixteen different ministries to fund research and innovation. Most of the ministries therefore tried to micro-manage the use of 'their' funds, to make sure RCN did not 'waste' them on the objectives of other ministries. There was no strong voice in the government that could make final decisions about national research and innovation policy. To create an effective single council would involve drastic reorganisation and changes not only in the internal way of working but also in how RCN was funded and governed. It needed 'strategic' resources of its own in order to develop a coherent national strategy that went beyond the interests of the individual ministries.

In response to our evaluation, RCN was drastically reorganised in 2003, breaking down disciplinary barriers in its old structure so that it had three divisions: one to fund research 'bottom up', in response to Principal Investigators' ideas; a second to support innovation in companies and the public sector; and a third to provide an 'arena', in which a changing set of time-lined programmes could address national priorities, using an appropriate mix of fundamental and applied research and innovation support.

Our new evaluation of RCN in 2012 found that it was working much more smoothly. Management and administration were efficient. Researchers and other stakeholders

were much more satisfied with RCN and the old controversy about splitting it up was no longer on the agenda. A Research and Innovation fund set up under the education ministry had allowed the ministry to increase its influence, becoming more of a science and innovation ministry. This enabled RCN to become more of a change agent, reducing fragmentation in the research community and implementing the thematic priorities set out in government White Papers during the last decade. Groups of ministries were starting to organise national research strategies in areas of common interest such as nanotechnology. So, as an implementation agency RCN has improved its performance and has clearer national policies to implement.

However the evaluation also pointed to some continuing limitations that suggest RCN needs a little more independence from the ministries that fund it.

- While the quality of Norwegian research (measured in bibliometric terms) is reasonably good, it has not been increasing, which may be a problem in a high-cost country that increasingly needs to compete on knowledge
- Similarly, the rate of industrial innovation and renewal seem to be below needed levels
- Lack of strategic resources prevent RCN from acting quickly to respond to new opportunities in research and innovation, so Norway tends to be slow at entering new research fields

Governance reforms and internal changes are therefore still needed to let RCN fulfil its potential.

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Competitiveness Clusters to continue in France to 2020

The French Government has announced it is to continue its innovation support policy entitled Pôles de Compétitivités for the period from 2014 to 2020 This follows an evaluation by BearingPoint, Erdyn and Technopolis France of the outcomes at national and cluster level of the second phase of this major innovation support policy, which was implemented from 2009 to 2012.

The Pôles de Compétitivités policy was first launched in 2004 with the aim to enhance French competitiveness, growth and employment through innovation and public-private collaborative R&D projects. This flag ship policy was a turn in the national industrial policy, created with the ambition to give to French research and industry partners the chance to become first in their fields, both in France and abroad.

Resulting from local initiatives, 71 Pôles de Competitivité were approved by the State and are currently operating in most activity sectors. These include emerging technologies such as nanotechnology, biotechnology and eco-technology, as well as more mature sectors such as automotive and aerospace. Among them 17 pôles are considered as world class clusters.

The State support for development of the poles and their projects, at both national and regional levels reached 2.7 billion euros during the period 2008-2011 (1,5 billion euros at national level). Over 900 projects were funded each year.

The French Poles de Compétitivité are competitors and partners of competitiveness clusters in several European countries such as the German "Kompetenznetze" and "Spitzenclusters" programmes, the Swedish cluster programme, the "clusters wallons", As a result, the Pôles de Compétitivité policy is monitored with interest by other countries.

The Directorate General for Competitiveness Industry and Services (DGCIS) and Directorate for Territorial Cohesion and Regional Competitiveness (DATAR) commissioned the evaluation. It recommended that the policy should be continued, with the programme period extended from three years to eight and aligned with the schedule of the Europe 2020 programme. It was suggested that during this period the Government should sign two performance contracts with the clusters and conduct a mid-term evaluation. It is expected that the longer programme duration should give more security for the cluster activities and raise their profiles. Many of the report's other recommendations have also been incorporated into the objectives for the next period of the policy.

One key finding from the evaluation of the 2009-2012 policy implementation period was that the objectives for the economic impacts of the clusters should be enhanced in future. The Government is taking this forward, stating it is important that the clusters bring innovations to market, create jobs and focus on exports.

The new objectives state also that that the clusters must support SMEs more efficiently than they did during the second phase of the policy. They should help SMEs gain access to funding, to grow, to export and to accelerate their internationalisation. SMEs should expect clusters to assist them in accessing skills and competencies, too.

The report highlighted that the objective of involving Higher Education and vocational training with the clusters hadn't been prioritised so it didn't have as beneficial an impact as it might have done. The Government has now emphasised the objective to enhance links with Higher Education and vocational training.

While one part of the evaluation assessed the national policy of support, another part focused on each of the 71 clusters with regard to their individual strategies, results and impacts on the growth and innovation capacities of the enterprises. The cluster-focused assessments were revealing. Twenty of the 71 had exceeded expectations, 35 had met their objectives but 16 had fallen short. The Government is using these findings to help it identify a maximum of 20 that will promote French competencies at an international level because of their world class capabilities. With these enhanced objectives, the Government plans to sign performance contracts with clusters in June.

The 16 clusters that failed to meet their objectives in 2009-2012 are being given a year, by the Government, in which to implement specific recommendations made for them individually in the evaluation. If, at the end of the assessment, the recommendations have been implemented they will continue to receive Government funding through the third phase of its competitiveness clusters policy.

The report outlined three models of how the policy could be managed, defining roles for the state and the regions. As yet, the Government has not commented on the recommendation that the respective roles for the state and the regions in the governance of the policy should be redesigned.

The study's main conclusions are based on information collected from a wide range of research, business, training and public administrator stakeholders in France, as well as from members of the competitiveness clusters through more than 1600 face-to-face interviews and an online survey of 5,500 respondents.

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Raising standards at all levels

Good formal standards are important for industrial competitiveness, innovation transfer and best practice. Technopolis has a strong track record evaluating the impacts of standards and the effectiveness of European standardisation policy. Our work continues with two new projects.

The first is commissioned by two of the main European Standardisation bodies, CEN and CENELEC. Our task is to assess the extent to which EU funded researchers are using standards to help disseminate the results of their work. When new knowledge becomes well known, there's a better chance it will be picked up by industry and benefit the economy. So there's been encouragement for the researchers collaborating within Framework Programmes 6 and 7, in which Europe has invested billions, to develop standards for communicating their results. Technopolis is identifying where this is being done, and will highlight cases where standards have been successfully used to help bridge the gap between research and innovation.

Another recent commission is from BSI, the UK National Standards Body. Like all organisations, it has to make choices about the best uses for its resources. Technopolis has been asked to improve how BSI considers ideas for new standardisation projects. A literature review will assess the general benefits of standards for commerce, industry, consumers, the economy and society. A tool will be developed for the BSI and stakeholders to help them decide which new standards should be most worth developing.

These commissions add to the track record of evaluating the development, application and impacts of formal standards, gathered through seven years of contracts from national and European policymakers. In 2006 a series of contracts for DG ENTR involved the evaluation of the impacts of the financial support provided by the European Commission and EFTA to the European Standardisation bodies – CEN, CENELEC and ETSI.

In 2008 Technopolis evaluated the work of NORMAPME – the European Office of Crafts, Trades and Small and Medium sized Enterprises for Standardisation – again on behalf of DG ENTR. Recommendations were made for strengthening its activities and the follow-up evaluation by Technopolis in 2010 assessed the extent to which the recommendations of the first study had been successfully implemented.

In 2010 Technopolis carried out an ex-ante impact assessment of a series of possible changes to the European Directive (98/34) that governs European standardisation policy. The likely impacts of new policies were assessed and our report had a major influence on the revised Directive.

Technopolis studies services standardisation, too. Our first was for the Danish Enterprise and Construction Authority in 2010, mapping the development and use of service standards across all sectors of the economy. In 2011 we then developed a series of powerful case studies for CEN that exemplify the benefits of service standards not only for individual businesses, large and small, but also for their customers.

In 2011 the study for Nordic Innovation and EFTA mapped the growth of certification schemes linked to service standards at national and EU level across Europe. It provided the most complete picture yet and culminated in a workshop attended by MEPs, senior Commission officials and representatives of key stakeholder organisations.

Technopolis has also developed a guide on standards and SMEs, on behalf of DG ENTR. This can be used by managers of Regional Development Funds as a source of ideas for support actions that can help to boost SMEs' competitiveness through greater involvement in standards development and use. More recently, BMWi – the German Ministry of Economy - selected Technopolis to analyse the market for conformity assessment and accreditation and to assess the likely future development of this important area of economic activity. Technopolis has collaborated with DIN – the German Institute for Standardisation – on this study.

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Towards better international cooperation

International cooperation in science, technology and innovation (STI) can provide novel solutions to common social challenges such as an ageing population, sustainable development and resource depletion. Currently however, over 85% of all public R&D is still programmed, financed, monitored and evaluated on a national level. Although governments recognise the importance of STI cooperation they apparently have difficulties justifying spending taxpayers money on international cooperation rather than on national research projects and defining the benefits of it.

Technopolis and the Manchester Institute of Innovation Research (MIoIR) with the support of the ERAWATCH Network country correspondents published a new report with the aim to help European Member States to

a) provide an overview of the international STI cooperation policies and activities between EU countries and those outside the EU (so-called third countries) in the last $10\ years$ and

b) set up systems to monitor their international STI cooperation strategies, activities and outcomes better.

The study provides a number of interesting results.

It shows that although not many EU countries have a dedicated formalised (extra-EU) internationalisation strategy, they do pursue their STI internationalisation with various instruments. Our report roughly estimates that (dedicated) expenditures for STI cooperation with third countries range between 2 million euro and 50 million euro per country annually.

The geographical focus of STI cooperation can differ greatly based on the sizes, the stages of economic development and the geopolitical considerations of the partner countries. Many EU countries cooperate for instance with countries with an excellent STI system such as the USA, and Japan, but cooperation increasingly takes place also with emerging economies such as China, India and Brazil, but also South Africa and Indonesia. These countries are interesting for their economic potential, which supports the idea that research and innovation are increasingly perceived as inseparable from economic competitiveness. The study shows that based on co-publication data, all countries under study have increased their cooperation with third countries in the last 10 years. In particular Australia and Japan became more popular countries to copublish with, while the interest in Russia decreased slightly.

International cooperation with third countries is often organised through the following modalities:

- Bilateral agreements and MoUs
- Multilateral agreements and programmes
- Mobility schemes open for extra-EU participants
- Partnership programmes and initiatives
- Foreign branches or subsidiaries

These modalities are implemented with several objectives, such as for instance to build STI capacity, either in the home country as well as the partner country. A second objective may be to attract and retain human resources, for which often mobility schemes and partnership programmes are established. It is a clear trend for instance that countries open up their mobility instruments to third country researchers. Third, in order to increase competitiveness and foster innovation, countries often sign STI agreements, establish foreign branches and STI offices, or develop partnership programmes. Foreign branches and STI offices are also used to develop and maintain diplomatic relations with the third country. A final objective for countries to engage in STI cooperation is to tackle grand challenges such as climate change or disease control.

Based on these findings, the report presents an overview of the major potential indicators that have been identified to monitor and evaluate STI cooperation in the future, including bibliometric and financial data as well as data on mobility, MoUs, partnerships. A big challenge for monitoring these activities and expenditures however is that most instruments include several modalities, and target more than one policy goal or target group. Moreover, monitoring expenditures of all these activities is hardly possible at this moment. STI cooperation activities often are 'mainstreamed' in other STI activities, and can no longer be traced back. There is often no clear distinction made between education activities and STI activities, or between trade activities and STI activities. Finally, most countries do not distinguish activities within the EU and outside the EU, which makes is harder to monitor extra-EU cooperation activities and expenditures. The study also identified other barriers to the use of indicators for monitoring such as the absence of accepted definitions and the fact that most countries do not monitor and collect data on this topic on a routine basis.

The report therefore recommends the European Commission and the Member States to first of all define a clear purpose for future monitoring. For Member States these can be to identify gaps their own STI cooperation policies and activities, or to learn from best and worst practices in other Member States. For the European

Commission, this can be to identify where value can be added by EU actions. Second, clear definitions should be derived for understanding what is meant with concepts as 'international mobility', or 'international cooperation'. Key indicators should be defined and prioritised, and systematic monitoring arrangements should be put in place in the Member States with a clear allocation of responsibilities and oversight.

While the Commission and Member States are learning from the report, Technopolis has already begun follow-on work. One new study is aiming to assess the basic principles of effective STI agreements between countries. Another new study is exploring how the European Commission can add value to future international STI cooperation and EU-MS partnerships.

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Policy watching: an effective service

Keeping track of policies and their impacts across many regions is a service Technopolis is experienced at providing. It has the know-how to appraise and compare the implementation and effects of policies that have been adopted in regions which are diverse geographically and economically. This is achieved by collecting information conscientiously and assessing it carefully by the RIM network of experts.

This diligent approach to policy watch is what Technopolis, Frauhofer Institute for Systems and Innovation Research and UNU-MERIT, Maastricht University, have adopted, once again, on behalf of DG Enterprise and Industry at the European Commission. Their third and final annual Regional Innovation Monitor (RIM), subtitled "Credible Actions Key to Regions' Future Innovation Performance", presents an updated analysis of 1,081 innovation support policies across almost 200 regions in 20 European countries.

It analyses innovation policies across EU regions to understand better the focus and changes in policy priorities that took place during the last three years. For the first time, it also attempts to incorporate the results of the recently published Regional Innovation Scoreboard in order to make a qualitative assessment of innovation policies and performance. Finally, on the basis of concrete examples of regions, it describes benefits which have arisen from improved practices above and beyond the launch of any additional support measures.

A policy watch with such wide scope and great depth could easily lead to an unwieldy and unread report. To avoid this, Technopolis and its partners have categorised the regions so readers can quickly get the information relevant to them. Almost 14% of the regions in the RIM repository are categorised as world class performers, half of the regions are classed as industrial and the remaining third focus on the service sector and public R&D.

Overall it seems that credible actions will lead to concrete results, whether the region is a world class performer, industrial or focusing on the service sector and public R&D. Without such actions it is more likely any impacts from innovation policies will be far harder to discern. One of the findings indicates that many world-class performing regions have indeed implemented a potent mix of policies well-suited to improving their economic situation in the long run.

In regions that focus on industrial employment, sciences and services, the results of appraisal of innovation policies are positive, comparatively. However, some of the policy responses are questioned and it's noted that the availability of robust evidence-based assessments needs to be improved across the three groups of regions. Without assessments of which policies helped innovation and which didn't, even policies which are more focused will under-achieve because they won't be sufficiently appropriate to the real challenges facing the regions.

The three year RIM policy watch has itself been assessed as sufficiently appropriate that DG Enterprise and Industry has effectively extended it, with RIM Plus. So the repository of information about innovation policies in regions across Europe will be maintained and updated, with reports due annually for up to four more years.

Group News



Latin America

Cristina Rosemberg recently presented the final results of the project 'Strengthening Colombia's capacity to develop robust regional projects more effectively to exploit the new Science Technology and Innovation (STI) Fund' at an event hosted by the British Ambassador Lindsay Croisdale-Appleby that included the participation of representatives from Colciencias (Colombian STI agency), the British Embassy and members of the local press.

The project was part of the Prosperity Fund 2012/13, programme funded by the British Foreign & Commonwealth Office which is aimed at facilitating collaboration and knowledge exchange between the UK and Colombia. Technopolis has reviewed the STI Fund's current administrative arrangements, as compared with the UK and international practice and prepared guidance on possible approaches to developing STI capacity and capability. Our worked has been previously shared with officials through a series of regional workshops in Colombia.

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Global Intellectual Property Policies

Alfred Radauer, Senior Consultant in Vienna and specialised in IPR, has been invited to deliver two presentations on "the importance of IP in innovation promotion and its exploitation: the role of public policy" and on "examples of good practice integrating IP into innovation policies" at the African Conference on the Strategic Importance of Intellectual Property (IP) Policies to Foster Innovation, Value Creation and Competitiveness, in Dar es Salaam, Tanzania. The conference is co-organised by the World Intellectual Property Organisation (WIPO), the Japan-Funds-in-Trust for Africa and Least-Developed Countries (LDCs), the Government of Tanzania, the Government of Japan, the United Nations Economic and Social Council (ECOSOC) and the United Nations Economic Commission for Africa (UNECA).

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