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REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

EUROPEAN RESEARCH AREA PROGRESS REPORT 2013

{COM(2013) 637 final}

EFFECTIVENESS

The research and innovation system in Iceland is based on two legislative acts from 2003 (2/2003 and 3/2003) and Act No. 75/2007 on Government Support for Technology, Research and Industry Development.

The Science and Technology Policy Council (STPC), headed by the prime minister, is the body in charge of R&D policy at a strategic level. At an operational level, the Icelandic Centre for Research (RANNIS) reports to the Ministry of Education, Science and Culture and provides technical support to the STPC while also managing and following up the implementation of most R&D programmes. In addition, the Innovation Center Iceland, which comes under the aegis of the Ministry of Industry and Innovations is in charge of technology development, technology transfer to companies and support to innovative businesses.

The national policy on science and research is outlined in a three year policy plan issued by the Prime Minister's Office. The policy for 2010-2012 was dedicated to the importance of fostering and strengthening research and innovation in Iceland under the guiding principles of cooperation and sharing; quality and rewards and international research and innovation. The Science and Technology Policy Council (STPC) is currently drafting a new research and technology policy for the period 2013-2015.

Public research funding mainly takes the form of block grants. However, the new investment plan for Iceland 2013-2015 brings a considerable increase in public R&D funding in 2013 through competitive funds with a less increase in block funding of higher education and research institutions. The funds are open to application from anyone regardless of institutional affiliation and allocation of grants is based on the core principles of international peer-review, as is stipulated by STPC.

Block R&D funding to higher education and research institutions is allocated by the Finance law. Performance indicators for research have been included in the University of Iceland's Strategic Plan in negotiations with the Ministry of Education, Science and Culture. Similar agreements have been made with the other public universities.

The Icelandic Quality Board for Higher Education monitors the quality of the education offered in accordance with the Icelandic Quality Enhancement Framework. Quality assurance of higher education institutions, both in regards to research and teaching, is carried out by an internal evaluation of higher education institutions as well as by periodic external evaluation.

TRANSNATIONAL COOPERATION

Currently Iceland is participating in one JPI namely the JPI on healthy and productive seas and oceans. Iceland is also an active partner in nine ERA-NETs (M-era.net, EraSME, CORNET, EuroNanoMed, HERA, NORFACE, MARIFISH, MATERA+, SEAS-ERA).

Iceland participates in a number of ERA-Net projects some of which have the objective of becoming established Article 185 initiatives in the future. Eurostars has been running as an Article 185 initiative since 2008, with Icelandic participation from the start. Iceland has not had an official policy towards participation in Article 187 initiatives. However, Icelandic organisations participate in Innovative Medicines and Hydrogen and Fuel Cells initiatives. Iceland is member of EUREKA, COST and ESPON.

Iceland is part of the NORIA, the Nordic Research and Innovation Area, which is responsible for the Nordic R&D cooperation in the fields of research and innovation. This involves Nordic research funding institutions, fixed-term research programmes, Nordic Centres of Excellence, the Top-level Research Initiative (the largest joint Nordic research and innovation initiative to involve the very best agencies and institutions in the Nordic region, and promote research and innovation), grant schemes, and the coordination and planning of major infrastructure investments among the Nordic countries .

Finally, Iceland has signed a number of bilateral agreements with third countries such as the US, China and India.

As regards financial commitments to research infrastructures, Iceland has participated in the preparatory phases of several ESFRI infrastructures (CLARIN, ESSurvey, EPOS, LIFEWATCH, BBMRI, ECRIN, ELIXIR, ESSneutrons) and are currently involved in the next phase. Iceland also is a member of other international infrastructures such as EMBL, GBIF, GEANT, ICDP, IODP, NOT.

The Strategic Research Programme, to be launche din 2013, should encourage increased investment in research infrastructure.

OPEN LABOUR MARKET FOR RESEARCHERS

In Iceland, universities are financed and controlled by the Ministry of Education, Science and Culture. However, the Act on Public Universities (Act no. 85/2008) resulted in a new management structure for university councils in public universities, with the majority of members coming from external bodies. The Rector of each university is appointed by the Ministry of Education, Science and Culture based on a recommendation from the University Council, and for a limited period of time, normally four or five years.

These institutions (both public and private) have private boards and they have a significant degree of autonomy. They can for example decide on such matters as admission requirements, progression of students from one year to the next, certification, etc.

No formal barriers exist to recruiting non-nationals for permanent research and academic positions. On EURAXESS Iceland, foreign researchers can access information on vacant positions in Icelandic universities and research institutions as well as companies. Iceland’s EURAXESS webpage provides information for researchers on social security access and health insurance.

All Icelandic universities have, furthermore, signed the European charter for researchers and the code of conducts for their recruitment.

As regards training and collaboration beween academy and business, Growth Agreements, regional development contracts among national government, local business local authorities and regional development agencies, reflect the government's emphasis on innovation policy, by encouraging R&D at regional level via clusters of local SMEs and other businesses, regional and external universities, and research organisations.

Three universities have been accredited by the Ministry to run doctoral training. Research excellence is the cornerstone of doctoral training.

Concerning outward mobility, the ABEL Extraordinary Chair (2009) is an initiative created as part of the project on 'Improving student, researchers' and artist's mobility and cooperation between Spain, Norway, Iceland and Liechtenstein'. The programme aims to promote the temporary incorporation of high level researchers from Spain in research centres in Norway, Iceland and Liechtenstein.

Finally, funding is always allocated to Icelandic organisations and thus, trans-border funding flows from national programmes is not allowed.

GENDER

Gender equality is regulated by labour market law. The current Gender Equality Act aims at establishing and maintaining equal status and equal opportunities for women and men, and thus promote gender equality in all spheres of society. It introduces a minimum quota of 40% in governmental (state and municipal) committees and councils, if the body consists of more than three members and Gender mainstreaming is institutionalized.

Since 2008 the Centre for Gender Equality has been working on a project called Side by Side, a gender-mainstreaming project funded by the EU Progress Programme. The aim of the project is to implement and develop gender mainstreaming in national policies and activities in Iceland.

Furthermore, since 2009 there has been a focus on gender responsive budgeting in Iceland and this is reflected in a recent parliamentary resolution on a four year gender equality action programme 2011-2014. Funds and public support for scientific research should systematically collect information on the gender composition of expert councils, applicants and grantees, and grant amounts. If an uneven distribution is found between the grantees of either sex it should be examined whether action should be taken to correct this inequality, for example, by making grant applications more accessible, or reviewing the allocation rules

Gender balance in education and research is of major concern for Iceland. In 2012 the Ministry of Education, Science and Culture took part in a Nordic project on gender balance in academia. The aim of the project was to compare the developments in gender equality legislation, statistics and policy in the Nordic countries and find good examples of successful

instruments and measures that have improved the gender balance in academia in these countries

KNOWLEDGE CIRCULATION

The Science and Technology Policy Council 2010-2012 policy hassintroduced a dedicated section on Open Access and had sent a letter to the Boards of competitive research funds, to universities and research institutions to encourage them to set policies for publishing results in open access.

Scientific publications based on projects, funded entirely or partially by Rannís must be published in Open Access. Projects that have received grants from Rannís prior to January 2013 are not subject to the requirement of Open Access publishing, even though Rannís encourages all researchers to publish in Open Access.

Iceland features a setup called the Iceland Consortia for electronic subscriptions, hosted by the National and University library. “It serves not only academics and research institutions but each and every computer in the country that is connected to the Internet through an Icelandic Internet Service Provider (ISP).

Iceland has dedicated working groups focusing on primary research data and researchers are reported to be increasingly practicing self-archiving (green open access).

There are open repositories maintained by Landspitali University Hospital and the National and University library, and a national synchronized repository (CRIS based on CERIF) is being planned in 2013/14

Knowledge transfer is actively being promoted by the Research Liaison Office of the University of Iceland.

EFFECTIVENESS

The Government budget appropriations or outlays for research and development (GBAORD) as a share of Gross Domestic Product was 0.79% in 2011 (EU average 0.71%) and 0.92% in 2013. The government has set a 1% target. The proportion of the national budget allocated to R&D rose between 2005 and 2013 from 3.4% of the total budget to 3.7 % in 2013. Of the 34 OECD countries, only one allocates more government funding per capita to R&D than Norway. The share of GBAORD allocated as project based was 44,17 % in 2008.

Norwegian R&D policy formulation within the government takes place within structures that have remained largely unchanged over a long time period. The structure is based on the "sector principle", by which each ministry is in charge of financing and assigning priorities to research activities that relate to its specific sector. All ministries administer research funds. Norway's multiannual R&D strategies are defined in periodical (every four years) white papers or so called Reports to the Stortinget (Norwegian Parliament). The Ministry of Education and Research administers the greatest proportion of the funding and oversees the administration of close to half of the overall, publicly provided research funds. About 27% of all R&D activity in Norway is conducted in universities and university colleges, 23% in independent research institutes with basic funding from the state, but serving markets and the public sectors. Since its reorganization in 2003 the Research Council of Norway (RCN) acts as the only operational research policy agency in Norway and is thus the Government's key instrument for implementing national research policy priorities. In addition to funding research, RCN has the mandate to advise the government about research policy and to create communication and coordination arenas for actors of research, industry and government.

The White paper Meld. St. 18 (2012–2013) Long-term perspectives – knowledge, published in April 2013, announces a long term planning for the entire public funding of Norwegian research. In relation to competitive funding is it relevant to note that the White paper proposes that priority is given to "assessing whether the overall funding of universities and university colleges is suitable for fostering high quality in research and education and encouraging institutions to focus on fields in which they have special advantages".

Approximately 30 per cent of public funding for research is channelled through the Research Council of Norway (RCN). The remaining is mostly allocated directly to the research institutions (universities, hospitals, research institutes) and to cover Norwegian participation in the EU Framework Programmes for Research. RCN answers to sixteen ministries and has a broad set of system-wide responsibilities to ensure that, for example, allocations of research funding apply to the core principle of international peer review. In 2011, 77 per cent of the overall budget of RCN was allocated to project-based funding based on international peer review.

In addition to the Research Council of Norway – which is the main arena for competitive funding through calls of proposal, the Norwegian government has introduced performance-based funding systems with the purpose to reallocate significant parts of institutional core

funding in the higher education sector (introduced in 2002), the research institute sector (in 2009) and in the health trusts (university hospitals and other hospitals)(in 2004). Funding is reallocated from research institutions with low performance to institutions with high performance. These reallocation systems of core R&D-funds are based on a predefined set of performance indicators which are well-known to all institutional actors.

In 2012 the Norwegian Ministry of Education and Research commissioned an independent evaluation of the performance-based system for the reallocation of core funding to the Norwegian research institutes, which is in action since December 2008. On the basis of the findings and recommendations from this evaluation the Norwegian Government is revising in 2013 the indicators used in the system and their relative weights.

TRANSNATIONAL COOPERATION

Regarding the implementation of joint research agenda addressing grand challenges, the strategy Meld. St. 18 (2012–2013) Long-term perspectives – knowledge provides opportunities stipulates to "increase internationalisation in parts of the research system and ensure more effective coordination in the use of national and international policy and funding instruments". For this reason, the Norwegian Government will develop a national strategy for participation in Horizon 2020 and for ERA with clearly defined goals and priorities. Based on this strategy, RCN shall work towards facilitating participation in transnational joint research programmes when these address grand challenges or if these are expected to strengthen the Norwegian research or the knowledge-based business sector. At the moment, The share of participation of Norway in the Framework Programme in the total participation is 1,65% so far, and Norway has received 1,79% of total EC contributions.

The RCN in cooperation with relevant ministries are in process to address whether there are legal or other barriers to the cross-border interoperability of national programmes to permit joint financing of actions, and is participating in initiatives to develop new models for cross-border cooperation, e.g. the Lead-Agency model.

Through the RCN, in close cooperation with six ministries, Norway is also participating in all ten common Joint Programming Initiatives (JPIs) and the SET-plan. Norway is, together with Spain and Belgium, the coordinator of the JPI on healthy and productive seas and oceans. The country also participates in 5 Article 185 initiative(s) and leads 1 of them. Norway is also an active partner in ERA-NETs. Today, approximately 2% of the overall funding from the RCN is allocated to transnational cooperation activities supported by the EU Framework Programme (ERA-NET, ERA-NET plus, Joint Programming Initiatives, Article 185 initiatives). Current focus in the national JPI work is to establish and prepare implementation of joint research agendas. Both the RCN and the Government are in process to address how the structure of JPIs and other transnational cooperation activities should find its place as an integrated part of the Norwegian research system.

Norway is cooperating with other Nordic countries in joint programmes and institutions within the Nordic Council of Ministers. Nordic cooperation involves Denmark, Finland, Iceland, Norway and Sweden as well as the three autonomous areas, the Faroe Islands, Greenland and the Åland Islands. The organisation of Nordic collaboration in research and innovation rests on two main pillars, one for research, NordForsk, and one for innovation, Nordic Innovation (formerly The Nordic Innovation Centre, NICE). In 2008 the Nordic Prime Ministers initiated the Top-level Research Initiative (TRI) and it is to date the largest joint Nordic research and innovation initiative that has a research focus within climate, environment and energy.

RCN has a broad set of system-wide responsibilities to ensure that, for example, allocations of research funding apply to the core principle of international peer review. The main conclusion from the evaluation of RCN in 2012 was that the Research Council functions satisfactorily and its services are generally considered by users as relevant and of high quality. A large part of the available funding through the RCN is open for competitive funding. The evaluation of RCN in 2012 demonstrated that the evaluation processes in RCN are of good quality and trustworthiness.

The Tools for Research – Norway's national strategy for research infrastructure 2012-2017 strategy should ensure that the Norwegian research community and trade and industry have access to relevant, up-to-date infrastructure that facilitates high-calibre research, which in turn will help to solve major knowledge challenges facing society. The first edition of the Norwegian National research infrastructure roadmap was published in 2010, and a revised second edition was published in 2012.

The National Financing Initiative for Research Infrastructure was launched as part of the follow-up to the government white paper on research, Climate for Research (2009), and Norway's national strategy for research infrastructure, Tools for Research (2008-2017). The strategy document establishes a clear division of responsibility for investment in research infrastructure, distinguishing between basic equipment and nationally-oriented research infrastructure. Under the infrastructure initiative, funding may be sought for nationally oriented research infrastructure with investment costs of more than NOK 2 million (260k euro). The maximum amount of funding that may be sought from the Research Council is NOK 200 million.

Funding for Norwegian participation in Nordic, European and other international cooperation on research infrastructure, including Norwegian participation in the implementation phase of projects on the ESFRI Roadmap, is provided under The National Financing Initiative for Research Infrastructure. The Research Infrastructure (INFRASTRUKTUR) programme supports Norwegian participation in establishing research infrastructure on the ESFRI Roadmap.

Norway is currently participating in 12 different ESFRI projects and is hosting three of the projects (ECCSEL, CESSDA and SIOS). All 12 projects have received funding from the national financing initiative for research infrastructure. In addition, Norway takes part or

participates in 11 other preparatory phase projects on the ESFRI Roadmap. Decisions on Norway's commitments to these ESFRI projects will be taken based on the outcome of open, competitive calls in the National Financing Initiative for Research Infrastructure.

In general, there are no legal barriers to cross-border access to RI in Norway.

OPEN LABOUR MARKET FOR RESEARCHERS

In 2010 the number of researchers (FTE) in relation to the labour force was 10.2 per 1000 and the number of new doctoral graduates per thousand population aged 25-34 was 1.9. The shares of non-national doctoral candidates were 12.9% from another EU-27 Member State and 30.9% from non-EU countries.

For the implementation of the Human Resources Strategy for Researchers it is relevant that the White paper Meld. St. 18 (2012–2013) Long-term perspectives – knowledge strategy announces the introduction of a trial scheme for tenure-track positions for especially talented younger, researchers in mathematics and natural sciences, technology, medicine and dentistry. It also stipulates that priority should be given to the reduction of the number of temporary positions.

To support the implementation of the Charter and Code, the RCN has sent personalised invitations to universities and university colleges to endorse the Charter and Code principles. RCN has also discussed implementation strategies with institutions on a bilateral basis and with the national group mirroring the Human Resources Strategy for Researchers (HRS4R) mutual learning seminars, as well as in relevant seminars were HR-policy is taken up. RCN has together with the Association of Norwegian Research Institutes (FFA), taken the initiative to carry out a national gap analysis for the independent research institute sector on the Charter and Code principles. The analysis looks into relevant national legislation and common practises among the institutes. RCN has through its action plan for the Charter and Code 2010-2013 incorporated the Charter and Code into its funding instruments. RCN has thus included a reference to the Charter and Code in information to applicants under 'General requirements for applications', saying that RCN wants the principles of the Charter and Code to be followed up in projects funded by the Council. 14 Norwegian organisations are actively engaged in the Commission's Human Resources Strategy for Researchers of which 6 have received the "HR Excellence in Research" logo for their progress in implementing the Charter & Code.

As part of the RCN Charter and Code action plan 2013-2015, RCN will consider whether to include a requirement for the portability of funding in contracts with institutions. On the Norwegian Charter and Code web page (part of EURAXESS NORWAY), it is indicated which research institution signed the charter and code and are then responsible for implementation.

The Law relating to universities and university colleges (2005) regulates the common principles of recruitment by universities and colleges, who should active and systematically

work towards equal recruitment. Applicants from abroad must as a rule have a formal affiliation with a Norwegian institution to be eligible to seek Norwegian funding. However, some financing opportunities are specifically designed for foreign researchers and partners.

For mobility and access to, and portability of grants, it is relevant to note that the Research Council Top Fund scheme provides compensation to Norwegian host institutions for additional costs incurred when employing (foreign) Marie Curie fellows at applicable salary levels in Norway. From 2013 this scheme will also fund outgoing mobility for researchers from Norway with grants from the Marie Curie Actions Intra-European Fellowships for Career Development (IEF) and International Outgoing Fellowships (IOF). For these Norwegian researchers the scheme will top up the difference between mobility allowance covered by the Marie Curie scheme and the RCN's own mobility allowance rates.

All higher education institutions have received two invitation letters to become members of the EURAXESS Service Network and to implement the Declaration of Commitment. RCN coordinates the network and offers network members to take part in national and European working groups, to bring up typical problems hampering researchers´ mobility, to take part in training activities and to take part in mutual learning seminars and exchange of experiences.

For the ERA action towards structured doctoral training based on the principles for innovative doctoral training it is relevant that the White paper Meld. St. 18 (2012–2013) Long-term perspectives – knowledge strategy introduces a scheme to increase the number of doctoral degrees in public institutions similar to the existing Industrial Ph.D. Scheme. The objective is also to raise the number of Phd Candidates in public institutions.

More detailed information can be found in the country profile for Denmark in the Researchers' Report 2013 http://ec.europa.eu/euraxess/index.cfm/services/researchPolicies

GENDER

Gender equality is implemented in legislation, including a minimum of 40 % of each gender in boards, panels and committees. This is also valid for higher education and research institutions. All state higher education institutions are expected to adopt binding action plans for gender equality. Practicing gender balance as a standard requirement has successfully brought Norway and other Nordic countries to a European lead position of the share of women on scientific boards and in management positions. However, Norway is at the European average when it comes to the total share of women faculty and women in grade A positions.

A Committee for Gender Balance in Research exists with as primary task to provide recommendations on national and local measures to promote the integration of gender equality work in the institutions in the university and university college sector and the research sector gender balance in research. Another task is to raise awareness about relevant issues related to gender equality. The committee is required to provide input and support to all research institutions, ministries and the Research Council of Norway.

In 2010 the government launched a temporary incentive scheme to encourage the institutions to appoint women to permanent academic positions (associate professor and professor) in mathematics, natural sciences and technology. The scheme is currently evaluated to see whether the measure has had any effect.

Gender Balance in top academic positions and research management (BALANCE) The program will support the cultural and structural changes in order to improve the gender balance at senior level in the Norwegian research sector through new knowledge, mutual learning between different parts of the research system (both public and private) and innovative measures. This new program will fund innovative measures and support mutual learning , both in the public sector and in private industry. A first call of 15 million NOK was launched in 2013.

In the Vanguard of Research Strategy for the RCN increases the participation of women in research, especially in high-level positions, by following up the measures set out in the Research Council's Policy for Gender Equality and Gender Perspectives in Research. It has been agreed to include a statement in the RCN calls for applications that projects headed by women are given priority in cases where professional quality and relevance are rated equal.

In order to improve gender balance in academia, a gender equality prize was established by the Ministry and is awarded to the higher education institution or the research institute with best results on improving gender balance within the institution.

Regarding the gender dimension in research programmes, an information centre for gender research in Norway, KILDEN, is affiliated under the RCN. KILDEN has the national responsibility for promotion and information about Norwegian gender research nationally and abroad and promotes the documentation of resources and activities within gender research in Norway. KILDEN's target groups are gender researchers, the academic communities in general, journalists, politicians, public administrators, students and the public in general.

The Government's overall objective is that the proportion of women among new entrepreneurs should be at least 40 percent by 2013. This project should accumulate the knowledge for the achievement of this goal. On the basis of the action plan the Research Council of Norway will work for a significant increase in the proportion of women in their business-oriented applications. Ideas Bank contains ideas for how to develop new instruments and measures to achieve the goal of a more equitable gender balance in the Research Council programs.

KNOWLEDGE CIRCULATION

The White paper Meld. St. 18 (2012–2013) Long-term perspectives – knowledge strategy emphasises the need of a greater flow of knowledge and increased openness. In principle, it is the Government's view that all research that is wholly or partially funded through public allocations must be made openly available, and research results available in language that allow users to apply the knowledge. The Government will require that all scientific articles that are wholly or partially publicly funded must either be published as open access articles or

self-archived as agreed on with the publisher. There is on-going work in the RCN to implement these policy goals and to develop national policies on both open access to publication and to scientific data.

The Norwegian Open research Archives system is an online digital archive, which aims to increase the proportion of publicly available scientific articles in Norway. CRIStin is a research information system for hospitals, research institutes, and universities and university colleges. One of the primary purposes of the system is to collect all the registration and reporting of research activities of institutions within the three R&D sectors in a common system. CRIStin shall also demonstrate, present, and make publicly available quality-assured data for scientific publication in a national database as a basis for the performance-based financing systems inuniversities and colleges, research institutes and the health trusts. CRIStin is a national point of reference for open access policies, and coordinates the negotiation of agreements around the procurement of electronic research resources.

As a general rule publicly funded e-infrastructures are accessible to researchers from public and private sectors. The eInfrastructure (part of eScience - Infrastructure, Theory and Application (eVITA)) Programme is designed to address computing- and data-intensive challenges in science, technology and medicine. It develops the scientific case for e-infrastructures that can best serve Norwegian research groups.

Open research and innovations instruments are the priority of Norwegian Government. Since the change of the University Act and the Employee Invention Act in 2003, Norway has undertaken a great number of activities promoting knowledge transfer, like coordinating IP policy measures for universities, launching several research programs aimed at commercialization, innovation and co-operation between research communities and actors within the business sectors, NGOs and public sector. Further development of policies that facilitate knowledge transfer will be prioritised in the coming period. This includes an action plan towards a significant increase in the proportion of women in their business-oriented applications.

EFFECTIVENESS

Swiss research policy is characterised by continuity and stability, including for the level of R&D spending. Important characteristics of R&D funding in Switzerland are the high priority of competition in selecting targets for funding, the bottom-up principle in defining the content, and the absence of instruments to directly support private R&D.

Political responsibilities for research and higher education are divided between the central state (Confederation) and the regional authorities (the Cantons). The Confederation is responsible for the direct funding of research and for the coordination of research activities. The Confederation is responsible for the two Federal Institutes of Technology (FITs) in Zurich (ETHZ) and in Lausanne (EPFL). The Cantons are responsible for their universities, while a national act regulates federal support to these institutions.

At the federal level, responsibilities for research and higher education are concentrated in the Federal Department of Economic Affairs, Education and Research (EAER) – as of 2013.

At the intermediary level, the main actors are the two project funding agencies and an advisory body. The Swiss National Science Foundation (SNSF) is a private foundation, headed by the State Secretariat for Education and Research and Innovation (SERI, part of EAER) and funded by the Confederation, responsible for the support to basic research. Moreover, it manages the national research programmes (NRP), as well as a programme aiming to create "National Centres of Competence in Research" (NCCR) at the national level. The Swiss Innovation Promotion Agency (CTI) is the federal agency for innovation, which supports joint projects between universities and private companies as well as innovation activities.

Competitive funding is at the core of the Swiss research and innovation system: both SNSF and CTI allocate their competitive funding by submitting projects to a thorough peer review in line with international standards.

The main policy initiative is the Message on the promotion of education, research and innovation for 2013-2016 which increases the amount of grant funding awarded on a competitive basis for research and innovation.

TRANSNATIONAL COOPERATION

Switzerland has a long tradition of participation in international programmes at European level. It participates in the Cooperation in Science and Technology in Europe (COST), where the State Secretariat for Education, Research and Innovation provides additional funding for research in COST actions with Swiss participation. It further participates in the European technology initiative EUREKA, where Swiss participations are funded through the CTI. Switzerland also supports a number of inter-governmental research infrastructures, namely ESA, CERN, ESRF, EMB, ESO, ILL, CIESM and HFSP. It also invests funds in national top

research infrastructures accessible to foreign partners such as Swissfel, Swiss Light source, CSCS and others.

In general, Swiss participation in international programmes and opening of national programmes reflects the decentralised nature of Swiss research policy and less focus on grand challenges.Research funding organisations are generally both willing and adequately funded to participate. Switzerland participates in about 20 projects in the context of ERA-NETs, 5 JPIs and in a number of projects of the European Science Foundation (ESF).

The SNSF manages the SCOPES programme which 2013-2016 budget includes in particular Joint Research Projects (JRPs) providing funding for researchers from partner countries to carry out innovative projects at the Eastern European and Swiss research facilities involved, and Institutional Partnerships (IPs), which contribute to the development and modernisation of institutional aspects of research and teaching institutions in Eastern Europe and the NIS.

Switzerland reached an agreement with Germany (DFG) and Austria (FWF) concerning joint financing of bilateral or trilateral projects, where submission and evaluation takes place in one of the three countries, while funding is on national basis (lead agency procedures) or from the country where most of the research is performed (money follows cooperation line procedure).

For researchers moving abroad, it is possible to transfer Swiss National Science Foundation (SNSF) funding to finalise the project. However, SNSF funding for stays abroad is not restricted to the European Union, allowing outward mobility to third countries as well.

On the basis of the Swiss Roadmap for Research Infrastructures (SRRI), in the Message on the promotion of education, research and innovation for 2013-2016 the federal government confirmed its financial commitment to the construction and operation of ESFRI, national and regional research infrastructures of pan-European interest.

Research infrastructures are generally accessible to foreigners. Nationals from EU/EFTA States can benefit from the agreement on the free movement of persons.

OPEN LABOUR MARKET FOR RESEARCHERS

All universities and most of the other research institutions have signed the Charter for Researchers and the Code on Conduct for the Recruitment of Researchers. Rules concerning academic personnel in Swiss universities make little distinction between Swiss and foreign applicants. There are no recruitment procedures that may hinder the openness or discourage participation of non-national applicants. Within the framework of the Swiss-EU Bilateral Agreement on Free Movement of Persons, Switzerland has adopted the EU's system of mutual recognition of foreign qualifications issued by EU member states. Third-state nationals are also entitled to apply for recognition of their foreign qualifications in Switzerland.

As a general rule any scientist working in Switzerland, regardless of their nationality, can apply for funding from the Swiss National Science Foundation (SNSF). With respect to the

portability of grants, the main principle for most European countries is money-follows-the-researcher: researchers who move abroad can ask for ongoing SNSF funding to continue.

Funding of whole research groups based abroad is generally not allowed, though the Sinergia instrument allows funding of a single research group based outside Switzerland but within a consortium of Swiss-based research groups.

Switzerland has been active in the EURAXESS initiative since 2008. The Rectors' Conference of the Swiss Universities (CRUS) acts as country coordinator and has also issued Euraxess Zurich the mandate to participate in the Euraxess TOP 2 project (Enhancing the Outreach and Effectiveness of the Euraxess Network).

No national policies, initiatives or pieces of legislation aimed at applying the Principles for Innovative Doctoral Training have been found.

GENDER

There are no generalised measures to establish quotas or minima for the participation of the underrepresented sex in research and innovation. The proportion of female researchers and professors varies considerably according to research areas, mainly following the common pattern that sees them underrepresented in more technological domains.

The proportion of women involved in the decision-making panels and in the research funding programmes, bodies of administration, science and science politics suggests the existence of an overall balance

The Swiss National Science Foundation (SNSF) commissioned a study on "Gender and Research Funding" where it did not find any gender-specific discrimination in the SNSF’s research funding. The SNSF also joined AcademiaNet , an internet database aimed at making it easier to find qualified female scientists to fill management positions and serve as members of scientific bodies.

The Commission for Technology and Innovation (CTI) introduced in 2009 a measure called Diversity@CTI, which focuses on improving guidance of female researchers and entrepreneurs by raising the share of female experts and coaches, by mentoring and networking and by establishing best practices.

KNOWLEDGE CIRCULATION

Several parliamentary motions were introduced in the past years to ensure greater transparency and cooperation in the area of research policy. The Federal Law on the Promotion of Research and Innovation (FIFG) specifies that research institutions must take care that their research results are available for the public. They also must support analysis and utilisation of research work. To ensure greater transparency and cooperation in the area of research policy, the ARAMIS information system makes information on research projects and

assessments accessible to the general public and project managers. The Federal Statistical Office (FSO) and the State Secretariat for Education, Research and Innovation (SERI) are able to use this detailed information for statistical and other assessment purposes.

Swiss universities, the Swiss Confederation, cantons with universities and the federal bodies responsible for education policy are cooperating, through the SWITCH Foundation, to promote optical fibre interconnection of universities, universal login procedures, the digital repositories library and applications of e-identity to academia.

The Swiss National Science Foundation (SNSF) fosters cooperation among researchers by using it as an evaluation criterion. Furthermore, it provides instruments explicitly requiring cooperation, notably the interdisciplinary instruments National Research Programmes (NRP) and National Centres of Competence in Research (NCCR). Most of the budget of the Commission for Technology and Innovation (CTI) is devoted to projects promoting cooperative research between higher education institutions and private companies, especially those, essentially small and medium enterprises (SMEs), without their own research capacity.

As of 2013, Swiss companies received additional long-term support for innovative activities. National thematic networks (NTNs), innovation mentors (IMs) and physical and web-based plat-forms for Knowledge and Technology Transfer (KTT platforms) have indeed been introduced in 2013. NTNs help establish contacts between businesses and public research institutes. Following a multi-stage assessment procedure in 2012, eight national thematic net-works were recognised by the CTI: ‘Carbon Composites Switzerland', ‘Inartis', ‘Inno-vative Surfaces', ‘Swiss Biotech', ‘Swiss Food Research', ‘Swiss Wood Innovation Network', ‘Swissphotonics' and ‘Logistics Network Association'.