



Report on the bilateral measures of the Confederation's international ERI strategy

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1 Background

1.1 The Confederation's international strategy for education, research and innovation: introduction and review

Following the Federal Council decree of 21 January 2009, an interdepartmental working group (IDAG) was set up and mandated to develop the Confederation's international strategy in the fields of education, research and innovation (ERI). The strategy that was subsequently drawn up and approved by the Federal Council in June 2010¹ was incorporated in the Confederation's general foreign policy and foreign economic policy. This applies to the setting of both political and geographical priorities in the strategy.² The EU member states – particularly Switzerland's neighbours – as well as the other countries in Europe are Switzerland's most important partners in ERI collaboration. Cooperation with these partners is established and often takes place in a multilateral context (EU framework programmes in research and education), but increasingly in a bilateral context. Back in 2005, the Federal Council decided to establish and cultivate special relations with countries outside of Europe, too. For this reason, the strategy named an expanded circle of partner countries in addition to European countries with whom ERI collaboration was to be stepped up: Brazil, Russia, India, China and South Africa (BRICS), Japan, South Korea and Chile, the USA and Singapore. The third geographical circle is made up of all other countries which occasional ERI cooperation already exists or is envisaged. In the light of the evaluating situation in the different countries, fluctuations in the composition of the different categories are always possible. In the second category, closer attention is now paid to the collaboration with Australia for example, whereas the bilateral programme with Chile was not extended at the end of 2012.

The aim of the international ERI strategy is to sustainably strengthen the international competitiveness of Switzerland's ERI system and it sets out two conditions for this purpose: the existing international links of ERI players must be utilised and further strengthened in order to ensure continued participation in international programmes and organisations. Demographic changes (an ageing Swiss population; integrating younger second and third generation immigrants) require in-depth discussion of issues of human capital and increased cooperation in the field of mobility.³ The international ERI strategy covers both the multilateral context (e.g. EU relations, participation in international organisations), as well as bilateral relations with countries within and outside Europe (e.g. bilateral research programmes, Institutes for Advanced Study, *Istituto Svizzero di Roma*, ERI Network, Swiss Government Excellence Scholarships).

Based on various studies and analyses, the Federal Council set three priorities in its international ERI strategy:⁴

- 1) "Reinforce and expand international networking activities"
- 2) "Work to export education and import talent (brain circulation) to make Switzerland an even more appealing location"
- 3) "Promote international recognition"

These priorities were to be pursued using various measures, e.g. through access to international research infrastructures, exchanges of students and researchers, bilateral research programmes with countries outside Europe, bilateral meetings and agreements and welcoming foreign delegations to Switzerland to present the Swiss ERI system.

¹ Switzerland's international strategy in the field of education, research and innovation: www.sbfi.admin.ch/aussennetz-e

² Ebd., p. 18f.

³ Ebd., p. 3.

⁴ Ebd., p. 16-18.

1.2 Focus of bilateral ERI activities

As stipulated in the international ERI strategy⁵, the focus of this report is on bilateral activities. The report is structured according to ERI logic, i.e. the bilateral activities in education are presented first, followed by those in research and finally those in innovation. Following a short introduction, there are examples of SERI's activities for each and where applicable also those of departments and offices represented in the IDAG EAER/SECO, FDFA/SDC and FDFA/DP.

2 Implementation

The bilateral activities described in the following are limited to those initiated by the Confederation and carried out with financial support from the Confederation. Collaborations entered into by ERI players directly and funded with their own resources (e.g. VPET projects run by non-governmental organisations and/or vocational schools; research partnerships funded by the Swiss National Science Foundation), or activities conducted by universities and Swiss Academies of Arts and Sciences (partly with federal government funding) on their own initiative, are not taken into account. It should also be pointed out here that these direct and usually self-financed collaborations clearly outnumber the activities financed by the Confederation and represent the daily business of bilateral cooperation. The Confederation has a subsidiary mandate in the ERI sector. Many activities of the agencies represented in the IDAG without any particular financial commitment also contribute to the implementation and development of the international ERI strategy. These may involve welcoming high-ranking delegations from foreign ministries or journalists⁶ to showcase Switzerland's ERI system, trips abroad by Swiss federal councillors and state secretaries to maintain links, but also the participation of staff in the offices mentioned above in relevant international bodies and in the conclusion of bilateral agreements to promote/facilitate cooperation in the ERI sector.

2.1 International cooperation in VPET and education

Swiss international cooperation in VPET (IC-VPET) is growing in importance in numerous policy areas within the Confederation. The Federal Council took note of a strategic basic report on IC-VPET on 19 November 2014. This was drawn up under the aegis of SERI with the help of the federal agencies concerned. The report is the first joint overview of all federal agencies that deal with the issue of VPET in their international activities with partners. Besides the various goals and existing measures of the federal agencies, the report highlights the potential of strengthened coordination within the federal government and nationally, and of expansion of international activities. The enhanced coordination in the field of IC-VPET at federal level continues to be supervised operationally by an interdepartmental working group (SERI, SDC, SECO, SEM, DP and SFIVET).

2.1.1 SERI activities

In light of the growing importance of VPET in the international context, SERI carried out a concrete follow-up to the international ERI strategy with a view to the specific requirements of IC-VPET. As part of the international ERI strategy, SERI's IC-VPET strategy sets out the specific objectives, measures and priorities of international cooperation in vocational and professional education and training. In terms of transferring expertise in VPET, activities with varying degrees of intensity are envisaged. These include welcoming foreign delegations and organising international VPET conventions, the first of which was held in Winterthur in September 2014. This event facilitated open dialogue between national and international players in international VPET cooperation and allowed visitors to get to know the Swiss VPET system first hand. A more intensive form of expertise transfer is the consolidation of partnerships

⁵ Switzerland's International Strategy for education, research and innovation, p. 21.

⁶ Presence Switzerland is particularly active in this area. Since PRS made the issue of ERI a priority for communication abroad (2012-2015), it has organised numerous visits of foreign journalists, researchers and government representatives to Switzerland.

with priority partner countries. For example, the Swiss VET Initiative India (SVETII) was launched back in 2008 as a pilot project between Switzerland and India. The SVETII aimed to achieve a win-win situation for both countries: to boost the competitiveness of Swiss companies in India and to allow India's highly skilled workforce of the future to obtain a VPET qualification with high job market relevance. The initiative also aimed to raise the profile of Switzerland's dual-track VPET system internationally. In 2012 the pilot project was transformed into a self-supporting business model and the project management was handed over to the Swiss association of mechanical and electrical engineering industries (Swismem). An evaluation conducted in 2014 showed that the pilot project was well received by the majority, although action was needed in some areas.⁷ The results of the evaluation were incorporated in SERI's IC-VPET strategy.

Other measures in the field of IC-VPET include promoting the recognition of VPET qualifications (e.g. introducing the VPET NQF, bilateral agreement with the Principality of Liechtenstein) and enhanced cooperation with countries with dual-track VPET systems.

Concerning cooperation in education in general, reference should be made to SERI's support of organisations such as "Schweizer Jugend forscht", the Association of Swiss Scientific Olympiads, the Swiss Study Association and the Institute for Advanced Study. The goal of these collaborations, namely providing cross-border support for talented young scientists, has been achieved in full.

2.1.2 SECO activities

SECO's development cooperation work has mainly focused on working with international partners, such as USAid, the Inter-American Development Bank, and international financial institutions on VPET projects. It supported projects in the MENA region (IFC: E4E Initiative for Arab Youth), in Macedonia (USAID: MSME Development Programme) and Colombia (IDB National Professional Training Reform Support).

The international development bank's *National Professional Training Reform Support (2012-2014)* involved assisting the Colombian government with its educational reform (SECO contribution: USD 600,000). The project aimed to improve the quality of vocational education and training, to increase employability and labour productivity and to reduce inequality. The three pillars on which the project was based were: strengthening institutions, developing the national qualification system and institutionalising the involvement of the private sector in the reform process. The aims of this project were achieved for the most part, but not in full, not least due to differences of opinion between government bodies. SECO is reviewing whether to support the project again. The aim of the International Finance Corporation's *E4E Initiative for Arab Youth (2012-2015)*, which is co-funded by SECO, is to develop the skills relevant to the labour market in young people, particularly in Egypt, Tunisia, Morocco and Jordan (SECO contribution: USD 2.7 million). This project aims to help improve the market for private education providers in the countries mentioned above and to strengthen the role of the private sector in further education offerings with the aim of improving the job prospects of school leavers. SECO has also been supporting USAid's *MSME Development Programme (2014-2016)* since 2014, which aims to help Macedonian micro and small enterprises develop entrepreneurial skills.

2.1.3 SDC activities

Basic education, and vocational education and training in particular, are traditionally central elements of the SDC's work. The SDC is committed to strengthening the education systems and education policies of its partner countries and works hard to ensure that high-quality education systems integrate all sections of the population, particularly those who are disadvantaged, and that they are adapted to the local context and needs on the ground.

Basic education

⁷ Evaluation of the Swiss VET Initiative India pilot project, results and consequences: www.sbf.admin.ch/indien

In the field of basic education, the SDC focuses its interventions on non-formal education, i.e. on alternative educational offerings for children and young people and in doing so, promotes equality of access to education (e.g. for girls and women, rural populations and members of nomadic tribes).

Geographically speaking, the SDC is involved in bilateral cooperation work primarily in its priority countries in West Africa (Benin, Burkina Faso, Mali, Niger and Chad) and implements educational programmes in Asia and Eastern Europe (Afghanistan, Mongolia, Pakistan, Albania, Macedonia and Serbia).

Linking up basic education and vocational education and training is key: basic education should impart the initial professional skills, while work often has to be done to catch up on basic skills such as reading, writing and arithmetic as part of vocational education and training. This is of particular relevance in developing countries in Africa and South Asia, where literacy rates among young people and adults are particularly low.

Vocational education and training

The SDC is currently implementing vocational education and training projects in 25 countries (in Latin America, Africa, Eastern Europe and Asia) and commits CHF 40 million to this every year. The SDC has stepped up its commitment in this area in the past two years and launched eleven new projects. Vocational education and training activities are set to remain very significant in the coming years.

The characteristics of the individual projects depend on the situation in the relevant partner countries and the goals set. The core elements of the dual-track vocational education and training system - the strong practical element and the involvement of the private sector in defining the content and providing training – underpin the individual projects. In addition to the results at project level, the SDC's activities aim to bring about changes to the relevant vocational education and training systems by firmly establishing the improvements within the relevant structures with a view to making them sustainable.

The SDC's long-standing commitment and the breadth of its experience allow it to closely align projects and programmes with the relevant contexts and target groups. So, for example, in countries in the southern hemisphere, the focus is on combating poverty and providing specific support to disadvantaged groups, often in combination with teaching basic skills. Meanwhile, in Eastern Europe and the new EU member states, the SDC focuses on the successful integration of young people in the labour market and setting up functioning vocational education and training systems.

With a view to raising the profile of the dual-track approach in development cooperation, a joint "Donor Committee for dual-track Vocational Education and Training" is about to be set up with the public development agents in the neighbouring countries of Germany, Austria and the Principality of Liechtenstein. In addition, the SDC takes part in international forums organised on a multilateral basis.

2.2 Research

The Confederation's bilateral activities in research can primarily be assigned to the first priority of the international ERI strategy, namely "to reinforce and expand international networking activities". This applies to cooperation within Europe as well as bilateral research programmes with the BRICS countries, Japan and South Korea. It also applies to the ERI Network, whose members are mandated to support Swiss ERI players in their internationalisation efforts. The following sub-chapters firstly address research cooperation within Europe, which takes place and is supported at institutional and researcher level. In the sections on the Swiss Government Excellence Scholarships and the ERI Network, the focus shifts beyond the borders of Europe, subsequently moving to bilateral research programmes with the countries mentioned above and to research funding with official development aid (ODA) funds.

2.2.1 Bilateral research cooperation in Europe

2.2.1.1 Institutional cooperation and support

The collaborations within Europe listed below take place within institutions, which the Confederation funds or co-funds to varying degrees in order to facilitate access to these institutions for Swiss researchers and thus to enable them to interact and collaborate with internationally active colleagues. In some cases the Confederation also concludes contracts with foundations that support top-level research at Swiss institutions. One such example is the *Bill and Melinda Gates Foundation (BMGF)*, which is an extremely important and financially powerful player in the promotion of vaccine research, particularly in neglected tropical diseases such as malaria, tuberculosis and AIDS. The Swiss Tropical and Public Health Institute (Swiss TPH) in Basel and the Swiss Vaccine Research Institute (SVRI) – a consortium made up of the CHUV, the University of Lausanne, EPFL, IRB and Swiss TPH – received USD 16.6 million in funding from the BMGF between 2006 and May 2012. The first memorandum of understanding between the former SER and the BMGF was signed at the end of 2006 and renewed in 2012.

In addition, the following Swiss-funded institutions in particular offer Swiss researchers exchange opportunities: the *Istituto Svizzero di Roma (ISR)* has been funded by the Swiss Confederation since October 2005. The contribution from SERI, Pro Helvetia and the Federal Office of Culture amounted to CHF 13.25 million for the 2008-2012 period. On account of the positive evaluation of the institute, financial support totalling CHF 12 million is to be paid in the 2013-2016 ERI period. The ISR enables Swiss researchers and artists to take part in work or study trips to Rome and organises cultural and scientific events throughout the country. The Institute is well represented in Italy, with branch offices in Milan and Venice. Also in Italy, SERI funds a Swiss Chair in Federalism at the European University Institute in Florence and awards up to six scholarships to young Swiss people who are keen to do a PhD at this institute every year. SERI also awards up to four scholarships every year to young Swiss people who wish to study at the College of Europe (in Bruges and Natolin), and also supports the *Institutes for Advanced Study* in Romania and Bulgaria, the *Institut d'études avancées* in Nantes and the Institute for Advanced Study (Wissenschaftskolleg - WiKo) in Berlin, which was founded in 1981. The WiKo offers internationally renowned and promising young researchers the opportunity to spend two semesters as fellows in Berlin focusing on a project of their choosing and to exchange ideas with other fellows. It is mainly funded by the German Federal Ministry of Education and Research and the state of Berlin (each contributing EUR 3.6 million a year). Switzerland has been supporting the WiKo as the only foreign country since 2001. In the 2013-2016 period, the federal subsidy amounted to CHF 300,000/year.

The Swiss Norwegian Beamlines SNBL programme does not provide financial support to an institution but to a collaboration, in this case at the ESRF in Grenoble. Measurements for materials research and structural biology are conducted using synchrotron radiation at two beamlines using state-of-the-art detectors.

Besides providing direct funding to institutions to allow Swiss researchers to attend such institutions or to participate in collaborations, SERI also supports coordination activities to facilitate research cooperation, for example the *Fondation de l'Ecole suisse d'archéologie en Grèce (ESAG)*, which it has supported since 2008. This foundation coordinates important Swiss research activities in archaeology overseas. Within this framework, the *Swiss-Liechtenstein Foundation for Architectural Research*, the *Fondation Hardt pour l'étude de l'Antiquité classique* and the excavations at Kerma in Sudan receive funding.

2.2.2 Scholarship programmes

Germaine de Staël programme

The Germaine de Staël programme, the French-Swiss Hubert Curien Partnership (PHC), has existed since 2002 and aims to develop and promote scientific and technological cooperation between researchers from Switzerland and France. The programme is primarily aimed at young researchers (PhD and postdoc level) at Swiss universities, universities of applied science and institutions outside of the higher education sector, who carry out research projects with partners in France. As part of the programme,

Swiss researchers receive travel and accommodation expenses for short, project-related stays at the research institution of the French project partner (max. CHF 4,500 per year, for a maximum duration of two years). The support is carried out on the basis of a project approval process conducted in parallel in Switzerland and France (applications coordinated by project teams). On the Swiss side, the Swiss Academy of Engineering Sciences (SATW) is responsible for implementing the programme.

Swiss Government Excellence Scholarships for Foreign Scholars and Artists

The Swiss Government Excellence Scholarships for Foreign Scholars and Artists have been open to all countries with which Switzerland cultivates diplomatic relations since the 2013/14 academic year. Switzerland only offers scholarships to industrial nations on the basis of reciprocity. In parallel to this, there has also been a focus on postgraduate researchers. The Scholarship Commission decided to open the programme up and simultaneously to focus while retaining the same amount of funding primarily due to the stringent foreign policy position compared to foreign governments in the field of scholarship schemes and in response to the needs of ERI players in Switzerland. Masters scholarships are only awarded to countries that offer arts scholarships to Swiss scholars. The budget for the 2013-2016 ERI period totalled CHF 37.5 million.

2.2.3 The ERI network

The ERI Network consists of science and technology counsellors (STCs) at Swiss embassies abroad and six swissnex platforms for exchange in science, technology and the arts. SERI manages this network in collaboration with the FDFA.

In line with the international ERI strategy, Switzerland has a particularly strong presence in Brussels (EU), Paris (ESA) and in the non-European countries mentioned above with which bilateral relations are to be specifically developed. In Europe, Switzerland's most important partner in the ERI sector, Switzerland is only represented sporadically by diplomatic STCs, who dedicate a small part of their workload to this issue since Swiss ERI players already have strong networks within Europe. Cooperation with the US and Singapore is promoted via the swissnex offices in Boston, San Francisco and Singapore⁸ as well as one STC in Washington.

The 2008-2011 ERI period saw expansion of the ERI Network with a new swissnex opening in India (Bangalore, 2010) and STCs in South Africa, Canada, Spain, Austria, India and Australia. Following a feasibility study and owing to the growing importance of the ERI sector, the international network was further strengthened in the 2013-2016 period, but only through efficiency enhancements and systematic exploitation of synergies rather than through an increased budget: in 2014 a further swissnex was opened in Brazil (Rio de Janeiro with a branch office in Sao Paulo). swissnex Boston also opened a branch office in New York, while in Argentina an STC started work at the local embassy. SERI is now represented in 18 countries through its international network.

In June 2012, a member of the National Council, Fathi Derder, submitted the postulate "A Roadmap for doubling the swissnex network"⁹, which was approved by the National Council with a large majority in 2014. This postulate and the requested report were taken as an opportunity to evaluate the swissnex network¹⁰. This provides an insight into the quality of the services and the impact of the network and serves as a basis for further elaboration and potential expansion.

2.2.4 Bilateral research programmes with countries outside Europe

Under the Federal Council decision of 2005, which envisaged developing and expanding bilateral relations with countries outside Europe, pilot programmes were launched with China (2004-2007) and India (2005-2007), which were transformed into bilateral research programmes in 2008. In addition to these

⁸ swissnex Singapore was closed at the end of September 2015 following fulfilment of its mission. The ERI tasks have since been taken over by a science section within the embassy.

⁹ 12.3431 Po. Derder: www.parlament.ch/d/suche/seiten/geschaefte.aspx?gesch_id=20123431

¹⁰ This was an internal evaluation based on semi-structured interviews with key partners at swissnex and an online survey.

two countries, research programmes were set up with Brazil, Russia, South Africa, Chile, Japan and South Korea. Furthermore, the Confederation supports two research institutes set up in the Ivory Coast and Tanzania over fifty years ago through the Swiss Tropical and Public Health Institute Swiss TPH.

All these programmes are based on the principles of mutual benefit, joint financing and scientific excellence. In the 2008-2011/2012 ERI period, around 500 research collaborations received funding in these programmes (budget: CHF 43 million/CHF 11.3 million).¹¹ With the exception of the programmes with Russia and Chile, all the research programmes were based on science and technology agreements. The agreement with Russia was signed in December 2012 and has been ratified since 2013. Following the first meeting of the joint working group in December 2014, a call for joint research project proposals was launched and 25 joint research projects were approved in December 2015.

The ERI Dispatch 2008-2011 envisaged an evaluation of bilateral research programmes at the end of the funding period. The evaluation¹² essentially confirmed the broad base of programmes in the Swiss ERI landscape by highlighting that almost all Swiss universities and research institutes as well as several universities of applied science were implementing projects under the programme. It also pointed out that the programmes represented a niche that until that time had not been filled by any research funding agencies. The evaluation also showed that almost all researchers involved in the programmes had worked on an SNSF project in the past and that more than half of them were also involved in a European research project, which points to the excellence of the funded projects. However, the evaluation revealed a certain need for action in the country selection (Chile was considered less interesting by researchers and had low political support on the Chilean side) and in the organisational structure of the programmes. The system of Leading Houses (LHs), whereby universities in Switzerland are responsible for managing the programmes, was in principle not called into question. One conclusion of the evaluation, however, stated that the scientific credibility of the programmes could be improved if an institution such as the Swiss National Science Foundation were to take over the management of cost-intensive bilateral research projects. The LHs were seen as unbureaucratic and flexible institutions that cultivate privileged links with foreign partners, but it was felt that they should be increasingly assigned an investigative role and tasked with testing new instruments. SERI concluded from this evaluation not to continue the programme with Chile, to assign the management of joint research projects to the SNSF and to adapt the performance agreement with the LHs accordingly.¹³

At the beginning of the current ERI period 2013-2016 (budget: CHF 52.7 million) it became clear that these were the right decisions. The LHs obtained a strategic role in their performance agreements with SERI, for example for prospecting new regions and countries that may be of interest for intensifying bilateral research cooperation with the aim of developing the international ERI strategy.¹⁴ The LHs conducted surveys among Swiss ERI players and further narrowed down the circle of potentially interesting countries. In parallel to this, SERI carried out its first fact-finding mission in Vietnam accompanied by the LHs back in 2014. Further missions have been carried out (in Argentina in 2015) or are planned (in East Africa and Indonesia in 2016).

The aim of this prospecting work and intensifying of relations is not to set up new research programmes, however. Rather, through the involvement of all relevant players in Switzerland (SNSF, CTI, universities), the aim is to find a way to allow collaborations between Swiss researchers and researchers in these countries to be financed via existing research funding instruments in Switzerland.

The approach described in the ERI strategy of “[making optimum use of] multilateral instruments within EU research framework programmes to further bilateral cooperation with European countries”¹⁵ was pursued in the current and previous periods. So, for example, the LHs were involved in European projects with Japan and Russia via bilateral programmes. This method of intensifying bilateral research cooperation is to be continued in future. Given the uncertainty over Switzerland's involvement in research framework programmes post-2016 and on account of changes in the eligibility requirements

¹¹ See: ERI Dispatch 2008-2011/2012, BBI 2007 1223; BBI 2007 1429 Art. 1; BBI 2007 1439 Art.10.

¹² www.sbfi.admin.ch/evaluation-e

¹³ See ERI Dispatch 2013-2016, BBI 2012 3233.

¹⁴ The ETHZ was awarded the mandate for the Asia-Pacific region (with the exception of Vietnam), the EPFL for Vietnam and Latin America, the University of Geneva for the countries of the former Soviet Union and the University of Basel for the entire African continent.

¹⁵ Switzerland's international strategy in the fields of education, research and innovation, p. 13.

regarding research framework programmes for BRICS countries (which are no longer allowed to obtain funds from the EU to participate in research projects, which led to a decline in the number of applications from these countries in the first calls for proposals under Horizon 2020), it is currently too soon to make predictions about the success of this approach. This also means that bilateral instruments and programmes with countries outside Europe could become more important in future.

2.2.5 SDC activities

Research and innovation play a key role in the global transition to sustainable development and in reducing poverty and global risks. The SDC has therefore been supporting research in and with developing and transitional countries for decades as part of its mandate.

Based on an evaluation of its research portfolio and in line with the long-term strategic goals of Swiss International Cooperation (IC), the SDC realigned its research policy in 2010. The main aims of research funded by the SDC are to produce new findings, to develop innovative approaches and to utilise and disseminate scientific knowledge. Under the IC Dispatch 2013-2016, research activities were more focused and more heavily geared towards solving global problems, dealing with risks and crises and providing global public goods.

The *Swiss Programme for Research on Global Issues for Development* (r4d programme¹⁶), for example, is a funding instrument aimed at researching global problems with a focus on reducing poverty. The r4d programme was developed together with the Swiss National Science Foundation SNSF and launched in 2012. The programme has a total of CHF 97.6 million available for its ten-year duration (2012-2022) (SDC: CHF 72 million, SNSF: CHF 25.6 million). The programme aims to fund interdisciplinary research that is geared towards problems and solutions. The thematic priorities are: social conflicts, employment, ecosystem services, food safety and public health. The programme is aimed at researchers from Switzerland, Africa, Asia and Latin America. Since 2012, 25 research projects with partners from a total of 35 countries in Africa, Asia and Latin America have been approved. The lion's share of research activities are realised in and with developing countries in Africa. The six-year research projects are evaluated by an international panel of experts and supported throughout their entire duration. All the selected research projects are characterised by high scientific quality and relevance to development.

2.2.6 Presence Switzerland activities

The ERI sector is now a key focus of Switzerland's international communication strategy. In the framework of projects realised by PRS in collaboration with the Swiss international network, the ERI sector plays a significant role. Of the 232 projects that received funding in 2013, 56 were in this field. In 2014, 155 of a total of 206 projects had a link to the ERI sector. Switzerland's presence at major international events, for example the House of Switzerland at the Olympic Games in Sochi, showcased ERI with an exhibition focusing on Swiss-Russian relations in the area. The Solar Impulse project and in particular its attempt to circumnavigate the globe in a solar aircraft also provided an opportunity to put Switzerland's innovative capability in the spotlight. Finally, various foreign delegations made up of government and media representatives (particularly from France, Russia, India and Japan) visited Swiss companies and institutions occupying leading positions in the ERI sector in 2014.

2.3 Innovation

In terms of competitiveness, Switzerland fares well by international comparison¹⁷. Various countries are therefore keen to cooperate with Switzerland in the fields of research, development and innovation.

The Confederation strengthens bilateral cooperation between Switzerland and various relevant economic partners through innovation forums and joint events. It focuses on linking up Swiss SMEs with national and international innovation players (companies, universities, research institutes) and informs

¹⁶ Cf. www.r4d.ch

¹⁷ Cf. Global Innovation Index 2014; Innovation Union Scoreboard 2015

them of suitable funding opportunities and cooperation potential. Specific measures are also designed to minimise the financial risks of innovation cooperation, which may result from more complicated negotiating conditions, lack of clarity about intellectual property and cultural differences, for example. The aim is to increase the number of bilateral innovation projects and boost the innovative capability of Swiss SMEs.

The focus is on innovation partnerships with strategically important partners such as Germany (annual innovation forum), Sweden (Swiss-Swedish Innovation Initiative SWII), Denmark, the UK and the Netherlands. Other specific activities are or have been organised with countries such as Belgium, Poland, Turkey, Russia, Slovakia and the Baltic States.

3 Conclusion and outlook

As mentioned on a number of occasions, interest in the topic of ERI has been steadily growing in the past few years. Besides SERI, the bodies represented in the IDAG have also been more heavily involved in this field.

The theme of vocational education and training in particular is now attracting a great deal of interest on the international stage. Many foreign delegations have visited SERI (and OPET pre-2013) to find out more about the dual-track VPET system. For this reason, SERI is to define specific spheres of cooperation in this area in the upcoming 2017-2020 funding period. Many of the research partnerships presented in this document will also be continued as the results achieved and the added value of federal support are obvious and have been documented in numerous evaluations.

4 Appendix

4.1 Glossary

Abbreviation	Meaning
CIMPA	Centre internationale de Mathématiques pures et appliquées
DP	Directorate of Political Affairs
EAER	Federal Department of Economic Affairs, Education and Research (since 1.1.2013)
ERI	Education, research and innovation
EUI	European University Institute
FDEA	Federal Department of Economic Affairs (until 31.12.2012)
FDFA	Federal Department of Foreign Affairs
FDHA	Federal Department of Home Affairs
FOM	Federal Office for Migration (until 31.12.2014)
IAS	Institutes of Advanced Study
IC-VPET	Swiss International Cooperation in VPET
IDAG	Interdepartmental working group
ISR	Istituto Svizzero di Roma
LH	Leading House
NQF	National qualification frameworks
OPET	Federal Office for Professional Education and Technology (until 31.12.2012)
PRS	Presence Switzerland
SDC	Swiss Agency for Development and Cooperation
SECO	State Secretariat for Economic Affairs
SEM	State Secretariat for Migration (since 1.1.2015)
SER	State Secretariat for Education and Research (until 31.12.2012)
SERI	State Secretariat for Education, Research and Innovation (since 1.1.2013)
SFIVET	Swiss Federal Institute for Vocational Education and Training
WiKo	Wissenschaftskolleg (Institute for Advanced Study), Berlin