

SIN OFFICERS IN SWITZERLAND: WORKING IN A SMALL RESEARCH PEARL



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The UK Science and Innovation Network (SIN) is jointly funded by the FCO and BIS and has a remit to cover international science and innovation. Represented in around 25 countries globally, it is also present in Switzerland. Senior Science Officer gives an overview of the team's recent work in supporting UK Nuclear Research capability, and bilateral projects taken forward, building on Swiss strengths in R&D.

In October 2011 SIN Switzerland organised a UK Nuclear Tour together with UK stakeholders in support of further development of the UK's nuclear research ambitions; an issue which was highlighted in the contributions on nuclear energy in the last edition of SiP and in final report of the House of Lords enquiry on nuclear energy.

From 24 to 27 October nine nuclear scientists from eight different European countries visited the just opened Dalton Cumbria Facility for nuclear research and education, the nuclear site in Sellafield, Manchester University, the (Nuclear) Advanced Materials Research Center in Sheffield and finally Imperial College in London. The aim of the tour

was to inform the European Fission Research Community of the latest UK initiatives in the area of education, training and innovation to support its Nuclear Renaissance, thereby opening up new possibilities for collaborations between the UK and other European countries.

The Tour followed up from a *Pan-European Nuclear Workshop*, which took place in Zurich in January 2011, jointly organised by our team and the EPSRC. The workshop showed that in wider Europe, some areas of British expertise are recognised but generally the size of the UK activity and its facilities are under appreciated or even unknown.

At the end of the tour, the European delegates left with an increased understanding of the UK strengths and its ambitions for nuclear research, taking this recognition back to their home country. Furthermore, the delegation formulated recommendations that closely reflect the results of the HoL enquiry addressing the UK government's strategy on nuclear research and the need to involve all bodies from academia, industry and government agencies in implementing that strategy.

In the recommendations, European delegates also expressed their wish to collaborate with the UK. That they were serious shows the concrete negotiations for bilateral collaboration between the UK and the individual European partners already happening just shortly after the tour. Furthermore, Neil Hyatt, University of Sheffield, and Tim Abrams, University of Manchester, will be working closely together with the Laboratory of Reactor Physics

The 5 recommendations as formulated by the European Delegation for the UK Nuclear Tour 2011

- To involve the end-users (utilities, industries, manufacturers, designers, etc) in guiding the R&D towards the final application needs;
- To foresee a Public-Private co-funding mechanism for applied research;
- To involve the safety and licensing authorities from the very beginning of the innovative qualification and validation processes;
- To consider rapidly the use of the NNL facilities for R&D on irradiated materials;
- To consider collaborations with European partners well equipped with neutron-irradiation capabilities and associated equipment for R&D on irradiated materials and fuels.

and Systems Behaviour of the Swiss Paul Scherrer Institute.

Apart from such a large project, SIN Switzerland also acts upon opportunities for bilateral research collaboration offered by the excellent R&D landscape in the host country.

Switzerland with a population of 7 million people and a yearly R&D budget of around 3% of GDP can be characterised as "klein aber fein", a small gem in global research and innovation. High quality and innovative research, stable high-level and long-term funding (which does not seem to have been affected by the financial crisis) and the keenness to collaborate with foreign partners make Switzerland a robust collaboration partner.

Against this favourable background, the Swiss S&I team organised niche activities with a small budget resulting in fruitful UK-Swiss collaborations. Just to name a few examples from the last 12 months/2011:

- The meeting initiated by our team in January between a delegation from the STFC interested in Intense Free Electron Light Source facilities

and the Paul Scherrer Institute in Switzerland led to a Memorandum of Understanding for collaboration in areas of mutual strategic importance covering accelerators, detectors and exchange of science.

- Our team initiated and facilitated a meeting between the Environmental Sustainability KTN and the Swiss Centre for Aquatic Sciences, resulting in a joint FP7 bid.
- Our visit to Disney Research Lab in Zürich in November generated strong mutual interest between Disney and UK stakeholders, including the Creative Industries KTN and Bristol University.
- Finally we organised visits by UK delegations to Switzerland in the areas of nanomedicine (May 2011) and Clean Tech (Sept 2011) which led to several bilateral collaborations.

If you would like to know more about the work of the UK Science and Innovation team in Switzerland or the projects mentioned, please contact Elisabeth Wallace, elisabeth.wallace@fco.gov.uk or 0041 31 359 7754.