International Research Partnerships between Switzerland and Indonesia, Malaysia, Thailand and Vietnam
Singapore, 11-12 June 2014
WG II: Instruments and modalities for int. research collaboration

Instruments and modalities for international research collaboration

Working Group II: Synthesis Report - Focus on country strategies

The objective of the working group on *Instruments and modalities for international research collaboration* was to relate the inputs of the first 1.5 workshop days to the reality in one’s own country. While WG I primarily addressed the institutional level, WG II was mainly focused on the national level. The Working Groups met country-wise, each with some Swiss participant. Participants were asked to reflect on the following questions:

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<th>Actors</th>
<th>What are your current and expected institutional capabilities to enter into and pursue international collaborations?</th>
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<td>Strategies and approaches</td>
<td>What are your existing and desirable regional and international collaborations?</td>
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<td>What is and will be the role and place of international research collaborations in your national R&amp;I systems?</td>
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<td>How does your national policy framework encourage (or hinder) international collaborations?</td>
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<td>What are available funding mechanisms?</td>
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<td>What do you need going forward?</td>
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<td>What are the ways to sustain integrated international collaboration in the R&amp;I sector?</td>
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<td>Pros and cons of engaging international partners (national agencies, institutional partners and individual researchers)</td>
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<td>External factors</td>
<td>What are the main drivers, trends and obstacles for international research collaboration?</td>
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<td>What changes and continuity do you expect that will affect international research cooperation?</td>
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Reporting was partially by ppt presentations, and partially by explaining the landscape diagram provided as visualization tool.
Thailand

**Actors:**

If national Thai funding is requested, a critical actor is the National Research Council (NRC). They decide on national funding from a strategic “top-down” perspective. Then there is the Ministry of Science and Technology also at the national level.

“Bottom-up” actors were mentioned as the individual researchers or their institutes; international research centers (many universities have these).

Local governments were mentioned to express needs, but these are often expressed directly to the research units/researcher and seldom influence nationwide strategic research direction.

**Modalities expressed by NRC:**

Here a strong voice was made that various Thai universities would have to benefit (and must express their interest in the topic), as supporting only one university in its research development would not be acceptable. It was mentioned that even more than one Thai university in the same project would be better, to strengthen internal Thai collaboration. Furthermore for decision on a topic would have to argue why it needs the Swiss collaboration. So it must be evident that the Swiss have something extra to offer on this topic. Example topic mentioned were: pharmaceutical development (given Swiss expertise in this regard), environment (based on Swiss high environmental standards and protection), sustainable tourism (given Swiss tourism excellence).

Other modalities mentioned were: exchange of senior researchers (like Singapore, but also in the other direction Thai-->CH), exchange of students, sandwich PhD (double degree from Swiss and Thai university). The existing Thai PhD golden jubilee programme was mentioned which allows funding for PhDs to go abroad: [http://rgj.trf.or.th/eng/rgje11.asp](http://rgj.trf.or.th/eng/rgje11.asp)

**Instruments:**

A special wish was expressed to have an information platform for the many funding opportunities (also ASEAN) which can help the existing partnership (besides the Thai-CH programme).

Two mechanisms were suggested:  

a) small seed money projects with open themes, and  
b) larger projects with minimum two Thai partners related to topic as decided top down.

A current weakness in the Thai system is the support for innovation. There is something called NIA which however does not work well. One aspect suggested is to fund secondments of researcher at private companies.

Finally the example of a German-Thai partnership was given. This started with one project without Thai national funding....then it grew and gained interest from various Thai universities to participate. Based on that the proposal was then made to NSC ...., which was accepted and then led to a German-Thai collaboration on this topic.
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**Instruments & Modalities for International Research Collaboration - Thailand**

**KEY DRIVERS**
- Instruments and modalities development/national policy framework

1. **Top-down model**
   - Hosted by government sector, e.g. NRCT
   - Co-sponsorship, dual membership
   - Embed the cooperation into existing structure
   - Formal budgeting to facilitate between universities
     → consortium or research topics

2. **Bottom-up model**
   - Start from researchers
     → need Swiss expertise to justify the research project

3. **High level research model**
   - How to build networking
   - Graduates from leading German universities
   - Professors in Thailand set up project and cooperate with other university
     - Sandwich program for PhD students

**MAJOR OBSTACLES**
- External factors main barrier
  - Funding and research budgeting still low
  - Total number of researchers still low

- Main Driver
  - Support on student exchange mobility (post grad) → RUJ from TRF
  - More scholarships

**INTERNATIONAL RESEARCH COLLABORATIONS**

- Institutional level
- National level
- NRCT, MoST
- Political level

**Policy Framework**

**Capable Researchers**

**INSTITUTIONAL CAPABILITIES**

**Balancing Scientific Research & Innovation - Thailand**

**Actors**
- Users, e.g. local government
- Private sector
- Community
- Society

**Top-down Model**
- Ministry of Science and Technology
- NRCT
- Commission on Higher Education
- TRF and other funding agencies
  - Topic based research
    - Basic
    - Applied

**Bottom-up Model**
- University and Research Institutes
- Researchers
- Personal contact and interest

**Opportunities for collaboration**

**Ways to sustain International collaboration**
- As long as both sides benefit from project outcome
- Strong mentoring
- Get private sector to be involved
- Friendship
Vietnam (ppt)

Actors (Key Drivers)
- Qualified staffs;
- Fundings
- Laboratory equipments;
- Networks with Industry;
- Location (geography);
- Government policy

Strategies & Approaches
Networks between Switzerland and Vietnam:
- Exchange of staffs to identify the fields of cooperation;
- Exchange of Scientists;
- PhD. Candidate training;
- Joint research.

Fields of research cooperation:
- Climate change;
- Food Security
- Bio-Technology
- Automation (urban design)

Institutional Capability
- Autonomous level of organizations (universities, institutes);
- Budget Mechanisms
- Strategy of Development (different level)

Funding Mechanisms
- Supports from Swiss partners
- Self-Funding

Obstacles
- Autocracy
- Budget Allocation
- Low level of Autonomy

The rapporteur of the Vietnam WG was very explicit on the obstacles in the Vietnamese system. The discussion with the workshop participants from other countries had alerted the Vietnamese delegation how their country differed in research and innovation opportunities.

One of the participants provided a document on a promising new program „Fostering Innovation through Research, Science and Technology – FIRST“ in Vietnam (issued under Decision No. 995/QD-BKHCH dated May 9, 2014 of the Minister of Science and Technology). This project will invest 100M USD of the World Bank and 10M USD of the Vietnamese government aimed at supporting science, technology and innovation in Vietnam by designing and Piloting STI Policies, enhancing the effectiveness of Project-aided research and development institutions, and encouraging the development of innovative technology enterprises. The project will support STI in Vietnam by: (a) tapping into global scientific knowledge and research networks and deepening the national STI networks; (b) supporting a more effective and demand-driven R&D sector in five priority areas, in addition to the four priority sectors (biotechnology and agriculture, machinery manufacturing and automation, advanced materials, and information and communication technology ICT), to also include more effective and efficient provision of public S&T goods such as geodesics, cartography, metrology, hydrology, environmental protection, meteorology and climate change; and (c) helping to build stronger linkages between the supply and demand of science and technology.
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### Instruments & Modalities for International Research Collaboration - VIETNAM

**INTERNATIONAL RESEARCH COLLABORATIONS**

- Exchange of staff to identify fields of cooperation
- Exchange of scientists
- PhD candidate training
- Joint research

**KEY DRIVERS**

- Autonomous level of organisations
- Support from Vietnam companies
- Policy Framework

**MAJOR OBSTACLES**

- Autocracy
- Budget allocation
- Low level of autonomy

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### Indonesia

**Instruments & Modalities for International Research Collaboration - INDONESIA**

**INTERNATIONAL RESEARCH COLLABORATIONS**

- CH can profit from knowledge generated from local resources
- Contribute local know-how

**KEY DRIVERS**

- Technology gap
- Support in the valorization of local resources
- Diversity sources of research funding
- Staff with international experience in R&D
- Interdisciplinary research

**MAJOR OBSTACLES**

- Institutional preparedness
- Lower admin barriers
- Match research agendas

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**FUNDING MECHANISMS**

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Malaysia (ppt)

**Actors:** What are your current and expected institutional capabilities to enter into and pursue international collaborations?

- **Actors**
  - Core research areas, strategic areas of research such as foreseen in forestry, upstream, downstream, sharing bio-data of publications and sharing
  - State of art in R&D facilities to tackle specific research issues
  - Innovative ecosystem to proponent new ideas generations etc.

- **Current activities**
  - Active participations in inbound and outbound
  - Longer attachment program (undergraduate & post-graduate program), international partners, double degree program, joint co-supervisions with joint publications and joint conferences, workshops and seminars

- **Current**
  - UM, UTM – Matching research grant
  - UM - High impact research program with nobel laureate’s program, grand challenges programme, resilient city, sustainable resources and technology, new technology development programme
  - MARDI – the performance are based on MOSTI supported funding

- **Issues related global university ranking**

**External factors:** What are the main drivers, trends and obstacles for international research collaborations

- Initiatives - New economic model, Digital Malaysia, Bio Malaysia
- Issues: funding, logistics, policy changing, IP sharing between industry etc. immigration policies, talent mobility, the reluctance of industry funding

**Strategies and approaches: What are the existing and desirable regional collaborations?**

- What could be helping us to support for the international research funding?
- UM with China, Horizon 2020,

**What do you need going forward?**

- The need for a champion in the institutions to fight for obstacles that have been mentioned before
- Strong leadership is needed to support the collaborations, coordination on the process of research processes.