Session 4: Capacity building through collaborative research and joint MSc/PhD programmes

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A THEMATIC CONFERENCE
in the framework of the
ARAB-EURO CONFERENCES on HIGHER EDUCATION
(AECHE 1*, AECHE 2** & AECHE 3***)
The networked university: opportunities and challenges for Higher Education between the Arab World and Europe
TU Berlin Campus El Gouna, Egypt – 9-11 October 2015
DLR´s Project Management Agency and the International Bureau in a nutshell
We

» drive research, innovation and education
» support policies, programmes and projects
» operate nationally, across Europe and internationally
» network disciplines, industries and stakeholders
» stand for dedication and professionalism
Our subjects

» World of work  » Education  » Society
» Environment  » Health  » Culture
» Innovation  » Technologies

Facts and figures

~1,000 employees, more than half of them researchers
3 locations: Bonn, Cologne, Berlin, 1 office in Brussels
~1 billion euros in funding and 8,500 projects annually
Our clients

» Federal ministries, state ministries, public authorities
» Foundations, associations, research organisations
» European Commission, foreign government bodies

Selection:
Your partner for research, innovation and education – reliable, competent, dedicated
Our mission

We

• support the BMBF in planning and implementing international agreements and cooperation programmes

• observe relevant international developments in the fields of science, research and technology

• advise and support stakeholders in Germany’s scientific community when it comes to opening up new international networking opportunities and raising Germany’s profile as a hub of science, research and innovation

• are actively involved in the strategic development of the international dimension of the European Research Area
Our expertise

We

• have broad expert knowledge about research structures and cooperation opportunities in main partner countries around the world

• are linked up with decision makers in Germany and abroad

• analyse and evaluate international research and innovation policy developments

• make a contribution to the advancement of cooperation strategies
What we do (I)

We

• provide German institutions with information and advice on opportunities for international research cooperation

• support German institutions financially, thus enabling them to establish new contacts and initiate cooperation with priority countries worldwide

• implement international cooperation programmes in research on behalf of the BMBF and coordinate programmes for the support of young scientists

• observe international research and innovation policy developments for the BMBF and other stakeholders in the German science, research and innovation landscape
What we do (II)

We

- support the BMBF in its efforts to promote innovation in Germany
- plan and organise international conferences, forums, workshops and trade fair activities in Germany and abroad
- act as an interface and contact point for international organisations, programmes and initiatives
- coordinate and participate in EU network projects (ERA- and INCO-NETs/BILATs) and promote the development of international activities in the European Research Area (ERA)
- design and maintain Internet sites and web portals (e.g., www.kooperation-international.de/en)
Examples of IB activities

Information as a factor of success – www.kooperation-international.de/en

• BMBF Internet portal, jointly operated by IB and VDI-TZ, supported by various partners
• provides access to **up-to-date subject-specific information** on research and education in support of the internationalisation strategy
• **communication platform** for anyone looking for information and potential collaborations in Germany and abroad
• **networking instrument** for German authorities, scientific institutions, intermediary or business organisations in the area of international cooperation in research and education

18.10.2015
Supporting international cooperation

In 2014, IB was in charge of a total of **776 projects*** and had a budget of **€15.6 m.**

<table>
<thead>
<tr>
<th>Regions</th>
<th>Total project number</th>
<th>Budget (Mio EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia, Australia and New Zealand</td>
<td>189</td>
<td>4,3</td>
</tr>
<tr>
<td>Commonwealth of Independent States (CIS)</td>
<td>151</td>
<td>1,5</td>
</tr>
<tr>
<td>Africa and Middle East</td>
<td>161</td>
<td>4,2</td>
</tr>
<tr>
<td>Americas</td>
<td>164</td>
<td>2,9</td>
</tr>
<tr>
<td>Central, Eastern and SouthEast Europe</td>
<td>77</td>
<td>1,2</td>
</tr>
<tr>
<td>Transnational and interdisciplinary</td>
<td>34</td>
<td>1,5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>776</strong></td>
<td><strong>15,6</strong></td>
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Core responsibility

Exploratory and networking measures for international cooperation

On behalf of the BMBF, IB offers grants to German universities, non-university research institutions and small and medium-sized companies (SME) for exploratory measures and the preparation of projects, including feasibility and pilot studies.

Selection criteria for these grants include:

• stimulation of new projects that are relevant to BMBF and EU funding programmes
• quality and originality of the research approach
• innovativeness and focus on application
• joint interest and benefits for the project partners
• support of young researchers and equal opportunities
The international dimension of the European Research Area (ERA) (II)

Aiming at further developing ERA’s international dimension, IB has been a recognised partner in EU project consortia, including

- **INCO-NETs** (bi-regional dialogue – with one region)
  
  *ongoing:* Sub-saharan Africa, Latin America and the Caribbean, the Pacific, Southern Caucasus/Central Asia, Southeast Asia, Western Balkans

- **ERA-NETs** (coordinating funding activities of EU Member States and Associated States with selected target countries or regions)
  
  *on-going:* Africa, India, Japan, Russia, South Korea, Southeast Europe

- **BILATs** (bi-lateral dialogue – with one country)
  
  *ongoing:* Argentina, Australia, Brazil, Chile, Canada, **Egypt**, New Zealand, Russia, South Africa, **Tunisia**, Ukraine, USA
Political context

Internationalisation strategy of the German Federal Government
- BMBF’s “International Cooperation – Action Plan

Coalition agreement (2014)

"Increasing international competition including competition from rapidly growing emerging countries, swift scientific and technological progress, particularly digitalization, demographic change, including a shortage of skilled workers, and dwindling natural resources are confronting us with new challenges. We are therefore focusing our strategy in the years to come on innovation, investments, integration in good and productive work and internationalization."

The International Bureau of the BMBF is a significant stakeholder in implementing the Federal Government’s Strategy for the Internationalisation of Science and Research.
Germany’s Strategy for the Internationalization of Science & Technology

Priority 3/4:
Intensifying the cooperation with developing and emerging countries in education, research and development on a long-term basis

• Enabling **access to global knowledge** for partners in developing and emerging countries as well as **application of scientific results** in developing countries through collaborative approaches.

• **Strengthening higher education and research capacities** to jointly respond to **global problems**.

• **Capacity Building for executive and specialised staff** as a basis for a **sustainable economic, social and political development** of the partner countries.
Political context I

Internationalisation Strategy (2008)

Action Plan BMBF (2014)

Updated Internationalisation Strategy (2015)

The international dimension of the European Research Area (ERA) (I)

IB actively participates in discussions on the strategic development of ERA’s international dimension by

- supporting the BMBF in its cooperation in the **Strategic Forum for International S&T Cooperation (SFIC)**,
- Supporting BMBF in its role in the **Bureau of the High Level Policy Dialogue (HLPD)**, contributing to the revision and the development of the new Joint Africa-EU-Strategy (JAES)
- participating in **EU-funded projects of the 7th Research Framework Programme and Horizon2020** particularly those of the sub-programme on international cooperation (INCO programme/INT-calls in challenge 6),
- supporting the BMBF in its strategic-political work in **EU panels and committees**.
Strategic Forum for International S&T Cooperation

SFIC

- is an advisory body to the Council and the Commission
- consists of delegates from Member States and EU Commission, with Associated States as observers
- analyses international research cooperation of its members and identifies common priorities
- launches joint initiatives in ‘variable geometry’ (voluntary) to intensify and coordinate S&T cooperation with third countries
- promotes joint dialogue processes of Commission and Member States with third countries and regions

Examples of SFIC country initiatives

- Strategic research agenda with **India**, conferences and dialogue on research policy
- Strategic research agenda with **China**, workshops on challenges such as IPR and researcher mobility
- action plan for closer cooperation with **USA**, joint European research marketing activities
- Further country initiatives with **Brazil and Russia**
Africa strategy of the BMBF (I)

Overarching goal:
to provide reliable guidance and a framework of reference for the BMBF, the German research, intermediary and other organizations, as well as for European and multilateral initiatives and for our African partners

Specific goals
• overcoming global challenges through joint effort
• creating high-quality and sustainable, scientific cooperative structures
• strengthening regional and continental cooperation
• strengthening innovative potential and developing markets
• raising Germany’s visibility in Africa as a key partner in education and research

Our goals for the next five years are ...

to work together with our African partners in order to (e.g.)

… further strengthen capacity building in the research and education landscapes of the partner countries for the purpose of establishing sustainable, reliable and quality-oriented structures for cooperation
The Africa Strategy of the BMBF 2014–2018
Africa as a Partner in Education and Research
(MENA-Strategy is under development)

...One of our goals for the next five years ...

in frame of the cooperation with our (North)African (and MENA) partners is to

further strengthen capacity building in the research and education landscapes of the partner countries for the purpose of establishing sustainable, reliable and quality-oriented structures for cooperation...

See goals at page 24 OUR GOALS FOR THE NEXT FIVE YEARS
Capacity building = collaborative research and joint Master/PhD Programmes

**Added value of international research cooperation:**

- Scientific and academic skills
- Practical, experimental and application-oriented skills
- Access to research facilities and scientific equipment
- Scientific and technological information and documentation
- Networking for further academic and research cooperation
- Internationalisation and cross-cultural competence (e.g. academic culture of the partner countries)
- Knowledge transfer, know how sharing, knowledge creation/production
- Joint (international) research groups (e.g. for young scientists/early career researchers)
S&T Cooperation in the Middle East and North Africa I: Overview

BMBF / IB - PT DLR
S&T cooperation in North Africa and the Middle East

Pillars of Cooperation

Cooperation within EU projects:
- EU-BILATs (EGY, TUN)
- MED SPRING
- ERANET MED

EU-Med GSO (Governmental Senior Officials-former MoCo)

BMBF bilateral Research Programmes:
- Egypt
- Morocco
- Tunisia
- Turkey
- Palestinian Territories

Export of German Study Programmes:
- GUC, TGU, GJU
- Bilateral Master programmes

Bilateral Cooperation between Research Institutes and Universities

Main Research Areas:
Environment / Environmental Research
Life and Medical Sciences
Information and Communication Technologies
Water and Resource Management
Biotechnology, Food and Agricultural Research
Renewable Energies
<table>
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<tr>
<th>Country</th>
<th>Programme/Initiative</th>
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| Turkey  | IntenC - research programme  
2+2 (innovation programme - science/industry projects) |
| Egypt   | German – Egyptian Research Fund (GERF) - Research programme |
| Morocco | Programme Maroc-Allemand de la Recherche Scientifique (PMARS) - Mobility scheme |
| Tunisia | Tunisian – German Cooperation in Research and Technology (TUNGER) - Research programme |
| Palestine | MoU in 2014/ PALGER 2015 - call for research proposals – Research programme and mobility scheme |
Examples of best-practice for enhancing S&T cooperation with the southern Mediterranean region

German-Egyptian Research Fund (GERF)

- German-Egyptian year of Science and Technology 2007
- Interim call in 2011 for the promotion of joint projects in Social Sciences and Humanities to support the transformation process in Egypt
- Interim call in 2016 in WATER is in discussion

- GERF can provide grants up to €200,000 for each joint project (German and Egyptian side up to €100,000 each)

Programme owner / Implementation

- BMBF / International Bureau (IB) of the BMBF & Egyptian Science and Technology Development Fund (STDF)
Integrated Urbanism and Sustainable Design (IUSD)

Strengths of IUSD Programme:
• focus is in line with the principles on cooperation with developing and emerging countries
• related to the bilateral priorities of Germany's scientific and technological cooperation with Egypt (i.e. energy efficiency)
• contributes to reaching the goals of the Cairo Declaration

With its regional focus, the course is an important part of Germany’s cooperation activities, both with Egypt and with the MENA region as a whole.
Memorandum of Understanding (MoU)

- Signing the MoU in March 2014 at 3rd SCM in Berlin in order to
  - promote & support cooperation between Palestinian & German research institutions & universities in the field of education, science and research
  - attach particular importance to the inclusion and promotion of young researchers in research activities
- Areas of cooperation: esp. in the identified areas of joint interest
  - Nanotechnology
  - Solar Energy
  - Information and Communication Technologies (ICT)
  - Agricultural Research & Resource Management
  - Including measure of TVET & further areas of mutual interests
Forms of Cooperation

- Coordination and support of joint research projects and activities, including joint calls for proposals;
- Exchange of experts, scientists and researchers, particularly junior researchers, for the purpose of performing research work, exchanging information on current research activities, with a view to developing joint research projects;
- Scientific conferences, symposia, courses, workshops, exhibitions;
Joint use of research facilities & scientific equipment as well as exchanges of scientific & technological information & documentation;

Measures to facilitate partnerships of Ger & Pal scientists & institutions in the frame of relevant European Union programmes (e.g. HORIZON2020);

Supporting programmes between Ger research & intermediary organizations & Pal universities involving research internships for Pal scientists & researchers in Germany within the framework of joint research projects & the joint supervision of doctoral students ("sandwich progr.");
Jülich – AlQuds Alliance: Some Ideas and Suggestions

Funding programmes:
- Suggest special PAL/D Scholarship Programme (like DAAD/HGF, Chinese CSC programme) to DAAD
- For Pharmacy, DAAD currently requires MSc from JOR university for PhD grants
  suggest acceptance of AQU degrees with exp’tal part from Jülich (or D in general)
- Explore “Strategic Partnership” and “Thematic Networks” programmes of DAAD

Activities:
- MSc thesis and/or short guest visits with outside funding as preparatory phase for PhD position on institute budget
- Research visits (during semester breaks) for supervisors/faculty members
Objectives

MedSpring is an EU funded project that aims at encouraging and strengthening the Euro-Mediterranean Cooperation on Research and Innovation (R&I) in relation to the following societal challenges: **Resource efficiency** (particularly Water), **High Quality Affordable Food** and **Energy**. It is a four years (2013-2016) project financially supported by the 7th EU Research Framework Programme (CAPACITY - International Cooperation - Project No. 311780).
MAIN ACTIONS

- Bringing together researchers, stakeholders, civil society and private sector to enhance effective cooperation and innovation
- Supporting European Commission, Mediterranean countries and Member States to develop a research and innovation agenda accounting for the real needs and demand in the region
- Capacity building and training to enhance research system capacity and adsorption, innovation, research cooperation and networking, participation in the European Research Framework Programme and other relevant programmes
- Promoting synergies among EU Member States, Associated Countries and Mediterranean Partner Countries based on joint programming
EXPECTED RESULTS

- Enhanced EU-MPCs co-ownership in research cooperation
- Shared Euro-Mediterranean knowledge on selected societal challenges
- Strengthened cooperation on R&I (networking, capacity building and brokerage)
- Enhanced synergies on joint programming and integration
- Improved policy making and policy dialogue
Implementation of international cooperation in Horizon 2020 – summary

I. General openness for the participation of partners from 3rd countries

II. Targeted international cooperation actions
   - For developing countries mainly in Societal Challenges (Pillar 3)

III. Horizontal international cooperation activities
   - Part of Societal Challenge 6: “Europe in a changing world”
   - Successor of INCO in FP7 Capacities

IV. Programmes aimed at individual researchers (Pillar 1 “Excellent Science”)
   - European Research Council ERC
   - Marie Skłodowska-Curie Actions MSCA
For further information

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