

Annex

Advanced Studies on SHEPer

***Advanced Studies on
Science, Higher Education and Policy for Emerging Regions
(SHEPer)***

A collaboration by:

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Executive Summary

SHEPer is a research consortium aimed to foster the process of building human capital and scientific competencies in emerging regions and countries, which do require adaptable and resilient scientific and academic institutions. It considers new research activities and fieldwork, together with the advanced training of a new generation of academic, scientific and policy leaders for emerging regions and countries, with emphasis on China, Brazil and Russia. Five main dimensions are considered, as follows:

- An annual “**School of Advanced Studies on Science, HE and Policy**”, two weeks long, for doctoral students and post-doctoral researchers involved in research studies on science, higher education and policy in emerging countries and regions.
- An annual “**High Level Workshop on HE Governance and Policy Studies**”, three days long, for on the job training of high level officials, policymakers, university and science and technology leaders from emerging countries and regions.
- A **Policy Fellowships Program** (2 to 4 months) for field work in developing countries and regions, oriented towards the preparation of policy briefs about selected and specialized themes on science and HE development, by involving doctoral students and doctorate researchers worldwide in short and medium term research periods, with themes and people to be competitively selected at an international level.
- A **Research Fellowships Program** (6 to 9 months) for new research and fieldwork in emerging countries and oriented towards new research on science and HE development, by involving post-doctoral and senior researchers in research residences in universities in emerging countries and regions.
- Specialized publications, including a **Book Series**, promoting new material to assess and steer science and HE development policies in emerging countries and regions.

The venue for the various activities will rotate annually among various institutions, with emphasis in emerging regions in China, Brazil and Russia. *SHEPer* is to be supervised by an *International Scientific Committee* and managed by an *International Executive Committee*, supported by a professional Secretariat. A *Local Organizing Committee* will manage each annual event.

1. Rationale and strategy

We live in challenging times. Globalization processes evolve at an uncertain and accelerated pace, alongside an international financial crisis and a changing geopolitical order. At the same time, populations and corporations increasingly believe in science and technology, having unprecedented ways to access and disseminate information.

But these are also times of emerging risks, involving complex technological systems. Above all, we miss a clear understanding how to speed-up and improve the processes that enable investments in R&D and human capital to be transformed into economic growth and productivity gains in any region.

The range of issues emerging every day presents us with challenges and opportunities to modernize science, technology and higher education and promote new learning systems across disciplines to build human capital and stimulate wealth creation across world regions. This requires autonomous, strong, and proactive institutions, together with a diversified set of

public policies and incentives to attenuate – or prevent - brain drain from developing regions, and create opportunities for endogenous growth, change and development.

China, Russia, and Brazil are leading emerging regions at a world level facing the need and the opportunity for large investments in science, technology and higher education. These aim at responding to the explosive social demand for higher education and to the vast social and political transformations already induced by new waves of educated youth. These investments not only seek new skills and but also the certification of quality that may be expected from working along together with well-established academic and scientific institutions from developed countries.

Also, processes of brain-circulation, associated to concurrent patterns of brain-gain, brain-return and brain-drain, urge for a need to better understand flows of people and knowledge, and how the spillovers resulting from these flows are changing the way we learn, view the world, and countries and institutions act. This relates to the need for a new approach on the design of higher education (HE) at a world level and in very different socio-economic and cultural contexts.

This initiative is aimed to establish a research consortium to go beyond traditional themes on HE development and include less explored, yet critical issues. Among these, the bridging of science and higher education studies associated to learning processes and the human, social and technical ecology of university campuses needs to be further researched. In no other regions of the world these dynamics are as important as in emerging regions that are going through processes of accelerated technical and social change of such a large magnitude.

The emphasis of the proposed consortium is to be based upon evidence-based research, aiming at creating an *Agora* where senior and junior researchers meet, exchange ideas, and contribute to train the new generation of academic, scientific and policy leaders in China, Russia, and Brazil. In this framework, the conditions for the social construction of science and higher education systems in emerging regions are to be focused in terms of their impact on the emergence of novel social realities and their potential as factors of economic and social development on a global scale.

2. Proposed plan of activities

The foreseen activities will consider five dimensions, as described briefly in the following paragraphs.

2.1 School of Advanced Studies on Science, HE and Policy

An annual “School of Advanced Studies on Science, HE and Policy”, two weeks long, for doctoral students and post-doctoral researchers involved in research studies on science, higher education and policy in emerging countries and regions.

It is suggested that the school of advanced studies is launched in China (starting either in Beijing or Hong Kong) and, then, move to Brazil, Russia, then back to China, and other places, as the initiative consolidates.

We propose below several modalities (i.e., options) for the school of advanced studies. These should not be understood as fixed modes, but as flexible and evolutive modes. For example, one year one of the proposed models can be used, while some other model can be used in another year. Also, two modes could be complemented in the same year. This could be contingent to the thematic approach or specific interest. The participation of postdoctoral researchers and doctoral students should include a mix of in-house researchers and students combined with an open call from postdoctoral researchers and students from all over the world, and in particular from emerging regions. The proposals submitted by postdoctoral researchers and doctoral students would be evaluated by members of the Organizing Committee.

- *Option 1 - Doctoral consortium:* the focus would be on doctoral students. This would consist of a group of 15 to 20 doctoral students, post-doctoral research fellows and senior researchers (i.e., invited lecturers), combining invited lectures, research presentations and organized debates on on-going research work.
- *Option 2 - Doctoral consortium with research field visits:* This model would entail that a number of PhD students would be granted a fellowship to study, during a period of one to two months, a theme related to higher education policy in an emerging region (see 2.3 below). The students would be given the freedom to choose the topic and the focus of the research field visits (national, institutional, local). These visits would occur previously to the doctoral consortium, where the students would elaborate a report and then present and discuss it with senior researchers. These reports would be presented independently from presentations related to the PhD student's research work performed in the context of their doctoral programs.
- *Option 3 - Mixed consortium:* This consortium would include a mix of doctoral students, postdoctoral researchers, and policymakers (see 2.2 below). PhD students and postdoctoral researchers would present their ongoing research, which would be discussed not only by senior researchers but also by policymakers. Senior researchers would present lectures. Policymakers, as practitioners, would present challenges that they have or had during their spell in office. These would be discussed by the participants. This would create a balance between research and practice. Both sides could learn from one another.

Potential schedule: starting in 2014 (in China). Venue to be defined, with first public announcement in late 2013.

2.2 High Level Workshop on HE Governance and Policy Studies

An annual "High Level Workshop on HE Governance and Policy Studies", three days long, for on the job training of high level officials, policymakers, university and science and technology leaders from emerging countries and regions.

It is expected that this High Level Workshop is organized in close cooperation with the Advanced Study School described before, in a few days just before or after it.

It will take the form of a workshop focused on policymakers where senior and postdoctoral researchers would present lectures concerning specific issues, based on their research. These would be discussed with policymakers, making reference to the challenges that they are facing currently. The idea would be to update current policymakers on the state-of-the-art knowledge in the field of science and higher education policy, in order to allow them to undertake informed policy decisions.

Potential schedule: starting in 2014 (in China). Venues to be defined, with first public announcement in late 2013.

2.3 Policy Fellowships Program

A *Policy Fellowships Program* (2 to 4 months) for field work in developing countries and regions, oriented towards the preparation of policy briefs about selected and specialized themes on science and HE development, by involving doctoral students and doctorate researchers worldwide in short and medium term research periods, with themes and people to be competitively selected at an international level.

The ultimate goal is to involve doctoral students and doctorate researchers worldwide in short and medium term research periods (2 to 4 months), with themes and people to be competitively selected at an international level.

The policy briefs will be oriented to guide science, technology and higher education policies by public and private institutions in developing regions and countries. In addition, they will serve to form a collection of brief case studies in a variety of themes and regions.

The *Policy Fellowships* will include three different periods, as follows:

- Field work: 1 to 3 months in a HE or scientific institutions in an emerging region, for field research;
- Preparation of policy brief: 1 month, in a research centre in one of the partner institutions;
- Report and discussion: it is expected that those annually awarded with Policy Fellowships participate in the Annual Advanced Study Institutes reported above (see 2.1) and present their policy briefs.

Potential schedule: 5 to 10 doctoral students and doctorate researchers per year (2 to 4 months grants), starting in 2014, with first public announcement late 2013.

2.4 Research Fellowships Program

A *Research Fellowships Program* (6 to 9 months) for new research and fieldwork in emerging countries and oriented towards new research on science and HE development, by involving post-doctoral and senior researchers in research residences in universities in emerging countries and regions.

The ultimate goal is to involve senior researchers worldwide in annual research periods (6 to 9 months), in the form of sabbatical leaves, with themes and people to be competitively selected at an international level.

The program is expected to result in new publications, to be oriented to guide science, technology and higher education policies by public and private institutions in developing regions and countries. In addition, they will serve to form a collection of research-based case studies in a variety of themes and regions.

The *Research Fellowships Program* will include two different periods, as follows:

- Research Residences: 6 to 9 months in a HE or scientific institutions in an emerging region, for field research;
- Report and discussion: it is expected that those annually awarded with *Research Fellowships* participate in the Annual Advanced Study Institutes and High Level Workshops reported above (see 2.1 and 2.2) and present their work.

Potential schedule: 3 to 6 doctorate/senior researchers per year (6 to 9 months grants), starting in 2014, with first public announcement late 2013.

2.5 Specialized publications

An important outcome of the activities above are the preparation of specialized publications, including a Book Series, promoting new material to assess and steer science and HE development policies in emerging countries and regions.

The goal is to engage experts, scholars and doctoral students worldwide in the preparation of new specialized publications and in a book series to assess and steer science and technology and HE development policies.

The book series is aimed to include material to be presented in the annual Advanced Study Institutes reported above (see 2.1) and will include major case studies and should be published in parallel with the new series of S&T policy briefs, described before. It aims at facilitating the building up of coherent strategies towards the inclusive development of science and technology and HE policies in emerging countries and regions. The foreseen case studies will consider in-depth analysis of real processes leading to the building up science and technology and HE capacities in those regions.

Specialized publications will include special issues in leading journals, to be proposed under different rationales, either focusing on specific themes, geographical or institutional focuses, or in a more general sense. The journals where these special issues will be edited would be in internationally peer-reviewed and indexed journals, preferably with high scientific visibility in the general fields of higher education, science policy, or developing studies. Other possible outcome would be to edit a book. In both outcomes, only a selected number of presentations/articles would be invited to integrate them to promote high quality research and a deeper engagement of the school participants.

Expected launching date: three years after official launching of the project

3. Diplomas

Diplomas will be offered to those successfully completing various initiatives listed above. This can be a way to value the participation in the proposed initiatives, but it would not be considered as a main outcome.

4. Organization: Scientific Committee, Executive Committee and Secretariat

The initiative aims at creating a *Local Organizing Committee* for each annual event, as well as a senior *International Scientific Committee*, involving senior representatives of the participating institutions, for the overall governance of the proposed actions. It will advise and oversee the operation of an *International Executive Committee* that will conduct and manage the various activities proposed.

The *Scientific Committee* will identify its own Chairperson that may rotate among the various members. In addition, the *Scientific Committee* will define the chairperson of the Executive Committee, who will be the “Executive Director” and will work together with a professional secretariat.

The *Local Organizing Committee* of each annual event will be fully responsible for the activities of each school of advanced studies, deciding upon and managing the set of activities deemed as relevant for that particular school of advanced studies.

4.1 Potential venues and *Local Organizing Committees*

The venue for the various activities will rotate annually among various institutions, with emphasis in emerging regions in China, Brazil and Russia. A Local Organizing Committee will manage each annual event. Potential venues for the first five years may include:

- **Hong Kong**, to be hosted by the Wah Ching Centre of Research on Education in China, Faculty of Education, The University of Hong Kong
- **Beijing**, to be hosted by the Institute of Education, Tsinghua University
- **Rio de Janeiro**, to be hosted by the *Institute of Economics* at the Federal University of Rio de Janeiro (IE/UFRJ), Rio de Janeiro, Brazil
- **São Paulo**, to be hosted by the Center for Technology Policy and Management (PGT), São Paulo, Brazil
- **Moscow**, to be hosted by the *Institute for Educational Studies* , Higher School of Economics, Moscow, Russia

4.2 International Scientific Committee

Potential members (to be confirmed; others to be invited):

- **Gerard Postiglione**, Professor and Head
Division of Policy, Administration and Social Science
Director, Wah Ching Centre of Research on Education in China
Faculty of Education, The University of Hong Kong
- **Jinghuan Shi**, Professor and Executive Dean
Institute of Education, Tsinghua University
- **Fugui Ye**, Managing Editor of the International Journal of Chinese Education
Deputy Chief Editor of the Tsinghua Journal of Education
Institute of Education, Tsinghua University
- **Ana Célia Castro**, Professor and Director

National Institute of Science and Technology for Public Policies, Strategies and Development, INCT-PPED (<http://inctpped.ie.ufrj.br>), Institute of Economics at the Federal University of Rio de Janeiro (IE/UFRJ), Rio de Janeiro, Brazil

- **Guilherme Ary Plonski**, Full Professor and Research Director
Universidade de São Paulo, Center for Technology Policy and Management (PGT), São Paulo, Brazil
- **Roberto Sbragia**, Full Professor
Universidade de São Paulo, Center for Technology Policy and Management (PGT), São Paulo, Brazil
- **Isak Froumin**, Scientific Director
Institute for Educational Studies , Higher School of Economics, Moscow, Russia
- **Jung Cheol SHIN**, Associate Professor
Department of Education, Seoul National University, Seoul, South Korea
- **Manuel Heitor**, Professor and Director
Center for Innovation, Technology and Policy Research, Instituto Superior Tecnico, Technical University of Lisbon, Lisbon, Portugal

4.2 International Executive Committee

The *Scientific Committee* will define the chairperson of the Executive Committee, who will be the “Executive Director” and will work together with a professional secretariat.

Potential members of the Executive Committee (to be confirmed, others to be invited):

- **Hugo Horta**, Senior Researcher and Deputy Director
Center for Innovation, Technology and Policy Research, Instituto Superior Tecnico, Technical University of Lisbon, Lisbon, Portugal
- **tbd**,
Faculty of Education, The University of Hong Kong
- **tbd**,
Wah Ching Centre of Research on Education in China
- **tbd**,
National Institute of Science and Technology for Public Policies, Strategies and Development, INCT-PPED (<http://inctpped.ie.ufrj.br>), Institute of Economics at the Federal University of Rio de Janeiro (IE/UFRJ), Rio de Janeiro, Brazil
- **tbd**,
Universidade de São Paulo, *Center for Technology Policy and Management* (PGT)
- **tbd**,
Higher School of Economics, *Moscow*, Russia
- **tbd**
Department of Education, Seoul National University

4.3 Funding, governance and timetable

A first meeting of the Scientific and Executive Committees should take place by mid or late 2013. The Board would then define and approve the creation of the consortium and its proposed multiannual outline, and set external evaluation procedures.

Funding for the various initiatives proposed is expected to be raised from local and national agencies in emerging regions, in a case-to-case approach. The partner institutions should agree in the main funding agencies to be addressed in China, Brazil and Russia.