Foresight

SPRING aims to address the environmental implications of China's remarkable economic development and Europe's environmental challenges by the collaboration and knowledge sharing between European and Chinese researchers. They will develop strategies for ensuring the long-term viability of the Chinese and European economies by minimizing or reversing the environ-mental impacts of economic growth by shifting current production and consumption trends.

The main objective of SPRING is to create and provide a solid basis for future EU – China collaboration in the field of environ-ment research. SPRING's goal is to identify common needs and opportunities, analyse potential topics of research cooperation and initiatives, map competences and potentials of Chinese research and infrastructure, investigate strategic development plans and initiate roadmaps for future collaboration. SPRING also aims to analyse the hurdles, barriers and cornerstones that need to be addressed to enable better research engagement by EU researchers in China and vice versa. It will improve the visibility of research initiatives and strengths of Chinese regions to a wider audience in Europe.

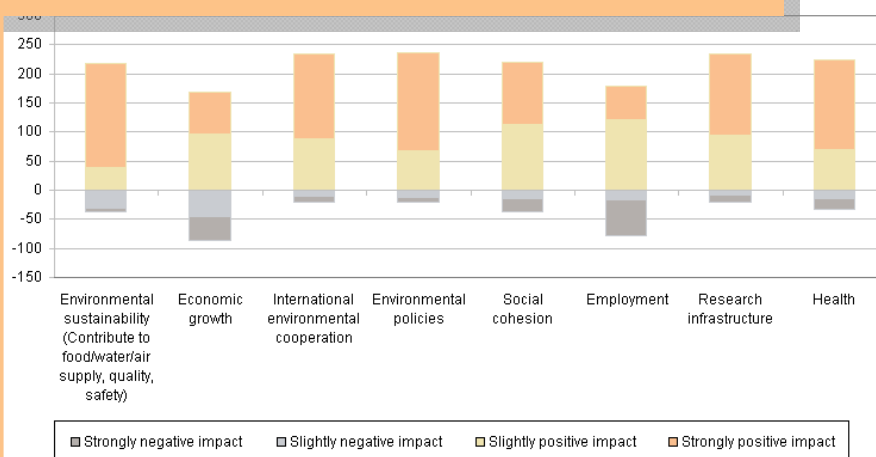ARC Fund acts as methodology provider for the foresight activities, whose goal was to develop strategic plans for strengthening the collaboration of EU-China environment research. ARC Fund's team made active dissemination of information about the online key technologies survey. The aim of the survey was to prioritise technologies with the potential to mitigate some of the environmental trends that would negatively impact the natural environments in Europe and China in the upcoming years. More than 1000 experts in environment were invited to participate in the survey via social media such as Facebook and Tweeter as well as through targeted e-mails. The fact that the survey was in English prevented a lot of Chinese scientists from participation. To overcome this obstacle, the survey was translated and launched also in Chinese in May 2012. Both versions were deactivated at the end of July 2012 with a final response rate of 218 participants. The survey included a total of 50 technologies, ten technologies per domain in the following five domains: biodiversity, climate change, water environment, atmospheric environment and soil environment.

The results of the analysis made by ARC Fund in the climate change, air, water and soil domains were presented during the roadmapping workshop in Cyprus in September 2012. ARC Fund drafted the second part of the report, dedicated to the foresight methodology used in SPRING. The final results of the

project as well as the foresight methodology will be presented during a workshop in Brussels in January 2013.

Figure 4. Potential impact of key technologies by 2030

Source: Own survey.

PACITA

In 2012 ARC Fund continued its strategic efforts for the promotion of technology assessment (TA) in public policy legislative decision-making. The PACITA project was also officially featured by the European Commission as a good practice and a priority for the successor of the Seventh Framework Program – Horizon 2020, indicating the importance of embedding TA into the democratic decision-making systems across the EU. It further emphasizes the importance of ARC Fund's efforts in being the primary advocate for more open, transparent and accountable policy making when it comes to issues of science, technology and innovation.

Key activities in 2012:

- For much of 2012, ARC Fund's PACITA team was involved in a comprehensive study process of the opportunities and hurdles for establishing TA-focused structures in the country. In-depth interviews were conducted with representatives of think-tanks and industry, with journalists and scientists, with policy administrators and Members of Parliament. Findings suggest that there is a strongly expressed need for the application of TA methods in the preparation of decisions and public policies, but there is still little awareness and understanding of the added value that TA brings. Based on the findings of this study process, ARC Fund

prepared a comprehensive analysis that was presented to partner TA-organizations from Europe during a TA summit in Karlsruhe in November 2012.

- ARC Fund organized two national workshops, in April and in September respectively, to discuss opportunities, strategies for stakeholder involvement and options for institutionalizing and streamlining technology assessment into public decision-making. Attended by representatives of the government administration, civil society organizations, scientists and the industry, both workshops confirmed stakeholders' recognition of TA as a necessary tool with the potential to generate added public value.

- Staff members participated in a Summer School in technology assessment, held in Liege, Belgium, in June 2012. The summit combined theoretical and applied perspectives onto the use of technology assessment methods and tools in addressing policy challenges and decisions on energy and the environment both within national and on a cross-European level.

- In addition to the above, ARC Fund was involved in several capacity building opportunities in pursuit of its long-term objective of developing sound in-house TA expertise and knowledge-base. ARC Fund is now featured on a TA web portal, a vast and rich online information resource accessible at http://technology-assessment.info/, combining information on TA experts, projects and institutes across Europe, as well as TA-centered publications of leading TA authors and evangelists.

PACITA is supported through the EU's 7th Framework Program. ARC Fund is one of 15 partners from 13 European countries. Partner institutions include national and regional parliamentary offices for science and technology, science academies, research institutions, universities, and civil society organisations.

EnVision2020

In collaboration with two partners from Bulgaria, including Sofia Municipality and the Sofia Energy Agency (SOFENA) and others from across Europe, ARC Fund initiated the 'Energy Vision 2020 for South East European Cities' (EnVision2020) project.

The project aims to:
- analyse the energy sector and energy resources consumption in the target cities against EU priorities as well as to compare legislation and institutions responsible for the development and implementation of energy strategy;
- identify key technologies essential to improving the efficiency of energy resource consumption in cities;
- identify and develop new and innovative financial instruments

to support RES and new forms of energy in collaboration with business and financial sector representatives;

- produce technology roadmaps and organize high-level meetings to endorse the roadmaps, and develop policy recommendations to local and national levels based on them;
- host mutual learning workshops, which allow for the identification and development of common visions for energy resources consumption as well as the development of joint policy priorities, in order to share experiences, practices and successes in achieving their energy objectives.

The main results of the project include individual technology roadmaps, policy implementation plans and joint energy priorities for the SEE partner cities as well as recommendations to the relevant EU institutions.