

Accessing global knowledge and technology in lagging areas

Innovation happens not only when **knowledge and technologies** that are “new to the world” are developed, but also when these are **adapted and used in new countries, regions, sectors or firms**. This form of innovation is more suitable for contexts with a relatively weak knowledge base, and it is less costly and less risky than creating new technology.

Policy instruments to facilitate the acquisition and use of existing knowledge and technology and its adaptation to new local contexts include:



Policy instruments

(1) Demonstration of new technologies and training provided by S&T specialists

In China, for example, agriculture in most lagging areas still depends on outdated technology. This hinders improvement of agricultural productivity and the well-being of rural populations. The [Spark Programme](#) [1] (1986-2015) was the first plan implemented to revitalise the Chinese rural economy through science and technology. It provided technology training to farmers, so as to change their traditional production methods for more technologically advanced ones. The [Envoy System](#) [2] has also been implemented in China since 2002 to promote innovation in rural areas by sending qualified science and technology specialists to those areas to provide farmers with S&T services, including demonstrations, training and advice. More recently, S&T envoys' tasks switched from agricultural technology services to helping farmers set up as S&T entrepreneurs.

(2) Financial support to projects that use STI solutions to address local challenges

For instance, [Colombia's Ideas for Change](#) [3] programme [3] is implemented to allow vulnerable communities to identify specific needs and challenges through a virtual platform. The STI community (i.e. individual researchers, firms, universities and research institutions) can then propose specific solutions to their problems, which should be creative and involve low-cost technologies. Grants are provided to implement the selected solutions.

[Chile's Prototypes of Social Innovation programme](#) [4] issues calls for innovative solutions to local challenges on an online open innovation platform. Candidates present their ideas on the platform, where they interact with mentors and local communities in order to develop and improve their ideas. Final proposals are submitted for funding and the best solutions are selected. The innovative solution must, in addition to answering the specific social challenge and having potentially high social impact, be suitable for intellectual property protection, and be potentially replicable, sustainable and suitable for scaling up. The chosen solutions receive a non-repayable grant covering up to 80% of the project development (up to approximately USD 60 000), while applicants are responsible for the remaining percentage. Funding is provided in two phases: the first one covers proof of concept and is limited to CLP 4 million (approximately USD 6 000), while the second supports the development of a prototype of the social innovation, including testing with the recipient community as well as a sustainable business model and a plan for scaling up. Both programmes involve the active participation of local communities in identifying local challenges as well as in implementing the selected solutions.



Policy cases

Spark Programme - China



1. Short Description	
<p>The 'Competitive Feasibility Fund for Female Entrepreneurs' and the 'Competitive Start Fund for Female Entrepreneurs' aim to assist female entrepreneurs and female-led start-ups in accelerating the growth of early stage companies that have the capability to succeed in global markets. The 'Competitive Feasibility Fund for Female Entrepreneurs' does so by providing grants for funding feasibility studies. The 'Competitive Start Fund for Female Entrepreneurs' provides equity investment to support costs associated with developing business plans and making progress on reaching key commercial and technical milestones, such as evaluating overseas market opportunities, building prototype, and securing third party investments (e.g. business angel, venture capital).</p> <p>These funds support projects on a competitive basis, focusing on companies with a high growth potential within three years in terms of international sales volume and employment creation in Ireland. These programmes are part of an Integrated Female Entrepreneurship Strategy.</p> <p><i>This policy profile is part of a policy toolkit on innovation policies for inclusiveness. It is relevant for social inclusiveness.</i></p>	

2. Policy Characteristics	
Basic Information	
Country and leading institution:	Timeline:
Ireland Enterprise Ireland	2012 to present (as of February 2016)
Target group	Size and budget:
Groups (women entrepreneurs) The programme targets female-led businesses, an underrepresented cohort in the start-up space both nationally and internationally.	Number of recipients: Between 15 and 20 recipients per call. Budget: Competitive Feasibility Fund: the total fund size is up to EUR 250,000 per call. Recipients receive grants up to EUR 25,000; Competitive Start Fund: -
Type of policy instrument(s)	Inclusiveness focus
Financial support: Grants (Feasibility Fund), Equity funding (Start Fund) Non-financial support (mentoring)	Social Inclusiveness

[5]

1986-present

Objective: Enhance the innovation performance of the rural economy through science and technology and popularise science and technology in rural areas.

Target: Rural areas.

Instrument: Technology and management training; support to projects

that use S&T and know-how from research institutes to solve local

technology programmes.

Envoy System - China

2002-present

Objective: Allow for more innovation among rural populations by dispatching S&T specialists to the countryside and promoting innovative entrepreneurship in the rural areas.

Target: Farmers in rural areas.

Instrument: Qualified S&T specialists provide farmers with S&T



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personalised consulting.

Ideas for Change - Colombia



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2012-2014

Objective: Find solutions to challenges faced by poor and vulnerable communities, particularly in the environment and energy fields.

Target: Poor and vulnerable local communities with unmet needs, particularly relating to the environment and energy fields.

Instrument: Grants provided to firms, universities and research institutions that can solve local challenges (identified in consultation with local communities) in the environment and energy fields.

Prototypes of Social Innovation programme - Chile

2014-present



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Objective: Develop proofs of concept and prototypes of innovative solutions to meet social/regional challenges through open innovation.

Target: Regions and communities facing specific social challenges.

Instrument: Grants to develop proofs of concept and prototypes of

new solutions to meet major regional challenges. An open call for

innovations is issued, encouraging individuals, companies, universities

and others to innovate.

[5]

Source URL: <https://www.innovationpolicyplatform.org/content/accessing-global-knowledge-and-technology-lagging-areas>

Links

[1] <https://innovationpolicyplatform.org/content/accessing-global-knowledge-and-technology-lagging-areas#China29>

[2] <https://innovationpolicyplatform.org/content/accessing-global-knowledge-and-technology-lagging-areas#China32>

[3] <https://innovationpolicyplatform.org/content/accessing-global-knowledge-and-technology-lagging-areas#Colombia1>

[4] <https://innovationpolicyplatform.org/content/accessing-global-knowledge-and-technology-lagging-areas#Chile30>

[5] https://innovationpolicyplatform.org/oa_folders/toolbox/download/22626/7056/nojs