PUBLIC-PRIVATE PARTNERSHIPS FOR AGRICULTURAL INNOVATION: LESSONS FROM RECENT EXPERIENCES

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Agricultural innovation context

- PPPs to improve the performance of agricultural innovation systems
  - Better adaptation to sectoral needs, thus wider and more rapid adoption of innovation
  - Better use of public funds, focusing on areas or steps in the innovation chain where the private sector does not invest

- What is different in agriculture? Participation of farmers/communities, value-chain approach (including agri-food SMEs), role of extension/knowledge brokers, PPP for research but also for diffusion.

- Compared to PPPs for STI in general

Source: PPPs for agricultural innovation: Lessons from recent experiences, OECD Food, Agriculture and Fisheries Papers No.92


Definition of PPPs in STI

• “any formal relationship or arrangement over fixed-term/indefinite period of time, between public and private actors, where both sides interact in the decision-making process, and co-invest scarce resources such as money, personnel, facility, and information in order to achieve specific objectives in the area of science, technology, and innovation”.

• To distinguish PPPs from pure contract research or purchase of services and equipment, additional characteristics are that these collaborative research or innovation efforts are carried out jointly, co-financed by public and private partners, and may or may not be institutionalised in a designated entity.

• Suitable for PPPs in agriculture innovation but it is sometimes difficult to define the boundaries of the sector, and innovation activities.
General considerations

- PPPs are defined more or less narrowly or formerly.
- There is a wide variety of PPP: scale, number and type of partners, time, national or international.
- Rationale to join forces is when individuals alone cannot produce the same service or output, or do it at higher cost (response to policy, market and coordination failures).
- For governments, PPPs are:
  - A means to increase the impact of public funds
  - A policy option among others
- Requirements: shared objectives, mutual benefits and complementarity in human and financial resources.
- Costs and benefits should guide participation.
- Good governance and government leadership are essential for success.
• **A stringent competitive process** where proposals have to compete, based on the quality of their scientific content, their industrial relevance and the soundness of their business plan (bottom-up or mixed, with top-down criteria).

• **International openness** for firms and universities and research institutions, when these hold critical complementary competencies

• **Participation of small firms** encouraged but not to the detriment of success. SMEs are key actors in some research areas, in others, participation should be facilitated, through consortium of SMEs, separate diffusion centres, and policy approaches taking account of their diversity.

• **Prior agreement on intellectual property rights (IPRs).** Government should not impose more than broad principles. Detailed contractual provisions should be left to partners. But the existence of a clear agreement among would-be partners should be made a necessary condition for government support.
Good practices: Optimal financing

- **Leverage.** The cost-sharing arrangements should ensure high reciprocal leverage.
- **Long-term commitment.** Support from government should be guaranteed for a sufficient long period (e.g. at least 4-5 years, up to 7 years)
- A ceiling to government subsidy.
- **Flexibility** in financial and other arrangements, depending on the area, the stage of innovation, and over time as PPPs mature.
Good practices: Efficient organisation and management

- **Customization.** Different organisational arrangements depending on technological areas and preferences of partners.

- **Autonomy and strong industry involvement.** Industry should generally be given the majority votes in governing boards.

- **Legitimacy and leadership.** PPPs should include all leading enterprises and public research centres in the relevant technological fields.

- **Efficient knowledge management** to minimise the risk of opportunistic behaviour and to motivate partners.

- **Involvement of end-users.**

- **Visibility.** The institutional form of PPPs should help them acquire visibility at both nationally and internationally.
Good practices: Evaluation

• Ex-ante, interim and ex-post evaluation are all necessary.
• Assessing behavioural additionality is needed since one of the objectives of PPPs is to promote long-lasting changes in the attitudes of both the public and private research communities.
• The involvement of foreign scientific, technological and business experts is usually required, given the limited pool of national expertise, possible conflict of interests, and the global nature of markets for end-uses of research outcomes.
• The evaluation has to be systemic. The portfolio of PPPs, and not only individual PPPs, need to be evaluated. The interaction with other policy instruments ought to be taken into account.
• Evaluation should be closely linked to all decision and learning processes. Evaluation shall not only inform policy makers about the economic impact of such use of budget resources, but also be inspiring for the managers of PPPs.
Enabling funding mechanisms

• General and specific to agriculture

• Granting of public money subject to PPP participation,
  – Top sector policy in the Netherlands.
  – Cooperative Research Centres (CRC) programme in Australia
  – Agri-Science clusters as part of agrilInnovation in Canada
  – Research and Development Corporations (RDCs) in Australia.

• Public funds with private co-funding:
  – CASDAR in France for applied research and extension,
  – Foundation For Food and Agricultural Research in the US with public funding and matching funds;

• Strategic programmes

• More generally, project-based funding mechanisms (e.g. Horizon 2020)
Enabling policies and institutions

- Stable business environment – capacity building
- IP rules, contract enforcement,
- Sharing of knowledge, training
- Support to SMEs
- Mechanisms to identify common objectives: Networks (EIP), Platforms, Centres of excellence, Value Chain round Tables, joint research centres
- Strategic Centers for Science, Technology and Innovation (SHOK) in Finland
- Contracts: e.g. Cooperative R&D Agreements in the US
- Labelling of institutes (Carnot institutes in France).
Policy considerations: conditions

• PPPs are not a panacea but can be an interesting option to pursue common goals

• Government should not be prescriptive about PPPs, but provide incentives that enable them when cost-efficient

• Not one size fits all, but important steps:
  – to develop shared goals, using existing networks and including all partners at early stage
  – Develop a clear business case with well-defined public interest
  – Check that PPPs are the best option
Policy considerations: governance

• Governance ensuring good use of public funds remains in the public sector, but management can be shared. Consultations by stakeholders at different stages

• Projects should include clear definition of targets, governance rules, and arrangements for sharing costs, risks and results.

• Governments need to provide incentives, where needed, to promote investment in R&D for non-private goods, social return and long-term objectives. Government's share should be commensurate with public benefits.

• More monitoring needs to be done to track progress and failures and identify when interventions may be needed.

• Evaluation procedures should be linked to funding arrangements. They allow for adaptation, but also for sharing experience about what works or does not work.
Policy considerations: capacity building

- PPPs need able partners; they cannot replace a failed state.
- Training for leaders in public sector, academic research, producer organisations for soft skills in communication, negotiation and business management is key to success. Private sector partnerships with universities provide funding, new curriculums and exposure to industry that broaden the skill set of future agriculture researchers.
- Particularly for agriculture technology projects, business skills are needed among non-industry actors where IPR, marketing and commercialisation are involved.
- Better understanding of each others’ culture.
- Partnerships can also be developed for education and knowledge (university agriculture science students, small farmers).
For more information

• Visit our website: www.oecd.org/agriculture
  http://www.oecd.org/agriculture/policies/innovation

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• Follow us on Twitter: @OECDagriculture
OECD context for reference

- **OECD Principles for public governance of PPPs** (for the delivery of public services: infrastructure and social assets, e.g. roads, hospitals)
  - Establish a clear, predictable and legitimate institutional framework supported by competent and well-resourced authorities
  - Ground the selection of Public-Private Partnerships in Value for Money
  - Use the budgetary process transparently to minimise fiscal risks and ensure the integrity of the procurement process
    

- **PPPs in Science, Technology and Innovation (STI)** (1998, 2005): Broader purpose than value for money because of intellectual assets and time for benefits to materialise; broader diversity of stakeholders. Consider the rationale and governance regarding selection of projects and participants, optimal financing, efficient organisation and management and evaluation
  
  http://www.oecd.org/sti/sci-tech/introductionstireviewno23publicprivatepartnershipsinscienceandtechnology.htm

- **Strategic PPPs in STI** (2014) - Large-scale, challenge-driven, value-chain and systemic approach: trends, financing modes, evaluation
  
  http://dx.doi.org/10.1787/sti_outlook-2014-8-en