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

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Research and Innovation Policies for Sustainable Productivity Growth in Agriculture Symposium
19-20 September 2017, Washington D.C.
Agricultural innovation context

• **Objectives:** PPPs to improve the performance of agricultural innovation systems and increase the impact of public funds
  – Better adaptation to sectoral needs, thus wider and more rapid adoption of innovation
  – Focus public funds on areas or steps in the innovation chain where the private sector does not invest (TRL scale)

• **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 knowledge and innovation diffusion

• **Boundaries:** PPPs can be defined more or less narrowly or formerly; definition of agricultural innovation activities
Technology Readiness Level scale

1  2  3  4  5  6  7  8  9

Basic Research  Proof of Feasability  Technological Development  Technological Demonstration  System tests  Implementation of operational systems

Collaborative approach

Partenarial approach (B2B)

Knowledge and publications

Intellectual property

Public funding

Private funding

Uncertainty of explored possibilities

Investment required for implementation

High genericity

Dependency to local conditions

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OECD definition of PPPs for innovation

- 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.
General considerations

• There is a **wide variety** of PPPs: 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
Good practices:
Selection of projects and participants

- **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.

- **International openness** for firms and research organisations

- **Participation of small firms** encouraged but not to the detriment of success.

- **Prior agreement on intellectual property rights (IPRs).** Detailed contractual provisions should be left to partners, but 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: Evaluation

• Ex-ante, interim and ex-post evaluation are all necessary.
• Assess behavioural additionality.
• Involvement of foreign scientific, technological and business experts, given the limited pool of national expertise, possible conflict of interests.
• Systemic evaluation of the portfolio of PPPs, and not only individual PPPs, including the interaction with other policy instruments.
• Evaluation should be closely linked to all decision and learning processes. To inform policy makers about the economic impact of public investment, but also other actors.
Enabling funding mechanisms

• Can be for all innovation activities or specific to agriculture

• Public funds 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
Enabling policies and institutions

- Stable business environment – capacity building
- IP rules, contract enforcement,
- Sharing of knowledge (in PPP management), 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 replaced 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.
- 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.
For more information

  - [http://dx.doi.org/10.1787/5jm55j9p9rmx-en](http://dx.doi.org/10.1787/5jm55j9p9rmx-en)

- Country reviews in [www.oecd.org/agriculture/policies/innovation](http://www.oecd.org/agriculture/policies/innovation)

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