A group of people, including men and women, are seen from behind, standing in a field of tall, golden-brown grass. They are looking towards a distant town or village nestled in a valley, surrounded by lush green trees and hills under a clear blue sky. The people are wearing traditional head coverings and shawls in various colors like white, brown, and purple.

Guidelines

for Innovation Platforms

in Agricultural Research for Development

Marc Schut and colleagues

Guidelines for Innovation Platforms in Agricultural Research for Development

Decision support for research, development and funding
agencies on how to design, budget and implement
impactful Innovation Platforms

Marc Schut (IITA/ WUR) | Jens A. Andersson (CIMMYT) | Iddo Dror (ILRI) |
Josey Kamanda (AfricaRice) | Murat Sartas (IITA/WUR) | Remco Mur (KIT)
| Shinan Kassam (ICARDA) | Herman Brouwer (WUR-CDI) | Dietmar Stoian
(Bioversity International) | André Devaux (CIP) | Claudio Velasco (CIP) | Andreas
Gramzow (WorldVeg) | Thomas Dubois (WorldVeg) | Rica Joy Flor (IRRI) | Martin
Gummert (IRRI) | Djuna Buizer (WUR) | Cynthia McDougall (WorldFish) | Kristin
Davis (IFPRI) | Sabine Homann-Kee Tui (ICRISAT) | Mark Lundy (CIAT)

Authors and affiliations

Marc Schut

International Institute of Tropical Agriculture (IITA) and Knowledge, Technology and Innovation Group, Wageningen University, Kigali, Rwanda.
Email: m.schut@cgiar.org

Jens A. Andersson

International Maize and Wheat Improvement Center (CIMMYT), Texcoco, México.
Email: j.andersson@cgiar.org

Iddo Dror

International Livestock Research Institute (ILRI), Nairobi, Kenya.
Email: i.dror@cgiar.org

Josey Kamanda

Africa Rice Center (AfricaRice), Dar es Salaam, Tanzania.
Email: j.kamanda@cgiar.org

Murat Sartas

International Institute of Tropical Agriculture (IITA) and Knowledge, Technology and Innovation Group, Wageningen University, Kigali, Rwanda.
Email: m.sartas@cgiar.org

Remco Mur

KIT Sustainable Economic Development, Amsterdam, The Netherlands.
Email: r.mur@kit.nl

Shinan N. Kassam

International Centre for Agricultural Research in the Dry Areas (ICARDA), Cairo, Egypt. Email: s.kassam@cgiar.org

Herman Brouwer

Wageningen University & Research, Centre for Development Innovation (CDI), Wageningen, The Netherlands. Email: herman.brouwer@wur.nl

Dietmar Stoian

Bioversity International, Montpellier, France. Email: d.stoian@cgiar.org

André Devaux

International Potato Center (CIP), Quito, Ecuador. Email: a.devaux@cgiar.org

*Cover photo: Farmers evaluating traits of wheat varieties, Ethiopia.
Photo: J. van de Gevel, Bioversity International.*

Preface

Innovation Platforms are fast becoming part of the mantra of agricultural research for development projects and programmes. Their basic tenet is that stakeholders depend on one another to achieve agricultural development outcomes, and hence need a space where they can learn, negotiate, and coordinate to overcome challenges and capture opportunities through a facilitated innovation process. This important publication provides a critical analysis of Innovation Platforms, their defining features, key functions, and what they can and – as importantly – cannot do.

It will be invaluable reading both for those who fund development projects and programmes and would like to understand when Innovation Platforms are the approach of choice, and for those practitioners who implement and facilitate Innovation Platforms and would like to understand better their design principles and practical implementation issues.

Because Innovation Platforms have been successful in addressing agricultural challenges, there is a risk that they will be promoted as a panacea for all problems in the agricultural sector. As the authors make clear, however, not all constraints will require Innovation Platforms and, if there is a simpler and cheaper alternative, that should be the first choice. It is essential to think more critically about when, how, and in what form Innovation Platforms can contribute meaningfully to agricultural development impacts.

Claudio Velasco

International Potato Center (CIP), Quito, Ecuador. Email: c.velasco@cgiar.org

Andreas Gramzow

World Vegetable Center (WorldVeg), Arusha, Tanzania.

Email: andreas.gramzow@worldveg.org

Thomas Dubois

World Vegetable Center (WorldVeg), Arusha, Tanzania.

Email: thomas.dubois@worldveg.org

Rica Joy Flor

International Rice Research Institute (IRRI), Phnom Penh, Cambodia.

Email: r.flor@irri.org

Martin Gummert

International Rice Research Institute (IRRI), Los Baños, Laguna, Philippines.

Email: m.gummert@irri.org

Djuna Buizer

Wageningen University and Research Center, Wageningen, The Netherlands.

Email: [djunaabuizer@hotmail.com](mailto:djunabuizer@hotmail.com)

Cynthia McDougall

WorldFish, Penang, Malaysia. Email: c.mcdougall@cgiar.org

Kristin Davis

International Food Policy Research Institute (IFPRI), Washington, USA.

Email: k.davis@cgiar.org

Sabine Homann-Kee Tu

International Crops Research Institute for the Semi-arid Tropics (ICRISAT), Bulawayo, Zimbabwe. Email: s.homann@cgiar.org

Mark Lundy

International Center for Tropical Agriculture (CIAT), Cali, Colombia.

Email: m.lundy@cgiar.org

The document was developed through a learning collaboration between CGIAR research centres and other academic and more applied research centres. Eleven of the 15 CGIAR centres participated and contributed their expertise and experiences across multiple agricultural systems, geographies, and types of complex constraint. The booklet provides information grounded in a rich practical experience of key design and implementation principles, and the financial and human resources that need to be made available, and it makes suggestions for more effective monitoring, evaluation, and learning. It also lists reference materials, answers frequently asked questions, and provides a decision support tool for research, development, and funding agencies.

All in all, this publication offers a lot for those who aspire to make sensible use of Innovation Platforms in pursuing agricultural development!

Dr Graham Thiele

Prof Cees Leeuwis

*Director CGIAR Research Program
on Roots, Tubers and Bananas,
International Potato Centre,
Lima, Peru*

*Knowledge, Technology and Innovation Group,
Wageningen University and Research,
Wageningen, The Netherlands*

Guidelines for Innovation Platforms in Agricultural Research for Development

Decision support for research, development and funding agencies on how to design, budget and implement impactful Innovation Platforms

This publication was developed with support from the CGIAR Research Program on *Roots, Tubers, and Bananas (RTB)*. We acknowledge RTB and the CGIAR Fund Donors (www.cgiar.org/about-us/governing-2010-june-2016/cgiar-fund/fund-donors-2/) for their provision of core funding without which this publication would not have been possible.

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Author organisations



Supporting projects and programmes



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Introduction

Innovation Platforms are an increasingly popular approach to enhancing multi-stakeholder collaboration in agricultural research for development (AR4D) programmes. Innovation Platforms facilitate interaction and collaboration within and between networks of farmers, governmental and non-governmental service providers, policymakers, researchers, private sector players, and other stakeholders in the agricultural system (Schut et al., 2016). As the name indicates, Innovation Platforms have an innovation objective, that is, the introduction and utilization of any new knowledge (technological or other) in an economic or social process (OECD, 1999).

What is an Innovation Platform?

An Innovation Platform is a space for learning, action, and change. It is a group of individuals (who often represent organizations) with different backgrounds, expertise, and interests: farmers, traders, food processors, researchers, government officials, and so forth. The members come together to diagnose problems, identify opportunities, and find ways to achieve their goals. They may design and implement activities as a platform or coordinate activities by individual members (Homann-Kee Tui et al., 2013).

Innovation Platforms encourage creativity and learning, and provide a safe environment for multiple actors to experiment and explore solutions to their joint problems (Homann-Kee Tui et al., 2015). Depending on the level at which an Innovation Platform is established (e.g. village, regional, national), and on those initiating the platform, the objective might be to tackle a specific technological, organizational, or institutional challenge in a value chain (e.g. access to high quality potato seeds) or a more generic problem that needs to be addressed across value chains (e.g. farmers' access to agricultural credit). Once the Innovation Platform has achieved its objective, its members may (or may not) decide to take up new challenges. Innovation Platforms can start as informal networks and be forged into more formalized structures, such as public-private partnerships, with the ultimate goal of becoming self-sustaining entities.

Over the past years, Innovation Platforms have increasingly been established within the framework of AR4D initiatives. The Innovation Platform approach is particularly being embraced as a model for achieving development outcomes and impacts. Given the growing momentum of Innovation Platforms, this seems to be a good time to consider both their promise and their limitations. The objective is to generate realistic expectations about what Innovation Platforms can and cannot achieve in AR4D initiatives. As the implementation of Innovation Platforms can consume significant time, energy, and other resources, these guidelines are geared towards development practitioners, researchers, funding agencies, or farmer unions themselves interested in using Innovation Platforms in their AR4D or business development programmes.

The guidelines aim to support these actors in:

- Reflecting on when and under what conditions Innovation Platforms are an appropriate mechanism to foster collective action and innovation for resolving agricultural development problems and capitalizing on opportunities;
- Designing Innovation Platforms, including the definition of realistic goals, facilitation mechanisms, timelines, responsibilities, and how to measure outcomes and impact;
- Allocating necessary resources, creating the enabling conditions required for the effective implementation of Innovation Platforms, and developing metrics to assess their impact.

These guidelines are not a cookbook that provides step-by-step advice on dos and don'ts with regard to Innovation Platforms. Such advice can be found in Adekunle et al. (2010), Makini et al. (2013), Brouwer and Woodhill (2016), and Francis et al.

(2016). Instead, a number of key questions are raised here, which assist research, development, and funding agencies and farmer unions to decide whether and how Innovation Platforms can help them in achieving their objectives. For each subsection, we give examples of situations in which Innovation Platforms may NOT be useful, effective, fundable, or contribute to achieving development outcomes.

In section 10, a list of reference material is provided, detailing Innovation Platform practice briefs on various aspects of Innovation Platforms.



Local seed businesses from different parts of West Nile, Uganda learn from Kiruli Integrated Village Saving & Loan Scheme office bearers about how to form an Association.

PHOTO: Integrated Seed Sector Development (ISSD), CDI

2

Rationale for using Innovation Platforms in AR4D

Before adopting an Innovation Platform approach, one should carefully reflect on whether or not Innovation Platforms are the most efficient/cost-efficient and useful way to achieve project or stakeholder objectives. Questions that can guide decision making include:

- What are the expected functions of the platform?
- What can Innovation Platforms achieve efficiently?
- When are Innovation Platforms particularly useful?

2.1 What are the expected functions of Innovation Platforms?

In an effort to create space for learning, action, and change, Innovation Platforms can fulfil a collated range of functions in AR4D processes. These functions include (Kilelu et al., 2011):

- Demand articulation: Facilitating the process of identifying challenges and opportunities as perceived by the various stakeholders through diagnostic exercises, visioning, and needs assessment. The needs could include access to information, technologies, finance, or institutional gaps;
- Inclusive and participatory action: Identifying modes of collaboration and gov-

- ernance that are participatory and empowering for all stakeholders involved;
- Operationalizing experimental learning: Testing options for challenges and opportunities in a real-world context;
- Institutional support: Facilitating and lobbying for institutional change (for example, policy innovation and new business models);
- Network brokering: Identifying and linking different actors, stimulating new actor relationships;
- Capacity building: Developing the system's inherent capacity to learn, self-organize, and innovate, incubating new organizational forms, nurturing its members' skills (entrepreneurship, representation, coordination, communication);
- Innovation process management: Coordinating interactions and facilitating negotiation and learning among different actors;
- Knowledge brokering: Identifying knowledge and technology needs, and mobilizing and disseminating the technology and knowledge from different sources.

Innovation Platforms do not necessarily fulfil – or indeed need to fulfil – all of these functions, and there may be a certain sequencing of the functions. The composition of the Innovation Platform may differ during the different platform phases and functions, as the involvement of different stakeholder groups may be more or less relevant during different phases or functions (Lamers et al., 2017).

To fulfil these functions, different types of activities can be undertaken by Innovation Platforms (Table 1). Depending on the specific focus or objectives of the platform, these activities can be undertaken in a different order, either stepwise or parallel to one another.

These are not functions of Innovation Platforms

Grouping farmers to transfer predetermined packages of agricultural technologies and information or providing one-off meetings or training for a selected group of stakeholders.

2.2 What can Innovation Platforms achieve efficiently?

Innovation Platforms are about developing and testing (new) ideas, knowledge, technologies, and new ways to organize individuals and organizations to effectively solve problems and capitalize on opportunities. Regardless of whether Innovation

TABLE 1 | Innovation Platform activities (adapted from Hekkert et al., 2007).

Innovation Platforms can support	Description
Knowledge generation	Experimentation, learning, and knowledge development as central elements of innovation, with better integration and synergies among technical, organizational, and institutional options.
Facilitation of multi-directional information flows	Exchange of information and views of those concerned through networks, allowing information to spread.
Creation of, or an increase in, momentum for change	Generating solutions in context, on the basis of shared expectations and vision, creates buy-in and unity among Innovation Platform members and legitimacy for the innovations being generated. It motivates collective action to address complex challenges, enhances learning processes, and generates solutions with multiple benefits.
Guidance of research, policy, and investment priorities	Prioritization of innovation options based on preferences or expectations of informed stakeholders, for targeted resource allocation.
Market formation	Facilitation of (niche) market creation, in marginal areas, post-conflict zones, illustrating market opportunities, creating trust in market agents, transportation of produce to faraway markets.
Building entrepreneurial skills	Creation of business opportunities by deploying new technologies, markets, learning, and networking.
Policy development	Involving policy advocates and decision makers in an Innovation Platform is a way to sensitize effectively about policy gaps and generate evidence.
Resources mobilization	Assembly of diverse resources (e.g. financial, human, social, and physical resources) required to leverage change.

Platforms are established at local or higher levels, they can explore technological, organizational, and institutional solutions, making them ideal for addressing problems in an integrated manner (Flor et al., 2016; Sanyang et al., 2014; Schut et al., 2016). In a way, the formation and operation of innovations platforms can be seen as an organizational or institutional innovation in itself, as it entails changes in ways of collaborating and interacting and in relationships between actors and organizations to overcome obstacles and improve the impact of their collective action.

In AR4D, Innovation Platforms can support participatory action research. Participatory action research combines two processes: (1) conducting research together with key stakeholders and (2) doing action- and outcome-oriented research.

The involvement of key stakeholders is important for three reasons. First, stakeholder groups can provide various complementary insights about the biophysical, technological, and institutional dimensions of the problem, thereby broadening the knowledge base. Thus, by engaging in a social learning process with one another, stakeholders can negotiate what type of innovations are technically feasible, economically viable, and socio-culturally and politically acceptable (Esparcia, 2014; Hermans et al., 2011; Schut et al., 2014). Second, through their interaction and participation, stakeholder groups become aware of their different interests, needs, and objectives, but also of their fundamental interdependencies and the need for concerted action at different levels to overcome their constraints and reach their objectives (Leeuwis, 2000; Messely et al., 2013; Schut et al., 2013). Third, stakeholders are more likely to accept or support the implementation of innovations when they have been part of the design and testing process (Faysse, 2006; Neef and Neubert, 2011). It is essential that the Innovation Platform members are closely involved in defining their common vision, objectives, and pathways to achieve them, and have a shared understanding of how the platform should operate.

Doing action- and outcome-oriented research requires flexibility, as Innovation Platforms operate in dynamic contexts, and themselves aim to promote change. Action research takes the Innovation Platform members through cycles of *designing* interventions, *testing* in practice, *observing* whether activities bring about desirable change, *reflecting* on what goes well and what can be improved; this results in a new phase of *(re)designing* the interventions... Members need to be prepared to adapt their approach and expectations and, in some cases, for 'failure.' This adaptive capacity is best achieved with relatively small groups (usually between 20 and 40 individuals) who work very intensely on solving a specific or more generic agricultural problem. Over time, membership may increase (e.g. new farmer groups join

or new members are invited to address specific challenges) or decrease (e.g. some partners may lose interest or leave the platform if their needs have been met).

Not efficient

Innovation Platforms may not be the best vehicle to reach large numbers of farmers or other clients. In such cases, building on existing public or private extension systems may be more relevant and more cost-effective.

2.3 When are Innovation Platforms particularly useful?

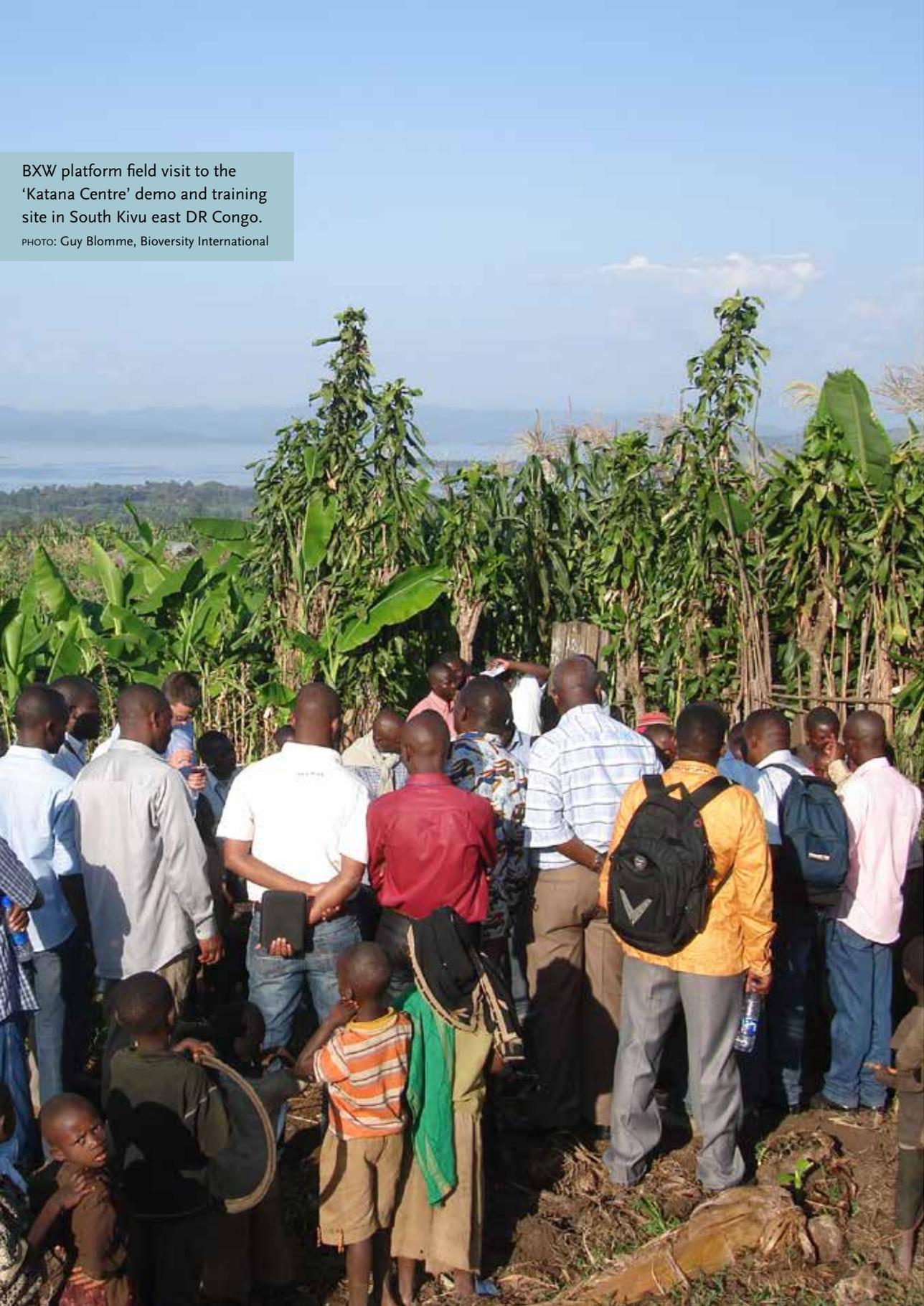
In general terms, Innovation Platforms are useful when:

- Persons or organizations that represent different socio-economic backgrounds, interests, and perspectives have a stake in a particular problem or solution;
- Multiple persons or organizations want to experiment jointly on aspects that they cannot solve individually or that benefit from synergies in site-specific analyses;
- New solutions require multiple knowledge sources or technical perspectives (technological innovation), effective collaboration (organizational innovation), pooling of resources, and/or new rule and incentive structures (institutional innovation) and their better integration;
- Partners are willing to share knowledge, resources, benefits, and risks.

If an Innovation Platform approach is deemed useful, it is still necessary to first make an inventory of existing platforms and networks. If the purpose, modus operandi, and power dynamics of these existing platforms are in line with the objectives and needs of the involved stakeholders, then building on these existing platforms may be more efficient and quicker than setting up a new Innovation Platform (Boogaard et al., 2013; Cullen et al., 2013; Cullen et al., 2014).

Not useful

Problems or opportunities that can be addressed by an individual or a single organization do not require an Innovation Platform approach. Sometimes issues can be better dealt with through simpler and short-term collaborations or formal contractual arrangements (Head, 2008).



BXW platform field visit to the 'Katana Centre' demo and training site in South Kivu east DR Congo.

PHOTO: Guy Blomme, Bioversity International

3

Design principles for effective Innovation Platforms

Once the need for an Innovation Platform has been identified based on the above criteria, and before its implementation, a few design principles need to be considered:

- Whom to invite and how to nurture their engagement?
- At what geographical level to pitch the platform?
- Which cycles or phases are typical for the Innovation Platform process?
- What capacities and skills are needed and which are available?
- How to monitor progress and how to integrate this in an effective and efficient system for monitoring, evaluation, and learning (MEL)?

3.1 Whom to invite and how to nurture their involvement?

There is no fixed formula for who should be part of Innovation Platforms. The best answer is probably: *'Whoever can contribute to achieving the Innovation Platform's objectives.'* Bringing together a diversity of people and organizations represents a potential for innovation (Hall et al., 2006; Johnson et al., 2003; World Bank, 2006), as it opens opportunities for mutual understanding, building confidence, social learning, and joint action (Röling, 2002). However, such diversity can also lead

to tensions, conflicts, manoeuvring to seek advantage, and even group displacement, which can hinder collective action (Ruttan, 2008; Thiele et al., 2011). Working together is essential, but this requires investments in coordination (transaction costs) and the ability to reach compromises (negotiation).

The composition of an Innovation Platform often changes over time. People may leave the platform; others may join. The following questions can help a project developer or manager in thinking about Innovation Platform composition:

- How can one convene a set of actors who represent a 'system' and can prioritize solutions with sufficient relevance to all?
- Which stakeholders have a genuine interest in addressing a challenge, which stakeholders might be directly or indirectly affected, and which stakeholders have the mandate and capacity to support solutions?
- Which stakeholders can contribute to improving the environment such that the solution or innovations can be taken up by large numbers of people?
- Which stakeholders can bring resources to the table without threatening to take over and control the platform?
- Which stakeholders are influential and need to be informed, but not necessarily involved permanently?
- Are the relevant stakeholders on board for capturing diverse perspectives and expertise?

When deciding on whom to involve, it is important to consider the heterogeneity of farmers, diversity in farming systems and regions, and other variables related to the Innovation Platform theme or starting point. For example, when the mechanization of weeding in rice is the focus, preferred weeding technologies for highland and lowland rice fields (agro-ecological diversity) and for poor and rich farmers (socio-economic diversity) may differ considerably. In such a situation, project developers may decide to set up Innovation Platforms in different agro-ecological zones, for different socio-economic groups, or have an Innovation Platform that reflects both the agro-ecological and the socio-economic diversity.

Whom not to invite

Individuals or organizations that have no intention of collaborating in a participatory way, do not respect the visions of other platform members, or are not willing to engage in exploring solutions to problems will disrupt the innovation process.

3.2 At what geographical level to pitch the platform?

Innovation Platforms can be established at different levels such as village or community level, district level, and even province or national level (Tucker et al., 2013). The guiding question should be: 'At what level or levels can a challenge be addressed most efficiently?' For example, a problem of access to good quality planting material may be best addressed at the village or community level, whereas exploring irrigation options would require the involvement of stakeholders at the watershed level. As problems at local level are often rooted in, and interrelated with, problems at higher levels (e.g. lack of input certification leading to poor quality fertilizer on the market), the strategic involvement of national level policy actors may be desirable at some point.

Once successful innovations are identified at local level, the Innovation Platform can provide mechanisms for sharing experiences and getting the innovation adapted to, and adopted within, other contexts. Hence, coordination mechanisms are required at higher levels (Lamers et al., 2017). Engaging policymakers helps them comprehend potentials, constraints, and the policy support needed to achieve large-scale impact. Direct involvement can alert policymakers at the right time and might be more persuasive than the usual policy briefs. Making changes at higher levels often has a higher level of complexity and requires more time. Nevertheless, the spin-offs from achieving changes at policy level may have more impact on society. For example, agricultural policies are difficult to change, but, when they are changed, they have an extensive impact on the agricultural sector in a specific country.

Level at which Innovation Platforms may not be efficient

It is not efficient to address national level policy problems through local level Innovation Platforms. Local level Innovation Platforms can play a role in showing how policies work or do not work, and what may be suitable alternatives. However, this needs to be complemented by higher level policy advocacy.

3.3 Which cycles or phases are typical for the Innovation Platform process?

Once project developers, managers, funders, and potential members have decided that an Innovation Platform approach may be beneficial for achieving the project

objectives, the process towards implementation can start. Table 2 highlights the typical phases that Innovation Platforms go through (based on Homann-Kee Tui et al., 2013) and the associated cost categories in each phase. It is important to note that some of the phases are likely to occur in parallel (e.g. testing and refining innovation and develop capacity). Furthermore, strategies for outscaling and upscaling need to be an integral part of the platform's innovation process design (see also section 6.2) and should therefore not be seen as something that requires attention only when all other phases have been concluded. In addition, phases will often involve iterative learning and cycles of adaptation cycles. Upon concluding a series of experiments (in testing and refining an innovation phase), the platform may feel the need to re-discuss the focus and identify new options. Moreover, stakeholder needs and interests may change over time (e.g. because of biophysical, economic, or political shocks in the system). Figure 1 shows an example of the timeline of the Kiboga-Kyankwanzi Innovation Platform in Uganda.

TABLE 2 | Typical phases of Innovation Platforms and resources required.

<p>1. Platform initiation or identification A project or one or more individuals take the initiative to bring people together around a common (broad) topic. It can be decided to form a platform or to identify existing platforms with which to align.</p>
<p>2. Decide on focus Platform members gather, discuss, try to find common ground around a specific problem or opportunity, visit the field, perhaps conduct an exploratory survey or study. Depending on the specific focus, additional platform members can be approached.</p>
<p>3. Create joint-understanding of the problem and identify entry points Participatory situational analysis and priority setting to identify entry points for technological (seed or farming technique) or institutional (policy adjustment or new marketing strategy) innovation, validation of entry points through a survey or field visits.</p>
<p>4. Test and refine innovations Identified entry points for innovation are tested by (a subset of) platform members. There is regular feedback to the broader platform to explore whether experimentation is leading to expected results. Depending on the</p>

specific innovation being tested (e.g. a new crop variety, alternative cropping management, new land tenure arrangements), the duration of this phase may vary. Several innovations may be tested in parallel.

5. Develop capacity in the platform

In most cases, it is necessary to develop the capacity of different actors in order for the solutions to succeed. Farmers may need training in a new technique; cooperatives may need help with organization and bookkeeping; new ways may be needed to multiply and distribute seed or to manage the marketing of produce. The Innovation Platform identifies these needs and finds ways to develop the capacity required.

The Innovation Platform itself enhances actors' capacity (self-organization, representation, communication). Think about support options like, e.g., mentoring members' roles in self-organized market schemes, representing Innovation Platform interests to higher level policymakers.

6. Outscaling and upscaling

Create the preconditions that need to be put in place in order to make wide-scale adoption possible. To outscale, the Innovation Platform works with its member groups to get successful innovations adopted more widely or offers events for open participation, e.g. field days, demonstration events with the private sector. This may mean documenting and publicizing the innovation, arranging training, study, and exchange visits. To upscale, the Innovation Platform needs to go beyond knowledge dissemination.

Upscaling also entails the development of (new) financial products, (re-)organizing supply chains, developing business models, market access, new policies/regulations, and requires the involvement of actors and change agents who can make this work.

7. Transition

Re-assess conditions after upscaling and outscaling. New issues or problems may have become more important. Consider whether the platform should shift focus to addressing those. Re-convene interested stakeholders and include additional members as needed. The Innovation Platform itself, by gaining capacity and influence, can contribute to improving the environment for its operation.

When can we not speak of Innovation Platform phases?

A series of gatherings that do not intend to go through phases of joint problem identification, analysis, and action to explore solutions and represent interests, requirements, and achievements cannot be called an Innovation Platform. Similarly, one-off meetings organized to make presentations, provide training, or inform stakeholders cannot be called Innovation Platforms.

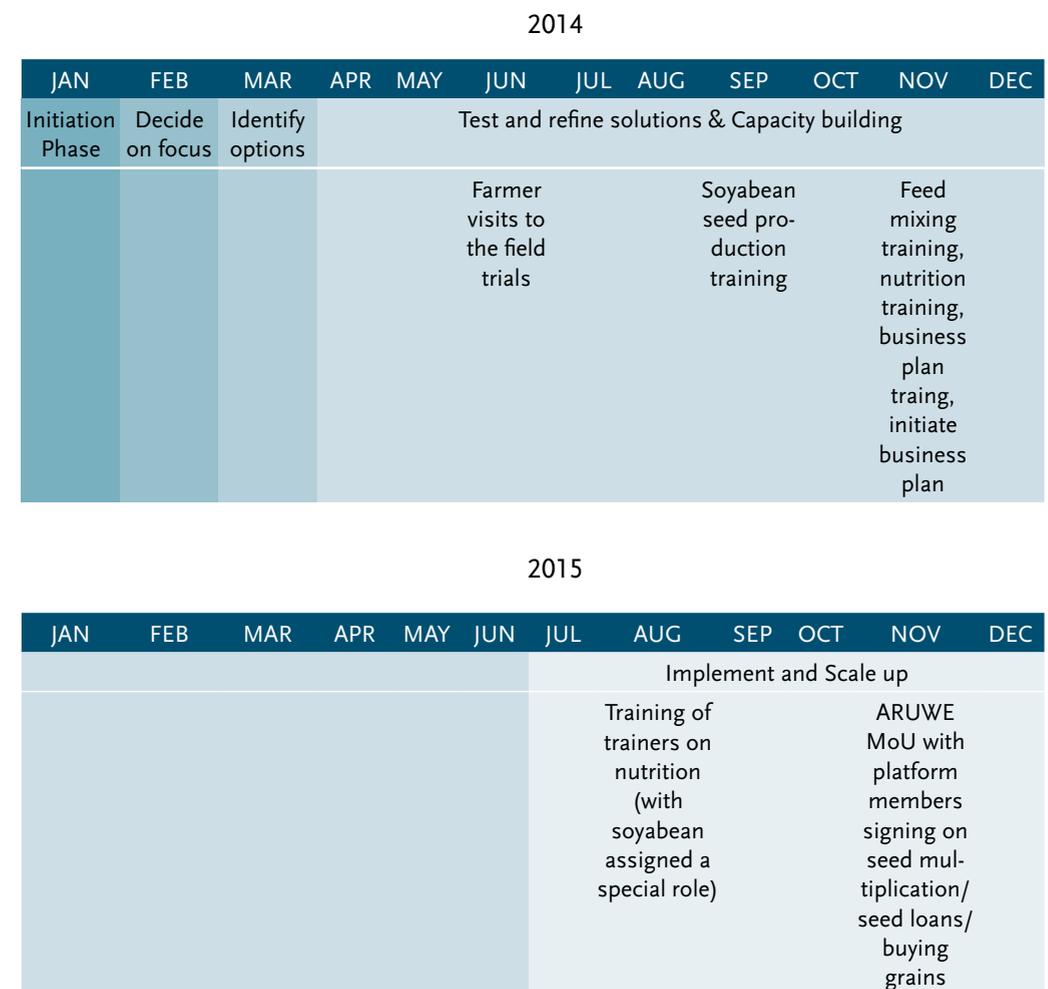
3.4 What capacities and skills are needed and which are available?

Innovation Platforms consist of multiple and heterogeneous groups of stakeholders with different needs, interests, ideas, and competencies in terms of what they can offer to the platform. Facilitation of their interactions, collaborations, and actions is needed to arrive at commonly agreed upon objectives. Innovation Platforms can become arenas of struggle, as solutions for some members may create new obstacles for other members (Leeuwis, 2000). Moreover, power differences exist between different members (farmer versus government official), and not all members may have equal discussion and negotiation skills (Cullen et al., 2013). Although one of the functions of Innovation Platforms is to provide this space for interaction, negotiation, and even conflict, it should not hamper the achievement of the commonly agreed upon goal or objective. Thus, facilitation of Innovation Platforms is a prerequisite for their performance and success.

But who should be the facilitator? What often happens is that one of the stakeholders or stakeholder groups (e.g. those who initiated the AR4D process) employs a facilitator. According to Hartwich et al. (2007 p. vii), the formation and operation of networks for agricultural innovation in developing countries require ‘third-party agents to bring partners together, motivate them, provide information, and organize space for negotiations.’

Many efforts aimed at building innovation partnerships have been, and currently are, fostered or driven by AR4D projects. Researchers and development practitioners engaged in these projects are increasingly called upon to act as facilitators or third-party agents. When they act as facilitators, conflicts of interest may arise, and they may confront problems about ambiguity of functions, or they can be viewed by other actors as competitors rather than as neutral or legitimate facilitators (Devaux et al., 2010; Klerkx et al., 2009). Stakeholders in an Innovation

FIGURE 1 | Example of the timeline of the Kiboga-Kyankwanzi Innovation Platform in Uganda between January 2014 and December 2015 (Buizer, 2016). The test and refine solutions and the capacity building phases were combined. A transition phase was not achieved in this specific case.



Platform that is in its early stage may not feel confident about what it is and how to facilitate; they may look to project implementers and researchers to take the lead. Facilitation may also be shared between various people; this can in itself be a strategy to build a collaborative ethos and shared ownership in the Innovation Platform.

The most important competencies for a facilitator are integrity and professionalism. Furthermore, facilitators must manage dialogue and stimulate collective problem analysis by multiple stakeholders and decide jointly on how to overcome problems. Facilitators also support Innovation Platform members in engaging in (collective) action and being accountable to one another. By linking different stakeholder groups across levels, facilitators play another very important role in connecting (local) Innovation Platforms to policy level stakeholders to create an enabling environment for the Innovation Platform's work or for the scaling of successful innovations that have emerged from the platform activities. In doing so, facilitators do much more than just organize and manage platform meetings. They ensure that the Innovation Platform stays action-oriented and self-organizing and that it reaches its objectives. Additional competencies of facilitators can include:

- Bringing about changes in the values, attitudes, and self-perception of those who engage in Innovation Platform activities;
- Keeping an Innovation Platform functional even without external funding;
- Developing the Innovation Platform's capacity to move from individual to collaborative activities, with the ability to self-organize and learn;
- Providing mechanisms for accountability and feedback within the Innovation Platform;
- Establishing lessons with other Innovation Platforms for learning and collective action.

Not everyone is a born facilitator. Facilitating a group of people with different personalities, needs, and interests is not easy. Innovation Platform facilitators must have competencies to overcome different interest, manage power asymmetries, and have networking capacities to ensure legitimacy for the platform's activities. Specific courses exist, and training is provided for facilitation of multi-stakeholder innovation processes (see www.wur.nl/en/show/CDIcourse_MSP_2017.htm).

Besides facilitation, several other platform management and governance functions need to be fulfilled (Sartas et al., 2017). To safeguard the integrity of the facilitator, these functions are best executed by other people. Innovation Platform support functions can include:

- *Platform organization*
Innovation Platforms often have a president who supports the facilitator in calling for meetings, organizing a meeting venue, and so forth. The president needs to have a certain authority and respect vis-à-vis the other platform members and should be able to deal with conflict within the platform;

- *Platform treasurer*
Keeps track (bookkeeping and accounting) of any financial costs involved with the Innovation Platform's activities. He or she can be a representative of one of the Innovation Platform's member organizations;
- *Platform monitor*
Monitors and evaluates platform activities. This may include documenting platform meetings, but also all other platform-related activities such as field experiments, subgroup meetings, and so forth.

What facilitation does not imply

In some countries, facilitation equals making payments for specific services or is associated with bribery or corruption. Clearly, that this is not the type of facilitation to which we are referring... Facilitators pro-actively engage platform members and foster linkages with public and private partners across different levels that can support the Innovation Platform members in achieving their objectives. Facilitation implies more than just moderating or chairing Innovation Platform meetings.

3.5 How to monitor progress and how to integrate this in an effective and efficient system for monitoring, evaluation, and learning (MEL)?

Impact assessment of Innovation Platforms and their effectiveness is currently a contentious issue, and suitable MEL tools for multi-stakeholder processes in AR4D are limited. They produce either qualitative case studies from which data cannot be easily generalized or quantitative impact assessments that do not provide insights into ongoing process dynamics.

Some new tools to effectively monitor, evaluate, and learn in Innovation Platforms have been developed and tested. Cadilhon (2013) developed a conceptual framework, using quantitative research methods to assess the impact of Innovation Platforms. The framework has been applied in Ghana and Tanzania to evaluate the impact of Innovation Platforms on marketing relationships (Adane-Mariami et al., 2015; Pham et al., 2015). Another is the learning system for agricultural research for development (LESARD), which provides integrated quantitative and qualitative data collection and analysis tools to assess the performance of multi-stakeholder

processes (Sartas et al., 2017). This is implemented through an effective, accessible, and affordable data management system. It contributes directly to monitoring and learning that support adaptive capacity in Innovation Platforms (build on what works, improve what does not work) in order to achieve development outcomes and impact.

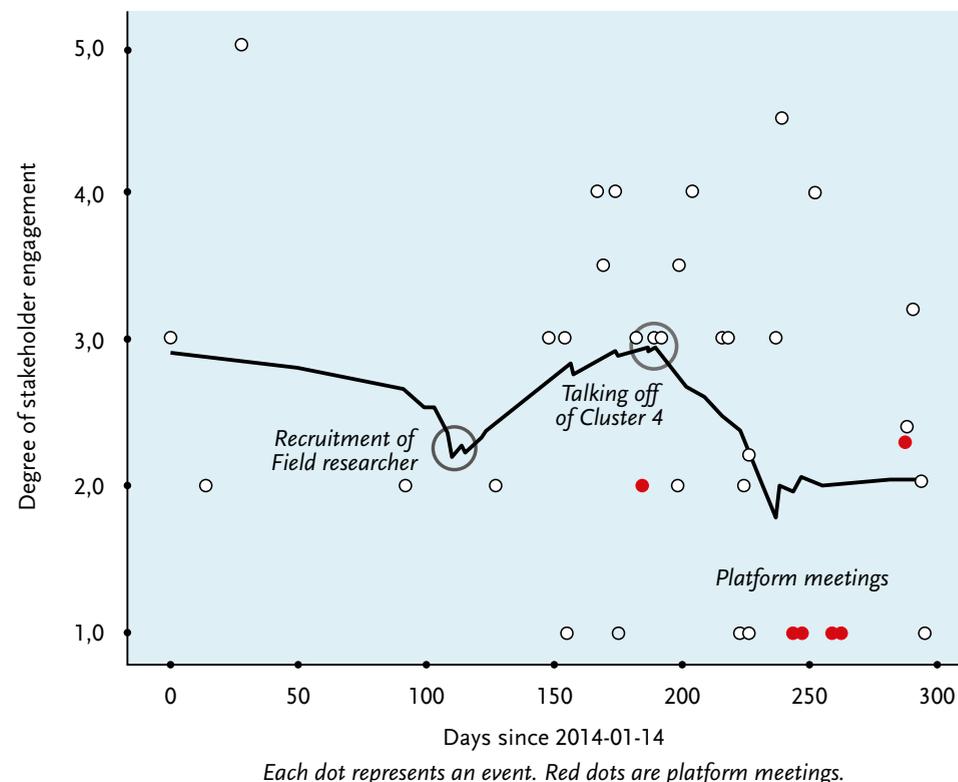
LESARD provides documentation, analysis, and reporting tools for measuring the performance and impact of research and development projects and programmes that are using Innovation Platforms. LESARD generates:

- Insights into the success factors for effective Innovation Platform processes;
- Information to support decision making about how to increase the effectiveness of the platform;
- Data that can support analysis, using different robust methodologies such as econometric modelling, social network analysis;
- Instant feedback about the performance of the Innovation Platforms and multi-stakeholder processes to different stakeholder groups.

LESARD was developed and tested under the CGIAR Research Program on Integrated Systems for the Humidtropics. During each Innovation Platform event (not just the platform meetings), data were gathered on stakeholder participation and engagement (Figure 2). These data were linked to an event log in which activities and interventions were documented. This provided valuable insights into which types of actions (e.g. recruitment of field researcher) had a positive effect on stakeholder engagement. Furthermore, after each cycle of (field) experiments, a reflection meeting was organized in which the Innovation Platform members self-monitored and evaluated the outcomes of their work, as well as the innovation process, the facilitator’s performance, and contributions made by the different types of partners. This provided a basis for a next cycle of participatory action research.

Another useful methodology tested under LESARD to measure the performance of Innovation Platforms is social network analysis (Figure 3). Social network analysis allows for the visualization, documentation, and analysis of the networks that Innovation Platforms represent. It identifies key factors such as relationships between actors as well as their centrality and power, brokering and bridging actors, and potential bottlenecks. Social network analysis allows for the analysis of the network’s capacity to facilitate collaboration, knowledge exchange, and advocacy among stakeholders from different groups (e.g. private sector, government, NGOs) and across different levels (e.g. local level, national level). The latter is important for understanding upscaling processes. Ongoing mapping of Innovation Platform net-

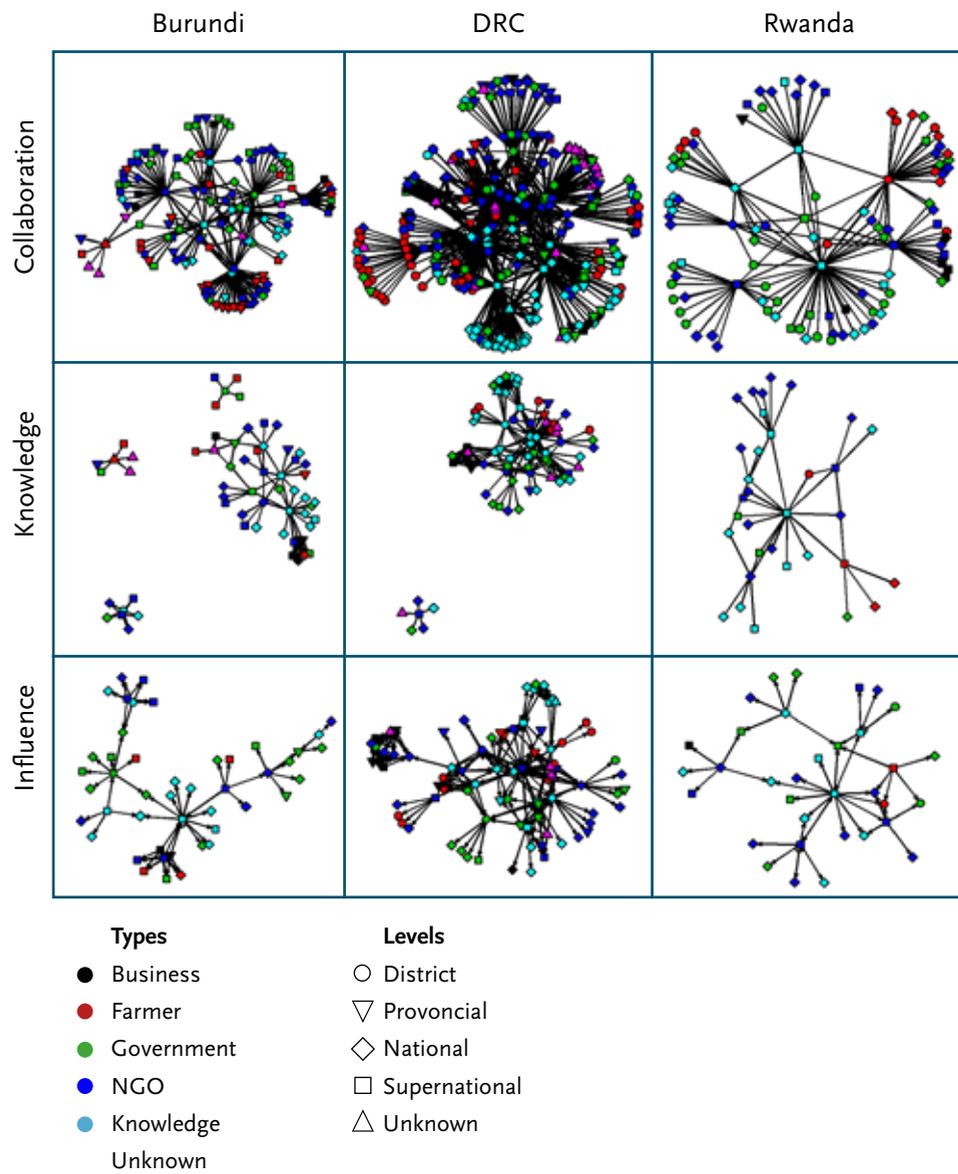
FIGURE 2 | LESARD provides quantitative analyses of how specific AR4D interventions influence multi-stakeholder processes (in this case stakeholder engagement).



works can show how such networks evolve over time, and how their network structure improves (or worsens) in terms of connecting different stakeholder groups across different levels.

Without rigorous MEL
 Innovation Platforms run the risk of not being able to provide proof of their success and impact. Furthermore, failure to engage in MEL runs the risk of investing valuable time, energy, and financial resources in activities that do not lead to the desired outcomes and impacts.

FIGURE 3 | Social network analysis of Innovation Platforms in Burundi, Rwanda, and Democratic Republic of Congo (DRC) showing the platforms' potential for collaboration, knowledge exchange, and influence (Hermans et al., 2017).





Farmers discussing with traders at a wholesale market in the capital about varieties, quality and prices.
PHOTO: Reianne Quilloy, IIRRI

4

What are the costs of Innovation Platforms?

There is very little information on the costs of Innovation Platforms in an AR4D project. However, Innovation Platforms are human- and financial-resource intensive, and research and development donors will require evidence on the return on investments. It is therefore important to think carefully about two questions:

- What are the costs of Innovation Platforms?
- How can financial resources be secured?

4.1 What are the costs of Innovation Platforms?

There are not many records on the actual costs of Innovation Platforms, let alone cost-benefit analyses. Innovation Platform costs vary, depending on:

- Type of organization that is implementing/supporting the Innovation Platform (average staff costs in international organizations are usually much higher than average staff costs in local NGOs);
- Type of innovation that is being explored, e.g. planting distance or intercropping practices (relatively cheap) versus local processing that requires machinery (relatively expensive);
- Level at which the Innovation Platform is operating (higher level platforms are

- usually more expensive);
- Number of Innovation Platform members (more farmers or other members involved can increase operational and support costs);
- Level of platform support functions required (e.g. facilitator, logistics, documentation, and so forth);
- Spin-off activities that emerge as the platform starts to operate (Innovation Platforms must have flexibility to cover unplanned but important activities);
- Proximity of facilitators to implementation sites (platform facilitation has to be monitored, so having a local facilitator can make a difference to operational costs);
- Time for preparing, holding, and following up on meetings, and for general exchange, searching for compromises, and documentation (transaction costs).

Cost analysis of two Innovation Platforms implemented under the CGIAR Research Program Humidtropics in Uganda was conducted in 2016. Two calendar years of Innovation Platform activities were analysed (2014 and 2015). One Innovation Platform was in the Mukono-Wakiso district and focused on indigenous vegetables and pigs. The second was located in the Kiboga-Kyankwanzi district and focused on intercropping soya beans and maize. A national level steering committee was formed to coordinate the work across the platforms and to link them to policy and other public agencies and the private sector. The two Innovation Platforms reached approximately 1,500 farmers in the areas where they were operating. A full account of the methodology used and broader reflections can be found in Buizer (2016).

The Innovation Platforms were coordinated by the International Institute of Tropical Agriculture (IITA), which worked in close collaboration with the National Agricultural Research Organization (NARO) of Uganda and Makerere University. The platforms consisted of farmers, local NGOs, research organizations, and private sector partners.

To analyse the costs, researchers differentiated between:

1. basic costs for platform events, coordination of meetings of intervention actors, reflection, and preparation for meetings and
2. theme-specific costs for conducting trials, providing training, data collection, and so forth. The idea behind this separation is that the basic costs will be more or less the same for all Innovation Platforms, regardless of their specific topic or theme.

To organize basic meetings and activities and to hire most of the basic staff, \$71,677 was spent in 2014 and \$64,216 in 2015 (see Table 3). Of the total basic costs, expenditure on human resources accounted for the largest part (39% and 42% in 2014

and 2015, respectively). Basic staff include the national facilitator (responsible for facilitating the steering committee as well as the two Innovation Platforms), a project coordinator, a communications officer, an MEL expert, and drivers and other support staff.

TABLE 3 | Overview of total costs in US Dollars.

Type of costs	2014	2015	Total	
1. Administration and management costs	\$21,440	\$25,555	\$46,995	
2. Event costs	\$20,702	\$13,140	\$33,842	
Basic Events	Steering committee	\$3,756	\$3,059	\$6,815
	Innovation Platform 1	\$3,909	\$2,755	\$6,664
	Innovation Platform 2	\$3,526	\$1,445	\$4,971
	<i>Total basis costs</i>	\$11,191	\$7,259	\$18,450
Theme-specific events	Steering committee	\$1,260	\$492	\$1,752
	Innovation Platform 1	\$7,774	\$5,026	\$12,800
	Innovation Platform 2	\$477	\$363	\$840
	<i>Total theme-specific costs</i>	\$9,511	\$5,881	\$15,392
3. Platform-led innovation fund	\$13,171	\$31,907	\$45,078	
4. Human resources	\$43,092	\$65,084	\$108,176	
Basic events and activities	\$27,844	\$26,834	\$54,678	
Theme-specific events and activities	\$15,248	\$38,250	\$53,498	
5. Other costs	\$11,200	\$5,569	\$16,769	
Grand total	\$109,607	\$140,255	\$249,861	
Total basic Innovation Platform costs	\$71,677	\$64,216	\$135,893	
Total theme-specific Innovation Platform costs	\$37,930	\$76,038	\$113,968	

If we include the theme-specific events and staff costs, the costs were significantly higher: \$109,607 in 2014 and \$140,255 in 2015. Furthermore, for the theme-specific work, the AR4D programme provided a platform-led innovation fund that was fully controlled by the Innovation Platform and spent on activities in which no platform members could invest (e.g. the presence of an NGO).

TABLE 4 | Basic event costs for the two Innovation Platforms and steering committee in US Dollars.

Type of basic event cost	2014	%	2015	%
Meeting costs	\$7,147	64%	\$4,268	59%
SDA/per diem	\$1,762	16%	\$493	7%
Inputs/field/office supplies	\$181	2%	\$1,149	16%
Fuel/transport reimbursement	\$2,101	19%	\$1,349	19%
Grand total	\$11,191	100%	\$7,259	100%

The cost of basic events decreased between 2014 and 2015 for the two Innovation Platforms and the steering committee (Table 4). This is partly due to the use of other funds for the events (such as the platform-led innovation fund) and to the fact that the platform attracted investments from other organizations. Meeting costs were the largest cost category and represented 64% and 59% in 2014 and 2015, respectively. Meeting costs included renting the meeting venue and lunch or transport refunds for participants such as farmers or government officials. Meeting costs decreased after the first year because of a decrease in the number of people attending meeting as the platform's focus had become clear. Fuel costs and participants' transport reimbursements formed the second largest cost category.

Table 5 reveals that the greatest proportion of the costs is attributable to the facilitator. The project coordinator and the communication officer were not working fulltime on this project, so their costs were relatively low. All of the human resource costs in Table 5 covered the two Innovation Platforms and the national steering committee.

In conclusion, establishing and maintaining the two Innovation Platforms with one overarching steering committee in Uganda, reaching an estimated 1,500 farmers,

TABLE 5 | Analysis of human resource expenditures in US Dollars.

Cost category	2014	%	Monthly	2015	%	Monthly	FTE
Basic costs							
Innovation Platform facilitator	\$12,000	43%	\$1,000	\$12,000	45%	\$1,000	0.75
Project coordinator	\$5,920	21%	\$493	\$5,920	22%	\$493	0.60
Communications person	\$6,307	23%	\$526	\$5,886	22%	\$490	0.60
MEL expert	\$888	3%	\$222	\$2,418	9%	\$202	1.00
Other support staff	\$2,729	10%	\$227	\$610	2%	\$51	
Total	\$27,844	100%	\$4,145	\$26,834	100%	\$2,236	-
Theme-specific costs							
Research coordinator	\$4,887	32%	\$1,222	\$14,659	38%	\$1,222	1.00
Research assistant Innovation Platform 1	\$805	5%	\$268	\$3,218	8%	\$268	1.00
Research assistant Innovation Platform 2	\$749	5%	\$187	\$2,036	5%	\$170	0.85
Distant science support	\$8,808	58%	\$1,258	\$15,100	39%	\$1,258	0.10
Student stipends and fees				\$3,236	8%	\$270	-
Total	\$15,248	35%	\$2,935	\$38,250	100%	\$3,188	-
Grand total	\$43,092	100%	\$6,156	\$65,084	100%	\$5,424	

cost at least \$71,677 in the first year and \$64,216 in the second year (total \$135,893). If the theme-specific costs are added, reaching the estimated 1,500 farmers cost \$109,607 in the first year and \$140,255 in the second year (total: \$249,861). In this specific case, the cost per farmer therefore ranged between \$90.60 and \$166.60. The Innovation Platform facilitator accounted for the largest share of the basic human resource costs.

The cost per farmer is likely to decrease if the Innovation Platform is supported by local government and/or local NGOs. The platforms analysed in these guidelines served a specific AR4D purpose and were implemented and coordinated by an international agricultural research organization.

Generally, the specific theme of the platform influences the level of funding required for training, demonstration plots, or other activities. Costs are further influenced by distance of an organization's head office from the established platform, the country, and frequency of meetings. The human resources minimally needed are facilitator, platform coordinator, MEL expert, and communications officer (who in the Ugandan case all served two Innovation Platforms). Depending on the theme, a research assistant or another research coordinator might be needed.

What if costs are not clear?

Innovation Platforms are resource intensive, and research and development donors will require evidence on the return on financial and human resource investments against outcomes and impacts. Mapping the costs of Innovation Platforms is an important first step towards conducting cost-benefit analysis and showing whether Innovation Platforms can provide value for money.

4.2 How can financial resources be secured?

As section 4.1 demonstrates, Innovation Platforms require resources (time, human, and financial resources), and these resources should be secured. International NGOs and R4D organizations often provide funding to kick-start Innovation Platforms. However, this funding is often available for a limited period of time and may not be sufficient to meet all the costs associated with the establishment and facilitation of the platform. Continuous support may moreover dilute ownership, as Innovation Platform members may not feel fully responsible for the costs and investments. Innovation Platforms that are supported through AR4D projects should

therefore develop strategies for reducing (financial) dependence on these projects. If engaging in the platform results in obvious benefits, the Innovation Platform can attract financial resources, e.g. from the private or the public development sector. Different stakeholder groups can contribute in whatever way they can (time, land, labour, seeds, meeting room, lunch, transport, and so forth). Governments or administrations could create legal frameworks suitable for Innovation Platforms or give subsidies when platforms provide public goods such as capacity building for farmers.

What funding mechanisms do not work?

It is unsustainable to start Innovation Platforms without a clear funding timeline. If funding suddenly stops or decreases, the platform's innovation and collaboration process may be disrupted, resulting in reduced belief in the platform's ability to achieve success and in reduced trust in the organization that initiated the platform

Learning Alliance activity conducted in Maubin Township in lower Myanmar. It provides a platform for rice value chain actors to discuss solutions in reducing postharvest losses using best management practices and technologies.

PHOTO: Christopher Cabardo, IRR1



5

What implementation principles need to be considered for innovation platforms?

In addition to the design principles, a few implementation principles need to be considered:

- What are the organizational implications of working with Innovation Platforms?
- What are the roles of the research partners in the process?
- What are the roles of the public and private development partners in the process?
- Which additional mechanisms and arrangements may be needed to broaden the coverage and impact of Innovation Platforms?

5.1 What are the organizational implications of working with Innovation Platforms?

Innovation Platforms in AR4D challenge the normal way of working, where research organizations set the agenda together with development donors, and work with

farmers in implementing their projects. This can create tensions in terms of changing roles, responsibilities, and mandates, as well as the distribution of power and who controls where AR4D funds are being invested. Some of the tensions may include:

- A narrow, technology-oriented focus on innovation on the part of project implementers and AR4D institutes, whereas the Innovation Platform members prioritize broader systems-oriented innovations (market access, policy changes) for livelihood improvements;
- Constraining organizational mandates and personal preferences of researchers supporting the Innovation Platforms (e.g. not willing to work beyond specific mandate crops);
- Underlying social causes, beyond the immediate influence of the Innovation Platform (e.g. post-conflict situations, rural to urban migration);
- Pre-analytical choices of commodities or themes based on donor requirements that do not respond to the Innovation Platform's needs;
- Having limited control of how and where resources are being spent;
- Limited flexibility in project log frames and monitoring systems to respond to the changing needs of Innovation Platform members;
- Short project cycles that impede work on Innovation Platform needs that require longer-term investments;
- Cessation of Innovation Platforms when projects end because limited attention has been paid to self-organization and sustainability;
- Revelation by the Innovation Platform of the poor functioning of the incumbent AR4D system; this may be perceived as a risk for those representing that system.

The need for flexible arrangements and quick responses can make it difficult for AR4D programmes in public agricultural research institutes to participate in platforms or manage them effectively. For this reason, organizational reforms may be needed for some publically funded agricultural research organizations to be able to play more effective roles in promoting innovation and inclusive value-chain development.

5.2 What are the roles of the researcher partners in the process?

It is crucial to reflect on, and clarify, the roles of researchers (both natural and social scientists) in multi-stakeholder processes in an AR4D context, for example as knowledge and innovation managers (Table 6) (Lema and Schut, 2013; Schut et al., 2011). In some Innovation Platforms, researchers can play multiple roles, such as

When are organizational cultures unsuitable?

They are unsuitable when organizations or projects are not ready to engage in a process of joint agenda setting, experimentation, and action; and when organizations or their representatives are not ready to be flexible and accept that the Innovation Platform's focus may lie beyond their direct interest, mandate, or expertise.

facilitator, advisor, service provider, or data collector (Hall et al., 2003). Researchers involved in Innovation Platforms need to be comfortable in pursuing different roles depending on the Innovation Platforms' changing needs. Researchers also need to be aware that Innovation Platform members have different knowledge systems and that scientific knowledge is not the only type of valid knowledge or 'truth' that guides decision making (Muñoz-Erickson and Cutts, 2016). It is therefore critical for them to have a clear strategy for tapping into, and valuing, the practical knowledge and 'citizen science' of the development partners on the platform.

Several cases show that researchers or research organizations can impose a specific AR4D agenda on the Innovation Platform (see also section 5.1). This can result from personal or institutional preferences or mandates. For instance, CGIAR research organizations have specific mandates (e.g. working on specific crops or themes such as climate change or gender) that can lead them to have preferences when it comes to identifying priorities with Innovation Platforms (Schut et al., 2016). It is therefore important that researchers and research organizations are considered stakeholders within Innovation Platforms as they have a stake in specific problem framing or specific solution pathways.

What research organizations should not do?

They should not forcefully push their agenda on farmers and other stakeholder groups. This brings us back to the important role of the facilitator and his/her capacity to balance these power differences and seek consensus on where AR4D investments will have maximum impact.

5.3 What are the roles of the public and private development partners in the process?

Development partners are crucial in innovation processes as they ensure a focus on priority problems, the viability of solutions, and effective scaling. In addition, they bring their expertise to the table (human capital), provide co-funding (financial capital), and can link to networks of value-chain actors, service providers, and the general public (social capital). Development partners encompass a broad range of actors including, but not limited to, the following:

- Farmer organizations (co-ops, producer associations);
- Government agencies (regulatory bodies, extension services);
- NGOs (technical, business and financial services, advocacy);
- Small and medium enterprises (processors, wholesalers, retailers);
- Large companies (varied roles along domestic and global value chains);
- Industry organizations (with crop-specific or subsector focus);
- Investors and responsible finance schemes;
- Media (radio, TV, print, online).

This broad array is both a challenge and an opportunity – a challenge, as diverse viewpoints and interests come together that need to be carefully managed; but also an opportunity, as complex problems require differentiated solutions, with specific contributions from diverse partners.

A particular challenge and opportunity is the involvement of private sector partners, particularly small and medium enterprises and larger companies. These partners will evaluate their participation in Innovation Platforms on the basis of a thorough cost-benefit analysis, including the assessment of direct and transaction costs as well as monetary benefits in return for their investment. Furthermore, private sector partners often have intimate knowledge of clients’ needs and market trends and, hence, can play a critical role in the scaling of technologies in relation to market-oriented agricultural development.

Private sector partners will evaluate very carefully their time invested in platform meetings and processes. It is therefore important to define well the spaces in which their participation is critical. In Innovation Platforms involving a broad range of different partners, a breakdown into subgroups addressing specific issues may be advantageous. This would allow the creation of the space and focus needed for effective private sector participation. Similarly, government agencies may principally participate in subgroups focusing on regulatory and other policy-relevant issues. NGOs, in turn,

TABLE 6 | Knowledge and innovation management roles for research (Schut et al., 2014).

Knowledge management roles	Innovation management roles
1. Knowledge generation <ul style="list-style-type: none"> • Generate and mobilize new and existing knowledge 	1. Manage boundary arrangements at multiple research – stakeholder interfaces
2. Knowledge brokerage, including <ul style="list-style-type: none"> • Informing: transfer and disseminate content • Consulting: mobilize and provide expertise • Matchmaking: connect experts and stakeholder groups • Engaging: facilitate political dialogue involving key stakeholders • Collaborating: facilitate collaboration at multiple stakeholder – stakeholder interfaces • Capacity development: develop process architecture and joint knowledge production and learning 	2. Develop adaptive capacity in innovation processes 3. Develop an enabling environment to facilitate continuous stakeholder learning, e.g. fundraising, lobbying, or criticizing political agendas 4. Address institutional constraints and structural power asymmetries 5. Enhance reflexive monitoring and evaluation, and adjust the policy process strategically
3. Knowledge packaging <ul style="list-style-type: none"> • Enhance the accessibility of research for different stakeholder groups 	6. Document outcomes of innovation processes for replication in comparable spaces

are often principal providers of technical and business services, requiring appropriate spaces for taking advantage of this strength. Financial services have rarely been addressed in Innovation Platforms but, with an eye to the future, are another important area for which it may be conducive to create a subgroup with banks and alternative financial service providers (including responsible finance schemes and investors). Finally, communications is a critical area where diverse media have to play a key role – another opportunity for creating a specific subgroup to ensure maximum outreach. Table 7 summarizes the different roles of development partners in Innovation Platforms in terms of knowledge and innovation management.

TABLE 7 | Knowledge and innovation management roles for development partners in Innovation Platforms.

Knowledge management roles	Innovation management roles
<ol style="list-style-type: none"> 1. Knowledge generation <ul style="list-style-type: none"> • Provide demand-side view for prioritization of areas of knowledge generation • Critical source of existing knowledge on technical, market, and financial aspects • Contributor to generation of new knowledge 2. Knowledge brokerage <ul style="list-style-type: none"> • Outreach to specific client groups • Matchmaking: ensure focus on real-life, client-specific issues • Collaborating: provide multi-sector linkages (public and private sector, civil society) • Capacity development: implementation of processes drawing on newly generated knowledge 3. Knowledge dissemination <ul style="list-style-type: none"> • Outreach to specific client groups, drawing on knowledge packaged accordingly 	<ol style="list-style-type: none"> 1. Create and manage institutional arrangements between multiple development partners 2. Pool human and financial resources 3. Ensure continuous improvement through shared impact pathways, with joint systems for monitoring and evaluation and learning (MEL) 4. Contribute to the documentation of outcomes resulting from innovation processes

What development partners should not do

Given the often complex set of issues addressed by an Innovation Platform, all development partners need to refrain from driving the agenda in a direction that best serves their own goals and strategy. Acknowledging one's own limitations and the specific contributions of other partners is a prerequisite for successful collaboration based on reciprocity.

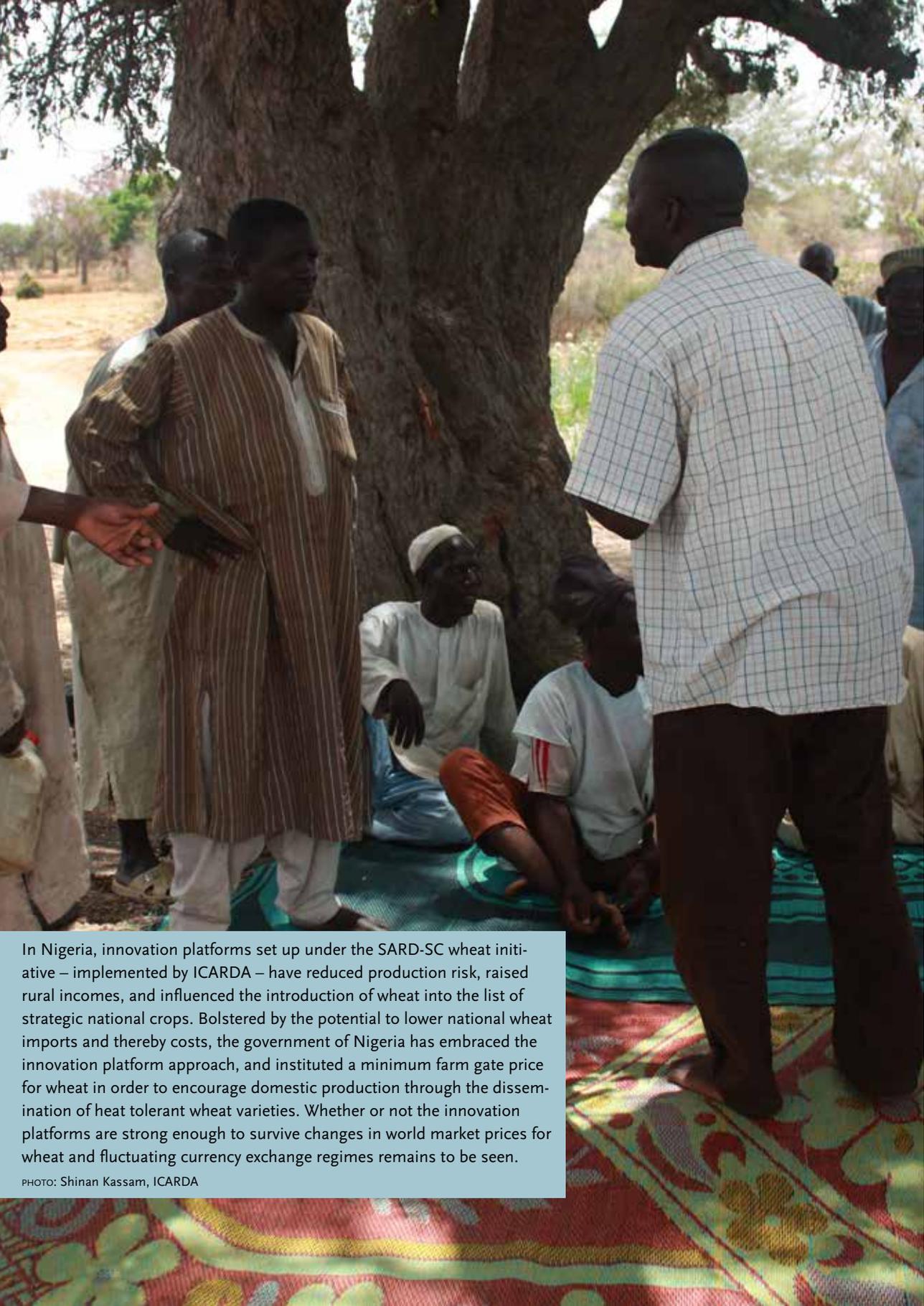
5.4 Which additional mechanisms and arrangements may be needed to broaden the coverage and impact of Innovation Platforms?

Once an appropriate combination of both research and development partners is ensured, it is critical to define the process and associated institutional arrangements for collaboration. Innovation Platforms may start off with a very focused approach to addressing a specific problem or a limited number of issues. In an initial stage, a rather loose arrangement, based on clearly defined goals, roles, activities, results, and resource needs, may suffice. As collaboration expands, the need for more complex institutional arrangements increases as a result of successful completion of an initial agenda. This may involve the creation of subgroups (see section 5.3) with specific institutional arrangements within and between them. Over time, it may also be worthwhile to consider obtaining a legal entity for an Innovation Platform to enhance its sustainability in terms of independence, its (monetary and non-monetary) benefits for its members, and its potential to become eligible for donations or credit. It is also possible to build the capacity of interested partners who can advance platform activities either as a subgroup or in smaller networks.

Schut et al.'s (2017) recent meta review of mature Innovation Platforms concluded that Innovation Platforms need to be firmly embedded in private or public mechanisms and broader networks that have the capacity to reach target populations beyond the original scope of the Innovation Platform.

What if these mechanisms and arrangements are not in place?

Innovation Platforms run the risk of being solitary initiatives if they are not firmly linked to, or embedded in, existing public and private mechanisms and networks. If they are not, the chances of their having impact beyond the direct beneficiaries will be minimal.



6

What outcomes can be expected from innovation platforms?

Innovation Platform outcomes should be considered on two levels. The first level concerns the direct beneficiaries (the platform members), and the second level concerns the indirect beneficiaries (the target population or region beyond the platform's direct influence). To reach the second category, some form of scaling is required. The two leading questions addressed in this section are:

1. What are the benefits for Innovation Platform members?
2. What about scaling Innovation Platform processes and outcomes?

6.1 What are the benefits for Innovation Platform members?

Innovation Platforms can create different types of benefits for its members. These benefits include:

- A space where each platform member has access to a variety of experts who could enhance their skills, including farmers, researchers, private sector, government;
- A protected niche where a group of people can experiment, learn, and make mistakes without it having huge negative consequences;

In Nigeria, innovation platforms set up under the SARD-SC wheat initiative – implemented by ICARDA – have reduced production risk, raised rural incomes, and influenced the introduction of wheat into the list of strategic national crops. Bolstered by the potential to lower national wheat imports and thereby costs, the government of Nigeria has embraced the innovation platform approach, and instituted a minimum farm gate price for wheat in order to encourage domestic production through the dissemination of heat tolerant wheat varieties. Whether or not the innovation platforms are strong enough to survive changes in world market prices for wheat and fluctuating currency exchange regimes remains to be seen.

PHOTO: Shinan Kassam, ICARDA

- Increased credibility and legitimacy as a result of speaking with a collective voice when the objective is to create change at different levels;
- A better power and bargaining position as a group for accessing knowledge, inputs, finance, markets, and other types of services;
- Network building for developing new initiatives, enterprises, and projects.

There is currently an ongoing debate on whether and how Innovation Platform members should be compensated for their investments. We advise against financial incentives for platform members. Reimbursement of – for example – transport costs can be considered, especially for those participants who are not supported by their constituencies. Benefits should result from the abovementioned activities and the opportunities that platform membership provides. If Innovation Platform members feel that the platform is not benefitting them sufficiently, they are free to leave it.

As elaborated earlier, Innovation Platforms need financial and human resource investments. Facilitation, platform establishment, and platform activities incur costs that cannot be expected to be carried by the platform members from the beginning. That said, the platform should develop a strategy for becoming independent of permanent outside financial and technical support (e.g. through a development project). Innovation Platforms are known to transit into cooperatives or farmer groups where platform members make a small financial contribution to the platform's costs. Platforms can also cease to exist once its members feel the mission has been accomplished, or when motivation levels have dropped.

6.2 What about scaling Innovation Platform processes and outcomes?

Innovation Platforms initiated through development projects often have the ambition to have impact beyond the initial target area or direct beneficiaries. Such processes of scaling Innovation Platform outputs in order to achieve desired outcomes or impacts should be an integral design element of Innovation Platforms and the manner in which they are implemented. For the Innovation Platform members (e.g. farmers), the scaling of innovations may not always be beneficial or attractive. Providing free access to the innovations in which they have invested may be seen as unfair and could even reduce their comparative niche market advantage.

What is the difference between outscaling and upscaling?

Outscaling refers to the horizontal diffusion of innovations to organizations at the same administrative level (e.g. from one district to another district). Upscaling refers to the uptake of processes or technologies by organizations at higher administrative levels (e.g. institutionalization of new cropping practices in policies) (Hermans et al., 2017).

However, Innovation Platform members (or a subgroup of the platform) may also decide to develop a business model around their innovations, for example by selling their newly developed product or service as a farmer cooperative.

By design and principle, Innovation Platforms may not be ideal for large-scale diffusion or scaling of agricultural technologies. Unless they leverage the networks surrounding them, Innovation Platforms involve a limited number of direct beneficiaries compared to typical extension programmes and demand relatively high investments in human and financial resources. The technical or institutional outcomes of Innovation Platforms (e.g. a newly developed disease management strategy, collective farmer loans from a microfinance institute) can be brought to scale through existing extension channels, agricultural policies, and the private sector.

Innovation Platforms can fulfil an important function in the pathway leading to the scaling of agricultural innovations for several reasons:

- Innovation Platforms bring together different groups of stakeholders that all contribute to analysing the complex problem or challenge. In that sense, they all bring a piece of the puzzle needed to overcome the problem;
- In the process of jointly analysing problems, stakeholders become aware of how their problems are interrelated and how joint action is needed to address them. This is an important prerequisite for achieving impact at scale;
- Innovation Platforms seek to respond to the needs and interests of different stakeholder groups. This ensures that the innovations developed are not only technically sound, but also affordable for farmers and coherent with government policies and objectives;
- For farmers, but also for policymakers and the private sector, being part of decision-making and innovation processes is an important precondition for supporting the wider use and spread of validated technologies and other types of innovations developed in Innovation Platforms;
- The Innovation Platform process and its participants provide legitimacy to the outputs for key scaling actors in upper levels of agricultural innovation systems,

as these outputs are developed in a familiar location known and related to the key scaling actors.

The above shows that Innovation Platforms – through their inclusive, demand-driven, and participatory action research methods – can provide an important basis for developing innovations that have the potential of going to scale. However, if the basic Innovation Platform features are not respected (e.g. Innovation Platforms for implementing pre-cooked AR4D projects, with limited space for farmers and private sector to influence the AR4D agenda), there is no basis for scaling innovation (Wigboldus et al., 2016).



7

Sustainability and success of Innovation Platforms

An important question for development donors and funders of Innovation Platforms is the extent to which Innovation Platforms and their outcomes are sustainable. The sustainability issue requires us to consider the following two questions:

- When can Innovation Platforms be considered successful?
- How can Innovation Platforms be embedded in different governance, cultural, and political contexts?

7.1 When can Innovation Platforms be considered successful?

Successful Innovation Platforms may not necessarily be sustainable in the sense of an organizational structure that maintains itself over time. According to Gildemacher et al. (2011), an Innovation Platform may cease to exist when:

- It has addressed the challenge identified at the entry point to action and met its objectives;
- It is no longer worth the investment – its contribution to innovation ceases to be significant or there are no funding sources available to support continuation;
- The actors have no motivation to continue;
- Other interaction mechanisms fulfil the mandate.

Innovation platform testing and disseminating improved vegetable varieties and production practices in Sagara village, Babati District, Manyara Region in Tanzania.

PHOTO: Hassan Mdiga, World Vegetable Center

Sanyang et al. (2014) distinguish three dimensions of sustainability:

- Sustainability of the changes that happened through the platform (the innovations);
- Sustainability of the Innovation Platform itself as a mechanism, niche, or entity for change and collective action;
- Sustainability of stakeholders' capacity to innovate (Leeuwis et al., 2014).

The first relates to the outcomes desired and attained by an Innovation Platform, whereas the second is a measure of organizational sustainability. The third relates to institutionalization of the innovation process, as tested by the platform, diffused through changes in conventional wisdom and practices that lead to enhanced capacity within innovation systems, and thereby embodying more participatory and hopefully more equitable innovation processes.

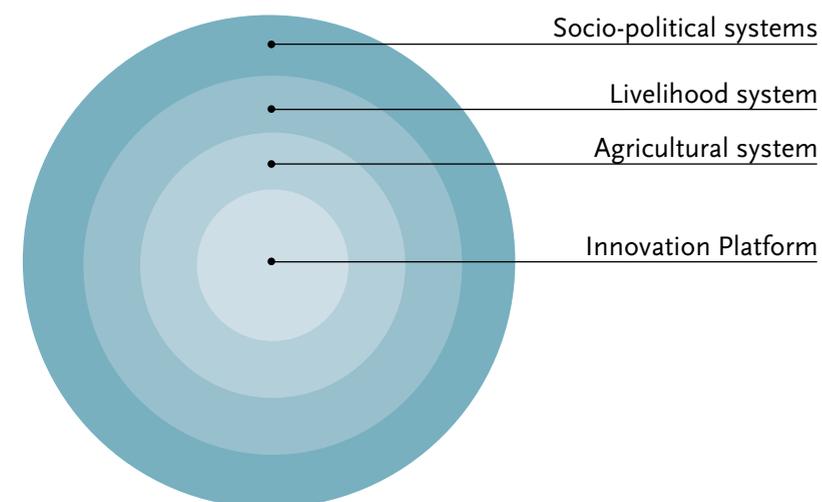
7.2 How can Innovation Platforms be embedded in different governance, cultural, and political contexts?

Innovation Platforms are – by nature – democratic spaces for joint problem identification, analysis, prioritization, and the collective design and implementation of activities to overcome problems. They are embedded in agricultural systems, and only a very small number of the agricultural system actors will be represented in the Innovation Platforms. Many value chains and service providers are active in agricultural systems, and Innovation Platforms often function around a specific niche in the agricultural system in a specific geographical location (e.g. potato seed production in northern Rwanda). Furthermore, agricultural systems form part of broader livelihood systems, where – in addition to agriculture – healthcare, education, industry, and infrastructure are present and interact with agricultural systems. Socio-political systems govern the rules of the game, including not only formal policies, agreements, and standards, but also informal norms and values related to the importance of agriculture in society (Figure 4).

The implication is that an initiative to set up an Innovation Platform can draw unexpected responses from stakeholders in the systems within which it operates. The Innovation Platform may, for example, attract support from high-powered stakeholders. This could be positive, as it increases the chances of success, but could it also put the Innovation Platform at risk of being co-opted by one particular interest? Another example: the establishment could consider the Innovation Platform as a subversive activity that threatens its power position. How does one decide to

proceed if the initiating group still considers it 'the right thing to do'? Generally, Innovation Platforms with a broad stakeholder support base run a lower risk of being co-opted, or of being seen as subversive. A political economy analysis can help to elucidate the power dynamics at play in specific agricultural, livelihood, and socio-political systems.

FIGURE 4 | Innovation Platforms are embedded in the agricultural, the livelihood, and the broader socio-political system.



In some countries, it will be seen as extremely positive that rural actors organize themselves, sit down together around joint constraints, and self-organize interventions to overcome these constraints. In other countries, such processes may be viewed with suspicion by governments or other dominant parties, who may feel that these platforms are not needed, undermining their role, mandate, and function. The bottom line here is that project designers and implementers need to think critically about how to support Innovation Platforms in the governance or socio-political context in which they are being implemented.



8

Critical questions when considering innovation platforms

Figure 5 presents a flow diagram to support project developers and implementers in deciding whether or not Innovation Platforms are the most appropriate pathway towards achieving their outcomes and impact. The diagram focuses on the critical questions that one needs to ask oneself before deciding to embark on working with Innovation Platforms.

There are a few critical steps in the decision-making process:

- For what purpose are Innovation Platforms being used?
- Designing and testing new innovations (e.g. home vegetable gardens)
- Tailoring existing innovations to specific types of farmers or agro-ecological areas (e.g. composition of seed kits for home vegetable gardens for specific households in different districts)
- Scaling existing innovations
- Upscaling (e.g. embedding distribution of seed kits for home vegetable gardens in nutrition and agricultural policy)
- Outscaling (e.g. handing out seed kits for home vegetable gardens to thousands of farmers)

Members of the Maputo, Mozambique best practice hub: an area for joint learning, experimentation and marketing of vegetables, using a value chain approach.

PHOTO: John Mcharia, World Vegetable Center

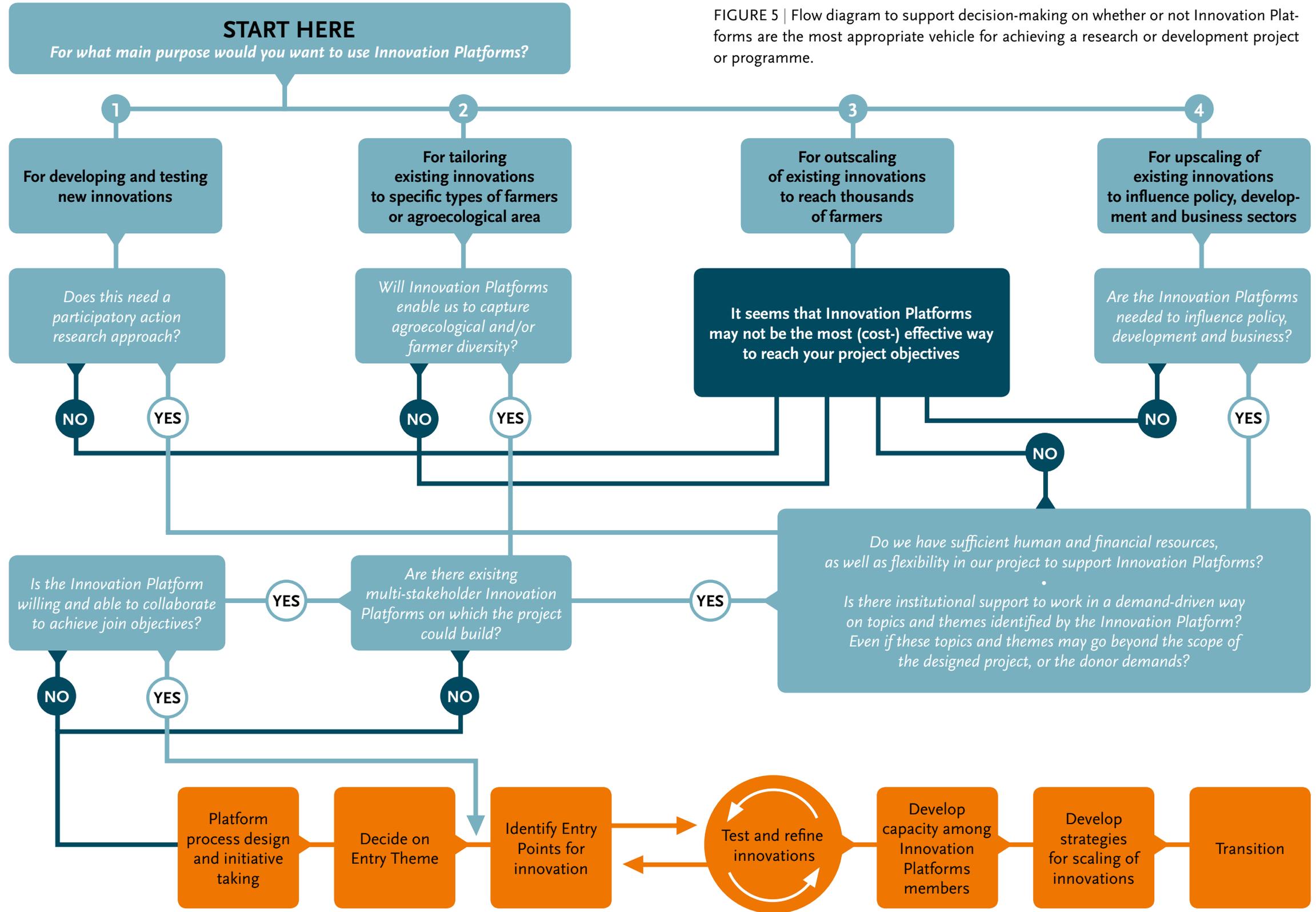


FIGURE 5 | Flow diagram to support decision-making on whether or not Innovation Platforms are the most appropriate vehicle for achieving a research or development project or programme.

- Does the environment enable implementation or working through Innovation Platforms?
- Do we have sufficient human and financial resources (facilitator, flexible funds to support Innovation Platform activities)?
- Is there flexibility in our project to support Innovation Platforms (e.g. to change focus if the platform feels this is necessary)?
- Is there institutional support to work in a truly demand-driven way on topics and themes identified by the Innovation Platform?
- Are there existing multi-stakeholder Innovation Platforms on which the project could build? If yes, would it be possible to align with those rather than initiate a new platform?

The objectives or purposes for working with Innovation Platforms are not mutually exclusive, and, in an AR4D context, the testing and tailoring of innovations is likely always to have some sort of related upscaling or outscaling objective. This is reflected in the normal Innovation Platform phases (see Table 1) with their cross-cutting sustainability and scaling objectives.



Ms. Rachida Barkey Badou facilitates a meeting of the Malanville Innovation Platform established by AfricaRice in Northern Benin with parboiled rice as the entry point.

PHOTO: Abiba Abdoulaye, Africa Rice

9

Frequently Asked Questions (FAQs)

From a survey among 20 of his colleagues at the Centre of Development and Innovation (CDI), Herman Brouwer developed this list of frequently asked questions about multi-stakeholder partnerships. Many of these questions apply equally to processes taking place in Innovation Platforms.

Who are the main stakeholders, and how do we know that we have got the right ones involved?

Stakeholder analysis is critical to identify key actors and their roles, and to understand who might represent different groups and help achieve platform objectives. It can also help identify who might create barriers and who might act as mediators. This helps ensure that the right people are included from the start. Stakeholder analysis also enables facilitators to understand the different actors' agendas. Continuous reflection is important to monitor whether the 'right' actors are still involved in relation to the platform's objective.

Adapted from and more information at: hdl.handle.net/10568/34166

How can we deal with power differences?

Innovation Platforms are spaces where stakeholders with different degrees of power meet, discuss, negotiate, and seek to collaborate. Power can be vested in finan-

cial capacities, but also in the capacity to express oneself or social status. Power differences are not necessarily negative. Powerful Innovation Platform members can play an important role in mobilizing support for the platform or sharing Innovation Platform outcomes with scaling actors.

More information at hdl.handle.net/10568/34166

How to define a common goal with diverse stakeholders? Should there be one?

It is essential to have a common objective or goal in an Innovation Platform. This binds the platform members together and provides a good incentive for collaboration and collective action. Goals or objectives can relate to tackling a concrete, joint problem. They can also change over time; as barriers are overcome, new questions or challenges may emerge. A variety of tools exist to support identification of common goals, including Participatory Rural Appraisals, Focus Group Discussions, RAAS, and so forth.

More information at data.ilri.org/tools/group/f38ec214-23b6-4eb8-89ab-a0c29f-ca7571?vocab_ILRI_vocformats=Participatory+approach

How do we organize our collaboration and decision making? How is the Innovation Platform embedded in existing political governance structures?

As explained in section 7.2, Innovation Platforms are embedded in agricultural systems, livelihood systems, and socio-political systems. There is some sort of strange tension for the Innovation Platform. On the one hand, the platform needs to represent these surrounding systems for it to have a certain degree of legitimacy and credibility to influence or change them. On the other hand, the Innovation Platform should be a space to try things differently, to think and act 'out of the box', and go against the incumbent system that causes some of the constraints that platform members face. There is a thin line between both, which requires careful facilitation and translation. We do not want to push the incumbent system so much that the Innovation Platform is seen as an outsider, but we still want to have space for doing things differently. Having representatives from the incumbent systems as platform members is a good strategy to ensure that the platform is seen as legitimate and credible and sufficiently aligned with socio-political systems.

How do we deal with conflicts among stakeholders?

Innovation Platforms are a space for interaction, for negotiation, for decision making, and for action, but also for conflict. Platform members should have the intention of overcoming their differences so as to be able to achieve a collective objec-

tive. This is more easily said than done, but conflicts should be embraced and seen as a starting point for developing strategies to solve them.

More information at hdl.handle.net/10568/34164

What to do if essential stakeholders have little capacity to lead and deliver?

One of the most important things that Innovation Platforms do is build their members' capacity to innovate. This is a crucial function. Innovation capacity is vital if the Innovation Platform is to achieve its aims. It is the invisible glue that ties successful Innovation Platforms together – the capacity to get things done. Capacity often develops through the process of working together, learning together, and failing together, and is one of the most sustainable outcomes that Innovation Platforms can strive for. If stakeholders (including researchers) have limited willingness to invest or engage in collaboration and joint learning, then their contribution or role in the Innovation Platform should be questioned.

Adapted from and more information at hdl.handle.net/10568/34162

In which situations are Innovation Platforms not the right choice? And what are more cost-effective options?

Participatory processes are generally less effective when there is no agreement on the nature of the problem and on the effective pathways to overcome it. In these situations, project designers and implementers should ask themselves whether Innovation Platforms are the right way forward (see also Figure 5). The same goes for the projected objectives, outcomes, or impacts that Innovation Platforms are intended to contribute to within a specific AR4D project. Project designers and implementers should ask themselves how maximum impact can be achieved with available time and financial resources and whether Innovation Platforms are the best vehicle for achieving this.

How can Innovation Platforms contribute to behavioural and institutional change?

Recent studies have made clear that the successful implementation and performance of Innovation Platforms requires massive paradigm shifts and mind-set alignments at both institutional and individual level across the whole spectrum of stakeholders involved. Such a shift is unlikely to take place only through isolated experimentation with Innovation Platforms, but rather requires structural and broad-based learning and capacity development of individuals (e.g. learning) and within AR4D organizations (e.g. market opportunities). Together these can strengthen the capacity to innovate, leading to real change.

More information at dx.doi.org/10.1017/S001447971500023X

Who should facilitate an Innovation Platform: someone from within the system or an outside professional?

A facilitator must be neutral and objective, able to work with all, and accountable to the platform. Facilitation goes beyond the chairing of Innovation Platform meetings; it is also about following up activities, ensuring that commitments are taken seriously, that promises are kept, and that the platform is moving towards achieving its objectives. Facilitation is not something that one does in addition to one's normal job. Consequently, facilitators should be equipped with competences, time, and (financial) resources to do their job. The person facilitating may change over time as the platform matures or the focus of the platform shifts. However, it is important that a facilitator understands the process and its evolution, and the original facilitator may allow someone else to take on the role. Whether a facilitator should be an insider or an outsider depends on the purpose and main focus of the platform and the sensitivity of the topic. In general, facilitation should stimulate and support stakeholders to work as a self-organized and self-managed group.

More information at hdl.handle.net/10568/34164



Scientists from the Ecuador Agriculture Research Institute (INIAP) and CIP interacting with farmers and NGOs in an innovation platform meeting in Tungurahua, Ecuador.

PHOTO: André Devaux, CIP

10

Critical reference materials

What are Innovation Platforms?

Homann-Kee Tui, S., Adekunle, A., Lundy, M., Tucker, J., Birachi, E., Schut, M., Klerkx, L., Ballantyne, P.G., Duncan, A.J., Cadilhon, J.J., Mundy, P. (2013). *What are Innovation Platforms?* Innovation Platforms Practice Brief 1. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34157

Facilitating Innovation Platforms

Rooyen, A. van, Swaans, K., Cullen, B., Lema, Z., Mundy, P. (2013). *Facilitating Innovation Platforms*. Innovation Platforms Practice Brief 10. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34164

Power dynamics and representation in Innovation Platforms

Cullen, B., Tucker, J., Homann-Kee Tui, S. (2013). *Power dynamics and representation in Innovation Platforms*. Innovation Platforms Practice Brief 4. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34166

Addressing gender dynamics in Innovation Platforms

Mulema, A.A., Snyder, K.A., Ravichandran, T., Becon, M. (2015). *Addressing gender dynamics in Innovation Platforms*. Innovation Platforms Practice Brief 14. ILRI, Nairobi, Kenya. hdl.handle.net/10568/67920

Linking action at different levels through Innovation Platforms

Tucker, J., Schut, M., Klerkx, L., 2013. Linking action at different levels through Innovation Platforms. Innovation Platforms Practice Brief 9. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34163

Innovation Platforms to shape national policy

Cadilhon, J.-J., Birachi, E., Klerkx, L., Schut, M. (2013). *Innovation Platforms to shape national policy*. Innovation Platforms Practice Brief 2. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34156

Research and Innovation Platforms

Lema, Z., Schut, M. (2013). *Research and Innovation Platforms*. Innovation Platforms Practice Brief 3. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34158

Innovation Platforms for agricultural value-chain development

Birachi, E., Rooyen, A. van, Some, H., Maute, F., Cadilhon, J.-J., Adekunle, A., Swaans, K. (2013). *Innovation Platforms for agricultural value chain development*. Innovation Platforms Practice Brief 6. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34160

Innovation Platforms to support natural resource management

Misiko, M., Mundy, P., Ericksen, P. (2013). *Innovation Platforms to support natural resource management*. Innovation Platforms Practice Brief 11. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34165

Developing innovation capacity through Innovation Platforms

Boogaard, B., Dror, I., Adekunle, A., Le Borgne, E., van Rooyen, A., Lundy, M. (2013). *Developing innovation capacity through Innovation Platforms*. Innovation Platforms Practice Brief 8. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34162

Communication in Innovation Platforms

Victor, M., Ballantyne, P.G., Le Borgne, E., Lema, Z. (2013). *Communication in Innovation Platforms*. Innovation Platforms Practice Brief 7. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34161

Monitoring Innovation Platforms

Lundy, M., Le Borgne, E., Birachi, E., Cullen, B., Boogaard, B., Adekunle, A., Victor, M. (2013). *Monitoring Innovation Platforms*. Innovation Platforms Practice Brief 5. ILRI, Nairobi, Kenya. hdl.handle.net/10568/34159

Impact of Innovation Platforms

Duncan, A.J., Le Borgne, E., Maute, F., Tucker, J. (2013). *Impact of Innovation Platforms*. Innovation Platforms Practice Brief 12. ILRI, Nairobi, Kenya: ILRI. hdl.handle.net/10568/34271

Scaling and Innovation Platforms

Hendrickx, S.C.J., Ballantyne, P.G., Duncan, A.J., Teufel, N., Ravichandran, T. (2015). *Scaling and Innovation Platforms*. Innovation Platforms Practice Brief 13. ILRI, Nairobi, Kenya. hdl.handle.net/10568/67884

Research for development in Innovation Platform

Boogaard, B., Klerkx, L., Schut, M., Leeuwis, C., Duncan, A., Cullen, B. (2013). *Critical issues for reflection when designing and implementing Research for Development in Innovation Platforms*. Report for the CGIAR Research Program on Integrated Systems for the Humidtropics. Knowledge, Technology & Innovation Group (KTI), Wageningen University and Research Centre, Wageningen, the Netherlands, p. 42. <http://hdl.handle.net/10568/35028>

Author Biographies

Marc Schut is a social scientist working with the International Institute of Tropical Agriculture (IITA) and the Knowledge, Technology, and Innovation group of Wageningen University (WUR). Marc is Flagship Leader for 'Improving Livelihoods at Scale' under the CGIAR Research Program on Roots, Tubers, and Bananas (RTB). Marc is also Principal Investigator of the CIALCA project (www.cialca.org), which focuses on the sustainable intensification of agricultural systems to enhance food, income, and nutrition security in Central Africa. His ambition is to conduct action research that enhances innovation and scaling capacities of public and private sector partners and shapes research, development, and policy agendas.

Marc's favourite Innovation Platform publication

Hermans, F., Sartas, M., van Schagen, B., van Asten, P., Schut, M. (2017). Social network analysis of multi-stakeholder platforms in agricultural research for development: Opportunities and constraints for innovation and scaling. In: *PLoS ONE* 12. doi.org/10.1371/journal.pone.0169634

Jens A. Andersson is a rural development sociologist working with the International Maize and Wheat Improvement Center (CIMMYT) and guest researcher at the Knowledge, Technology, and Innovation group of Wageningen University (WUR). Jens leads research clusters focusing on the integration of technological and institutional options in rural livelihood systems in the CGIAR Research Programs MAIZE and WHEAT. Jens also works on the co-development, institutionalization, and scaling of agronomy-focused decision support tools in the Taking Maize Agronomy to Scale (TAMASA) project (tamasa.cimmyt.org), a project that aims to transform knowledge delivery infrastructures for smallholder farmers in Africa.

Jens' favourite Innovation Platform publication

Pamuk, H., Bulte, E., Adekunle, A.A. (2014). Do decentralized innovation systems promote agricultural technology adoption? Experimental evidence from Africa. In: *Food Policy* 44:227-236. www.sciencedirect.com/science/article/pii/S0306919213001437

Iddo Dror is the Head of Capacity Development for the International Livestock Research Institute (ILRI, www.ilri.org), based in Nairobi, Kenya. At ILRI, Iddo leads the development of the knowledge, attitudes, skills, and institutional arrangements

that are necessary to replicate, expand, adapt, use, support, and sustain research and its application for development in a variety of contexts across ILRI and its projects. For more information about Iddo's professional activities, see www.linkedin.com/in/iddodror

Iddo's favourite Innovation Platform publications

Dror, I., Cadilhon, J.J., Schut, M., Misiko, M., Maheshwari, S. (2016). *Innovation Platforms for agricultural development: Evaluating the mature Innovation Platforms landscape*. Routledge, UK. cgspace.cgiar.org/handle/10568/68755

Teaching materials for Innovation Platform case studies from three continents, comprising of teaching notes, facilitator guides and presentations.

sustainable-livestock.ilri.org/2017/03/10/humidtropics-ipcases

Online and mobile courses on understanding, facilitating and monitoring agricultural Innovation Platforms. learning.ilri.org/courses

An Android 'serious game' called 'I am an Innovation Platform Facilitator'.

news.ilri.org/2016/12/08/ip-facilitation-game

Josey Kamanda is a social scientist working with the Rice Sector Development Program of the Africa Rice Centre (AfricaRice). Josey leads the innovation systems team in facilitating collective innovation in the Rice Sector Development Hubs ('rice hubs') established by AfricaRice and national partners across different countries. He conducts transdisciplinary research applying concepts from agricultural and institutional economics, political science, and sociology in analysing innovation processes, governance, and institutions in agricultural development. His ambition is to apply the knowledge from innovation studies in facilitating joint action by various actors in development and scaling of technical and institutional innovations for agricultural development.

Josey's favourite Innovation Platform publication

Sanyang, S., Taonda, S.J.-B., Kuiseu, J., Coulibaly, N., Konaté, L., 2015. A paradigm shift in African agricultural research for development: The role of Innovation Platforms. In: *International Journal of Agricultural Sustainability* 5903:1-27. doi.org/10.1080/14735903.2015.1070065

Murat Sartas is an innovation system scientist working with the International Institute of Tropical Agriculture (IITA) and the Knowledge, Technology, and Innovation group of Wageningen University (WUR). Murat works for the CGIAR Research Program on Roots, Tubers, and Banana (RTB) and in the CIALCA project (www.cialca.org). In his work, he focuses on metrics and analytics of the performance of the

projects, programmes, and policies aiming to improve innovation and livelihood systems. He is passionate about research, development, innovation, ICT, effectiveness, and efficiency. His ambition is to develop decision support systems for R4D interventions to improve their impact at scale.

Murat's favourite Innovation Platform publication

Sartas, M., Schut, M., Leeuwis, C., 2017. Learning system for agricultural research for development interventions (LESARD). Effective documenting, reporting and analysis of performance factors in multi-stakeholder processes. In: Born, I., Vanlauwe, B., Phillips, M., Thomas, R., Brooijmans, W., Atta-Krah, K. (eds.), *Integrated systems research for sustainable intensification of smallholder agriculture*. Earthscan, Ibadan. www.researchgate.net/publication/310603797_Learning_System_for_Agricultural_Research_for_Development_LESARD_Documenting_Reporting_and_Analysis_of_Performance_Factors_in_Multi-stakeholder_Processes

Remco Mur is working as an advisor on sustainable economic development at the Royal Tropical Institute (KIT) in Amsterdam. He is a tropical agriculturist with a specialization in rural innovation processes and agricultural service delivery. He has 22 years of experience as development practitioner and applied researcher, and has worked for a wide variety of international organizations, both government and non-government, in various countries in Asia and Sub-Saharan Africa. He has skills in facilitation of multi-stakeholder processes, participatory approaches, action research, process design, and training.

Remco's favourite Innovation Platform publication

Pyburn, R., Woodhill, J. (eds.) (2014). *Dynamics of rural innovation – A primer for emerging professionals*. LM Publishers, Arnhem. 213ou636shoptphd141fqi1-wpengine.netdna-ssl.com/sed/wp-content/uploads/publications/54b7d397a31e6_Dynamics%20of%20Rural%20Innovation%20reduced.pdf

Shinan Kassam is an agricultural economist at The International Centre for Agricultural Research in the Dry Areas (ICARDA). His research for development interests are focused on a better understanding of livelihood systems within fragile, water scarce environments; and through participatory research and learning, uncovering avenues for improved wellbeing and quality of life. Based at ICARDA's offices in Cairo, Shinan currently manages a portfolio of research initiatives that seek to generate policy-relevant evidence, and recommendations therefrom, to support paradigm shifts in how the process of agricultural innovation ought to be approached within environments that are prone to conflict.

Shinan's favourite Innovation Platform publication is: Kassam, S.N. (2016). *Innovation Platforms in practice: Lessons learned from SARD-SC in Ethiopia, Nigeria and Sudan*. ICARDA working paper. Mimeo. <https://www.linkedin.com/in/shinankassam>

Herman Brouwer is a senior advisor working with Wageningen Centre for Development Innovation (CDI), part of Wageningen University & Research. Herman works on multi-stakeholder engagement for sustainable and inclusive agriculture. He advises, trains, and coaches professionals across sectorial boundaries on how to contribute to sustainable development through collaboration. As an accredited PBA partnership broker, Herman is supporting local and global partnerships, mainly in food security and natural resource management, in more than 25 countries. Together with Jim Woodhill he wrote the acclaimed MSP Guide: How to design and facilitate multi-stakeholder partnerships (2016). His ambition is to see Innovation Platforms deliver more inclusive and sustainable results than they currently do.

Herman's favourite Innovation Platform publication

Meadows, D. (1999). Leverage points: Places to intervene in a system. The Sustainability Institute, Hartland. donellameadows.org/wp-content/userfiles/Leverage_Points.pdf

Dietmar Stoian is Senior Scientist, Value Chains and Private Sector Engagement at Bioversity International, Montpellier, France. Dietmar serves as centre representative in the CGIAR Research Program (CRP) on Policies, Institutions, and Markets (PIM) and also coordinates Bioversity's contributions on value chains to the CRPs on Roots, Tubers, and Bananas (RTB) and Forest, Trees, and Agroforestry (FTA). His ambition is to provide strategic guidance on how CGIAR research can get to scale through science-based evidence on impactful partnership and scaling models, with well-defined roles for research and diverse development partners along the different stages of the impact pathways.

Dietmar's favourite Innovation Platform publication

Wigboldus, S. (2016). Using a theory of scaling to guide decision making. Towards a structured approach to support responsible scaling of innovations in the context of agrifood systems. Wageningen University and Research, Wageningen. www.researchgate.net/profile/Seerp_Wigboldus/publication/312038985_SEERP_WIGBOLDUS_-_THEORY_OF_SCALING_HR/links/586ba32108ae6eb871bb5f42.pdf

André Devaux holds a PhD in Agriculture Science from Université Catholique Louvain (UCL), Belgium, and has 30 years' experience in agricultural research for development. Most of his career has been associated with the International Potato Center (CIP). He has developed expertise in strengthening agriculture research and development programmes with multidisciplinary teams in Latin America, Africa, and Asia, and has extensive research experience in: potato production and food systems, innovation systems, inclusive value chain development, food and nutritional security. He is now based in Ecuador as CIP's Latin American Regional Director, coordinating CIP's activities in this region. His ambition is to continue to contribute to research on inclusive value chain development with other CGIAR centres in a framework of resilient agri-food systems.

André's favourite Innovation Platform publication

Devaux, A., Horton, D., Velasco, C., Thiele, G., Lopez, G., Bernet, T., Reinoso, I., Orinola (2009). Collective action for market chain innovation in the Andes. In: *Food Policy* 34 (2009):31-38. www.researchgate.net/publication/223665159_Collective_action_for_market_chain_innovation_in_the_Andes

Claudio Velasco is an agriculture and social scientist working with the International Potato Center (CIP). His work experience has focused on managing innovation projects in agriculture and on the development and use of participatory approaches and tools to foster, collective action and knowledge management and learning. Claudio is part of the CIP team working on 'Inclusive Value Chains and Efficient Trade' under the CGIAR research program on Policy Institutions and Markets (PIM) and on 'Improving Livelihoods at Scale' under the CGIAR research program on Roots, Tubers and Banana (RTB). His ambition is to conduct action-research on different approaches for capacity building and institutional innovation to reach impact at scale of research results.

Claudio's favourite Innovation Platform publication

Thiele, G., Devaux, A., Reinoso, I., Pico, H., Montesdeoca, F., Pumisacho, M., AndradePiedra, J., Velasco, C., Flores, P., Esprella, R., Thomann, A., Manrique, K. and Horton, D. (2011). Multi-stakeholder platforms for linking small farmers to value chains: evidence from the Andes. In: *International Journal of Agricultural Sustainability* 9(3):1-11. www.tandfonline.com/doi/full/10.1080/14735903.2011.589206?scroll=top&needAccess=true

Andreas Gramzow works for the World Vegetable Center on agribusiness development in Eastern and Southern Africa. He has extensive experience in value chain

analysis, access to finance, and collective action in the agricultural sector. Andreas leads a technology scaling project and has developed several collective action models to improve smallholder vegetable producers' access to input and output markets. His ambition is to conduct applied research to analyse and improve institutional arrangements that allow, in particular, smallholder farmers to benefit from improved technologies and emerging market opportunities.

Andreas' favourite Innovation Platform publication

Klerkx, L., Schut, M., Leeuwis, C., Kilelu, C. (2012). Advances in knowledge brokering in the agricultural sector: Towards innovation system facilitation. In: *IDS Bulletin* 43(5):53-60. onlinelibrary.wiley.com/doi/10.1111/j.1759-5436.2012.00363.x/pdf

Thomas Dubois is the Regional Director for Eastern and Southern Africa at the World Vegetable Center and is based in Arusha, Tanzania. Thomas obtained his PhD from Cornell University in 2003 and has worked for over a decade with the International Institute of Tropical Agriculture (IITA) in several countries in Africa, where he has worked on enhancing banana seed systems as well as marketing of tissue culture in banana using smallholder business approaches. Thomas also co-lead IITA's efforts in managing aflatoxins in maize using Aflasafe, a biological control option, throughout the continent. He also has experience working on rice value chains and helped harmonize action plans in AfricaRice's 22 member countries. Thomas has published extensively, and, in 2006, he received the CGIAR Young Scientist of the Year award.

Thomas' favourite Innovation Platform publication

Berkes, F. (2009). Evolution of co-management: Role of knowledge generation, bridging organizations and social learning. In: *Journal of Environmental Management* 90:1692-1702. www.sciencedirect.com/science/article/pii/S0301479708003587

Rica Joy Flor is a post-doctoral Fellow working with the International Rice Research Institute. Rica coordinates the implementation of the project 'Development of an ecologically-based, participatory integrated pest management (IPM) package for rice in Cambodia'. She is also a collaborator in other IRRI projects such as the impact assessment of alternate wetting and drying (AWD) technology, and the Closing Rice Yield Gaps Project (CORIGAP). Her ambition is to support research projects to implement effective approaches that enable positive impacts for farming communities.

Rica's favourite Innovation Platform publication

Flor, R.J., Leeuwis C., Maat H., Gummert M. (2016). Rice postharvest learning alliance in Cambodia: Comparison of assumptions and implementation of a network approach. In: *Journal of Development Effectiveness*. dx.doi.org/10.1080/19439342.2016.1231705

Martin Gummert is a senior Scientist working with the International Rice Research Institute (IRRI). Martin is the Leader of IRRI's Postharvest and Mechanization Group and is leading the Postharvest Activity and the Value Chain Support Services Clusters of the Flagship Program 2, Upgrading of Rice Value Chains of the CGIAR Research Program RICE. He is also leading IRRI's the BMZ funded rice straw management and drying projects and is implementing postharvest and mechanization components of IRRI's SDC funded Closing the Yield Gaps In Asia COPIGAP and the ACIAR funded MyRice project in Myanmar. He also has a rich experience in providing consulting services to public and private stakeholders on postharvest and mechanization topics. His ambition is to contribute to sustainable rice production and to maintaining farming in developing countries as a viable career option for young people through making state of the art technologies and management options available to farmers and processors.

Martin's favourite Innovation Platform publication

Flor, Rica Joy B (2016). *Network formation, learning and innovation in multi-stakeholder research projects*. PhD Thesis, Wageningen University. edepot.wur.nl/375718

Djuna Buizer is a social scientist specialized in development economics. Djuna was an intern with the CGIAR Research Program led by IITA in Uganda. Her job was to identify and make an overview of the costs of an Innovation Platform during its multiple phases. Her ambition is to contribute to (agricultural) policy and projects in which the public sector is not poaching in the territory of the private sector but is doing its best to work together with the private sector and to eventually become superfluous.

Djuna's favourite Innovation Platform publication

Vellema, S., Ton, G., De Roo, N., Van Wijk, J. (2013). Value chains, partnerships and development: Using case studies to refine programme theories. In: *Evaluation* 19(3):304-320. www.researchgate.net/publication/258136950_Value_Chains_Partnerships_and_Development_Using_Case_Studies_to_Refine_Programme_Theories

Cynthia McDougall is the Gender Research Leader WorldFish and the CGIAR Research Program on Fish Agri-food Systems ('FISH'). She is an interdisciplinary social scientist with over 20 years of experience in food security, gender and social equity, and systems and natural resource governance research. Cynthia holds an MPhil (Geography) from Cambridge University in the UK and a PhD (Knowledge, Technology and Innovation) from Wageningen University, The Netherlands. Her ambition is to use interdisciplinary and action research approaches to leverage scalable shifts towards empowerment, equality, poverty reduction, food and nutrition security and sustainability.

Cynthia's favourite Innovation Platform publication

Cullen, B., Tucker, J., Snyder, K., Lema, Z., & Duncan, A. (2014). An analysis of power dynamics within Innovation Platforms for natural resource management. In: *Innovation and Development* 4(2):259-275. www.tandfonline.com/doi/full/10.1080/2157930X.2014.921274

Kristin Davis has a PhD in international agricultural extension with a minor in farming systems from the University of Florida. In 2004 she started work as a researcher with the International Food Policy Research Institute (IFPRI). Her work with IFPRI involves research and capacity strengthening on agricultural extension and other development issues with a focus on Sub-Saharan Africa. From 2010-2016 she was seconded to the Global Forum for Rural Advisory Services (GFRAS) as Executive Secretary, where her work involved providing advocacy for advisory services within global policy dialogues; supporting evidence-based approaches and policies for improving the effectiveness of advisory services; and strengthening advisory services through facilitating interaction and networking. She works as Project Director for the USAID-funded project Developing Local Extension Capacity (DLEC).

Kristin's favourite Innovation Platform publication

Birner, R., Davis, K., Pender, J., Nkonya, E., Anandajayasekaram, P., Ekboir, J., Mbabu, A., Spielman, D.J., Horna, D., Benin, S., Cohen, M. (2009). From Best Practice to Best Fit: A Framework for Designing and Analyzing Pluralistic Agricultural Advisory Services Worldwide. In: *The Journal of Agricultural Education and Extension* 15:341-355. www.researchgate.net/publication/233087220_From_Best_Practice_to_Best_Fit_A_Framework_for_Designing_and_Analyzing_Pluralistic_Agricultural_Advisory_Services_Worldwide

Sabine Homann-Kee Tui is a social scientist working at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), in the MIND (Markets,

Institutions, Nutrition, and Diversity) group of the ISD (Innovation Systems for the Drylands). Sabine's work contributes to the development of open innovation approaches that help facilitate sustainability transitions in crop livestock systems, identifying leverage points and how testing learning activities around those would help farming systems transition to more sustainable configurations.

Sabine's favourite Innovation Platform publication

Genus, A., Coles, A.M. (2008). Rethinking the multi-level perspective of technological transitions. In: *Research Policy* 37:1436-1445. www.sciencedirect.com/science/article/pii/S0048733308001169

Mark Lundy is a Senior Scientist at the International Center for Tropical Agriculture, CIAT, in Cali, Colombia. His work focuses on the role of markets in reducing rural poverty including learning networks to increase capacities for enterprise development, the role of public agencies to promote market access and how to establish and sustain effective trading relationships between buyers and smallholder farmers. Emerging areas of work include sustainable food systems and climate resilient value chains. Mark is lead author of guides on rural enterprise development, the LINK method on inclusive business models and an active participant in multi-stakeholder forums focused on sustainability and smallholder inclusion.

Mark's favourite Innovation Platform publication

ISPC (2015). *Strategic study of good practice in AR4D partnership*. Rome, Italy. CGIAR Independent Science and Partnership Council (ISPC). foodsystemsinnovation.org.au/sites/default/files/good_practice_in_ar4d_partnerships_lowres.pdf and foodsystemsinnovation.org.au/resource/agriculture-research-multi-stakeholder-partnerships-and-sdgs

References

- Adane-Mariami, Z., Cadilhon, J.J., Werthmann, C. (2015). Impact of Innovation Platforms on marketing relationships: The case of Volta Basin integrated crop-livestock value chains in Ghana. African. In: *Journal of Agricultural and Resource Economics* 10:1-10.
- Adekunle, A.A., Fatunbi, A.O., Jones, M.P. (2010). *How to set up an Innovation Platform. A concept guide for the Sub-Saharan African Challenge Program (SSA CP)*. Forum for Agricultural Research in Africa (FARA).
- Boogaard, B., Dror, I., Adekunle, A., Le Borgne, E., van Rooyen, A., Lundy, M. (2013). *Developing innovation capacity through Innovation Platforms*. Innovation Platforms Practice Brief 8. ILRI, Nairobi, Kenya.
- Brouwer, H., Woodhill, J. (2016). *The MSP Guide: How to Design and Facilitate Multi-Stakeholder Partnerships*. Second Edition. Wageningen University & Research, CDI The Netherlands, and Practical Action Publishing, Warwickshire, UK. Available at: www.mspguide.org/sites/default/files/case/msp_guide-2016-digital.pdf
- Buizer, D. (2016). *The costs of Humidtropics Innovation Platforms in Uganda, Development Economics*. Wageningen University, Wageningen, The Netherlands, p. 20.
- Cadilhon, J. (2013). *A conceptual framework to evaluate the impact of Innovation Platforms on agrifood value chains development*. Paper Prepared for the 138 EAAE Seminar on Pro-Poor Innovations in Food Supply Chains, Ghent, Belgium, September 2013.
- Cullen, B., Tucker, J., Homann-Kee Tui, S.H.-K. (2013). *Power dynamics and representation in Innovation Platforms*. Innovation Platforms Practice Brief 4. ILRI, Nairobi, Kenya.
- Cullen, B., Tucker, J., Snyder, K., Lema, Z., Duncan, A. (2014). An analysis of power dynamics within Innovation Platforms for natural resource management. In: *Innovation and Development* 4:259-275.
- Devaux, A., Andrade-Piedra, J., Horton, D., Ordinola, M., Thiele, G., Thomann, A., Velasco, C. (2010). *Brokering innovation for sustainable development: the Papa Andina Case*. ILAC Working Paper 12, p.32. hdl.handle.net/10568/67217
- Esparcia, J. (2014). Innovation and networks in rural areas. An analysis from European innovative projects. In: *Journal of Rural Studies* 34, 1-14.
- Faysse, N. (2006). Troubles on the way: An analysis of the challenges faced by multi-stakeholder platforms. In: *Natural Resources Forum* 30:219-229.
- Flor, R., Leeuwis, C., Maat, H., Gummert, M. (2016). Rice postharvest learning alliance in Cambodia: comparison of assumptions and implementation of a network approach. In: *Journal of Development Effectiveness* 8, 489-507.
- Francis, J., Mytelka, L., van Huis, A., Röling, N., (2016). *Innovation systems: towards effective strategies in support of smallholder farmers*. CTA, CoS, Wageningen University and Research, Wageningen, The Netherlands. Available at: publications.cta.int/en/publications/publication/1829
- Gildemacher, P., Oruku, L., Kamau-Mbuthia, E. (2011). Impact and sustainability. In: Nederlof, S., Wongtschowski, M., van der Lee, F. (eds.), *Putting heads together: Agricultural Innovation Platforms in practice*. KIT Publishers, Amsterdam.
- Hall, A., Mytelka, L., Oyeyinka, B. (2006). *Concepts and guidelines for diagnostic assessment of agricultural innovation capacity*. UNU-MERIT Working Paper Series 2006-017, p. 33.
- Hall, A., Rasheed Sulaiman, V., Clark, N., Yoganand, B. (2003). From measuring impact to learning insti-

- tutional lessons: an innovation systems perspective on improving the management of international agricultural research. In: *Agricultural Systems* 78:213-241.
- Hartwich, F., Gottret, V., Babu, S., Tola, J. (2007). Building public-private partnerships for agricultural innovation in Latin America. In: 00699, I.D.P.n. (ed.), International Food Policy Research Institute (IFPRI), Washington D.C., p. 60.
- Head, B.W. (2008). Assessing network-based collaborations: effectiveness for whom? In: *Public Management Review* 10:733-749.
- Hekkert, M.P., Suurs, R.A.A., Negro, S.O., Kuhlmann, S., Smits, R.E.H.M. (2007). Functions of innovation systems: A new approach for analysing technological change. In: *Technological Forecasting and Social Change* 74:413-432.
- Hermans, F., Sartas, M., van Schagen, B., van Asten, P., Schut, M. (2017). *Social network analysis of multi-stakeholder platforms in agricultural research for development: Opportunities and constraints for innovation and scaling*. PLoS ONE 12. journals.plos.org/plosone/article?id=10.1371/journal.pone.0169634
- Hermans, F.P., Haarmann, W.F., Dagevos, J.L.M.M. (2011). Evaluation of stakeholder participation in monitoring regional sustainable development. In: *Regional Environmental Change* 11:805-815.
- Homann-Kee Tui, S., Adekunle, A., Lundy, M., Tucker, J., Birachi, E., Schut, M., Klerkx, L., Ballantyne, P.G., Duncan, A.J., Cadilhon, J., and Mundy, P. (2013). *What are Innovation Platforms?* Innovation Platforms Practice Brief 1. ILRI, Nairobi, Kenya.
- Homann-Kee Tui, S., Hendrickx, S., Manyawu, G.J., Rao, K.P., Robinson, L. (2015). *Implementing Innovation Platforms: a guideline for Dryland Systems Research*. CGIAR Research Program on Dryland Systems. Accesible at: [oar.icrisat.org/9208/1/Implementing Innovation Platforms.pdf](http://oar.icrisat.org/9208/1/Implementing%20Innovation%20Platforms.pdf)
- Johnson, B., Edquist, C., Lundvall, B.A. (2003). *Economic Development and the National System of Innovation Approach*. First Glogelics Conference, Rio de Janeiro, November 3-6, 2003, P. 24..
- Kilelu, C.W., Klerkx, L., Leeuwis, C., Hall, A. (2011). Beyond knowledge brokering: An exploratory study on innovation intermediaries in an evolving smallholder agricultural system in Kenya. In: *Knowledge Management for Development Journal* 7:84-108.
- Klerkx, L., Hall, A., Leeuwis, C. (2009). Strengthening agricultural innovation capacity: Are innovation brokers the answer? In: *International Journal of Agricultural Resources, Governance and Ecology* 8:409-438.
- Lamers, D., Schut, M., Klerkx, L., van Asten, P. (2017). *Compositional Dynamics of Multi-level Innovation Platforms in Agricultural Research for Development*. *Science and Public Policy*. First published online: academic.oup.com/spp/article-lookup/doi/10.1093/scipol/scx009
- Leeuwis, C. (2000). Reconceptualizing participation for sustainable rural development: Towards a negotiation approach. In: *Development and Change* 31:931-959.
- Leeuwis, C., Schut, M., Waters-Bayer, A., Mur, R., Atta-Krah, K., Douthwaite, B. (2014). *Capacity to innovate from a system CGIAR research program perspective*. Penang, Malaysia. CGIAR Research Program on Aquatic Agricultural Systems. Program Brief: AAS-2014-29, p. 5.
- Lema, Z., Schut, M. (2013). *Innovation and research platforms*. Innovation Platforms Practice Brief 3. ILRI, Nairobi, Kenya.
- Makini, F.W., Kamau, G.M., Makelo, M.N., Adekunle, W., Mburathi, G.K., Misiko, M., Pali, P., Dixon, J. (2013). *Operational field guide for developing and managing local agricultural Innovation Platforms*. KARI and ACIAR, Nairobi, Kenya.
- Messely, L., Rogge, E., Dessein, J. (2013). Using the rural web in dialogue with regional stakeholders. In: *Journal of Rural Studies* 32:400-410.
- Muñoz-Erickson, T.A., Cutts, B.B. (2016). Structural dimensions of knowledge-action networks for sustainability. In: *Current Opinion in Environmental Sustainability* 18:56-64.
- Neef, A., Neubert, D. (2011). Stakeholder participation in agricultural research projects: A conceptual framework for reflection and decision-making. In: *Agriculture and Human Values* 28:179-194.
- OECD (1999). *Managing national innovation systems*. Organization for Economic Cooperation and Development (OECD), Paris.
- Pham, N.D., Cadilhon, J.J., Maass, B.L. (2015). Field testing a conceptual framework for Innovation Platform impact assessment: the case of MilkIT dairy platforms in Tanga region, Tanzania. In: *East African Agricultural and Forestry Journal* 81:58-63.
- Röling, N. (2002). Beyond the aggregation of individual preferences: moving from multiple to distributed cognition in resource dilemmas. In: Leeuwis, C., Pyburn, R. (eds.), *Wheelbarrows full of frogs: social learning in rural resource management*. Royal Van Gorcum B.V., Assen, The Netherlands, p. 25-47.
- Ruttan, L. (2008). Economic heterogeneity and the commons: effects on collective action and collective goods provisioning. In: *World Development* 36:969-985.
- Sanyang, S., Pyburn, R., Mur, R., Audet-Belanger, G. (2014). *Against the grain and to the roots: maize and cassava Innovation Platforms in West and Central Africa*. LM Publishers, Arnhem, the Netherlands.
- Sartas, M., Schut, M., Leeuwis, C. (2017). Learning System for Agricultural Research for Development (LESARD): Documenting, Reporting, and Analysis of Performance Factors in Multi-Stakeholder Processes. In: Öborn, I., Vanlauwe, B., Phillips, M., Thomas, R., Brooijmans, W., Atta-Krah, K. (eds.), *Sustainable Intensification in Smallholder Agriculture: an Integrated Systems Research Approach*. Earthscan.
- Schut, M., Cadilhon, J.-J., Misiko, M., Dror, I. (2017). *Do mature Innovation Platforms make a difference in agricultural research for development? A meta-analysis of case studies*. *Experimental Agriculture*. First published online: dx.doi.org/10.1017/S0014479716000752
- Schut, M., Klerkx, L., Sartas, M., Lamers, D., Mc Campbell, M., Ogbonna, I., Kaushik, P., Atta-Krah, K., Leeuwis, C. (2016). Innovation Platforms: Experiences with their institutional embedding in Agricultural Research for Development. In: *Experimental Agriculture* 52:537-561.
- Schut, M., Leeuwis, C., van Paassen, A. (2013). Ex ante scale dynamics analysis in the policy debate on sustainable biofuels in Mozambique. In: *Ecology and Society* 18, 16. Available online at: www.ecologyandsociety.org/vol18/iss11/art20
- Schut, M., Leeuwis, C., van Paassen, A., Lerner, A. (2011). Knowledge and innovation management in the policy debate on biofuel sustainability in Mozambique: what roles for researchers? In: *Knowledge Management for Development Journal* 7:45-64.
- Schut, M., van Paassen, A., Leeuwis, C., Klerkx, L. (2014). Towards dynamic research configurations. A framework for reflection on the contribution of research to policy and innovation processes. In: *Science and Public Policy* 41:207-218.
- Thiele, G., Devaux, A., Reinoso, I., Pico, H., Montesdeoca, F., Pumisacho, M., Andrade-Piedra, J., Velasco, C., Flores, P., Esprella, R., Thomann, A., Manrique, K., Horton, D. (2011). Multi-stakeholder platforms for linking small farmers to value chains: evidence from the Andes. In: *International Journal of Agricultural Sustainability* 9:1-11.
- Tucker, J., Schut, M., Klerkx, L. (2013). *Linking action at different levels through Innovation Platforms*. Innovation Platforms Practice Brief 9. Nairobi, Kenya. ILRI, 4.
- Wigboldus, S., Klerkx, L., Leeuwis, C., Schut, M., Muilerman, S., Jochemsen, H. (2016). Systemic perspectives on scaling agricultural innovations. A review. In: *Agronomy for Sustainable Development* 36:1-20.
- World Bank (2006). *Enhancing agricultural innovation: how to go beyond the strengthening of research systems*. World Bank, Washington, DC, USA, p. 118.

Innovation Platforms are increasingly being proposed and used in agricultural research for development project and programs. Innovation Platforms provide space to farmers, agricultural service providers, researchers, private sector and other stakeholders to jointly identify, analyse and overcome constraints to agricultural development. Although innovation platforms have been successful in addressing agricultural challenges, there is a risk that they are promoted as a panacea for all problems in the agricultural sector... which would clearly be a big mistake.

“We need to think more critically about when, how and in what form Innovation Platforms can meaningfully contribute to agricultural development impacts.”

These guidelines support development funders and project developers in thinking about when and in what form innovation platforms can contribute effectively to achieving research and development objectives. It provides information on key design and implementation principles, the financial and human resources that need to be made available, and it makes suggestions for more effective monitoring, evaluation and learning.

The guidelines also contain reference materials, Frequently Asked Questions and a decision support tool for research, development and funding agencies.

Author organisations



Supporting projects and programmes

