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# An organizational capacity self-assessment for innovation support service providers (OCATI) – approach and results from application in Madagascar

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## ABSTRACT

**Purpose:** This paper introduces the Organisational Capacity Assessment Approach for Innovation Support (OCATI) and presents findings from its application with a farmer-based organisation in Madagascar.

**Design/method/approach:** OCATI has been co-designed within the EU–Africa collaborative research project SERVInnov, reflecting conditions in the global South, particularly Madagascar, Cameroon, and Burkina Faso. It assesses organisational, technical, and functional capacities, skill needs, and structural conditions for delivering innovation support services (ISS).

**Findings:** Results from its application in Madagascar, show disparities in performance across five capacity components with the highest performance in delivering ISS and the weakest in networking and policy engagement. Recommendations include initiating policy lobbying, institutionalisation, updating knowledge of the innovation ecosystem, new collaborations, ISS mapping tools, and clear communication channels. More so, enhancements in risk management, service diversification, human resource expansion, and ISS-type awareness are equally seen as crucial.

**Theoretical implications:** Realising an OCATI assessment fosters organisational evolution, complements widely used monitoring and evaluation (M&E) tools, and supports experiential learning


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approaches for extension and advisory service (EAS) organisations.

**Practical implications:** Practically, the results provide an opportunity for reflexive thinking about organisations' own position in supporting innovation, raising awareness for ISS, and revealing how support for innovation processes in agriculture matters and can be enhanced. The approach help organisations extract and develop core competencies in innovation support, thereby becoming more professionalised and recognised.

**Original Value:** This study addresses a significant research gap in organisational capacity assessment for innovation support and introduces a novel self-assessment tool for use by innovation support service providers.

**Paper type:** research paper, special issue 'Investigating innovation support services: a service-based approach for managing agricultural innovations towards sustainable development'

## 1. Introduction

[ ... .. Organisations have become more aware of the need for continuous capacity assessment, especially as this influences strategy since assessment results and outputs are often integrated into business planning processes (Ritchie and Dale 2000)]. [ ... .. Capacity assessment processes are increasingly seen as making organisations more viable and credible hence there is a growing importance and considerable prestige attributed to organisations that hold quality 'awards. This, in turn, has encouraged other organisations to adopt 'excellence models' as evaluation frameworks or organisational assessment tools (Biazzo and Bernardi 2003)]

In recent years, new and diverse advisory and innovation support service providers in the agriculture and agri-food sector have emerged, broadening service approaches, tools, and functions (Audouin et al. 2021; Faure et al. 2019; Kilelu, Klerkx, and Leeuwis 2014; Ndah et al. 2018). On the other hand, a growing demand from innovators for tailored, timely, and relevant support from service providers highlights the need to manage their organisational capacity effectively (Biazzo and Bernardi 2003; Petousis 2016). Recent literature has led to the concept of innovation support services (ISS) (Faure et al., 2017; Labarthe et al. 2013; Mathé et al. 2016; Ndah et al. 2018; Proietti and Cristiano 2022) anchored in the Agricultural Innovation System perspective (TAP 2016; World Bank 2006), and which highlights the service relationship between innovators and a diverse range of service providers (Gadrey 1994; Knierim et al. 2017; Labarthe et al. 2013). Particularly building upon literature in economics and agricultural extension, ISS has been regarded as an activity, involving one or several support service providers (ISP) and one or several beneficiaries in which they interact to address a more or less explicit demand emerging from a problematic situation, formulated by the beneficiaries, co-producing services aimed at solving the problem (Faure et al. 2019; Mathé et al. 2016; Ndah et al. 2018; Proietti and Cristiano 2022). To ensure ISS are of quality and successfully accelerate innovation processes, the new focus turns to organisations that provide this ISS. This necessitates continuous assessment, evaluation, and strengthening of advisory and support service providers' capacities to ensure a high-performing Innovation Support Services (ISS) offer.

In the context of north–south and south–south collaboration over the past decade, substantial donor-funded resources have been allocated to capacity assessment and development frameworks for various goals. These include institutional governance and learning (OECD 2006), enhancing food and nutrition security (FAO 2010, 2012, 2013), and strengthening environmental conservation (GEF 2010). It is only recently that efforts have also focused on bolstering the capacity for agricultural innovation systems (TAP 2016). While many of these initiatives have addressed capacity issues at systemic, national, and sectoral levels, particularly within bodies such as public organisations and government ministries in the global south (FAO 2010, 2012, 2021), there has been limited focus on assessing and developing the capacities of ISS providers specifically offering services in agriculture and agri-food sector (Allebone-Webb et al. 2016; FAO 2013; Mathé et al. 2016; Ndah et al. 2020). Especially, to ensure effective, efficient, relevant, and sustainable support for agricultural innovations, and to meet the diverse needs of innovators and adopters, there is a need for timely interventions in evaluating, monitoring, developing, and strengthening organisational capacities for offering ISS.

To address this challenge and foster organisational learning, we have developed a robust assessment framework and tool within the EU–Africa collaborative research project (SERVInnov). This tool, called OCATI (Organisational Capacity Assessment Tool for Innovation support), is designed to diagnose and monitor capacity needs related to ISS provision. The tool is based on a literature review and insights from discussions with selected ISS-providing organisations, particularly involving partner organisations from the SERVInnov project. It provides a framework and a tool for evaluating organisational capacities to support and accompany innovations in the agriculture and agri-food sector. This paper introduces the OCATI approach by outlining steps in its development process and presents findings from its application with four regional teams in Madagascar affiliated with a national farmer-based organisation.

## 2. Theoretical basis, background, and process of OCATI approach

For designing the OCATI approach, the following methodological steps have been implemented sequentially: (i) literature review on existing capacity assessment frameworks, (ii) bilateral talks with project partners organisations for capturing capacity needs (iii) the assembling of approach components, indicators, and assessment statements alongside implementation procedure and stages, and the (iv) pre-testing of the assessment tool within project partner organisations.

### 2.1. Theoretical basis – literature

#### 2.1.1. Dimensions and categories of organisational capacity in development contexts

In the context of development cooperation, capacity has been referred to as ‘the ability of people, organisations, and society as a whole to manage their affairs successfully’ (OECD 2006, 10). More so, the OECD defines capacity as the process whereby people, organisations and society unleash, strengthen, create, adapt, and maintain capacity over time, while the UNDP likens capacity to the ability of individuals, institutions, and societies to perform functions, solve problems and set and achieve objectives sustainably (UNDP, 2006: p5).

In linking ‘capacity’ to ‘innovation’ Allebone-Webb et al. (2016) state that actors can produce and sustain innovation processes in a dynamic systems environment by continuously identifying constraints and opportunities, and mobilising capabilities and resources in response.

Most recent studies on capacity development have distinguished three interdependent levels or dimensions. Firstly, the individual level where capacity development refers to the process of changing individuals’ attitudes and behaviours, most frequently through imparting knowledge and developing skills through training of individuals within organisations (Besette and Vernooy 2005; FAO 2010; Nair, Kumar, and Ramalu 2014). However, it also involves social learning or learning by doing, participation, ownership, and processes associated with increasing performance (FAO 2010; Raymond and Cleary 2013). Secondly, the organisational level where the focus here is on overall performance and functioning capabilities linked with developing mandates, tools, guidelines, and management information systems of organisations to facilitate and catalyse organisational change (Biazzo and Bernardi 2003; FAO, 2012). Thirdly, the systemic level where capacity development is concerned with the ‘enabling environment’, i.e. the overall policy, economic, regulatory, and accountability frameworks within which organisations operate (FAO & Agrinatura 2019). Specifically, within the context of agriculture steering by the Food and Agricultural Organisation (FAO), designed holistic capacity assessment frameworks have focused on developing capacity for food security in the global south with emphasis at the systemic levels (enabling environment) of targeted countries (TAP 2016).

Besides dimension and levels of capacities, past assessment frameworks have differentiated capacities categories into technical and functional capacities. Technical capacitors on the one hand deals with targeted strategic objectives focus on technical innovation generation, realisation, and implementation (Andrade, Franco, and Mendes 2021; Mazurkiewicz 2018). Examples include capacities for sustainable natural resource management, integrated pest management, food safety standards, plant and animal diseases, epidemics, biotechnologies, and in general all global challenges affecting agricultural Research and Development (ARD)(FAO, 2012; Wandersman, Chien, and Katz 2012). Functional capacities deal with policy, knowledge, partnership, and implementation capacities (FAO 2013).

### ***2.1.2. Capacity for agricultural innovation systems (AIS)***

Targeting the overall capacity for supporting agricultural innovations system (AIS), the Tropical Agricultural Platform (TAP) of the FAO, has split this term into 5 categories: (1) the capacity to navigate complexity; (2) the capacity to collaborate, (3) the capacity to reflect and learn; (4) the capacity to engage in the strategic and political process; and (5) the capacity to adapt and respond towards realising the potential of innovation. A combination of these capacities, therefore, is expected to lead to the desired capacity to adapt and respond towards promoting innovations (TAP 2016). In contrast, Allebone-Webb et al. (2016) while focusing generally on the ‘Capacity to innovate’ (C2I) as an emerging concept, have outlined four core capacities areas, the capacity: (1) to envision and create new ways of doing things; (2) to connect with others to access and understand new information and resources; (3) to experiment, test, assess, and adapt; and, (4) to work with others to achieve action and change. The authors conclude that the capacity

to innovate (C2I) concept puts a spotlight on process-driven approaches to innovation that have previously been undervalued.

In a related light, the recent focus on capacity development under the Capacity Development for Agricultural Innovation Systems (CDAIS) project, has led to a framework for strengthening organisational capacity (FAO and Agrinatura 2019). As it serves as guidelines on how a capacity coaching and development process could be realised, it has been called: a guide for the coaching process (FAO 2019) and used for building the capacity of organisations that provide innovation support services (ISS) in the food and agriculture sector (Wopereis-Pura et al. 2019). The CDAIS framework is composed of three main pillars: Capacity to organise, Capacity to relate, and Capacity to deliver. Capacity to organise involves the organisation's internal operations related to its identity (such as 'raison d'être', vision, values, missions, and memory), capital (including financial and material human resources), and both formal and informal structures (such as routines, procedures, and systems for information exchange). Capacity to relate pertains to the organisation's relationships with the outside world, assessing whether the organisation is dependent on or independent of other actors, its influence over them, its legitimacy, the frequency of information exchange, and the nature of these exchanges. Capacity to deliver focuses on the organisation's services and products, encompassing technical know-how, relevance, effectiveness, and sustainability of the ISS developed by the organisation. Analysis of the organisation's current situation and its environment using the CDAIS framework typically focuses on priority aspects of the organisation, addressing the most critical capacity needs. The results of this analysis are often presented as suggested actions or recommendations for organisational coaching and development, providing a targeted approach to enhance the organisation's capabilities and performance.

### ***2.1.3. Conclusion and implication for a capacity assessment approach for innovation***

Despite the comprehensive nature of existing capacity assessment frameworks, there is a notable lack of focus and attention on advisory and innovation support service providers' capacities to offer high-performing and diverse Innovation Support Services (ISS). Most frameworks have addressed capacity at systemic, national, and sectoral levels, primarily targeting public bodies in the global south, with limited attention to designing, assessing, and developing frameworks for enhancing ISS providers' capacities. Given the growing demand for tailored, timely, and relevant support from innovators, we acknowledge that managing the organisational capacity effectively for innovation support is crucial. To address these knowledge gaps, findings from the above literature review, complemented by insights from bilateral discussions with three partner organisations, have been used to develop the Organisational Capacity Assessment Approach for Innovation (OCATI) in a participative manner to enhance the performance of support service providers.

## ***2.2. Overview of the OCATI approach***

Based on insights from the literature review (2.1) needs assessment and lessons learnt from the bilateral talks (2.2), the Organisational Capacity Assessment Approach for

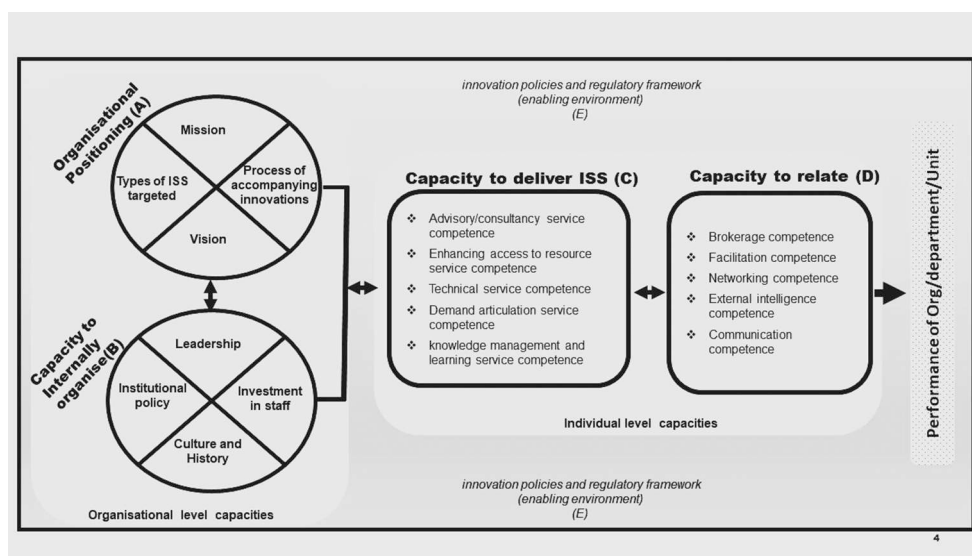


Innovation (OCATI) has been developed. This approach was co-designed in close cooperation with partner organisations within the EU–Africa partnership project – SERVInnov.

As a decision support approach, OCATI aims at enhancing ISS providers to self-evaluate their capacities, particularly, to reveal strengths and limitations of their organisational, technical, and functional capacities and skills, as well as the role that influences structural conditions e.g. the enabling environment.

The approach and associated tool were developed through an iterative dialogue process with project partners. It combines qualitative participatory self-assessment steps, which by structured discussions and collective reflections, gauge an organisation's understanding and regard for innovation support, with a quantitative capacity-scoring questionnaire using an Excel-based tool, generating recommendations for the targeted organisation. Inspired by the design of the Qualitative expert assessment tool for innovations (QAToCA) (Ndah et al. 2015) and the CDAIS organisational strengthening process (Wopereis-Pura et al. 2019), the scoring tool is structured into five thematic components: enabling environment, organisational positioning, capacity to internally organize, capacity to deliver ISS, and capacity to relate (Figure 1). Assessing these components and their interplay feeds into a general results section indicating the performance of an innovation support organisation, department, or sector (Table 2). Each component comprises a list of indicators assessed through operational statements rated from 1 to 5. Responses are aggregated and results are visualized in tables, graphs, and bar charts. Scores from different statements are averaged per component and weighted, which is crucial as the number of statements varies across components.

Results of the quantitative scoring reveal the capacity performance in terms of the organisation's effectiveness, efficiency, and sustainability (Table 1). Also, these specifically point to key limiting competencies across thematic components B, C, D, and E,



**Figure 1.** Structure and components OCATI Own design with adapted elements from Wopereis-Pura et al. (2019), Ndah et al.(2015), FAO (2013), FAO and Agrinatura (2019).

**Table 1.** A condensed overview of the OCATI Tool.

Capacity components	Brief description	
A Organisational positioning	<i>The position of the organisation with regards to how it perceives innovations is assessed. This component specifically checks on the general mission and vision of the organisation and the extent to which its involvement in accompanying and supporting innovation processes is part of this mission. Especially, an impression on the types of ISS targeted and the degree of visibility at regional, national, or international level i.e. depending on its mandate is assessed.</i>	
B Capacity to internally organise.	<i>This component checks on the capacity to internally manage programmes, human, and physical resources of the organisation. Such capacities are exhibited mostly in key staff at leadership or decision-making levels. This involves activities focused on improving internal organisational leadership and management towards offering ISS.</i>	
C Capacity to deliver ISS	<i>This component checks on whether the organisation is involved with the provision of key selected ISS functions proven to be instrumental for the success of the innovation. Also, it determines the level of competencies found within the organisation to be able to effectively deliver this key ISS are sufficient. Such key ISS include knowledge management and learning, advisory service, and backstopping, enhancing access to resources, key technical skills linked with targeted innovations, and demand articulation.</i>	
D Capacity to relate	<i>This relates to the organisation's relationships with the outside world. It is a question of checking if the organisation is dependent on or independent of the other actors. For example, whether it has influence over others or not, whether it has an affirmed legitimacy or not, and where it frequently exchanges information with the outside world as well as the nature of these exchanges.</i>	
E Contextual (enabling) environment	<i>Under this component, aspects of socioeconomic, cultural, regulatory frameworks and policy as well as other contextual factors that might influence the performance of the organisation are assessed.</i>	
Results of OCATI assessment	This involves the total result from a successful interplay of capacities from A to E. Performance results are to be interpreted from a relative perspective. This implies the performance results are to be closely linked with the mission and vision of the Organisation as well as the overall goal, objectives, and expectations of the organisation that needs to be identified before the start of the capacity assessment process.	<p>(a). Sustainability: the ability of the organisation to continue to adapt to its evolving environment, as well as fulfil its Innovation support related goals, mission, vision, and effectively position itself (A, E).</p> <p>(b). Efficiency: the extent to which the organisation possesses the necessary capacities to respond to the needs of its stakeholders by delivering ISS (B)</p> <p>(c). Effectiveness: the extent to which the organisation possesses the necessary capacities to respond to the needs of its stakeholders by delivering ISS and relating with other organisations and the outside world (C, D)</p> <p>(d). Organisational performance: A sum-total of Efficiency, Effectiveness, and Sustainability.</p>

Own formulation with adapted elements from **FAO (2017)**; **Toillier and Kola (2018)**; **Wopereis-Pura et al. (2019)**; **Mathé et al. (2016b)**; Faure et al. (2017); **Ndah et al. (2018)**; **OECD (2006)**; **GEF (2010)**; **TAP (2016)**

**Table 2.** General characteristics of case study organisation.

Organisation/Country	Madagascar's Farmer Based Organisation (MFBO)
Type of organisation	<i>Farmer Based Organisation (FBO)</i>
Year of creation	1989
Spatial coverage of organisation	<i>National Coverage</i>
Number of farmers reached	300,000
Number of employees dedicated to supporting innovations	51 employees (with 25 for accompanying innovations)
Types of innovations supported	<i>Technical, organisational, Service, and institutional innovations</i>
Month and year of OCATI Assessment	September 2020



all for use as entry points for reflection towards facilitating and enhancing the organisation's capacity development process.

### 2.3. Methodological steps for implementing the OCATI approach

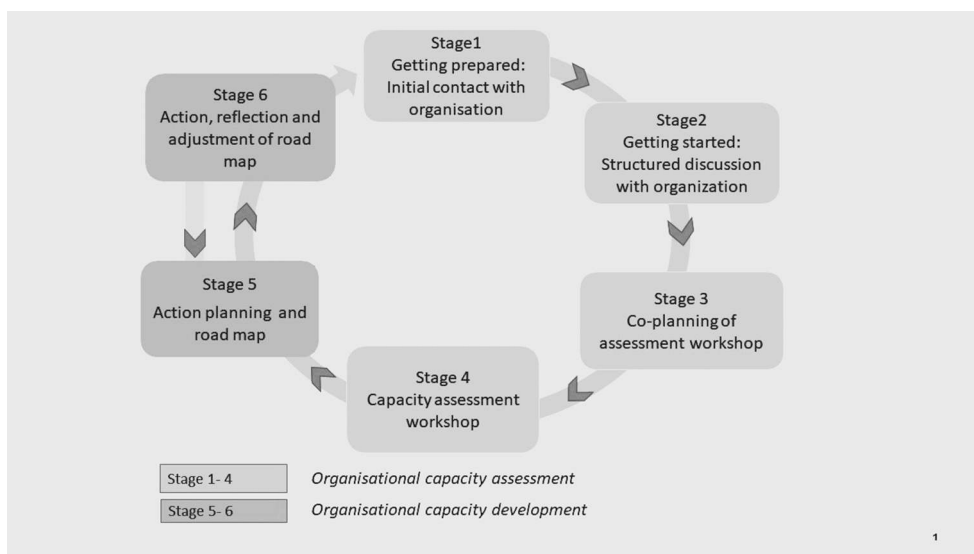
For its implementation, OCATI makes use of a participative systematic approach operationalised across 5 stages as follows: (1) initial contact with the targeted organisation, review of existing documents (getting prepared); (2) Structured discussion with organisation's management (getting started); (3) Co-planning of assessment workshop and briefing of co-facilitation team, (4) Capacity assessment workshop, (5) Action planning and roadmap, (6) Action, reflection, and adjustment of roadmap (Figure 2).

#### 2.3.1. Pre-conditions for an OCATI assessment (stage 0)

For a successful OCATI assessment, some pre-conditions have to be met. Targeted organisations must agree with the process, be willing to share information, and allow key staff to participate. A team of facilitators must work closely with the management of these organisations. A heterogeneous group of participants, reflecting diverse professional perspectives, should be constituted for the assessment workshop. Stages 1–4 comprise the organisational capacity assessment process, while stages 5–6 initiate the organisational capacity development processes. By the end of stage 4, it is assumed that targeted partner organisations will be motivated to use the assessment results to draft internal action plans and joint visions (stages 5–6) for further strengthening capacities at individual and organisational levels to support innovation processes.

#### 2.3.2. Getting prepared for an OCATI assessment (stage 1)

The first exchange with the organisation should guarantee a commitment and buy-in of the organisation's management for a possible (subsequent) capacity assessment process.



**Figure 2.** Methodological steps for implementing OCATI.

For instance, while there might be various ways to make such initial contacts, an example could be to start with requesting a formal meeting appointment where the capacity assessment idea is introduced. This first request can equally come from the organisation to an external knowledgeable consultant on the approach who guides the process in the first round while subsequent rounds are then handled by the trained internal facilitators.

This initial contact should be followed by a careful review of documents and collection of critical information for a proper understanding of the organisational context (enabling environment). Links to organisations' websites or any existing documents should be proactively requested during this first meeting. If necessary, a first (empirical) insight into the organisation's context as such should lead to a targeted revision and adjustment of some questions in the OCATI tool to best tailor the subsequent assessment of the targeted organisation.

### ***2.3.3. Getting started with an OCATI assessment (stage 2)***

After the initial groundwork, a structured discussion session (approximately half a day) is held, involving a broader spectrum of agents within the management team (approximately 3–5 persons). The primary objective of this session is to foster a collective comprehension regarding the organisation's mission, vision, overarching goals, objectives, and expectations concerning the facilitation of innovations in agriculture and the agro-food system. This discussion is designed to be adaptable, adopting the format of either a focus group discussion (FGD) or a group interview, contingent upon the prevailing circumstances, with the former being the preferred mode. The targeted participants for this structured discourse should primarily comprise individuals holding managerial roles or occupying pivotal positions within the organisation, preferably those associated with agricultural advisory and extension-related departments, possessing the capacity to influence, instigate, or directly contribute to organisational change.

### ***2.3.4. Co-planning an OCATI assessment workshop (stage 3)***

In preparation for an OCATI assessment workshop, key steps include identifying and training co-facilitators, selecting a date and location, determining participant composition, sending out invitations, and finalizing logistics. The workshop should ideally involve members from the administration, employees, and the clients' community. It's crucial to have a diverse group of participants to ensure comprehensive coverage of the different focus areas addressed by the tool. Key recommended participants include organisational leadership, innovation project management, extension/advisory officers, field technicians, innovators/beneficiaries, and representatives from local authorities. Co-facilitators should be well-trained to support the workshop effectively, including having a good understanding of innovation as a multi-actor process and need to provide ISS to innovators.

### ***2.3.5. OCATI assessment workshop (stage 4)***

The workshop's primary goals include swiftly evaluating capacity statements, facilitating reflective analysis, and drawing conclusions on organisational capacities to support agricultural innovation.

The workshop begins with a qualitative discussion, engaging participants in a structured dialogue about their understanding of innovation and the innovation support

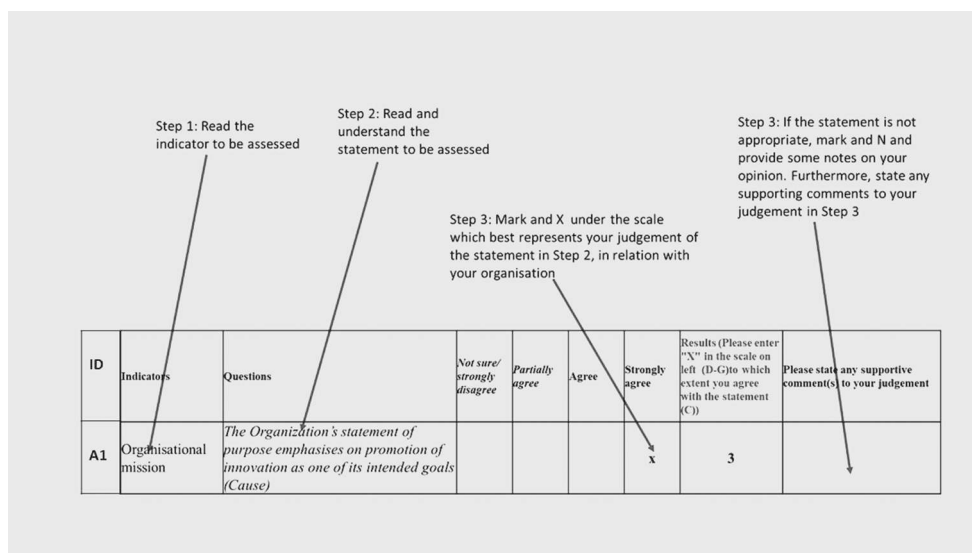
process. During this initial phase, keywords that best characterize their perceptions of innovation are screened and extracted from statements expressed by participants.

Following the qualitative discussion, the workshop transitions to a quantitative phase. Participants engage in a structured scoring process using the Organisational Capacity Assessment Tool (OCATI), which covers components A, B, C, D, and E. Guided by the OCATI Scale, which ranges from 0 to 3, participants systematically evaluate the legitimacy of statements against specific indicators or contexts. Detailed guidelines in the guide sheet outline this approach, and participants use a Richter scale method to indicate their agreement levels for each statement. Through active involvement and consensus-building, participants navigate the scoring process, marking their alignment with statements using predefined categories such as ‘strongly disagree or not sure (0),’ ‘agree (1),’ ‘partially agree (2),’ and ‘strongly agree (3)’ (Figure 3.).

In the course of the assessment, the facilitator records consensus on each sub-component directly in the Excel-based version of the tool where possible. If using a paper-based version, the facilitator notes the consensus on printed copies of the tool. Once the group assessment is manually finalized on paper, the facilitation team inputs the results into the computer version. The overall assessment results (scores) are then aggregated for each thematic component (A – E) in the Excel-based version. This process generates an overall summary table, displaying the scores for each thematic component and the organisation’s overall capacity performance as a percentage.

### 2.3.6. Action planning or visioning (stages 5-6)

After assessment stages 1 and 4, the organisation should pause and reflect on the results obtained before proceeding to design an action plan or roadmap (Stage 5). The action plan is made of new actions, internal procedures and changes concerning the agents’ missions as an answer to the weaknesses outlined.



ID	Indicators	Questions	Not sure/ strongly disagree	Partially agree	Agree	Strongly agree	Results (Please enter "X" in the scale on left (D-G) to which extent you agree with the statement (C))	Please state any supportive comment(s) to your judgement
A1	Organisational mission	The Organization's statement of purpose emphasises on promotion of innovation as one of its intended goals (Cause)				X	3	

**Figure 3.** Step-by-step example of how to fill out scores in the OCATI tool.

When crafting the action plan, starting with identified actions for improvement and outlining how these improvements will be implemented, factors like who needs to be involved, necessary resources, and timelines for completion, among others, should be considered. These details are pivotal in guiding the organisation towards achieving its strategic objectives. Following implementation, scheduling a future evaluation to adjust the action plan as needed is advisable, ensuring continuous improvement to meet organisational goals.

By iteratively revisiting and refining the action plan, organisations can adapt to evolving needs and challenges towards sustained progress.

### 3. Application of OCATI in Madagascar.

#### 3.1. Case studies and purpose of assessment

After multiple rounds of revisions and internal pre-testing with project partner organisations, the OCATI tool was applied within a multistakeholder workshop in Vakinankaratra (Madagascar) on March 22nd 2022 with four mixed teams comprising approximately 20 participants. These teams represented three distinct and diverse geographic regions in Madagascar's Central Highlands: Vakinankaratra, Amoron'y Mania, and Itasy. Participants of this workshop included a balanced mix of organisational leadership team members, innovation project managers, extension and advisory service officers, field technicians, and representatives from beneficiary communities and groups associated with ongoing innovation cases supported by the targeted organisation.

The agricultural sector of these regions is characterised by prevailing family farming, which produces staple food (mainly rice, beans and chicken to a lesser extent), but also cash crops (maize, beans, dairy milk, vegetables), carried out in small farming spaces (less than 0,5 ha per family in Vakinankaratra region which is the denser farming area among the three regions). Poverty rates vary from 74, 75, and 88% respectively for Vakinankaratra, Itasy, and Amoron'i Mania, with a national poverty rate of 75% (World bank 2024).

Though all four teams and their regions fall under the national coordination of a single farmer-based organisation, each team has its specific mandate to regions for which it is responsible and could clearly express their opinions or state of support of innovations provided in their region. For anonymity, in this manuscript, we simply refer to this organisation as Madagascar's Farmer Based Organisation (MFBO), while the four teams will be labelled by the names of regions which they represent (National team, Vakinankara teams, Amoron'y Mania team, and Itasy teams).

The MFBO under which the respective regional teams operate, is a Malagasy national umbrella professional organisation established in 1989, as a not-for-profit association. It unites various specialized and generalist professional organisations, such as cooperative unions and microfinance institutions, across 12 regions of Madagascar, representing approximately 300,000 farms (Table 2). It envisions a future where family farming is professional, competitive, and environmentally sustainable, aiming to improve farmers' incomes and living conditions. Its mission is to provide practical solutions tailored to the agricultural sector, supporting member organisations in developing effective services to boost production and income. It also advocates for farmers' interests at national and international levels, participating in key decision-making bodies. Over the past 30 years, the organisation has established specialized branches to cater to its members' needs,

forming a leading group, governed by elected representatives which ensures strategic alignment between member farmers and specialized agricultural services.

The main objective of agreeing to carry out an OCATI assessment expressed by the leaders of the MFBO was to best understand how the various teams in the respective regions are positioned to meet the challenges of innovation support

### 3.2. Findings

#### 3.2.1. Organisational perspectives on the meaning of innovations

To capture the MFBO's perspective of innovation, a first qualitative discussion was carried out. Building on collected keywords expressed by agents from the MFBO about how they characterized agricultural innovation, results show a diversity in understanding of innovation (Figure 4). At first glance, innovation is predominantly seen as something new: new technology, new processes, new forms of production, new organisations, improvements, and new methods. At a secondary level, aspects such as learning, partnerships, capacity building, marketing, ideas, communication, and training processes are also considered as part of innovation, though to a lesser degree. This brief insight into the members' vision of innovation, shows that the complexity of supporting innovation and monitoring dedicated activities is quite well understood and is worth strengthening.

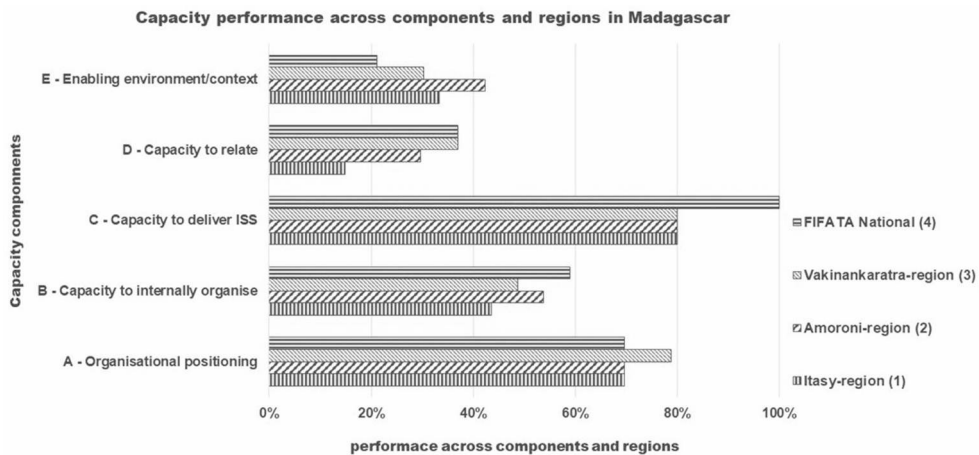
#### 3.2.2. Capacity performance across regions and components

In terms of overall capacity performance at the level of regions, the assessments revealed variations across the four regions evaluated. The National region scored 57.4%, closely followed by the Amoroni region at 55.1% and the Vakinankaratra region at 55.0%. The Itasy region, however, lagged with a score of 48.3%.

A comparative look at the performance of thematic capacity components (A-E), reveals significant disparities across the five components (Figure 5). The highest-



**Figure 4.** A qualitative word cloud on MFBO perception of an innovation.



**Figure 5.** Organisational capacity performance across components and regions in Madagascar.

performing component is the ability to deliver ISS (C) with a maximum score of 100% and an average score of 80% in all regions. This is closely followed by Organisational positioning (A) with a maximum score of 79%. However, the capacity to relate (D) and the enabling environment (E) are constrained, both scoring below 50%.

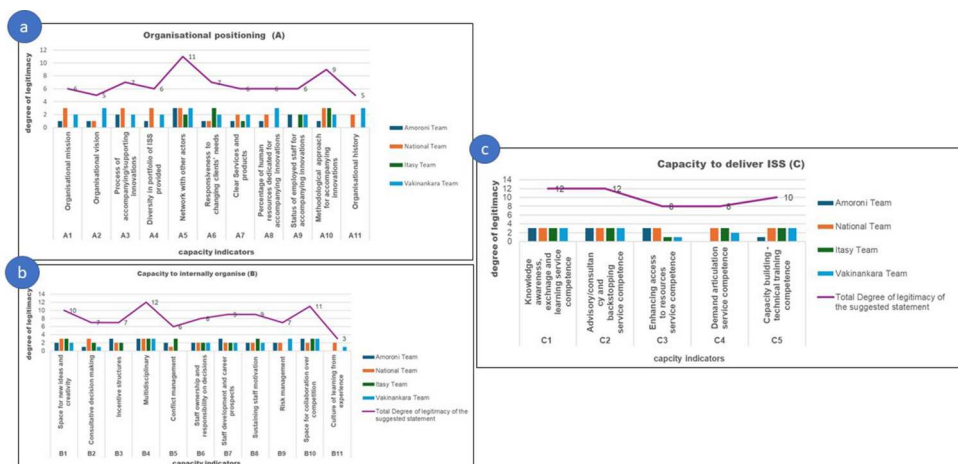
With regard to the performance of capacity components across regions, the performance is more or less equal across all four regions. A slight deviation is revealed for the case of Amoroni which seems to have distinguished itself positively amongst others for Capacity to deliver ISS (C) (scoring up to 100%), while from the bottom, Itasy seems to have distinguished itself with lower scores amongst others for Capacity to relate (D) (scoring 15%) from the bottom (Figure 4).

### 3.2.3. Outline of the strengths supporting capacities

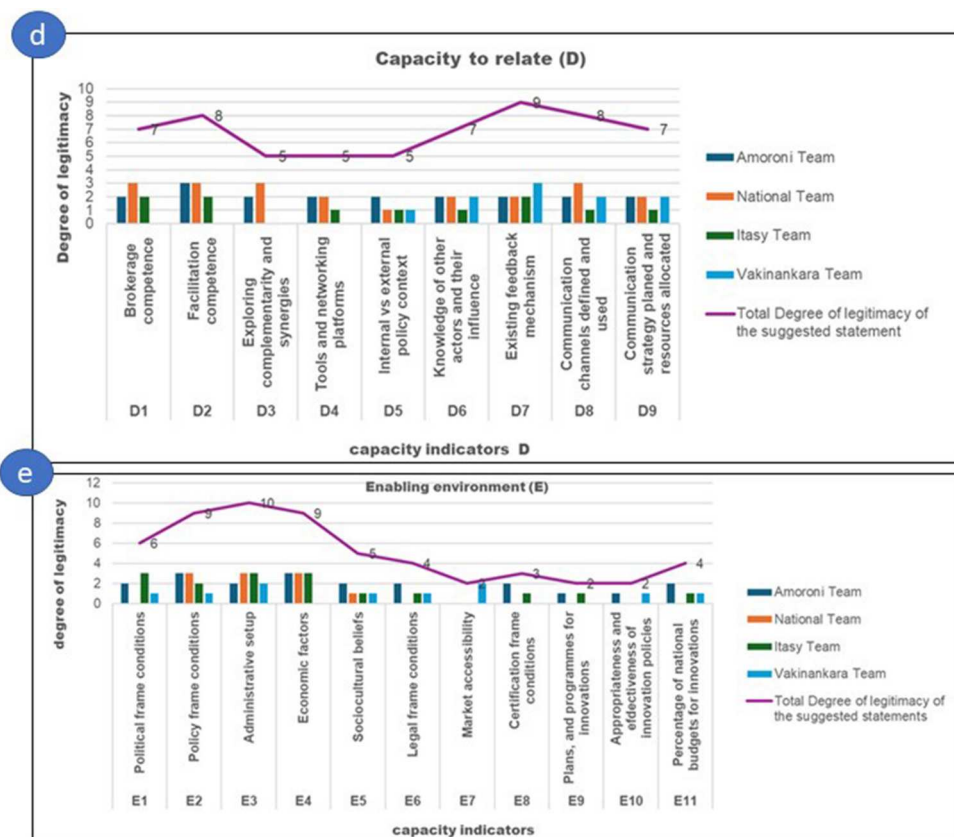
The OCATI assessment highlighted several capacity indicators that performed exceptionally well, each earning a top score of 3 across the four evaluated regions. These indicators, as outlined in Figure 6, underscore the organisation's strengths in key areas (i.e. achieving the highest level of legitimacy for the assessment statements). Firstly, the organisation excels in advisory and consultancy services (C2) (Figure 6c), adeptly mobilizing efforts to address farmers' challenges and collaboratively develop solutions tailored to their needs. Moreover, the organisation demonstrates robust proficiency in knowledge awareness, exchange, and learning services (C1). It actively fosters knowledge dissemination and exchange through a diverse array of tools, including posters, databases, brochures, banners, fairs, field visits, policy briefs, guidelines, and technical reports. Additionally, the organisation effectively leverages a multidisciplinary team (B4) (Figure 6b), ensuring a comprehensive expertise base that encompasses various disciplinary perspectives. This approach enables the organisation to effectively tackle a wide range of innovation needs with a nuanced understanding of diverse challenges and contexts.

In sum, the OCATI self-assessment highlights the organisation's perception of high performance in advisory services, knowledge exchange, and multidisciplinary approaches, showcasing their strong capacity to support innovation and solve farmers' problems, at least as they perceive it themselves.





**Figure 6.** a-c. Overview of legitimacy scores for capacity indicators in MFBO Regions. **Figure 6d-e.** Overview of legitimacy scores for capacity indicators in MFBO Regions.



**Figure 6 Continued**

### 3.2.4. Outline of the limited supporting capacities

As outlined in Figure 6, the self-assessment has identified specific indicators that scored 2 and below across at least three of the four regions assessed in Madagascar. The low scores are indicator where capacity competences are considered as lacking within the organisation across the regions assessed.

Firstly, results show that the organisation's mission statement (A1) (Figure 6a) in 3 out of four regions does not focus on fostering innovation as a core objective within its mandate. The services offered are limited in scope (A4), primarily consisting of technical training, and do not include a diverse range of support options. Additionally, the organisation's services and products (A7) are not clearly defined, accessible, or well-known to target groups such as clients, farmers, or innovators.

A significant issue is the insufficient allocation of human resources for supporting and nurturing innovations (A8), an issue that emerges in 3 out of the four regions assessed, with less than 50% of resources dedicated to this purpose. Furthermore, there is a lack of permanent staff members whose roles explicitly involve fostering innovations (A9), which is similar across the four regions assessed. The organisation also doesn't rely on a designated team or clear protocols for managing conflicts among employees, and the region does not work within a stable political environment with robust institutional backing for innovations, hindering the organisation's ability to effectively leverage political support.

In sum, the OCATI self-assessment highlights several key areas where the organisation's members perceive being limited in supporting innovation specifically on its diversity of service provided, the inclusion of innovation as a mission, conflict management, and political support.

## 4. Discussions and practical implications

### 4.1. Theoretical learnings from implementing OCATI

The above results have revealed a high disparity in the perceived performance across the five thematic capacity components and among the four regional teams. By emerging as the highest performing capacity component across the four regions, component C (ability to deliver ISS) signals a collective perception within the organisation of their role and competency to effectively deliver ISS. Secondly, a high-performing organisational positioning (A), reveals the strength of the organisation with regards to its evolving mission, vision, and its role in fostering innovation processes, hence indicating a commendable level of sustainability. In contrast, the most constrained capacity components (capacity to relate—D), reveal a weakness with regards to organisational networking facilitation and brokerage strength, while lower scores for enabling environment (E), portray the challenges faced by the organisation in dealing with policy context and lack of innovation policies. By scoring below 50% both components (D and E) signify a need for paying attention to limiting indicators in this regard as this may eventually lower the effectiveness and sustainability of the organisation in the longer term.

Further, to improve the highlighted critical limiting competencies under Component E (Enabling Environment), policy lobbying and institutionalization are

necessary. For Component D (Capacity to Relate), specific actions are needed, such as maintaining updated knowledge about the innovation ecosystem to guide their supporting actions effectively. This includes building new collaborations with organisations that provide complementary ISS, utilizing ISS mapping tools, and designating dedicated staff to screen for potential institutional changes or partnership opportunities (e.g. within the International Farming Systems Association—IFSA) and European Seminar for Extension Education (ESEE). Additionally, based on the OCATI assessment, planning and organizing feedback mechanisms with service beneficiaries (D7), and establishing clear communication channels (D8), are essential. These findings align with other studies, which highlight inter-organisation capacities as the main shortcomings in supporting local-led innovations in Madagascar (Audouin et al. 2023).

The MFBO across the four regions expresses high scores regarding its capacity to deliver services (component C), but lower scores about its capacity to relate to other partners (component D) and a weak enabling environment (component E). This may illustrate a willingness for an autonomous model of supporting innovation, with higher efforts achieved to develop their own ISS but less to develop interactions, co-designed or subcontracted services with other organisations. Such a strategy may not be aligned with the role of an ‘intermediary’ commonly assigned to FBO (Iyabano et al. 2022). However, we state that it brings out complementary insights into the distinct mechanisms at stake at the level of an organisation, composed of the provision of a set of ISS, orientated by a dedicated internal strategy towards innovation, and which rely more or less on a dedicated network of partners.

While being a possible answer to a weak enabling environment (i.e. the absence of a national agricultural innovation strategy in Madagascar) and a sign of substantial engagement and organisational empowerment, such autonomous models may encounter limits—especially towards supporting scaling mechanisms, like reaching new markets or developing hub support services provided by an ecosystem of organisations (Orbell, Toillier, and Mignon 2023). Indeed, following the AIS perspective and the triple pathways, innovation dynamics must be embedded into several scales, from individuals to the level of an ISS organisation to a network of organisations at the AIS system (TAP 2016). As stated by Agrinatura and FAO (2019: p7), an ISS organisation ‘*should be able to operate in a more networked world*’, hence characterised by a ‘high level of relational orientation’ among the stakeholders of the system. Hence, such autonomous-type models of support innovation may be relevant during the early phases of organisational evolution toward supporting innovation but require further changes towards advanced multi-stakeholders ISS provision and partnership.

In sum, while all five components of the tools are presented here as best-to-see organisational capacities to support innovation, one can wonder if alternative compositions can co-exist, adapted to the local context, the type of innovations supported and organisational ecosystems at stake. Hence, the above results bring insights into the way the organisation develops its innovation support model. It further provides the targeted organisations with opportunities for reflexive thinking about their strengths and weaknesses in supporting innovation, raising awareness for ISS, and revealing how support for innovation processes in agriculture can be enhanced. Though these results might be biased as they narrowly reveal the perception and

judgement of the stakeholders present for this workshop, and acknowledge that results might significantly alter if a repeated workshop is implemented but with a much broader number of representatives serving varied roles in the organisation, we, however, see this as entry points for initiating capacity development the MFBO in their process of supporting and accompany innovations in agriculture and the agri-food sector as a whole.

#### ***4.2. Practical learnings: raising awareness about supporting innovation***

The following recommendations are crucial for addressing critical limiting competencies observed in at least three of the four regions assessed in Madagascar. First, enhance risk management by improving the organisational risk management strategy through the incorporation of regular employee feedback (B9). Second, clarify services and products by clearly defining the offerings of the organisation (A7). Third, revise the purpose statement by updating the organisational statement of purpose to include the promotion of innovation as a key goal (A1). Fourth, diversify services by expanding the range of services beyond technical training (A4). Fifth, increase innovation support by allocating over 50% more human resources to support innovation (A8). Lastly, engage dedicated staff by employing permanent staff specifically tasked with supporting innovations (A9). Implementing these measures will address the identified gaps and enhance the organisation's capacity to accompany innovation hence remaining sustainable and effective in this role across the assessed regions. Especially the need for regular feedback and definition of clear services, tally with the call for gender and more inclusive approaches proven to be critical for efficient service provision (Crestin-Billet et al. 2022).

Moreover, the results call for a general need to raise awareness of the support agents about their effective role towards supporting innovation guided by the 07 types of ISS emphasised in recent innovation support-related studies (Mathé et al. 2016; Ndah et al. 2018 and Faure et al. 2019) and embedded in the OCATI approach as well (i.e. knowledge awareness, technical advice, market access, network facilitation and brokerage, capacity building, enhancing access to resources and institutional support). For instance, most of the participants highlighted during discussions that until the workshop, they had not realised that they were effectively involved in supporting innovation. Gaining awareness and even redrawing their formal mission including supporting innovation activities, would strengthen the capacity of these organisations to monitor their ISS. Due to the evolving nature of organisations—from a 'learning' 'virtual' 'network' 'holocratic' to 'wirearchy' organisations (Agrinatura and FAO 2019), implementing the OCATI approach several times through monitoring and learning perspective would help raise awareness and improve the organisational capacities, and eventually support changes toward a 'learning-type organisation' (FAO & Agrinatura 2019). The OCATI approach, therefore, helps to support organisations to extract and develop their core competence of innovation support, to develop a strategy for further strengthening this, and to become more professionalised and recognised. It further boosts the experiential learning approaches and is a timely add-on to the widely used monitoring and evaluation (M&E) tools for extension and advisory Service (EAS) organisations.

### 4.3. Areas of improvement of the OCATI approach and tool

With regards to outlook and future perspective, we aim at incorporating experiences in Madagascar and user feedback during assessments to further enhance its effectiveness and robustness in future applications. In this regard, the following aspects which emerged as recommendations from the assessment process especially linked with the content of the tool (indicators and complementary tools), the entire approach and purpose are being considered for improvement:

**Content of OCATI Tool:** Developing a simple, practice-oriented guide to assist users in understanding the OCATI questions effectively; streamlining and decreasing the number of statements to prevent participants from feeling overwhelmed; ensuring statements are flexible and can be applied at various levels and types of organisations, whether local, regional, or national in scope; introducing indicators that evaluate the organisation's capacity to secure funding for activities; including indicators to evaluate the coverage rate i.e type of beneficiaries, (level of inclusion) and spatial coverage of ISS; incorporating indicators that assess the maturity of the organisation in supporting innovation over time.

**Entire OCATI Approach:** This includes capacity-focused management and governance activities of ISS rather than solely on human resource competencies, and it will accompany the tool with a mapping of organisations and ISS in the region for better decision-making support.

## 5. Conclusion

This paper outlines the Organisational Capacity Assessment Approach for Innovation (OCATI), which combines quantitative and qualitative action research methods for self-evaluating innovation support service providers. OCATI assesses organisational, technical, and functional capacities, skill needs, and structural conditions (enabling environment) for delivering Innovation Support Services (ISS). It is based on an extensive literature review and feedback from bilateral talks with innovation support organisations at various levels. Co-designed with partner organisations in the EU–Africa SERVInnov project, it reflects conditions in the global South, particularly Madagascar, Cameroon, and Burkina Faso. OCATI is structured into five thematic blocks: (1) Organisational positioning, (2) Capacity to internally organise, (3) Capacity to deliver ISS, (4) Capacity to relate, and (5) Enabling environment. Its implementation follows six stages: (1) preparation, (2) initiation, (3) co-planning of assessment workshop, (4) assessment workshop, (5) action planning, and (6) action, reflection, and adjustment.

Results from its application with a MFBO reveal significant disparities in perceived performance among five capacity components across four regional teams. Component C (ability to deliver ISS) is the highest performing, indicating strong organisational competency, while Component A (organisational positioning) also performs well, suggesting the sustainability of the organisation. However, Components D (capacity to relate) and E (enabling environment) are the weakest, highlighting poor networking and policy engagement. Suggested improvements for Component E include policy lobbying and institutionalization, while Component D requires updated knowledge of the innovation ecosystem, new collaborations, ISS mapping tools, and clear communication channels.

These steps are crucial for strengthening inter-organisational capacities. The organisation excels in delivering services but struggles with networking and operating in a supportive policy environment, indicating a preference for an autonomous innovation support model. This model, while showing engagement, may face limitations in scaling and network collaboration. The findings suggest alternative models adapted to local contexts might be necessary. Nevertheless, the assessment offers an opportunity for reflection about own position in support of agricultural innovation processes.

The following recommendations are crucial for addressing critical limiting competencies in Madagascar's regions. Enhancing risk management by incorporating regular employee feedback, clarifying services and products, updating the organisational purpose to emphasize innovation, diversifying services beyond technical training, increasing human resources for innovation support by over 50%, and employing permanent staff dedicated to supporting innovations will address identified gaps and enhance the organisation's capacity to support innovation sustainably and effectively. These measures, along with regular feedback and clear service definitions, align with the need for inclusive approaches critical for efficient service provision. Additionally, raising awareness among support agents about their role in innovation, guided by seven types of ISS (knowledge, technical advice, market access, networking, capacity building, resource access, and institutional support), is essential. Implementing the OCATI approach fosters organisational evolution towards a learning-type organisation, enhancing core competencies in innovation support and boosting professional recognition. This complements existing monitoring and evaluation tools for extension and advisory services (EAS), making OCATI a valuable addition to organisational capacity development.

Nevertheless, to enhance OCATI's effectiveness, as an outlook, we aim to continuously incorporate experiences from users' feedback (e.g. the case of Madagascar) to improve both the OCATI technical tool and the entire approach as a whole. Specific planned improvements include developing a practice-oriented guide, reducing and streamlining questions, ensuring flexibility for different levels, and introducing indicators for gauging autonomy, funding capacity, ISS coverage, maturity in supporting innovation, and governance activities.

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## Disclosure statement

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