



UPSCALE

UPSCALING THE BENEFITS OF PUSH-PULL TECHNOLOGY FOR
SUSTAINABLE AGRICULTURAL INTENSIFICATION IN EAST AFRICA



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D1.3:

STRATEGIC PLAN FOR KNOWLEDGE-SHARING AND CAPACITY-BUILDING IN MACS

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Abstract:	This deliverable documents how UPSCALE proposes to execute both internal and external information sharing and capacity building strategy including in the context of multi-actor communities (MACs) of practice using various communication channels and tools suitable for this purpose. A strategy matrix for the three pronged strategy is presented, viz: 1) Establishment of repositories and advocacy knowledge; 2) Collaborative development of information sharing and capacity-building materials to target audiences; and 3) Transdisciplinary collaboration and communication through the Knowledge Exchange Hub (KEH) and other methods. It is envisioned that this strategy will enable continued engagement with MACs and other stakeholders during and beyond the project period.

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Table of contents

1	Introduction	6
2	Objectives.....	6
3	Conceptual Framework: Stakeholders and Communication Strategy.....	6
4	Internal Information Sharing and Capacity Building Strategy	7
5	External Information Sharing and Capacity Building Strategy	10
5.1	Information Sharing and Capacity Building Strategy for UPSCALE MACs.....	10
5.2	Information Sharing and Capacity Building Strategy for External Stakeholders and the Public 12	
5.2.1	UPSCALE Website.....	12
5.2.2	Knowledge exchange hub (KEH)	12
5.2.3	Mobile Apps	13
5.2.4	Social media channels.....	13
5.2.5	Policy dialogues and policy briefs	13
5.2.6	Farmer teachers (FT).....	14
5.2.7	Village knowledge centres (VKC)	14
5.2.8	Radio talk shows	14
5.2.9	Roadshows.....	14
5.2.10	Farmer field days.....	14
6	Strategy Matrix	15

List of tables

Table 1: Examples of Projects and Networks / Platforms Connected to UPSCALE consortium members for active networking and knowledge exchange.....	9
Table 2: The Information Sharing and Capacity Building Strategy Matrix.....	15

List of figures

Figure 1 Knowledge Sharing and Capacity Building Strategy for MACs.....	6
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List of Abbreviations and Acronyms	
ASARECA	The Association for Strengthening Agricultural Research in Eastern and Central Africa
AU	African Union
EC	European Commission
EU	European Union
EWA-BELT	Linking East and West African Farming Systems experience into a BELT of sustainable intensification
FARA	The Forum for Agricultural Research in Africa
FNS	Food Nutrition Security
GA	General Assembly
InnovAfrica	The Innovations in Technology, Institutional and Extension Approaches towards Sustainable Agriculture and Enhanced Food and Nutritional Security in Africa
KEH	Knowledge Exchange Hub
LEAP4FNSSA	Long-term EU-AU Research and Innovation Partnership for Food Nutrition Security and Sustainable Agriculture
MACs	Multi-Actor Communities of practice
PPT	Push Pull Technology
RSM	Regional Stakeholders Meeting
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture
SSA	Sub-Saharan Africa
TD	Transdisciplinary research
UPSCALE	Upscaling the Benefits of Push-Pull Technology for Sustainable Agricultural Intensification in East Africa
WP	Work Package

1 Introduction

Deliverable D1.3 on Strategic Plan for Knowledge-Sharing and Capacity-Building in Multi-Actor Communities (MACs) of Practice develops a multi-actor transdisciplinary knowledge-building strategy among UPSCALE partners, research, extension providers, policy and various value chain stakeholders. This strategy covers both internal and external information sharing, support / dialogue / exchange / relationship building, action / behaviour change and decision guidance, in the context of MACs, participative research tasks and multi-stakeholder workshops. This strategy is aimed at breaking the disciplinary barriers to foster knowledge sharing and capacity building among MACs. It complements and supports, including through provision of materials and strategic insights, the Communication and Dissemination strategy of the project (Deliverables D8.1, D8.6) aimed at a wide public and stakeholder audience beyond the MACs.

2 Objectives

The objectives of D1.3 are:

- i) To establish repositories and advocacy knowledge resources.
- ii) To develop information sharing and capacity building materials.
- iii) To continuously provide information to UPSCALE partners, MAC stakeholders and the broader public through the Knowledge Exchange Hub (KEH) and other methods.

3 Conceptual Framework: Stakeholders and Communication Strategy

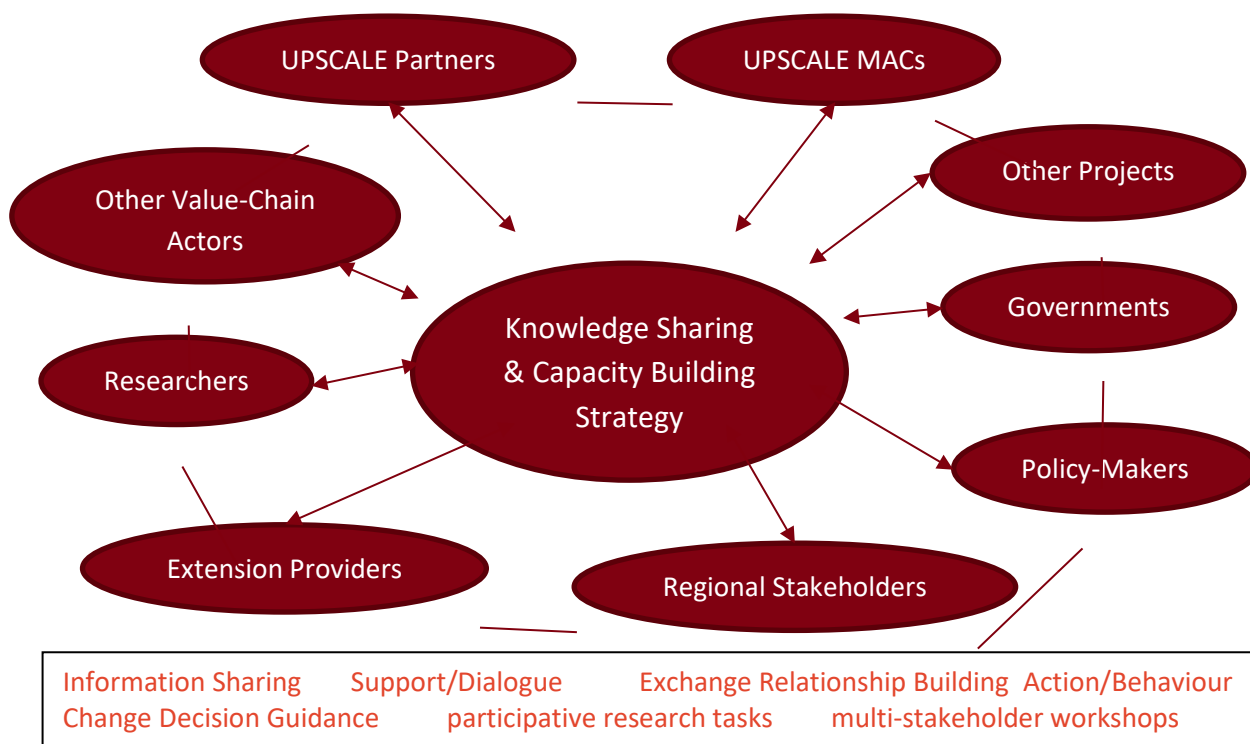


Figure 1 Knowledge Sharing and Capacity Building Strategy for MACs

Transdisciplinary (TD) MACs are designed to participate in co-design and co-construction of knowledge. Therefore the Knowledge Sharing and Capacity Building Strategy for MACs (Figure 1) recognises the multiplicity of stakeholders who work collaboratively in the co-construction processes. Co-construction of knowledge requires engagements, conversations, and external dialogues among MAC members, UPSCALE partners, researchers, extension service providers, policymakers, government agencies, other EU-AU projects and various value chain stakeholders. Intentionally, UPSCALE MACs are designed as a platform that incorporates participants and other stakeholders along push-pull technology (PPT) value chains (see also Deliverable D1.1: Structure and identity of MACs). By targeting each audience group, this strategy will enable participatory information sharing as well as capacity building on sustainable intensification of PPT. The strategy will enhance scaling-up PPT through multi-actor technical and commercial interaction along the value chain. It will also serve as input to targeted Dissemination and Communication efforts (WP8) for stakeholders including farmers and the wider public not directly participating in MAC and project events.

The Communication strategy identifies communication channels and tools used for information sharing and capacity building. These channels and tools are described in the Strategic Communication and Dissemination Plan (D8.1) and cover online, offline and interactive communications. The channels and tools comprise: UPSCALE visual identity (logo, colour palette, templates and EU funding acknowledgement); online presence (UPSCALE Website plus the Knowledge Exchange Hub), methods to engage partner websites, social media channel mix and other channels, newsletter and promotional materials; networking and liaising with other projects; and promotional events and stakeholder engagements.

The Strategy for Knowledge-Sharing and Capacity-Building presented here employs appropriate communication channels and tools among this portfolio and develops input materials, guidelines and options for effective communication and dissemination. The strategy is divided into internal and external strategies. Each of these strategies is described subsequently. Thereafter a strategy matrix is presented.

4 Internal Information Sharing and Capacity Building Strategy

This strategy will strengthen the implementation of transdisciplinary knowledge sharing, co-design and co-construction processes among the UPSCALE partners. The partners exhibit a diversity of expertise and therefore need a seamless / unified front in engaging with one another. The project has developed several protocols in the form of deliverables that guide internal information sharing and exchanges. These include the Project Management Platform (D9.1), Strategic Communication and Dissemination Plan (D8.1), Exploitation and IPR plan (D8.11), Project Management Plan (D9.2), Data Management Plan (D9.3)¹, H - Requirement No. 1 (D10.1), POPD - Requirement No. 2 (D10.2), NEC - Requirement No. 3 (D10.3) that guide internal information sharing and capacity building.

Various channels have been established for internal information sharing and exchanges. These include primarily EMDESK (D9.1) acting as a repository for timely sharing of project documentation (internal reports, deliverables, meeting minutes, presentations and recordings) as well as for contact

¹ The deliverables identified here are “Confidential, only for members of the consortium (including the Commission Services)” except D9.3 on Data Management Plan that is public.

information and identification of the project participants in each work package and task. This component allows to optimize synergies and encourage horizontal exchange among team members of different work packages and organizations. To a lesser extent the UPSCALE Website (D8.1) and Knowledge Exchange Hub (KEH, D8.3) are employed for internal knowledge exchange among UPSCALE members, particularly for sharing the outcomes of tasks or activities in thematically distant work packages. UPSCALE newsletters shared by email and social media channels additionally actively showcase these results and current activities among the consortium members. Furthermore, partner email lists and telephone numbers including Whatsapp exchanges are used on a daily basis for quick bi- or multilateral communications within and between UPSCALE teams in all countries. Given the Covid-19 pandemic, restricting in-person engagements, partners engage in groups of variable size via online tools such as Zoom as an alternative to face-to-face meetings on a ca. weekly to monthly basis. Where travel regulations permit, partners travel for in-person meetings with prior arrangements. Partners congregate during workshops, general assemblies (see D9.2), regular status meetings and directly participate via written and oral feedback and presentations in the internal knowledge exchange on insights and results of the project, as well as in capacity building including the mentoring and advisory support of junior team members especially postdoctoral researchers, PhD and Master students.

Partner meetings are participatory to facilitate information flow, foster dialogues and exchanges, and permit prompt feedback. Follow-up activities including direct horizontal exchange between members of different teams are encouraged to enable relationship building and longer-term engagements.

Partner capacities are built through social learning and experiential learning as leaders with diverse approaches to leadership, gender, seniority and academic backgrounds are role modelled. Capacity-building of students and researchers takes place through composite supervisory teams formed of 2-3 principal investigators from different beneficiary organizations, as well as through a strong implementation role with regular feedback taken on by the researchers themselves in direct contact with the UPSCALE country coordination teams, as well as with other members of the consortium according to task relevance. Graduate students are involved in graduate training programs of their respective universities. Common training workshops and intensive exchanges take place for all graduate students and postdoctoral researchers leading implementation of the UPSCALE standardized experiments across several work packages (particularly WP2-4 with strong involvement of WP5-7), with an in-person training workshop performed at LUH in Hannover in February 2022 before initiation of the WP2-4 field work in April. In total 6 Master, 8 PhD students and 3 postdoctoral researchers from 9 countries are involved in UPSCALE in 2022.

During the 1st General Assembly (Kick-Off Conference, Nov. 2020), partners were trained on transdisciplinary research. Three follow-up trainings focussing on different challenges were carried out during the following months. All materials are made accessible internally for consultation on EMDESK. During the 2nd General Assembly (GA) in Feb. 2022, as well as in a consortium-wide status update meeting in Sept. 2021, partners shared their outputs as well as valuable insights from the first year of implementing the project. The partners furthermore participated in the Regional Stakeholder Meeting held concurrently with the GA. Partners also participate in other projects and networks, including meetings and conferences outside the consortium that enhance their capacity and networking opportunities. Some of these projects and networks/platforms are shown in Table 1.

Table 1: Examples of Projects and Networks / Platforms Connected to UPSCALE consortium members for active networking and knowledge exchange

Entity	Entity Type	Brief Description	Website
INNOVAFRICA ¹	Project	The goal of InnovAfrica is to improve FNS i) by integrating sustainable agriculture intensification systems, innovative institutional approaches with novel extension and advisory services, and ii) by enhancing capacity building and knowledge sharing in smallholder farming in Sub-Saharan Africa through a strong EU-Africa Research and Innovation Partnership	www.innovafrica.eu
EWABELT	Project	The EWA-BELT project aims at developing Sustainable Intensification of agriculture productions in organic, agroforestry and mixed crop and livestock farming systems in 38 study areas of 6 countries belonging to EAST (Ethiopia, Kenya and Tanzania) and WEST (Burkina Faso, Ghana, Sierra Leone) Africa.	https://ewabelt.eu/
Soils 4 Africa	Project	The aim of Soils4Africa is to provide an open-access soil information system with a set of key indicators and underpinning data, accompanied with a methodology for repeated soil monitoring across the African continent. The soil information system will become part of the knowledge and information system of FNSSA and will be hosted by an African institute.	https://www.soils4africa-h2020.eu/
LEAP4FNSSA	Network/Platform	A Co-ordination and Support Action (CSA) whose main objective is to provide a tool for European and African institutions to engage in a sustainable partnership platform for research and innovation in Food Nutrition Security and Sustainable Agriculture	https://www.leap4fnssa.eu/
FARA	Network/Platform	The Forum for Agricultural Research in Africa (FARA) is the apex continental organization responsible for coordinating and advocating for agricultural research for development (AR4D). FARA serves as the technical arm of the Africa Union Commission on matters concerning agriculture science, technology and innovation.	https://faraafrica.org/

RUFORUM	International NGO/Platform	A consortium of 147 African universities operating in 38 countries in Africa whose mandate is to oversee graduate training	https://ruforum.org/
ASARECA	Not-for-profit sub-regional organization/Platform	A not-for-profit sub-regional organization of the National Agricultural Research Systems (NARS) of 11 member countries, namely: Burundi, the Democratic Republic of the Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, South Sudan, Sudan, Tanzania and Uganda. ASARECA brings together scientists from the national agricultural research institutions of the member countries, national agricultural extension service providers and other strategic development oriented partners to generate, share and promote knowledge and innovations to solve common challenges facing agriculture in the member countries.	https://asareca.org/

¹ The coordinator of INNOVAFRICA is on the External Advisory Board of UPSCALE, further enhancing knowledge and experience sharing between the two projects.

5 External Information Sharing and Capacity Building Strategy

The external information sharing and capacity building strategy will reflect on how the UPSCALE project seeks to engage MACs within UPSCALE as well as develop input for dissemination and communication to other stakeholders and the general public. MACs are dynamic, therefore will require a dynamic and evolving communication strategy. This strategy is subdivided into two:

- i. Information sharing and capacity building strategy for UPSCALE MACs, and
- ii. Information sharing and capacity building strategy for other stakeholders and the public.

The information sharing and capacity building strategy for UPSCALE MACs (i) is described in Section 5.1 below.

Tools and channels used for the information sharing and capacity building strategy for other stakeholders and the public are described in the Strategic Communication and Dissemination Plan (D8.1). The way in which these tools are employed in the external information sharing and capacity building strategy for stakeholders and the public (ii), as iteratively developed notably through engagement and insights of the MACs, is described in Section 5.2 below.

5.1 Information Sharing and Capacity Building Strategy for UPSCALE MACs

UPSCALE MACs are engaged continually during the project. They participate in meetings as well as convene / organise stakeholder meetings. The meetings are designed to be open and participatory.

During meetings, the members agree on the agenda, set terms of reference, agree on actions to be taken and on the way forward. These events provide opportunities for information sharing as MAC members freely share their experiences, opportunities, and challenges. UPSCALE National Coordinator partners (Kenya: icipe, Uganda: NARO, Tanzania: TARI, Ethiopia: ISD, Rwanda: FH) and/or WP1 leader MU host the meetings and present a project update to the members. Cutting edge results from the research are presented and discussed to see their applicability within the specified MAC contexts (*Knowledge flow*: UPSCALE results → MACs).

WP1 on Multi-actor transdisciplinary coordination brings together and coordinates stakeholders and partners for a transdisciplinary research effort with high transformative potential. Through coordination and moderation of the transdisciplinary events and workshops in each study region, WP1 enables participative approaches throughout the research and innovation process, ensuring co-design and co-creation of knowledge by key stakeholders and project partners (*Knowledge flow*: MACs → UPSCALE results). For this, (i) WP1 leads the knowledge sharing and merging of MACs around sustainable intensification topics in cooperation with additional existing platforms and related ongoing projects, and (ii) creates collaborative connections with key stakeholders and windows of opportunity during MAC events that enable and facilitate participatory activities led by other work packages and tasks, notably: stakeholder and value chain mapping (WP7.2); knowledge synthesis, development of policy briefs and advocacy strategy (WP8.4, 7.3); participative social-ecological modelling (WP4.4, 5.3).

In an iterative exchange process, knowledge gains from the project activities and from the MACs themselves are reflected and discussed within MACs and the consortium in light of new outcomes or insights. Knowledge exchange between MACs of each study country takes place horizontally during yearly regional MAC events and through the overarching coordination, synthesis and knowledge sharing activity of MU with National Coordinators and other partners. Further insights are obtained through the dynamic inclusion of additional stakeholders in MACs according to identified gaps in mandates, areas of competence or value chain position. Action points developed based on synthesis of MAC insights and knowledge generated by UPSCALE partners are either developed directly, or validated by the MAC stakeholders. Activities to be performed within UPSCALE are designed or adjusted according to the insights gathered in MACs and through other participatory methods (e.g. focus group discussions with farmers), with regular feedback requested from partners. As far as experimental needs allow, this includes adapting the design of experiments or dissemination approaches for highest relevance to the needs or preferences of farmers for an effective approach to supplying sustainable intensification that is adapted to its demand (WP6, 8, but also WP2-4).

The transdisciplinary approach of the MACs builds knowledge and push-pull innovations ‘from the ground up’ and across the value chain of agricultural products, as the participatory basis for activities throughout the project. This is an important part of the project’s strategy for long-term sustainability and impact of the project results, by building ownership of the outcomes among stakeholders with the long-term mandates and interest to maintain and make use of the project outcomes and knowledge gains. Sustainable sharing of knowledge and capacity-building materials for MAC stakeholders, as well as other actors not directly participating in MACs, is at the core of the concept of the Knowledge Exchange Hub (see Section 5.2 below).

In UPSCALE, we aim to address trade-offs between scales and the multiplicity of pathways towards sustainable intensification, while considering the high context-specificity of sustainable intensification strategies. The MACs are a key element of this balance through the knowledge co-construction process whereby evidence from research is synthesized and coupled with practice in order to

formulate best practices, action plans, policy dialogues, policy briefs, and lead advocacy and dissemination approaches towards the most effective pathways for long-term upscaling of PPT.

MACs identified transdisciplinary research skills as a knowledge gap in the first year of operations. The inputs from a training needs analysis (TNA) were incorporated into the design and content delivery of a training programme for MAC stakeholders on transdisciplinary research aims and methods, which took place in hybrid form in the framework of the UPSCALE regional MAC meeting with national in-person stakeholder 'clusters' in February 2022. Some lessons include the need to translate training materials into local dialects in which participants are most comfortable. Experiential capacity building for members of the MACs is furthermore taking place through active involvement in participatory knowledge building and other research activities of the project such as value chain mapping and social-ecological model development.

Beyond organized MAC meetings, MAC members also engage directly with each other and share common communication channels. They co-plan activities, invite members to their functions and participate in members' functions. Further partnerships among MAC members including official formalization of agreements are encouraged and will be actively pursued during the next phase of UPSCALE. In this regard, the independent dynamic developed within MACs has the potential to cement the MACs into long-term communities of practice to be maintained after project end. This impact will be supported by long-term hosting of the Knowledge Exchange Hub as a common platform for exchange (see 5.2.2 below). These actions are organised in consultation with the UPSCALE National Coordinators who ensure that the Strategic Communication and Dissemination Plan (D8.1) is used appropriately. The responsibility for engaging the media before, during and after these MAC events lies with the National Coordinators, on behalf of the UPSCALE Project.

5.2 Information Sharing and Capacity Building Strategy for External Stakeholders and the Public

There are several opportunities for engaging external stakeholders and the general public. Here we summarize how key channels and tools of the Communication and Dissemination portfolio (D8.1) listed below are being leveraged in UPSCALE to share knowledge and build capacity for external stakeholders and the public.

5.2.1 UPSCALE Website

The project website, upscale-h2020.eu conveys project information to the public. It is the public image of the project and is updated regularly according to the policies prescribed in the Strategic Communication and Dissemination Plan (D8.1). It conveys the brand promise and reinforces the communication efforts of the project. It curates important project information such as press releases, events reports, and public project reports. It is agile and interactive permitting a bidirectional flow of information between the project and the public. The website is the first source of information on UPSCALE activities and results especially for interested parties involved in similar work (academia, policy, international stakeholders actively working and networking in the field of sustainable intensification).

5.2.2 Knowledge Exchange Hub (KEH)

The KEH is developed on a parallel server to the project website. It curates information on PPT practice and sustainable intensification including and beyond UPSCALE project outcomes activities. It is meant

to serve as a long-term resource and exchange / networking platform for stakeholders directly practicing or interested in practicing, regulating policy on, or disseminating PPT as well as other sustainable intensification practices. Information flow from the project results, MACs and external sources such as linked projects and networks will provide resources in accessible formats such as practice abstracts and Questions & Answers for rapid knowledge implementation, as well as interactive testimonials, video interviews or podcasts for deeper knowledge gains from MAC stakeholders and experts, including based on the insights of MAC co-construction processes. This will enable the continued flow of relevant information both to the public and to MAC and other stakeholders for whom it acts as a repository resource for knowledge on and around PPT. The KEH further includes a directory and contact points for involved stakeholders and PPT training partners which facilitates PPT networking and knowledge sharing at local to regional scale beyond the project members. Furthermore, by connecting to the e-Granary App of EAFF, the KEH will (i) relay relevant market data to the public, including PPT product availability, quality, lot sizes, prevailing market prices and locations, and will (ii) send practice and contact information on PPT directly to farmers registered on the app. The intention is to provide market information to smallholder farmers, sensitise PPT commodity value-chain actors on product availability, market prices and locations, and facilitate the flow of information and training on PPT and other linked practices directly to farmers, farmer teachers and extensionists. The KEH is aimed to be maintained as a long-term platform after project end for continued exchange and support of PPT practicing communities and associated stakeholders across the value chain. Discussion with the Forum for Agricultural Research in Africa (FARA) to take up the platform after project end is ongoing.

5.2.3 Mobile Apps

To facilitate reach and boost uptake of PPT, UPSCALE utilizes mobile applications to provide key information, training and decision support to relevant stakeholders. The e-Granary app of partner EAFF pushes messages directly to registered farmers including advice on planting dates, market opportunities and more, and also collects key agronomic parameters shared by the farmers on the app. Within UPSCALE, an intercropping decision app is under development to guide identification of suitable intercropping configurations for a specific field by walking a potential user through a quiz on selected on-farm biophysical constraints. All currently available configurations are rooted in published scientific, as well as local ecological knowledge. UPSCALE partners will continue to integrate emerging knowledge and new developments into this app and relevant others, such as the PUSH-PULL app developed by *icipe*, rolled out for Android on Google Play and which describes the key steps and knowledge needed to set up a PPT plot on farms.

5.2.4 Social media channels

UPSCALE uses social media platforms such as LinkedIn, Twitter, Facebook as described in the Strategic Communication and Dissemination Plan (D8.1). These interactive channels are used to engage the public including registered followers and groups before, during and after project events and stakeholder engagements, as well as to advertise new project outcomes, ongoing activities and links to other resources such as the KEH and mobile apps.

5.2.5 Policy dialogues and policy briefs

MACs will participate in policy dialogues during their engagements. These dialogues will be used to unlock barriers to as well as promoting opportunities for sustainable intensification in agriculture through PPT technologies. MACs alongside EAFF will synthesise their findings and prepare policy briefs

that enable engaging in external policy dialogues. The policy briefs will be curated on the project Website.

5.2.6 Farmer teachers

A special case of knowledge exchange platform is farmer teachers who are champion PPT farmers or early adopters. These farmers are equipped by *icipe* to disseminate PPT technology to smallholder farmers in their localities. *icipe* has developed a training curriculum that equips these knowledgeable or experienced farmers. The farmers engage their neighbours, use their farms as demonstration plots and work with field staff to deliver PPT training within the localised context. This model developed by *icipe* is being adapted by UPSCALE across the study regions.

5.2.7 Demonstration farms and village knowledge centres

UPSCALE seeks to model information flow to smallholder farmers in a way that influences their attitudes and fosters behaviour change for adoption of PPT. This includes demonstrating effectiveness and viability of PPT at scale, intensification efforts- including diversification to other crops and farming systems. This calls for adopting and/or adapting best practices gleaned from other projects, and reflecting on the effectiveness and sustainability of dissemination models beyond the project period. Demonstration farms are one very effective element of the PPT dissemination strategy to farmers. Village knowledge centers, implemented by H2020 project INNOVAFRICA, are likely to be another effective mode of bringing PPT information to communities and farmers, which UPSCALE may leverage for further integration and spread of PPT information and project insights.

5.2.8 Radio talk shows

UPSCALE partners host radio talk shows to present PPT as an innovation in sustainable intensification. Their aim is to create awareness of UPSCALE project as well as disseminate the project results. These talk shows are interactive and target smallholder farmers within the study regions. Therefore, they are aired in local languages.

5.2.9 Roadshows

Roadshows are local promotional events taking place directly within village communities which are used to create awareness on push-pull as well as disseminate project results in the five study countries. This activity will be leveraged to promote the advantages and practical components of the PPT framework for sustainable intensification to a wide audience by the local consortium partners in collaboration with MAC members and other stakeholders. The roadshows represent the first entry step for many farmers towards accessing PPT knowledge and obtaining the information necessary to receive training and access input markets. At these events, they may also register on relevant apps (*icipe* PUSH-PULL app, EAFF e-Granary app) and thereby obtain access to long-term knowledge sharing and capacity building options of the project including the training, demonstration and networking resources of the KEH and National Coordinator partners.

5.2.10 Farmer field days

Farmers' field days are used to demonstrate the implementation of PPT at selected study or demonstration sites within the study regions. UPSCALE partners, MAC members, other stakeholders and the public participate in these events. The field days promote best practices in PPT as well as highlight the opportunities to be exploited along commodity value chains, enhancing the contact

network of farmers for sustainable intensification practices and creating opportunities and facilitating entry in the PPT value chain. As the practical information and training materials on PPT are shared, farmers are enabled to experiment with the practice on their own farms, and are also encouraged to feedback or follow-up with local coordinating partners directly, on the UPSCALE KEH, and/or through sharing and receiving of agronomic and other market data including for seed inputs on e-Granary.

6 Strategy Matrix

The matrix below summarizes the key elements and methods employed in UPSCALE to attain the three main objectives of the Information Sharing and Capacity Building Strategy of the Project.

Table 2: The Information Sharing and Capacity Building Strategy Matrix

	Objective	Strategy	What	How
1	Establishment of repositories and advocacy knowledge resources through compilation of success stories	Generating activities' process and operational reports Developing regular project status updates to all stakeholders Providing input to the Knowledge Exchange Hub	EMDESK repository, UPSCALE Website and Consortium emailing list/address, online platform for project engagements and meetings	Dynamic and evolving In person and online meetings
2	Collaborative development of information sharing and capacity-building materials to target audiences	Production relevant communication materials to specific audience including such key stakeholder audiences as; farmers, policy-makers, and businesses agents in the value chain	Posters Pamphlets Technical advisory notes Brochures Media outreach	Setting up local accessible units for farmers' interaction and information sharing Translation of knowledge resources/materials to local languages (where required)
3	Transdisciplinary collaboration with communication through Knowledge Exchange Hub	Categorising information for different target groups Identifying effective communication paths, models and mediums to different target groups	Co-creation of information through engagement and participation of all stakeholders Sequencing of information for specific audience or target groups	Establishing Village Knowledge Centres Expanding Farmer Teachers model across the project implementation countries. Policy briefs Sharing Market information