Dissemination, Communication & Exploitation Plan

primesoft

Development of innovative priming technologies safeguarding yield security in soft fruit crops through a cutting-edge technological approach

Table of Contents

1.Objectives of the D&C&E plan

PRIMESOFT is a project that arises from the policy of the European Commission to support the science in Widening countries, through a coupling process with leading scientific institutions in advanced European countries. A comprehensive dissemination (D), communication (C) and exploitation (E) plan has been developed to meet its scientific, technological and widening objectives [https://www.prime-soft.eu/about.html#objectives].

The D&C&E PRIMESOFT strategy describes the analysis of target groups considering their expectations and needs, the main messages to convey in the communication activities, the products and deliverables that will be the subject of the dissemination activities and finally the communication channels and exploitation tools that the Network itself and the partners will pool in order to achieve project goals.

Most data will be made accessible both to the scientific community as well as to stakeholders via an array of tools. Each PRIMESOFT partner will have an active and time-bound role to play, in disseminating the project's outputs. Specific D&C&E activities are anticipated to be continued beyond the project life span, which considers appropriate commitment of PRIMESOFT members. The activities will essentially include:

- quantifiable impact measurement parameters for individual dissemination activities
- templates for activity planning and impact measurement
- records of impact measurement data for individual communication activities
- check on timely and efficient execution of communication activity plan

The D&C&E plan has been developed to ensure efficient visibility of the activities and outputs of the project as a whole. Such activities include the development and update of project website and social media presence, leaflets/posters/brochures, newsletters to broad audience, press releases, round tables with stakeholders and innovators, participation in Researchers' night. Overall, this deliverable provides the communication material to be used in the project in order to increase the interest and involve stakeholders' representatives in PRIMESOFT development. The key objective of the D&C&E Plan is to establish how PRIMESOFT outputs and resources will reach their target audience. Careful consideration and thorough analysis will ensure the appropriate selection of tools, materials and communication channels for maximum involvement of relevant stakeholders and the timely dissemination and communication of project results for their effective uptake. The tools and materials [website, social media channels (Twitter, LinkedIn, ResearchGate), templates and materials (roll up banner, digital leaflet, leaflet in printed form, newsletter, brochures)] will be developed under the same visual identity. PRIMESOFT aims to seek the active involvement of stakeholders and target groups in its D&C&E plan.

2.Dissemination plan

Dissemination is the public disclosure of the results by appropriate means, other than resulting from protecting or exploiting the results, in any medium, including scientific publications. It is a process of promotion and awareness-raising right from the beginning of a project. It makes research results known to various stakeholder groups in a targeted way, to enable them to use the results in their own work. Dissemination means sharing of research results/outputs with potential users, e.g. peers in the research field, industry, other commercial players and policymakers, for further usage. The dissemination process has a specific goal, i.e. to fulfill the information needs of the envisaged groups (target audience).

Dissemination of the project will take place in all five-member states (Cyprus, Germany, Spain, Belgium, Greece) where PRIMESOFT will carry out research, training and brokerage activities. The dissemination plan will combine traditional (i.e. publication in peer-reviewed journals, presentations at scientific meetings) and modern tools (i.e. social media channels, online publications, dissemination video, project flyer, brochures, e-newsletters) that will allow an even wider outreach to diverse user groups.

An array of dissemination tools and channels will be used, focusing additionally on raising awareness of the general public and networking with relevant stakeholders. This is reflected in the design of the tasks where dissemination activities are incorporated in three Work Packages (WP):

- WP2: Dissemination, Communication & Exploitation
- WP4: Activities dedicated to ER/ESRs
- WP5: Networking & Capacity Building

Dissemination tasks include (1) updating PRIMESOFT website, social media, professional platforms, scientific sharing platforms, (2) scientific publications and presentations at international scientific conferences, science festivals, trade fairs, (3) development and dissemination of material like posters, leaflets, external newsletters, (4) organization of workshops/info days in the Widening country (Cyprus).

An overview of the impacts reached by the dissemination plan will be conducted on an annual basis during the Steering Committee meetings. PRIMESOFT Coordinator will do regular monitoring of the quantitative parameters of impact measurement. This will allow the PRIMESOFT partners to review their strategy if needed, in order to reach the set objectives before the end of the project. In particular, dissemination activities will be closely monitored and evaluated on annual basis through forecasted Key Performance Indicators (**Table 1**).

Table 1: Key performance indicators, targeted audience and expected impact of proposed dissemination activities of the PRIMESOFT project.

Dissemination tools and channels	Key performance indicators	Targeted audience	Expected impact
Project website	1,000 website visits	General public, academia, stakeholders, policy makers	Publicity and visibility, building reputation, connect with relevant groups from various sectors, networking
Social media presence on LinkedIn and Twitter	number of posts, impressions, likes, re-tweets, followers	General public, academia, stakeholders, policy makers	Raising general awareness, informing interested audience about project activities
Visual identity of the project	Logo and prototypes of documents/ presentations	General public, stakeholders, researchers, investors, policy makers	Establishing PRIMESOFT visual identity and raise general awareness
Organization of [2] Info-days at Cyprus	[80-100] delegates per info-day	Researchers, stakeholders, students, Policy makers, journalists,	Increase visibility of WI to researchers and stakeholders and raise awareness about project activities
Leaflets, press releases, articles in electronic and print media (TV, radio, national newspapers and/or science magazines), interviews	Quantification of activities and it impact (where applicable), number of viewers, readers, comments received, number of prints/broadcasts,	General public, stakeholders, researchers, investors, policy makers, Journalists, politicians, NGOs, local clusters, other relevant scientific and industrial organizations	Building reputation, creating awareness, publicity and visibility Increase dialogue and awareness of Cypriot citizens about incorporation of environmentally-friendly approaches
[3] annual e-newsletters	Dissemination to [>300] followers in social media and [>300] through mailing lists	Scientific peers, academic and industrial collaborators, students, young researchers, investors, policy makers	Public awareness for the project and the WI, creating interest among social bodies, politicians, policy makers
Dissemination video	>1000 views	General public, academia, researchers, stakeholders	project activities at a glance
Participation in brokerage events during international trade fairs, exhibitions and scientific conferences	[30] companies to agree acting as members of User's Group, new contacts made and feedback received	Industry representatives, researchers, capital investors, journalists, media persons, students	Spreading information about PRIMESOFT initiative, attracting investors, potential partners, talented young researchers, dissect prospects of cooperation after the end of the project

3.Communication plan

Communication means taking strategic and targeted measures for promoting the action itself and its results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange. The aim is to reach out to society as a whole and in particular to some specific audiences while demonstrating how EU funding contributes to tackling societal challenges. Thus, communication aims propagating the information about a project (the action and the outputs) in a way that it can be understood even by the non-specialists and to draw attention of multiple audiences. The process of communication starts at the outset of the project action and continues throughout its entire lifetime.

Communication activities will complement the dissemination activities in promoting PRIMESOFT main outputs as a two-sided mobility, which involves both the Consortium and the Users Group community. The PRIMESOFT communication strategy will have as its main objectives to: (a) <u>capture</u> the attention of governmental agencies, authorities, public and private funding sources on the importance of the activities carried out in the project and (ii) <u>highlight</u> and enhance international research cooperation benefits that increase WI visibility and prestige. The adopted set of communication tools for PRIMESOFT project is expected to reduce the public's skepticism and distrust towards the necessity to invest in science and will substantially increase the positive perception of the R&I to the society. Through PRIMESOFT communication plan, we aim additionally to demonstrate the innovation potential of the unique Department of the Widening country (Department of Agricultural Sciences, Biotechnology & Food Science), dealing with the agro/food sector. At national level, PRIMESOFT aspires to increase dialogue and awareness of Cypriot citizens, about incorporation of environmentally-friendly new technologies in the agro/food sector and the need of environmentally-sourced approaches and 'smart-farming' approaches to safeguard yield security of added value soft fruit crops. As a whole, the communication strategy includes:

Communication for the general public: The Consortium considers the communication of the projects' objectives and findings as a key aspect in gaining public attention and in raising awareness on issues related with smart agricultural practices, advancement in technologies, as well as environment and public health. Towards the implementation of this objective, extensive use of social media (LinkedIn, Twitter) will be sought to spread the philosophy of PRIMESOFT to a broader non-specialist audience, including the general public, bloggers and journalists. In addition, participation in TV and radio programs and the publication of articles in popular magazines will be also sought.

Communication for training: The activities relevant to this channel will imply the development of training materials for professionals and students, including short courses and training sessions on specific methods/techniques. Additionally, the involvement in the project of several senior scientists and university professors who teach at their home institutions and supervise graduate students, ensures that the knowledge and expertise developed in the project will be passed on to the young scientists. Overall, the outreach activities of this project are expected to create significant scientific, societal and economic impacts at the Widening Institution, with special reference to ER/ESRs, in order to acquire the necessary competencies to seek a position of professional maturity.

Communication through direct interaction: This route covers the participation in regular and well-attended events, such as European-based exhibitions/trade fairs and International Conferences. This route targets groups with a high level of information needs and it will accordingly provide information tailored to specialized audiences. Through such initiatives, we aim to outline the basic principles of the PRIMESOFT methodology and toolkits. We additionally aim to yield a significant impact on exploitation activities, through meetings with potential stakeholders from primary and industrial sectors, including the engagement in one-to-one meetings at European partnering events.

To ensure maximum impact on the EU agricultural sector and value chains, PRIMESOFT´s communication strategy will target the following diverse audiences:

I. **Researchers:** Leading researchers in the fields of plant science, agriculture and biotechnology, young researchers, research and educational institutions are included to develop an interactive network with the international research community for scientific communication, to advance the research, to initiate new collaborations and attract talented researchers to the Widening Institution.

II. **Experts from related research projects and initiatives** to exchange experiences and request input from related fields of expertise to further develop and enrich the PRIMESOFT approach in directions not yet envisioned.

III. **Farmers** are an important group of stakeholders for PRIMESOFT as they are direct beneficiaries from the novel knowledge; they face many challenges due to the effects of climate change on EU agriculture who need to be informed about new research and developments, including alternative solutions (climate-smart cropping strategies) which are tested and validated in their local environment.

IV. **Industry sector:** Producers of bio-stimulants, bio-fertilizers, food industry, who can potentially benefit from the services, products and expertise generated during PRIMESOFT, will be targeted in order to build ties with relevant companies and venture capital investors, for future marketing potential (see also exploitation activities).

V. **Policy makers and public authorities:** It includes regional, national, EU and international authorities and policy makers, as well as international organisations, and members of the general public such as European media outlets and the environmentally conscious consumer. Thus, the communication plan will also consider regional governmental authorities in Cyprus to benefit the research and innovation infrastructure at the national level as well as the EU policy makers (European Research Area and Country Intelligence) to facilitate design and implementation of future programs, especially those focusing on the Widening countries. In particular, policy makers (e.g. representatives of agricultural authorities related to CAP and ERDF Regional Development Programs; DG AGRI, public environmental monitoring authorities) are required to keep up-to-date on effects of climate change in relation to EU agriculture; seeking experts on climate-smart cropping systems; acting as intermediaries balancing interests of many different groups (e.g. producers with commercial interests and consumers, which

are highly dependent on good quality, affordable food). Many of these organizations have significant power to shape policies and influence the uptake of new approaches and food production systems. In addition, <u>media</u> specialized in agriculture, innovation and bioeconomy, as well as food and health-related topics are major parties connecting the financial stakeholders to engage with policy makers and the general public through news and publications.

Table 2 summarizes the intended communication tools, including their target audience, the expected impact (message to convey) and means of impact measurement.

Table 2: Target/Users Groups and communication tools and channels of the PRIMESOFT project.

Communication tools and channels	Target audience	Expected impact /Message to convey	Impact measurement
Scientific publications & Conference attendance	Scientific peers, potential academic and industrial collaborators, students, young researchers	Inform the scientific society about the outcome of the project and the new knowledge produced, Value creation in potential markets for future exploitation.	publications in refereed journals, presentations at international Conferences
Organization of an International Scientific Conference	Researchers, stakeholders, students, policy makers, media	Increase visibility of WI to researchers and stakeholders and raise awareness about the activities of the project. Distribution of information on the achievements of PRIMESOFT, to attract potential collaborators and create a basis for future consortia building and funding opportunities	Number of international delegates
Meetings with industrial stakeholders and soft fruit farmers	Companies of the agro/food sector	Enhance the technological impact of the project, establish genuine cooperation with farmers and companies	expert business meetings (brokerage events during international trade fairs/ exhibitions or site visits)
One participation in Researcher's Night	Young and experienced researchers, university students, school children, teachers, general public, journalists	Highlight the socioeconomic impact of the project in the Widening country and spreading information about the research, researchers, services and goals, attracting talented and creative minds	Number of attendees, feedback and opinions received

4.Exploitation plan

Exploitation refers to the utilization of research results/outputs in further research activities (other than those covered by the action concerned), for commercialization purposes, in standardization activities or in public policymaking.

The exploitation plan of PRIMESOFT envisions using the outcomes of the project to (a) build further research activities and (b) to develop new products/technology. The communication and dissemination activities of PRIMESOFT are anticipated to create a solid ground for the execution of the exploitation plan. The main objectives of the exploitation plan specific to PRIMESOFT are as follows:

- To build new collaborations and advance the utility potential of the research in the areas covered by PRIMESOFT
- To promote working relationships with relevant industrial stakeholders during and beyond the end of PRIMESOFT
- To bring innovations/technologies/products developed during the PRIMESOFT project closer to the market for societal benefit
- To generate a portfolio of protected IP for new products and technologies
- To strengthen the technology and knowledge transfer processes
- To boost the innovative capacity of CUT, Limassol and Cyprus in general to seek for further funding beyond the end of PRIMESOFT

We anticipate to exploit:
- Nanotechnological plant priming agents based on nanomaterials functionalized with natural and/or synthetic molecules for innovative applications in agriculture,
- Patents for technology, products, know-how, innovative ideas, etc.,
- New biomarkers for stress resistance in soft fruit crops, big data sets (genomics, transcriptomics, metabolomics) for value-added traits.

The Steering Committee of PRIMESOFT will do yearly screenings of project results to identify exploitable data, followed by the discussion on ways of exploitation (e.g. further research, commercialization, policy making) and on target groups to be involved in exploitation. Smartly designed Innovation Management Plan, as well as the Data Management Plan of PRIMESOFT strongly complement the activities anticipated through this exploitation plan. The technology transfer activities conducted within the scope and frame of PRIMESOFT project will form a basis for a future strategic plan to be developed and executed through the RCoE (Regional center of Excellence) and the affiliated structures like spin-off/start-up companies.

The exploitation activities will support all communication activities which will result in the creation of a critical mass of interest and in raising of awareness among the relevant stakeholders (industry, SMEs, governmental bodies, policy makers, individuals), as necessary for the deployment of PRIMESOFT results at commercial scale.

Opportunities within the private sector will be the main focus of the exploitation activities of PRIMESOFT. To this aim, a series of face-to-face meetings with stakeholders during brokerage events of international trade fairs will take place. **Table 3** represents the actions/tools necessary, to implement the exploitation plan and the corresponding impact.

Table 3. Exploitation activities, anticipated impact and impact measurement.

Action	Tools	Expected impact	Impact measurement
Introduction of new products /technologies into the market	Sell a license, out licensing, industrial partnership	Foster societal and economic benefits, strengthening of technology transfer process, boost innovative capacity	Number of licensing/partnering contracts signed, license income raised
Raising technology readiness levels	Contract research services, industry-sponsored research, industrial partnerships	Technical advancement, support to establishment of a financially autonomous regional center or research in the WI	Number of licenses issues or sold, number of users, license income, service contracts signed
IP protection and strengthening IP portfolio	Protecting the knowhow in form of patents, trade secrets, copyrights, etc.	Long-term support to sustainability of a regional center or research in the WI, financial security, boosting the start-up culture in Cyprus.	Patents and copyrights obtained, number of licenses given out or sold, license income generated, number of licensed users, etc.
International and multi-sectoral collaborations	Joint research programs, partnering with clusters for research and innovation projects, participate in online partnering events organized by Enterprise Europe Network	Transfer of knowledge to broad network of academia and industry, widening horizons for research performed under PRIMESOFT	Number of new projects started, number of new collaborators added, availability of additional funds

5. D&C&E plan beyond the lifetime of the PRIMESOFT project

To achieve the desired impact, several of the dissemination and exploitation activities will be continued after the end of the PRIMESOFT project. To this end, the Communication, Dissemination and Exploitation plan will be amended accordingly during the end phase of PRIMESOFT.

Necessary provisions for the continued execution of certain dissemination and exploitation actions will be made, e.g. to obtain signed consents from relevant partners on case-by-case basis, to arrange joint IP ownership agreements, Material Transfer Agreements, CDAs, No-Objection Certificates, etc.

The dedicated project website will stay active for at least 4 years after the end of the PRIMESOFT project. The responsible partner (CUT) will maintain and update it following this plan. A report on the overall PRIMESOFT project, including information about the start, milestones and achievements will be available on the PRIMESOFT website.

Communication channels will be maintained with DG Research and Innovation (European Research Area and Country Intelligence) to provide feedback on this TWINNING action, which might be helpful to design the future programs focusing on the Widening countries.

The project has received funding from the European Union's Horizon Europe programme under Grant Agreement 101079119