



FINAL CONCLUSIONS REPORT

THE ART-ER STOCK JOINT CONSORTIUM ACTION PLAN

Data closed as of January 31, 2023

REGIONS 4FOOD Project



European Union
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1/. Validation and launching of Action Plan

The objective of the ART-ER Stock Joint Consortium is to obtain “**An integrated regional strategy promoting cross-cutting competencies and quadruple helix engagement in the agri-food value chain.**”. In order to achieve this goal, and throughout the initial survey conducted within the REGIONS 4FOOD project, the following needs were identified in the Emilia Romagna region in order to better understand the regional ecosystem in the agri-food sector and offer the chance to engage directly with stakeholders and representatives of this ecosystem:

- A regional roadmap with a coherent policy mix boosting digitization in the agri-food sector covering the support to projects that could turn digital solutions into viable management practices.
- Methods and tools enabling analysis or visualization of existing data from multiple sources (devices in fields, factories, trucks) and types (proprietary, open data, etc.), making them harmonized and available in a standardized form on an integrated platform.
- Cross-cutting competencies / professional figures in the agri-food sector.
- Tailored solutions for outdoor agriculture (devices).

Figure 1. ART-ER Action Plan



Source: Extracted from the ART-ER Stock Joint Consortium, Action Plan:
https://projects2014-2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1638199745.pdf

Additional to those needs addressed, a SWOT analysis was further conducted, merging the initial analysis carried out in the project, with additional elements that emerged during the last year of Phase 1. The results reflected on the following weaknesses:

- Marginalization of internal areas
- Digital divide
- Poor digital integration capacity in the agri-food sector
- Small size farms with limited capacity to adopt innovative measures to digitalize their activities
- Lack of intermediate / cross cutting profiles, supporting interaction between farmers and ICT companies.
- Limited co-creation initiatives that involve users and farmers and limited interaction between traditional and innovative components of the value-chain.

Therefore, the main outcomes extracted from those weaknesses described above are the following:

- Lack of cross-cutting competences in the agri-food sector.
- Lack of initiatives that adequately engage all members of the value chain (quadruple helix participation) in initiatives related to the development of the agri-food sector

As a result of this, the ART-ER Stock Joint Consortium Action Plan drafted the following next 2 actions:

Table 1. ART-ER Action Plan – Sub-Actions and Activities

Actions	Period	Sub-action
Action 1/. Regional actions to promote cross-cutting competences in the agri-food sector	2020-2023	<ul style="list-style-type: none"> • Provide input for changes in the policy framework. • Definition and launch of an improved call for proposal in the framework of the ERDF/ESF programmes. • Analysis of content of modules included in the 2 Andalusian Masters. • Map the current training and education offer in the agrifood field. • Detail the concrete implementation steps of pilot test to improve selected programme (new cross cutting module / course). • Pilot test (not funded by Interreg Europe) The updated training programme is tested. • Feasibility study. • Monitoring of further impact.
Action 2/. Regional actions to engage all members of the value chain (quadruple helix participation) in development of the agri-food sector	2020-2023	<ul style="list-style-type: none"> • Provide input for changes in the policy framework (as per Action 1). • Definition and launch of an improved call for proposal in the framework of the ERDF/ESF programmes (as per Action 1). • Consultation on co-creation initiatives. • Set up / consolidate the quadruple helix network / define activity plan for cocreation activities. • Test co-creation methods (concrete implementation). • Feasibility study (concrete implementation). • Monitoring of further impact.

Source: Data extracted from Interreg Europe, Regions 4Food project website, ART-ER Stock Joint Consortium Action Plan

https://projects2014-2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1638199745.pdf

2/. Action Plan implementation

In the aftermath of three evaluations the 2 Actions of PP4 Action Plan demonstrated a good progress in terms of implementation. The follow up process was carried out according to three timeframes :

- 1st follow up with data closed by April 30th 2022;
- 2nd follow up with data closed by October 30th 2022;
- 3rd follow up with data closed by January 31st 2022 ;

So far, the **Action 1 has been positively progressing**, with delays related to pilot tests and feasibility studies that will rather be reconsidered in 2023. Precisely, following sub activities have been completed so far:

- Definition and launch of an improved call for proposals addressed to Clust-ER;
- Map the current training and education offer in the agri-food field;
- Compare Emilia-Romagna training offer with the modules included in the 2 Andalusian Masters;

The Emilia Romagna Regions and **regional stakeholders continue to work at the development of the FoodER initiative, a new larger initiative for the creation of the Emilia Romagna International Network for Education and Industrial Research for the agrifood sector.**

Such initiative includes the implementation of new International Masters with a huge investment from the regional government, engagement of all public universities based in the region, participation of Clust-ER Agrifood and involvement of industrial companies. These new Masters will take into consideration the experience gained within the Regions4Food project to promote cross-cutting competences in the agri-food sector and will be structured in details in 2023 to be launched possibly in the next academic year in late 2023.

Next, the status of implementation of Action 1 is portrayed in the below table:

Table 2. ART-ER Stock Joint Consortium Action Plan – Status of implementation of Action 1

Output / Target	Status of Implementation (In progress/ finished)
Definition and launch of an improved call for proposals addressed to Clast-ER	FINISHED
Map the current training and education offer in the agri-food field	FINISHED
Compare Emilia-Romagna training offer with the modules included in the 2 Andalusian Masters	FINISHED
Define the content of a pilot test to improve a selected training programme with new cross-cutting features	IN PROGRESS

Output / Target	Status of Implementation (In progress/ finished)
Pilot tests carried out to promote cross-cutting competences in the agri-food sector	POSTPONED
Feasibility studies completed, containing proposals for structural changes to promote cross-cutting competences in the agri-food sector	POSTPONED

Source: Data extracted from the REGIONS 4FOOD Members Common Monitoring System.

The **Action 2** was successfully completed and the results of activities carried out in the framework of this action have proven the importance of co-creation initiatives characterized by an inclusive approach to be included by Emilia-Romagna Region in specific measure of the present Programming period.

Next, the status of implementation of Action 2 is portrayed in the below table:

Table 3. ART-ER Stock Joint Consortium Action Plan – Status of implementation of Action 2

Output / Target	Status of Implementation (In progress/ finished)
Definition and launch of an improved call for proposals addressed to Clust-ER	FINISHED
Consultation on co-creation activities	FINISHED
Set up / consolidate the quadruple helix network, define activity plan	FINISHED
Members engaged in the quadruple helix network (research labs, companies - farmers - consumers associations)	FINISHED
Co-creation measures tested on innovation in the agri-food sector (3 focused working groups)	FINISHED
Feasibility studies containing proposals for structural changes to include co-creation measures in public policies for agri-food	FINISHED

Source: Data extracted from the REGIONS 4FOOD Members Common Monitoring System.

Final reports summarizing the results obtained by each Focused Group have been finalized in the last part of 2022 and published on EROI, the regional platform for Open Innovation supported by the Emilia-Romagna Region to spread results, new ideas and facilitate the generation of new projects involving all relevant regional stakeholders.

These reports represent also fundamental outcome to address the present planning phase during which Clust-ER Agrifood is defining new strategic project proposals aligned with the regional Smart Specialization Strategy.

3/. Action Plan monitoring

As for the monitoring of the Action Plan during the project, it has been done through a detailed follow-up both by Clust-ER and ART-ER members. The fact that Clust-ER has received funding from the call in July 2020 has helped them provide periodic reports on their activities, which has helped in the monitoring.

On the other hand, ART-ER receives and analyses these reports, focusing specially on the information provided on the activities related to the REGIONS 4FOOD Action Plan. Also, ART-ER establishes continuous contacts with the Clust-ER managers, for the ongoing monitoring of the progress and activities.

Furthermore, and adding up to the monitoring, AR-TER coordinates the Big Data and Traceability working group at regional level. This working group was the basis of the stakeholder group in REGIONS 4FOOD and has been used for stakeholder engagement in Action Plan implementation and to evaluate the progress of each action. Regular contacts are maintained with the main group members.

So far, **for the Action 1 and for the Action 2**, the result indicators portray the following situation:

Table 4. ART-ER Stock Joint Consortium Action Plan – Result indicators

Action name	Result indicator	Target	Achieved	Status by January 2023
Action 1/ Regional actions to promote cross-cutting competences in the agri-food sector	N° of mapping focusing on cross-cutting competences in the agri-food sector	1	1	Achieved
	N° of pilot tests carried out to promote cross-cutting competences in the agri-food sector	1	0	Not achieved
	N° of feasibility studies completed, containing proposals for structural changes to promote crosscutting competences in the agri-food sector	1	0	Not achieved
Action 2/ Regional actions to engage all members of the value chain (quadruple helix participation) in development of the agri-food sector	N° of members engaged in the quadruple helix network (research labs, companies - farmers – consumers associations)	40	72	Achieved
	N° of co-creation measures tested on innovation in the agri-food sector	3	3	Achieved
	N° of feasibility studies completed, containing proposals for structural changes to include co-creation measures in public policies for agri-food	1	1	Achieved

Source: Own creation. Data extracted from the REGIONS 4FOOD Members Common Monitoring System.

As for the result indicators, it can be observed that **Action 1 is showcasing a partial achievement in terms of indicators**. In this sense indicators related to the N° of pilot tests carried out to promote cross-cutting competences in the agri-food sector and the N° of feasibility studies completed, containing proposals for structural changes to promote crosscutting competences in the agri-food sector were not achieved.

However, it is remaining room to complete the definition of the pilot test inspired by Andalusian Masters within the Regions4Food Phase 2 where lesson learnt from Regions4Food will be taken into consideration in the deployment of such initiative.

Regarding **Action 2, result indicators showcase useful insights and the number of members engaged in the quadruple helix network (research labs, companies - farmers – consumers associations) almost doubled**. Additionally, **the number of co-creation measures tested on innovation in the agri-food sector was achieved by 100%**.

Finally, N° of feasibility studies completed, containing proposals for structural changes to include co-creation measures in public policies for agri-food was achieved as well.

4/. Action Plan communication and dissemination

Along with the Action Plan Implementation, **PP4 was active in terms of communicating and disseminating** both project results and outputs of the Action Plan implementations. PP4 used Regions4 Food Project website and regional Website (agricoltura.regione.emilia-romagna.it) in order to post the project news and achieve more audience among all types of stakeholders and civil society. Likewise, social networks were employed to disseminate the participation in events.

By timeframes, below are listed the communications carried out by the PP4 in the **timeframe 1st of June 2021 – 30th of April 2022**:

- Twitter publication related to the Project. (18/10/2021) .
- YouTube video related to the Project. (25/10/2021).

Additionally, the ART-ER Stock Joint Consortium has conducted, besides the communication activities indicated above (1st of June 2021 – 30th of April 2022), the following:

- Presentation during a regional workshop arranged in Parma by University of Parma on the Nov30th, 2021 “Initiatives for the digitization of agrifood sectors in EmiliaRomagna”
- Presentation within the MACFRUT 2022 Fair, Rimini
- Workshop on Smart ecologic transition of the fruit sector, arranged on May, 6th 2022 by University of Bologna and ART-ER

Ranging from 30th of April of 2022 until October 30th of 2022, PP4 carried out the following communication and dissemination activities:

Table 5. Communication activities (30th of April of 2022 - October 30th of 2022)

COMMUNICATION	WEBSITE
NEWS	
REGIONS 4FOOD: in un report le indicazioni per nuove politiche sull'agroalimentare	https://www.art-er.it/2022/07/regions-4food-in-un-report-le-indicazioni-per-nuove-politiche-sullagroalimentare/https://www.art-er.it/2022/07/regions-4food-in-un-report-le-indicazioni-per-nuove-politiche-sullagroalimentare/
Progetto Regions 4Food: in un report le indicazioni per nuove politiche sull'agroalimentare	https://agricoltura.regione.emilia-romagna.it/notizie/2022/ottobre/progetto-regions-4food-in-un-report-le-indicazioni-per-nuove-politiche-sull2019agroalimentare
Quale futuro per le politiche sulla digitalizzazione dell'agroalimentare in Europa?	https://www.art-er.it/2022/10/quale-futuro-per-le-politiche-sulla-digitalizzazione-dellagroalimentare-in-europa/
During Macfrut a conference on Smart Fruit Growing	https://projects2014-2020.interregeurope.eu/regions4food/news/news-article/14483/during-macfrut-a-conference-on-smart-fruit-growing/
EVENTS	
Digital and green agrifood services and policies	https://projects2014-2020.interregeurope.eu/regions4food/events/event/5271/digital-and-green-agrifood-services-and-policies/
TWEETS	
The Emilia-Romagna regional Agrifood Cluster together with SAH CREDAS project and PIC network organizes a webinar on CROSS-REGIONAL ECOSYSTEM FOR DIGITAL & GREEN AGRIFOOD SERVICES & POLICIES: examples of multi-regional approaches	https://twitter.com/Regions4F/status/1525103371828482049

Source: Own creation. Data extracted from the REGIONS 4FOOD Members Common Monitoring System.

Ranging from November 1st of 2022 until January 31st of 2023, PP4 carried out the following communication and dissemination activities:

Table 6. Communication activities (November 1st of 2022 - January 31st of 2023)

COMMUNICATION	WEBSITE
NEWS	
News published on 3Nov 222	https://projects2014-2020.interregeurope.eu/regions4food/news/news-article/15414/emilia-romagna-action-plan-results/
Published on Emilia-Romagna Region website	https://agricoltura.regione.emilia-romagna.it/notizie/2022/ottobre/progetto-regions-4food-in-un-report-le-indicazioni-per-nuove-politiche-sull2019agroalimentare



5/. General conclusions on action plan implementation and policy impact

This section is
developed by PP4

The **participation to R4F project has allowed Emilia-Romagna to shape the evolution of its regional innovation ecosystem** starting from needs and opportunities expressed by our territory but acting taking into consideration the European scenario.

Actually, PP4 had the opportunity to discuss strategic issues about current situation and future perspectives with many relevant stakeholders in an international arena, benefitting from networking activities and paving the way for future collaborations. Moreover, PP4 had the possibility to analyse in detail the most promising good practises developed by our partners to improve the performances of our agrifood sector focusing on digitization aspects.

The **most important message PP4 got from this experience was that to promote digital transformation in rural area there is a need to work on high level education and training courses supporting the creation of professional profiles with cross-cutting competences.**

In this contest **Action 1 provided relevant elements supporting the design of the FoodER initiative, a new larger initiative for the creation of the Emilia Romagna International Network for Education and Industrial Research for the agrifood sector.** Such initiative includes the **implementation of new International Masters with a huge investment from the regional government**, engagement of all public universities based in the region, participation of Clust-ER Agrifood and involvement of industrial companies, with increasing connections both at regional but also at international level.

Another **crucial aspect is to sustain the dialog between all actors of the agrifood value chains starting from farmers to consumers in a co-creation process where politicians, researcher, entrepreneurs and consumer associations are engaged to increase awareness, efficiency, usability and impact of the new technological solutions.**

The **successful implementation of co-creation measures tested within Action 2 has driven the Emilia-Romagna Region to continue its support to Clust_ER Agrifood in the next years** to promote and reinforce initiatives focused on S3 priorities (challenged based, social driven e cross-sectors), where the whole regional innovation ecosystem cooperates in synergy with an open innovation approach to sustain the digital transition.