ATTRACTISS
Empowering Innovation
Support Services

Deliverable D1.4
Curriculum of ISSs providers
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History of changes

Version 1	30/11/2023	Ugo Denis (CRAN), Sylvain Sturel (CDAF)	First draft report, based on outcomes from i2connect
Version 2	10/03/2024	Ugo Denis (CRAN), Sylvain Sturel (CDAF)	Adding other training opportunities
Version 3	29/03/2024	Ugo Denis (CRAN), Sylvain Sturel (CDAF)	After internal review by Marie Boitelet, Patrizia Proietti and Simona Cristiano

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List of acronyms

AKIS	Agricultural Knowledge and Innovation System
CECRA	Certificate for European Consultants in Rural Areas
Dx.x	Deliverable x.x
ISS	Innovation Support Service
WP	Work Package

List of annexes

1. *List of i2connect training modules*
2. *List of CECRA training modules*
3. *List of other training resources + links*

Introduction

Purpose of the report

The aim of this report is to present an overview of the skills required to support innovation, to identify existing training modules that can address these training needs and to highlight specific skills for which there may not yet be suitable training modules.

Trying to define a curriculum for innovation support service (ISS) providers means looking at three interrelated elements constituting the explanatory facets of the evolution of ISS. The first element relates to the skills of the staff of ISS, especially the advisors and facilitators, dedicated to providing advice and other services to farmers, foresters and other rural stakeholders. The second element relates to the managerial organization of the service: what organization of human resources, for what business model and what effective organization of the innovation processes? Finally, the third element is the environment in which the service is operated. D1.4 focuses on both the individual level of professionals and the organisational environment, while the third element element will be addressed by WP5.

Relation with other activities in the project

This document is linked to the deliverable D1.3 Methodological and action plan to empower and embed ISSs. Definitions of ISS and other key concepts are explained in this last deliverable.

This deliverable will be used as the basis to build the training session in Task 4.1, and especially impact the training curricula (D4.1).

Objectives and Expected Impacts

The main objective of this document is to provide a repository of required skills and competencies needed by ISSs providers to capture grass roots ideas and bring them to fruition, and to provide a range of already available training resources.

To do this, we drew on a number of previous initiatives and projects: i2connect, AgriSpin, Agrilink, Liaison, Nefertititi, the EIP-agri network, the CECRA initiative...

Overall approach

This deliverable focuses on the outcomes from the i2connect project and on available resources for training, especially the competency development programme CECRA (Certificate for European Consultants in Rural Areas). This is a beginning of the reflexion on how to build a curriculum for ISS providers, and an invitation for the readers and especially for the teams involved in WP1 and WP4 to complete the training opportunities and develop synergies with other projects and initiatives.

1-Activities of ISS providers

i2connect was a first attempt to identify the competences required by advisors and facilitators to support interactive innovation. The scope of ATTRACTISS includes not only farm and forestry advisors, but also other innovation actors. However, the skills required to initiate and support interactive innovation remain the same, whatever the type of ISS actor. The connection between ATTRACTISS and i2connect is obvious, considering that it is now generally agreed that ISS make innovation possible by fostering interactions and constructing common knowledge[1].

Innovation Support Services (ISS) help to speed up the emergence and implementation of innovative ideas from the grass roots level, and to generate solutions to support the transition to more sustainable production systems.

ATTRACTISS deliverable D1.1 defines seven key functions for an ISS:

- Awareness raising and knowledge dissemination
- Advisory, consultancy, and backstopping activities
- Demand articulation
- Networking, facilitation, and brokerage services
- Capacity building
- Enhancing/supporting access to resources
- Institutional support for niche innovation and scaling mechanisms stimulation.

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[1] Faure, G.; Knierim, A.; Koutsouris, A.; Ndah, H.T.; Audouin, S.; Zarokosta, E.; Wielinga, E.; Triomphe, B.; Mathé, S.; Temple, L.; et al. How to Strengthen Innovation Support Services in Agriculture with Regard to Multi-Stakeholder Approaches. J. Innov. Econ. Manag. **2019**, 28, 145–169.

2- ISS providers' competencies

Maria Gerster-Bentaya (2009) represented the clusters of competences needed by advisors as follows:
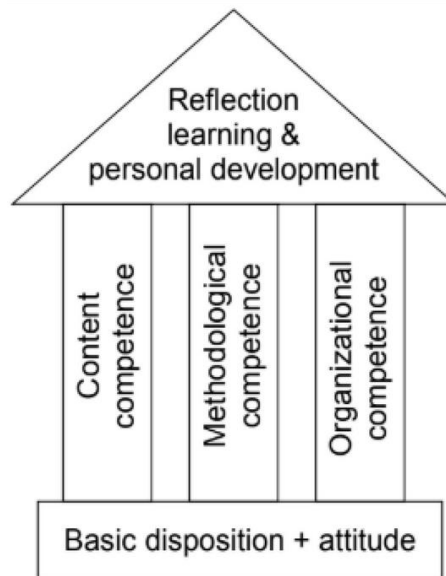
According to the report *"Repository of required competencies of an innovation advisor"* from the i2connect project[2], the competency profile of an innovation advisor consists of 5 main themes and 16 clusters of competencies. Below there is a short description of each cluster of competencies, based on the above-mentioned report:

Basic disposition and attitude	
Self-awareness	This cluster involves a sense of equity. Furthermore, a willingness to share power and give up control, taking a step back when needed.
Personal drive	Personal drive means you have a passion for the work you are doing. You are dedicated to the project. Furthermore, it involves you trust your intuition.

Sensitivity	The cluster sensitivity involves empathy, responsiveness and emotional intelligence. Communication skills also fall in this category.
Reliability	This cluster involves being reliable and trustworthy. Being accountable and responsible. Having a professional attitude and behaving ethically.
Content competence	
Understanding the social context	This involves understanding the social environment in which one operates. Connecting to the local community. Understanding one's own role in the system and being able to identify relevant actors.
Understanding the Agricultural Knowledge and Innovation System (AKIS)	Understanding the political and economic context in the region in which one operates. Having adequate knowledge about regulatory matters and the public policy of the region. Be familiar with AKIS analysis methods.
Content Knowledge	This cluster involves expertise such as a background in agriculture, openness to other sectors and technical knowledge.
Methodological competence	
Understanding the innovation process	This cluster involves you have a certain sensitivity of what is happening in the innovation process. That you recognise certain patterns and know how to act in any situation that presents itself. It involves a knowledge and use of tools related to innovation processes. Furthermore, it involves problem solving skills.
Energy	This cluster involves know-how to keep energy and enthusiasm in the group and to activate and mobilise people. This involves facilitation skills.
Co-creation	The co-creation cluster involves being able to identify crucial positions in the project and moreover being able to identify positions where someone is missing. This involves a good insight into human psychology. It involves having a good knowledge about methods and tools to support interaction and to combine knowledge towards co-creation.
Networking	This cluster includes the capacity to aggregate people around an innovative idea, which requires various skills such as to conduct a stakeholders' analysis, knowledge brokering, animate a network, as well as to establish links and create synergies between various networks.
Mediation	This cluster involves mediation skills.
Organisational competence	

Organisational competence	This single cluster involves organisational competencies such as planning, organising meetings, following-up with contacts, time management, managing resources, writing projects proposal, delegating, collecting funds, digital skills.
Reflection, learning and personal development	
Reflection among peers	This involves habitually reflecting upon work with peers, which in turn involves sharing a common language.
Self-reflection and self-assessment	Habitually self-reflecting; application of methods and tools for self-assessment of performances and of needs for professional development.
Addressing professional network	Making use of your professional network
Lifelong learning aptitude	Knowing how to find new information. Continuous skills development and learning.

Some additional competencies needed to provide innovation support services were listed in the ATTRACTISS Deliverable 1.1 "Conceptual grounds and common understanding: state of the art" (January 2023):
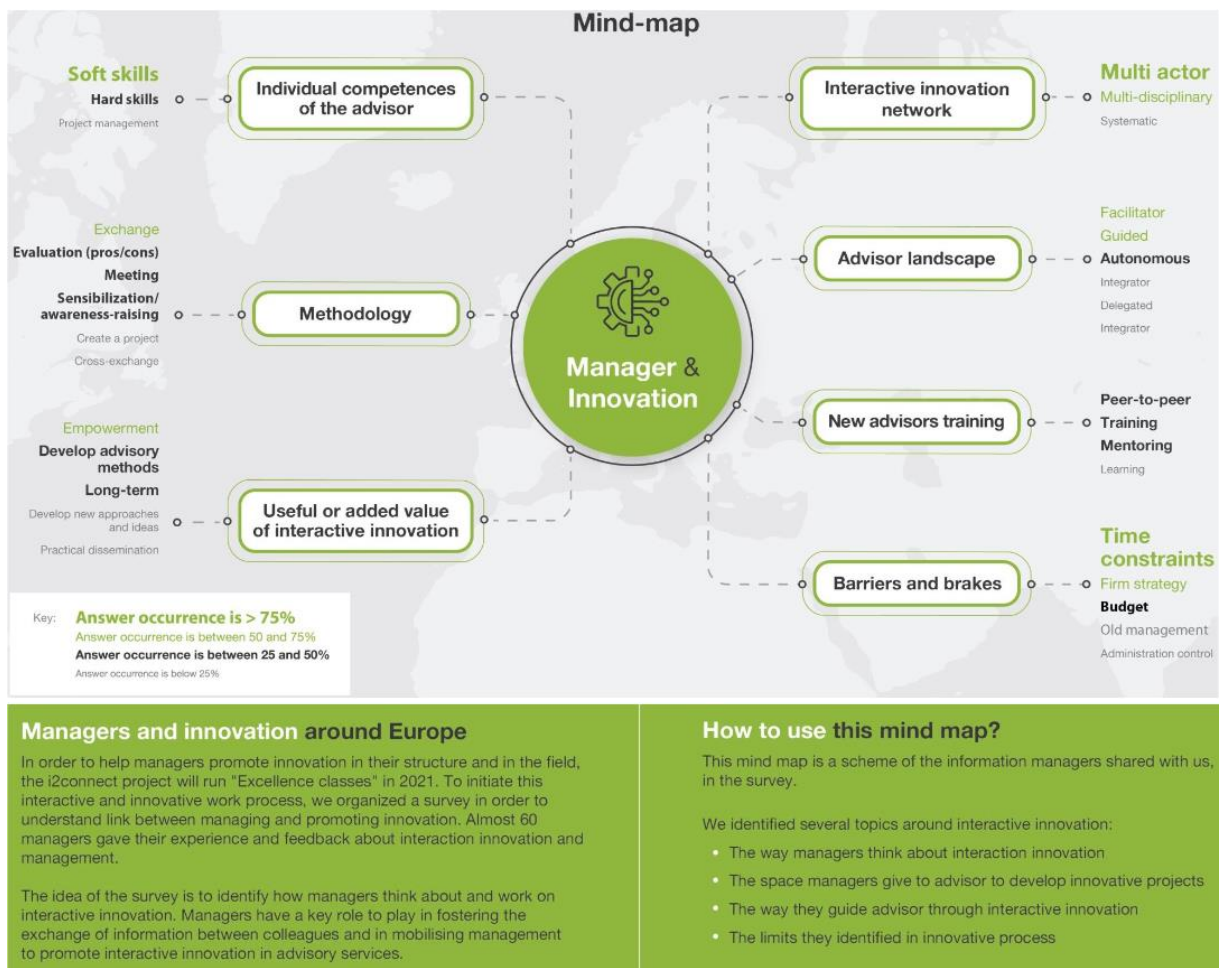
Knowing and using communication techniques
Relationship building
monitoring and evaluation methods and tools, including information gathering and analysis
Know and use educational methods and learning approaches
Change management

3-The managers' vision: mind map of ISS competencies and competences

In i2connect, the managers' vision of the skills needed in an innovation support department was also investigated. The main results were represented in the form of a mind map (i2connect report "Methods and tools for an innovation-friendly management of advisory services").
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In addition, during the i2connect 2nd Excellence class in Tallinn (February 2023), managers were asked about their perception of the necessary competences and competencies for advisors. It showed that managers had different views of the importance of advisors' skills depending on country and organisation:

Legend: boerebond, estonian/oliver, estonian, estonia, proagria_dj, proagria ls, proagria, Hung OKO-SZFERA, gazda, Teagasc/gs, Teagasc/barry, Teagasc/raquel, Latvia, latvia A, Portugal, agridea
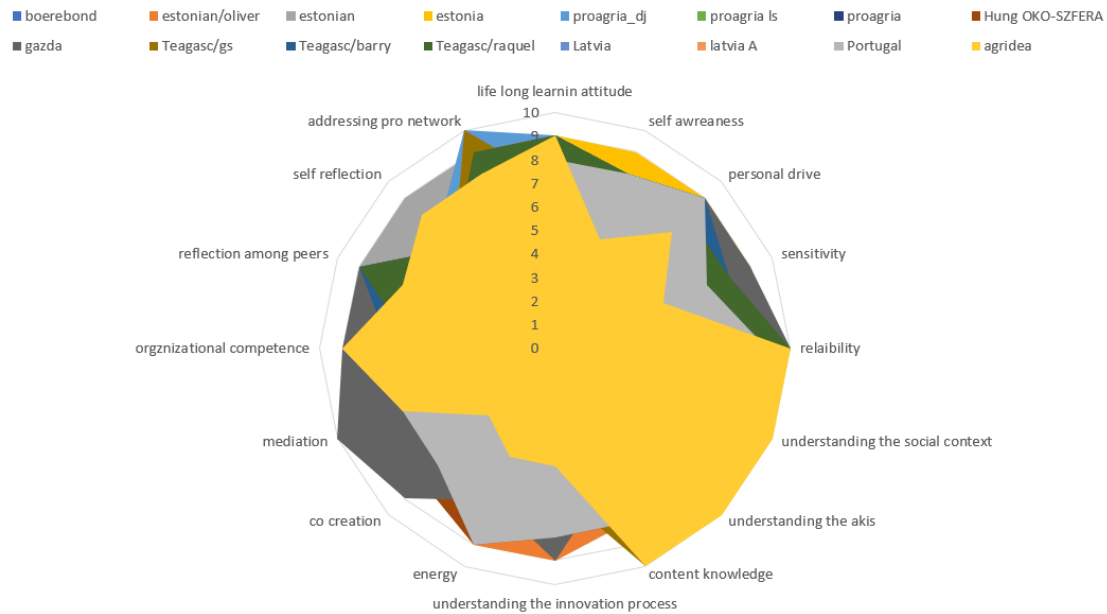
4-Other useful insights for the ATTRACTISS curricula: open innovation processes

From another perspective, the Global Forum for Rural Advisory Services describes the role of extension and advisory services in agricultural innovation systems as being "about sharing and facilitating access to information, knowledge and expertise, and working with others to bring about innovation"[3]. Hargadon & Sutton's defined the role of brokers in the field of technology[4]. Apart from a bridging function, they identify the role of brokers as a knowledge repository. By dipping into this repository of existing ideas and combining them in novel ways, these brokers can offer their clients innovative solutions.

[3] Sulaiman, R.; Davis, K. The "New Extensionist": Roles, Strategies, and Capacities to Strengthen Extension and Advisory Services; Global Forum for Rural Advisory Services: Lindau, Switzerland, 2012.
[4] Hargadon, A.; Sutton, R.I. Technology Brokering and Innovation in a Product Development Firm. Adm. Sci. Q. **1997**, 42, 716.

Another important framework is the work of Howells[5] (2006), who studied the function of innovation intermediaries by conducting a set of case studies with managers in 22 UK-based organisations. It became apparent that the case study organisations undertook significantly more functions than originally conceived. Howells expanded the original list by what he calls 'unrecognised' and 'undervalued' functions. The identified innovation intermediary functions can be summarised as:

- Foresight and diagnostics, Scanning and information processing, Knowledge processing and combination/recombination, Gatekeeping and brokering
- Testing and validation
- Accreditation
- Validation and regulation
- Protecting the results
- Commercialisation
- Evaluation of outcomes

These functions are not considered in the table below, but they should be taken into account when this deliverable will be updated.

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[5] Howells, J. Intermediation and the role of intermediaries in innovation. Res. Policy **2006**, 35, 715–728.

See also the video on ISS by the EIP-AGRI Support Facility: https://youtu.be/pTV6kLH0ykg

5- Competences needed vs. available training modules

We cross-referenced the outcomes from i2connect with the first outcomes of ATTRACTISS. Reassured by the fact that the insights from the two projects were in line with each other, we decided to match the list of competencies to be developed within ISSs with the training modules currently available. To do this, we took the list of competencies needed to provide innovation support functions (Table 2 on page 23-24 of Deliverable 1.1 "Conceptual grounds and common understanding: state of the art") and we noted short training courses to acquire these specific competencies.

By combining the skills of individual advisors, those of innovation department managers and those of young recruits, we can obtain the mix of skills which is needed to provide the full range of innovation support services. While one individual cannot be expected to possess all the competencies listed in D1.1 Table 2, the combination of individual competencies and well-organised teamwork is a more realistic way of covering the wide range of competencies required for an ISS.

The next step was to identify training courses that would help team members acquire the various competencies needed. This is summarized in the table below, which shows the training courses identified for each cluster of competencies.

The training modules developed in the framework of several Horizon Europe projects such as i2connect, Agrilink, and modernAKIS and the CECRA training programme among others provide a basis on which ATTRACTISS curricula will be built. More specifically, ATTRACTISS will provide complete training courses (including curricula, agenda and training material) on important aspects of interactive innovation support, including soft skills and especially facilitation methods & network analysis. It will provide courses for four target groups: trainers, advisors, managers and students & teachers).

To cover the full range of training needs of ISS providers, we will also need to adapt and translate existing national training modules, such as the "innovation tracking" module developed by the French Chambers of Agriculture.

As far as degree courses are concerned, it is worth noting that the University of Hohenheim has just opened a Master of Science entitled "Advisory and Innovation Services in Agri-Food Systems".

To complement this preliminary work, we will invite our partners in the ATTRACTISS project to search for relevant training courses and training material to acquire competencies needed by ISS advisors and managers. In particular, participatory activities in WP4 "Empower and strengthen capacities of ISS" will help identifying additional resources for training. Thanks to this approach, we will cover most of the training needs of ISSs, but we will probably identify some gaps which may require to develop new training modules.

Competences needed	Available training courses		
	i2connect	**CECRA**	**Other courses**
Basic Disposition and Attitude			
Self-awareness (Self-awareness, Sense of equity, Willing to take a step back when needed, Willing to share power and give up control)	i2connect courses for trainers, advisors, managers, students-teachers	M01 My Profile as a Consultant	
Personal drive (Personal drive, Passion, Dedication, Trust in intuition)			
Sensitivity (Sensitivity, Responsiveness, Empathy, Emotional intelligence, Communication skills (=conversational skills, basics of communication, esteem, questioning techniques, active listening, etc.) + Social skills (=Ability to cooperate, work in a team, and networking)		M02 Communication and Relationship Building in Advisory Work M03 Teamwork and Team Leadership	
Reliability (Reliability, Accountability, Trustworthiness, Ethics, Responsibility, Professional attitude)		M05 Self-Management and Time Management	
Content Competence			
Understanding the social context (Understanding the broader social environment, Connecting to the community, Understanding own role in the system, Being able to identify relevant actors)	i2connect courses for trainers, advisors, managers, students-teachers		

Competences needed	Available training courses		
	i2connect	**CECRA**	**Other courses**
Understanding the Agricultural Knowledge and Innovation System (AKIS) (Understanding political and economic context, good knowledge about regulatory matters and the public policy of the region. Be familiar with AKIS analysis methods)	i2connect courses for managers		ModernAKIS online courses: Understanding AKIS systems, Diagnosis of the AKIS and Strengthening the role of the AKIS CBs and Actors in the AKIS (the latter course is planed but not developed yet).
Content knowledge (Background in agriculture, Openness towards other sectors; Technical knowledge			Initial training in agriculture + professional experience + continuous training within companies (example of CONSULAI: English, French & Spanish group lessons)
Methodological Competence			
Understanding the innovation process (Sensitivity for the process, Being able to recognise patterns in an innovation process, Knowing how to act in any given situation, Possessing and using tools related to innovation processes, Problem solving skills)	i2connect courses for trainers, advisors, managers, students-teachers	M16 Shaping Innovation Processes – Accompanying Network	Innovation tracking (INRAE & Chambers, in French) MOOC Advice & Innovation (French cooperatives union, in French) MS Advisory and Innovation Services in Agri-Food Systems

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Competences needed	Available training courses		
	i2connect	**CECRA**	**Other courses**
Energy (Being able to keep energy and enthusiasm in the group, Being able to activate and mobilise people, Facilitation skills, Translation skills)	Idem	M09 Moderation Training M11 Designing and Implementing Events M12 Advising and Supporting Groups and Teams	
Co-creation (Being able to identify crucial positions, Being able to identify missing positions, Good insight into human psychology)	Idem		
Mediation		M13 Basics of Mediation	
Organisational Competence			
Organisational competence (Planning, Meeting organisation, Following up with contacts, Keeping track of the network, Time management, Managing resources, Writing project proposals, Collecting funds, Delegating, Digital skills)	i2connect course for managers	M06 Project Management M07 Shaping Advisory Processes M10 Marketing of Advisory Services M11 Designing and Implementing Events	
Reflection, Learning, and Personal Development			
Reflection among peers (Habitually reflecting upon work with peers, Sharing a common language)	i2connect courses for trainers & advisors		

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Competences needed	Available training courses		
	i2connect	**CECRA**	**Other courses**
Self-reflection (Habitually self-reflecting) and self-assessment on own performances and towards professional development	i2connect courses for trainers, advisors, managers, students-teachers + reflective capitalisation form & deliverables	M20 Reflection and further development of own consulting practice	
Addressing professional network (Utilizing professional network)	i2connect courses for trainers, advisors, managers		
Lifelong learning aptitude (Ongoing skill development and learning, Knowing how to find new information)		M15 Introduction to Coaching	
Knowing and using communication techniques		M02 Communication and Relationship Building in Advisory Work	
Relationship building		Idem	
Monitoring and evaluation methods and tools, including information gathering and analysis			
Know and use educational methods and learning approaches	i2connect courses for trainers		
Change management	i2connect course for managers	M08 Handling Changes / Change Management	

Conclusion

With this deliverable, we have started a reflection on how to build a curriculum for ISS providers and identifying relevant training courses for ISS to rely on. Thanks to this inventory, our trainers' team will be able to draw on a range of existing training modules (from i2connect, CECRA, other projects...), which can be adapted and improved over time.

One of our challenges will be to assess the individual needs of each person to be trained, to offer him/her an adequate and personalised curriculum.

In this deliverable, we also highlighted some gaps in terms of available training courses to develop specific skills. We suggest surveying all the project partners to look for existing training modules and training material which could fill these gaps. This could be carried out in the framework of participatory activities in WP4 "Empower and strengthen capacities of ISS". Finally, if there are still some gaps, ATTRACTISS should design new training modules, to meet the complete range of training needs of ISSs.

Therefore, this deliverable will need to be updated during the project, to include newly discovered training courses and feedback from project partners and trainees.

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See also the video on ISSs by the EIP-AGRI Support Facility:
https://youtu.be/pTV6kLH0ykg

Annex 1: List and summary of i2connect training modules

Train the trainer courses

The train the trainers (TTT) courses are innovation experimentation sessions. The objective is to make each participant a specialist in interactive innovation training in his/her national environment.

The TTT comprises three phases: the first puts the participant in the shoes of an advisor for the training that he or she will have to organize. This first step is a moment of take-off towards concepts and tools.

The second phase consists of work around the tools of interactive innovation, this time putting the participant in the shoes of a facilitator. Micro teachings are organized on important notions of interactive innovation.

Finally, the third phase aims to prepare the national courses and the participants take on the role of trainers of the i2connect project.

Excellence Classes

These sessions are masterclasses whose objective is to give the keys of interactive innovation to managers of innovation services. Three main angles are explored: human resources, the business model of innovation support services and the organization of innovation support services. The creation of value generated by an innovation support service is the common thread that managers follow during the two days of this excellence class. The exchange of experience between participants lead to a significant cross-fertilization within the group. Each AKIS is approached with the aim of inspiring participants and boosting their innovation support services. The concepts of open innovation also enrich the training.

National training courses for advisors

Once he/she has completed the TTT session, each trainer must organize a session in his/her country with advisors dealing with innovation. The objective is therefore to disseminate the concepts and tools of interactive innovation in the field and for the benefit of farmers and multi-actor groups. The role of facilitator

is widely promoted and the participants' own tools enrich the facilitator's toolbox. Participants' multi-actors projects are analysed in order to learn lessons about the history of the projects and the means used to move the projects forward. Among peers, the trainees discuss and cross-reference their experiences and knowledge to continue building their skills. Collective coaching sessions are also organised with the aim of continuing the creation of a dense network of actors capable of promoting innovation.

Summer schools for students and teachers

The training is organized in a blended learning format It starts with the online kick-off meeting to introduce basic concepts around innovations (adoption, diffusion) and advisory methods to bring all participants to the same level of knowledge. The five-day in-presence workshop in Ireland allows participants to acquire methodological competencies (attitudes and skills) that are necessary to facilitate interactive innovation processes and reflect their own role through an experiential learning approach. The training is completed with an online webinar that encourages participants to reflect on how they have or could use their learnings from the course. The training will be conducted by experienced trainers (and advisors), and together with a field visit, practical innovation cases will be discussed.

More information on the i2connect project website

https://i2connect-h2020.eu/

Annex 2: list of CECRA training modules

Since 2009, the IALB (International Academy for Rural Extension) manages a qualification and competence development program for consultants in rural areas. The various training modules are offered by a network of training institutions across Europe. At the end of the programme, the trainees receive a Certificate for European Consultants in Rural Areas (CECRA).

Here are the 20 modules currently available:

M01 My Profile as a Consultant

M02 Communication and Relationship Building in Advisory Work

M03 Teamwork and Team Leadership

M04 Rhetoric / Presentation

M05 Self-Management and Time Management

M06 Project Management

M07 Shaping Advisory Processes

M08 Handling Changes / Change Management

M09 Moderation Training

M10 Marketing of Advisory Services

M11 Designing and Implementing Events

M12 Advising and Supporting Groups and Teams

M13 Basics of Mediation

M14 Advising and Supporting Businesses in Strategic Issues

M15 Introduction to Coaching

M16 Shaping Innovation Processes – Accompanying Network

M17 Basics of Participation

M18 Individual company consulting online

M19 Working with groups online

M20 Reflection and further development of own consulting practice

Annex 3: Other relevant training courses

Creating innovative agricultural advisory services through a Living Lab (in English, online, 10 hours)

This free online course explains what Living Labs are in general and as used in agriculture, and then specifically describes the principles, approaches and tools used by AgriLink's six Living Labs. AgriLink was a project funded by the European Union's Horizon 2020 research and innovation programme.

https://www.open.edu/openlearncreate/course/view.php?id=6378

MOOC "advice and innovation in agriculture" (in French, online, 6 hours)

This MOOC highlights the need for innovation for farmers and other actors in the agri-food chain who are facing a whole range of challenges, and the role played by advisors in innovation processes.

https://www.fun-mooc.fr/fr/cours/mooc-conseil-innovation-en-agriculture/

Innovation on the ground: identifying, developing and capitalising on it (in person, 3 days, in French)

This course aims to :

- Understand the diversity of approaches to tracking down innovations in the field and the different methods used.
- Learn questioning in order to understand, analyse and synthesise.
- Link tracking with other R&D tools to ensure that the systems complement each other.
- Evaluate the capitalisation and promotion of the innovations identified.

https://resolia.epsilon-informatique.net/FormeisFC/Extranet/index.php?mod=3&ni=0f0e7a777b8a31c67933dd91e57b70ff