FIELDS – Blueprint 612664 – 1/1/20-31/12/23

WP1– Skills needs identification

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Kick-off meeting

3-4 February 2020

University of Turin, Italy

WP1 Info

WP Start/end date: M1-M15

Partners involved (PMs): UNITO, CONFAGRI, ICOS, ISEKI, FIAB, SCOOP, UHOH, CEPI, FDE, ACTIA, ANIA, EFFAT, CERTH, EFB, PlantETP, AP, LVA, SEVT, FIAB, UCLM, PA, GZS-ZKZP, AC3A, BIC, EfVET, FENACORE, UCLM, SCOOP, UHOH

Aim: general overview of the **labor market** in agriculture, forestry and related sector (including the bio-economy) in order to define present and **future skills needs** related to Sustainability, Digitalisation and Bioeconomy

Main Objectives:

- Analysis of the state of the art, both on **training content** and on **EU instruments for skills transferability** (ESCO, ECVET, ECTS), with a database.

- **Mobilisation of all relevant stakeholders** following a multi-actor approach: Participation to **focus groups** to define future trends and skills needs. Multiplication of the focus groups outputs through **bottom-up surveys**

- **Analysis of the future trends** related to Sustainability, Digitalisation and Bioeconomy through scenarios and forecasting analysis.

WP1 Task Overview

Project activity*	MONTHS	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15
				January											January	
WP1																
1.1 - State of the Art							D1.1&2									
1.2 - Stakeholders strategical mapping, mobilisation							D1.3									
1.3 - Country and EU focus groups							D1.4			D1.5						
1.4 - Bottom-up surveys											D1.6		D1.7			
1.5 - Future trends analysis																D1.8
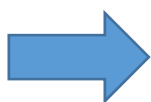
➤
- **Analysis of the future trends** related to Sustainability, Digitalisation and Bioeconomy
- **skills needs** & **gaps**, **training needs** & **gaps**

1.1 UNITO: Database on **curricula**, **best practices**, **projects**, (EU, regional), examples of **policies** and **initiatives**

1.2 LLL-P: Database on **education** and **VET providers,** database on **stakeholders**

1.3 ISEKI: Focus group analysis

1.4 ICOS: Online surveys

1.5 WUR: Future trends and gaps

WP1 Deliverables & Milestones

Deliverables

- **D1.1:** *Stakeholders strategic plans and analysis report (M6):* **UNITO**

- **D1.2:** *Repository/Database of previous projects, results and best practices (M6):* **UNITO**

- **D1.3:** *VET list and classification (M6):* **LLL-P**

- **M D1.4:** *Focus group guideline (M6):* **ISEKI**

- **M D1.5:** *Focus group analysis (M9):* **ISEKI**

- **D1.6:** *Web-based questionnaire (M10):* **ICOS**

- **D1.7:** *Survey analysis (M12):* **ICOS**

- **D1.8:** *Scenarios analysis (M15):* **WUR**

T1.1 State of the Art

Duration: M1-M6

Leader: **<UNITO>** (25+80d)

Involved: All

T1.1 State of the Art

- all partners will provide information related to their domain: **curricula** available, **best practices**, relevant **projects**, (EU, regional), concrete examples of **policies** and **initiatives** at national levels.

- UNITO will create a **database** (online input form, T4.3): User Requirements – Functional Specifications – System Specifications (example: https://db.iseki-food.net/digital-library/output)

1. **Agricultural sustainability, management of natural resources and climate action:** UNITO, CONFAGRI, ICOS, ISEKI, FIAB, SCOOP, UHOH, CEPI, FDE, ACTIA, ANIA, EFFAT, CERTH, EFB, PlantETP, AP, LVA, SEVT, FIAB, UCLM, PA, GZS-ZKZP, AC3A, BIC, EfVET, FENACORE

2. **Digital technologies, digitalization, big data and artificial intelligence:** UHOH, CERTH, EFB, PA, UCLM, SCOOP, UNITO

3. **Bio-economy, circular economy and bio-based products: ISEKI**, FIAB, LVA, UHOH, CEPI, AP, CERTH, EFB, ACTIA, SEVT, UCLM, ICOS, SCOOP, AC3A, CONFAGRI, BIC, EfVET, PlantETP

- *D1.1: Stakeholders strategic plans and analysis report (M6)*
- *D1.2: Repository of previous projects, results and best practices (M6)*

T1.1 State of the Art

example: https://db.iseki-food.net/digital-library/output

Free databases for the food sector

ISEKI Food Association

Home   Digital Library   Experts database   Login   Imprint

Digital Library for the Food Sector

The ISEKI-Food Digital Library, initially developed by the FooD-STA project and integrating inputs from the ISEKI-Food Network, the TRAFOON Project and SEA-ABT Project offers a collection of digital teaching materials covering different target groups, categories and formats, such as tutorials, eBooks, Audios, and Videos …

Although IFA has made every attempt to ensure the accuracy and reliability of the information provided on this database, IFA does not accept any responsibility or liability for the accuracy, content, completeness, legality, or reliability of the content and uploaded files enclosed in this database. This is of the entire responsibility of the contact person.

Click here the create a new entry into the digital library

Usage instructions
Results are displayed below the search options, you may need to scroll down to see them.
Please use the search options to filter the results for the content you are interested in.
Simply select the appropriate checkboxes and then click on the "Apply" button.

Target groups	Sector	Category	Language	Training Formats	Title contains ...	Keywords
☐ Students	☐ Fish	☐ Quality & Safety	☐ English	☐ PDF file		
☐ Trainers & Teachers	☐ Fruits & Vegetables	☐ Entrepreneurship	☐ German	☐ eBook		
☐ Professionals	☐ Grains	☐ Primary Production	☐ French	☐ Audio	**Source project**	
	☐ Meat	☐ Processing	☐ Spanish	☐ Video	☐ FooD-STA	Apply Reset
	☐ Poultry & Eggs	☐ Hygienic Design	☐ Portuguese	☐ Web page	☐ SEA-ABT	
	☐ Oil & Fat	☐ Labelling	☐ Italian	☐ Flash Animation	☐ Other or no project applicable	

T1.1 State of the Art

example: https://db.iseki-food.net/digital-library/output

Target groups
- ☐ Students
- ☐ Trainers & Teachers
- ☐ Professionals

Sector
- ☐ Fish
- ☐ Fruits & Vegetables
- ☐ Grains
- ☐ Meat
- ☐ Poultry & Eggs
- ☐ Oil & Fat
- ☐ Dairy
- ☐ Confectionary
- ☐ Beverage
- ☐ Education & Training
- ☐ By-products & Waste
- ☐ Food
- ☐ Other
- ☐ Entrepreneurship
- ☐ Fruits
- ☐ Vegetables

Category
- ☐ Quality & Safety
- ☐ Entrepreneurship
- ☐ Primary Production
- ☐ Processing
- ☐ Hygienic Design
- ☐ Labelling
- ☐ Marketing
- ☐ Packaging
- ☐ Product development
- ☐ Soft skills
- ☐ Food engineering
- ☐ Food Analysis
- ☐ Food Chemistry
- ☐ Food Microbiology
- ☐ Nutrition
- ☐ Biotechnology
- ☐ Statistics
- ☐ Food law
- ☐ Miscellaneous

Language
- ☐ English
- ☐ German
- ☐ French
- ☐ Spanish
- ☐ Portuguese
- ☐ Italian
- ☐ Greek
- ☐ Slovenian
- ☐ Czech
- ☐ Dutch
- ☐ Polish
- ☐ Serbian
- ☐ Hungarian
- ☐ Thai

Training Formats
- ☐ PDF file
- ☐ eBook
- ☐ Audio
- ☐ Video
- ☐ Web page
- ☐ Flash Animation
- ☐ Simulation
- ☐ Online course
- ☐ Webinar
- ☐ Demonstration

Title contains ...
[   ]

Source project
- ☐ FooD-STA
- ☐ SEA-ABT
- ☐ Other or no project applicable

Keywords
[   ]

[Apply] [Reset]

T1.1 **State of the Art**

example: https://db.iseki-food.net/digital-library/output

Title	Category	Sector	Target groups	Training Formats	Language	Added (sortable)
Hygienic design for mix proof valve	Hygienic Design, Food engineering	Dairy, Beverage	Students, Trainers & Teachers, Professionals	Audio, Demonstration	Thai	*11 months 5 days* ago
Application of Metabolomics Technology for Investigation of Biomolecular Profile of Milk and Dairy Products	Food Analysis, Food Chemistry	Dairy, Food	Students, Trainers & Teachers	Web page	Thai	*11 months 1 week* ago
Kefir: Biotechnology from "~omics" Perspectives	Food engineering, Biotechnology	Dairy	Students, Trainers & Teachers	Web page	Thai	*11 months 1 week* ago
Metabolomics as an Emerging Strategy for the Investigation of Yogurt Components	Food Analysis	Dairy	Students, Trainers & Teachers	Web page	English	*11 months 1 week* ago

How It's Made? Apple juice | Episode 8. Clean in place station.

Sector: Beverage
Education & Training
Fruits
Category: Quality & Safety
Processing
Hygienic Design
Food engineering
Description:
CIP station manufactured by B&P Engineering is used for washing installations, devices and pipelines in the production line in CIP (clean in place) system. In the production process of juice and concentrates, B&P Engineering washing station ensures cleanliness and hygiene in process tanks and storage tanks as well as in pipelines transporting raw material in pipelayers. CIP benefits: • High effectiveness and efficiency • Easy maintenance • Fully automated controls with visualisation and archiving of processes Washing products are prepared in the station in the form of working solutions and pumped to the device or installation which is to be cleaned. Then, they circulate in a closed circuit between CIP station and a given device within the time which ensures thorough cleaning at a set temperature. Washing temperature and solution concentration undergoes ongoing verification and automatic adjustment. A washing procedure consists of the following phases: - recovery of the products remains from the technological system, - pre-rinsing of superficial staining, - washing with the use of cleaning agents (acid washing and alkali washing), - rinsing with clean water, - optional disinfection Closed circuit washing allows for cleaning agent economy and reduction of sewage discharged. Working solutions are prepared in the CIP station in the concentrations recommended by the manufacturer and in adequate temperatures. Solutions are retained in three tanks insulated with a double coat and fed by a pump as needed.
Target groups: Students
Trainers & Teachers
Training Formats: Video
Keywords:
Apple juice, Clean in place, CIP, Cleaning
Language: English
First name:
Taweepol
Last name:
Suesut
Organisation:

ISEk

Contact person

Organisation

Contact person

File Attachment

Add a new file

[Choose file] No file chosen   [Upload]

Files must be less than **20 MB**.
Allowed file types: **pdf doc docx xls xlsx ppt pptx gif png jpg jpeg zip rar**.

Source project *

○ FooD-STA

○ SEA-ABT

○ Other or no project applicable

Approved

○ N/A

● No

○ Yes

☐ Yes, I as contact person understand, that IFA does not accept any responsibility or liability for the accuracy, responsibility of the contact person. *

You must tick the checkbox to submit your entry to the database.

T1.2 Stakeholders strategic mapping and mobilisation

Duration: M1-M6

Leader: **<LLL-P>** (20+40d)

Involved: All

T1.2 Stakeholders strategic mapping and mobilisation

- **Database on education** and **VET providers'** (T4.3): User Requirements – Functional Specification – System Specifications. The database will register and index the providers with their activities, certification, curricula, interest for collaboration, search for partners, language and place. A target of 30 institutes is set for year one and a target of minimum 120 is set until the end of the project. Example: https://www.foodcareers.eu/search-training-activities

- **Database of stakeholders** (farmers, farmers' representatives, farmer's advisors, foresters' representatives and advisors, chamber of agriculture, unions, VET providers, universities, trainers, industries, industry representative) that might have an interest in the project. Those stakeholders will be involved in WP7 and will be contacted to provide specific information when needed.

- CONFAGRI will coordinate the **classification of the target groups and their accessibility (**D1.3 to be used for WP2 and WP3**)** to:
  - identify potential gaps in the scope and reach of the target groups and plan contingency measures
  - analyse the evolution of empirical practices towards a structured pedagogical approach aimed at large target groups

- *D1.3: VET list and classification (M6)*

T1.2 Stakeholders strategic mapping and mobilisation

Example: https://www.foodcareers.eu/search-training-activities

Search Training Activities

Training activities are listed in the table below. You may want to apply filters and/or search in several fields to reduce the number of results. If you want for example all activities in a specific language, just choose the language and click on the [Apply] button, but you can also further apply filters like type of activity, certified activities, etc.

City

Type of activity
- e-Learning course
- Workshop
- Seminar
- Webinar
- Conference
- Course

Format
- ✓ - Any -
- Onsite
- Virtual
- Blended

Apply

Title	Type of activity	Format	City	Country	Name of certificate	Workload in hours	Date
EuFooD-STA Webinar "Sym'Previus for beginners"	Webinar	Virtual	Vienna	Austria		2	06/14/2017
EuFooD-STA webinar "EN ISO/IEC 17025 Standard - General requirements for the competence of testing and calibration laboratories. Food Safety Application"	Webinar	Virtual	Vienna	Austria		2	06/13/2017
EuFooD-STA Webinar "Bacillus cereus from a food industrial perspective"	Webinar	Virtual	Vienna	Austria		2	05/30/2017
Oat protein as an alternative protein source for semi-solid foods	Webinar	Virtual	Vienna	Austria		2	05/29/2017
EuFooD-STA Webinar "Marketing strategies - importance of labelling and trust in the supply chain"	Webinar	Virtual	Vienna	Austria		2	05/24/2017

T1.3 Country and EU focus groups

Duration: M2-M9

Leader: **<ISEKI>** (25+35d)

Involved: AC3A, ACTIA, AERES, ANIA, AP, BIC , CEPI, CERTH, CONFAGRI, EFB, EFFAT, EFVET, FDE, FENACORE, FIAB, GAIA, GZS, ICOS, LLL-P, LVA, PlantETP, SCOOP, SEVT, UCLM, UHOH, UNITO, WUR

T1.3 Country and EU focus groups

- **AIM:** provide an overview of the skills & gaps and training needs & gaps by collecting **qualitative data** with **focus groups** about skills in the agriculture, forestry and bio-economy sector.

- They will be conducted by inviting at least **5 different profiles** involved in each focus group: education providers, advisors, farmers, foresters, agrifood companies, forest industries (incl. paper) and cooperatives.

data to be collected about:

- **Needs** in **agriculture and forestry**: classified into 4 main categories: sustainability, digitalisation, bio-economy, soft skills

- **Needs** in **Industry** (extrapolate **skills needed** in agriculture and forestry based also on industry needs)

- **Existing training** in response to identified needs, and **missing training** for the identified needs

- **target groups** for the training and curricula definition

- Best **methods** to deliver trainings to each target groups

T1.3 Country and EU focus groups

- ISEKI will draft a first version of focus groups conduction guideline in **M5**.
- **M6**: To ensure that all skills needs are covered, partners will revise and complete the guidelines with their own field specific information as follow:
  - **Agriculture & sustainability:** UNITO, CONFAGRI, ICOS, AP, UHOH, GAIA, CONFAGRI PT, SCOOP, GZS, UCLM, AC3A, FENACORE, Plant ETP, PA, FJ- BLT
  - **Food Industry and bio-economy:** WUR, ISEKI, ICOS, AP, UHOH, CERTH, ACTIA, SCOOP, GZS, LVA, FIAB, SEVT, ANIA, FJ-BLT
  - **Certification, quality assessment and European harmonisation :** AERES, INFOR, LLL-P, EFB, EFVET,
  - **Digitalisation, Digital Technologies, Big data :** UNITO, WUR, UHOH, CERTH, SCOOP, AC3A, FJ-BLT, EFB
  - **Forestry:** AP , CEPI
  - **Water management:** UCLM, FENACORE,
  - **Soft skills**: UNITO, CONFAGRI, INFOR, EFB

D1.4: Focus group guideline (M6)

T1.3 Country and EU focus groups

focus groups conducted **M6-M8 (June-August):** <mark>audio recorded</mark> for analysis through IMAGIO (IBM Watson Speech to text) – carry out <mark>test</mark> for microphone and language

1. CONFAGRI + UNITO in **Italy**
2. ICOS in **Ireland**
3. FIAB + UCLM, FENACORE and SCOOP in **Spain**
4. AERES + WUR in **Netherland**
5. ISEKI + AP, LVA, JF-BLT in **Austria, June**
6. UHOH + Farmers Federation, BLL and BVL in **Germany**
7. EFB + GAIA, SEVT, CERTH in **Greece**
8. ACTIA will organise a <mark>brainstorming session</mark> with ACTIA experts network in France
9. ANIA + AC3A in **France**
10. GZS-ZKZP in **Slovenia**
11. CEPI will organize a focus group on forestry issues **in Brussels** and will participate to the one organised in Brussels.
12. One focus group will also be organised in **Brussels** with a more **policy oriented focus** with the involvement of EU umbrellas organisations: LLL-P, EfVET, ISEKI, FDE, COPA – COGECA RES WP and EIP-AGRI focus groups members.

D1.5: Focus group analysis (M9)

T1.4 Bottom-up surveys

Duration: M9-M12

Leader: **<ICOS>** (45 days)

Involved: All

T1.4 Bottom-up surveys

- **M9: draft a web-based survey** to assess **skills needs** & **gaps**, **training needs** & **gaps** in agriculture, forestry and bio-economy, including green and digital skills, based on D1.5

- **M10: Review** of survey by T1.3 participants and CONFAGRI, AP, SCOOP, LVA, FENACORE, FIAB, LLL-P, EFB, FJ-BLT, CEPI.

- **M11: translations** by partners in T4.4. (English, German, French, Greek, Italian, Dutch, Spanish, Slovenian, Finnish) and put **online**. **Dissemination** through newsletters, website, mailing campaign, social media, meetings, etc. and gathering **feedbacks** by all partners from a variety of stakeholders (agriculture, bio-economy, water, forestry, food industry, ...).

- CEPI will carry out similar surveys in the context of its COSME project.

At least **300 questionnaires** will be analysed by ICOS and ISEKI. The outcomes will be used in the future trend analysis (T1.5) and synthesized in a report in M12.

D1.6: Web-based questionnaire (M10)

D1.7: Survey analysis (M12)

T1.5 Future trends analysis

Duration: M8-M15

Leader: **<WUR>** (Days)

Involved: AC3A, ACTIA, AERES, ANIA, AP, CEPI, CERTH, CONFAGRI, CONFAGRI PT, EFFAT, EFVET, FDE, FENACORE, FIAB, FJ-BLT, GAIA, ICOS, INFOR, ISEKI, LLL-P, PA, Plant ETP, SCOOP, SEVT, UCLM, UHOH, UNITO, WUR

T1.5 Future trends analysis

- **M8:** WUR: Design a **common methodology** (based on foresight scenarios) for assessing the current and anticipating future needs, as well as for monitoring the progress, evolution, demand and supply of skills. A scenario is illustrating aspects of possible future, it doesn't predict it but rather simulate possibilities.

- **M10:** WUR, UNITO, ISEKI, PlantETP, ICOS, GAIA, FDE, CONFAGRI, PA, FJ-BLT will perform a **trend study** through a deep analysis of the new technologies and innovation The following trends will be taken into consideration:
  1. Sectoral growth strategy, with particular emphasis on sustainability
  2. Digital technology use, IA use, Big data use
  3. Green economy (circular economy and bio-economy included) and forestry issues
  4. Soft skills and entrepreneurship

T1.5 Future trends analysis

APPROACH

- Trends in <u>digitalization, bioeconomics</u>, systainability, soft skills (covering the value chain)

- Scenario development

  - Future skill needs (elaborate on T1.3 and T1.4)

- State of the art of education and training methods (from T1.1 and T1.2)

- Analysis of best practices in education and training (from T1.1, T1.2 and T1.3)

- Education and skills to be developed (harmonized over EU?) for different scenarios (elaborating on T1.3 and T1.4)

WAGENINGEN UR
For quality of life

DRIVERS
- Political (EU-national), social (e.g. consumer demands), cultural (e.g. eating habits), economic (supply chain parties, sectors, markets), environmental, technical (ICT and others), legal (EU and country, e.g. Nitrogen levels in the Netherlands)

Differentiation
- Different sectors (horticulture, arable farming, dairy, red meat etc.)
- Different regions in Europe with different stage of development
- Growth strategies in different sectors and regions (e.g. concentration)
- Farm/company size, type of management (e.g. family farm or not)
- Type of production system (extensive-intensive farming, ecological/organic production, urban/vertical farming, etc,)
- Business models (Supply Chain)

➢ **scenarios** will be established on 3 on EU and 3 on national level for: digitalization, bio-economy, sustainability and soft skills

D1.8: Scenarios analysis (M15)

Q&A

- …