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D.T2.3.3.

Training modules development

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Task n°:	Activity A.T2.3
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Deliverable History

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o.1	30/11/2017	Draft	First draft of the deliverable
0.2	27/12/2017	Draft	Lead Partner feedbacks included
1.0	26.06.2018	Final	Finalization

Deliverable History

Executive Summary

The present document provides the structure of the two training processes foreseen in the whole training programme:

- The "Train the Trainer Course" (TTC): addressed to trainers (intermediary coordinators that will organize and manage the local Operator Training Course), in order to show them the main objectives of the process training. The TTC lasts 2 days, and it is combined with a 2 days session of Study visits: 1 in Milan and 1 in Stuttgart

- The "Operator Training Course" (OTC): addressed to intermediary organizations' members, in order to improve their knowledge, skills and capabilities to promote digital innovation and support SMEs in the digitization integration process. The OTC lasts 5 days.

Contents

1. Introduction

This document provides the elaboration of the training modules fot the Train the Trainers Course (TTC) and the Operators Training Course (OTC).

In particular, the TTC is thought to provide regional coaches with basic knowledge on digital technologies and innovation, methodologies&tools to support local training for digital support operators and cross-fertilization with clusters managers.

The OTC has the main goal of providing Alpine Space Intermediaries with the needed competences and information to deal with changes that the new Industry 4.0 Paradigm. It will enable them to provide a first response to the demands of companies.

2. Objective of investigation/objective of the deliverable

The present deliverable D.T2.3.3, aims at developing the training modules for coaches and operators, providing knowledge on the digitial technologies, methods to assist SMEs, the setting-up of joint projects for SMEs.

In particular, the Training Programme process is addressed to operators belonging to Intermediary Organizations (Clusters, professional organizations, innovation agencies, technology transfer organizations, etc.).

The final objective of the training programme is to provide Alpine Space Intermediaries with the needed competences and information to deal with changes that the new Industry 4.0 paradigm will bring to businesses, enabling them to provide a first response to the demands of companies. In particular, the course aims at improving their knowledge, skills and capabilities to promote digital innovation and support SMEs willing to embarking the digitization journey.

3. Training modules development

The main goal of the whole Training Process is to provide Alpine Space Intermediaries with the needed competences and information to deal with the changes of the new Industry 4.0 paradigm, enabling them to provide a first response to the demands of companies willing to embark the digitalization process.

The Training Process is composed of three main activities:

1. One Train the Trainer Course (TTC)
2. Two Study Visits (1 in Milan and 1 in Stuttgart)
3. One Operator Training Course (OTC) per Region

3.1   Train the Trainers Course (TTC)

The next step elaborates the training program in line with the set objectives, which means define the structure of the course, how it will be organized in detail.

In particular, the following phases have to be encompassed:

1) **Identification of Trainers (titled "Coaches"):** local intermediary coordinators (e.g. cluster managers, chamber of commerce officer, industrial association officer etc) that will organize and manage the operator training course. Coaches could also be the Project Observes.

(1 Coache have to be chosen per PP. They can be also suggested by local authority)

Elaboration of Train the Trainers Course (TTC). This preliminary course is addressed to the identified Coaches, in order to show them the main objectives of the process training as well as the main tools to be used.
The proposed general structure of the TTC is the following:
1.   SMART-SPACE introduction:
     i.   Project objectives
     ii. Platform and tools
2.   Training process methodology:
     i.   ***Objectives of the Operator Training Course (OTC):*** Clarify the main goals and objectives underlying the OTC.
     ii. ***Selection of experts***: People in charge of carrying out the operators training course. Experts are experienced professionals, either academic, business, industry experts, that have to provide the material for the specific modules of the course. A template is proposed to help trainers in selecting experts (see annex 4.1). The contract model will be defined based on specific agreements from the trainers and experts.
          Deadline: Identification and selection of Experts by March 2018
     iii. ***Preliminary Intermediary Assessment***: evaluation assessment of intermediary' operators' current CV, in order to investigate their level according to the skills highlighted in the CV profile. This assessment is performed by the Trainers and it will be performed online, available on the platform. From the result of the assessment, the lowest level will be considered as reference level to set the operator course. Some module can be skipped for high skilled operators.

iv. **Implementation of the Operators Training Course (OTC)**: this is the course addressed to intermediary organizations' members. Each Trainers, supported and coordinated by the PPs, has to organize one OTC in accordance to the overall structure of the course provided, considering a 5 days training (8 h per day). The PPs are responsible for the successful implementation of the course and have to monitor attendances/experts/material/etc.
Deadline: 1 OTC per Region has to be implemented by August 2019 and reported by October 2019. All material available in the platform.

v. **Content of the OTC:** In this session, the main structure of the otc NEED TO BE EXPLAINED.

3. Available tools to assess companies Digital Readiness Level: overview of the main available tools.
4. Basic knowledge on Digital Technologies: This session will provide Trainers with basic knowledge on digital technologies
5. Regional context illustration (why participating to the study visits?)

The TTC will be conducted face-to-face, in English, and the material (ppt, video) available on the AS DIH platform. A report for each course will be provided (AFIL for Milan and bwCON for Stuttgart).

The following template presents the proposed thematics to be addressed by the operators training course

TRAIN THE TRAINERS COURSE MODULES

Objective of the course

2-days Train the Trainer Course to provide the identified regional coaches with basic knowledge on digital technologies and innovation, methodologies&tools to support local training for digital support operators.

Target

12 Regional coaches (1 per PP): Intermediary institutions representatives, cluster managers

MODULE	ADDRESSED THEMES
1. Introduction (30 min)	• Overview of EU policies on digitization /Concept of DIH Speaker: verify DGConnct/EU Commision Or Jean Jacque/Nicholas Chehane
2. SMART-SPACE Introduction (1 hour)	• Project Objectives (LP) • SMART-SPACE Platform Overview (AFIL) • SMART-SPACE Tools addressed to: ○ SMEs

		o Intermediaries
		o Policy makers
3. What do we expect from the Coach / Explaination od the OTC objectives and process Edouard (2 hours)	• Objectives of the Operator Training Course (OTC) • Experts selection • Preliminary Intermediary Assessment • Implementation of the OTC • Overview of the main contents of OTC	
4. Basic Knowledge on Industry 4.0 Experts from Lombardy (2 hours)	• Overview and basic knowledge on digital and enabling technologies • Organizational/Management/cultural needs/changes	
5. Available tools to assess companies Digital Readiness Level Sebastien Lombardy expert (1 +1 hours)	Overview of the main tools and methods that Intermediaries to assess companies digital maturity level. - what is an assessment tool, its objectives. 2.2.4 + Lombardy tool explanation as one example of best practice.	
6. Study Visits AFIL/bwcon (1 hour)	Explanation on the contents and purposes of the Study Visits planned in Milan and Stuttgart.	

3.2   Study Visits

Then, the TTC will be finalized with 2 Study Visits

1. Study Visit in Milan addressed to clusters under Indstry 4.0 and involving representatives from Vanguard Initiative;
2. Study Visit in Stuttgart addressed to SMEs and involving Industry 4.0 Allianz for Baden-Wuerttemberg.

3.3   Operators Training course (OTC)

The following template presents the proposed thematics to be addressed by the operators training course.

OPERATORS TRAINING COURSE MODULES

Activity:
Propose the thematics that will be in the operators training course. In particular, skills identified in the D.T1.3.4 CV Profile have been taken into consideration.

Objective of the course
Provide Alpine Space Intermediaries with the needed competences and information to deal with changes that the new Industry 4.0 Paradigm will bring to businesses, enabling them to provide a first response to the demands of companies. A

particular attention will be dedicated to SMEs that characterized the Alpine Area belonging to the sectors addressed by the project: textile, mechanical, chemical sectors.

Target
Intermediary institutions.

Proposed thematics:
1. INDUSTRY 4.0 SCENARIO
2. AVAILABLE INSTRUMENTS FOR COMPANIES AND INTERMEDIARY NETWORK
3. INDUSTRY 4.0 AND ORGANIZATIONAL CHANGES: IMPACT ON BUSINESSES AND NEW SCENARIOS
4. OVERVIEW OF ENABLING TECHNOLOGIES
5. CASE STUDIES
6. THE APPROACH WITH COMPANIES: TOOLS AND METHODS AND FOLLOW-UP OF THE TRAINING PROGRAM

MODULE	ADDRESSED THEMES

1. INDUSTRY 4.0 AND ORGANIZATIONAL CHANGES: IMPACT ON BUSINESSES AND NEW SCENARIOS
 	
(4 hours)
	• Introduction to industry 4.0 concept and manufacturing trends
	• The transformation of socio-economic systems:
	  o the Connected Economy;
	  o the Sharing Economy;
	  o the Open Innovation Economy;
	  o the Economy of customization of servitization.
	• Digital revolution: digitization of products (B2C and B2B) and production processes;
	• The evolution of the factory on Industry 4.0 perspective: introductory aspects;
	• Industry 4.0: the leading enabling technologies;
	• Industry 4.0: potential impacts on production models and processes;
	• Industry 4.0: needed competence skills and impacts on people;
	• Examples of application of Industry 4.0 technologies;

2. AVAILABLE INSTRUMENTS FOR COMPANIES AND INTERMEDIARY NETWORK (4 hours)	• National specific Plan and policies (e.g. Piano Calendar for Italy) • In-depth analysis on specific policy instruments/initiatives to support companies undertaking the digitalization process • Knowledge of local network (other intermediary organisations in the region, companies offering services beneficial to SMEs, agencies, universities, research institutions, government official) • Method and criteria to identify the network, to find needed competence and to create connection and partnership
3. INTRODUCTION TO INDUSTRY 4.0 ENABLING TECHNOLOGIES (8 hours)	• Advanced automation and robotics • Industrial Internet of Things • Advanced industrial analytics e big data • Cloud computing • Cybersecurity

	• Rapid Prototyping and 3D printing • Artificial intelligence & machine learning; Human-machine interface; • Augmented Reality • Simulation
4. CHANGE MANAGEMENT AND BUSINESS MODEL INNOVATION (8 hours)	• Main principles of change management • Business model transformation / Service Innovation • Success case examples of companies innovating their business model
5. CASE STUDIES (8 hours)	• Company / Scientific organizations visit
6. THE APPROACH WITH COMPANIES: TOOLS AND METHODS AND FOLLOW-UP OF THE TRAINING PROGRAM (8 hours)	• Tools for the Analysis of Company Needs (Innovation, Organization, Human Capital) • Tools to assess the Industry 4.0 readiness of companies • Training evaluation and final assessment

Modules material (ppt, video,…) will be developed by the addressed experts

4. Annexes

4.1 Expert profile module

This module should help trainers in selecting experts that will hold the operator course.

EXPERT PROFILE

Name (Name and Surname):

Nationality:

Date of Birth:

Diplomas or Certificates received:

Organization:

Address:

Telephone Number:

E-Mail address:

Expert type:

☐ Content expert ☐ Networking expert ☐ Policy/funding expert

Key Qualifications

References