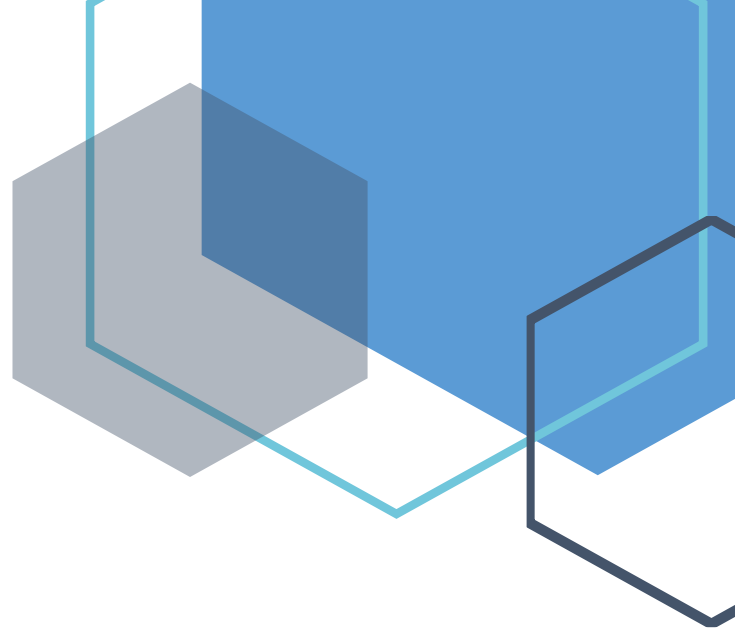




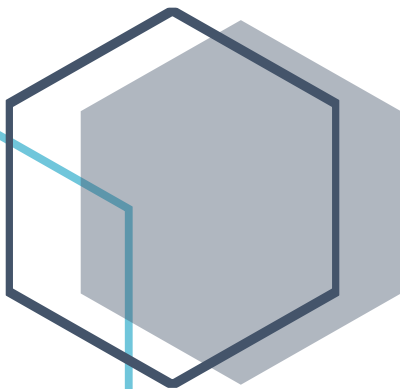
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BECOMING

Annexes – Methodology

(Formal version)



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 **ROSCIOLI**
development
By Roscioli Development srl

 **ilmiofuturo**
By ilmiolavoro srl



Table of contents

Table of contents	2
Introduction	3
1. Theoretical background to career guidance aimed at SME workers.....	3
2. Service development process	6
2.1 Methodology proposal to implement task A2.1 - Observation	6
A. <i>Collection of practices</i>	6
B. <i>Observation activities</i>	7
2.3 Short guidelines for the interviewer	8
2.6 A country report's framework including guidelines to describe the findings	9
3. Skill Roadmapping.....	12
3.1 <i>Preparation</i>	12
3.2 <i>Workshops</i>	13
4. Skill design.....	25



Introduction

The document describes the different methodologies applied to create the Intellectual Output n. 1. At the beginning of the document the reader finds some words regarding the definition of field of work of the mentioned output.

1. Theoretical background to career guidance aimed at SME workers

Over the last decade very often we have been meeting the words “career guidance”, “personal development plan”, “individual development plan”, “career development plan” in reading or listening contents related to the pathways to be undertaken by people in their personal and professional life (usually educational or training pathway in case of students, career pathway in case of workers). And very often there is an overlapping among these terms since their meanings are very similar. This document doesn’t have the aim to provide any scientific definition of these words. Anyway, below we simply provide a short explanation, in some cases along with theoretical background, of them.

Career Guidance

“Career guidance can be defined as a comprehensive, developmental program designed to assist individuals in making and implementing informed educational and occupational choices. In simple words, it is a journey on which people develop to make mature and informed decisions. Career guidance is the guidance given to individuals to help them acquire the knowledge, information, skills, and experience necessary to identify career options, and narrow them down to make one career decision. This career decision then results in their social, financial and emotional well-being throughout”¹.

¹ <https://www.mindler.com/career-guidance-meaning-benefits-importance>



“It began in the years of Frank Parson as a trait-factor approach in the early twentieth century², and slowly evolved to become a rather mature discipline today in the twenty-first century with a strong theoretical and empirical base, with the potential to further develop into a more “global” discipline in the years ahead. Indeed, vocational and career related issues are salient across different cultures and nationalities³. In an age of economic globalisation, all individuals are affected by an array of work-related concerns, some of these concerns are unique to certain cultures, but others are common to many cultural groups. The search for life purposes and meanings, the journey to actualise oneself through various life and work-related roles, and the efforts by nations to deal with problems of employment and unemployment, are examples of universal issues that seem to affect many individuals from diverse cultures”⁴.

*Personal development plan*⁵

“Personal development plan (PDP) normally incorporates a statement of one's education, competencies or strengths & weaknesses, aspirations, training, and steps to illustrate how the plan is to be ascertained. There is no single perfect definition to demonstrate personal development plan. Different author has interpreted PDP in different characteristics or habitual manner. The PDP can be defined as the process of generating an action plan based on reflection, awareness, objective setting and making synopsis for personal development in the substance of self-improvement, education or for career where Kotter⁶, interpreted PDP as a tool that assists an individual to learn from experience and accelerate to accomplish the required outcomes and objectives. Nevertheless, Rouse⁷, in his article “*Personal development*” concluded Personal development plan as a statement of an individual's lifestyle and career priorities, career positioning, exploration of opportunities, identifying risks and generate an alternative plan to achieve desired goals and objectives. Therefore, PDP is the process which is outlined to enable an individual to reflect and construct a planning for academic, personal, and career development of an individual. By engaging with PDP an individual will be benefited in following ways:

- Enhance self- awareness of an individual - who he/her is and what the individual want.
- Determine the skill and expertise that an individual has already gained and identify the gaps that they need to achieve.

² Betz, N. E., Fitzgerald, L. F., & Hill, R. E. (1989). Trait-factor theories: Traditional cornerstone of career theory. In M. B. Arthur, D. T. Hall, & B. S. Lawrence (Eds.), *Handbook of career theory* (pp. 26–40). Cambridge University Press.; Vernon G. Zunker, *Career counseling : applied concepts of life planning*, Brooks/Cole-Thomson Learning, Pacific Grove, CA, 2002

³ Hesketh, B., & Rounds, J. (1995). International cross-cultural approaches to career development. In W. B. Walsh & S. H. Osipow (Eds.), *Handbook of vocational psychology: Theory, research, and practice* (pp. 367–390). Lawrence Erlbaum Associates, Inc; Leung, L. (2004). Net-Generation Attributes and Seductive Properties of the Internet as Predictors of Online Activities and Internet Addiction. *Cyberpsychology & Behavior*, 7, 333-348.

⁴ James A. Athanasou, Raoul Esbroeck, “*International Handbook of Career Guidance*”, 2008

⁵ Kamrul Islam, 2016, *Personal Development Portfolio. Theory and Personal Objectives*, Munich, GRIN Verlag, <https://www.grin.com/document/591448>

⁶ Kotter, J. P., *Leading Change: Why Transformation Efforts Fail*. Harvard Business Review, 1995

⁷ Kenneth Rouse, *Personal Development*, South Melbourne : Oxford University Press, 2005



- Originate adequate appropriate plan to obtain the expertise and skills that an individual requires for academic studies and desired career path”.

Individual development Plan

It can be defined as a plan of action created to improve a person's knowledge, skills and abilities. An actionable plan for career growth and professional development. It can be thought as “a career roadmap, a way to assess where you are right now; determine where you want to go and how to get there... a document to use regularly to keep a record of completed developmental activities and to reflect any changes in your work assignments needs or goals”⁸.

Career Development

Career development can be defined as “lifelong process of managing learning, work, leisure, and transitions in order to move toward a personally determined and evolving preferred future. In other words, it is a lifelong process where in order to evolve and grow in a particular direction you have to go through transition⁹.

In organizational development the study of career development looks at:

- how individuals manage their careers within and between organizations
- how organizations structure the career progress of their members; it can also be tied into succession planning within most of the organizations”¹⁰

⁸ The Individual Development Plan (IDP) Process. An Employee’s Guide for Individual Development Career Planning” – U.S.N.R.C. 2008

⁹ CAREER DEVELOPMENT | Meaning in the Cambridge English Dictionary, n.d.

¹⁰ Learning training guide for career development and psychometric methods. From the Erasmus+ project “Inspire. Play your role in social enterprise” 2019-3-EL02-KA205-005215



2. Service development process

In order to design the package containing the guidance and career development (GCD) services for SMEs workers the partnership conceived and implemented a specific process. It was inspired by the design thinking approach based on some activities addressed to understand the real needs of the target group, the low skilled workers.

A **methodological package** has been created in order to implement the A2.1 tasks. This document is named "Observation". On it the partners have found the **methodology** and some **tools** they used to find information and insight on career guidance and development services to provide the low skilled workers.

The package consist of:

- 01 Methodology document where the partners find the description of the context of the Observation and a pathway they have to implement;
- 02 Practice's description template useful for the description of the existing and implemented services;
- 03 The interview grids including some guidelines about the information that have to be acquired; two types of grids:
 - o Addressed to the workers;
 - o Addressed to the entrepreneurs, managers, experts.
- 04 A database (MS Excel) where enter some data that will emerge from the interviews;
- 05 Some short guidelines for the interviewer;
- 06 A country report's template including guidelines to describe the findings.

2.1 Methodology proposal to implement task A2.1 - Observation

The task is aimed at discover:

- practices of existing career guidance and development services addressed to Low Skilled Workers (or to workers/adults in general)
- information on the current condition of the SMEs low skilled workers.

In the project application we described this task:

"Observation (study/research) on the condition of SMEs workers and identification of good practices. A set of observations (journey mapping), in-depth interviews to SMEs workers, SMEs managers, experts in personal development, along with the collection of good practices will give a clearer picture of the specific needs of the workers"

How to implement the task A2.1

A. Collection of practices

The practices have to be connected with the existing career guidance and development services addressed to Low Skilled Workers (or to workers/adults in general)



Why

We can take inspiration from the existing and tested services

What

Description of some career guidance and development services addressed to the workers or adults based on the specific template (https://www.becomingproject.eu/wp-content/uploads/2023/02/BECOMING_Guidelines_CGD_Operators_EN-3.pdf).

How

Each partner implement a desk research on the mentioned services. It is possible:

- Describe the services on the base of the template
- Complete the possible missing information contacting the responsible of these services/practices.

When

From July to September 20th, 2021

Tool

Description of the practice's template

B. Observation activities

Why

To know in-depth the condition of the workers, acquiring some information like:

- perception about the work stability/instability;
- perceived needs;
- sentiment on future;
- availability to do something;
- self-perceived specific skills

What

We have to do:

- creation of the interviews grids;
- in-depht interviews addressed to 6 low-skilled worker from 3 different SMEs in each country;
- in-depht interviews addressed to 3 entrepreneur/manager of SMEs in each country;
- in-depht interviews addressed to 2 experts in each country;
- information and data processing using also the data base.

How

- selection of the inviewed
- appointment and implementation of the interviews



- processing of the interview
- implementation of the country report

When

By September 30th, 2021

Tools

Grid interviews

Interview guidelines

Report Template including process guidelines

2.3 Short guidelines for the interviewer

Context

Semi-structured interviews are based on semi-structured interview guide, which is a schematic presentation of questions or topics and need to be explored by the interviewer. To achieve optimum use of interview time, the questions serve the useful purpose of exploring many respondents more systematically and comprehensively as well as to keep the interview focused on the desired line of action. The questions in the interview guide comprise of the core question and many associated questions related to the central question. In order to have the interview data captured more effectively, recording of the interviews is considered an appropriate choice but sometimes a matter of controversy among the interviewer and the respondent. Hand written notes during the interview are relatively unreliable, and the interviewer might miss some key points. The recording of the interview makes it easier for the interviewer to focus on the interview content and the verbal prompts.

STEPS

1. Prepare for the interview. Write down what information you want to obtain. You can do this by reviewing past observations and identifying the gaps. Ask yourself what areas of the topic you need your respondents to elaborate on.

2. Use the guide/scheme you have (the list that includes all the questions)

Remember this is not a formal interview, so you don't have to stick to the guide rigidly. It's just there to help remind you what you want to talk about.

3. Introduce yourself and build a rapport. Once the interviewee joins you, introduce yourself, get comfortable with one another, and explain the purpose of the interview. This includes presenting topics or themes you will cover during the interview.

4. Start with the simple questions and move to the complex questions. The best way to move through an interview is to start with the simple questions and then move to the more complex questions.

5. Be mindful of your questions. Asking the right types of questions is vital to the success of your interview. Make sure your questions are open-ended and avoid leading questions. Be sensitive if you're asking any probing questions.

6. Know when to end the interview. No interview should last longer than 45 minutes to 1 hour, but that doesn't mean you have to interview someone for that long. Whenever you feel like you have detailed answers to your questions, feel free to end the interview.

7. Write down your impressions. Right after you finish the interview, write down your impressions and insights.

8. Record the interview. You won't remember everything from your interview, so make sure you record it.

Important note: Semi structured interview means, that we go into interview with preliminary questions. As researchers, we make independent decisions to rephrase, to ask more questions in regard with each individual case (profile of a pupil and overall context). While interviewing we constantly keep focus on main research question and try to cover all dimensions.

Ethical norms: 1) Free will to participate; 2) Guarantee to keep interviewed names anonymous – use coding system; 4) Not sharing interview data with outsiders; 5) Not biased questioning and data analysis - suspending personal interests, knowledge, professional “wisdom”; 6) Not giving surplus meaning for a data during all phases of a research – relay on what is said and what comes from data itself, not from other sources.

Data recording: by audio means (Dictaphones, computers, phones, etc.) It is advisable to take hand notes while interviewing (to note important moments, thoughts, ideas, etc.)

How to transcribe the interview: It is advisable to do transcription as soon as possible after an interview. Transcription has to be accurate – with all pauses, intonations marked. The interview transcription grid has to be used (see file)

Coding system: give other name or number to every interviewee. Quotes have to be presented this way: Name_country (Jonas_LT ; Rita_PT; Chiara_IT; Ariana_RO)

Data analysis: All data analysis is done by looking at each single interview first.

First round: Transcription;

Second round: Careful reading of overall text;

Third round: Looking for an answers to the questions within text;

Fourth round: Searching for thematic units/ themes and subthemes;

Fifth round: Reading all text again and checking if nothing is left.

After all interviews are analysed, go again through all themes and subthemes and put them in one table. Maybe some themes and subthemes have to be revised and renamed. Look for a patterns and unique cases as well.

2.6 A country report's framework including guidelines to describe the findings

Please, describe the perceptions and representations of workers, managers/entrepreneurs and experts. Highlight common perceptions and representations and any differences. Comment through your interpretations, learned meanings, insights etc.

In each paragraph you find tips and indications about the contents that you should include on it. Of course you can also add unexpected findings consistent with the paragraph.

Framework

Perception of labour market exit risk

Describe whether and how the risk of workers leaving the labour market is perceived.

Describe the prevailing perceptions. E.g. the following:

- *they don't perceive it,*
- *they are aware but are managing the situation by doing something,*
- *they are aware but are not managing the situation*
- *they are worried and are doing something*
- *they are worried and are inhibited*

Add any other perceptions that have emerged.

Highlight if there is an interest in learning how to handle the situation.

Changes in progress: problems or opportunities?

Describe whether workers 'see' only crises/problems in change or whether they feel that there may also be opportunities for them. Highlight:

- *if workers blame someone/something or if they have "fresh eyes" to see what good things are there for them;*
- *whether they are willing to go and "pick up the good things", the opportunities that are there below the many changes.*

Describe your evaluation of the workers' disposition towards change:

- *they have to change something or they don't have to change*
- *do they have to evolve as everyone evolves or do they think that they have already arrived (because they have learnt a job), because they are getting older, because they have the right to have the job as they are, etc.).*

If the overall evaluation is that the workers think they should change something, describe what the workers think they should change (skills, job profile, ability to adapt to changes, etc.)

Looking for a new job

It is necessary to describe whether the workers are able to look for information about job opportunities or whether they know how to look for a job by using some methods, even self-created. Describe the assessment emerging from the perception about their interest in learning:

- *how to look for a job properly;*
- *how to look for information about opportunities.*

Emerging needs for skills and training

Describe if workers are able to look for training and updating opportunities, if they know information channels, if they receive proposals, if the employer offers them opportunities, if this is an activity they periodically do or don't do.



Describe their level of awareness with respect to:

- *half of the skills that will be useful to businesses will change within the next 5 years;*
- *what are the emerging needs for new skills and job profiles.*

Describe whether or not they are interested in increasing their awareness.

Describe the level of self-awareness on:

- *their skills*
- *those used at work and those used only out of work.*

Describe the possible interest and attraction to learn which competences they have, which ones they are not aware of, which ones they don't use at work.

Describe their actual willingness to train/upgrade.

Uncertainty management and work transitions

Describe how workers deal with to uncertainty, what effects it has on them, at work and in life. Understand whether workers see one or more job changes on their horizon. Describe whether there is a willingness of workers to be helped by learning how best to manage uncertainty through pro-active management of their career path and future job transitions.

Personal, Social & Learning to learn competence

Comment on workers' self-perceptions, perceptions of managers/entrepreneurs and experts with regard to current skills and desired or needed skills. Highlight differences, try to interpret what they feel.

Final comments and insights on services to be designed and implemented

On the basis of the acquired, developed please make overall comments and interpretations and define a set of insights useful for designing services to be implemented for low-skilled workers.

Appendix

Enter the survey tools

3. Skill Roadmapping

A Skill Roadmap development process has been created. Then Roscioli Development created some other methodological tools aimed to allow the partners to practically implement the Skill Roadmap: a facilitation guide, a description of the facilitator's competences, the guidelines for managing the workshops. All these information have been collected in a practical guide that describe how you can organize and facilitate a Skill Roadmap process. Here you find a lot of practical indications, the right questions and some key points.

It is an open document, we can include other useful information through the first feedback that you will send to Roscioli Development and through the needs and insight that you can find during the implementation of the Skills Roadmap.

In the Skills Roadmap there are three main phases:

1. Preparation
2. Workshops
3. Results descriptions

3.1 PREPARATION

Useful existing information should be identified and brought along to the workshops if appropriate, such as vision, strategic plans, market intelligence, product specifications, technology reports and skills databases. The best way to utilise this information should be considered, particularly in terms of planning and pre-workshop tasks. Information about product families or components and technology or skill areas can be used to define the structure of the roadmap. The format and content of the workshops may depend on what information is available and where there are gaps in knowledge. It should be noted the use of extensive documented information is not easy to manage within the workshop environment and should generally be avoided.

A process flowchart (based on agenda) is helpful, for design purposes, and also to remind participants how each activity contributes to the aims of the workshops. It is also helpful to annotate a copy of the agenda with facilitation notes, including contingency plans.

Workshops should be scheduled, depending on availability of participants. The standard T-Plan process comprises four day workshops. The timing of workshops is flexible; they can occur over an intensive period of two days, or be spread out over a month (the ideal is one per week), or any other arrangement depending on availability of participants. It is desirable to have sufficient time between workshops to enable information to be gathered and for review and planning meetings, involving the facilitator, business owner and other relevant people. The location chosen for the workshops should be suitable in terms of comfort and space (in particular, make sure there is sufficient wall space to put up flipchart sheets).



Planning Process

1. Focus (Sector;Product;Service...)

Define a specific sector in terms of products family. Please involve at least 5 SMEs with the following characteristics:

- they work on the same ecosystem;
- they share the same market;

If the products and the technologies are very different, please involve max two/three kinds of them.

2. Objectives;

Fix and share the objectives to do the Skills Roadmap. In Becoming project the objective is to know what will be the competences and the job profiles that the SMEs need in the next 5/10 years

3. Scope

The scope of the skills roadmap is connected both the SMEs and the workers:

- For the SMEs is to find what kind of competences and job profiles will help them to implement the emerging changes connected with the green and 4.0 transition and with the consequent market changes;
- For the workers is to know what are the future needs of the SMEs; they can use this information to choose in which competences area implement their permanent personal/professional development in the next years; in this way they can conserve an adequate employability rate/condition.

4. People

You have to involve the SMEs managers: Marketing, R&D, Product,

5. Schedule

In order to implement the following activities, you should share a timetable with the SMEs. Regarding the duration of each workshop, we recommend you to estimate carefully how many time you need. Half day each workshop is enough if you involve one SME with a specific product and technology. Evaluate carefully if you need to implement one day workshops.

3.2 WORKSHOPS

Workshop 1 Performance dimensions and trends

Step 1 Performance dimensions

To do

- Define the **VISION** of the involved SMEs
- Define the **PERFORMANCE DIMENSIONS**. Find the aspects of products produced by the involved SMEs, The performance dimensions are functionality and performance that are, or may be, important to the customer or business, and which technology, defined broadly as «knowhow», can deliver.

Ex: *speed, size, ease of use and reliability...*



After explaining to the participants what Performance Dimensions are, you have to launch and facilitate a *Dialogue on «Performance dimensions»*

The main activities are:

- dialogue on «performance dimensions»
- *order for affinity groups (optional)*
- note the «key dimensions»
- consider quantitative and *qualitative* dimensions;
- you can include "views" on the market, on the product or on the technology;
- the "key" dimensions are those that stand out for having a *high potential value* for the customer or for the attractiveness of the company.

Questions

What are the main important performance dimensions of the products?

Key points

Please, before to open the workshop, please see again the examples of performance dimensions that you found during the C1 Learning Activity and the examples proposed by the trainers

Tools

===

Step 2 - PESTEL Factors (Trends)

To do

- Define focus and time-base of the roadmap (1.e. product evolution strategy)
- *You have to identify the external forces* that could impact the SMEs market/sector and analyse how they could directly impact their business.

PESTEL analysis is a *tool used to analyze external macro-environmental factors of change* in a business environment. It is a vital part of any strategic planning that will help you to examine and plan for any external factors that could affect your company:

Political; Economic; Social; Technological; Environmental; Legal.

- Find a *list of PESTEL factors* (each participant) using PESTEL ANALYSIS (min 1 factor each dimension):
desk analysis (individually)
In-depth interview (company and stakeholders);
- Define a *common list* of PESTEL factors (group) - optional;
- *Prioritize* the list of PESTEL factors (group) – choose the relevant PESTEL factors for the involved SMEs
- Chart drivers, trends and known market triggers (PESTEL, strategic milestones, legislative events, competitors' activity). What are the criteria to distribute the specific trends on the Roadmap? You have to put a specific trend on the specific year of the timeline that is the year when this trend becomes very important.
- Identify the "key lacune" in the current knowledge and areas where further work is needed.
 - *Consider market, competition, key customers and legislation;*
 - *Consider high-level social, technological, environmental, economic and political factors (PESTEL);*



- *Consider sources of information and the mechanisms to fill in the gaps.*

Questions

Political Factors

- What governmental policies and actions are likely to affect my organisation or sector?
- What changes are likely in the political priorities of government at regional, national and European levels?
- How are these changes likely to affect the general climate in which my organisation operates?

Economical factors

- Are there any economic trends or indicators that are favourable towards my organisation or sector?
- Are there any clouds on the economic horizon that might affect my organisation or sector?
- How volatile is the national, European or global economy?

Social Factors

- What key influences are affecting people's attitudes and behaviour in ways that might affect my organisation or sector?
- Are there trends discernible in particular groups that have implications for my organisation or sector?
- What demographic changes within key populations might have implications for my organisation or sector?

Technology Factors

- What emerging technologies might have implications for my organisation or sector?
- Which technologies are becoming redundant, the decline of which might pose a threat to my organisation or sector?
- Will any changing technologies have an impact on political or economic events with implications for my organisation or sector?

Environmental Factors

- How does our physical environment affect us and vice versa?
- What are the effects of climate, weather or geographical location?
- Are we prepared for future environmental targets?

Legal Factors

- What regulations and laws apply to our business?
- Do they help or hinder our business?
- Do we understand the laws across all our markets?

Key points

Please, read the example proposed by the trainers

Gap

Identify the "key lacune" in the current knowledge and areas where further work is needed. *Ex: customer requirements.* Consider sources of information and the mechanisms to fill in the gaps

Tools

PESTEL analysis



Workshop 2 Product

Step 3 Product/Service Features (functionality)

To do

- For each SMEs product define Product/Service/Product chain features (group) and order it for affinity groups; which features impact on product performance?
- Define, for each product/service/product chain feature concept, the evolution with respect to the PESTEL Factors. You have to help the involved companies to understand if, in reference to the individuated different trends (PESTEL Factors), the product has or not have to change/evolve/innovate itself.
- Evaluate the impact of product features (functionality) we need to develop the following activities:
 - identify key product features that have high impact across the relevant PESTEL factors-trends (multiple Market and Business drivers)
 - the impact is defined in terms of "potential to satisfy the trends"

In this step, you should have in mind the product performances.

The post-its describe how the products evolve in the timeline.

- Chart future product evolution, referring to key product feature areas (VISION) What is the criterion to distribute the specific evolved/innovated/changed products on the Roadmap? You have to put a specific evolved/innovated/changed products on the specific year of the timeline that is the year when this trend is important. You can put the specific evolved /innovated /changed products many times on the base of the grade of development (for instance 50%, 80%, 100%).

Questions

- *For each product/service, what are the SMEs Product/Service/Product chain features (group)?*
- *For each product, which feature is affine?*
- *What is the name of the grouped features?*
- *(having in mind the product performances) In reference to the different trends (PESTEL factors),*
 - *Does the product change?*
 - *If yes which features should have each product? How will that product evolve if that trend were to happen?*
 - *(For each product) How does the product change? How will the performance/characteristic evolve if that trend were to happen?*
- *(For each product) In which year we have to put this product along the roadmap timeline?*

Key points

===

Gap

Identify the "key lacune" in the current knowledge and areas where further work is needed.

Tools

Affinity diagram tool (see the example here <https://asq.org/quality-resources/affinity>)



Workshop 3 - Technologies

Step 4 Technologies

To do

- Define for every product/service/product chain features possible technology solutions (individually); you can find the technology solution through a brainstorming session referred to each product. Consider the technological solutions of components, design, production, information, process, "hard" and "soft"
- Define technology solutions areas (affinity groups);
- Define, for each technology solutions area (*grouped*) the evolution with respect to the product/service/product chain and the PESTEL Factor (Trends)
- Chart the technology solutions evolution, referring to key product feature areas (VISION) and the PESTEL Factors (Trends). What is the criterion to distribute the specific technology solutions on the Roadmap? You have to put a specific technology solution on the specific year of the timeline that is the year when this solution is necessary to develop a specific product consistently the PESTEL Factors (Trends).
- Identify the "key lacune" in the current knowledge and areas where further work is needed.
 - Consider the risk, uncertainty, maturity, development time, skills, skills, knowledge;
 - Consider the activity / competences of competitors and suppliers;
 - Consider sources of information and the mechanisms to fill in the gaps.

Questions

- *(for each product) What are the technology responses?*
- *(for each product) What are the potential technological solutions able to provide the desired characteristics of the product / service?*
- *(for each product) Which of these technologies are affine each other? Please give each affinity group a title / name*
- *(For each product) In which year we have to put this technology along the Roadmap timeline?*

Key points

During the charting might emerge further technology needs. Of course, you can include them along the Roadmap timeline.

Gap

Identify the "key lacune" in the current knowledge and areas where further work is needed.

Tools

Brainstorming

Affinity Diagram tool (see the example here <https://asq.org/quality-resources/affinity>)



Workshop 4 – Competences and job profile - charting

Step 5 Competences and Job Profiles

To do

Define the emerging job profiles with respect to the events reported in the charting (trends; product evolution; technology evolution) using the “future wheel” tool - (and in-depth interview - optional). We believe that:

- the introduction of a new technology in a production process modifies tasks expected in the process itself;
- the introduction of a new technology in the product modifies tasks expected in the production/assembly;
- the evolution/innovation of the product, also in terms of materials, integrated service, modifies tasks expected in the production/assembly/providing;

In the second layer the team identified a set of product evolutions/innovations linked with the PESTEL factors; in the third layer the team identified a set of technological solutions linked with the product features evolution and with the PESTEL factors.

- Select some very important events reported in the charting. The events look like the kind of milestones. Are the vertical “sections” of Roadmap in which you have put some trends, some product evolution and some technology evolution.
- Put the more important components of this “Section” in the central ring of the Future Wheel. This is the Focus of a specific Future Wheel.
- Find the implications in terms of “new activities” that the company have to implement. Take in a great consideration the implication of the technologies. However also the product evolution can require new kind of activities. (*You can also insert information that has already emerged in the development of the Roadmap layers*)
- (for each emerged activity) Find the implications in terms of “Competence” and/or “Job Profile” needs.
- (for each Future Wheel) Chart evolution of Competence and/or Job Profile needs. What is the criterion to distribute the specific Competence and/or Job Profile needs on the Roadmap? You have to put a specific Competence and/or Job Profile needs before or on the specific year connected with the Roadmap “section” considered. In this period these Competence and/or Job Profile are necessary:
 - to develop a specific product consistently the PESTEL Factors (Trends);
 - to use/implement a specific technology consistently with:
 - specific product/s;
 - the PESTEL Factors (Trends).

Draw linkages between PESTEL Factors, product and technology elements

Note associated issues/queries/ideas on map

- Identify key «gaps» in current knowledge.
Consider How best to «roll-out» the process
Consider PESTEL Factors, product and technology aspects, the Competence and/or Job Profiles needs and key challenges;
Consider sources of information and the mechanisms for filling gaps
What should the SRM (Skills RoadMap) look like? What key information should it convey?
What are the success factors and potential barriers for TRM process development: - first implementation and as an ongoing process?



Benefits / Problems with the TRM process / approach?

Next steps?

Questions

- *What are the main important events along with the Roadmap? Which are the more important focus (in terms of Roadmap “Section”)? What are the main components of these events?*
- *(for each Future Wheel) How does the focus impact in terms of new emerging activities? What are the new emerging activities/processes that the SMEs have to implement as a consequence of the components of the focus?*
- *(for each Future Wheel) How do the activities that emerge impact in terms of job profile and skills? Specifically:*
 - *What are the competences/competence areas that SMEs needs to update existing job profiles of current skilled workers?*
 - *What are the new Job Profiles that SMEs needs? (Please here consider both at workers and managers level)*

Key points

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Gap

Identify the “key lacune” in the current knowledge and areas where further work is needed.

Tools

Future Wheel tool

Future Whell example

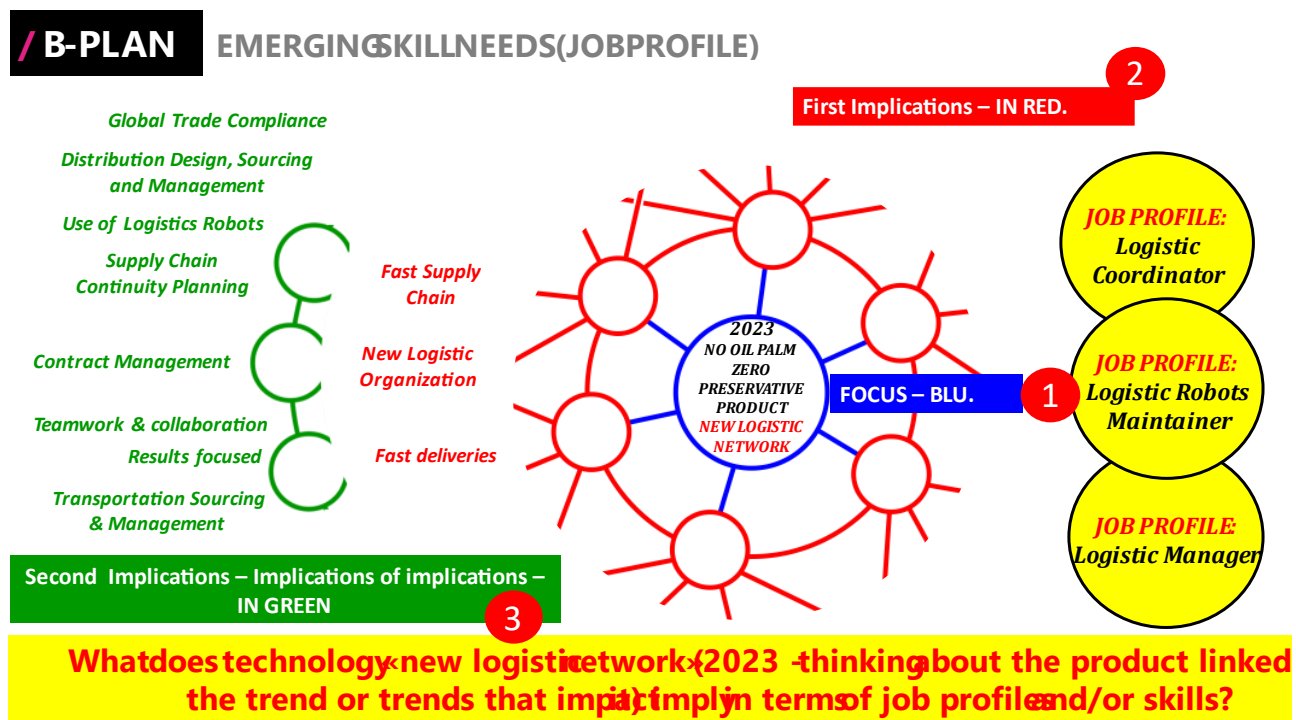
You can have a following situation:

- Analyzing the emerged roadmap, in some year you find/understand a group of event, activity or product features, technology/process features that you have to attain. You have to consider this group of roadmap’s components and focus and reflect on the implications. Here the question is: what are the implications?
- Firstly you have to individuate the implications in terms of “activities” that you have to do/implement.

First Example

In the Roadmap referred to the sector of the “Breakfast products” that the Italian team faced during the learning activity, in the 2023 they individuated the following group/focus of components:

- No oil palm
- Zero preservative product
- New logistic network



FIRST IMPLICATIONS:

What are the implications in terms of new activities?

The first implication is a process that assure “Fast deliveries”. It’s due the will to produce “Zero preservative product”.

The second implication is a “New logistic Organization”

The third implication is a synchronized and coordinated “Fast supply chain”

We could identify also other implications, but here our aim is didactic.



SECOND IMPLICATIONS:

Given the identified “new activities”, now for each of, the questions are:

- What are the implications in terms of new competence needs? Or What are the implications in terms of new competence areas needs? (green circle)

For each found activity we individuated the following needs:

“Fast deliveries”

- *Ability to Teamwork & collaboration*
- *Ability to attain Results focused*
- *Competence to Transportation Sourcing & Management*

“New logistic Organization”

- *Competences to Contract Management*

“Fast supply chain”

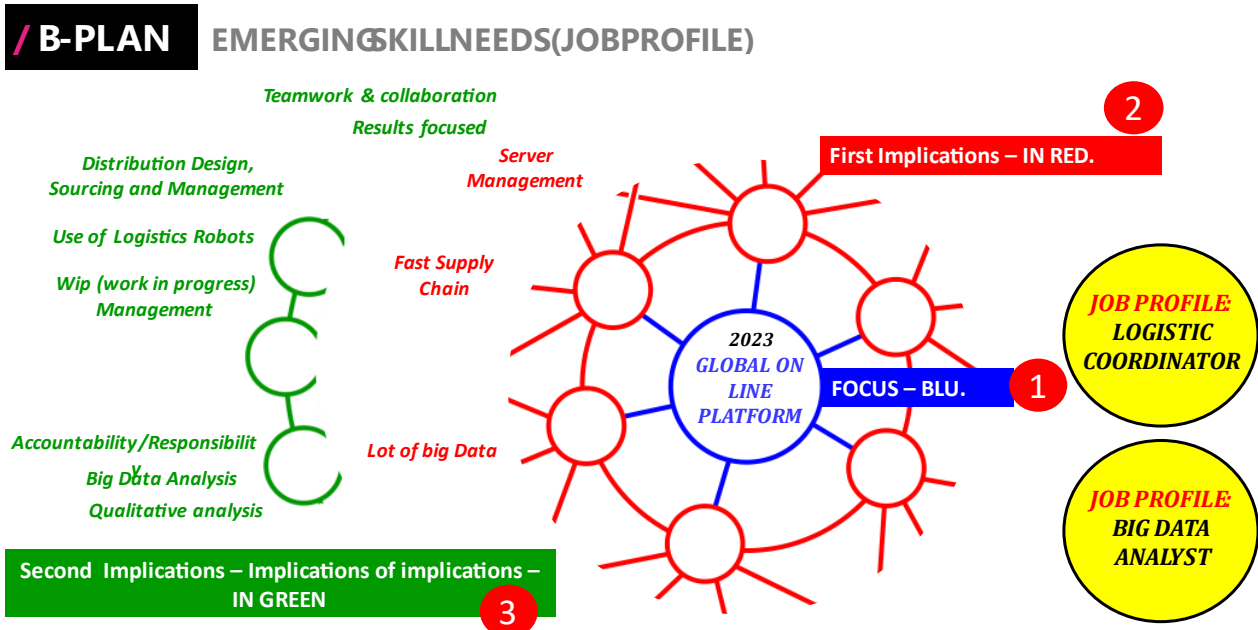
- *Competence to get a Global Trade Compliance*
- *Ability to Distribution Design, Sourcing and Management*
- *Ability to Use of Logistics Robots*
- *Ability to Supply Chain Continuity Planning*

- What are the implications in terms of new job-profile needs?
 - *Logistic Coordinator*
 - *Logistic Robots Maintainer*
 - *Logistic Manager*

At the end you can put all the emerged competences on the roadmap, on year 2023

Second Example

In 2023 another group/focus consist of a single components: *GLOBAL ON LINE PLATFORM*



What does technology Global On line Platform imply in terms of job profile and/or skills

FIRST IMPLICATIONS:

What are the implications in terms of new activities?

The first implication is a process that assure “Server management”. It’s due the will to produce implement an e-commerce channel.

The second implication is a synchronized and coordinated “Fast supply chain” already individuated above.

The third implication is an activity to manage a “Lot of Big Data”

SECOND IMPLICATIONS:

Given the identified “new activities”, now for each of, the questions are:

- What are the implications in terms of new competence needs? Or What are the implications in terms of new competence area needs? (green circle)

For each found activity we individuated the following needs:

“Server management”.

- o Ability to Teamwork & collaboration
- o Ability to attain Results focused

“Fast supply chain”

- o Ability to Distribution Design, Sourcing and Management
- o Ability to Use of Logistics Robots
- o Competence for Wip (work in progress) Management



“Lot of Big Data”

- *Ability to Accountability/Responsibility*
- *Ability to Big data analysis*
- *Ability to Qualitative analysis*

- What are the implications in terms of new job-profile needs?

- *Logistic Coordinator*
- *Big data analyst*

At the end you can delete duplicate skills and job profiles. Then you have to put all the emerged competences and job profile on the roadmap, on year 2023



3.4 Short check list

1 Workshop

1. DEFINE THE SECTOR IN TERMS OF FAMILY PRODUCT
2. DEFINE THE VISION
3. DEFINE THE TIME BASED ROADMAP
4. DEFINE THE KEY PERFORMANCE OF THE PRODUCT (if necessary order it for affinity groups)
 - a. **Consider the quantitative and qualitative dimensions;**
 - b. **You can include the "views" on the market, on the product or on the technology;**
 - c. **The "key" dimensions are those that stand out for having a high potential value for the customer or for the attractiveness of the company.**
5. DEFINE THE TRENDS (using PESTEL ANALYSIS) (Find the questions in the slides sent)
6. CHART IT ON THE ROADMAP
 - a. **Distribute the trends over time. Think about when that particular trend will be consistent.**
7. IDENTIFY THE KEY LACUNES

2 Workshop

8. DEFINE THE PRODUCTS OF THE FAMILY PRODUCT YOU WANT TO WORK ON (key business product)
9. CHART IT ON THE ROADMAP (Think about the features/performance of the product to help you)
(keep in mind the product characteristics and performances)
 - a. **How will that product evolve if that trend happens?**
 - b. **How will that performance/characteristic evolve if that trend happens?**
10. IDENTIFY THE KEY LACUNES

3 Workshop

11. DEFINE THE TECHNOLOGY (related to the performance and product characteristics)
 - a. **Use Brainstorming.** (Individually)
12. DEFINE THE TECHNOLOGICAL AREAS (groups technologies by affinity)
 - a. **Use the Affinity Diagram.** (in group)
13. CHART IT ON THE ROADMAP
 - a. **How will that Technological Area evolve if that trend happens? How will that Technological Area evolve linked to the product we want to realize?**
14. IDENTIFY THE KEY LACUNES

4 Workshop

15. DEFINE THE DIFFERENT FOCUSES OF THE ROADMAP (Focuses that emerge from the roadmap. Use the "vertical cuts" of the roadmap – by year) - (Alternatively, you can focus on the technology that has emerged for that particular product to be made.)
16. DEFINE THE SKILLS AND COMPETENCES (using the future wheel)
17. How does the focus impact on the new emerging activities? (First Implications)
18. How do the activities that emerge impact on the job profile and skills? (Second Implications)
19. DEFINE THE JOB PROFILES (Collecting the information that emerged from the future wheel).
20. CHART IT ON THE ROADMAP
 - a. **Enter the skills or job profiles over time depending on when you believe that the skill or job profile will be needed to the company.**
21. IDENTIFY THE KEY LACUNES

4. Skill design

The process of describing competences and job profiles in line with the ECVET framework has been designed. Here follow the main tasks expected to describe competences and job profiles.

Job Profile design activities

Step 6 Competences and Job Profiles design/description

To do

To design the Job Profiles and competences needed by SMEs, you can implement the following activities:

- (for all emerged job profile and competence) Desk search, exploring scientific papers/articles, competences databases/archives, studies, etc
- (for a specific emerged job profile and competence) Interviewing the SMEs managers or their teams;
- (for a specific emerged job profile and competence) Interviewing experts;
- To describe the job profiles and competences you will use a template; you can fill in the template with the collected information that you found during the the above activities. Through the template you can describe the main features of each job profile and of each competence.
- All partners will share the designed job profiles and competence with the other partners. All the emerged job profiles and competences will be collected as part of the Intellectual Output 1.

Questions

To design the Job Profiles needed by SMEs, for each job profile you have to ask the following list of questions:

- What the worker should be able to do here? What are the main activities she/he should be able to do here?
- What are the main outputs she/he has to produce at the end of each main activities?
- What are the main competences the worker has to activate here? What kind of resources has to mobilize in terms of Knowledge, Know-How and Attitude?
 - What she/he has to know?
 - What should she/he be able to do?
 - Which organisational behaviour or attitude is requested to her/him?

This list of questions was aimed to explore needs of the different components of the main competences (knowledge, know-how, being able to be).

To design the Competences needed by SMEs, for each of them we have to ask the following list of questions:

- What are the main activities she/he should be able to do here? (max 4)
- Considering three levels of proficiency, Foundation, Intermediate, Advanced, for each competence what the worker have to be able to do?



Key points

During the Skill Roadmap implementation we will individuate both job profile needs and competence needs.

For competences we mean area of competences that more workers can needs. Some example might be: creativity competence, low level of digital communication competences, problem solving competences, coding literacy, bot management etc. It will be possible that more of the currently used **job profiles** have to be updated their skill sets with these **competences**.

Tools

Description Template