



Create sustainable Innovation in SMEs using creative methods and processes

CrealInnovation

Priority Axis 1: Promoting Mediterranean innovation capacities to develop smart and sustainable growth

Specific Objective 1.1: To increase transnational activity of innovative clusters and networks of key sectors of the MED area

D3.4.1: Handbook for CrealInnovation Labs design, management and implementation

Project Partner in charge: PP3- CCB

Project partners involved: ALL

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1. INTRODUCTION

The handbook is a guideline for partners to develop the national and transnational Creativity workshops within the CrealInnovation project. It describes the methodology and minimum requirements that the creativity experts/ facilitators should follow in the workshops.

The handbook pretends also to serve for all MSMEs (Micro and Small Medium Enterprises) that would like to learn about creativity technics that are used in these workshops as a structured process to foster new innovative ideas and projects.

Included in the handbook there is also a section with the technical requirements and the layout of the Creativity Laboratories as the most appropriate facilities where to run the national and transnational workshops.

Therefore, the handbook has three main sections:

- A collection of best practices used in creativity workshops (**section 2 to 11**). It includes the most representative creativity technics and methodologies. It also includes examples of creativity workshops to generate new sustainable business ideas from each country/ pilot region (**section 3 to 11**).
- Guidelines for national and transnational creativity workshops within the CrealInnovation project: The methodology that the consortium will follow when running the national and transnational creativity workshops with the creativity experts as facilitators. It also includes a first approach on the workshops assessment process (**section 12**).
- Creativity Laboratories technical requirements and layout (**section 13**).

2. BEST PRACTICES USED IN CREATIVITY WORKSHOPS

This section includes information concerning the Creativity technics used in workshops as a structured process to foster new innovative ideas and projects. It also include a description of the processes followed by different Creativity Experts together with some examples of the techniques used during the creativity workshops in order to generate new business ideas. From section 3 to 11 there are examples of previous creativity workshops that were developed in each pilot region. These examples would work as a guide for companies interested in these technics.

2.1. Creativity as a structured process to foster innovation

It is generally accepted that innovation is the result of the creative capacity of generating ideas, inherent in all of us, and the managerial capacity that makes them these ideas operational.

Creativity is a mental and sociological process that implies the cognitive ability of the mind to:

- see things from a new perspective,

- produce new ideas and new concepts,
- establish unprecedented relationships between different elements.

Creativity is a particular form of intelligence strongly based on the aesthetic dimension. As such, it can be stimulated, exercised and transmitted through a method / path and aimed at the production of innovation. At the base of creative processes is the comparison between alternative points of view that trigger a socio-cognitive conflict.

Creativity, a prerequisite for any kind of change and innovation, can be understood as a characteristic of human behavior, which in some capable individuals is particularly evident, of perceiving and recognizing through the five senses, in objects and thoughts, new connections that lead to solutions and changes and innovations.

The best known definition of creativity as a union of pre-existing elements with new and useful connections is by the mathematical philosopher H. Poincaré re-elaborated by the psychologist J.P. Guilford who coined the term of creativity by associating the component of human intelligence that allows you to solve problems coming out of the usual mechanisms of the already known.

Initially considered as an innate capacity of a few, the expansion of technology, knowledge and neuroscience and sociopsychology have made it possible to ascertain that the creative capacity, if stimulated and developed through specific methods and processes, allows a more profitable and easy skills to generate innovative ideas both in individuals and even more in heterogeneous working groups.

Being creative in the company means knowing how to make use of the imagination by mixing it with pragmatism and design skills. In this perspective, the urge to dream with open eyes, to develop fantasies and fantasies, do not fall into creativity until someone is able to argue and/or transform such "visions" into a feasible "format of idea".

The ability to generate a crazy, bizarre idea, apparently far from the reference context, is therefore welcome. This can be a harbinger of an innovation, potentially resolving a business problem. It also may generate a new perception of need, product / service or a new way of doing things, more effective, making the company a "first mover" giving the competitive advantage that allows the surpass of a few, beating the competition over time.

As a cherry pulls the other, so does the ideas. **The aim is therefore to facilitate the processes of systematic multiplication of ideas generation and to identify the real functional and implementation spaces to make them usable.**

Creative problem solving (CPS) was discovered during 1950's by a community of thinkers, academic researchers (Sidney Parnes), business people (Alex Osborn), artists, and inventors. They realized formally that daily everyone is involved in problem solving situations and that, it is possible to define the stages that people go through when they work on a problem solving and for which they do not know a solution.

Osborn and Parnes made explicit the process for problem solving and stimulated the academic community to develop the subject of creativity process and identify and collect practices, technics and methods to be used during the idea generation process.

The objective of the process of stimulating creativity is to provoke an "epistemological perturbation" to bring out new, original and shared points of view by resorting to alternative and complementary modes of knowledge with respect to the classical cognitive processes of an intuitive, emotional and divergent type.

Dealing with some elements of the creative approach we can talk about:

- Creativity is a form of intelligence permeated by the aesthetic dimension.
- Creativity manifests itself as a process of learning and generating the new.
- Convergent thinking: the solution of a problem is found following internal lines of the problem itself, predefined rules and logical-linear analytical sequences.
- Divergent thinking: new and different elements are brought to light with respect to the starting data, through non-standard cognitive processes in which many ideas and hypotheses are produced in order to arrive at the evaluation of the most congruent idea with the aim to be achieved.
- The convergence-divergence duality is linked to the dichotomy between "utility" and "beauty" that are often separated from organizations, usually for the benefit of profit.
- The criterion of profit and that of beauty are both fundamental to generate and recognize the "new".

Essential conditions for creativity are the plurality of points of view and reference to the subject. By following the process and the techniques provided, it stimulates the creativity in working groups involved in the generation of possible solutions to problems.

There are hundreds of techniques that, inserted in defined processes of first divergent and then convergent paths, allow to obtain extraordinary results. Such as Techniques to exercise and stimulate the creative capacity. Technics of impregnation for the formulation of the challenges to be overcome, to support the divergent and convergent phases of the creative processes. From the rational to the associative, from the projective to the analogical ones; adoption techniques and processes that allow people to be stimulated in the right way to obtain the results sought.

Knowing and applying the creative processes in the company environment allows you to increase the company's ability to make 360-degree innovation, product, process and market.

According to Guilford, the assessment of "creative attitude" goes through four factors:

- Fluidity = The ability to find the largest number of ideas in the same semantic field
- Flexibility = The ability to produce or associate ideas in conceptual categories or different semantic fields
- Originality = The ability to produce bizarre, unpublished, new ideas
- Elaboration = The ability not to limit oneself to the enunciation of an idea "the title" but to develop a degree of precision in the definition of details, giving the idea a character as much as possible concrete / applicative.

The processes and techniques of creativity direct and stimulate these four factors

Creativity consists in giving birth to a new idea, innovation in knowing how to apply it. The transition from creativity to innovation is neither simple nor automatic. It is the result of a design integration between creative processes, innovative processes and production processes and must be guided and managed with competence through an adequate managerial capacity that allows the idea to be converted into a successful business.

The combination of creativity and managerial capacity is the fundamental value for effective innovation and it is necessary that it becomes part of the "Business Culture". It becomes the catalyst of all those energies, skills and abilities that can drive companies towards a successful future.

The effectiveness of adopting methodologies and processes of creativity to make process, product and organizational innovation can be found predominantly in large companies, which for various reasons are more easily aware of their existence and their foresight to make them use. The knowledge and diffusion of these processes and techniques and their effectiveness is very different among the European countries, as well as the formative fabric on the use of these tools.

While these approaches are known and used successfully by large companies, SMEs still find it difficult to include in their development practices the use of transversal techniques that can facilitate innovation, partly because they are not well known and partly for some reason. Considering the participation in paths of creativity a burden rather than a highly productive investment for the future of the company.

Today it is known the spontaneous creative process: grammar, structure, phases, and companies are able to transform it into an operative method and consciously apply it: "by choice" and not "by chance". In this direction go all the disciplines that have studied Creativity: psychology, philosophy, pedagogy, anthropology and neuroscience, as well as the practices related to them developed in recent decades.

This approach is the one that goes under the name of Creative Solution Finding rather than to the PAPSA approach suggested by Hubert Jaoui or the FOURSIGHT approach by Gerard Puccio and widespread techniques such as the six hats to think of Edward De Bono or the Syntectics by George M. Prince and William J.J. Gordon.

Many of the consultants working in companies to support them in their innovation processes use these approaches and techniques or a mix of them.

2.2. Main technics used by the creativity experts during other previous experiences

This section includes a description of the processes followed by the different Creativity Experts and the techniques used during previous creativity workshops.

Hereafter there is a list of the main technics used for the creativity experts during other experiences:

- *Creative Problem Solving- CPS*
- *FOURSIGHT- Graham Wallas*
- *P.A.P.S.A.*
- *Creative Solution Finding- CSF*
- *Design Thinking*

- *Synectics*

William Gordon defined the three phases of the creative process as impregnation, incubation and illumination, Alex Osborn instead defined them as the discovery of the fact, the discovery of the idea and the discovery of the solution.

Graham Wallas defined the creative process in four phases: preparation, incubation, lighting, verification. Hubert Jaoui formulates it in five phases: Perception, Analysis, Production, Selection, and Application.

The **Creative Problem Solving Institute (CPS)** develops it in four phases and six steps: Clarify (Explore the vision, Gather data, Formulate challenges), Ideate (Explore the ideas) Develop (Formulate solutions).

Foursight follows the CPS approach and develop the creative process in 5 phases and 8 steps: Assess (Gather data, Diagnose), Clarify (Explore the vision, Formulates challenges), Ideate (Explore ideas), Develop (Formulate solutions), Implement (Explore acceptance, Formulate plan).

Raffaella Pederneschi operates it by: Preparation, Incubation, Illumination, Verification and realization.

Gianni Clocchiatti intervenes with the approach of **Creative Solution Finding** which is divided into three phases and 24 steps: Formulate the challenge (Analyse the situation, Identify needs, identify the challenge, define the challenge), Generate Ideas (using different technics associative, matricial, analogic, projective), Action Plan (Select the ideas, classify the ideas, define the project, plan the project).

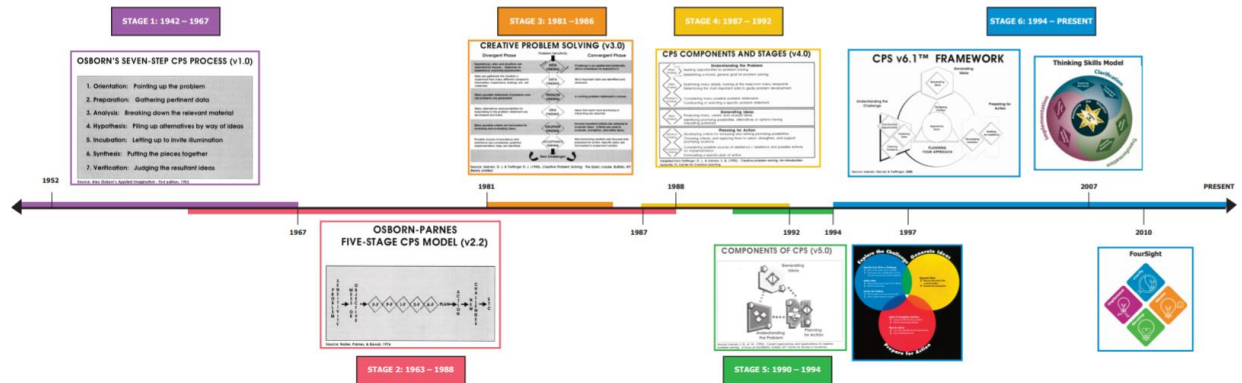
The Design Thinking school define the innovation process as: Empathize, Define, Ideate, Prototype, Test.

Synectics is based on a simple concept for problem solving and creative thinking - you need to generate ideas, and you need to evaluate ideas. The approach is based on seven steps: State the problem, idea springboards generation, ideas selection, solution concept definition, potential issues analysis, issues overcome solution, action plan.

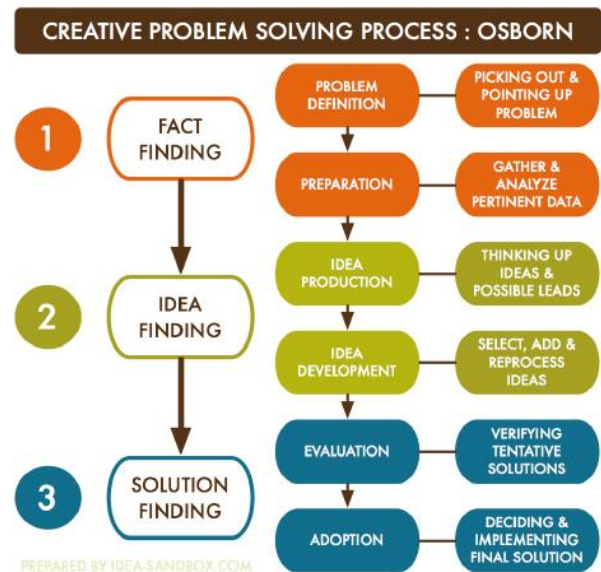
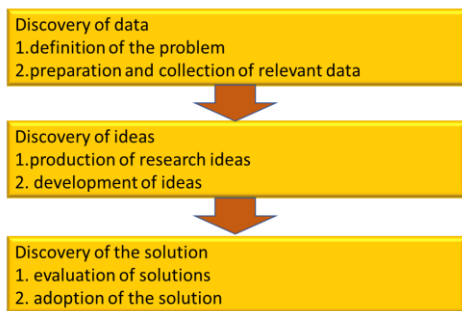
Just to have a quick look and understand the little differences between the various approaches to creative innovation, there is a short description of some of the most known below.

- **CPS (Creative Problem Solving)**

Over the years CPS has been represented by many different models and phases Alex Osborn, the originator of CPS, proposed a variety of models over his lifetime. It is possible to find CPS models built on 3 phases and 6 steps, 4 phases and 6 steps or 3 phases and 8 steps, and some other based on 7 steps. Hereafter some pictures gathered from the net presenting CPS approach.



C.P.S. Method (Alex Osborn)



Creative Problem Solving Framework

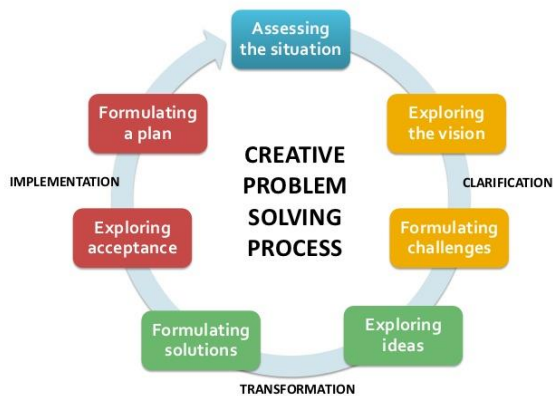


Figure 1: Creative Problem Solving figures

FourSight Innovation Process



Figure 2: FOURSIGHT

P.A.P.S.A. Method (Hubert Jaoui)

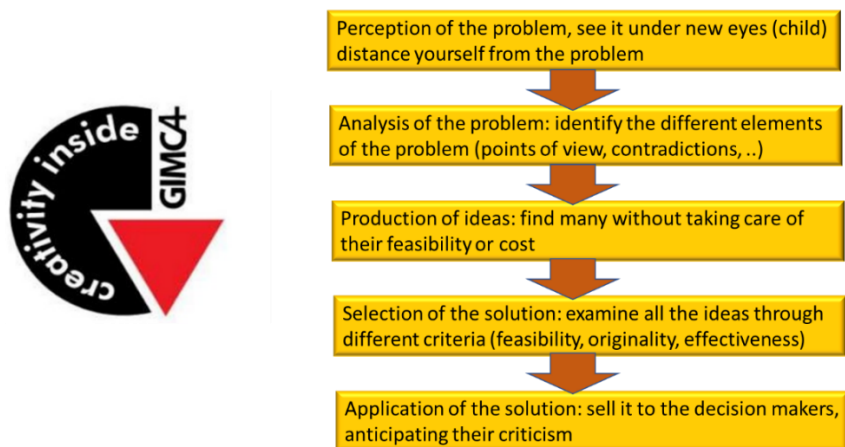


Figure 3: P.A.P.S.A

C.S.F. Method (Clocchiatti-Giansoldati)

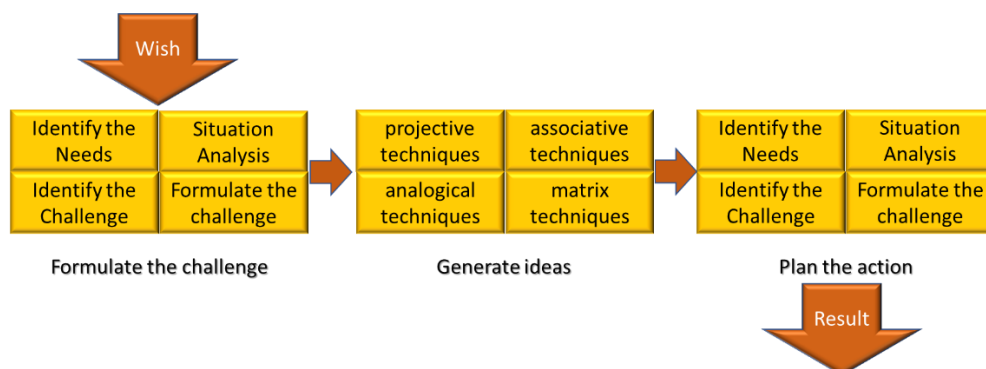


Figure 4: CSF- Creative Solution Finding

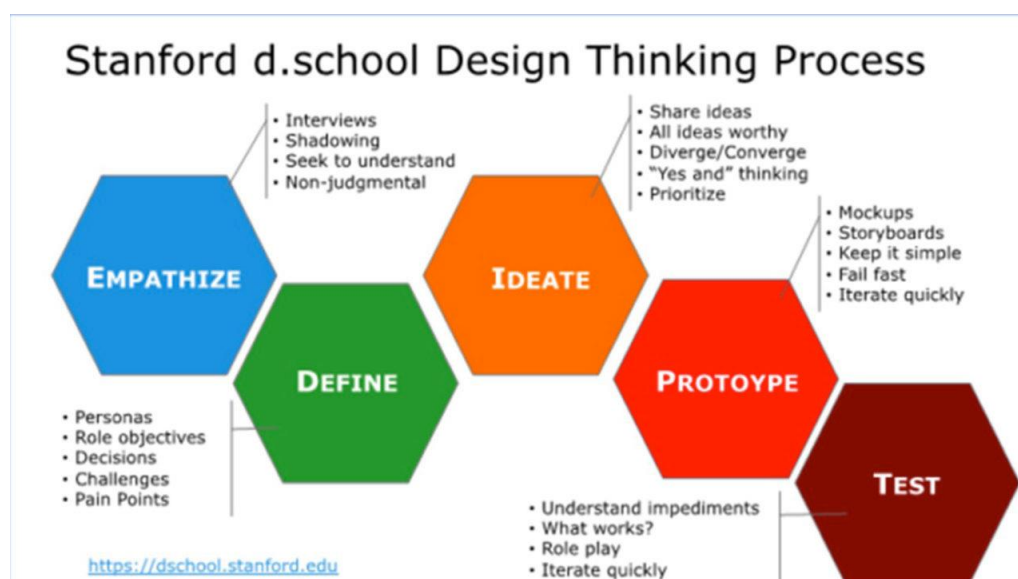


Figure 5: Design Thinking

3. Italy

The creativity workshop "**Digital innovation hackathon**" had the objective to generate potentially patentable innovative Software products or services in the SME.

The workshop lasted 7 hours and 12 potential patentable ideas of products/services were identified and 3 of them were successfully patented.

The workshop was structured in 10 phases:

- 1) Management introduction
- 2) Technology stimuli
- 3) Map new features
- 4) Trigger questions
- 5) Idea generation
- 6) Idea selection
- 7) Concept design
- 8) Concept enrichment
- 9) Concept evaluation
- 10) Closing of the workshop

1) Management introduction

The workshop started with an introduction of the company's Innovation Manager who defined the objectives of the day to the working group, made up of 16 people. The objective was to generate new software ideas of products / services to be patented and introduced to the market.

2) Technology stimuli

As a pre-work, the company was asked to identify 4 people, the "Technological representatives" of 4 technological innovation areas and ask them to carry out research on the innovative trends and regulatory innovations that could offer ideas for the creation of new services / products.

At the beginning of the workshop, each of the Technological representatives had to present the results of their research in 5 minutes. They were in charge afterwards of leading one of the 4 working tables organized.

The participants listened to the presentations and were requested to take notes in the face of stimuli, ideas and associations of ideas, and to write them on a post-it in CAPITAL LETTERS and place them in the middle of the table in order to share them with the rest of the group.

The slides of the 4 presentations were printed in an A4 format and were posted on the walls. One wall for every "Technological representative" presentation.

This phase represented a moment of knowledge sharing and self-awareness rising of the company skills, capabilities and technological potential.

3) Map new features

The participants were divided into 4 table groups with a Technological Representative per table. Each table was invited to choose a name and a reference symbol (eg: related to the types of innovations they dealt with).

Each table group was then invited to elaborate at least two "mind maps" on an A3 sheet related to the possible functions performed by the technologies presented by their Technological Representative. Each table group has therefore to deal with 2 technologies/innovations in-depth.

Each table had a deck of creative cards (Eureka Cards) and each participant was invited to choose two cards and think about possible links between the image represented on each card and the topic that the table was dealing with.



Picture 1: Eureka cards

At the center of the A3 sheet was the name/image of the "guide innovation". Coming from the name/image there were some "branches" where each group had to write the possible functions of that innovation. The end result of this phase was the generation of 2 "mind maps" per table.

Each table representative briefly presented in a plenary session each Innovation/Technology and its functionalities produced.

The participants were invited to identify other possible functions attributable to the innovations presented and to write them on post-it to attach them to the A3 sheet with the relative "mind map" (see picture 2).



Picture 2: New features mapping result

4) Trigger questions

The Trigger Questions were then introduced on the tables to develop their ideas.

ex: what could be patentable innovations:

- using new technologies to meet known needs differently?
- using new technologies to propose services / products in an innovative way?
- integrating new technologies to generate new needs or address unexpressed needs?

The tables were asked to assess whether these questions were appropriate to express the objective of their work, or by the contrary, new ones should be formulated.

Each table had therefore to elaborate, its own "Trigger Questions" and wrote them on an A3 sheet. They committed to work on these questions.

5) Ideas generation

The BRAINWRITING technique is then introduced, with rules and operating procedures. Each participant chose one of the creative cards (eureka cards) and with a post-it note pad and a marker started the brainwriting.

Each of the participants was invited to write his ideas of innovation on the first sheet of the block in 2 minutes and in CAPITAL LETTERS. Then, the post-it block was passed to the table on the right. The next one, looking at the chosen Eureka card, the figure, the aphorism, or the verb written on it, had to write on the following sheet his idea of improvement, deepening, completion of the first idea proposed for his companion in about 2 minutes; once finished the block passed to the next companion.

At the end of the brainwriting, every INITIATOR of his own post-it block, is asked to elaborate on a post-it the synthesis of the idea generated on the basis of the contributions received from the other 4/5 tablemates and produce a graphic symbol to represent the idea expressed.

At the end of the exercise, each participant was asked to attach his post-it notes on an A0 sheet on the wall assigned to the table. Starting from the post-it with the written SYNTHESIS and continuing on the same line of the idea with the 5/6 post-it elaborated in succession during the session.

The post-it series put in a "matrix" order (on the lines, in sequence the post-it series of each idea - morphological matrix) are thus shared with the table working group.

During a break all participants were invited to walk around the room focusing on the post-it matrices produced by the other tables and to write on their post-it block any ideas popping up from what they heard / seen.

Each generator of ideas, in front of the morphological matrix of his group, will briefly explain to his table the idea with all contributions gathered.



Picture 3 & 4: working tables & A0 morphological matrix representation

6) Idea selection

Each table was then invited to discuss the ideas generated by the members of the table coming out from the morphological matrix. They had to select the three more valuable ideas in terms of patentability on which to elaborate the insights. The three ideas could also be generated by the aggregation, combination and processing of what was written on all the post-it notes of its own morphological matrix also considering the post-it suggestions attached by the rest of the working tables.

At the end of this phase each table had to present the best three ideas to the rest of the group.

Afterwards, each table had to re-elaborate a summary and a graphic symbol on a post-it for each of the 3 ideas chosen.

7) Concept design

Presentation and explanation of the work on the 4MAT-CARD (WHAY, WHAT, HOW, WHAT IF) in A2 format cards:

At each table, for each of the three ideas (A, B, C), the members were asked to elaborate the ideas through the synthesis cards (4MAT-CARD) working in small subgroups (of 2 people each, for example).

Each sub-group developed the 4MAT-CARD for the three ideas. Once finished, the subgroups passed their cards and received the cards from another subgroup of the table and they had 5 minutes to enrich the work done by their colleagues. All subgroups revised the work done by the colleagues and allowed all members of the table to view and review all three cards. At the end of the exercise, the three cards of the three ideas A, B, C were revised and elaborated by all the members of the table.

8) Concept enrichment

During a break the participants were invited to walk around the room focusing on the 4MAT-CARDS produced by the other tables and to write any idea on their post-it block and attached the notes to the 4MAT-CARDS A2 paper.

Every table representative had to show in 5 minutes the 4MAT-CARD related to the idea (attached to the wall). Each table had to show their 3 ideas.

The participants had to write on their post-it any other ideas, questions and possible solutions for overcoming the obstacles identified.

Another option was to take a CREATIVE CARD and base the integrative reflections on the image / aphorism / Word.



Picture 5: Concept enrichment

Another alternative:

Each table group, except the representative of the table, "visit" the set of 3 ideas of another table. The representative of the table (the responsible of the idea) supervises and provides any explanations and gathers the inputs and observations of the visiting groups / tables.

Each group spends 30 minutes to enrich the ideas of another table, identifying the possible implementation obstacles of the solutions (10' x 3 ideas = 30 '). The complete turn requires 90 minutes (30' x 3 tables = 90 ')

The visiting subgroups turn clockwise, taking post-it and felt-tip pens.

9) Concept evaluation

Each table representative was invited to explain in 5 minutes what emerged from the work done by his table and the contributions of the other "visitors" (5 'x 3 ideas x 4 tables = 60').

During the presentations, the participants pinpoint on the IDEAS VALUE tab their opinion on the idea of the EFFECTIVENESS, ORIGINALITY and FACTS of ideas.



Picture 6: concept evaluation

Each participant was assigned three "stickers" of VALORISATION for each assessment area for a total of $3 \times 3 = 9$ stamps.

Participants were invited to decide to which ideas assign the 9 stamps available.

At the end of the presentations, the participants were invited to attach the VALORIZATION stamps on the chosen ideas, voting them for Effectiveness, Originality, Feasibility (a stamp E, O, F to each participant to be placed near the evaluated idea).



	ORIGINALE ROSSA	FATTIBILE VERDE	EFFICACE GIALLO
1	2	1	
2	4	7	4
3			5
4	3	7	3
5	8	5	7
6	4	3	1
7	3	1	3
8	12	12	13
9	5	6	5
10	1	2	2
11	2	3	2
12	2	2	✓

Picture 7 & 8: concept evaluation

10) Closing of the workshop

The facilitator made the summary of the work done and communicated the next steps: creation of working groups for the ideas refinement aimed at drawing up a feasibility plan.

Suggestion for the NIGHT: get close to the bed a post it block and a marker to point out any other ideas, stimuli, questions or any other consideration that could emerge during the night. The creative brain does not sleep!

Techniques used: Question Storming, Brainwriting CREATE, Morphological Matrix, 4MAT-Card, proposals gallery

4. Portugal

Example 1: Open course on “Energy Efficiency in Historic Buildings – the EH-CMap Tool”

- **The innovation generated during the creativity workshop:** Concept maps related to Energy Efficiency in Historic Buildings (“EH-CMAPs”).
- **The duration of the workshop:** 3 hours
- **The main techniques used during the workshop:** The concept map (cmap) tool and the “cmap” software
- **The main benefits and experiences learned by the participants:** Development of competencies on using the tool “Concept maps” for learning purposes; better structuring of key ideas on a given subject as well as the relationship between them; deepen knowledge about energy efficiency on historic buildings.

The aim of this course was to enable students to scientific knowledge and specific regulations in the fields of energy efficiency in historic buildings and to develop competences on using the tool “Concept maps” for learning purposes, in this specific subject. In this context this tool was used to enable students to organize concepts and to produce knowledge, allowing them to adapt, test and assess the concept maps on Energy Efficiency in Historic Buildings (“EH-CMaps”), resultant from their work.

The innovation resulted from this course was the conceptual maps related to Energy Efficiency in Historic Buildings.

This course was targeted to degree and master students of architecture, engineering, urban planning, preservation and historical building rehabilitation.

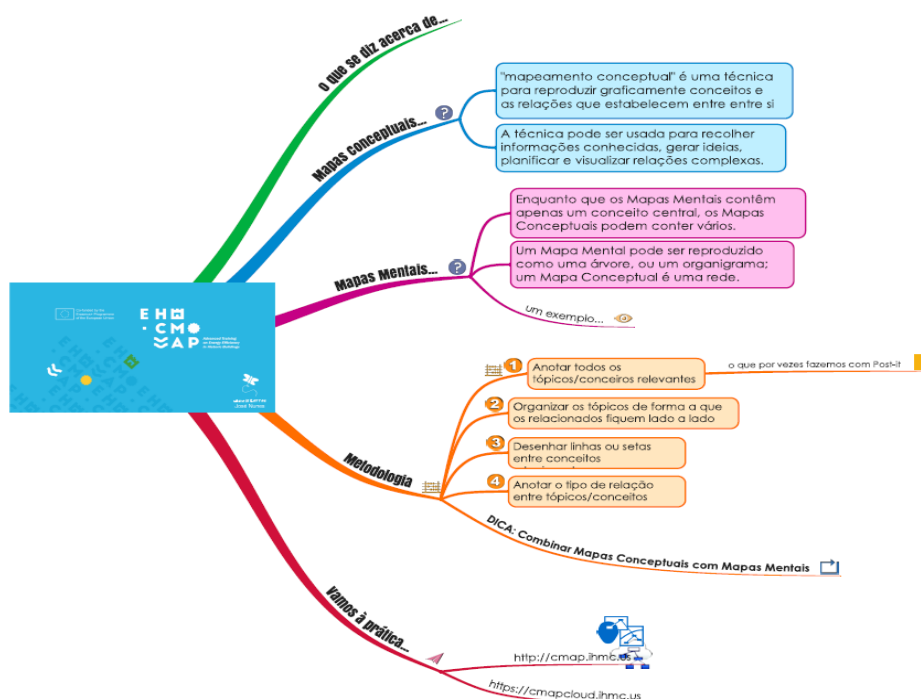
The duration of the course was 30 hours, it was done at post-work hours (Thursdays, Fridays and Saturdays) and covered the following topics:

- 1) The project EH-CMAP and the objectives of the course;
- 2) Preservation of historical buildings: principles, norms and case studies;
- 3) Energy efficiency in buildings: concepts and regulation;
- 4) Conceptual maps and the open source software: potentialities and functionalities;

5) Production and evaluation of conceptual maps: practical exercise. Adaptation and evaluation of EH-CMap-00.

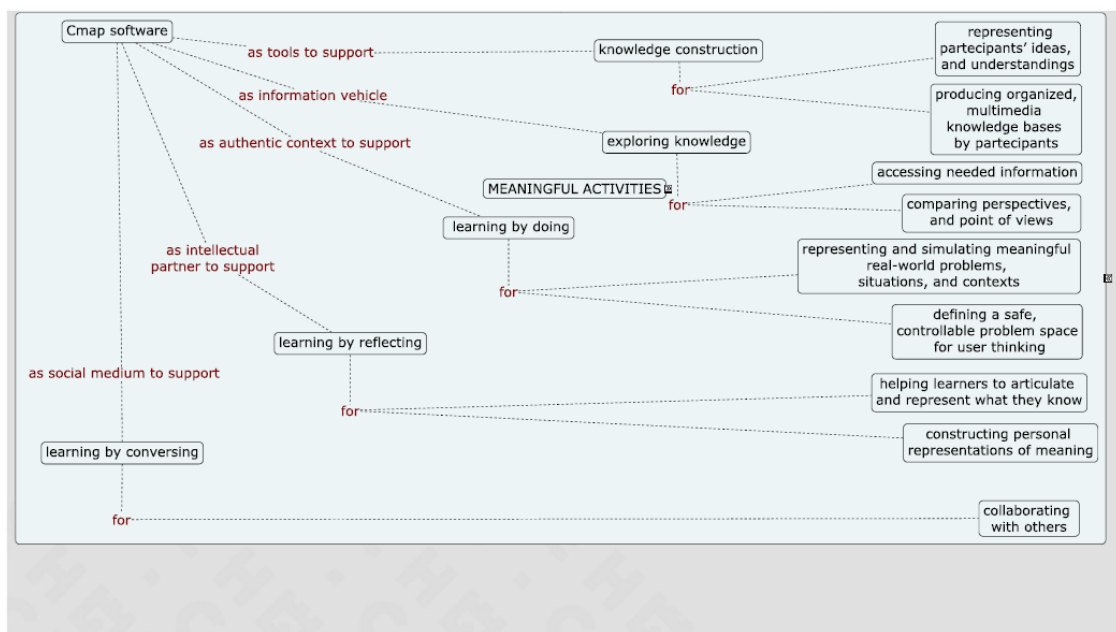
The teaching and learning methodology used on the course included a combination of expositive methods (eg theoretical lectures using PowerPoint presentations), practical exercises (workgroups) based on the exploration of specific study cases – existing historic buildings, located on the EU regions of the partners, which were rehabilitated with the inclusion of energy efficiency measures, and also tutoring classes where students solved exercises under the trainer’s guidance.

The picture below (9) shows, in the format of concept map, what is a mental map, a conceptual map and the methodology. As it was produced for the course it is written in Portuguese. It is kept in Portuguese since the purpose is only to present, in visual terms, what a concept map is.



Picture 9: Presentation of EH-CMap: Potentialities and Functionality

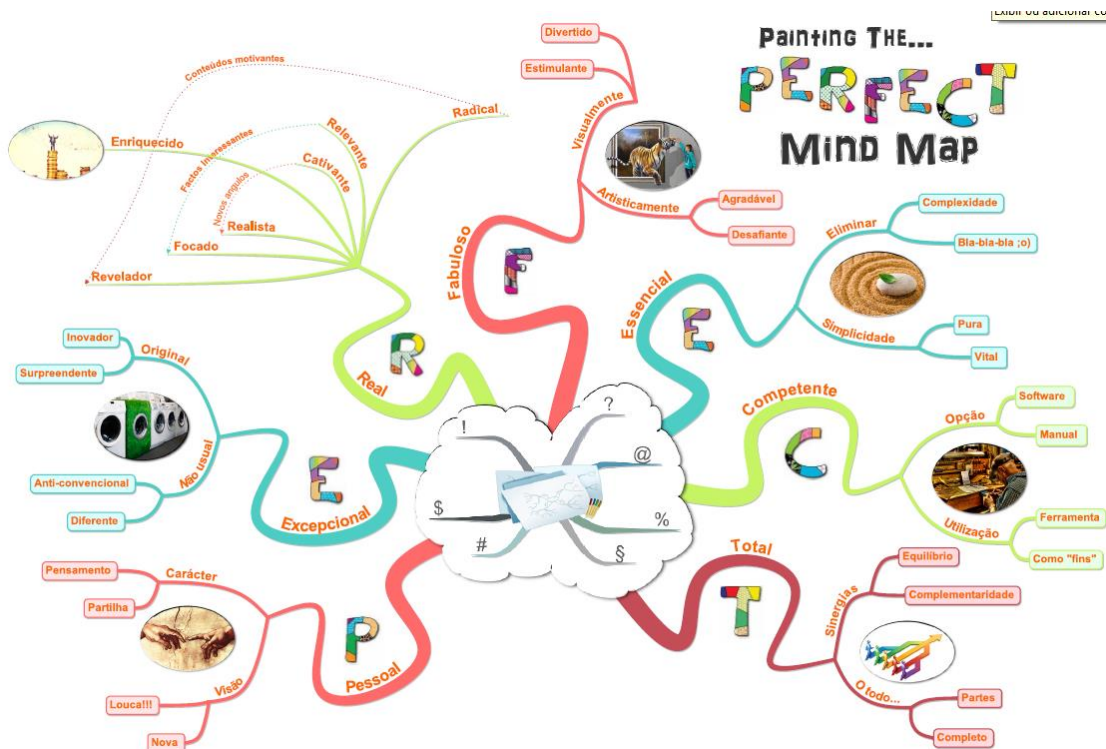
This presentation was made using the Cmap software (picture 10).



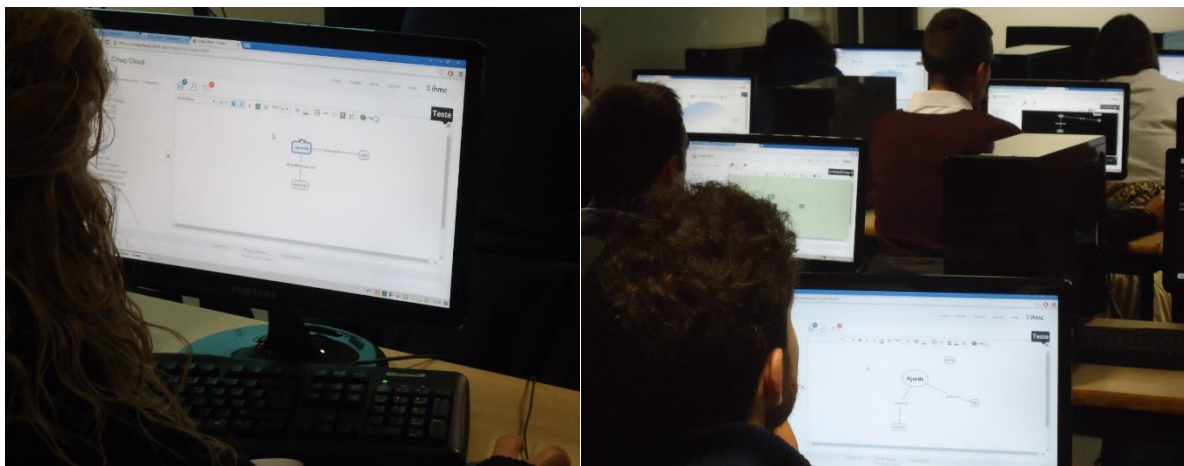
Picture 10: Example of a presentation using the Cmap software

During the course the participants were invited to analyze a concept map (picture 10) and to build their own map using the Cmap software (picture 11 and 12).

The picture below (11) presents the features and the possibilities of a 'perfect' mental map.



Picture 11: A perfect mind map



Pictured 12 – Participants creating their own concept maps

This open course was carried out under the project EH-CMAP.

EH-CMAP aims at testing an educational tool to support higher education students on the development of a holistic approach to the energy retrofit of historic buildings, with a particular focus on the Mediterranean region. Such tool is the “concept map”, a diagram depicting concepts and their mutual relationships. A concept map makes use of simple graphic elements such as boxes or circles representing ideas and information, and labelled arrows representing relationships and their quality. It is a tool used in different fields of research and in other activities. It is used by the project partnership as a means to help

students to transfer complex cognitive processes to readable and interactive graphic outputs. The project objectives are: 1) the exchange of experiences related to higher education in the field of energy performance of historic buildings; 2) the implementation of workshops and learning activities for students and teachers and the development of a holistic approach to the energy performance of historic buildings; 3) the development of a learning tool to support students in developing a coordinated approach to energy performance requirements, on the one hand; and those related to preserving the aesthetic and cultural values of historic buildings, on the other hand.

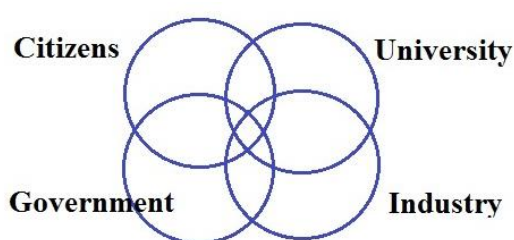
More information about this project in <http://www.ehcmmap.eu/>.

Example 2: Workshop “Strengthen cultural and creative actors and clusters for the Algarve region”

- **The innovation generated during the creativity workshop:** Strengths, Weaknesses, Opportunities and Threats of the Cultural and Creative Industries sector in the Algarve region
- **The duration of the workshop:** 3 hours
- **The main techniques used during the workshop:** SWOT Analysis and the “World Cafe” Method
- **The main benefits and experiences learned by the company:** the SWOT Analysis of the Algarve region itself; the interaction between the participants; the willingness to continue this work in subsequent sessions, the beginning of creating a community of practice.

The creative workshop “Strengthen cultural and creative actors and clusters for the Algarve region” aimed to prepare a SWOT analysis of the Cultural and Creative Industry (CCI) in the Algarve region, intending to identify the CCI regional needs.

The workshop’s participants were selected using the Quadruple Helix Model(QHM) (picture 13) - 5 persons for each QHM segment:



Picture 13 – Quadruple Helix Model

This workshop lasted 3 hours. It began with a brief presentation about ChIMERA project, the purpose of the workshop and the explanation of the methodology to be applied.

Having in mind that the use of participatory methodologies is considered the most effective way to gather contributions from all the participants, a participatory methodology was chosen: the well know “World Café. ” Each SWOT section was held in 4 different and separate rooms of the building, so that the

workgroups do not interfere with each other, avoiding noise and distractions. In each room there is a table where a cardboard is placed, and the participants stand around this table.

The workgroups were composed according the QHM segments: each segment was a workgroup. Then they reflected the vision of the four QHM segments. Each workgroup, located in a separate room, had a question to be answered by the participants according to the SWOT analysis template bellow (figure 14):

INTERNAL FACTORS	STRENGTHS	WEAKNESSES
	<i>E.g.: Are there characteristics that CCI development has a disadvantage relative to other economic sectors?</i>	
EXTERNAL FACTORS	OPPORTUNITIES	THREATS
	<i>E.g.: External chances to improve CCI and their socio-economic impact</i>	<i>E.g.: External elements in the CCI (and in economy in general) that could trouble for the development</i>

Picture 15 – SWOT analysis template

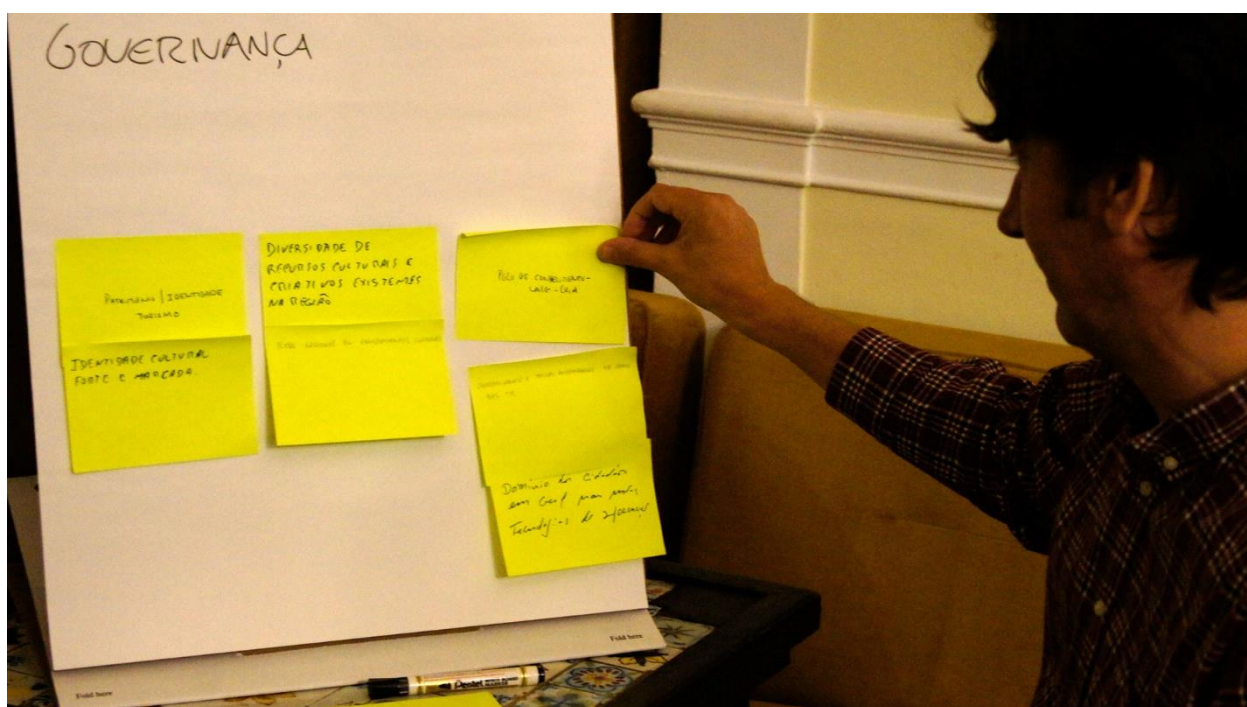
At each table there was a host, previously chosen (self-proposed or chosen by the group) who conducted the discussion in order to gather answers (topics, ideas) to the question placed on the cardboard, during 15 minutes. After 15 minutes, the group moved to another table but the host remained. Each group went through the 4 tables. The host, who is also the facilitator, always remains in the same table/room and links the results of the leaving group and the arriving group.

After all the groups have passed through the 4 tables, each host presented the results of his/her table, posting the cardboard on the wall or on the blackboard and explaining the ideas in it. At this occasion, the whole group in plenary can also debate, delete something that is not relevant or add some idea or topic that might come up, if everyone agrees. This phase of the workshop lasted 120 minutes: 15 minutes for each table x 4 plus and an extra 30 minutes for the introduction, the passages between tables and delays.

At the end of the workshop it was possible to identify the Strengths, Weaknesses, Opportunities and Threats of the Cultural and Creative Industries sector in the Algarve region.



Picture 16 – SWOT Analysis, “World Cafe” method



Picture 17 – SWOT Analysis, “World Cafe” method

This workshop was carried out under the project CHIMERA - Innovative Cultural and Creative Clusters in the MED Area. CHIMERA project aims at enforcing innovation of Cultural and Creative Industries at

European level through the development of transnational clusters, European networks and territorial synergies among companies, research centers, public authorities and civil society.

ChIMERA partners aim to stimulate direct links and synergies among the CCI actors at transnational & local level and elaborate strategies to develop innovative clusters or networks in CCIs. This transnational cooperation aims to enhance the role of the CCIs as a valuable asset for the Med area and creates sustainable growth for all the countries involved. More information about this project in <https://chimera.interreg-med.eu/>

5. Greece

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Example 1: searching for life beyond Earth with NASA

NASA's Astrobiology group is responsible for studying the origin(s), evolution, distribution, and future of life in the universe. They develop a new research road map every 10 years. They asked us to help them build a diverse community of researchers, and organize a series of events to develop an ambitious research agenda. The event combined face-to-face and online participants across a number of time zones.

- **The innovation generated during the creativity workshop:** The NASA workshop helped to identify, organize, and express the vision for research at the Astrobiology department for the next 10 years.
- **The duration of the workshop:** 2-day workshop with several webinars preceding it.
- **The main techniques used during the workshop:** An adapted version of CPS (Creative Problem Solving) was used in the design and facilitation of the meeting. We've adapted CPS specifically for interdisciplinary groups of scientists.
- **The main benefits and lessons learned by the company:** The main benefit was having a roadmap for ten years worth of research that was developed by the community of scientists from universities across the US who have been leading researchers funded by NASA. It is a plan by scientists for scientists so to speak.

There were two interesting points of innovation as well. The first was the novel research themes. As the group looked forward ten years to plan the type of research they wanted to do, some things seemed obvious. Some things that emerged through the CPS process were not obvious at all, but quite novel and valuable. This was one point of critical creative thinking. The other, was in the connections between each of 12 research themes. Sometimes research in one area ties together with research in another area in profound ways. This relational thinking helped them to see those connections well in advance.

Example 2: Innovating with the National Cancer Institute

Is the cure to cancer hidden where we haven't been looking... and what do we do until a medical cure is developed? Policy and other population-level strategies play a critical role. A cigarette tax creates a measurable decrease in lung cancer cases, but not for everyone in the population. In this lab, we guided scientists from across disciplines (psychology, economics, policy, and more) to make cigarette tax and other

policies and population-level approaches smarter, more targeted, and to reduce risk to cancer across the population.

- **The innovation generated during the creativity workshop:** This idea resulted in policy recommendations, and important research questions that could inform policy in the future. Things like, "Designing cities to maximize walking and exercise, and minimize automobile emissions" and questions like "What is the effect of social networks on cigarette and alcohol use?"
- **The duration of the workshop:** 5 days
- **The main techniques used during the workshop:** We used our adapted version of CPS (Creative Problem Solving).
- **The main benefits and lessons learned by the company :** Participants learned to collaborate across varying expertise. Someone who works on cancer medically, and someone who understands it psychologically, and someone who understands cancer at the population-level and its demographics would not instantly be able to collaborate together. One critical benefit of this workshop was to help the group think creatively across their disciplinary boundaries. No easy task for them or for us, but a crucial aspect of innovation in a domain that has already made tremendous progress. Smoking in the US has been reduced dramatically in the last few decades.

Example 3: Innovations for Small Farms in the Developing World

Feed the Future Partnering for Innovation is a USAID-funded program that spurs private sector investment in disseminating new technologies in developing countries to help smallholder farmers build profitable, sustainable businesses. The two pillars of the program are (1) The Grants Program, which helps companies with proven technologies to enter new markets and (2) The Knowledge Exchange, which includes sharing effective models and practices. We are part of Feed the Future, the US government's global hunger and food security initiative. We facilitated a workshop to help participants at the workshop develop unique approaches to innovating for small holder farmers.

- **The innovation generated during the creativity workshop:** By the end of the workshop several teams had formed with specific ideas on how to innovate for "Smallholder Farmers" (farmers in the developing world with small farms). There were ideas like drip irrigation systems that provided water to crops at a very low cost, food modifications to help crops grow in non-ideal climate and weather scenarios, and waste-to-fuel systems that helped farmers turn waste into valuable assets directly on their farms.
- **The duration of the workshop:** 4 days.
- **The main techniques used during the workshop:** We used an adapted version of CPS (Creative Problem Solving)
- **The main benefits and lessons learned by the company :** The company was able to get more innovative ideas for how to help smallholder farmers. They ultimately funded some of these ideas, and moved toward implementing them in the real world.

6. Spain

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Example 1: Technological Company in Security, Telecommunications, Electrical equipment reference in Catalonia

- **The innovation generated during the creativity workshop:** 9 solutions for the Client's experience improvement
- **The duration of the workshop:** 1 day
- **The main techniques used during the workshop:** There was a first phase of exploration before the creativity workshop. It consisted in a compilation of customer information through interviews. The data gathered was used in the workshop that consisted of a multidisciplinary team of the company. The following techniques were used: Service Blueprint, Identification of critical moments, Effective thinking techniques, Transformation of problems into opportunities, Rules of challenge formulation and Ideation techniques. 9 solutions ready to be implemented were determined.
- **The main benefits and lessons learned by the company:** company was really satisfied with the results of the workshop and they highlighted the team work importance, the necessity of a good analysis and brainstorming phase, improvement awareness raising, each problem could be translated into a challenge with a possible business solution

Example 2: Dance school

- **The innovation generated during the creativity workshop:** new orientation of the company business model.
- **The duration of the workshop:** 1 day
- **The main techniques used during the workshop:** Client targeting, Empathy map, Effective thinking techniques, Transforming opportunities into opportunities, Challenging formulation rules, Ideation techniques. The final stage consisted of the parametrization and definition of new ways of growth and action plan.
- **The main benefits and lessons learned by the company:** company was really satisfied with the results of the workshop because they could understand the different types of clients, while pretending to be one of them. Ideas were better defined afterwards. It was also a way to motivate and empower the whole team as representatives from all departments worked together with the Direction Board.

7. Slovenia

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Example 1: Technology company for production of heat pumps

- **The innovation generated during the creativity workshop:** searching for creative ideas for implementation of improved, more customer adapted heat pumps
- **The duration of the workshop:** 1 day
- **The main techniques used during the workshop:** identification of customer wishes, identification of current feedbacks, identification of innovation possibilities, importance of creativity in process, transformation of ideas into possibilities
- **The main benefits and lessons learned by the company:** the results of workshop are directed into important role of creativity in company's development. Company got an insight of effectiveness of creative process against innovations that are financially guided. Identified customer needs and technological development led the company toward new creative ideas. The company will in future development focus on 2 most prospective business ideas.
-

Example 2: Catering and restaurant company

- **The innovation generated during the creativity workshop:** searching for creative and innovative ideas for implementation of new restaurant location
- **The duration of the workshop:** 1 day
- **The main techniques used during the workshop:** identification of customer wishes, identification of market demand, identification of innovative and creative offer, importance of creativity in process, transformation of ideas into possibilities
- **The main benefits and lessons learned by the company:** company was presented with field of creativity and its value in development of company. The innovation of company will hold a lot of financial sources, and as was pointed out in workshop, a lot of financial sources is not the guarantee for success. We pointed several creative ideas to attract current customers as well as new customers. New location needs few creative approaches to be visited. Some of ideas were decided to be further developed.

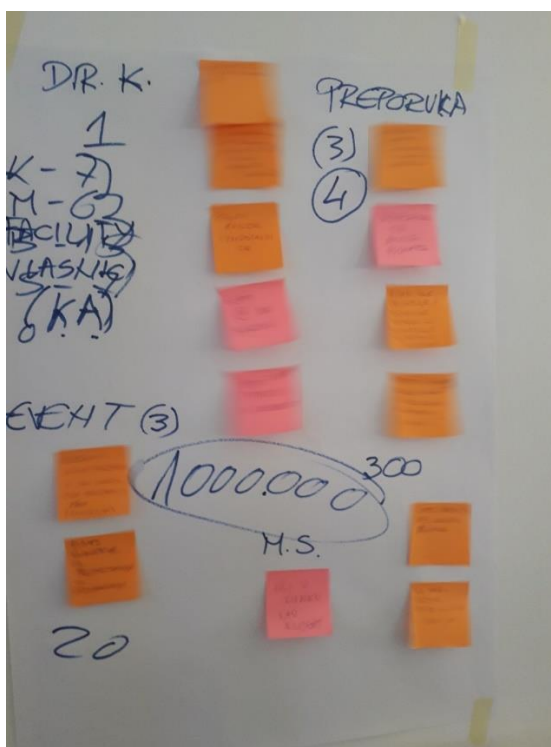
8. Croatia

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Example 1: Consultancy company in the field of healthcare and quality control in health in Zagreb

- **The innovation generated during the creativity workshop:** Process innovation has been generated during the workshop
- **The duration of the workshop:** 1 day
- **The main techniques used during the workshop:** The workshop was performed in several phases, led by three experts from different fields. First phase consisted of the SME analysis and creation of several set of ideas. All the information was collaboratively explored by the workshop participants formed out of people with different expertise and fields. Extrapolated ideas with additional info were prepared for the next phase. Further phases were oriented on those ideas and their exploration through innovative and business aspects. Throughout the workshop many techniques were used including perceptual techniques, creative thinking techniques, 5 why methods, smart goals development and similar. As a result, company process was innovated during the workshop.
- **The main benefits and lessons learned by the company:** representatives from the company expressed their gratefulness for the held workshop and especially complimented on the work done by the experts and the whole creativity process. Many ideas were touched during the workshop and they told us that they will try to develop them also in the future phases.



Picture 18 - Brainstorming of ideas

Example 2: Production of berries and fruit processing and packaging in Zagreb area

- **The innovation generated during the creativity workshop:** innovation of a company products line
- **The duration of the workshop:** 1 day
- **The main techniques used during the workshop:** The workshop was performed in several phases, led by three experts from different fields. First phase consisted of the SME analysis and creation of several set of ideas. All the information was collaboratively explored by the workshop

participants formed out of people with different expertise and fields. Extrapolated ideas with additional info were prepared for the next phase. Further phases were oriented on those ideas and their exploration through innovative and business aspects. Throughout the workshop many techniques were used including perceptual techniques, creative thinking techniques, 5 why methods, smart goals development and similar. As a result, new product was introduced in the company product line.

- **The main benefits and lessons learned by the company:** SME was really satisfied with the new ideas and the whole process of creating and innovative and creative product. They were especially happy with the length of the workshop and the amount and maturity of the workshop results. They plan to do a similar creative workshop after the new product gets on the market.



Picture 19 - Creation of a new product innovation

9. France

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

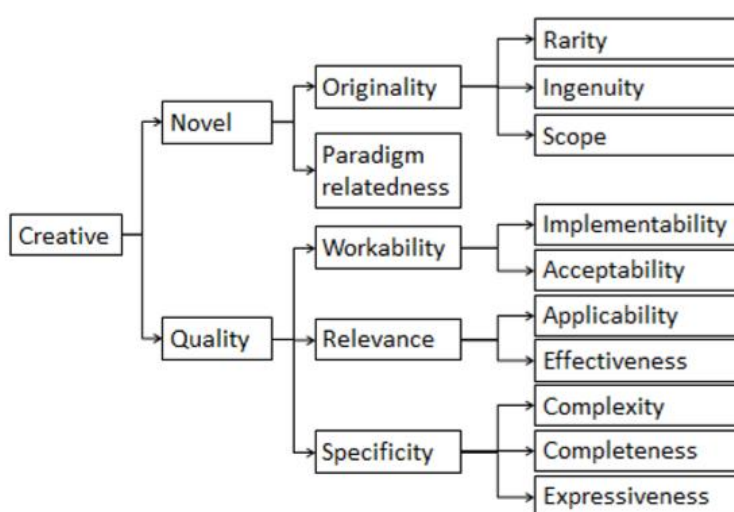
Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Example 1: Company providing mineral and other types of water in bottles

- **The innovation generated during the creativity workshop:** 4 new ideas to improve the positioning of the gas water and development of a new product range
- **The duration of the workshop:** 1 day
- **The main techniques used during the workshop:**

The consultant segmented the workshop into similar stages, i.e. analyzing the situation, launching ideas, evaluating ideas, choosing the most promising ideas and finally implementing them. This kind of approach is often based on the **4 Step Model**. Each step presents their set of techniques to help move the process forward as quickly as possible.

For the first stage or the preliminary stage, it is about putting in context and becoming aware of the problem. The techniques used in this step will help better evaluate the ideas that will emerge in future stages. Techniques such as **Criterionization** (figure below) define the criteria for evaluating ideas while directing research according to the problem. In addition, the definitions of **Pain Points** make it possible to define the aspects of the problem to work.



In the second stage of the idea launch, the techniques are very similar and very few. Indeed, we are talking about techniques of the kind **Brainstorming** that are well known for their efficiency and ease of use. Other techniques, such as the **Descriptive Process**, consist in investing in a process of ideation without carrying out a historical examination. It is therefore suggested to invest a large part of the time in an idea generation phase and then in a phase of evaluation, validation and verification.

For the evaluation stage, there are several possible techniques. Indeed, the speakers can use the technique of the **Convergent / divergent Thought** or the technique of **Six strands** (product, person, place, persuasion, potential) to evaluate the innovative idea. Also, it is at this stage that it is possible to use the criteria defined in the preliminary stage. It allows to evaluate ideas and categorize them. The **most popular product evaluation** technique is the most popular consensual assessment technique. Other evaluation methods can be used to evaluate an idea in its design: **the comparative evaluation of creativity** and the **evaluation of creativity in several points**. Almost all of them are based on evaluation criteria by judges and are distinguished by the criteria applied, the scale of evaluation and the mode of data processing.

Step 4 of choosing an idea is very important. Indeed, it is at this stage that companies take the most risk. Councillors must support them in their decision and present reliable techniques. There are three main techniques for dealing with the selection of ideas: **evaluation of ideas**, **preprocessing by the machine**, **filtering and grouping of data**. Evaluating ideas is a task performed by evaluators to enrich ideas according to the purpose of the organization and current needs. Filtering and grouping data is a textual and graphical method when selecting ideas to improve browsing and searching the Idea Pool. Examples of this method include conceptual mapping or the grid for and against. Finally, machine-assisted data preprocessing is a computational task for generating statistics or recognizing patterns and pre-treating an idea before human evaluation.

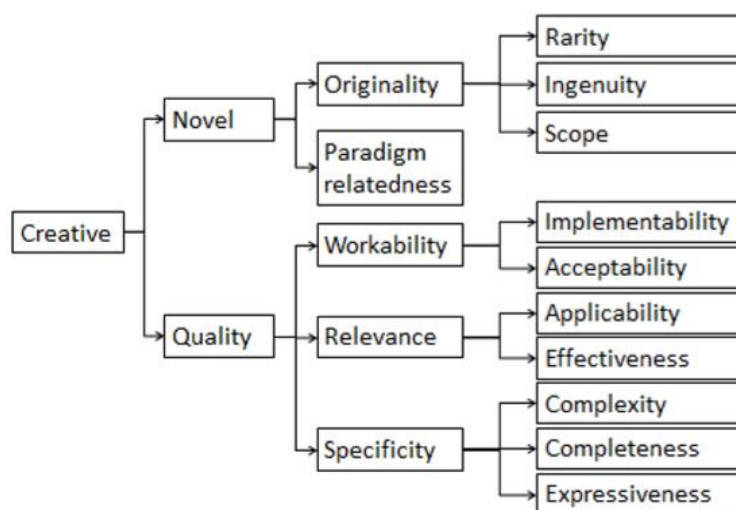
Finally, the last step is to prepare the implementation of the new innovative idea. Few techniques are evoked for this step. It's not really innovation anymore at this stage. Most companies know how to market a new product or service and therefore do not really need help at this stage for some. However, techniques like **Feedback** are very used.

- **The main benefits and lessons learned by the company:** The results were positive for the company since a satisfying solution was found thanks to the creativity approach and active participation of a group of employees. A new concept of positioning of the gas water was found and a detailed action plan was elaborated in order to launch, market and promote a new range of products.

Example 2: Company producing pastries

- **The innovation generated during the creativity workshop:** 10 new ideas to conceive and launch a new product range in line with the values, history and traditions of the company
- **The duration of the workshop:** 2 sessions of 0,5 day
- **The main techniques used during the workshop:**
The consultant segmented the workshop into similar stages, i.e. analyzing the situation, launching ideas, evaluating ideas, choosing the most promising ideas and finally implementing them. This kind of approach is often based on the **4 Step Model**. Each step presents their set of techniques to help move the process forward as quickly as possible.

For the first stage or the preliminary stage, it is about putting in context and becoming aware of the problem. The techniques used in this step will help better evaluate the ideas that will emerge in future stages. Techniques such as **Criterization** (figure below) define the criteria for evaluating ideas while directing research according to the problem. In addition, the definitions of **Pain Points** make it possible to define the aspects of the problem to work.



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For the evaluation stage, there are several possible techniques. Indeed, the speakers can use the technique of the **Convergent / divergent Thought** or the technique of **Six strands** (proceed, product, person, place, persuasion, potential) to evaluate the innovative idea. Also, it is at this stage that it is possible to use the criteria defined in the preliminary stage. It allows to evaluate ideas and categorize them. The **most popular product evaluation** technique is the most popular consensual assessment technique. Other evaluation methods can be used to evaluate an idea in its design: the **comparative evaluation of creativity** and the **evaluation of creativity in several points**. Almost all of them are based on evaluation criteria by judges and are distinguished by the criteria applied, the scale of evaluation and the mode of data processing.

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Finally, the last step is to prepare the implementation of the new innovative idea. Few techniques are evoked for this step. It's not really innovation anymore at this stage. Most companies know how to market a new product or service and therefore do not really need help at this stage for some. However, techniques like **Feedback** are very used.

- **The main benefits and lessons learned by the company:** The company was very satisfied from the creativity sessions because the staff generated many new and innovative ideas beyond the traditional character of the company. The employees who participated in the sessions realized that they can contribute significantly in the development of their company. They also realized that the company has many advantages and resources that have not been used/ exploited so far. A new product range was conceived and an action plan was elaborated to develop, market and promote the new products.

10. Bosnia and Herzegovina

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Example 1: Company in real estate and construction industry

The company of 100 talented young engineers which offers innovative solutions based on BIM for construction and real estate industry. BIM makes information the most important part of the design. It collects information on environment, building surrounding capacities, materials, building elements, energy and cost spendings, etc. Using this information to analyse the building graphical models, the designers now can design buildings that are smart, precise in future predictions and environmentally the best possible solutions. In this way BIM offers many environmental benefits such as paper savings (the BIM process entirely avoids paper documentation; all the building permits is being handled digitally), energy efficiency (BIM enables us to evaluate the energy efficiency of the building and offer valuable alternative design solutions which will improve the energy building performances), carbon footprint (very early in the design stage, by using BIM we can test the conceptual design in order to find the design solution with the lowest carbon footprint), waste reduction (by analysing construction materials that will be used in the building, BIM can significantly reduce construction waste and plan for a more precise material ordering), etc.

They asked us to help them to introduce new sales channels especially B2B but also new marketing strategy and communication channels, including branding strategy. Therefore, we organized a series of interactive and creative sessions with innovation and creativity experts, consultants, researchers, academics, but also start-ups and many young people in order to create fresh and unbiased ideas.

The innovation generated during the creativity workshop: The new web site design is proposed including guidelines for new marketing and branding strategy.

The duration of the workshop: 2-day workshop with several sessions preceding it.

The main techniques used during the workshop: We mainly used lateral thinking, mind maps, 6 thinking hats, EUREKA cards, 5W+H and other brainstorming techniques.

The main benefits and lessons learned by the company: The workshop generated many relevant ideas and solutions for the concrete issues that company faces in terms of its sales and marketing channels. Therefore, at the end company has gained feasible action plan for the future. Still, some proposed B2B channels should be analysed and operationalized. In addition, the workshop participants understood that the interdisciplinary and creative approach are necessary for innovation sustainability.

Example 2: Small company in IT sector

Small company that aims to reduce or eliminate the need for paper and other non-digital materials for companies. They established BookMe Globally app – booking platform with the goal to replace traditional booking methods that include a notebook and phone being used. Book.me is created as an app that enables users to book appointments for dentists, doctors, hairdressers etc. They asked us to help them to upgrade app with features more suitable for individual use and B2C market.

The innovation generated during the creativity workshop: Direct and one-to-one sale as the most appropriate sales channels are proposed, but also upgrades of the platform which include visual design, easier navigation and more app functionalities for individual use.

The duration of the workshop: 2-day workshop with several sessions preceding it.

The main techniques used during the workshop: We mainly used CPS approach including lateral thinking, mind maps, 6 thinking hats, EUREKA cards, 5W+H and other brainstorming techniques.

The main benefits and lessons learned by the company: The workshop generated many relevant ideas and solutions for the concrete issues that company faces in terms of the platform upgrades but also its sales and marketing channels. At the end, company has gained feasible action plan for the future. Still, some proposed B2C channels should be analysed and operationalized, especially those related to app interface and user's navigation. In addition, the workshop participants understood that the interdisciplinary and creative approach are necessary for innovation sustainability.

11. Montenegro

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

Examples of creativity workshops: Description of the processes followed by the Creativity Expert and the techniques used.

- **The innovation generated during the creativity workshop:** new approach for the Client's experience improvement
- **The duration of the workshop:** The three creativity workshop, 5 working hours per day.
- **The main techniques used during the workshop:**

- Meeting and relaxing,
- Choosing the challenge,
- Mind map of the business challenge,
- SCAMPER,
- Disney's strategy of creativity

The approach and the workshop itself was based on NLP methodology in team work. Team coaching is a unique approach where the participants are guided to activate their own resources in order to find suitable solutions for concrete business challenges. Neuro Linguistic Programming is a modern methodology, founded in 1970s in the USA. It involves the basis of psychology, communicology, linguistics, thus forming the methodology, simple to learn, but with extraordinary results regarding the better communication, better relationship and cooperation, in the fields of leadership, managing and achieving the aims and success.

The other creative methods were also used besides POY coaching tool. Using the cards with distinguished visual content, in order to activate the left side of the brain which stimulates creative thinking.

The Company is a ICT company based in Montenegro. Since its inception in 2010, the mission of this young company is to provide the best working conditions and improve the quality of life of its employees through the sound and inventive strategy of growth. The start-up flexibility with a very young board of executives strengthened the business model that takes care of its employees, their families, friends' and the wider community. Company currently employs 68 young professionals and operates on Regional, EU and US market.

UX Design team from the Company participated in the program:

Team members that took part in a training program: Interns and HR unit;

UX design team works closely with technical teams on building functional and easy-to-use software products; The main challenge was to bring the group of young professionals to work together on in-house solution that would automatize business processes in domain of HR.



It was the workshop for the team of 7 members applying the innovative approach in work, by team coaching based on NLP methodology. The members were encouraged on creative and innovative way to perceiving their greatest challenge. The team work consisted of several phases:

1. Meeting and relaxing

Although the participants work together and know each other pretty well, they introduced themselves differently using creative visual cards Points of You. The aim was to create relaxing atmosphere, encourage creativity, but also to arrange the appropriate environment for innovative ideas.



2. Choosing the challenge

Using POY cards helped to start Brainstorming in order to choose and define concretely the business challenge they will work on during the creativity workshop. The participants were encouraged to name the challenges they meet. The aim was to choose and define concretely business challenge, the one which is mutual, and the one whose removal provides mutual benefits.



3. Creative techniques

When the participants chosen the business challenge, we applied several creative techniques in order to find innovative solution for its overcoming.

- **Mind map of the business challenge.**
- **SCAMPER technique** used for processing the business challenge. It represents the collection of questions which stress the ideas:
 - S = substitute? Can I substitute or replace something? (Is there anything I can get rid of, is there anything I can eliminate or take away)
 - C=Combine? What can I combine (How can I combine X with Yonon, What would happen if I combined idea with idea?)
 - A = Adapt. What can I adapt? (What would happen if we changed something?)
 - M= Modify?= Magnify? Can I modify or magnify something?
 - P=Put to other uses? Can I use it in other purposes?
 - E=eliminate or minify? Can I eliminate or minify something?
 - R=reverse?=rearrange? Can I reverse or rearrange something?



4. **Disney's strategy of creativity** – this strategy is based on the model of Walt Disney's creative approach and gives fantastic results in finding innovative solutions. It includes the process which consists of three phases: 1) visionary 2) implementer 3) analyst. The participants were guided through all three phases, in order to perceive their business challenge from the three different positions thus coming up with useful solutions. Brainstorming was used in visionary phase and the creativity was encouraged to look at the challenge from the different angles. The phase implementer included the action plan which provides concrete actions for the improvement and overcoming of the challenge. In the last, analyst phase the solutions which would be implemented were critically reassessed.

The main benefits and lessons learned by the company: The training was an exquisite opportunity for the group to get to know each other better, take the advantage of their personal traits and help them understand the importance of such capital project for the company. This way enabled the participant to release their creative potential and to generate as many ideas as possible when it comes to a certain business challenge, in a relaxing atmosphere and with guidance of the coaches' coaching.

12. GUIDELINES FOR NATIONAL AND TRANSNATIONAL CREATIVITY WORKSHOPS

12.1 Introduction

In this section it is described the methodology that the consortium will follow on regards the development of the national and transnational Creativity workshops. It also includes the first approach of the assessment

process after the workshops development. However, the whole evaluation will be included in the deliverable 3.8.1: Evaluation Reports of CrealInnovation Labs Implementation.

Each partner has selected and hired one or more Creativity Experts that will facilitate the national and transnational workshops. Each expert can decide on the general structure of the workshops and the most appropriate technics and methodologies. It is necessary to consider the MSMEs interests and the creativity expert/facilitator expertise. However, there are some minimum requirements that must be followed in order to assure consistent and comparable results among the different workshops.

These minimum requirements are described in sections, 12.2 and 12.3 for national and transnational workshops respectively.

This document intend to serve also as a starting point for MSMEs that, independently from the CrealInnovation project, would like to dive into the Creativity technics to foster innovation within their institutions through a Creativity workshop. In the event that the MSME has the opportunity to hire an expert/ facilitator, his/her methodologies should prevail.

12.2 Objectives of the Creativity workshops

- **Generate a new innovative and sustainable business idea for the MSME in each workshop.**
- Let SMEs, Students and Managers try and appreciate the power of creativity approach, as a structured process (CSF, CPS, FOURSIGHT, PAPSA, etc.) to generate new business ideas.
- Introduce and sensitize companies and let workshop participants focus on Sustainable Innovation (Economic, Environmental & Social) using the **CISSET Model (CrealInnovation Sustainability Evaluation Tool)** developed by the CrealInnovation project.
- Develop a network of MSMEs, Managers, Students and other stakeholders to generate further collaboration among them.
- Document the creativity process followed and the results obtained. The results will be used as lessons learned. The consortium will provide some recommendations in the evaluation deliverable (D.3.8.1.). The results will be used for project dissemination purposes too.
- According to the application form, the project should generate more than 18 innovative business solutions at regional level and more than 9 innovative solutions a transnational level addressing both SMEs and stakeholders.

12.3 Eligible criteria for MSMEs

- MSMEs: Micro, Small and Medium Enterprises (max 250 employees) with an official VAT.
- MSMEs with headquarters located in the med regions¹.
- Priority will be given to enterprises from rural areas (detailed information on the selection criteria could be found in the public advice/ tender to collect MSMEs: Deliverable 3.6.1)
- In order to be eligible, the MSME must be considered as a green company², or at least, its practices and/or daily activities, the problem they want to solve, the innovative project they would like to work on during the creativity workshop, must be considered as a green innovation driven.

¹ <https://interreg-med.eu/about-us/cooperation-area/>

² A business functioning in a capacity where no negative impact is made on the local or global environment, the community, or the economy. A green business will also engage in forward-thinking policies for environmental concerns and policies affecting human rights. Read more: <http://www.businessdictionary.com/definition/green-business.html>

12.4 Number of MSMEs involved

The pilot phase is based on **36 national workshops and 3 transnational workshops**.

This phase will involve at least 72 MSMEs. Each project partner must involve at least 8 MSMEs during the national & transnational workshops. It is strongly recommended that each workshop is dedicated specifically to one MSME. However, every creativity expert/facilitator can decide to organize a workshop with one or more MSMEs. In the event that more than 1 MSME participates to the same workshop it is recommended for these MSMEs to have something in common: sector, problem to solve, knowledge, motivation, etc.

Each partner must organize 4 national workshops dedicated to 1 SME. They are free to organize the rest of the workshops considering the best scenario. Each partner is also free to organize extra workshops, info-days, events, etc. in order to disseminate the project, recruit participants, make a first approach explanation on Creativity, etc.

12.5 Workshops' calendar

The national workshops will take place from March 2019 until December 2019. Additional workshops can be run after December 2019 and until the end of the project (July 2020) for the benefit of the SMEs. Transnational workshops will take place from March 2019 until December 2019 or, at the most, until the first trimester of 2020.

12.6 Creativity workshops for Sustainable Innovation- Ciset Model (CrealInnovation Sustainability Evaluation Tool)

The CrealInnovation project does not have the sole objective to experiment with MSMEs the processes and creative techniques to generate new/ innovative ideas. **The project intends also to introduce and sensitize companies to the theme of economic, social and environmental sustainability of the innovations implemented in the company.**

This focus on the all-round sustainability of innovation aims to address the problem of impact over time in the area in which companies operate, which is often not considered, producing a significant damage difficult to recover.

To support this principle, the **Ciset Model (CrealInnovation Sustainability Evaluation Tool)** developed by the Project will be used in the Creativity workshops. It includes two phases, in addition to those provided by the various methods developed over time. An initial preparatory phase of sensitization and a terminal evaluation phase.

Therefore, the Ciset Model has two main purposes acting as a:

- **tool for the qualitative assessment** of economic, social and environmental sustainability of innovation projects.
- **checklist on sustainability:** to be used in the generation of innovation projects, stimulating reflections on important areas/topics to put attention on the sustainability criteria.

The simplicity and ease of use of the model allows all those who wish to pursue a sustainable innovation to evaluate this innovation during both phases, the design and the implementation one.

The model should be used at the beginning and at the end of the Creativity workshop. This will provide a clear picture of the innovation idea sustainability (in economic, social and environmental terms) before and after the workshop. It will allow the host partner and facilitator to analyse how the idea/project has evolved using the creativity processes and technics.

This approach is shown in the following graph:

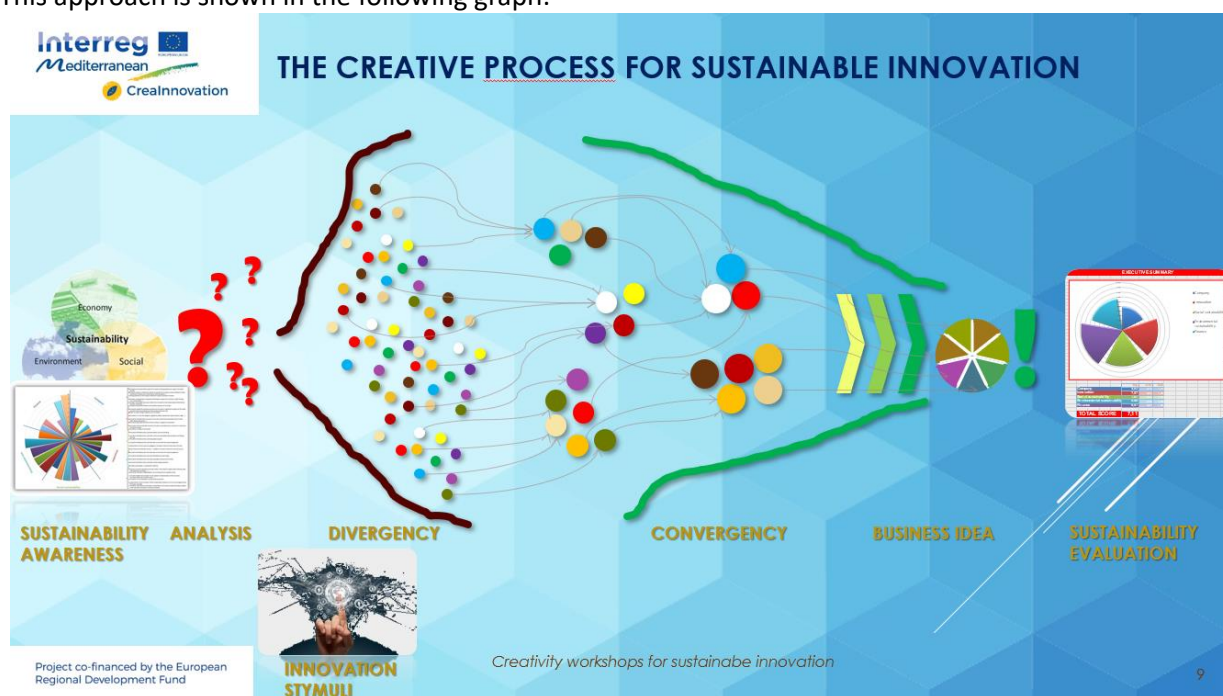


Figure 6: The creative process for sustainable innovation

Moreover, since the workshops are focused on introducing innovation into the company, a momentum of innovation stimulus is foreseen in the phase of generating ideas through a brief overview of the new technologies available.



Figure 7: Sustainability and Innovation focus

In the awareness-raising phase on the theme of sustainability and on the variables to be considered in order to ensure that new business initiatives have positive impacts, not only from economic but also from a social and environmental point of view, the Ciset sustainability assessment model can be used .

Ciset performs evaluation through series of statements divided in five main categories: Company, Innovation, Social sustainability, Environmental sustainability and Finance. The higher points obtained the better sustainable innovation idea:

- Very Strong YES: 10 points; Strong YES: 9 points; YES: 7 points; Weak YES: 5 points
 - Neutral: 3 points
 - NO 2 points; Strong NO: 0 points
- **For social sustainability**, the variables considered in the evaluation model can be brought to the attention of the workshop participants are the following:

- ☒ Innovation facilitates and/or promotes healthy lives and well-being
- ☒ Innovation facilitates and/or promotes Inclusive and equitable quality education and lifelong learning
- ☒ Innovation facilitates and/or promotes gender equality
- ☒ Innovation facilitates and/or promotes clean environment and waste management
- ☒ Employment of human resources engaged in innovation mostly from the local community
- ☒ Use of resources (materials, services, ..) needed in innovation mostly from the local sources

- **For Environmental sustainability**, the variables considered in the evaluation model can be brought to the attention of the workshop participants are the following:

- ☒ Innovation facilitates and/or promotes clean environment and waste management
- ☒ Innovation facilitates and/or promotes affordable and clean energy
- ☒ Innovation facilitates and/or promotes sustainable cities and communities
- ☒ Innovation facilitates and/or promotes climate change awareness
- ☒ Company participates in sustainability initiatives

- **For Finance sustainability**, the variables considered in the evaluation model can be brought to the attention of the workshop participants are the following:

- ☒ Planned innovation exploitation business model is well suited for target market (licensing, sales, subcontracting, consulting,,,...)
- ☒ Cost of the innovation implementation can be financed from available sources
- ☒ Innovation added-value exceeds all costs related to implementation of the innovation (innovation R&D costs, transition costs, ...)
- ☒ Innovation can be monetized in several products/services
- ☒ Creative factor of the innovation is fairly compensated (creativity is not only encouraged but also financially rewarded)
- ☒ Innovation value directly contributes to sustainability of innovation process financing (increased profit is partially reinvested in innvation processes)

During the various phases, all the techniques known and practiced to facilitate the divergence and convergence steps of creative thinking can be used.

For the phase of definition of the problem / opportunity and in its analysis:



Interreg Mediterranean
CreaInnovation

ANALYSIS: DEEPEN THE THEME OF THE IDEA

- Fishbone / Ishikawa
- 6 Hats (objectivity, emotions, negativity, optimism, creativity, control)
- Eureka cards
- Cirano (narrative: comic, tragic, lyrical, heroic, solemn, ..)
- What would happen if .. (eliminate, double, extend, ...)
- List of attributes (physical, psychological, technical, emotional, economic, ..)
- Drawing of the problem
- Five senses
- Mind Map
- Dark and Laurel
- King of the mountain
-

ANALYSIS

- What is the real problem?
- What are the causes?
- What is our goal?

Project co-financed by the European Regional Development Fund

Creativity workshops for sustainable innovation

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Figure 8: Analysis of the idea. Definition of the problem / opportunity

For ideas generation steps:



Figure 9: Ideas generation- Divergency

For the convergence and identification steps of the solutions:

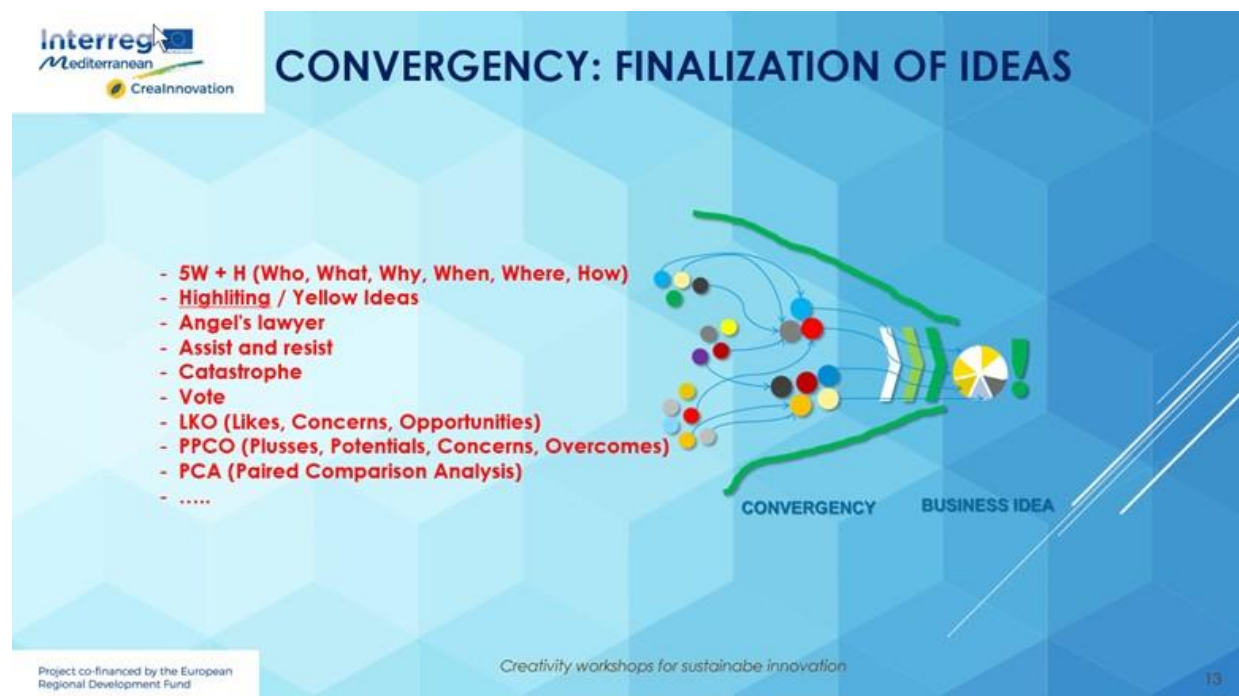


Figure 10: Finalization of ideas- Convergence

At the end of the workshop, the solutions/innovations developed will be evaluated for their sustainability through the Ciset model producing a final score for the sustainability of the innovation.

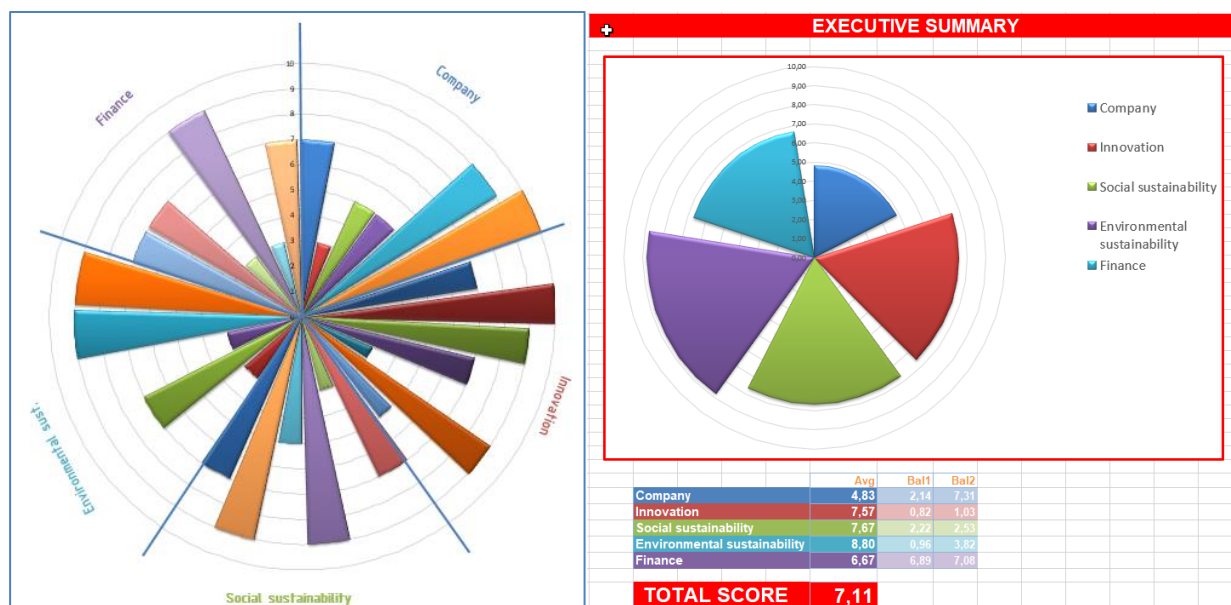


Figure 11: Ciset Final scoring of the innovation sustainability

12.7 Methodology for national workshops

In this section the best scenario for running the national workshops is described. However, each project partner will adapt the call for SMEs recruitment to the regional circumstances and legislation. Therefore, the information detailed below could be changed and adapted for each pilot region. For more information, it is advised to check the national call.

A. Number and target participants

The best scenario would be to develop a specific and tailored workshop for each SME. **Ideally with a minimum of 8 - 12 participants:**

- **Representatives from the SME: ideally from 8-9 participants, and at least not less than 5, from different departments to guarantee a wide vision.** If the SME has an innovation department, at least 1 representative should attend the workshop. In case there is no innovation department, the SME should select the best professionals to attend, for instance, professionals from marketing, sells, direction board, projects, etc. T
- **1 creativity expert as facilitator- mandatory**
- **2-3 students from the University/ Innovation school, private centre, etc.** Ideally students from any degree, post-grade, master, training course, vocational course related to creativity and innovation and/or from the same field of the innovation project.

- **1 expert in innovation.** It should be someone external from the SME that could bring in fresh ideas and perspectives. This is optional, according to budget availabilities.
- **1 experienced expert in management.** It should be someone external from the SME that could bring in fresh ideas and perspectives. This is optional, according to recruitment opportunities.
- **1 expert in sustainability.** It should be someone external from the SME that could bring in fresh ideas and perspectives. This is optional, according to the recruitment opportunities.
- **1 member from the hosting partner**

Other experts could be also very valuable depending on the innovation idea that each SME would like to explore: designers, architects, marketing professionals, etc. **The most effective way to generate a greater diversity of ideas is to have participants from different departments.** They will offer different expertise and background and therefore knowledge. In addition, it is highly recommended to get a balanced mix of participants according to their attitudes in front of a challenge (see figure 12). There is no restriction about the nationality/ origin of the participants unless there is a language constraint.

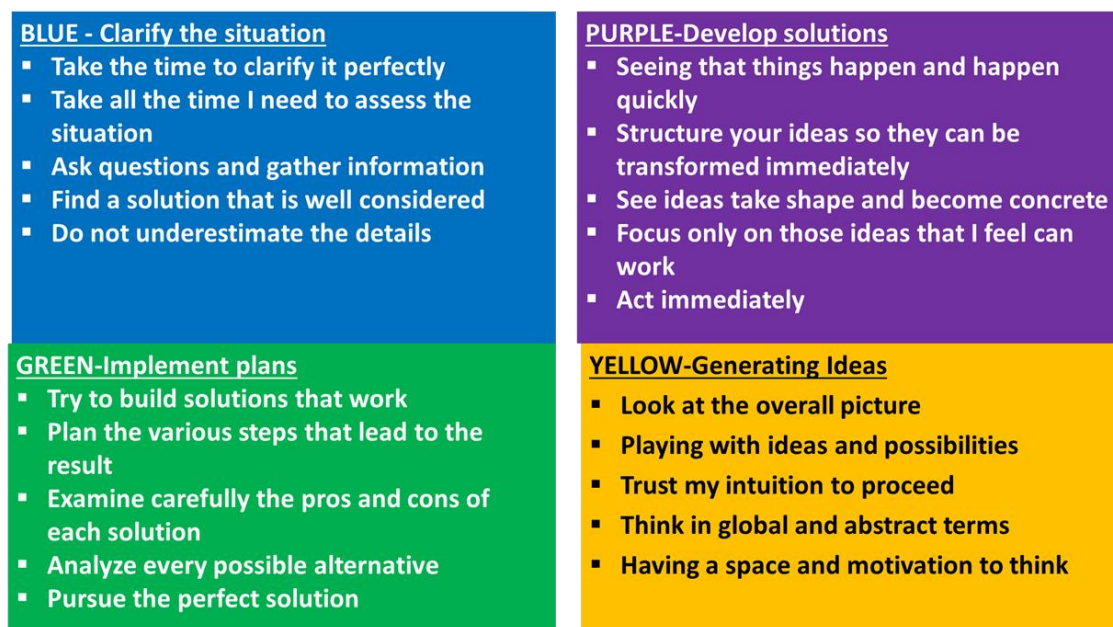


Figure 12: Synthesis of the FourSight Thinking Profile. <https://foursightonline.com/store/>

In case of MICRO-SMEs (less than 10 employees), the Creativity workshop **should include minimum 8 participants**. External individuals selected and accepted by the SME should cover the remaining participants coming from the enterprise (min 5). Each host partner could select and provide some participants to the MSME if needed.

B. Minimum technical requirements for the Laboratories/ premises where workshops will take place

Detailed information on the ideal Creativity Laboratory is described in section 13. On regards the CreaInnovation project, partners will decide whether to establish a permanent Laboratory or use other

facilities, outside or inside their institution, according to feasibility, sustainability after the project and budget constraints. The minimum technical requirements of the facilities to develop the creativity workshops are the ones described hereafter:

- Primarily outside the company's premises.
- One main room and 2 small rooms for subgroups, or, a large room able accommodate various groups working simultaneously.
- Free walls on which to attach sheets, post-it notes, etc.
- Flip Chart
- Video projector
- Internet connection
- 1 computer

C. Methodology and Creativity technics

Each creativity expert/facilitator will decide, jointly with the host partner, which are the best creativity methods and technics for each SME and workshop, also considering budget constraints. In section 2 there is a list with different technics used by the creativity experts during previous experiences.

Partners will request the signature of a registration/participant list at the beginning of the workshop, which will include two clauses:

- **The first one based on attendees' authorization to the consortium to use images, data, processes, technics, results, etc. for project dissemination purposes.** It will include a yes/no box that will refer to the acceptance on using the data and information gathered during the workshop. The data will be strictly used for dissemination and project purposes only (for instance events, deliverables, etc.) with no commercial or business use. The SME and the host partner could accept a different agreement according to each particular case and based on the regional regulation if necessary.
 - **The second one is based on a confidentiality clause.** The property rights of the new innovative business idea would belong to the MSME recruited. If the SME desire to stablish any other business agreement with the external workshop participants, it would be outside of the scope and responsibility of the host partner.
- **CISET (CrealInnovation Sustainability Evaluation Tool): Deliverable 3.2.1.**

The Tool should be used at the beginning and at the end of the Creativity workshop. This will provide a clear picture of the innovation idea sustainability (in economic, social and environmental terms) at the beginning and at the end of the workshop. It will allow the host partner and facilitator to analyse how the idea/project has evolved using the creativity processes and technics.

- In figure 13 there is the **structure of a typical creativity workshop** to foster innovative and sustainable ideas.

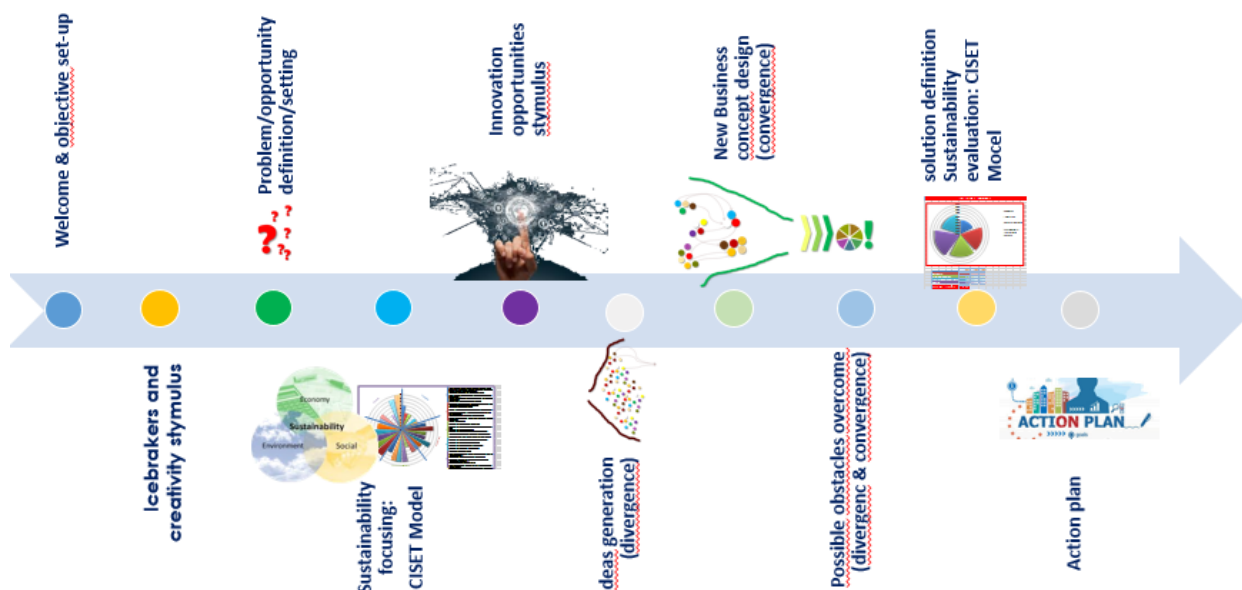


Figure 13: Creativity workshop for sustainable innovation structure for 1-2days long

D. Length of the Creativity workshop & schedule example

According to different national experts, the ideal duration of a Creativity workshop is 2 full days (morning and afternoon) possibly with evening activities like time-building, visits to other similar successful companies, etc.

As this could be difficult to achieve in all pilot regions, each creativity expert/facilitator will decide the duration of the workshop according to the typology and circumstances of the SME recruited and its participants.

12.8 Methodology for transnational workshops

As mentioned in section 2, within the CreaInnovation project, the consortium will run **3 transnational workshops**. In addition to the general objectives described in section 12.2, the specific aim of the transnational workshops is to **generate new innovative and sustainable co-business** ideas among the SMEs from different countries that will participate in each workshop.

In case there are difficulties to find SME willing to create a co-business, the other option is to organize transnational workshops among SME with a common business field in order to share experiences and use creativity to improve or create new business ideas, processes, methodologies, etc.

For transnational workshops the project will hire the external services of Stormz. Stormz has all necessary resources, expertise and tools to help companies to design and facilitate collective intelligence sessions that will enable the teams to voice their opinion and co-construct creative solutions addressing the company or organisation's strategic challenges. Thanks to its Workshop, Quiz and Socializer activities, the

Stormz application helps companies design and facilitate collective intelligence sessions. Either onsite or online, synchronously or asynchronously, in small or large groups³.

A facilitator from Stormz will guide the workshops that will have different sections: Occasionally, the whole team will work together at the same time. There will be also other activities where each national facilitator will work individually with the regional group. Additional information could be found in section C.

A. Number and target participants

- **3 SMEs from 3 different project partners' countries** with their creativity experts/facilitators. The groups will be formed after the recruitment of the SMEs through the call/ public advice-tender. It will prevail the common factors such as: field, sector, innovation idea, problem to solve, business interest, etc. The groups will be formed after the national workshops.
- The composition of the groups to be involved is described hereinafter. However, the minimum participants in each country should be 5. In addition, a workshop facilitator from Stormz will be hired to guide the group.
 - **In 1 of the 3 locations:**
 - 1 Innovation Expert
 - 1 Sustainability Expert
 - 1 CrealInnovation team member who will be the responsible to compile all the information for the workshop report.
 - **In each of the 3 country locations:**
 - 2-3 employees of the SME (in case more than 1 SME from the same country participates to the workshop, max 2 employees per SME)
 - 2 Students
 - 1 Manager from outside the SME
 - 1 Creativity Expert facilitating the local team
 - 1 project member

B. Minimum technical requirements for the Laboratories/ premises where workshops will take place

The description for national workshops applies for transnational workshops as well. However, as they are online workshops, there are additional technical requirements required:

- Tablets/PCs for each participant, or one device per subgroup 2/3 people.
- Good WiFi Internet WAN connection
- ZOOM working connection ([www.zoom.us](https://zoom.us))

³ Information extracted directly from the website: <https://stormz.me/en>

- STORMZ working connection ([Virtual room](#))

C. Methodology and Creativity technics

The methodology will be proposed by STORMZ. However, the process and agenda of the working session has to be agreed by the 3 national Creativity Experts/ facilitators. National experts will agree on the usage of STORMZ in advance. They must also try the platform on advance to become familiar with it before the workshop.

The STORMZ platform configuration (sequence of activities and “tools”) has to be done previously.

Pre-work and off-line post-work must be planned and agreed by the partners, and by the 3 national Creativity Experts, the Workshop leader and the SMEs attending the workshop.

Each of the three country teams participating in the transnational creative workshop will work from their country of origin and will be connected to the other two working groups through a videoconference system. It is suggested the use of the best performing and functional ZOOM platform (www.zoom.us) that can be integrated with the STORMZ platform (<https://stormz.me/en>).



Figure 14: Transnational creative workshop using Stormz and ZOOM platform

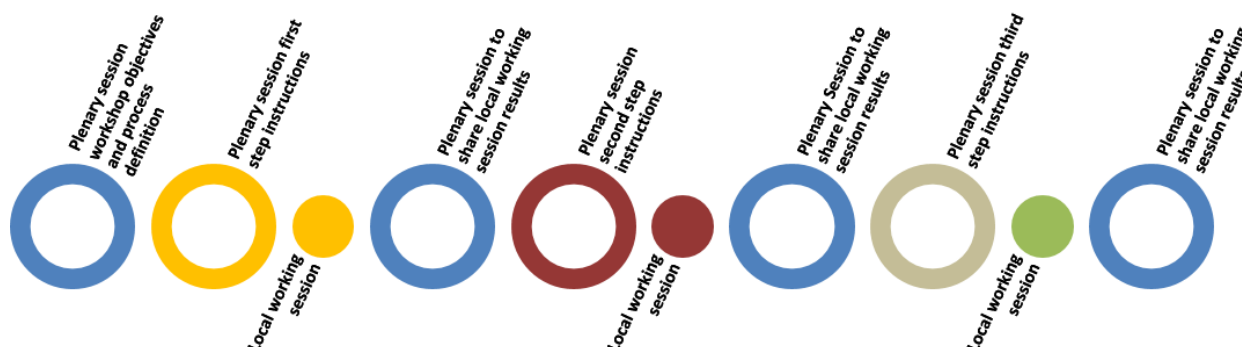


Figure 15: Transnational workshop General structure synthesis

General structure of the creative process and transnational workshop:

- Plenary sessions will be led by one of the Creativity Expert chosen as the “Workshop Leader”- (eg: The Stormz facilitator) among the three Country Creativity Experts. The workshops will be organized in order to have moments in "plenary" in which the three venues will be virtually connected and the workshop will be conducted by a Facilitator who will reside in one of the three locations. During these moments in plenary, the “Workshop Leader” will give the instructions to the other two remote groups on how to conduct the next phases of the workshop. During the Plenary sessions will also be shared the results of the sessions held locally so that the “Workshop Leader” should merge the results of the activities performed by all the three groups.
- Local working sessions: will be driven by the Local Facilitator. Each one of the three remote Groups will perform the activities agreed by the Local Facilitators with the Workshop Leader. The results of the local activities will be shared with the other two groups in the Plenary sessions.
- The “Workshop Leader” will:
 - Give directions to the others 2 Country Local Facilitators (Creativity Experts) both for the plenary and local sessions and guide them in the local/national activities.
 - Collect and drive the sharing of the results generated by each national local working Team

In figures 16 and 17 there are some pictures directly extracted from the Stormz platform to understand the workshop at a glance.



Figure 16: understand Stormz workshop at a glance_1

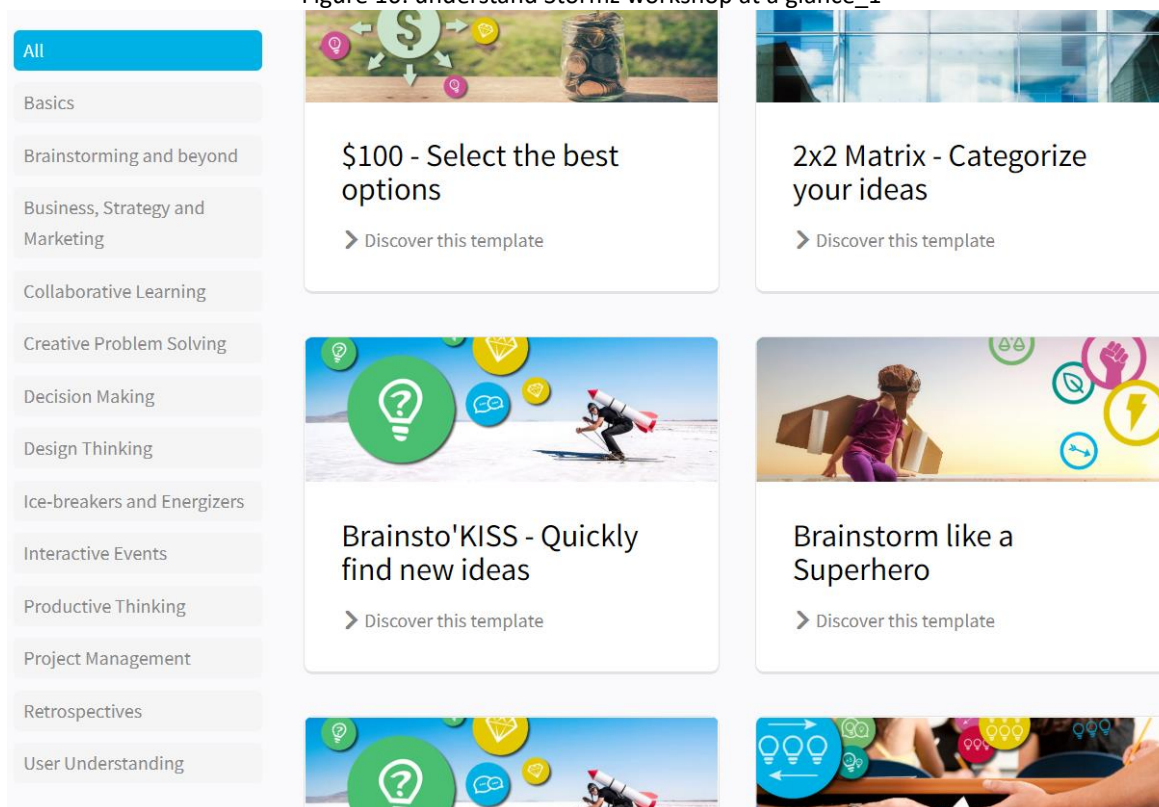


Figure 17: understand Stormz workshop at a glance_2

- **CISSET (Creainnovation Sustainability Evaluation Tool): Deliverable 3.2.1.**

The Tool should be used at the beginning and at the end of the Creativity workshop. This will provide a clear picture of the innovation idea sustainability (in economic, social and environmental terms) before and after the workshop. It will allow the host partner and facilitator to analyse how the idea/project has evolved using the creativity processes and technics.

D. Length of the workshop & schedule example

Transnational workshops will be maximum 1 day long, but it could be half a day in order to simplify the SMEs participation in different pilot regions. Length will be decided by the Stormz Expert, the Local Creativity Experts of the three countries and the SMEs.

12.9 Assessment process

For national workshops:

After completion of each workshop, the creativity expert of each region, with the supervision of the partner in charge, must develop a report according to the template provided (D3.7.2: National CreaInnovation Workshops for SMEs Innovation). Each host partner will approve the regional report made by the expert/facilitator. This is a crucial phase to analyse the success of the pilot test and to verify if the methodologies applied are the best ones to obtain the expected results.

Each project partner will develop a report compiling all national workshops reports. The template provided (3.7.2) will work as a guideline but it could include extra information according to each expert consideration. However, the sections included in the template are mandatory.

In order to be able to develop the assessment process and the report, all partners must document the Creative working sessions (processes, intermediate outputs, final output, workshop pictures, videos, interviews, opinions by participants, etc.) according to the template provided on 3.7.2.

For transnational workshops:

In each of the 3 transnational workshops, there will be 3 host partners participating. These 3 should decide who will lead because he/she will be responsible for the report (D3.7.3: TransNational CreaInnovation Workshops for SMEs Innovation). The 3 partners should collaborate in the report elaboration process and they should also compile the information on the national sections.

The workshops should include the results obtained through analysing the different processes and technics, the situation in each country and the innovative ideas developed during the workshops. All this information will be included therefore in the Deliverable 3.8.1- Evaluation Reports of CreaInnovation Labs Implementation. This information will be disseminated among the MED areas during different national events and international conferences.

13. CREATIVITY LABORATORIES

In this section it is described the layout/shape/design, infrastructure, instruments, technologies of the ideal Creativity Laboratories, enabling the creativity process hosting the workshops, both face-to-face and virtual, and the best way to use them. It includes also IT functional requirements supporting remote collaboration and specific creativity interaction sessions to overcome the existing problem of online workshops.

Annexed to the handbook, the document “A model for a Creativity Laboratory” can be found. The document defines the ideal environment to host workshops and specific meetings to favour innovation and creativity.

However, creativity workshops/ technics could be also provided, developed in the facilities/premises of the SME. Hereafter, we list different options free of cost and other more accurate and advanced ones, their advantages and disadvantages:

- A. **STORMZ:** For the consortium, this is the best platform to run creativity workshops. It works for on-site workshops and for online workshops with other regions. The main advantage is that it is completely adaptable to each case. It contains 3 main functionalities: Workshop, Quiz and Socializer activities. And the cost is reasonable. The Agency can arrange everything, even internet connection. The second great advantage is that the workshop is run using an online device connected to internet, so all information is registered. The platform has the option for report visualization, it allows downloading the data, and some reports are done automatically.
- B. **GO TO MEETING: Personal meeting room:** Get your permanent custom URL. **Videoconferences** **HDFaces:** Share up to six HD video transmissions per session. **Desktop options:** Join from your Mac, PC, Chromebook or mobile device. **Options for mobile devices:** Use the free mobile application to start or join a meeting from an iPhone, iPad or Android device. With screen sharing for mobile devices, you can display the full screen or simply share a document. **Desktop sharing / applications:** Spread a view of your desk or a specific application. **Drawing tools:** Direct attention with different drawing tools sharing your screen. **Give control:** Give control of the keyboard and mouse to any assistant. **Virtual whiteboard:** Start brainstorming with a blank virtual whiteboard that all participants can see (Mac only). A good Wi-Fi connection is needed. Recording option available.
- C. **ZOOM: Meetings:** Online meetings, training and technical support. **Webinar with video:** Web seminar with video. Marketing events and open forums. **Zoom Rooms:** Build conference rooms enabled for collaboration. **Zoom Voice:** The next generation of telephone systems for companies. Designed and optimized to work reliably. Up to 1000 video participants & 10,000 viewers. Easy to use, buy and expand. More affordable and direct prices. A good Wi-Fi connection is needed. Recording option available.
- D. **SKYPE:** It has no creative functionalities, it is possible to share screen, share documents, record. A good Wi-Fi connection is needed. And it is for free.

Annex 1. A model for a Creativity Laboratory

Creativity Laboratory



A Model for a Creativity Laboratory

Claudio Bordi, architect/urban planner

January 2019

SUMMARY

1. Purpose

A project-model for a "Creativity Laboratory", as the ideal environment to host workshops and specific meetings to favour innovation and creativity.

2. Specific objectives

Implementation of a "Creativity Laboratory", a replicable and modular space, where technologies play an enabling, but not exclusive, role: a sort of "digital carpet" in which imagination, creativity and "learning by doing" meet in a particular and *ad hoc* dedicated environment. Scenarios for the application of creative methods oriented towards SMEs, open to training and innovative didactic systems can be found in spaces designed and inspired by the principles of *biophilia*.

3. Methodological summary

The dialogue among the partners of CreaINNOVATION and an in-depth thematic and bibliographic study were the base for the architectural design of a Creativity Lab. Then, a detailed analysis of the individual elements and equipment were fundamental to identify the most suitable features. In section 4.3., motivations are highlighted regarding the choices made and solutions identified, including examples of explanatory references.

4. Deliverables

The requested 5 deliverables are listed below:

- 4.1 LAYOUT OF THE CREATIVITY LABORATORY WITH LEGENDA
- 4.2 SHORT DESCRIPTION OF THE DESIGN/LAYOUT, ILLUSTRATING ITS FEATURES
- 4.3 WHY IT IS THE MOST SUITABLE DESIGN OF CREATIVITY LABORATORY
- 4.4 3D DESIGN
- 4.5 POSTER SHOWING THE BEST WAY TO USE THE CREATIVITY LABORATORY

1. PURPOSE

The work produced within the CreaINNOVATION project moves from the need to identify and implement a model of ideal environment, to be intended as a variable and replicable structure of spaces which host events, initiatives and workshops to foster creativity and innovation, considering the many existing techniques and the models to which they refer.

The design orientation is characterised by the definition of flexible spaces, fluid, adaptable and durable over time, inspired by the principles of *biophilia*.

How much and how can spaces be transformed into ideal environments for a Creativity Laboratory, assuming that it must ensure functional spaces for the reception of guests, refreshments during the work, suitable and comfortable rooms for meetings?

Design responses would consist of variable settings, obtained through co-working islands and flexible stations; screens and connections, specialised areas together with less specialised areas to be used fluidly and even simultaneously, overcoming the fixity of the traditional classroom.

Separable areas through movable walls, movable furniture, and individual or collective devices on trolleys, create even separate working and temporary environments. Furniture, colors and lights are directed to create areas of well-being, concentration, energy that make effective use of spaces dedicated to creativity.

2. SPECIFIC OBJECTIVES

The baselines were developed by the partners of CreaINNOVATION, in order to define the terms of an architectural design for a suitable environment for workshops with the possibility of virtual interactions, centered on the themes of creativity, and related methods and techniques. The initial assumption also considered the need to organize a model of virtual interactive workshop for creativity as well as the development of new business ideas, to be carried out in more different locations in Europe, simultaneously and remotely.

The requirements for each location are as follows:

- 1 plenary hall (for all members of the working group)
- 4/5 rooms for working in sub-groups
- 1 broadband connection (100mb synchronous)
- availability of Wi-fi.

The number of participants expected for each workshop can range from 10 to 20 people.

The number of participants in work sessions in sub-groups can vary from 3 to 5 people.

Each Creativity Laboratory must take into account the following characteristics:

- 1 meeting room for 20 people (50 sqm)
- 4 meeting rooms for 5 people (25 sqm)
- 1 catering with high tables and chairs
- 1 reception
- 1 reading room.

The movable walls separate the plenary hall from the other rooms, and the other rooms between each other, so that the walls can be temporarily removed to share all the results of the work done by the subgroups in one large hall.

Indicative provisions:

- the plenary hall must be equipped with:
 - 6 rectangular tables 80x160 cm with plastic top (eg white boards) with lockable wheels, 20 chairs with wheels and flap
 - 2 flipcharts
 - 1 touch screen consisting of 6 monitors (55 ") guided by appropriate sw
 - 1 library
 - 2 free walls to attach the "brown paper" sheets.
- The meeting rooms must be equipped with:
 - 2 rectangular 80x160 cm tables with plastic top (eg white border) operated by lockable wheels

-
- 6 chairs with wheels and flap
 - 1 flip chart
 - 1 touch screen composed of 3 monitors (55 ") controlled by the appropriate sw
 - 1 library
 - 2 free walls to attach the "brown paper" sheets
- The lounge room must be equipped with:
- 6 chairs
 - 4 high tables
 - drink / food dispenser
 - 1 flip chart
- Reception should have:
- 1 reception desk with pc station for secretarial / registration activities
 - 1 clothes hanger for guests
 - seats for waiting
 - a bulletin board for announcements and / or information
- The reading room must be equipped with:
- 1 flip chart
 - 1 library
 - sessions for reading and / or listening
 - 1 video and radio device with headphones
 - an easily movable exhibition point

3. METHODOLOGICAL SUMMARY

3.1 The preparatory material for the architectural design of the Creativity Laboratory

The methodology for the design of the Creativity Laboratory has been developed through the dialogue between the CreaINNOVATION partners, collecting information and experiences, including a wide bibliography on the topic of creativity oriented to encourage entrepreneurship, create laboratories of creativity as well as provide the basis for a new cluster of knowledge of creative SMEs at transnational level.

For the identification of an ideal setting, we mention, in particular, "Creativity for Innovation" by Gianni Clocchiatti, which shows the different existing methodologies and the numerous techniques available at international level to learn and apply the creativity in workplaces.

3.2 Banckmarking

A sitography, conducted at international level, output a collection of good practices, which substantiate the motivations in the choices of designing the model of Creativity Laboratory. The main benchmarking results for a comparative study are listed here below:

- The "Tinkering Maker Zone" at the Science Museum of Milan (IT)



[source: <http://www.museoscienza.org/tinkering-zone/maker-space.asp>]

-
- “Learning Studio” in San Francisco, California (US)



[source: <https://www.exploratorium.edu/tinkering/about>]

- Dwana Smallwood Performing Arts Center - DSPAC in Brooklyn (US)



[source: <https://dwanasmallwoodpac.org>]

-
- “Moment Factory” in Montréal (Canada)



[source: <https://momentfactory.com/home>]

- “Vitamin T” in Londra (UK)



[source: <https://vitamintalent.co.uk>]

-
- “Skype's Californian Headquarters”, in Palo Alto (US)



[source: <https://twistedsifter.com/2013/02/skype-north-american-headquarters-in-palo-alto-by-blitz/>]

- LANAU, in Madrid (ES)



[source: <https://www.lanauespaciocreativo.com>]

-
- Co-working in Riyadh, (Saudi Arabia)



[source: <https://www.coworker.com/saudi-arabia/riyadh>]

- Interface, in Atlanta (US)



[source: <https://www.interface.com>]

-
- Steelcase, in Strasburgo (FR)



[source: <https://www.steelcase.com/>]

- Creative Lab at the Universitat Politècnica de Catalunya (UPC).

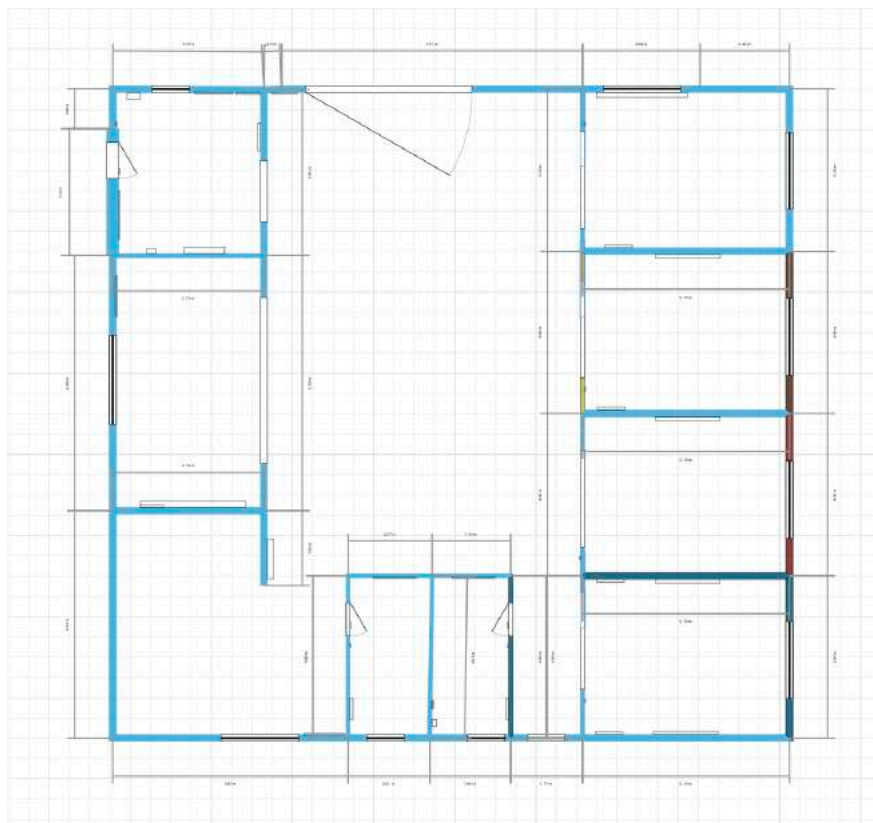
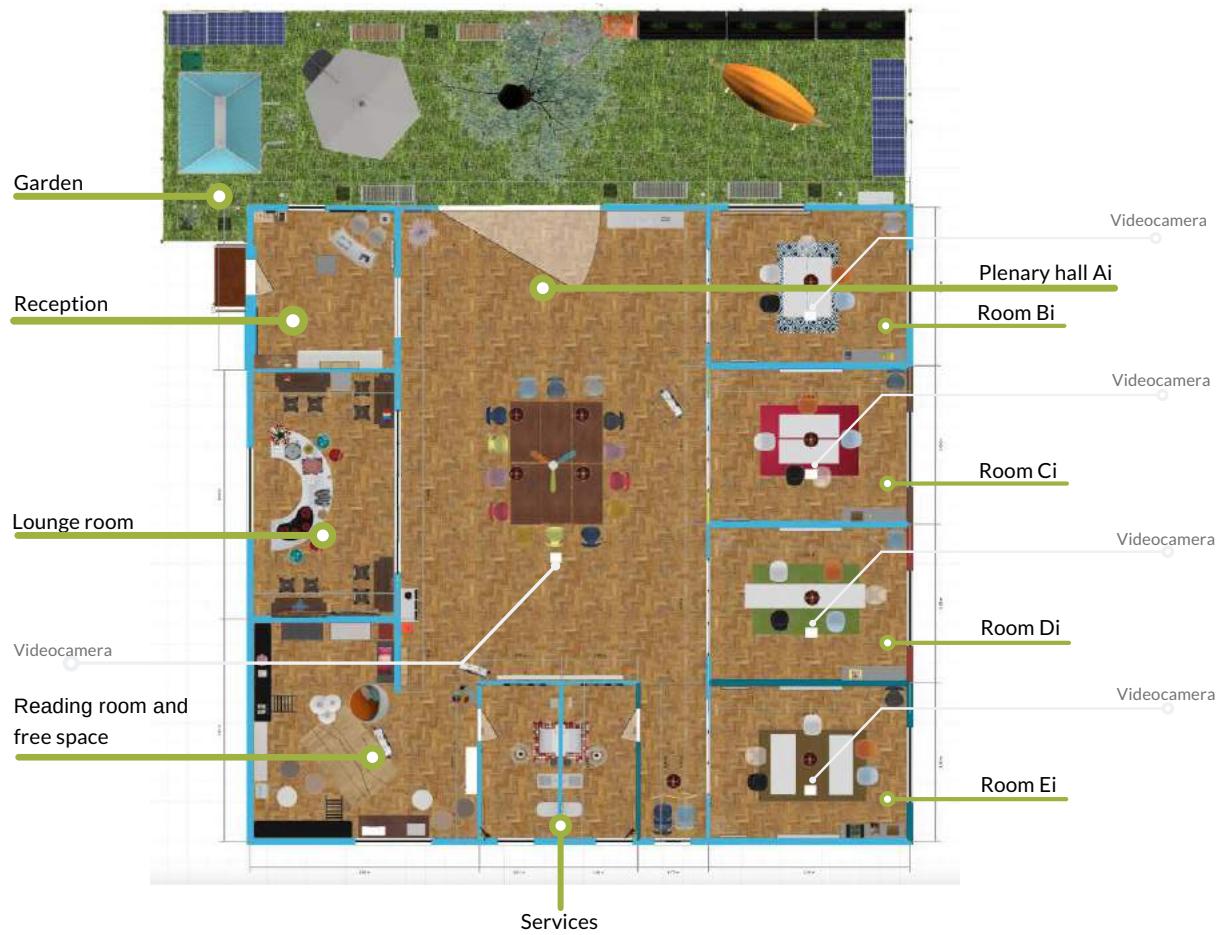


[source: <http://www.carnetbarcelona.com/index.php/tag/creative-lab/>]

DELIVERABLES

- 4.1 LAYOUT OF THE CREATIVITY LABORATORY WITH LEGENDA
- 4.2 SHORT DESCRIPTION OF THE DESIGN/LAYOUT, ILLUSTRATING ITS FEATURES
- 4.3 WHY IT IS THE MOST SUITABLE DESIGN OF CREATIVITY LABORATORY
- 4.4 3D DESIGN
- 4.5 POSTER SHOWING THE BEST WAY TO USE THE CREATIVITY LABORATORY

4.1 LAYOUT OF THE CREATIVITY LABORATORY



4.2 SHORT DESCRIPTION OF THE DESIGN/LAYOUT, ILLUSTRATING ITS FEATURES

1. Introduction

The layout is fundamentally based on the planned activities for a Creativity Laboratory and the aforementioned requirements, indicated in Chapter 2 “Specific objectives”. As a result, spaces were designed according to such activities and requirements. The designed dimensions of each planned space are those indicated in Chapter 2 “Specific objectives” but conceived so to be adapted according to the needs and availability of each partner.

Likewise, provisions and furniture are the ideal ones for a Creativity Laboratory, in line with the aforementioned requirements indicated in Chapter 2 “Specific objectives”. They can be adapted and modified according to the opportunities and availability of the partners. What matters is that these furniture and provisions facilitate creativity, such as diverse lightings and colours (“flash of inspirations”), furnishing interior decorations suitable for the different group works (i.e.: room for working in large groups and rooms for working in sub-groups), including functionalities for multiregional remotely online workshops.

Regardless of the opportunities that each partner has in arranging the space for the Creativity Laboratory, always partners should keep in mind the design proposed here in order to incorporate provisions and tools provided that are necessary to stimulate among the attendees of the creative workshops the creative process (impregnation, generation of ideas, aggregation, investigation, divergence, convergence, selection, planning, etc.).

2. Reception

The Reception project meets the requirements indicated in Chapter 2, “Specific objectives”. A “minimal Reception” should hold wooden shelves to display presentation materials, gadgets etc.

3. Spaces for the laboratory

A plenary hall (“Ai”) and 4 equal rooms (“Bi - Ci - Di - Ei”) constitute the spaces for the laboratory, as per the aforementioned requirements indicated in Chapter 2, “Specific objectives”. The Poster should be walled in the plenary hall (“Ai”) showing the best way to use the “Creativity Laboratory”. The “sliding doors” are a characteristic of these spaces. Various sliding external doors models were considered. They are simple to install, as they do not include masonry works: the sliding track is fixed above the doorway and the door panel is attached to it. Obviously, the wall along which the sliding door moves must be free from encumbrances of any kind as it must not encounter obstacles. In addition, to this primary function, the use of multiple panels will allow the division of the rooms by fixing the

sliding tracks directly to the ceiling and thus creating more rooms in the room, without using masonry.

The application of this solution allows to separate the central area (Ai - plenary hall) from the side areas ("Bi - Ei" rooms). Some practical examples are listed below:

- Quasar produced by Cocif, composed of 4 sliding doors in copper bronze aluminum with bronze reflex glass;
- the external wall sliding door Alaska in satin and green safety glass, which slides on the invisible Phantom track of the Bertolotto manufacturer:

(<https://www.bertolotto.com/porte-moderne/alaska/porta-scorrevole-in-vetro-inciso-3145>);

- the Syntesis Line sliding door of the Eclisse with a paintable door panel like the wall inserted in a plasterboard subframe; it runs on the stainless steel track and uses a counterframe for mirrored parallel doors allowing to obtain very high passage light (up to 480 cm) using a small space:

(<https://www.eclisse.it/it/prodotti/collezione/syntesis-collection/syntesis-battente-vetro/#features>)

- the Cristal Frame Scrighi door by FerreroLegno with the brown polished glass door and the Evoluto frame;
- the Estfeller soundproof sliding wall is made up of several single elements, which sliding along a horizontal guide, fixed to the ceiling, are assembled one after the other until the entire wall is completed. There is no floor guide, the movement of the elements is simple, fast and safe. The advantage of soundproof sliding walls is essentially to occupy reduced spaces both when they are gathered and when the walls are composed of all their elements.

4. Lounge room

It is a "refreshment area" designed in line with the aforementioned requirements indicated in Chapter 2, "Specific objectives", conceived for relaxing.

5. Reading room and free space

Reading room and free space have been strictly designed as well, according to the aforementioned requirements indicated in Chapter 2.

6. Services

Separate services for men and women should also be provided, even if they had not been indicated in the requirements, it was considered appropriate to integrate them in the design of the Creativity Laboratory.

7. Outdoor area

A green space, even small, helps to “connect with nature”, improving the visual impact of the laboratory, both from inside and outside. The green space designed for the Creativity Laboratory model includes an olive tree and a sunshade with table and chairs underneath. Chairs and benches are arranged also in diverse corners; these are wooden structures, which ensure an harmonious mix composed of vegetation of different heights, including bushes and flowers; stones, large enough to serve also as seats, enliven and diversify the space; the soft lighting of the garden is carefully placed not only for practical reasons, but also to create a suggestive atmosphere. The fence is made of wood to be in harmony with the style of the green space. A turf of approx. 5 cm height allows to connect with nature.

To make the garden appear wider, it is better to use more shrubs, bushes and medium-sized flowers rather than a few voluminous plants. Otherwise, an opposite result would be obtained.

A water feature is something that can be tailored for any space: the sound of water rushing over stones, bubbling and splashing over pebbles and swirling amongst plants in a sort of oasis is something that the Creativity Laboratory should have in its green space to help people to relax.

In addition, living green walls can provide a large amount of greenery without having to sacrifice any floor space. This can be ideal when you are already dealing with a small space to experience the benefits that a green scenery offers.

Even just a hammock and some lanterns can be enough to set up a place that facilitates the imagination, to read a book as well as to attain a state of increased calmness.

4.3 WHY THIS IS THE MOST SUITABLE DESIGN OF CREATIVITY LABORATORY

4.3.1 THE MODEL OF CREATIVITY LABORATORY

The Creativity Laboratory is aimed to investigate the needs of SMEs and their innovation capacity (eg: Lack of innovation capacity? Obsolete products/services to be innovated? Poor creative capacity? Lack of a place that facilitates the generation of ideas to solve problems or seize market opportunities? Lack of an approach that facilitates creative ability? Scarcity of time to find a solution to unresolved problems?).

It is widely experimented that the creative process to solve problems can be stimulated and supported by a process, techniques and places.




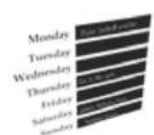




The architectural project is indeed the most suitable design of Creativity Laboratory as it is based on the need to respond to the characteristics of a creative process, in fact the creative functions will be facilitated if the place offer:







- elements facilitating and stimulating creativity (lights, colors, furnishings, connectivity, etc);
- a logistics that facilitates group work (room for work in large groups and rooms for work in sub-groups);
- tools that facilitate comparison and synergy between people, on site and remotely (connectivity, videoconferencing, brainstorming application functions, sharing, gathering ideas, enhancing their value and deepening them, ...);
- tools to follow the creative process (impregnation, generation of ideas, aggregation, investigation, divergence, convergence, selection, planning) and facilitate the collection and documentation of contributions;
- support and guidance of professional facilitators and experts in creative processes and techniques for innovation improve the productivity of work groups and the generation of innovative ideas.

In the following paragraph an “Abacus” of the components of the most suitable Creativity Laboratory has been provided. It is an example list of necessary and suitable provisions, furnitures and tools that have been inserted in the Layout and the 3D Design, in order to be highlighted and detailed.


4.3.2 ABACUS SHOWING EXAMPLES OF COMPONENTS OF THE MOST SUITABLE CREATIVITY LABORATORY







4.3.2.1 Reception








N.	Title	Image (e.g.)	description
1	Shelves		They can be wall-mounted, exhibiting a sturdy and durable design for different uses (notice-board, container of objects, etc.).
2	Front desk table		The front-office desk characterizes the area for relations with the public.
3	Ladder		A bookcase ladder-shaped with shelving (natural ash) to contain brochures and general information materials
4	Blackboard		Movable blackboard that acts as a calendar and memo
5	Bench		Natural bench
6	Trash		Waste bin, better if it is designed for separate waste collection
7	Chair/s		2 Chairs for personnel at Front Desk
8	PC		Pc or portable pc for Front Desk operational activities


9	Phone		Phone for Front Desk operators
10	Ceiling Lamp		Ceiling lamp
11	Wall lamp		Alternative lamp for diffused lighting
12	Clothes hanger & bench		Clothes hanger for guests
13	Succulent tray garden		indoor succulent garden in vertical tray
14	Ikebana vase		A decorative Ikebana to be placed in diverse parts of the laboratory

4.3.2.2 Plenary Hall






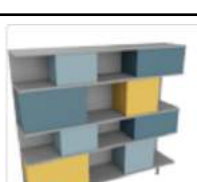
N.	Title	Image (e.g.)	description
1	Plant		Japanese maple





2	Large Bookcase		Library bookcase
3	Chairs		A series of 9 coloured chairs
4	Projector cinema		Projector located in the plenary hall (Ai)
5	Screen		Screen with stand h1.82 x W3.18 x D0.10
6	Storage		Double storage trunk
7	Flipchart		2 flipcharts

8	Blow ceiling		Luceplan Blow Ceiling Light
7	Lamp		Trawler lamp
8	Sliding doors		2 typologies of sliding doors
9	Decorative geo shapes		Decorative geo shapes for geometric decor
10	Bin		Decorated bin
11	Sculpture		Sculpture arteriors Maeve as example of creative decoration
12	Bottle		Decorative bottles






13	Creainnovation poster		Poster showing the best way to use the "Creativity Laboratory"
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4.3.2.3 Room Bi-Ci-Di-Ei








1	Table		Flip top table on wheels
2	Table		Quasar table
3	Chairs		5 chairs of different colours
4	Rug		Rug blue fantasy
5	Flipchart		Movable Flipchart
6	Bookcase		Movable bookcase







7	Bookshelf		Bookshelf elephant
8	Book		Diverse Books to be distributed on the shelves
9	Screen		Projector screen
10	Projector cinema		Projector located in each room (Bi - Ei)







4.3.2.4 Lounge room

1	Table bar		4 Table bar
2	Glass bowl		glass bowl
3	Bar stools		Blue and red bar stools
4	Kitchen island		Curved kitchen island
5	Platter		Ginkgo platter








4.3.2.5 Reading room





1	Large printer		Wireless Color Printer
2	Decorative		kaleido trays set
3	Bookcase		Open bookcase
4	Bookcase on wheels		Movable bookcase
5	Books		Diverse Books to be distributed on the shelves
6	Panel		2 Wood panels for exhibition
7	Hi-Fi Stereo		Hi-Fi Stereo quality sound.

8	Drawer unit		Drawer unit with chalkboard fronts
9	Pouffe		Set of three Pouffe: tortora, white, beige.
10	Library		wooden bookcase with ladder
11	Knot pilow		decorative knot pillow
12	Lamp		Decorative Lamp
13	Tower magazine rack		Black tower magazine rack




14	Benches		4 Benches (Gray and White types)
15	Pillow		decorative pillow
16	Lamp		Bubble lamp
17	Natural séparé		Natural séparé
18	Sofa		Large armchair sofa
19	Light switch		example of light switch








4.3.2.6 Services






1	Radiator		bathroom heated radiator
2	Rug		Coloured rug
3	Flower		Exotic flowers & vase
4	Armchair		White ash armchair 265mm curved
5	Wc&Bidet		Set of Ceramic Wc&Bidet
6	Toilet borstel		Toilet brush in steel
7	Washbasin and mirror		Washbasin and mirror with open cabinet

8	Graphic wall		Colored wall decoration
10	Lamp		Lamp with distinctive style to the services.
11	Porte-papier		Steel porte-papier
12	Table/s		Tables (white and pink) respectively for man and women services

4.3.2.7 Green space

1	Seater garden dining set		6 seater garden dining set
2	Outdoor sunshade		Used to repair from sunlight and enrich the design of the garden and also to offer shelter and meeting place
3	Flower plot		A container in which flowers and other plants are cultivated and displayed.

4	Bench		2 types of bench
5	Lanterne outdoor		Lantern with candle is a suitable to create an ideal environment even during the evening
6	Water fountain		Bubbling and splashing water swirling among plants
7	Movable fence		Movable fence including vertical plants
7	Olive tree		Traditionally, the olive tree is a symbol of peace, friendship, victory and abundance but, of course, many other trees can be planted, depending on the climate
8	Bird table		Bird table offering a way to attract and feed birds
9	Outdoor floor unit		heating and cooling of the environment

10	Outdoor hammock		Hammock can be useful to attain a state of increased calmness.
11	Wooden house for tools		Offering a fairly generous space for storing tools and equipment
12	Lamp		8 garden lamps to ensure outdoor lighting
13	Stone		3 stones positioned in the garden, large enough to serve also as seats, enliven and diversify the space.
14	Solar panels		6 solar panels - a solar panel produces around 320 watts of power.

4.4 3D DESIGN



The visualization of the 3D version is in Annex 2, from which it is possible to make a virtual visit of the CREATIVITY LABORATORY

1. Reception





2. Plenary hall



3. Room Bi



4. Room Ci



5. Room Di



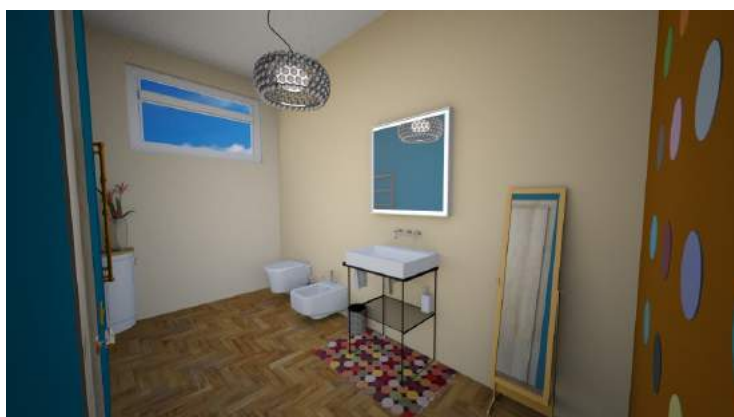
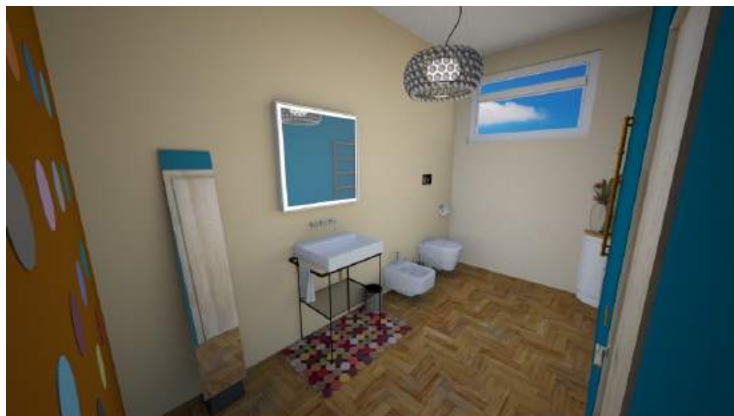
6. Room Ei



7. Reading room



8. Services



4.5 POSTER SHOWING THE BEST WAY TO USE THE "CREATIVITY LABORATORY"

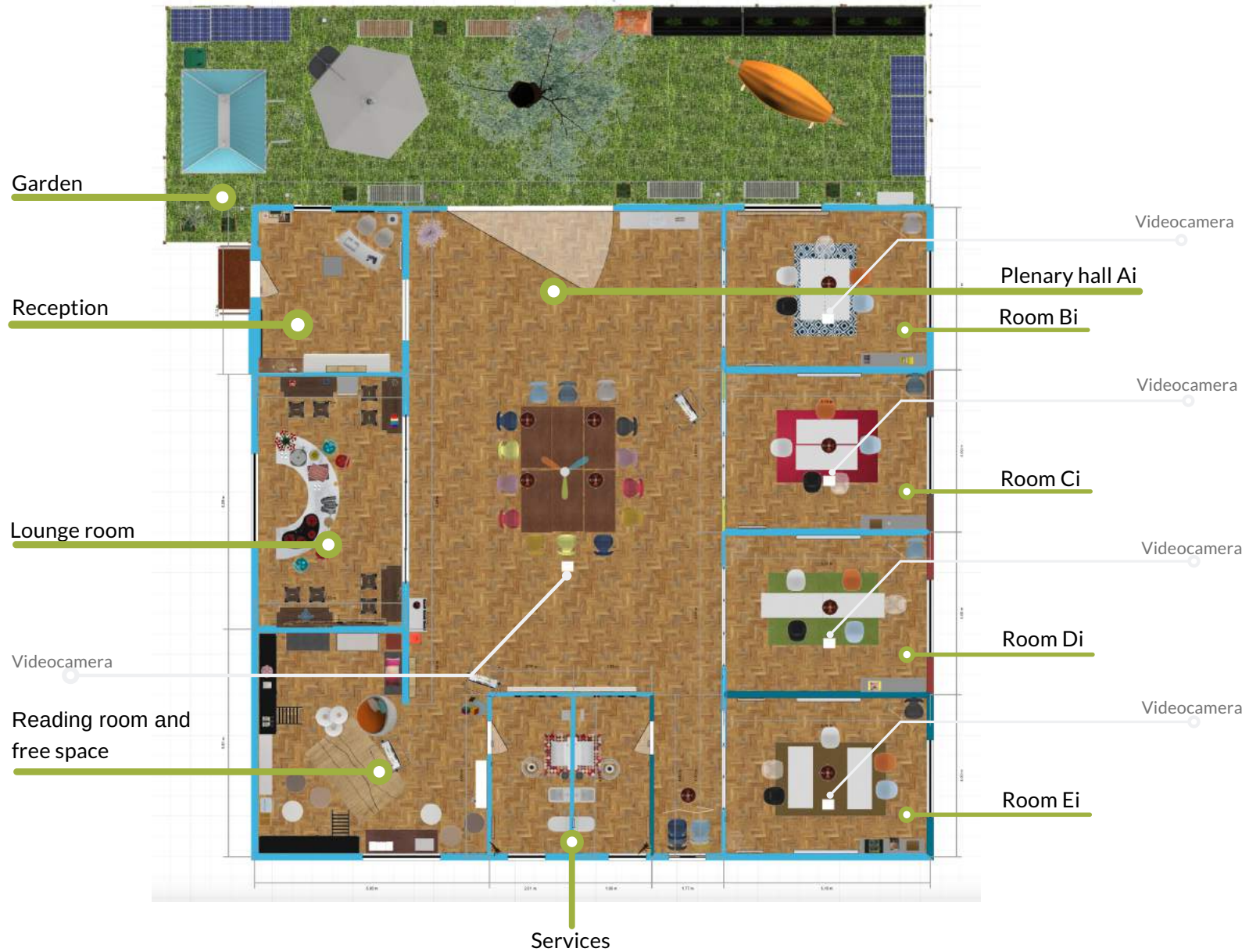
The Poster is in Annex 3 in pdf Format.

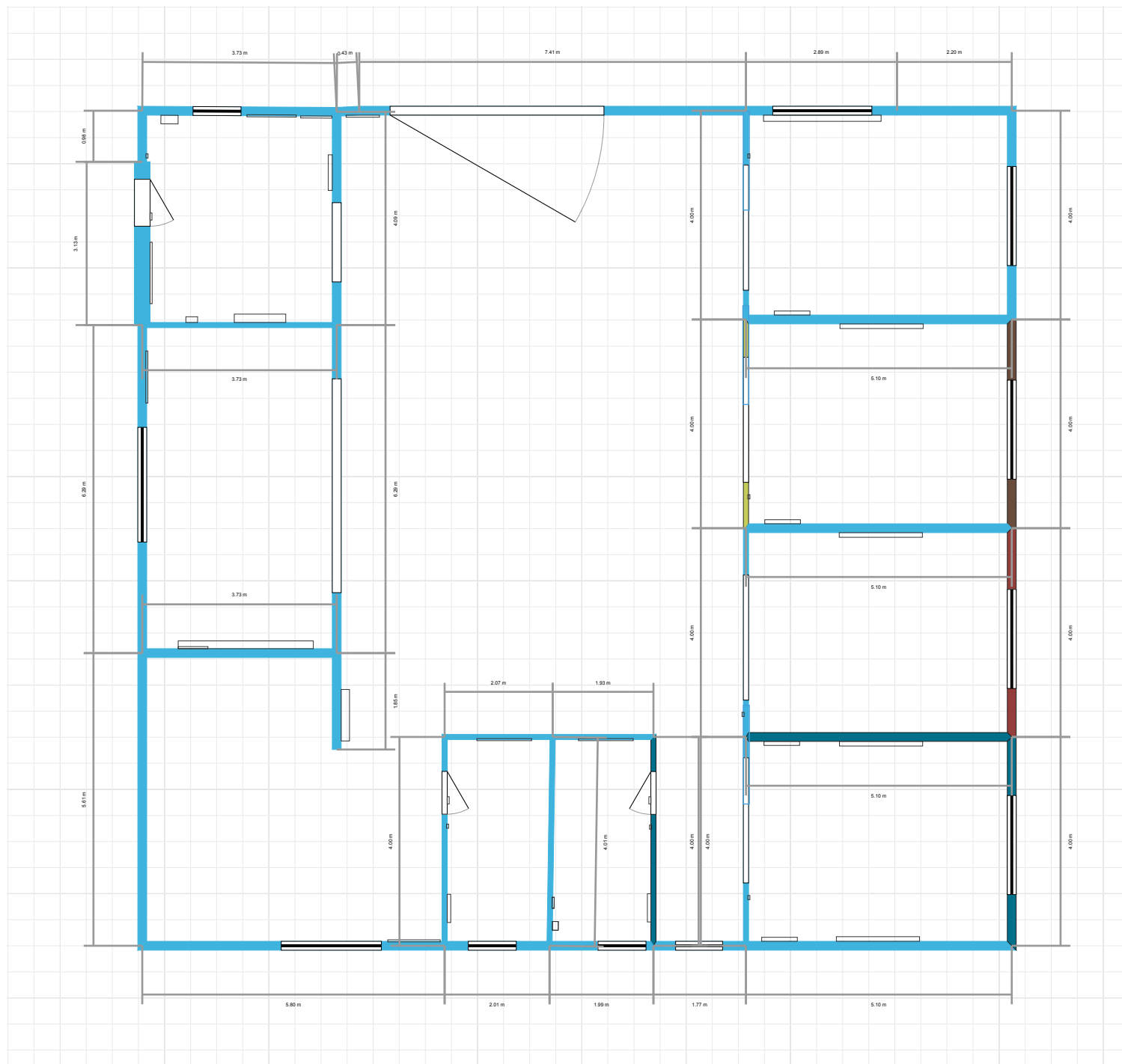


ANNEXES:

1. LAYOUT OF THE CREATIVITY LABORATORY WITH LEGENDA
2. 3D DESIGN
3. POSTER SHOWING THE BEST WAY TO USE THE CREATIVITY LABORATORY

Creative Lab - Map





THE CREATIVITY LABORATORY – 3D DESIGN



Annex_2_Creativity Laboratory.mp4

Link: <https://www.youtube.com/watch?v=yXzRToJDMLA&t=199s>

FOSTER IDEAS GENERATION AND INNOVATIVE SOLUTIONS

Problems of SMEs with the ability to innovate

SMEs, Creativity experts, Sustainability experts,
Innovation experts, Students, Business managers

Logistics

- LARGE AREA LAB
- 4 SMALL WORK GROUPS AREAS
- COFFEE SPACE WITH FOOD AND DRINK DISPENSERS
- LIBRARY, STUDY AND COMFORT ZONE
- MODULAR AND DISMOUNTABLE FURNITURES, PC
- BATHROOMS, SPACE FOR PRIVATE CALL
- OUTDOOR SPACE FOR RELAXING, SMOKING
- SECRETARIAL SERVICE AND COMMON PRINTING SERVICES

Design

- WALL COLOURS
- LARGE WINDOWS
- GREEN AREA
- MODULAR MOBILE WALLS

Creative Process competencies

- CREATIVE EXPERTS ON CREATIVE PROCESS AND TECHNIQUES
- CREATIVE GROUPS COMPOSITION (FOURSIGHT)
- CREATIVE APPROACHES (CPS, PAPSA, CSF, FOURSIGHT, SYNECTIC, TRIZ)

Technological devices/tools

- VIDEOCONFERENCE
- PROJECTORS
- VIDEO CAMERA
- WI-FI CONNECTION
- INTERNET CONNECTION
- CREATIVE PROCESS SUPPORT PLATFORM
- FLIPCHARTS
- VIDEO SCREENS
- TABLETS/PCs/...
- LARGE FORMAT PRINTERS

Creativity tools

- EUREKA CARDS
- THEMATIC PICS
- EXERCISES FICHES
- FLASKS FOR PERFUMES
- CD&ALBUM
- TACTILE OBJECTS (CREA Box)
- ROPES AND BANDAGES
- SUITS AND APRONS, ACCESSORIES, ETC.

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Creativity training

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