

Desci check list

DESCI's Essential Elements



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Introduction

The school becomes a "Living Lab" for local communities, an incubator of innovation and creativity, a co-working space in which students, under the mentorship of companies, associations and research bodies, realize innovative and socially sustainable products for the territory/local communities. The school opens its doors to the territory/communities and becomes an hub for the Alternating Training (AT), connected at the European level.

The Living Lab will be the approach used to improve the AT, through the sharing of ideas and collaboration between students, institutions, research centers, businesses and local communities. The goal is to promote the active involvement of the end users in order to detect their needs, designing and evaluating actions that will have a medium- and long-term impact.

Aim of the check list

This checklist is aimed at identifying if an AT path can be considered a "DESCI AT path".

School and research bodies can use the Check List for monitoring and assessment purposes.

According to the school system, the context and the school characteristics, it may happen that it is not possible to positively answer to all issues. In those cases, the check list can be used in self-evaluation to verify dynamic process towards a "DESCI AT path".

This check list is meant to be a guide also to define a scenario on which to activate Student's Living Lab in line with the objectives of the philosophy that guides the DESCI approach.

The issues of the checklist are linked with one or more of the 4 DESCI Conceptual Map Phases (Designing, Implementing, Evaluating, Knowing) described in DESCI toolkits for teachers and students structure.

The scenario depends on many aspects:

- ❖ national and local normative, praxis and context opportunities
- ❖ students' skills, school curriculum, teachers' guidance
- ❖ reference community, stakeholders' involvement
- ❖ skills and tools offered by the research system involved,
- ❖ features and availability of the enterprises involved

In any case the characteristics of the AT path have to correspond to those required in the check list.

Please, note that the living lab approach fosters sustainability and inclusiveness of the whole process.

TOPIC	QUESTION	REFERRING DOCUMENTS
Opening to the Territory	<p>In the Designing and Knowing phases:</p> <ol style="list-style-type: none"> 1. are local communities of reference, companies, research organizations, local associations, local authorities, and potential users of products and services searched for and detected? 2. are needs and expectations of the communities surrounding the school considered and taken into account? 	<p>Description of ways to open to the territory and to elicit knowledge on communities needs and expectations can be found:</p> <p>in DESCi toolkit structure</p> <p>in DESCi Country Scenarios</p> <p>(Chapters: “How to implement a Living Lab in DESCi Project: the living lab stakeholders” and “The Living Lab Management”)</p>
Stakeholders engagement	<p>In the Designing, Implementing, Evaluating and Knowing phases:</p> <ol style="list-style-type: none"> 1. Are all the interested local communities of reference, companies, research organizations, local associations, local authorities, and potential users of products and services contacted and involved? 2. Are all procedures of involvement required by the school(s) or by stakeholders considered and realised? 3. Is it possible or foreseen to modify some aspects of the project in progress as a consequence of the feedback provided by all the subjects involved? 	<p>Description of stakeholder typologies and of ways of involvement can be found:</p> <p>in DESCi toolkit structure</p> <p>in DESCi Teacher Living Lab scenarios</p> <p>(Chapters: “The Living Lab Management” and “Design: designing implementation scenarios and personalized training for the students”)</p>
Teachers Living Lab	<p>In the Designing, Implementing and Knowing phases:</p> <ol style="list-style-type: none"> 1. Are teachers directly involved in alternating training sharing views and scenarios with the other teachers of own class and school? 2. Are teachers actively engaging external tutors and stakeholders in the scenario design? 	<p>Description of Teachers Living Lab can be found:</p> <p>in DESCi toolkit structure</p> <p>in DESCi Teacher Living Lab scenarios</p> <p>(Chapter: “Design: designing implementation scenarios and personalized</p>

	3. Are students engaged in the scenario design?	training for the students")
Students living lab	<p>In the Designing, Implementing Evaluating and Knowing phases:</p> <ol style="list-style-type: none"> 1. Are end users actively involved in the design/ implementation/testing phases of the delivery produced by students? 2. Is the product tested by final or potential users in real conditions (not just in laboratory, but in users' own natural environment) ? 3. Is it possible to envisage and make explicit the kind of innovativeness of the delivery? 	<p>Description of Students Living Lab can be found:</p> <p>in DESCi toolkit structure</p> <p>in DESCi Teacher Living Lab scenarios</p> <p>(Chapters: "The ENoll definition: user engagement" and "How to implement a Living Lab in DESCi Project: The FormIT Methodology")</p>
Skills: CREATIVITY AND INNOVATION	<p>In Designing, Implementing, Evaluating and Knowing Phases:</p> <p>1- Do students get some of the following competencies for innovation and creativity?</p> <p>Ability to use their knowledge and experiences</p> <p>Ability to get questions / problems by examining data</p> <p>Propensity to divergent thinking</p> <p>Ability to make original proposals</p> <p>Ability to re-direct the action, the project in relation to unforeseen events</p> <p>Ability to ask new questions</p> <p>Ability to make new proposals coming the activity carried out</p> <p>Ability to use knowledge and information</p> <p>Ability to think in simulation mode</p> <p>Ability to translate strategies / procedures feasible systemic vision</p> <p>Ability of representation and communication</p> <p>Ability to "go beyond the already given" with original ideas</p> <p>2- Is it possible to envisage new innovative and creative skills</p>	<p>Description of creativity and innovation skills can be found:</p> <p>in DESCi toolkit structure</p> <p>in DESCi Teacher Living Lab scenarios</p> <p>(Chapter: "Design: definition of the skills and link to School education Plans")</p>

	and competences?	
Active learning methods	<p>In Designing, Implementing, Evaluating and Knowing Phases:</p> <p>-Are you adopting active learning methodologies? laboratory (operating method), experimental research (investigative method), action research (Heuristic-participatory approach), and mastery learning (as exemplification of individualized methods) role playing</p>	<p>Description of active learning methods can be found:</p> <p>in DESCi toolkit structure</p> <p>in DESCi Teacher Living Lab scenarios</p> <p>(Chapter: “Design: Teaching/learning Methodologies”)</p>
Participatory methodologies	<p>In Designing, Implementing, Evaluating and Knowing Phases:</p> <ul style="list-style-type: none"> - In students interaction are some of the following participatory methodologies adopted: metaplan, scenario building , brainstorming, flipped classroom, cooperative learning 2- Is it possible to envisage new participatory methodologies of students involvement? - In the interaction with stakeholders, are some of the following participatory methodologies adopted: metaplan, scenario building brainstorming, cooperative learning - Is it possible to envisage new participatory methodologies of stakeholders involvement? 	<p>Participatory methodologies are described in:</p> <p>DESCi toolkit structure</p> <p>In DESCi Country Scenarios</p>
Evaluation as reprogramming tool and as an input for the knowing and the next phases	<p>In Designing, Implementing, Evaluating and Knowing Phases:</p> <p>Are school parties aware that DESCi Evaluating phase is a resource for raising knowledge and improving the DESCi alternate training methodology?</p> <p>Are school parties aware that all 4 phases (Designing, Implementing, Evaluating and</p>	<p>The DESCi Alternate training process is described in the conceptual map that can be found in DESCi toolkit structure (this toolkit is divided into two parts. First one is about the alternating training experience evaluation: aim and topic, methodology,</p>

	<p>Knowing) may be relevant for implementing Desci participatory alternating training, according to normative and contextual characteristics?</p> <p>It is made a group evaluation and participatory between teachers and companies?</p> <p>Reprogramming is performed starting from the evaluation results?</p> <p>An assessment is made in itinere, and ex post?</p>	<p>tools summary. The second is about the evaluation tools: questionnaires, interview. The document pages are 80.)</p>
Evaluation of living lab peculiarities	<p>In Designing, Implementing, Evaluating and Knowing Phases:</p> <ul style="list-style-type: none"> - have students considered and implemented as far as possible rights, needs, desires of users? - have students analysed social, ecological, economics effects and sustainability of the delivery? - 	<p>Description of evaluation of living lab peculiarities can be found:</p> <p>in DESCi toolkit structure</p> <p>in DESCi Teacher Living Lab scenarios</p> <p>(Chapter: “The DESCi’s Living Labs: <observations>”)</p>
Social inclusion	<p>In Designing, Implementing, Evaluating and Knowing Phases:</p> <ul style="list-style-type: none"> - are students differences respected? - Are students basic needs considered? - Are stakeholders involved following a social inclusiveness approach? - Do stakeholders and users feel valued? 	<p>Description of social inclusion can be found:</p> <p>in DESCi toolkit structure</p> <p>in DESCi Teacher Living Lab scenarios</p> <p>(Chapter: “The DESCi’s Living Labs: <observations>”)</p>

Legend

Topic:

The topic is a specific issue of relevance for DESCI, based on Living Lab approach

Question:

The questions introduce the essential conditions for a DESCI AT path

Reference document

Refers to the DESCI documents dealing with the topics/answering the questions

Appendix

The European Network of Living Labs ENoLL defines a Living Lab as “an open innovation environment in real-life settings in which user-driven innovation is fully integrated within the co-creation process for new services, products and societal infrastructures¹”.

The key words in this definition are:

- Open Innovation - it focused on all possible sources of innovation, by encouraging their involvement of all actors (research system, enterprises, citizens) in the transparent, collaborative and often not codified processes, in which the use of ICT often should take a leading role .
- Active involvement of the end users – it is given substantial weight/relevance to all actors (research system, enterprises, citizens). The key concept at the basis of a Living Lab is to turn users from being traditionally considered as merely passive subjects to whom new products or services are simply proposed, into active players contributing to the co-creation and experimentation of emerging ideas, breakthrough scenarios and innovative concepts.
- Co-creation and innovation driven by users - end users (users involved may be citizens, associations, enterprises, institutions) are encouraged to cooperate with researchers, developers and designers to contribute to the innovation process as a whole.
- Real life situations - it is believed that the best results in terms of validation and verification come from making the prototypes available for a sufficiently long time and in the same conditions ("real-life setting) in which they would be used on a larger scale; it is thus produced an increase in the quantity and quality of the feedback from the user, in a phase of development in which to make remedial modifications is still feasible.

In each phase of process of living lab development (planning, analysis, evaluation, and on) the respect of the *Five Key Principles* is important:

- ✓ *value* – for customers & users;
- ✓ *influence* – for rights, needs, desires of users;
- ✓ *sustainability* – social, ecological, economics effects;
- ✓ *openness* – several stakeholders in collaborative environment;
- ✓ *realism* – carried out in a realistic, natural, real-life setting.

¹ European Network of Living Labs ENoLL, at www.openlivinglabs.eu › aboutus