



## Developing and Evaluating Skills for Creativity and Innovation



This project has been funded with support from the European Commission

## WHAT IS DESCI ?

The project **Developing and Evaluating Skills for Creativity and Innovation** (DESCI) promotes alternate training paths based on the **Living Lab approach**, adopting participatory design methodologies, connecting School, Enterprise, Research and Territory.



The school has the potential to create a co-working space, an innovation laboratory for the local community, for which the students, also guided by company tutors and by researchers, can develop innovative products that will be **socially, ecologically and economically sustainable**.

DESCI is funded under the **Programme Erasmus+**, Key Action K2 (Strategic Partnerships), by the National Agency INDIRE. The leader of the project is **CNR-IRPPS**, its partners are Institutions belonging to the world of Research and Education from Italy, Greece and Spain.

## WHY DESCI

DESCI arises from the need to address the **problem** of the **mismatch** between education and professional integration, to strengthen the links between educational systems and the world of work, relating training programmes to the cultural, social and economic development of the territory.

A key issue is the **teaching of innovation** in its various facets and its vital connection, emphasized in many studies, to ethical, sociological and environmental aspects.

## AIMS AND OBJECTIVES

DESCI aims to:

- ☐ Encourage the development of work methodologies in secondary schools to ensure a more effective **access to the world of work**;
- ☐ Increase in schools the development of adequate **basic competences** as necessary components for learners to enter the labour market (scientific analytical skills, problem solving, creativity and technological skills);
- ☐ Promote a **bottom-up** creation of tools for the management of alternate training;
- ☐ Enhance the capacity of teachers and schools to impact on the **alternate training** process;
- ☐ Promote the creation of **communities of innovation** encouraging the School to reach out to the territory ;
- ☐ Improve **School-Business** relationships favouring a strategic mutual interaction;
- ☐ Increase **scientific training** and the importance of science in daily life.





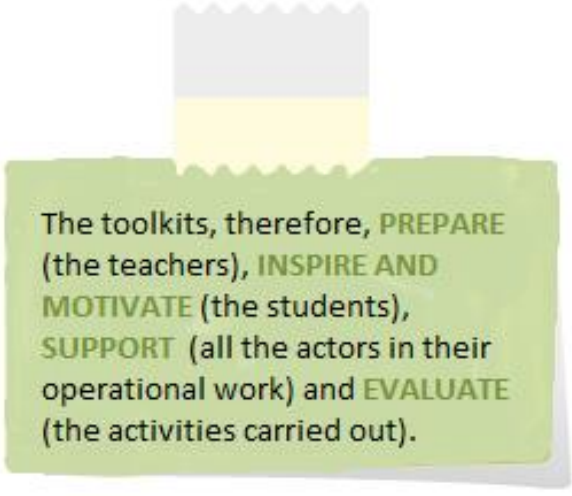
## ACTIVITIES AND PRODUCTS

DESCI intends to realize:

- ☐ Innovative modules for the alternate training paths in partner schools;
- ☐ Toolkits for teachers, students and tutors (manuals, methodologies, guidelines and "video tutorials"), to provide support during the alternate training experience, specifically:
  - **1 toolkit for teachers**
  - **1 toolkit for students**
  - **1 toolkit for the evaluation of the skills acquired at the enterprise/during practice**
- ☐ Training, awareness-raising and dissemination events on the proposed model for schools, companies, research institutions, policy makers.

The three products are meant as Manuals/Guidelines for the presentation of methodologies, operational tools and suggestions aimed to **support students, tutors and teachers, during the alternate training experience, in technological study areas.**

The production of "video tutorials" is also envisaged, to facilitate the learning and comprehension of the covered topics.



The toolkits, therefore, **PREPARE** (the teachers), **INSPIRE AND MOTIVATE** (the students), **SUPPORT** (all the actors in their operational work) and **EVALUATE** (the activities carried out).

The toolkits will be field-tested at the project's partner schools. A total of 9 experimental classes will be selected to test the tools.

## STAKEHOLDERS

Vocational secondary school authorities at regional, national and European level, teachers/ teachers' communities, entrepreneurial organisations, scientific research institutes, pedagogical training and research teams.

## DESCI NUMBERS

- 150 teachers
- 30 technical and vocational secondary schools
- 12 representatives of regional and national authorities
- 45 researchers and experts
- 15 enterprises
- 45 stakeholder related to secondary school and technical training related





## METHODOLOGIES AND APPROACH

Active and participatory methodologies will be favoured to promote the development of transversal competences, creativity and innovation.

### THE LIVING LAB APPROACH

**A Living Lab** is “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 infrastructures”

The key dimensions of a Living Lab are:

- ☐ **open innovation** 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;
- ☐ **real-life settings** since people cannot experience anything independent of the experience they get from being embodied in the world;
- ☐ **end user engagement** implies embracing the end user's weight as well as that of other innovation

actors through every phase of the project (from the requirements analysis to the outcome evaluation), giving utmost consideration and respect, as added value to the result, to the end user's rights, needs and aspirations;

- **co-creation** and **user-driven innovation** imply setting up new “formats” for the research and development process, which assign to beneficiaries and end users a role, if not predominant, at least of equal standing to that of the designers and implementers of products, services and societal infrastructures.

In DESCI the living lab approach is present in two, interrelated, environments:

- **Teachers' Living Lab** – the school, as training for the world of work: the Living Lab for the development of experimental toolkits for alternate training experiences;
- **Students' Living Lab** - smart communities - the living lab as working methodology during the alternate training experiences





## DESCI IS AN OPPORTUNITY FOR:

### STUDENTS who can:

- **Face the challenge** of learning “in the field”, enhancing not only “formal” but also “non- formal ” and “informal” competences;
- **Discover and enhance** their individual potential through direct contact with the business world, thus favouring professional guidance and integration;
- **Acquire skills** for creativity and innovation;
- Come in contact with other students, from different territorial contexts;
- **Learn to behave** according to the living lab approach thus becoming active and responsible individuals within the school’s local community;
- **Understand** the importance of research as a vehicle for innovation.

### TEACHERS who can:

- **Try out** new methods and new tools;
- **Network** with other teachers from different contexts;
- **Promote** their continuous professional development;
- **Involve the school** in the problems of the local community delivering innovative solutions to respond to its needs and aspirations.

## ENTERPRISES who can:

- **Become active parties** in the educational process, offering students the precious opportunity of “learning by doing”;
- **Learn and experience** the Living Lab approach and consequently operate in the spirit of responsible innovation;
- **Come into direct contact** with the innovative potential of the young generation, marked by a natural flair for new technologies and new languages;
- **Develop innovative products** transferring innovation from research centres.

## RESEARCHERS who can:

- **Become active parties** in the process of analysis and identification of innovative solutions to citizens' needs and aspirations thereby finding new areas of research;
- **Learn and experience the Living Lab** approach and consequently operate in the spirit of responsible innovation;
- **Come into direct contact** with the innovative potential of the young generation, introducing them to the world of research and its importance for the growth of a society;
- **Cooperate in finding and developing innovation** in the light of technology transfer.

## DESCI is

### Innovation

*Promotion through study and field experimentation of alternate training paths that will be replicable and transferable to other territorial contexts. Creation of innovative products for the enterprise, innovation transfer among university-school-enterprise-territory.*

### Exchange

*Opportunity to interact, learn and share practices regarding methodologies, pedagogies, competence building processes.*

### Network

*An important space for the design and discussion of the toolkit will be the eTwinning portal, where a community of innovators will be created starting from the school network.*

### Community

*The school becomes a hub bringing together the world of research and business with the community, where all the Living Lab's actors can find innovation and inspiration.*



## MORE INFORMATIONS ABOUT DESCI

**DESCI is on**



<https://www.facebook.com/Progetto-DESCI-1808183632750246/>





## Lead partner

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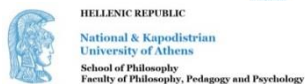
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This project has been funded with support from the European Commission. The author is the only responsible for the content of this publication and the Commission declines any responsibility for that might be made of the information contained in it



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