

Schools as living labs

A way to support open schooling and science education in AND out of school

Schools as Living Labs:

a European project on "open schools and science education"

• 12 countries:

• Belgium, Croatia, Cyprus, Estonia, France, Greece, Israel, Luxembourg, the Netherlands, Portugal, Serbia, Spain

• 13 partner organisations:

- schools, universities and research centres, science centres and communicators, third sector, enterprises
 - Coordinated by Ellinogermaniki Agogi, Greece

• 3 years:

• September 2020 – August 2023



Open schools	Open schools, in cooperation with other stakeholders, become agents of community well- being by creating new partnerships in their local communities.
	We promote Europe's interest in integrating the concept of open schooling in science education at all educational levels, by building on an existing impactful framework for open schooling, the 'Open Schools for Open Societies' (OSOS) framework.
Living labs	Living labs are user-centred, open innovation ecosystems based on a systematic user co- creation approach integrating research and innovation processes in real life communities and settings.
	schooling efforts.
SALI	-: the central concepts

Open school

Part of a wider system of social actors in a neighbourhood or area:

- Open to the society
- An agent of community well-being
- Working together with people and organisations in its local setting.

Including the whole school community:

- Educators and other staff
- Students
- Their families.



Living Lab

- Collaboration among different social actors (organisations or individuals)...
- ...who wish to deal together with a certain problem/issue...
- ...which is important to each one of them.
 - "Co-creation" of ideas to solve the problem/issue, after exploring it
 - Development of basic elements of the solution, fast and economically (prototyping)

SCHOOLS AS LABS

• Testing the solution with the stakeholders to get feedback and improve it.

These steps can be repeated several times and at different levels, in order to gradually improve and complete the solution.

Living lab school projects

School communities developing the open schooling approach in practice

 \rightarrow applying a methodology based on Living Labs

 \rightarrow with students' active initiative and participation.



School students engaged in...

...innovative educational living lab activities:

- Co-creating solutions to real problems from students' real-life experiences
- Synergy of the school the local community ("social actors", "stakeholders")
- Cross-curricular, interdisciplinary, practice-oriented work...

...with a thematic focus on the food system - all its dimensions:

- production, distribution, preparation, consumption, disposal, etc.
- linked to health, economy, environment, etc.

Social actors

- In every living lab school project, there is an important role of social actors
 - Organisations or individuals from the local community who
 - Are linked to the school or share interests with it
 - Are interested or affected by the problem, the process, the solution, or the results of the living lab school project.
- Examples of social actors in school projects on the food system:
 - The local municipality
 - A local restaurant, bakery, food store, or other business
 - A local producer, a food truck driver
 - A local environmental or social initiative ...and many others.

SCHOOLS AS LIVING LABS

SALL

Our approach in SALL

- We bring together stakeholders into dialogue, mutual learning and exchange
- We co-construct the living-lab-based open schooling methodology
- We closely study living-lab-based open schooling practices and their impact, through implementation and evaluation activities in real-life conditions in school communities
- We prepare the ground for sustainable living-lab-based open schooling activities in Europe's schools after the end of the project through strong community-building, networking, dissemination, as well as policy-oriented interventions.



SALL's network of schools

- 412 schools
- 1.000 teachers
- 10.000 students
- from 10 countries

...developing living lab projects



living labs!



Photo credit: TRACES



www.schoolsaslivinglabs.eu

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Thematic focus on Food System



Food

2030



Food The food system incorporates all elements and activities that relate to the production, System processing, distribution, preparation and consumption of food, as well as its disposal. This includes the environment, people, processes, infrastructure, institutions and the effects of their activities on our society, economy, landscapes and climates.

SALL prioritizes a thematic focus on the food system, because it represents challenges of huge societal, environmental and economic importance, as well as of direct relevance to science education and to ambitious European policy making (cf. the Food 2030 research and innovation policy).

Food 2030 is European Union's research and innovation policy to transform food systems and ensure everyone has enough affordable, nutritious food to lead a healthy life. The ambition is to achieve a resilient food system that is fit for the future, while also delivering co-benefits for people's health, our climate, planet and communities. Food 2030 provides the policy framework to accelerate this transition within safe planetary boundaries. It is in line with, and supports, the goals of the European Green Deal, Farm to Fork strategy and bioeconomy strategy.

By linking its activities to the Food 2030 policy, SALL demonstrates that open schools operating as living labs can become core nodes for the implementation of ambitious European policy agendas and demonstration sites of **responsible citizenship**.

Examples of school projects linked to the food system

- School gardens
- Composting
- Environmental footprint of food
- Food waste
- Eating behaviour and keeping healthy



We offer schools:





The four steps of our living lab methodology

- Co-creation: Identifying needs Defining issues – Coming up with ideas
- 2. Exploration: Going deeper into selected ideas – Defining main questions or elements to test in the real world – Dealing with feedback, the unexpected, new questions
- **3. Experimentation:** Testing the prototype or scenario of the solution in real life
- 4. Evaluation: Analysing the results of the experimentation to validate or improve the solution



The three necessary features of a living lab school project ('when everything else fails...')

- 1. Real issue real solution, building on participants' personal experience
- 2. Co-creation, through the participation of social actors affected
- 3. Quick prototyping, with ideas turning into practice, tested immediately.

European Commission

SCIENCE EDUCATION for Responsible Citizenship



• NOT just understanding science, its methodology, observations, and theories...

- Science education for responsible citizenship Report to the European Commission of the expert group on science education (2015):
 - New opportunities arising from science and technology

Some thoughts on

science literacy

- More complex challenges arising in society and the world
- We need:
 - Citizens with a better understanding of science and technology
 - Citizens with the necessary knowledge about science to participate actively and responsibly in
 - science-informed decision-making
 - knowledge-based innovation
 - To equip citizens, enterprise and industry with the skills and competences needed to provide sustainable and competitive solutions to the challenges.

the 'Open Schools for Open Societies' (OSOS) framework

"OSOS cycle of school transformation":

A framework to help school leaders and educators with the transformation of their school into an open school



in a nutshell













