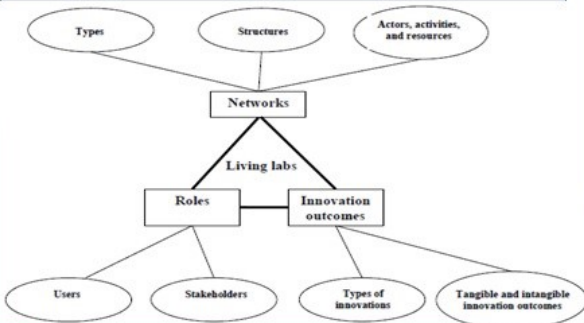


## The Living Lab

The term 'living laboratory' was used for the first time by Knight (1749). The professor William Mitchell from the Massachusetts Institute of Technology, (MIT) introduced and implemented for the first time an approach of the Living Lab. ([https://en.wikipedia.org/wiki/William\\_J.\\_Mitchell](https://en.wikipedia.org/wiki/William_J._Mitchell)). In Europe the European Network of LLs ENoLL (<https://enoll.org/>) was formed in 2007 and has evolved as an international hub that registers LLs not only from Europe but from North and South America, Asia, Australia and Africa. The ENoLL counts 140 active Living Labs (LLs) today. Living Labs (LLs), have been defined as an *environment* (Ballon, Pierson & Delaere, 2005. Schaffers, et al. 2007), as a *methodology* (Eriksson, Niitamo, & Kulkki, 2005) and as a *system* (CoreLabs, 2007) and function as intermediate actors amongst citizens, research organizations, companies cities and municipalities for the common co creation of this value. Their activities cover many and different fields and despite their differentiation they share common characteristics such as: *Multi-method approaches*, *User engagement*, *Multi-stakeholder participation*, *Real-life setting*, *Co-creation*, (Living Lab Methodology: Handbook. European Commission 2017-2019).



## «Proposal of organisation of schools as Open Living Labs Sustainability»

Evanthia Kefala Educator, Special School of Larisa

email:evakefala123@gmail.com

The five basic principles that characterize the methodologies of the Living Labs are: *Continuity*, *Openness*, *Realism*, *Empowerment of users* and *Spontaneity*, CoreLabs (2007).

Leminen (2015) identified altogether 17 stakeholder roles in Living Labs, 10 past and 7 contemporary:

*Webber* (Acts as the initiator, decides on potential actors),  
*Instigator* (Influences actors' decision-making processes),  
*Gatekeeper* (Possesses resources),  
*Advocate* (Background role, distributes information externally),  
*Producer* (Contributes to the development process),  
*Planner* (Participates in development processes; input in the form of intangible resources),  
*Accessory* (Self-motivated to promote its products, services, and expertise).  
*Tester* (Tests innovation in (customers') real-life environments, e.g. hospitals, student restaurants and classrooms),  
*Contributor* (Collaborates intensively with other actors in the network to develop new products, services, processes or technologies), and  
*Co-creator* (The user co-designs a service, product or process together with the company's R&D team and the other living lab actors).  
*Coordinator* (Coordinates a group of participants),  
*Builder* (Establishes and promotes the emergence of close relationships between various participants in the living lab),  
*Messenger* (Forwards and disseminates information in the living lab network),  
*Facilitator* (Offers resources for the use of the network),  
*Orchestrator* (Guides and supports the network's activities and continuation; tries to establish trust in the network to boost collaboration in line with the living lab's goals),  
*Integrator* (Integrates heterogeneous knowledge, development ideas, technologies or outputs of different living lab actors into a functional entity), and one new user role, an *Informant* (Brings users' knowledge, understanding and opinions to the living lab).

First stream of living lab studies, a living lab as a context focuses on real-life environments, activities and users.

Second stream of living lab studies, a living lab as a method focuses on methods, methodologies and their processes.

Third stream of living lab studies, a living lab as a conceptualisation focuses on created conceptualisations and tools such as systems, networks, roles and innovation outcomes.



**The success of the Living Labs can be measured according to the four basic elements: Innovation, Collaboration, Multi-Contextuality and Sustainability, CoreLabs (2007).**

### Conclusion

**The model of Quintuple Helix according to recent research and applications could be an important tool for the organization of schools as Open Living Labs Sustainability.**

