

Living Labs as innovation drivers in the context of Smart Cities

Prof. Fernando Vilariño

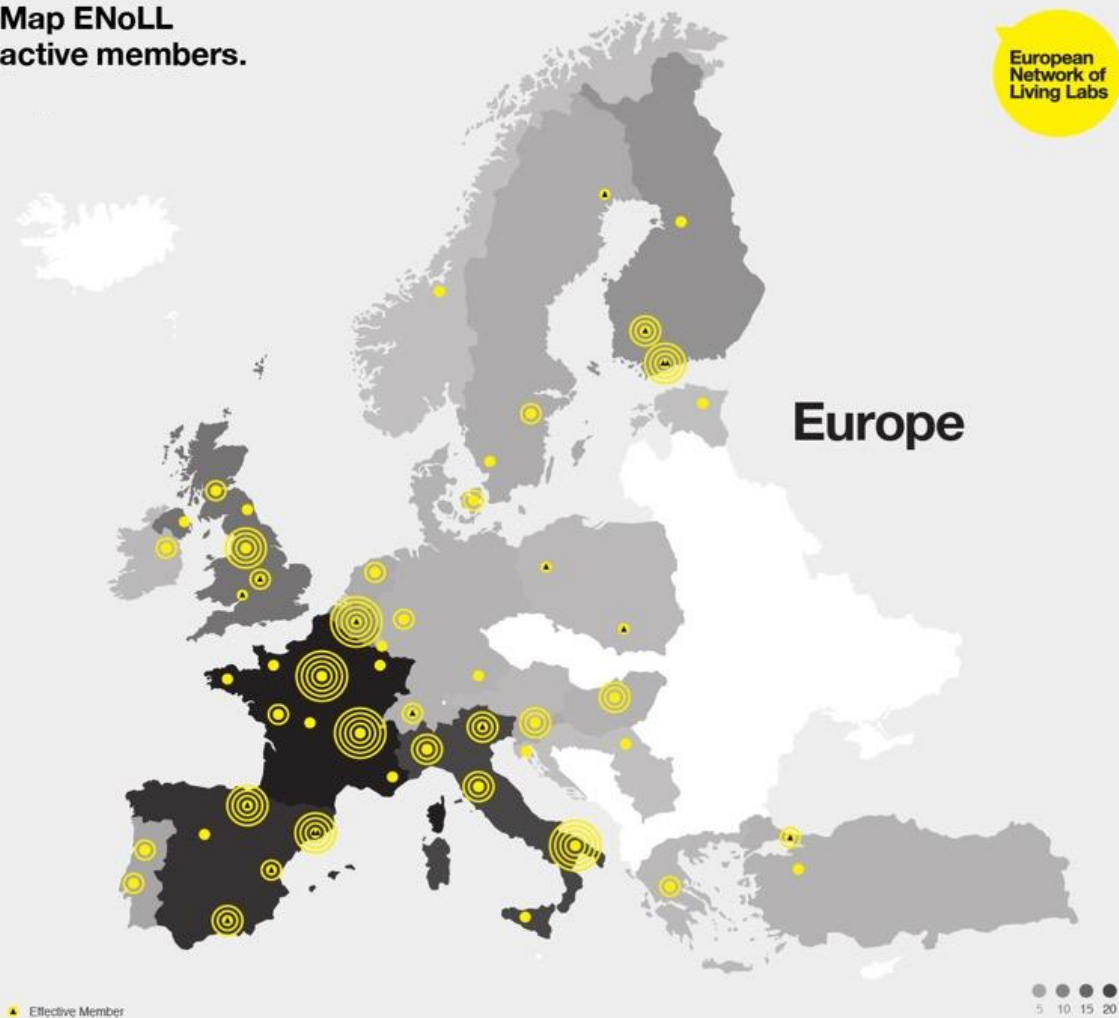
Chairperson of the European Network
of Living Labs



**Business
for Smart Cities**
Expocongress



Map ENoLL active members.



ENoLL active Living Labs (August 2015) / Country

France	26	Canada	6	Germany	3	China	2	Brazil	1	Luxembourg	1	Taiwan	1
Spain	23	Portugal	5	Hungary	3	Colombia	2	Croatia	1	Mauritius	1	Trinidad and Tobago	1
Italy	20	Netherlands	4	Switzerland	3	Greece	2	Estonia	1	Norway	1	Tunisia	1
UK	13	Slovenia	4	Turkey	3	Ireland	2	India	1	Senegal	1		
Belgium	10	Sweden	4	Australia	2	Poland	2	Japan	1	Serbia	1		
Finland	8	Denmark	3	Austria	2	USA	2	Lebanon	1	South Africa	1		

Note: this map does not show precisely the location of all living labs but highlights hot spots.

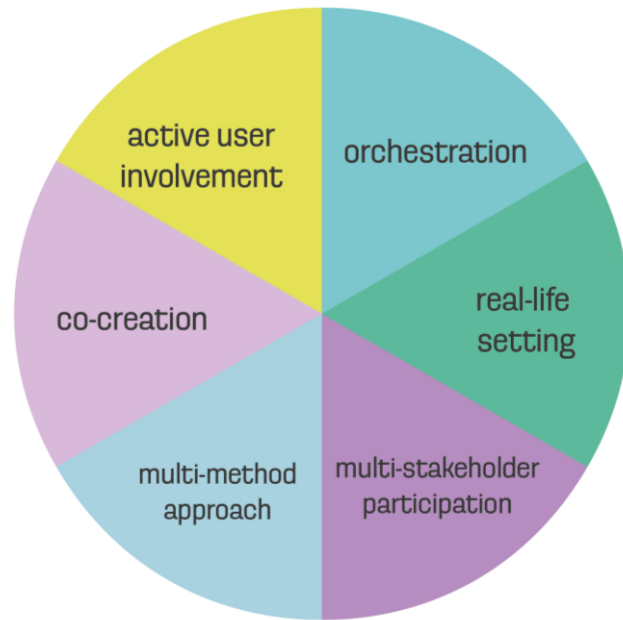
ENoLL VISION

EMPOWER EVERYONE TO
INNOVATE

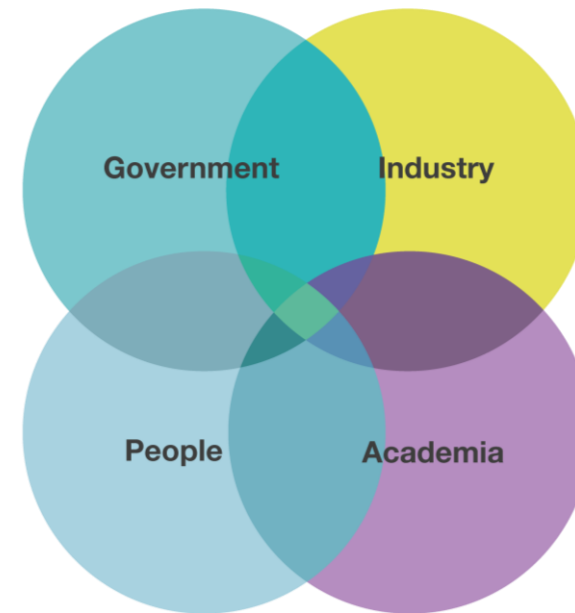


WHAT DO LIVING LABS HAVE IN COMMON?

INNOVATION



Basic features



Multiple helix approach

European Network of Living Labs

CITIZEN VALUES? AT PROCESS LEVEL. (y)OUR

manifestoforinnovationineurope.org

CAPACITY BUILDING KNOWLEDGE DSA EDUCATION

open living lab days

- INSTITUTIONAL INNOVATION!

On our journey to achieve this vision, we propose a **list of directions** to start from:

- Enabling Societal Engagement so that we tap into new innovation potential.
 - Supporting formal and non-formal education ecosystems.
 - Boosting grassroots recognition, ownership, stewardship and sustainable commitment towards innovation.
 - Endorsing venues and spaces - physical and virtual - where innovation is produced.
- Cultivating Open Innovation and Open Science so that we inspire innovation.
 - Recognising the benefits of intellectual cross-pollination (integrating science and disciplines based on needs and opportunities for sustainable social, economic, cultural and ecological development).
 - Encouraging true intellectual cross-pollination, i.e. co-creators of science and practice.
 - Opening up public and private production networks, meta-networks and processes for research and innovation co-creation.
 - Acknowledging new emerging roles and job profiles (facilitators, mediators, interpreters, orchestrators, brokers, etc.) emerging in multi-stakeholder and interdisciplinary Open Innovation and Open Science processes.
 - Innovating intellectual property rights systems, recognising the rights of all stakeholders involved in the creation process.
 - Developing a **scalable framework of open research, innovation and production** (including pilots, protocols for transnational innovation co-creation, experimentation and validation).
 - Further developing and implementing the fair data policies and open data standards for open data collection.
- Bringing together innovation and excellent research so that we expand and intensify complementary research and innovation.
 - Encouraging universities and individual researchers to co-create and share knowledge.
 - Facilitating changes in the incentive systems, educational orientation and curricula.
 - Encouraging private funding for open innovation.
 - Building on **open collaboration** schemes between multiple stakeholders further developing the Responsible Research and Innovation approaches.
 - Using **innovative and agile public / private procurement** and **regulatory** instruments, and **agile pilots** as a catalyst for **fastest** launch of innovation.
 - Implementing **open innovation** for promoting open research and open science.

A large number of existing initiatives already provide evidence for the transformative power of this approach. During the last years Living Labs, Fab Labs, Citizen Science Platforms, Technology Capacitation Centres, Digital Social Innovation agents, and many others have played the role of **connectors** and **enablers** in their interaction with universities, research centres, public administration and companies. Their interaction has **enabled** **open** **innovation** - products, services and also novel governance models.



Towards EU as The Lab

HOW?



The Digital Transformation

Not only an Industrial
Transformation

but a **HUMAN TRANSFORMATION**
with profound societal changes



#Simulation

#Biometrics

#DeepLearning

#MedicalImaging

#Industry4.0

#ReadingSystems

#SocialMedia

#Emotionanalysis

#ActionRecognition

#Pose Estimation

#machinevision

#ArtificialIntelligence

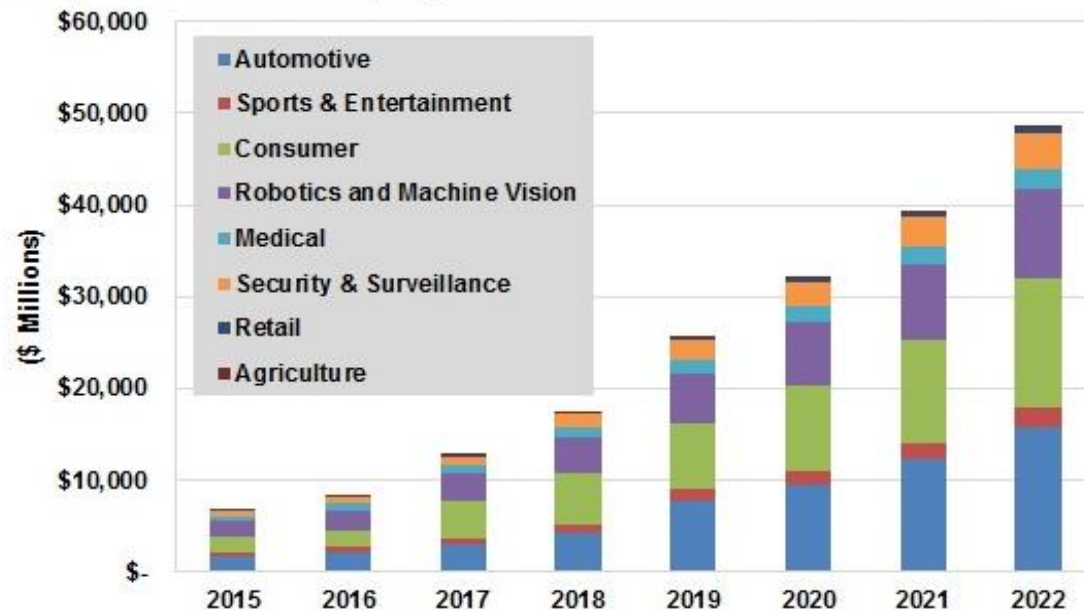
#ComputationalForensics

#Autonomousdriving

Example of Impact of AI: Computer Vision

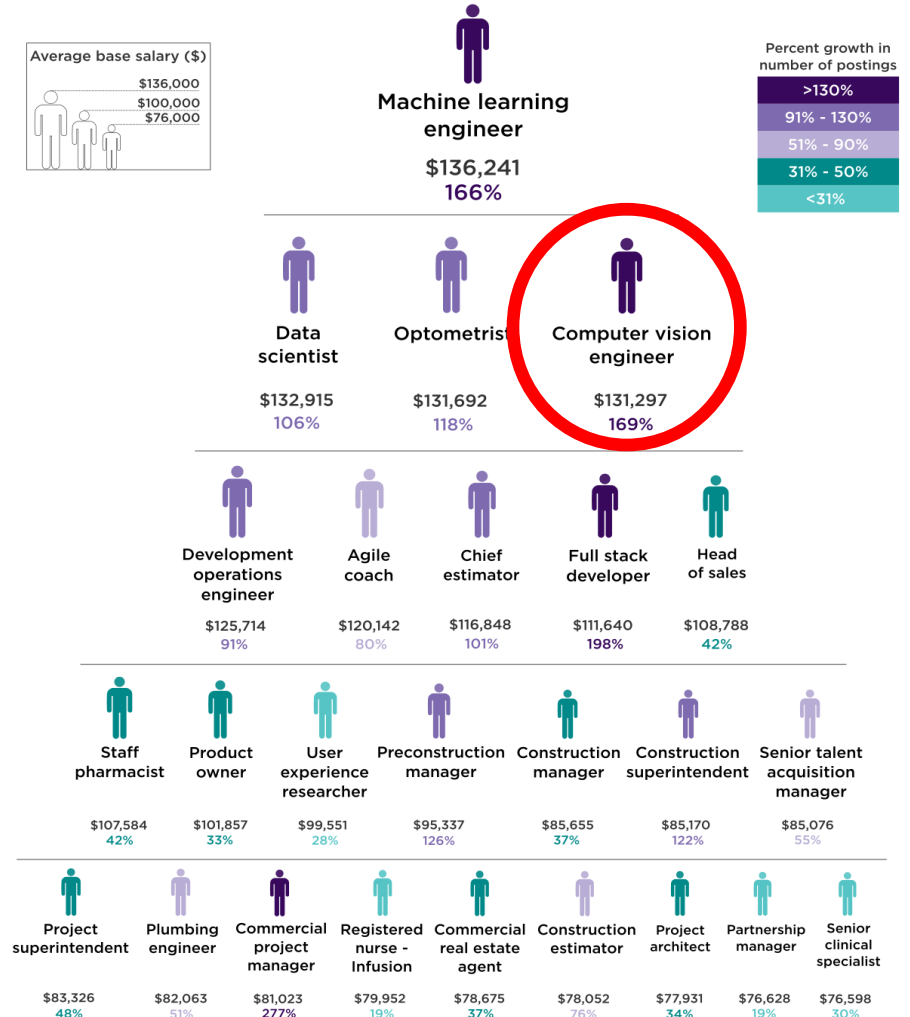


Computer Vision Revenue by Application Market, World Markets: 2015-2022




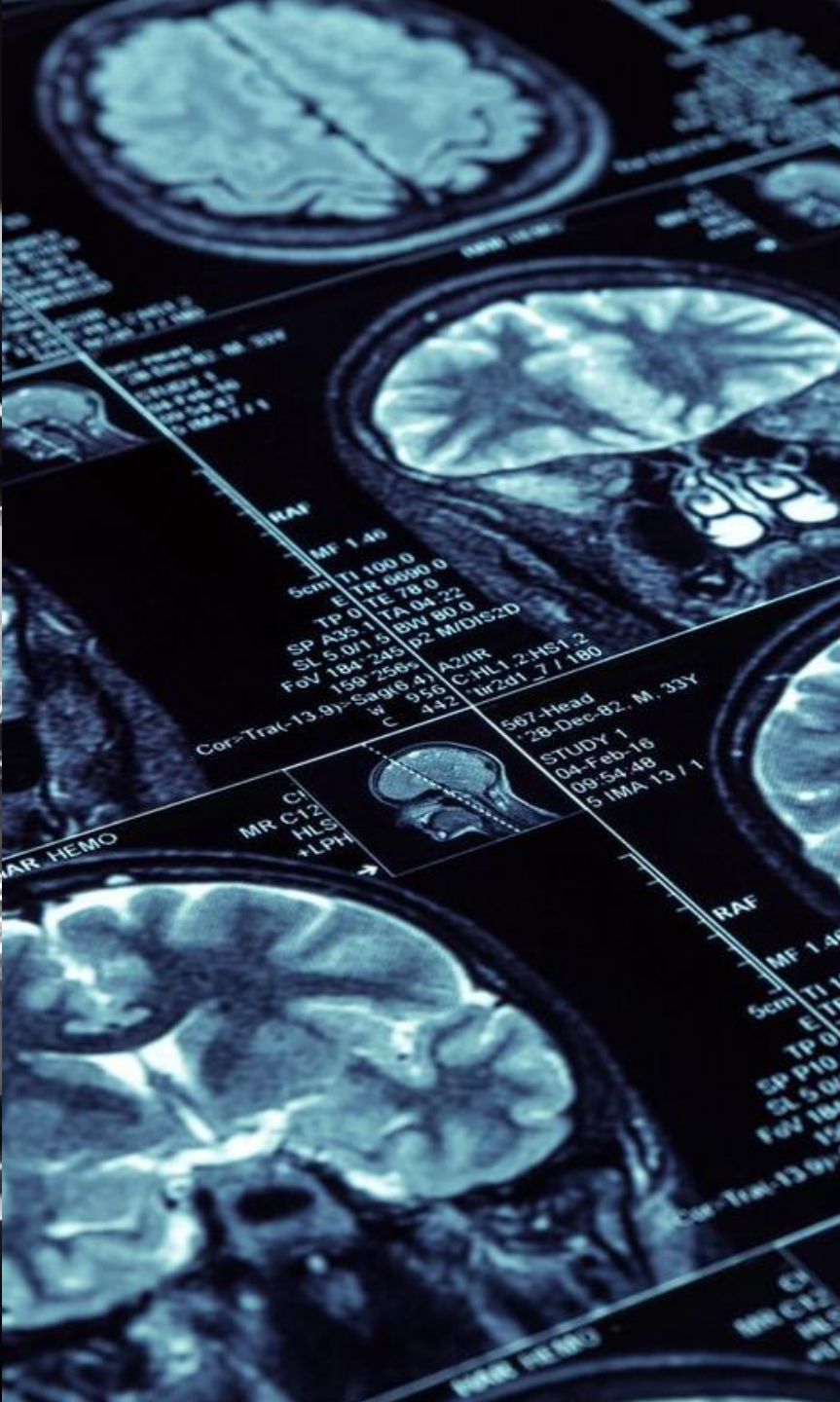
Article & Sources:
<https://howmuch.net/articles/the-best-jobs-in-usa-2018>
<https://www.indeed.com>

The Best Jobs in the U.S. 2018 (Based on Salary and Opportunity)



***“Is a model of society with
democratized access
to knowledge and innovation
possible?”***







traffic sign

R3 priority sign

R-3

car

car

car

car

car

person

person

person

bicycle

bicycle

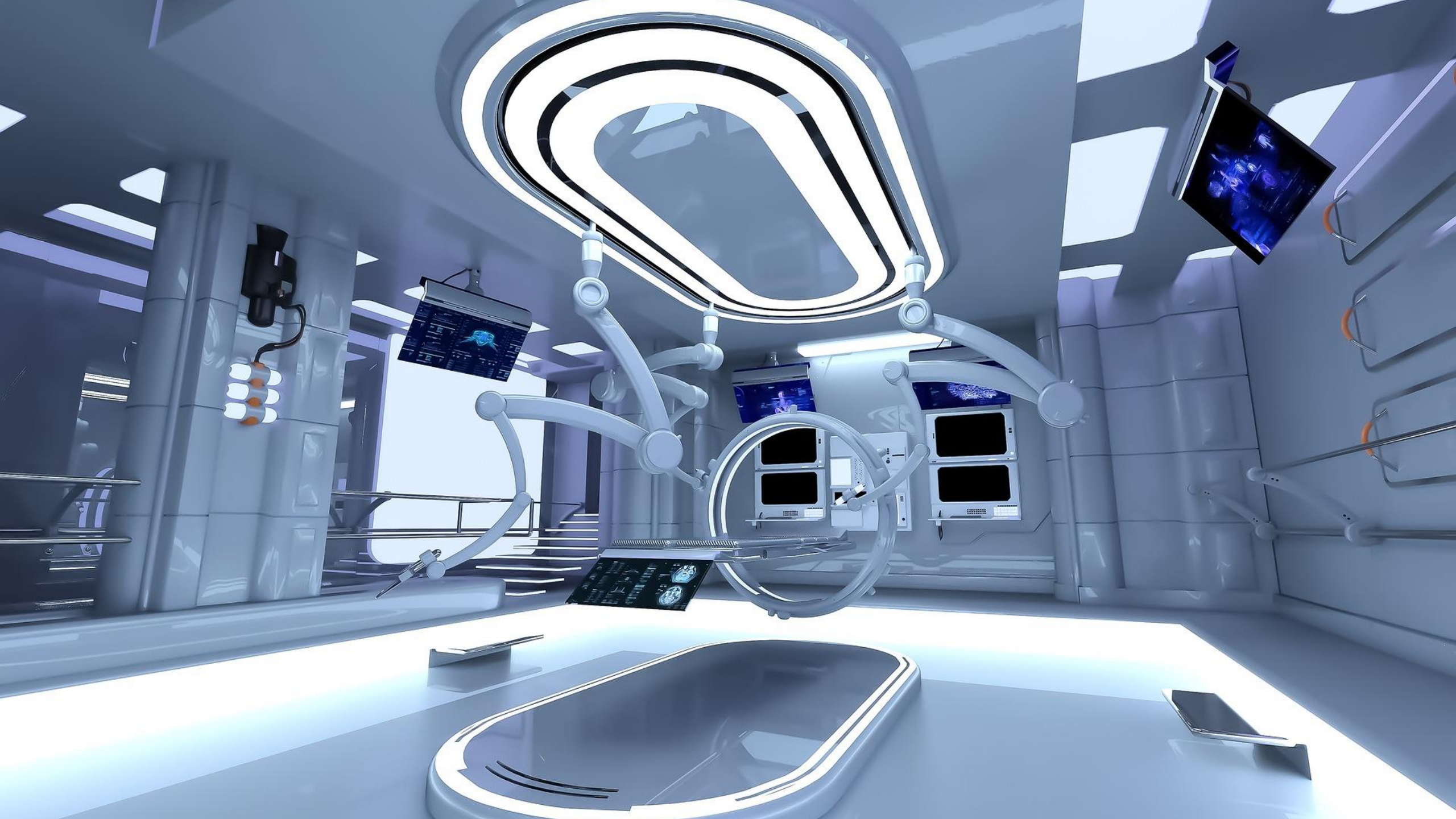
bicycle

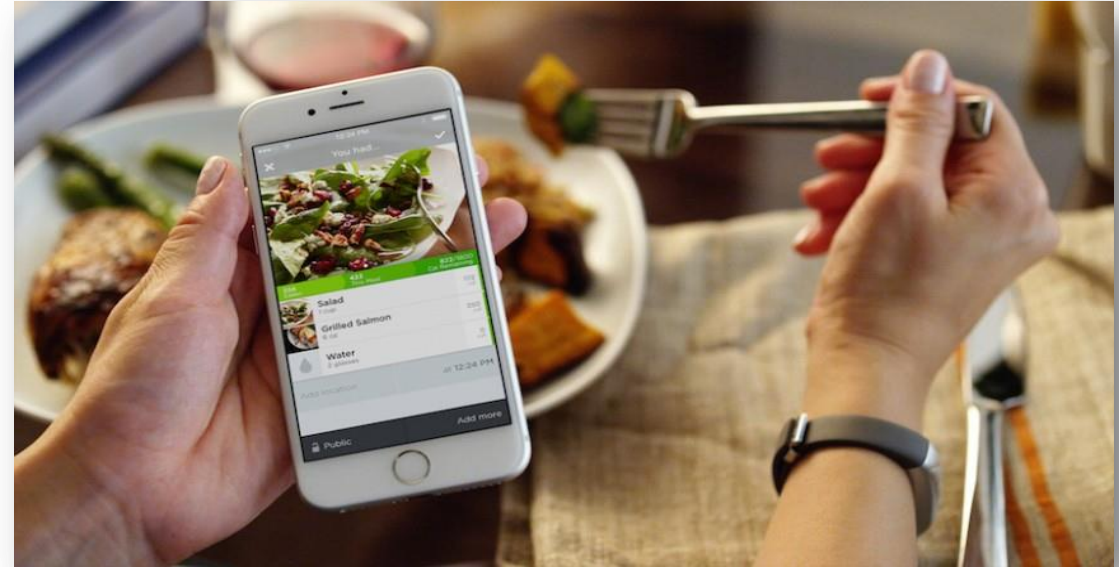
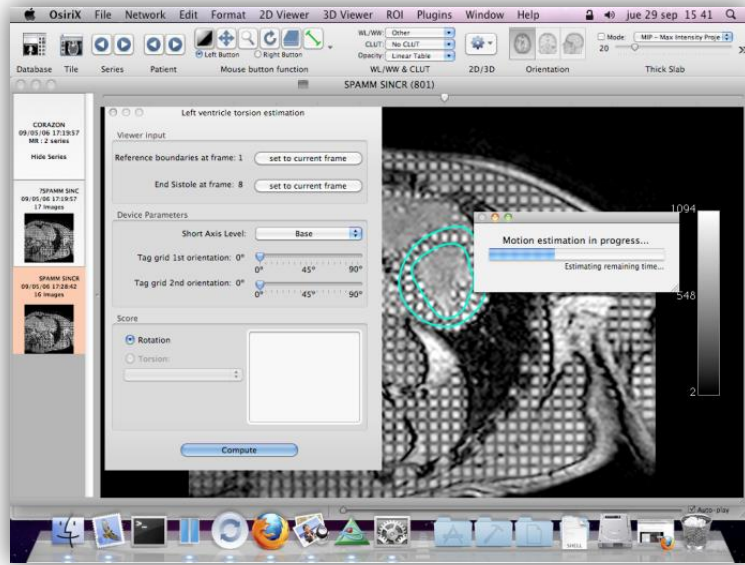
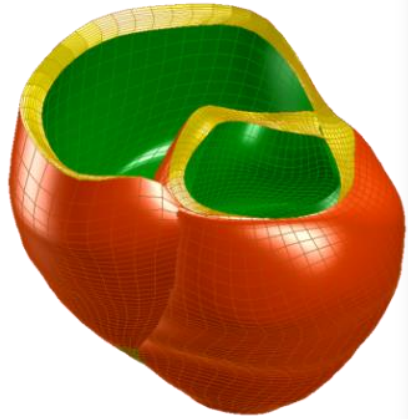


**Real
environments**



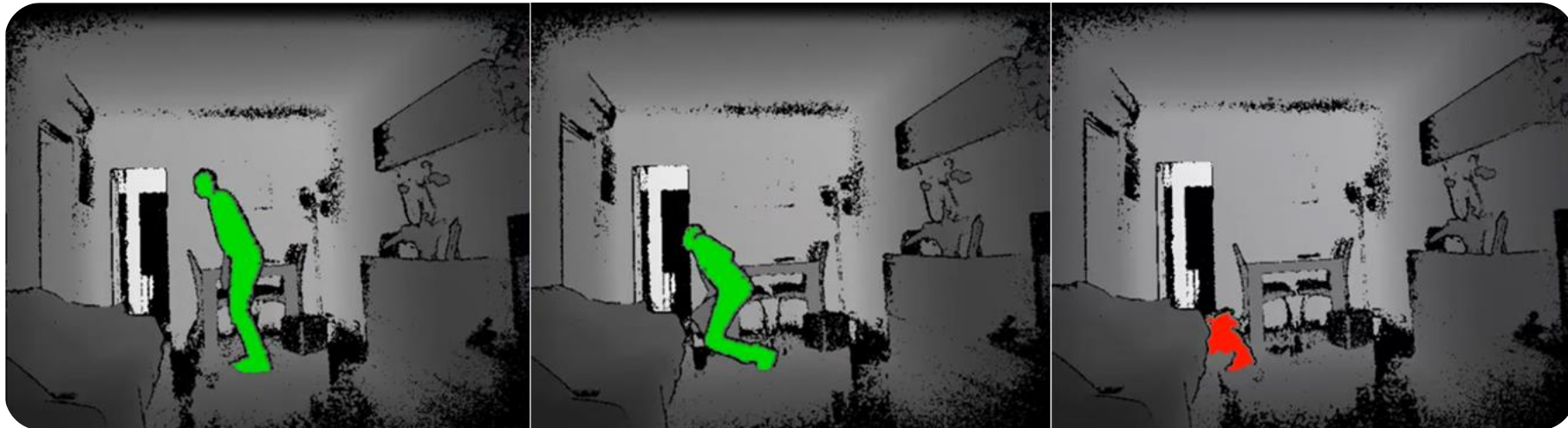
**Virtual
environments**





Awareness: From Patient to Protagonist

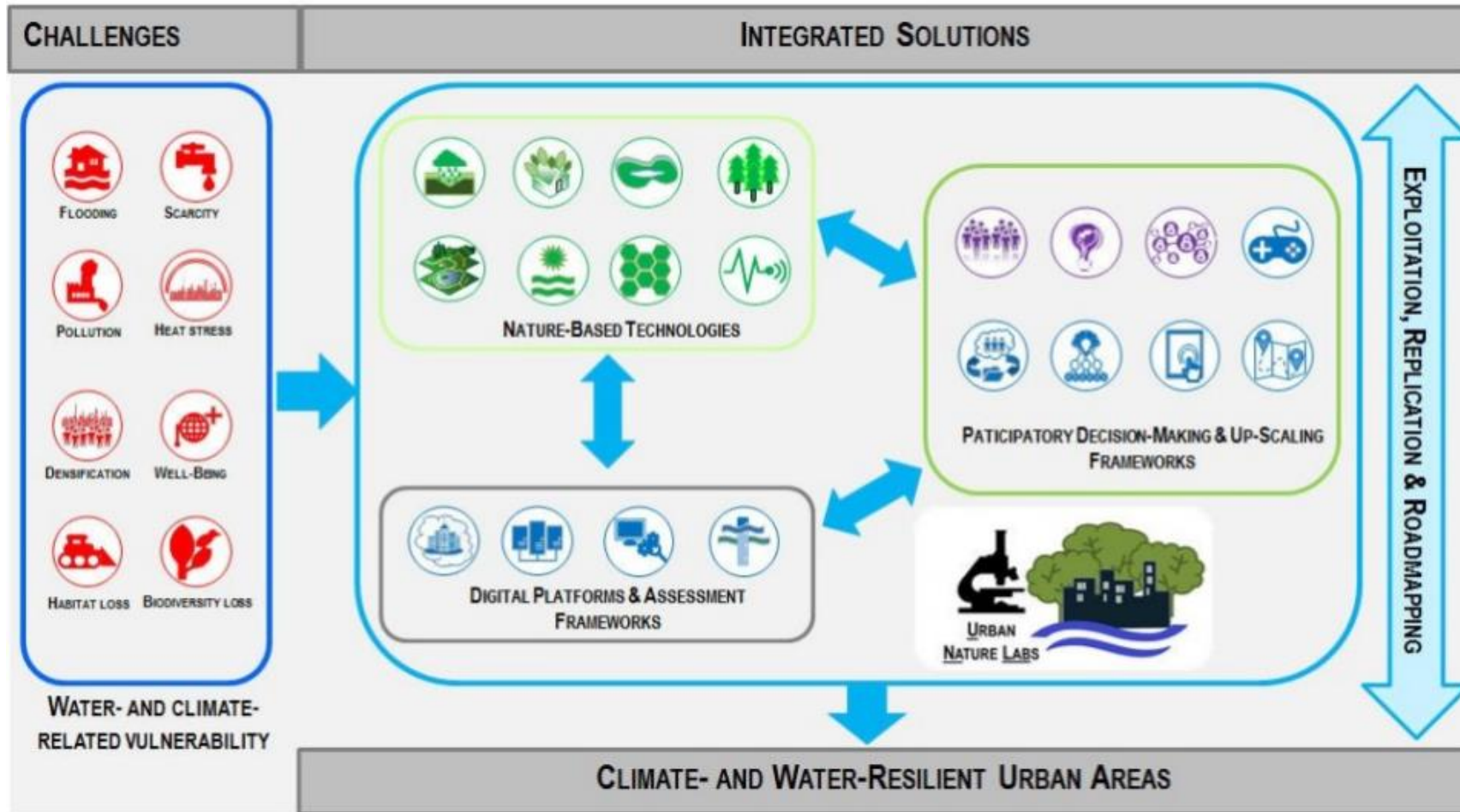




Real environments for assisted living



https://www.morgenstadt.de/en/projects/smart_city/unalab.html



Governance Models for Green Cities

2049



**“*Living Labs* are good examples
of most needed infrastructures for
positive
societal and economic
transformation,
hand in hand”**



SYNCHRONICITY



Examples of ENoLL Transnational Projects



Living Labs for the Digital Transformation



- The Digital Transformation is a **HUMAN TRANSFORMATION**, with **profound impact**.
- Opportunity to tackle a **Human-Centric approach** for systemic change.
- New **jobs** will appear and disappear, institutional boundaries will fade.

Living Labs for the Digital Transformation



- Living Labs as **enabling infrastructures** integrating stakeholders, citizen-centric.
- **Social impact of AI, Health & Wellbeing, Green cities, Cultural Heritage.**
- The “**HOW**” is now the area for systemic socio-economic transformation.

Living Labs as innovation drivers in the context of Smart Cities



open ▶
living ▶ ● ● ●
lab ▶ ● ● ●
days 2018

The logo for 'Open Living Lab Days 2018' features the text 'open living lab days' in a bold, sans-serif font, with '2018' in a smaller, teal font. The text is arranged in four lines. To the right of the text are three rows of three black dots each. The entire logo is enclosed within a thick yellow circular border. The background consists of a light blue geometric pattern of interconnected lines forming various polygons.

More at enoll.org
See you at Open Living lab Days
Thessaloniky, Greece 3-5 Sep. 2019

 @openlivinglabs

Prof. Fernando Vilariño
Chairperson of the European Network of Living Labs



European
Network of
Living Labs

The logo for the European Network of Living Labs is a yellow speech bubble shape with a white outline. The text 'European Network of Living Labs' is written inside in a bold, black, sans-serif font.



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