

# Smart Living Labs et Open Innovation en Europe

*Premiers enseignements et programmes de soutien*

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# DAY OF CITIES

8 APRIL 2019 | PALAIS DES NATIONS | GENEVA



A smart sustainable city is an innovative city that uses ICTs and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social, environmental as well as cultural aspects.

[http://www.unece.org/fileadmin/DAM/hlm/Meetings/2019/04\\_8\\_Day\\_of\\_Cities/Day\\_of\\_Cities\\_Provisional\\_Agenda\\_Updated\\_20.02\\_1\\_.pdf](http://www.unece.org/fileadmin/DAM/hlm/Meetings/2019/04_8_Day_of_Cities/Day_of_Cities_Provisional_Agenda_Updated_20.02_1_.pdf)

# Smart City : UN program

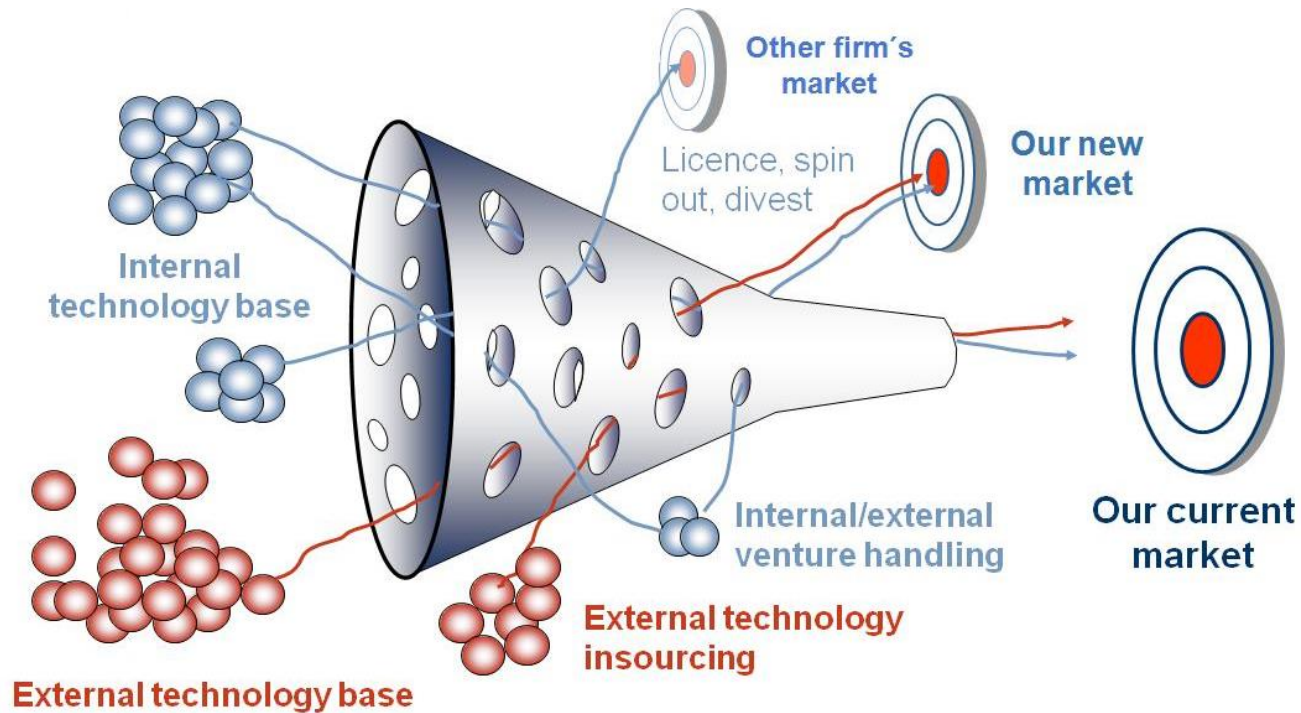
## UNITED 4 SMART SUSTAINABLE CITIES



The "United for Smart Sustainable Cities" (U4SSC) is a UN initiative coordinated by ITU, UNECE and UN-Habitat, and supported by CBD, ECLAC, FAO, ITU, UNDP, UNECA, UNECE, UNESCO, UN Environment, UNEP-FI, UNFCCC, UNIDO, UNU-EGOV, UN-Women and WMO to achieve **Sustainable Development Goal 11: "Make cities and human settlements inclusive, safe, resilient and sustainable"**.

U4SSC serves as the global platform to advocate for public policy and to encourage the use of ICTs to facilitate and ease the transition to smart sustainable cities.

# Open Innovation



(Chesbrough, 2004)

# What is a Living Lab?

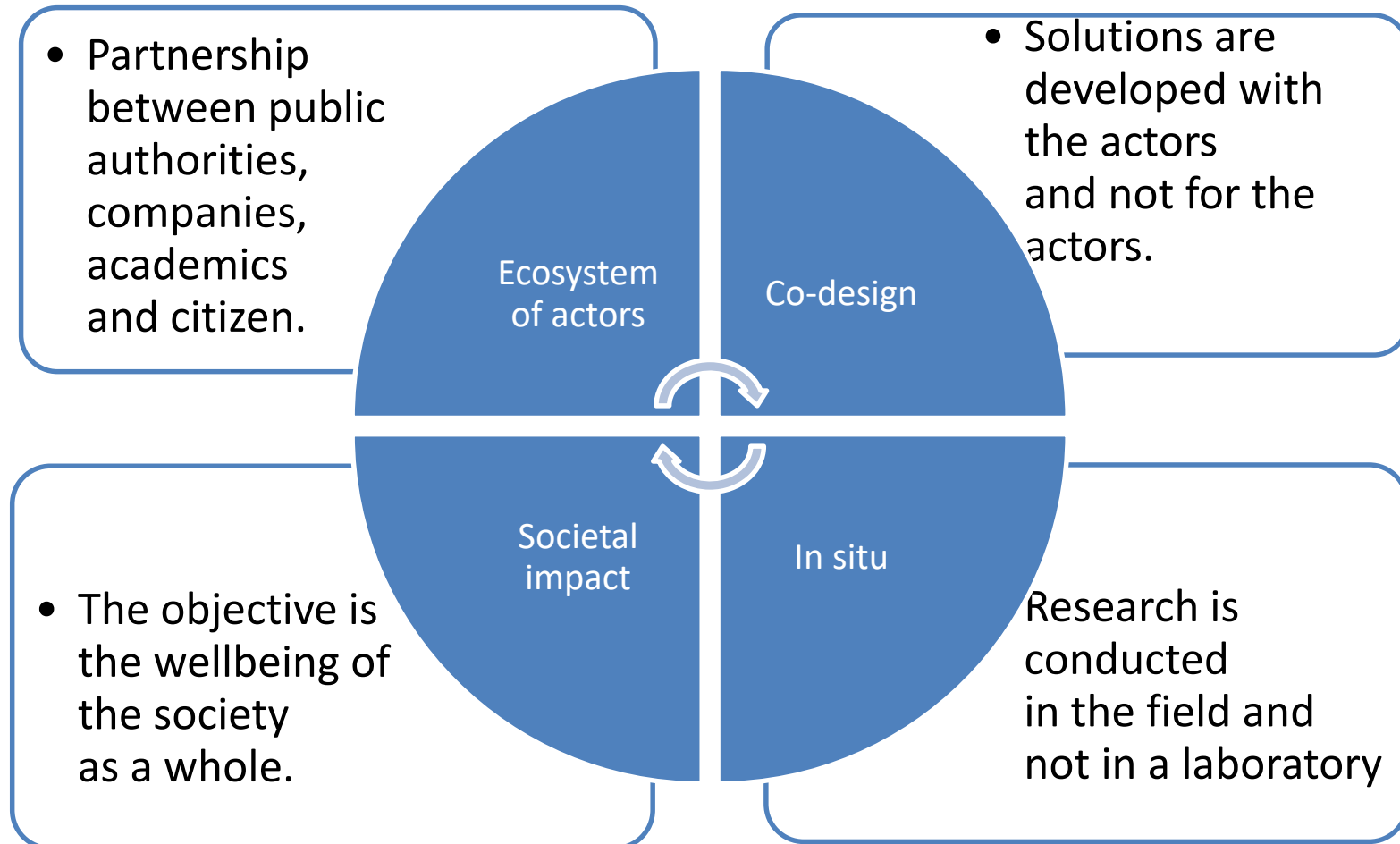
*“A Living Lab is an **innovation intermediary**, which orchestrates an ecosystem of actors in a specific region.*

*Its goal is to **co-design** products and services, on an iterative way, with key stakeholders in a public private people partnership and in a **real-life setting**.*

*One of the outcomes of this co-design process is the **co-creation of social value** (benefit). To achieve its objectives, the Living Lab mobilises existing innovation tools and methods or develop new ones.»*

(Mastelic, 2019)

# Key characteristics of LLs



# Four types of key actors

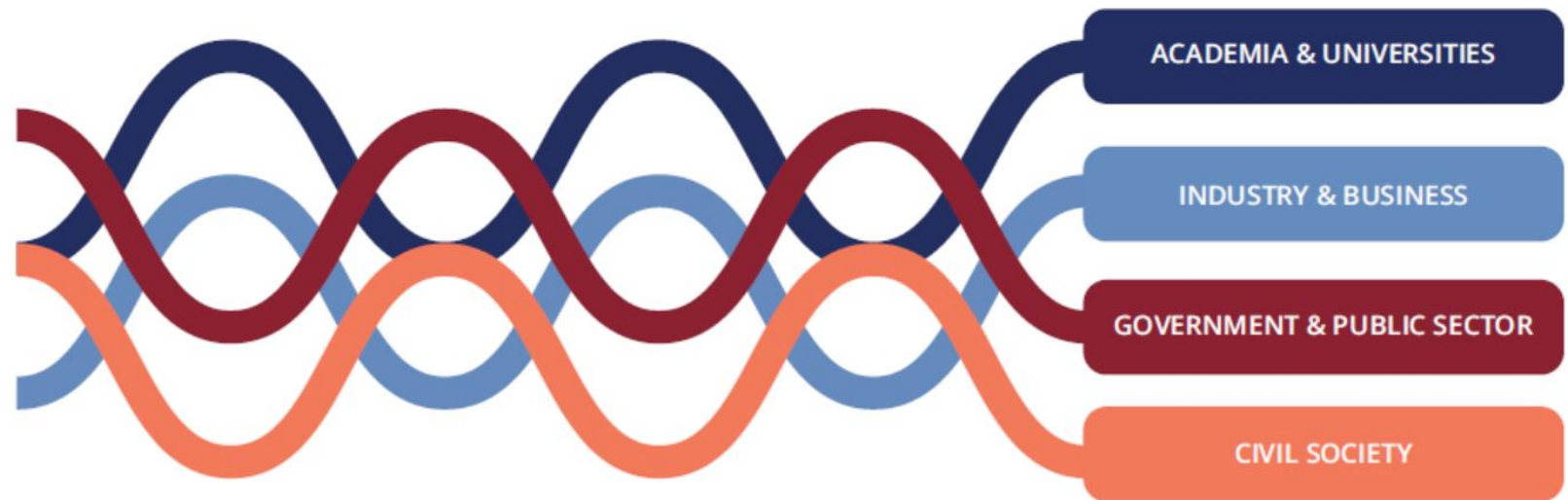


Figure 7: The quadruple helix model as a basis for Knowledge Societies

(Carayannis Campbell, 2012)





<b>Firm Infrastructure</b>	Few management layers to reduce overhead costs		Standardized accounting practices to minimize personnel required		Margin
<b>Human Resource Management</b>	Minimize costs associated with employee turnover through effective policies		Effective orientation and training programs to maximize employee productivity		
<b>Technology development</b>	Effective use of automated technology to reduce scrappage rates		Expertise in process engineering to reduce manufacturing costs		Margin
<b>Procurement</b>	Effective policy guidelines to ensure low cost raw materials (with acceptable quality levels)		Shared purchasing operations with other business units		
	Efficient layout of receiving dock operations	Effective use of quality control inspectors to minimize rework on the final product	Effective utilization of delivery fleets	Purchase of media in large blocks  Sales force utilization is maximized by territory management	Thorough service repair guidelines to minimize repeat maintenance calls  Use of single type of repair vehicle to minimize maintenance costs
	<b>Inbound Logistics</b>	<b>Operations</b>	<b>Outbound Logistics</b>	<b>Marketing and Sales</b>	<b>Service</b>

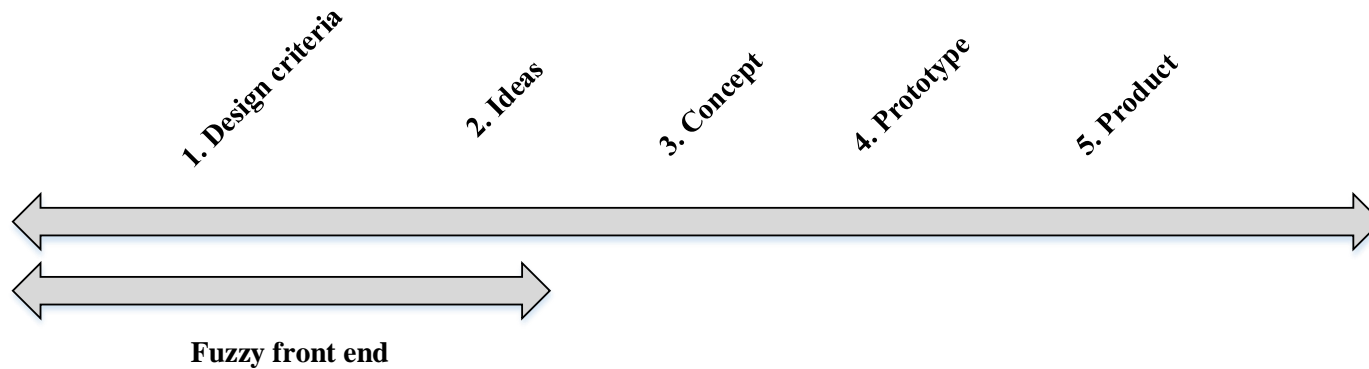


Integration of key stakeholders  
at the beginning of the value chain



# Co-design

*“By co-design we indicate **collective creativity** as it is applied across the whole span of a design process [...] Thus, co-design is a specific instance of co-creation. [...] We use co-design in a broader sense to refer to **the creativity of designers and people not trained in design working together in the design development process.**”*



Sanders and Stappers (2008)

# ENoLL : a global network



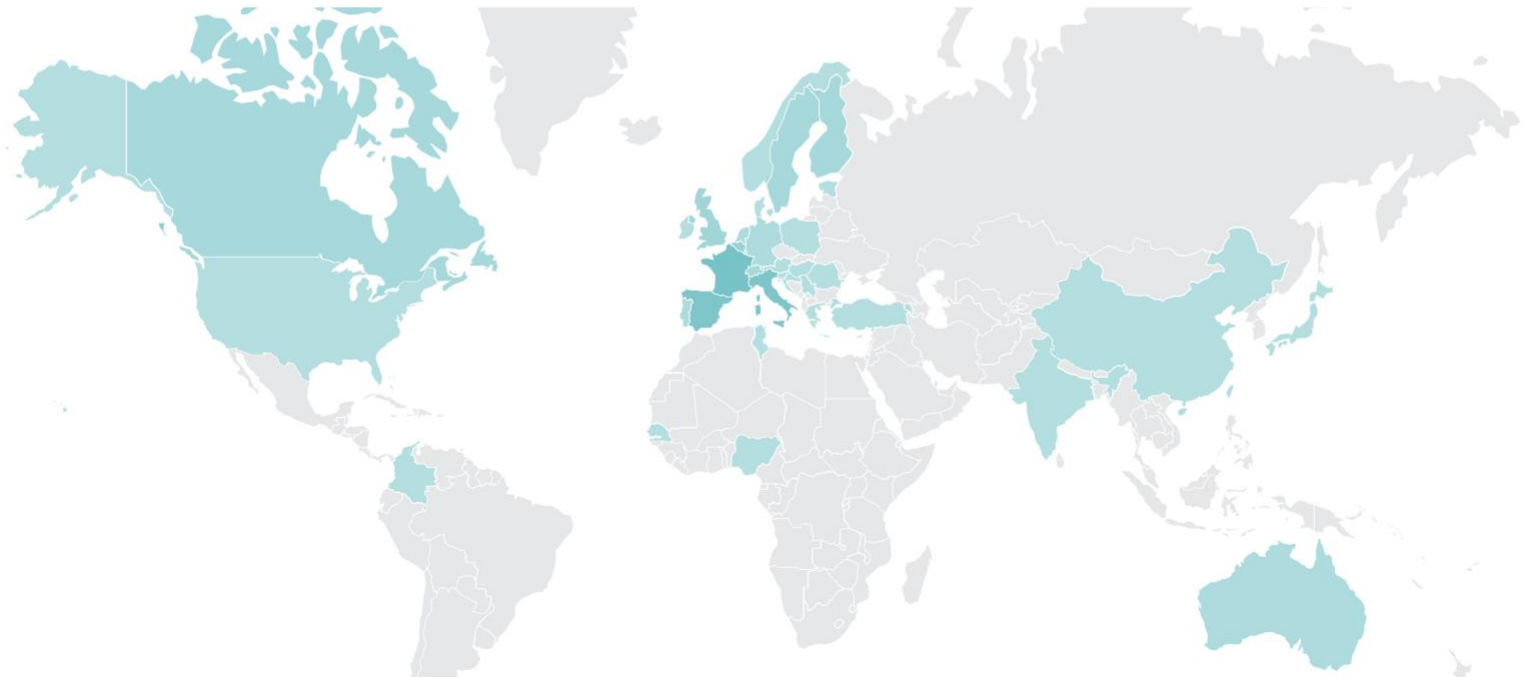
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## Our Labs

<https://enoll.org/network/living-labs>



# ENoLL Members in Switzerland

Discover Living Labs

Switzerland

All members

All sectors



iHomeLab



Next Evolution in  
Sustainable Building  
Technologies

# ENoLL Smart City Projects



<https://enoll.org/projects>

# OpenLivingLab Days

## "Co-creating innovation: scaling up from Local to Global"

Ghent, August 2020

<https://openlivinglabdays.com>

WHY JOIN OPEN LIVING LAB DAYS

### Why you should Join the event



OpenLivingLab Days is a unique 3-day long event bringing together researchers, public authorities, companies and Living Lab practitioners to exchange knowledge, best practices, methodologies and tools related to Living Labs and user engagement.

[FIND OUT MORE](#)



Networking



Hands-on  
workshops



Local visits



Latest research





Open Innovation, Open Science, Open to the World  
*- a vision for Europe*

# The Three Os – Open Innovation, Open Science, Open to the World

<https://ec.europa.eu/digital-single-market/en/news/open-innovation-open-science-open-world>



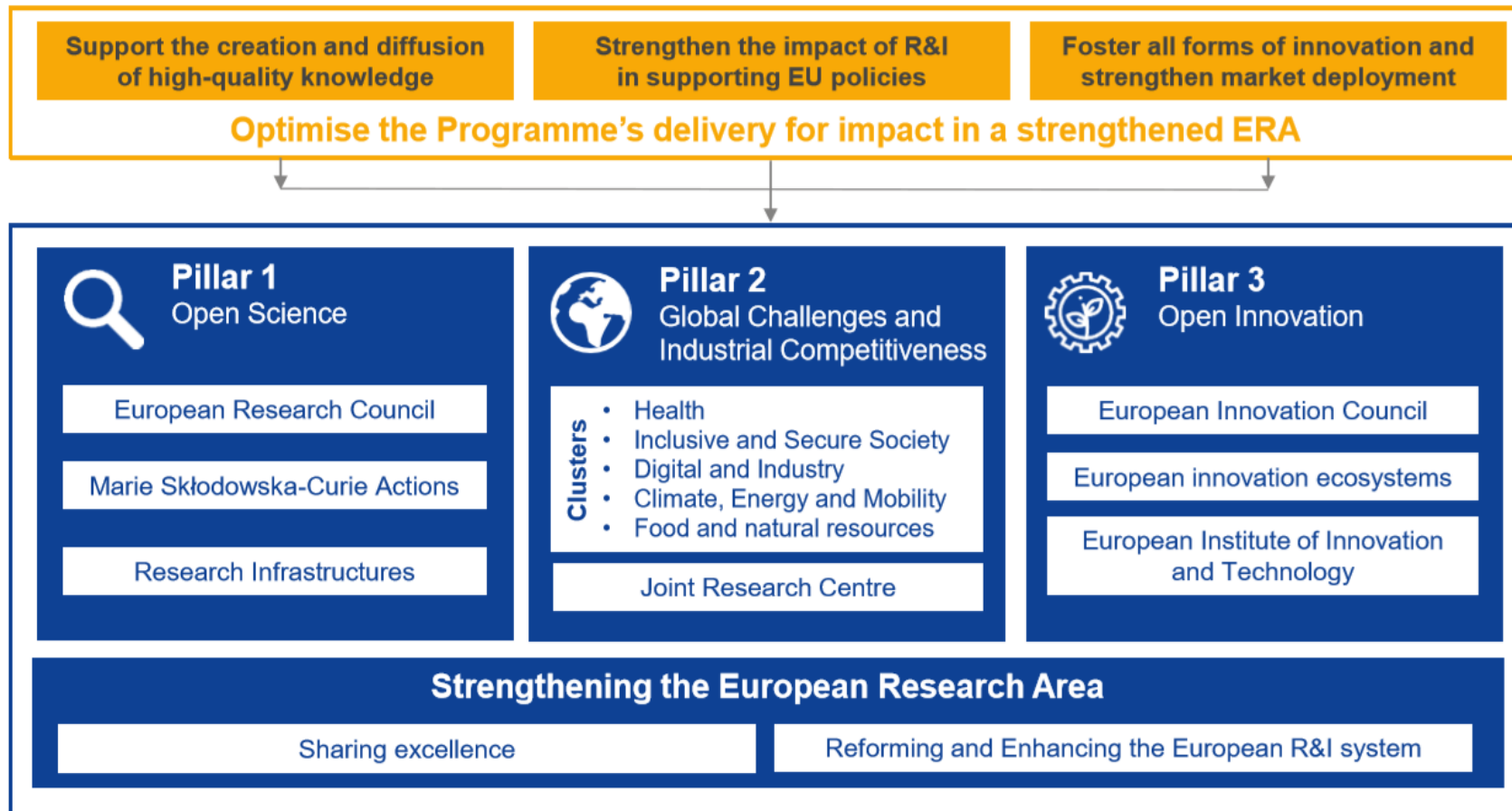
HES-SO Valais-Wallis  
Page 14



European  
Network of  
Living Labs

# Horizon Europe: evolution not revolution

## Specific objectives of the Programme



[https://ec.europa.eu/info/sites/info/files/horizon-europe-presentation\\_2018\\_en.pdf](https://ec.europa.eu/info/sites/info/files/horizon-europe-presentation_2018_en.pdf)





# INNOVATE4CITIES

## THROUGH INNOVATE4CITIES WE CALL UPON:



**National Governments** to allocate at least one-third of their R&D budgets over the next decade to city climate action priorities



**The Private Sector** to partners with cities and local governments to share data and solutions for the public benefit.



**Academia** to recruit 10 million new students globally by 2025 in climate-change related studies.



**Cities and local governments** to fully embrace their leadership role in accelerating climate action.

<https://www.globalcovenantofmayors.org/our-initiatives/innovate4cities>

# THE INNOVATE4CITIES MODEL



# Joint Research Centers

## Responsibilities

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### Research and innovation

- create, manage and make sense of knowledge to support European policies with independent evidence
- develop innovative tools and make them available to policy makers
- anticipate emerging issues that need to be addressed at EU level and understand policy environments
- share know-how with EU countries, the scientific community and international partners
- contributes to the overall objective of [Horizon 2020](#)
- conduct [Euratom-funded research](#) on [nuclear safety and security](#) to contribute to the transition to a carbon-free economy

[https://ec.europa.eu/info/departments/joint-research-centre\\_en](https://ec.europa.eu/info/departments/joint-research-centre_en)



# Living Labs at the JRC!

## Pilot living labs at the JRC

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Living labs are a modern way of creating user-centred environments that enable innovation, co-creation and start-up development.

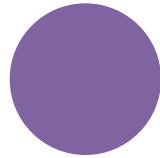
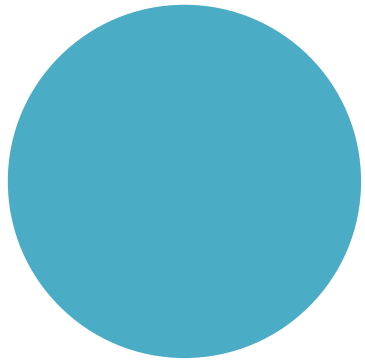
Living labs integrate research and innovation processes in real life communities and settings.

### Why living labs at the JRC?

The JRC aims to bring real added-value and innovation to the policy-making process.

With living labs we want to co-create high-quality, policy-relevant and people-oriented solutions in particular with relation to smart cities.

<https://ec.europa.eu/jrc/en/research-facility/living-labs-at-the-jrc>



Energy Living Lab  
*An innovation intermediary  
for the energy transition*



# Living Lab Integrative Process



(Mastelic, 2019)

<https://www.bulletin.ch/fr/news-detail/developper-les-services-energetiques.html>



# Example: Group it project

<https://canal9.ch/en/ergie-solaire-saint-martin-pionniere-du-domaine-en-suisse>





## Poker design : cartes de situation d'usage

<p><b>Eclairage</b></p>  <p>Nombre de lampes utilisées, type d'ampoules, durée d'utilisation</p> <p>- Usage -</p>	<p><b>Lessive</b></p>  <p>Nettoyage et séchage du linge Lave-linge, sèche-linge</p> <p>- Usage -</p>	<p><b>Température ambiante</b></p>  <p>Température de la pièce Chauffage, apport du soleil, gestion des stores</p> <p>- Usage -</p>	<p><b>Aération</b></p>  <p>Ventilation, ouverture des fenêtres</p> <p>- Usage -</p>	<p>Doux les di</p>
<p><b>Se divertir</b></p>  <p>... des appareils ... ordinateur, ... T.V., chaînes</p> <p>- Usage -</p>	<p><b>Cuisiner</b></p>  <p>Four, plaques de cuisson, frigo, congélateur, hotte de ventilation, etc.</p> <p>- Usage -</p>	<p><b>Vaisselle</b></p>  <p>Lave-vaisselle, vaisselle à la main</p> <p>- Usage -</p>		

Example of tools: poker design

## Cartes de persona

 <p>...able technique, ...rgie</p> <p>- Persona -</p>	<p><b>Xavier</b></p>  <p>Spécialiste efficacité énergétique</p> <p>- Persona -</p>	<p><b>Cécile</b></p>  <p>Architecte du bâtiment</p> <p>- Persona -</p>
<p><b>Marcel</b></p>  <p>Retraité</p> <p>- Persona -</p>	<p><b>Sybille</b></p>  <p>Cadre dans une multinationale</p> <p>- Persona -</p>	<p><b>Alexandra</b></p>  <p>Responsable communication</p> <p>- Persona -</p>

## Cartes d'action

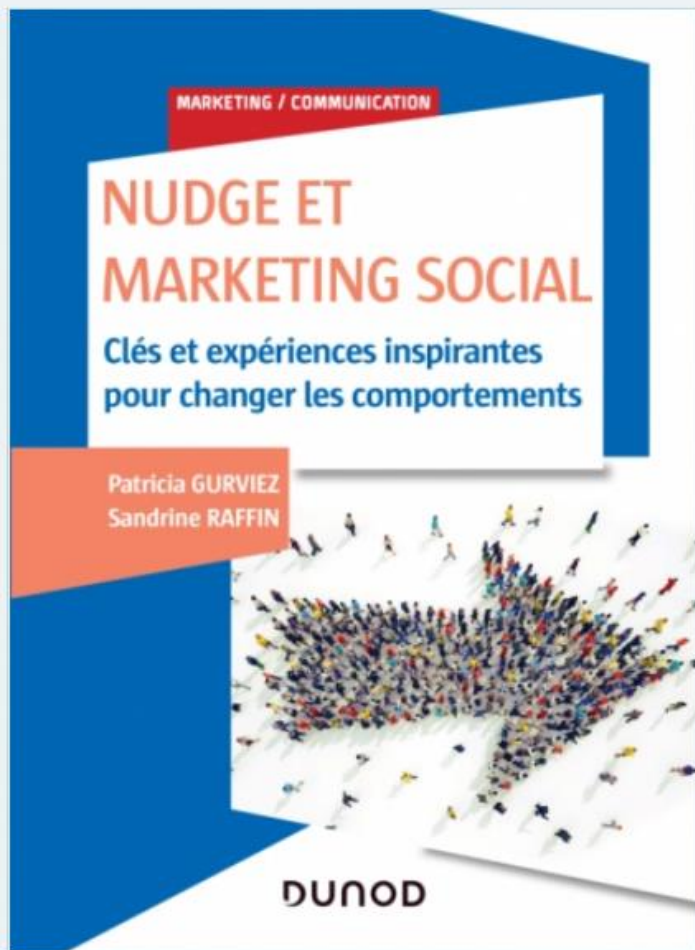
 <p>- Actions -</p>	<p><b>Récompenser</b></p>  <p>- Actions -</p>	<p><b>Informar</b></p>  <p>- Actions -</p>	<p><b>Coacher</b></p>  <p>- Actions -</p>	 <p>- Actions -</p>
<p><b>Financer</b></p>  <p>- Actions -</p>	<p><b>Collaborer</b></p>  <p>- Actions -</p>	<p><b>Consommer</b></p>  <p>- Actions -</p>	<p><b>Commander</b></p>  <p>- Actions -</p>	<p><b>Autre</b></p> <p>- Actions -</p>

# Positive impact of LLs in the energy field

- Reconnexion to primary energy consumption
- Development of a common vision
- Reduction of the barriers to change
- Opportunity to test solutions in real-life setting
- Users as co-developers of the solution
- Stakeholders' empowerment
- Increase in the social adoption of solutions

(Mastelic, 2019)





## Nudge et Marketing social

Clés et expériences inspirantes pour changer les comportements

*Collection : Marketing/Communication, Dunod*

Parution : octobre 2019

Patricia Gurviez, Sandrine Raffin

Existe au format livre et ebook

Comment changer les comportements ? Vous voulez en savoir plus sur les nudges et le marketing social. Vous souhaitez agir face aux défis sociétaux (changement climatique, discrimination, droits des femmes, tabagisme, etc.). Vous...

EN SAVOIR PLUS

**LES + EN**

**LIGNE**



7 contenus complémentaires avec ce livre

# Projet Energy LL 2020

## Quand la franchise devient sociale

Manuel de fabrication



Dépôt légal: Bibliothèque et  
Archives nationales du Québec. ISBN 967-2-924879-14-6

<https://tiss.ca/tag/franchise-sociale>



# Thank you for your attention

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<https://www.linkedin.com/in/mastelic>

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# References

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