

T ransnational L iving L ab for A ctive A geing



How can we build a society of 150 years through social design and innovation?

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With our deep gratitude to:



T ransnational L iving L ab for A ctive A geing

TLLAA addresses the issues of loneliness, segregation, discrimination and invisibility of an older population, through social design and innovative technologies.

TLLAA works to synergistically meet needs of ageing population, industry and governance.

TLLAA focus areas:

Work/Occupation

Housing

Mobility

TLLAA challenges -
ageing population
& approaches -
Open Innovation 2.0.

TLLAA set up -
co-creation in quadruple helix
consortiums.

TLLAA outputs -
new services, technologies,
infrastructures for active ageing
meeting need of industry,
governance & citizens.

TLLAA exchange -
transdisciplinary and cultural
meetings for innovation.

TLLAA future -
business model, management
structure, visions for phase 2.

Meta level insights

TLLAA challenges & approaches

Challenges & Opportunities

Situation - an ageing population.

2/3 world's older population will live in Asia.

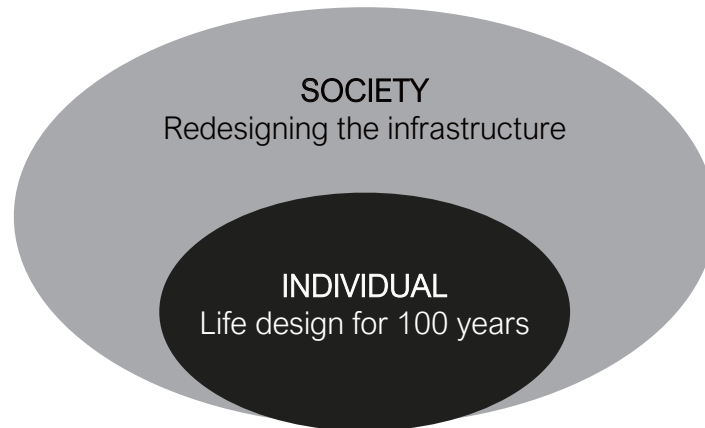
+60 in Sweden will increase by 30% in next 20 years. SCB, 2015

Experience - loneliness, invisibility, segregation.

40% of Swedes live alone. One in four dies alone. SCB, 2015; Palliativregistret, 2014

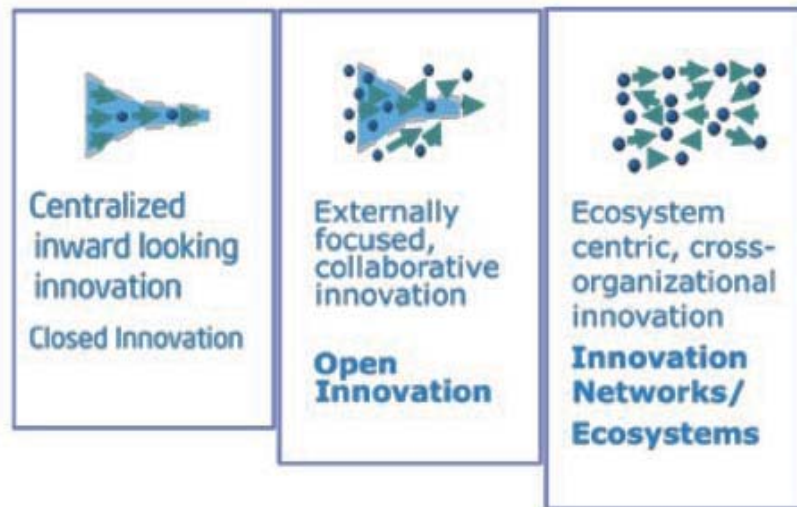
60% of older people experience daily age discrimination. AGE UK, 2017

Challenge/opportunity - silver economy, sustainable consumption, circular economy, Agenda 2030.



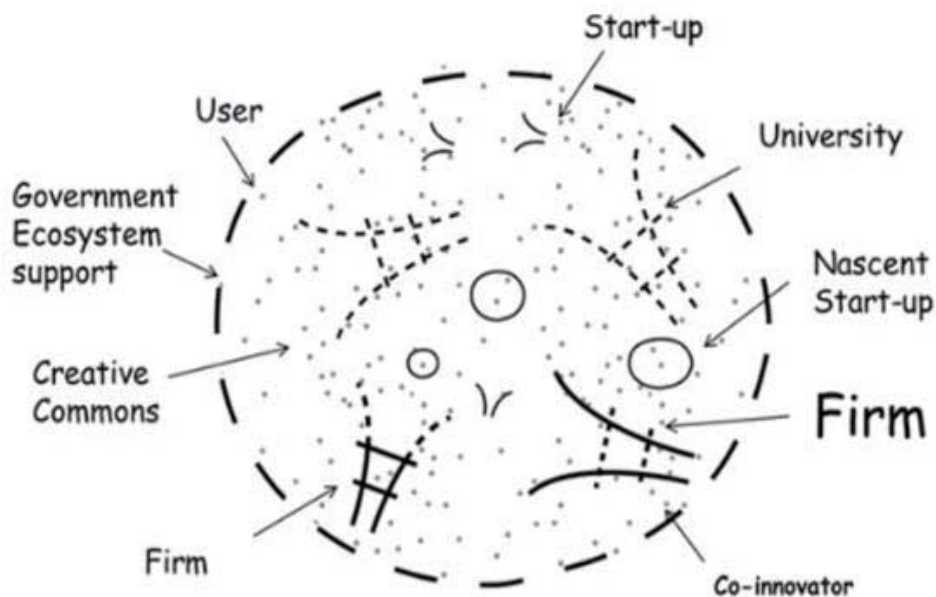
100 years society is a goldmine of innovations.

Open Innovation 2.0



Sources; The Open Innovation Yearbook 2016 European Commission EN p18 Figure 2.
The evolution of innovation. Source: Salmelin, EU Open Innovation Strategy and Policy Group.
<https://ec.europa.eu/digital-single-market/en/news/open-innovation-20-yearbook-edition-2016>
Concept from Chesbrough, 2003; Forrester, 2004; von Hippel, 2005

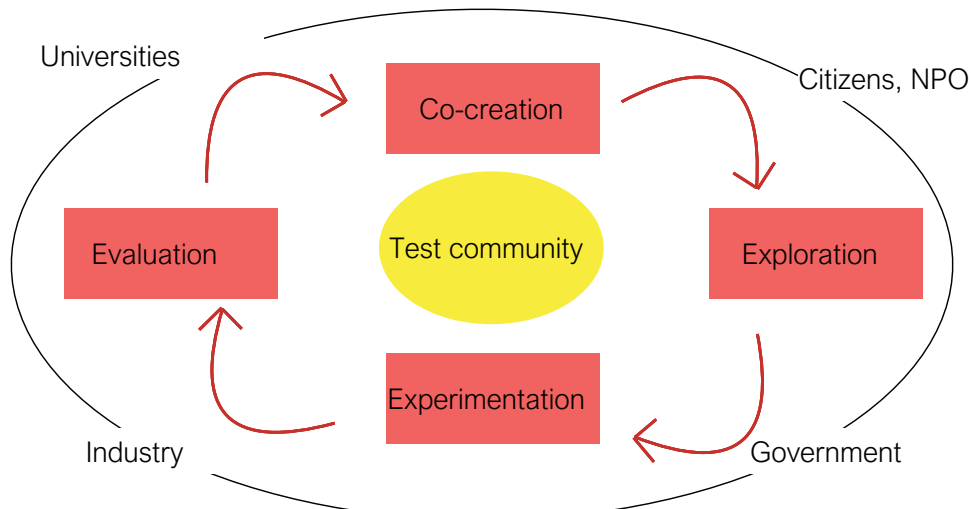
Open Innovation platform



Sources; The Open Innovation Yearbook 2016 European Commission EN p16
Figure 1. 012 A new milieu. <https://ec.europa.eu/digital-single-market/en/news/open-innovation-20-yearbook-edition-2016>

Living Lab

Innovation by Co-creation with users.



“Living labs are powerful instruments to speed up innovation process from idea to launch, co-create and improve innovative ideas, explore and create new business opportunities.” Holst & Stålbrost, 2012

Solution

Quadruple helix, Carayannis & Campbell, 2009

www.ltu.se/cms_fs/1.101555!/file/LivingLabsMethodologyBook_web.pdf

Metadesign

New ways of understanding active ageing. New language, narratives, norms & purpose.

Level 3 – **PARADIGM**
Design of meaning, purpose and world views.
Understanding of world.

Level 2 – **SYSTEM**
Design of systems, business models, infrastructures, architectures
Understanding of us.

Level 1 – **PRODUCT**
Design of product, form, detail.
Understanding of me.

New services, infrastructures, business models, regulations for active ageing. New relationships & social fabric.

New products and technologies for active ageing. New or refined practices & habits.

materiality

Global

Local

After Tham, 2016; Lundebye, 2004; Cooper, 2002.
Benchmarking Synergy Levels within Metadesign. AHRC and EPSRC funded research project, Goldsmiths, University of London (2006-2009)

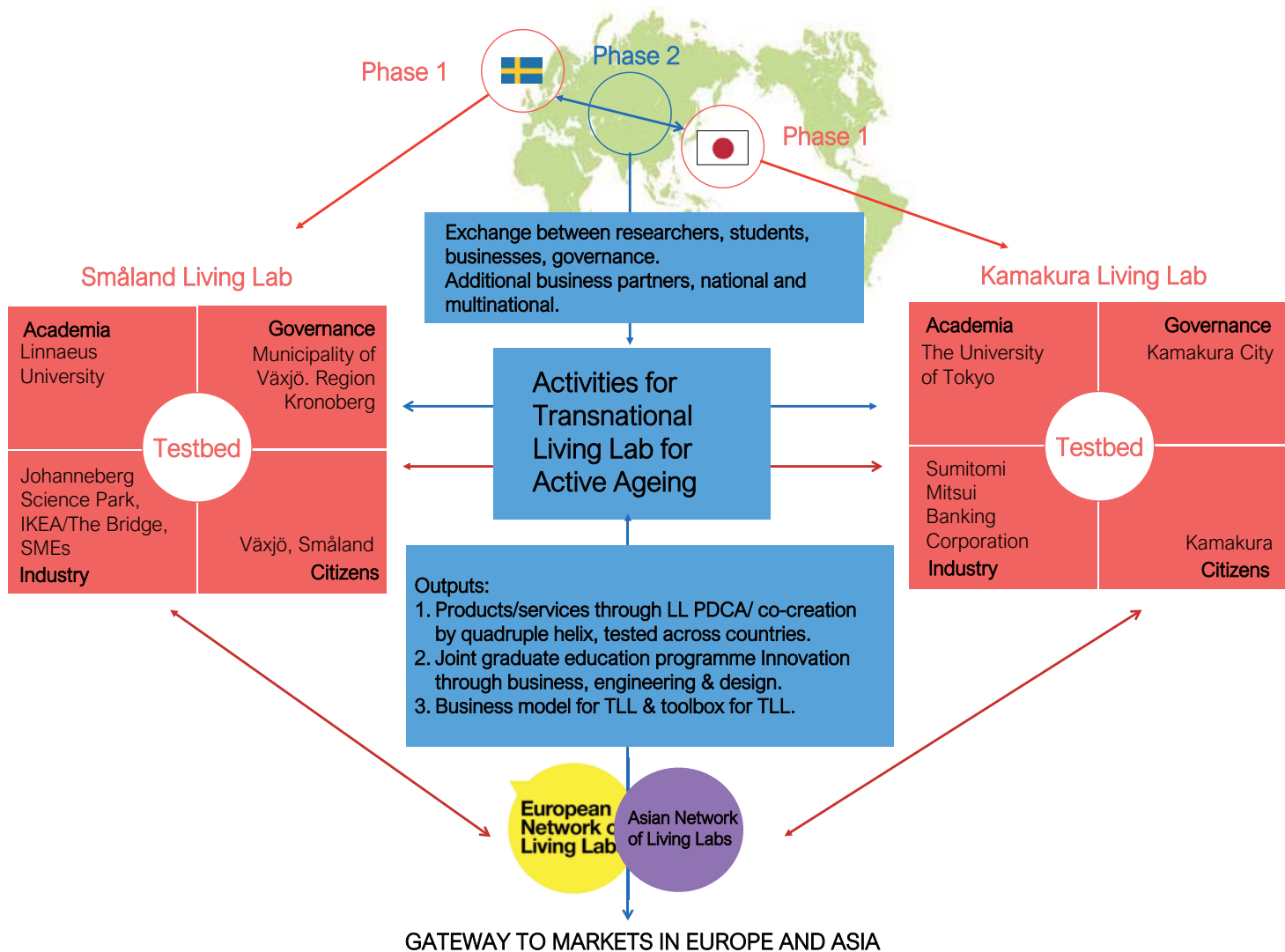
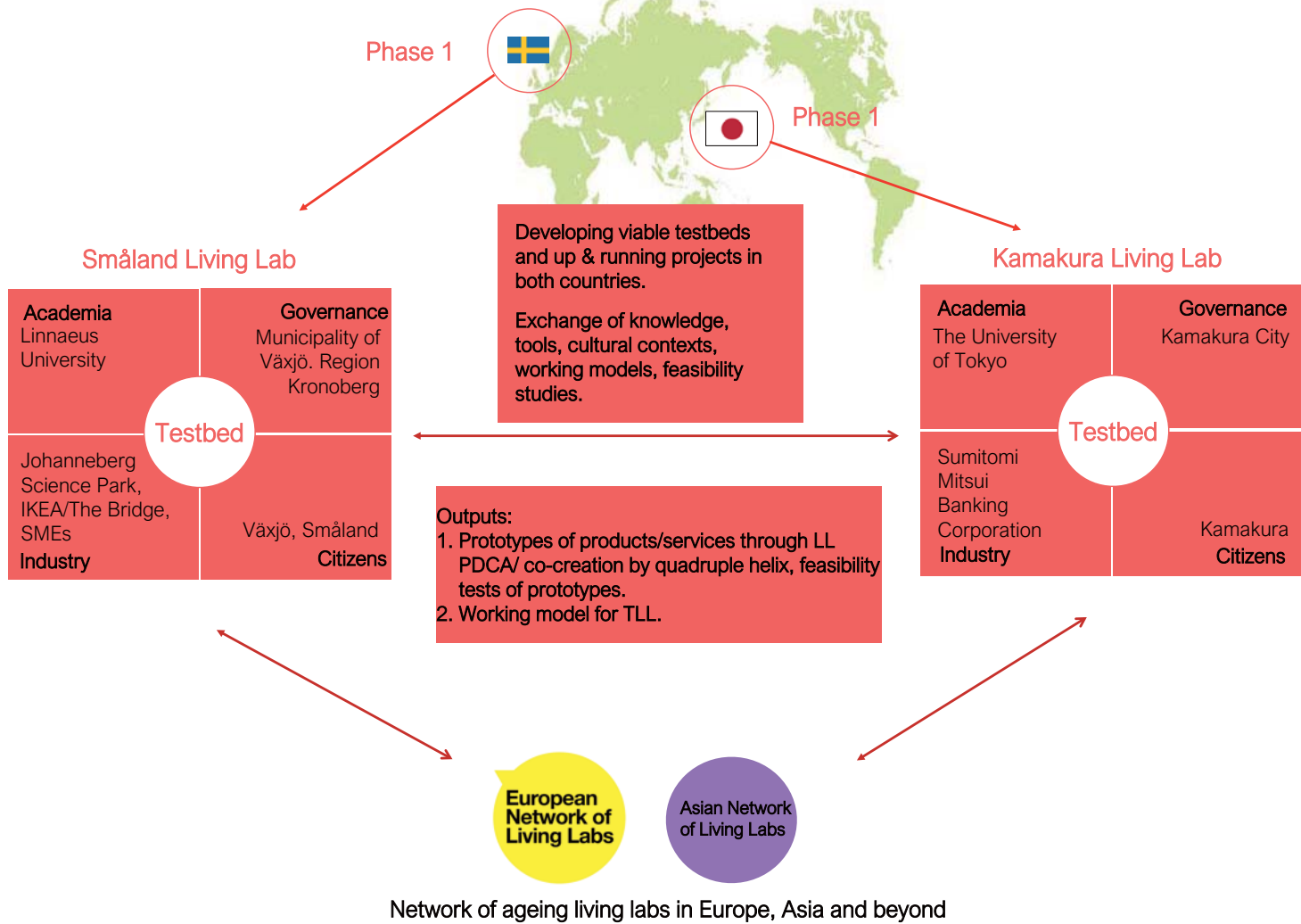
Challenge & approaches

Meta level insights:

- Living Lab approach & Open Innovation 2.0 are suited to complex challenges where no one organisation can hold problem or solution.
- The approaches can speed up innovation process.
- The approaches require quadruple helix collaboration.



TLLAA set up





Angelika Thelin, Social Work, Lnu



Glenn Sjöstrand, Social Studies, Lnu



Johanna Svensson, IKEA of Sweden



Erik Rosell, Business & Entrepreneurship



Tove Arnsvik Bjurefalk, Johanneberg SP



Ylva Dandanell, The Bridge, Lnu



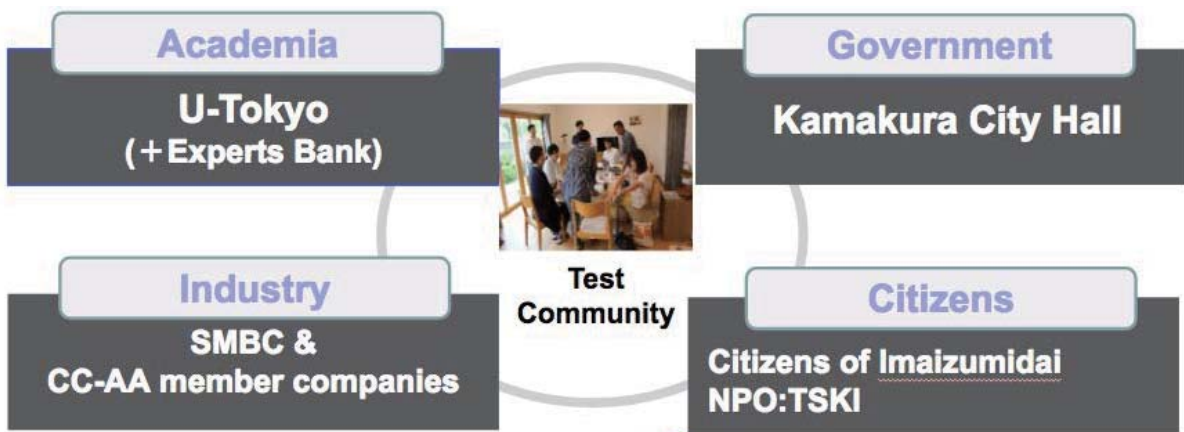
Göran Havert, Johanneberg SP



European Network of Living Labs

TLLAA team. Sara Hyltén-Cavallius, Linnaeus University, Chika Sekine, Universal Design Institute for Information Technology, Professor Hiroko Akiyama, The University of Tokyo, Eva Pavic, Johanneberg Science Park, Kyle Kai-Yun FAN, Japan Research Institute, Professor Mathilda Tham, Linnaeus University, Naoko Haraguchi, The University of Tokyo.

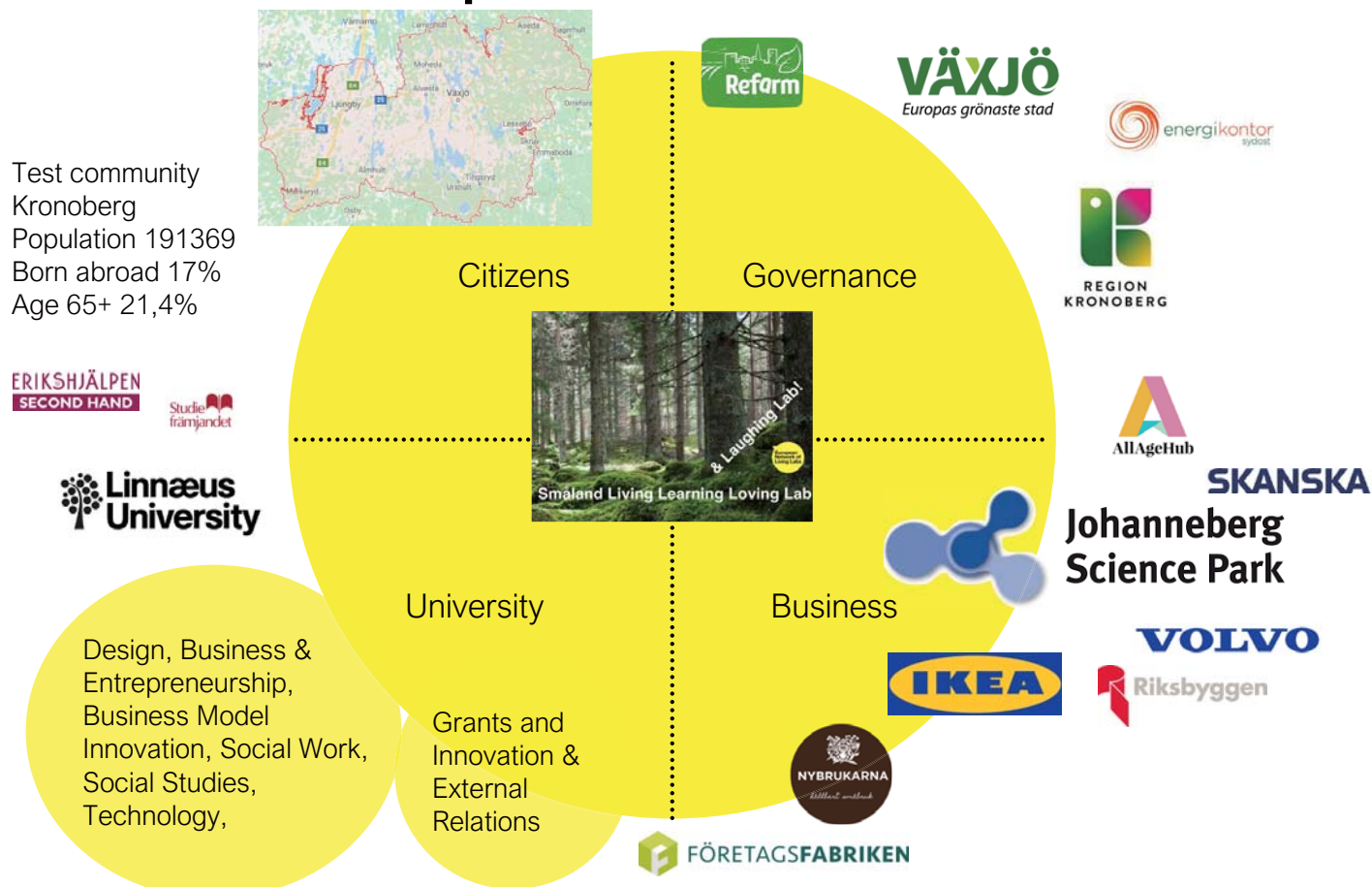
Quadruple helix Japan



Test Community: Imaizumidai

Population	5086
Households	2025
Age 65+	45.1%
Age 75+	28.8%

Quadruple helix Sweden



TLLAA set up

Meta level insights:

- Transnational consortium is complementary in terms of disciplines, experience, perspectives, methods and approaches.



TLLAA outputs

TLLAA focus areas

TLLAA innovation in remit of:

- Work/occupation
- Mobility
- Housing

to meet needs of:

- A. Citizens: work/occupation style and environment for long lived society
- B. Government: prevention of social isolation and loneliness
- C. Industry: relevant offer to ageing market and capturing expertise of long lived work force

Outcomes of TLLAA approach:

- Toolbox for transnational living lab
- Business models for living labs
- Transnational data on active ageing
- Exchange - university, industry, municipality, citizens - best practice, solutions, new markets



Kamakura Living Lab Kick Off event



Quadruple Helix bi-monthly meeting (142 companies)



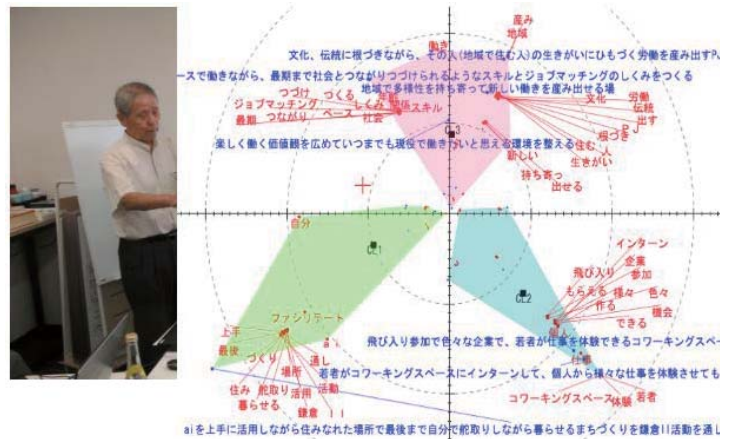
Testing town mobility prototype



Royal visit, testing robot for independent living of persons with dementia



Identifying needs with users.



Analysing workshop data.
 Dual combine analysis ©Cake Baker Corporation.



Evaluation of mock model.



Functional desk for home office.

TLLAA Sweden

Up-and-running projects

Projects starting 2018/2019



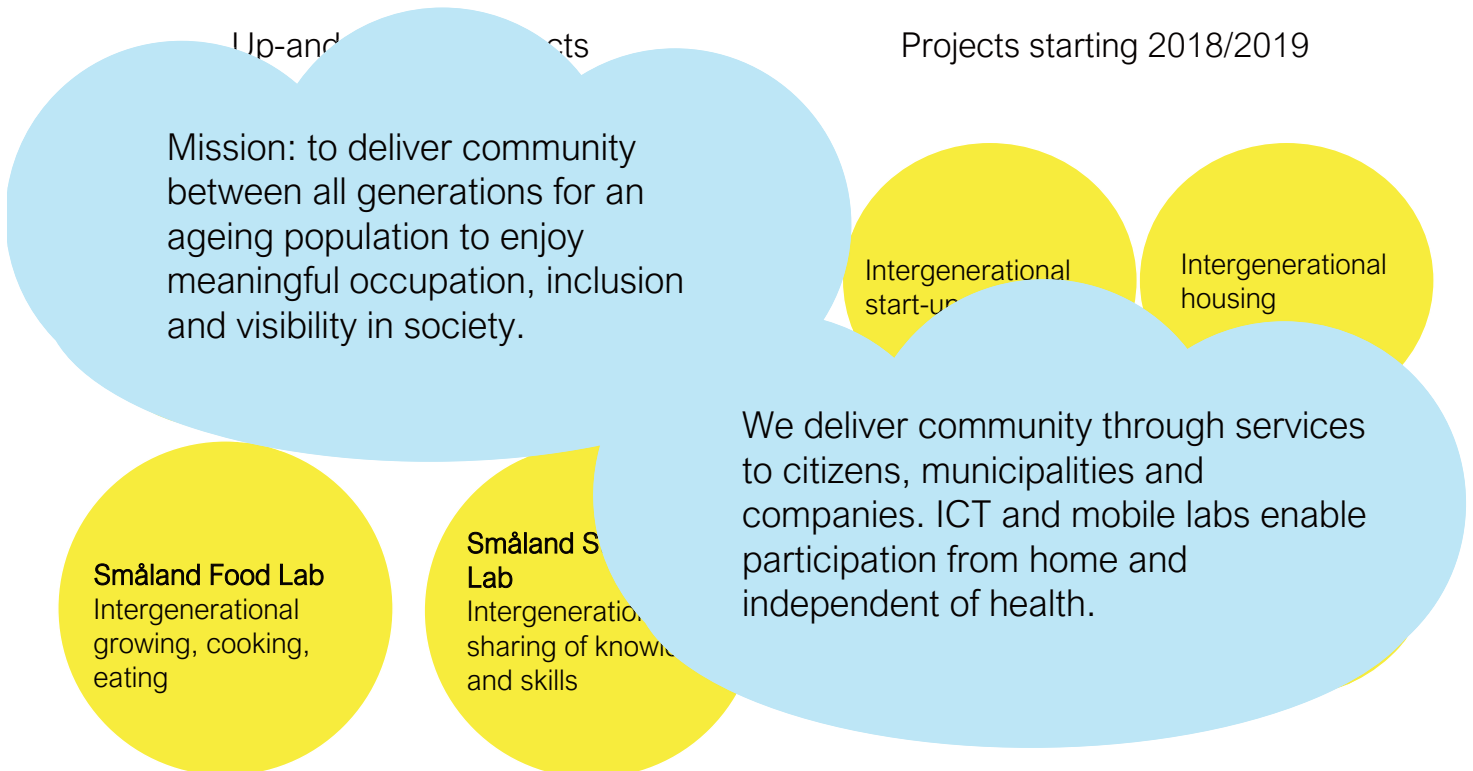
Primary innovations

Secondary innovations

TLLAA Sweden

Up-and-running projects

Projects starting 2018/2019



Primary innovations

Secondary innovations



Quadruple helix conference, Johanneberg Science Park.



Global ageing and industry dialogue, at IKEA, Älmhult.



Mobilising SMEs and NPOs in Småland, breakfast meeting.



European and global perspectives at Open Living Lab Days, Krakow.



Focus group ageing and housing, Småland Living Lab.



Prototyping Småland Food Lab, with 40 participants from quadruple helix.



Intergenerational workshop ageing & housing.



Pitching physical living lab business model at business canvassing workshop.



Testing feasibility of Tralala choir model with residents and staff at Björkliden care home.



Feasibility workshops, Tingsryd Municipality & Region Kronoberg.



Planning intergenerational start-up programme with Wille Lopez, Companion and Helena Collin, Företagsfabriken.

TLLAA Outputs

Meta level insights:

- Quadruple helix co-creation ensures relevance and attractiveness of innovation for industry, governance and citizens.
- Industry and governance value learning straight from end-users, and drawing on expertise of all generations.
- There needs to be diversity in industry portfolio for good quality of exchange and diversity in how innovation reaches end-users.
- Outputs are novel in focusing on social needs, addressing ageing of all generations.
- Metadesign approaches ensure joined up solutions, between all stakeholders, and from product to system, infrastructure, to paradigm/mindset.
- The innovations are integrated with a circular economy and Agenda 2030, with social, environmental and financial gains for society.

TLLAA exchange

TLLAA Exchange



TLLAA workshop, Open Living Lab Days, Krakow, 31 Augusti, 2017.



TLLAA All Age Hub, 5 September, 2017



TLLAA workshop, Linnaeus University, 6 September, 2017

TLLAA Exchange



TLLAA PhD student workshop. Housing and ageing in Japan and Sweden. 4 April, 2017



TLLAA Kamakura workshop, feasibility testing of Tralala choir and workshop format for loneliness. 5 April, 2017

TLLAA Exchange

European
Network of
Living Labs

Evaluating impact
of co-creation in
living lab and
quadruple helix
context.

TLLAA workshop at Open Living
Lab Days, Geneva, 22-25 August,
2018



The University of Tokyo and Linnaeus
University/IKEA MA Innovation through
Business, Engineering & Design shared
module, spring 2019

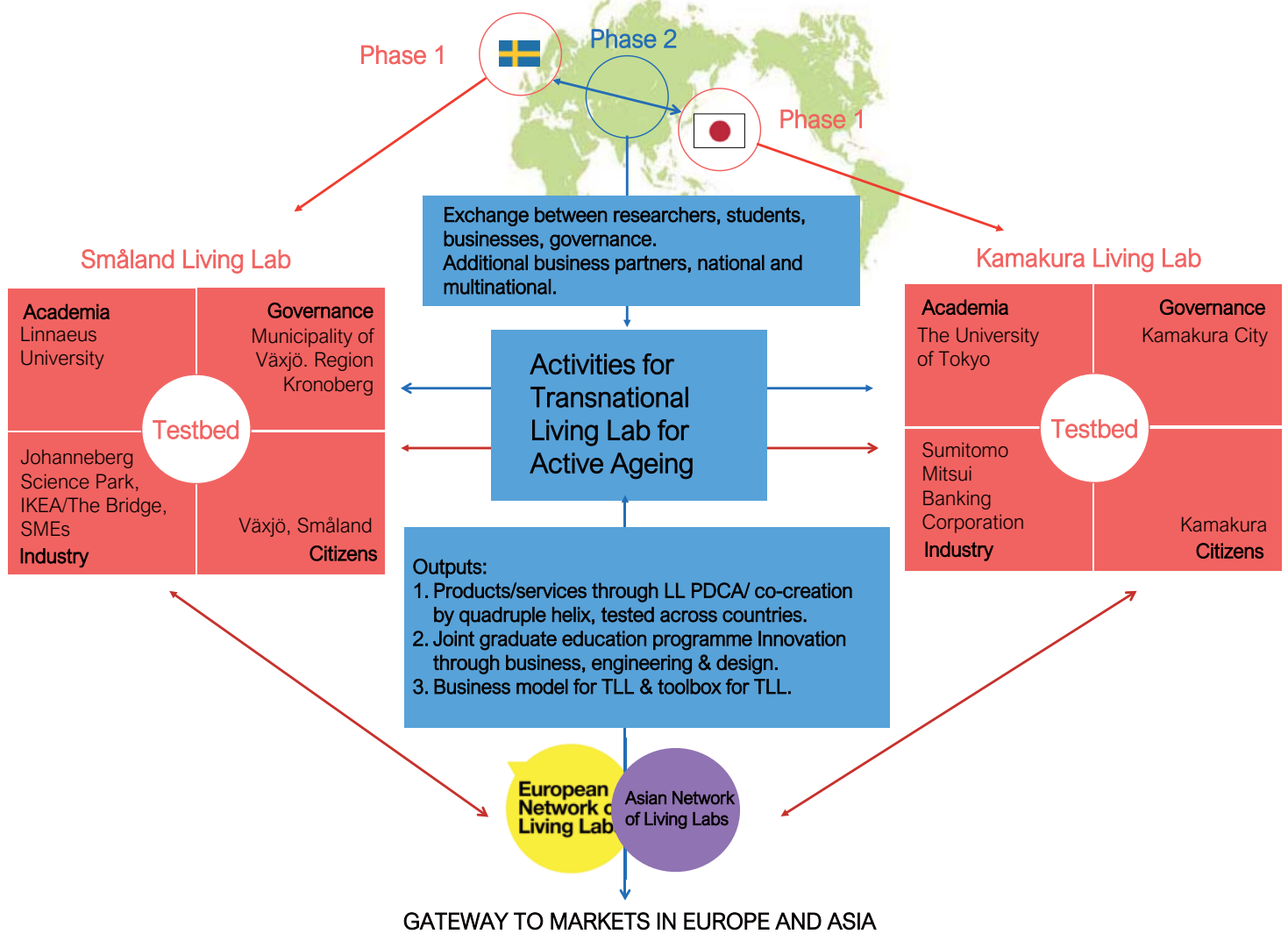
TLLAA Exchange

Meta level insights:

- Issues across countries are more shared than anticipated. (E.g. loneliness, separation from family, desire of intergenerational community, readiness assistive technology).
- Initial feasibility tests show good transferability - methods and innovations.
- All stakeholder groups desire exchange - including governance.
- Transnational collaboration is essential for long-term solutions. Openness, trust, prestigelessness are essential at all levels of co-creation.

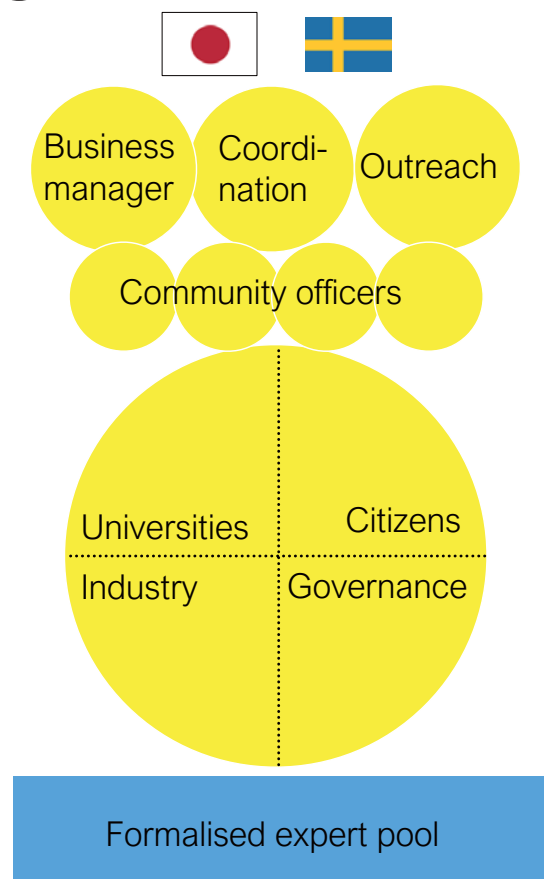


TLLAA future



TLLAA Management

- Management team represents quadruple helix in both countries, and is strengthened with dedicated business manager, coordination, outreach and communication officers.
- Formalized expert pool (ICT, IPR, translation etc).
- Agility of collaboration is maintained through continuity of two project leaders, one for each country.
- Train the trainer schemes enables rolling out solutions to more sites, and adjusting to specific contexts.



TLLAA Business model



- Equal ownership citizens (crowd funding & interest organisations), industry, governance, academia.
 - Business includes multinational, SMEs, intergenerational start ups.
 - Business model replicated within, across countries' labs and for projects.
- > Ensures continued relevance for all stakeholders, overall resilience, quality of exchange.



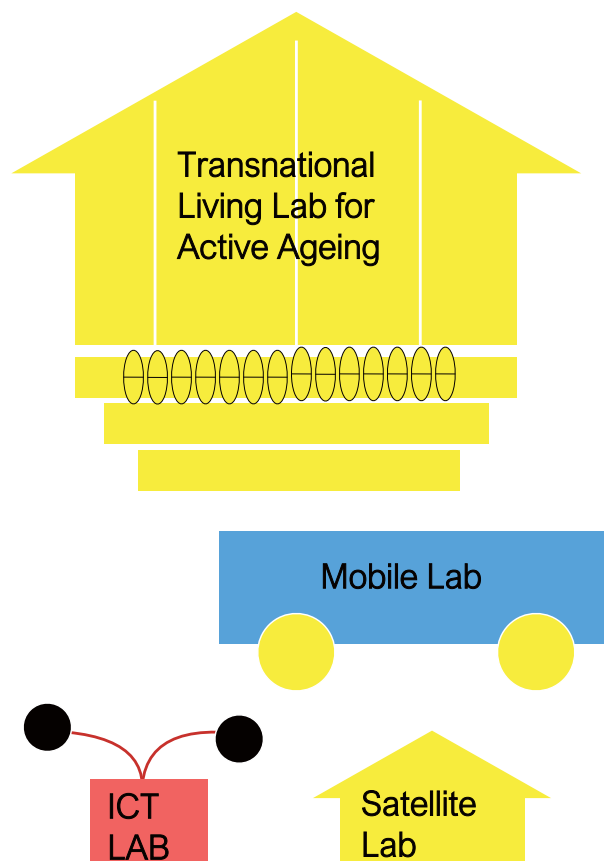
TLLAA Business model

Physical living labs showcase cutting edge innovation, are hubs for mobile labs and ICT labs and base for courses (also Mooc).

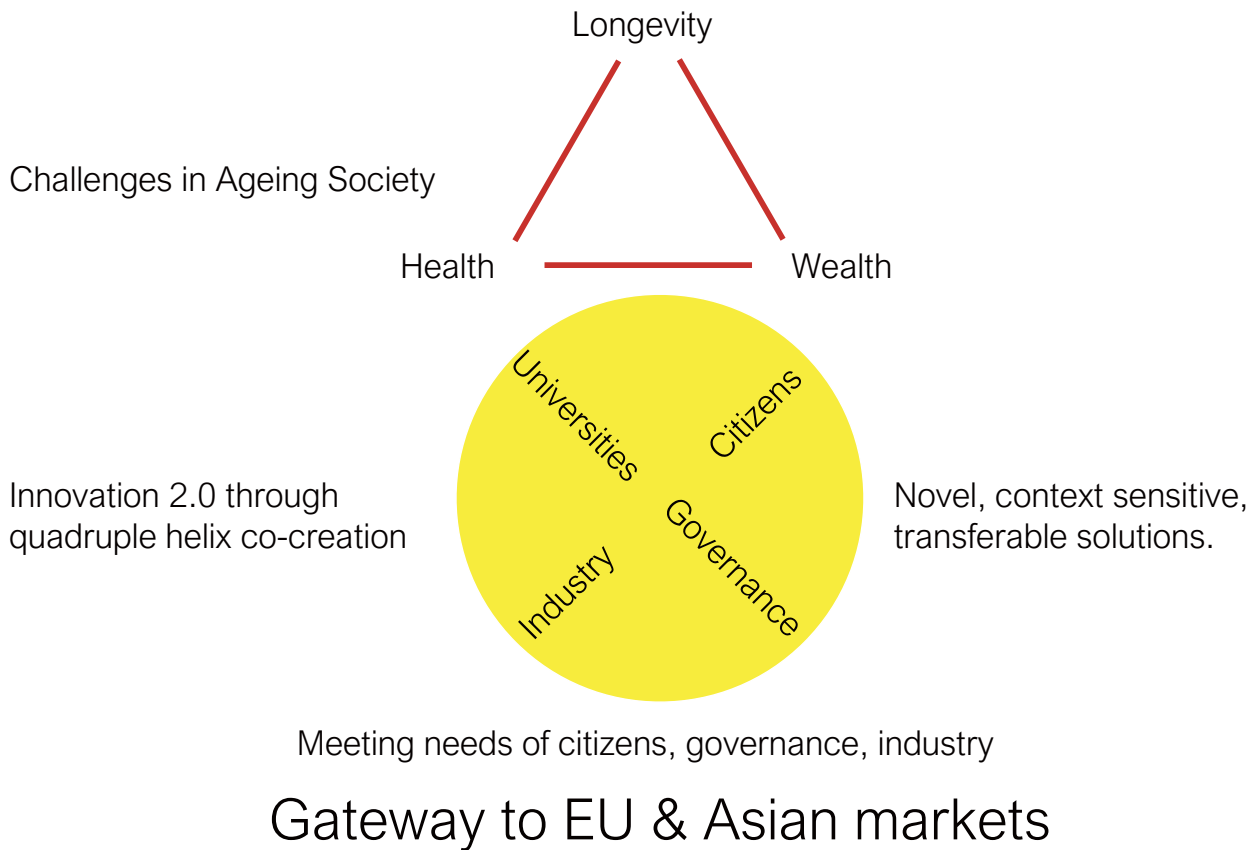
Website communicates TLLAA and enables citizen science, data generation.

Revenue streams from:

- services directly to citizens (unit/membership), municipalities for citizens (unit/membership) and companies (retirement programmes for older employers).
- information/ data packages on active ageing to companies and municipalities.
- intergenerational start-ups delivering services that the project have initiated, in collaboration with existing companies or new.



TLLAA Future

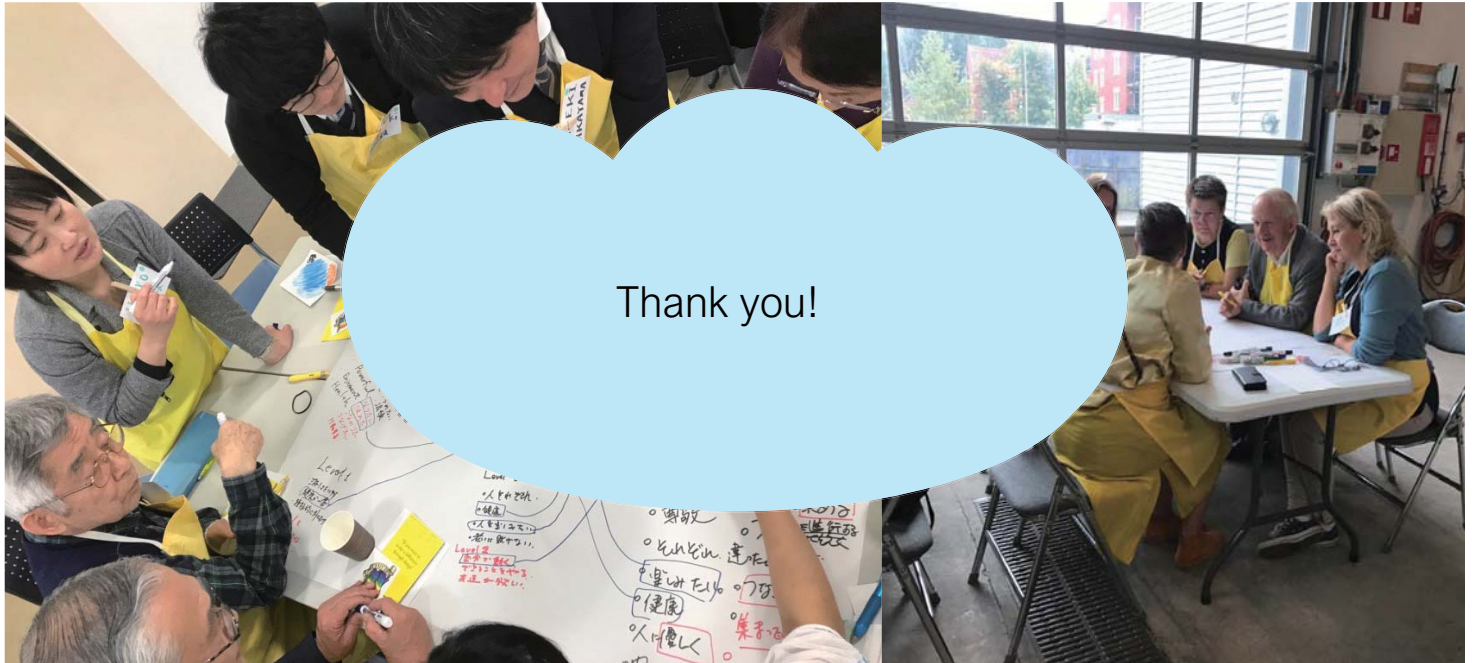


TLLAA Future

Meta level insights:

- Openness & succinct packages to each stakeholder.
- Ambitious, complex projects require resilient support structure, and needs to be agile.
- TLLAA meets goal of programme - has delivered practical models and solutions applicable to society.
- Largest promise ahead lies in expanding industry partnerships.

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