





## What is Smart Campus?

Smart Campus is advanced, inspiring and innovative open environment for co-creation.

- Leans on multidiscipline research innovations of ICT, business, technology, human, well-being, medical and nature sciences.
- Enables continuously evolving state-of-the-art premises for RDI activities of enterprises.
- Is based on latest technology like 5G/IoT network, artificial intelligence, edge computing, data analytics and AR/VR.
- Serves as co-development arena for ecosystems comprised of university, city and enterprises.
- Advances to scale-up research innovations to commercial products and services.
- Offers low threshold entrance for any size of company.





## Innovation & test environment

Research infrastructures offer unique **easy access open environments** for developing unprecedented products, applications and services, e.g.

*5G test network with efficient edge computing capability*

- Development of gadgets, devices and applications

*Sensor network with data management and sharing*

- From big data to useful data

*Occupancy/utilization rate of premises, noise level*

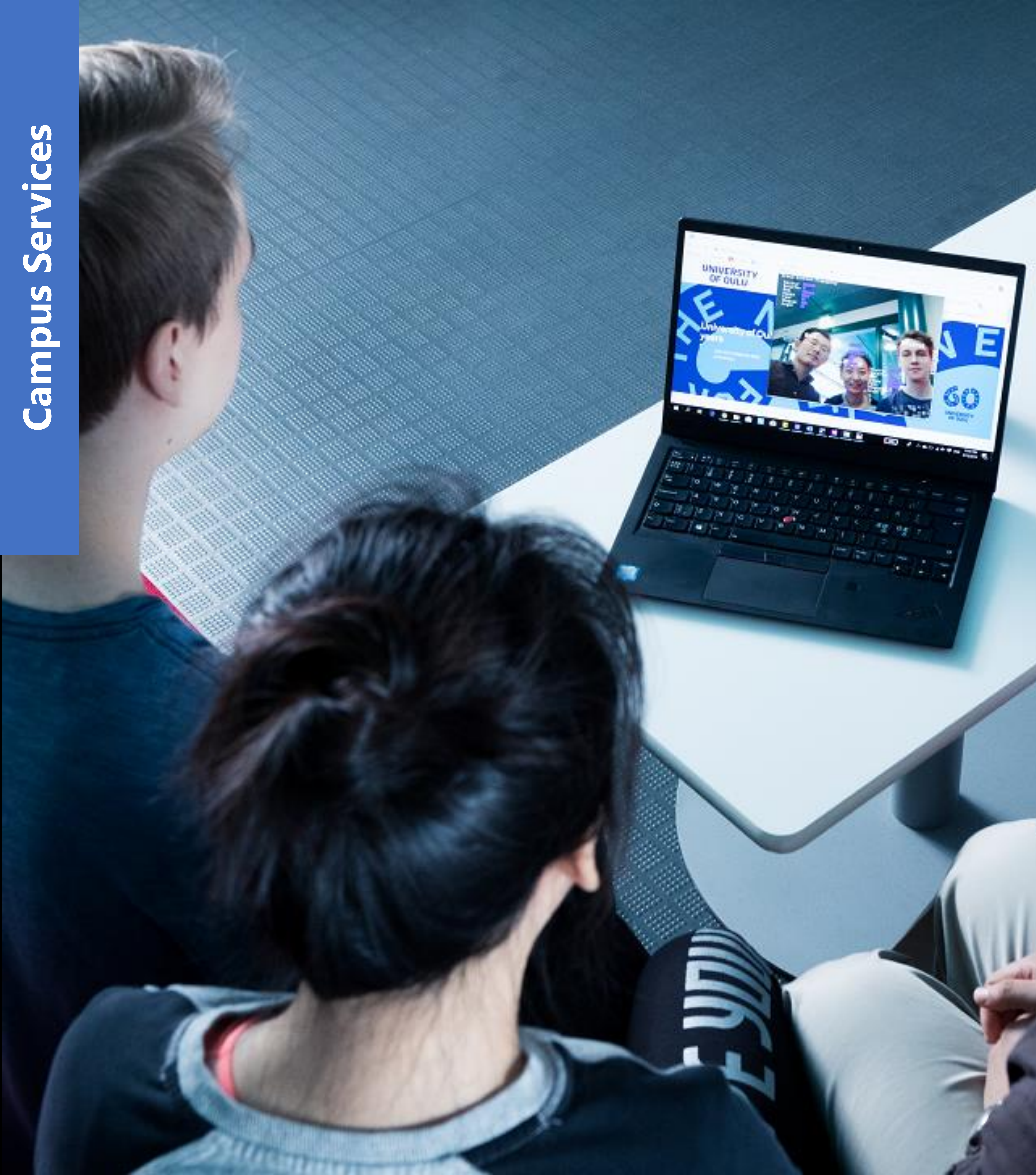
- From monitoring to actions

*Indoor positioning system*

- Location based services

High technology equipped campus premises with **thousands of pilot users** enable large-scale testing.





## Services to partners

### *Expert Services based on needs of companies*

- Introduction and technical guidance to research infrastructures

### *Resourcing of software projects (Craftmasters concept)*

- Service model to recruit pre-selected, talented and motivated students to work in projects on part-time basis
- The work supports the progress of studies
- The work is implemented in the premises of UO or in remote location
- The students are employed by UO, unless a different arrangement is preferred by the client

### *Support in research questions*

- Project initiation and funding applications
- Confidentiality prioritized

### *Digitalisation-as-a-Service*

- Concept planning ongoing



# Smart Campus Research Infrastructure

Smart Traffic/  
Transportation



Drones/Robots/  
Indoor transportation



Property  
Management



Education  
technology



Human-Technology  
Interaction



Botanical Research  
Smart Greenhouse

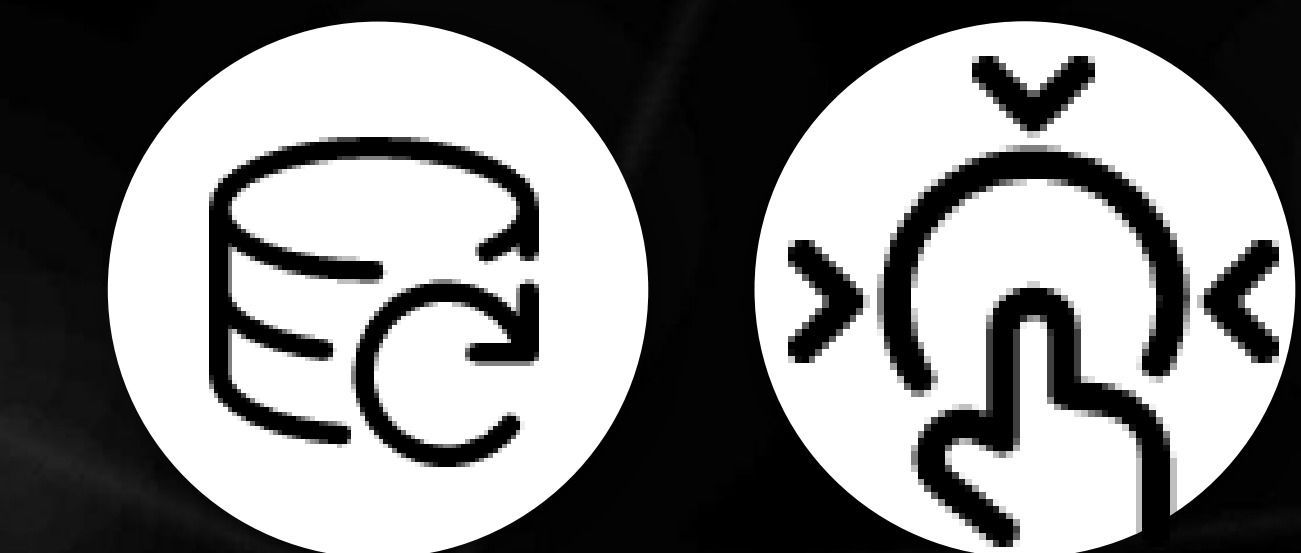


## DATA

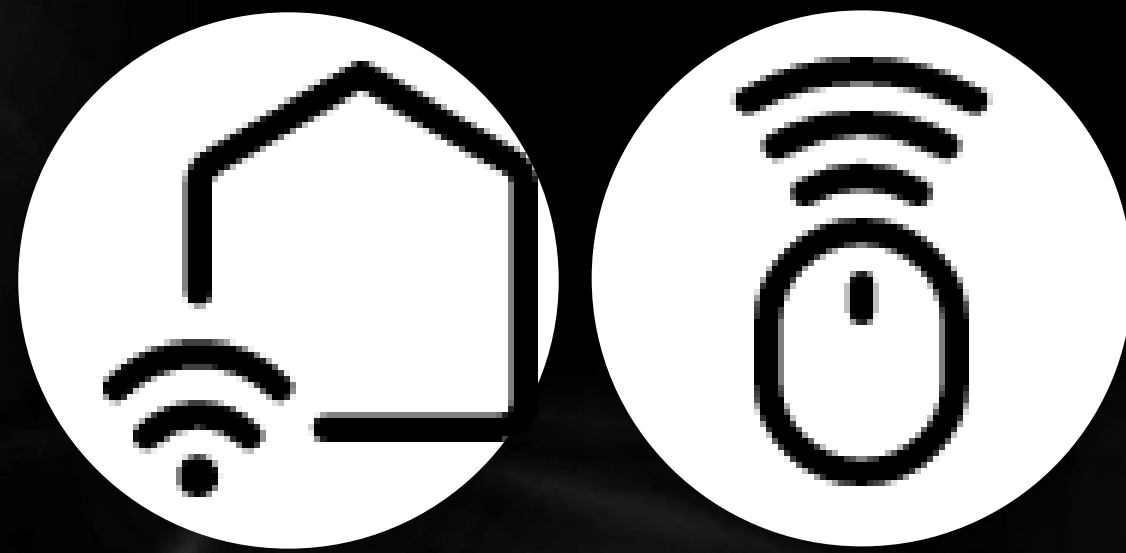


### Data Management Process

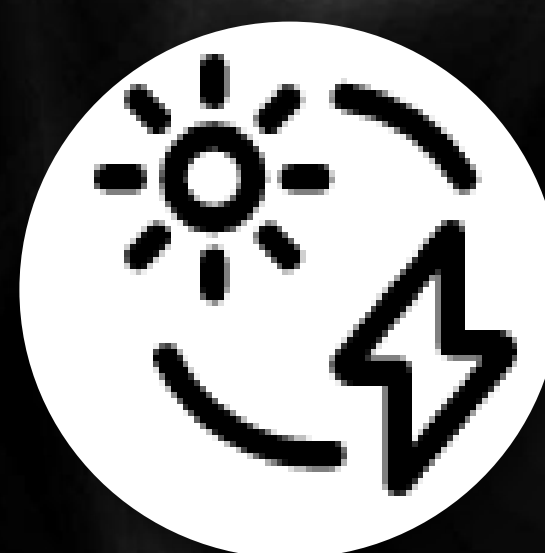
- 5G/6G Test Network
- Distibuted Edge Computing
- Cloud Services
- Analytics
- Sharing of data
- Multi-platform



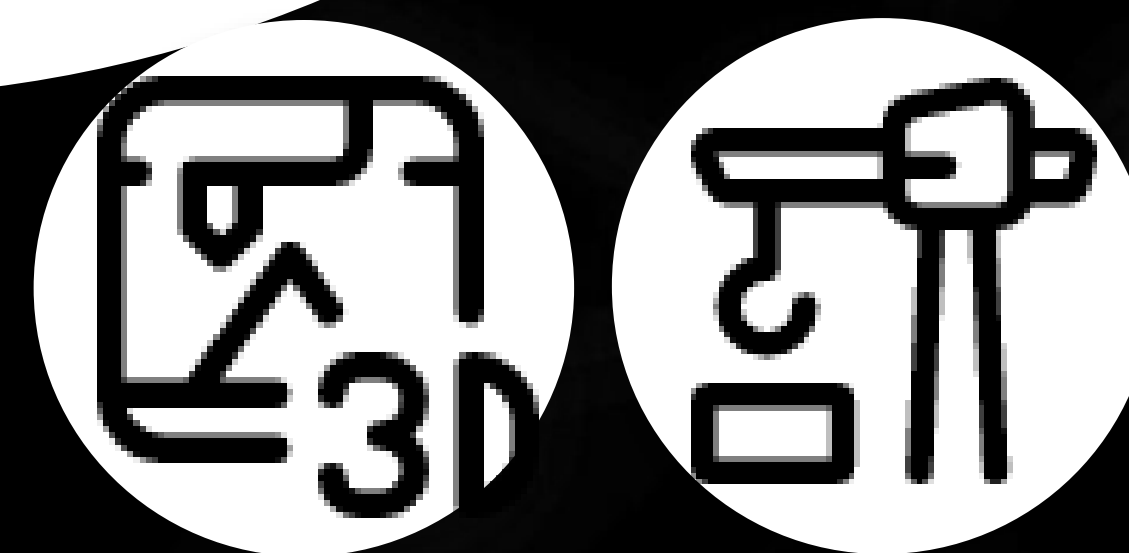
Blockchain  
Test Environment



Connected  
Devices



Smart  
Energy



Digital  
Fabrication



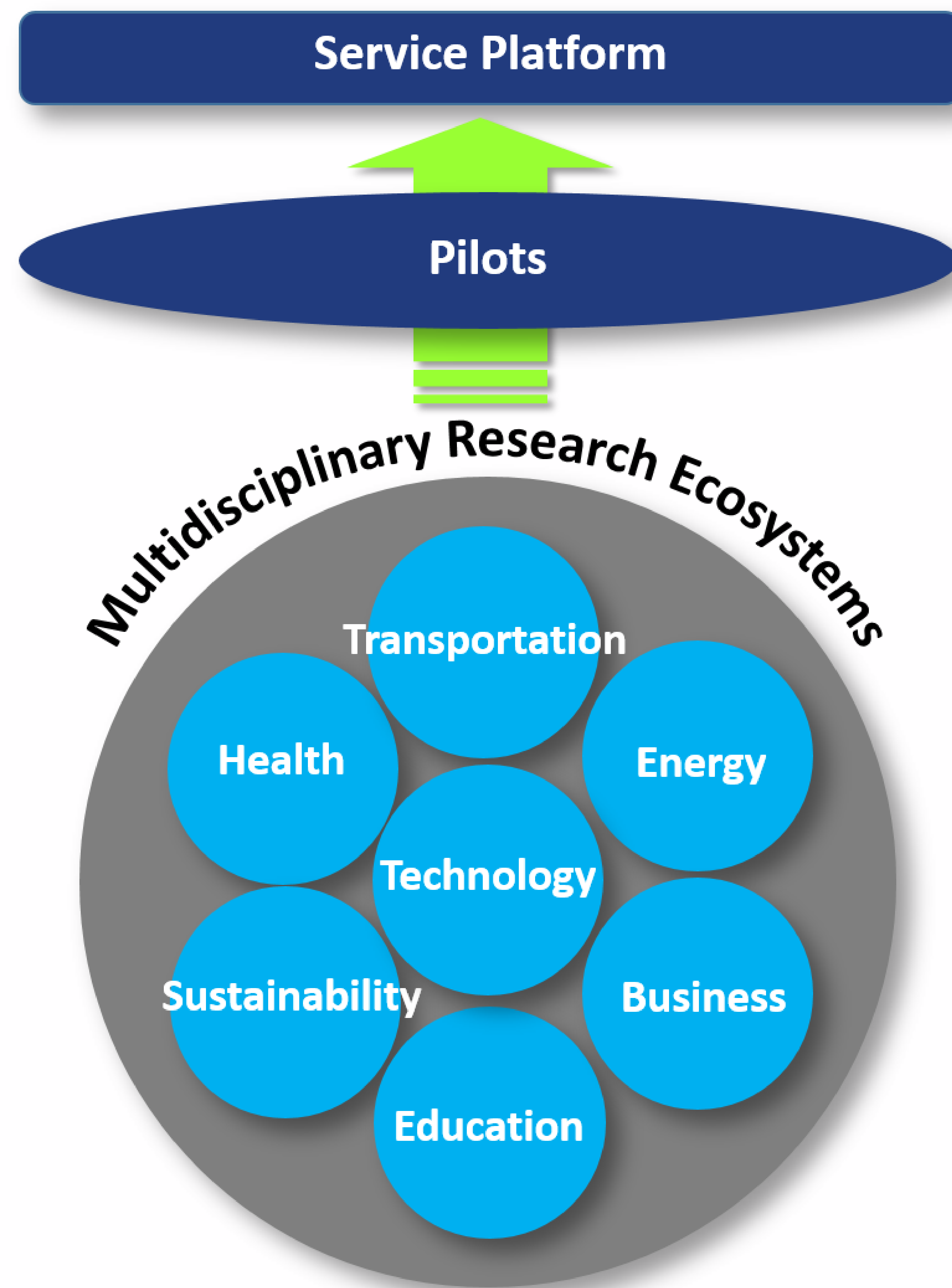
Biometrics



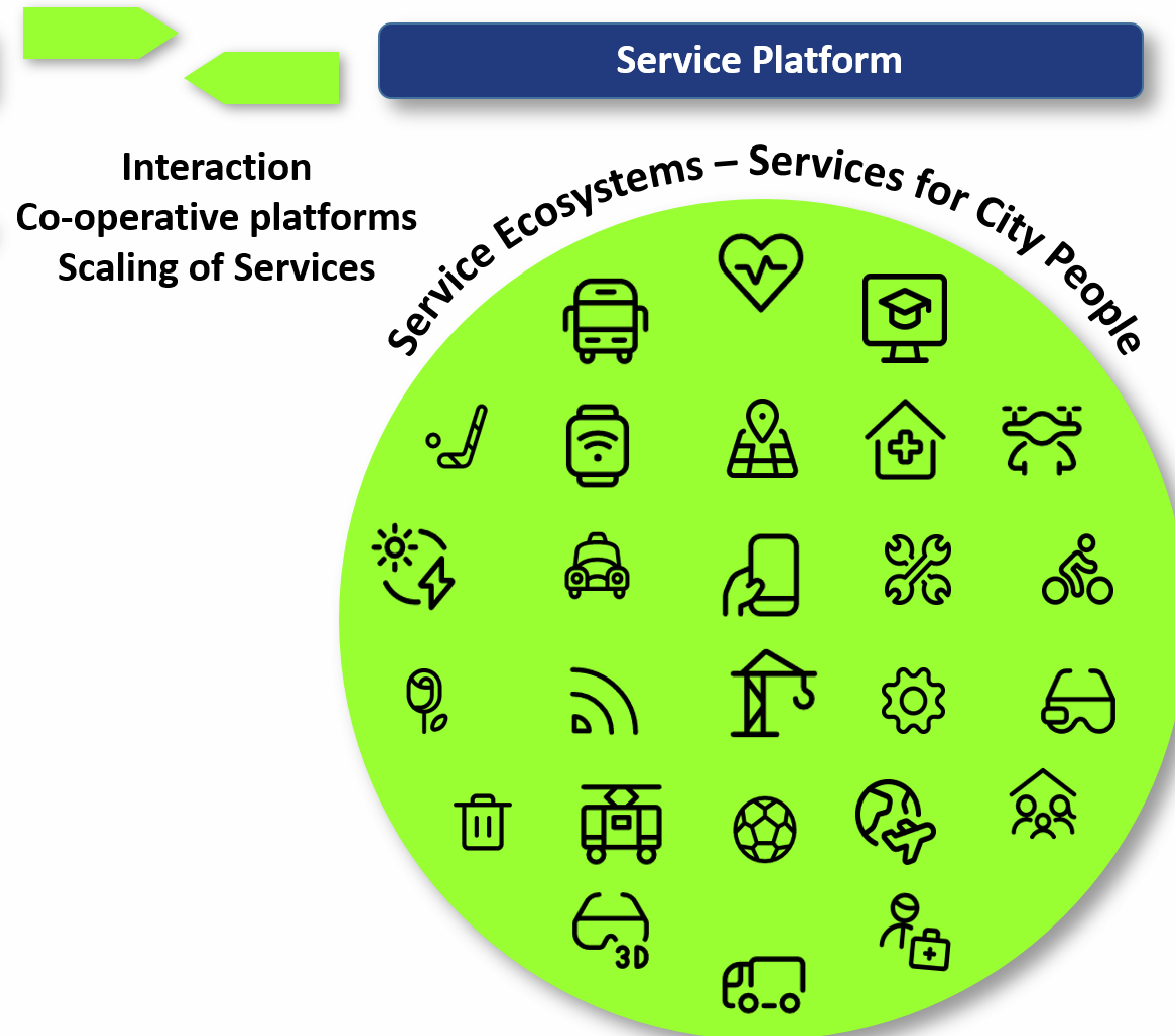
Health &  
Wellbeing



## Smart Campus Services



## Smart City Services



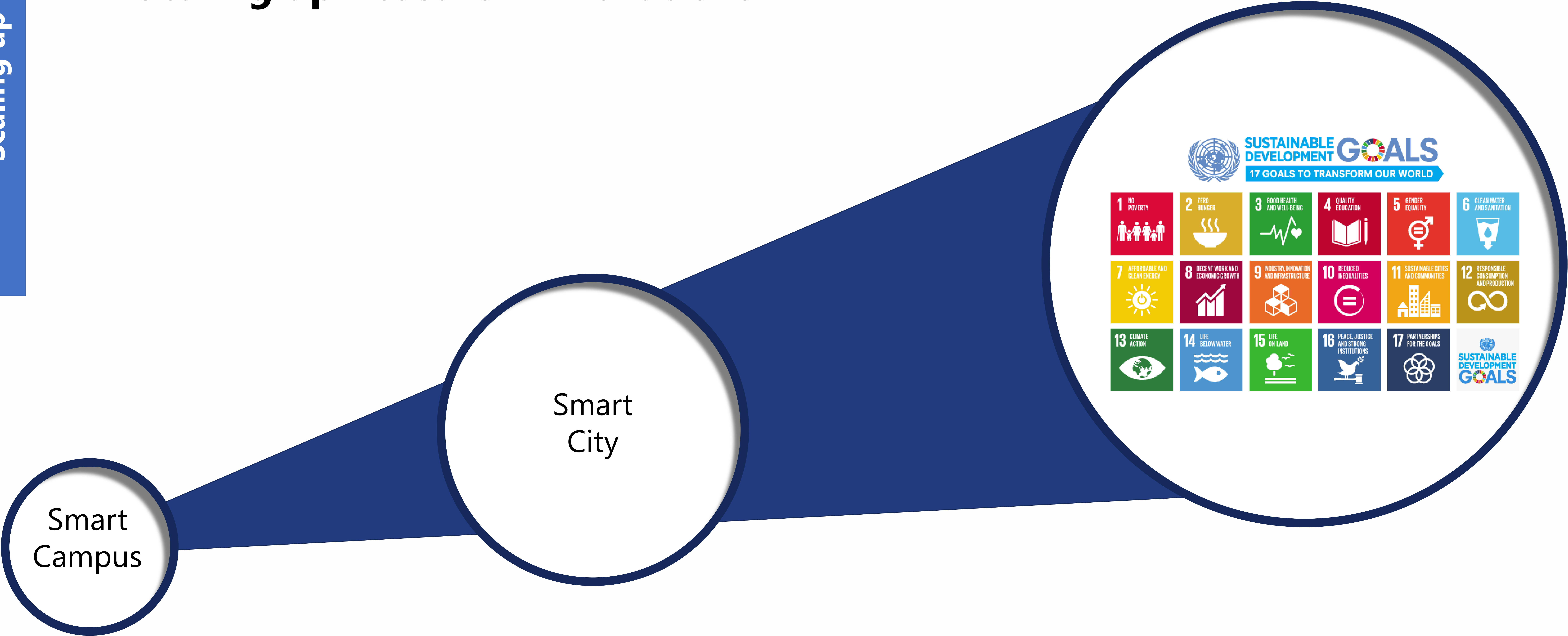


# Smart Campus – Smart City

- Smart Buildings are connected to Smart City offering tailored and personalized services to individuals.
- Smart Campus acts as 'test laboratory' of Smart City with courageous piloting resulting to scale up of sophisticated services demanded by modern city inhabitants.
- Smart Campus supports to solve the daily city challenges of
  - Property management
  - Smart living
  - Transportation & traffic
  - Health & Wellbeing
  - Education
  - Business
  - Logistics
  - Climate



# Scaling up Research Innovations





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# Smart Campus Network

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Smart Campus is national research-to-business network of eight campuses with ICT research and education.

- Project funded by the Academy of Finland
- [www.smartcampus.fi](http://www.smartcampus.fi)

Strategic initiative of Allied ICT Finland

- Collaboration network of Finnish ICT research institutes and their cities, national ecosystems both applying and enabling ICT, thousands of researchers and more than 1200 companies.
- [www.alliedict.fi](http://www.alliedict.fi)



[smartcampus.fi](http://smartcampus.fi)



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