

Yard 9





About us

As one of the world's largest professional services providers Yard 9 offers its customers and partners over 30 years' experience in the field of strategy, concept, product, brand and service & policy development.

We distinguish between five stages: thorough reframing, original concepting, desirable styling, hard-core engineering and appropriate retailing.

With over 140 professionals we manage the entire process from concepting and ideation to strategy and policy and from engineering to prototyping and production support.



About me

Marcel Vroom M.Sc

Founder / Managing partner of Yard 9

Graduated Industrial Design Engineering, Delft University of Technology.

Responsible for the output of the company, working for clients in multi-disciplinary project teams as well as embedded in corporate project teams.

During the last 30 years many of my professional and consumer products have been rewarded with awards for outstanding design.

In 1995 received the Kho Liang Ie award, the most prestigious design career award in the Netherlands.

 **arend**

PHILIPS

 **DSM**
BRIGHT SCIENCE. BRIGHTER LIVING.

ING 

Sara Lee

 **YAMAHA**

 **HEWLETT
PACKARD**

ThyssenKrupp 

pininfarina

Haier

RICOH

 **ASML**

Steelcase Strafor

SIEMENS

Miele

 **Kimberly-Clark**

Honeywell

DELL

Heineken

KLM



Unilever



LOUIS VUITTON



AIRBUS



vodafone

NITROCARE 



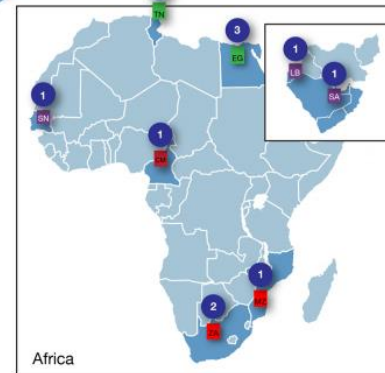
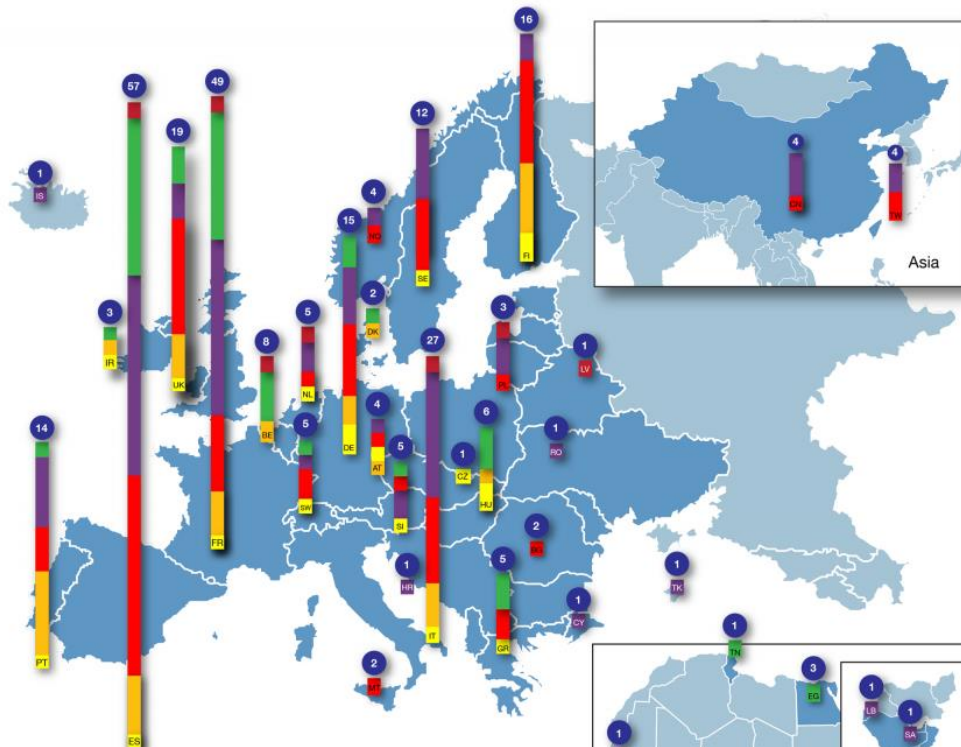
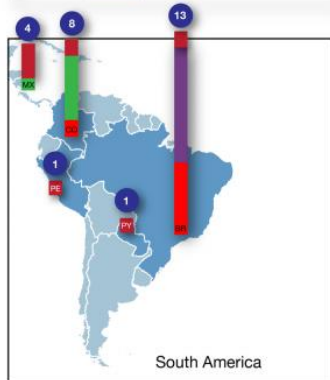
 **arçelik**

Otokar

 **mey**

 **EMBARQ**
Türkiye

Liveable cities = Smart cities



- Scale: 1 Square = 1 Living Lab
- Sixth Wave
- Fifth Wave
- Fourth Wave
- Third Wave
- Second Wave
- First Wave

1 st Wave	- 19
2 nd Wave	- 32
3 rd Wave	- 68
4 th Wave	- 93
5 th Wave	- 62
6 th Wave	- 46
Total	- 320

www.openlivinglabs.eu

BIG data

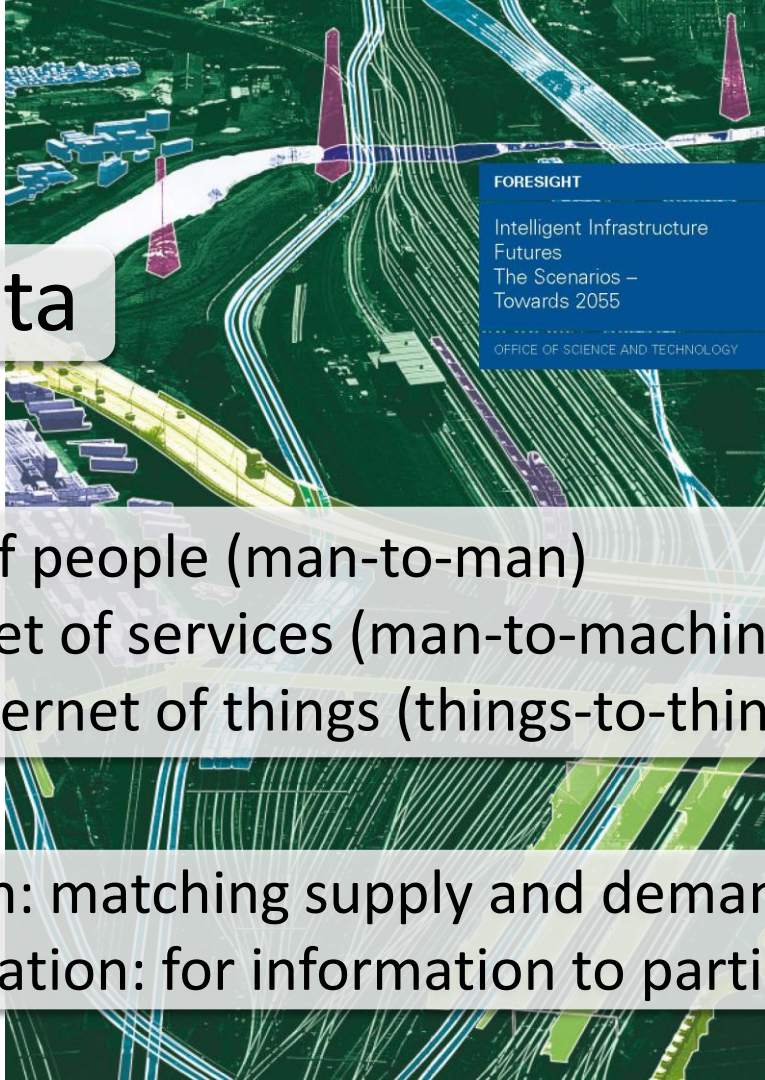
Internet of people (man-to-man)

Internet of services (man-to-machine)

Internet of things (things-to-things)

Interaction: matching supply and demand

Transformation: for information to participation



FORESIGHT

Intelligent Infrastructure Futures
The Scenarios – Towards 2055

OFFICE OF SCIENCE AND TECHNOLOGY

5 billion

people will be living in cities in 2020

Buildings use **40%** of world's energy savings and up to 40% of energy savings are not captured today

Smarter logistics

could yield **27% fuel savings**

Access to public data is estimated to be worth

€27 billion

in the EU

15%

of emissions can be saved in 2020 through **ICT-enabled energy efficiency**

ICT-enabled energy efficiency could translate into over

€600 billion

worth of **cost savings** for the public and private sector

Smart grid creates **50%** more jobs than the average infrastructure project

South Korea's

Green New Deal

and low carbon strategy create over **500,000 jobs**

Smart grid initiatives

have created over **12,000 jobs** in Silicon Valley

5 billion

people have **mobile phones** today

More than

50%

of **web connections** will be mobile by 2013

Liveable cities $>$ Smart cities

Liveable cities $<$ Smart cities

Liveable cities $=$ Smart cities





15. Path taken by a woman in a shopping mall whilst talking on her mobile phone.
Courtesy of Horst Koehle.

James J. Gibson

Because objects and environments have certain characteristics, people will behave accordingly to these characteristics:

Perception drives Action

That is why we can steer ‘the world’

as in the activities and experiences of men with the ‘things’ we develop.....

Herbert Marshall McLuhan

‘We become what we behold.

We shape our tools, and thereafter our tools shape us.’

Liveable cities > Smart cities

Meerstad (Lake town)

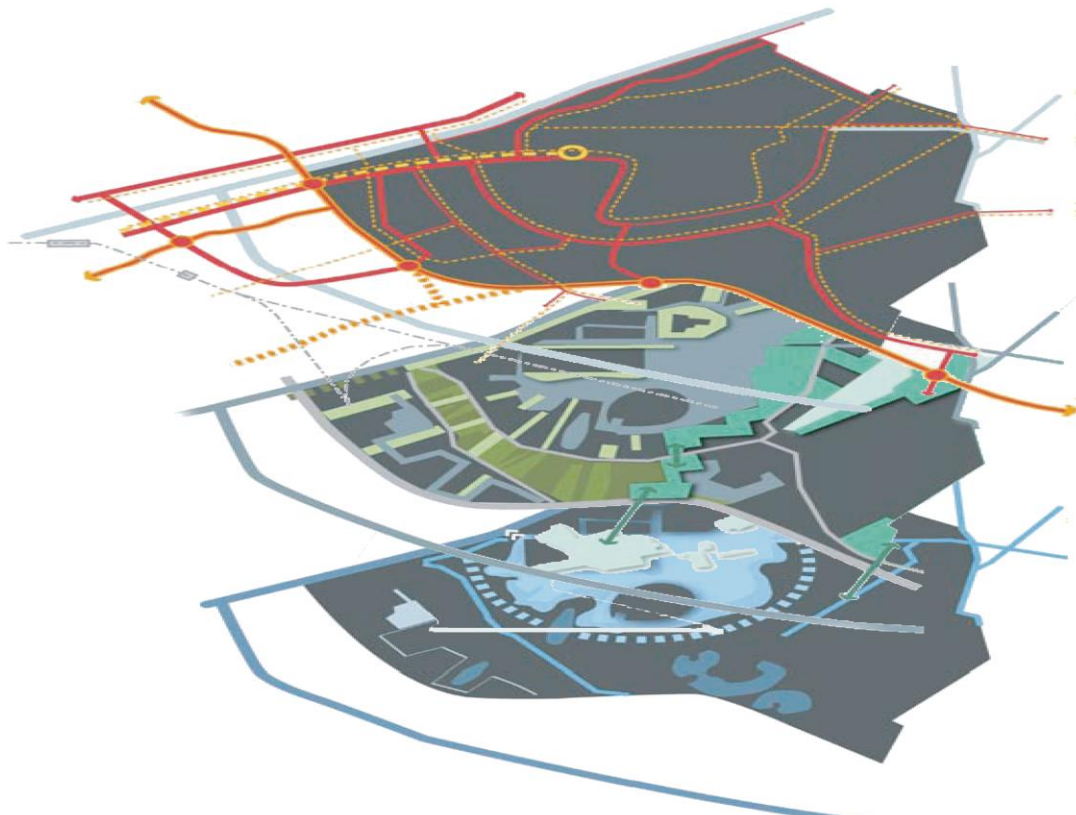
The Netherlands

Yard 9





Infrastructures

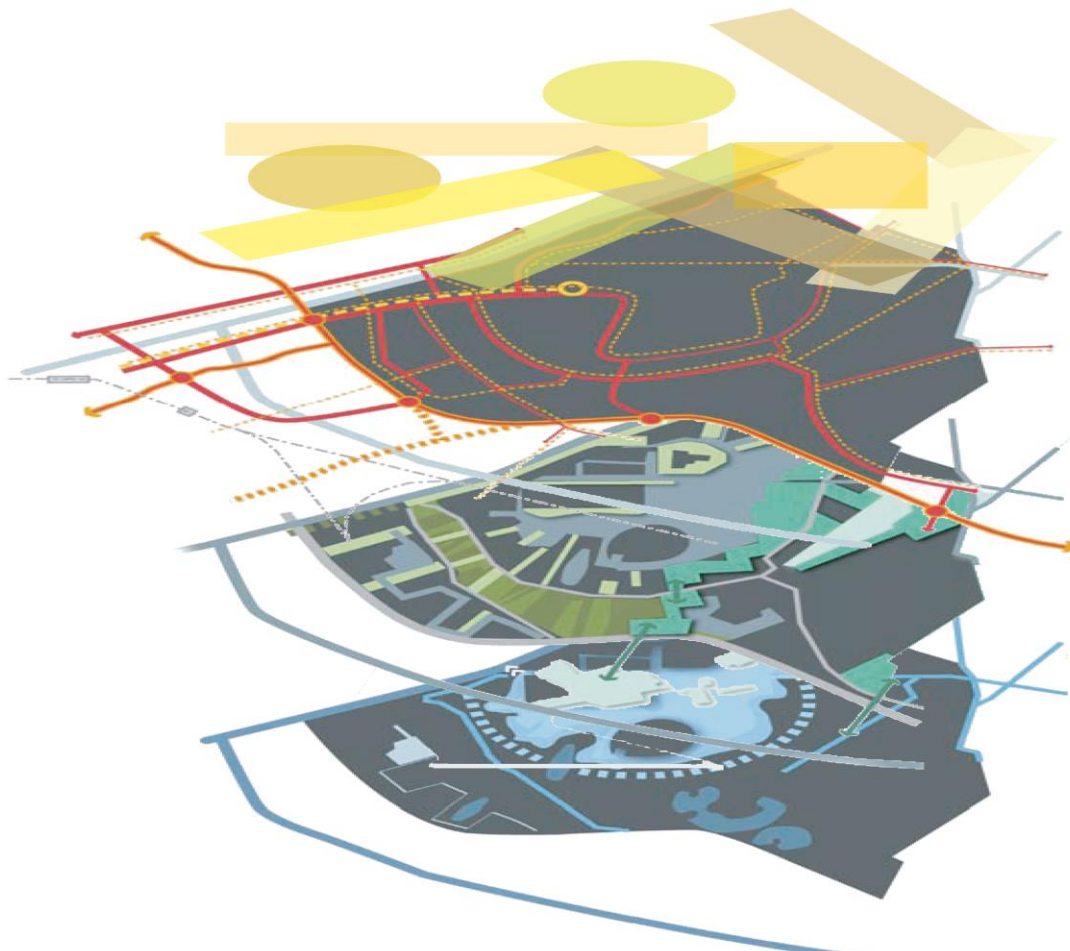


Transport

Ecology

Water

Infrastructures



ICT

Transport

Ecology

Water

WORK BALANCE

Work and living: a new way of working
 40% stopped working on a fixed spot
 House: increasing importance for work

full-time home-working
 part-time home-working
 mobile working

Living outside the city (increase since 2010: 0.6% per year)
 Passenger growth of 25%
 Freight transport is growing by 40% to 80%
 Intelligent building

automation
 robots
 laser, GPS

Remotely controlled
 Digital, wireless, free

WORK

PRIVATE PUBLIC

The impact of information and communication technology on public space

Center is the social infrastructure

Ownership of public space

Ownership of goods and infrastructures

Rights and responsibilities

HYPER LIVING

Free room house: open and flexible, with a single core
 Machines connected to central facilities
 Alarms and communication
 The house is energy supplier
 16% of homes: solar panels
 Intelligent systems are ubiquitous
 Eliminating imperfections
 Energy savings, reduction of harmful emissions
 37 screens, multiple home offices
 Private TV channel
 Industrial, flexible, intelligent
 € 40,000 to ICT (5x as much as today)
 Every 10 years rebuilding
 Medical assistance at home
 Internet shopping, online services, remote maintenance
 Contact via internet

HYPER LIVING

LOCAL TRADE

Important that ownership
 Electronic payment
 Important technical infrastructures
 Payment and payment
 space
 Electronic data acquisition

The house will be energy supplier
 Fully automated electronic commerce
 Average age is 85 years: caregiving
 House for commerce and energy management
 More than 50% of household electricity supply
 Public electronic commerce
 Virtual communities

LOCAL TRADE

RESPONSIVE PLANNING

Cities will be largely self-sufficient
 Mobility will be reduced
 Further urbanization
 Much attention to the relation of neighborhoods and surrounding areas
 New dynamic structures
 Respond to use and load, on supply and demand
 Investments: multi-functional spaces
 Ubiquitous local services
 Redesign and re-classification
 Government and responsibility
 Monitoring and control
 Output information
 Database of a

SOCIAL SHIFTS

Working and living: a new way of life
 Increase of leisure time: 40% in 2010 > 65% in 2030
 Share of entertainment: 20% in 2010 > 30% in 2030

Entertainment: more interactive
 Social contacts: 10% in 2010 > 20% in 2030

40% of working on a flexible location
 Local expenditure of leisure time and social activities
 More activities take place outside
 More leisure time through

SOCIAL

SMART FLOWS

Infrastructures are optimally adapted
 Efficient transport of data, people, goods, energy, waste
 Outside the city live (0.6% increase from 2010 per year)
 Underground transportation of products, food and waste
 Electronic identification and verification
 Companies and products inform consumers

URBAN FARMING

Large scale and micro scale agriculture
 Greenspaces and private ecospace
 18% of houses: a kitchen garden or small glass house

- in the garden
- on the roof
- along public roads
- in the parks
- artificial soils
- vegetable and poultry
- optimized plants
- water culture

Internet marketplaces and bartering
 Biogas: local distribution via the gas network
 Efficient transport, delivery and payment

URBAN FARMING

ENERGY TRANSITION

Recycling, reuse and energy recovery
 Energy management and e-commerce
 Greenspaces and residential ecospace
 Water management and water technology
 Smartgrids: more than 50% of household electricity with solar panels
 Biogas: by local gas distribution
 Efficient transport, delivery and billing
 Energy output

PERSONAL SPHERES

PERSONAL SPHERES

Technology is helpful
 Information concerning health
 Healthcare: decentral
 Medical assistance at home
 Healthcare outside of hospitals

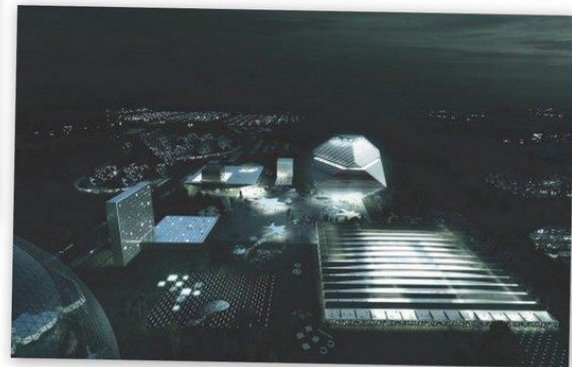
PERSONAL SPHERES

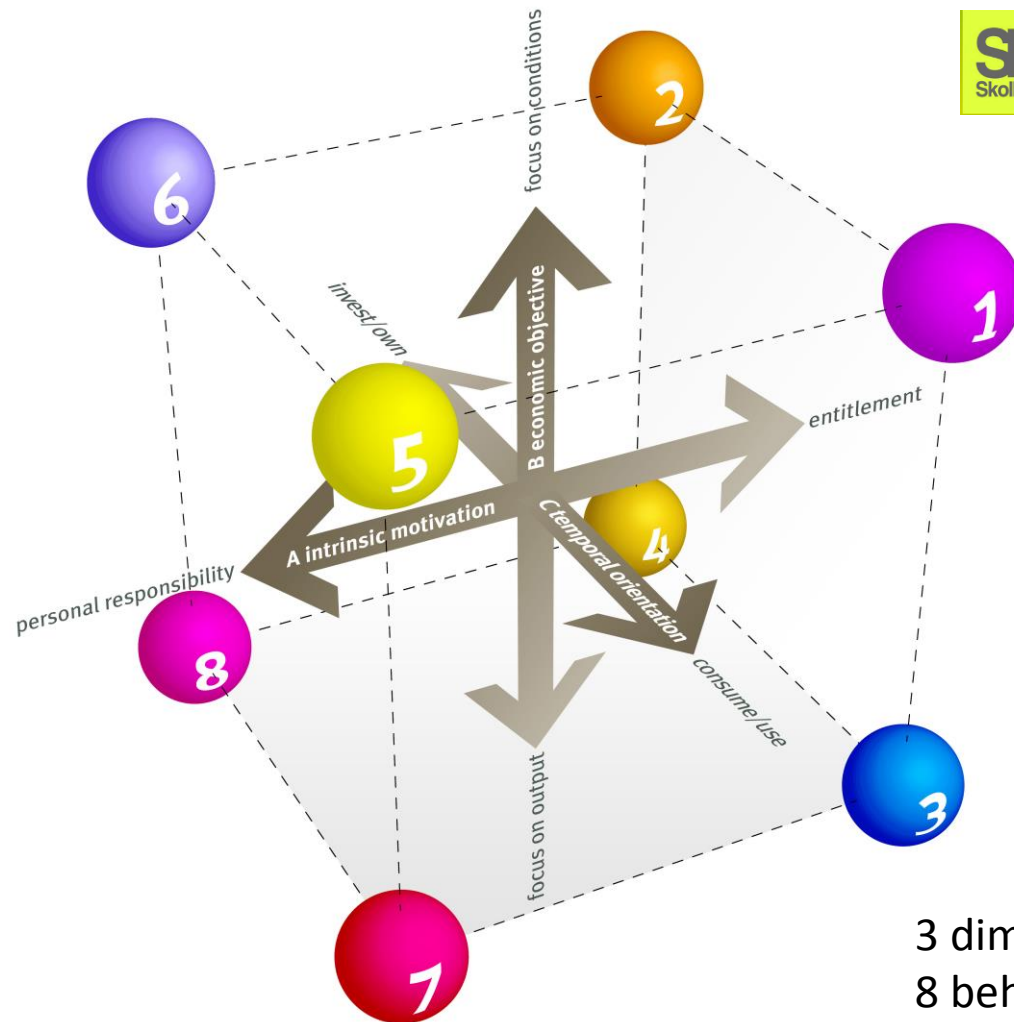
Liveable cities < Smart cities

Skolkovo

Russia







3 dimensions that lead to 8 behaviors for innovation

1. INFLUENCING PUBLIC POLICY



A. Justified interpretation of legislation
An up-to-date book is one of the best ways to stay on top of what is going on in the world of legislation. There are many books available that provide a clear and concise overview of the current state of the law. These books are often written by experts in the field and can be a valuable resource for anyone interested in public policy.

B. Shape the grass roots
A local grass-roots movement will have a much better chance of influencing public policy than a top-down approach. This is because the people who are most affected by the policy are the ones who are most likely to be heard. Grass-roots movements can also be more effective in building a coalition of support.

C. Keeping an eye for the ground
Early legislation was often written in a very general way. This was done so that the law would apply to a wide range of circumstances. However, as society changes, the law may become outdated. It is important to keep an eye on the ground and to be ready to propose amendments when necessary.

D. Power of the spoken word
Increasing trust is essential to all public policy. One way to build trust is to be open and honest about the process. Another way is to listen to the concerns of others. Public policy should be based on the needs and interests of the community as a whole.

5. MENDING THE SOCIAL COHESION

Decreasing tensions in Skolkovo Innovation Ecosystem and ensuring social coherence



A. Monitoring
Monitor what the real signs of the social cohesion in Skolkovo Innovation Ecosystem are. This can be done by looking at the number of people who are working in the ecosystem, the number of startups that are being founded, and the number of people who are leaving the ecosystem. These are all signs of social cohesion.

B. Inhabitant directed view
Inhabitants are the best people to monitor social cohesion. They are the ones who are most affected by the ecosystem and they are the ones who are most likely to be heard. Inhabitants can provide valuable feedback on the ecosystem and help to improve it.

C. Helping out
People can help each other in many ways. They can help each other with their work, they can help each other with their personal lives, and they can help each other with their social lives. Helping out is a great way to build social cohesion.

D. Embedded availability
People should be available to help each other. This means that they should be willing to help each other with their work, their personal lives, and their social lives. Embedded availability is a key factor in social cohesion.

2. CLAIMING LONGEVITY



A. Well-being centers
Provide a series of health services which are based on the science of longevity. This can be done by offering a range of services such as nutrition, exercise, and stress management. Well-being centers can help people to live longer and healthier lives.

B. Night life
People enjoy going out at night, eating and drinking. However, this can be bad for their health. Night life can be made healthier by offering a range of services such as healthy food and drinks, and by providing a safe and secure environment.

C. Wall of fame
Provide recognition for people who have made a significant contribution to the community. This can be done by creating a wall of fame in a public place. This will help to inspire others to do good deeds.

D. Children in the city
Children should be able to play in the city. This can be done by providing a range of services such as playgrounds, sports fields, and community centers. Children in the city can help to build a stronger and more cohesive community.

7. IMPROVING YOUR SURROUNDINGS



A. Room for urban interventions
Give people the space to be able to intervene in the Skolkovo environment. This can be done by providing a range of services such as public art, community gardens, and public spaces. These interventions can help to improve the quality of life in the ecosystem.

B. Balance defined and undefined
Define the boundaries of the ecosystem. This can be done by creating a clear and concise set of rules and regulations. These boundaries will help to ensure that the ecosystem is managed in a sustainable way.

C. Accommodate personal mobility
The future will bring an increasing array of self-driving transportation services. These services will be able to take people to work, school, and other destinations. It is important to ensure that these services are integrated into the ecosystem.

D. Artist-in-residence
Provide residency opportunities for artists who are working in the ecosystem. This can be done by providing a range of services such as studio space, equipment, and financial support. Artists-in-residence can help to improve the cultural life of the ecosystem.

8. LONG-LIVED SOCIAL ENTREPRENEURING



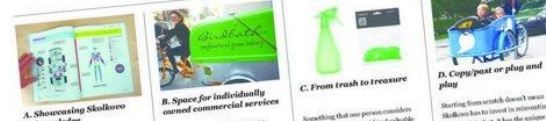
A. Attract business angels
Social entrepreneurs are often not interested in making a profit. However, they do need to attract business angels to fund their ventures. This can be done by offering a range of services such as mentorship, networking, and financial support.

B. Apply the rule of 100
British anthropologist Robin Dunbar suggests that the size of the social group of a human is limited to 100. This means that social entrepreneurs should focus on building a strong and cohesive community of 100 people.

C. Stages of the life cycle
Include a business plan in every stage of the life cycle. This means that social entrepreneurs should have a clear and concise plan for how they will manage their business at every stage of its life cycle.

D. Stand out in Social design
Develop a design process that is different from the traditional design process. This can be done by focusing on the needs and interests of the community. Social design can help to create a more sustainable and equitable society.

3. EXPLOITING VALUABLE COMMODITIES



A. Showcasing Skolkovo knowledge
People are often interested in learning about the latest technology and innovations. This can be done by showcasing the knowledge and skills of the Skolkovo community. This can be done through a range of services such as workshops, seminars, and conferences.

B. Space for individually owned commercial services
Enable individuals who own their own businesses to provide services to the community. This can be done by providing a range of services such as public spaces, public art, and community gardens. These services can help to improve the quality of life in the ecosystem.

C. From trash to treasure
Something that one person considers waste can be considered valuable by someone else. One man's trash can be another man's treasure. This can be done by creating a market for waste products. This market can help to reduce waste and create a new source of income.

D. Cup/post or plug and play
Starting from scratch doesn't mean that it is difficult to start a business. This can be done by using a cup/post or plug and play model. This model allows people to start a business with minimal investment and risk.

4. OCCUPYING YOUR PLACE OF LIVING

Creating your own long-term living environment (territory)



A. Farmship-housing
Enable residents to live from the land. This can be done by providing a range of services such as land, tools, and financial support. Farmship-housing can help to improve the quality of life in the ecosystem and create a new source of income.

B. Belonging through food
Food is what connects us to all we eat. It is also what connects us to the land. This can be done by growing and eating locally grown food. This can help to improve the quality of life in the ecosystem and create a new source of income.

C. Making your mark
Make it possible for people to have a unique, visible effect on their surroundings. This can be done by providing a range of services such as public art, community gardens, and public spaces. These services can help to improve the quality of life in the ecosystem.

D. Connection to nature
Connect the natural environment to people's lives. This can be done by providing a range of services such as public art, community gardens, and public spaces. These services can help to improve the quality of life in the ecosystem and create a new source of income.

6. INSPIRING TO STRIVE FOR IDEALS



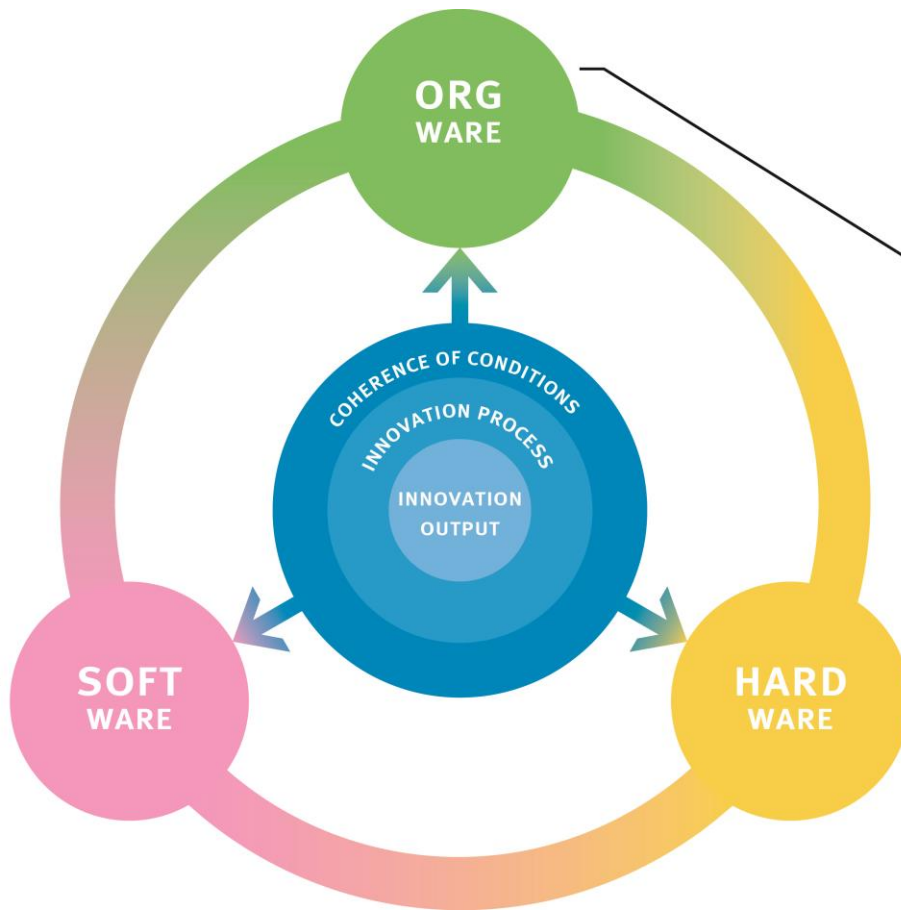
A. Safe testing ground
Provide a safe and secure environment for people to test their ideas. This can be done by providing a range of services such as mentorship, networking, and financial support. A safe testing ground can help to improve the quality of life in the ecosystem and create a new source of income.

B. Alumni support
Provide support for people who have graduated from the ecosystem. This can be done by providing a range of services such as mentorship, networking, and financial support. Alumni support can help to improve the quality of life in the ecosystem and create a new source of income.

C. Accessible role models
Make it possible for people to see role models who are successful in their field. This can be done by providing a range of services such as mentorship, networking, and financial support. Accessible role models can help to improve the quality of life in the ecosystem and create a new source of income.

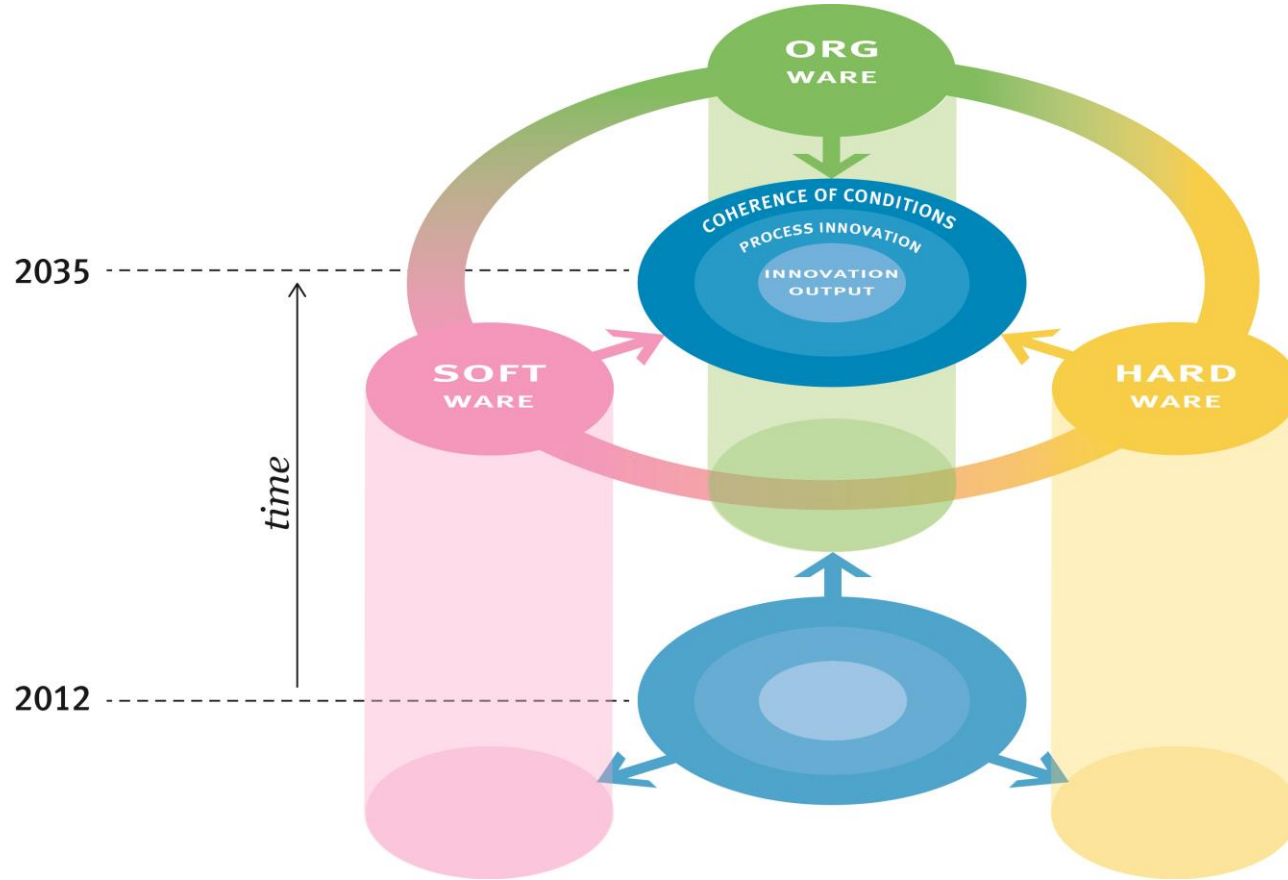
D. Tolerance for failure
Enable people to fail without feeling ashamed. This can be done by providing a range of services such as mentorship, networking, and financial support. Tolerance for failure can help to improve the quality of life in the ecosystem and create a new source of income.

SOFTWARE
*informal networks
social capital
attitudes towards
entrepreneurship
the image of a place*



ORGWARE
*institutions
policies
visions and strategies
ability to align the actions
of stakeholders*

HARDWARE
*real estate
research facilities
ICT infrastructure
road infrastructure*



Conclusions

Liveable cities = Smart cities

Social and Technological innovations go hand-in-hand

Understand interactions of people and the context

Know the goals people want to accomplish

Strive for meaningful interventions

Yard 9

Yard 9

On site dynamic travel information;
autonomous and wireless for a fixed budget.
And we managed, of course!

Lijn 130 Vertrek

Lijn 180 Vertrek

Lijn 160 Vertrek 17:13

27-07-2009 16:45

130 naar Rotterdam CS

Vertrek	Bestemming	Vertrek	Bestemming
8:41		8:03	33
9:13	28 43 38	8:35	33
9:28		9:07	33
10:00	35	9:39	33
10:32	32	10:11	33
11:04	37	10:43	33
11:36	32	11:15	33
12:08	37	11:47	33
12:40	32	12:19	33
13:12	37	12:51	33
13:44	32	13:23	33
14:16	37	13:55	33
14:48	32	14:27	33
15:20	37	14:59	33
15:52	32	15:31	33
16:24	37	16:03	33
16:56	32	16:35	33
17:28	37	17:07	33
18:00	32	17:39	33
18:32	37	18:11	33
19:04	32	18:43	33
19:36	37	19:15	33
20:08	32	19:47	33
20:40	37	20:19	33
21:12	32	20:51	33
21:44	37	21:23	33
22:16	32	21:55	33
22:48	37	22:27	33

CONNEXXION

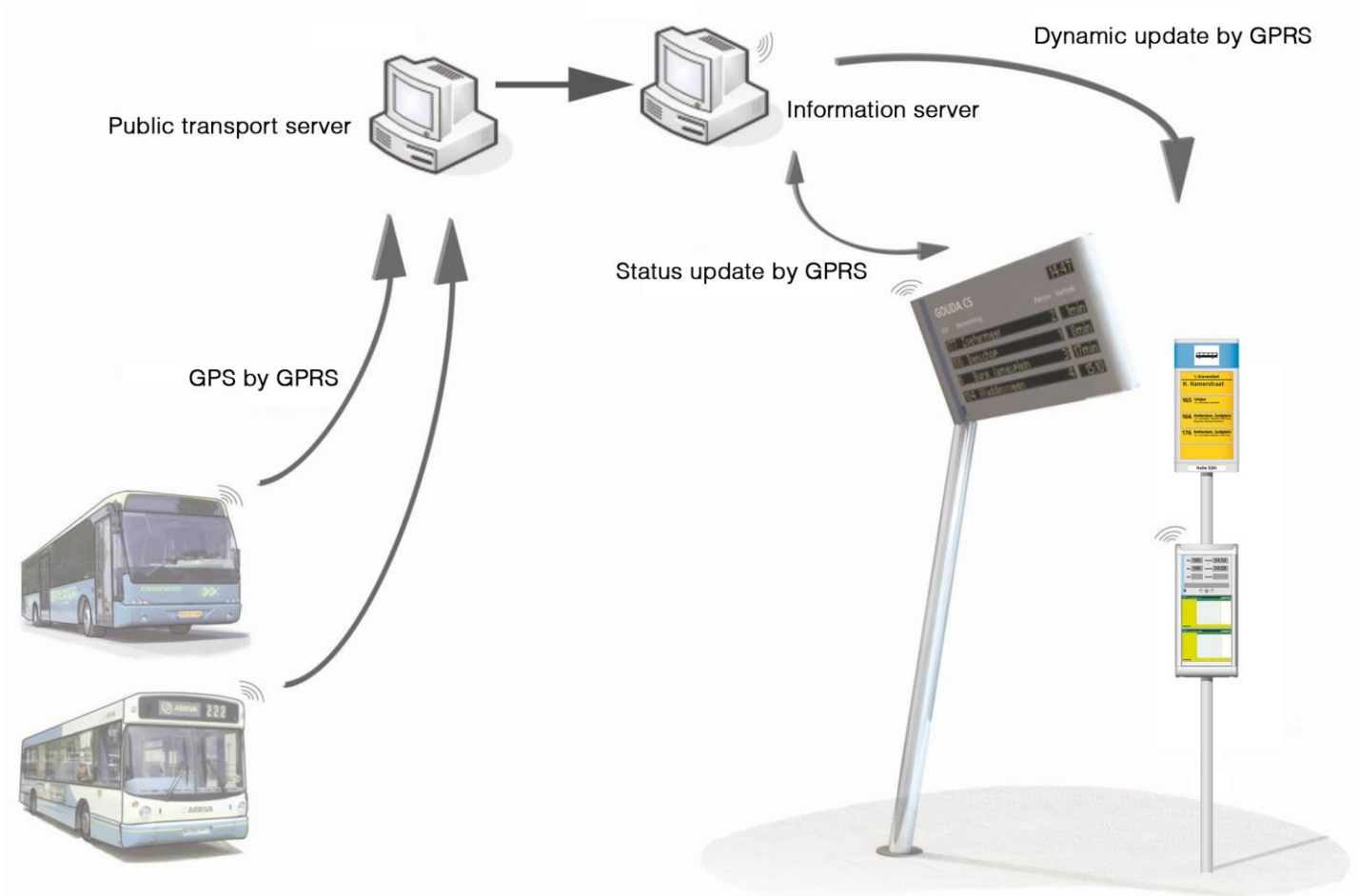
Alles waar het bij Connexxion om draait.

Bij Connexxion staat de reiziger voorop. In dat wereldwijde netwerk die onze reizigers hebben. Wij denken om uw reis te maken en te maken. Van het meest vakkundig bij deze buslijn, het meest vakkundig op een bestemming. Connexxion wordt ingezet voor reizigers die op het gebied van veiligheid, informatie en bestemmingen. Het is niet alleen. Maar ook om het welzijn bij deze reis te waarborgen. Zo wordt reizigers altijd gezorgd. Het is een gevoel of suggestie. Het is een gevoel van veiligheid.

Mocht u een klachtenformulier/communicatie of al het met Connexxion Klachtenformulier. Het is een gevoel van veiligheid. Het is een gevoel van veiligheid.

Alles voor de reiziger. **CONNEXXION**

Is deze display defect of beschadigd? Belt u dan 010 29 45 215 (nummer belt).
Wilt u reisinformatie? Belt u met 0900 - 2 2 2 2 (0,70 per min. excl. BTW).



Based on research on how citizens experience the different responsibilities of the different organizations governing the society of a country (national government, provinces and local governments) in relation to public transport, the province is seen as the key player to ensure a sustainable, reliable public transport system for the short and the long term future. The public transport system is used to brand the province as a whole and expressed by a new public transport service system and bus stop design.



For over fifty years the blue and white ANWB signs have been showing the way in The Netherlands. The result of our redesign convinces once more with considerable improvements with regard to uniformity, legibility and functionality.



Rechtbank
Havens 1255-2500
Zuidplein/Ahoy
ss Rotterdam

Kop van Zuid
P World Port Center



Nieuwe Luxor
Wilhelminapier
Havens 1242-1255

Maastoren

De Kuip
Entrepothaven
Feijenoord

Ring 4



For over fifty years the red and white ANWB signs have been part of the bicycle lane infrastructure in the Netherlands. The result of our redesign convinces once more with considerable improvements with regard to uniformity, legibility and functionality.

Black spot accidents are a shocking reality at crossings where cyclists and truck drivers meet. Our Black Spot Mirror tackles this issue in a very, very simple fashion.





This streamlined litter bin slim line profile is ideal in a world where the minimizing of 'street clutter' and ease of movement on our streets is becoming a necessity.



For the seating element in the center of Rotterdam all different widths of the City Centre Bench are used for the seat profile. This gives our design a rhythmic expression and, within the range, the most dynamic character.

'An advanced mobility concept deserves and advance design. This philosophy has driven our design to give the new Citea citybus a breathtaking appearance.'
We couldn't have said it but our client did.



MIT Technology Review

VOL. 115 NO. 6 | \$4.99 US

HAS QUANTUM
COMPUTING
FINALLY
ARRIVED?

Upfront p24

HOW
TOMORROW'S
STARTUPS WILL
BE FUNDED

Business Report p75

TECH
TRANSFORMS
MUSIC, ART,
AND PROSE

Reviews p87



Buzz Aldrin,
Apollo 11
moonwalker,
would like a
word with you.

**You Promised Me Mars Colonies.
Instead, I Got Facebook.**

We've stopped solving big problems.
Meet the technologists who refuse to give up. p26

**"THE BEST WAY
TO PREDICT
THE FUTURE
IS TO
DESIGN IT"
—BUCKMINSTER
FULLER**

Yard 9

