

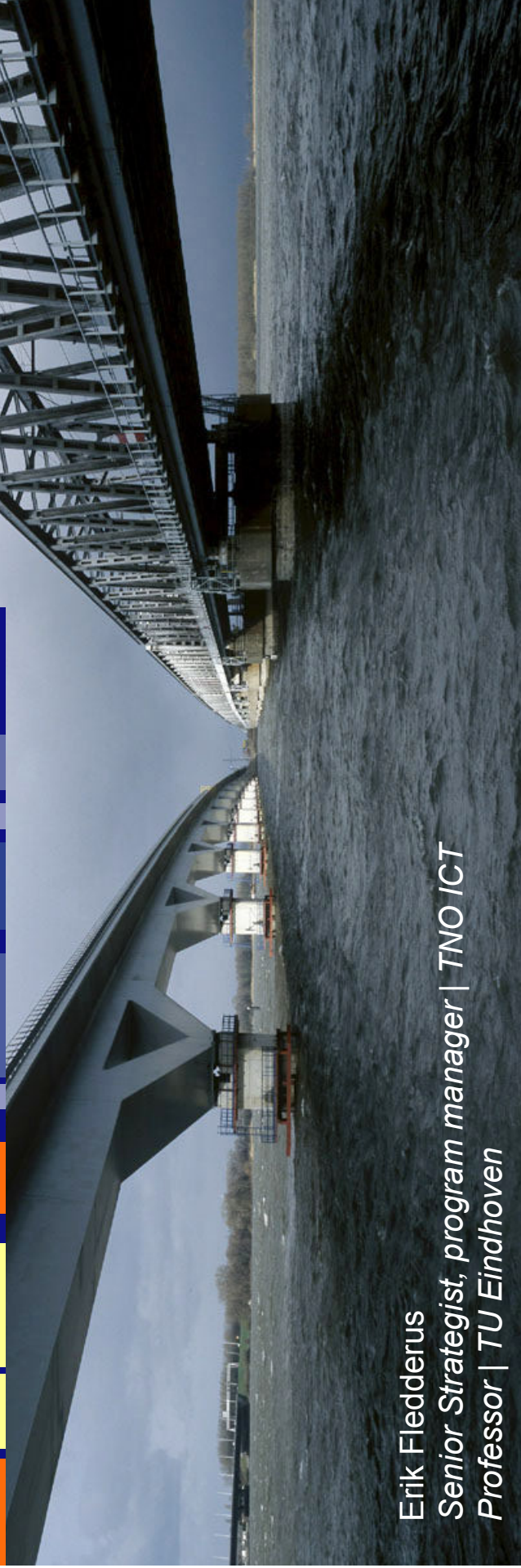
PPP-Future Internet

***Input to Use Case workshop | Smart
City | Living***

TNO | Knowledge for business



Erik Fledgerus
Senior Strategist, program manager | TNO ICT
Professor | TU Eindhoven



Smart Energy / Grids

eHealth / Healthy Living

Smart Agriculture

Smart Content

eGovernment

Smart Mobility

Smart City / Living



Use Case: smart living / cities

Developments

- Increase in complex projects within a city with many parties, citizens and (international) regulations.
- Citizen is well informed or thinks he is well informed.
- Citizens originate initiatives on issues that the government does not address effectively.
- Citizens can unite to a critical mass by using social networks
- News travels fast due to new media as social networks, twitter, etc.
- Authority of experts and organizations is no longer self-evident.

Therefore:

- Increase in accessibility of information
- Emergence of a 'city information architecture'
- Transparency of the root data and process.

Examples

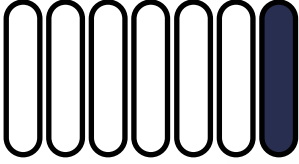
- eParticipation
- Google Earth/Maps/Street view
- 3D city models, cityGML
- Virtual City, City Labs
- Home Gateway
- Monitoring air pollution in the city
- Construction of subway tunnel
- Mexican flu vaccination
- Terrorist attack
- Airplane crash
- Real-time traffic and public transport information
- Tourism

Smart cities: participation of all stakeholders (citizens and companies) is required to reach political objectives (sustainability, waste reduction, economy, etc.)



Use Case: smart living / cities

Track record



- **Sif** ~~provides~~ **with** ~~transparent~~ **and** ~~government~~ **transparent**, **enables** ~~for~~ **better** ~~presentation~~ **models** ~~and~~ **advanced** ~~search~~ **for** ~~technology~~ **and** ~~decision~~ **supporting** ~~systems~~ **systems**.
- **MIR** ~~is~~ **Co** ~~l~~ **l** ~~laboratory~~ **City: In the Reality of Assen** ~~and~~ **decision** ~~support~~ **planning**
- **Urban** ~~spatial~~ **planning** ~~and~~ **mobility** ~~interaction~~
- **Amsterdam** ~~is~~ **Smart City** ~~allow~~ **to** ~~reach~~ **way** ~~to~~ **increase** ~~energy~~ **efficiency** ~~with~~ **smart ICT**



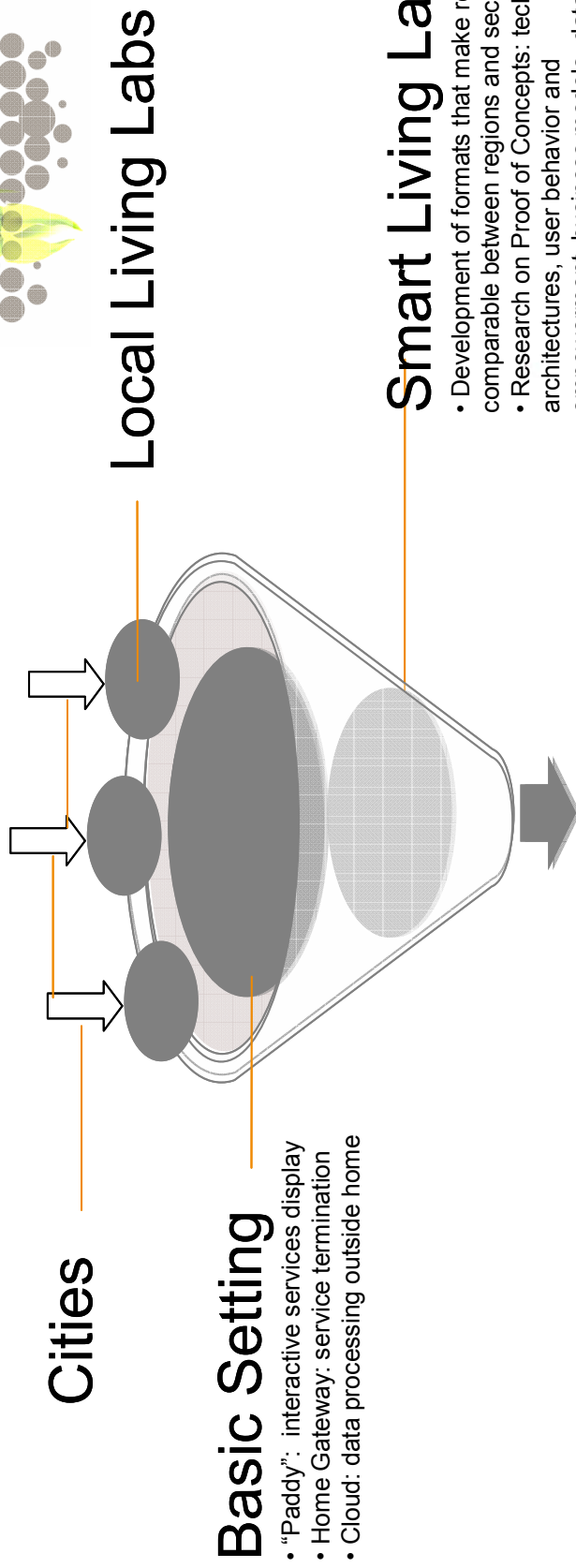
Landustrie ~~ITS~~ GeoDelft G.T.C. ENI Kapellmeyer GmbH NXP am smart erdam city

VolkerWessels Telecom Capgemini ALLIANDER CONSULTING, TECHNOLOGY, OUTSOURCING WATERSCHAP Hunze en Aa's



Use Case: smart living / cities

Trackrecord



Basic Setting

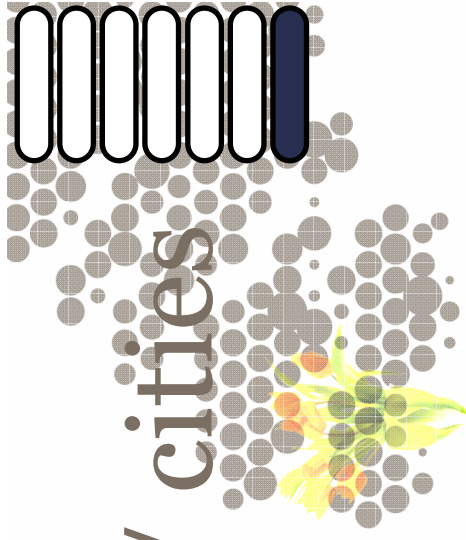
- "Paddy": interactive services display
- Home Gateway: service termination
- Cloud: data processing outside home

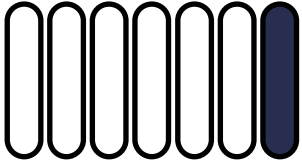
Smart Living Lab

- Development of formats that make results comparable between regions and sectors.
- Research on Proof of Concepts: technical architectures, user behavior and empowerment, business models, data flow processing etc. etc.

Societal Value Case

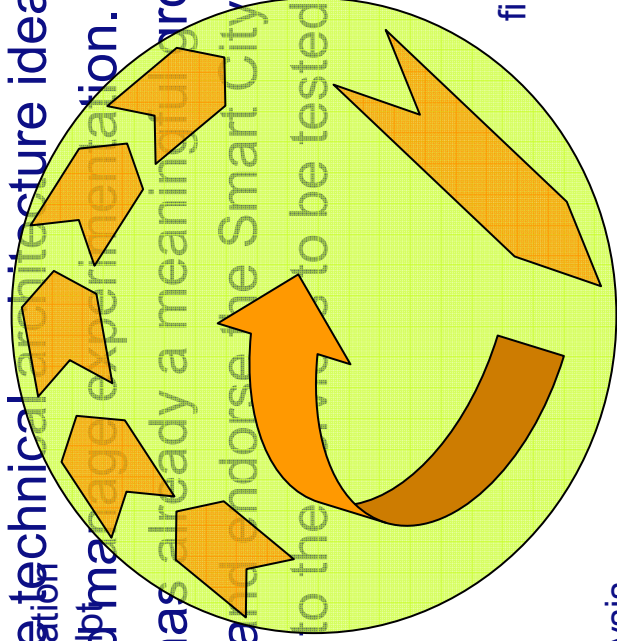
Combined results of all Proof of Concepts are input for a holistic Societal Value Case in which Profit, People and Planet values are combined. Policy issues are presented in a controlled manner and policy trade-offs can be made based on neutral applied research.





Role of TNO

- TNO is well equipped to **aid in** **Start pilot:** research, development methodology defined
 - a) service definition
 - b) add to the technical infrastructure ideas
 - c) guide and manage implementation. Benchmark: initial measurement
- Besides TNO has already a meaningful group of strong partners that recognize and endorse the Smart City / Living ideas, and can also contribute. Appointment & installing infra



General communication

Analysis

Service process

End pilot

Final measurement

Measurements, first feedback to/from user

Appointment & installing infra



Questions
Comments
Suggestions

Erik Fledderus
erik.fledderus@tno.nl
+316 5329 9286

