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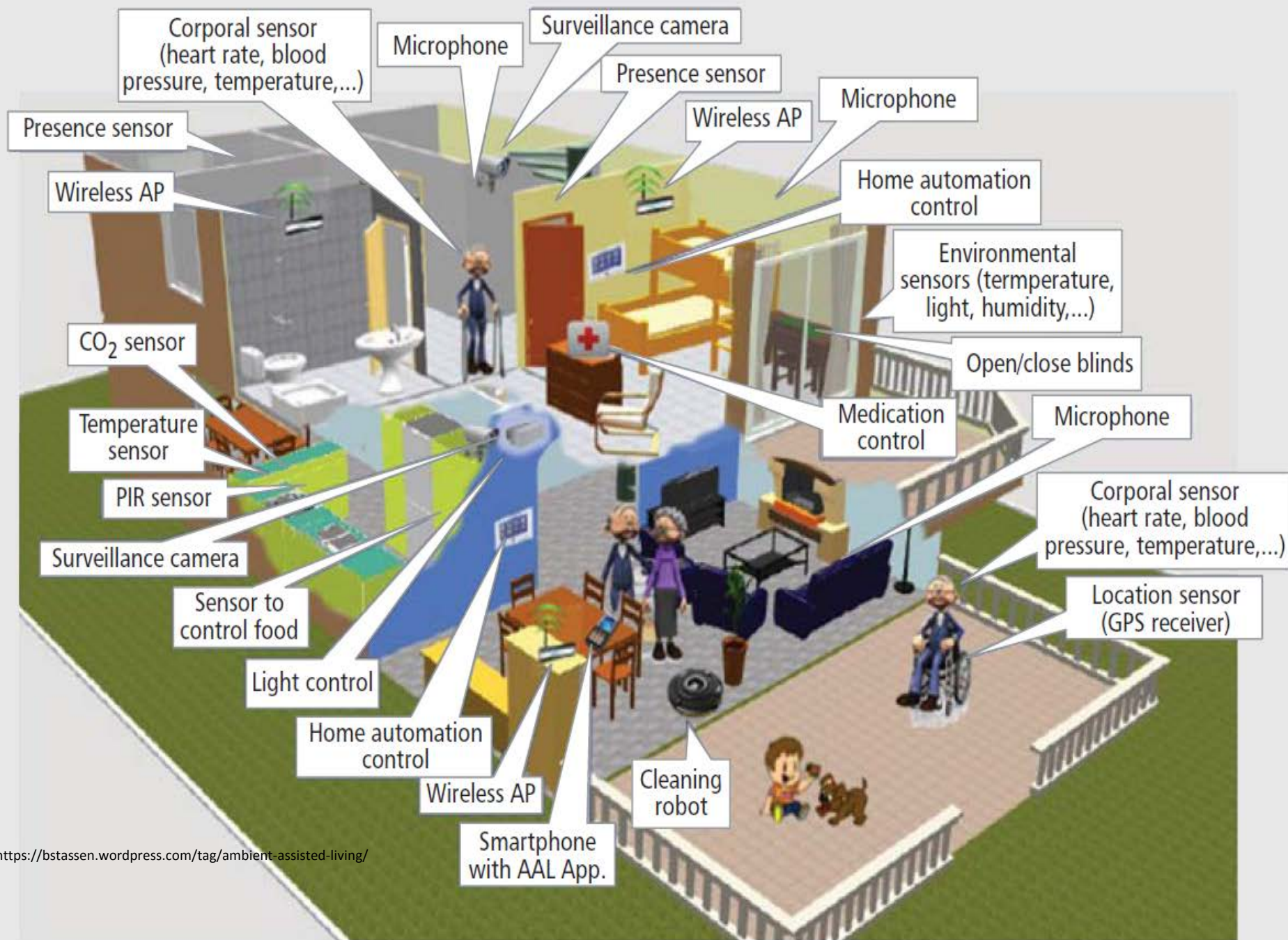
Smart City Life and the Internet of Everything

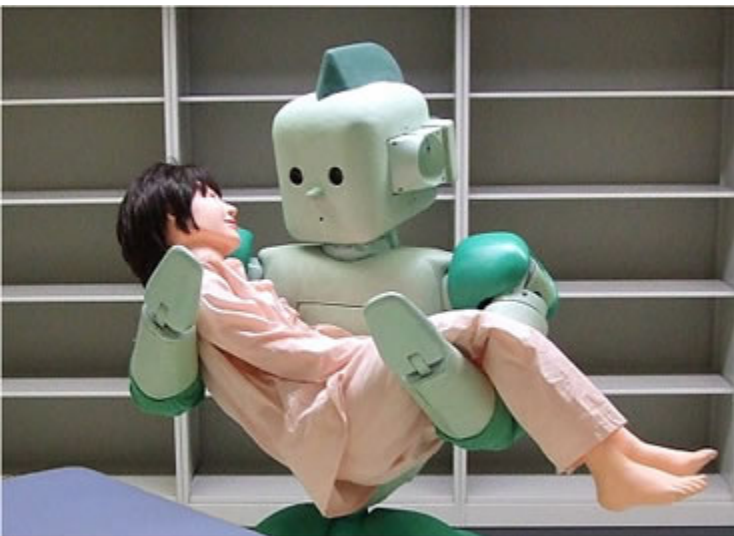
Association Industry 4.0 Austria –
the Platform for Smart Production

Roland Sommer
Managing Director

Hong Kong, November 2016

Trends in Digitalisation





<http://www.flensburg-online.de/senioren/pflege-roboter.html>



<http://pocketnow.com/2015/02/16/7-reasons-why-smartwatches-are-dumb>



https://mag.aareon.de/sixcms/detail.php/31987?template=mag_artikel_nachladen

Industry 4.0 System Thinking



Internet of Things



Knowledge Automation



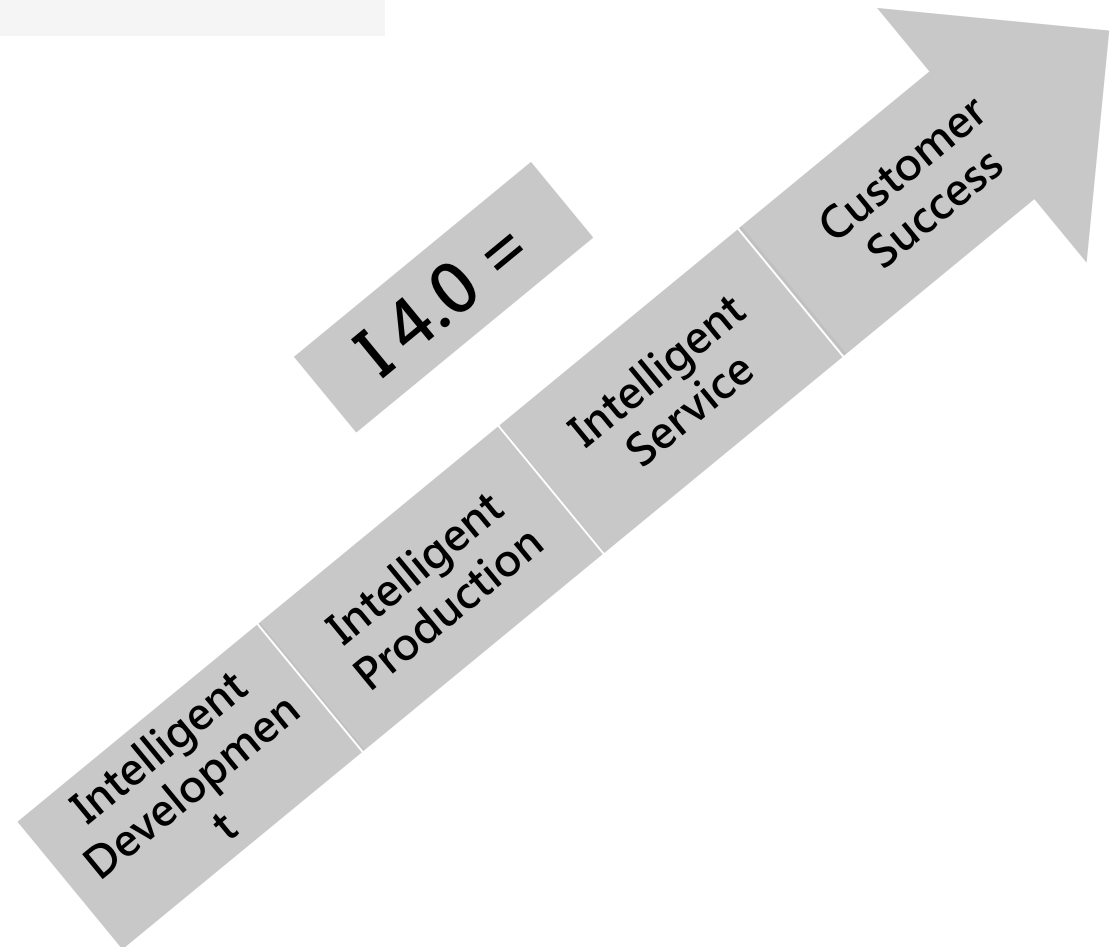
Cloud Technology



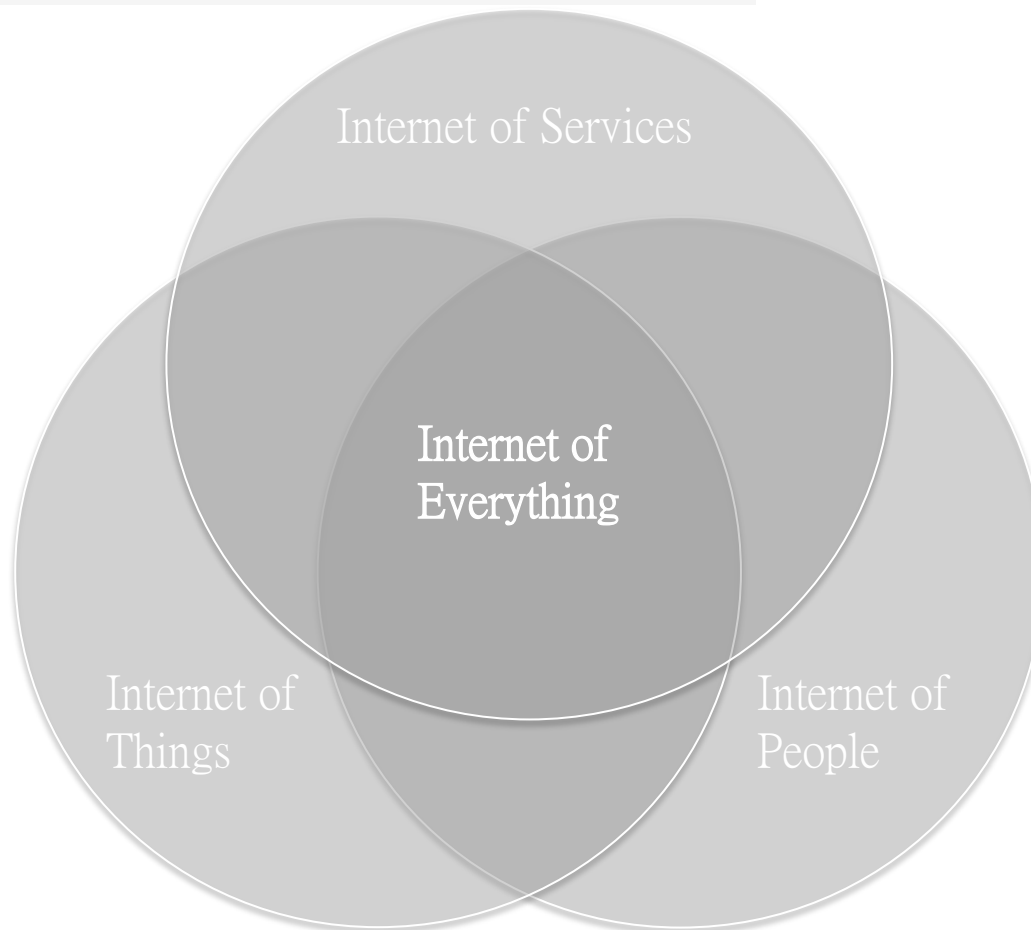
Advanced Robotics



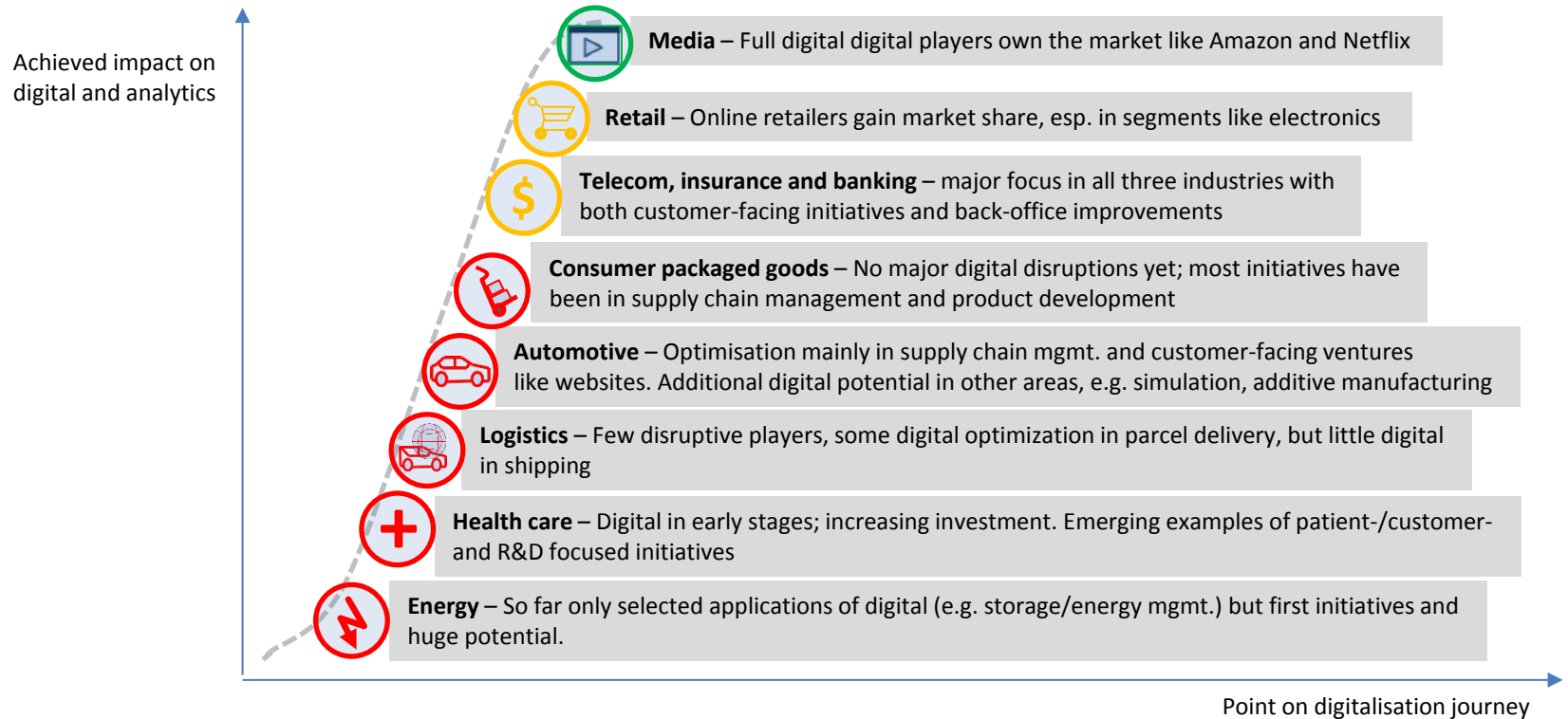
3D-Printing Technology



Internet of Everything



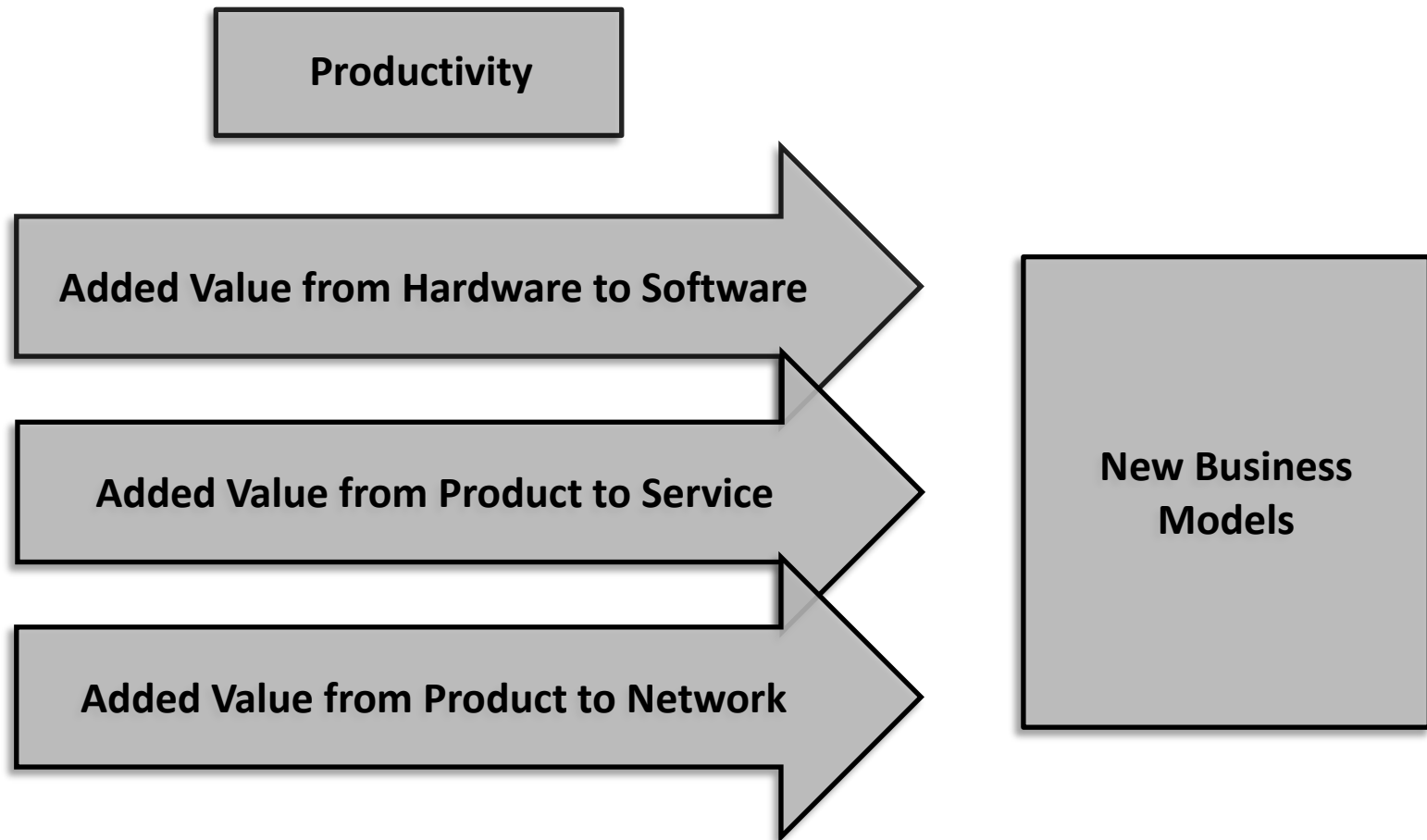
Digitalisation in Sectors



Challenges for the Producing Industry

- Flexible production facilities (small batches, high variance, big product mix)
- Individualised production facilities (ad hoc planning, agile production)
- Rapid integration of new procedures and technologies
- Qualification, employee as an informed decision maker
- Industrial ICT and web technologies
- New business models

Shift in Business Models

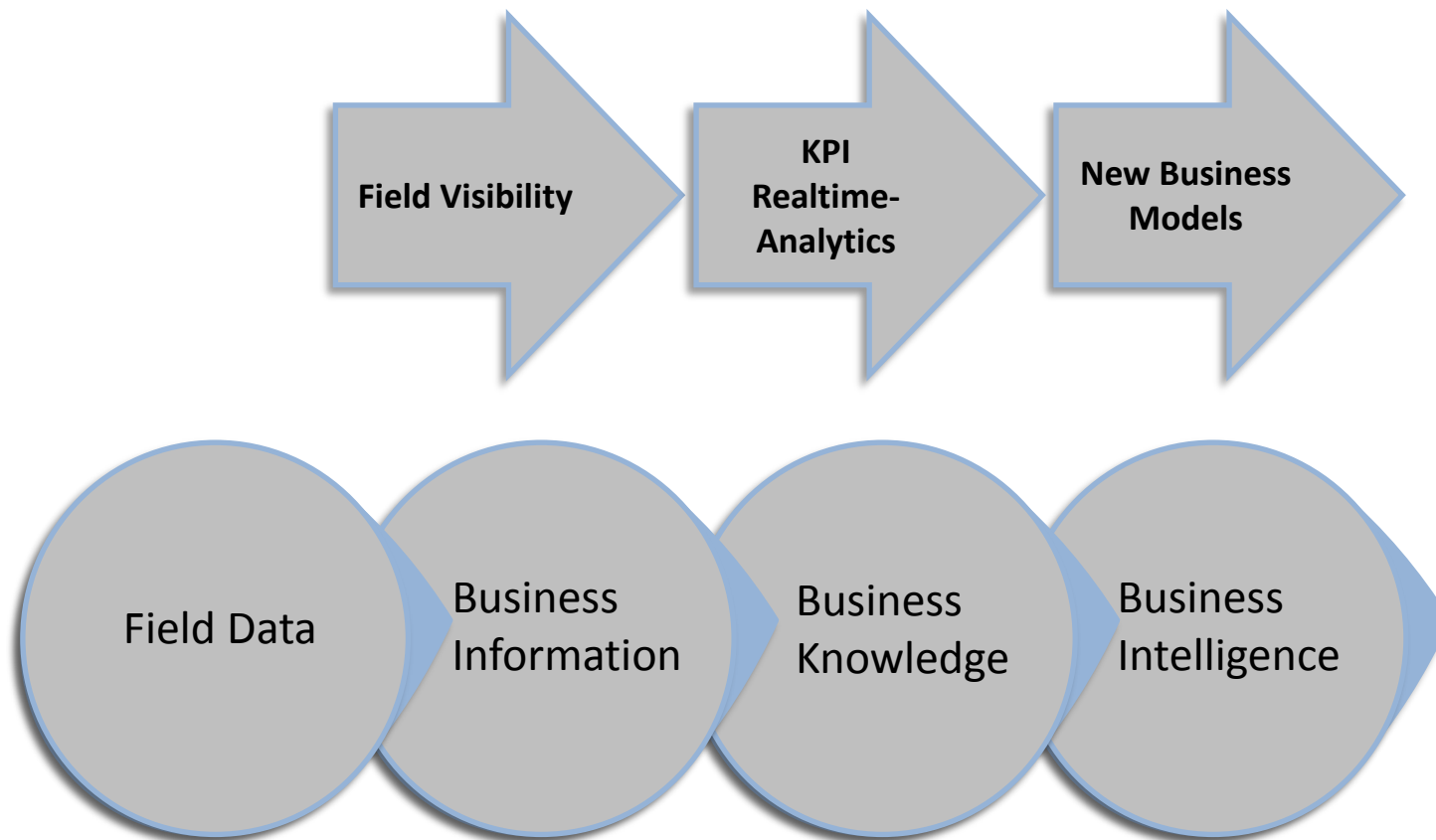


IoT Platforms - Ecosystem



Source:
Strohmeier, Innerbichler,
Salzburg Research, 2016

Redesign of Business Processes



City Management



CENTRO DE OPERAÇÕES
PREFEITURA DO RIO

Real-time data on

- Weather
- Traffic
- Police
- Medical Services
- Trash Collection
- Electricity, Water, Gas
- Emergency Situations
- Disease Outbreak

City Management

Sensors



Streetline's embedded *sensor*



Streetline's surface-mounted *sensor*

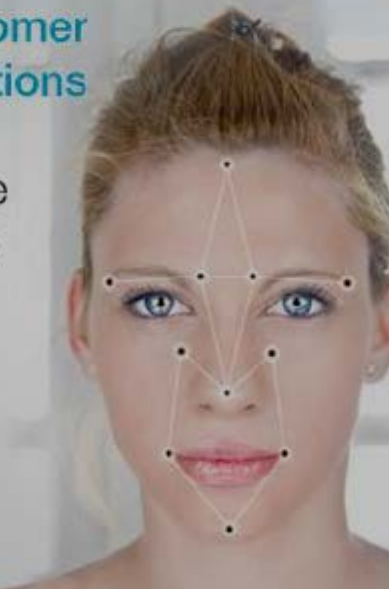
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City Management

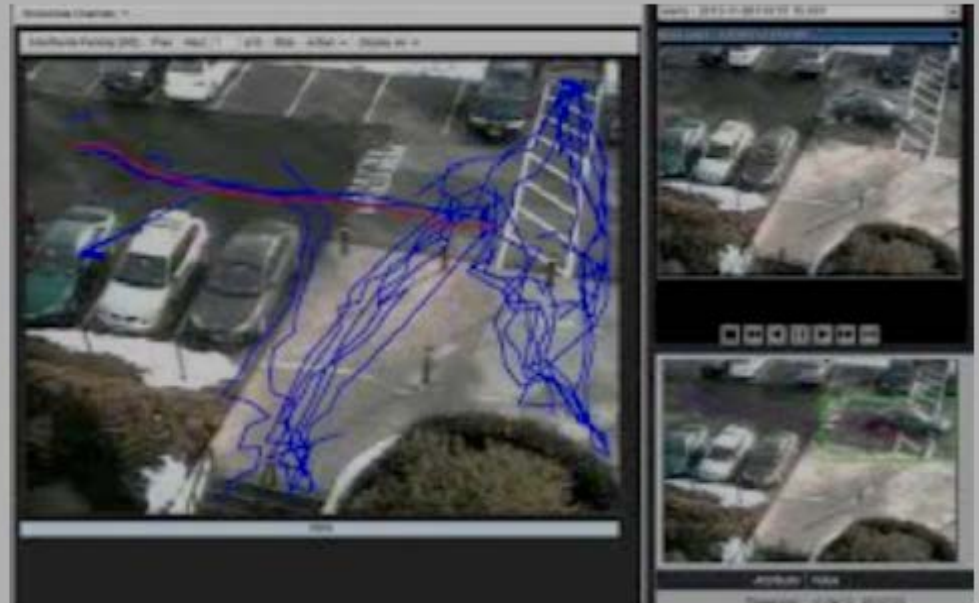
Sensors

Analyzing customer emotional reactions

with nViso facial imaging software and IBM Watson Foundations.

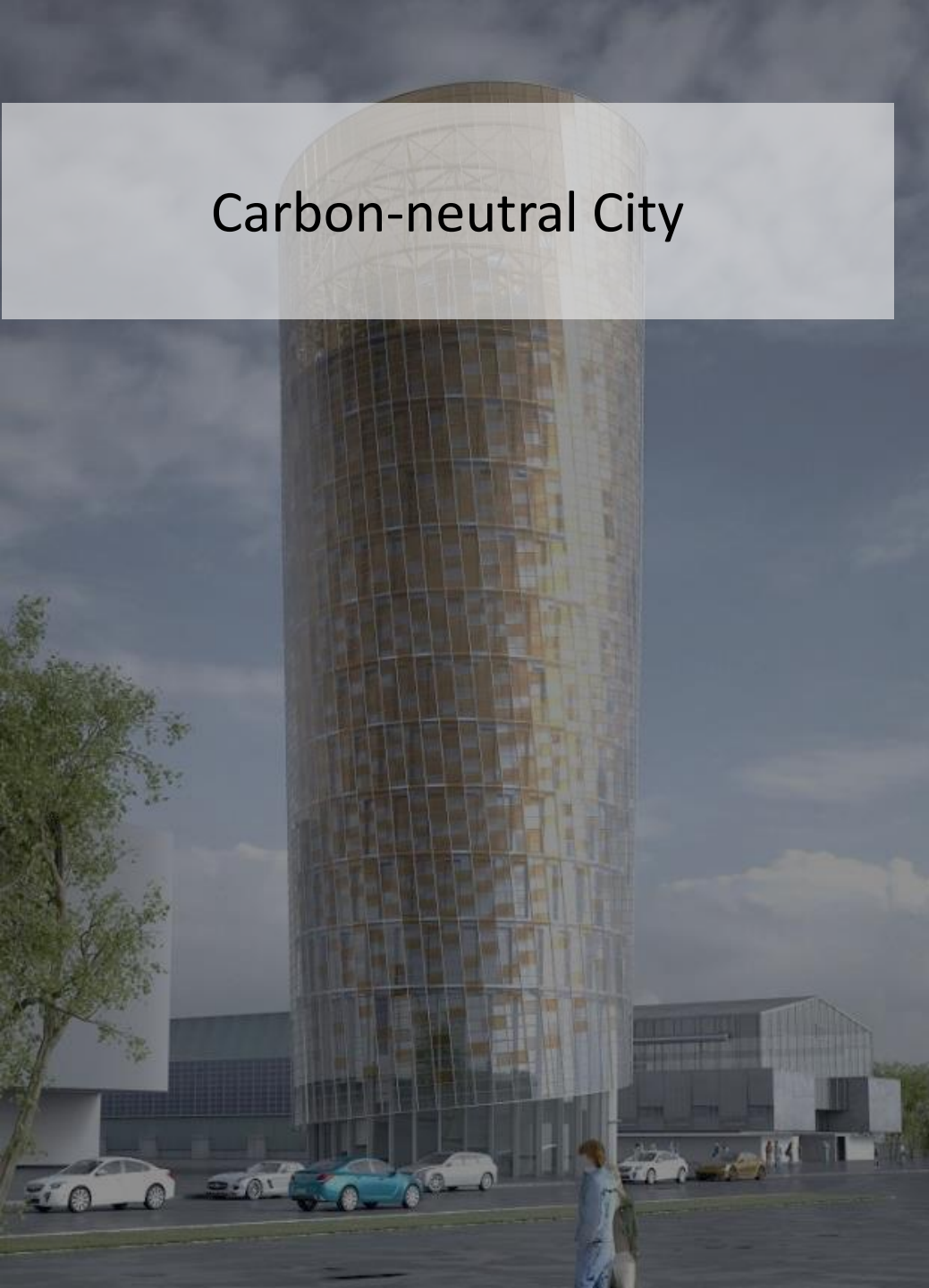


IBMBigDataHub.com



Functional Integration of Work, Life and Leisure

Carbon-neutral City



Urban Manufacturing - Drivers

Green Technologies

- Increasingly green production
- Higher acceptance, rigid requirements

Generative Manufacturing and Logistics

- Autonomous driving
- Efficient traffic management necessary

Energy Supply: Demand Response Management

- Stochastic and decentralized energy generation

Vertical Production

- Dependent on machines, processes and raw materials, high costs

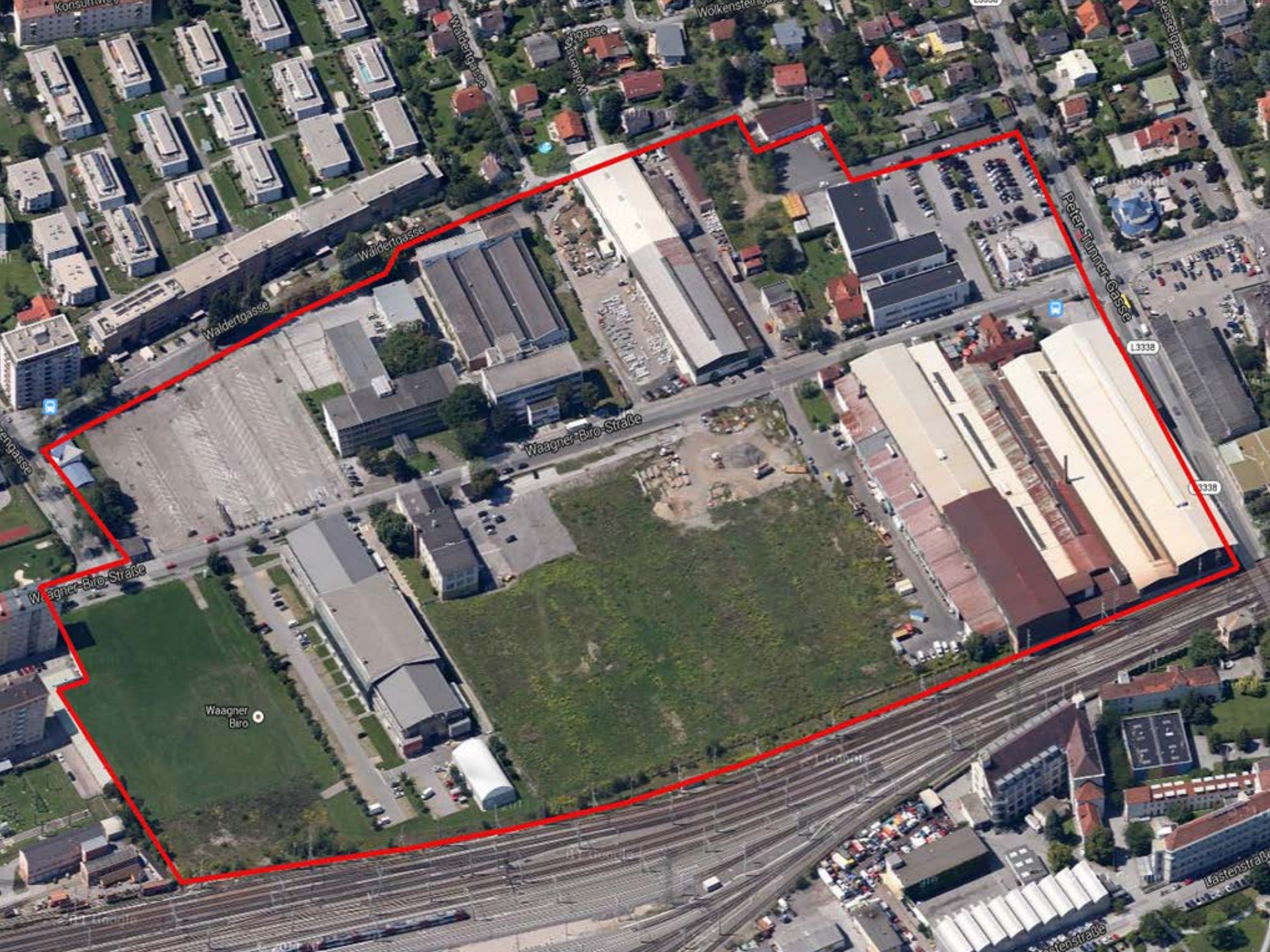


Urban Manufacturing – Key Points

- Binding quotas for UM-companies and areas for innovation landscapes (e.g. Vienna Aspern, 22@Barcelona)
- Focus on production that fits into the economic structure
- Secure urban locations/areas contractually
- Obligatory areas for production including renting models
- Install „caretakers“
- Active design of socio-cultural expectations management
- Urban one-stop shop and joint development of areas

Creating a New District





Konsumgasse

Waldertgasse

Waldertgasse

Wolkensteingasse

Kesselgasse

Waldertgasse

Peter-Tunner-Gasse

L3338

L3338

Wagner-Biro-Strasse

Wagner-Biro-Strasse

Wagner-Biro

Kastenstraße

Kastenstraße



INDUSTRIAL
AREA

**BROWN
FIELDS**





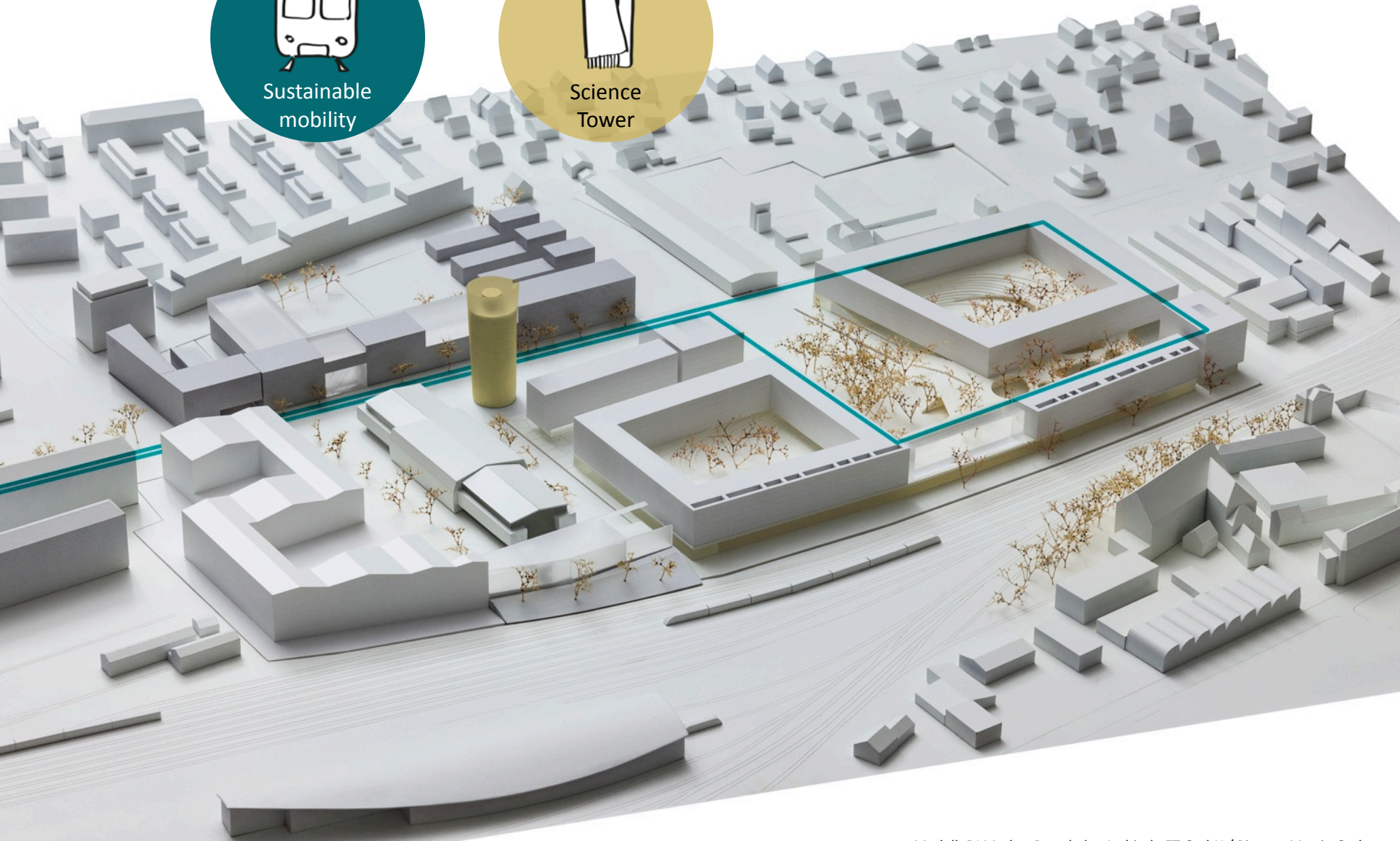




Sustainable
mobility



Science
Tower





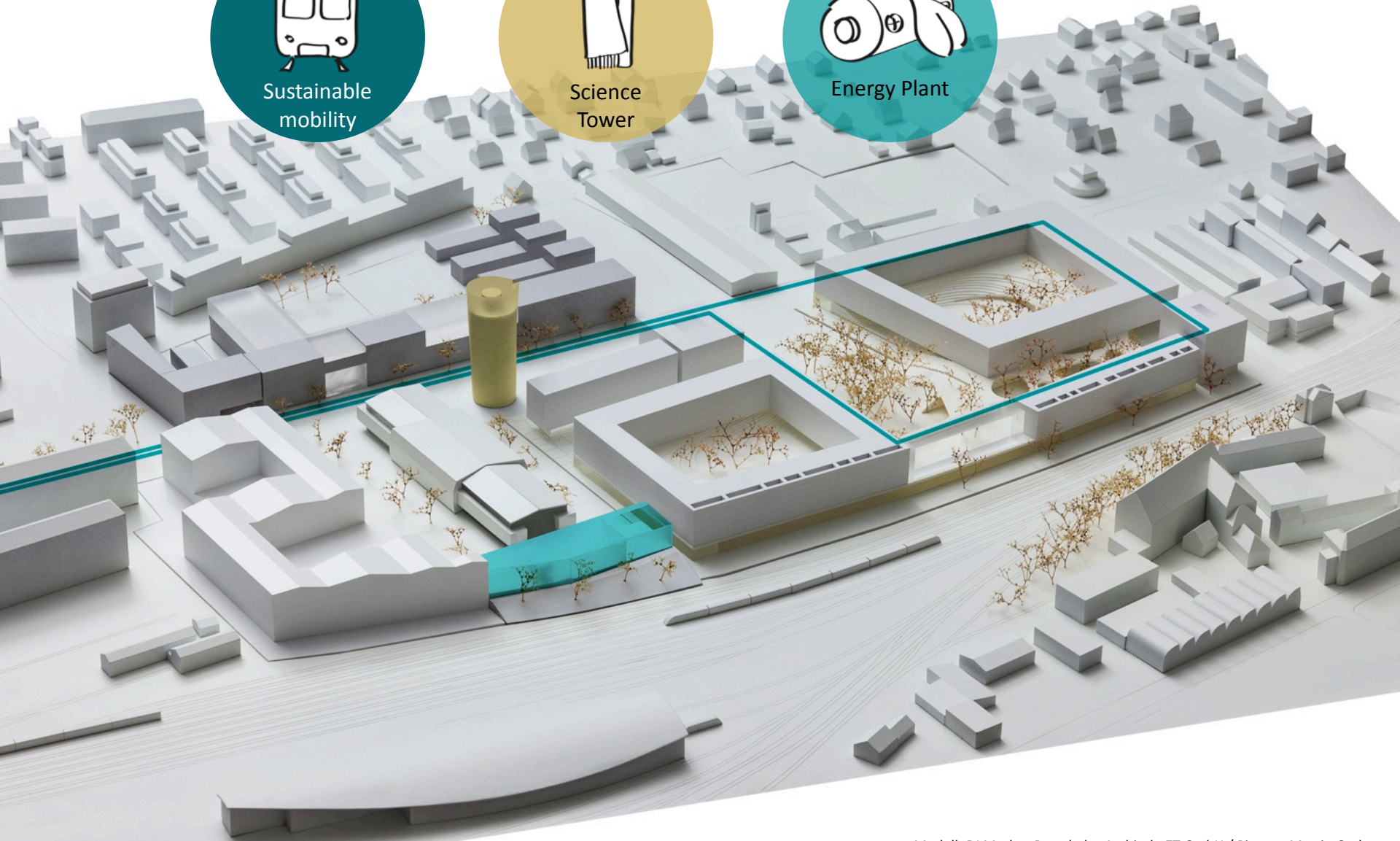
Sustainable
mobility



Science
Tower



Energy Plant





Sustainable
mobility



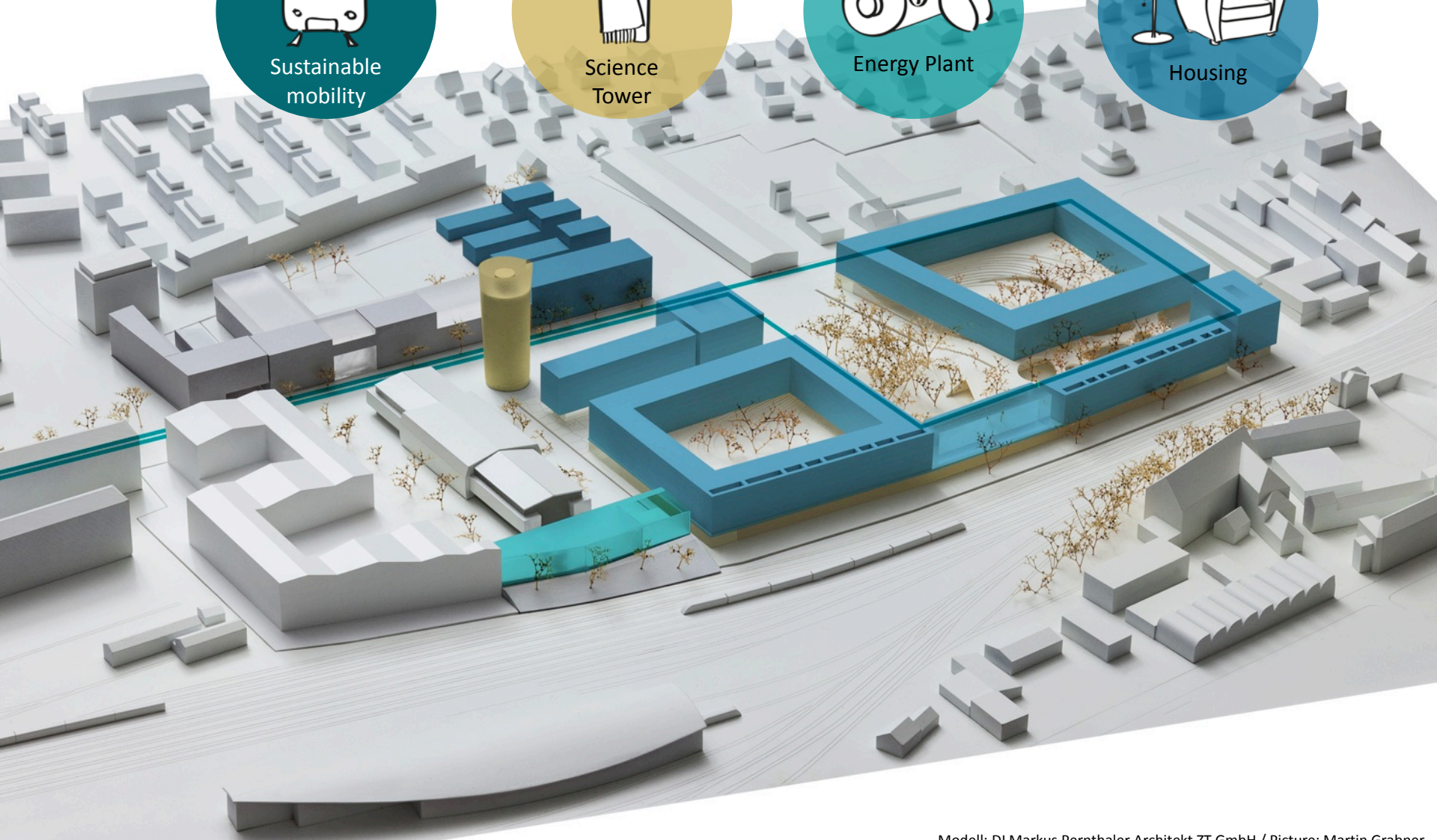
Science
Tower



Energy Plant



Housing





Sustainable
mobility



Science
Tower



Energy Plant



Housing



Public Space



Sustainable
mobility



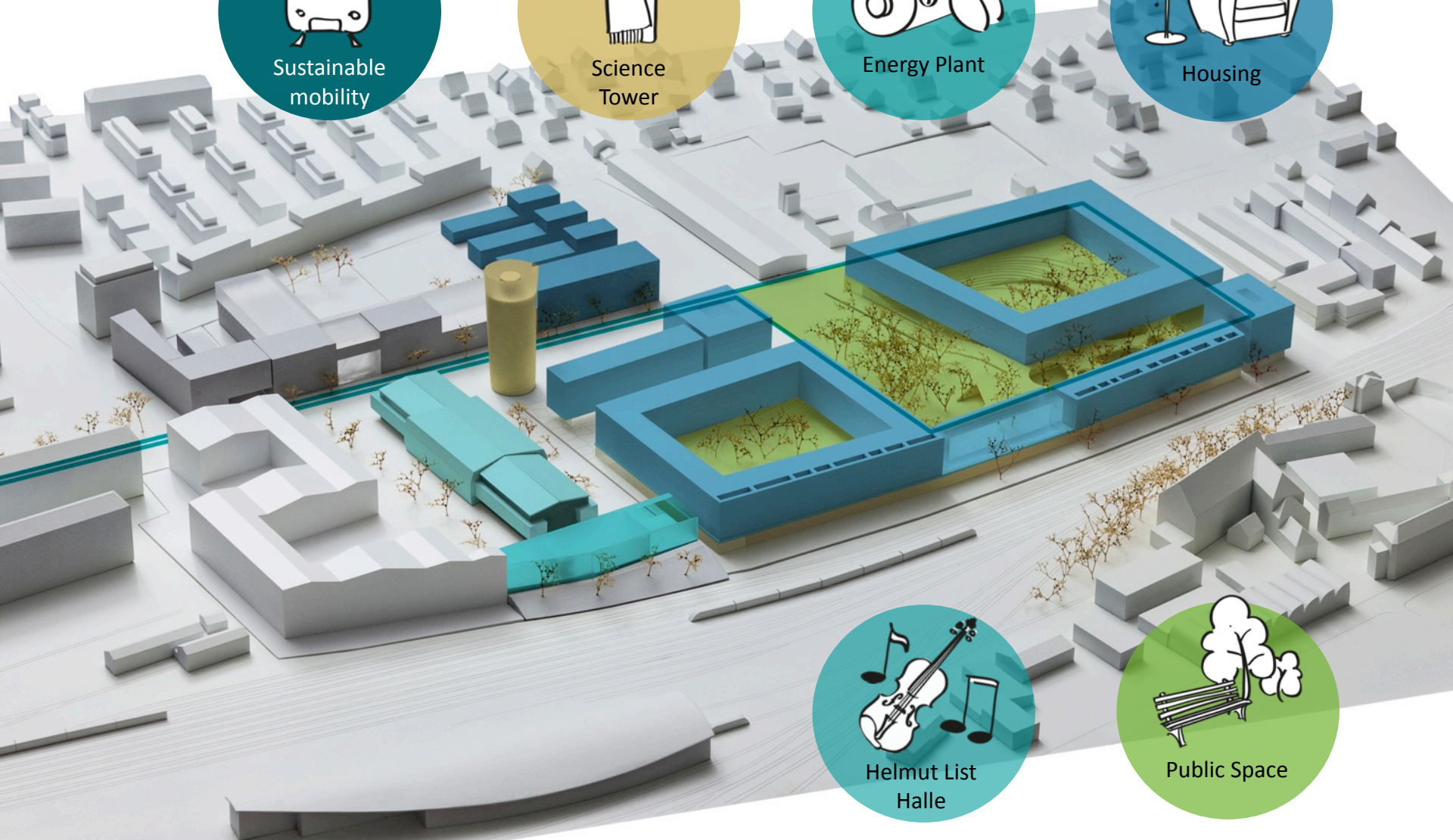
Science
Tower



Energy Plant



Housing



Helmut List
Halle



Public Space



Sustainable
mobility



Science
Tower



Energy Plant



Housing



School
Campus



Helmut List
Halle



Public Space



Sustainable
mobility



Science
Tower



Energy Plant



Housing



Offices, Housing,
Local supply,



School
Campus



Helmut List
Halle



Public Space



* children and schools / in cooperation with *Kinderbüro Graz*

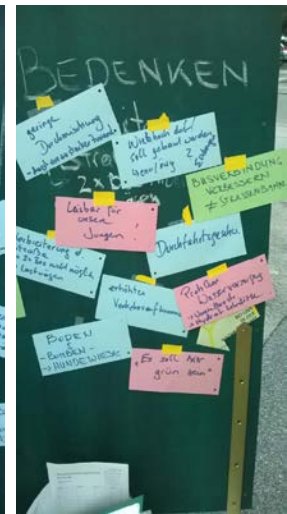


* In the neighbourhood

Information about the planning status

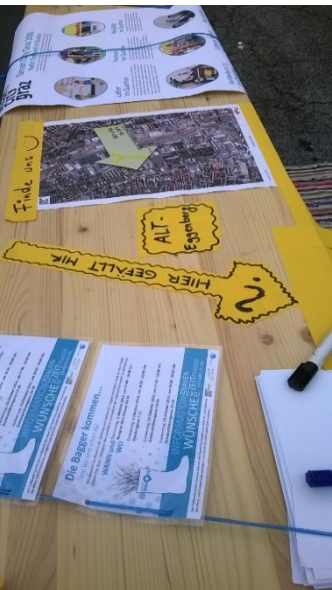
Collection of needs, interests and resources

Sensitize for „smart“ topics through projects in the neighbourhood



* Cooperation within the district

District office *EggenLend* and youth centre *JUZ EggenLend*
Primary school *Leopoldinum* and *Borg Dreierschützengasse*
Lebenshilfe *Waldertgasse*



* vor.ort.mobil

Be mobile / visit the people / get around in the district



* History and Future

Augmented Reality. Audio-visual Installation



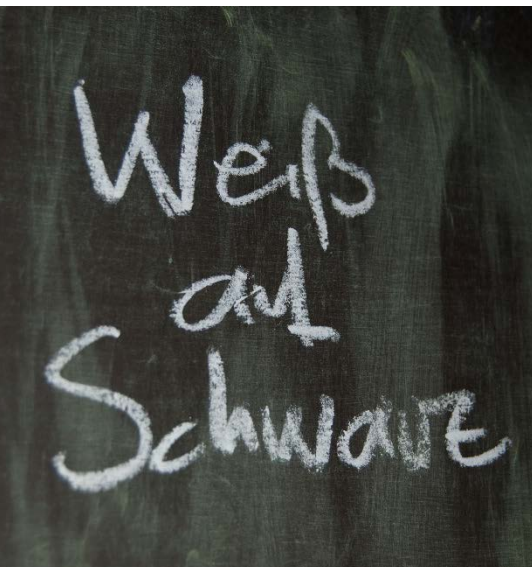
* Using land

Experiments / Innovation Zone



* Projects in the neighbourhoods

black boards / apps / meeting places / markets



Contact:

Roland Sommer
Managing Director

roland.sommer@plattformindustrie40.at
plattformindustrie40.at

Industrie 4.0 Österreich

Die Plattform für intelligente Produktion

MEHR ERFAHREN

