

On the road to „smarter“ German Cities – Research and Dialogue...

Eva Schweitzer

VASAB Workshop – The Connected Society

1.02.2017



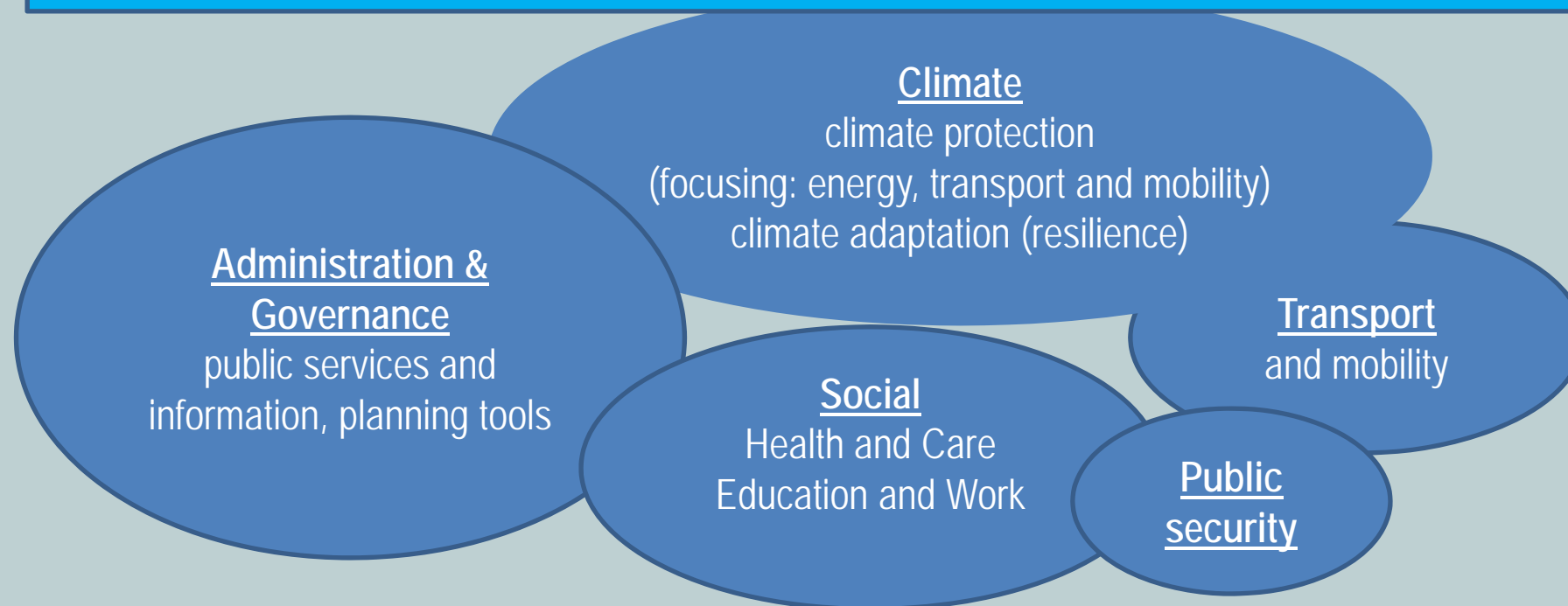
Bundesinstitut
für Bau-, Stadt- und
Raumforschung

im Bundesamt für Bauwesen
und Raumordnung



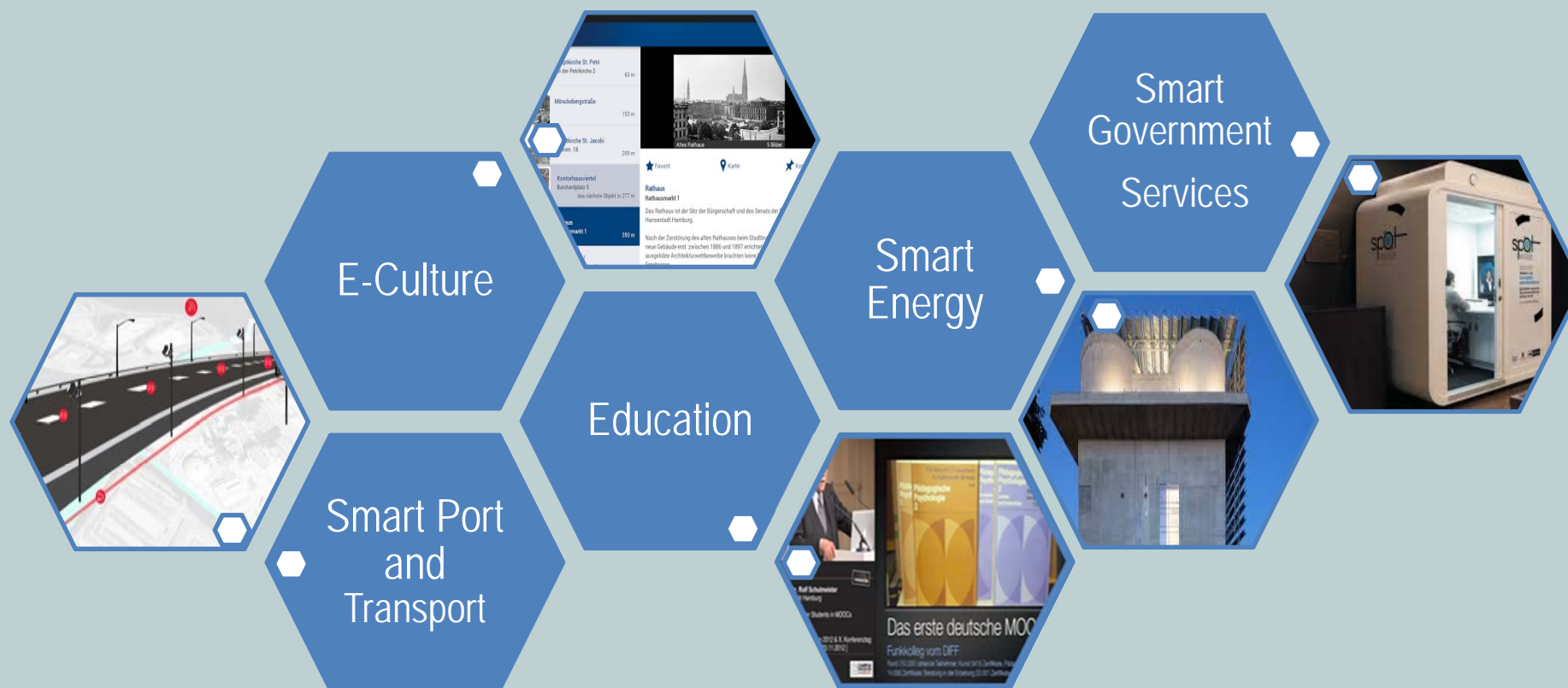
Smart City – goals, main topics and techniques

Goals: sustainability and cohesion, innovation and efficiency



Techniques: social media, cloud, mobile data, Open and Big Data, Chips and Sensors, Internet of Everything, digital fabrication techniques

Digital City Hamburg – Topics





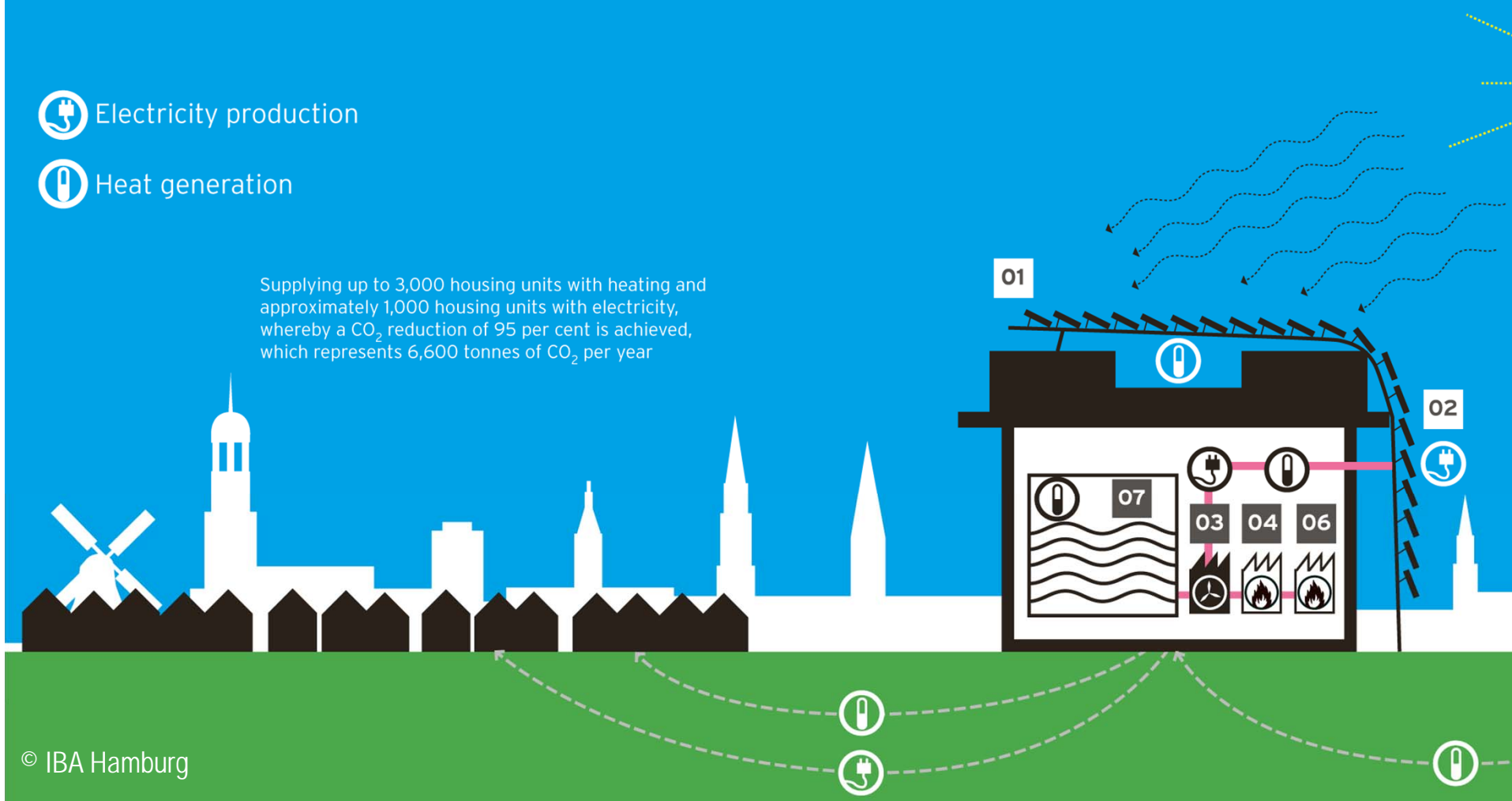
Digital City Hamburg: Smart Energy

Energiebunker - transformation into an eco power plant

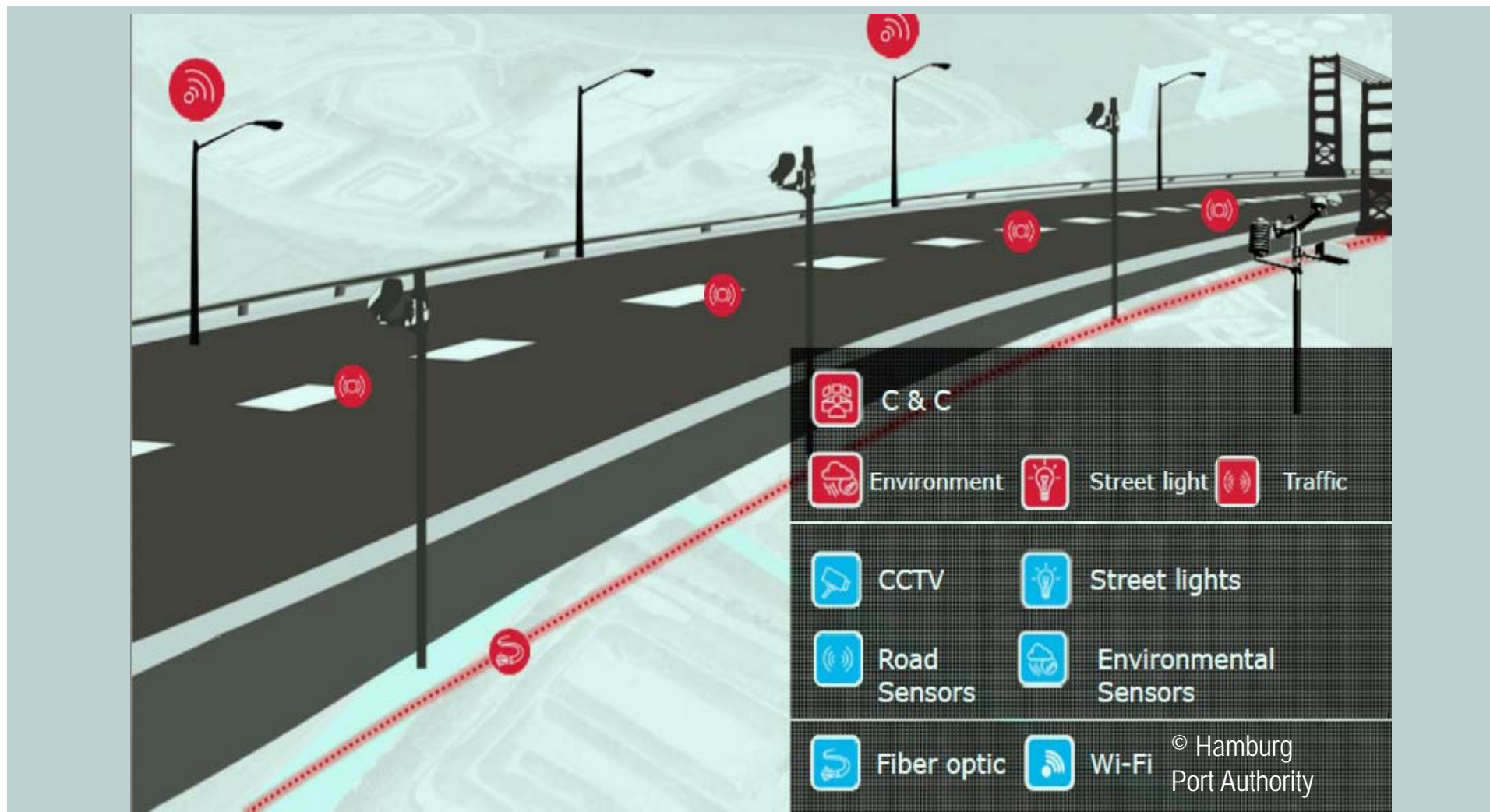
 Electricity production

 Heat generation

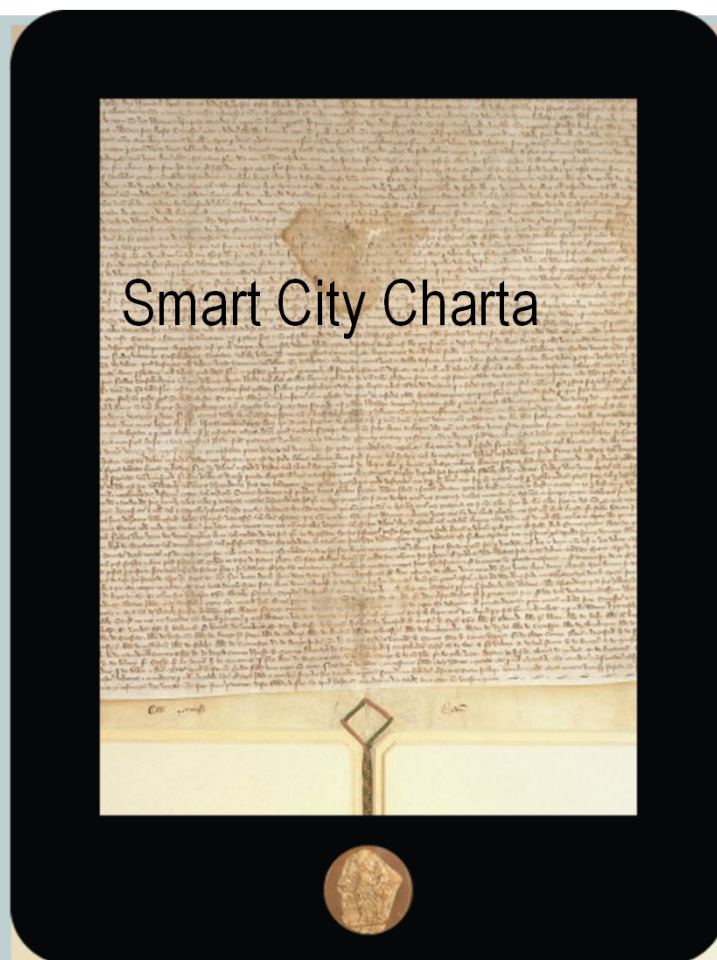
Supplying up to 3,000 housing units with heating and approximately 1,000 housing units with electricity, whereby a CO₂ reduction of 95 per cent is achieved, which represents 6,600 tonnes of CO₂ per year



Digital City Hamburg – Smart Port

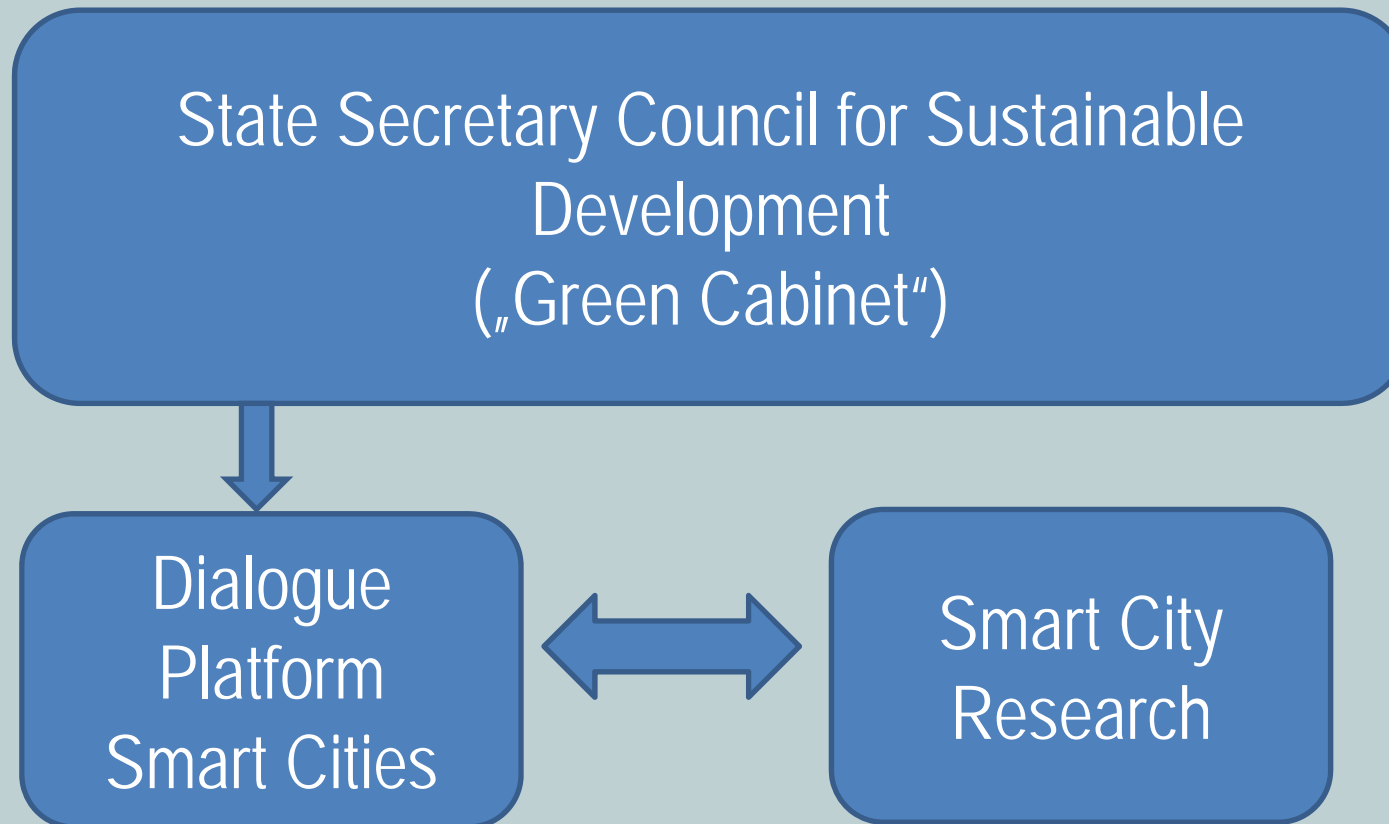


Goal: A Smart City Charta for German Cities

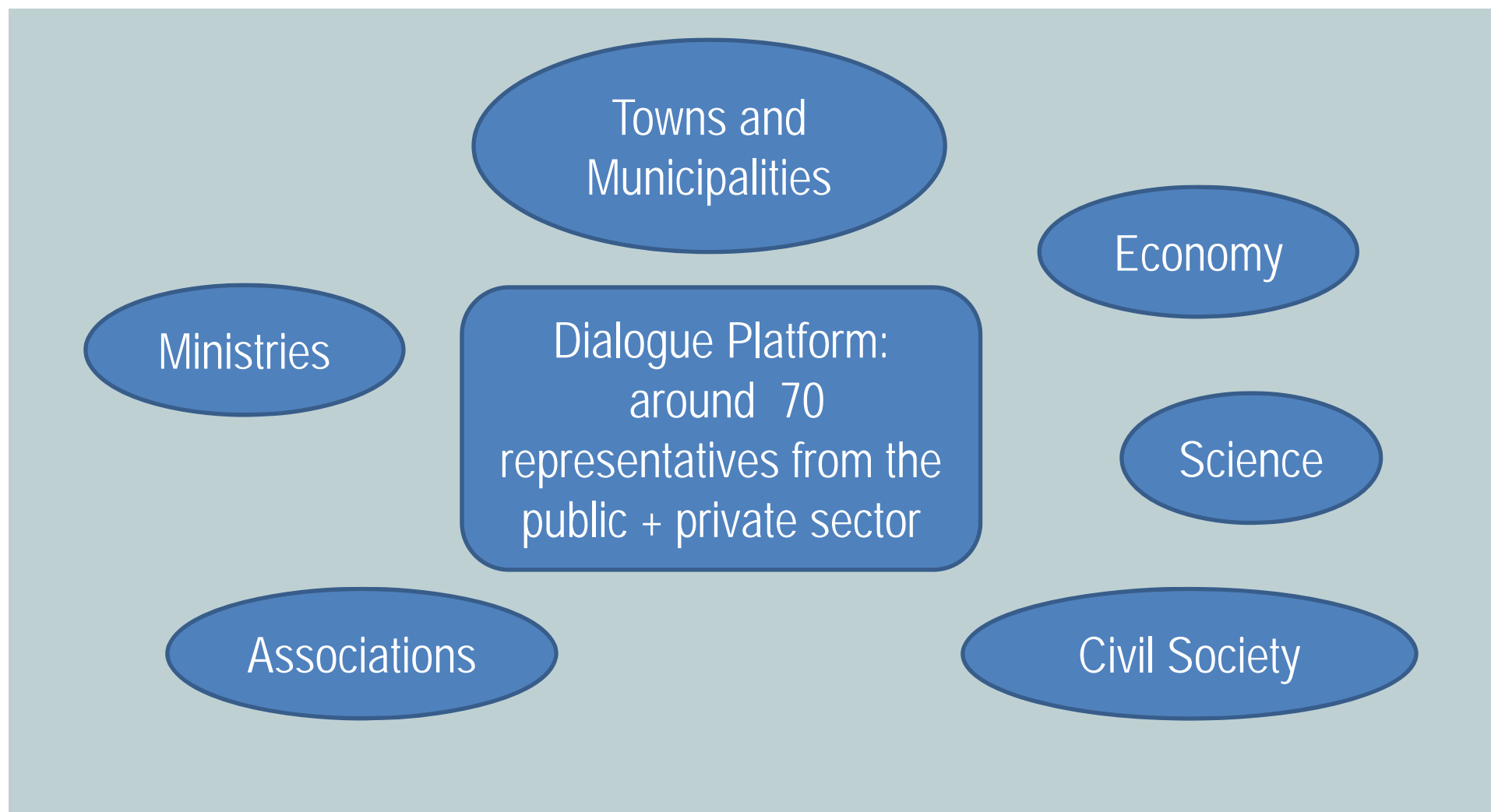


Based on the principles of integrated urban development:

- Define potentials and risks of digitizations
- Define role of cities and citizens
- How to react to make sure that „smartification“ will lead to sustainable development.



Smart City – Dialogue - Members



Smart City - Dialogue Plattform - Topics

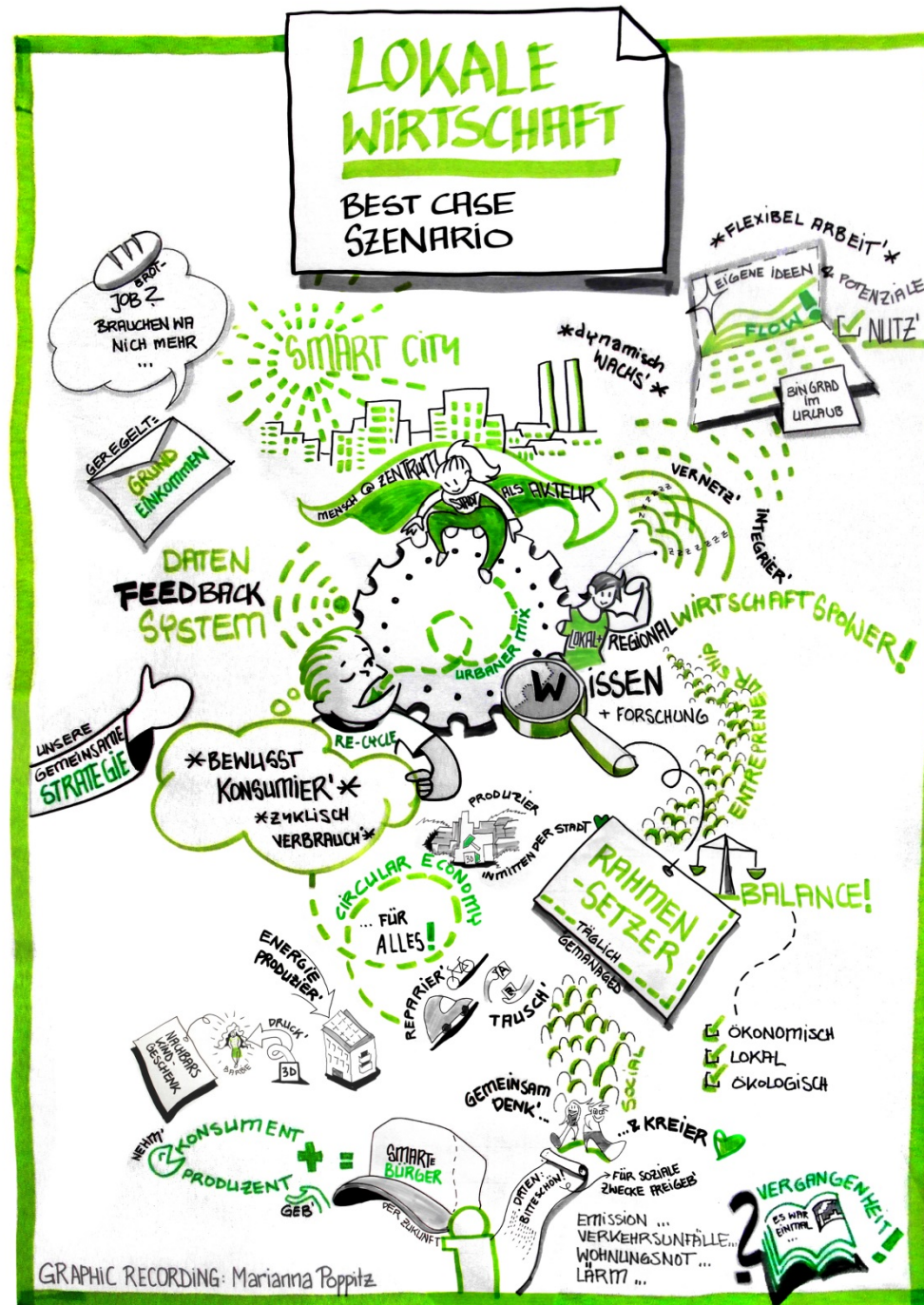




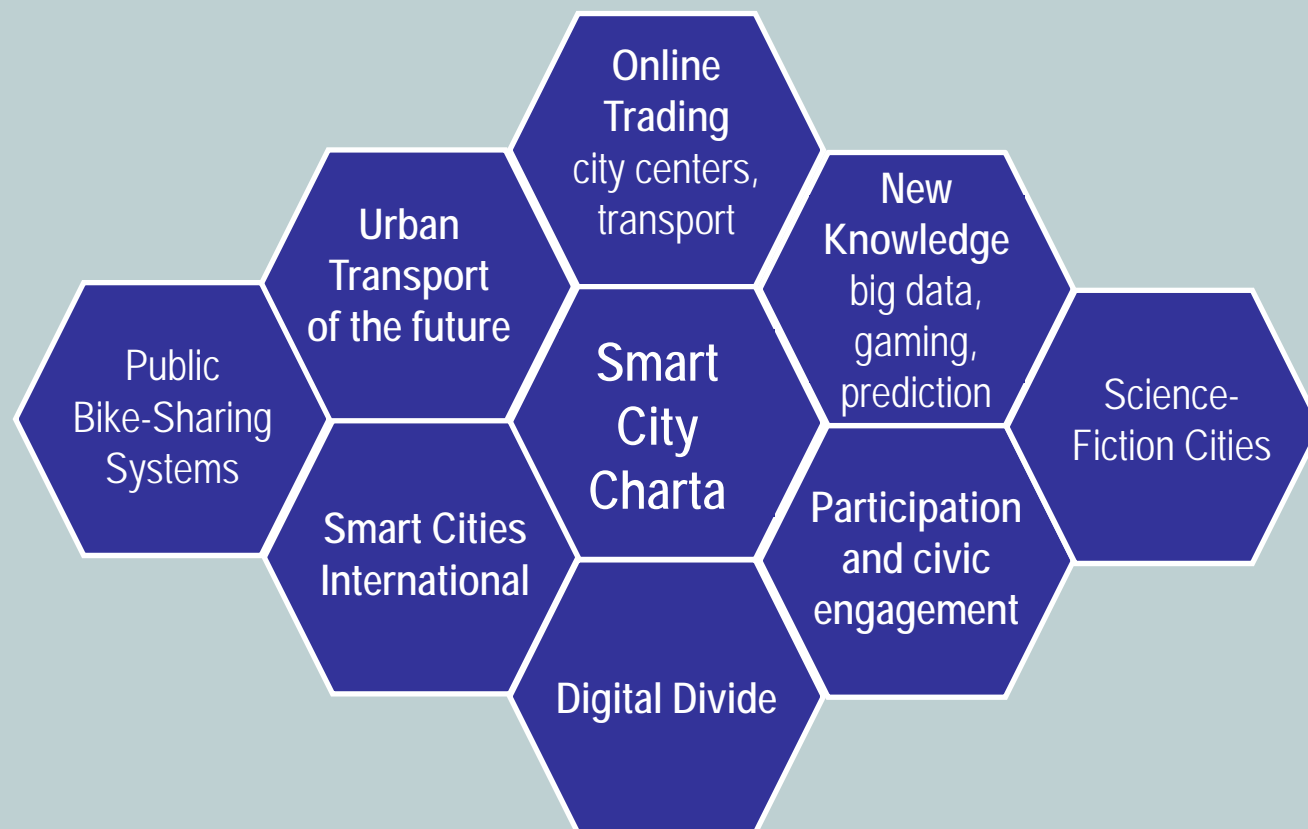
Smart Ideas

...to be
discussed
further...

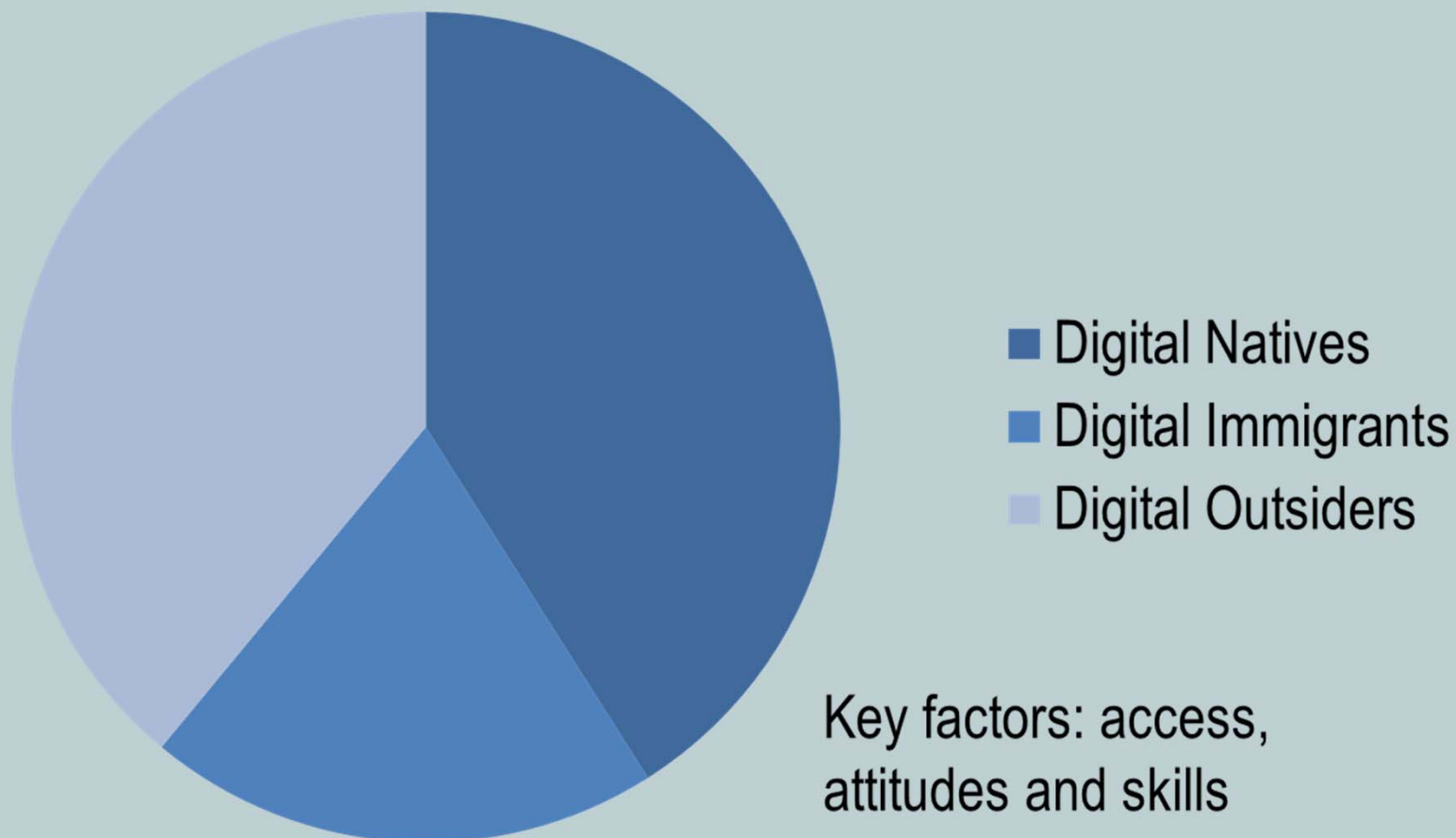


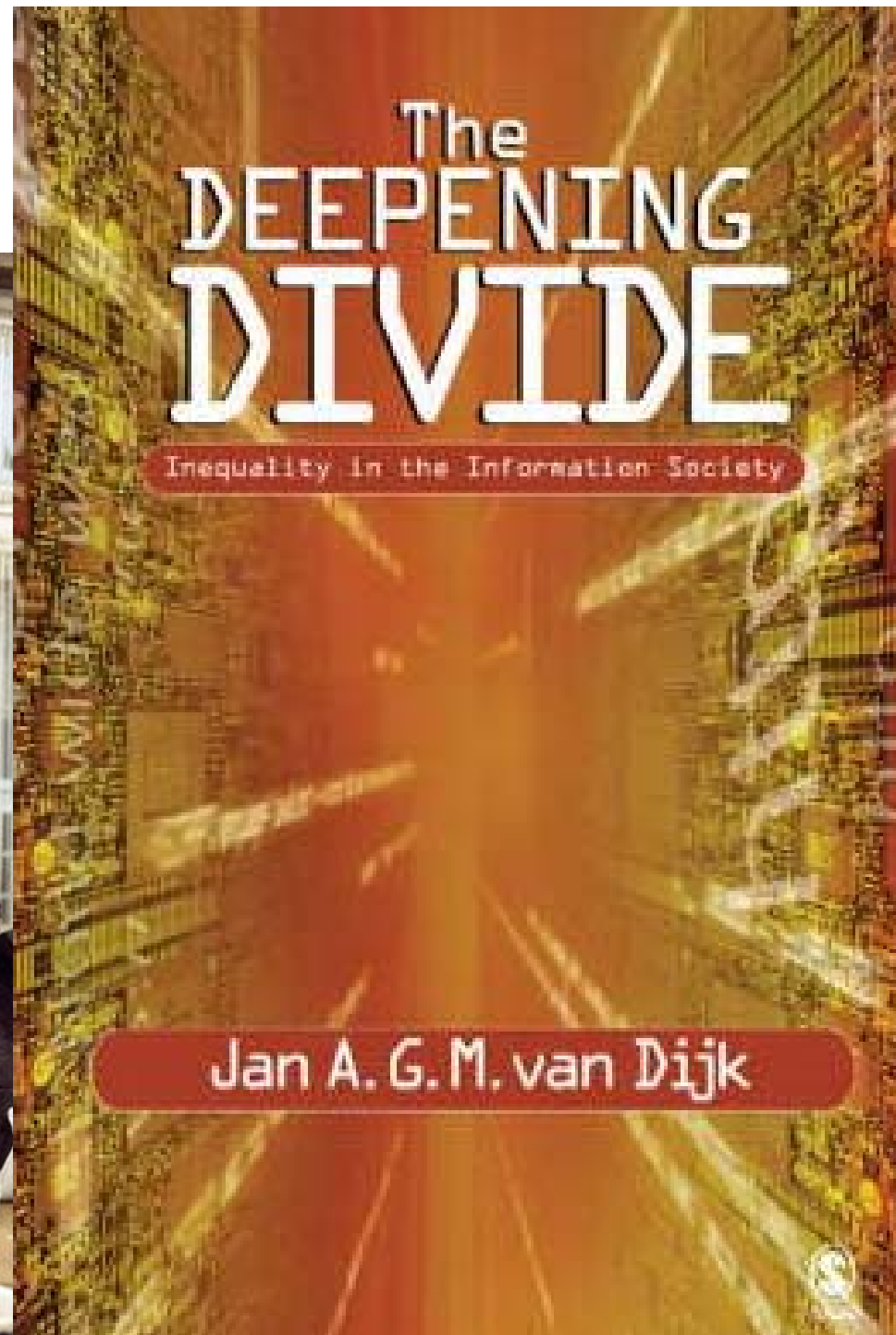


Smart City Research Cluster



Digital Divide - German Digital Society





Major Issue: Digital Literacy

Quality and quantity of usage
depends on education, age and gender

Challenge:

- how to prevent a further segregation?
- how to build up a smart city for everyone, a digital inclusive city?

Means of digital Inclusion



Tools for Capacity Building and Developing E-Skills
e.g. Telecenters, Mentors, Competitions
Places and People



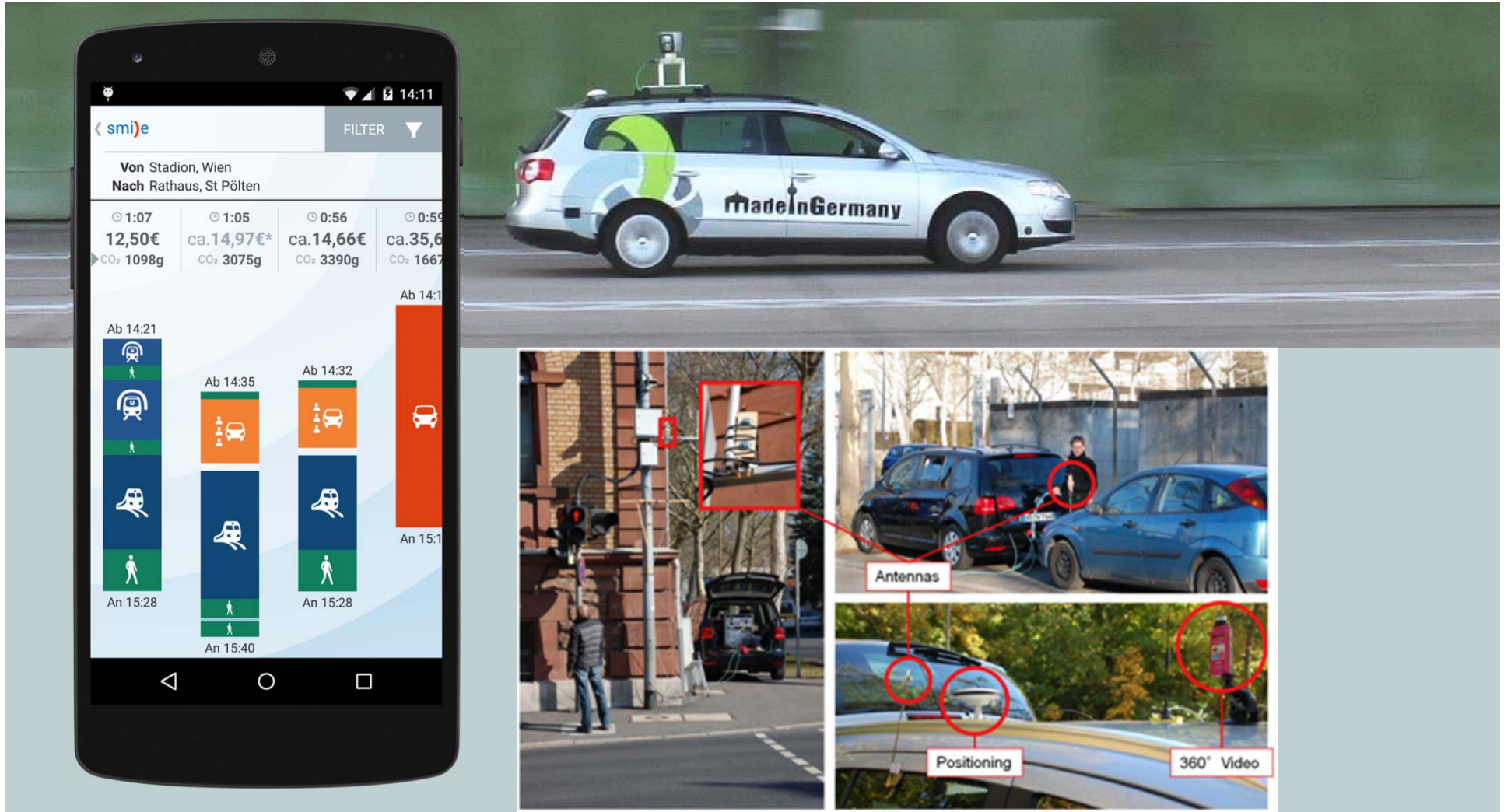
User-based and need-driven selection and design of
intelligent technologies

From outer shell to inner content

=> Senior I-Pads connecting to the care services

=> Gaming Products for the smart Junior

Urban Transport of the Future



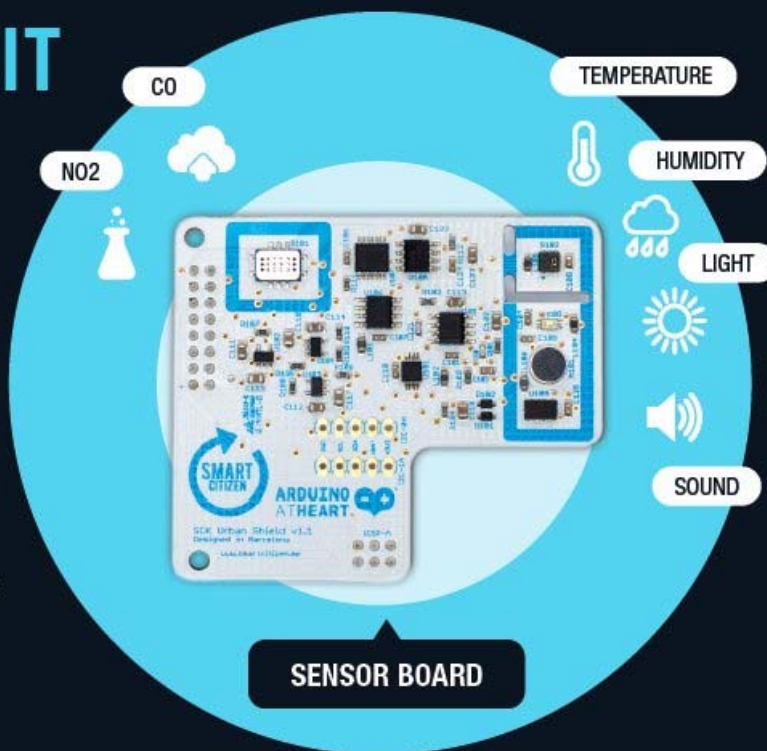
Smart Citizens Engagement

SMART CITIZEN KIT URBAN SENSING AMBIENTAL MONITORING



- + Data-Processing Board with Wifi connectivity
- + Arduino compatible
- + Ambient Board
- + SCK enclosure
- + SCK Solar panel charger
- + Free web platform registration
- + iOS application for SCK
- + Private RESTful API Key
- + Online Forum
- + Online Documentation

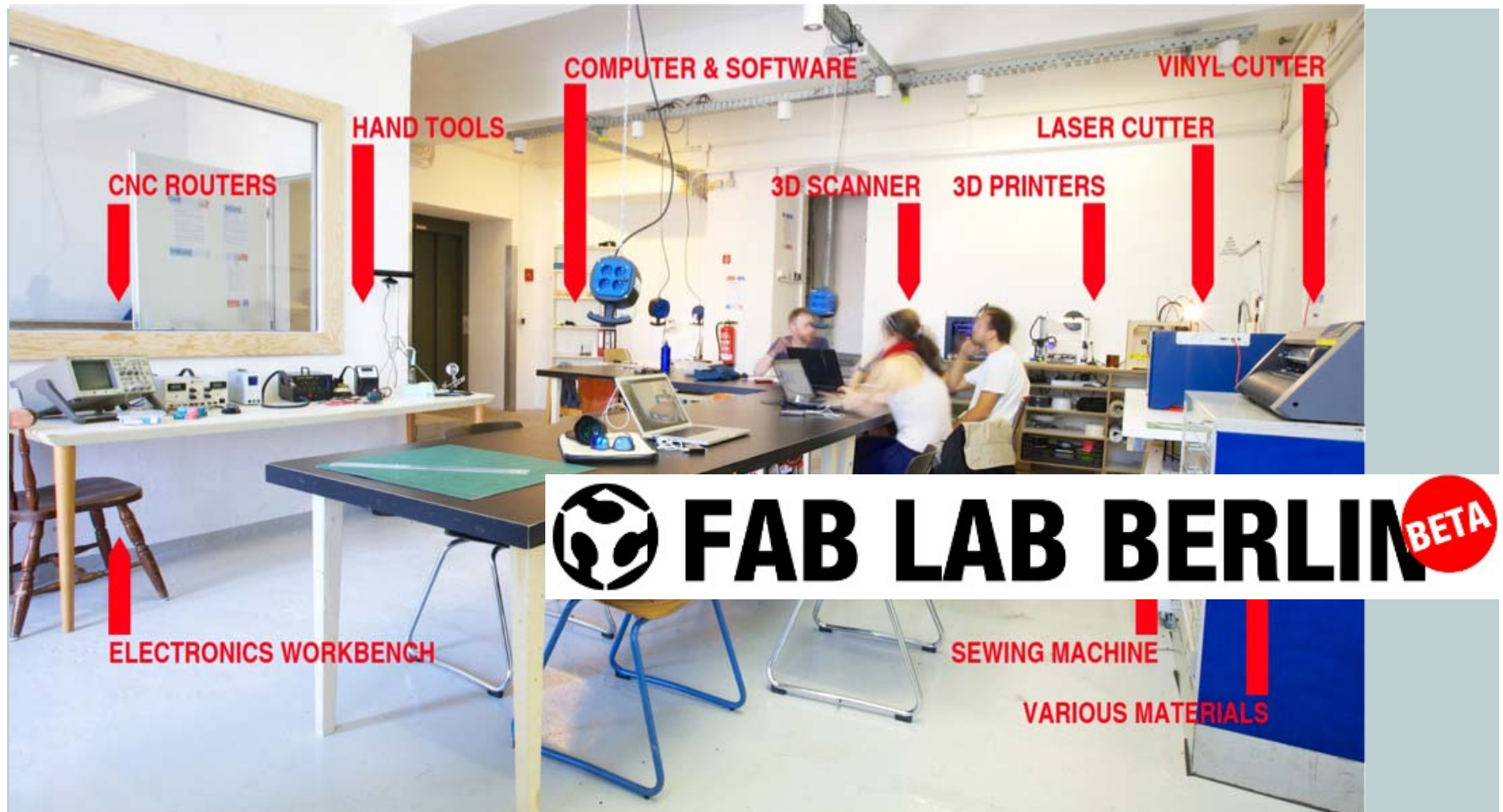
**ARDUINO
ATHEART** 



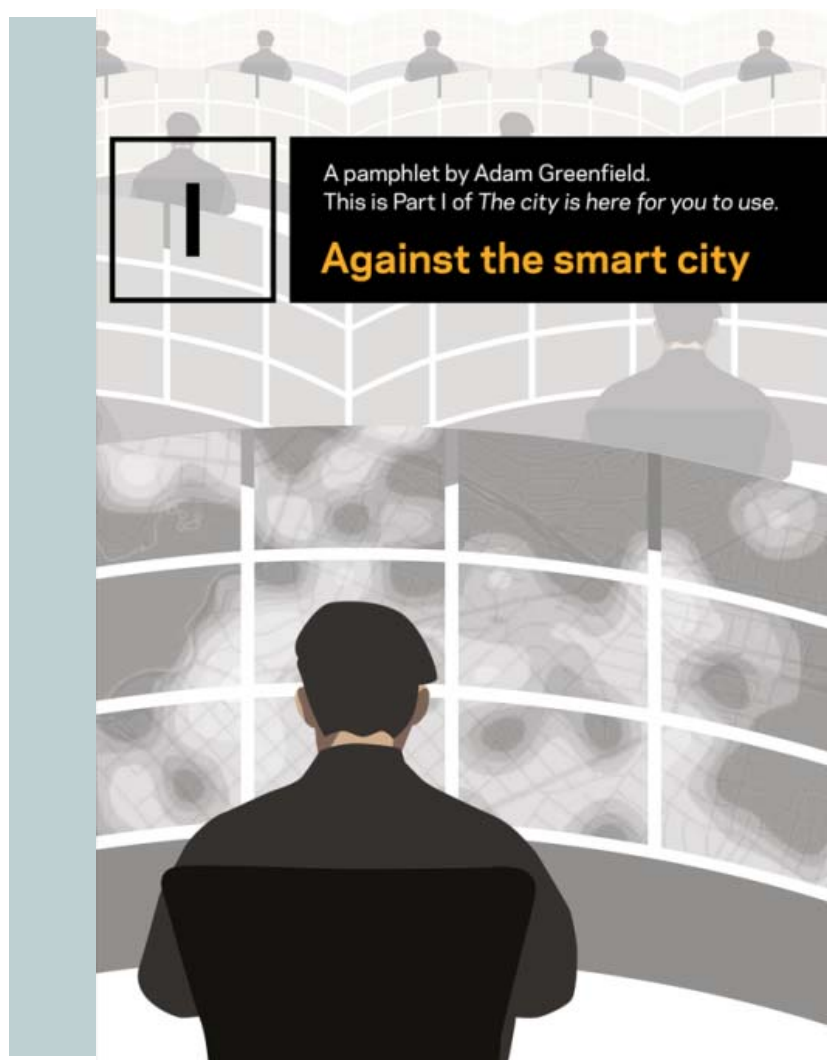
www.smartcitizen.me



Digital Fabrication: the „Democratization“ of Invention?



On risks and side effects...



The smart city pretends to an objectivity, a unity and a perfect knowledge that are nowhere achievable, even in principle

Adam Greenfield: Against the smart city
New York 2013

Thank you for your attention!

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1 Define values and framework

Equal access to services of public interest, digital urban tools

privacy ⇔ transparency

informational self-determination

local autonomy

2 Cities and communities **should use public + private data to design urban processes more efficient, foster transparency and evidence-based politics**

3 Cities and communities should **keep their data sovereignty** (competences, resources)

4 There is a **right to have equal access to public digital means and urban services**, but no duty to partake

5 Cities have to **balance between efficient administration management and creative designing**

- use technologies for urban development

- balancing/cautious resilient acting ⇔ active funding and fostering of innovation

6 Stabilize smart city politically and systematically by a strategy and organization scheme

(Financial and human resources, Privacy Council, Triple Helix, Chief Information Officer...)

7 Urban development shall anticipate changing structural change in economics and adapt gradually...

Living labs..., networks w/ cities, economy...

Foster Competence Centers...

Anticipate effects of globalization and automatisisation on working places, production (industrial plots and land use/urban spaces, for instance digital printing, autonomous cars and sharing devices, sharing communities, circle economy.

Maybe provide multifunctional spaces...experimental rooms...

8 Use economic potentials of data...

9 Foster a culture of innovation and creativity...

HANDLUNGSOPTIONEN



RECHTSGRUNDLAGEN
SCHAFEN + KLÄREN
DATENSCHUTZNIVEAU
HALTEN!

KREATIV-
WIRTSCHAFT
PILOT-
PROJEKTE!
INNOVATION
LABS!

MENSCH
IM ZENTRUM:



BÜRGER
BETEILIGUNG



VORHANDENE
DATEN NUTZEN
UND KAPITALISIEREN
WIE?

RELEVANZ
SICHERN



GLÄSERN
IST NOCH LANG
NICHT SMART



DIGITA-
LISIERUNG
DIENT!

WISSENSCHAFT:
BERATUNG
MONITORING
STRATEGIE-
ENTWICKLUNG

UNABHÄNGIG



GLOBAL
DIGITAL HYBRID
DENKEN
VERBINDEN

ANALOG

LOKAL

WLAN



DIGITAL FIRST:
VERWALTUNG
UMBAUEN!
KOMPETENZ-
AUFBAU!

URBANE
DATABASE
STAND



VERTRAUENS-
VORSCHUSS
ÖFFENTL. HAND



RESSOURCEN-
SCHONUNG
FÖRDERN

MEHRWERT
INITIATIVE



INKL:

LOKALE
INNOVATION LABS!
ZIVILE +
VERWALTUNG
THINK
TANKS
KOOPERIER

AUCH STADT-
VERWALTUNG
KANN SMART
AGIEREN!

ZURÜCK GEBEN:

als OPEN
DATA @ ALLE

DATEN
ZUGANG

PARTIZIPATION

ÜBER
DIGITALE
FORMATE

INFRA
STRUKTUR

ERNEUERN

KONZERN STADT
QUARTIERS
ENTWICKLUNG
LIVING
LABS

MULTI-
FUNKTIONALE
ORTE

ZENTRALER
LIEFERORT
FÜR ONLINE-
HANDEL

MARIANNA
POPPITZ + IMKE
SCHMIDT

DECKEN
SUPER
LOKAL-
REGIONALEN
BEDARF



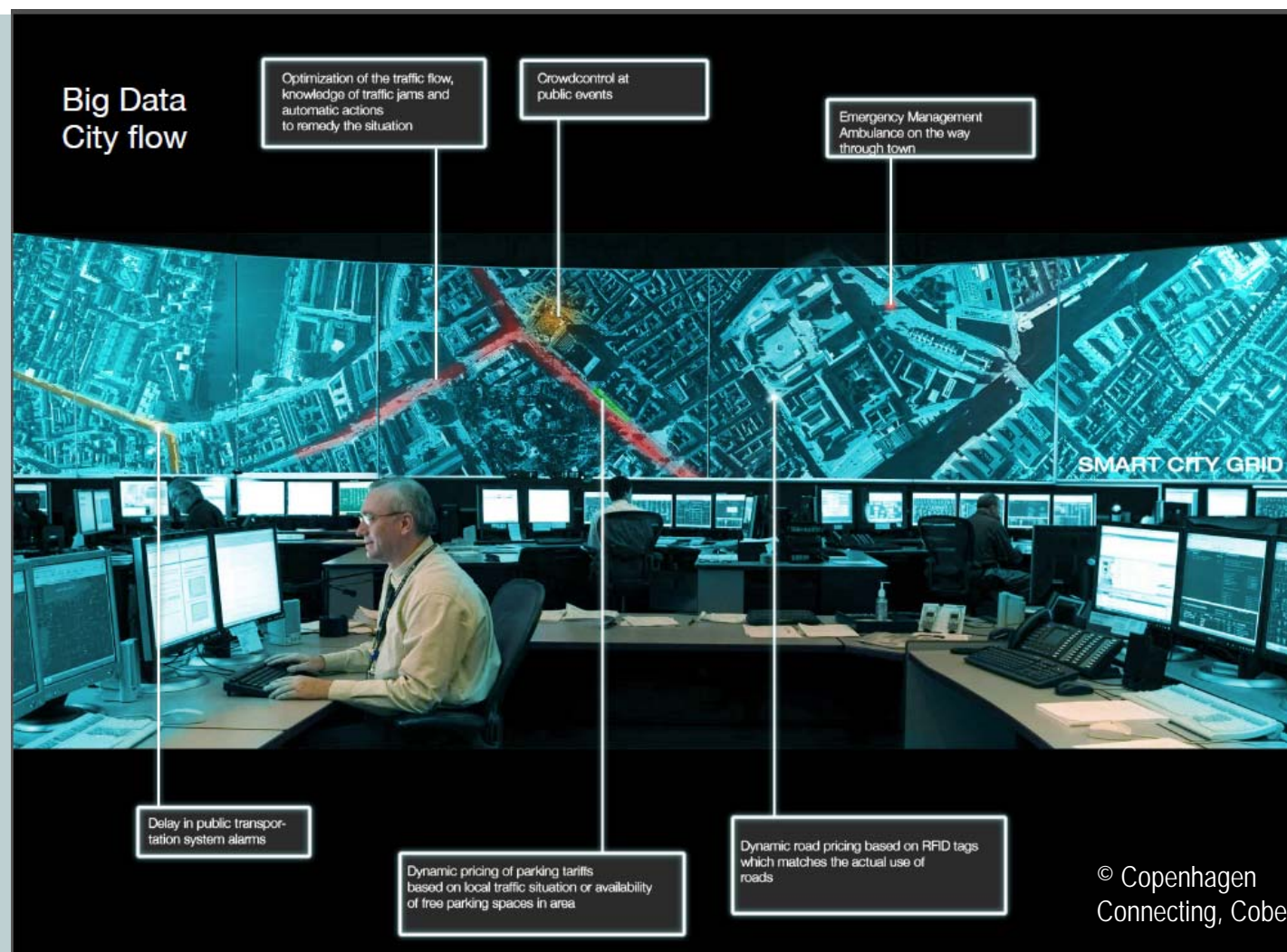
AUS
TAUSCH
DIGITAL
KNOWHOW

WO GIBT ES
"BEST PRACTICE"?

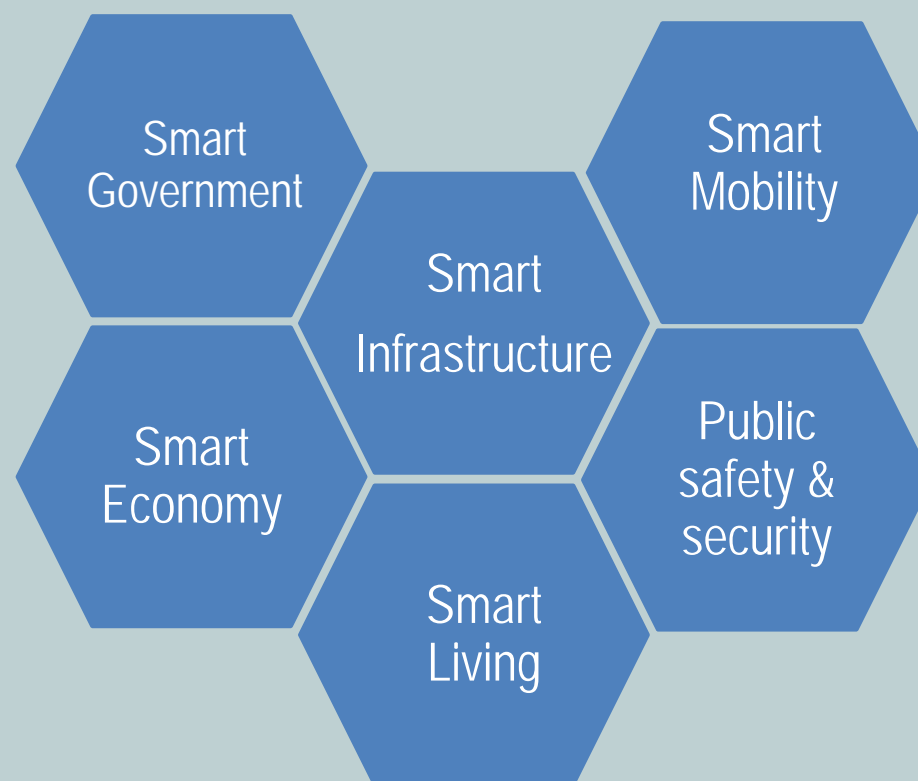
(DATEN)

DATENRESSOURCEN
BEREIT STELLEN

Smart City Copenhagen – Big Data City Flow



Smart City Berlin – Topics



Smart living and mobility



E-Mobility



Smarte Trends: neue digitale Beteiligungsformate

