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10. Ljubljana Forum

From Digital Transformation to Driving Innovation and Sustainability – Smart City Zurich

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Starting Points for Smart City Zurich

- **Urbanisation:** By 2050, two thirds of the world's population will live in cities. The Greater Zurich Area has 1.5 Mio. inhabitants.

- **Challenges:** Quality of life in urban areas shall be maintained or improved. At the same time and facing climate change, resource and energy consumption will have to be reduced.

- **Innovation:** New technologies and digital transformation offer great potential to address these challenges – if we get it right.

- Cities will shape societal developments and drive innovation – world wide.

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Digitalisation: Opportunities and Threats for Sustainability

Opportunities for Sustainability	**Threats for Sustainability**

Opportunities for Sustainability

- Digital networking of products and processes (industry 4.0, internet of Things) promotes efficiency, dema-terialization and reduces the demand for resources.

- Digitisation is a key technology for addressing climate change: Logistics, transport, corporate sustainability management, building technologies and a sharing economy can be strengthened.
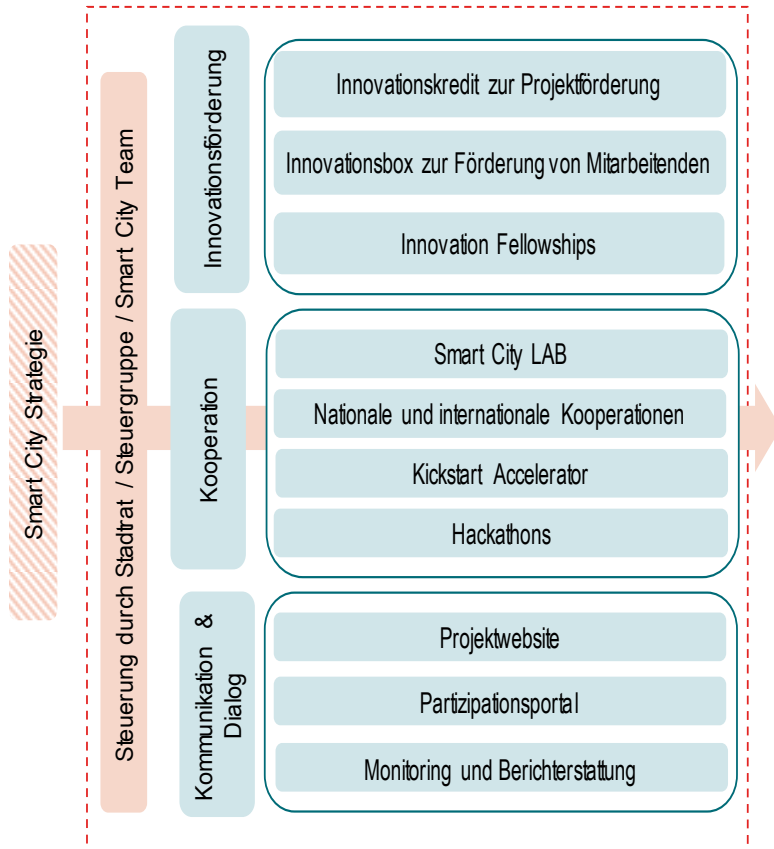
Threats for Sustainability

- As of today, energy requirements of server farms produce as much CO_2 as global air traffic.

- Digitalisation increases the demand for limited raw materials, including production, logistics and disposal.

- Taken together, this creates prob-lems in terms of ecology, economy, jobs, politics and society.

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Smart City Zurich – Three Strategic Objectives

- **Equal opportunities and a high quality of life for everyone.** SMART City Zurich involves the entire population. This includes everyone who lives, works in or visits the city in Zurich.

- **Sustainable development:** Zurich wants to build on digital transformation to improve environmental quality and to become a 2000 watt as well as a net zero CO_2 society .

- **Innovation and attractive business.** Zurich promotes a state of the art and reliable digital infrastructure as well as attractive framework conditions for innovative entrepreneurs.

- Innovation and networking are core elements of the Smart City Zurich strategy.

- Thus, Zurich is strengthening its agility in view of technological changes and grand challenges ahead.

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Smart City Zurich – Three Core Elements

Diagram (left):

Smart City Strategie

Steuerung durch Stadtrat / Steuergruppe / Smart City Team

Innovationsförderung
- Innovationskredit zur Projektförderung
- Innovationsbox zur Förderung von Mitarbeitenden
- Innovation Fellowships

Kooperation
- Smart City LAB
- Nationale und internationale Kooperationen
- Kickstart Accelerator
- Hackathons

Kommunikation & Dialog
- Projektwebsite
- Partizipationsportal
- Monitoring und Berichterstattung

Content (right):

- **Strengthening innovation within the administration**
  - Innovation grants for projects involving several offices
  - Innovation box supporting co-workers with innovative ideas
  - Innovation fellowships for extern experts

- **Cooperations of external partners with the City of Zurich**
  - Smart City LAB supporting projects with partners
  - National und international cooperation
  - Data pool – sharing internal and external data
  - Kickstart Accelerator for start-ups, companies, public offices
  - Hackathons addressing specific issues

- **Communication and dialog**
  - Website informing a public audience
  - Participation addressing the broad population
  - Monitoring and reporting to strengthen political support
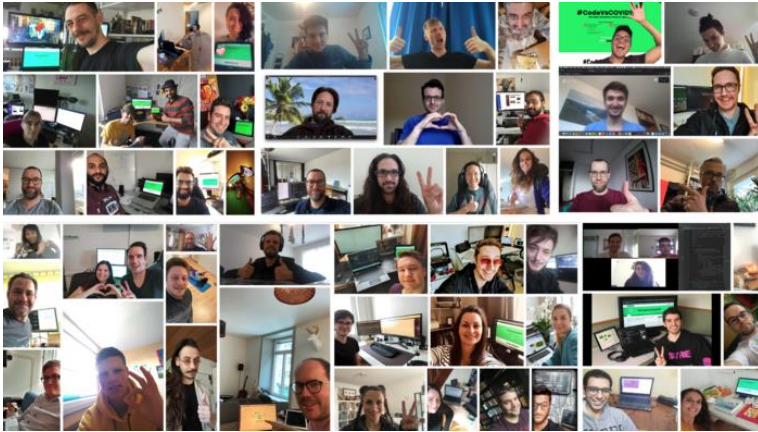
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Experience made – Linking of Top Down and Bottom up

- Projects implemented under the umbrella of Smart City Zurich are diverse. They include top down as well as bottom up initiatives and their number is constantly increasing.

  – Citywide network for the Internet of Things
  – Connecting services for an integrated urban mobility
  – Supporting neighbourhood projects
  – Equal opportunity platform
  – Care centre communication
  – Digital support of participatory processes

- Moreover, Smart City became an innovation hub.

  – Coaching co-workers, public offices as well as private companies with regards to innovation and digital transformation.

- The digital transformation of the public administration has become business as usual!

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Developping Smart City Zurich – Lessons Learnt

- **From digital transformation to smart innovation!**
  - We started with the attempt to strengthen digital capacities in the administration – and ended with a comprehensive innovation programme.

- **Including policy makers from the beginning!**
  - We involved policy makers on a regular bases in order to assure their support.

- **Bringing together internal and external expertise!**
  - We empowered an internal steering committee and teamed them up with an external sounding board.

- **Empowering the population!**
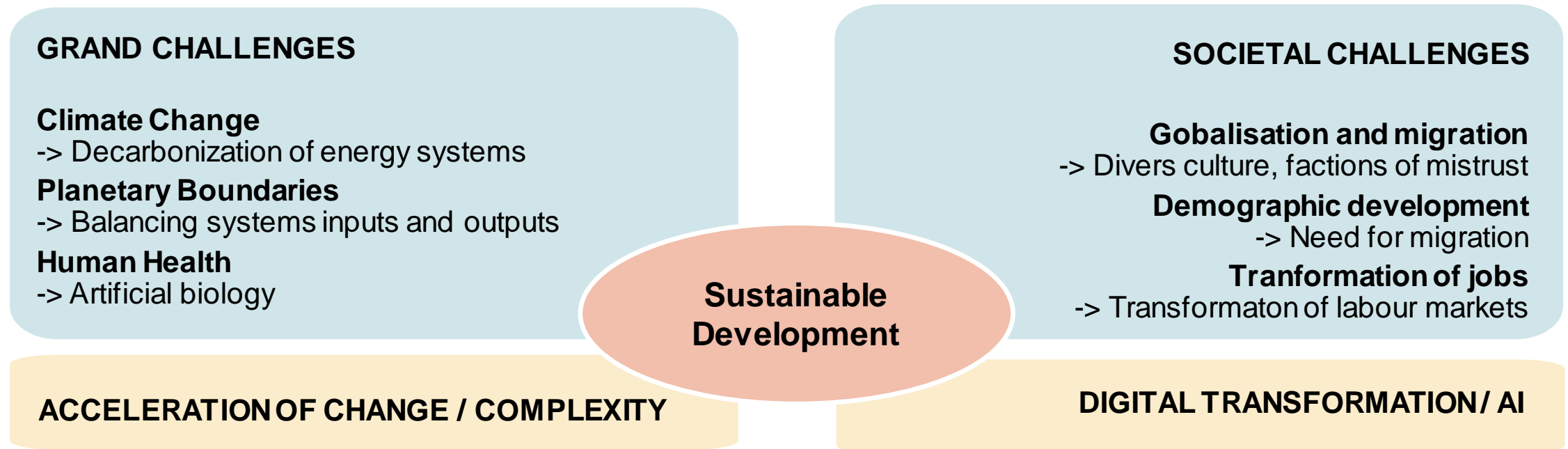 - Many down to earth projects have been proposed.

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So far so good?

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Inspite of 40 Years of Sustainability and Digital Transformation

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Sustainability has to be our Core Concern!

GRAND CHALLENGES

Climate Change
-> Decarbonization of energy systems
Planetary Boundaries
-> Balancing systems inputs and outputs
Human Health
-> Artificial biology

SOCIETAL CHALLENGES

Gobalisation and migration
-> Divers culture, factions of mistrust
Demographic development
-> Need for migration
Tranformation of jobs
-> Transformaton of labour markets

Sustainable Development

ACCELERATION OF CHANGE / COMPLEXITY

DIGITAL TRANSFORMATION / AI

- When launching Smart City projects, their contribution to a more sustainable development has to be the main focus.

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We know enough.

We have the technologies.

We have the financial means.

It's up to us, to make the change happen.

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Impressum

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