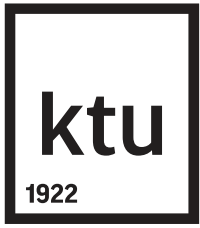# The place of the virtual workplaces in developing smart urban centres

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Context of study

- Organizations (Drive to competitiveness: Koles, & Nagy, 2014).

- Individuals (Smart Human capital: Employees)

- Policy Makers (Smart Governance; Lazaroiu, & Roscia, 2012)
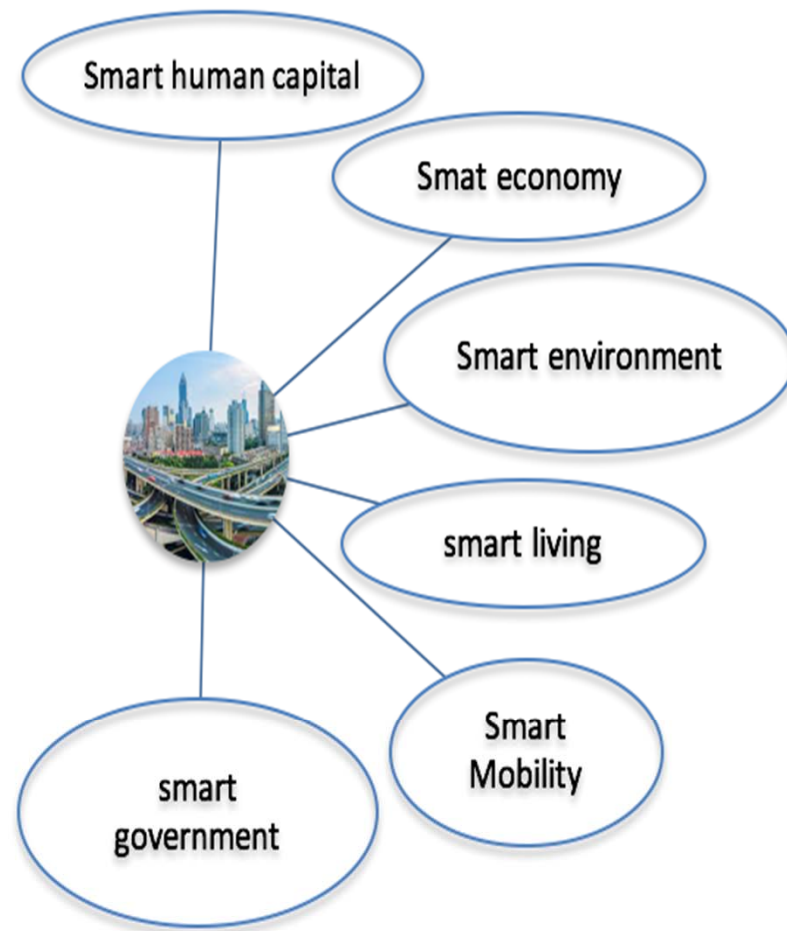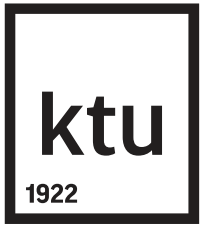
Components of Smart Cities

Fig. 1. Components of Smart cities.
Source: Smart cities – Ranking of European medium-sized cities (2014)

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- Smart city has been viewed as a large organic system.
- To make *the system of systems* smarter as no system operates in isolation (Nam, & Pardo, 2011).
- A smarter city infuses information into its physical infrastructure to improve conveniences, facilitate mobility, add efficiencies, conserve energy, improve the quality of air and water, identify problems and fix them quickly, recover rapidly from disasters, collect data to make better decisions, deploy resources effectively, and share data to enable collaboration across entities and domains.
- However, infusing intelligence into each subsystem of a city, one by one—— transportation, energy, education, health care, buildings, physical infrastructure, food, water, public safety, etc.— is not enough to become a smarter city. **A smarter city should be treated as an *organic whole*—as a *network*, as a *linked system* (**Moss Kanter, & Litow, 2009; Nam, & Pardo, 2011)

❖ Several research arround the concept of virtual workplaces have shared insights on common **characteristics** (Lurey & Raisinghani, 2001; Golden, 2006;)

❖ Some others have sought to measure general factors that have brought about the growing **success** of the virtual workplace (Lin, Standing and Liu, 2008; Saafein & Shaykhian, 2014)

❖ Some specific research have also been done to highlight the role of specific **elements** (such as culture, ICT etc) in the virtual workplace (Rehlm, 2000; Cascio & Shurygailo 2002)

Elements of Virtual Workplaces in Organizations

Virtual workplace is a holistic combination of processes, infrastructure, protocols and culture which allows individuals to work within an organization in a manner that does not fit into conventional and traditional work methods (Crandall & Wallace (1998).
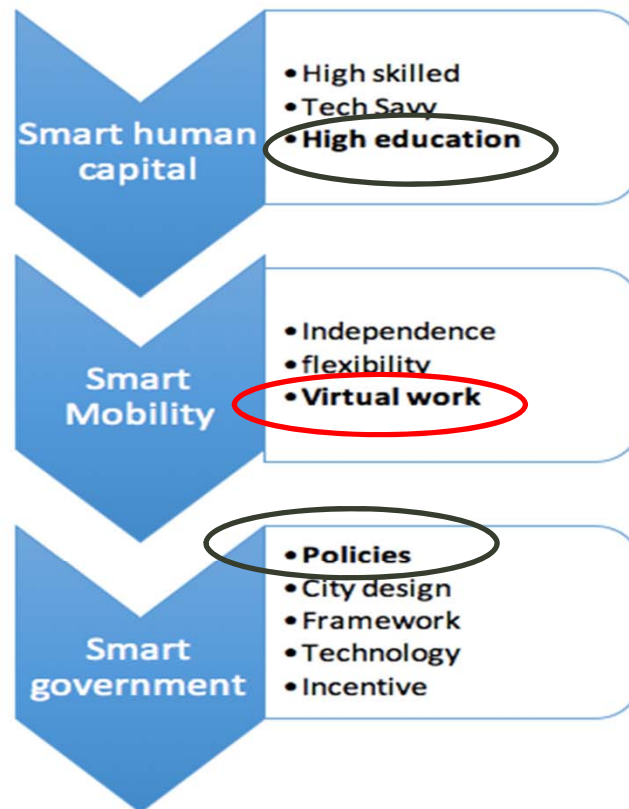
Location independent

knowledge intensity

intra-organisational contacts

inter-organisational contacts

ICT usage

Virtual workplace

Source: Kumpikaite-Valiuniene K. V., Duoba K., Duobiene J., & Zickute I. (2014)

Virtual Workplaces & Smart Human capital

- Self-Motivation
- High level of job knowledge and skills
- Comfort with solitude
- Strong communication skills
- Concentration & Focus
- Time management and organizational skills
- Trustworthiness and reliability

Figure created from Petković M., Orelj A., & Lukić J. (2014) and Hamilton E. (2002)

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Proposed framework for virtual work in planning smartcities

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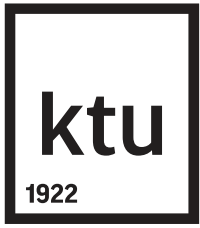
Important issues:

➢smart city initiatives stresses integration of systems, infrastructures and services mediated through enabling technologies.

➢As Nam, & Pardo, (2011) stress that technological innovation is a means to smart city, not an ends.

➢IT is just a facilitator for creating a new type of innovative environment, which requires the comprehensive and balanced development of creative skills, innovation-oriented institutions, broadband networks, and virtual collaborative spaces

Concerns:

❖The onus therefor lie on policy makers and organizations to harness the potentials that exist by optimizing the smart human capital component of the smart city

❖Policy makers need to encourage work flexibility and optimization by organizations

Thank you for your attention.

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