## Chaitali Dighe

# **Evaluating the relationship between Smart City initiatives and social dimensions**



## Architecture and Urban Planning / Prof. Rudolph-Cleff und Prof. Knodt

2. cohort

## Subject & Research Question

#### Relevance

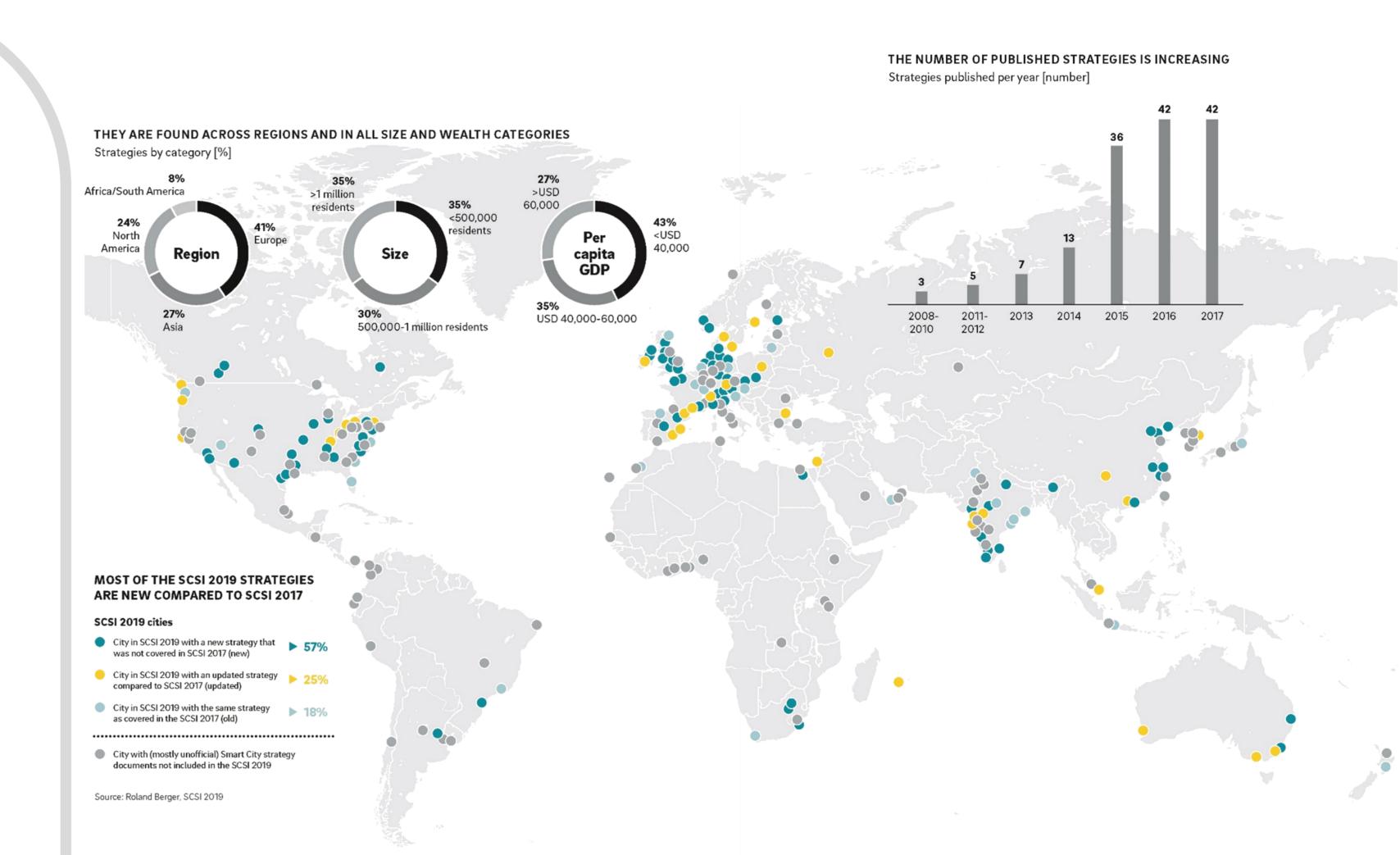
- The Smart City concept has attracted world interest over the last two decades. 153 cities worldwide have an official Smart City initiative (SCi). Smart City initiatives are a key to evaluate digital transformation.
- ICT is a key infrastructure in these initiatives and in crises situations. ICT is a distinct infrastructure as it links other infrastructures to each other and at the same time also links technology to people.
- Singapore is chosen as one of the case-studies as it is one of the pioneers in this field and India introduced a tailored approach to suit its social, political and economic conditions.

#### **Research Objectives**

- To specify how social dimensions are considered in Smart City initiatives in Singapore and India
- To outline the impact of Smart City initiatives on social resilience

#### **Research Questions**

- Do Smart City initiatives raise the social resilience of the transforming city?
- What role do social and cultural conditions play in the context of these initiatives?
- How do these initiatives affect the resilience and vulnerability of city societies?



153 cities worldwide have an official Smart City initiative (Source: Roland Berger, SCSI 2019)

## Methods

## **Mixed method Design**

## **Case-study research**

 Singapore and India having varied economic, political, social and geographical conditions, will be studied by different methodologies

## **Primary Data**

- Expert Interviews (in Singapore and India)
- Online community surveys (in India) to evaluate the smart city initiatives

## **Secondary Data (Desk Review)**

- Academic Papers
- Government Documents
- Websites

#### Subject areas of Singapore's SCi **Smart** (Source: adapted from **Nation** https://www.smartnation.gov.sg/why-Smart-Singapore Nation/pillars-of-smart-nation) Digital Digital Digital Society Governance Economy **Smart Cities Mission India** Subject areas of India's SCi (Source: adapted from Pan-City Area-based http://smartcities.gov.in/content/innerpa initiative development Retrofitting: Redevelopment Greenfield: city : city renewal extension improvement

## **Interim Results**

- Smart City initiatives are not technologydriven, rather based on political agendas (Study conducted in India in 2016)
- Smart Cities initiatives demonstrate strategies to integrate services into daily routines of the citizens based on the sociocultural factors of the particular city (Study conducted in India in 2016 and personal observation in Singapore from 2014 – 2019)
- Smart City initiatives do not seem to meet their goals to reach the beneficiaries (Pretest conducted in May 2020 through online community surveys in India)

## Cooperation & Highlight

## Interdisciplinary working groups within KRITIS

Global South and Concepts of Infrastructure

## Collaboration with EmergenCITY lab

 Collaboration with colleagues from the EmergenCITY lab to produce possible papers

## **Organisation Group for International Conference**

Transformation processes of technical systems

My Highlight in the KRITIS Program: The exchange with Mercator Fellow Dr Leon Hempel

## **Integration into the Research Programme**

## **Resilience and Vulnerability**

• ICT infrastructures increase resilience and at the same time also increase vulnerability. The project will demonstrate the need to adapt ICT incorporation in Smart City initiatives as per the socio-cultural context.

## Transformation

• Smart City initiatives are leading to the transformation of our cities into digital cities. This also transforms the society. The project aims to study infrastructures as socio-technical systems.

## **Time and Spatial reference**

Highlights the role of contextual specificity in the formulation of Smart City initiatives

My future contribution to KRITIS: empirical research to strengthen the concept of infrastructures as socio-technical systems

