

FUTURE VISIONS OF SMART CITIES

ISTANBUL SMART CITY *Roadmap*

Hakan ÇELİK
ISBAK R&D Test and Design Chief

Big Data

AI

Communication

Governance

People

Open Data

Finance

Politics

Culture

IoT Innovation

Infrastructure

History Attractive

Architecture

Technology

Economy

SMART CITY

An aerial photograph of a city skyline, likely Singapore, featuring numerous high-rise buildings. A large area on the left is outlined with a dashed blue line and filled with a semi-transparent orange color, representing the 'Smart District'. A specific building in the center-right is also outlined with a dashed blue line and filled with a semi-transparent orange color, representing a 'Smart Building'. A path or road is highlighted with a dashed blue line and filled with a semi-transparent orange color, representing a 'Smart Street'. The background shows a hilly landscape with some greenery and a cloudy sky.

SMART
DISTRICT

SMART
STREET

SMART
BUILDING

SMART CITY



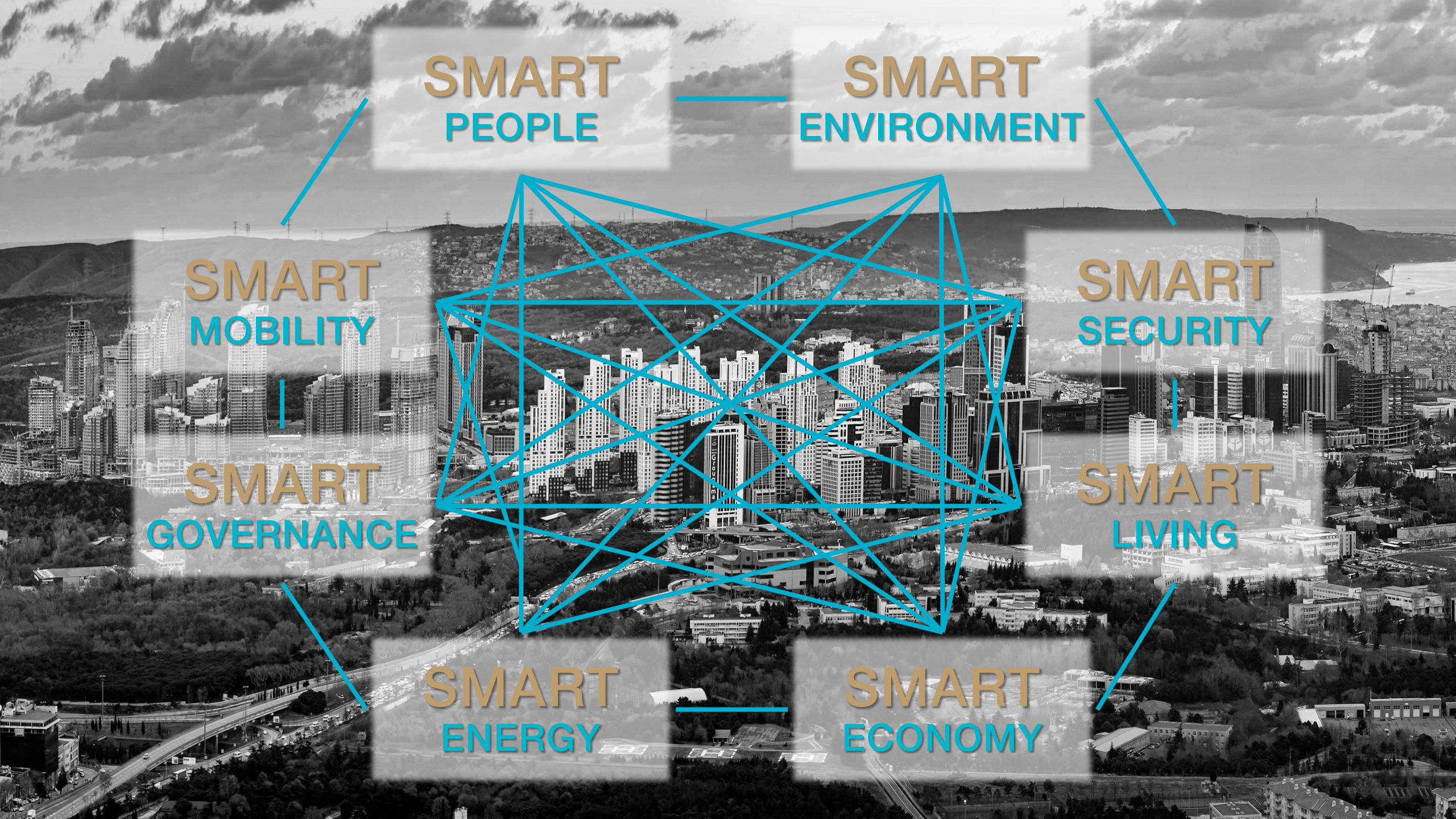
Smart city is a sustainable city, where **stakeholders** of the city are integrated with the city government and **technological** opportunities and **data** are utilized in order to use resources **effectively** and **efficiently** and increase the quality of life.

WHAT IS?

Isolated Strategy
Isolated Platforms

Only Global Service Providers
Foreign Source Dependency
Economic Unsustainability

WHAT IS NOT?



SMART
PEOPLE

SMART
ENVIRONMENT

SMART
MOBILITY

SMART
SECURITY

SMART
GOVERNANCE

SMART
LIVING

SMART
ENERGY

SMART
ECONOMY

A glass of Turkish tea (çay) on a saucer with a spoon, set against a sunset background. The glass is filled with dark red tea and sits on a clear glass saucer. A silver spoon lies on the saucer. The background is a blurred sunset over water, with warm orange and yellow light reflecting on the surface.

**SMART
CITY**

**HOW to be
smarter?**

Who are the stakeholders?

Ecosystem

What are the best practices?

Best Practices & Benchmarking

How smart we are now?

Current State Assessment

Where do we want to reach?

Vision

How can we reach there?

Strategy & Roadmap

How should we design our ICT?

ICT Architecture Design



Smart Ecosystem



IMM DEPARTMENTS



IMM AFFILIATE COMPANIES



LOCAL COMPANIES



LOCAL MUNICIPALITIES



STARTUPS



UNIVERSITIES



NGO



GOVERNMENT

Service Providers



Best Practices



Current State Assessment

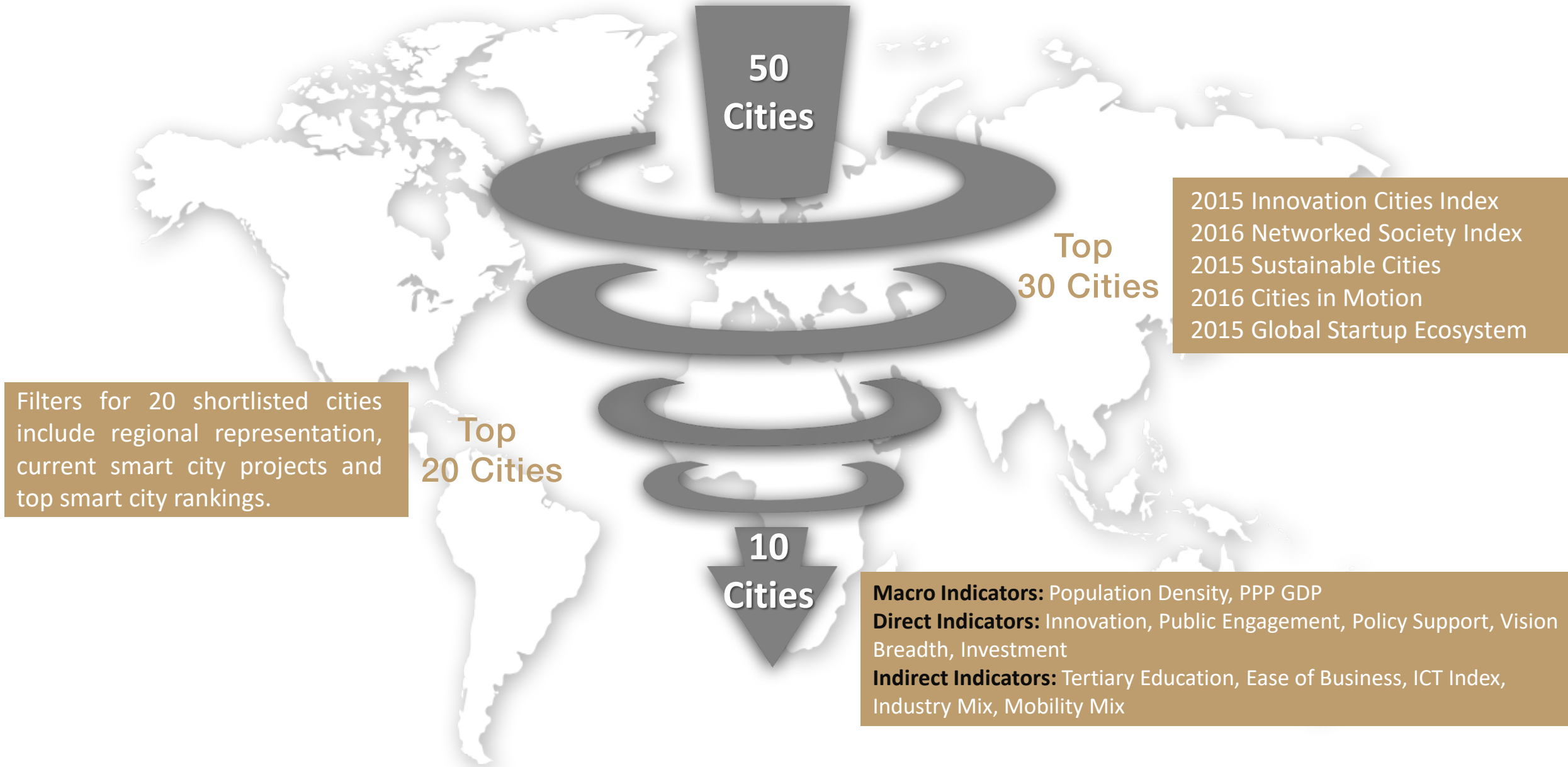


Vision, Strategy & Roadmap



ICT Architecture Design

Benchmarking: City Filtering



Best Practices



8 different functional areas
10 City Report prepared



Smart City
Best Practices Workshop

Total Participant : 210

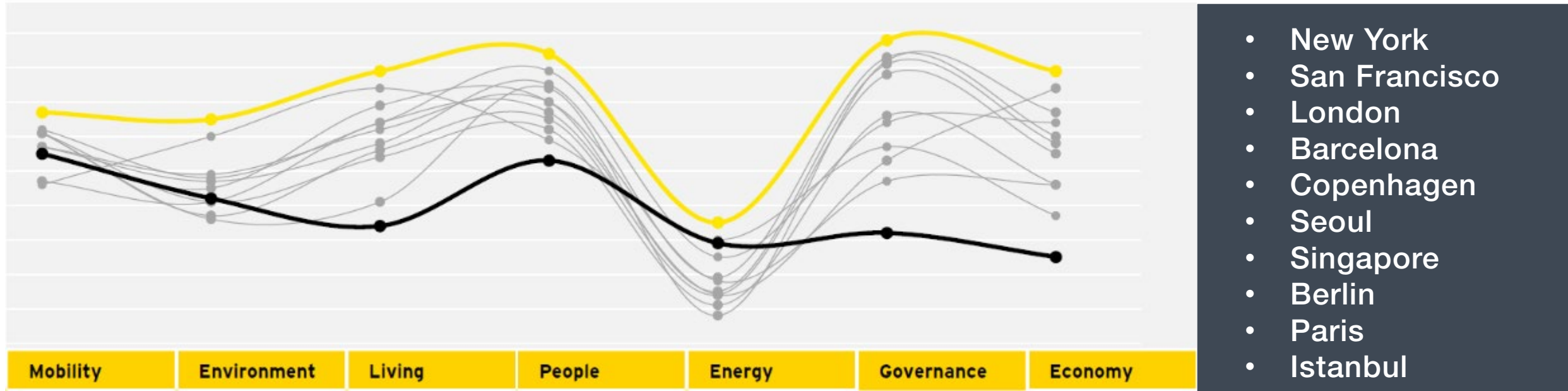
Satisfaction Rate : %84



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Benchmarking: Istanbul Smart City Index



- New York
- San Francisco
- London
- Barcelona
- Copenhagen
- Seoul
- Singapore
- Berlin
- Paris
- Istanbul

Istanbul Smart City Index with 60 indicators from 10 cities

Ongoing:

Istanbul Smart City Index with more indicators from 40 cities

Current State Assessment

898	210	720
Survey	Session	Delegate Interview
1250	900+	8
Pages Report	Hour Interview	Workshop



Face to face interviews



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ISTANBUL Smart City Index



Vision and Strategies



Purpose



Vision



Values



Mission

Strategies

Determination of the strategies aligned with vision in the basis of functional areas

Strategic Objectives

Determination of the objectives for the identified strategies

Strategic Goals

Determination of the goals and targets for specified strategies

Key Performance Indicators

Determination of KPIs to follow strategic objectives

Determination of the Initiatives

Determination of the necessary initiatives for the strategies

Prioritization of the Initiatives

Prioritization of strategic initiatives according to predetermined criteria

Roadmap Design

Preparation of the roadmap by scheduling the initiatives on the priority basis

Vision Strategy Road Map



Purpose and Visions of Other Cities



Social Media Analytics



Persona Analysis



Stakeholder Surveys



Vision Workshop



Strategy Workshop



implemantation roadmap

28 City

350K Share

450 Citizen

203 Executive

**54 C-level
executive**

101 Projects

**44 Priority
Projects**



İSTANBUL
BÜYÜKŞEHİR
BELEDİYESİ

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Smart City Manifest



Purpose



Vision



Value



Mission



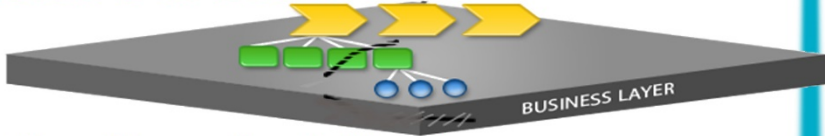
**Public, Private Sector,
NGO Executives**

Technical Architecture

Strategy



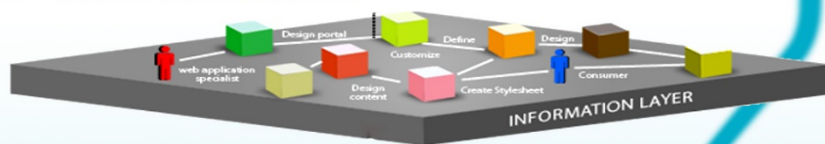
Service Portfolio



Application Architecture



Data Architecture



Infrastructure Architecture



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Operating Arthitecture

Smart Cities
Services

End User
Applications

Application and Data Architecture

Analysis

Cloud Services Operation Center

Technology Architecture

Infrastructure

IoT

Devices

Network

Phase 1

Literature Review

Phase 2

Current State
Assessment

Phase 3

Vision and Strategy

Phase 4

Architectural Design

Phase 5

Road Map



Final Report

System Architecture



Smart Mobility
Coordination Center



Smart Lighting



Economic
Development
Platform



Public Transport
Data Analysis



Smart Water
Transmission
Network



Urban Measurement
Sensor & IOT Kit



Smart Parking



Smart Wastewater
Management



Common Meter
Infrastructure



Bike Sharing with
Blockchain



Domestic Waste
Management



Istanbul City
Security Platform



Smart Building
Energy Management

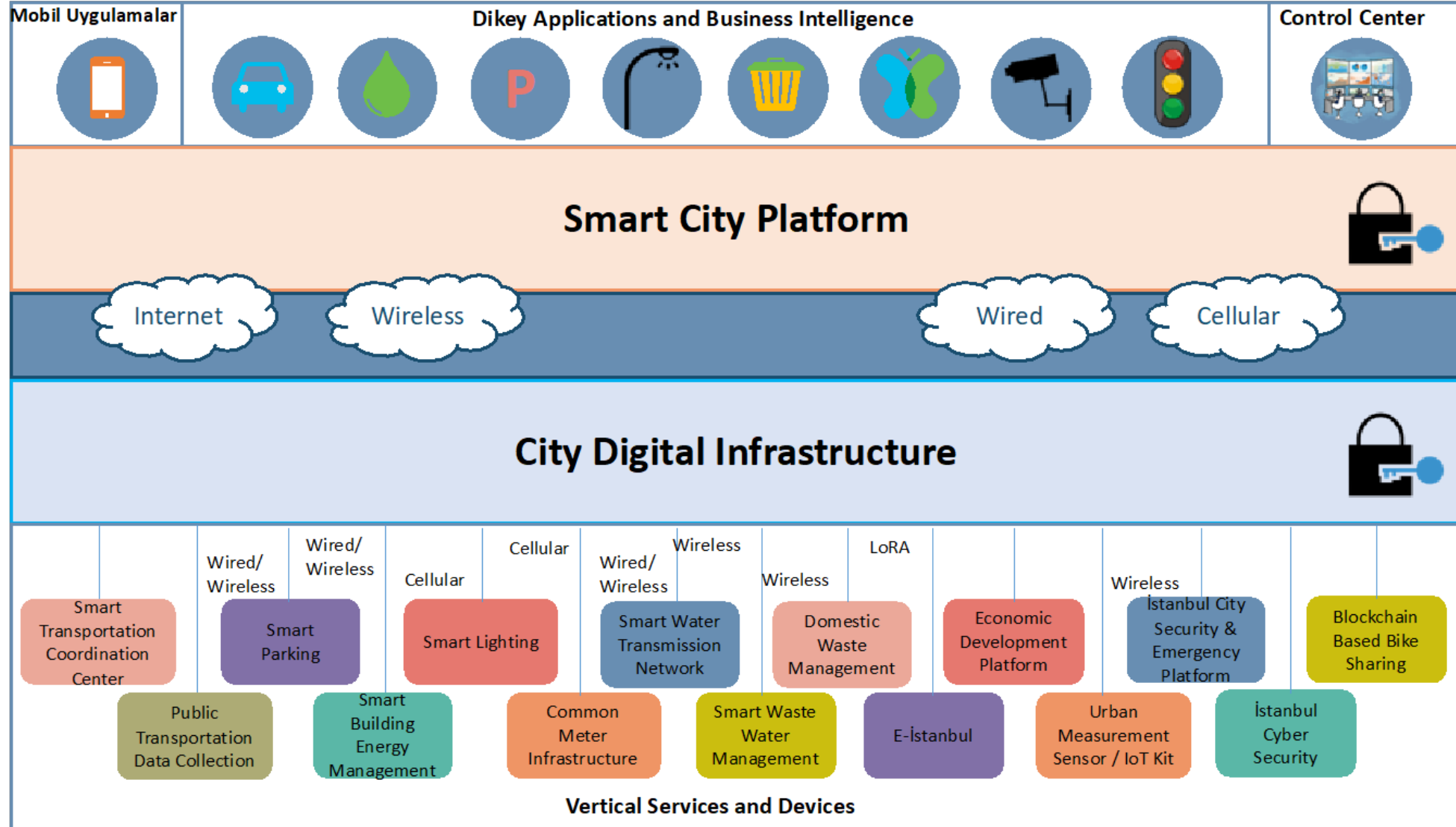


E-Istanbul Portal



Istanbul
Cyber Security
Platform

Smart City Architecture



Roadmap Design



Istanbul Smart City Roadmap Projects



Thank you...