

Eskişehir Sanayi Odası



ASCIMER

ASSESSING SMART CITY INITIATIVES FOR THE MEDITERRANEAN REGION

SMART CITIES: CONCEPT, CHALLENGES AND PROJECTS



European
Investment
Bank • Institute

SMART CITIES: CONCEPT, CHALLENGES AND PROJECTS

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WORKING DEFINITION

A Smart City connects human capital, social capital and ICT infrastructure in order to address public issues, achieve a sustainable development and increase the quality of life of its citizens.

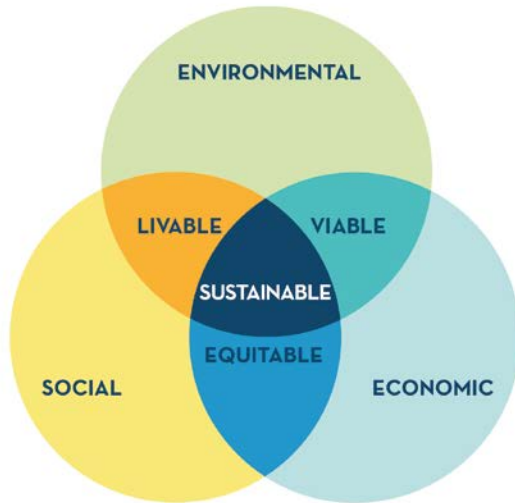
SMART CITY GOALS

- Achieve a sustainable development.
- Increase the quality of life of its citizens.
- Improve the efficiency of the existing and new infrastructure.

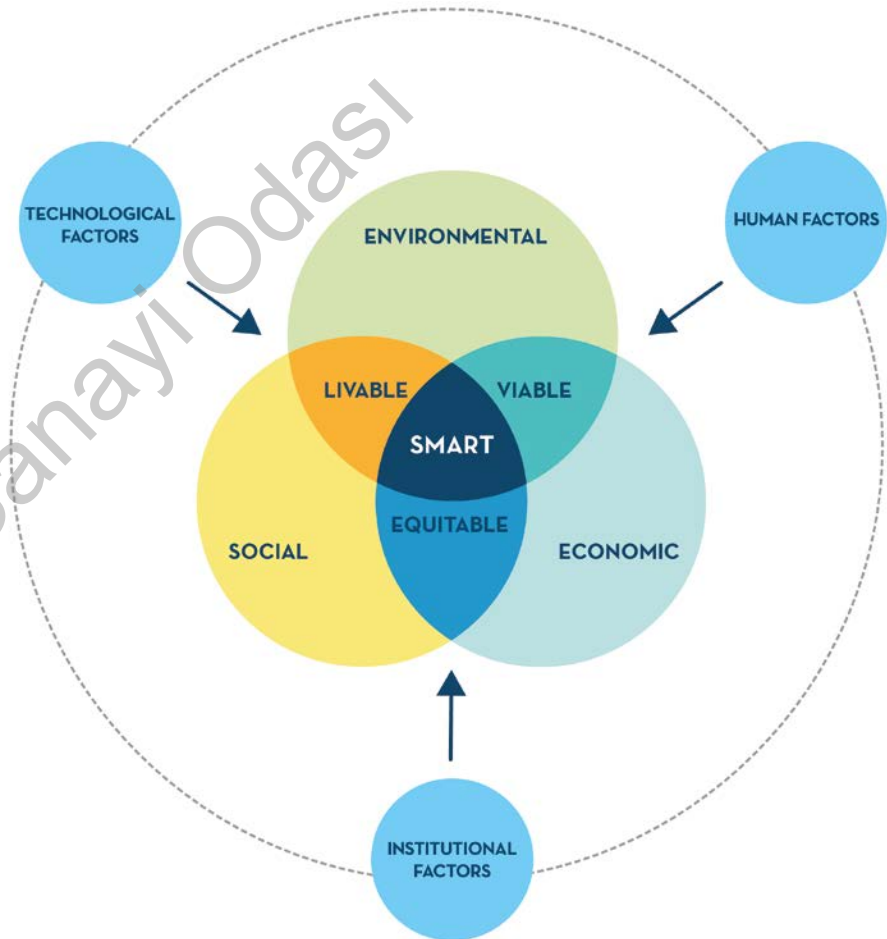
ICT FACTOR

Use of Information and Communication Technologies as a mean to achieve its objectives. ICT as tool for the improvement of the city.

SUSTAINABLE vs



SUSTAINABLE DEVELOPMENT MODEL



SMART DEVELOPMENT MODEL

MAIN ACTORS

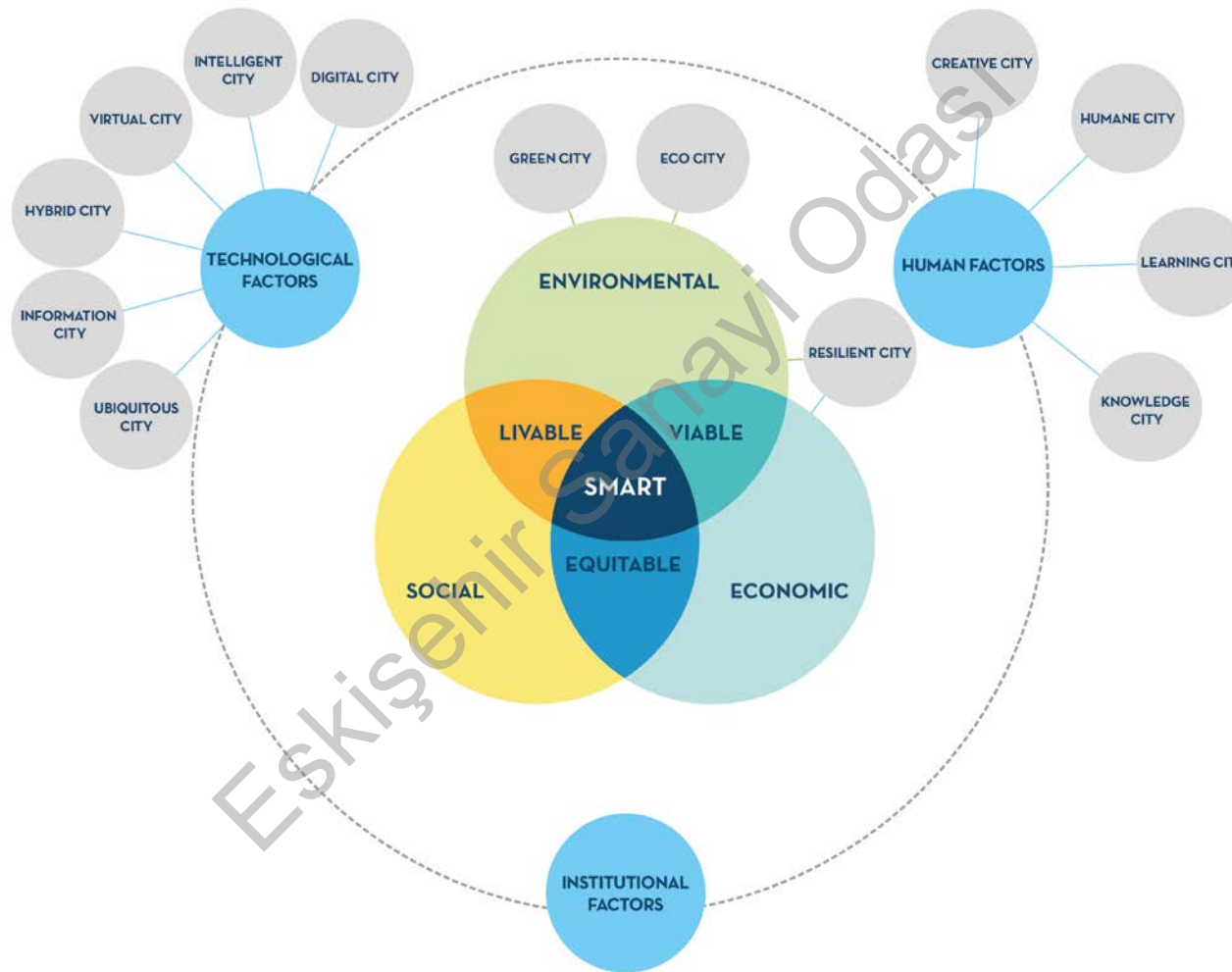
- Government and city authorities.
- Public-private partnerships.
- Citizen participation.

SCOPE OF THE SMART CITY

- Effects on the nearby settlements economically and socially connected.
- Expansion to the whole region.
- Regional and interregional networks.

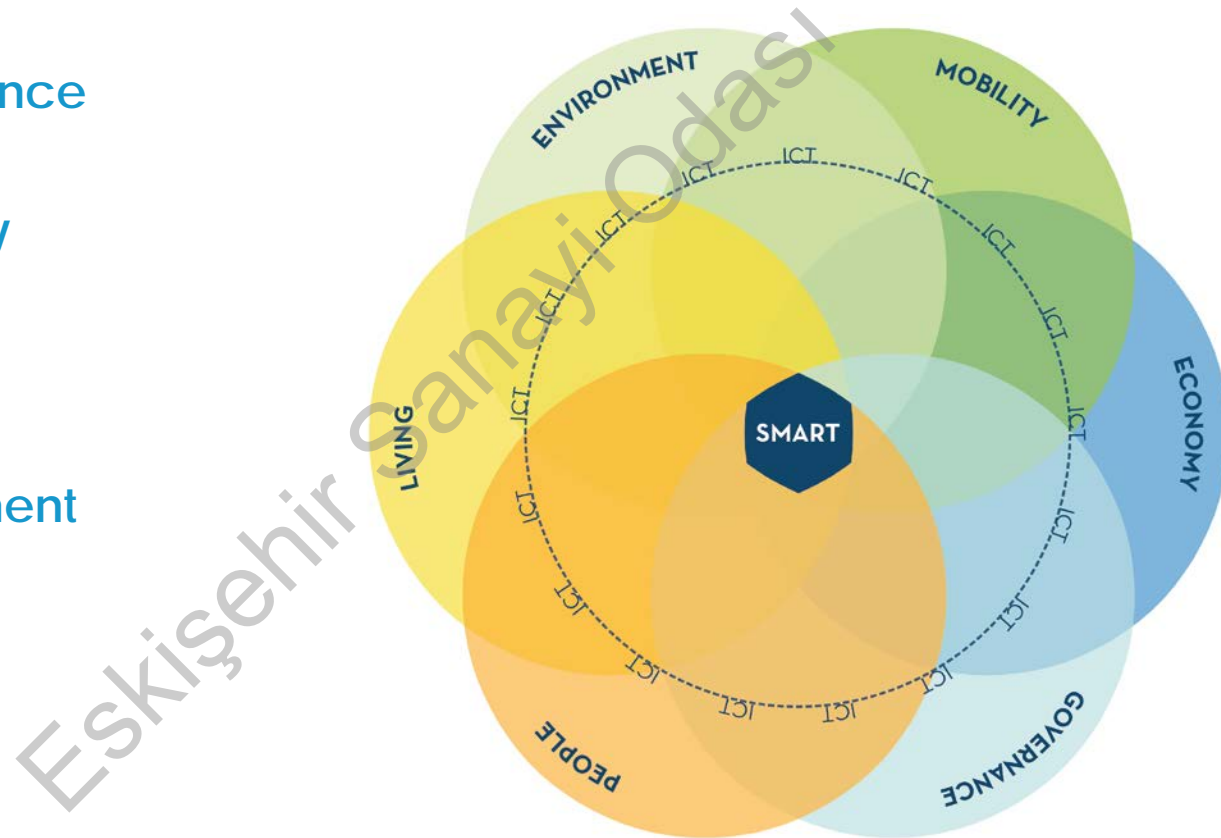
IMPLEMENTATION OF SMART CITY PROJECTS

- Pilot projects.
- Global Smart City strategy + testing projects embraced on it.
- High risk projects with long payback periods.
- Difficulties to have access to traditional financial resources.



RELATION BETWEEN OTHER CONCEPTS AND THE SMART CITY MODEL

- Smart Governance
- Smart Economy
- Smart Mobility
- Smart Environment
- Smart People
- Smart Living



SMART CITY ACTION FIELDS. ICT AS COMMON ENABLER

SMART CITY ACTION FIELDS AND AREAS			
SUSTAINABLE CITY ASPECTS	CITY AXES	SMART CITY ACTION FIELDS	SMART CITY AREAS
<i>economic</i>	INSTITUTIONS	GOVERNANCE	PARTICIPATION
			TRANSPARENCY
			PUBLIC AND SOCIAL SERVICES
		ECONOMY	INNOVATION
<i>environmental</i>	HABITAT	MOBILITY	ENTREPRENEURSHIP
			TRAFFIC
			PUBLIC TRANSPORT
			ICT INFRASTRUCTURE
		ENVIRONMENT	LOGISTICS
		NETWORK AND ENVIRONMENTAL MONITORING	
		ENERGY EFFICIENCY	
<i>social</i>	CITIZEN	PEOPLE	DIGITAL EDUCATION
			CREATIVITY
		LIVING	TOURISM & CULTURE
			HEALTH & SAFETY
			TECHNOLOGY ACCESSIBILITY

CITY CHALLENGES

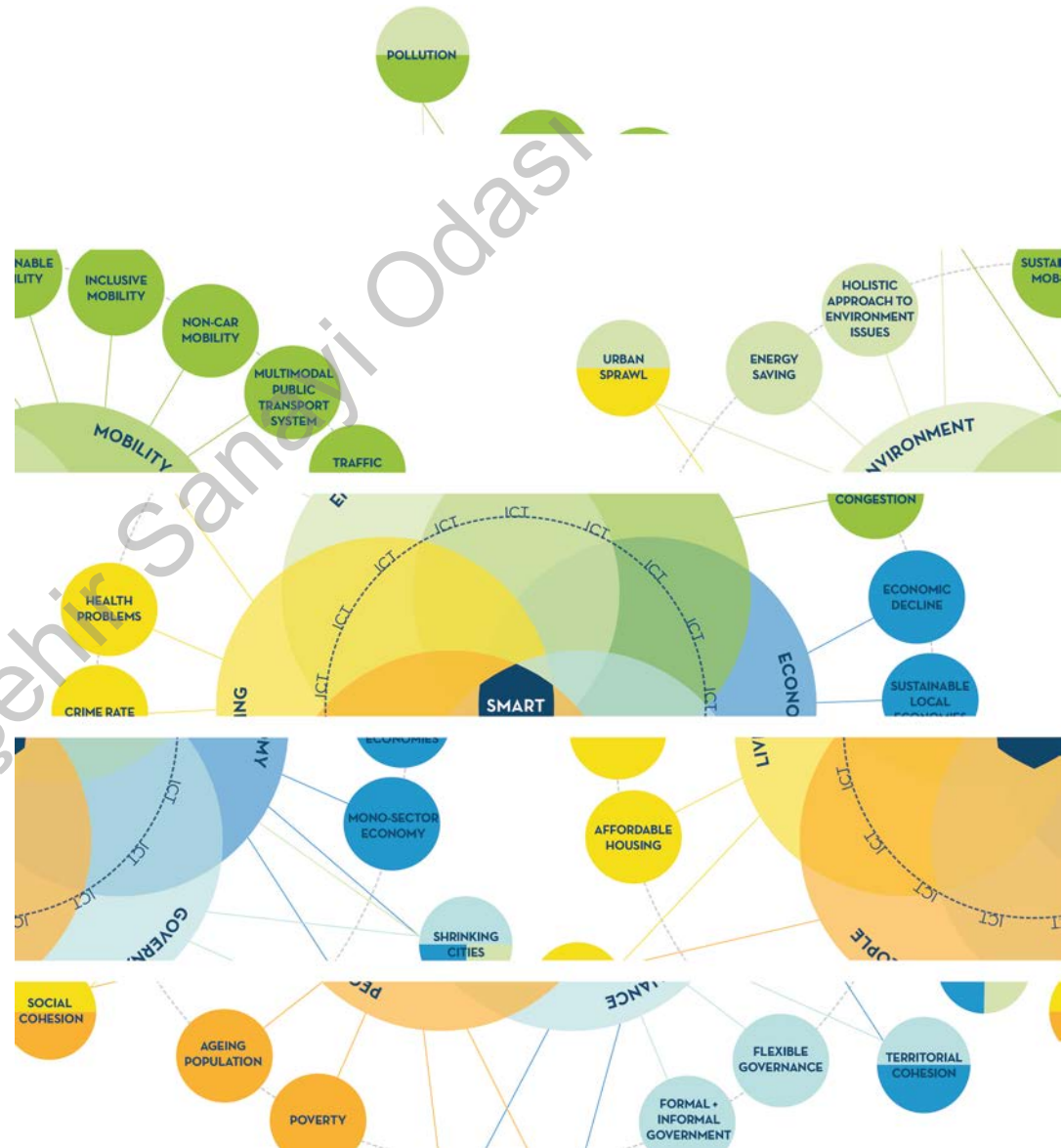
CITY CHALLENGES					
GOVERNANCE	ECONOMY	MOBILITY	ENVIRONMENT	PEOPLE	LIVING
Flexible governance	Unemployment	Sustainable mobility	Energy saving	Unemployment	Affordable housing
Shrinking cities	Shrinking cities	Inclusive mobility	Shrinking cities	Social cohesion	Social cohesion
Combination of formal and informal government	Economic decline	Multimodal public transport systems	Holistic approach to environmental and energy issues	Poverty	Health problems
Territorial cohesion	Territorial cohesion	Pollution	Pollution	Ageing population	Crime rate
	Mono-sectorial economy	Traffic congestion	Urban sprawl	Social diversity as source of innovation	Urban sprawl
	Sustainable local economies	Non-car mobility			
	Social diversity as source of innovation				

24 CITY CHALLENGES

17 one-field challenges

- 5 mobility
- 3 living
- 3 economy
- 2 governance
- 2 people
- 2 environment

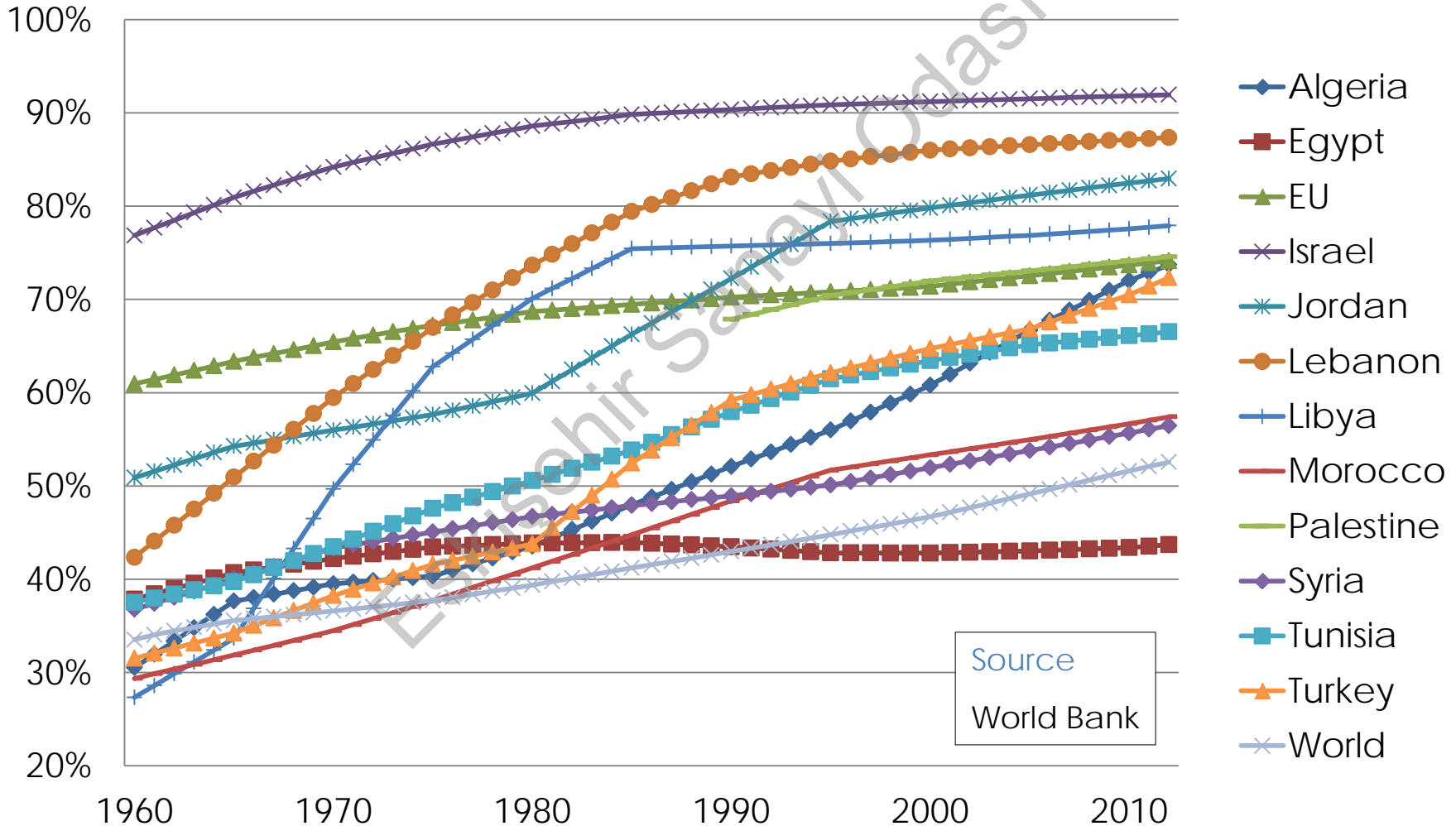
7 multi-field challenges



CITY CHALLENGES

MEDITERRANEAN REGION

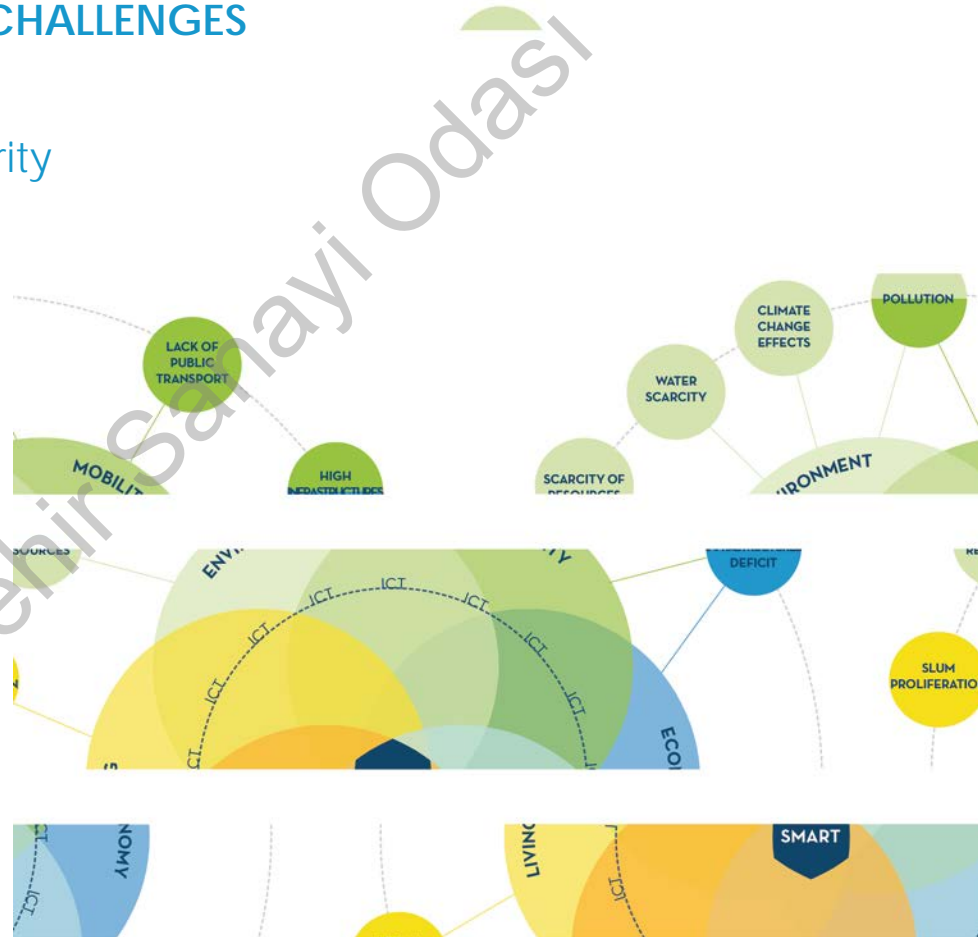
Urban population (%)



Source
World Bank

SOUTH MEDITERRANEAN CITIES CHALLENGES

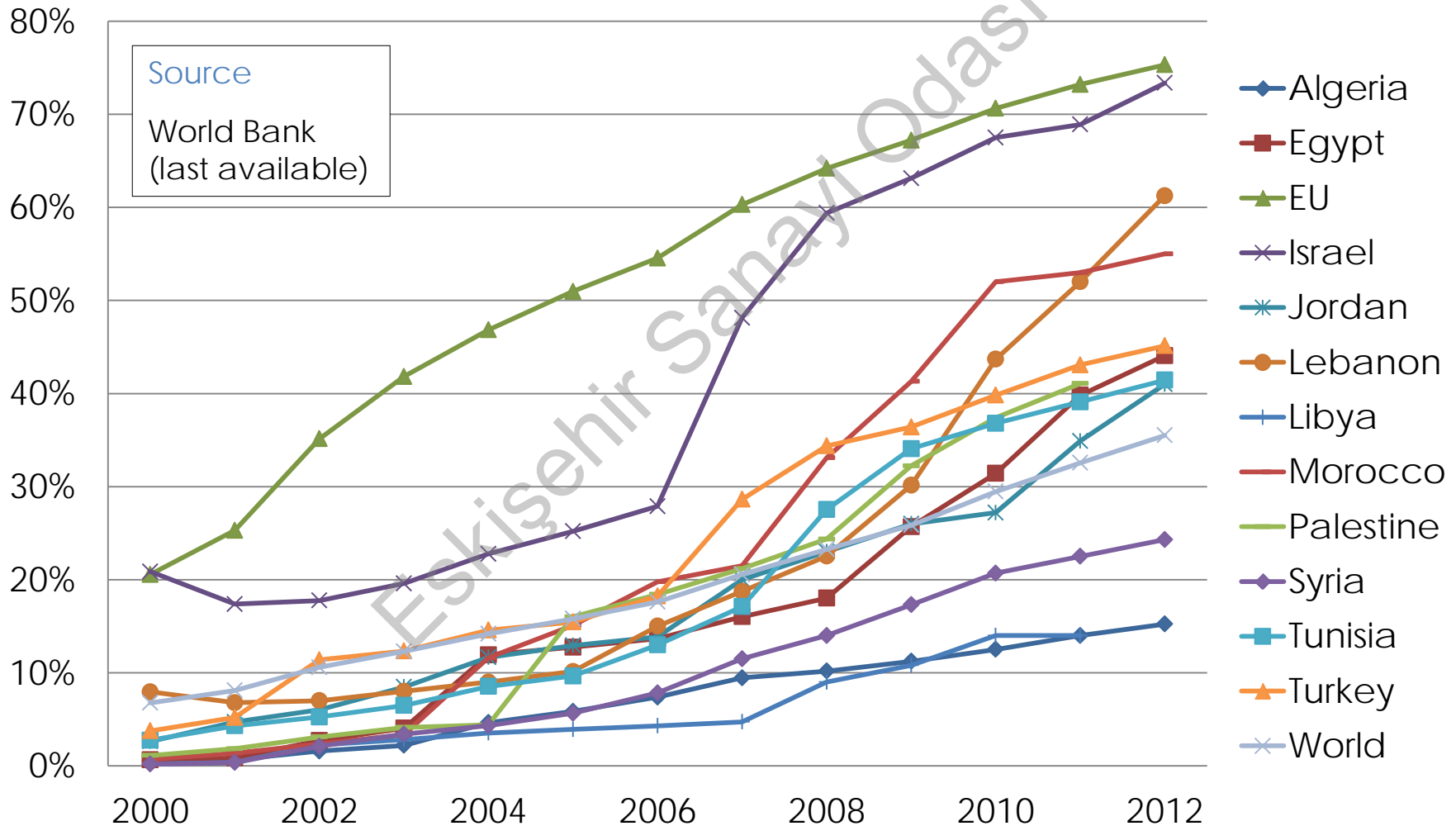
- Slum proliferation
- Urban violence and insecurity
- Urban poverty
- Climate change effects
- Congestion + pollution
- Lack of public transport
- Water scarcity
- High infrastructure deficits
- Shortage in access to ICT
- Scarcity of resources

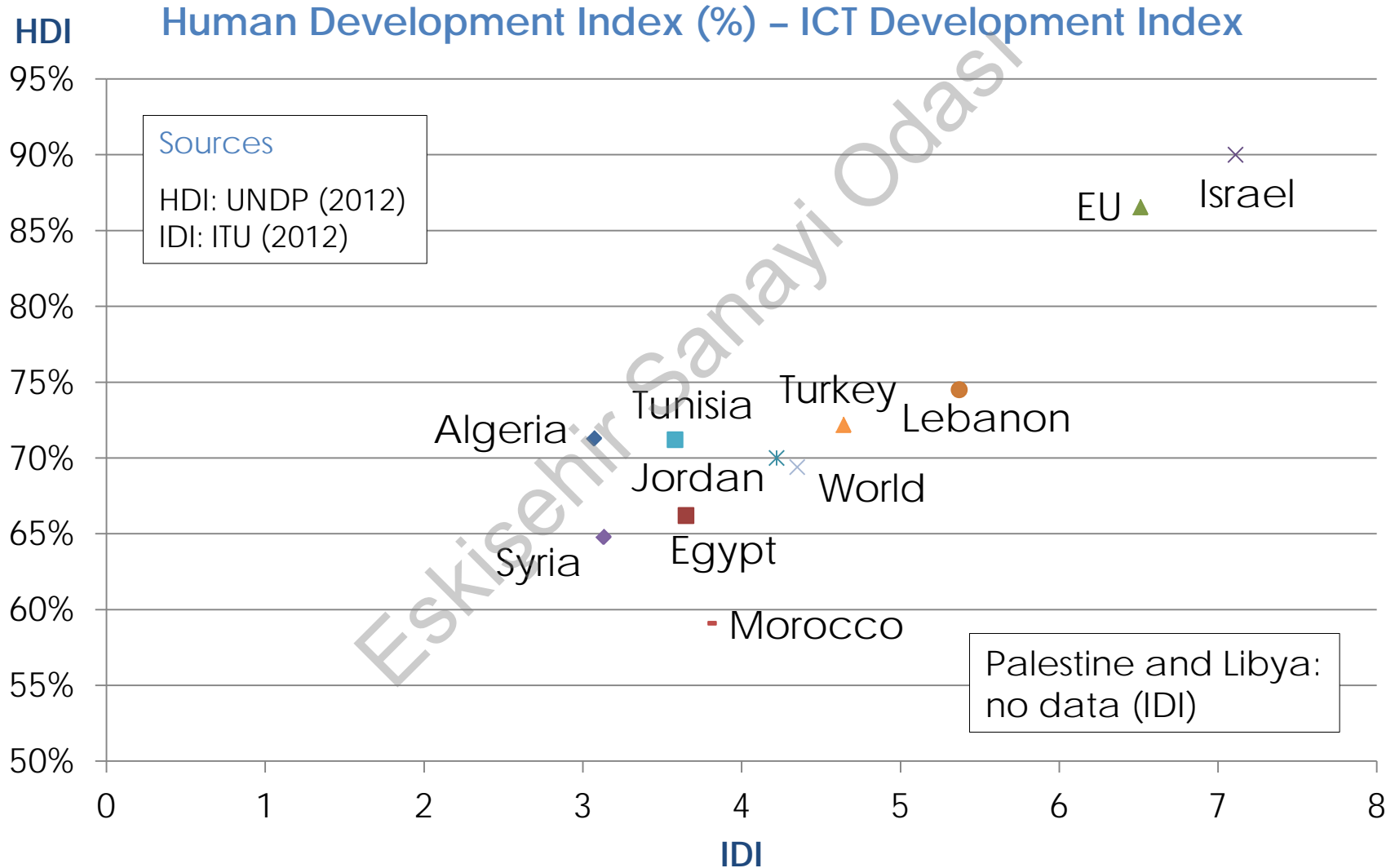


CITY CHALLENGES

MEDITERRANEAN REGION

Internet users (%)



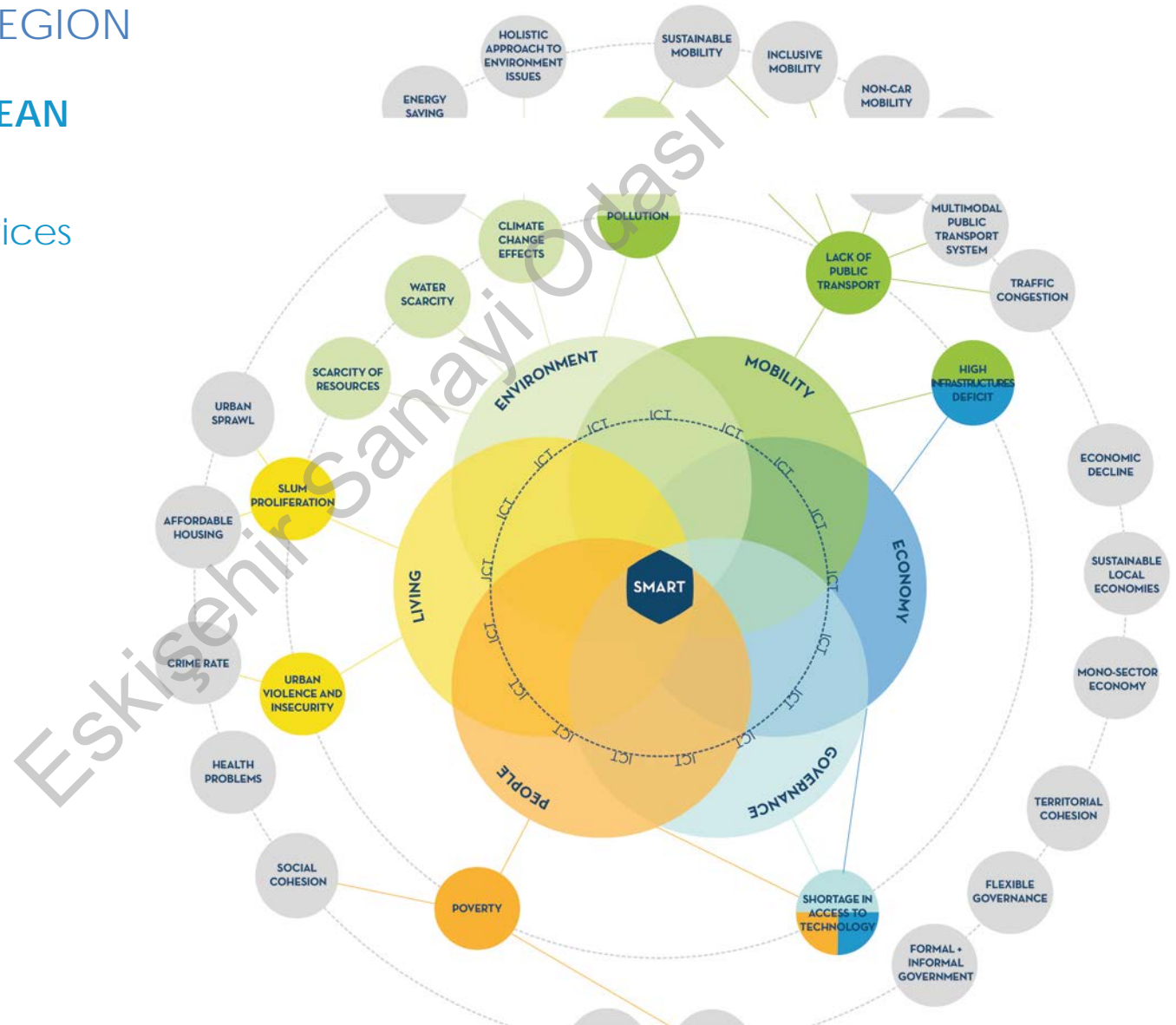


CITY CHALLENGES

MEDITERRANEAN REGION

SOUTH MEDITERRANEAN CITIES CHALLENGES

Providing basic services looking forward to future challenges



SMART CITY PROJECTS

ACTION FIELD	AREA	SMART CITY INITIATIVE
SMART GOVERNANCE	PARTICIPATION	Complaints and suggestions
		Participation in decision-making
	TRANSPARENCY	Open Data
		Municipal transparency
		e-municipality
	PUBLIC AND SOCIAL SERVICES	City Council on social networks
		GIS
		Social and City services information
		Smart Justice
SMART ECONOMY	INNOVATION	Innovation Centre
		e-commerce
	ENTREPRENEURSHIP	Business centre
		job-search resource centres

SMART CITY PROJECTS

ACTION FIELD	AREA	SMART CITY INITIATIVE
SMART MOBILITY	TRAFFIC	Variable Traffic Management
		Traffic monitoring
		Traffic control
	PUBLIC TRANSPORT	Public Transportation App
		Card of Public Transportation
		Intelligent bus stops
		Car sharing
		Public bicycles
		Electric bus
		Tramway
	ICT INFRASTRUCTURE	Parking sensors
		Parking information
		NFC payment
	LOGISTICS	Smart Logistics

SMART CITY PROJECTS

ACTION FIELD	AREA	SMART CITY INITIATIVE
SMART ENVIRONMENT	NETWORK AND ENVIRONMENTAL MONITORING	environmental information and alerts
		Containers with sensors
		Monitoring distribution networks
		App with incidents
	ENERGY EFFICIENCY	Recharging electric vehicles
		Energy efficient in buildings
		intelligent Lighting
		Smart grids
		Irrigation remote control
		Renewables
		District heating and cooling

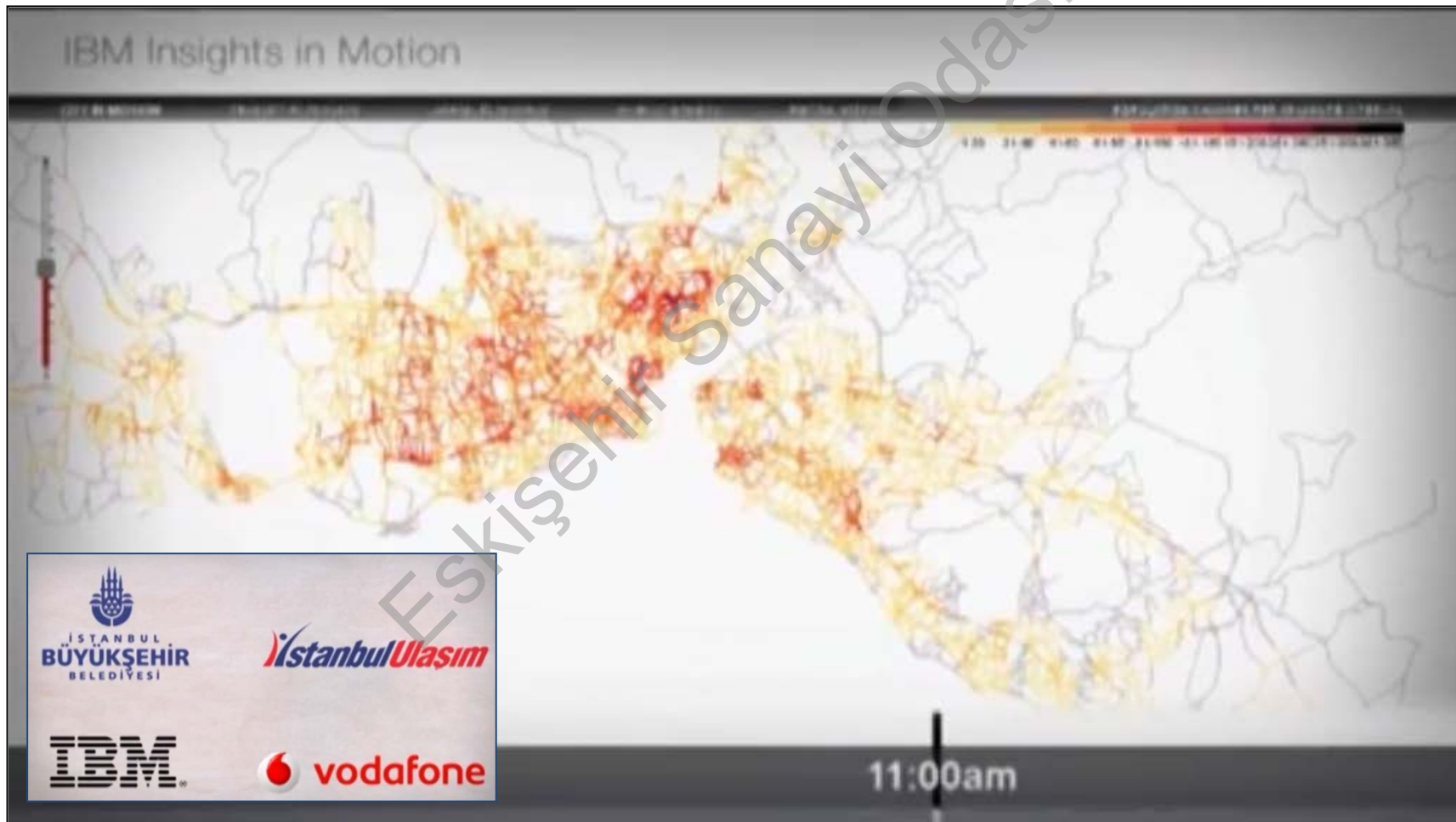
SMART CITY PROJECTS

ACTION FIELD	AREA	SMART CITY INITIATIVE
SMART PEOPLE	DIGITAL EDUCATION	Centre for learning new technologies
	CREATIVITY	Internet in schools
SMART LIVING	TOURISM & CULTURE	Centre for creating apps
		event information
	HEALTH & SAFETY	tourism app
		e-health
		accessibility in public places
		Telecare
	TECHNOLOGY ACCESIBILITY	video surveillance
free wifi		
optical fibre		
citizen card		

SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

“ISTANBUL HARETEK HALİNDE” (ISTANBUL IN MOTION)



SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

IBM RESEARCH CENTRE (HAIFA)



SMARTER WATER PROJECT

LEAKAGE AND DEMAND FORECASTING

WATER QUALITY

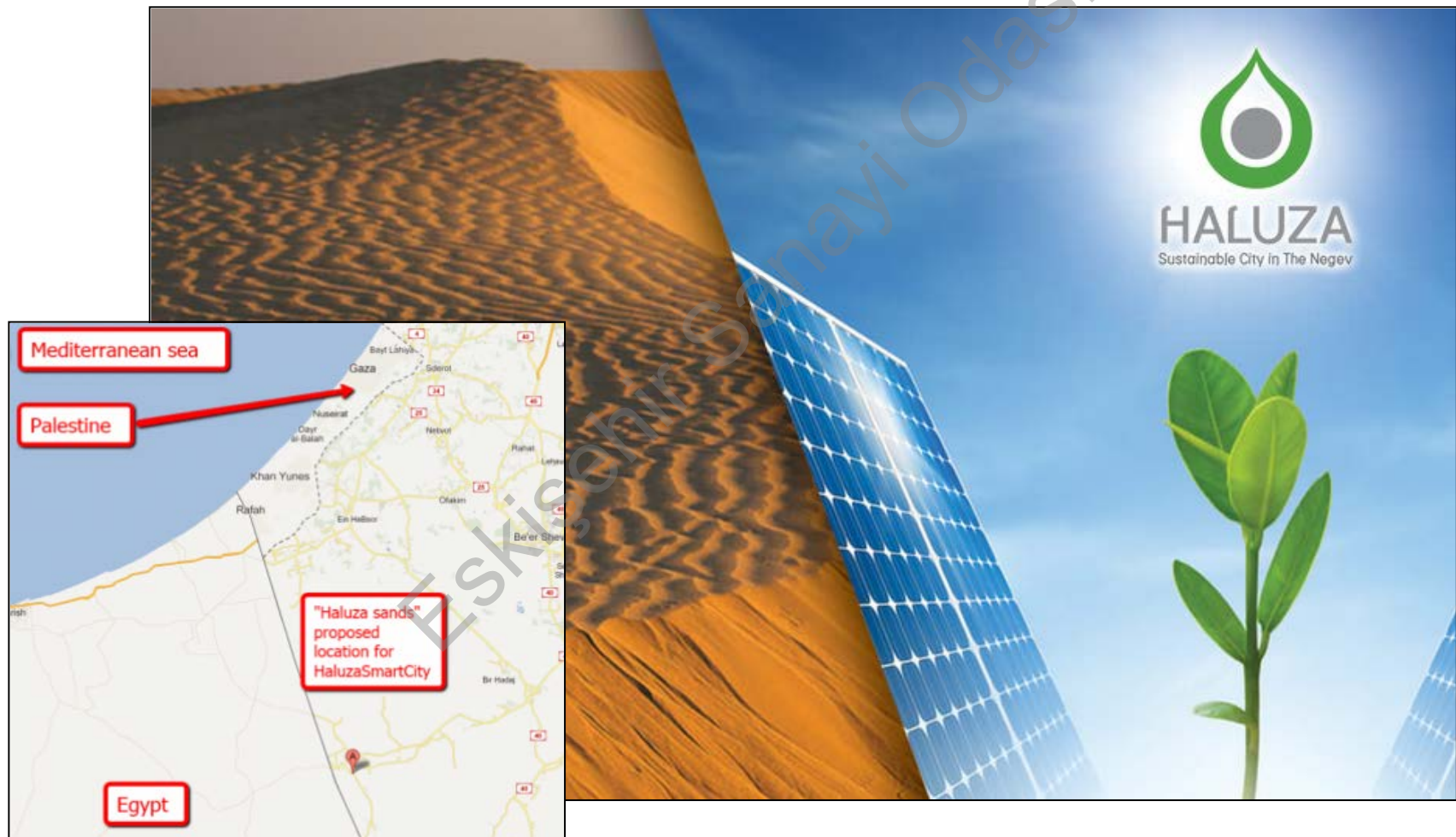
HIGH AVAILABILITY

AUTOMATED WATER MANAGEMENT

SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

HALUZA SMART CITY (PROJECT STAGE)



SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

NEW CITY-BUILDING PROJECTS



Casa Green Town (MA)

Tunis Smart City (TN)



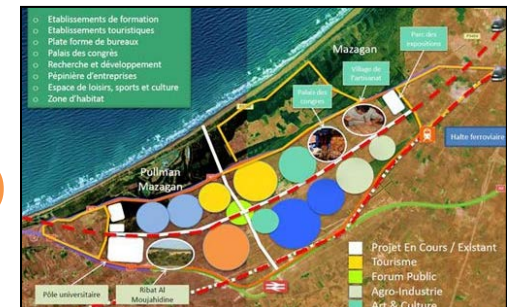
Smart Village (EG)

Abdali District (JO)



Raoued (TN)

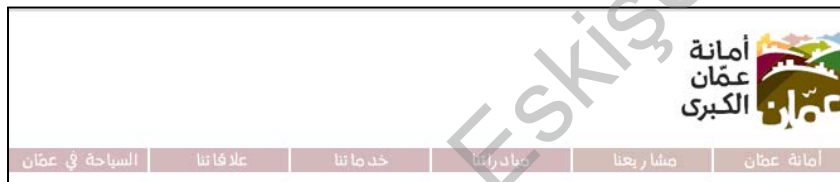
El Jadida (MA)



SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

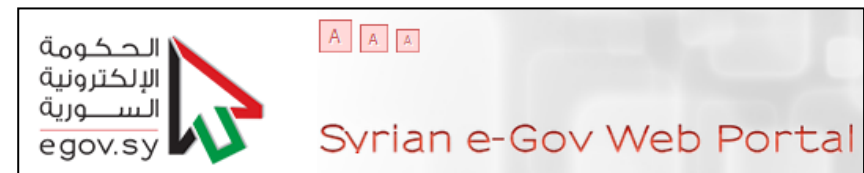
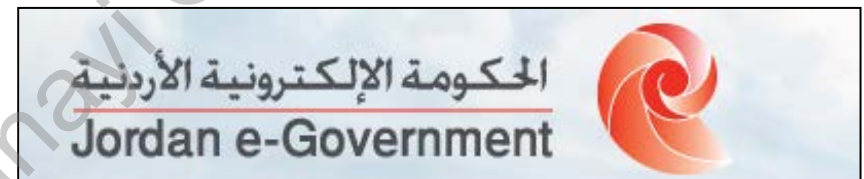
E-MUNICIPALITY SERVICES (TOP-DOWN)



SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

E-GOVERNMENT (TOP-DOWN)



SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

MOBILITY PROJECTS



NFC



Public Bicycles



Tramway



Traffic monitoring

Public Transport App



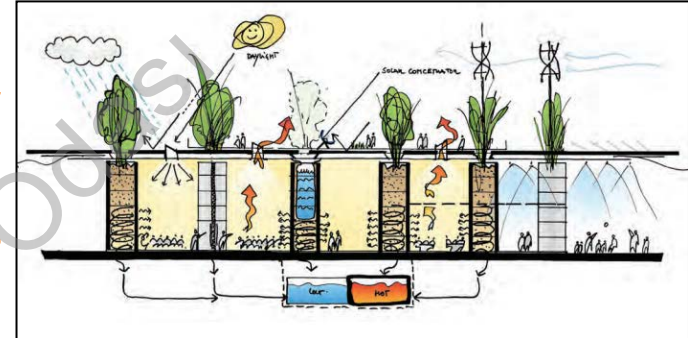
SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

ENVIRONMENTAL PROJECTS

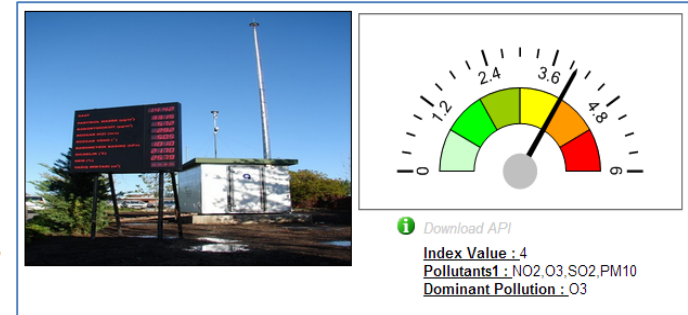


Energy efficiency in buildings



Renewables

Environmental information and alerts



Intelligent lighting

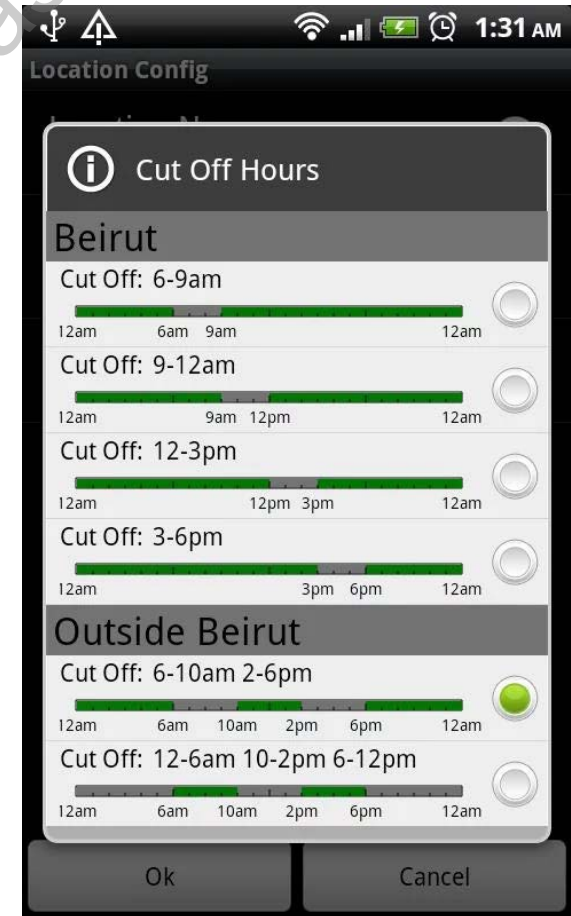
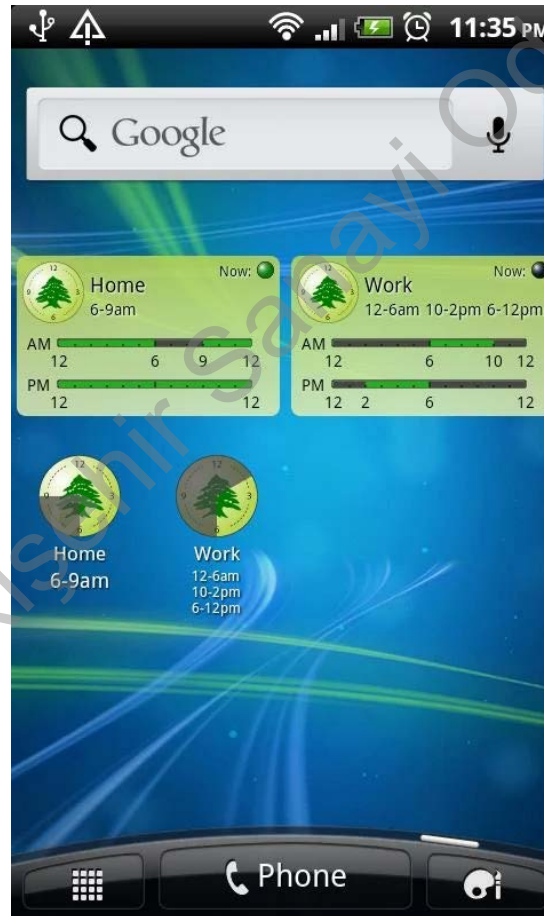
Monitoring distribution networks



SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

MOBILE APP: "BEIRUT ELECTRICITY CUT OFF" (BOTTOM-UP)

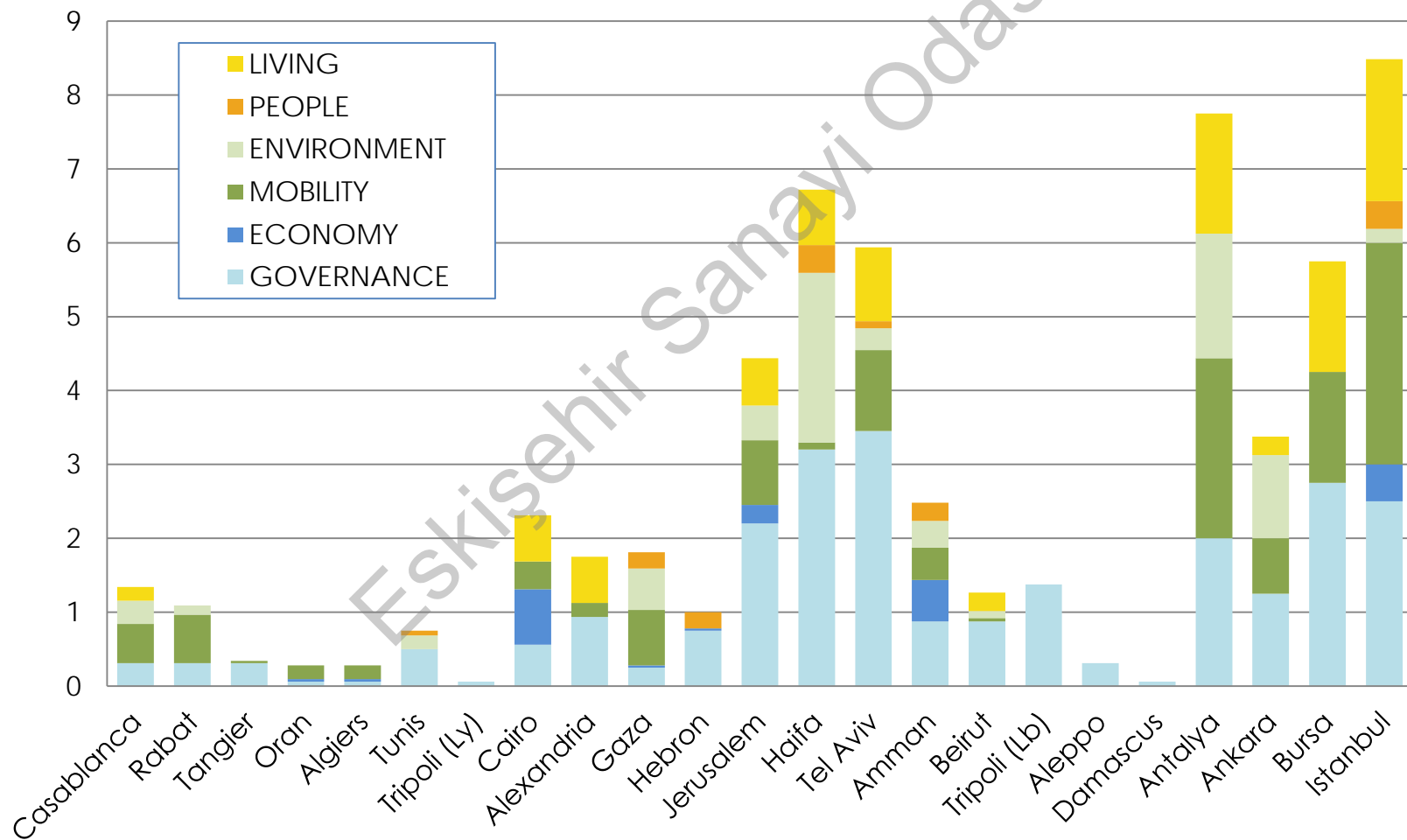


SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

Smart City projects found in South Mediterranean Cities

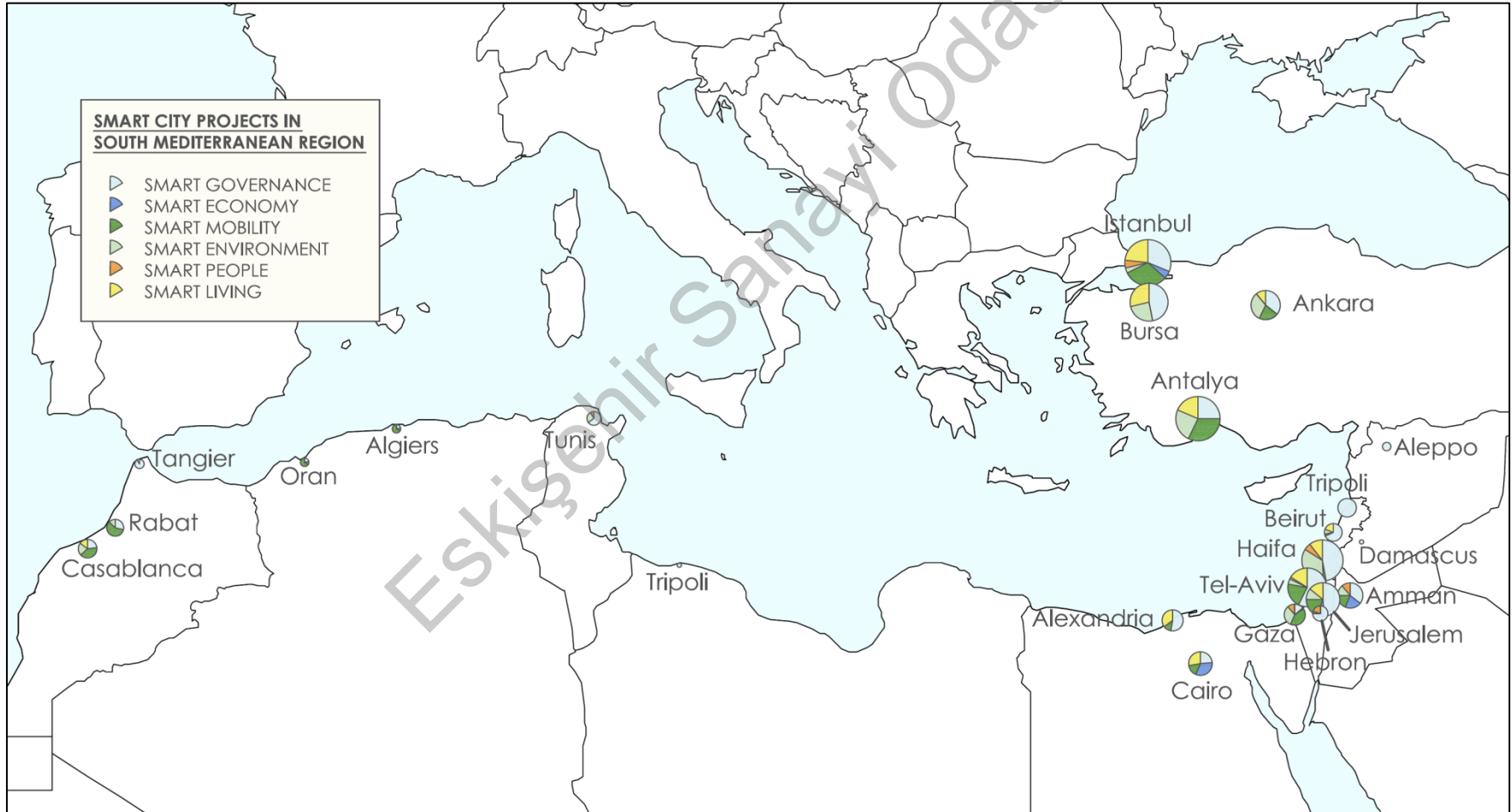
Weighted Score



SMART CITY PROJECTS

SOUTH MEDITERRANEAN REGION

SMART CITY PROJECTS FOUND IN SOUTH MEDITERRANEAN REGION



¡THANK YOU FOR YOUR ATTENTION!

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