Leading Cities

Making Smart Cities Smarter

Agenda

Leading Cities

Smart city - definitions

Current status

Examples

Features

Challenges

Significance

Leading Cities
Making Smart Cities Smarter

Leading Cities is a pioneer in city diplomacy, sharing best practices and promoting Smart City innovations to cities worldwide.

- Global non-profit with operations in 10 countries
- International network of Smart City experts and practitioners
- Access to best practices, emerging solutions and economic development opportunities

Leading Cities bridges the gaps between academia and action, business and government, challenge and solution.

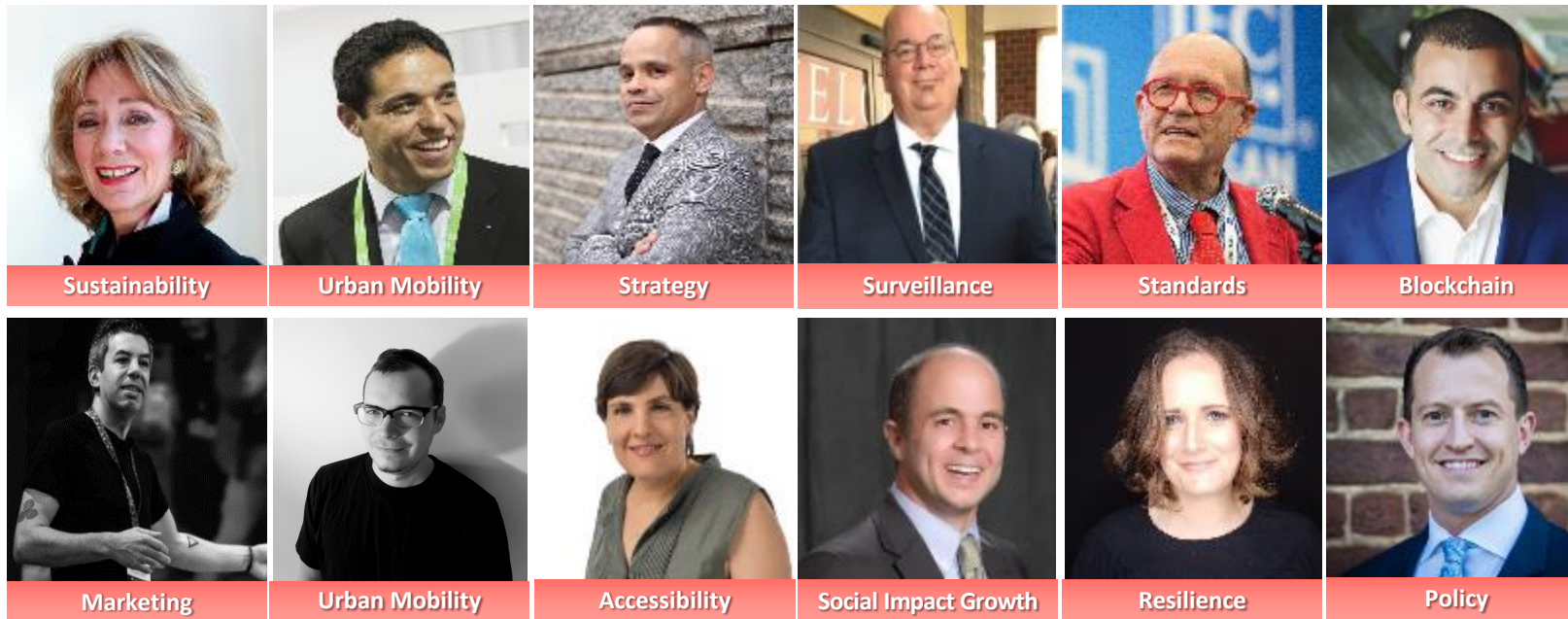| Negotiated trade agreement between Catalonia and the Commonwealth of Massachusetts | Introduced participatory budgeting to the cities of Boston and Cambridge | Produced Best Practices Guide, "Talent Magnets," for attracting and retaining talent within cities | Worked with the cities of Boston and Athens, Greece to develop Resilience Strategies |

Breadth of Expertise

Working with Leading Cities' international network of experts can support market expansion, adoption of new policies and technologies to improve cities, access to new opportunities, development of new programs and more.

Sample Expertise:

| Sustainability | Urban Mobility | Strategy | Surveillance | Standards | Blockchain |
| Marketing | Urban Mobility | Accessibility | Social Impact Growth | Resilience | Policy |

Each Leading Consulting service is tailored to meet the needs of the client. For more information and to request a proposal please contact us at Consulting@LeadingCities.org

AcceliCITY

What is a Smart City?

A city or region that uses technology and data to improve:

Livability: clean, safe, healthy and equitable living conditions, along with digital infrastructure that makes services instantly and conveniently available anytime, anywhere.

Workability: enabling infrastructure and processes to compete for high-quality jobs.

Sustainability: ensuring resources and service provision for future as well as current generations.

$1.4T

Global Smart Cities market size within the next 6 years. CB Insights
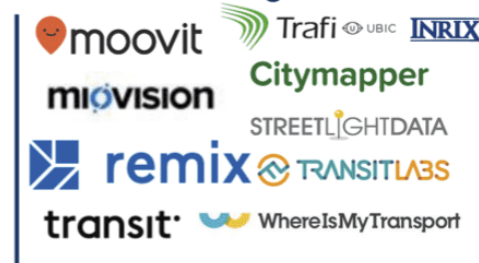
Smart City Rising

Why now?

Mature communication networks

Technology advancement

Decreasing hardware costs

Areas of application

Connectivity: smart city wireless network infrastructure

Mobility: alternative travel to decrease congestion

Energy: increasing the efficiency of electrical grids

Water: better ways cities clean, distribute, and recycle water

Environmental sensors: sensor networks to monitor pollution

Public safety: next generation technology to keep cities safe

Urban planning: working to build better living spaces in cities

Smart Infrastructure: next generation access management

Example benefits

Santander
saving 25% on energy costs (street lights)

Seoul
waste collection costs reduced by 83%

Mumbai
50% reduction of water losses

San Diego
police response time to gunshot calls 2.5 minutes faster

What cities identify as top smart city areas of Focus:

Transportation

Public Safety

Telecom

Energy

Built Environment

Water and Wastewater

Smart Payments and Finance

Waste Management

Health and Human Services

Other

What Smart Cities are Implementing

To what extent have the following smart technology solutions been implemented in your city or state?

Global Results
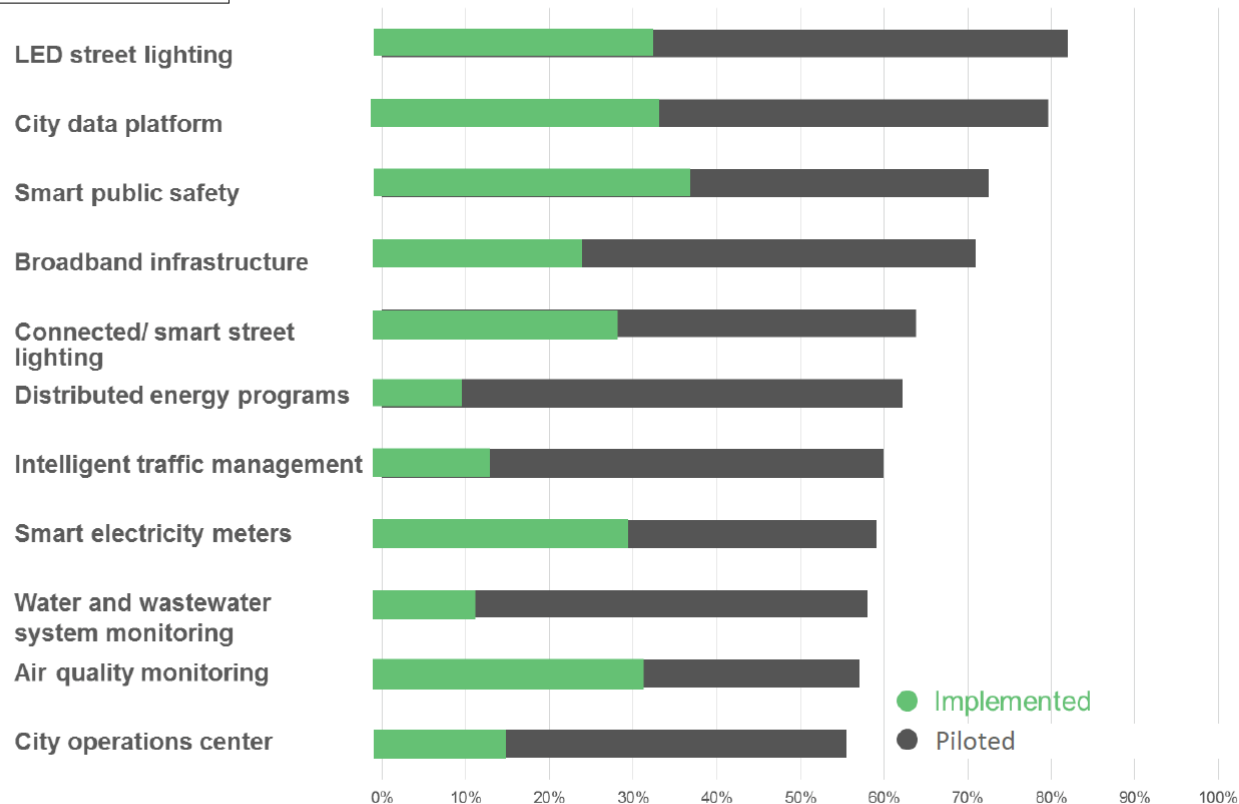
Globally, LED street lighting and city data platforms have the most traction in terms of smart city solutions. 82% of global respondents indicated they have implemented or piloted LED street lighting, while 80% have implemented or piloted city data platforms.

Johnson Controls

Key Challenges

Technology – What should we do?

Financing – How do we pay for it?

Policy – How do we appropriately enable it?

Civic engagement – How do we ensure it's people centric?

Governance – How do we organize and manage?

Features of a Smart City

Strategic

Connected

Aware

Responsive

Innovative

Features of a Smart City

Strategic – vision, goals, guidelines

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Aware – feedback loops, understanding what is important

Responsive – flexible, proactive and preventative approach

Innovative – innovation economy, collaborative culture

Smart Cities Framework

CITY REPONSIBILITIES															
Built Environment	Digital City Services	Economic Development	Education and Workforce Development	Emergency Response and Resilience	Energy	Environmental Services	Health	Human Services	Payments	Public Safety	Sports, Culture, Leisure, and Tourism	Telecommunications	Transportation	Waste Management	Water and Wastewater

ENABLERS

Technology

Governance

REDUCING CARBON EMISSIONS
REDUCING WASTE
IMPROVING AIR QUALITY
TACKLING CONGESTION
CRIME REDUCTION
JOB CREATION
INCREASING CITY EFFICIENCY
IMPROVING CITY HEALTH
BUILDING CITY RESILIENCE

City as a Service

Collaboration	City portals, dashboards, open data platforms, visualization, operations centers	Cybersecurity, Standards, Data Governance
Applications	Traffic management, energy management, public safety systems, health systems, street lighting, waste management, back and front office systems	
Data Services	Data models, data lakes, analytics, visualization, AI and machine learning	
Connectivity Management	Connectivity management, device management, data aggregation, edge computing	
Communications Layer	Cellular networks, RF Mesh, PLC, LPWANs	
Intelligent Devices	Sensor, actuators, mobile devices, smart controls, connected vehicles, smart meters	

Navigant Research

Urban migration
Climate change
Economic, political, demographic changes
Pollution

$1

On climate adaptation will save $4 in avoided damages

OECD

$5T

Annual potential savings through smart city technology

ABI Research

Smart Cities Will Deliver…

"If cities across the globe today were to universally adopt, and deploy, smart city technology and services, what would the benefits be for citizens?"

15 DAYS

Time Given Back
Smart cities have the potential to 'give back' each city dweller 3 working weeks' worth of time every year.

How will This Time be Created?

Mobility Saves 60 Hours
Smart Traffic Systems including dynamic traffic light phasing and smart parking reduce time in traffic. Open Data Platforms enable citizens to choose the fastest metro/bus lines.

Public Safety Saves 35 Hours
Machine learning enabled software such as PredPol used to predict crime spots on a given day. ITS here is used to prioritise emergency service vehicles through traffic light phasing & driver re-routing.

Healthcare Saves 9 Hours
Healthcare preventative apps & telehealth aim to reduce average physician visits by promoting better overall wellbeing. While improved administration and preliminary diagnosis reduce wait times.

Productivity Saves 21 Hours
Apps or digital services will simplify administrative processes when citizens interact with city agencies.

Benefits to Smart City Inhabitants

More Time for Family and Friends
Enough time to enjoy a meal with friends or family twice a week.

Get Active
Exercise for 45 minutes 3 times a week every week of the year.

Take a Long Vacation
An additional 50% to the average annual US vacation allowance.

Improved Recovery
Studies have indicated that wounds take up to 25% longer to heal when individuals are chronically stressed. 110 million people die every year as a direct result of stress.

Decreased Risk of Depression
Lost productivity and medical expenses from depression costs over $83 billion annually: $11.30 for every person on the planet, every year.

Improved Earning Potential
The cost of stress can be high: if left unaddressed, it could mean that individuals' potential earnings fall by $10,000

JUNIPER RESEARCH

Not just a trend

Cities are competing for:

- **Jobs**
- **Talent**
- **Grants**

Environmental benefits
Economic development
Social benefits

What do we prioritize?

It's not just about apps.

It's not just about data.

It's not just about dashboards.

Or sensors. Or KPIs.

Or the internet of things.

It's not about having a solution, and

looking for a problem to apply it to.

It's about people.

Leading Cities