

# Smart Cities

## Testbeds for smart solutions

Smart City Forum, Budapest, May 2017

# Smart cities are...not only digital!



# Complex products in new Smart City Industry

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## Smart City Index

A systematic evaluation method, focusing on cities' and regions' niche and identifying key areas for growth. A progress tracking and assessment tool measuring the impact and the economic logic/viability of projects.



## Smart Bicycle Path

The Smart Bicycle Path makes use of innovative technological solutions, implements systems of sharing and collects and analyses data about the environment. It promotes a healthy lifestyle and contributes to regional cohesion.



## Smart Street

The concept of Smart Street unifies the principles of security, sustainability and effective use of public spaces. It is based on the revitalisation and the optimisation of public lighting and waste management, the support of alternative forms of mobility et al.



## Smart School

The aim of Smart School is to provide a holistic approach to the implementation of a complex and open education system, which is based on elements and principles of smart cities and applies a combination of traditional and innovative teaching methods.



## Smart Park

Smart Parks encompass not only elements of smart waste, water and energy management, but also the gamification of experiences, the establishment and expansion of public services associated with city cards and applications and the maintenance of green spaces.



## Smart City Ecosystem

EY connects startups with established, traditional companies. We facilitate the creation of synergies and support the innovation ecosystem with acceleration programs, hackathons, conferences and mentoring schemes.

# Smart City journey...using open innovation model

## 1. Analysis using EY SCI

Assessment of cities/regions and identification of prioritised areas tailored to city/region needs and uniqueness. Identification of gaps and investment opportunities and niches of the cities.

## 2. Smart City Vision and Strategy

Creation and development of a smart city vision and an action plan to achieve it. Identification of key objectives, KPIs and measurable goals. Beyond 4 years ;)

## 3. Project Planning

Completion of a pool of projects with high potential for piloting and implementation. Clear understanding of specific projects, technological alliances and strategic partners, stakeholders' demands and expectations.

## 4. Project Financing

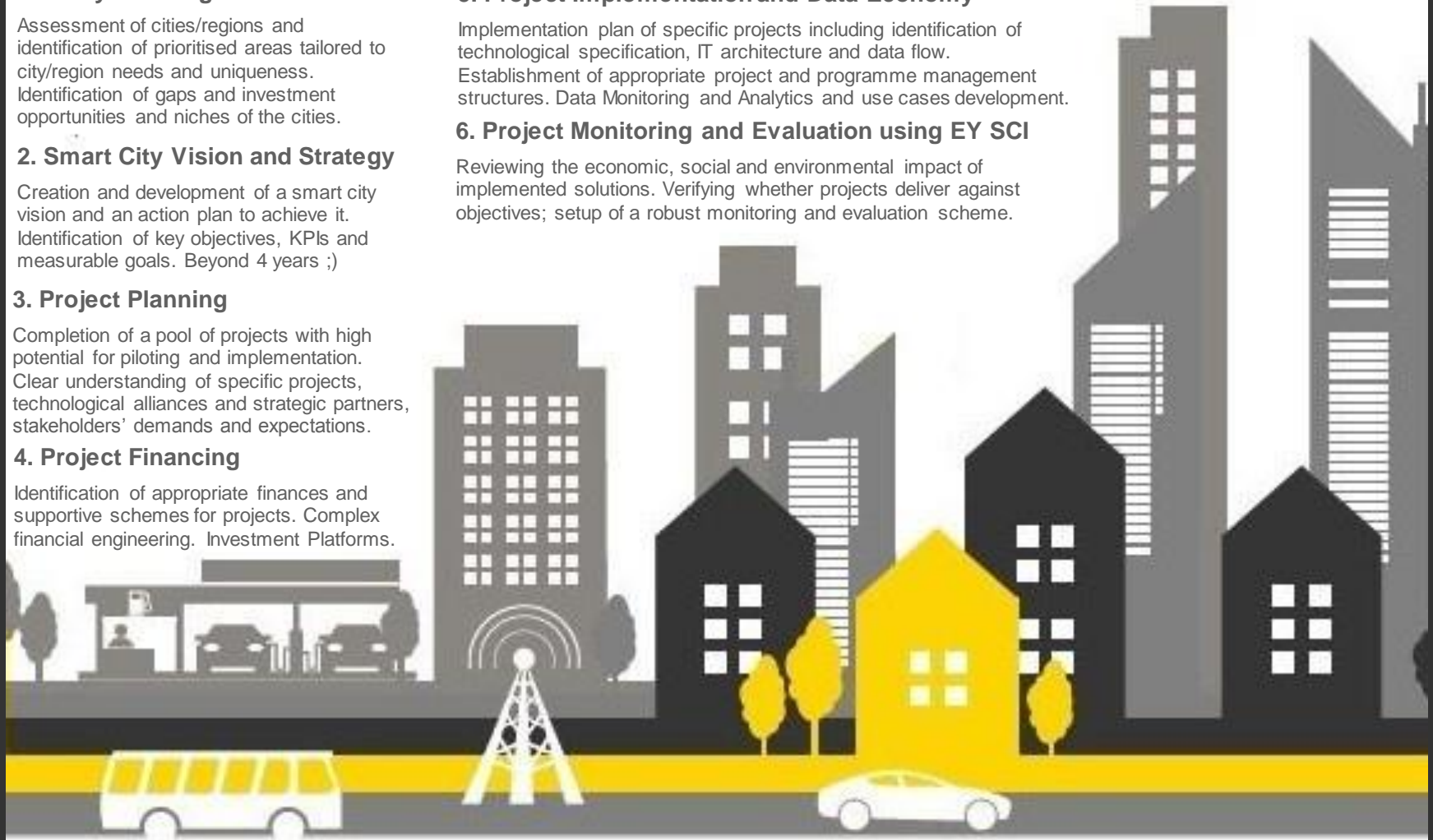
Identification of appropriate finances and supportive schemes for projects. Complex financial engineering. Investment Platforms.

## 5. Project Implementation and Data Economy

Implementation plan of specific projects including identification of technological specification, IT architecture and data flow. Establishment of appropriate project and programme management structures. Data Monitoring and Analytics and use cases development.

## 6. Project Monitoring and Evaluation using EY SCI

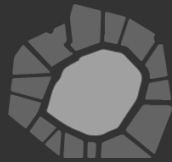
Reviewing the economic, social and environmental impact of implemented solutions. Verifying whether projects deliver against objectives; setup of a robust monitoring and evaluation scheme.



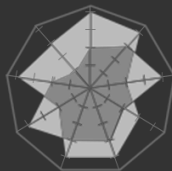
# Smart City Index

- ▶ A systemic approach to capturing cities' transformation based on key performance indicators (KPIs)
- ▶ Four layers of digital transformation and two complementary domains of perspective as the operative framework of the SCI – System operator
- ▶ Evaluation of all functional areas of cities
- ▶ Focus on identification of prioritised areas for investment and long-term assessment of smart city projects

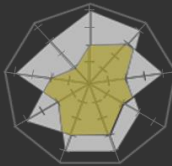
Monitoring cities' transformation and assessment of the economic logic/viability of smart city projects



Identification of a pool of projects with high potential for piloting and implementation



Overview of the smartness of cities and their potential to be leaders of ongoing transformation on the national level

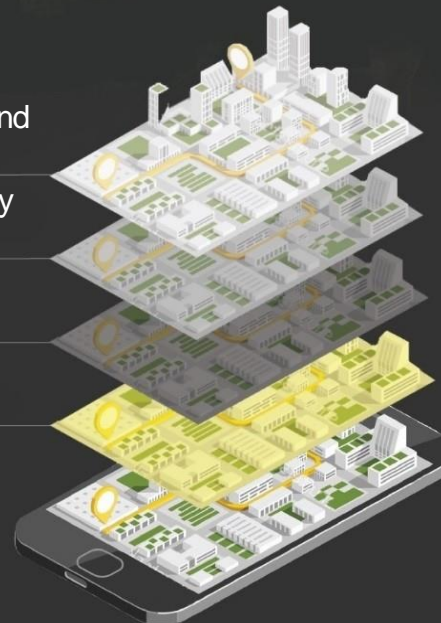


Applications and services

Service delivery platform

Sensors

Infrastructure



## Vision and strategy

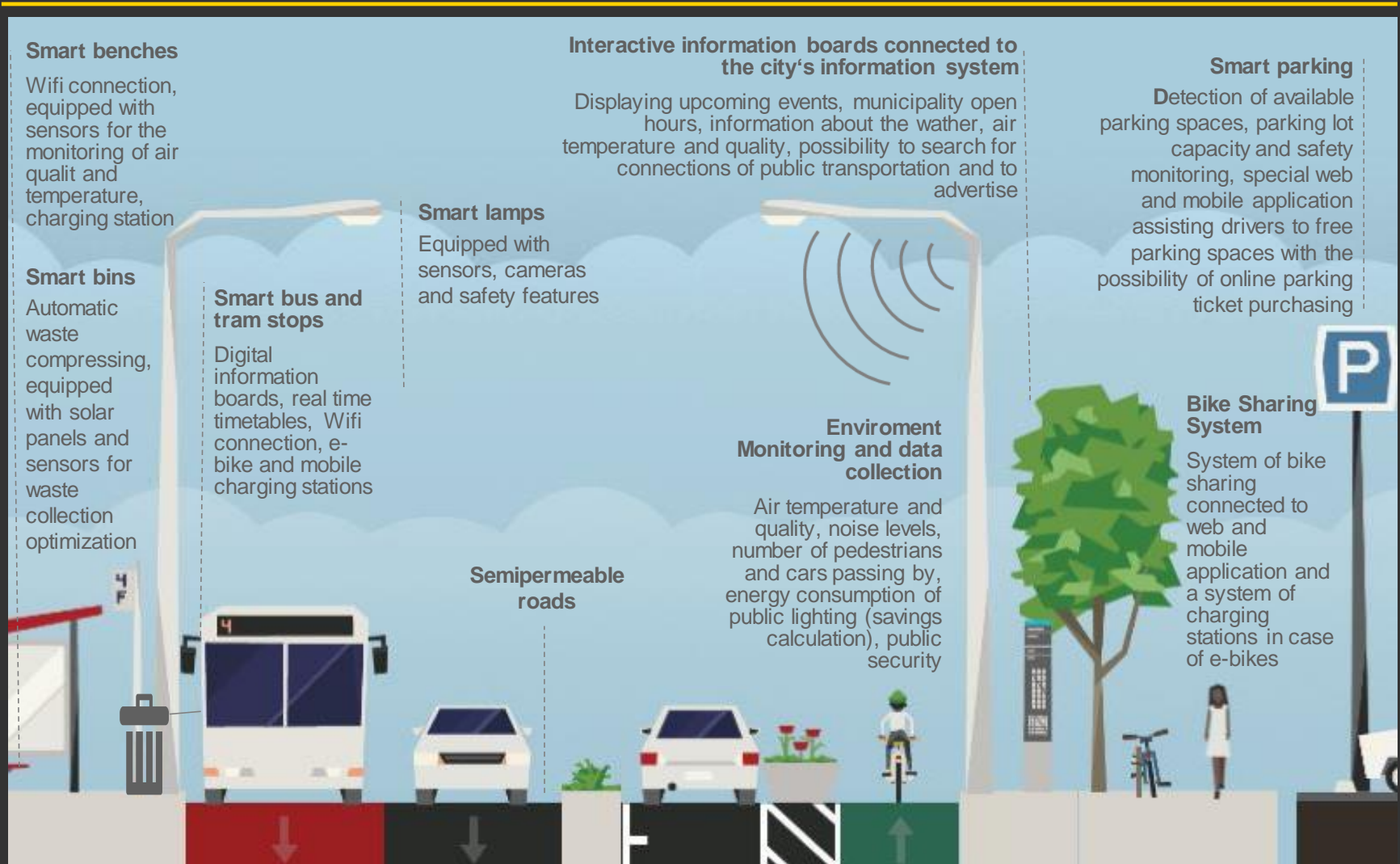
The drafting of strategic plans and institutional policies in the field of Smart City



## Smart Citizens and City Liveability

The impact of smart services on citizens' quality of life

# Smart Street... more than smart parking



# Smart Park...more than smart bins

## Sports and gaming elements

Physical (jungle gym, prolézačky, outdoor fitness equipment) and virtual (connection to geo-catching and similar applications); „photo-opportunity“

## City card and application

Connection to the city (or regional) application and card, mapping of upcoming events, providing discounts, containing quizzes for children and adults

## Modern and innovative park management

Smart interactive information boards connected to the city information system

Gamification of experiences

Creation /expansion of services associated with city cards and applications

Monitoring, real time data collection, analysis and disclosure

Application of new technologies and IoT

Revitalisation and optimisation of public lighting

Revitalisation and optimisation of waste collection

## Monitoring and data collection

Air temperature and quality, noise levels, number of pedestrians and cars passing by, energy consumption of public lighting (savings calculation), public security

## Smart lamps

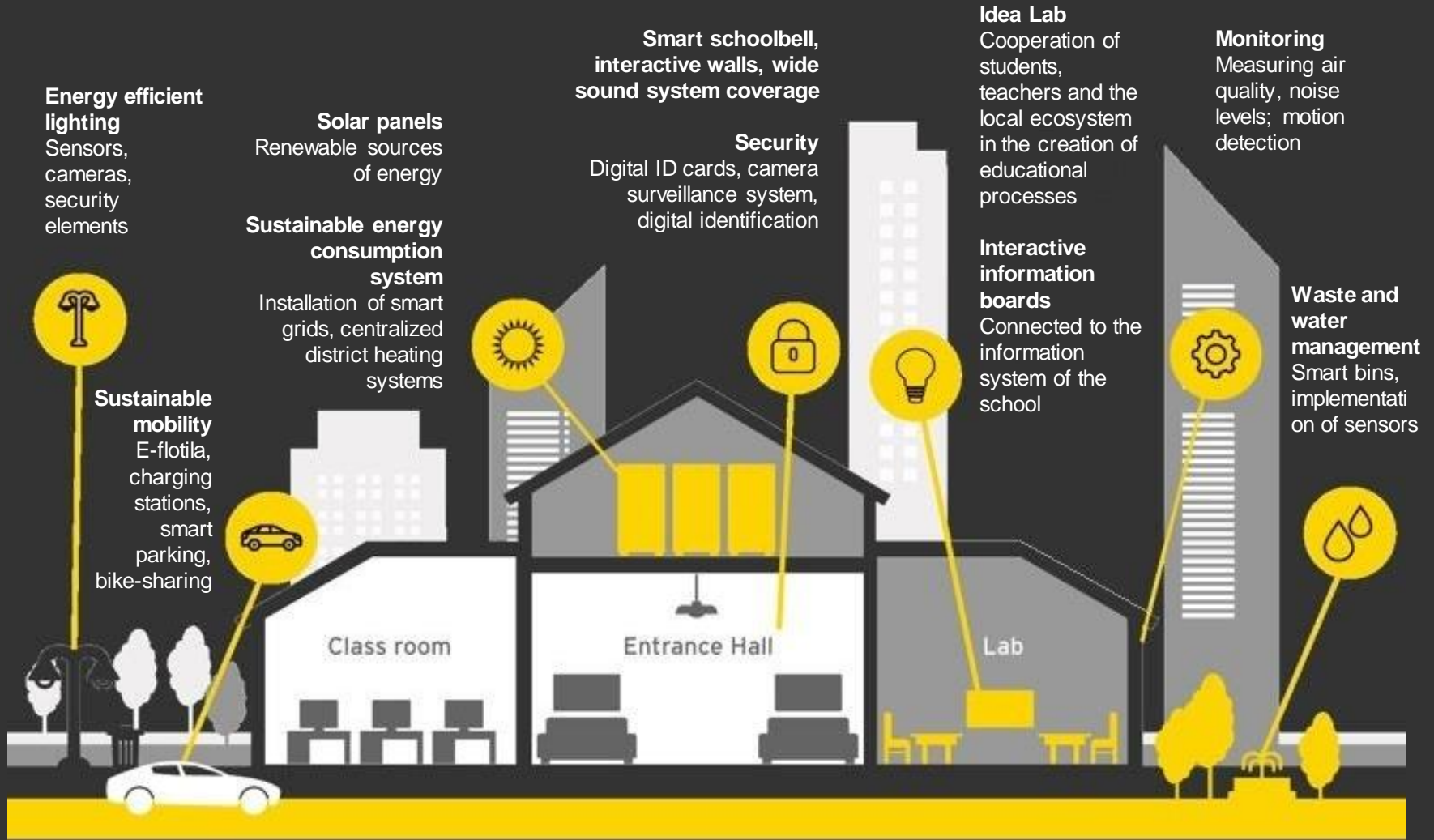
Equipped with sensors, cameras and safety features – suitable for monitoring and data collection

## Smart bins

Automatic waste compressing, equipped with solar panels and sensors for waste collection optimization



# Smart School... more than tablets





# Success stories from the Czech Republic and abroad... not only public sector needs our support

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## Environment

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The main aim of the project is to create strategic documents to formulate long-term objectives in the area of Smart City and prepare a draft Green City Action Plan including a monitoring plan.

- Assisting the city of Yerevan with establishing the necessary leadership team, while also identifying key stakeholders and investment priorities

## Mobility

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EY has been appointed to analyse the current situation of smart mobility in the city district of Prague 3. The pilot project is the revitalization of a critical crossroad with implementation of Smart City elements.

- Analysis of the current state of technologies for monitoring and effective traffic management of the crossroad in Prague 3 including implementation of technical solutions

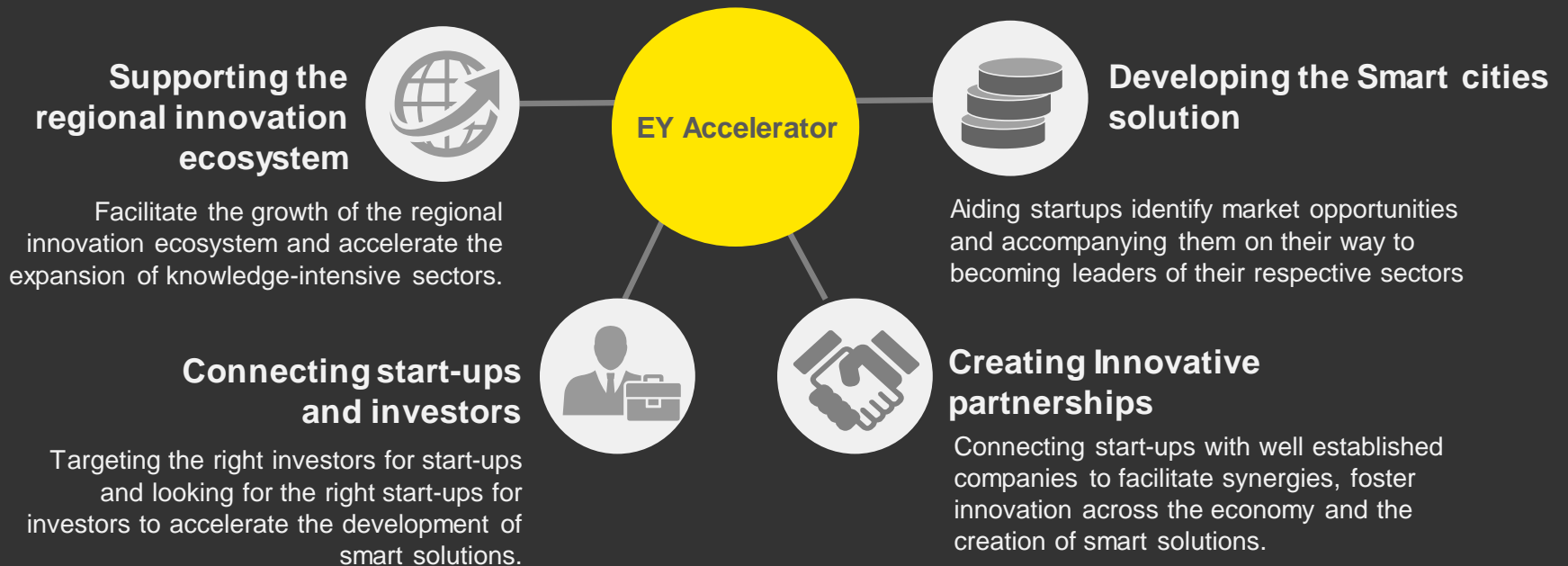
## Energy

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EY provided consulting services to adapt the product portfolio of an energy company including the creation of an action plan for the successful implementation of Smart City solutions.

- Assessment of the existing product portfolio of smart solutions and suggestions for extending this portfolio based on the results of market analysis

# Regional InnovEYtion HUB



## Q1 2017

InnovEYtion Hub coorganizes the Prague Smart Mobility Hackaton – Developers are presenting their solutions to the challenges of urban mobility

## Q2 2017

InnovEYtion Hub becomes the partner of Smart City IoT Centre, combining the advantages of incubators and accelerators focusing on IoT

## Long-term vision

EY cooperate with regional and international innovative centres, functioning as a co-working space and a place for networking events, conferences and seminars



**Thank you for your  
attention!**

**Köszönöm a figyelmüket!**

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