Vývoj prostředí v regionu CEE v souvislosti se zaváděním Smart Meteringu

Milan Kálal
IDC Energy Insights

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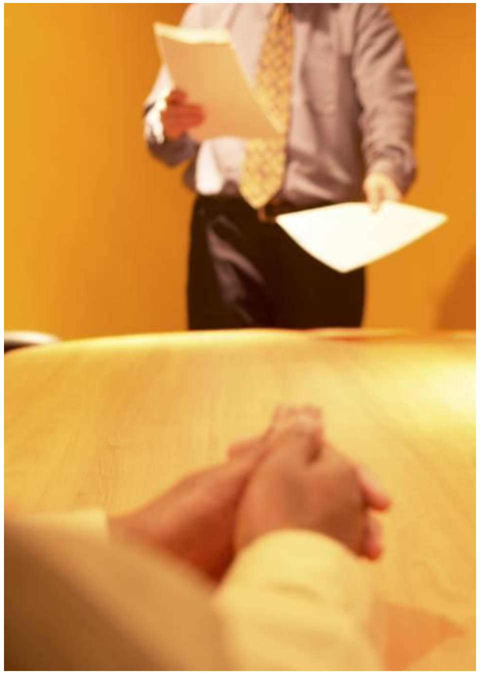

IDC Energy Insights Coverage

Utility Industry

Utility IT Strategies
- Mobility
- Big data/ Analytics
- Cloud
- CIO agenda

European Utility IT Strategies
- Utility IT
- CIO agenda
- Case studies

CEE and MEA Transforming Utility Markets
- Utility IT
- CIO agenda

WW Utility Industry IT Spending Guide

Smart Grid & Smart Metering

Smart Grid Operations Strategies
- Control system design
- Transition reliability
- Grid efficiency

EMEA Smart Energy Strategies
- Smart Grid
- Smart Metering
- Electric Vehicles
- Distributed generation

Smart Metering and Communications
- Intelligent devices
- Comms networks
- Security

Smart Building Strategies

Smart Demand Management Strategies
- Technologies
- Vendors

WW Quarterly Smart Meter Tracker

Oil & Gas Industry

WW Oil and Gas IT Strategies
- Oil & gas apps
- Analytics
- Cloud
- CIO agenda

Russia, Middle East and Africa Oil and Gas IT Strategies

WW Oil and Gas Industry IT Spending Guide

US Oil and Gas Solutions Market Share Guide

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Smart Grid & Smart Metering development in CEE

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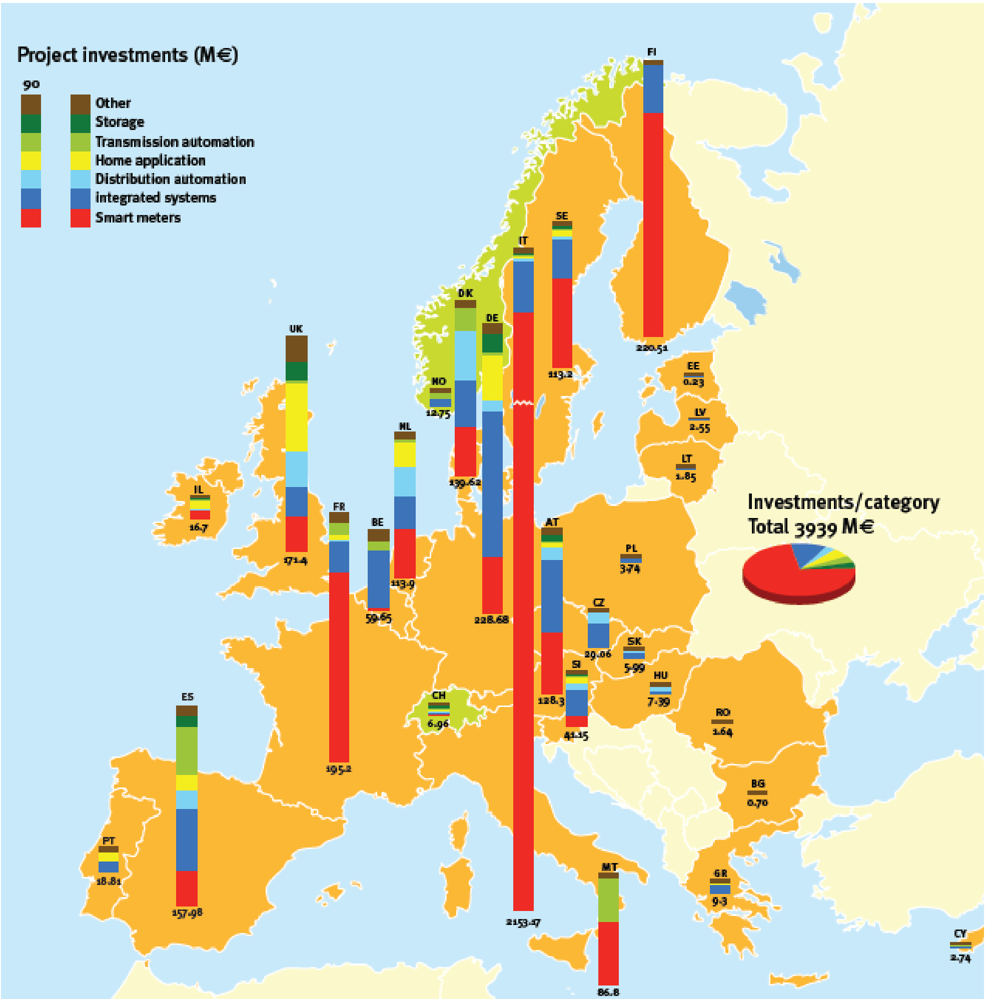
Overview of Smart Grid projects



Source: JRC, 2011

- Europe runs 211 projects
- Total investment value approx €3.9 billion
- Different approach within CEE:
  1) ***Movers*** – Have a clear path towards a full rollout of SM (EE)
  2) **Market drivers** – No legal requirements, but installations of meters happening (CZ, PL)
  3) ***Hesitants*** – Regulators/ utilities/ ministries show some interest, but corresponding initiatives are cautious (HU, RO, LT)
  4) ***Laggards*** – Smart metering is not yet an issue (BG, LV, SK)

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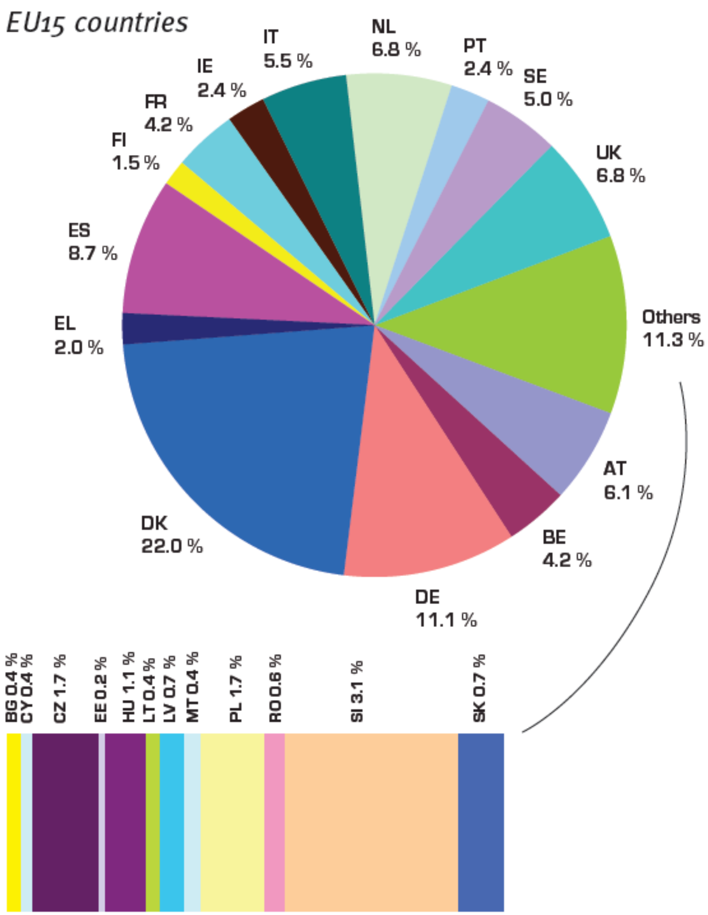
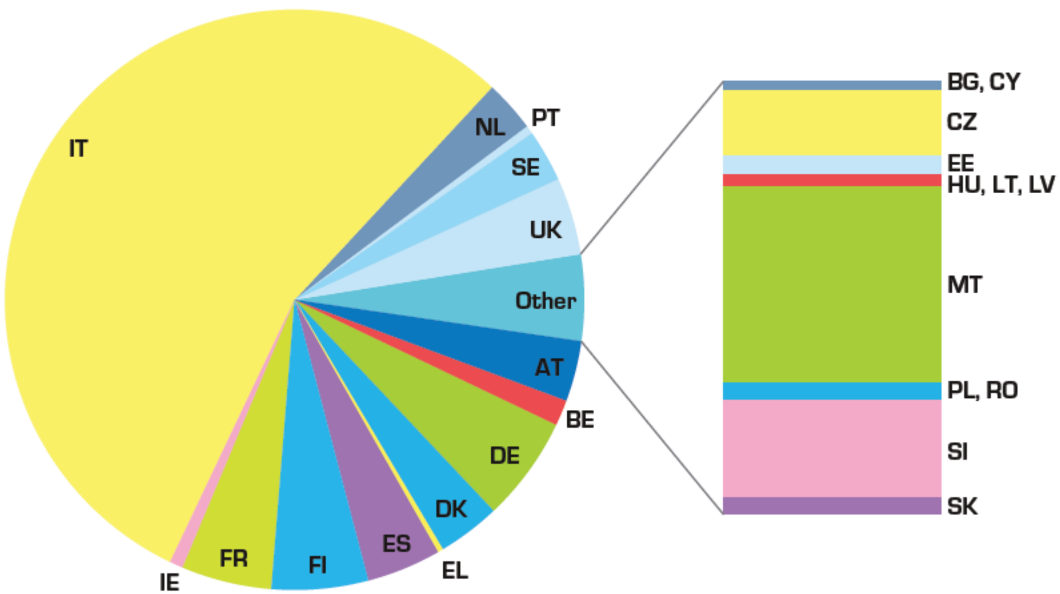
Smart Grid projects: Geo distribution

Geo distribution of projects



Geo distribution of investments



Source: JRC, 2011

Smart Metering in CEE

Czech Republic

- No specific regulations or legislation requiring smart meter rollout
- Several SM pilot projects carried out by utilities (CEZ, E.ON , PRE)
- Further installatins are currently not planned

Poland

- No legal framework currently available but legislation is in progress
- Several utilities carrying out SM projects (Energa, Tauron, PGE, ...)
- Decisions on a nationwide rollout depend on clear legal and regulatory guidelines

Hungary

- Preliminary cost-benefit analysis carried out in 2010
- Regulatory framework expected to be finalized in 2013
- Several small pilot projects started in late 2012 (EDF Demasz, E.ON)

Romania

- No official policy requiring installation of smart meters
- DSO Electrica installed 59.000 AMI-supporting energy meters
- No plans for nation wide rollout

Slovakia

- No special goals or targets regarding introduction of smart metering
- DSOs install smart meters on a voluntary basis for large customers
- The rollout of smart metering is in discussion phase

Latest trends in Smart Grid & Smart Metering development

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Smart Grid Project Priorities Outlook

	NA	EUR	APAC	LATAM	ROW
Advanced Distribution Automation (ADA)	◑ ↑	◕ ↔	● ↑	◔ ↔	◔ ↑
Condition Based Monitoring / Maintenance (CBM)	○ ↓	◔ ↑	◔ ↑	○ ↓	○ ↓
Advanced Metering Infrastructure (AMI)	● ↓	◕ ↑	◕ ↑	◑ ↑	◔ ↔
Communication Network Convergence	◔ ↔	◔ ↔	◑ ↑	◑ ↑	○ ↔
Cyber-security & Data Integrity	◕ ↑	◑ ↑	◔ ↔	○ ↔	○ ↔
Marketing, Billing and Customer Contact	◑ ↑	● ↑	○ ↓	○ ↔	○ ↓
Demand Response (DR)/Load Management	◕ ↑	◑ ↑	◕ ↑	◔ ↑	○ ↓
Distributed Generation/ Distributed Resources (DG/DR)	○ ↓	◔ ↑	◑ ↑	○ ↔	◔ ↔
Distribution Management Systems (DMS)	◔ ↑	◑ ↔	◑ ↑	◕ ↓	◔ ↑
Home Energy Management Systems (HEMS)	◔ ↑	◑ ↑	◔ ↑	◔ ↑	○ ↔
Mobile Data & Mobile Computing Solutions	○ ↔	◔ ↓	○ ↔	◑ ↑	◔ ↑
Wide Area Situational Awareness (Transmission Grid)	◔ ↑	◔ ↔	◔ ↑	◔ ↔	○ ↓
Substation Automation	◑ ↑	◑ ↓	◕ ↑	● ↔	◔ ↑
Electric Vehicle Integration	○ ↔	◔ ↑	◑ ↑	○ ↓	○ ↓

KEY

Investment Priority in 2011

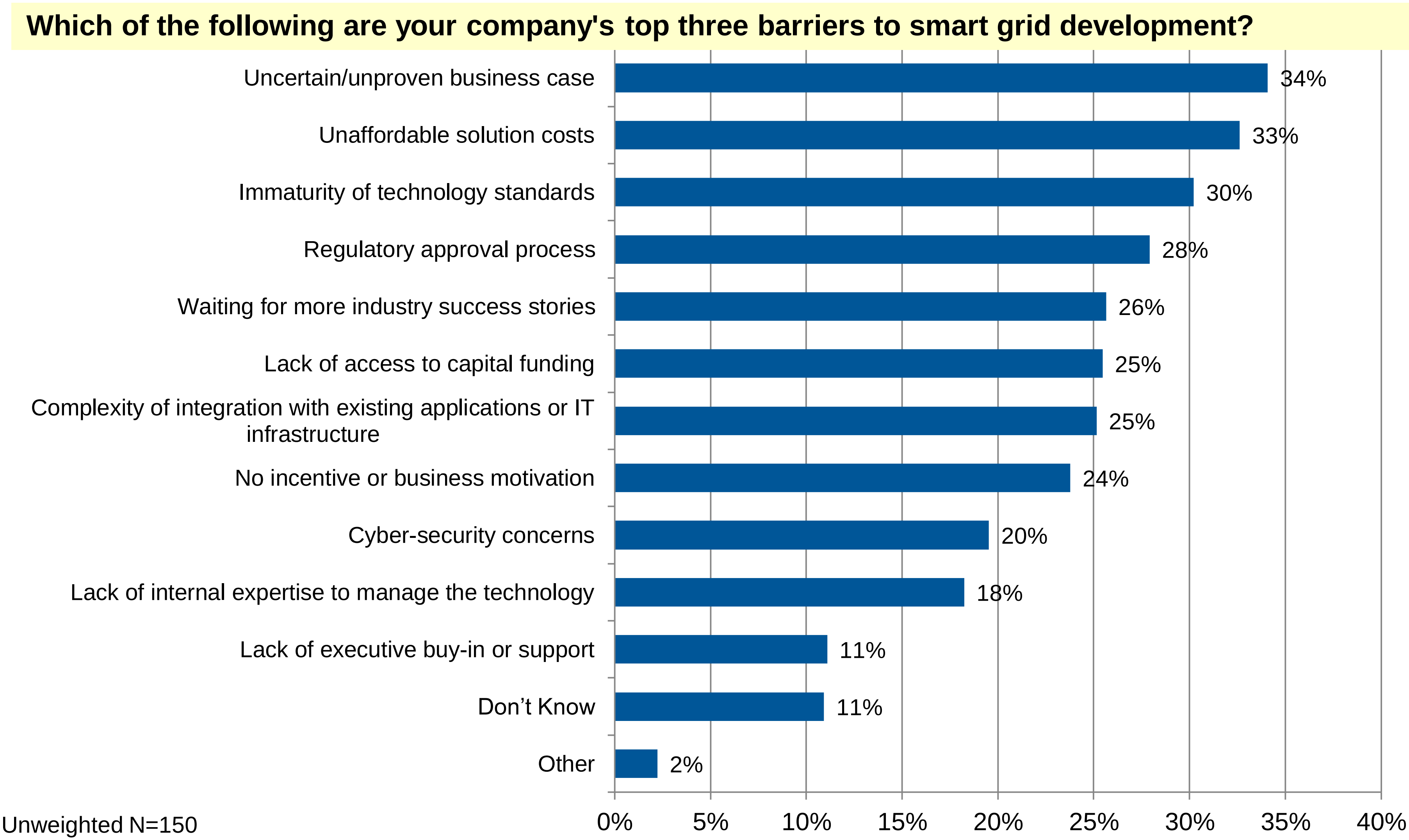
- ● = Highest priority investment area
- ◕ = Among top three (3) priorities
- ◑ = Medium priority, active investments
- ◔ = Exploration/pilots, proving tech
- ○ = Lowest priority investment area

Investment Trend through 2014

- ↑ = Increasing or strong investment
- ↓ = Decreasing or weak investment
- ↔ = Mixed investment

Source:
IDC Energy Insights' Worldwide Intelligent Grid Multi-Client Study, 2011

Smart Grid Adoption Barriers



Unweighted N=150
IDC Energy Insights' Worldwide Intelligent Grid Multi-Client Study, 2011

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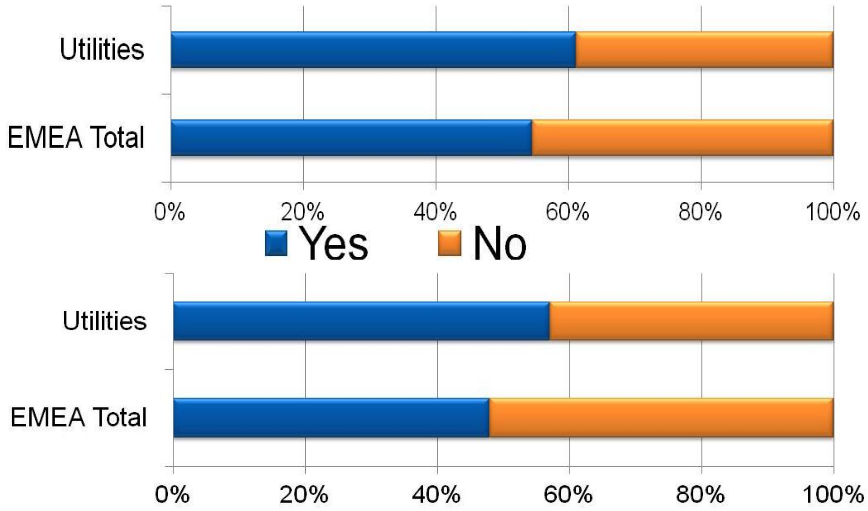
Smart Grids' end-to-end cyber security and data privacy will bring new forms of collaboration

Drivers

- Increased communication nodes and channels creating more possibilities for malicious actions
- Smart grids' reliance on automated responses to system conditions
- Employees errors/accidental loss of sensitive data
- Sophistication of threats
- Legal and regulatory requirements
- Pressure from consumer associations

Knowledge of Number (1) and Type (2) of Security Event in the last 12 Months



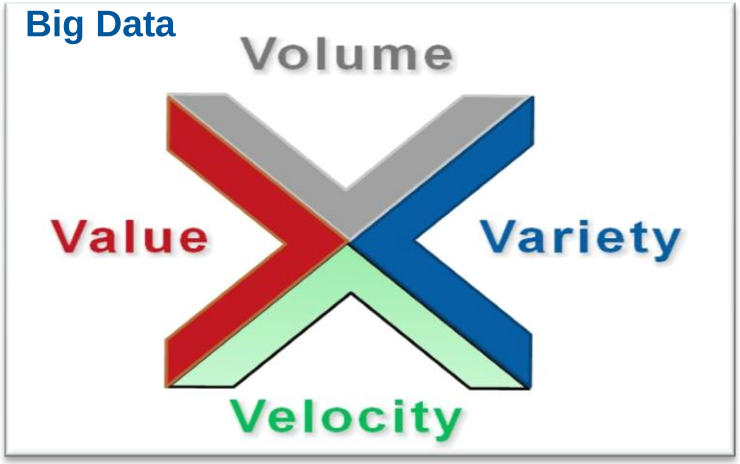
Trends

- Top executives' awareness of and commitment to smart grid cyber security will start to increase
- Chief Security Officer role and responsibilities will rise from operations to strategy
- Utilities will support international collaboration to develop and share knowledge, to create and leverage shared test facilities, and create industry driven international standards

Smart Energy and Operational Excellence both call for "Smarter Data

Drivers

- Increase of real-time field sensors and smart meters
- Internet-of-Things
- Integration of IT with Operational Technologies
- Regulatory requirements for "real-time" data in trading activities
- Awareness that more data is available



Trends

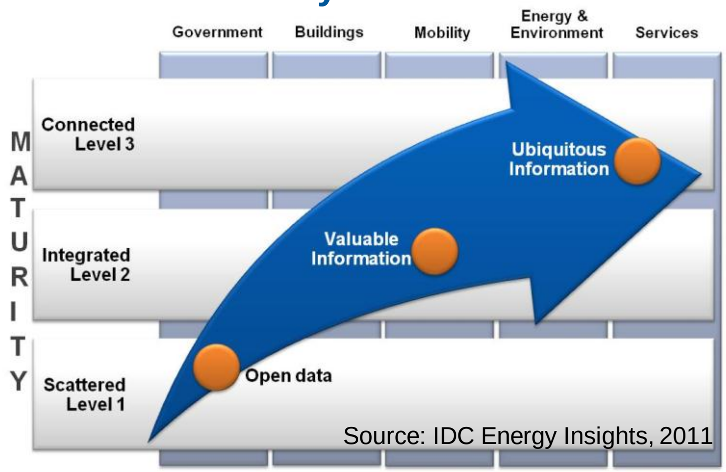
- To extract business value from available data utilities will increase investments in business analytics to support Operations, Customers insight, Capital investments, Trading, and Risk Management
- Utilities will need more capabilities to filter and integrate data to provide actionable information supporting tactical, operational and strategic decisions
- Cloud will be considered for services such as data management (servers, storage) and applications (meter data management, customer portals)
- Utilities will look to more robust computing capacity for quicker results

Smart Cities: playground for smartness

Drivers

- Urbanization: rising % of population living in cities
- Increase of real-time field sensors, intelligent devices, pervasive broadband networks, analytics and social media
- International (SET Plan, Convenant of Mayors) and national initiatives
- Funding availability

The Journey to Smartness



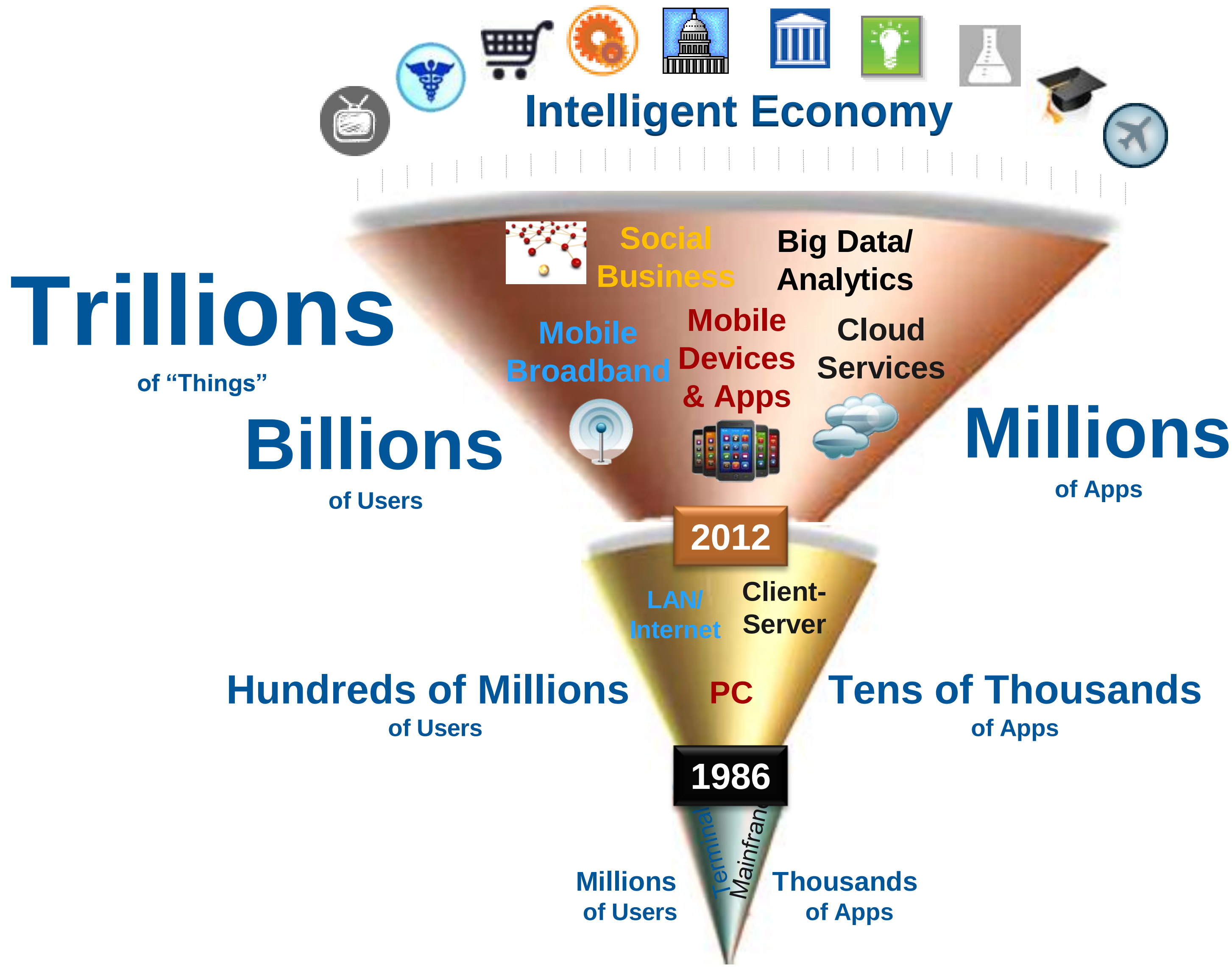
Source: IDC Energy Insights, 2011

Trends

- Actions will mainly evolve in three directions: climate/energy sustainability, pervasive technologies, advanced services for citizens
- Water will benefit from Smart Cities' investments
- Utilities will play a key role in the ecosystem of partners essential for the development of smart cities, joining public & private initiatives and leveraging public funding
- Smart buildings will still be the low hanging fruit for energy efficiency
- Advanced analytics capabilities will be essential for smart city maturity
- Public cloud-based solutions will reduce cities investment requirements

… to be continued

Take advantage for Growth & Innovation from IT industry transformation



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IDC Energy Insights Predictions 2013: Utilities

- **12. December 2012**
- **15:00 CET**
- **Audience URL:**

  http://bit.ly/EI_Predictions2013_EMEAUtilities

Děkuji za pozornost

Milan Kálal

Senior Research Analyst – CEE

IDC Energy Insights

mkalal@idc.com

milankalal

milankalal

www.idc-ei.com