

EU SEW : GreenTouch Panel discussion

20th of June 2012



Agenda



SAP

1. Energy trends & EU targets

2. Why SmartGrids ?

3. EU Priorities & projects

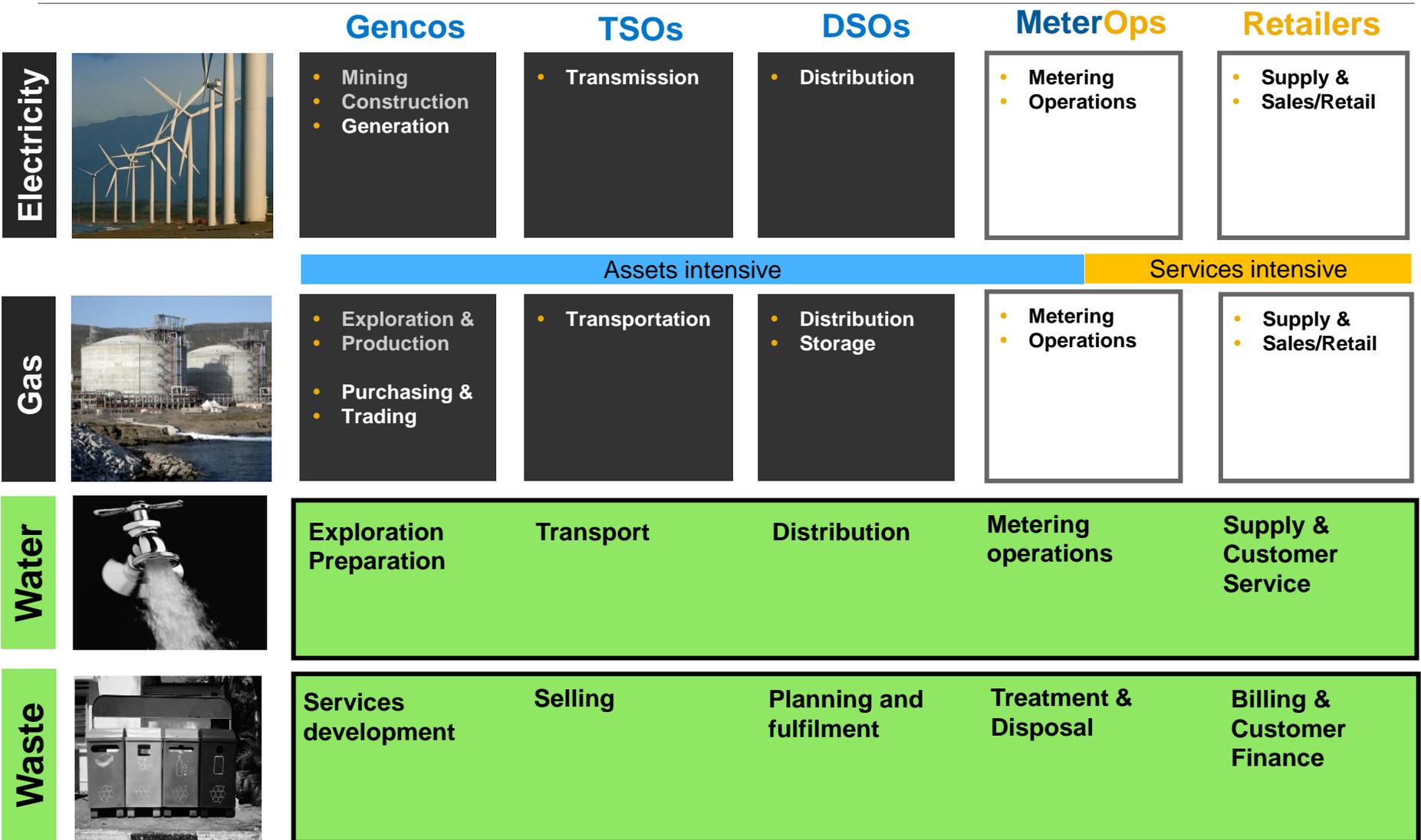
4. EU Roadmap 2020

5. Advanced Technologies

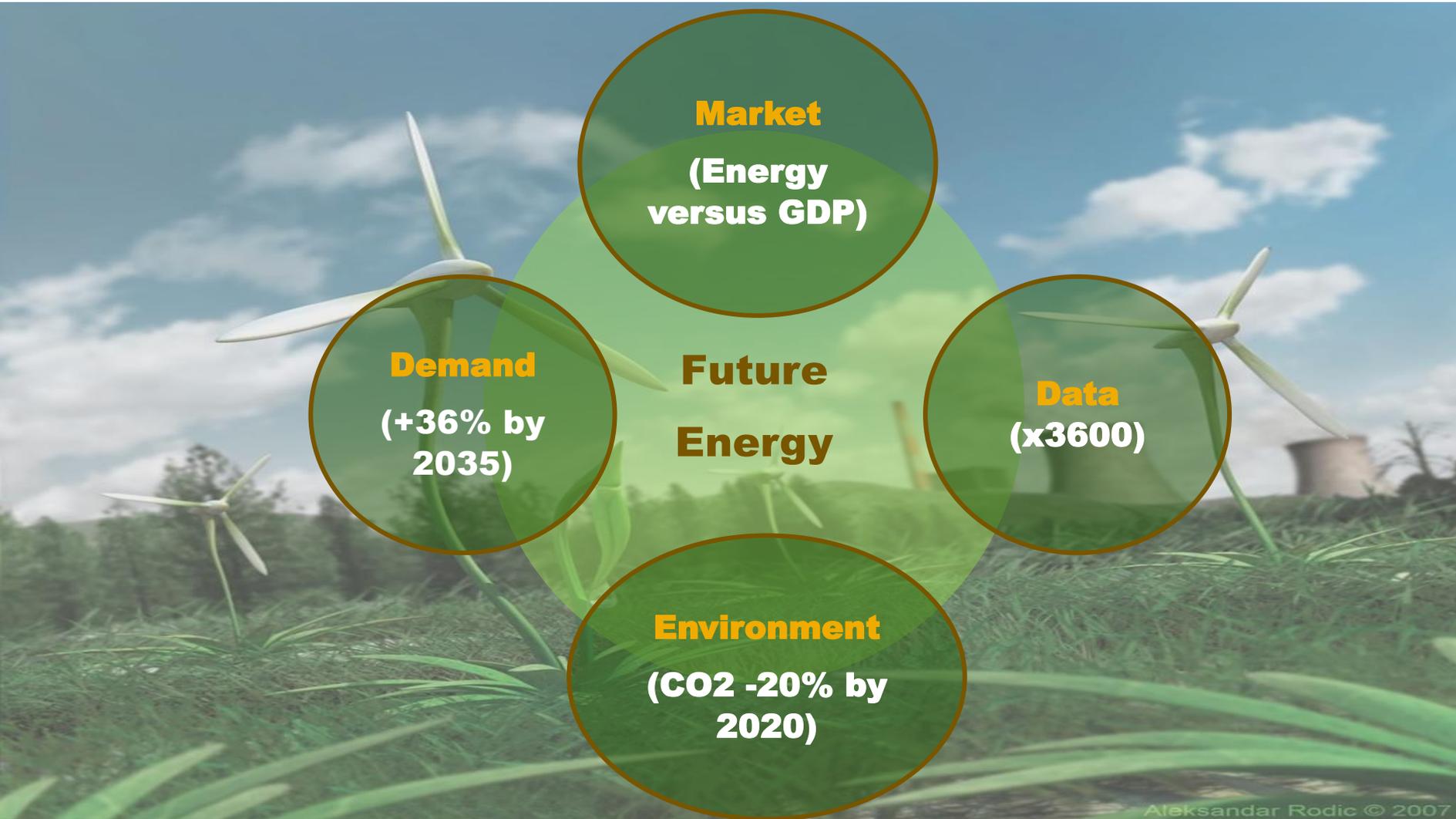
6. Conclusion



New market structure in Europe



Energy trends : Future Energy driving GDP growth



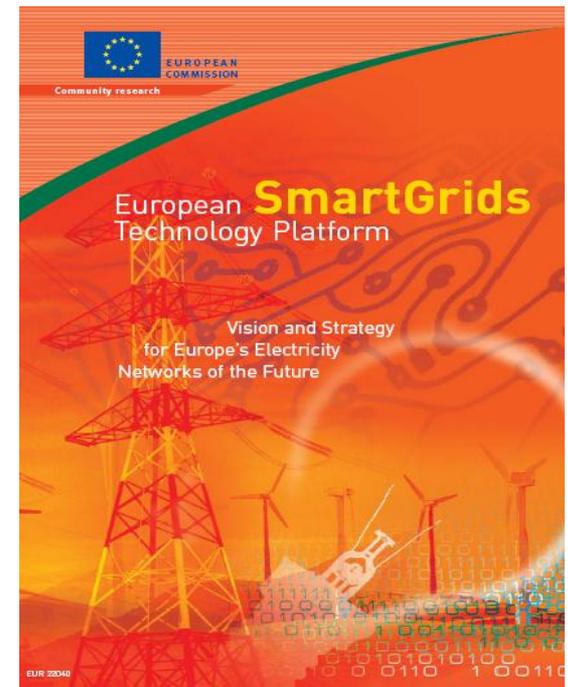
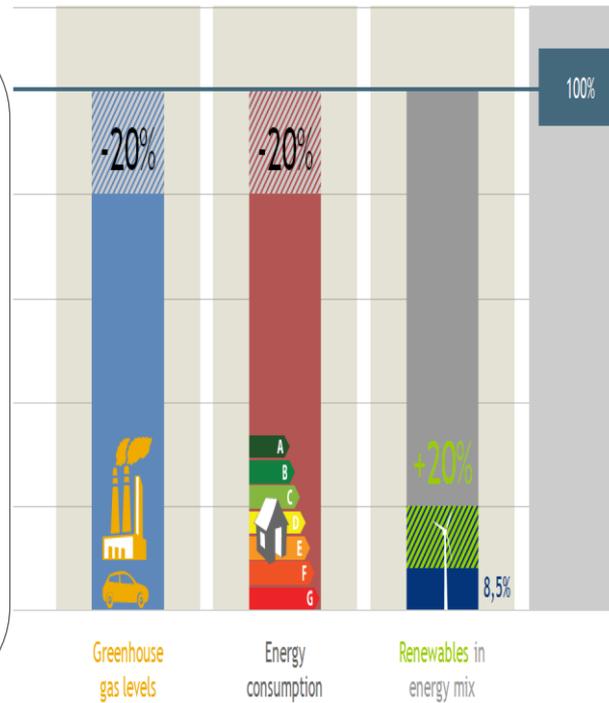
EU targets 2020

Security of Supply

Environment compliance

Open market

20/20/20 by 2020h



Past or future ?



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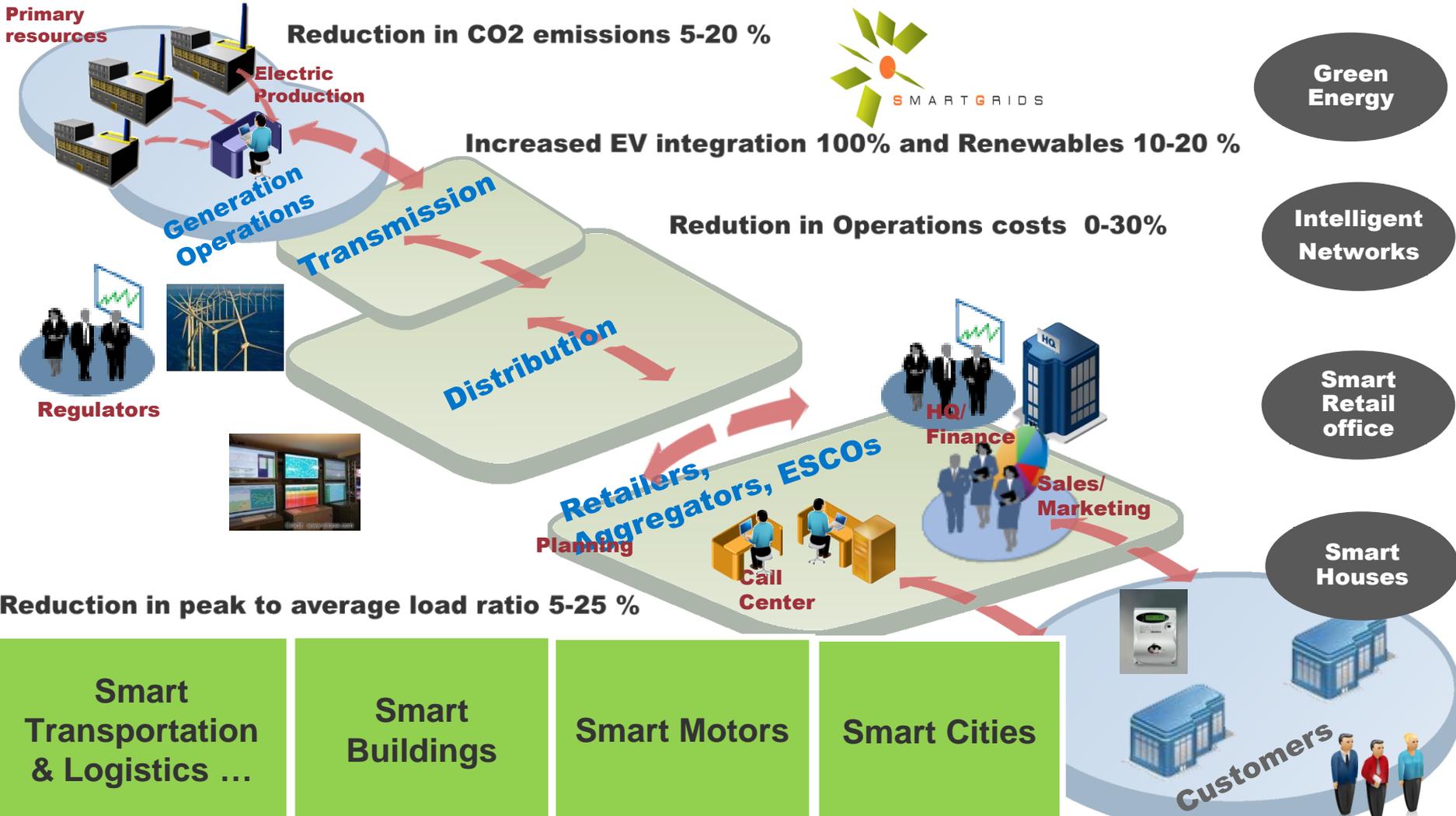
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SmartGrids aims at Optimizing the Energy Value Chain

KEY MESSAGE

SmartGrids = Energy Supply Chain + Customers' Consumption Optimization



Green Energy

Intelligent Networks

Smart Retail office

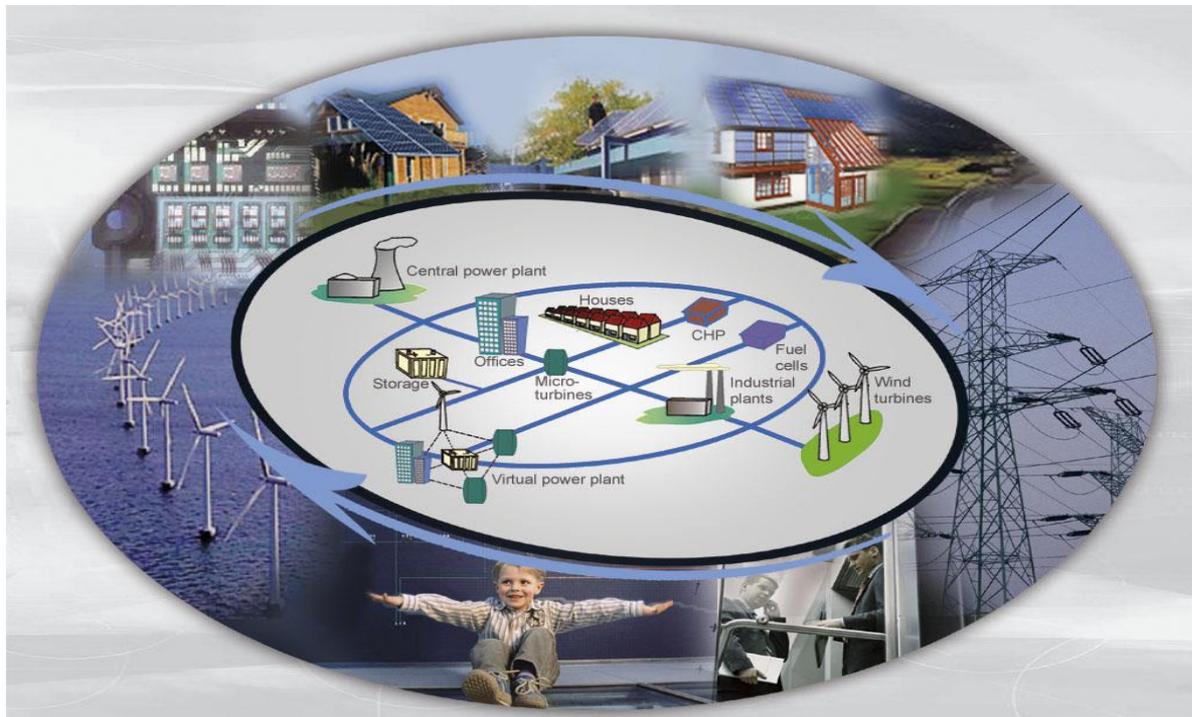
Smart Houses

Reduction in consumption 5-15%, in electricity bill (residential) 5-20% & (Business) 2-5%

Energy of the future 2020 is able to create up to 3 Million jobs in EU27

KEY MESSAGE

- EU Energy Initiatives 2020+ : SmartGrids, Photovoltaic, Wind, Carbon Capture and Storage, Sustainable Nuclear, Electrical Vehicles, Smart Transportation & Logistics, Smart Cities, Smart Buildings, Smart Lighting, Smart Manufacturing, Energy Efficiency



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SAP

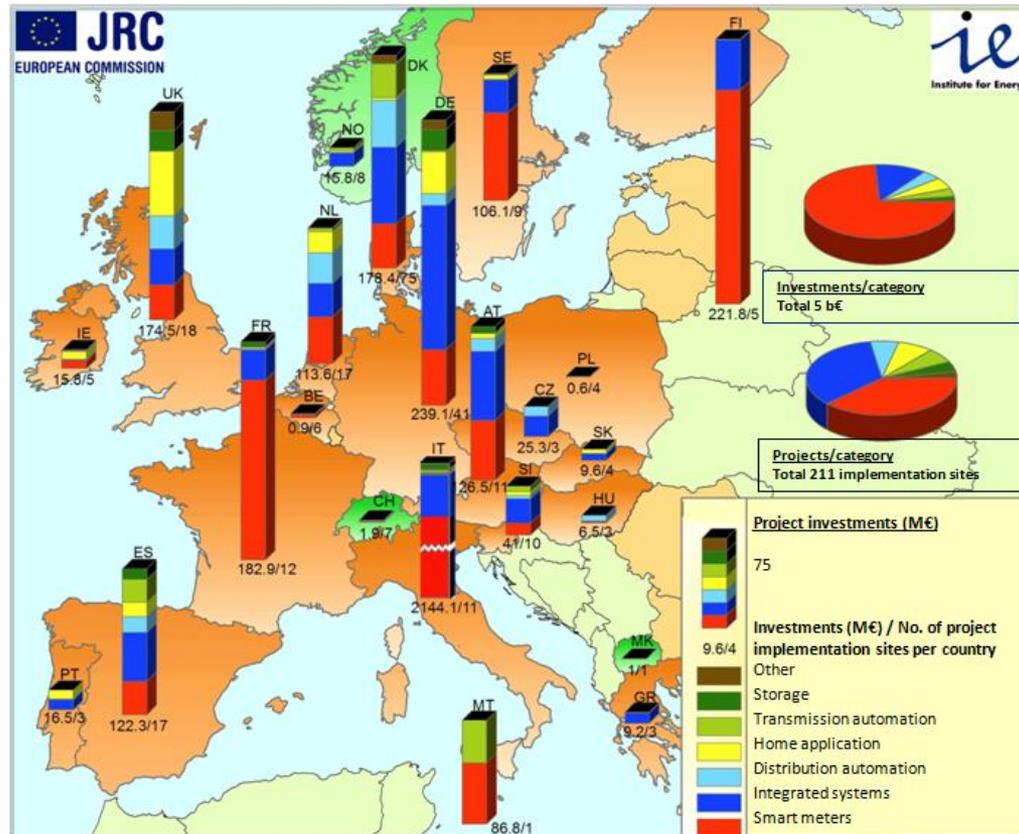
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211 SmartGrids related projects running in EU27 at a total investment of 5 b€ (source : European Commission JRC)

KEY MESSAGE

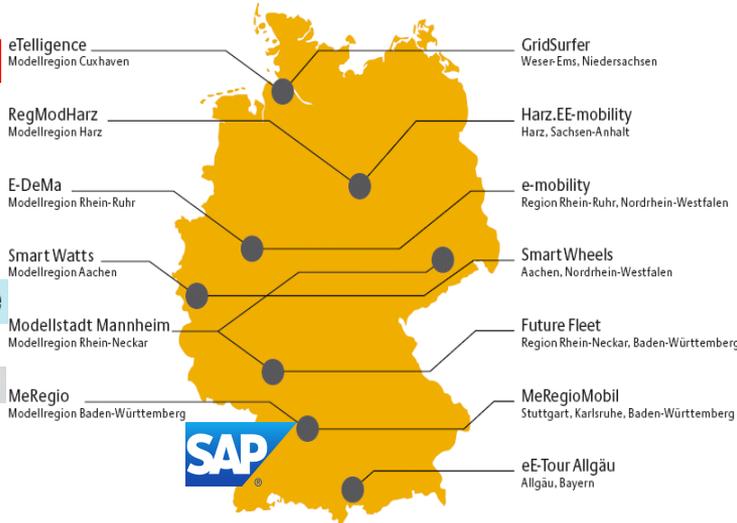
- Every EU Member State has invested in SmartGrids and future Energy
- Excluding 2 b€ ENEL deployment, 3 b€ R&DD have been spent



German SmartGrids project (e-Energy)

KEY MESSAGE

- Connecting via a Real Time ICT platform Energy Providers and Consumers
- 140 M€ large scale demonstration of 6 projects (60 M€ public, 80 M€ private)
- SAP teamed up with EnBW in MEREGIO and MEREGIO mobile projects



International SmartGrids, Smart Energy investments

CO2 reduction 25%
METI's 2009 (Remote Island SmartGrid project, Smart Charge, Smart House)



R-APDR Government Program
Energy losses reduction using ICT
15 States, 5 to 10 years projects



7.3 b\$ as stimulus loans and grants
Reduce Energy consumption by 40%



1st country SmartGrids system. Green
generation from 2.4 to 11% by 2030
64 M\$ SmartGrids pilot in 2011 (Jeju)



100 SmartGrids Projects Investment
3.4 b\$ public + 4.7 b\$ private
NIST standards



Jeju Island test-bed SmartGrids in Korea (SAP & KT, Samsung, KEPCO, SK, LG, ...)



KEY MESSAGE

- SAP, Korea Telecom, Samsung, KEPCO, SK, LG and other partners
- The official SmartGrids project of Korea with 64 M\$ funding

1. Smart Place

2. Smart Transportation

3. Smart Renewable

4. Smart Power Grid

5. Smart Electricity Service



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Aleksandar Rodic © 2007

SET Plan deployment in EU27



KEY MESSAGE

- EU Directives should be converted into investment opportunities
- SET Plan deployment in Europe is an opportunity for Energy transformation

EU directives adopted and communications to EU27 Member States

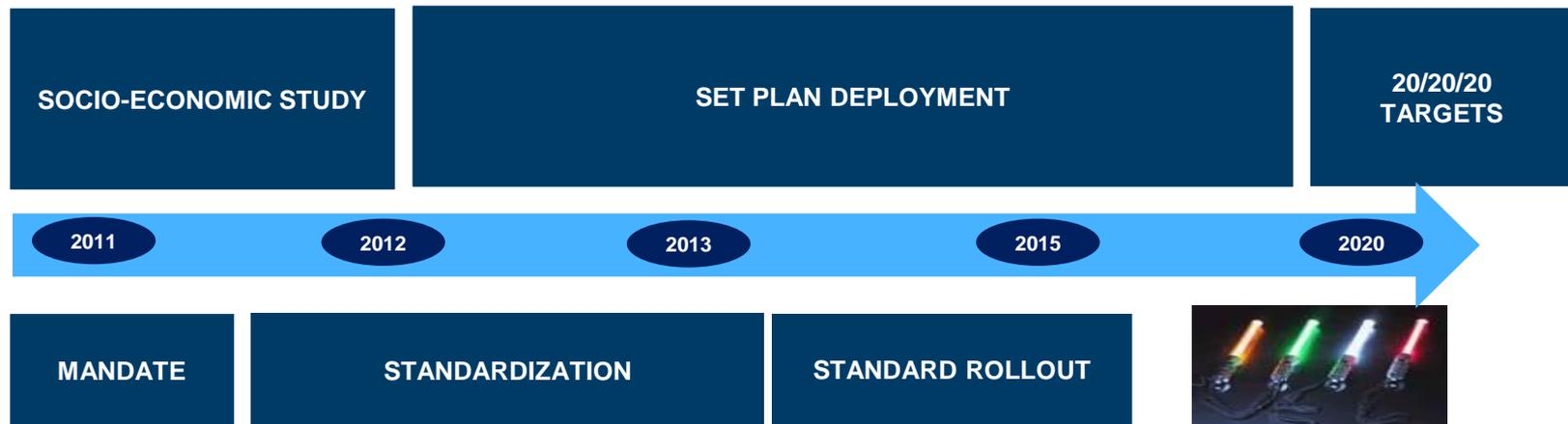
Renewables Directive (2009/28/EC, Art16)

Market regulation: 3rd energy package adopted (Directive 2009/72 & 73/EC)

European Infrastructure Package, 11/2010 and 10/2011

Communication on Smart Grids, COM(2011)202 – 12/04/2011

Energy Efficiency Action Plan and revision of ESD in 06/2011



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The In-Memory Revolution « at the speed of thoughts » : Predictions in seconds !



KEY MESSAGE

- New prediction services in real time (3600x faster, < 1s)
- What if scenarios to critical questions can be answered



What if 10% Green production ?

What if 20% of EV charging ?

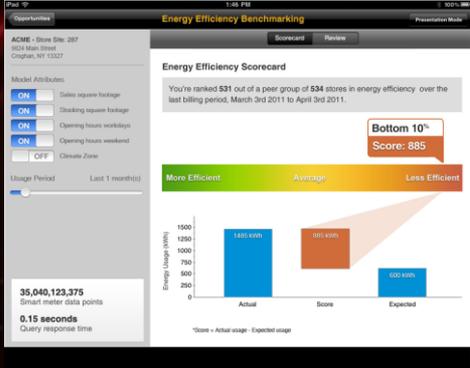
What if 5% tariff increase



Production



Grid



Retail

Energy efficiency benchmarks

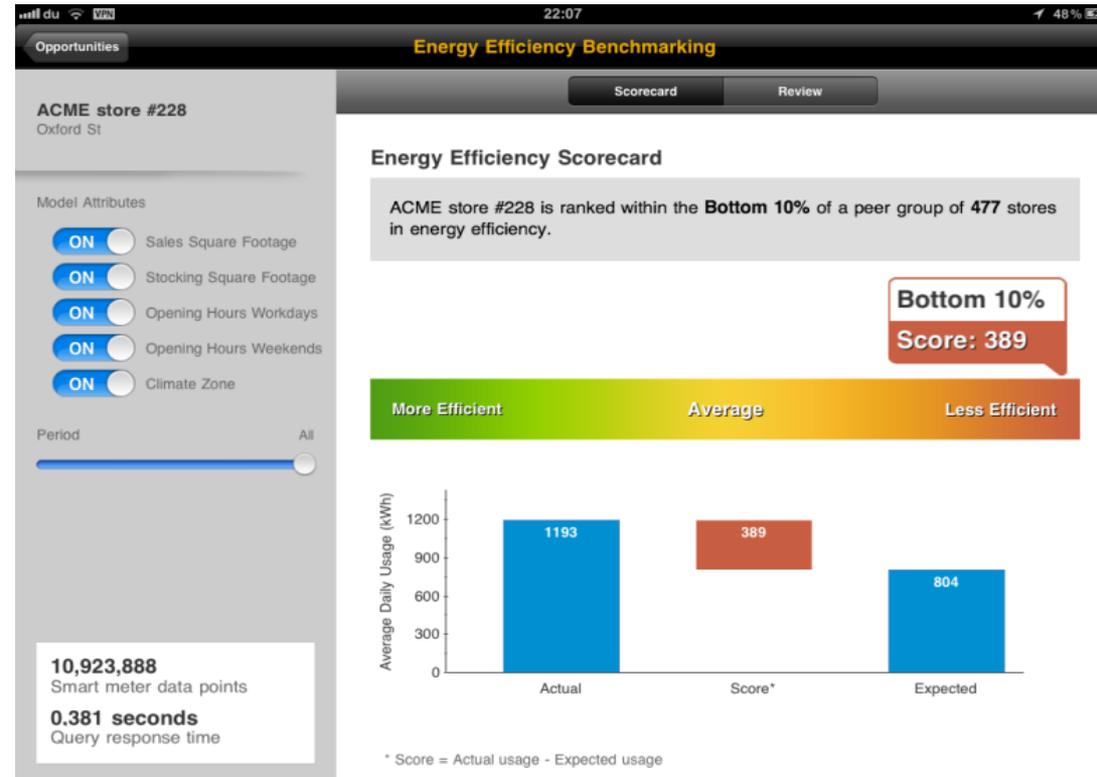
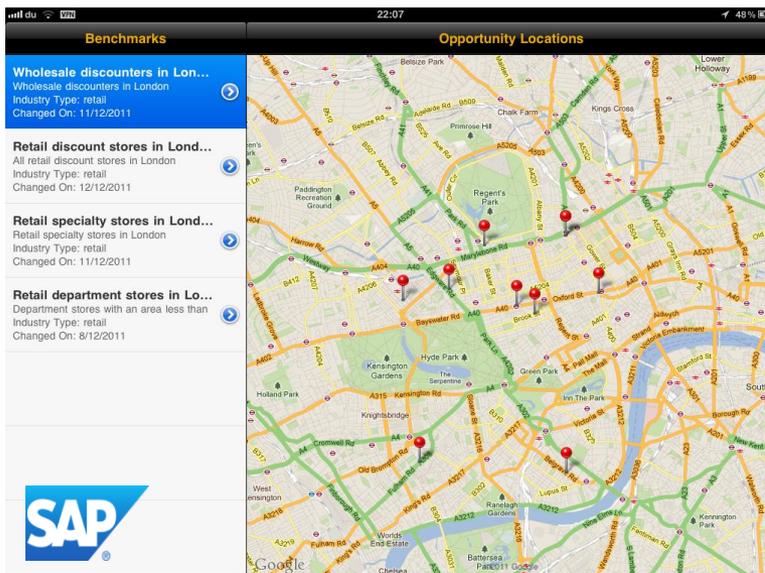
Mobility and HANA

KEY MESSAGE

- Available Mobile HANA App. for C&I customers : Retailer with 477 stores
- Store # 228 scores 389 in bottom 10% Energy Efficiency
- 11 Million meter data points read in 0.4 seconds (empowered by HANA)

Energy efficiency benchmarks for C&I customers

Energy consumption profile per customer



Electric Car Fleet, Car Pooling

Electromobility

KEY MESSAGE

- Within the Future Fleet EU funded project, SAP 100 Fleet EVs tested
- Consume to Cash solution (Telecom like)
- Demonstrated at the SAP Future Energy Centre (Karlsruhe)



Reservations

Travels

Info

Here you can manage your travel requests by creating, editing and deleting those.

Logged in successfully.

Manage My Travels

New Travel

July 2011

Mon	Tue	Wed	Thu	Fri	Sat	Sun
27	28	29	30	1	2	3
4	5	6	7	8 ROT = WDF = ROT	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24

KEY MESSAGE

- Staged Sustainability : Citizens, Enterprise, Environment, Cities, Europe
- SAP Smart Sustainable Cities solution and SAP Urban available Scenarios

SAP PORTFOLIO FOR URBAN

CLOUD	ON PREMISE
URBAN SCENARIOS	
ON DEVICE	ON DESKTOP
ANALYTICS	APPLICATIONS
DATABASE & TECHNOLOGY	

SAP Urban scenarios

SAP URBAN SCENARIOS



LOB

- GOVERNANCE
- TAXATION & BUDGETING
- RECREATION & CULTURE
- PUBLIC SAFETY
- HEALTH
- TRANSPORTATION
- PLANNING
- UTILITIES
- EDUCATION
- SUSTAINABILITY

SCENARIOS

- PUBLIC ADMINISTRATION
- TAX & REVENUE MGT
- INCIDENT & EMERGENCY MGT
- CITY ANALYTICS
- PUBLIC BUDGET FORMATION
- CITY CONNECT
- INVESTIGATIVE CASE MGT
- SOCIAL BENEFITS



Sustainability levels

Sustainability topics	Sustainability categories	ICT focus areas covered by SAP	Illustration
1. Environment performance	Greenhouse Gas Performance	Carbon emissions Carbon storage Carbon labelling Renewable Energy Resources	
2. Environment Water optimization	H2O, Natural resources (energy production, water use)	Water purification, infrastructure and supply Management Waste Water Management	
3. Energy Resource optimization	Energy efficiency (energy production, energy use)	Global Monitoring & Control Energy Data Management Energy Demand and Supply optimization	
4. Labor, Health and Safety	Regulatory, stakeholder, industry standards	Regulatory compliance, Safety Management, Waste Management and Recycling	
5. Product Lifecycle Safety	New regulation, safety recalls, industry standards (e.g. REACH), Nuclear safety management, Solid waste	Regulatory compliance, Safety Management, Waste Management and Recycling	
6. Financial optimization	Carbon Trading Markets	Emissions Management (EM), Carbon Marketplace Trading, real Time Pricing, Governance Risk and Compliance (GRC)	

Smart Cities SAP Solution map

Tsunami of data in a connected world



1 billion Users
7% World Population



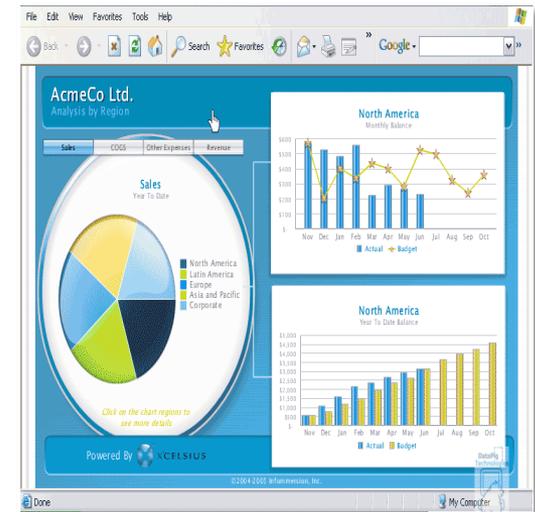
135 Million Users
2 billion people searches



25 billion Downloads
585,000 Applications



15 billion Downloads
438 000 Applications



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What will change ?

		WILL CHANGE TO...	BECOME	WITH ...
1	ENERGY	NO MORE A COMMODITY	OPTIMAL	SMARTGRIDS
2	ENVIRONMENT	BE IN THE DESIGN OF EVERY DEVICE	ANYWHERE	SUSTAINABILITY
3	CITIES & CITIZENS	CONNECTED & EMPOWERED	ONE WORLD	CLOUD BUSINESS WEB
4	DATA	ANYWHERE, ANYTIME PREDICTABLE	VISIBLE	HANA MOBILE ANALYTICS
5	DECISION MAKERS	AS FAST AS YOUR THOUGHTS	PROACTIVE	ANALYTICS HANA



**Together let's create Energy
for a better World !**

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