

# **EG3: Roles and Responsibilities of Actors in Smart Grids Deployment - Status Report -**

Tahir Kapetanovic  
Director Electricity, E-Control  
Chairman of the Expert Group 3

EU TF for Smart Grids Steering Committee  
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## EG3: Expected Results

- The development of **recommendations on the roles and responsibilities** of all involved actors in the implementation of the Smart Grids
- The definition of **criteria and recommendations for funding** of Smart Grid deployment
- **Key issues from the individual inputs by the EG3**
  - Expected benefits from Smart Grids for the own organisation;
  - Smart Grids features provided by the own organisation;
  - Smart Grids features needed from other players;
  - Decision criteria for the deployment of specific Smart Grids features
  - Own organisation roles & responsibilities in the Smart Grids deployment;
  - Interfaces and interaction with other players
  - Funding options
- **Deliverable = Synthesis of the detailed information from above**

# Ongoing Work & Timetable

- **Key questions and compilation of results: February / March 2010:**
  1. Activities, Roles and Responsibilities - Status Quo
  2. Benefits, Criteria and Recommendation for Funding of Smart Grids
  3. Interfaces and Interaction
  4. Roles and Responsibilities – Recommendations on Scope, Policy and Regulatory Directions
- **First draft deliverable April / May 2010**
- **Review, finalization and delivery to the EC: May / June 2010**

- 1. Introduction, Tasks and Scope of WG3**
- 2. Roles and Responsibilities – Status Quo**
- 3. Benefits, Criteria and Recommendations for Funding of Smart Grids Deployment**
- 4. Interfaces and Interaction**
- 5. Roles and Responsibilities – Recommendations on Scope, Policy and regulatory Directions**
- 6. Glossary and Abbreviations**
- 7. List of References**

# Roles & Responsibilities – Status Quo

- **Groups of Actors described in terms of their roles, duties, activities and responsibilities**
- **Grid providers**
  - TSOs
  - DSOs
  - Control area managers
  - Ancillary services providers
  - Grid communications providers



# Roles & Responsibilities – Status Quo *(cont'd)*

- **Grid users**
  - Generators
  - Industrial customers
  - Transportation undertakings
  - Commercial / buildings
  - Home / retail customers
  - Prosumers
  - Metering service providers
  - Metering point operators
- **Energy market place**
  - Energy transactions handler
  - Balance Responsible Party
  - Clearing & Settlement
  - Trader
  - Supplier

# Roles & Responsibilities – Status Quo *(cont'd)*

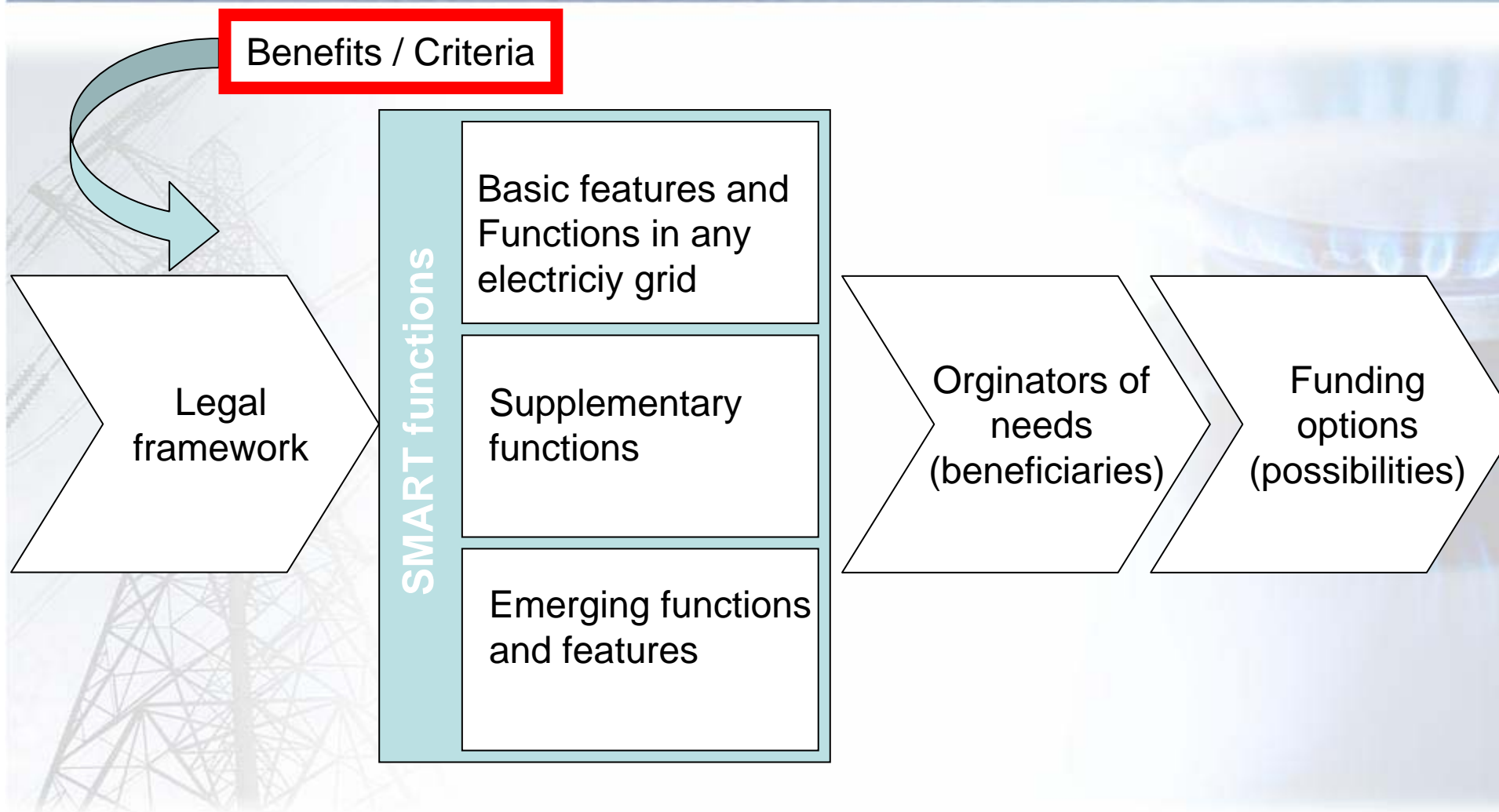
- **Suppliers of technology, products and services**

- Electric power grid equipment industry
- Ancillary services
- Metering & billing
- ICT
- Home appliances, automation and energy management
- Building energy management
- Electric transportation / vehicles / solutions
- Academia

- **Influencers**

- Regulators
- Standardization bodies
- EU Commission and MS governments
- Environmental policy and Social policy
- Financial sector

# Benefits, Criteria & Recc. for Funding - Process





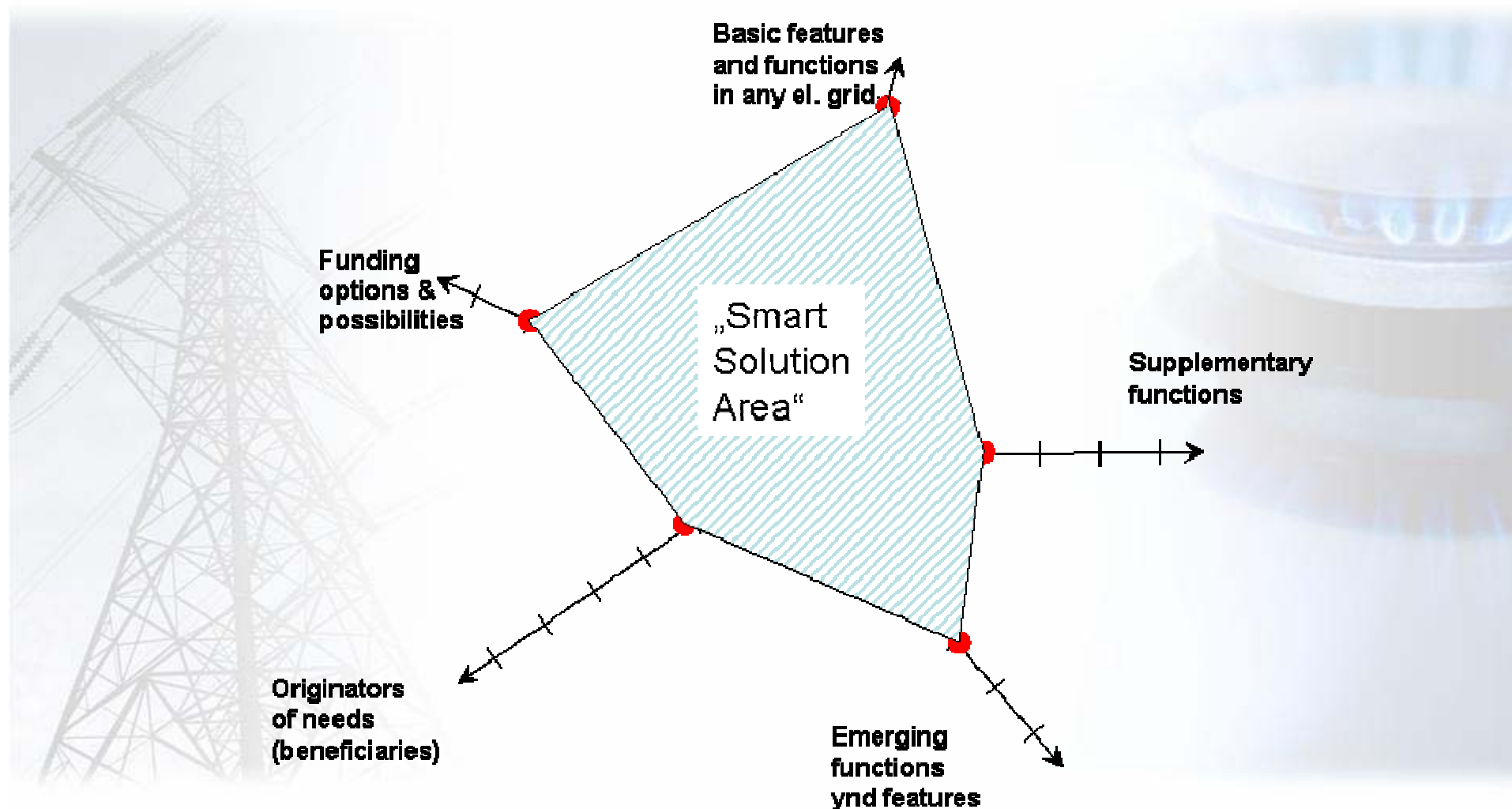
# Originators of Needs / Beneficiaries

- **Single / small (groups of) grid users**
  - Large generation
  - Large (off/on) shore wind generation
  - ...
- **Large groups of grid users / communities**
  - Distributed / micro generation
  - ...
- **New technologies / economies**
  - Electromobility (cars)
  - Energy efficiency service providing companies
  - ...
- **Society / economy as a whole**
  - 20/20/20 targets
  - ...

# Funding Options / Possibilities

- Private funding by industry, private investors, etc.
- Public funding and tax incentives at the national and EU (FP's) level
- Private-public partnerships
- Investment incentives coupled with obligations and reward / penalties in regulation (i.e. incentive & quality regulation)
- Socialization within the grid tariffs

# „Smart Solution Area“ Maximization



# Methodology

- For each function / feature, search the maximum „area“
- Possibly additionally weight the various parameters
- Key users: grid users + grid operators
- Approach: external / output oriented (rather than internal / detailed / prescriptive)
- Building upon incentives for investments and criteria for the (expected) outcome
- Ex ante decision / ex post evaluation / continued process

# Interfaces and Interactions

- Electricity supply value chain
- Regulation
- Cooperation of TSOs and DSOs with focus on bi-directional power flows
- Interfaces between DSOs and prosumers
- Interfaces between DSOs and storage owners
- Interfaces of DSOs and Smart Metering
- Flexible Energy Pricing and Grid Tariffs
- Regulated vs. non-regulated issues
- Required further analysis of interfaces and interactions



# Roles and Responsibilities - Recommendations

- DSOs
- TSOs
- Generation
- Wholesale trade
- Retail supply
- Customers / prosumers
- Metering
- Energy market place
- Regulators
- Law and Policy makers in the EU and Member States

# Thank you for your attention!

The background of the slide is a light blue gradient. On the left, there is a faint, semi-transparent image of a high-voltage power line tower. On the right, there is a faint, semi-transparent image of a gas burner with blue flames.

Tahir Kapetanovic  
Director Electricity E-Control  
Chairman of the Expert Group 3

Tel: +43-1-24724-500  
[tahir.kapetanovic@e-control.at](mailto:tahir.kapetanovic@e-control.at)  
[www.e-control.at](http://www.e-control.at)