



cutting through complexity

FIT4FUTURE

**Advanced Case of High
Quality Electric Power
Infrastructure Procurement**

Aug. 25, 2015

Tokyo



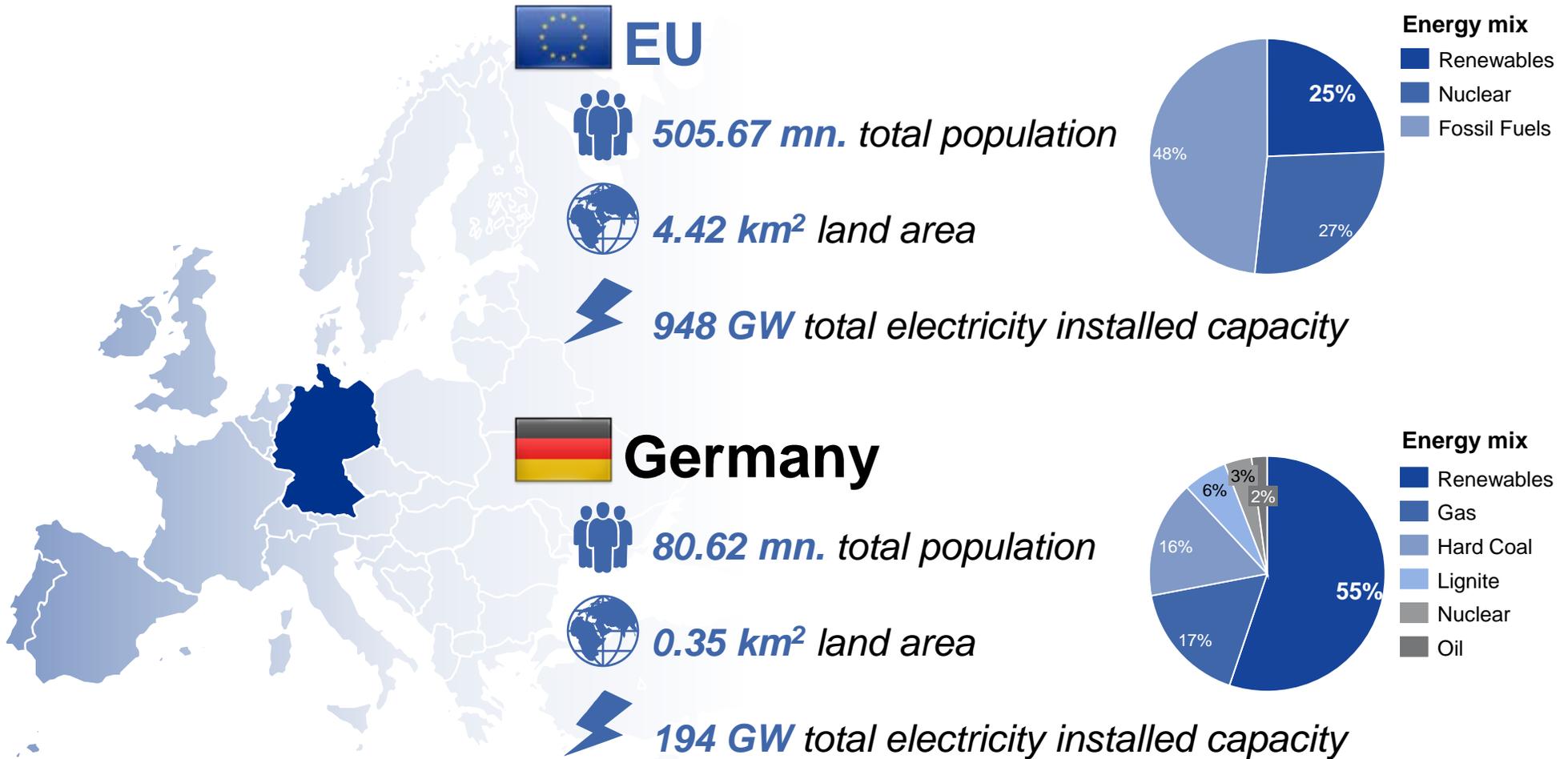


1 | Key Facts & Regulatory Challenges

2 | Quality of Electric Power Infrastructure

3 | Fitting Procurement for Future

Compared to EU, Germany has adopted much larger share of renewables as source of generation for electricity.



Procurement has been recognized as a key market-based instrument to support achieving objectives set by EU Directive 2014/25,

Background of Changes



OUTDATED PROCUREMENT RULES



ECONOMIC AND SOCIAL TREND



REGULATORY UNCERTAINTY



IMPORTANCE OF PROCUREMENT

Regulatory Objectives

Simpler and more flexible procurement procedures (e.g. through utilizing e-Procurement)

Promotion of **sustainable procurement** (e.g. emission trading, environmentally conscious shop)

More **legal certainty** (e.g. through the implementation of the ECJ case law)

Realizing **strategic objectives** (e.g. promoting innovation; supporting SMEs in the EU region)

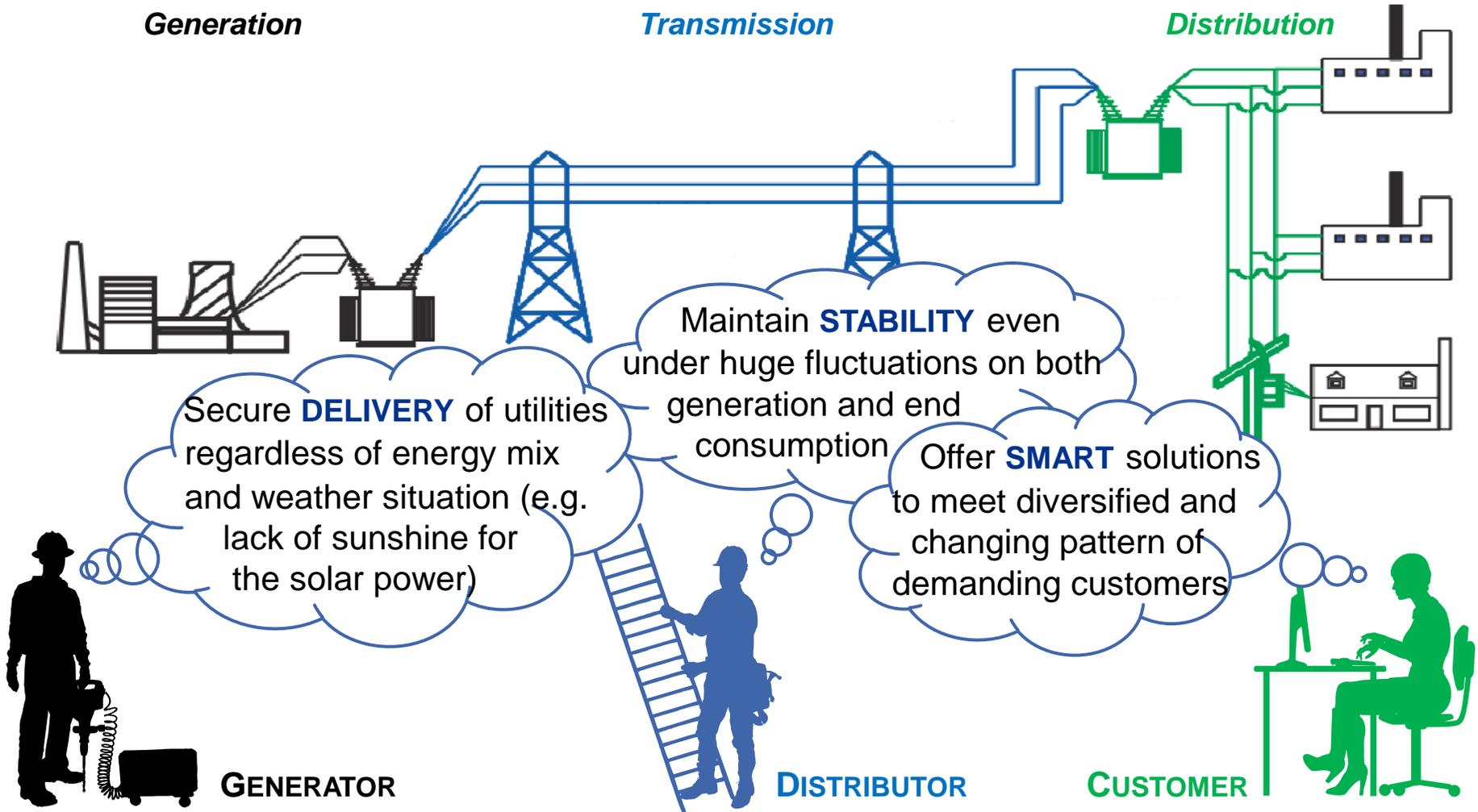


1 | Regulatory Challenges

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Quality of electric power infrastructure should be considered from the whole utilities value chain perspective.



New regulations pose more requirements on quality of electric power infrastructure from four key dimensions: cost, innovation, security, and compliance.

“... The most economically advantageous tender from the point of view of the contracting entity shall be identified on the basis of the **price or cost**, using a cost-effectiveness approach, such as **life-cycle costing** in accordance with Article 83, and may include the best price-quality ratio, which shall be assessed on the basis of criteria, including **qualitative, environmental and/or social aspects**, linked to the subject-matter of the contract in question...”

COST

- How to meet **technical specifications** while maintaining the optimal **cost-effectiveness**?
- How to **plan investment** for infrastructure projects from **life-cycle aspect**?

INNOVATION

- How to drive **innovation** in utilities sector in the **Era of Scarcity**?
- How to **generate more added value** from suppliers by extending evaluation beyond only of **financial and operational KPIs**?

SECURITY

- How to secure **security of supply** in more volatile world?
- How to ensure **delivery stability** while shifting from traditional fuels to the renewables?

COMPLIANCE

- How to establish **full compliance visibility** along the supply chain?
- How to redesign **purchasing processes** to meet stronger **environmental and social** requirements?

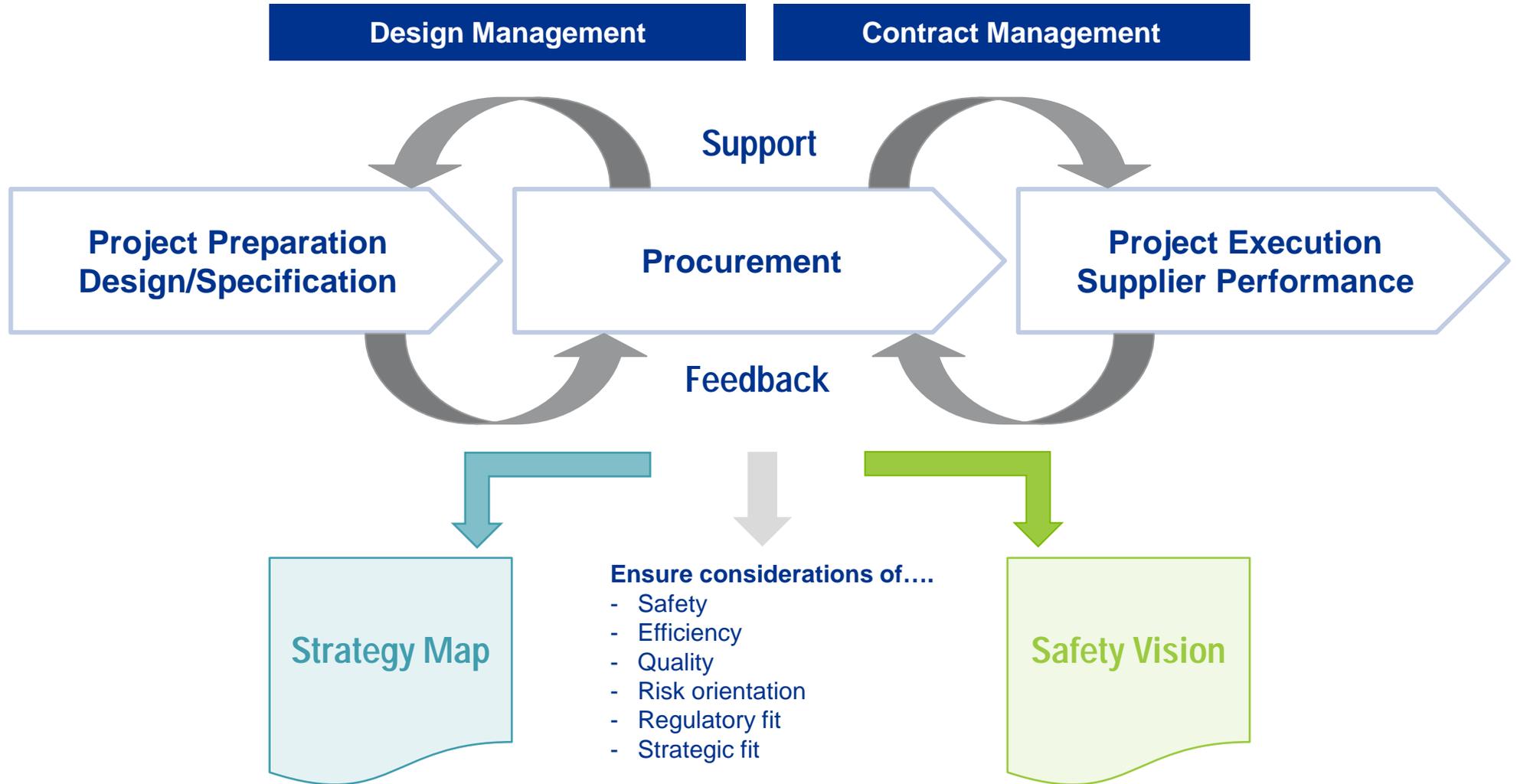


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Strategic procurement is a determining factor within the ordering party's strategy.



Innovation management is a strategic element within electric power infrastructure procurement.



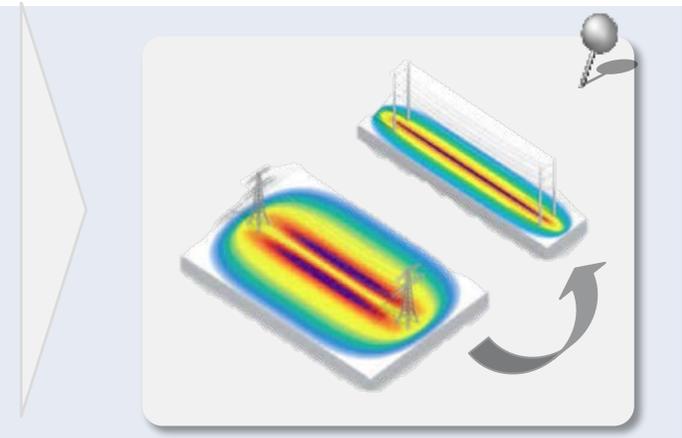
Success stories of strategic procurement



Electricity transmission system operator

New Type of Power Pylon

- ✓ Design is less intrusive in landscape
- ✓ Reduces electromagnetic fields
- ✓ Cost advantages achieved



Electricity transmission system operator

Innovation

- ✓ Using high-voltage direct current to connect offshore wind farms on large scale and high capacities.



European public institutions and government entities have introduced various initiatives to foster cost-effectiveness in electric power infrastructure project.



Dimension



Energy Efficiency as Basis

Definition

- Both the federal government and several states and municipalities have taken **energy efficiency criteria** as basis of all procurement activities
- The average guaranteed **annual energy cost saving** in the framework of the energy saving contracting amounted to about **270,000 bn. €**

Impact

- For construction and service contracts in infrastructure projects, energy efficiency has become one of the most important factors
- Exemplary project is namely the Berlin airport → comprehensive specifications



Calls for Competition

- The Utilities Directive promotes transparency in public procurement markets across the EU
- The Utilities Directive requires that tenders are evaluated on the basis of either the lowest price or the **most economically advantageous** tender

- Calls for competition are EU wide and therefor strong cost pressure on the market
- Potential risk on the quality of infrastructure for big infrastructure projects EU wide

Sources: Self-consolidation from various reports and studies

European public institutions and government entities have introduced various initiatives to foster innovation and security in electric power infrastructure project.



Dimension



Innovation Partnership

Definition

- Procuring **innovative products, services or works** that are not widely available on the market
- Giving prospective suppliers the opportunity to present **potential solutions** for meeting the brief and carry out **further research**

Impact

- Increasing ease of market access Start-ups and innovative companies
- On the other hand there is a risk of quality of infrastructure if solutions are only developed through further research and are not deliverable



Technical Requirements

- **Technical specifications** should be included in contract requirements in detailed and standard way
- Tender criterion may include quality, **technical merit**, **functional characteristics**, after-sales service and technical assistance etc.

- Ensures safety and quality through very strict rules on technical specifications
- By technical criteria, the procurement doesn't leave much room for lack of quality and damages

Sources: Self-consolidation from various reports and studies

European public institutions and government entities have introduced various initiatives to foster sustainability in electric power infrastructure project.

Dimension



Tackling Social Issues

Definition

- Considering **social aspects** amongst other criteria for determining which bid is the **most economically advantageous** to accept
- Incorporation of **social clauses** into publicly procured contracts and the maximization of **social benefit and value** through procurement process

Impact

- Ensuring quality in social stability
- Less illegal workers and low pay on construction sites of infrastructure
- Therefore more quality and security



Selection and Evaluation

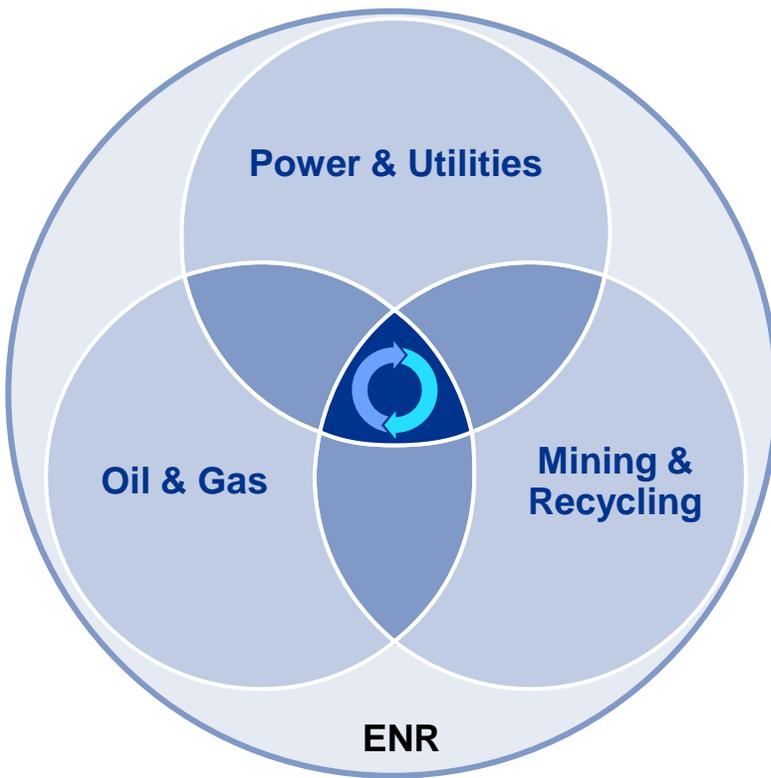
- Minimum **pass/fail requirements** plus **exclusion grounds** for selection
- The Utilities Directive specifies certain grounds (e.g. corruption, criminal organization, money laundry etc.) on which suppliers must **be excluded from** the procurement process.

- Compliance ensures the functionality of infrastructure
- Big companies such as Siemens will be excluded in cases of corruption or similar pass/fail requirement

The ENR sector network in KPMG bundles our industry expertise in Consulting, Transaction & Restructuring, Legal, IT, Audit & Tax.



Sub-Sector / Industries



Revenue 2012: 23.03 bn. €
 Employees: > 152,000
 Consultants: > 25,000
ENR Experts: > 3,000



KPMG Global

Revenue 2012: 4.99 bn. €
 Employees: > 32,300
 Consultants: > 7,000
ENR Experts: > 700



KPMG Europe

Revenue 2012: 1.20 bn. €
 Employees: > 8,400
 Consultants: > 1,400
ENR Experts: > 200



KPMG Germany

“Cutting Through Complexity”



cutting through complexity

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