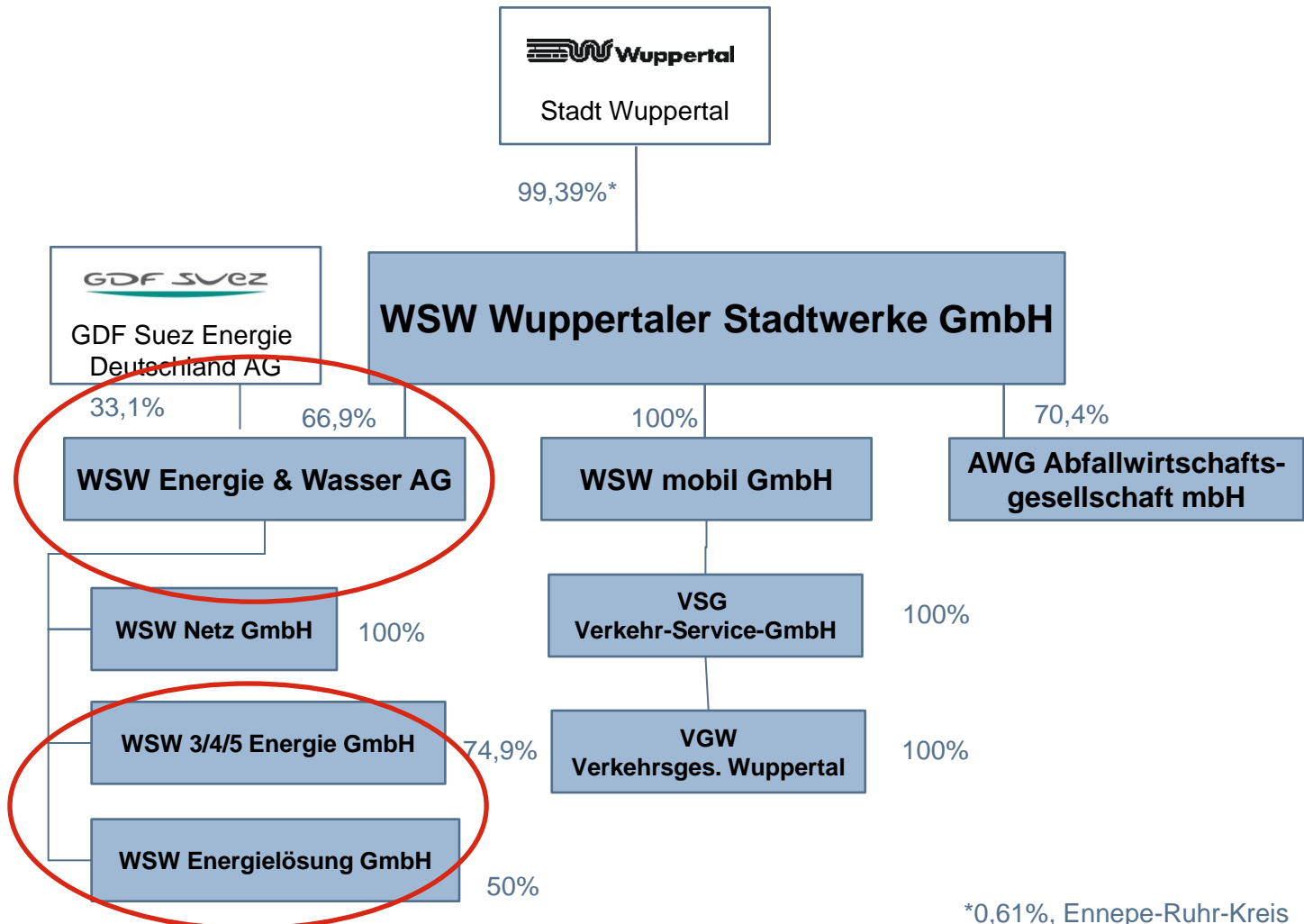


Stimulating Innovative and Competitive Service

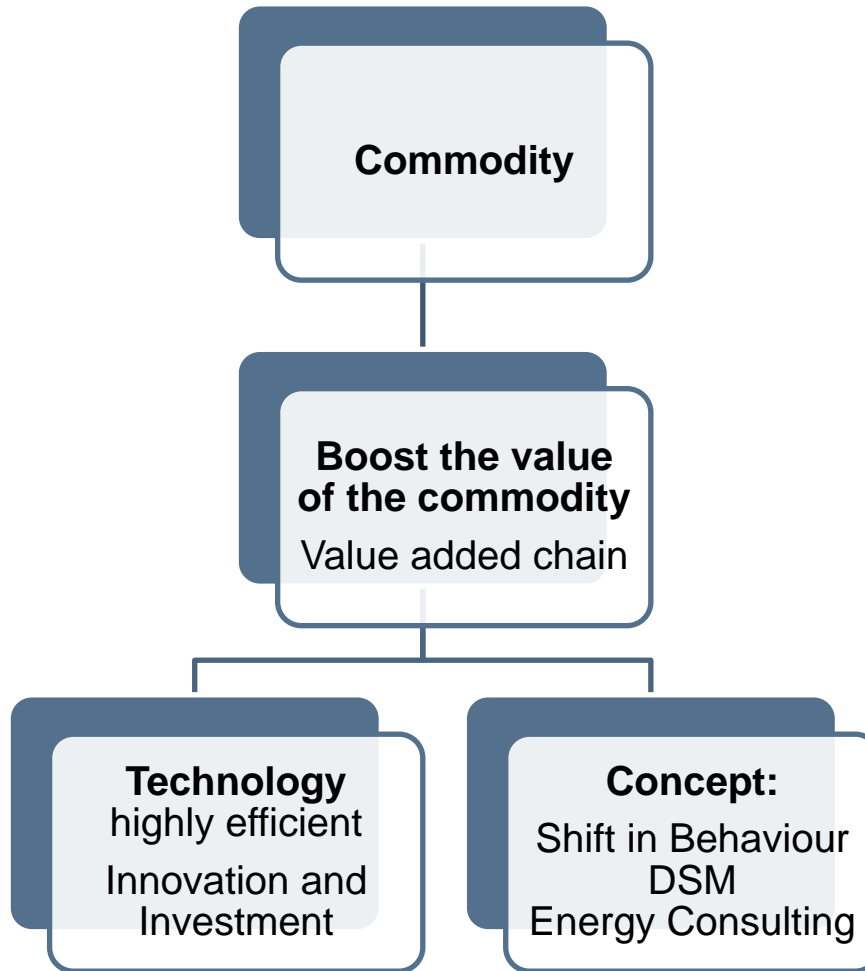
5th Citizens' Energy Forum – London Forum

Sören Högel
WSW Wuppertaler Stadtwerke GmbH
London, 14.11.2012



*0,61%, Ennepe-Ruhr-Kreis

Development of a new business area: Energy Services



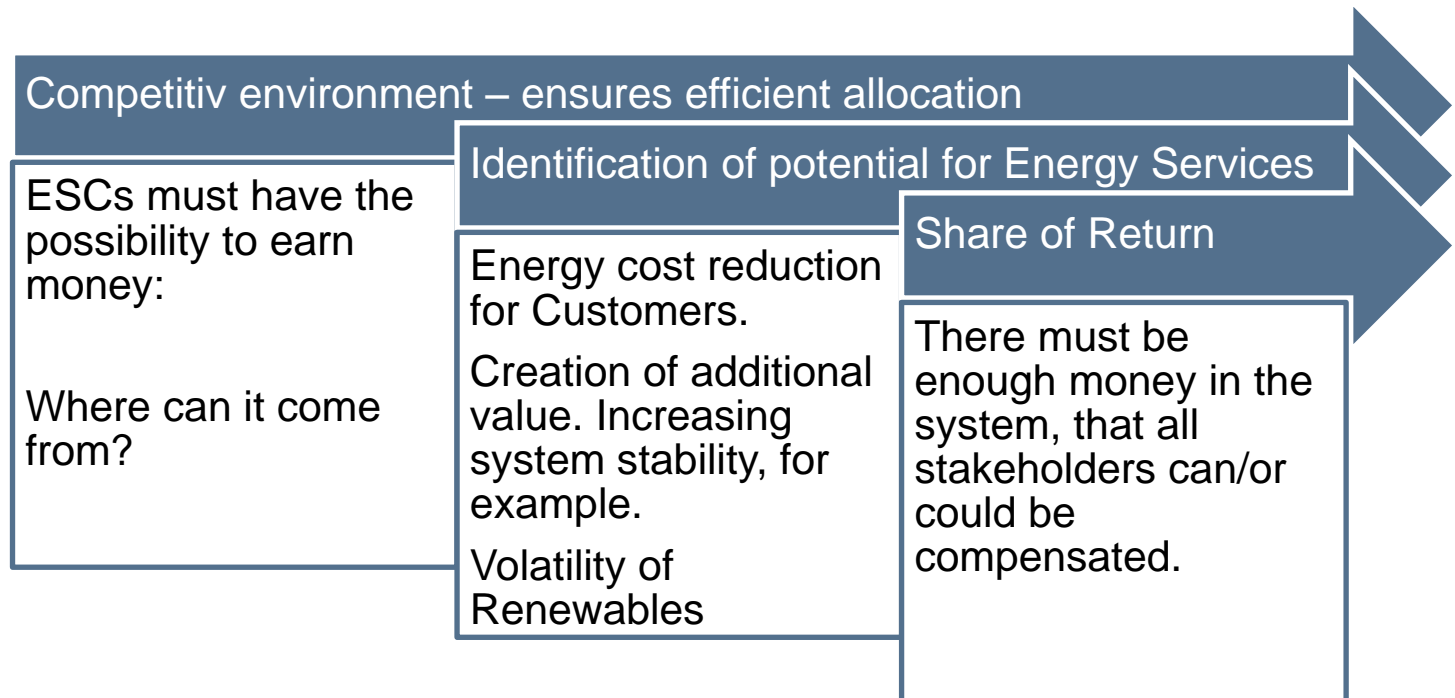
Overall aim:

- Reduce energy costs
- Meeting policy targets

Energy Companies have to provide competence:

- to generate new products
- to identify new business areas
- to invent new technology

Energy Services Department of WSW is a profit center of it's own.



Cost Reduction: „Wuppertal Model“

Conceptionel: Consulting

Energy Consulting:
free of charge
Online Consulting Centre

Debitor Consulting

Cooperation: Government and
Consumer advice center NRW

Technological: MiniContracting

Replacement of old fridges with
highly efficient ones

Contract with WSW
Contract period – 27 Months
Contribution: 10 EUR/m.

Promotion by WSW-Climate
Fund: 50 EUR

2 Counterparties want to share return.
We don't earn real money. But we avoid default costs.

current energy
market design
establish
different roles

- supplier/ESC,
- distributor/metering operator
- customer

ensure to meet
unbundling requirements

participation in
return

- many stakeholders are involved

technology

- invest in smart meter
- invest in networks

Definitions

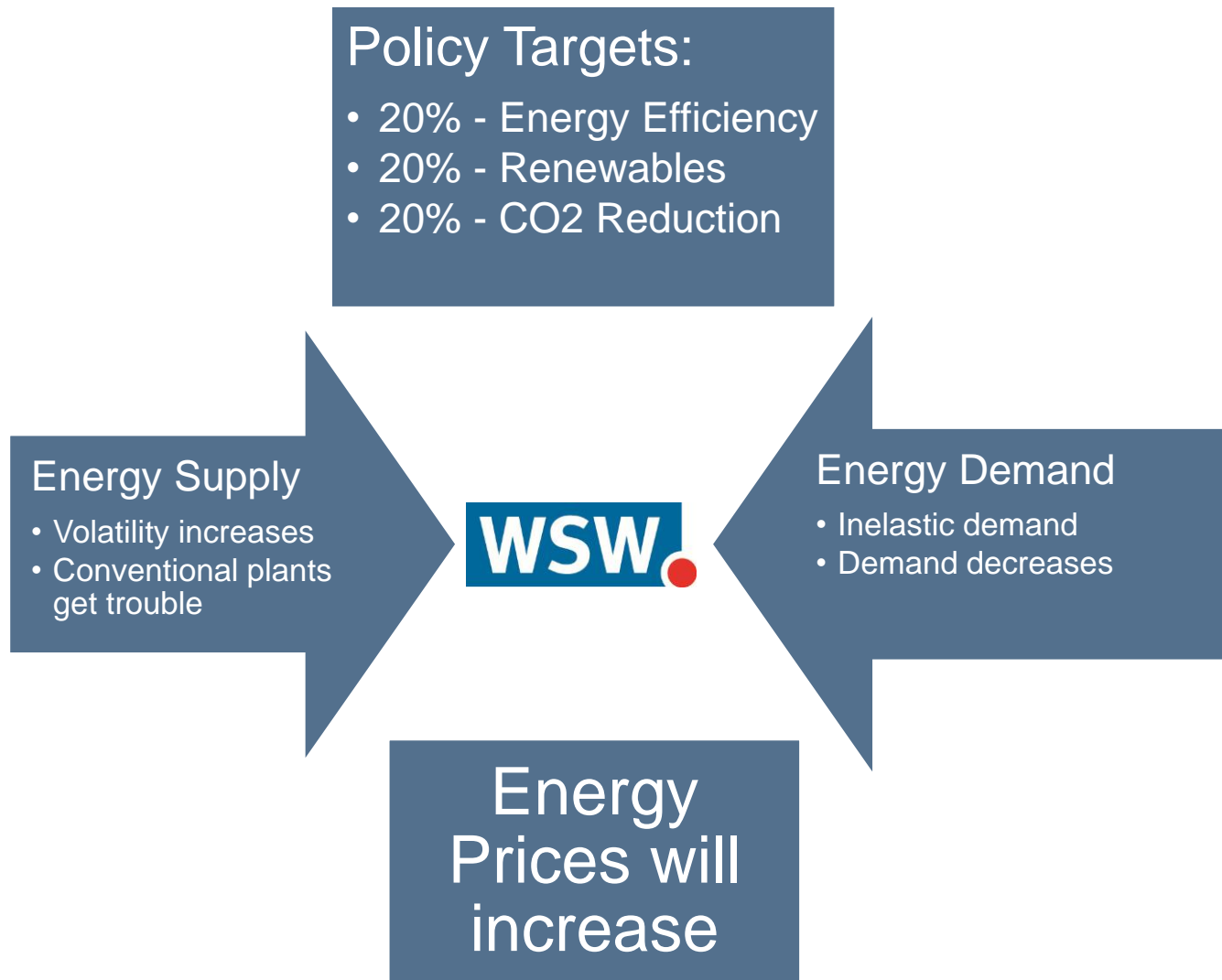
- clearly define market roles
- don't define Energy Services – could limit possibilities

reliable legal framework

- set technical standards
- carefully consider and consult with stakeholders

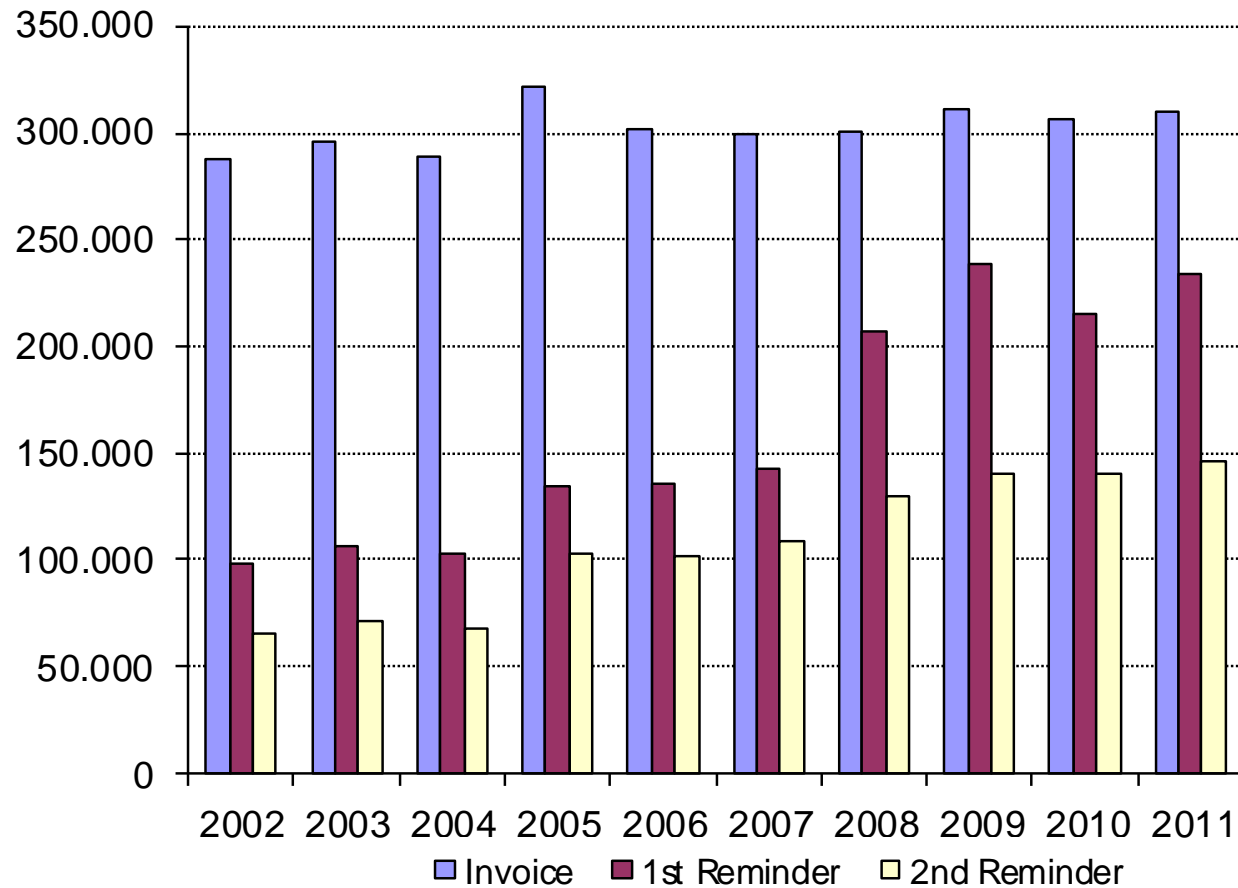
support Demand

- Customer Information
- Campaigns



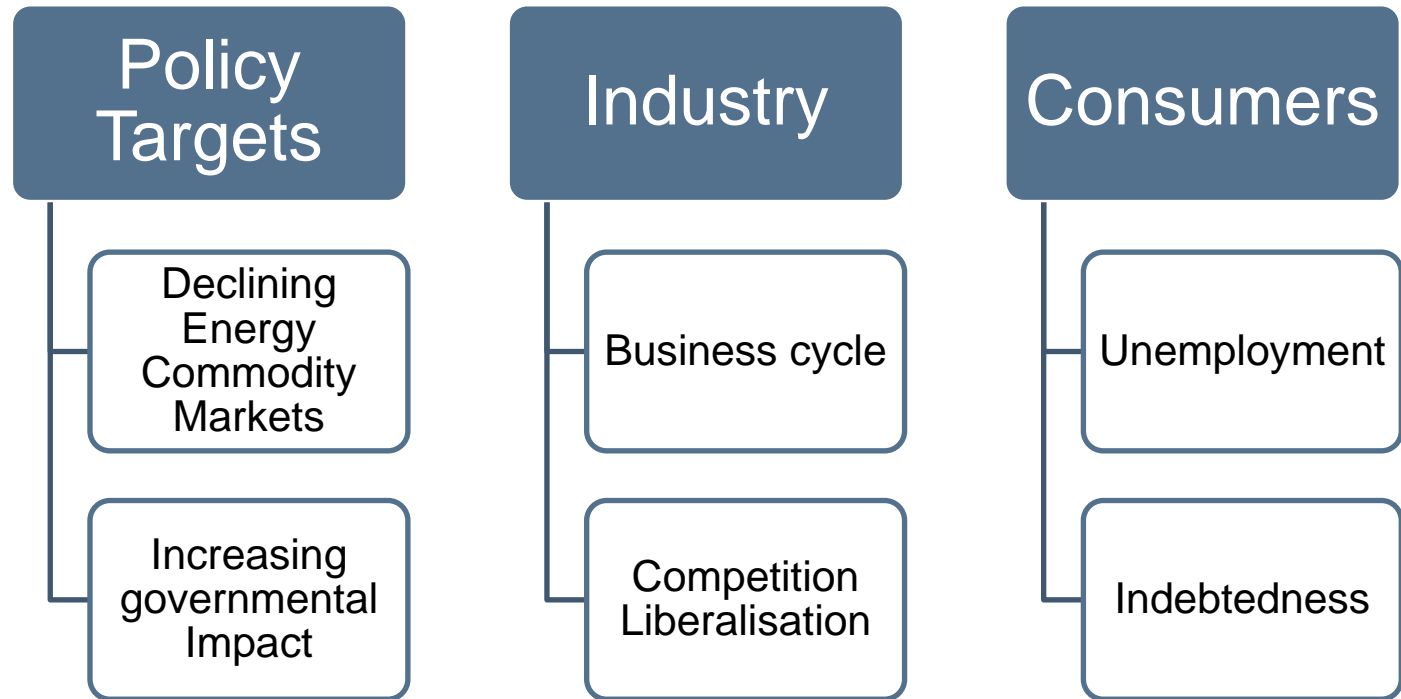
Because of these challenges, energy companies have to adjust their strategy.

Necessity to act; deprived consumers in Wuppertal



The amount of 1st was 2.5 times as high as in 2002, of 2nd reminder tripled.

Increasing risks for WSW



2 challenges result: Development of new business areas, aid for socially deprived people

**Reduction of energy
quantity and CO₂**

**Energy efficient
technologies**

**Energetic interface
optimisation**

**Efficient operation
of net energy**

**Reduction of energy
costs**

Acquisition

Load management

Consumer behaviour

**Security of
supply**

**Maintenance
strategies**

Emergency supply

**Efficiency of
infrastructure**

**WSW
COMMODITIES**

**WSW
COMPRESSED AIR**

**WSW
COMPRESSED AIR RENT**

**WSW
HEATING**

**WSW
REFRIGERATION**

**WSW
ENERGY-MONITOR**

**WSW
ENERGY-AUDITS**

**WSW
GRID SERVICES**

Conceptionel: Consulting

Leakage Management
effective search, documentation,
effective planned repairs, analysis,
change of methods

Energy Management and Audits
Optimise Consumption and reduce
Costs,

Sell „Utiliy from Energy“

Technological: Contracting

Compressors:
different dimensions
optimised istallation, heat
extraction,

Heating,
Different dimensions(100 kW –
21,000 kW), incl. CHPs

Cooperation and Innovation:
Laborelec

Example: Combined heat and power station for the company Erfurt



Lignite-dust-fired boiler (BKS):

- Steam: 22 t/h plus 4.5 t/h through injection
- 49 bar; 450 °C
- BKS silo: 530 m³ gross

Steam turbine:

- Performance: 2.4 MW

Commissioning:

- Approx. March-April 2010

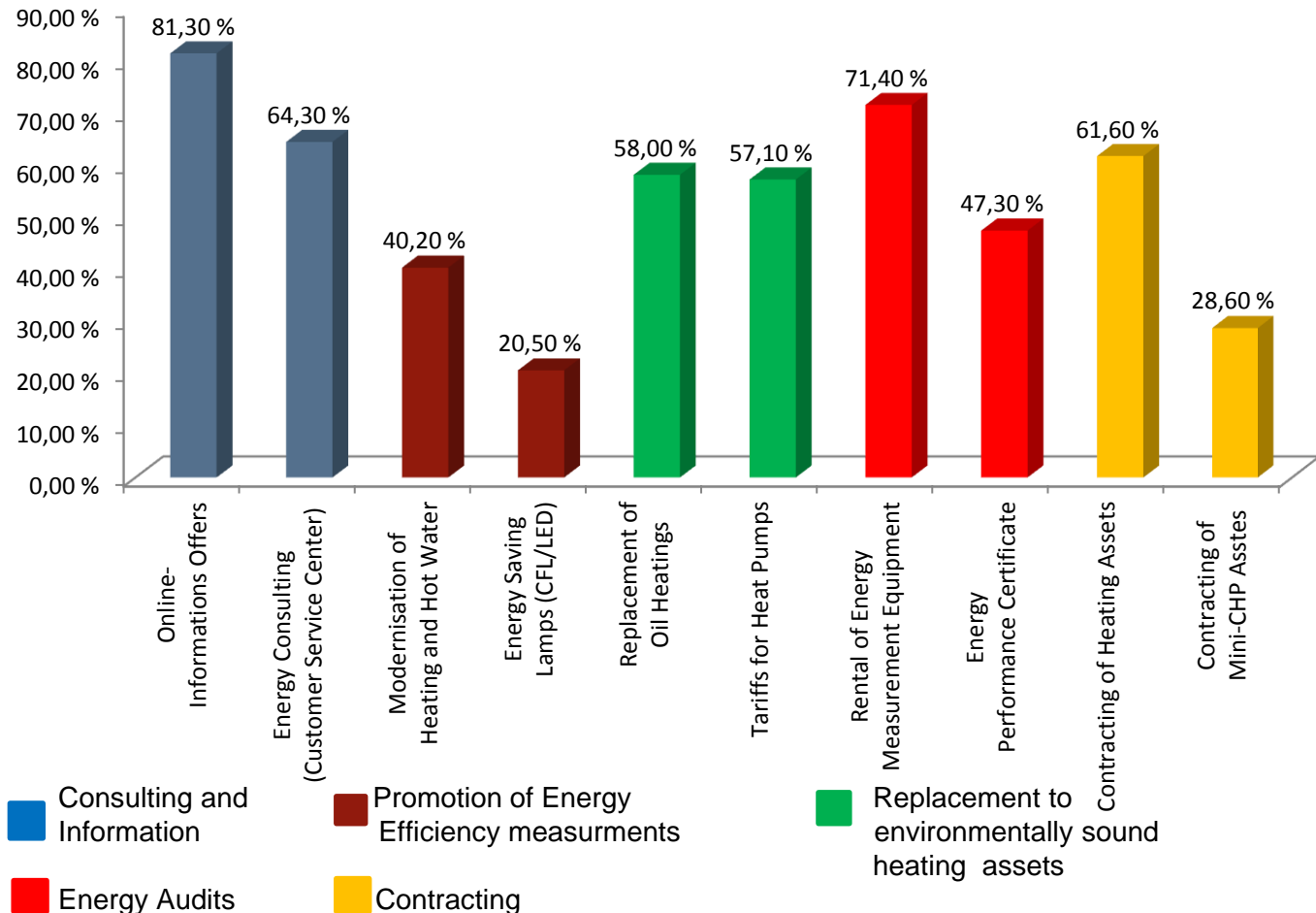
Supply quantity:

- Steam from BKS approx. 105,000 t/a
- Current in the form of power approx. 8.5 million kWh/a

Emergency and peak load boiler

- Existing gas boiler 19.7 and 7.0 MW

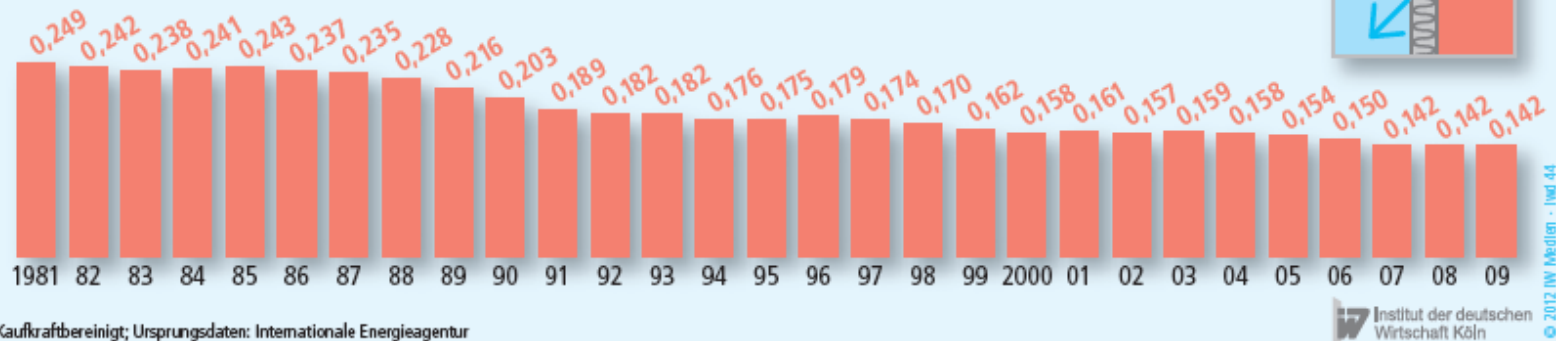
Preliminary Results of VKU/ASEW Survey: Energy Services in Local Utilities



These Services are promoted intensively by Local Utilities.

Energieeffizienz in Deutschland

Energieverbrauch in Tonnen Öl je 1.000 Euro reales Bruttoinlandsprodukt



Source: Institut der deutschen Wirtschaft, Auf dem Weg zu mehr Nachhaltigkeit, Erfolge und Herausforderungen 25 Jahre nach dem Brundtland-Bericht. Köln, 2012

Energy Efficiency in Germany:

- Energy Consumption in bbl oil/1.000 EUR GDP
- Consumption bisected since 1981
- Special Effect 1990-91, German Reunification.

Germany is on the right track!

Politics matters, it:

has to set targets and establish awareness.

- Only formulate a framework!
- The framework has to be reliable!

has to give the market space to breathe.

- Give the players time to adjust to new frameworks and to develop products!
- Regulation kills creativity!
- Always be aware, that MS are really different! To narrow regulations will lead to bossing around market participants!

has to monitor and report developments.

- Carefully read and consider the findings of the forthcoming National Energy Efficiency Action Plans!
- Make sure to deduce the right conclusions!



Thank you for your attention!

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