



HOCHSCHULE RUHR WEST
UNIVERSITY OF APPLIED SCIENCES

INSTITUT ENERGIESYSTEME + ENERGIEWIRTSCHAFT



prognos

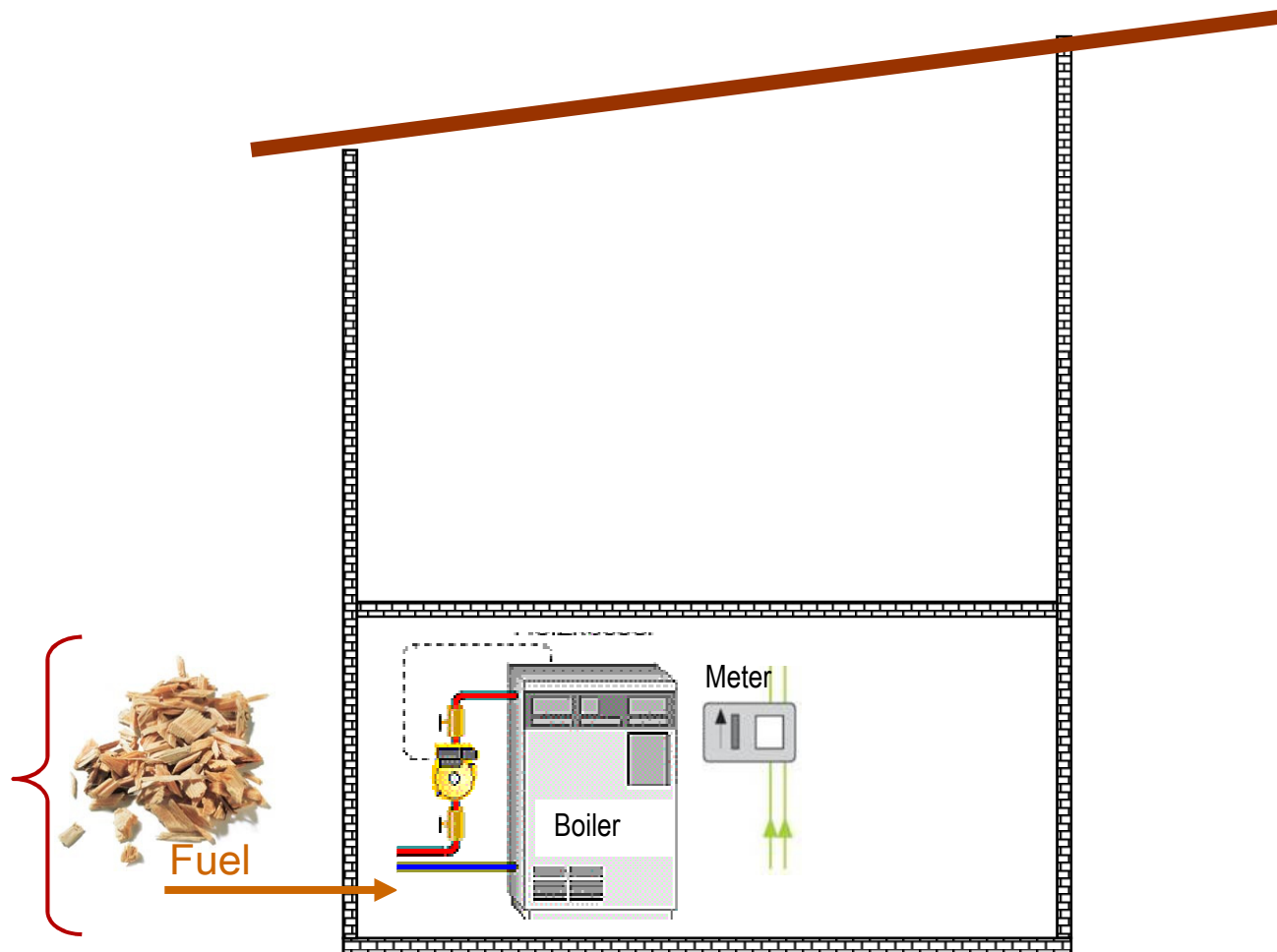
Market Survey of the ESCO Market in Germany What's in it for Building Retrofit?

Friedrich Seefeldt, Head of Unit Energy Efficiency, Energy Services & Renewable Energies
EDLIG Conference, Copenhagen, 17.3.2014

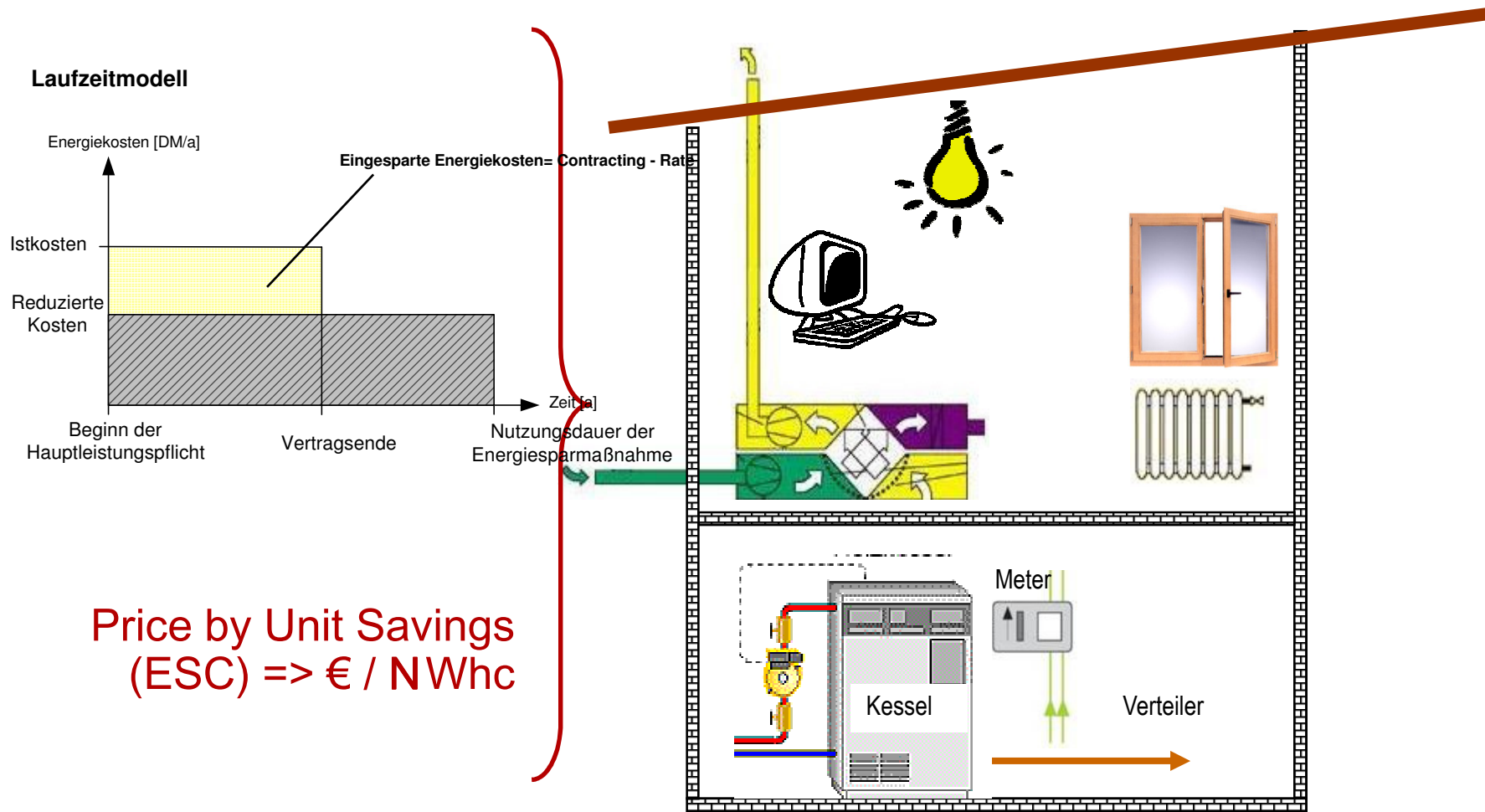


Supply of Heat & Electricity

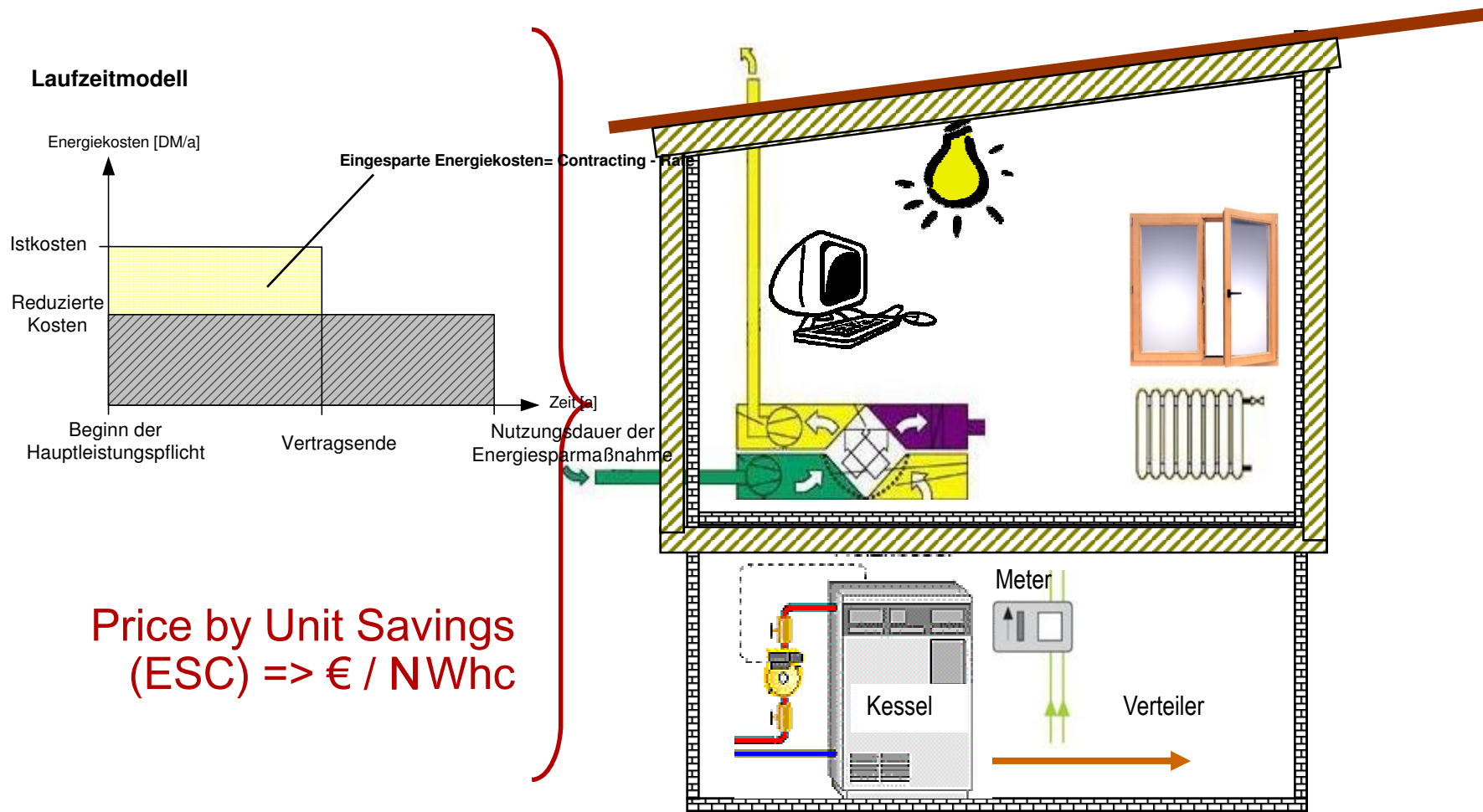
Price by Unit Energy
(ELC) => € / MWh



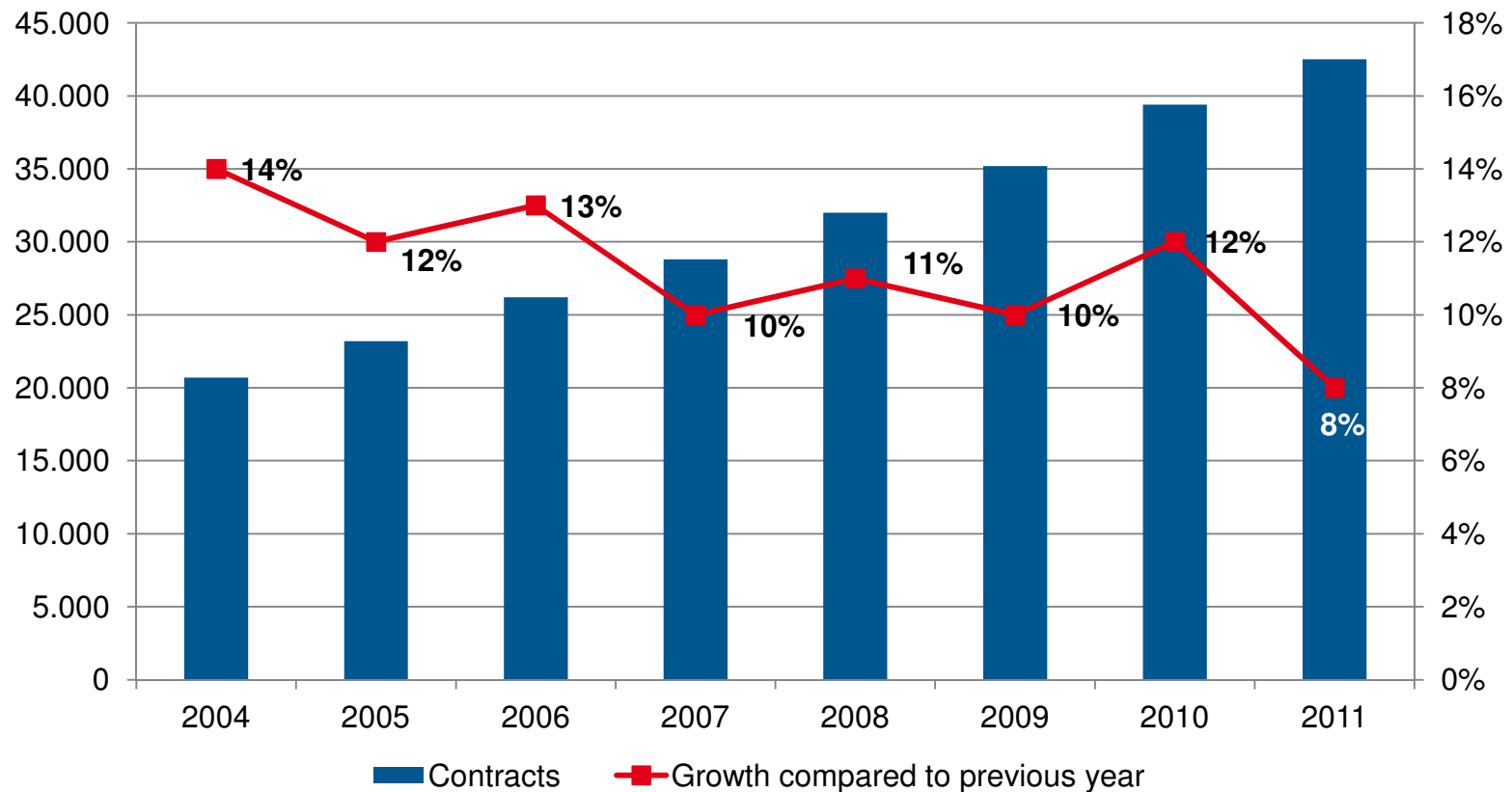
Optimisation Technical Equipment, Lighting, HVAC, Control Techniques



Optimisation Technical Equipment & Insulation of Building Shell ?



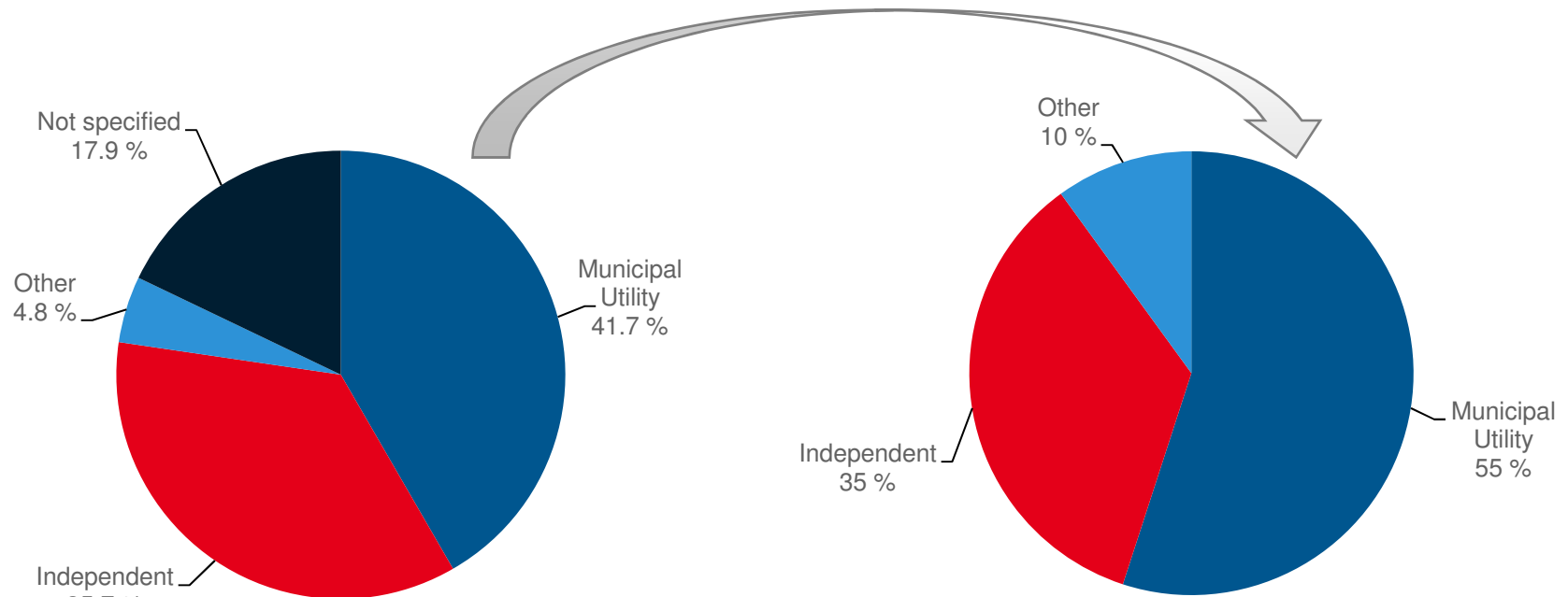
Data from the Association for Heat Supply (Verband für Wärmelieferung e.V (VfW)) Member's survey 2012



Source: VfW 2012

Prognos-Business Survey 2008

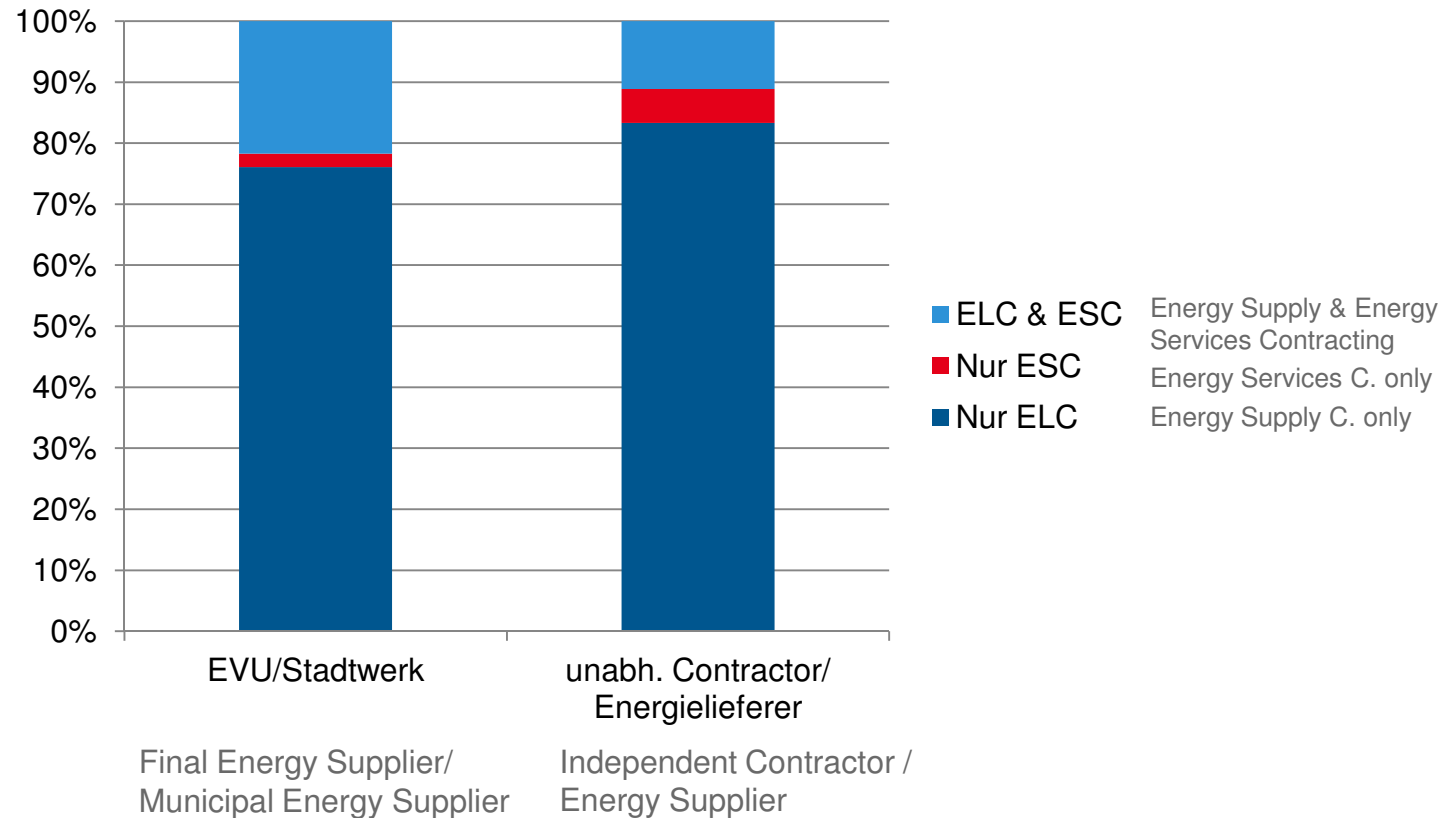
Most recent Survey Prognos/ifeu/HRW 2012



* (craftsmen, architect's offices, engineering companies, planners, etc.)

Source: Prognos/ ifeu/ HRW 2012; Prognos 2009

Types of Contracting by Suppliers



Source: Prognos/ ifeu/ HRW 2012

Profil of a typical midium sized/larger municipal energy supplier (anonym):

e.g. Turnover: EUR 300 - 400 million (overall, but rather stagnating, partially declining)

e.g. Contracts: 100 - with the tendency of slight growth, **but no double digit growth rate**

e.g. Share of ESCO turnover / total : 0.5 - 2 % (with a rising importance)

90 % Heat Supply (Energy Supply Contracting)

10 % Operational Management Contracting

0 % Energy Saving Contracting

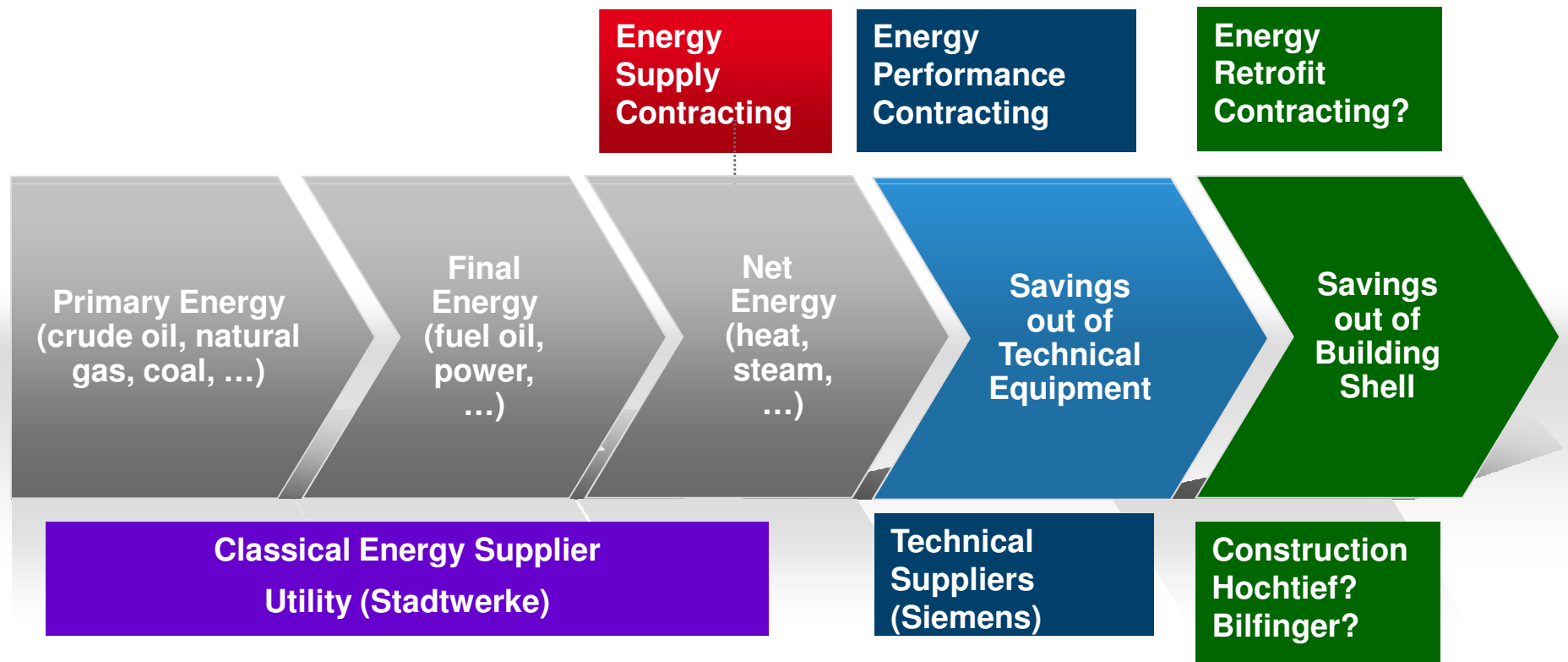
e.g. Medium:

80 % Heat supply

15 % Power

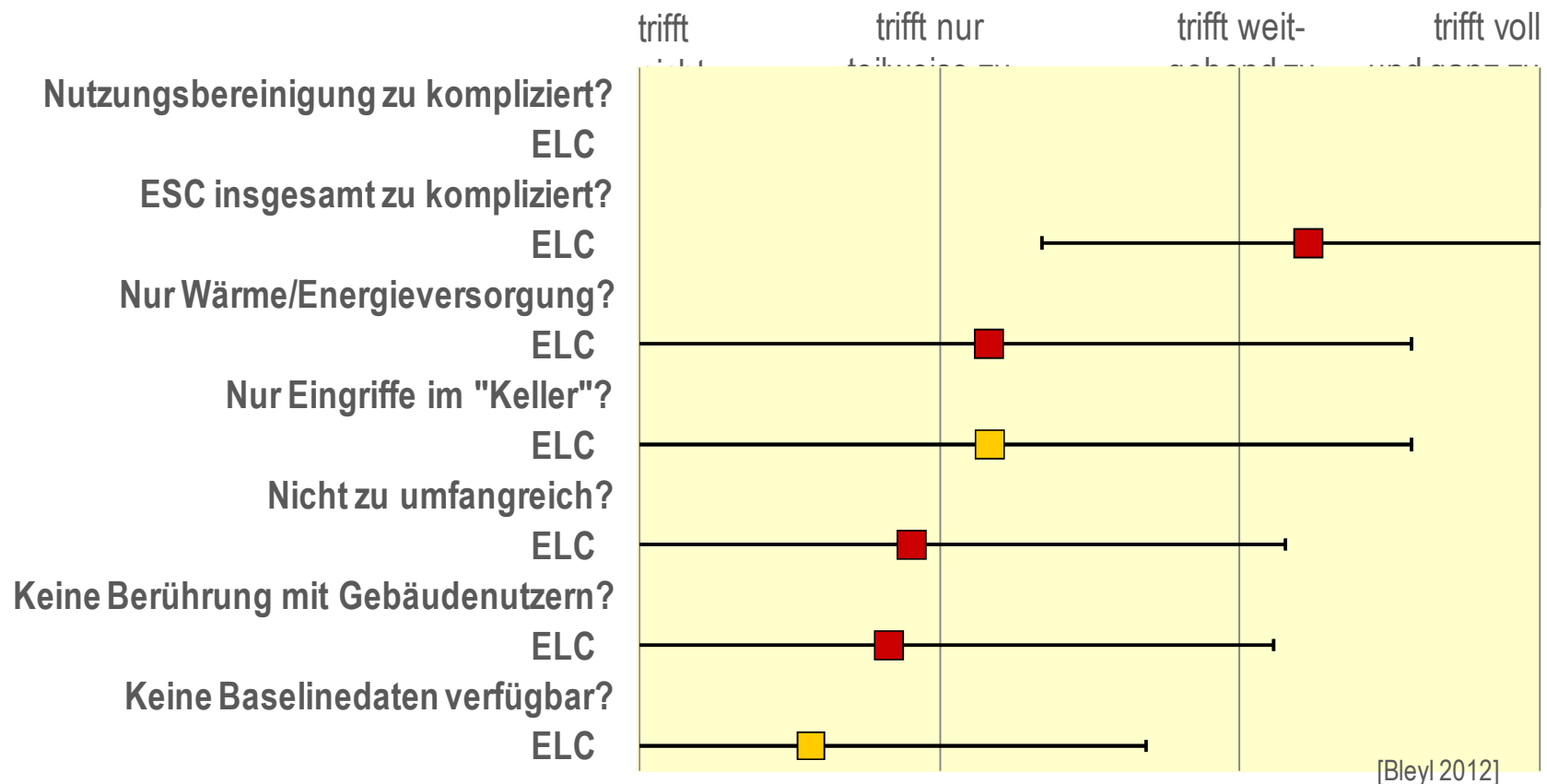
5 % Cooling

- Energy Supply Contracting (as well as „Chauffage“, „Boiler Contracting“)
- Energy Performance Contracting (as well as Energy Performance Contracting)
- Energy Retrofit Contracting?



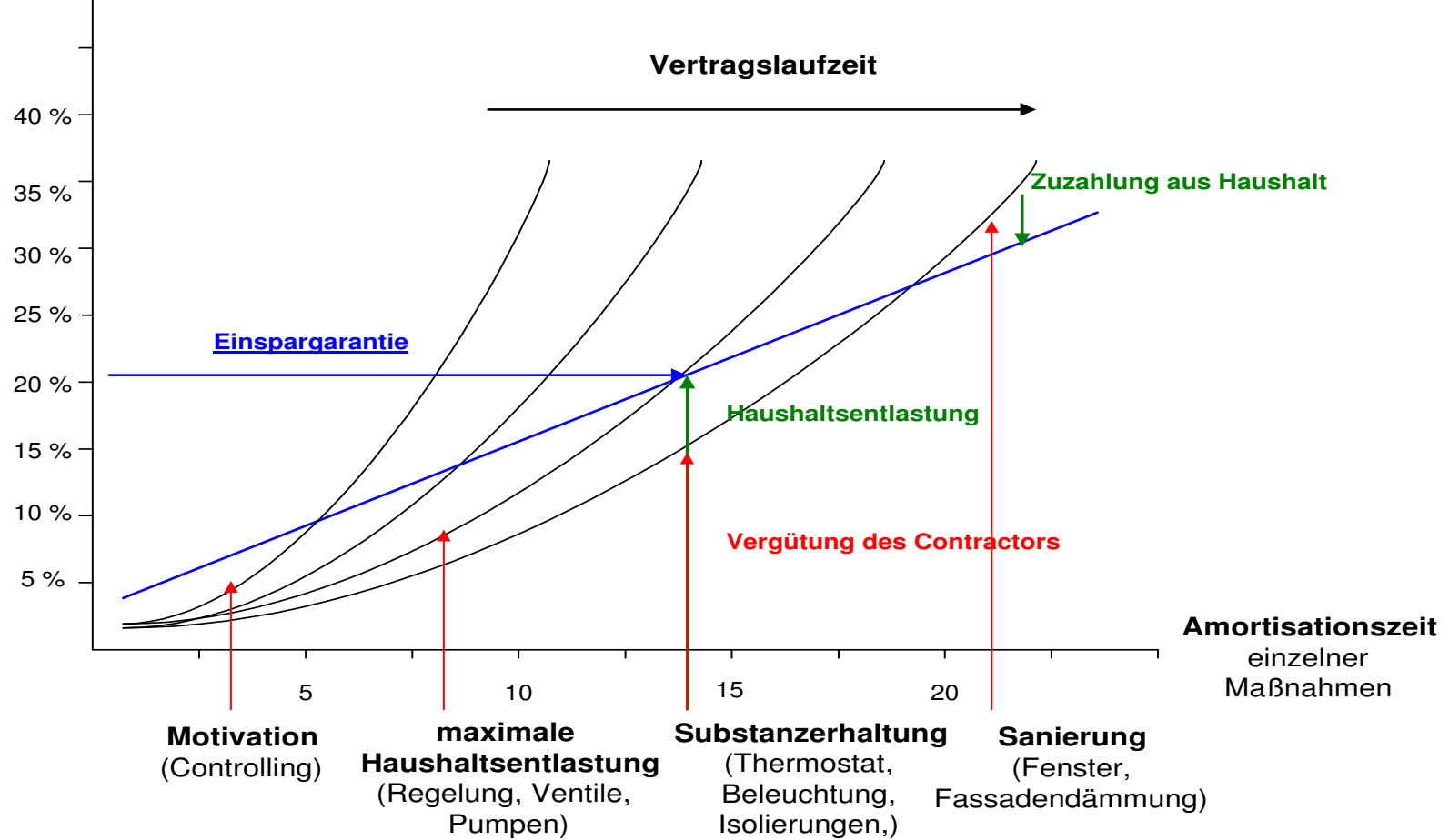
Is EPC too complex for a broader market?

- adjustment of weather & climate conditions
- adjustment of prices & tariffs
- adjustment of the building use (number of employees, students, beds...)



ERC requires a longer pay back period and/or additional payment by the building owner

Energieeinsparung



Source: Berliner Energieagentur 2002

Conclusion :

- ... Energy Supply Contracting (ESC) is moving its way (but with decreasing growth)
- ... Energy Performance Contracting is complex.
- ...Energy Retrofit Contracting is (nearly) not existing.

Reasons?

- increasing complexity of technical design.
- increasing complexity of legal design.
- increasing complexity of financial design.
- longterm payback , low return on invest (RoI)
- share of building investments is much higher than energy investments.

„Wag the Dog“! Have you ever tried to finance a car by fuel savings?

The idea remains the same...

Option 1

do it right: rather buy the whole building! (PPP)

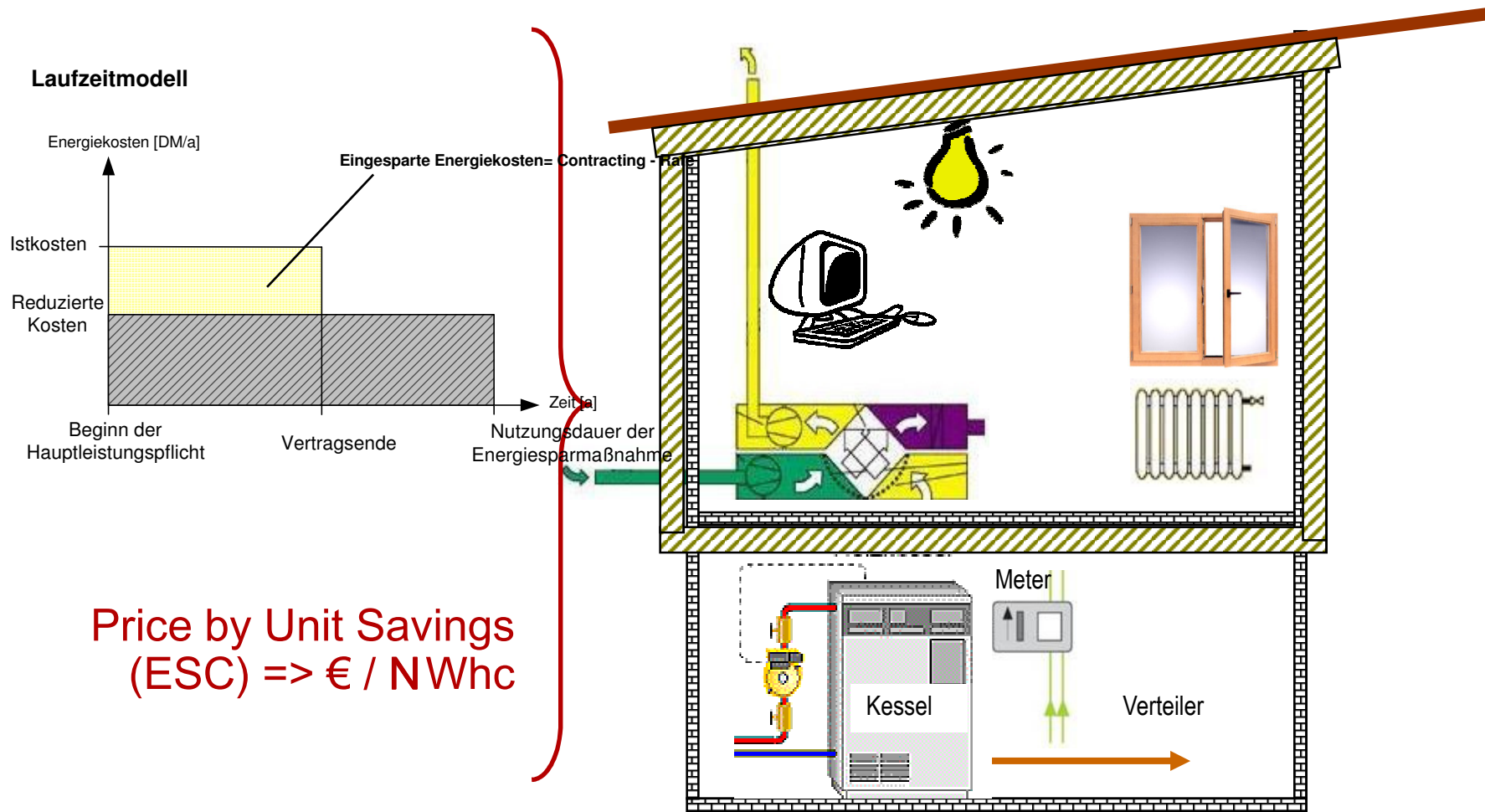
Option 2

do it light: combine the easy way (ESC) with an integrated retrofit by the building owner.
basically: do not try to finance & to take over risks for the whole measure.

[→ Integrated Energy Contracting (IEC) after Bleyl et. al.]

Energy Retrofit Contracting (ERC) ?

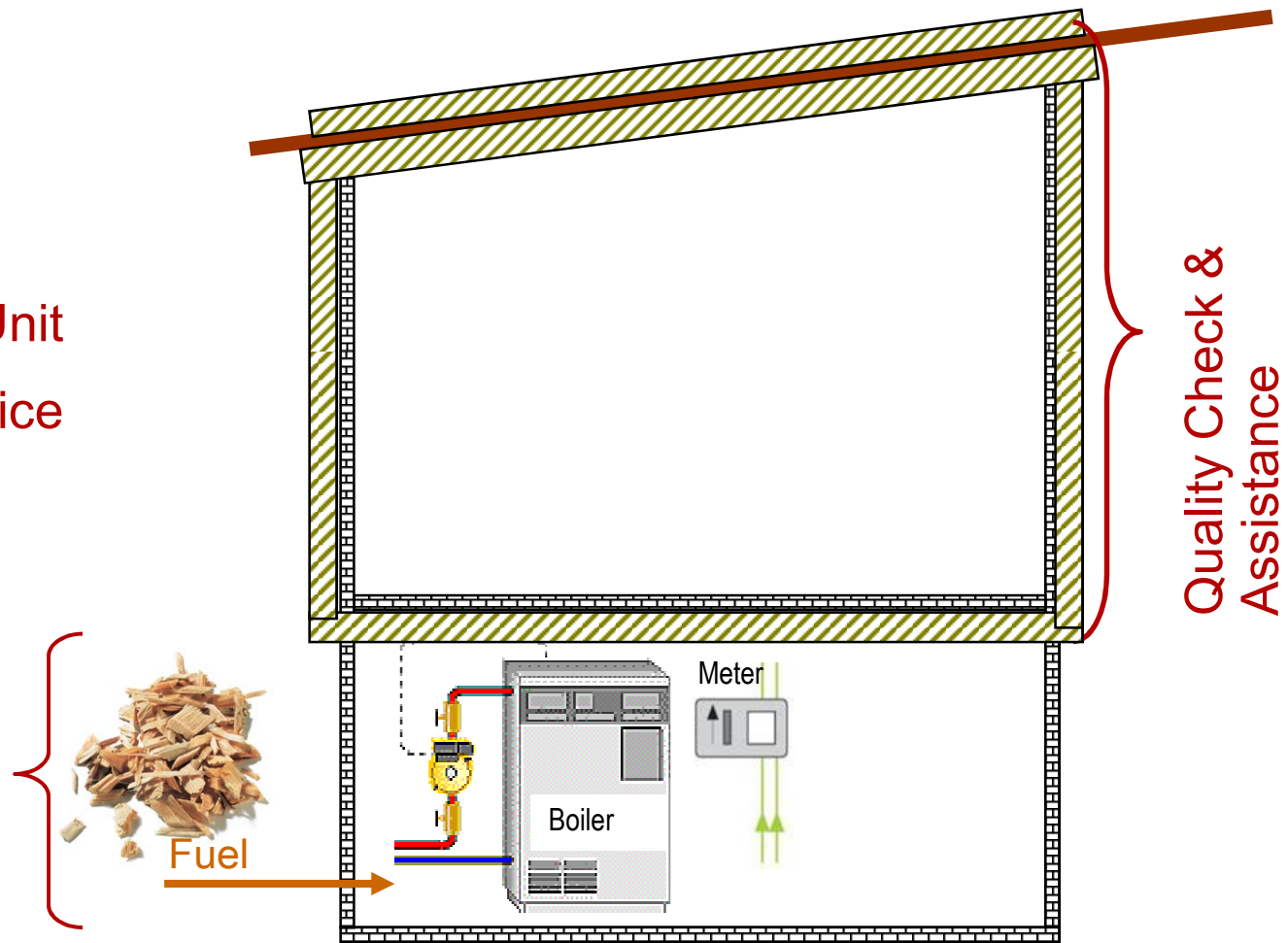
Optimisation Technical Equipment & Insulation of Building Shell ?



Energy Contracting Models should be easy for the client!

Price by Service Unit
(ERC) => € / Service

Price by Unit Energy
(ELC) => € / MWh



Thank you for your attention!



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