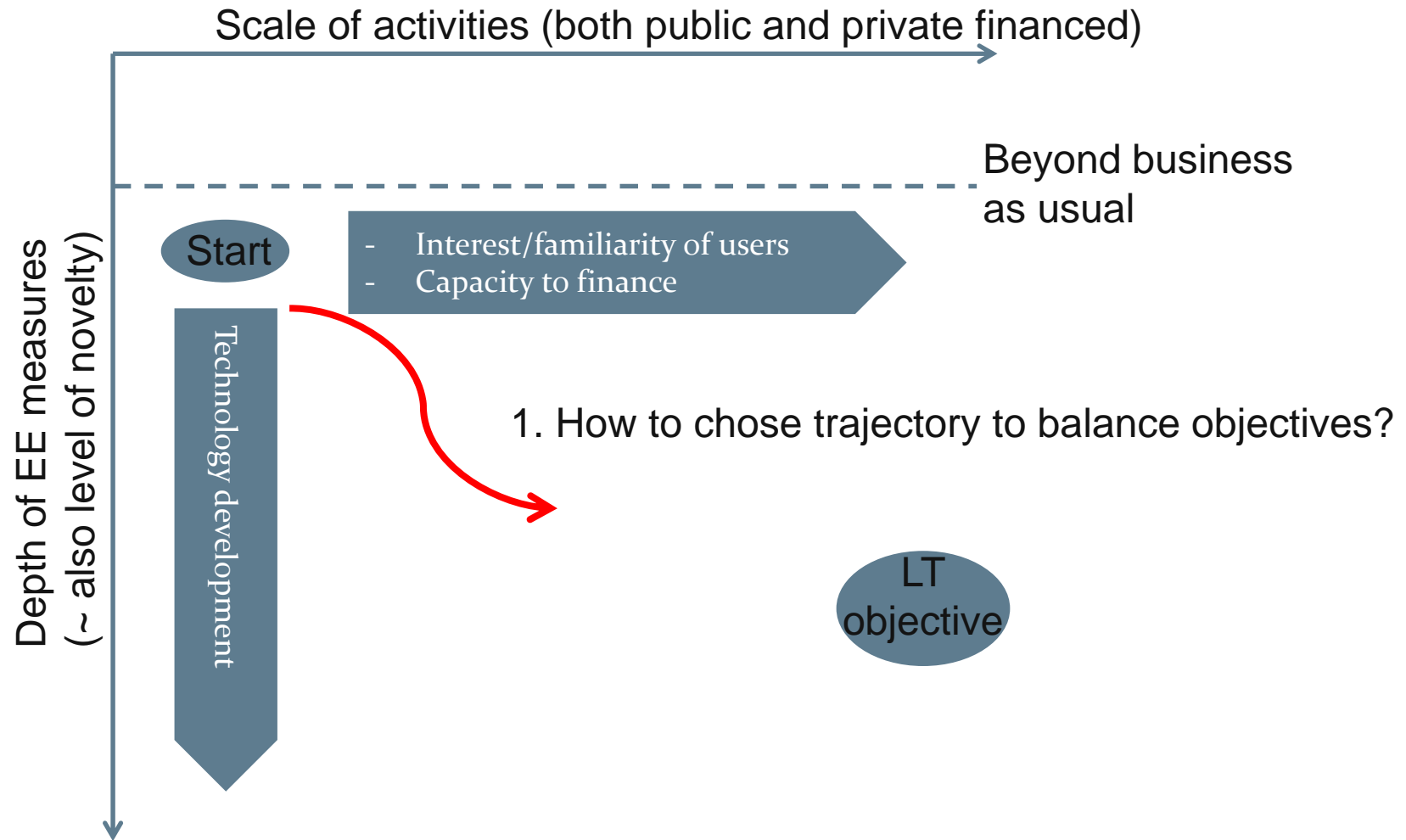


Expert Dialogue on Energy Efficiency

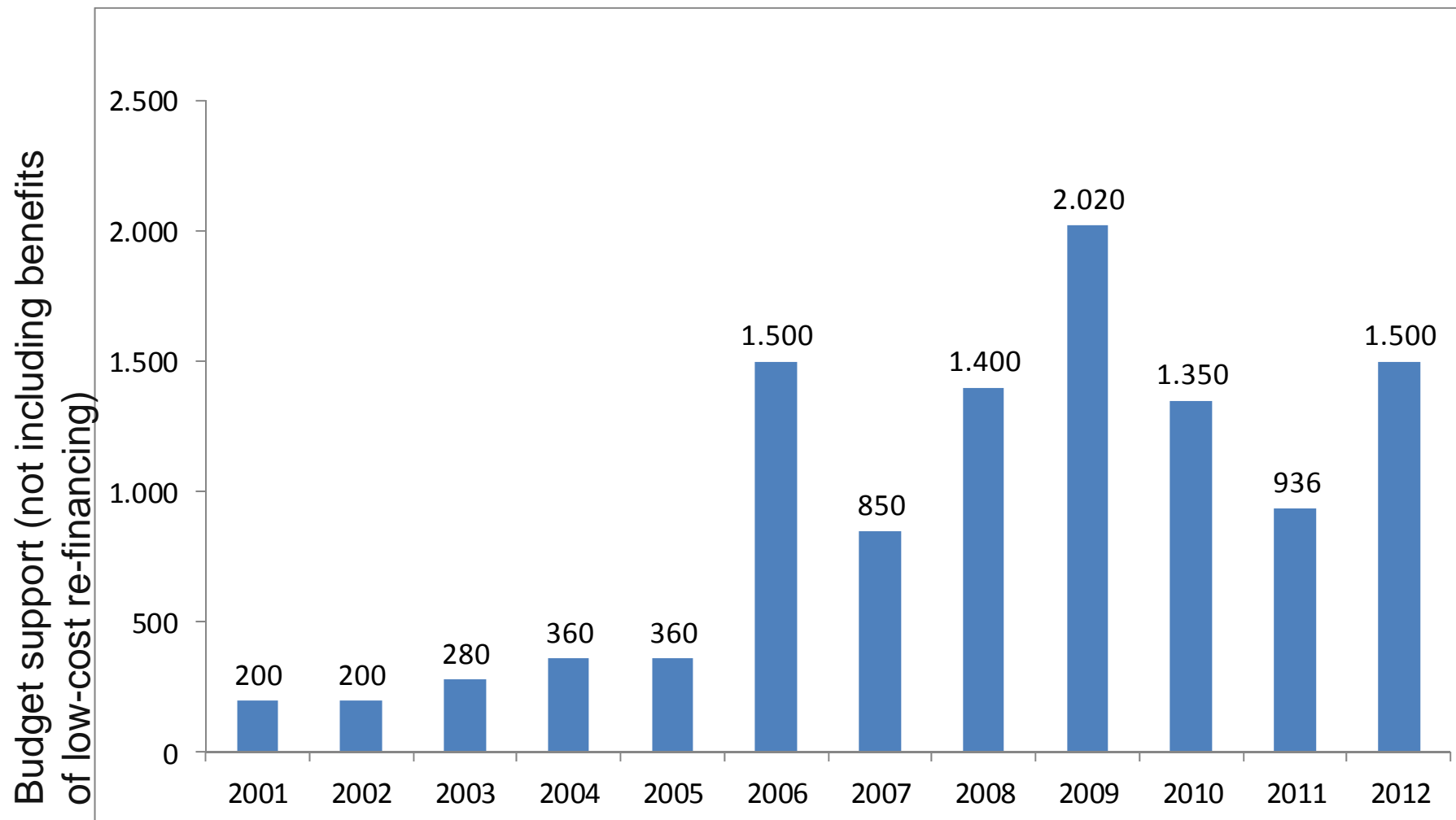
How to Combine Incentives and Regulation? Comment on Incentive Schemes for Energy Efficiency in France

Karsten Neuhoff,
Berlin , 23.1.2013

Is there a trade of depth versus scale of EE measures?



Development of scale of KfW programs



Quelle: BMVBS, 2011

Depth versus scale – and complementing measures

- Can requirements be too tight?
 - Example wind: Growian 1983, 3MW turbine, 4 years operation
 - Then built up from smaller to bigger – today 4 MW off-shore

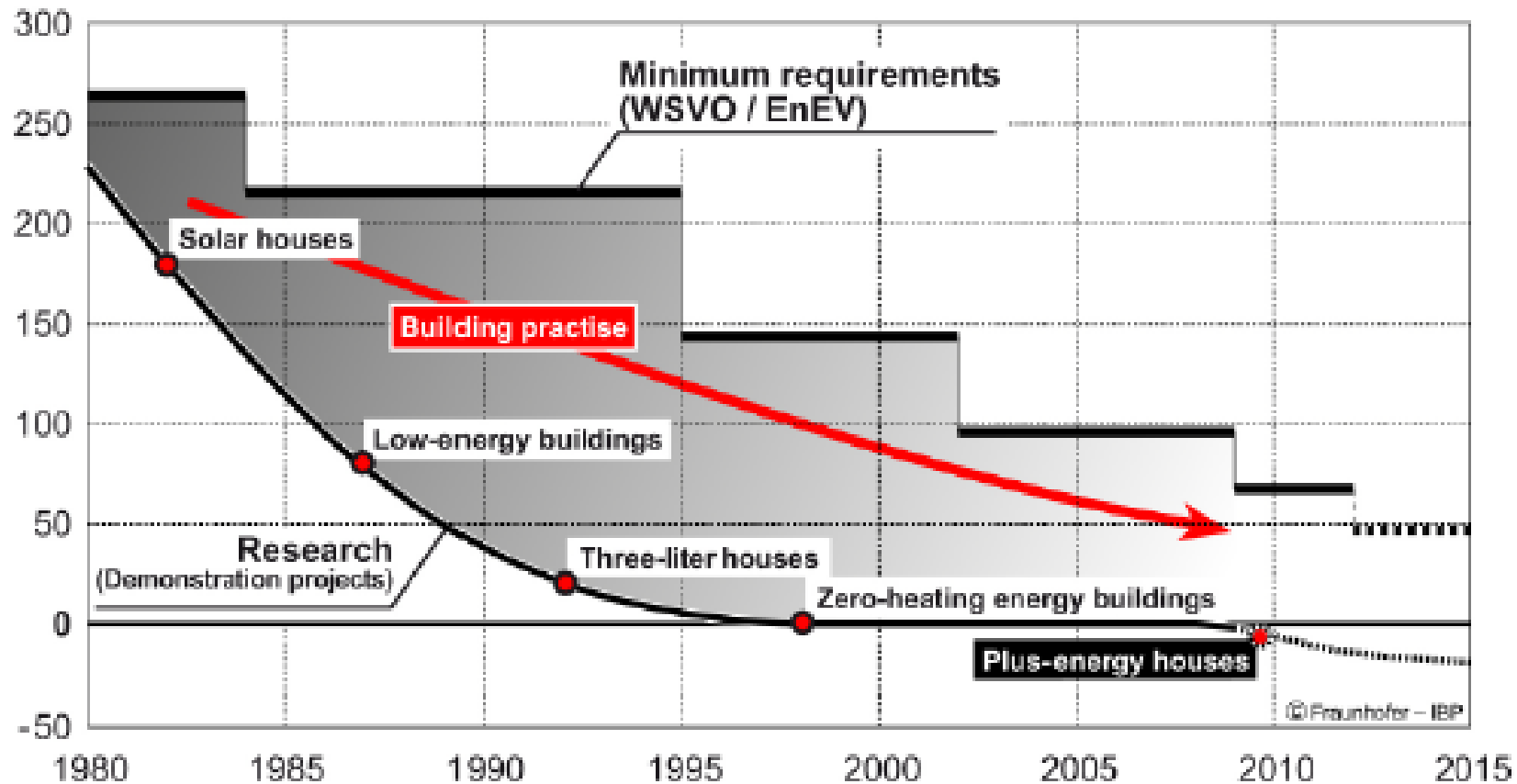
-> retrofits thermal target significantly below passive house

- Is there a need for minimum requirements?
 - Example California 1980th – tax credits for wind turbine investment

-> low quality (operation did not matter) -> killed industry

-> Retrofit supported if certain standard exceeded

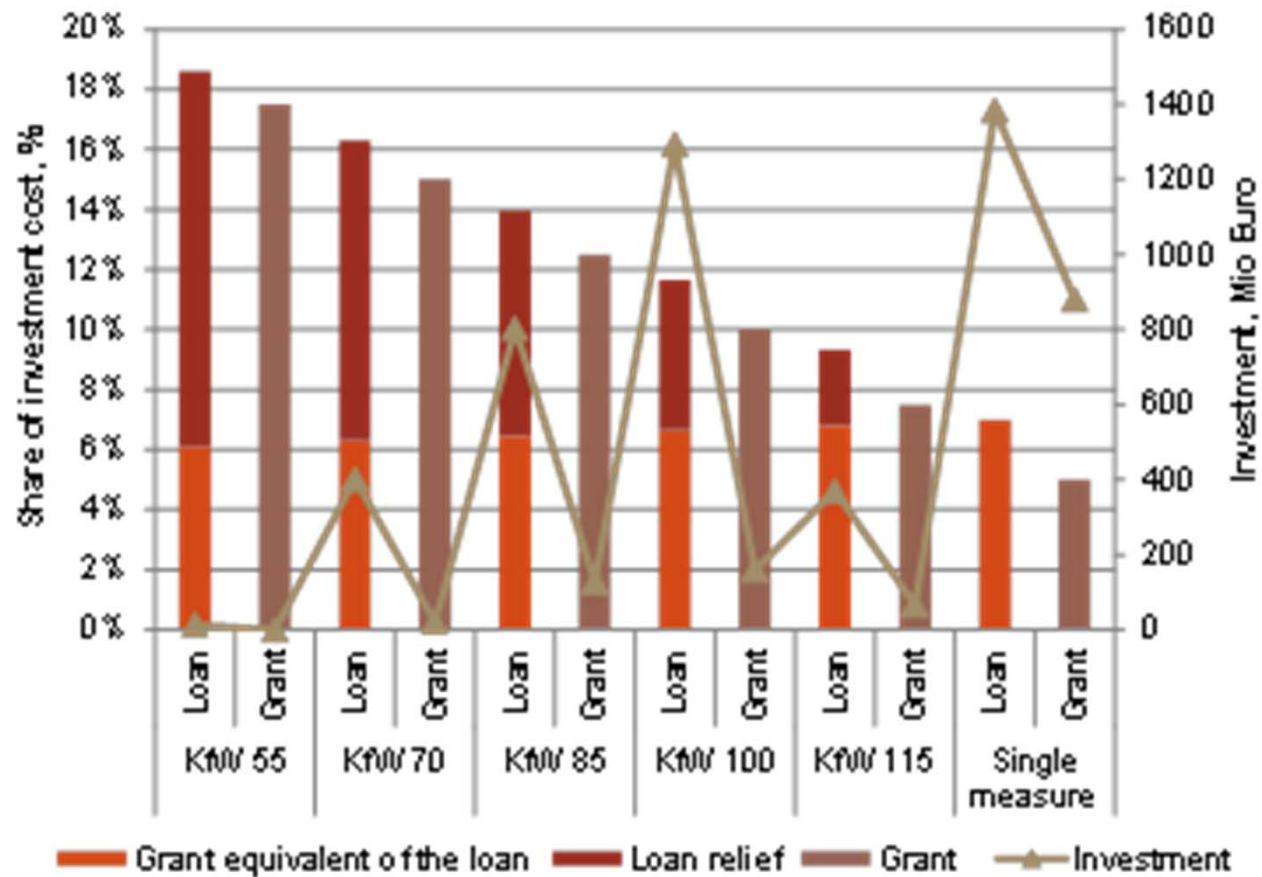
Energy performance standard history in Germany (Primary energy demand heating kWh/m²a)



Source: Erhorn and Erhorn-Kluttig, 2009

Karsten Neuhoff, 22.3.2012

KfW support levels by measure type



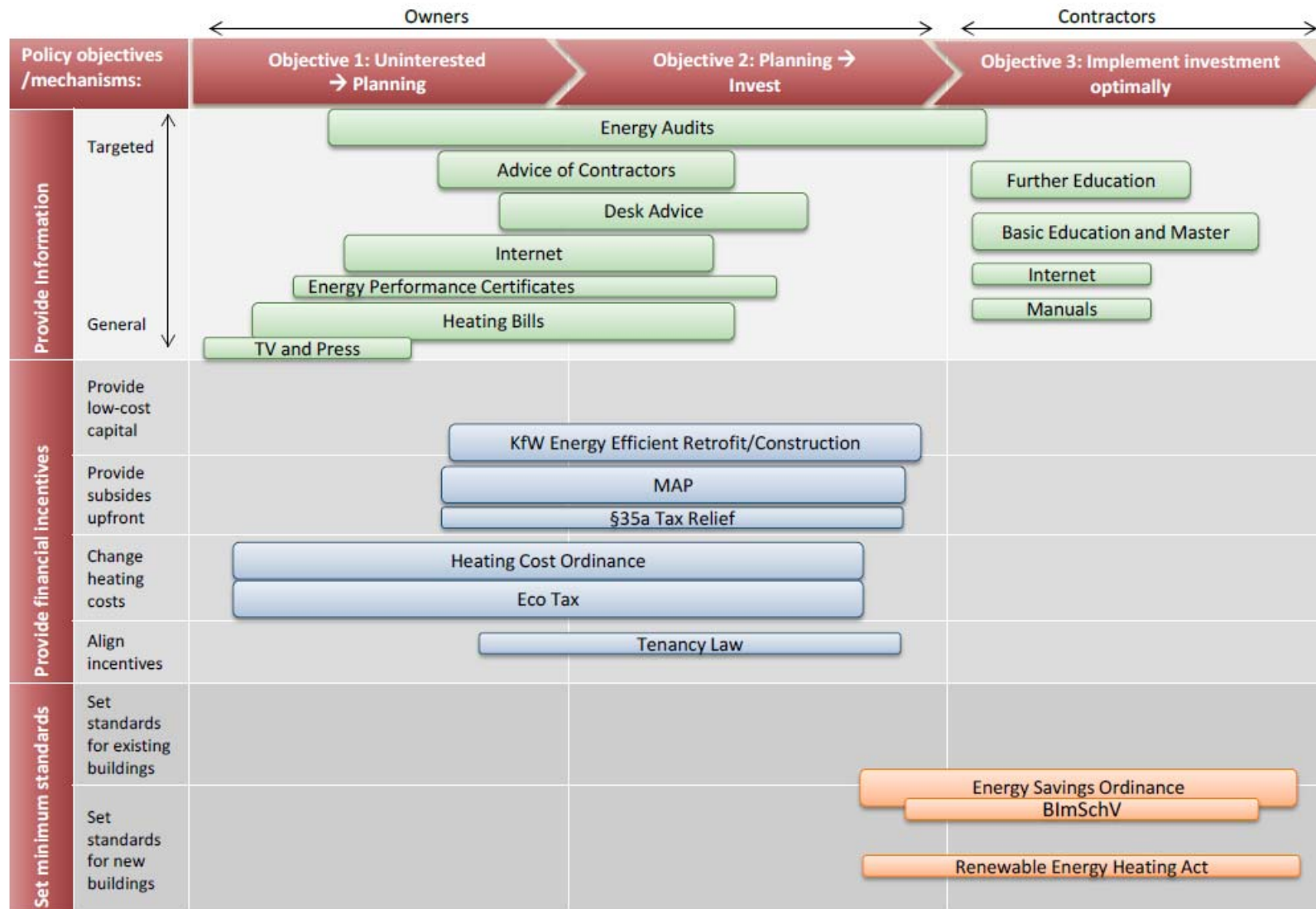
*Based on KfW interest rates as of May 2011

Complexity of programs

- Concern about complexity voiced in Germany
 - KfW loans, KfW grants, Possibly tax incentives
 - Plausible argument: Helps to target different owners
- Is there a role for Obligation Based approach (EE directive)?

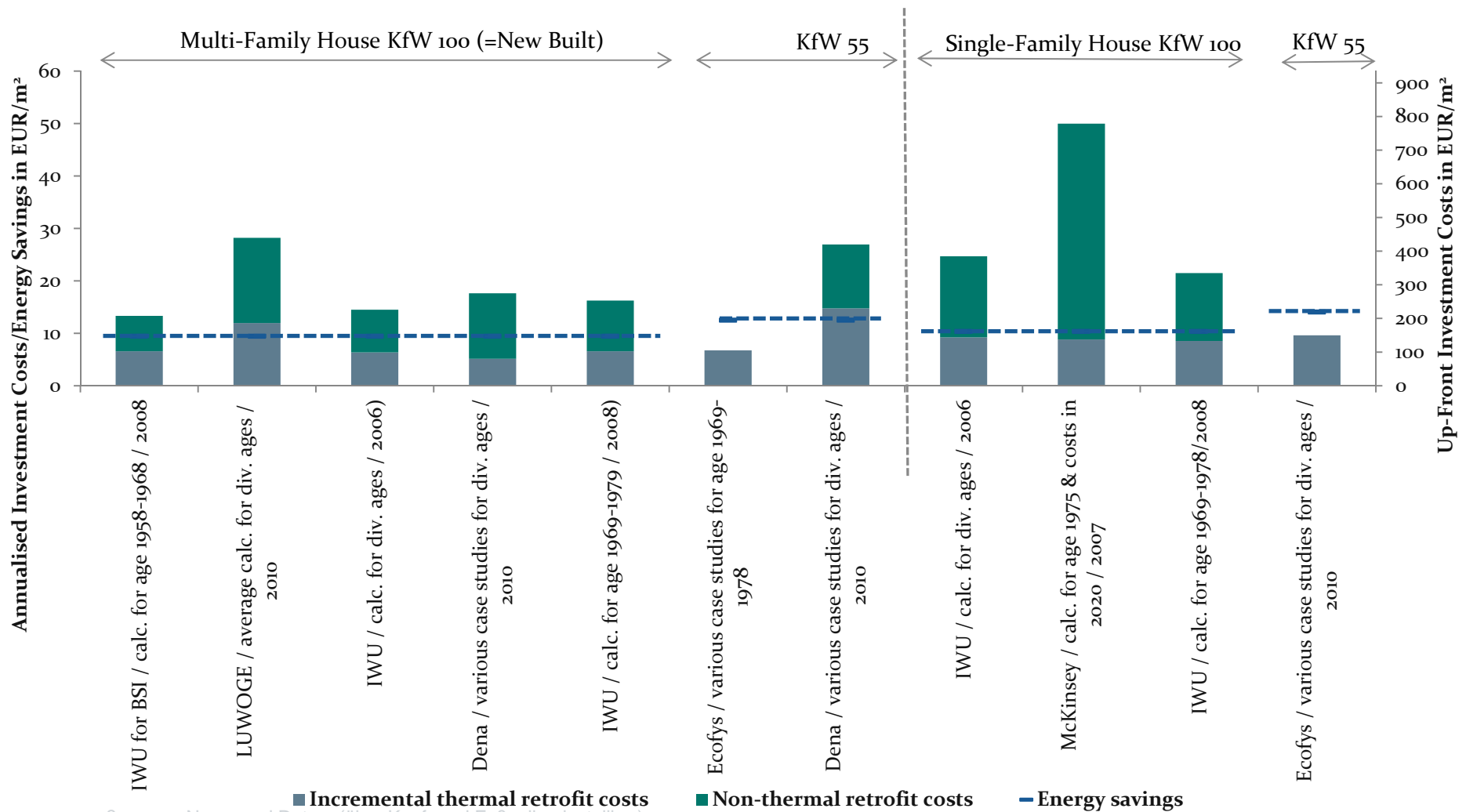
- Importance to align required standards
 - To guide early retrofit design choices
 - To create scale and simplify access

Complementing policies are central



Karsten Neuhoff, Hermann Amecke, Aleksandra Novikova, Kateryna Stelmakh (2011) Thermal Efficiency Retrofit of Residential Buildings: The German Experience

Comprehensive thermal retrofit is possible and economic



Deep retrofits pay off within 20 years (assuming 7 Cent/kWh gas price, 4% market interest rate, 1.5% inflation).

The importance of visibility and targets

- For private actors – to consider EE benefits and risks of inefficient investments
- For supply chain – to invest in innovation and scaling up capacity
- For public actors – to coordinate action across the various instruments required

Vielen Dank für Ihre Aufmerksamkeit.



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