
ASSESSING THE IMPACT OF THE EU ECODESIGN DIRECTIVE ON A MEMBER STATE LEVEL

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Eceee Summer Study
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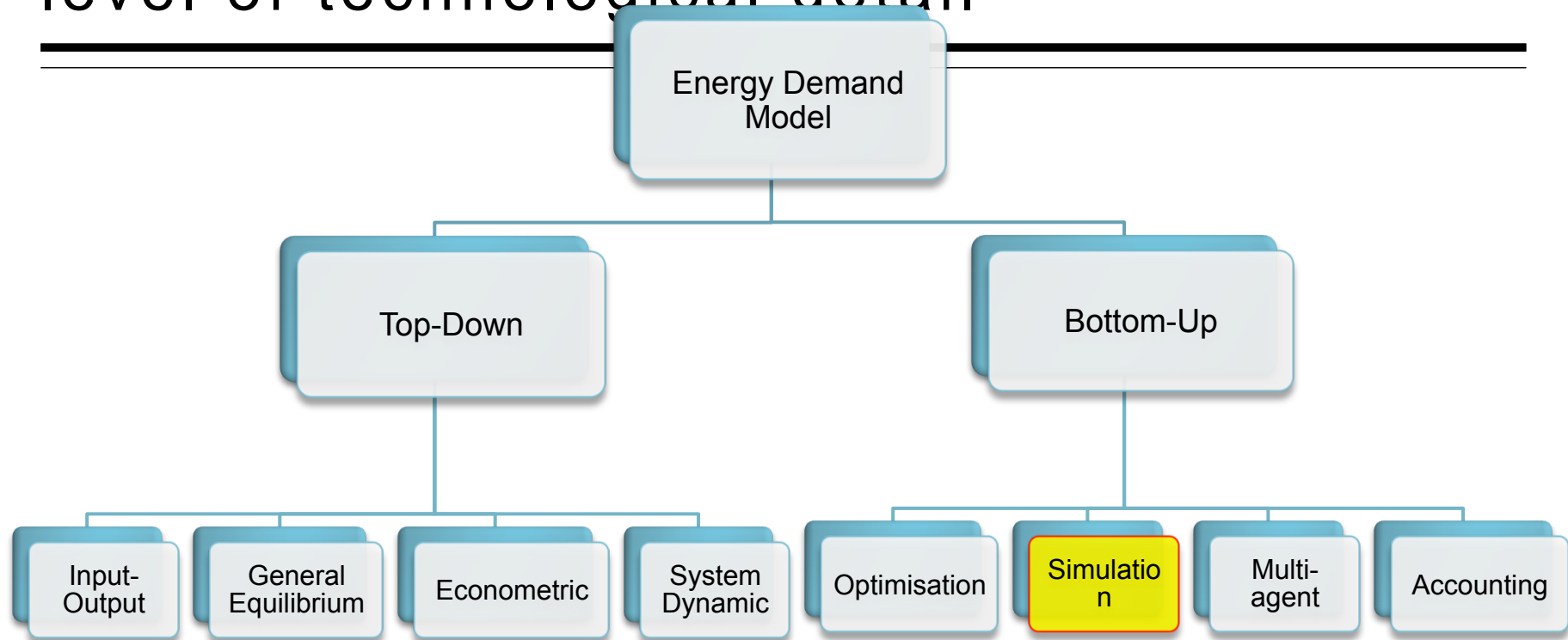
Product Groups	Preparatory Study Completed	Regulation (Enforced from)	Impact Assessment	Sector allocation		
				Industry	Services	Household
Lot- Simple Set Top Boxes	yes	25.01.2010	published			x
Lot 1 Boiler and Combi-boiler	yes	02.08.2013	published	x	x	x
Lot 2 Water Heater/Boiler	yes	02.08.2013	published		x	x
Lot 3 PCs and Computer Monitors	yes	26.06.2013	published		x	x
Lot 4 Imaging Devices	yes		published			
Lot 5 Consumer Electronic: Television	yes	07.01.2010	published			x
Lot 6 Standby and (off-mode) Losses	yes	07.01.2010	published			
Lot 7 External Power Supply Units	yes	27.4.2010	published			
Lot 8 Office Lighting	yes	13.4.2010		x	x	
Lot 9 Street Lighting	yes	13.4.2010		x	x	
Lot 10 Air Conditioner	yes	30.03.2013	published			x
Lot 10 Small Fans	yes	30.03.2013	published			
Lot 10 Ventilation Systems	yes					
Lot 11 Electric Motors (0,75kW - 200kW)	yes	27.01.2009	published	x		
Lot 11 Circulation Pumps	yes	01.01.2013	published	x	x	
Lot 11 Fans	yes	01.01.2013	published	x		
Lot 11 Water Pumps	yes	01.01.2013	published	x		
Lot 12 Commercial Refrigerator- and Freezers	yes					x
Lot 13 Household Refrigerators and Freezers	yes	01.07.2010	published			x
Lot 14 Household Dishwashers	yes	01.12.2011	published			x
Lot 14 Household Washing Machines	yes	01.12.2011	published			x
Lot 15 Small Plants combusting Solid Fuels	yes					
Lot 16 Clothes Dryer	yes	03.10.2012	published			x
Lot 17 Vacuum Cleaner	yes	08.07.2013	published			
Lot 18 Complex Set top boxes	yes	voluntary	published			
Lot 19 Household Lighting: non-directional	yes	01.09.2009	published		x	x
Lot 19 Household Lamps: "Reflector Lamps"	yes	01.01.2013	published		x	x
Lot 20 Local Room Heating Products	yes					
Lot 21 Central Heating Products	yes					
Lot 22 Household and Commercial Ovens	yes	20.02.2014				
Lot 23 Hobs and Grills	yes	20.02.2014				
Lot 24 Washing Machines, Dryers Commercial	yes					
Lot 25 Coffee Machines for non-Commercial Purposes	yes					
Lot 26 Linked-up Standby-Losses	yes	22.08.2013				
ENTR Imaging Systems in Medicine	no					
ENTR Lot 1 Refrigerators and Freezers	yes					
ENTR Lot 2 Transformers	yes	21.05.2014	draft			
ENTR Lot 3 Devices for Sound and Image Processing	yes					
ENTR Lot 4 Combustion Plants and Ovens	yes					
ENTR Lot 5 Machine Tools	yes					
ENTR Lot 6 AC and Ventilation Systems > 12kW	yes					

Relevance

Very high (>10%)
High (5-10%)
Medium (1-5%)
Low (<1%)
Per definition excluded
No data



Bottom-up simulation models with high level of technological detail



Bottom-up energy demand simulation models that allow to link the resulting energy demand to a transformation of the technological structure

Source: Sensuß

Energy demand models used in this study

FORECAST (www.forecast-model.eu)

Residential appliances

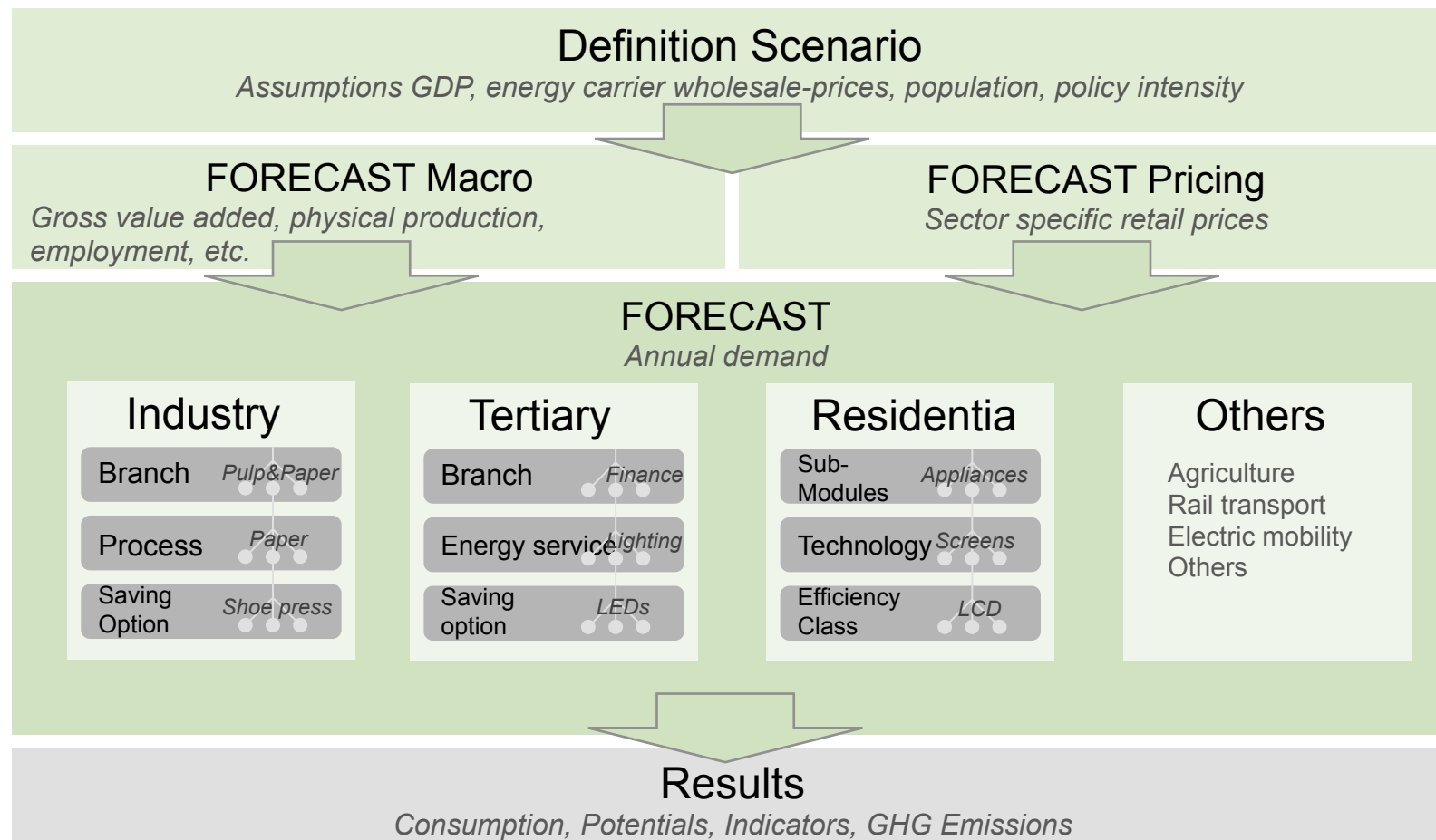
Industry

Service sector

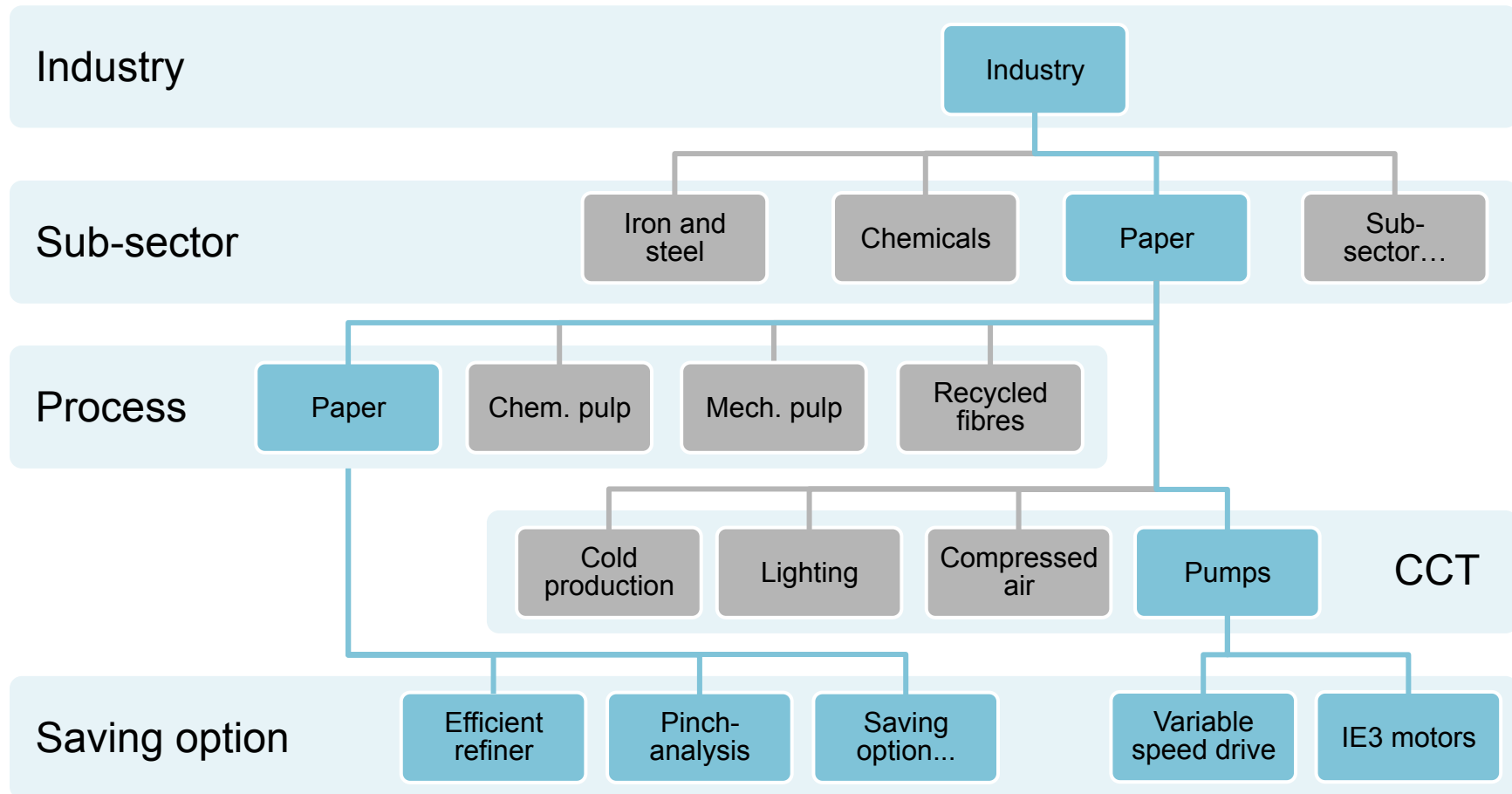
Invert/EE-Lab (www.invert.at)

Buildings

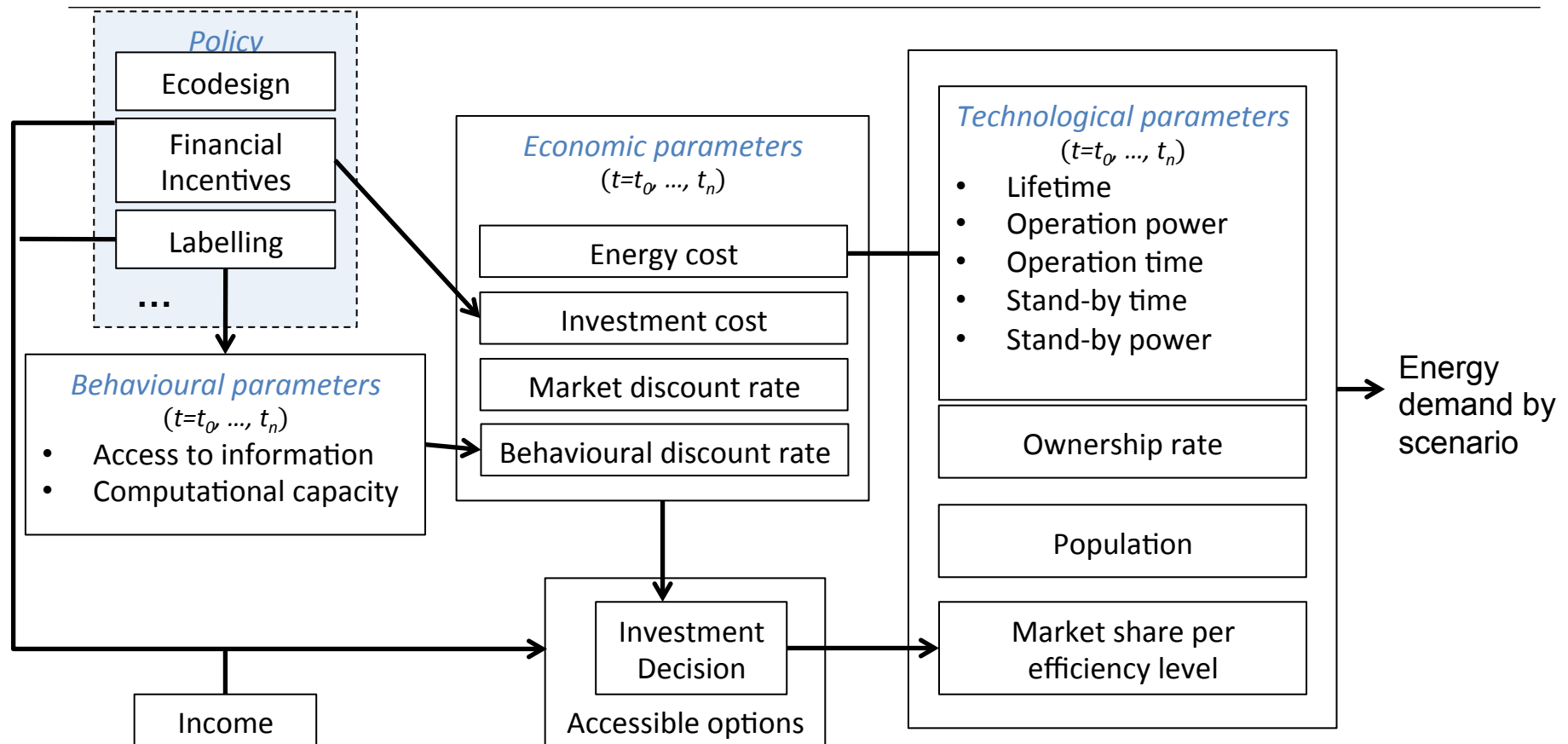
The FORECAST Model



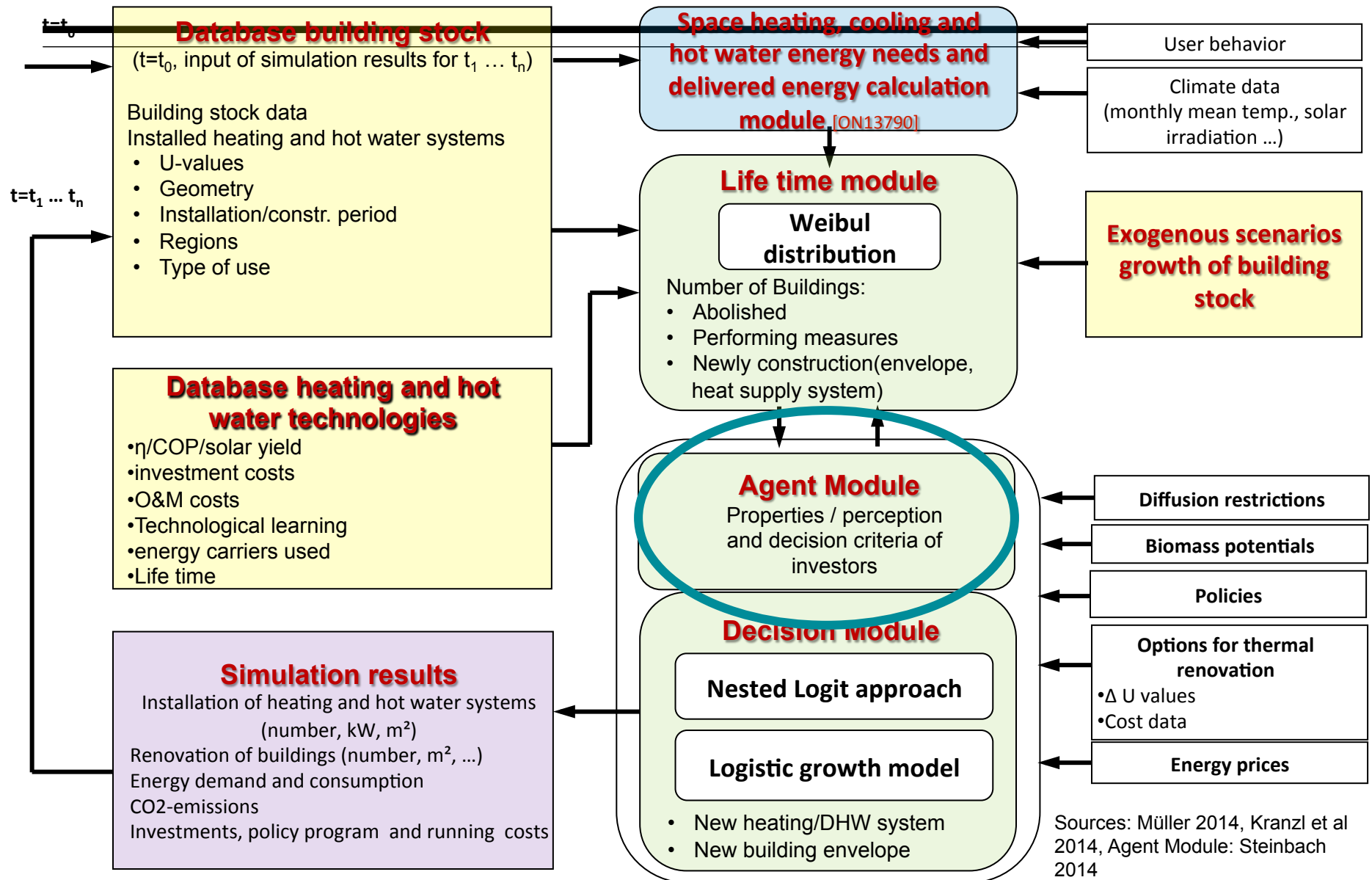
Hierarchical structure FORECAST-industry



Overview Forecast – Residential



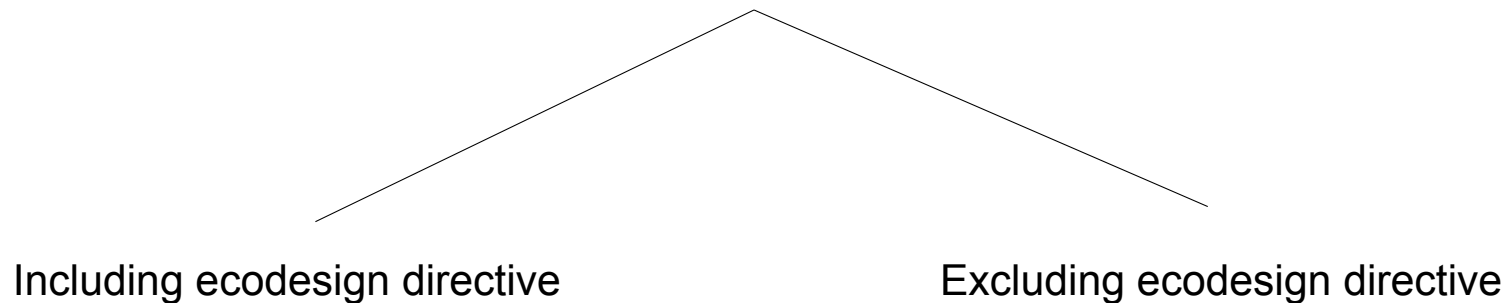
Modell Invert/EE-Lab



Scenarios

Scenarios based on „Study evaluating the current energy efficiency policy framework in the EU : providing orientation on policy options for realising the cost-effective energy efficiency/ saving potential until 2020 and beyond“ (Fraunhofer ISI, TU Wien, PWC, 2014)

„Baseline with early action“-scenario includes all policy measures implemented at the latest in 2013



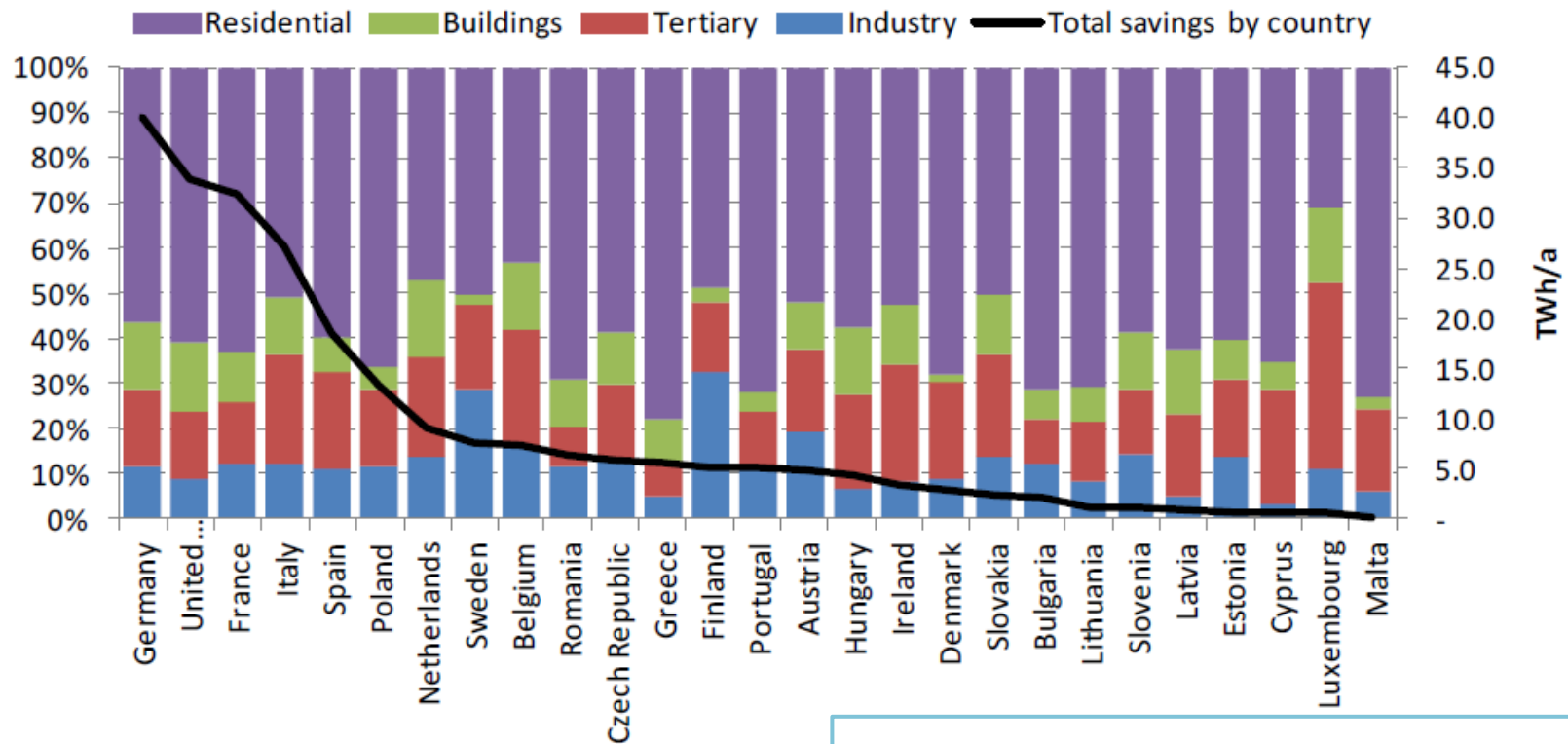
Data and assumptions

Lifecycle of technologies and appliance turnover not affected by ecodesign directive

Full compliance

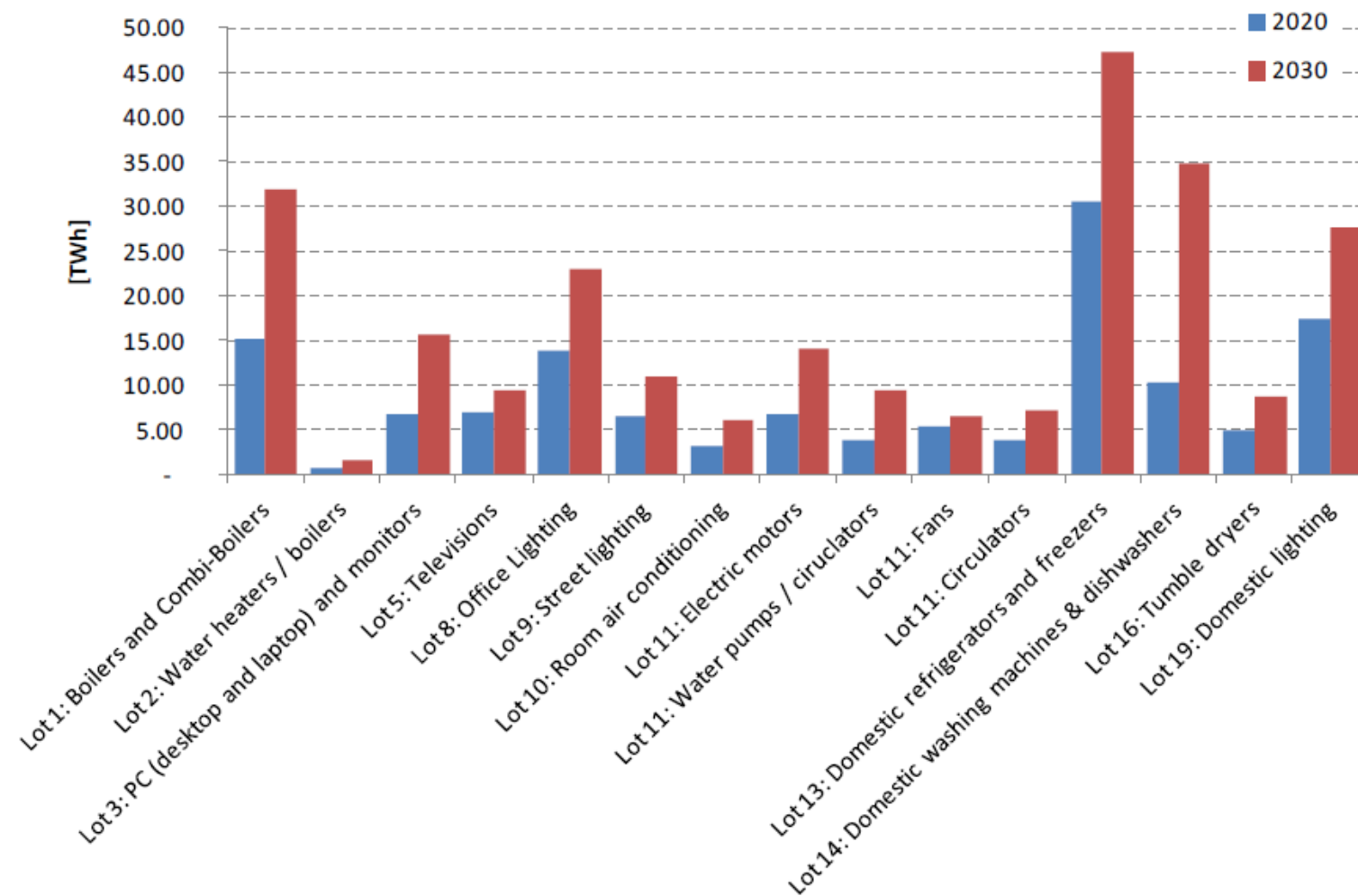
No rebound effect considered

Energy savings in 2030



225 TWh annual savings by 2030

Savings differ considerably between different lots



Opportunities and challenges

- Disaggregated allows quantification of effects for individual lots and countries
- Definition of minimum efficiency performance standards: Specific requirements for sub-categories with different characteristics are modelled as an average
- Lack of market data
- Overlap with other policy measures, especially labelling
- Lifetime of appliances
- Rebound effect

Thank you for your attention!