

CLOSING DAY

Assessing the Building Energy Performance Assessment Method Goals, Calculation and Evaluation **27 OKTOBER 2021**

Kjartan Van den Brande

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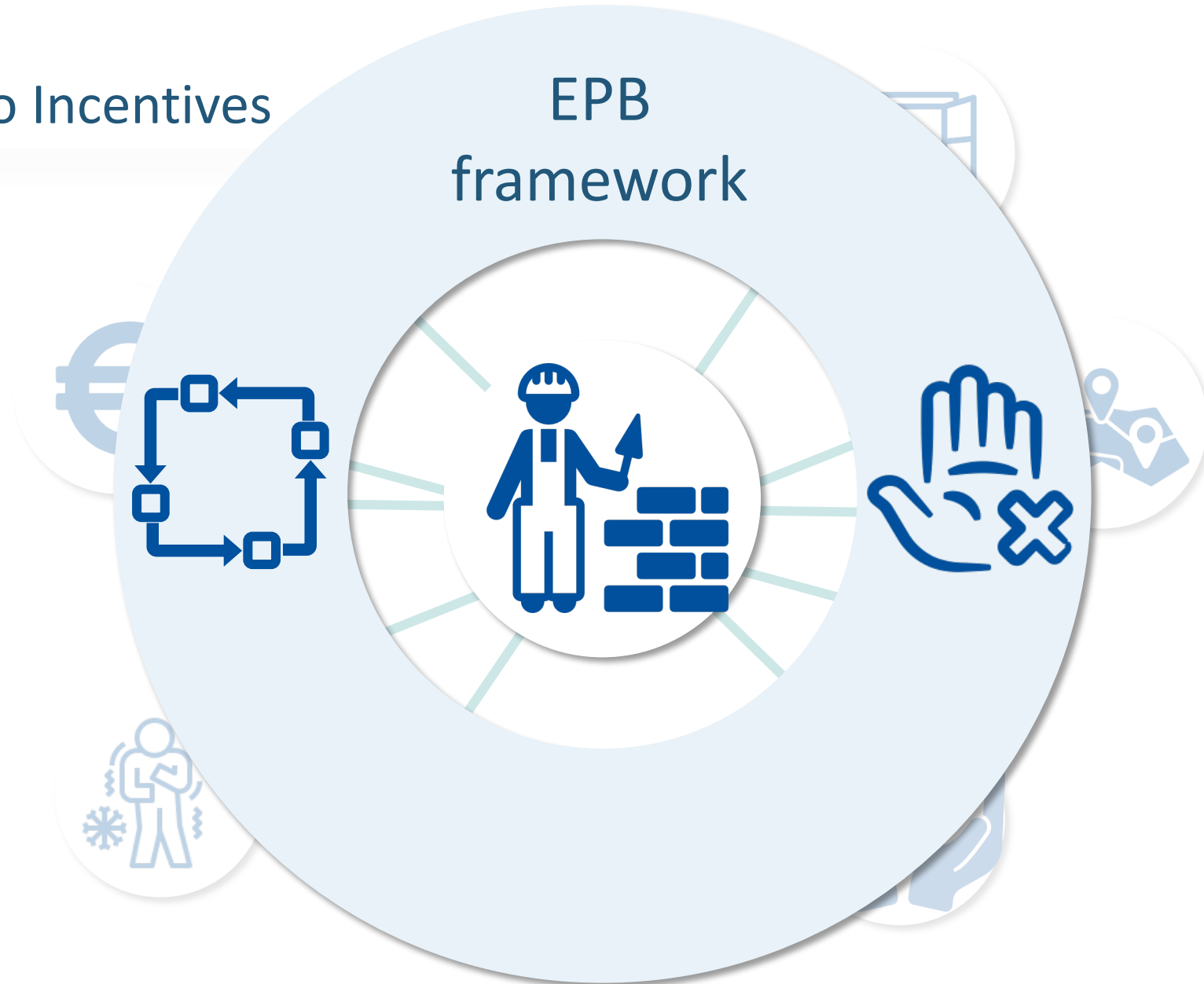
Goals

from Goals to Incentives



Goals

from Goals to Incentives



Goals

Goals Breakdown Structure

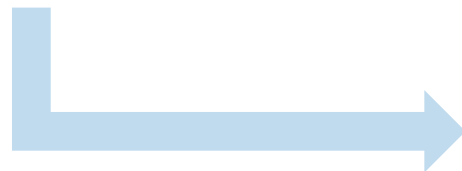
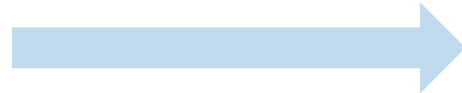
broad
abstract
goals

specific
measurable
goals

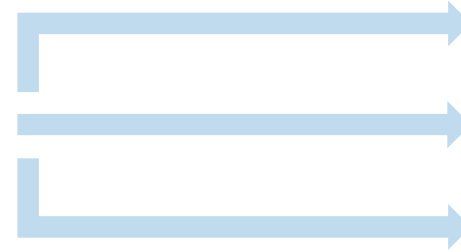
Goals

Goals Breakdown Structure

broad
abstract
goals



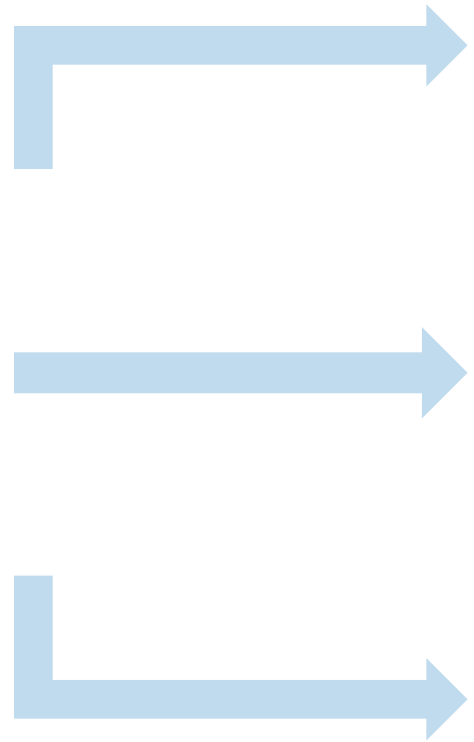
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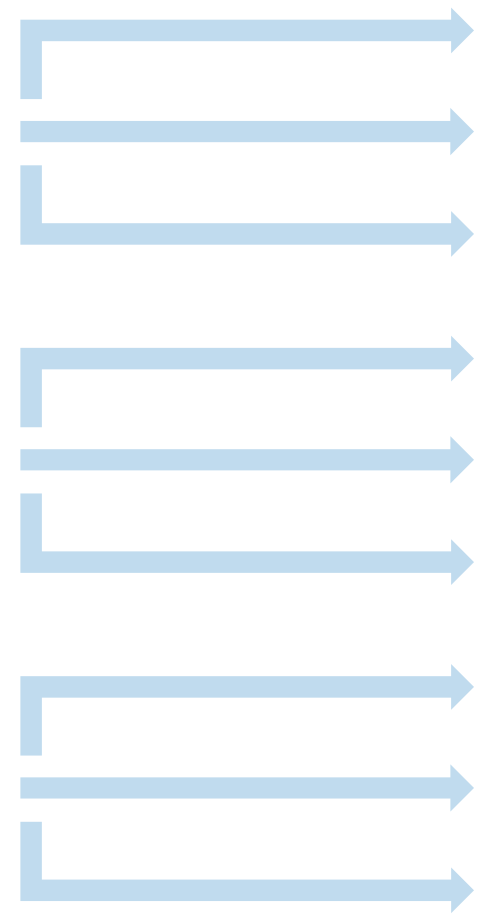
specific
measurable
goals

Goals

Goals Breakdown Structure

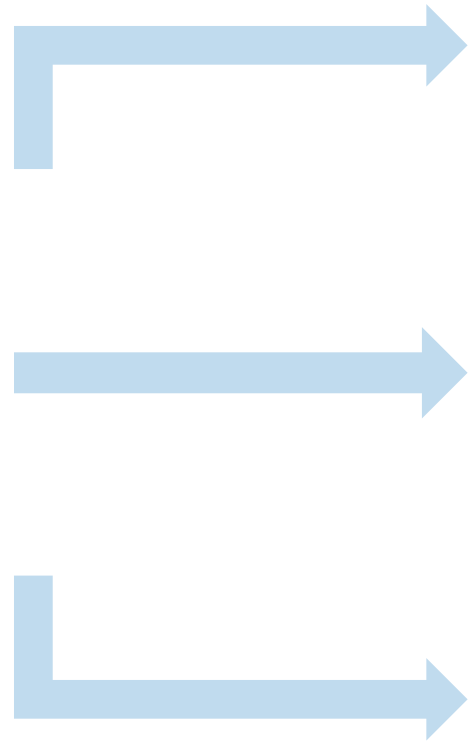


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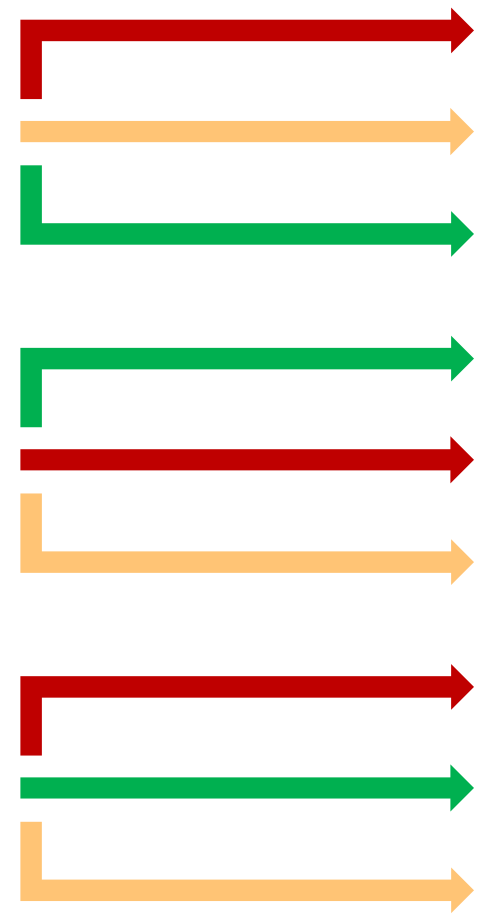


Goals

Goals Breakdown Structure

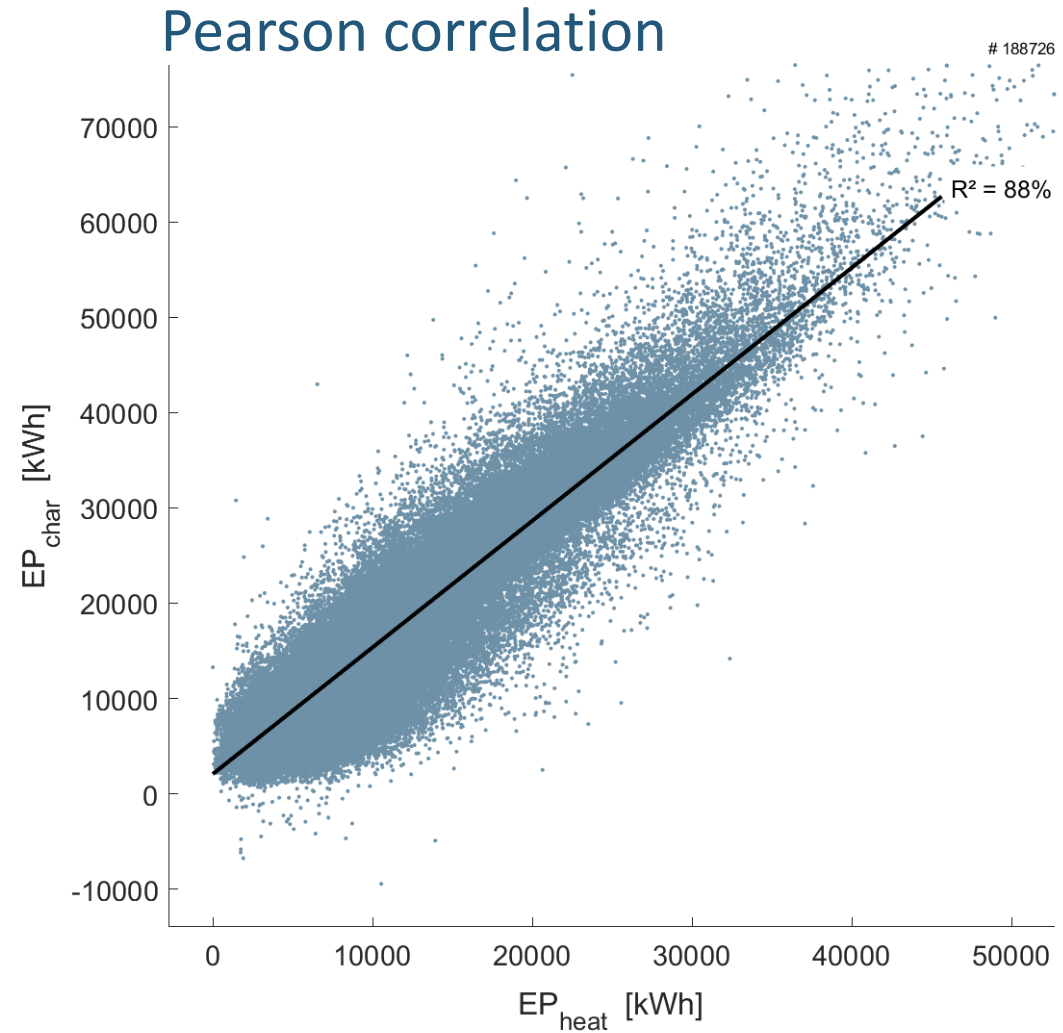


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Goals

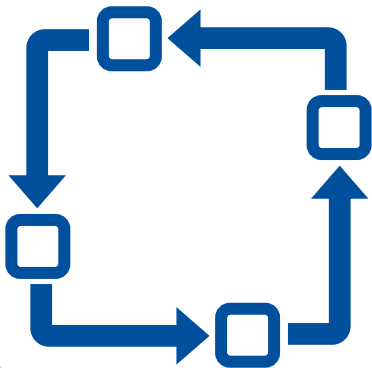
Goals Breakdown Structure



Incentives

from Goals to Incentives

**physics
driven
incentives**



**policy
driven
incentives**



**building stock
driven
incentives**

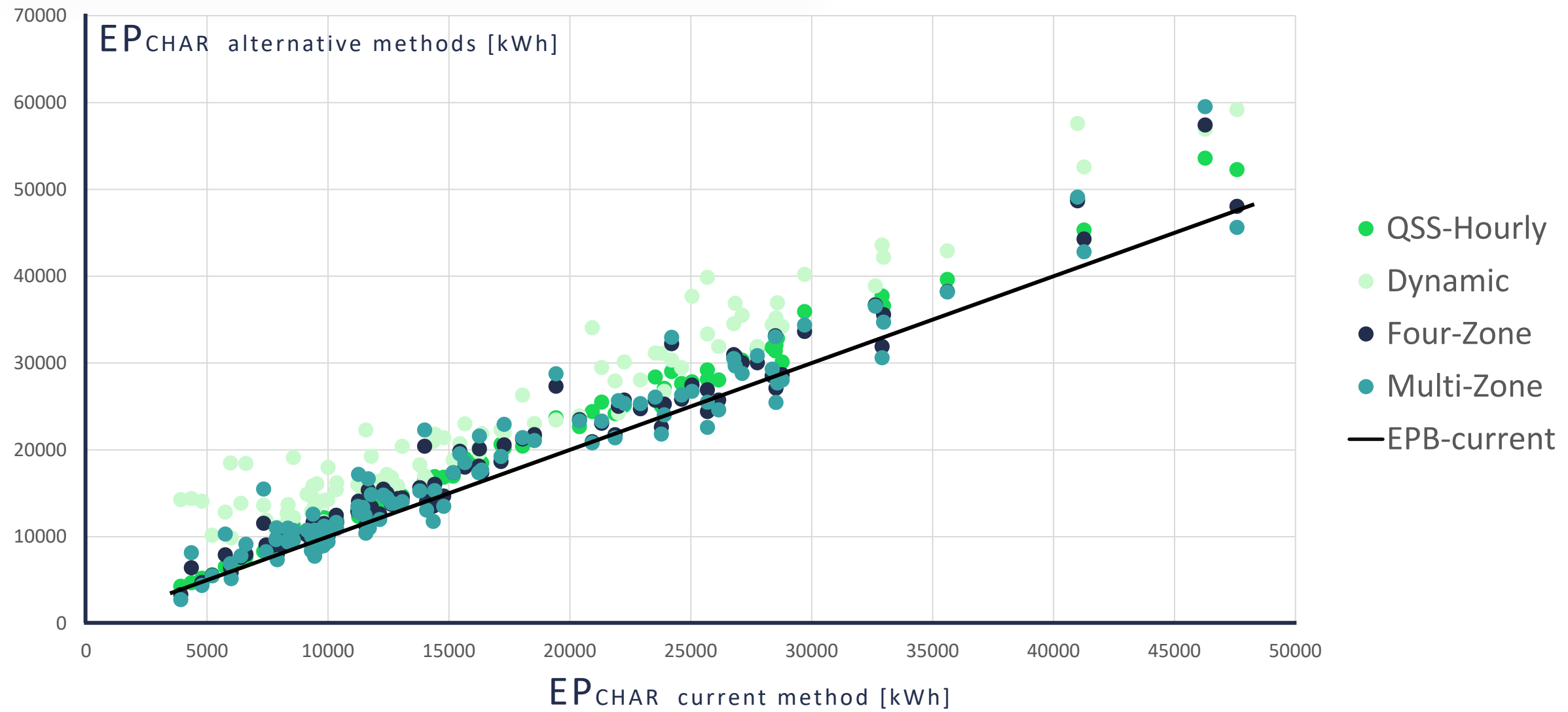


Calculation method

physics driven incentives

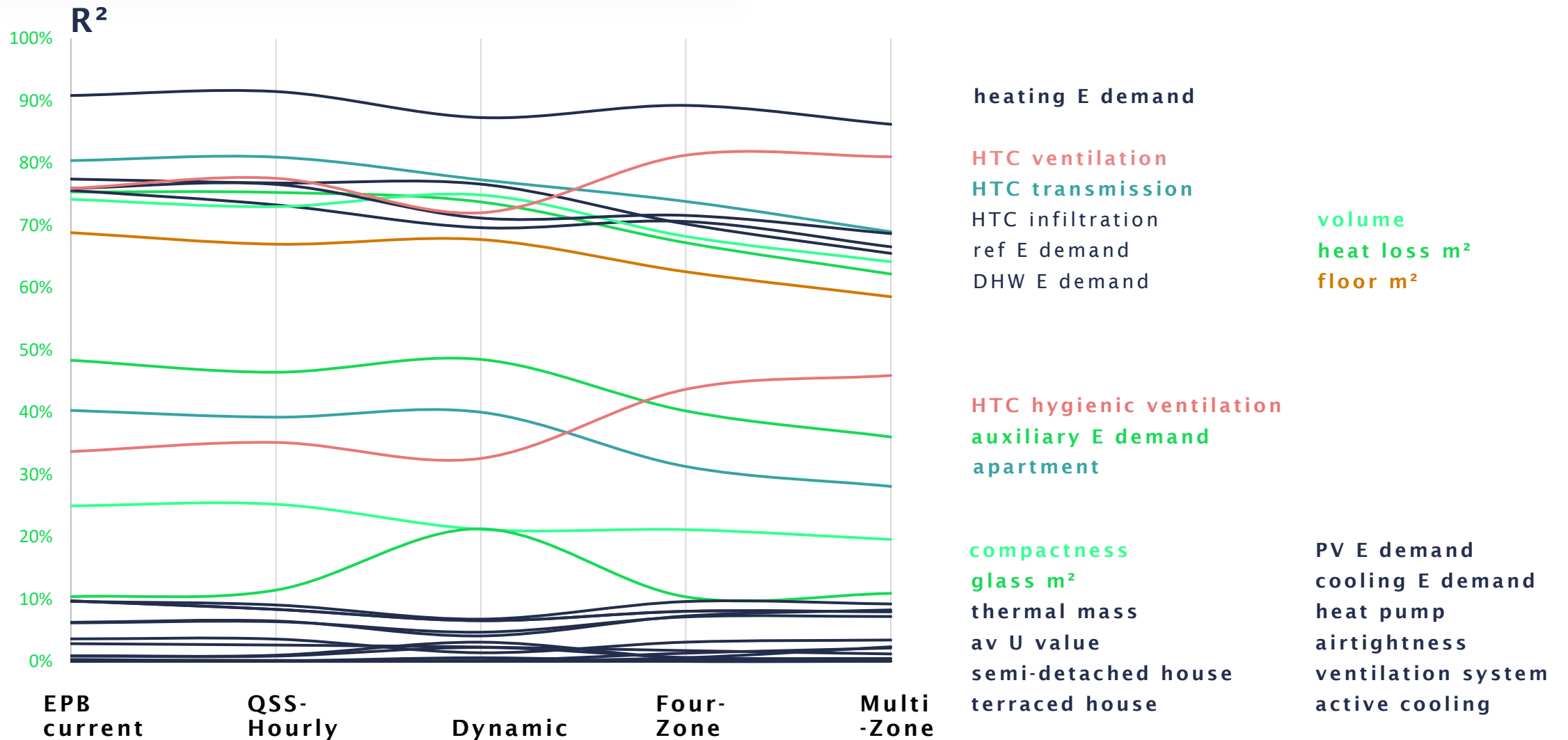
Calculation method

physics driven incentives



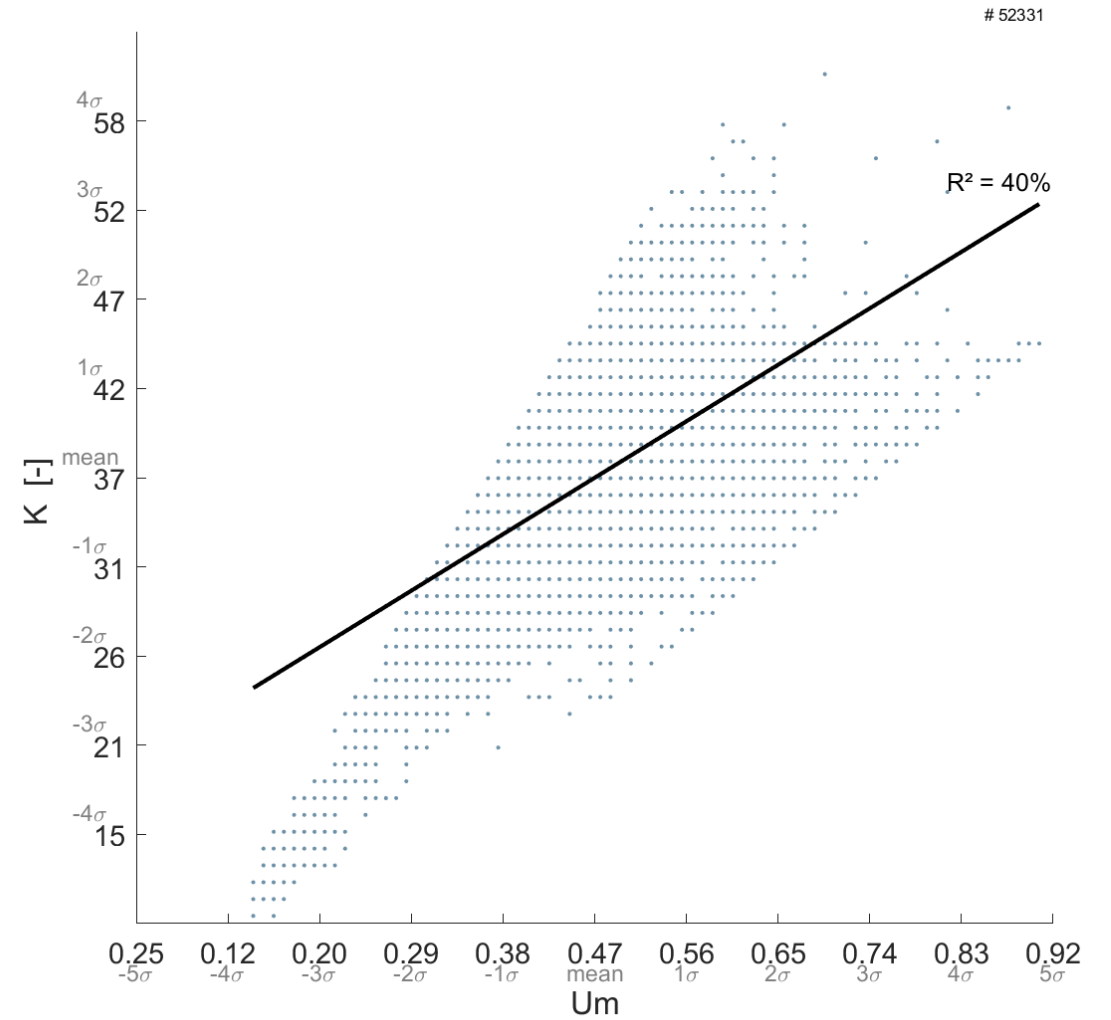
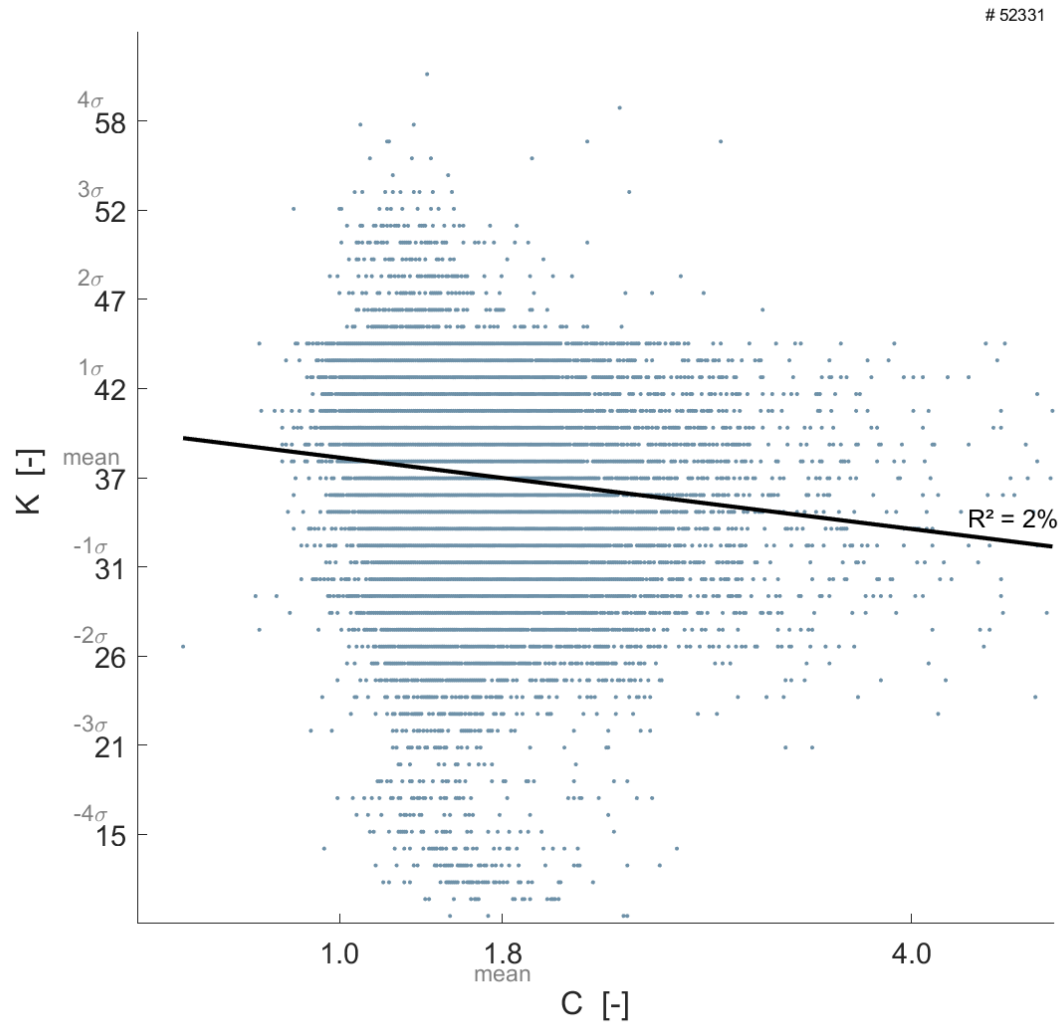
Calculation method

physics driven incentives



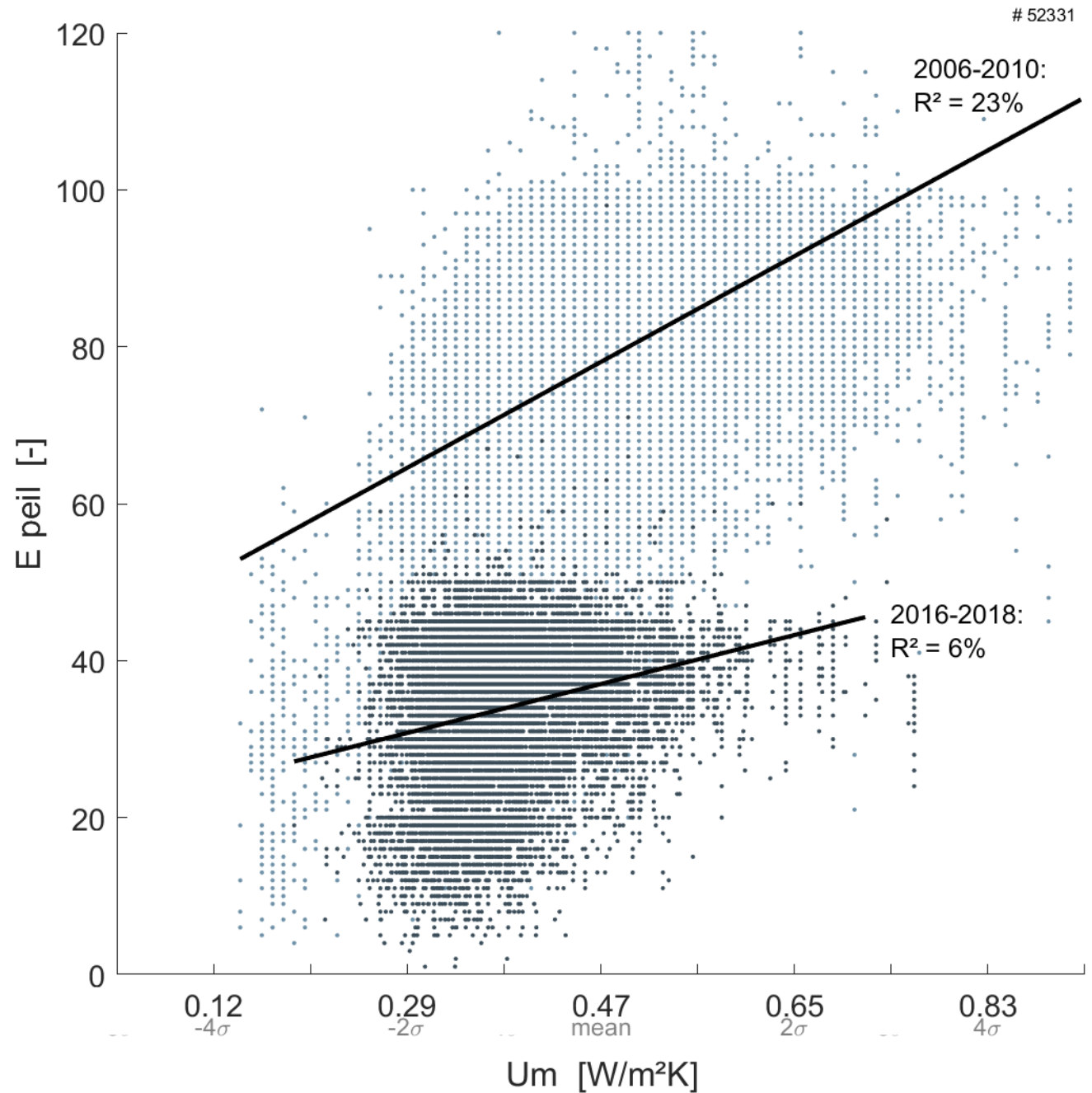
Indicators

policy driven incentives



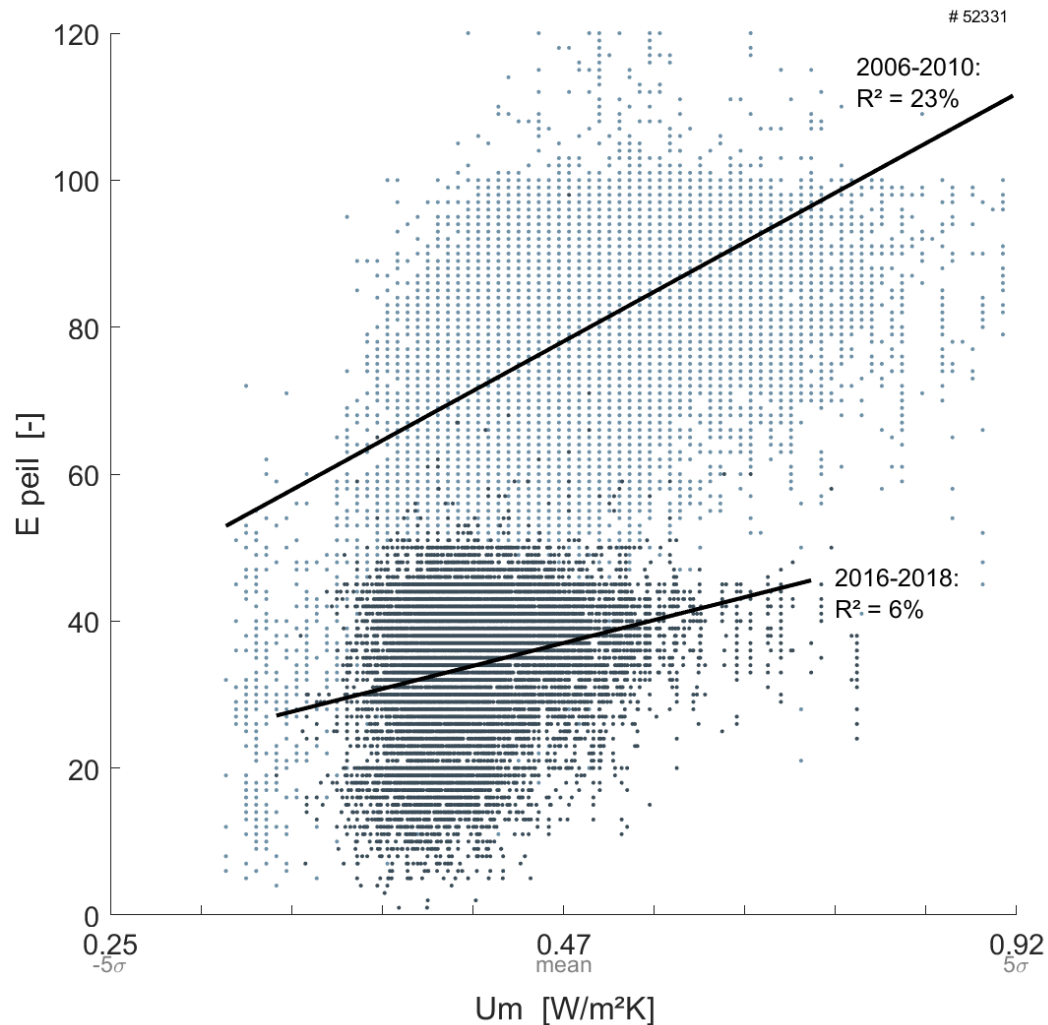
Indicators

policy driven incentives



Indicators

policy driven incentives



$R^2 \sim E-peil$ [%]

2006-2010

2016-2018

VENT: f_{reduc}

29

VENT: f_{reduc}

5

VENT: HR

24

VENT: HR

2

airtightness

23

airtightness

7

Um

23

Um

6

heatpump

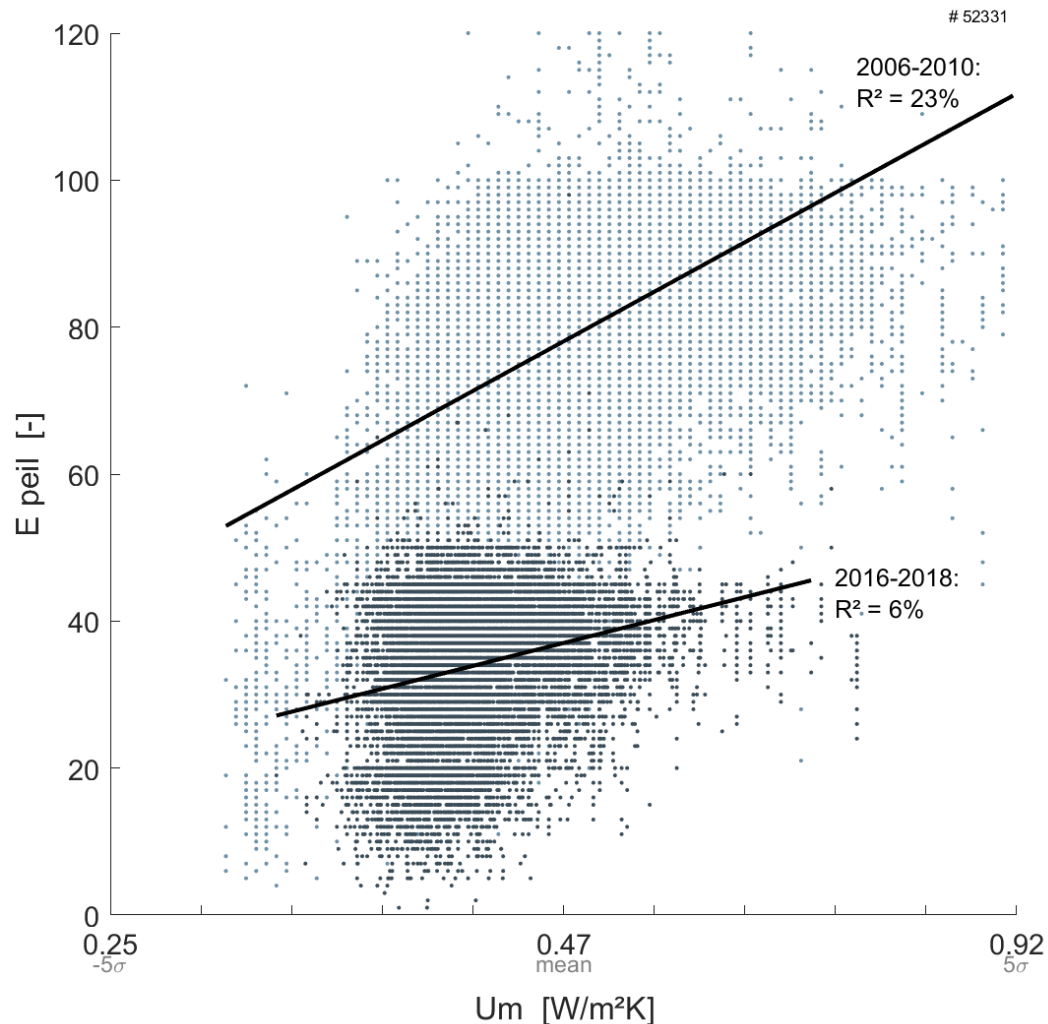
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heatpump

0

Indicators

policy driven incentives



$R^2 \sim E-peil$ [%]

2006-2010

2016-2018

VENT: f_{reduc}

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PV

9

PV

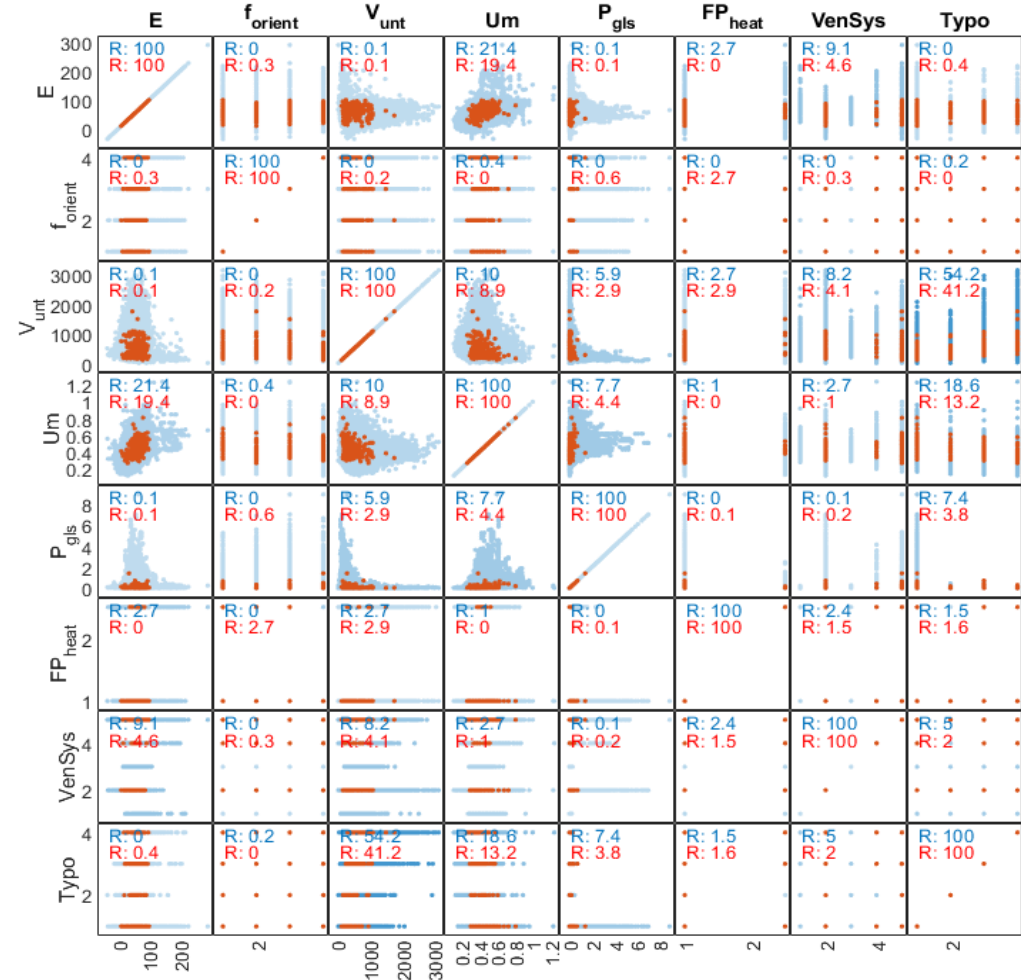
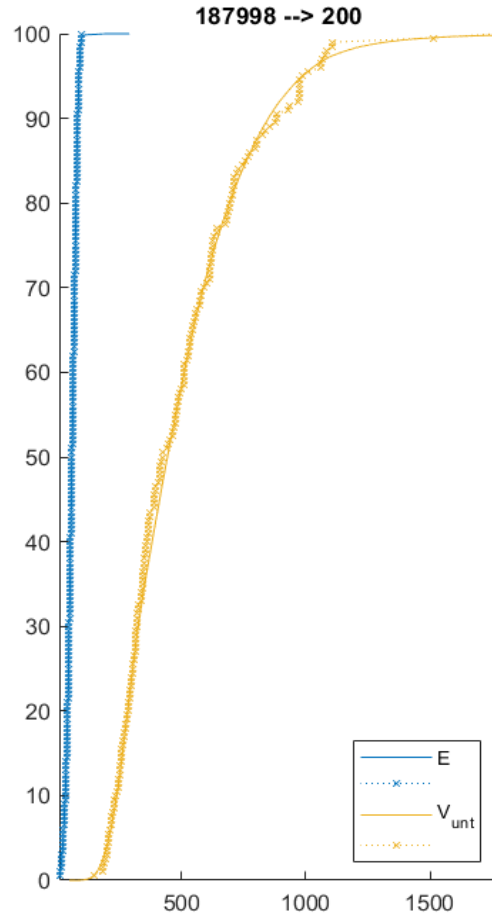
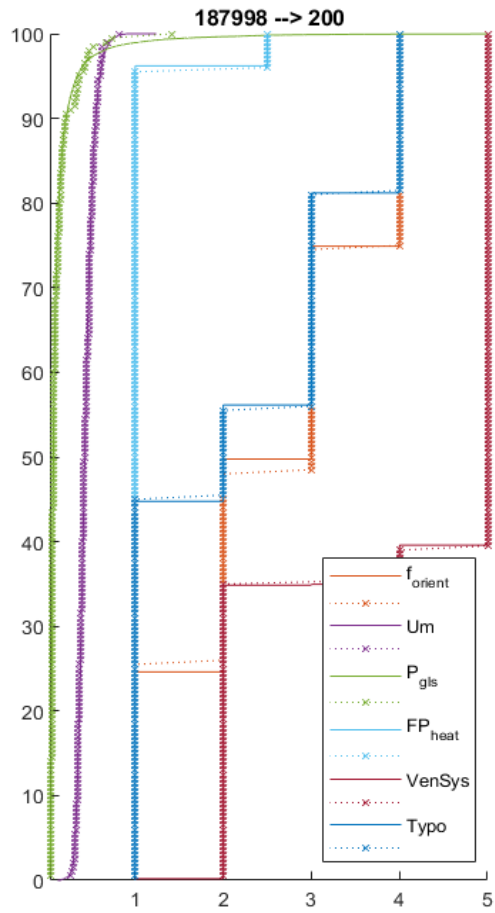
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Sampling method

representative building stock sample

Sampling method

representative building stock sample



Sampling method

representative building stock sample

EPB V		→	RCP8.5	
# 100 000			# 100 000	
airtightness	40	↘	airtightness	33
demand ctr.	37	↘	demand ctr.	28
PV	23	↗	PV	27
insulation	21	↗	insulation	26
heat rec.	11	↘	heat rec.	8
VS: C -> D	11	↘	VS: C -> D	7
shading	7	↗	shading	8

Sampling method

representative building stock sample

EPB V		→	RCP8.5	
# 100 000			# 100 000	
airtightness	40	↘	airtightness	33
demand ctr.	37	↙	demand ctr.	28
PV	23	↗	PV	27
insulation	21	↗	insulation	26
heat rec.	11	↘	heat rec.	8
VS: C -> D	11	↘	VS: C -> D	7
shading	7	↗	shading	8

EPB V		→	RCP8.5	
# 200			# 200	
airtightness	38	↘	airtightness	33
demand ctr.	35	↙	demand ctr.	26
PV	24	↗	PV	29
insulation	19	↗	insulation	25
heat rec.	10	↘	heat rec.	8
VS: C -> D	9	↘	VS: C -> D	6
shading	6	↗	shading	7

Conclusions



Clear definition of the goals on every level

THE detailed calculation method does not exist

More detailed EPB data is necessary for further research

Thorough indicator / requirement evaluation

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