

# Renovation Innovation Showcase

Meeting Europe's building renovation challenge

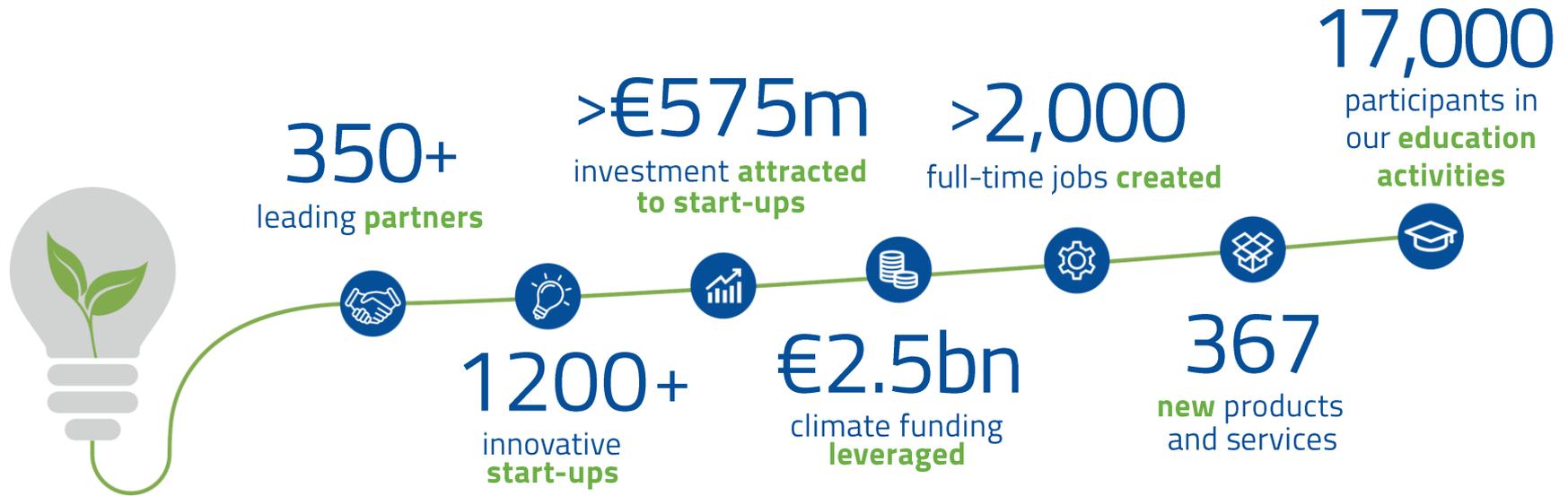
20 March 2019 | Brussels | Sean Lockie

Climate-KIC is supported by the  
EIT, a body of the European Union

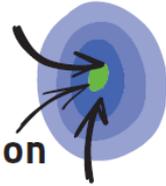


## Who we are.

EIT Climate-KIC is a knowledge and innovation community established and funded by the European Institute of Innovation and Technology (EIT).

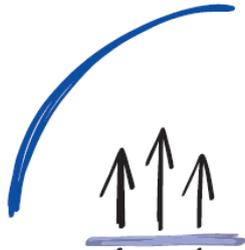


# The EIT Climate-KIC promise



## Our Vision

A prosperous, inclusive, climate resilient society with a circular, net-zero emissions economy by 2050.



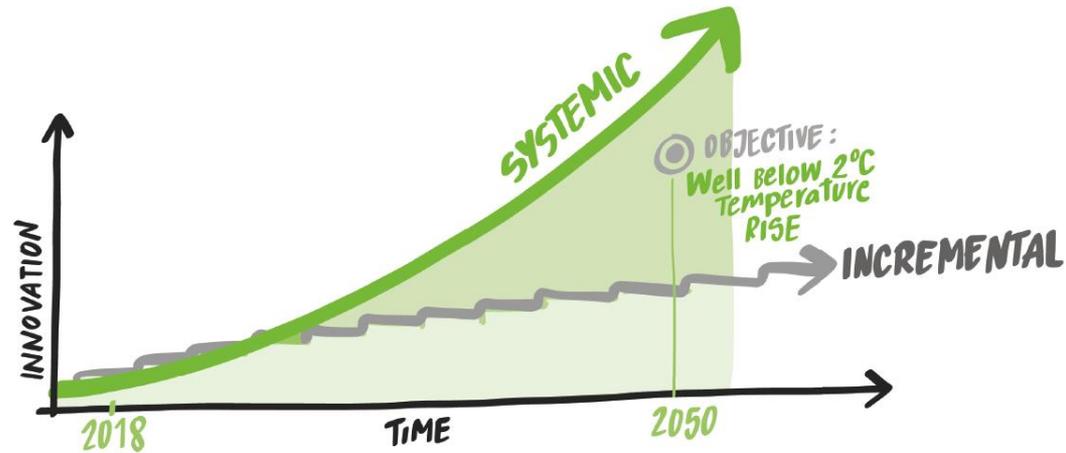
## Our Mission

To catalyse systemic change for climate action.

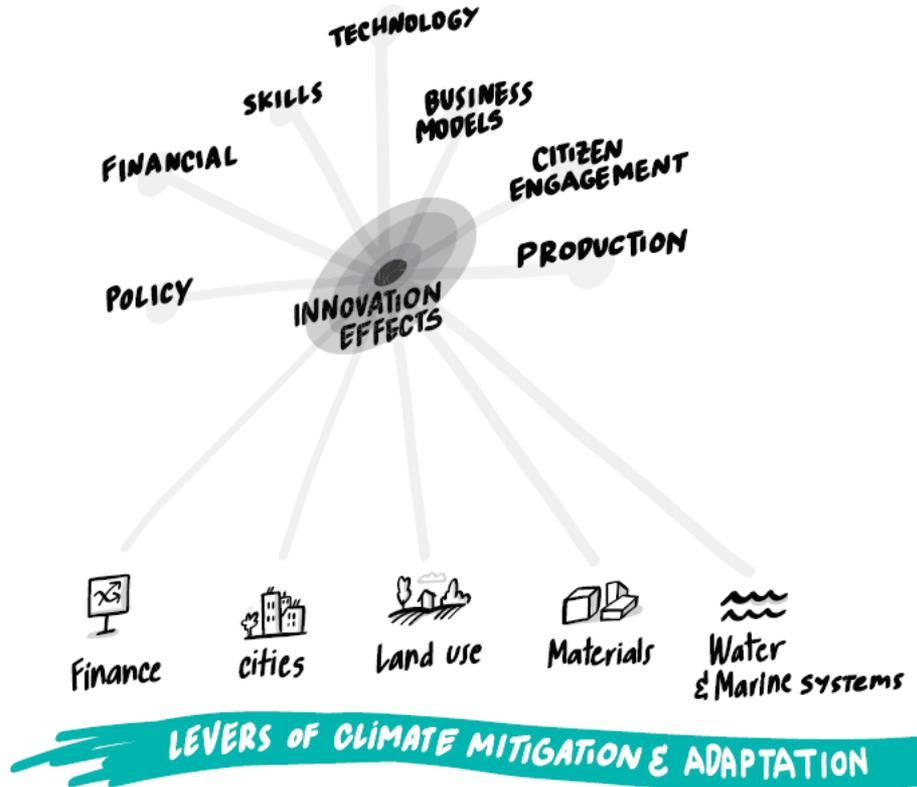
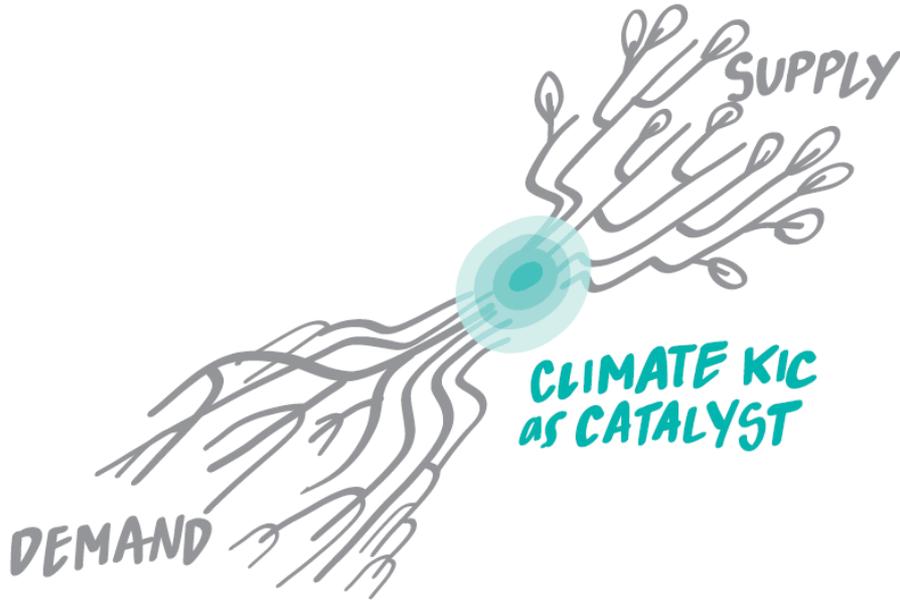


## Our Promise

Transformation, in time, through innovation.



# The EIT Climate-KIC promise



# Theory of Change



# Systems innovation

**Leverage**  
Points

**Learning**  
by Doing

**Portfolio**  
Approach

**Demand-led**  
Model





Limiting the risks from global warming of 1.5°C in the context of sustainable development and poverty eradication implies system transitions that can be enabled by an increase of adaptation and mitigation investments, policy instruments, the acceleration of technological innovation and behaviour changes

Source: IPCC SR 15 D.5, Page 13, Summary for Policy Makers



# WHY IS RETROFIT IMPORTANT - IPCC REPORT

< 80 – 90%  
Emissions from buildings

Emissions from the global building stock in place in 2050 will need to be 80 – 90% lower than a 2010 baseline



A 1.5 degree compliant pathway requires a

**minimum 5%**  
**annual** rate of **energy retrofits** of existing buildings in developed countries, as well as all new buildings being built fossil-free and near-zero energy by 2020.



Decarbonizing the  
electricity grid



Enabling next-  
generation mobility

**80**+%  
**CO<sub>2</sub> reduction**



Optimizing energy  
efficiency in buildings



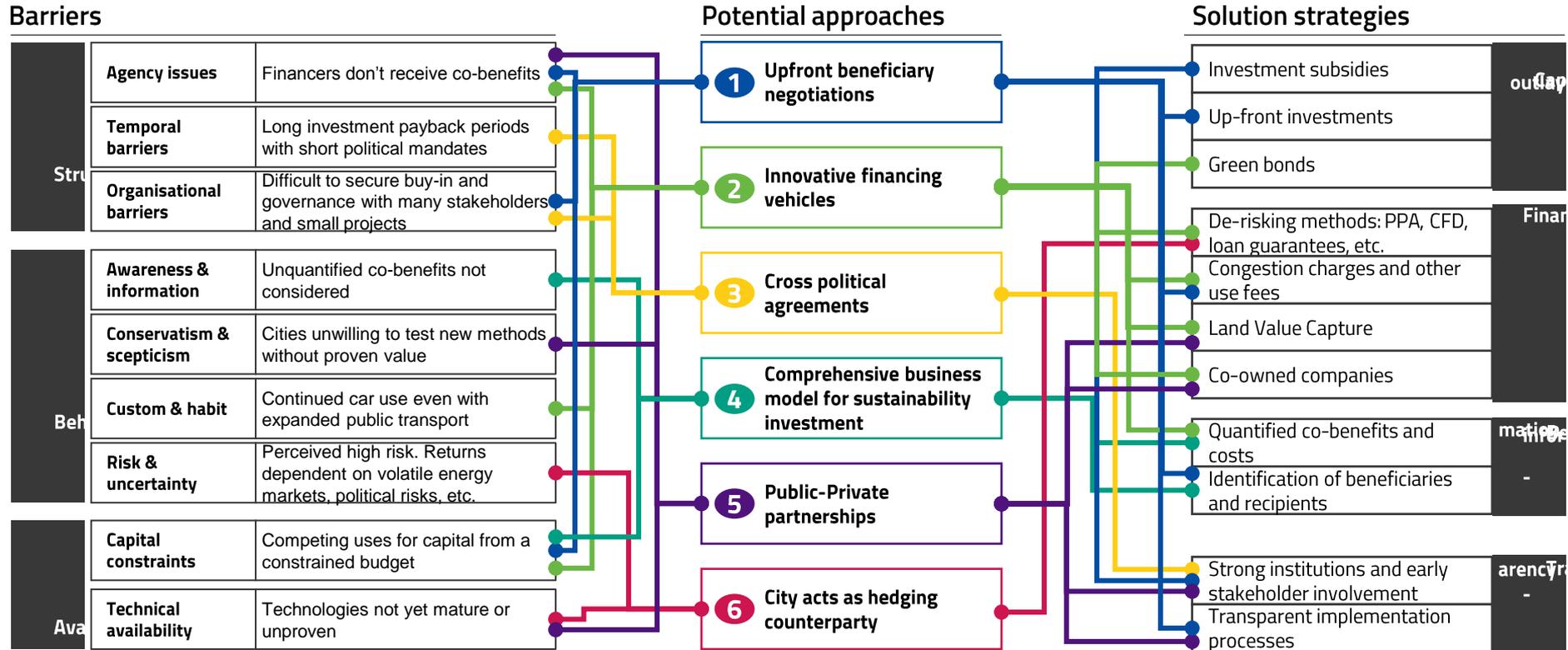
Improving waste  
management

It's not about what *can* be done,

It is about what *needs* to be done ...

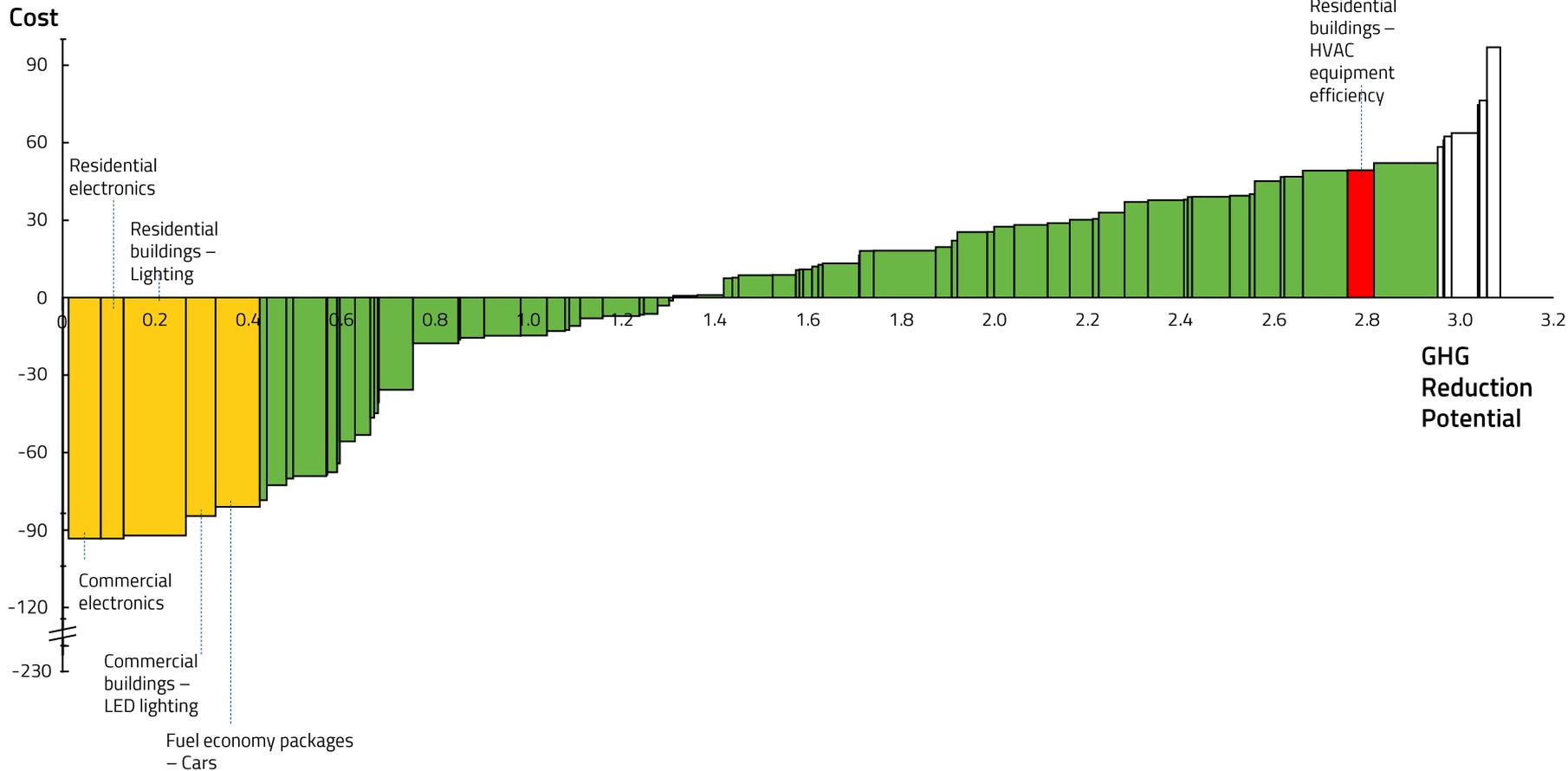


# Systems Innovation: a comprehensive approach

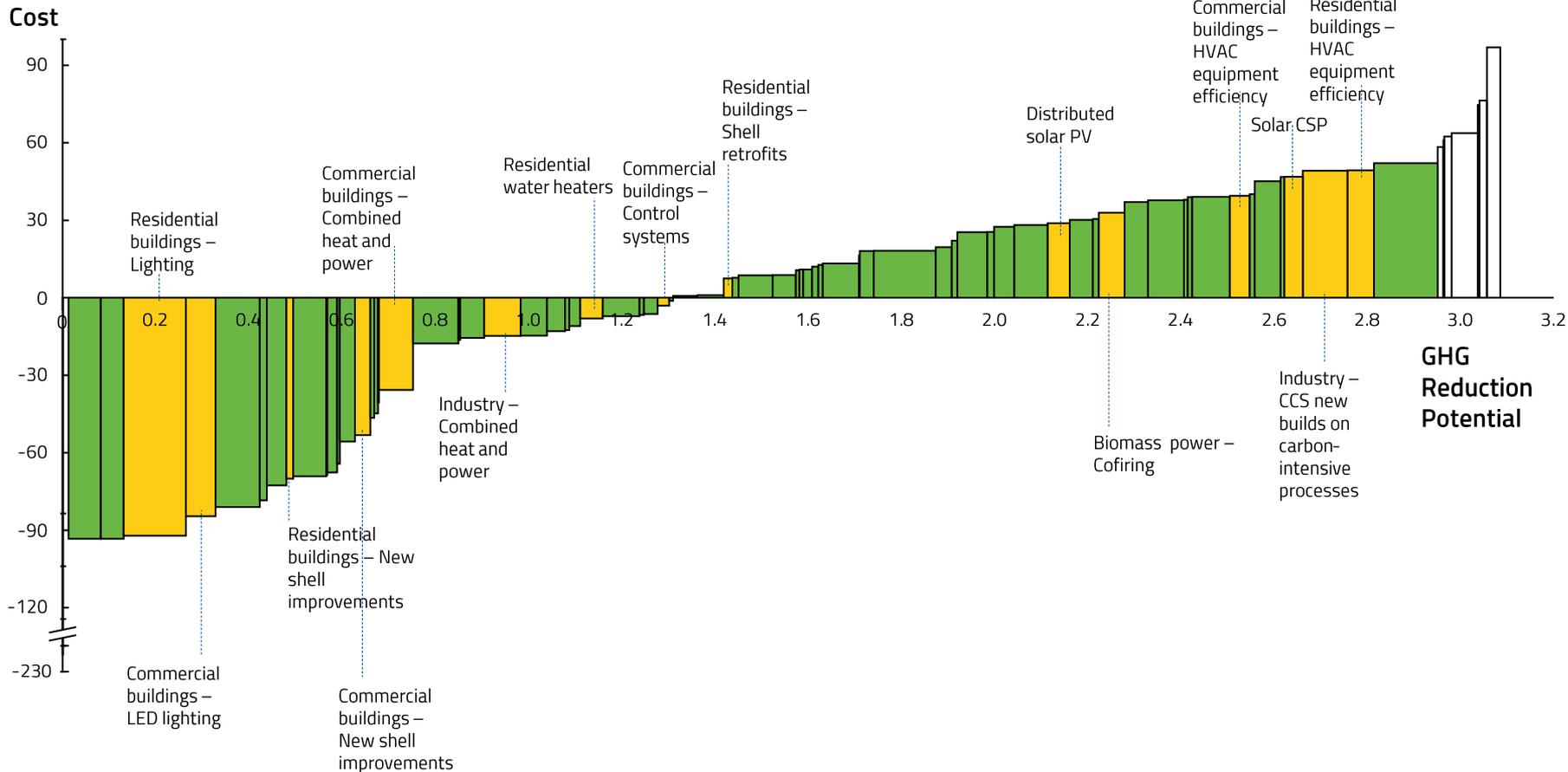




# Mid-range abatement curve

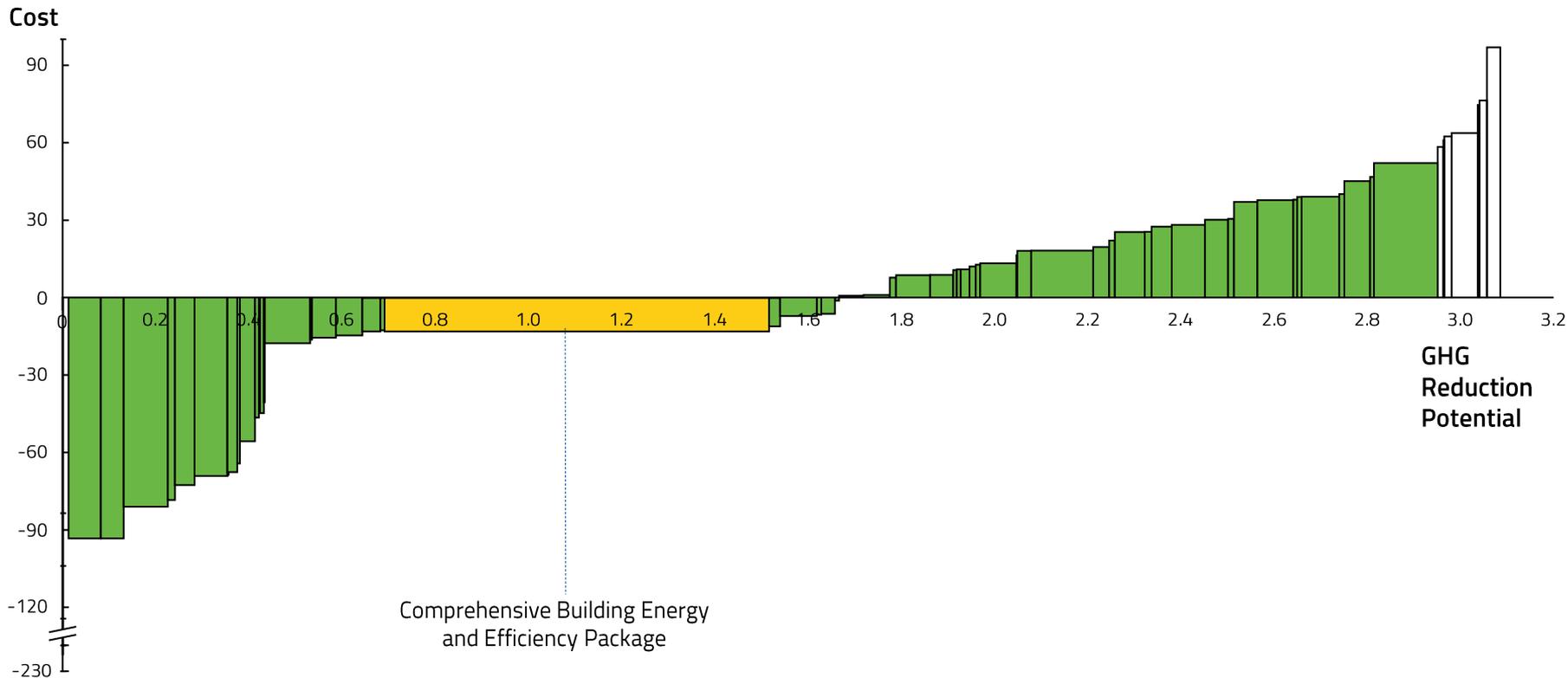


# Mid-range abatement curve



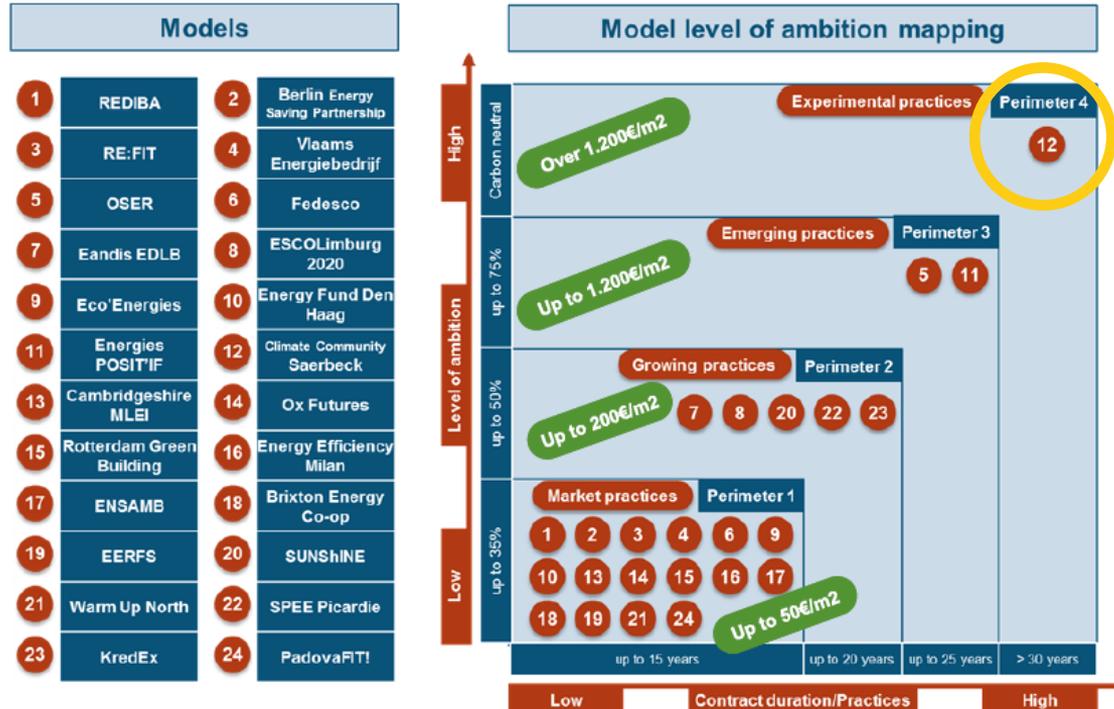
Source: Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?, Executive Report, McKinsey & Company, December 2007

# Mid-range abatement curve



# Level and scale of ambition

**Level of Ambition:** The great majority of the models target Perimeter 1 or “standard market practice”, though factor 2 (50% savings) models gain in attention, factor 4 (75% savings) remain marginal.

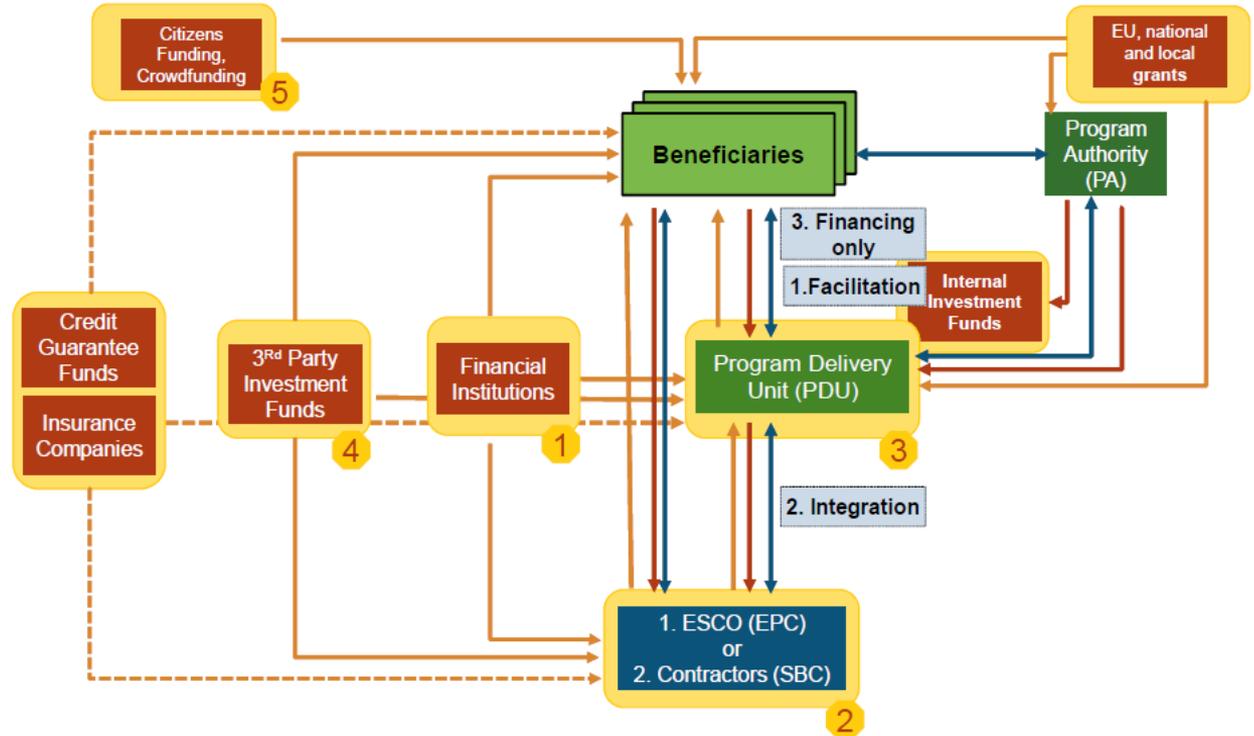


# Integrated and innovative business models

Two implementation models, three operational models and five financing vehicles

EEFIG- Energy efficiency underwriting.  
<http://eefig.eu/>

InnoEnergy  
 D2.1c. REEEM Innovation and Technology Roadmap



# Systems Innovation: City Service Offering

Selection of benefits occurring in different decarbonisation areas

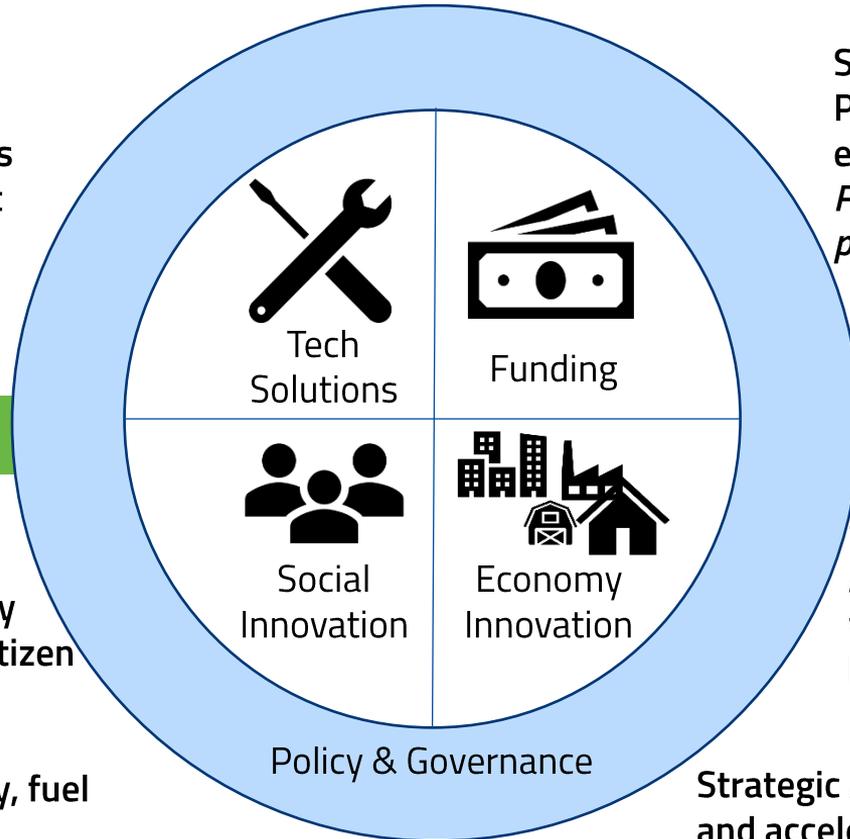
	<i>Quantifiable co-benefits</i>		<i>Semi-quantifiable co-benefits</i>				<i>Qualitative co-benefits</i>		
	Cost savings	Increased property value	Reduced congestion	Improved air quality	Increased road safety	Economic growth	Improved well-being	Temp. and flooding control	Biodiversity & ecosystem health
<b>Transportation</b>	■	■	■	■	■		■		■
<b>Buildings &amp; Energy</b>	✓	✓		✓			✓	✓	✓
<b>Waste</b>				■		■			■

●  
'Top of mind' concerns for cities met through decarbonisation

# One million near zero energy homes in Europe by 2023

**Strategic Aim 1:**  
Scale-Up refurbishment capacity from 10-100 homes to 10,000 homes per project and aggregate to create economy of scale- Off site

**Strategic Aim 2:**  
Provide funding solutions for everyone, for it is a *collective effort*  
*Financial models, capital raising platforms*



**100 projects in Europe**

**Strategic Aim 4:**  
Accelerate development of circular value-chains and capacity building- Strong demand side pull.

**Strategic Aim 5:** Clear barriers (in regulation) and accelerate transition process

**10,000 homes/project**

**Strategic Aim 3:**  
Create conditions for 'Society 2030', including unlocking citizen ownership and behavior transformation.  
Health benefits, fuel security, fuel poverty.



Climate-KIC



Climate-KIC is supported by the EIT, a body of the European Union

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