



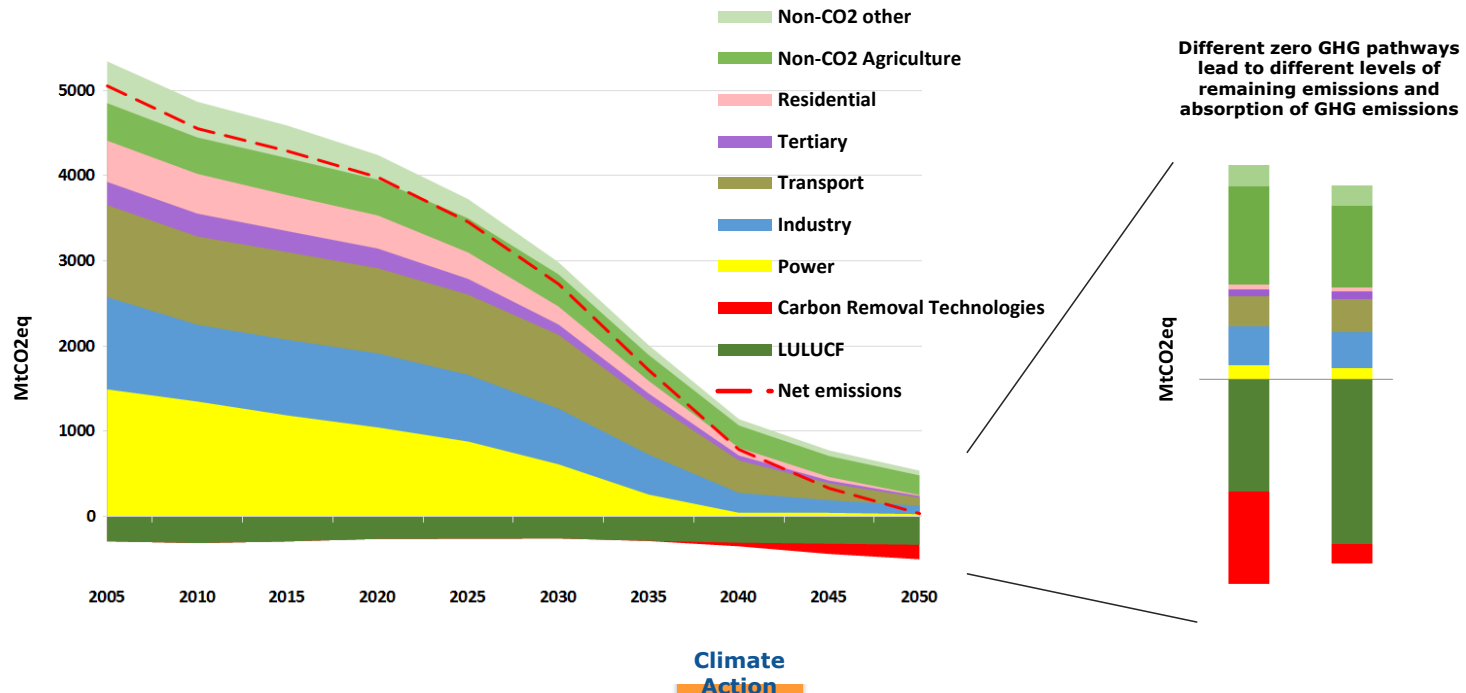
# **Innovation Fund**

**13 March 2019**

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DG Climate Action  
European Commission**

# Our Vision for a Clean Planet by 2050

- EU leads in clean energy transition and GHG emissions reduction. Ambitious 2030 targets. 60% reductions in 2050 with current policies – not in line with the Paris Agreement.
- Radical transformations necessary: central role of energy system, buildings, transport, industry, agriculture.
- There are a number of pathways for achieving a climate neutral EU, challenging but feasible from a technological, economic, environmental and social perspective.

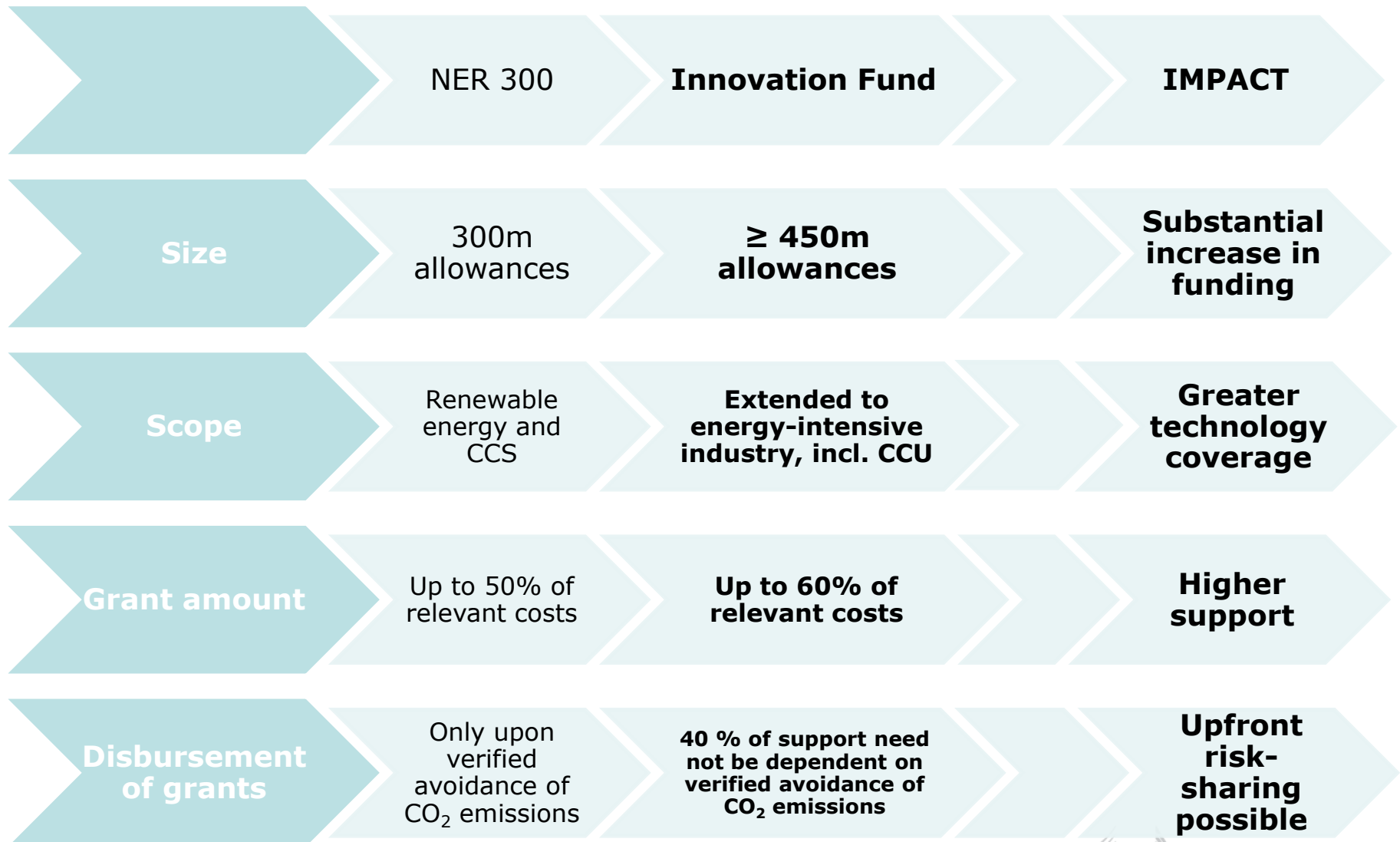


# Detailed assessment supported by scenario analysis

## Long Term Strategy Options

	Electrification (ELEC)	Hydrogen (H2)	Power-to-X (P2X)	Energy Efficiency (EE)	Circular Economy (CIRC)	Combination (COMBO)	1.5°C Technical (1.5TECH)	1.5°C Sustainable Lifestyles (1.5LIFE)
Main Drivers	Electrification in all sectors	Hydrogen in industry, transport and buildings	E-fuels in industry, transport and buildings	Pursuing deep energy efficiency in all sectors	Increased resource and material efficiency	Cost-efficient combination of options from 2°C scenarios	Based on COMBO with more BECCS, CCS	Based on COMBO and CIRC with lifestyle changes
GHG target in 2050	-80% GHG (excluding sinks) [“well below 2°C” ambition]					-90% GHG (incl. sinks)	-100% GHG (incl. sinks) [“1.5°C” ambition]	
Major Common Assumptions	<div><div><ul style="list-style-type: none"><li>Higher energy efficiency post 2030</li><li>Deployment of sustainable, advanced biofuels</li><li>Moderate circular economy measures</li><li>Digitilisation</li></ul></div><div><ul style="list-style-type: none"><li>Market coordination for infrastructure deployment</li><li>BECCS present only post-2050 in 2°C scenarios</li><li>Significant learning by doing for low carbon technologies</li><li>Significant improvements in the efficiency of the transport system.</li></ul></div></div>							
Power sector	Power is nearly decarbonised by 2050. Strong penetration of RES facilitated by system optimization (demand-side response, storage, interconnections, role of prosumers). Nuclear still plays a role in the power sector and CCS deployment faces limitations.							
Industry	Electrification of processes	Use of H2 in targeted applications	Use of e-gas in targeted applications	Reducing energy demand via Energy Efficiency	Higher recycling rates, material substitution, circular measures	Combination of most Cost-efficient options from “well below 2°C” scenarios with targeted application (excluding CIRC)	COMBO but stronger	CIRC+COMBO but stronger
Buildings	Increased deployment of heat pumps	Deployment of H2 for heating	Deployment of e-gas for heating	Increased renovation rates and depth	Sustainable buildings			CIRC+COMBO but stronger
Transport sector	Faster electrification for all transport modes	H2 deployment for HDVs and some for LDVs	E-fuels deployment for all modes	Increased modal shift	Mobility as a service			<div><ul style="list-style-type: none"><li>CIRC+COMBO but stronger</li><li>Alternatives to air travel</li></ul></div>
Other Drivers		H2 in gas distribution grid	E-gas in gas distribution grid				Limited enhancement natural sink	<div><ul style="list-style-type: none"><li>Dietary changes</li><li>Enhancement natural sink</li></ul></div>

# Innovation Fund - Basics



# Innovation Fund

First tool to  
implement  
Long-Term  
Strategy

Driving low-  
carbon  
technologies  
to the  
market

Regulatory  
Framework  
adopted on  
26 February  
2019

Renewable  
energy

CCUS

**Driving low-carbon  
technologies to the  
market**

Energy-intensive  
industries

Energy storage

# Key features of the Innovation Fund

Volume of at least  
EUR 10 billion at  
current carbon  
prices

Support of up to  
60% of additional  
costs related to  
innovative  
technology

First call expected  
for 2020 and  
regular calls up to  
2030

Financed from the  
revenues of the EU  
Emissions Trading  
System

Support of  
additional capital  
and operating  
costs (up to 10  
years)

Comprehensive  
selection criteria  
and project  
development  
assistance

# Comprehensive selection criteria

Greenhouse gas emissions  
avoidance

Degree of innovation

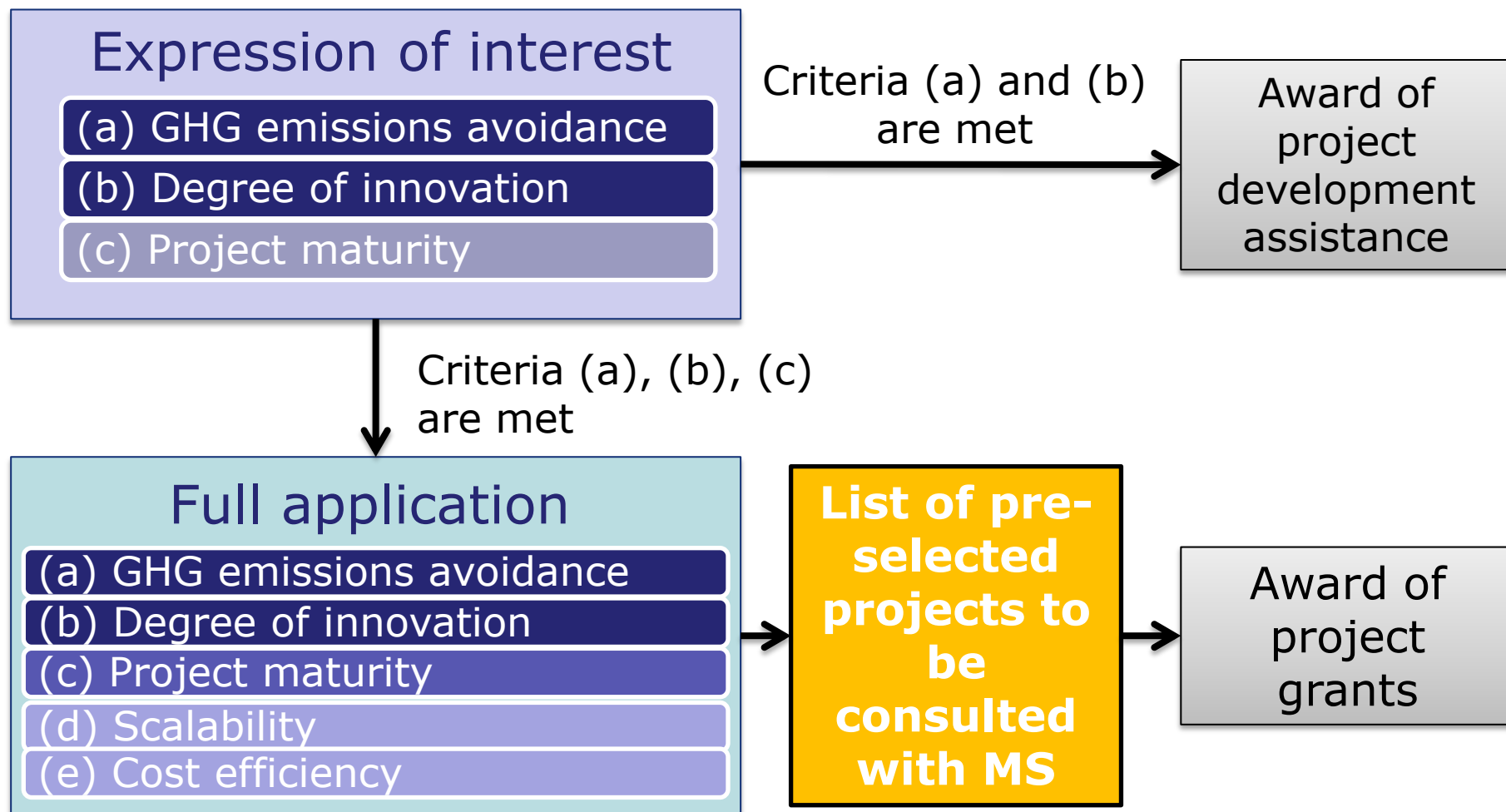
Project maturity

Scalability

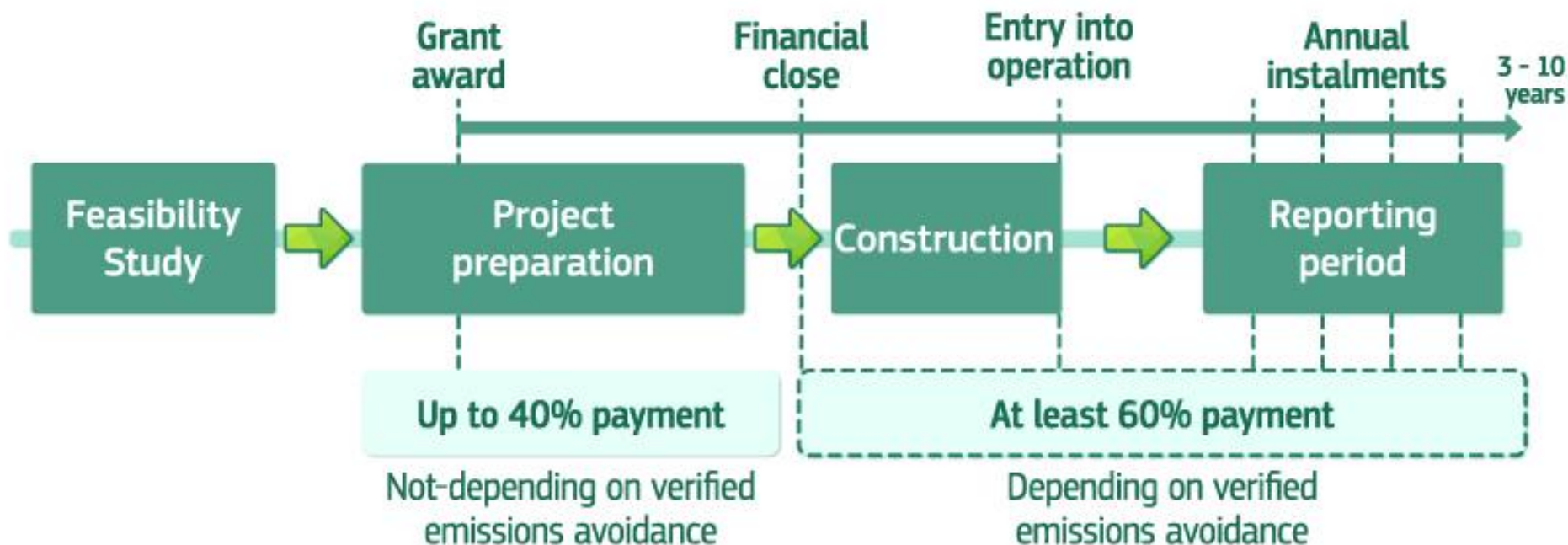
Cost efficiency



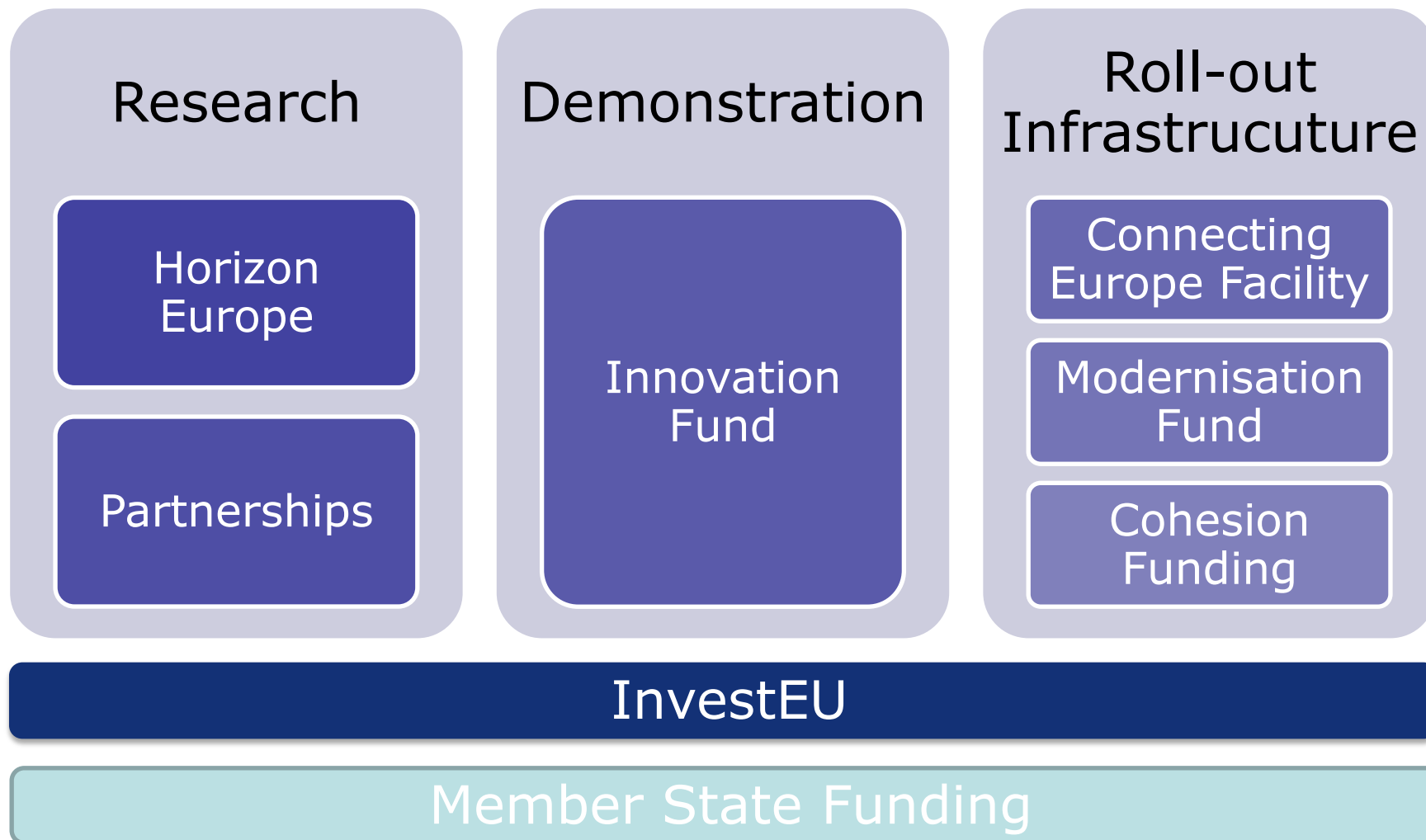
# Two-stage selection process



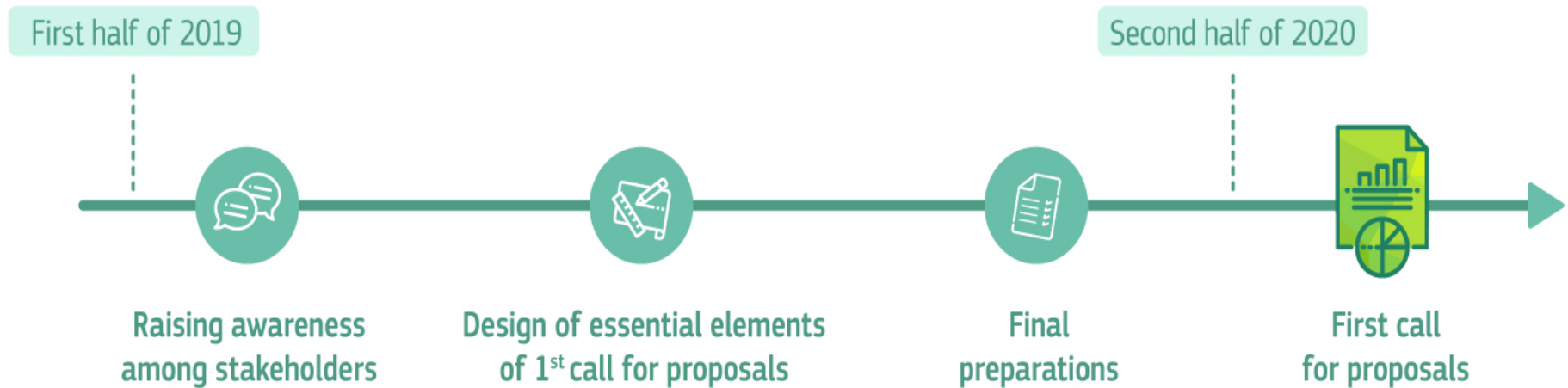
# Support across project life-cycle



# Synergies – Innovation Fund



# Timeline – Innovation Fund



# INNOVATION FUND

Driving clean innovative technologies towards the market



First call for projects in 2020



€10 billion to invest up to 2030 in EU's climate neutral future



Avoid emissions and boost competitiveness

Supporting innovation in:



Energy intensive industries



Renewables



Energy storage



Carbon capture, use and storage

Funded by: EU Emissions Trading System

[https://ec.europa.eu/clima/policies/innovation-fund\\_en](https://ec.europa.eu/clima/policies/innovation-fund_en)  
**#InnovationFund**



European  
Commission