



Energy Efficiency first

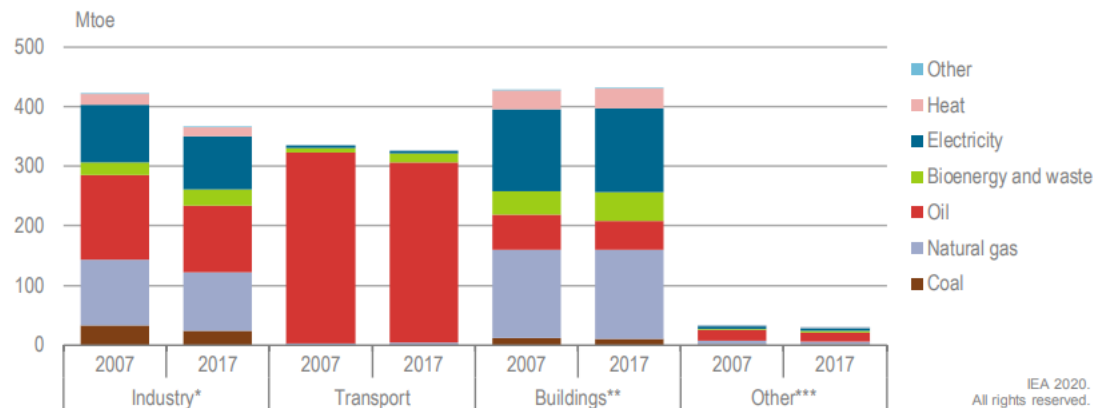
The experience of the EIB

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Current Situation

Total final consumption of energy in the EU by sector shows a strong reliance on gas



In 2022 the EU imported 40% of gas from Russia – 155bcm / year

Alternative sources (e.g. additional supply from Algeria, Azerbaijan and Norway and LNG from Qatar and the USA) insufficient

Decarbonisation of energy supply on the path to reduce dependence from gas and to be accelerated

RePower EU

REPowerEU aims at reducing the EU's dependence on Russian fuel fossil fuels and increase the resiliency of the power system.

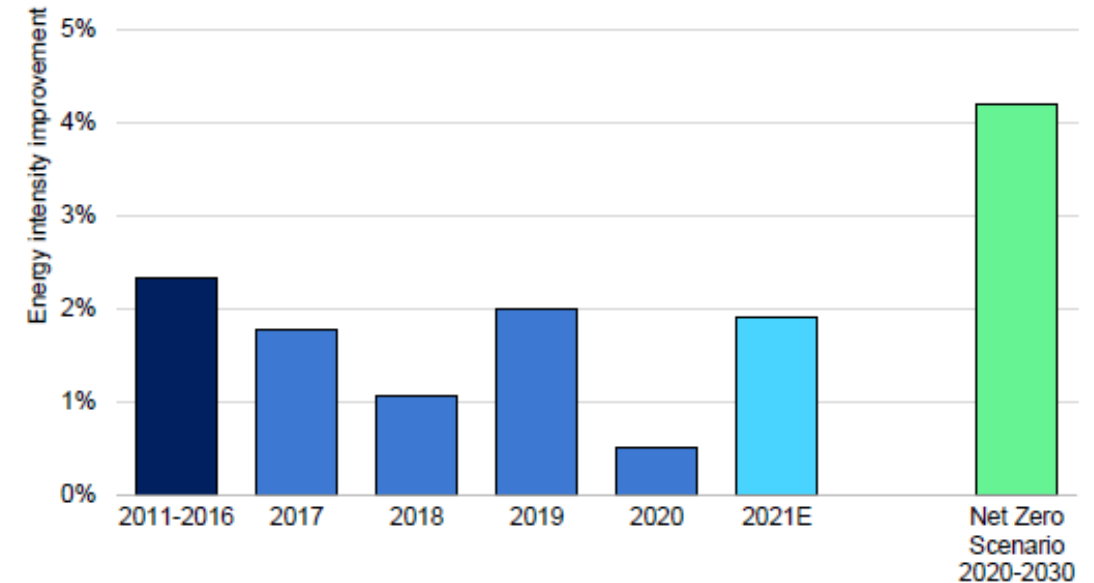
Focus on energy savings, energy diversification and acceleration of the clean energy transition.

- Increase EE to 13% vs 9% of July 2021 proposal
- Increase RE targets from 40% to 45% by 2030
- It does not change the 2030 decarbonisation target of at least -55 % GHG emissions
- Significant investments +210 EUR billion during 2022-2027 alone on top of what was already needed for the "Fit for 55"

The role of Energy Efficiency in Net Zero scenarios

- Rate of improvement in energy intensity needs to double from current levels to match Net Zero scenarios
- Rate of annual improvement >4% needed

Primary energy intensity improvement, 2011-2021

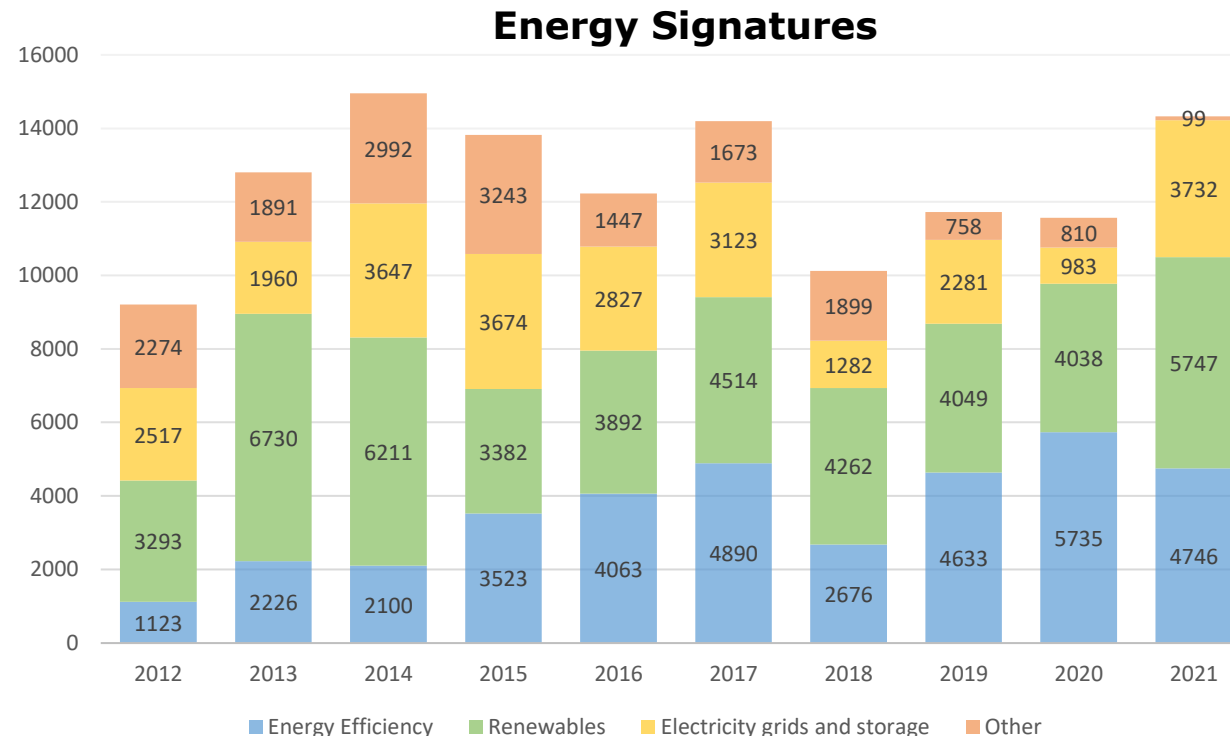


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Notes: 2011-2016 five-year average. 2021 estimate based on [World Energy Outlook 2021](#). Net Zero Emissions Scenario = IEA Net Zero Emissions by 2050 Scenario, 2020-2030 intensity improvements, ten year average.

EIB Contribution

The Bank is already contributing to the reduction of the dependence on gas

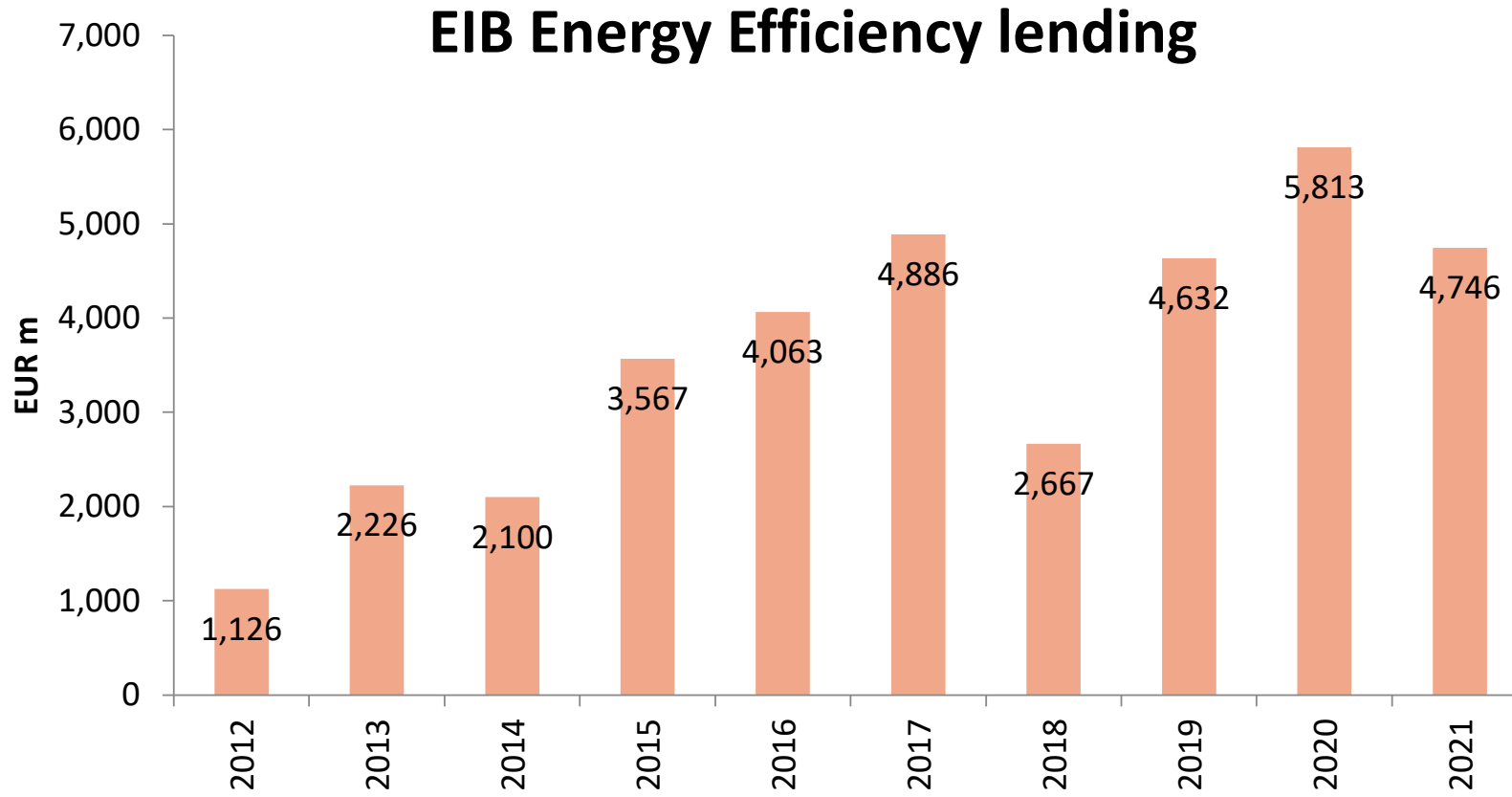


In order to increase resilience and mitigate the effects of a sudden reduction of gas supply:

- **focus on EE/RE measures that have the highest impact in the short term**
- **continue the support large scale RE projects with effects in the mid/long term**

EIB financing of Energy Efficiency

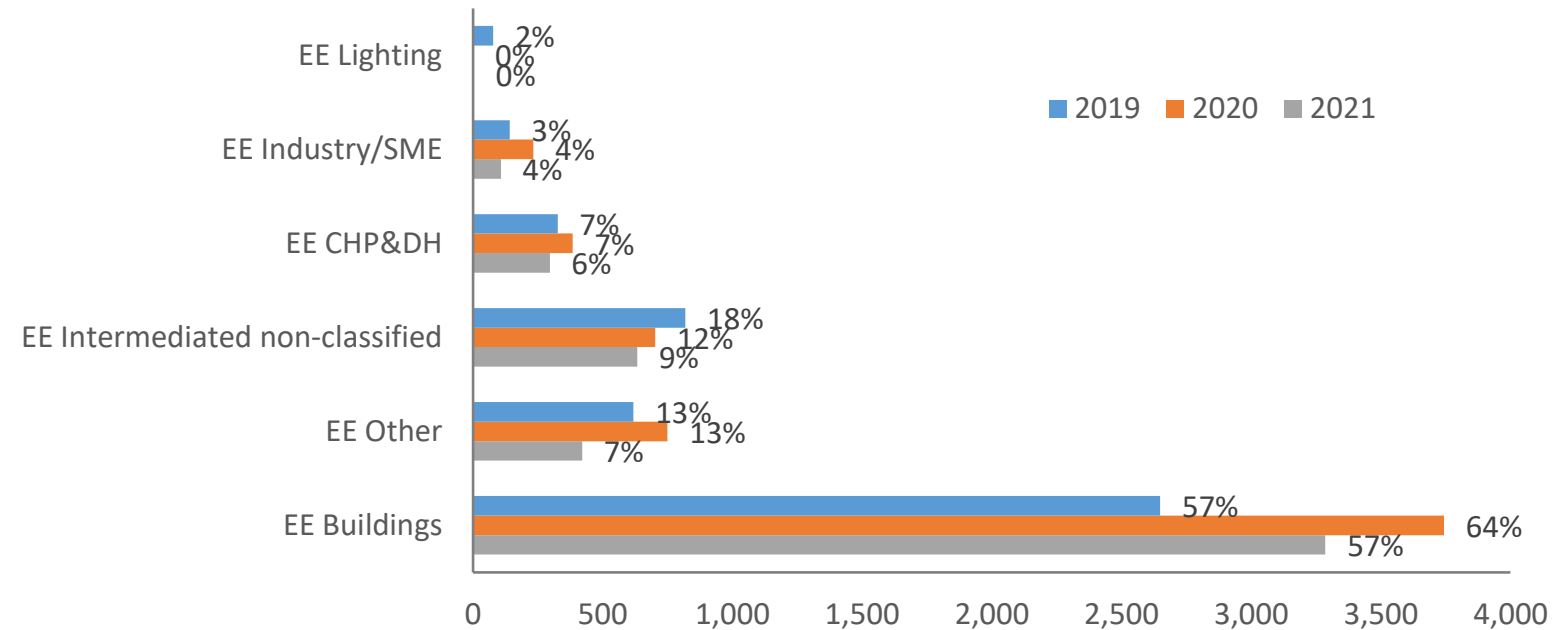
Average annual EE lending of around EUR 4.5b.
EE rapidly increasing (4x since 2012).



Energy Efficiency first at the EIB

- Role of financial intermediaries
- Buildings absorb an important volume of overall lending, with several types of buildings (new-builts / renovation, public / private, residential / non-residential)

EE lending breakdown



The Investment Gap

- **Investment needs** to reduce GHG emissions by -55% (vs 2005) by 2030

Investment in EUR bn / year

	Current	Needs	Gap
Energy efficiency	114	281	167
Renewables	50	65	15
Grids	42	60	18
Total	206	406	200

- EIB lending to the energy sector significant but still only represents around 3% of the annual investment needed
- **Front-loading** needed !

Energy Efficiency First

The most significant impact can be achieved through **energy efficiency**

- Projects are **quick to prepare and implement**
 - immediate reduction of heat demand
 - positive effects in the reduction of heating bills for beneficiaries
- Largest potential on the **renovation of the existing building stock**
- For **new buildings**, focus on strict concept of reduction of gas dependency with zero-emission buildings in line with proposed new EPBD
- **EIB action plan** to speed up projects and increase volume already well advanced
- **Technical assistance**
 - JASPERS / ELENA to help public beneficiaries to develop programmes and projects
 - EIB Advisory Green Gateway – support to Banks

Acceleration of Renewable Energy Sources

- **Renewable energy projects** (e.g. solar and wind) key to reduce dependence from gas
- **Solar rooftop projects quicker to prepare and implement**
 - immediate effects in terms of energy generation
 - positive effects in terms of reduction of electricity bills for beneficiaries
- In parallel, continued **support to large scale RE projects** (longer preparation and implementation period)
- Appropriate **regulatory and contractual mechanisms** needed (e.g. CfDs, cPPAs)
- **Risk appetite** considerations

EIB dedicated instruments: Energy Efficiency

- MBIL – on-lending to Banks and NPBs
- Investment Loans (direct) - Navarra NZEB social housing
- Framework Loans - Snam Climate Action, UCI Building Renovation
- Investment Funds - Italian Energy Efficiency Fund (EEEF)
- EIF equity - InvestEU Climate & Environmental Solutions Equity Funds product
- EIF Guarantees - InvestEU Sustainability & Green Guarantee for individuals and SMEs (EGF)

■ Technical Assistance

- ▶ European Local Energy Assistance (ELENA)
- ▶ Jaspers Project Development Assistance
- ▶ EIB Advisory Hub: Green Gateway, Green Eligibility Checker

Case study: Energy Efficiency Framework Loan



UCI Building Renovation (Spain and Portugal)

Barrier: Fragmentation



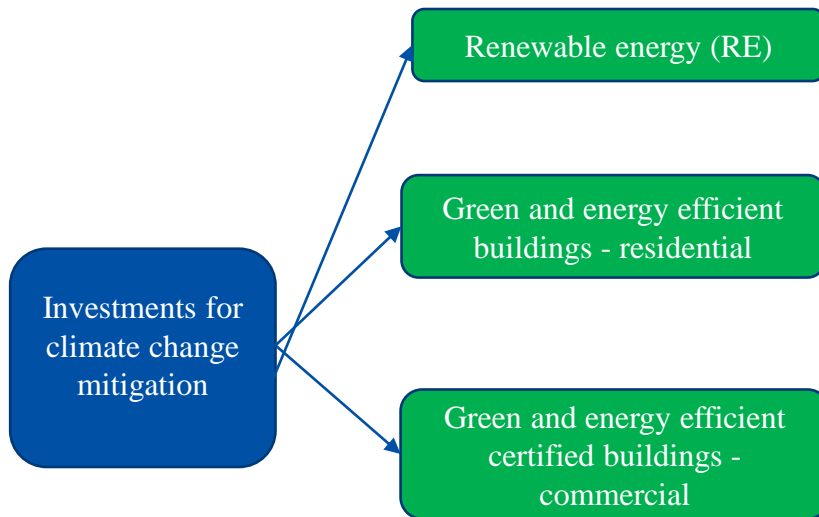
Solution: Aggregation

- Financing in Spain and Portugal of EE investments in buildings for EUR 90m.
- In return, the EIB participates in the senior tranche of RMBS of existing loans.
- Four products offered : 1) Green Mortgage Loans to individuals; 2) Green Mortgages for new residential buildings; 3) Personal loans to individuals for refurbishments; 4) Loans for condominium refurbishments to HOA.

EIF guarantee - Examples of eligibility criteria

Sustainability Guarantee product

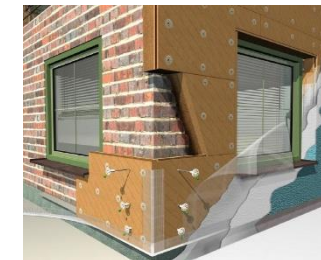
General eligibility areas for EE



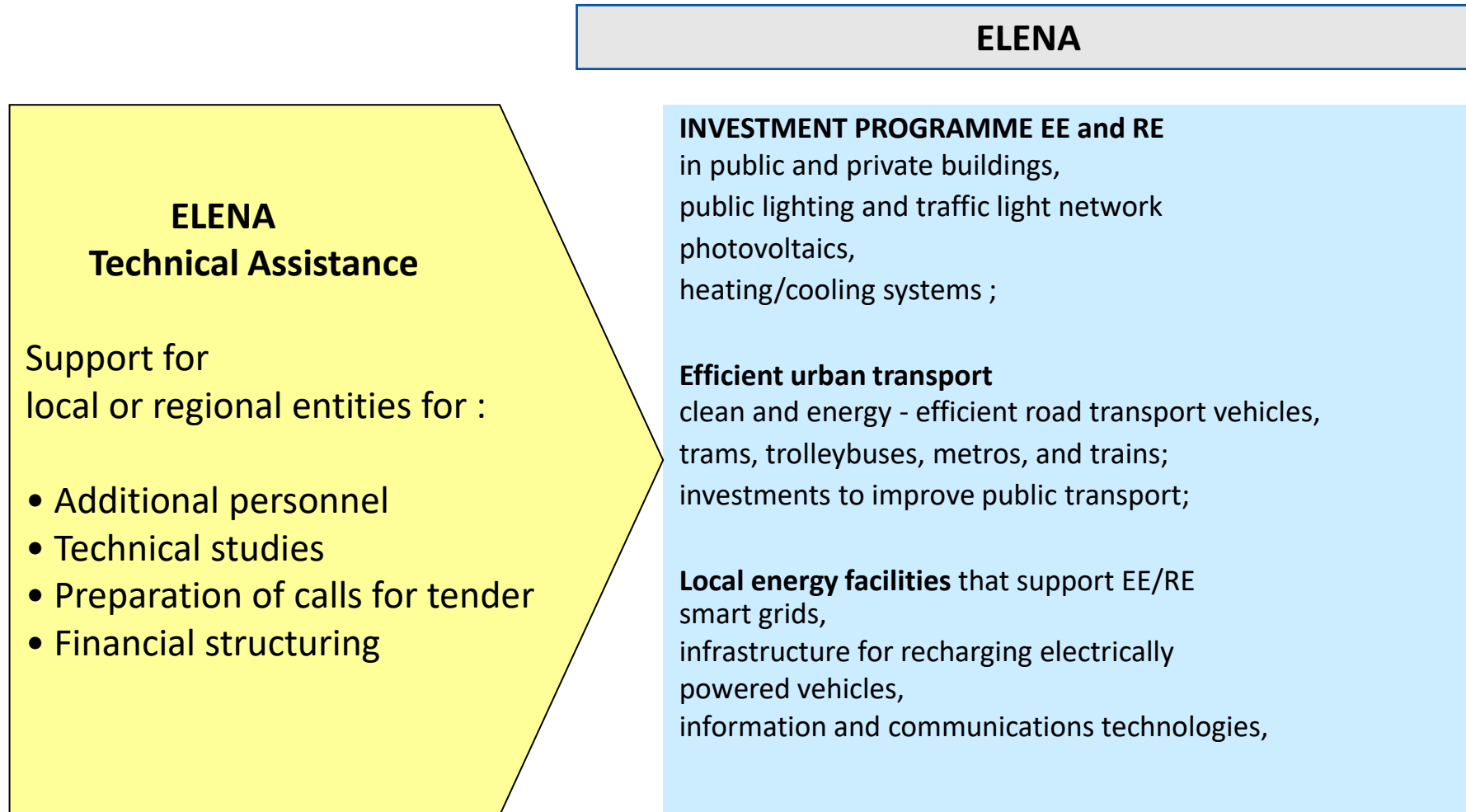
Detailed eligibility criteria/purpose of the guarantee

- Renewable energy projects production and/or transmission of renewable energy. **For example Solar PV installations**
- **Standardized building/house** renovation measure from a list of pre-defined standardised measures/eligible equipment, for example efficient Boilers, triple glaze windows, led lighting, etc.
- Integral building renovation measures with energy efficiency audit or **energy performance certificate** to estimate the energy savings of the building/house as per national certification, as applicable. For example building insulation/lighting, electrical charging stations projects

Examples of eligible investments



Energy Efficiency - European Local Energy Assistance - ELENA



EIB Advisory Hub - Green Gateway

Green Gateway Online Resources



Green Checker

Eligibility check & impact reporting IT tool for eligible CA&ES projects with 40 measures and 6 languages. <https://greengateway.eib.org/greenchecker>

E-library

Knowledge-sharing library incl. key reference documents. Live, additional material under development. <https://greengateway.eib.org/g/knowledge-guidance/index>

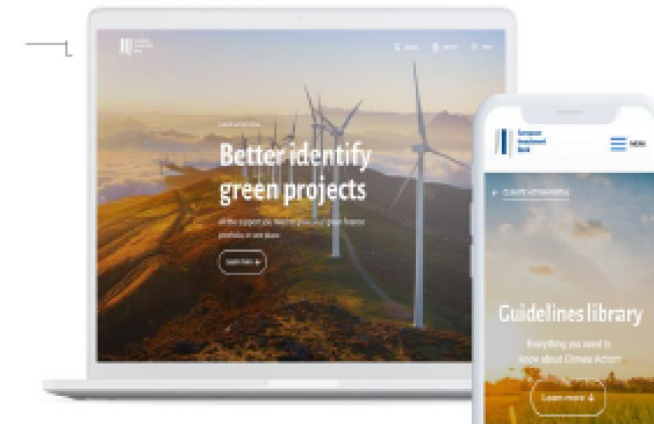
E-Learning

E-learning courses on EIB green eligibility and reporting criteria and climate related topics, relevant to intermediated financing operations. *Under development*

Green Gateway Bilateral advisory

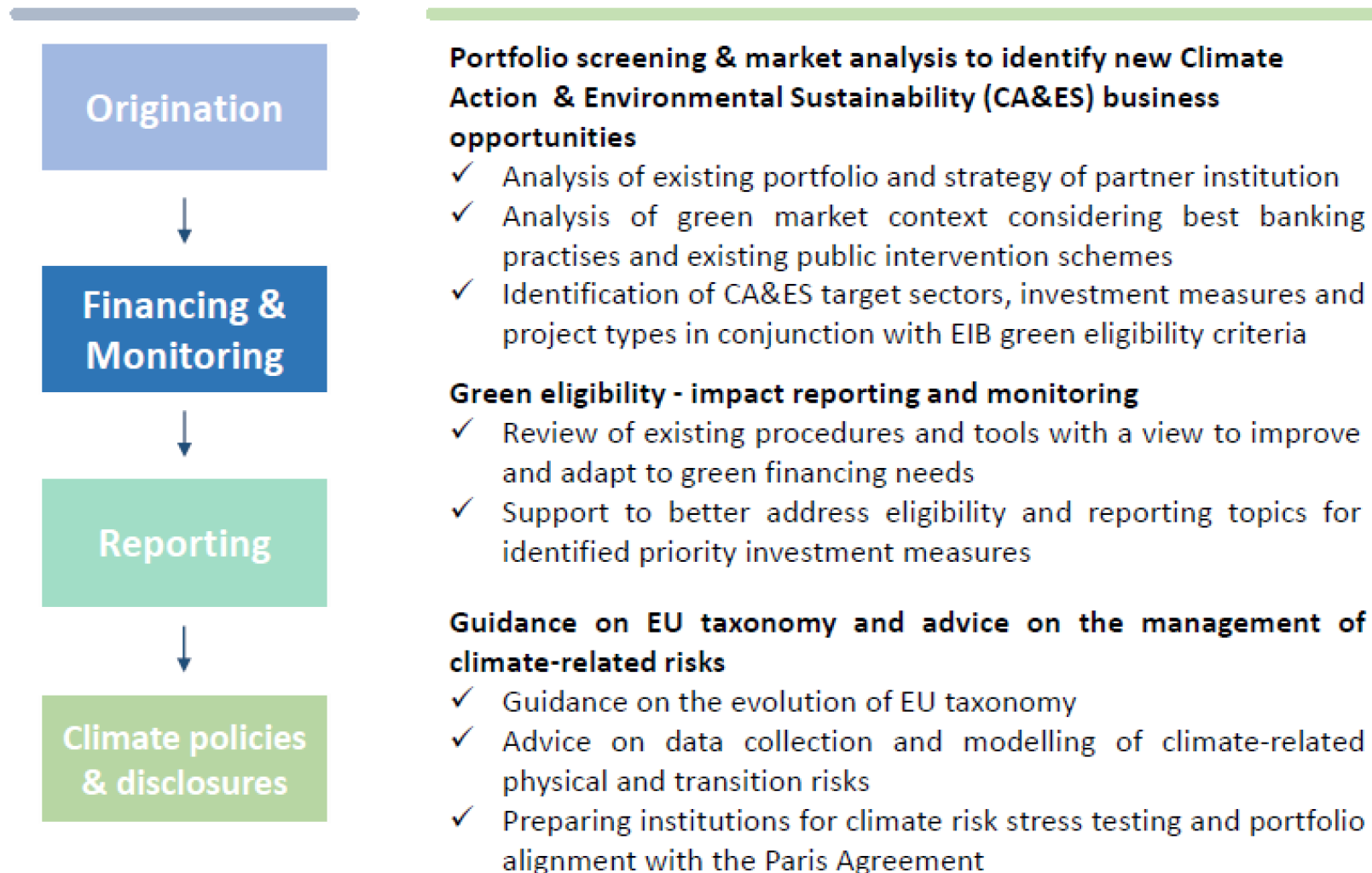


- Targeted at **selected EIB partner financial institutions** with climate action ambitions/operations
- Supported financial institutions include **commercial banks, leasing companies, national promotional banks and institutions**



Green Gateway – Bilateral Tailored Support

Supporting the uptake of green investments:



Conclusions and Way Forward

- **Increase number and volume of EE projects** – new EIB EE action plan
- **Acceleration of project preparation through TA** – (e.g. InvestEU top up for ELENA, GreenGateway)
- More flexible approach to cumul rule to allow for **combination of RRF/ERDF and loans**
- Replication of **solar rooftop projects**
- Continued support to **large scale RE projects**, with consideration of tariffs support mechanisms and risk appetite
- Continuation and development of **Pan-European Guarantee Fund – EGF instrument** to accelerate investment and mitigate risk for lenders



European Investment Bank

The EU bank



Case studies

Energy Efficiency Investment Loan



Navarra – NZEB social housing (Spain)

Challenge: Promote
new building standards



Solution: Support to
NZEBs

- 524 units with consumption of 20 Kwh/m², (EPC of A, passivhaus)
- Expected energy savings of 2,298.3 MWh/y (75% reduction versus the baseline), corresponding to 748.8 ton/y CO₂ savings
- Levelized cost of the final energy saved (LCOE) by the NZEB buildings is between 64 and 128 €/MWh

Energy Efficiency Framework Loan



SNAM CLIMATE ACTION FL (Italy)

Barrier: Fragmentation



Solution: Aggregation

- Loan of EUR 150m to one of the leading Italian ESCOs (Energy Services Companies)
- Refurbishment of residential buildings and EE in industry
- Combined with Italian Government tax deductions (Ecobonus and Super Ecobonus)

Energy Efficiency

Project Example: Equity Fund



Suma Capital (Spain)

Barrier: Split incentives



Solution: Aggregation

- Infrastructure fund targeting energy efficiency and circular economy projects primarily in Spain
- >130M€ in more than 10 investments (EE in industry, DH refurbishment, biogas)

EIF product pallet offering in EE

Several dedicated products shall target Energy Efficiency investments

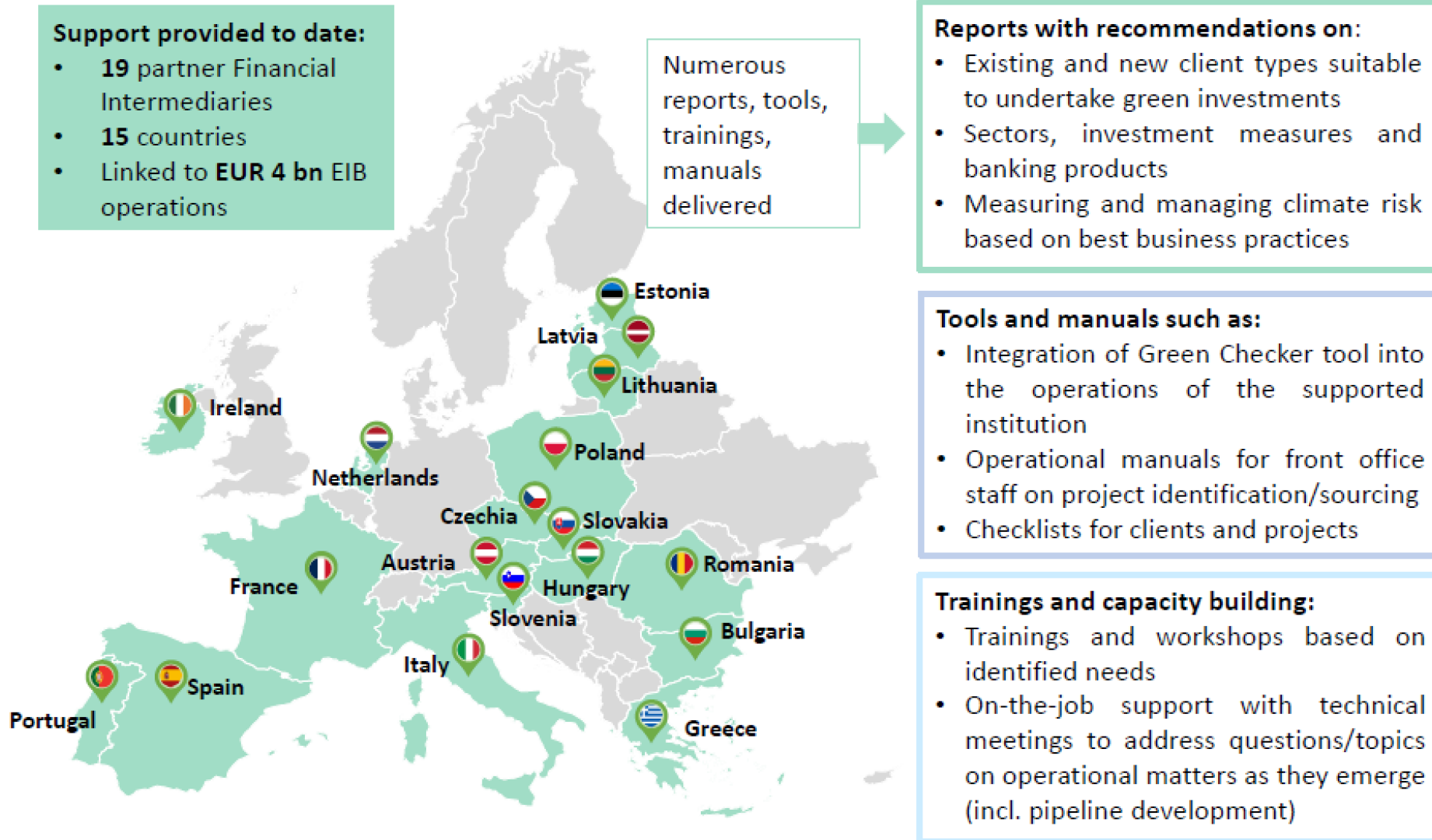
1. InvestEU Sustainability & Green Guarantee for individuals and SMEs covering:

- Energy efficiency, renovation and retrofitting for residential and commercial buildings as well as industry and services.
- The product will target standardised and non-standardised EE efficiency measures
- Target granular portfolio guarantees
- Integrates advisory/capacity building resources
- Can combine national grant programmes to improve value added for final beneficiaries

2. InvestEU Climate & Environmental Solutions Equity product covering:

- Support Clean energy transition via decarbonisation of residential sectors and SMEs via equity funds
- Support energy efficiency equity investments in the generation, supply, storage, distribution networks (e.g. smart cities) including both economic and enabling technologies, products and services via equity funds.

Advisory Hub Green Gateway – Examples



Advisory Hub