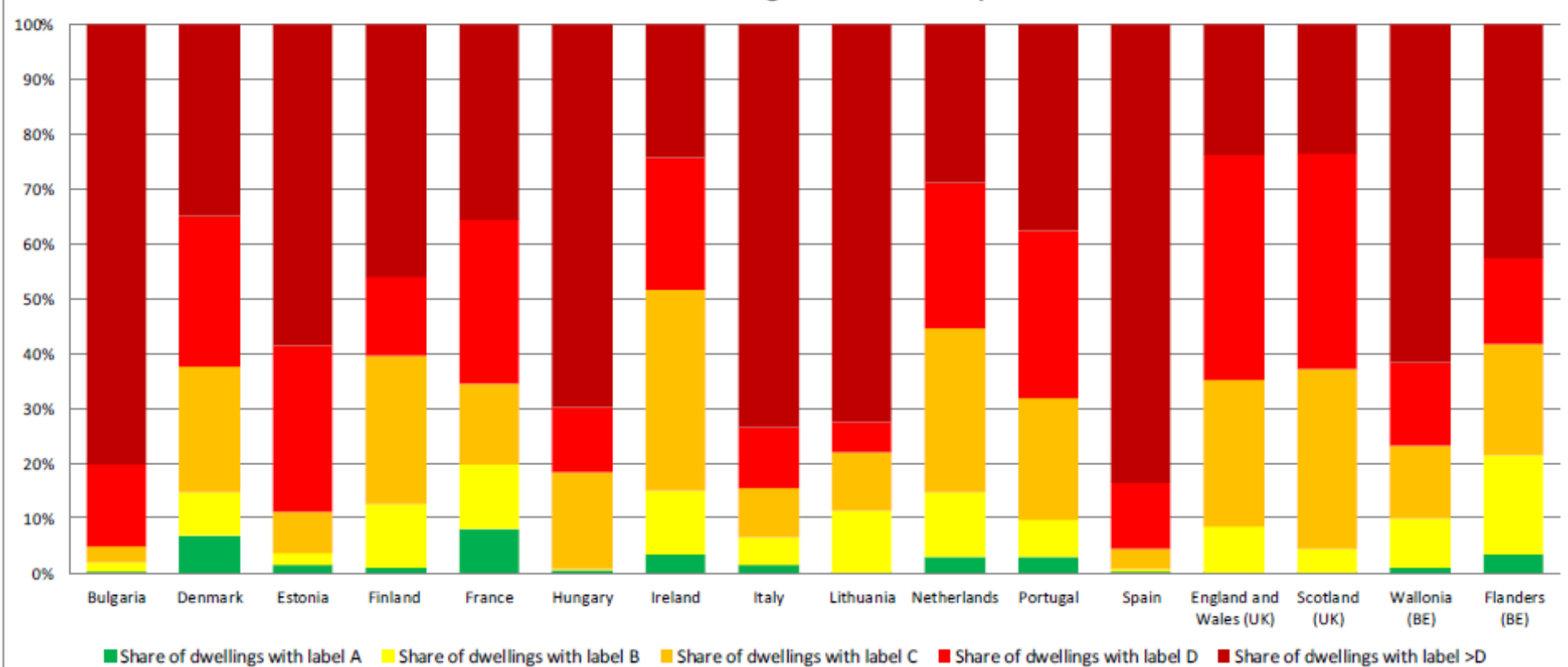


# FINANCING THE FUTURE OF BUILDINGS

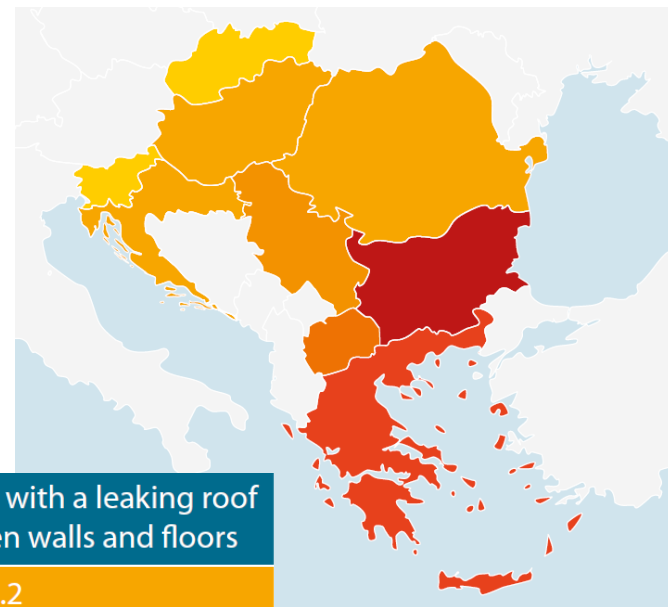
Oliver Rapf, Executive Director  
Buildings Performance Institute Europe  
Energy and Management Authorities  
Network Meeting 20 – 21 November 2017  
Brussels

# The energy efficiency of buildings in selected countries

Distribution of the building stock in the EU per EPC class



# Energy Poverty in South-East Europe



Country	Inability to keep home adequately warm	Arrears on utility bills	Living in a dwelling with a leaking roof and damp or rotten walls and floors
Bulgaria	40.5	32.9	13.2
Serbia	17.1	41.4	26.2
Greece	32.9	37.3	13.7
FYROM	26.1	38.8	15.2
Hungary	11.6	22.3	26.9
Slovenia	5.6	20.3	29.9
Croatia	9.7	29.1	11.7
Romania	12.3	21.1	12.7
Slovakia	6.1	6.1	7.0

Scale: Percentage of population

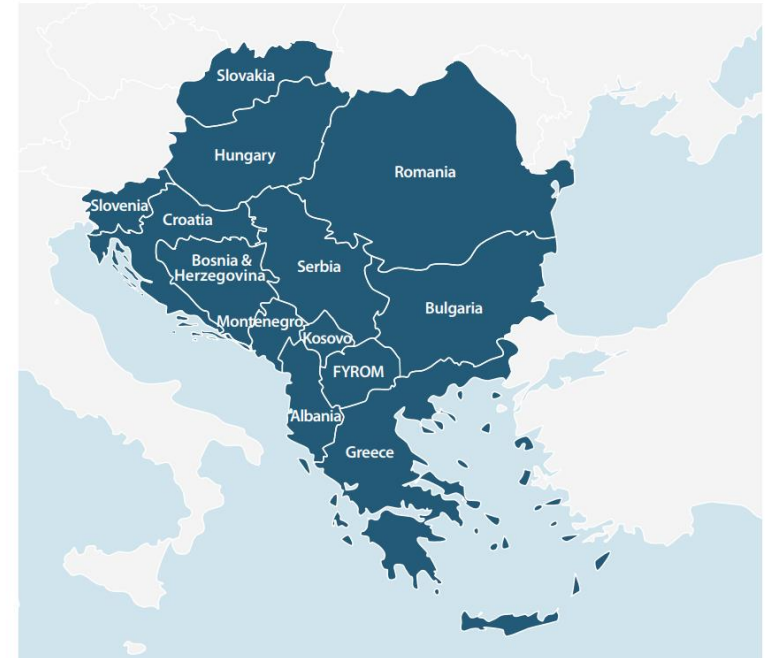
0%-8%	8%-17%	17%-25%	25%-33%	32%-42%	42%-50%	> 50%
-------	--------	---------	---------	---------	---------	-------

# Average renovation costs

**Table 9 - Energy savings compared to initial state of the building and associated renovation costs** (Source: BPIE own analysis)

<b>Minor</b> renovation depth	15% energy savings	75 €/m <sup>2</sup>
<b>Moderate</b> renovation depth	45% energy savings	120 €/m <sup>2</sup>
<b>Deep</b> renovation depth	75% energy savings	225 €/m <sup>2</sup>
<b>nZEB<sup>33</sup></b> renovation depth	95% energy savings	400 €/m <sup>2</sup>

**Figure 1 - Map of the target countries in dark blue** (Source: BPIE own analysis)



Source: Safeguarding energy security in South East Europe with investment in demand side infrastructure. BPIE 2016

# Four renovation scenarios for SE Europe

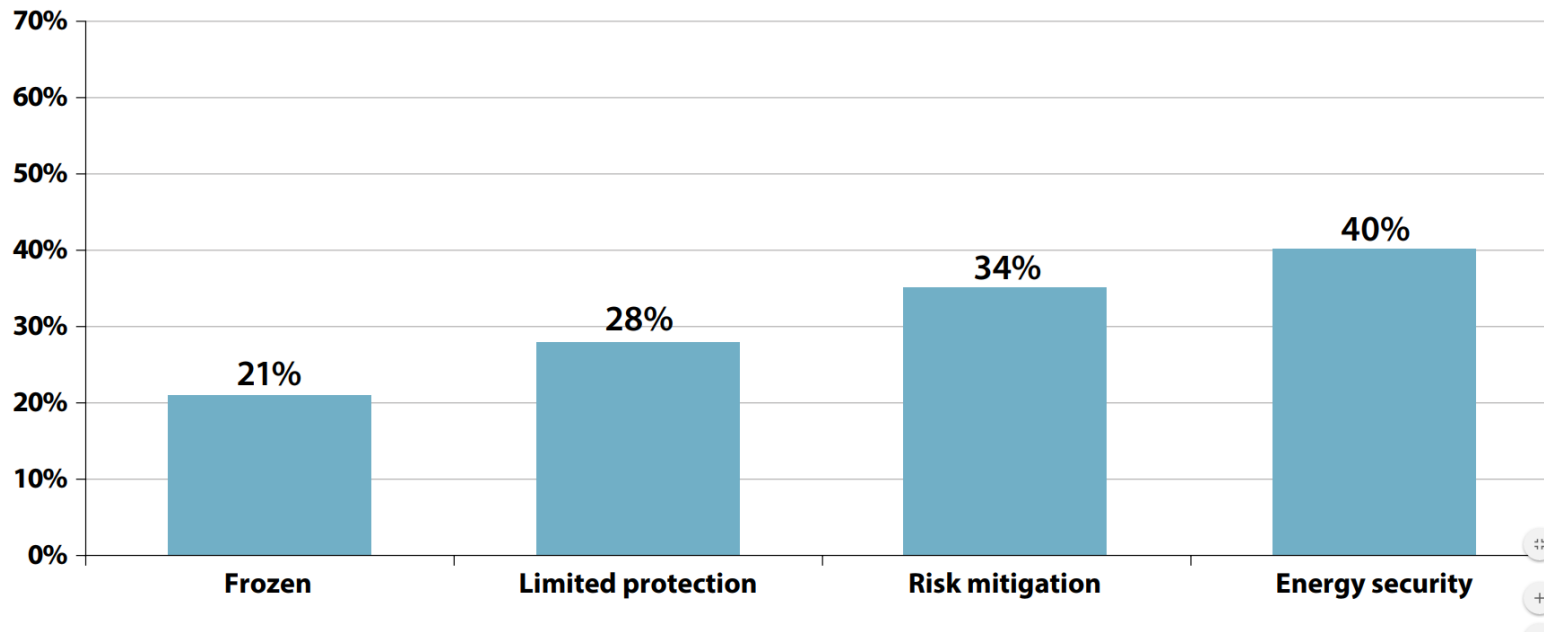
**Table 10 – Renovation scenarios linked to the rate and depth** (Source: BPIE own analysis)

Scenarios	Frozen	Limited protection	Risk mitigation	Energy security
Renovation rate	Baseline rate	Slow rate	Medium rate	Fast rate
Renovation pathway	Baseline renovation (frozen at starting year )	Shallow renovation path	Intermediate renovation path	Deep renovation path

Source: Safeguarding energy security in South East Europe with investment in demand side infrastructure. BPIE 2016

# Renovation results within a 20 year period in SE Europe

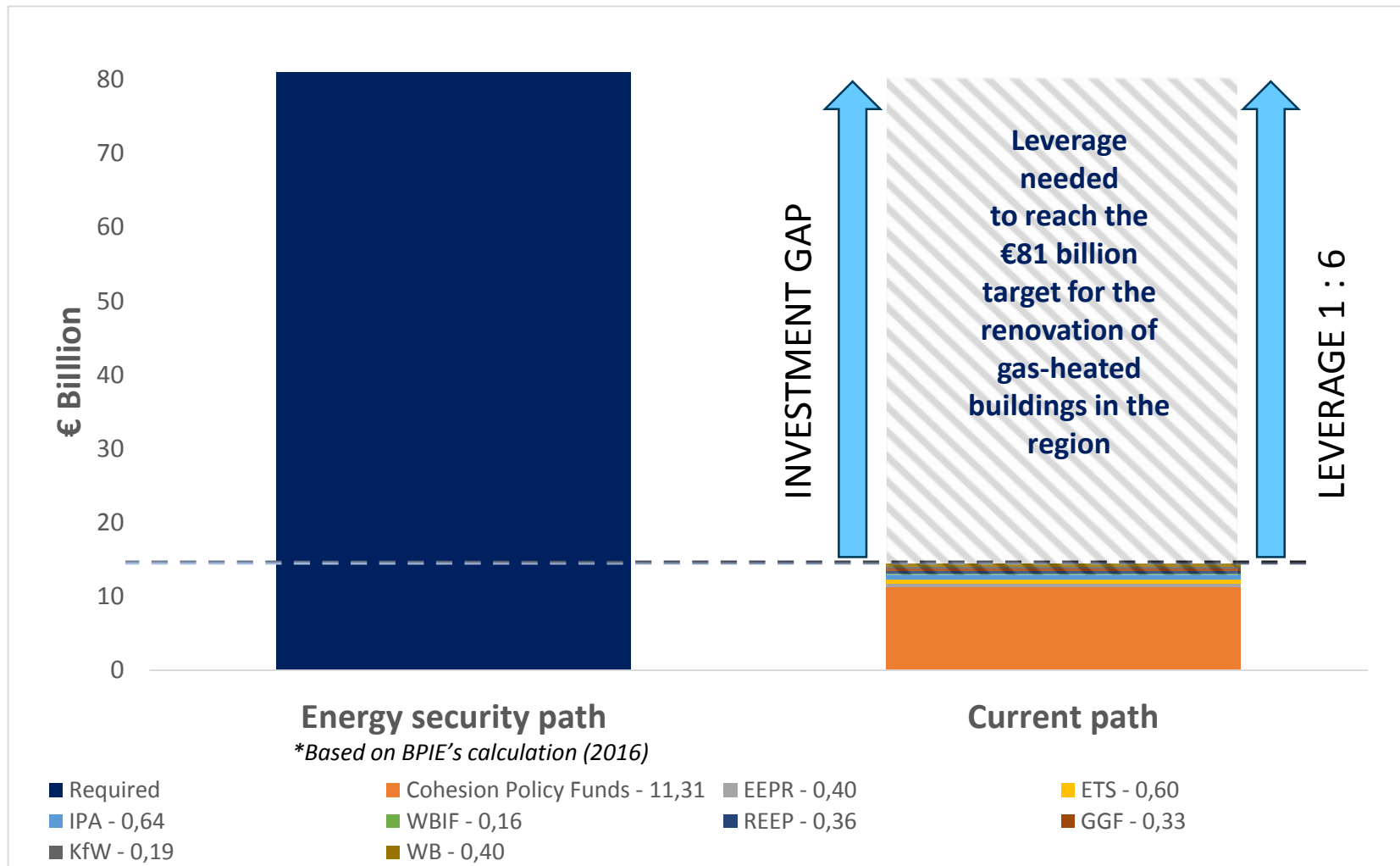
**Figure 14 - Share of the total building stock that can be renovated** (Source: BPIE own analysis)



Source: Safeguarding energy security in South East Europe  
with investment in demand side infrastructure. BPIE 2016

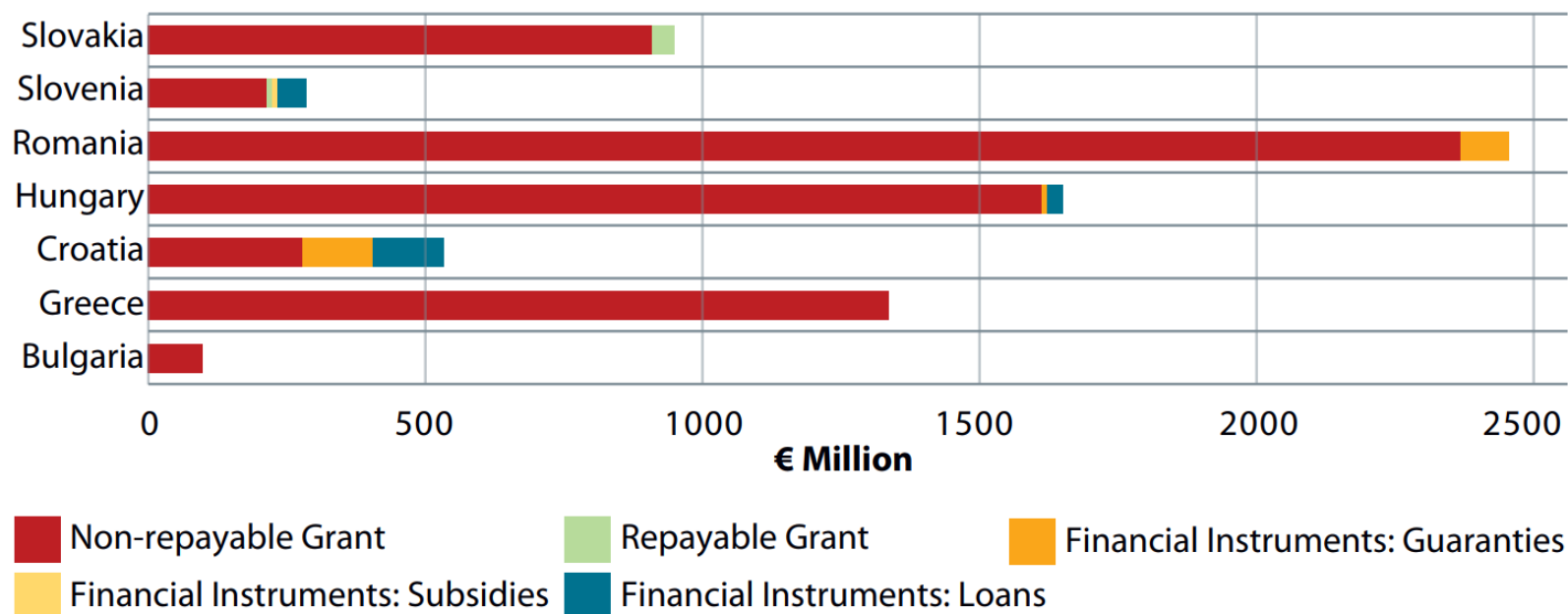


# Investment gap: the challenge to leverage private funds



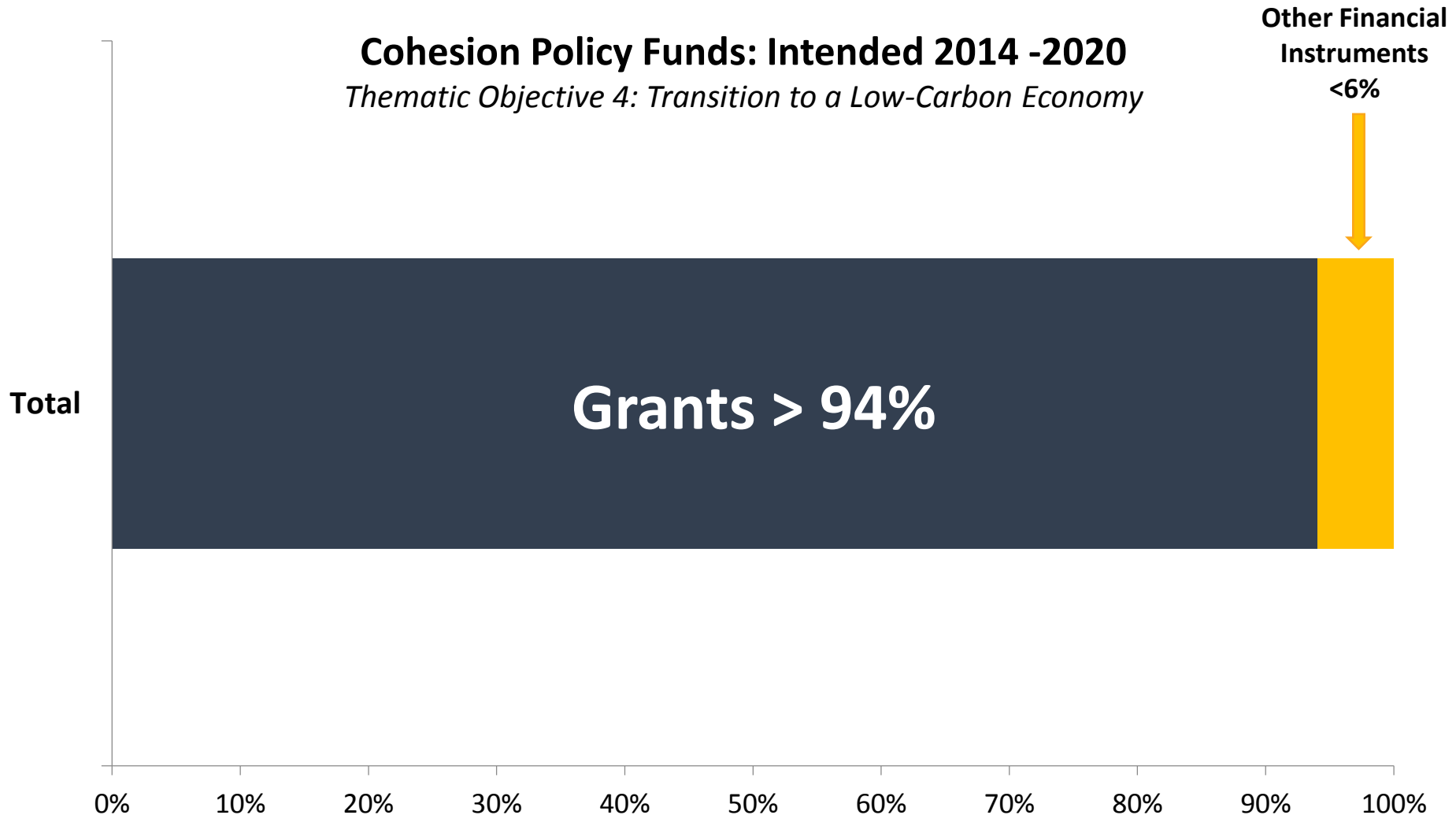
# Use of Cohesion Policy Funds in selected countries

**Figure 11 - Intended form of finance. Based on European Commission data [5]**





# Cohesion Policy Funds: not used to leverage private investments



# Experiences with national funding schemes:

Estonia, leverage 1 : 2.33

## Reconstruction of Apartment Blocks – “Korterelamulaenu Käendus”

- Up-front grant of 15% - 40% of renovation cost, depending on level of energy savings, and 50% of preparation costs
- Available for apartment buildings constructed before 1993
- Grant provides the self-financing portion of applicants' bank loan
- Administered by KredEX, 200 – 250 projects/a

## Experiences with national funding schemes:

Malta, leverage 1 : 10

### “Incentive Scheme for Building Envelope Improvement”

- Grant for up to 15% of cost of double glazing and roof insulation, max. of 1000 Euro
- Suppliers register their products with the national regulator
- Annual budget of 44,000 Euro stimulates 441,000 Euro annually

# Experiences with national funding schemes: France, leverage 1 : 12 “Prêt à taux zero”



- Interest free loans up to 30,000 Euro
- By 2015, government spent 40 Mio. Euro
- Triggered 480 Mio. Euro investment
- 94% in single family homes,
- Mostly insulation of walls, roofs and replacement of windows

# Experiences with national funding schemes: The Netherlands, leverage 1 : 83 “Regeling Groenprojecten”

- Individuals saving in a “Green fund”, benefiting from capital gains tax exemption
- Investors apply to the fund for (low interest) loan to finance a sustainability project, including building renovation
- Government subsidizes low interest rate and admin costs
- Triggering investments of 83 Euro for every 1 Euro public funding

# Recommendations for next policy steps

- Recognize **buildings as energy infrastructure** and make building renovation a strategic priority
- Establish a **regional energy efficiency financing platform** to facilitate project development and implementation, including capacity building and project aggregation
- Favour **integrated approach**: link accessibility of funds to national renovation strategy
- Use **public funding to leverage private financing** and boost innovative business models
- **Next MFF is an opportunity** to implement an « Energy Efficiency First » assessment for investment decisions in the energy system.



Find all BPIE's work on financing for building performance on our [website!](https://www.bpie.eu)

**BPIE**

Oliver Rapf  
Executive Director  
[oliver.rapf@bpie.eu](mailto:oliver.rapf@bpie.eu)  
[www.bpie.eu](https://www.bpie.eu)