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EU ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE – GUIDANCE FOR PUBLIC OFFICERS

Navigating new requirements for renovation strategies

Legislative Requirements (1)

According to the revised text (article 2a) of the EPBD, each Member State must prepare a new long-term roadmap that includes:

- Milestones (indicative) for 2030, 2040 and 2050
- Explanation of contribution to the overall EU energy efficiency target for 2030
- Overview of the national building stock
- Expected share of renovated buildings in 2020
- Approaches to renovation relevant to the building type and climatic zone, including potentially relevant trigger points

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Legislative Requirements (2)

- Policies and actions to stimulate cost-effective deep renovation of buildings, including staged deep renovation, for example by introducing an optional scheme for building renovation passports
- Policies and actions to target the worst-performing segments of the national building stock, split-incentive dilemmas and market failures
- Actions that contribute to the alleviation of energy poverty
- Policies and actions to target all public buildings – this links to the requirement in the Energy Efficiency Directive to renovate 3% of central government buildings every year
- Initiatives to promote smart technologies and well-connected buildings and communities
- Initiatives to promote skills and education in the construction and energy efficiency sectors
- An estimate of expected energy savings and wider benefits, such as those related to health, safety and air quality.

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Figure 2 Structure of a renovation strategy

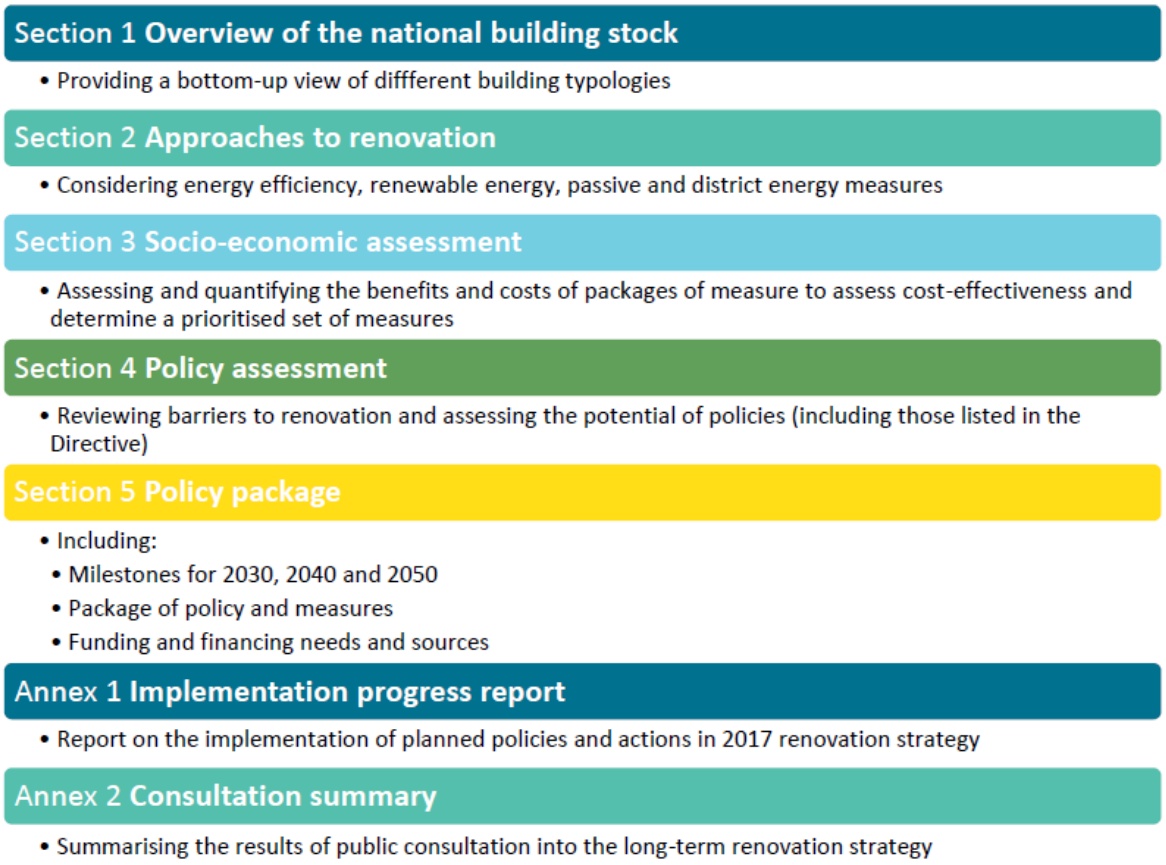

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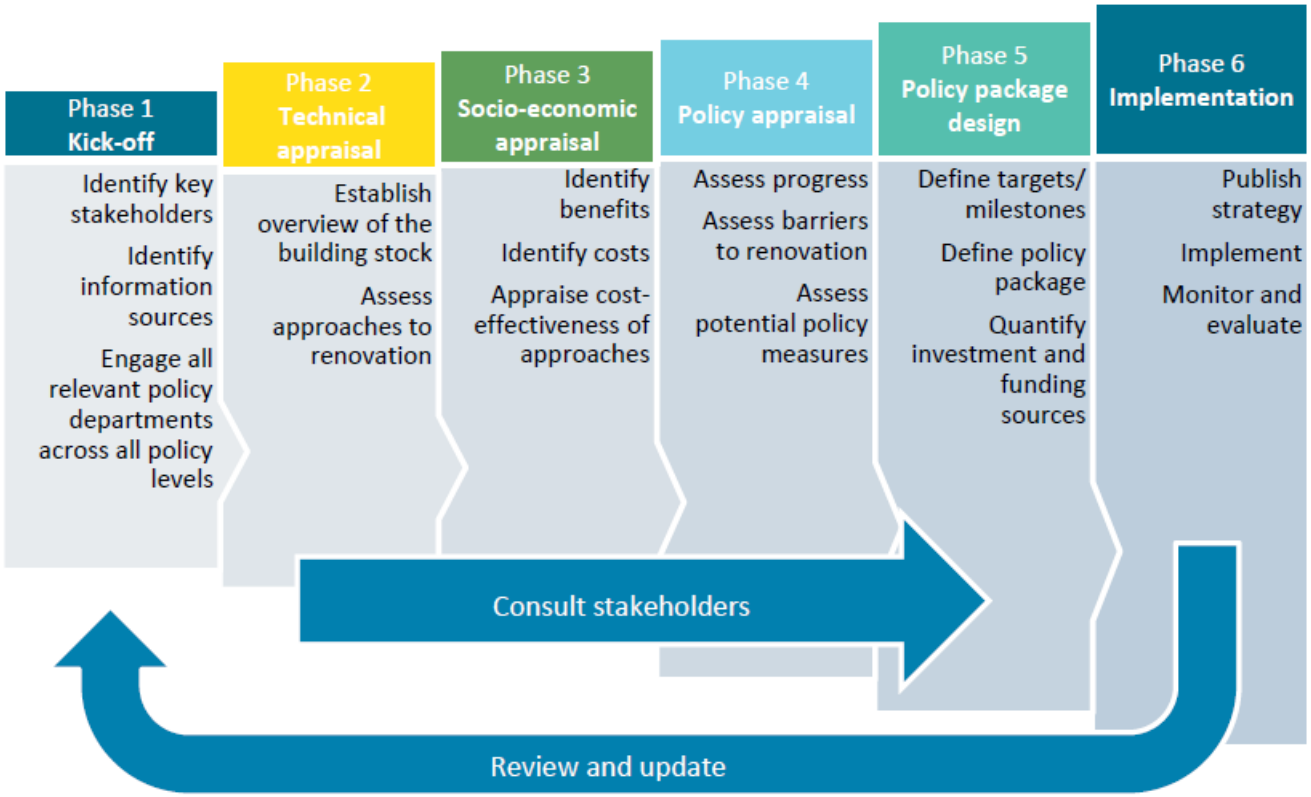
Figure 3 Phases in developing a renovation strategy



Checklist of Potential Policies (1)

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Legislative & regulatory	• Identify trigger points and develop respective regulation that could be used to encourage, or require, building energy performance improvement • Design energy efficiency obligations that encourage deep renovation • Facilitate the upgrade of all social housing to high energy-performance levels • Address restrictive practices concerning local deployment of low/zero-carbon technologies to establish a positive environment for buildings-integrated renewables • Remove or implement measures to overcome restrictive tenancy laws which disincentivise or otherwise inhibit energy-performance improvement • Mandate improvement of least-efficient stock to higher energy-performance level, e.g. through restrictions on sale or rental of buildings in lowest energy-performance categories
Technical	• Develop renovation standards that are progressively and regularly strengthened in response to experience and new technological solutions • Analyse potential for district heating systems to provide efficient, low-carbon energy • Ensure proper monitoring and enforcement of compliance with building codes • Develop packaged solutions that can be readily replicated in similar building types • Introduce quality standards/certification systems for installers and products (including packaged solutions)
Fiscal / financial	• Develop funding vehicles, tailored to specific market segments, that provide a simple ("one stop shop") and commercially attractive source of finance for deep renovation • Develop mechanisms to encourage deep renovation via third party financing e.g. ESCOs, EPCs • Strengthen energy/carbon pricing mechanisms to provide the right economic signals • Remove fossil fuel subsidies to eliminate perverse incentives that discourage investment • Consider "bonus-malus" mechanisms, e.g. property taxation systems (which reward high energy performing buildings while penalising poorly performing ones) and energy pricing

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Checklist of Potential Policies (2)

Communication & capacity building	• Establish publicly accessible databases demonstrating energy performance of renovated buildings and information on how to undertake deep renovation • Gear up skills and training programmes covering the key professions and disciplines • Establish knowledge and experience-sharing networks across regions/Member States • Encourage development of local supply chain industry for maximising macro-economic benefits and to minimise embedded CO_2 emissions • Develop promotional and dissemination activities that sensitise building owners to opportunities for deep renovation and that provide stepwise support throughout the renovation process • Communicate regularly and publicly on progress with the renovation strategy
R&D	• Support research, development and demonstration projects into new and improved technologies and techniques to deliver deep renovation, including how to scale up best practice to multiple buildings

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Some Examples of Good Practice

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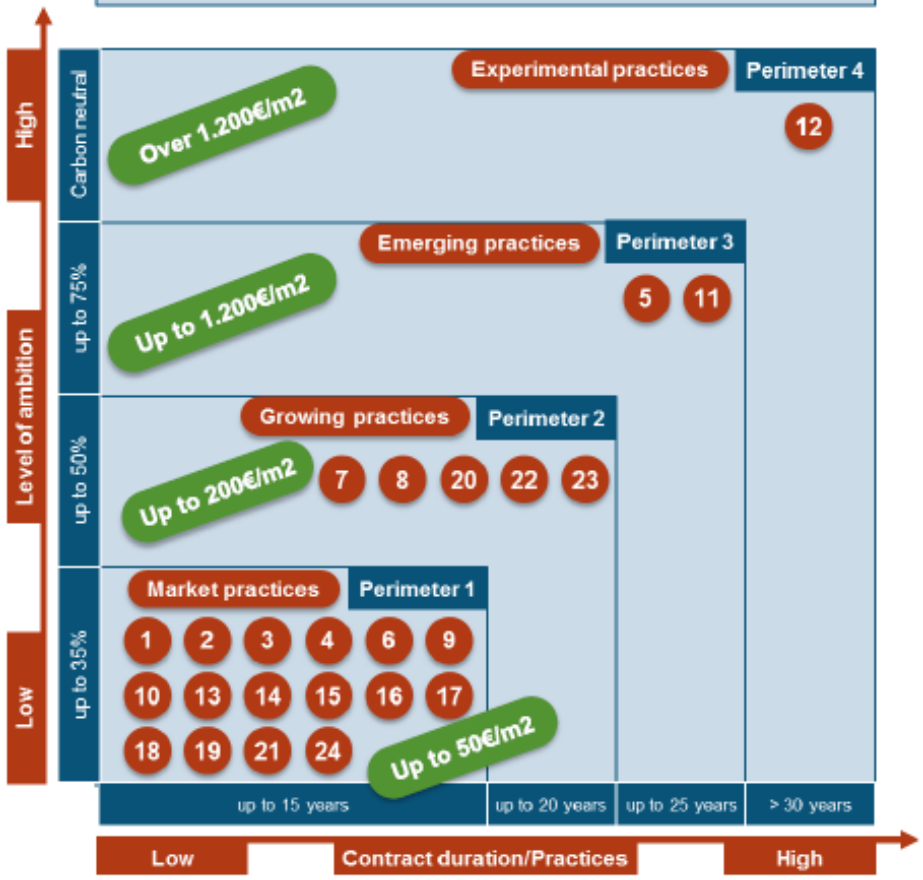
CITYNVEST Review of Finance Models

Models

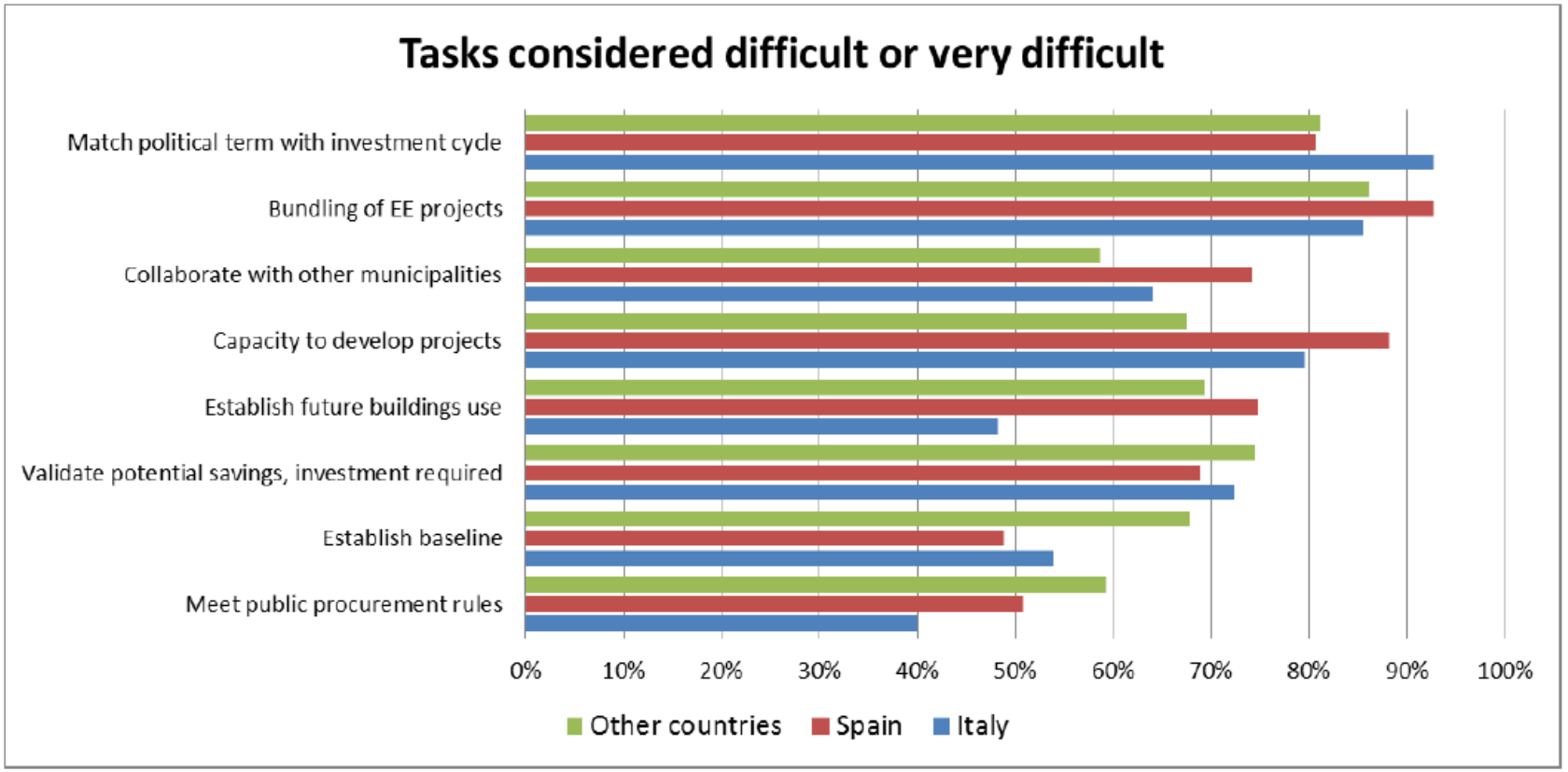
1	REDIBA	2	Berlin Energy Saving Partnership
3	RE:FIT	4	Vlaams Energiebedrijf
5	OSER	6	Fedesco
7	Eandis EDLB	8	ESCOLimburg 2020
9	Eco'Energies	10	Energy Fund Den Haag
11	Energies POSIT'IF	12	Climate Community Saerbeck
13	Cambridgeshire MLEI	14	Ox Futures
15	Rotterdam Green Building	16	Energy Efficiency Milan
17	ENSAMB	18	Brixton Energy Co-op
19	EERFS	20	SUNShINE
21	Warm Up North	22	SPEE Picardie
23	KredEx	24	PadovaFIT!

Model level of ambition mapping



http://www.citynvest.eu/financing-models-matrix

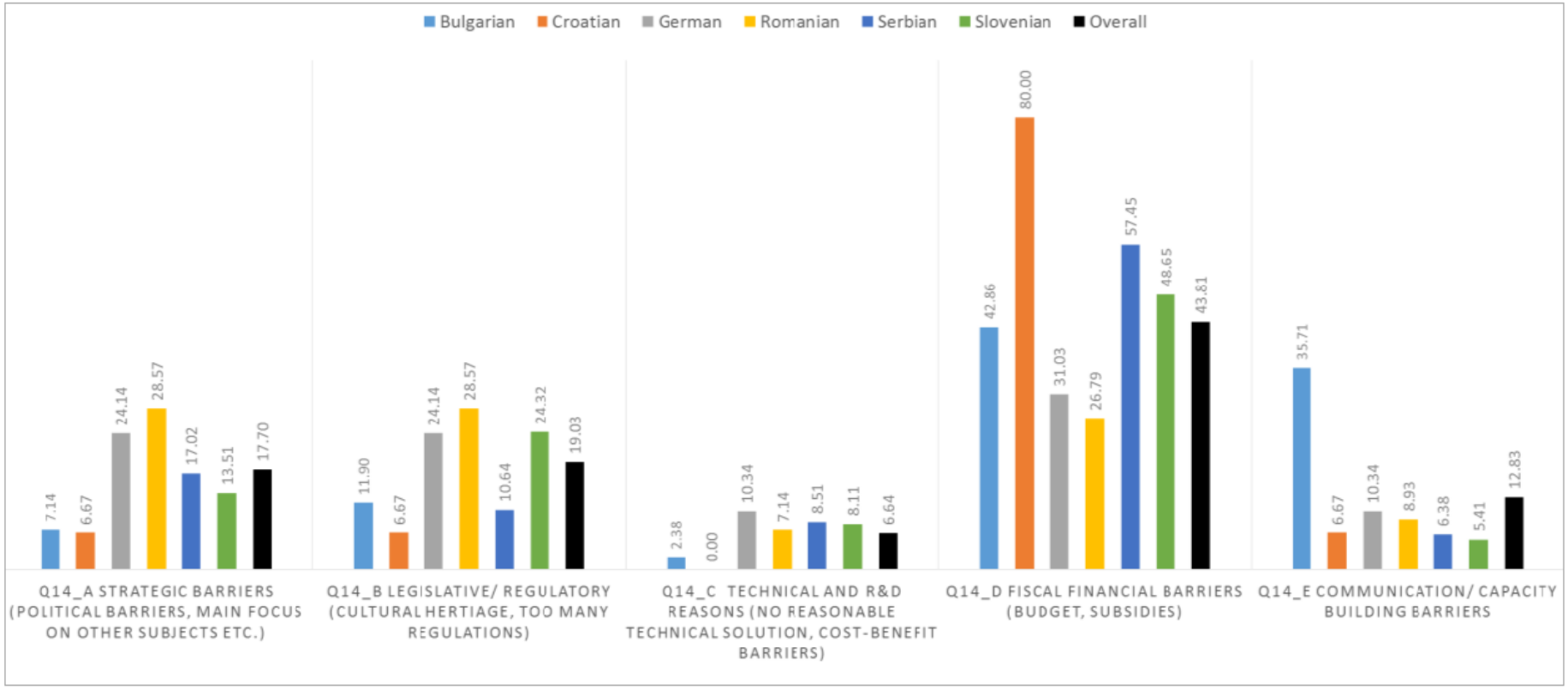
Barriers to financing



Largest barriers: match the political & investment cycle, bundle projects, or find capacity / partners to develop projects

EMBuild Project Findings

STRONGEST BARRIERS THAT HINDER THE IMPLEMENTATION OF EE AND DEEP RENOVATION STRATEGIES



PROJECT STRUCTURE

Apartment Owners and Building Managers
involvement and engagement

Technical Engineering & Financial Engineering
with Preliminary design of interventions
and template EPC contract

Public Tender to Select/Award a **Delivery Partner**
and final template of EPC contract

Monitoring

"Facilitations" / light audits

Technical & Financial offer

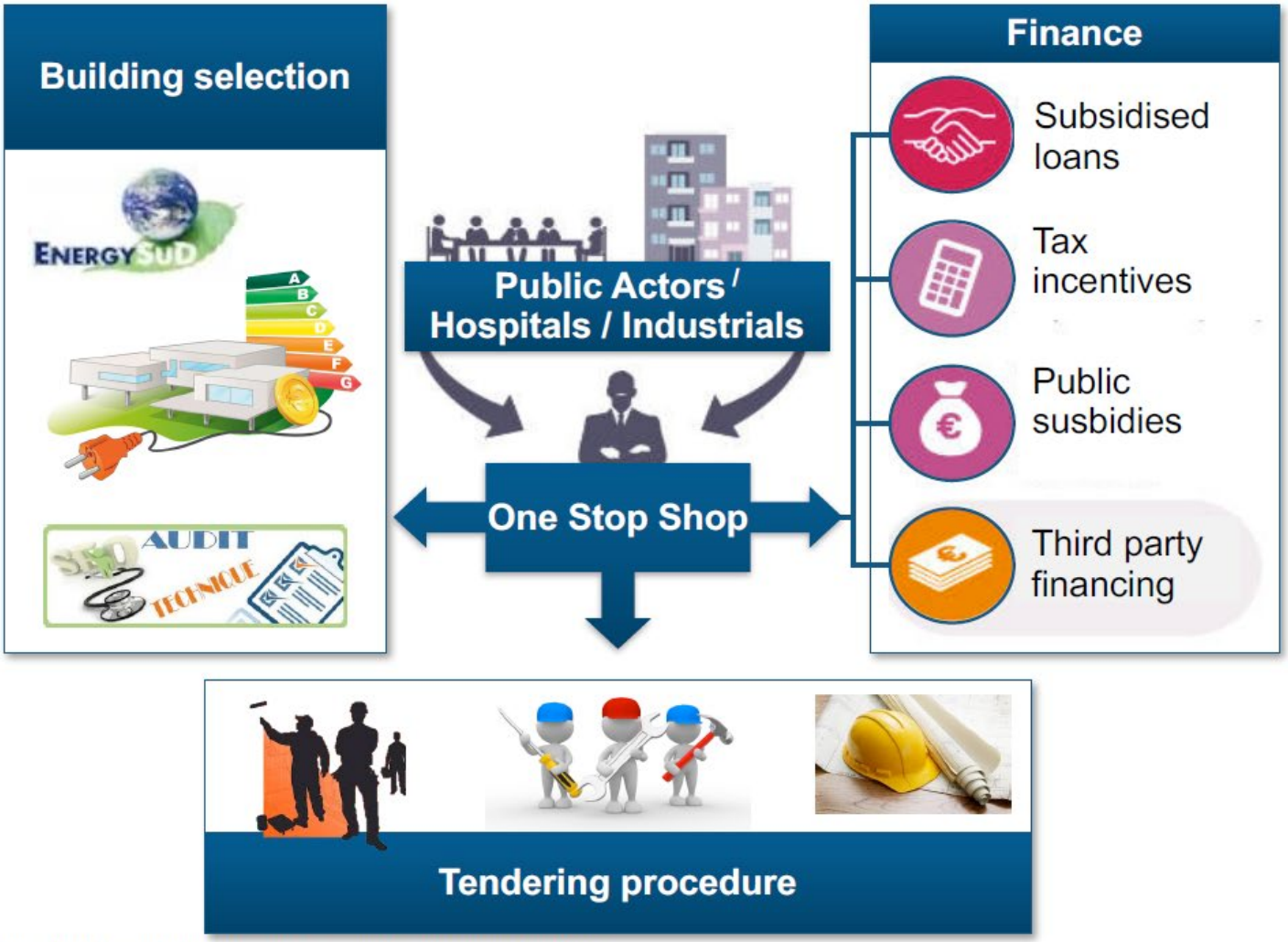
Condominium Assembly

Contract signed
(Condominium - Delivery Partner)

Works

Co-funded by the Intelligent Energy Europe Programme of the European Union

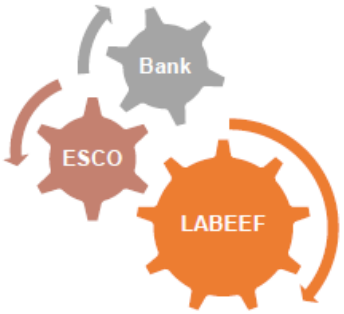
Support beneficiaries (local authorities, hospitals, industrials…) in their energetic retrofitting projects through a one-stop-shop



1 Public authorities as a first step –plan to open to hospital and industries

http://citynvest.eu/content/guide-launch-one-stop-shop-energy-retrofitting-0

LABEEF SOLUTION – GENERAL ECOSYSTEM



Standardised EPC contract

Credit line, loan agreement

MULTIFAMILY RESIDENTIAL BUILDING

Building renovation and guaranteed energy savings

Repayment

ESCO

Short term financing

Repayment

COMMERCIAL BANK (<2 years)

- *Energy Audit*
- *Engineering*
- *Procurement, supply, construction and installation*
- *Start-up and commissioning*
- *Financing*

Forfating of successful implemented projects (after M&V)

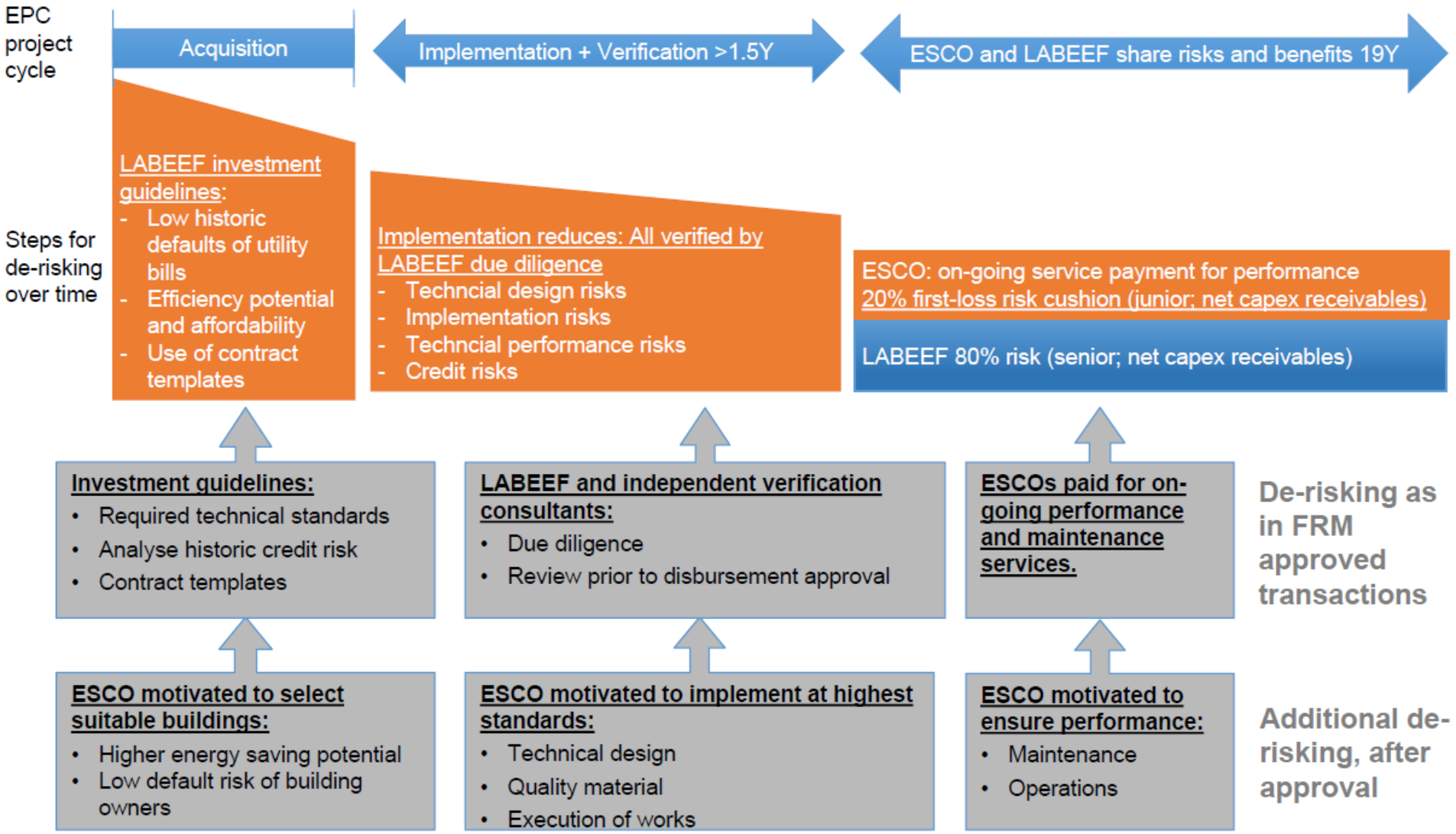
EBRD DEVELOPMENT INST. PENSION FUNDS

LABEEF (> 2 gadi)

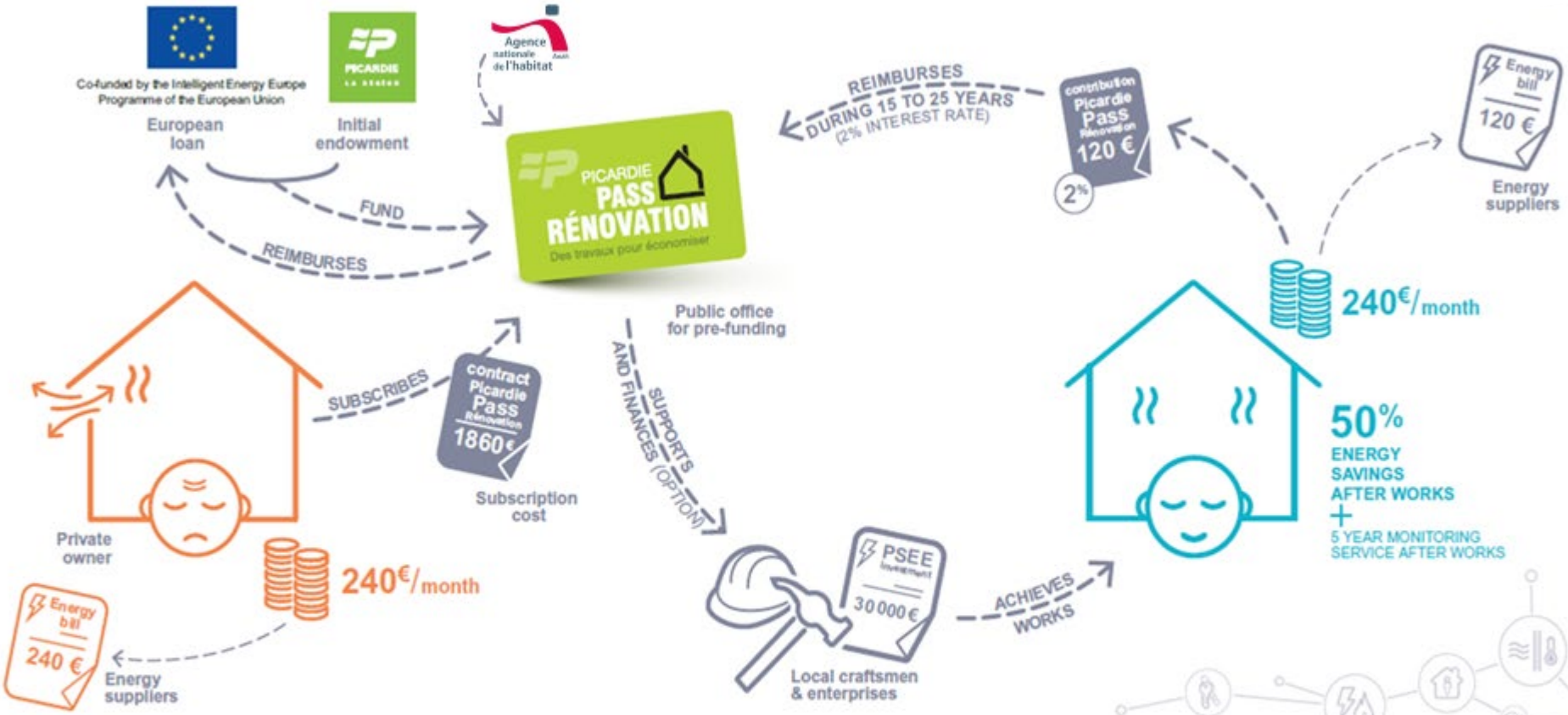
- *Long Term financing*
- *Standardisation, scaling.*
- *Quality, guidelines*
- *Transparency*
- *IT Platform*

http://sharex.lv/en/latvian-baltic-energy-efficiency-facility-labeef

INCREASED INCENTIVES FOR ESCOs TO ENSURE PERFORMANCE



THIRD-PARTY FINANCING, HOW IT WORKS IN PICARDIE?



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THANK YOU

Report Download:

http://bpie.eu/publication/eu-energy-performance-of-buildings-directive-guidance-for-public-officers-navigating-new-requirements-for-renovation-strategies/

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