

**UNECE Group of Experts on Energy Efficiency
Task Force on Energy Efficiency in Industry - bi-monthly open discussion forum**

Triggering Investments towards Resilience and Net Zero

Author: Lucia Fuselli - WAPPP

Energy Efficiency in Industry - Barriers to Investments

Finance and policy barriers

- MSMEs chiefly utilize equity (implies liquidity) and loans (implies affordability and good creditworthiness)
- non-sistemized assessment of solutions (investment levels, cost per CO2 abatement, lifecycle)

Capacity and decision making barriers

- CSR strategy
- energy economics expertise within MSMEs: not seeing cost of inaction
- granularity issue and lack of one-stop shop of advisory for industries

Technical barriers

- non-sistemized, non-prioritized, non-digitalized monitoring
- underdeveloped digitalitazion across stakeholders base and value chain

How can monetary decision makers be triggered to decide for energy efficiency investments?

How can stakeholders be equipped with combined support on know-how and implementation?

Intermediating and blending, systematizing, aggregating

Solving liquidity and creditworthiness barriers

Liquidity – intermediated lending, role of VC for enabling technologies

Creditworthiness - if ETS become earmarked for decarbonization, can that become part of/accompanied by a guarantee from the state/from the EU?

***Financial innovation** – securitization? specialized lenders? how can MSMEs fit into ESG portfolios?*

Systematizing assessment of solutions and energy economics whilst resolving the granularity problem

Industry associations as aggregators and one-stop-shop for solutions

- hosting decarbonization professionals,
- recipients of grants and TA
- Recipient of MSMEs contributions

standardization of monitoring digital solutions and best practices
technical support (LCA), interface with/education of Fis.

open source tools (at national/EU level) guiding on solutions on the basis of a number of case studies and derive economics (costs per tCO₂, cost of inaction)

Shaping behaviours

Cities and metropolitan areas as one-stop-shop for awareness

- education and awareness raising
- observatory
- awarding MSMEs industry champions

Examples – blended intermediated lending and lending promotion programs



Blended finance: EIB-R EU initiative for building renovation



Source: EIB website

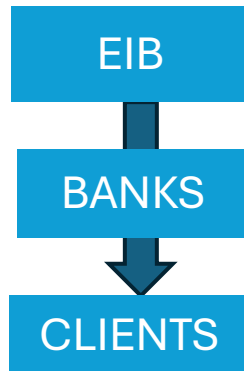


- **EIB and climate finance loans + guarantee to intermediaries**
- **TA to intermediaries + grants-equivalent for industry associations**
- **support to member states** – establishment of observatories (monitoring), awareness at metropolitan/regional level

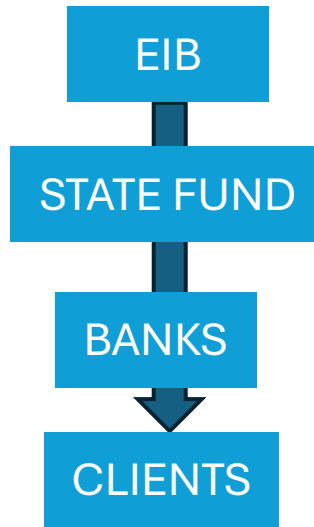


Two models of intermediated lending

PF4EE MODEL



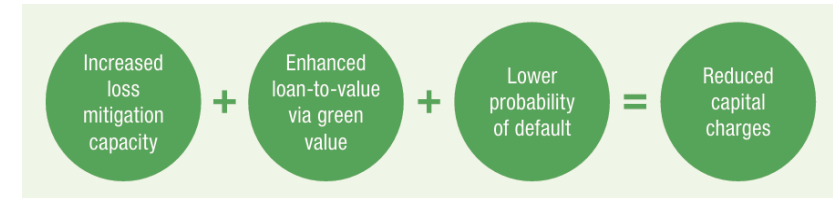
JESSICA MODEL



- **Assess pros and cons**
- **Connect financial and industry stakeholders in dialogue**
- **Ensure procedural streamlining and intermediaries' education**



EEMAP (EU H2020) create a standardized Energy Efficient Mortgage (EEM) market



Source: EU Commission website

- **Energy Efficient companies perceived as a lower risk (increased resilience)** - linking energy efficiency to the companies valuation
- **energy efficient companies as target for ESG investors/portfolios** - linking energy efficiency to ESG requirements/portfolios



- **Improvement of valuation practices**
- **ESG investing and related disclosures mandatory**

Examples – aggregation and one-stop-shops



EIB-EU ELENA program grant-financed one-stop-shop

- **PMO at City level (3-5 people):**
 - Front desk
 - Collection of building park data
 - Auditors for baseline assessment
 - Financing assistance
 - Solutions advisory
- **Financed through EU-EIB ELENA grant**



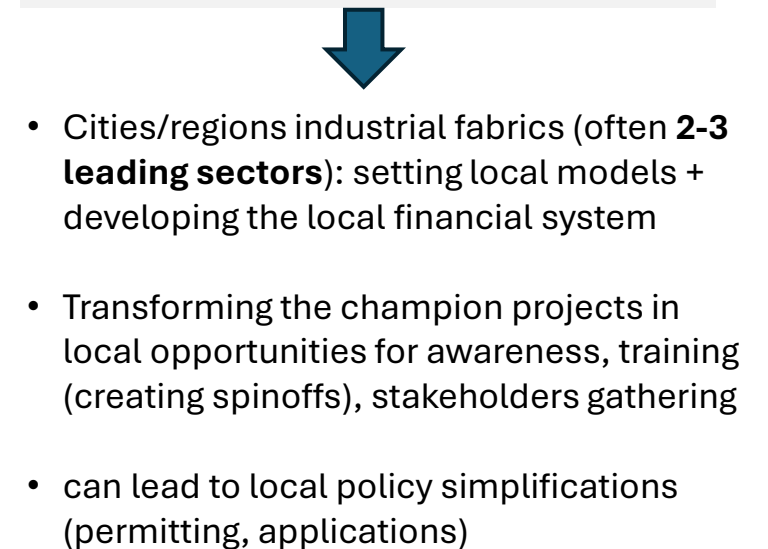
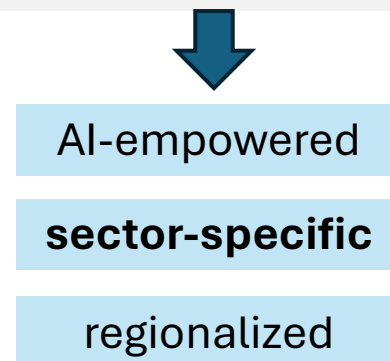
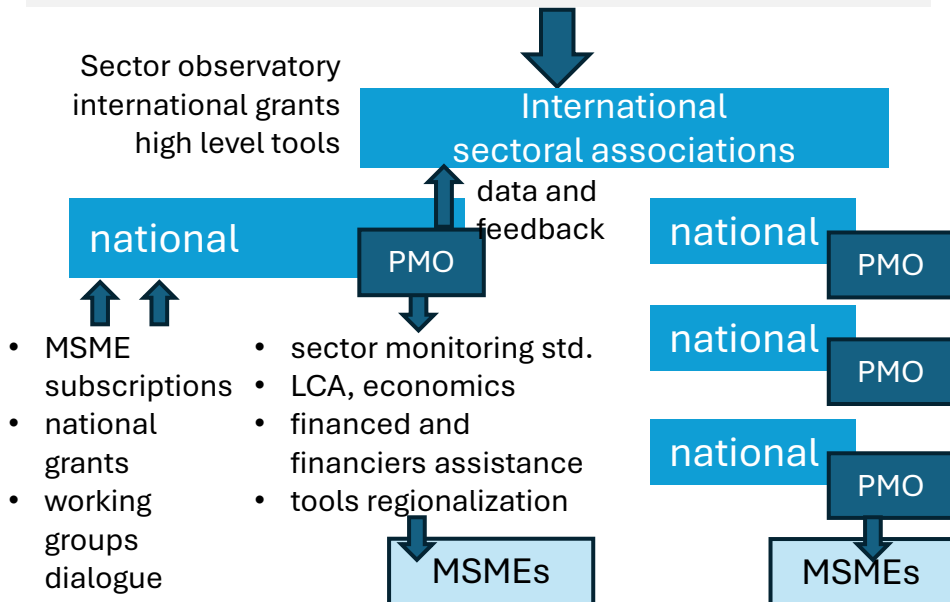
EEQUEST Digital Tool

- **Open source, web based,** allowing to obtain saving estimates for EE projects to support financing applications
- High-level **economics**
- **Best practices/benchmarks**
- How to **monitor/audit**



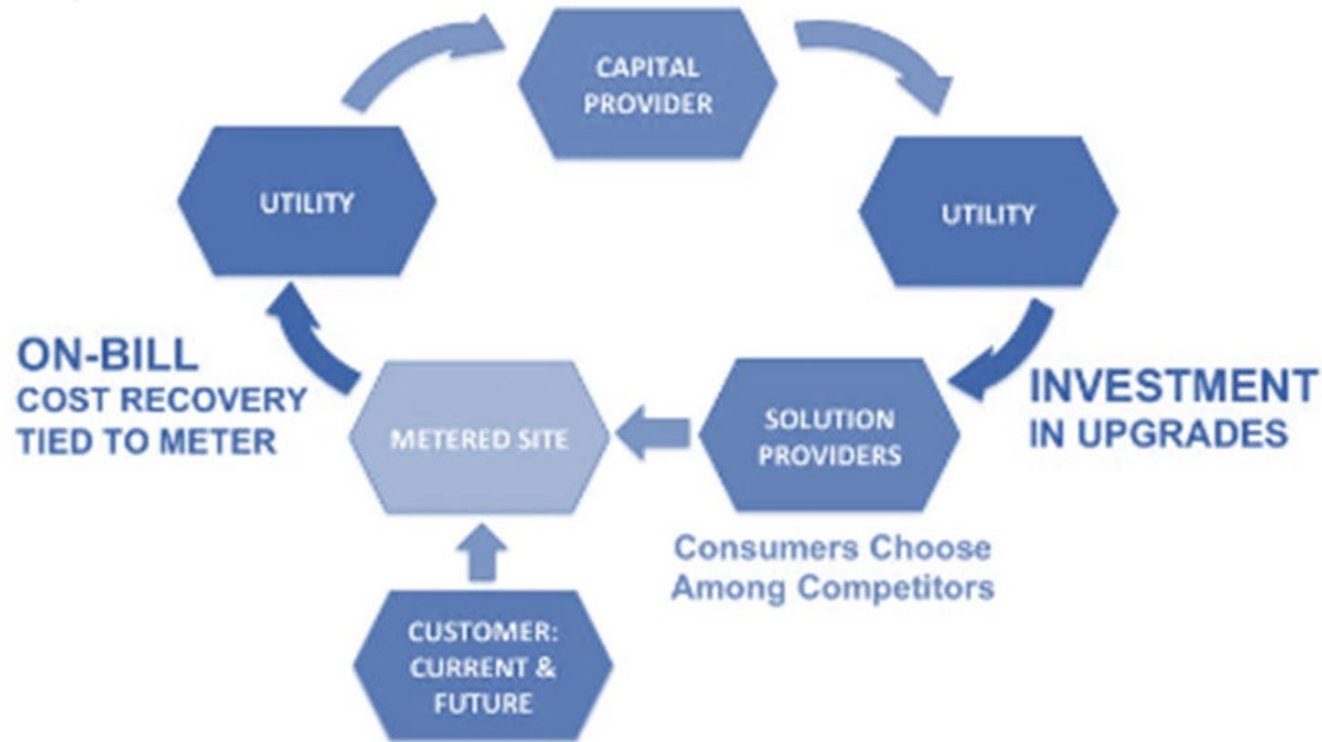
URBAN INNOVATIVE ACTIONS

- Different themes, grant-based
- Awarding **grants to champion initiatives**
- **Including**
 - dissemination and awareness component
 - training the specialists component



Alternatives – PAY AS YOU SAVE model

Getting efficient energy using devices or equipment, such as CFL/LED bulbs and electrical appliances to the users; the users continue pay the agreed electricity bill for certain period of time; upon end of the period, the devices/equipment ownership is transferred to the users



Coordination with utilities and solution providers



Discrete set of solutions and mature providers/ESCOs



Ownership problem (what happens in case of bankruptcy)

Alternatives – financial innovation and ESG-embedding



Using specialized lenders and VC (USA model):



Fannie Mae Green Rewards +
Community Preservation Corporation (CPC),
+Small Business Association's (SBA)



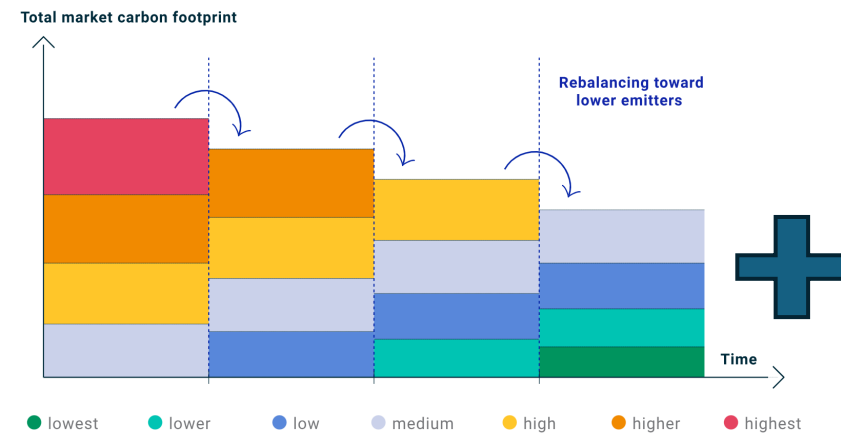
Venture Capital Fund for Energy Efficiency (VCFEE, India):

financial Instrument under the Framework for Energy Efficient Economic Development of National Mission for Enhanced Energy Efficiency (NMEEE), providing **risk capital (equity) support to EE investments in new technologies**, goods and services (INR 2.1 bn), ESCOs and companies as key beneficiaries (max 15% of total equity required via SPVs or INR 20 million).

ABS and ESG portfolios:

- combining approaches, sizes and sectors to manage risks (requires digital solutions or systematized risk assesment)
- guarantees/insurances

Portfolio with Periodic Rebalancing Toward Lower Emitters



Stylized Portfolio with Rebalancing Toward 'Emission Improvers'

