



Digital policy debate
11 December, 10-11am CET

The Renovation Wave seen **by** **national energy agencies**

France, Greece,
Italy, Portugal

Policy dialogue

Agenda

- Welcome and Introduction
- Role of national energy agencies in renovation strategies
 - Portugal
 - France
 - Italy
 - Greece
- Q & A from the audience
- Conclusions and outlook



Rui Fragoso
Head of Projects
Department, **ADENE**



Giovanni Puglisi,
Head of Systems, Projects
& Services, Energy
efficiency Division, **ENEA**



Philippe Masset
Director Europe &
International, **ADEME**



Markos Damasiotis
Head of Development Programs Div.,
CRES





Agência para a Energia



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Rui Fragoso
ADENE
Portuguese Energy Agency

The Renovation Wave seen from Portugal

Long Term Renovation Strategy
perspective

Building-related targets and budget envelope

Portuguese Long Term Renovation Strategy (LTRS) main drivers

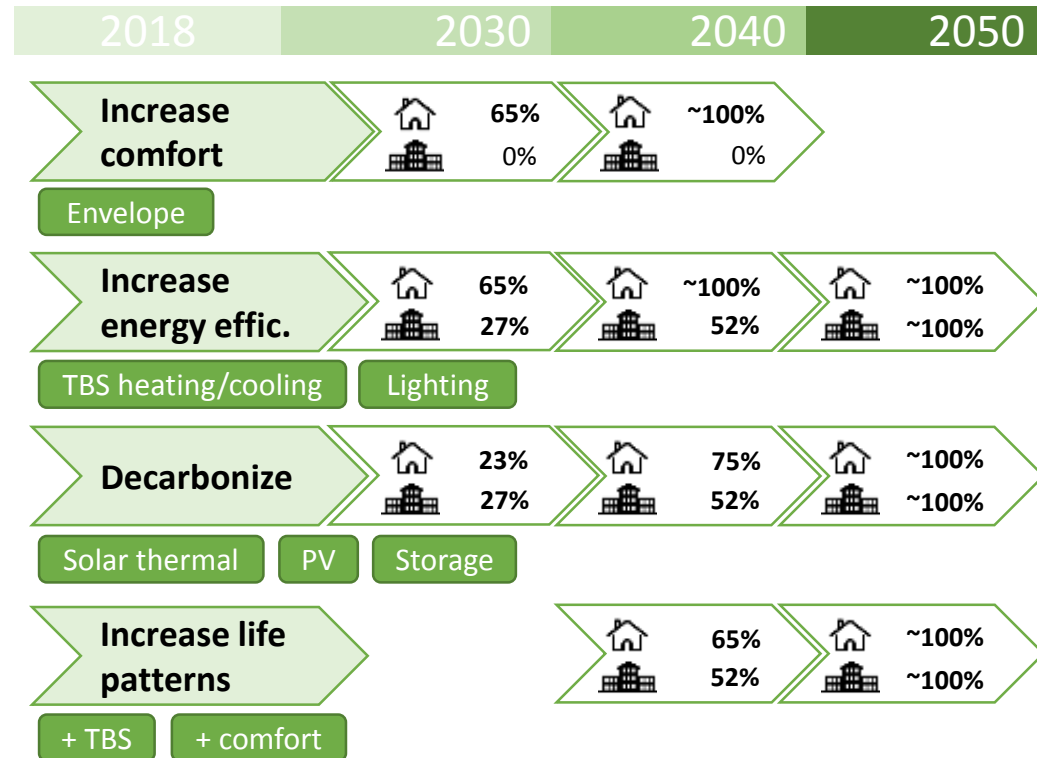
- 1 Improve living conditions**
 - ✓ Energy poverty
 - ✓ Thermal comfort and IAQ
 - ✓ Health and well being

- 2 Economic growth**
 - ✓ Productivity
 - ✓ Health costs
 - ✓ Construction sector

- 3 Environmental Energy targets**
 - ✓ NECP targets
 - ✓ Low carbon roadmap

+ Post-COVID recovery

LTRS milestones (affected stock until 2016)



Budget	2030	2040	2050	Total
Residential [M€ ₂₀₂₀]	26.760	42.441	40.877	110.078
Non-Residential [M€ ₂₀₂₀]	18.500	13.968	945	33.414
Total [M€ ₂₀₂₀]	45.261	56.409	41.822	143.492

Concrete measures to support renovation at regional and local levels

146 actions in **7 areas** of policies and measures (PAM)

	1 - Building Renovation
	2 - Smart Buildings
	3 - Energy Perform. Certification
	4 - Training and Qualification
	5 - Energy Poverty
	6 - Information and Awareness
	7 - Monitoring

Better **financing** schemes

Smart **taxation**

Electrification, flexibility, management

Better **legislation**

Promote **R&D**

Building **passports**

Building **logbooks**

Nexus **water-energy**

Circular economy

Stakeholders involvement

...

Public Administration Program Eco.AP 2030:

- ✓ Energy consumption: 40% primary energy reduction
- ✓ Energy local production: 10% of consumption
- ✓ Water efficiency: 20% consumption reduction
- ✓ Materials efficiency: 20% consumption reduction
- ✓ Public buildings renovation: 5% renovation each year

Your expectations from the Renovation Wave & interlinkage with other strategies in your country

Renovation Wave presents an opportunity at different levels:

- Close link with the **LTRS** and **Energy Poverty Strategy, Recovery & Resilience Plans**
- **EPBD revision** (role of **EPC** schemes, renovation **passports**, **logbooks**, **OSS** and minimum energy performance **requirements**)
- **Technical assistance** and **capacitation** of working force
- **Digitalization** and **Smart** buildings (SRi and others)
- **Funding** mechanisms
- **Circular economy**



The role of national energy agencies to support the participation of regional/local authorities in the Renovation Wave (RW) initiative

ADENE's perspective:

- Support the **design and monitoring** of strategies
- Management and technical **support to financial schemes** for renovation
- Management of the **EPC Schemes** and **One-Stop-Shops**
- Development of **R&D projects** on topics addressed in the RW
- Support Local Energy Renovation of Buildings **Observatories**
- Support Building Renovation **Municipal Programmes** for Low-income Households
- Support Local Programmes for the Development of **Energy Communities**



Agência para a Energia



Rui Fragoso
rui.fragoso@adene.pt



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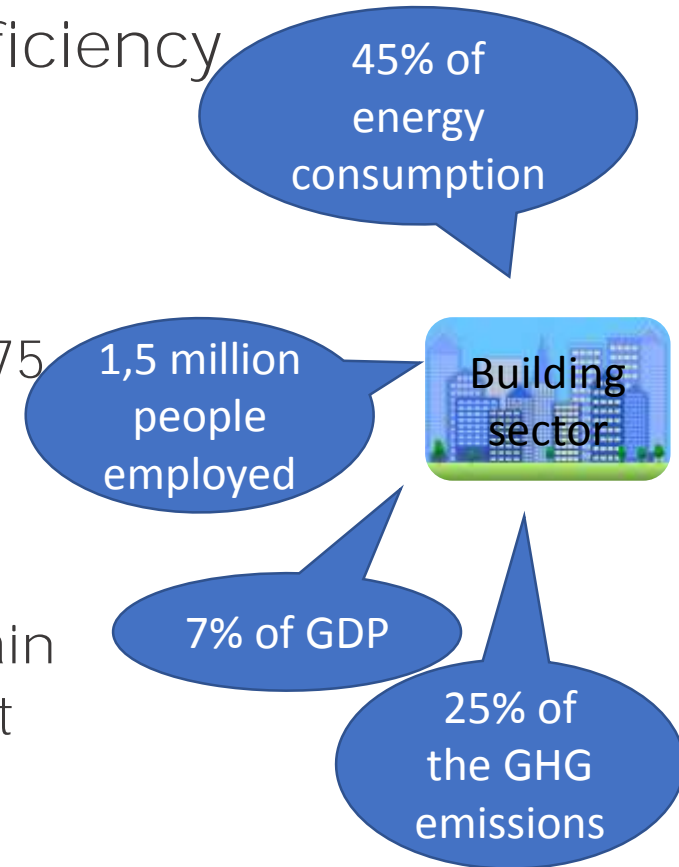
Philippe Masset
*Director of Europe and
international
Department*

The Renovation Wave seen from France

A step forward

Main drivers for renovation policies

- Huge opportunities for energy efficiency
- Stock of 32,6 million dwellings
 - 28 millions residential building,
 - 1/4 (7 millions) being poorly isolated
 - 52% of the dwellings built before 1975
 - 100 Millions m² of public buildings
- Main barriers:
 - High fragmentation of the value chain
 - Funding needs for residential retrofit

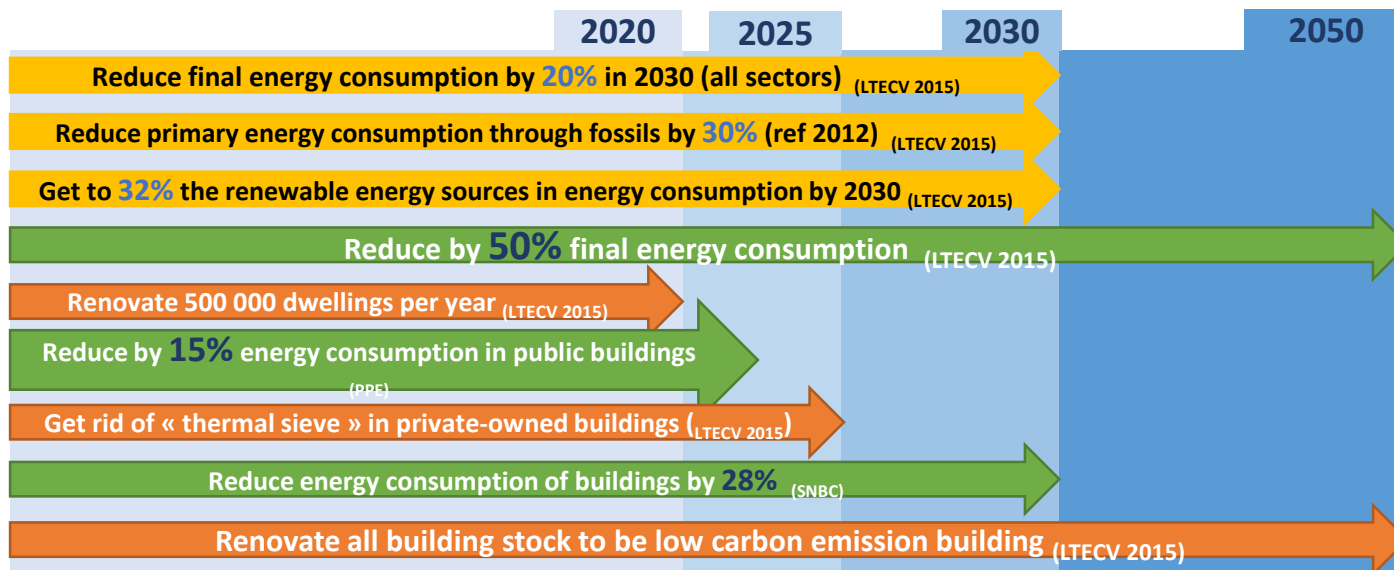


Building-related targets and budget envelope



Plan rénovation
énergétique des bâtiments

- PREB - “Plan for energy renovation of buildings” related to several targets



14 billions € allocated (2017-2022) + 5 billions related to energy certificates :
 -> 1,2 B€ for Anah / low income HH ; 3 B€ loans for social estate
 -> 75M for awareness and training
 -> 1,8 B€ for state buildings
 -> 3B € for local authorities (2,5B loans / 500 millions € from budget dotation)

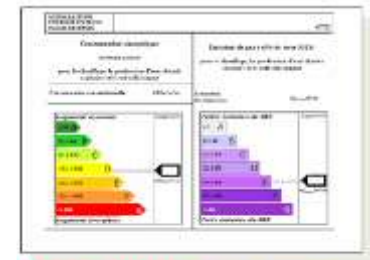
- “France Relance” (October 2020) -> 4 billions € for renovation of public buildings, 300 Millions delegated to regions
 - 2 Targets in the first call for projects : universities and research institutes / State buildings -> 4000 projects received;
 - i. Actions with “fast recovery”; ii. Heavy renovation works; iii. Important rehabilitation works (not only energy renovation);

Source : Plan de rénovation énergétique - <https://www.ecologie.gouv.fr/> translated by author

Concrete measures to support renovation at regional and local levels

– the PREB program

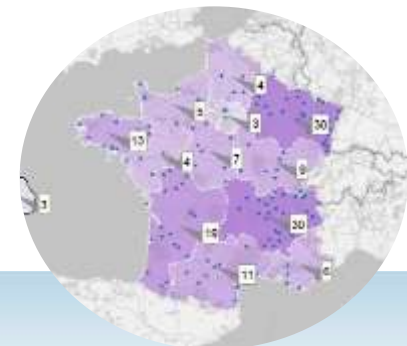
- Renovation as a national priority
 - Improve monitoring through a national observatory and indicators;
 - Mandatory Energy labelling for real estate in place
- Massify renovation and fight against energy poverty
 - Tax credit (15 to 40%) and zero interest rate loans for existing buildings refurbishment (insulation, equipment,...), grants scheme called “MaPrimeRénov” updated in 2020
 - Energy efficiency obligations for energy suppliers and white certificates to finance the SARE program (200M€ + 200M€ through regions)
 - Facilitate access to funding through the implementation of “Territorial platforms for energy renovation” – one stop shop approach
- Accelerate renovation and energy savings in tertiary buildings
 - Already in place a decree for tertiary buildings (Public and private) that oblige to have at least 40% energy savings (compared to 2010 values) (for buildings > 1.000m²)
 - Increase of investment capacity (loans and budget)
- Capacity building and innovation (notably digital innovation)



Energy Rating CO₂ Rating



150 territorial platforms set



Your expectations from the Renovation Wave & interlinkage with other strategies in your country

- Renovation wave initiative is coherent and consistent with national priorities and will foster implementation of the plan
- Adoption of new directives and articulation with programs on improving waste management, citizens energy communities, etc
- Efforts to go faster and massify investments are needed especially for small projects and residential renovation fighting against energy precarity
- Awareness on these topics and solutions has been quite spread... it's time for action !
- Local authorities shall also be mobilized and supported within new facilities provided by regions ;

The role of national energy agencies to support the participation of regional/local authorities in the Renovation Wave initiative

- ADEME is the national agency for ecological transition in charge of facilitating coordination
 - Provide tools and support (technical and financial) to territorial platforms (trainings, etc)
 - R&D and demonstration actions for fostering renovation through the PIA (Investment for the Future program)
 - Dedicated to tertiary building :
 - Financing audits, studies and engineering
 - Management of OPERAT portal for monitoring the decree for tertiary buildings
 - Animation of the “Do councillors” network + “energy advisors” (CEP) for small local authorities
 - Energy Performance contracts



Philippe Masset
Director Europe and International
Department
Philippe.masset@ademe.fr



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Giovanni Puglisi

The Renovation Wave seen from Italy

Main drivers for renovation policies

National stock:

Average consumption:

residential: 110 kWh/m²a

tertiary: 80÷170 kWh/m²a

About 50% of the Italian's buildings are over 50 years

Singularity

- architectural and environmental constraints
- historical centres
- intense urbanization
- climate and summer criticality



Building-related targets and budget envelope

National target in building sector in terms of **annual rate of renovation** (based on cost optimal methodology)

	2020-2030	2030-2040	2040-2050
Residential sector	0,8%	1,2%	1,2%
Non residential sector	4,0%	3,7%	3,7%

Source: ENEA processing

National building stock:

Residential : 12.420.000

Non residential : 1.576.159

Concrete measures to support renovation at regional and local levels

Support mechanism:

- **Ecobonus and Superbonus 110%:**
tax deductions for action on existing housing units that improve the energy performance of the unit, divided in equal annual payments up to a maximum amount of deduction and different in relation to each of the interventions.
- Decree known as **"thermal account"**:
an incentives to improve the energy performance of the envelope of Public Administration existing buildings and the energy performance of heating, cooling and DHW plants of small size (<1000 kW thermal)
- **PREPAC** (energy renovation of public administration central buildings program):
a program for the renovation of at least 3% of the surface area per year (approximately 400-500,000 m²/year), in implementation of Leg. Decree 102/2014
- Community, national and regional contributions

Your expectations from the Renovation Wave & interlinkage with other strategies in your country

Renovation wave impact:

an **opportunity** for:

- **a change in the construction sector**
in terms of improvement of off-site manufacture, automated construction, build-in guaranteed performance with IoT, improvement of Energy Performance Certificates as a key tool to promote investments, smart technologies to establish closer collaborations (between banks, financial institutions and research institutes) on data to reduce some information asymmetries in the market
- **reducing technical and financial risk**
to encourage industrialization of building renovations (new regulations increasing measurability of energy efficiency, thereby reducing the uncertainty of expected cash flows)

The role of national energy agencies to support the participation of regional/local authorities in the Renovation Wave initiative

ENEA act as the **National Agency for Energy Efficiency** and provides scientific and technical support to **define, implement** and **monitor** Energy Efficiency policies and measures to

Government: transposition of EU Directives into the National legislative framework, identification of measures, standards and performance measurement indicators, drafting relations on the progress achieved towards national energy efficiency targets

Regional and Local Authorities (through its Territorial Offices): drafting of the Regional Energy-Environmental Plans and development of regional and local incentive schemes

Giovanni Puglisi, PhD
giovanni.puglisi@enea.it
Head of Systems,
Projects and Services for energy efficiency
Division,
Energy Efficiency Unit Department, ENEA



**ΚΑΠΕ
CRES**

CENTRE FOR RENEWABLE
ENERGY SOURCES AND SAVING



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The Renovation Wave seen from Greece

Markos Damasiotis

M.Sc. Electrical Engineer NTUA

Director of Development Programs Division

Centre for Renewable Energy Sources and Saving (CRES)

CRES - national coordinating centre for RES and Energy Saving

- CRES is appointed by Law (no 4342/2015) as the **National Coordinating Centre** for supporting the implementation of national policy of improving energy efficiency, **including energy-efficiency in buildings**, and the promotion of RES
- It offers technical support to the Ministry of Environment and Energy as well as to public entities at regional and local level.



The EU Green Deal: Start a renovation wave!



Very ambitious goals!!!

The current rates of renovation of public and private buildings should at least **double!**



Help the 50 million consumers to keep their homes warm



Renovate social housing, schools and hospitals

New renovation initiative in 2020 - Leave no one behind!!!

- Develop innovative financing possibilities
- Promote energy efficiency investments in buildings
- Pool renovation efforts into large blocks to benefit from economies of scale

Main drivers for renovation policies

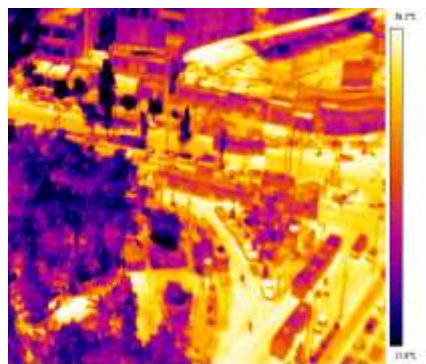
Our cities have been built in an indiscriminate way, following a practice of covering urban needs.

Buildings in **Greece** are responsible for:

- 45% of the final energy consumption, 65% of the electrical consumption, 10% of the CO₂ emissions

They represent a **strategic sector for achieving national and European targets.**

- ~58% of buildings built before 1980 (uninsulated),
- ~40% built between 1980-2010 (partially insulated),
- only ~2% built after 2010 (after Greek Building Energy Regulations-KENAK was put in place)



Greek National Energy and Climate Plan 2021-2030

- ✓ Energy efficiency improvement by 38%
38% in relation to the forecast for the evolution of final energy consumption by the year 2030, as estimated in 2007 under European energy policies,
Translated for buildings
- ✓ Energy upgrade or replacement with new efficient ones of 60.000 buildings per year
- ✓ 8 billion € increase in domestic added value
- ✓ Creation of more than 22.000 new full time jobs

Building-related targets and budget envelope

Law 4122/2013 (transposition of 2010/31/EU - EPBD recast)

- Buildings Energy Efficiency Regulation (KENAK)
- From 1.1.2021, all new buildings must be buildings of nearly zero energy consumption (nZEB), while for new public buildings, the obligation enters into force on 1.1.2019
- Energy Managers in public buildings, responsible for one or more buildings, record the energy characteristics of the building, produce the annual summary energy report.

Law 4342/2015 (transposition of 2012/27/EU - Energy Efficiency Directive Energy EED)

- The National Energy Efficiency Action Plans constitute a policy tool for the development of a strategy to improve energy efficiency in buildings. / Energy Efficiency plans at regional and local level where all the buildings that are included have priority in being eligible for financial incentives and programmes.
- Exemplary role of Public buildings - Every year, 3% of the total floor area of buildings (above 250m²) that are owned and occupied by the central government must be renovated in order to meet at least the minimum requirements (KENAK) of energy efficiency. List of 82 buildings of central government over 500m², expected to be updated including buildings over 250m².



Concrete measures to support renovation at national, regional and local level

Law 4685/19 (transposition of 2018/844/EU - Amendment of EPBD recast and EED)

- From 1/1/2020, for the construction permit of a new building, the submission of an **Energy Performance Study** is required to demonstrate that the building meets the **minimum energy performance requirements** of a nZEB building.
- A new Building is characterized nZEB if it is classified in energy category A and an existing one to be refurbished, if it is classified in category B+.



Long-Term Strategy for the Renovation of the Building Stock

2 Reports “For the mobilization of investments for the renovation of the national building stock consisting of residential and commercial buildings, public and private” prepared in 2014 and 2018, to align with the provisions of the **European Energy Efficiency Directive (2012/27/EU)**.

National Plan for increasing the number of nZEB buildings

Planned measures :

- Mandatory 60% coverage of new buildings **DHW needs** with **solar hot water collectors**
- Increase of allowable built area for highly energy efficient buildings
- Increase of depreciation rates in buildings
- Obligation for energy management of public buildings

Concrete measures to support renovation at regional and local levels

Financial instruments

National and European Resources - Grants

- National Strategic Reference Framework 2021-2027 (*currently under finalisation*)
~20 bil.Euros

At least 25% of total program budget for energy and climate actions!

- ✓ New round of funding program “Energy Saving – Autonomy at Home”
 - *Launch December 2020*
 - € 850 – 900 mil € investment, up to 85% funding (subject to applicant financial status), for implementing energy renovation measures at home

➤ European Programs

Interreg, Horizon 2020, LIFE etc.

➤ European Economic Area Grants



The involvement of the private sector is necessary!

➤ European Investment Bank

- ‘ELECTRA’ program for the renovation of public buildings
- Program for energy renovation of Municipal Street Lighting

➤ Green finance products of Banks (e.g. green loans)

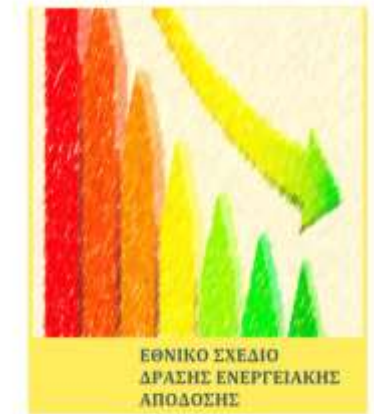
➤ Energy Services Companies

(national register

<http://www.escoregistry.gr/>)

Your expectations from the Renovation Wave & interlinkage with other strategies in your country

- Green Deal Renovation Wave targets and foreseen actions directly interlink and contribute to current national strategies and targets and to the objectives of currently planned energy renovation programs e.g. “Energy Saving-Autonomy at Home” and “Energy Saving in Public Buildings-ELECTRA”
- Funding mechanisms through the Green Deal will **accelerate the implementation of planned measures** at national, regional and local level and increase energy awareness of the public sector and citizens towards the benefits of more energy-efficient buildings



Markos Damasiotis
M.Sc. Electrical Engineer
Head of Development Programmes Division
Centre for Renewable Energy Sources and Saving
(www.cres.gr)
Tel: +30210660325



Don't miss the upcoming events

Efficient Buildings Community webinars and others:

<https://efficient-buildings.interreg-med.eu>

EBC North – South City partnership

<https://efficient-buildings.interreg-med.eu/city-twinings/city-partnerships-call-for-application/>

