



Agência para a Energia



07 May 2021
11:00 – 12:00 CET

Moderator: Rui Fragoso

Building Renovation Passports and One-Stop-Shops

How can public buildings benefit from them?

Event rules

- The session will be recorded
- All participants will be muted during the presentations
- Participants will be unmuted and allowed to intervene during Q&A
- Please reply to the 1 question-survey on:
<https://bit.ly/3el57YW>

Agenda

11:00 - 11:05	Welcome and introduction by ADENE	Nelson Lage , Chairman of the Board of Directors, ADENE
11:05 - 11:35	Building Renovation Passports and One-Stop-Shops: How can public buildings benefit from them? Moderator: Rui Fragoso , ADENE	
	EU framework for Building Renovation Passports and One-Stop-Shops	Karlis Goldstein , Cabinet of Kadri Simson, Commissioner for Energy
	Building Renovation Passports The IBRoad project	Alexander Deliyannis , Sympraxis Team
	One-Stop-Shops The ORFEE project	Thibaut Maraquin , Energy Cities
	Buildings Renovation The example of Setúbal	Cristina Coelho , Setúbal Municipality
11:35- 11:55	Debate with Q&A from audience	
11:55 – 12:00	Closing Remarks	Rui Fragoso , ADENE



Nelson Lage

Chairman of the Board of Directors, ADENE

Welcome and introduction



Karlis Goldstein

Cabinet of Kadri Simson, Commissioner for Energy

EU Framework for climate neutrality and recovery

Interreg MED
07 May 2021

Karlis Goldstein

EU Framework for climate neutrality and recovery

Building Renovation Passports

One-Stop-Shops

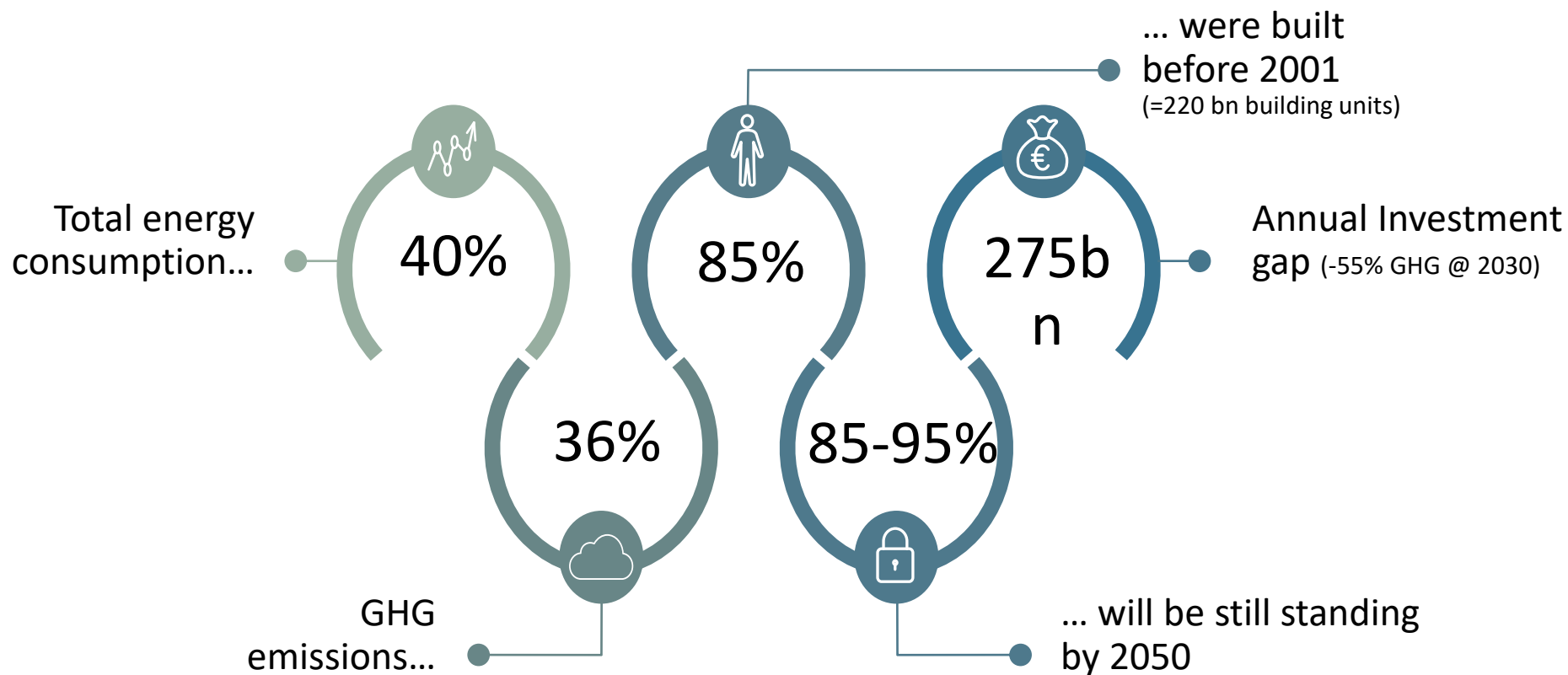
Flight plan

EGD and RW
LTRSs
BRPs

European Green Deal



Renovation Wave: Buildings in numbers



Tools

LTRSs



BRPs



OSSs



Thank you

Alexander Deliyannis

Sympraxis Team

Building Renovation Passports: The IBRoad project



**Building Renovation
Passports and
One-Stop-Shops**
Online, 7 May 2021

Alexander Deliyannis
Sympraxis Team, iBRoad coordinator

Building Renovation Passports The iBRoad project

Benefits for public buildings

the iBRoad model


Roadmap for deep, stepwise renovation

“We would never build a house without a plan, so why renovate it without one?”

	ENERGY CLASS G	ENERGY CLASS E	ENERGY CLASS D	ENERGY CLASS B	ENERGY CLASS A
	Your Building Moment of delivery	Renovation Step 1 When Boiler needs to be exchanged	Renovation Step 2 2025 - 2030	Renovation Step 3 2030 - 2035	Renovation Step 4 2035 - 2040
Measures		Measures • Add a thermal solar system	Measures • External Wall insulation	Measures • Substitution of the old windows • Roof insulation	Measures • Installation of a heat recovery unit • Substitution of the heating system by a heating pump
Energy Use	Primary Energy Demand 250 kWh/m ² a	Primary Energy Demand 210 kWh/m ² a	Primary Energy Demand 160 kWh/m ² a	Primary Energy Demand 100 kWh/m ² a	Primary Energy Demand 100 kWh/m ² a
	Main Energy Source Natural Gas	Main Energy Source Natural Gas	Main Energy Source Natural Gas	Main Energy Source Natural Gas	Main Energy Source Electricity
	Final Energy Demand Main Source 200 kWh/m ² a	Final Energy Demand Main Source 200 kWh/m ² a	Final Energy Demand Main Source 150 kWh/m ² a	Final Energy Demand Main Source 80 kWh/m ² a	Final Energy Demand Main Source 30 kWh/m ² a
	Final Energy Demand second Source 0 kWh/m ² a	Final Energy Demand second Source 15 kWh/m ² a	Final Energy Demand second Source 15 kWh/m ² a	Final Energy Demand second Source 15 kWh/m ² a	Final Energy Demand second Source 15 kWh/m ² a
	Auxiliary Energy Source Electricity	Auxiliary Energy Source Electricity	Auxiliary Energy Source Electricity	Auxiliary Energy Source Electricity	Auxiliary Energy Source Electricity
CO ₂	Final auxiliary Energy Demand 30 kWh/m ² a	Final auxiliary Energy Demand 15 kWh/m ² a	Final auxiliary Energy Demand 15 kWh/m ² a	Final auxiliary Energy Demand 15 kWh/m ² a	Final auxiliary Energy Demand 15 kWh/m ² a
	Energy Bill 4600 €/a	Energy Bill 2300 €/a	Energy Bill 1800 €/a	Energy Bill 1100 €/a	Energy Bill 900 €/a
Costs	Carbon Emissions 40 kg/(m ² a)	Carbon Emissions 30 kg/(m ² a)	Carbon Emissions 20 kg/(m ² a)	Carbon Emissions 10 kg/(m ² a)	Carbon Emissions 10 kg/(m ² a)
		Investment Costs for Renovation Step 10000 € Included Costs for Maintenance 15000 €	Investment Costs for Renovation Step 2500 € Included Costs for Maintenance 20000 €	Investment Costs for Renovation Step 25000 € Included Costs for Maintenance 40000 €	Investment Costs for Renovation Step 26000 € Included Costs for Maintenance 26000 €
Subsidies		Name of Incentives KWK Incentives 5000 €	Name of Incentives Incentives 0 €	Name of Incentives KWK Incentives 10000 €	Name of Incentives Incentives 0 €
		Changed Comforts	Changed Comforts	Changed Comforts	Changed Comforts
Comfort Changes					

the iBRoad model

Digital building logbook: a repository for all our building's information



Current building state – 2019-02-11
Building Construction Information

Save

Wall Types

Wall Type 1

Name / Specification

Location

Description of the constructive solution

Orientation

Surface area

Structural material type

Environment on backside of component


Structural material thickness

Structural material thermal conductivity

Structural material density

Structural number of panes

Air gap thickness



Current building state – 2019-02-11
Building Energy Performance

EPC

EPC Energy label

EPC Number

Issue date

Expert name

Expert ID

Type of EPC

Term date

Photograph report

Energy audit support document

Energy Audit

Expert name and contact

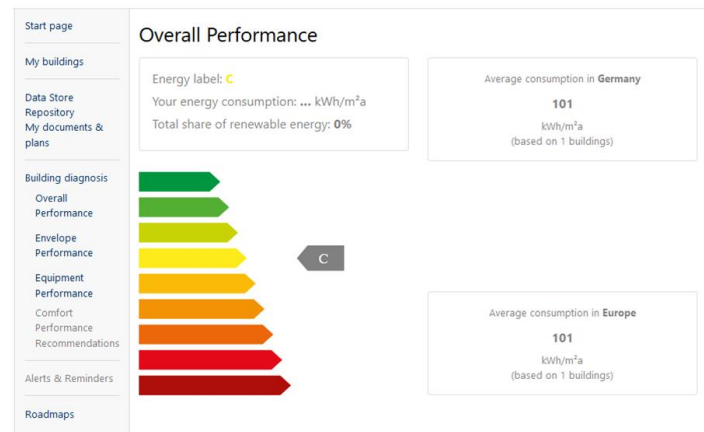
Audit date

Professional order

Energy label

Photograph report

Energy audit support document



iBRoad field training...



iBRoad field training...



... and testing

BULGARIA

Pilot country	No.	Year of construction	Number of renovation steps	Current energy level	Final future energy level	Current primary energy demand [kWh/m ²]	Future primary energy demand [kWh/m ²]	Estimated date for final renovation step	Completeness
Bulgaria	1	1970	3	G	B	600	362	When plaster needs renovation	complete
	2	-	4	D	B	269	36	2035-2040	complete
	3	1950	3	G	B	600	119	New heating system	complete
	4	1994	3	G	B	504	176	2019	parts missing
	5	1970	4	G	B	479	126	When boiler is exchanged	complete
	6	1980	4	F	A	390	73	2030-2035	complete
	7	1950	3	F	B	600	112	New heating system	-
	8	1968	5	E	A+	411	27	2035-2040	complete
	9	1982	4	G	B	500	111	2030-2035	complete
	10	1947	4	G	A	600	95	2025-2030	complete
	11	1911	2	D	B	362	142	2025-2030	parts missing
	12	2008	2	C	B	203	158	2025-2030	complete
	13	1929	5	G	A	505	109	2035 - 2040	complete
	14	1962	4	D	B	262	108	2035-2040	complete
	15	-	3	D	B	280	136	When windows are exchanged	parts missing

PORTUGAL

Pilot country	No.	Year of construction	Number of renovation steps	Current energy level	Final future energy level	Current primary energy demand [kWh/m ²]	Future primary energy demand [kWh/m ²]	Estimated date for final renovation step	Completeness
Portugal	1	1986	5	C	A+	183	74	2035-2040	complete
	2	1500	5	D	A+	155	48	2035-2040	complete
	3	1971	4	E	A+	183	0	When plaster needs renovation	complete
	4	1937	3	F	A+	600	27	2030-2035	complete
	5	2001	3	A	A+	30	0	When boiler is exchanged	complete
	6	1937	4	F	A+	600	19	2030-2035	complete
	7	1919	5	D	A+	356	120	2025-2030	complete
	8	1998	4	C	A+	116	0	When plaster needs renovation	complete
	9	1994	2	A+	A	145	112	2025-2030	parts missing
	10	2002	3	C	A	278	104	2030-2035	complete
	11	1575	4	D	A	319	42	2025-2030	complete
	12	1988	4	F	A+	423	117	When windows are exchanged	complete
	13	1998	5	E	B-	203	0	2025-2030	complete
	14	1972	4	D	B-	387	250	2025-2030	complete
	15	1995	3	C	A	176	19	2030-2035	parts missing
	16	1966	2	E	A	326	27	2025-2030	complete
	17	1946	4	F	A	350	92	2030-2035	-
	18	1989	5	D	A+	116	20	When plaster needs renovation	complete
	19	2001	5	E	A	192	19	When plaster needs renovation	complete
	20	1981	4	C	A	211	34	2025-2030	complete

POLAND

Pilot country	No.	Year of construction	Number of renovation steps	Current energy level	Final future energy level	Current primary energy demand [kWh/m ²]	Future primary energy demand [kWh/m ²]	Estimated date for final renovation step	Completeness
Poland	1	1975	3	medium orange	light green	474	134	Substitution of the old windows	complete
	2	1978	3	dark orange	light green	382	123	2030-2035	complete
	3	1987	4	dark orange	yellow	400	172	2019	complete
	4	1950	3	dark orange	light orange	570	326	2020	complete
	5	1978	1	red	yellow	600	159	As soon as possible	complete
	6	1975	3	medium orange	yellow	321	160	When windows are exchanged	complete
	7	1981	3	dark orange	light green	435	185	2025-2030	complete
	8	2000	3	dark orange	light green	233	185	2035-2040	complete
	9	1978	3	light green	dark green	138	31	2025-2030	complete
	10	1990	3	light orange	light green	335	193	2025-2030	complete
	11	1991	4	medium green	dark green	70	78	2025-2030	complete
	12	1936	5	red	light green	422	134	When plaster needs renovation	parts missing
	13	1978	3	medium orange	light green	276	133	2025-2030	complete
	14	1980	3	dark red	yellow	600	189	2025-2030	parts missing
	15	1999	5	medium green	light green	165	197	2035-2040	complete
	16	2000	5	dark orange	yellow	374	152	During the attic renovation...	complete
	17	2006	5	medium orange	light green	143	86	2030-2035	complete
	18	1981	5	red	medium green	181	46	2025-2030	complete
	19	1980	4	light orange	yellow	600	316	2025-2030	complete
	20	1982	2	yellow	medium green	198	161	When plaster needs renovation	complete

... and testing

BULGARIA

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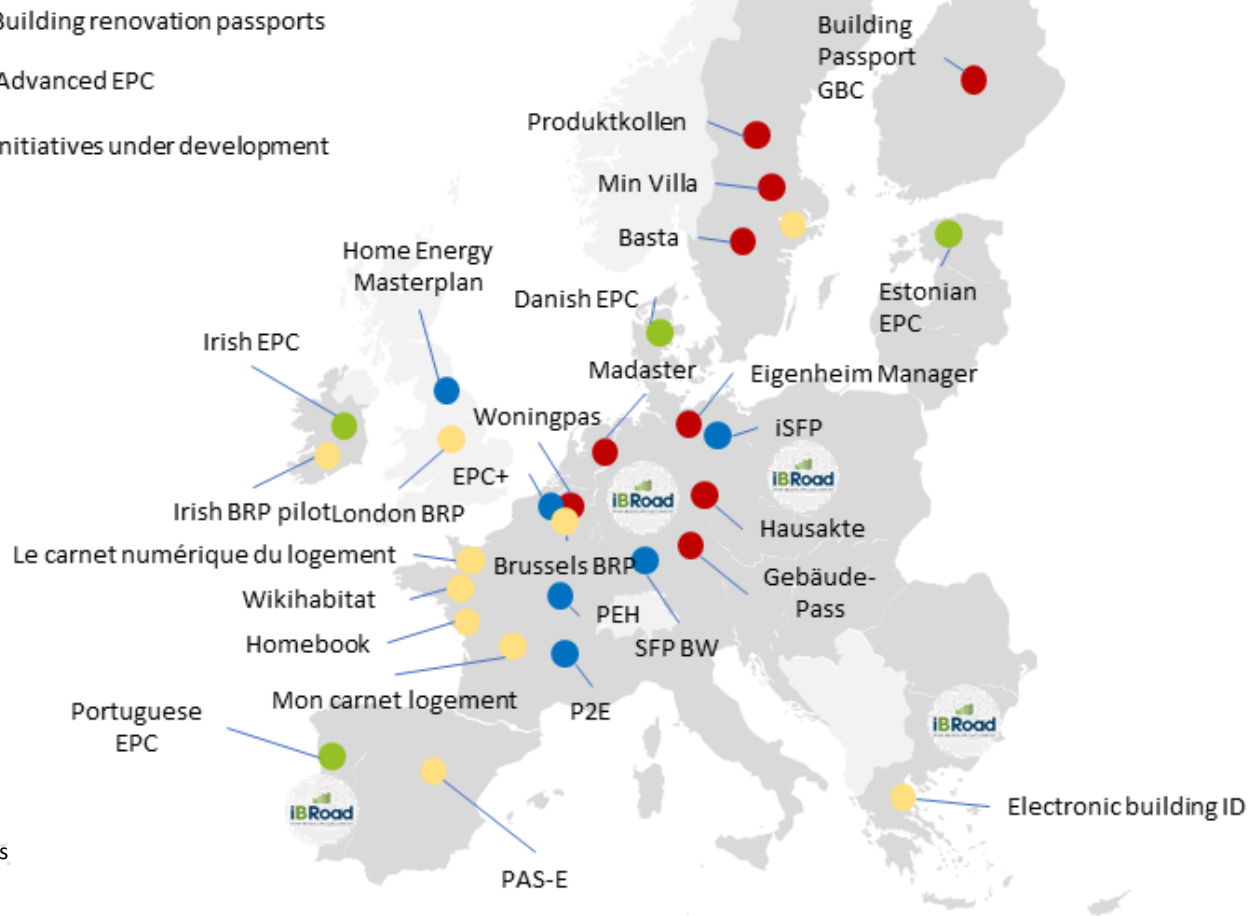
POLAND

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Relevant initiatives – including local

- Digital logbooks
- Building renovation passports
- Advanced EPC
- Initiatives under development



Overview of initiatives related to Building Renovation Passports
(Source: Jonathan Volt, BPIE)

Relevant context

• Challenges

- Long lifespan, non-modularity
- Non access to finance
- Non access to finance
- Non access to finance
- Non access to finance
- Market fragmentation
- Need for education and training
- Various
- Various
- Various

Potential solutions

- Modular, upgradeable construction
- **Step-by-step renovation**
- 3rd party financing / ESCOs
- Energy efficient mortgage – EeMAP
- Bundling of investments
- One-Stop Shops – BetterHome DK
- BUILD UP Skills / Construction Skills
- Mass customisation – Energiesprong
- **Building Renovation Passports**
- Building Information Modelling (BIM)

The case of public buildings



Thank you for your attention
Find out more at
www.ibroad-project.eu

Thibaut Maraquin

Energy Cities

One-Stop-Shops: The ORFEE project



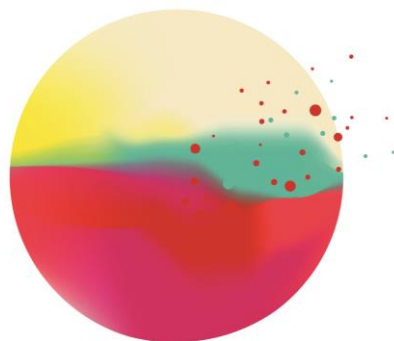
ENERGYCITIES



07.05.2021

Thibaut Maraquin,
Energy Cities

One-Stop-Shops: insights from Innovate & ORFEE



ENERGYCITIES

www.energy-cities.eu

@energycities
@energycities.eu

Energy Cities' mission is to empower cities and citizens to shape and transition to futureproof cities.

We showcase concrete alternatives deployed by municipalities, we advocate to change political and economic governance at all levels and we foster a wide cultural change leading to a futureproofed society.

Energy Cities' community is made up of local leaders of thousands of cities in 30 European countries.



Covenant of Mayors
for Climate & Energy
EUROPE



EUCF
European City Facility



- Innovate, the **accelerator for renovation One-Stop-Shops** in 11 European territories (H2020, 2017-2020)



- ORFEE, the **Office of Renovations & Financing for Energy Efficiency** (H2020, 2020-2024)

The case of 3rd party financing companies in France

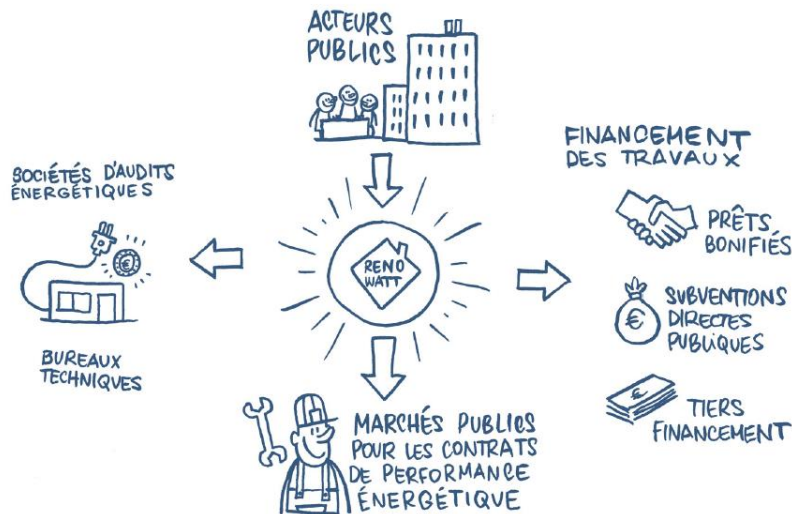


- ✓ The 3rd-party financing service is a **derogation from the banking monopoly** allowed by the transition law for green growth (2015).
- ✓ **Financial lever** to orient demand and supply towards energy efficiency.
- ✓ **Intermediary position** between grants and bank loans.

Role of Local and Regional Authorities in setting-up OSS?

- ✓ Awareness-raising: considering energy efficiency as a public service
- ✓ Coordination and training
- ✓ Public authority as a partial actor
- ✓ Policy & funding

How can public buildings benefit from OSS: the example of RenoWatt in Belgium



- A One-Stop-Shop for public authorities in the Walloon region acting on behalf of public authorities. When joining the OSS, public authorities adhere to 2 founding principles:
 - Develop Energy Performance Contracts
 - Pooling of buildings
- A neutral structure with an intermediary role vis-à-vis financing institutions
- A start-up phase supported by the EEEF and ELENA.



Thank you!

Cristina Coelho

Setúbal Municipality

Buildings Renovation: The example of Setúbal



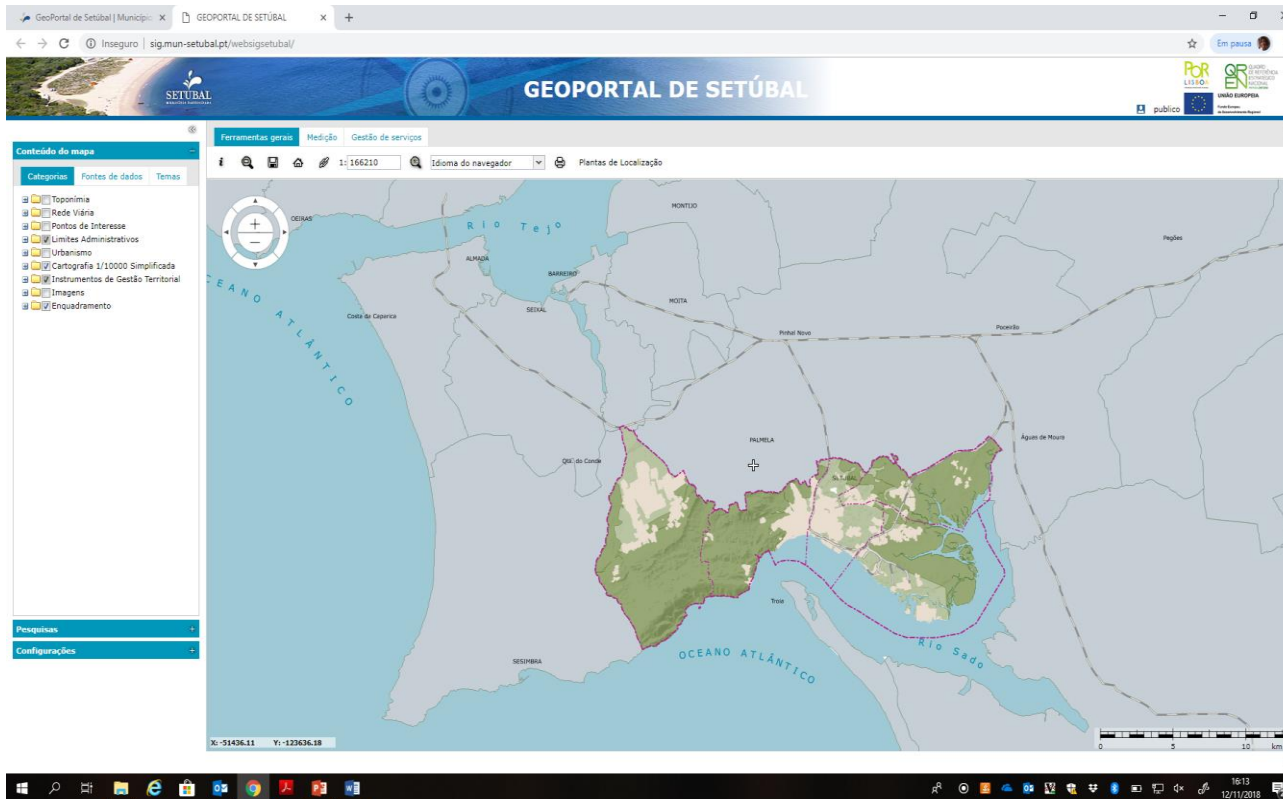


07.05.2021

Cristina Coelho

Buildings renovation Setúbal's example

Setúbal Municipality



Setúbal Municipality, located about 40 Km from Lisbon, is a territory with urban and rural characteristics.

5 parishes

- União de Freguesias de Setúbal
- União de Freguesias de Azeitão
- JF São Sebastião
- JF Gâmbia-Pontes-Alto da Guerra
- JF Sado

Population: 121.185

Territory: 230,3 Km²

PNA: 66,5 Km² + 11,11 Km² (PMLS)

RNES: 57,4 Km²



Main development areas

Promoting energy efficiency

Promoting the use of renewable energy resources

Mitigation and climate change adaptation

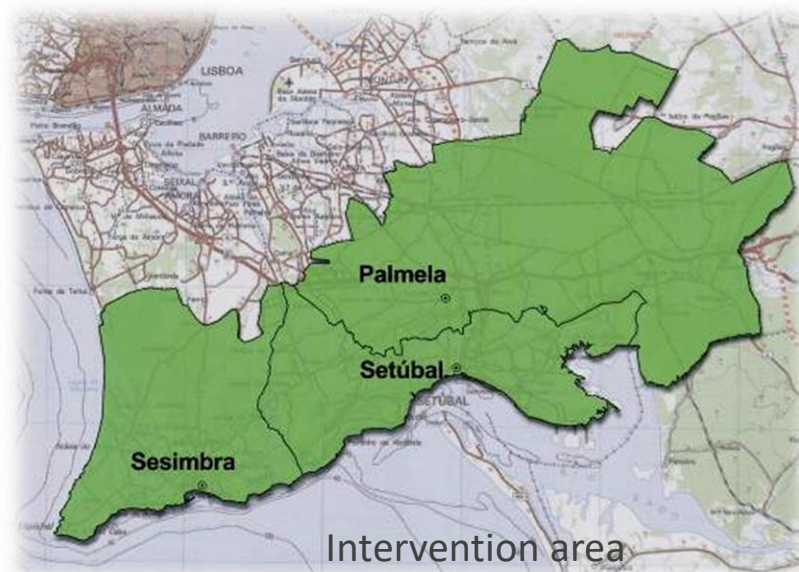
Sustainable mobility

Environment, energy and climate on urban planning

Awareness-raising, education, information and communication on sustainability

Partnerships and participation in national and international networks

Project development and new forms of financing



Multisensory Energy Garden



The Garden consists of the following spaces :

- Garden of Senses
- Geothermal Station
- Biomass Station
- Sea Station
- Solar Station
- Hydro Station
- Wind Station
- Energy Efficiency Station

An Energy Garden For All



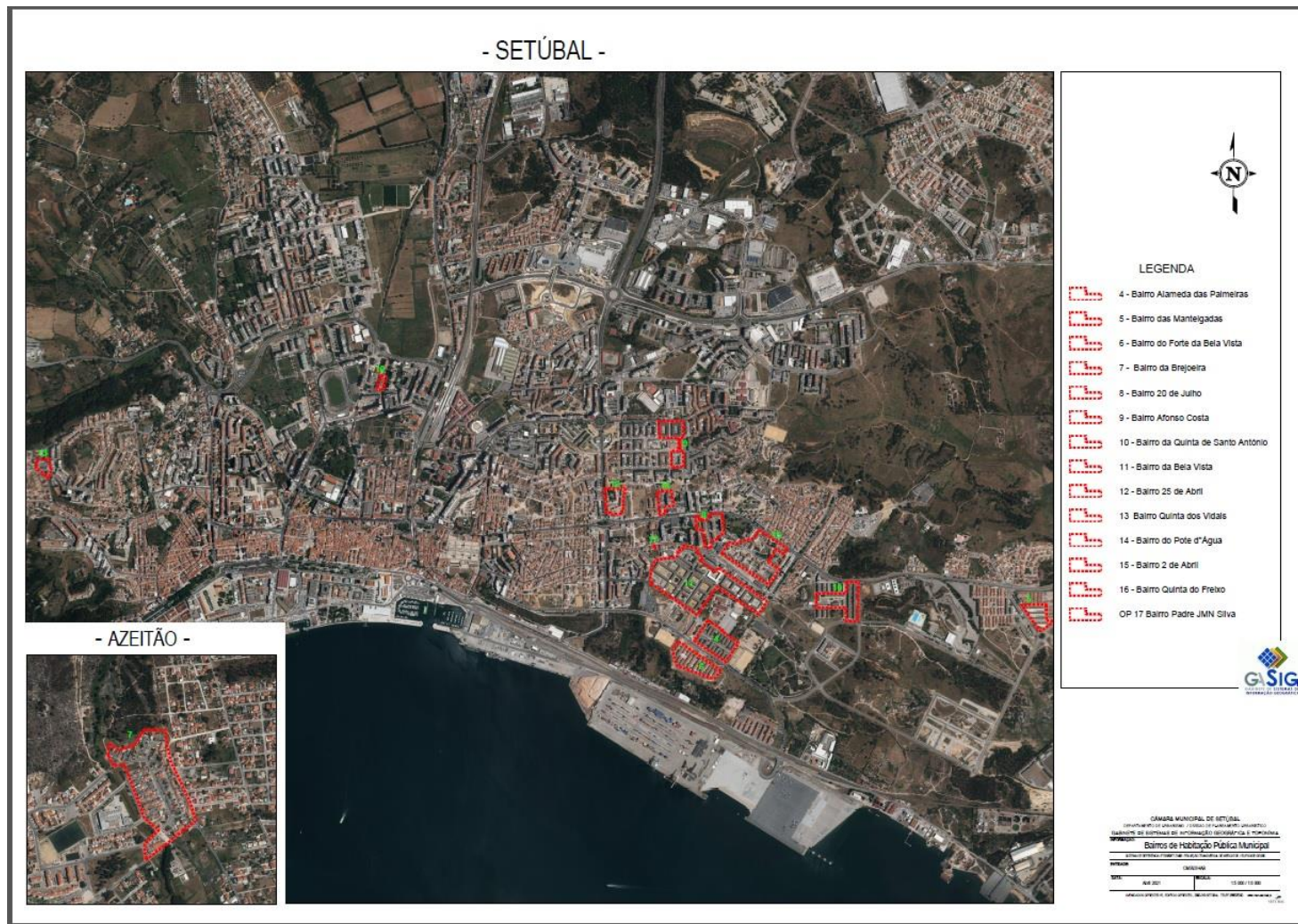
4 strategic axes

- Axis 1 – Setúbal: More City
- Axis 2 – Setúbal: More Inclusive
- Axis 3 – Setúbal: More Sustainability
- Axis 4 – Setúbal: More Competitive

Public housing in Setúbal



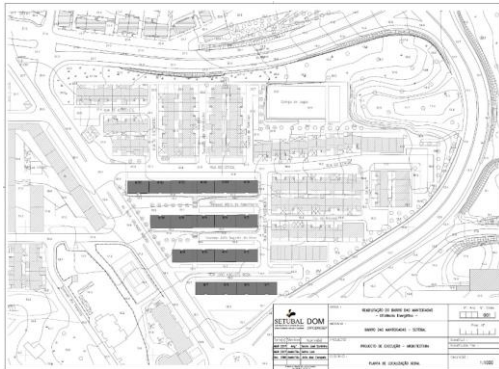
Public Housing Districts



Setúbal – 13 units, 1 OP

Public Housing Renewal

Bairro das Manteigadas



2020

“Urban Renewal of Bairro das Manteigadas – Energy Efficiency”

1 million 300 thousand €

19 Buildings

installation of thermal insulation
on walls, roofs and blinds;
replacement of simple glass
frames with double-glazed
windows

2021

Forte da Bela Vista

Main obstacles on public housing renewal

Funding for renewal activities

Social housing ownership

Social profile of householders

Public housing renewal process in Setúbal



The support of the energy agency in the renewal process

Developing innovative funding strategies

Identifying the appropriate cost-effective solutions for the renewal process

Seeking rational uses of energy, water, and materials

Supporting the energy certification process

Establishing energy communities to reduce energy poverty

Plans for the future

PRR - recovery and resilience plan

Renewal of all Public Housing Districts

13 interventions – 3 200 houses – total investment 197 M€ - energy efficiency investment – 23 M€

Renewal of buildings for Urgent and Temporary Housing

4 interventions – 35 houses –total investment 2,8 M€ - energy efficiency investment – 0,6 M€

Public Housing Construction

4 interventions – 540 houses –total investment 44 M€ (including energy efficiency)

Agroecological Park Area

In the proposed review of the Setúbal's municipal director plan, a multi-functional territory is included, with several environmental values.

Quinta da Amizade

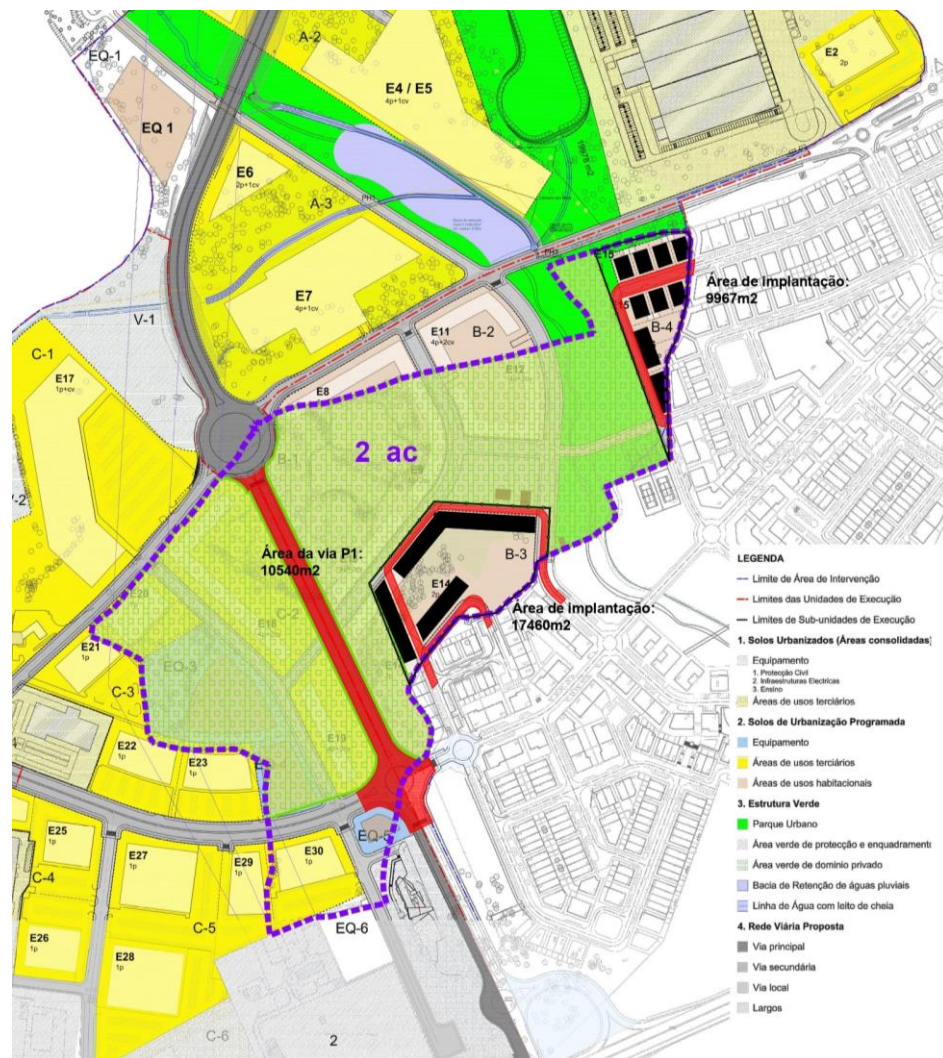
Experimental Agroecological Park & Centre

- Urban Park—interpretative courses and leisure areas
- Interpretation Centre of Mediterranean Diet
- Experimental Agro-Ecological Park & Centre
- Urban garden (horticulture)

- Property of the Portuguese Government – 17 ha

- Course of Action:

- Colaborative Protocol between Setúbal Municipality and the Agriculture Ministry (DRAPLVT)



Habitação PRR-AML 21/26

Plano de Recuperação e Resiliência

Quinta da Amizade Housing Plan, based upon urban renewal objectives, and leisure areas, aiming for social inclusion, environmental sustainability and promoting sustainable agriculture and innovation.

Objectives/actions:

- Maintaining 80% of the available area for the Urban Park and Agroecological Centre.
- Integration of P1 (structural road network)
- Patching the urban area in order to enhance public space quality, with quality architecture and construction, with integrated energy efficiency solutions.

Thank you

cristina.coelho@mun-setubal.pt



Q&A



Rui Fragoso
ADENE

Closing Remarks

Quick survey

- Please reply to the 1 question-survey on:
<https://bit.ly/3el57YW> ← also available on the chat

Please rate your level of satisfaction regarding this webinar (or regarding your learnings during this webinar)

☐ VERY SATISFIED

☐ SATISFIED

☐ NOT SATISFIED

Voting as Anonymous

Thank you