



Inspiration Station: Enabling Prosumerism and Energy Communities through Solar and Wind Technologies

Online | 2025.09.19
Kirils Gončarovs, TREA

interreg-baltic.eu/project/enercracy





Agenda

Introduction

Showcase of initiatives

Climate-4-CAST

Jurmala Water Company (LV)

Oma Elekter Energy Community (EE)

Stenberg Housing Cooperative (SE)

Eastern Uusimaa and Porvoonjoki Water and Air
Protection Association (FI)

Podkarpackie - Live and Breathe (PL)

End of the webinar

What is the Enercracy project all about?

Upscalling

Transition in municipalities

Energy communities

Climate and energy plans

Solar technologies

Prosumerism

Wind technologies

Learning by example

Energy democracy

Climate-4-CAST



Municipal Emission Monitoring Tools to Track the Progress of Climate Neutrality

Inspiration Station: Enabling Prosumerism and Energy Communities through Solar and Wind Technologies | Online | 19 Sept 2025

Donald Alimi, HafenCity University Hamburg



Interreg
Baltic Sea Region



Co-funded by
the European Union



ENERGY TRANSITION

Climate-4-CAST

Climate-4-CAST

The project provides **local public authorities** with an open-source **Climate Action Decision Support (CADS) Tool for climate budgeting**. The tool helps cities to visualise and analyse various action scenarios for meeting climate goals to better plan public budgets with climate neutrality measures and monitor results of their implementation.

Duration

11/2023 – 10/2026

Budget

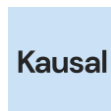
3.77 M €, including
EU funding 3.02 M €

hcu HafenCity
Universität
Hamburg

 **TAMPERE**

 CITY OF
AARHUS

 RIGA

 **Kausal**

 UPPSALA
UNIVERSITET

UBC UNION
OF THE BALTIC
CITIES
SUSTAINABLE CITIES
COMMISSION

 CITY OF
ÖSTERSUND
STAAREN TJELTE

 **BYTOM**

 **NORDERSTEDT**
Zusammen. Zukunft. Leben.

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ENERGY TRANSITION

Climate-4-CAST

Associated Organisations

- A01:** City of Bergen
- A02:** Växjö municipality
- A03:** Municipality of Luleå
- A04:** Vejle Municipality
- A05:** County of Herzogtum Lauenburg
- A06:** City of Hamburg
- A07:** City of Turku
- A08:** City of Gothenburg
- A09:** City of Copenhagen
- A010:** Municipality of Oskarshamn
- A011:** City of Gdansk
- A012:** Municipality of Randers
- A013:** Skanderborg Municipality
- A014:** City of Krakow



10 Project Partners
from 6 countries
supported by
**14 Associated
Organisations**

Where are we now?

Nov 2023

WP1: Preparing solutions (2023 - 2024)

Establishing transnational cooperation and co-developing the tool (Nov 2023 – Apr 2024)

Setting up the technical functions of the tool (Nov 2023 – Apr 2024)

Co-creating the operationalisation framework (Nov 2023 – Apr 2024)

WP2: Piloting & evaluating solutions (2024 - 2026)

1st tool iteration piloting (May – Oct 2024)

Co-evaluation and tool iteration (May 2024 – Apr 2026)

2nd tool iteration piloting (May – Sep 2025)

Finalising the decision-support tool and operationalisation guidelines (Nov 2025 – Apr 2026)

WP3: Transferring solutions (2025 - 2026)

Two Climate Budget Summits (end of 2025 & end of 2026)

Climate Budget transnational professionals' training course (end of 2025 – end of 2026)

Review of tool for transfer and use case expansion (May 2025 – Oct 2026)

Oct 2026

Climate-4-CAST

- **Context:** Achieving EU's 2050 climate neutrality goal requires cities to embed climate action into everyday governance and budgeting processes.
- **Challenge:** Local authorities often struggle to turn climate commitments into action due to budget constraints, limited capacity, and siloed decision-making.
 - Climate budgeting offers a structured approach, but implementation remains a challenge.
- **Solution:** Climate-4-CAST develops the CADS Tool — an open-source, decision-support platform that helps cities to strengthen climate budgeting processes.

FINAL OUTPUT

- Open-source Decision-Support Tool for climate budgeting (*tool code package*)
- Guide on the Tool integration in local climate and fiscal governance processes (*operationalisation guidelines*)

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ENERGY TRANSITION

Climate-4-CAST

Climate-4-CAST

- **How it works:** The CADS tool translates emissions data and policy impacts into easy-to-understand formats, allowing cities to compare action scenarios and align spending with climate targets.
- **Proof it works:** Pilot cities are applying the CADS Tool to real-world actions — early results show how the tool helps integrate emissions data into political processes, engage stakeholders, and prioritise cost-effective actions, offering a replicable model for other cities.

FINAL OUTPUT

- Open-source Decision-Support Tool for climate budgeting (*tool code package*)
- Guide on the Tool integration in local climate and fiscal governance processes (*operationalisation guidelines*)

Live Demo: Tampere Paths Interface

<https://tampere-c4c.paths.kausal.tech/en>

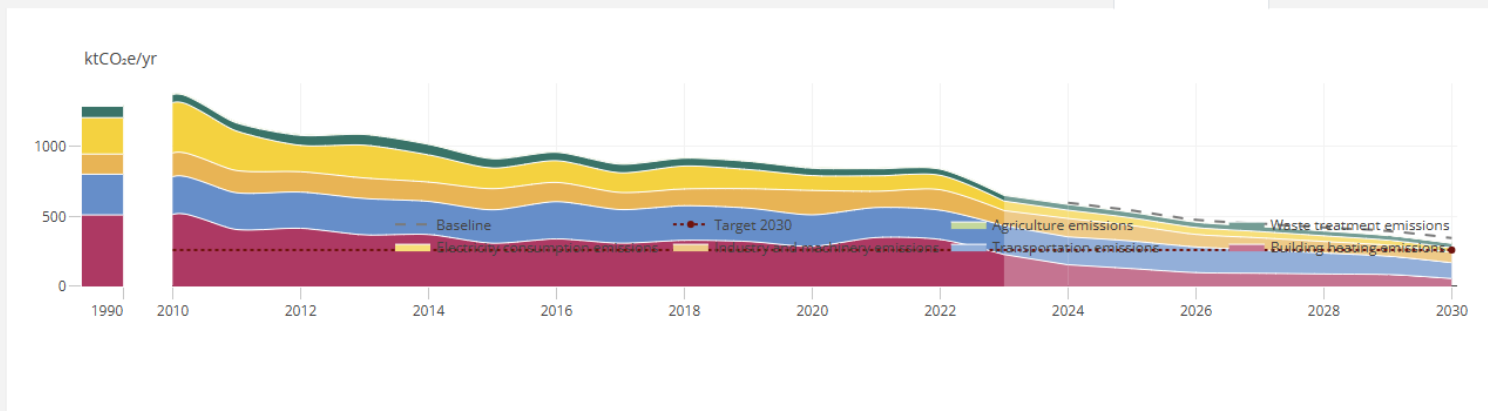
Emissions forecast

Net emissions

2010 - 2023: Measured 2024 - 2030: Scenario forecast (Custom)

Scenario forecast 2030
313 ktCO₂e/year
Change 2010-2030
-77 %

Timeseries Table Details



Subsectors

Building heating emissions

Scenario forecast 2030
55.7 ktCO₂e/yr
Change 2010 - 2030
-89%

Transportation emissions

Scenario forecast 2030
113 ktCO₂e/yr
Change 2010 - 2030
-58%

Industry and machinery emissions

Scenario forecast 2030
75.4 ktCO₂e/yr
Change 2010 - 2030
-55%

Electricity consumption emissions

Scenario forecast 2030
31.3 ktCO₂e/yr
Change 2010 - 2030
-91%

Waste treatment emissions

Scenario forecast 2030
31.6 ktCO₂e/yr
Change 2010 - 2030
-45%

Agriculture emissions

Scenario forecast 2030
6.2 ktCO₂e/yr
Change 2010 - 2030
-16%

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ENERGY TRANSITION

Climate-4-CAST

Climate Budget

Climate Budget

Synerg

UBC TALKS



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ENERGY TRANSITION
Climate-4-CAST

Input

Engage
project
& being
collabor
partner
develop
delivered

Climate budget concept and tools

25 November 2025
9.30–11.00 CET



[ubc-sustainable.net/news/
climate-budget-training](https://ubc-sustainable.net/news/climate-budget-training)



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ENERGY TRANSITION

Climate-4-CAST

LP Team Contacts

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REM Consult

Katharina Paetz (paetz@rem-consult.eu)

Thank you for your attention!

Questions?

Climate-4-CAST is a co-funded project by the Interreg Baltic Sea Region Programme 2021-2027



Jurmala Water Company (LV)

High Electricity Use in Water Utilities



A Case for Prosumerism
and Future Energy
Communities in Latvia



Waste water treatment plant in Jurmala

The 2.1 MW solar park supplies up to 60% of the energy required by our WWTP, resulting in an annual reduction of 231,657 tonnes of CO₂ emissions.

	2024									2025								
	apr	maijs	jūn	jūl	aug	sept	okt	nov	dec	janv	febr	marts	apr	maijs	jūn	jūl	aug	sept
0	260	266	203	218	234	228	218	234	235	251	259	251	253	237	228	164	166	190
1	257	264	202	211	230	223	215	232	234	250	257	248	252	233	226	163	165	187
2	254	262	201	208	225	217	213	229	232	250	254	245	249	230	224	162	165	184
3	250	260	200	205	220	212	209	225	230	249	252	243	247	228	220	162	165	181
4	248	255	193	201	217	209	205	222	228	249	250	242	246	226	213	160	165	181
5	247	232	153	177	213	208	204	221	228	251	251	242	246	207	177	136	163	180
6	233	166	77	115	182	207	203	221	228	253	252	237	227	138	104	79	133	180
7	181	56	21	30	88	172	201	221	228	254	251	178	152	42	37	27	53	148
8	110	24	10	8	20	81	167	212	230	256	247	100	56	24	27	8	10	77
9	73	14	8	10	13	30	79	174	209	240	226	59	19	9	16	0	3	28
10	57	7	6	9	10	12	33	122	178	216	200	39	6	6	12	1	4	8
11	38	3	6	15	8	13	22	107	157	192	186	31	4	7	5	3	2	8
12	29	0	5	5	3	9	23	111	156	188	180	33	4	8	7	1	0	2
13	22	2	7	3	1	12	28	127	172	195	186	31	5	11	4	1	1	3
14	22	4	11	6	2	10	43	164	201	213	191	25	5	11	4	3	1	2
15	27	2	2	12	0	12	65	201	229	234	209	39	13	9	11	6	3	3
16	40	8	1	16	2	18	99	230	239	252	238	69	16	15	9	14	7	8
17	64	19	5	15	7	44	168	234	239	258	253	148	35	17	17	10	9	31
18	122	43	9	27	19	119	210	233	239	257	257	224	58	27	26	16	11	89
19	193	84	15	47	93	208	217	233	238	258	258	245	163	56	50	26	45	171
20	248	187	79	121	194	230	219	234	238	258	260	251	239	166	120	71	130	193
21	260	251	165	197	233	233	221	236	239	258	262	254	254	225	194	138	164	195
22	263	269	198	224	238	234	222	237	238	257	262	255	257	240	225	164	167	196
23	264	269	202	226	237	232	221	235	237	254	262	254	256	240	229	165	167	194

Average WWTP electricity
consumption per hour (kW)

	janv	febr	marts	apr	maijs	jūn	jūl	aug	sept	okt	nov	dec
2024												
0	776	741	668	659	658	598	680	728	586	583	628	671
1	753	717	644	628	630	564	635	689	558	560	606	647
2	740	704	613	616	614	540	605	658	540	562	588	627
3	729	693	623	608	603	532	591	644	531	539	577	617
4	720	685	612	591	592	511	571	628	524	527	567	603
5	720	681	607	590	559	456	535	616	516	519	557	597
6	725	693	615	591	504	392	481	587	525	526	569	599
7	749	720	624	554	414	349	419	516	514	542	591	620
8	787	757	625	527	423	384	426	494	455	540	609	647
9	801	775	598	512	437	408	472	528	432	474	598	650
10	818	785	579	509	445	440	503	561	429	444	560	639
11	830	791	572	496	445	454	525	570	437	444	553	634
12	835	785	563	483	441	455	521	562	432	443	567	642
13	836	786	551	472	443	456	518	561	433	445	579	662
14	831	777	545	468	438	455	512	548	424	451	612	688
15	821	776	569	464	429	436	513	547	417	469	638	714
16	820	774	603	473	432	429	515	541	415	497	668	715
17	820	777	653	494	439	433	508	534	439	563	668	714
18	819	784	693	554	473	433	517	550	512	608	667	706
19	818	788	711	628	522	443	547	623	609	623	669	711
20	826	792	722	693	632	515	637	734	645	637	679	714
21	831	800	726	715	698	611	724	784	653	642	685	719
22	825	791	725	713	722	649	758	785	647	637	681	715
23	802	721	702	672	701	617	742	764	604	616	635	698

Total hourly consumption,
kW

P&L , tEUR	Solar self-consumption	Revenue from sold solar energy	Grid expenses	Electricity expenses	Total
▼					
2024					
apr	4	0	-3	-8	-7
maijs	6	0	-2	-9	-5
jūn	11	0	-2	-7	1
jūl	10	0	-2	-9	-1
aug	10	12	-2	-11	8
sept	7	6	-2	-9	1
okt	6	1	-3	-12	-6
nov	3	0	-3	-13	-13
dec	2	0	-3	-15	-16
2024 Total	60	19	-23	-93	-37
2025					
janv	1	0	-3	-17	-20
febr	2	0	-3	-25	-26
marts	5	4	-3	-13	-6
apr	5	4	-2	-10	-3
maijs	5	5	-2	-8	0
jūn	3	2	-2	-5	-2
jūl	3	5	-2	-3	2
aug	4	6	-2	-6	3
sept	4	6	-2	-10	-2
2025 Total	33	33	-22	-96	-53
Total	93	52	-45	-190	-90

Revenues are modest...

Grāmatojumi no 01.04.2023. līdz 01.05.2024.									
<div> Darbības </div>									
<div> MARTINS Grāmatojumi _Ātrais filtrs_ </div>									
Konts : 7170 : Samaksa par darbiem un pakalpojumiem no ārienes									
Kon.Apg.Tr.Laiks	Kon.Apg.Dok.Dok. veids	Kon.Apg.Dok.Numurs	Kon.Apg.Dok.Dok. datums	Kon.Apg.Dok.Izpildes datums▲	Kon.Apg.DK...	Kon.Apg.KK...	Summa	Valūta	Kon.Apg.Dok.Kl.Nosauku
► 26.05.2023. 12:58:12	Saņ. rēķins par pakalpojumiem	944079633318	15.05.2023.	15.05.2023.	7170	4450	12 768.63 EUR		Latvenergo, AS
08.06.2023. 13:30:59	Saņ. rēķins par pakalpojumiem	944703314729	07.06.2023.	07.06.2023.	7170	4450	20 003.22 EUR		Latvenergo, AS
11.07.2023. 15:01:16	Saņ. rēķins par pakalpojumiem	944466742078	08.07.2023.	08.07.2023.	7170	4450	23 146.67 EUR		Latvenergo, AS
09.08.2023. 15:00:20	Saņ. rēķins par pakalpojumiem	944106714321	08.08.2023.	08.08.2023.	7170	4450	21 742.00 EUR		Latvenergo, AS
08.09.2023. 11:53:54	Saņ. rēķins par pakalpojumiem	944614303345	07.09.2023.	07.09.2023.	7170	4450	24 537.49 EUR		Latvenergo, AS
10.10.2023. 14:56:50	Saņ. rēķins par pakalpojumiem	944878547828	09.10.2023.	09.10.2023.	7170	4450	25 378.47 EUR		Latvenergo, AS
13.11.2023. 11:00:19	Saņ. rēķins par pakalpojumiem	944023274907	09.11.2023.	09.11.2023.	7170	4450	21 963.53 EUR		Latvenergo, AS
14.12.2023. 10:40:05	Saņ. rēķins par pakalpojumiem	944771556391	08.12.2023.	08.12.2023.	7170	4450	24 229.11 EUR		Latvenergo, AS
12.09.2024. 14:21:55	Saņ. rēķins par pakalpojumiem	944841749573	08.01.2024.	08.01.2024.	7170	4450	21 016.98 EUR		Latvenergo, AS
08.02.2024. 11:37:46	Saņ. rēķins par pakalpojumiem	944129687387	07.02.2024.	07.02.2024.	7170	4450	29 399.97 EUR		Latvenergo, AS
12.09.2024. 14:30:41	Saņ. rēķins par pakalpojumiem	944317812221	07.03.2024.	07.03.2024.	7170	4450	17 441.77 EUR		Latvenergo, AS
22.04.2024. 11:34:20	Saņ. rēķins par pakalpojumiem	944090902314	05.04.2024.	05.04.2024.	7170	5310	13 407.96 EUR		Latvenergo, AS
16.05.2024. 14:53:12	Saņ. rēķins par pakalpojumiem	944771389517	08.05.2024.	08.05.2024.	7170	4450	10 781.76 EUR		Latvenergo, AS
<div> Valūta Sum(Summa)▼ Kon.Apg.Dok.Kl.Nosaukums </div>									
► EUR	265 817.56	Latvenergo, AS							

... though past expenses were considerably larger

Hours	2024										2025								Total average
	apr	maijs	jūn	jūl	aug	sept	okt	nov	dec	janv	febr	marts	apr	maijs	jūn	jūl	aug	sept	
0	54	76	103	110	106	53	57	47	44	42	97	63	65	85	63	43	80	79	70
1	48	73	105	118	113	51	53	51	46	47	120	65	71	76	54	41	77	81	71
2	44	64	89	85	98	47	42	46	43	41	103	59	64	63	42	36	72	71	61
3	41	62	82	83	86	44	41	44	40	37	91	50	61	60	36	31	66	69	57
4	42	61	77	72	86	45	44	44	41	38	89	51	56	62	35	26	63	68	55
5	45	65	73	72	92	54	44	50	43	43	103	62	65	68	33	29	66	74	60
6	57	78	82	92	103	72	75	63	61	60	153	94	104	84	46	38	79	102	80
7	77	102	102	112	130	106	112	90	84	88	167	127	134	88	59	49	94	136	103
8	96	118	111	118	147	125	155	114	125	117	214	145	132	89	57	54	100	152	120
9	86	79	91	96	116	109	144	117	141	138	211	103	103	72	41	51	83	115	105
10	65	62	69	80	94	82	109	108	130	123	173	83	76	39	33	43	72	88	85
11	52	45	58	64	70	66	87	101	112	117	145	66	41	26	19	33	53	64	67
12	45	39	45	51	50	55	76	99	109	110	120	58	31	23	15	31	43	55	58
13	42	30	46	51	49	50	75	96	108	116	123	57	25	21	11	26	38	46	56
14	38	30	43	45	47	49	70	103	111	112	132	56	22	18	7	22	36	45	55
15	35	34	41	52	46	51	84	109	121	118	159	74	27	21	7	23	40	49	60
16	37	45	42	61	59	60	90	121	131	124	170	78	30	22	12	28	45	64	67
17	45	58	55	70	91	90	108	139	129	135	215	118	39	26	15	37	55	79	83
18	61	74	87	103	106	131	146	145	124	142	239	169	81	64	29	48	86	132	109
19	84	112	128	132	167	174	177	124	117	129	208	185	119	99	65	64	133	172	132
20	104	146	180	183	212	210	157	104	105	112	178	152	163	132	88	97	155	217	150
21	104	150	198	202	219	143	108	81	85	90	154	119	146	163	101	108	161	178	139
22	80	122	171	170	156	87	77	72	70	73	143	96	115	121	93	85	128	124	110
23	66	96	123	129	122	65	65	61	53	54	131	80	86	108	73	65	99	98	87
Total average	60	76	92	98	107	84	91	89	91	92	152	92	77	68	43	46	80	98	85

When the Sun Shines,
Revenues Decline

	Local consumption	Export to grid	Export at zero cost
2024			
apr	66	39	39
maijs	93	235	235
jūn	119	241	241
jūl	113	196	196
aug	101	200	26
sept	84	117	25
okt	70	31	8
nov	32	1	0
dec	21	0	0
2025			
janv	5	0	0
febr	13	1	0
marts	62	82	31
apr	83	164	60
maijs	93	213	85
jūn	91	186	135
jūl	69	190	37
aug	65	172	62
sept	56	121	23
Total	1 236	2 192	1 205

Electricity generation, mWh

5 Strategic Pathways:

- Flexible Pumping & Treatment
- Electric Truck Charging Hubs
- Biomass Drying for Renewable Fuels
- Sludge Drying with Solar Peaks
- Grid-Interactive Operations

Turning Solar Peaks into
Opportunities

Thank you!

Oma Eleker Energy Community (EE)

Stenberg Housing Cooperative (SE)

Energy Bank



TM

Stenberg 1950



Stenberg Today



Stenberg – our Living Lab



- 8 families, 6 houses
- 4 solar panel installations
- heat-pump: ground source to floor
- oversized water tanks
- 4 stationary batteries
- 5 bidirectional chargers
- 8 bidirectional cars,
provided by VW in Wolfsburg



Optimal Savings & Earnings from Storage



Earnings in front of the meter

use the storage (stat. batteries & EVs) to balance

- frequency (FCR, aFRR, mFRR)
- energy (day-ahead, intraday, portfolios)
- voltage (local grids)

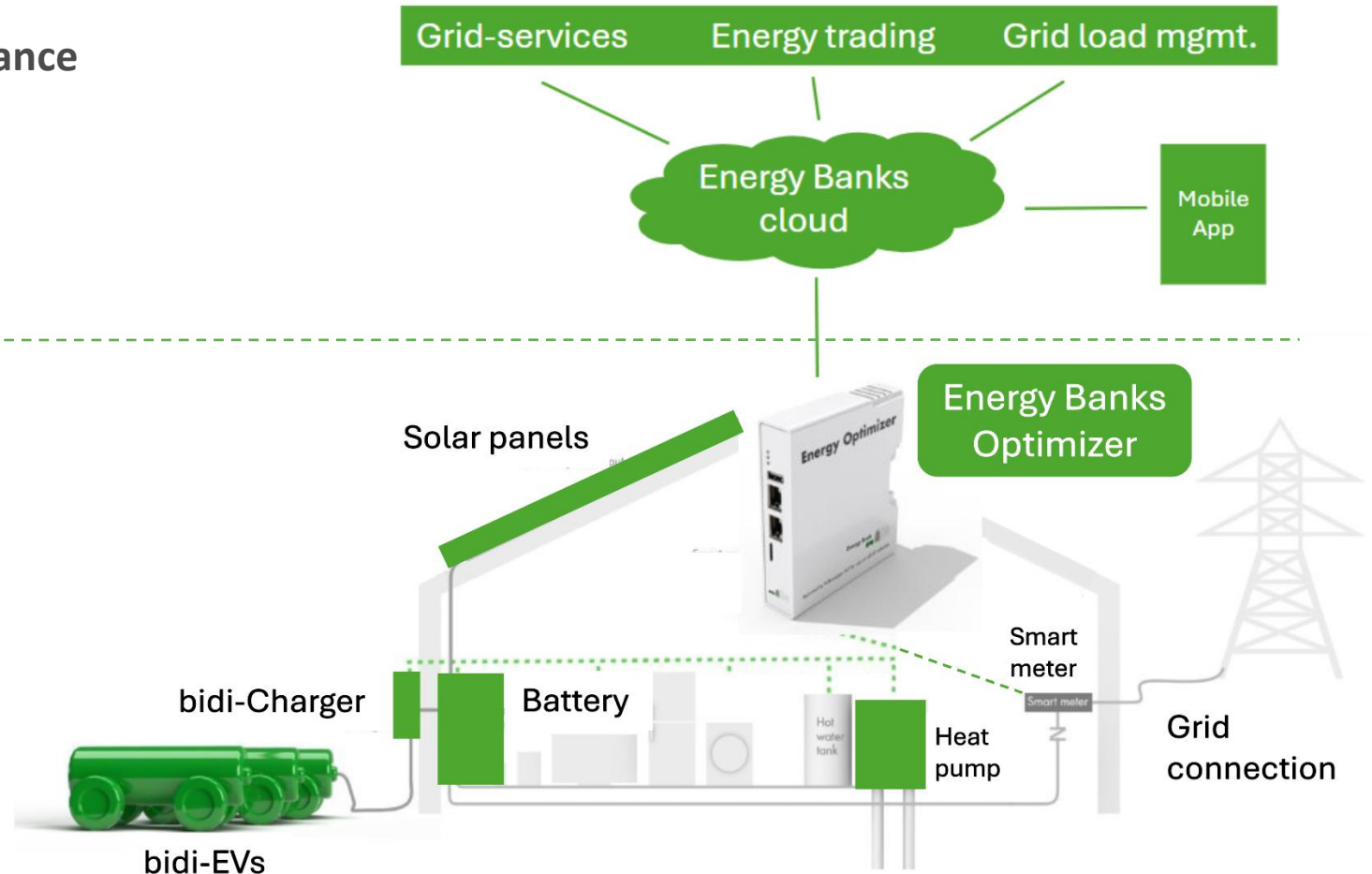
and get paid

Savings behind the meter

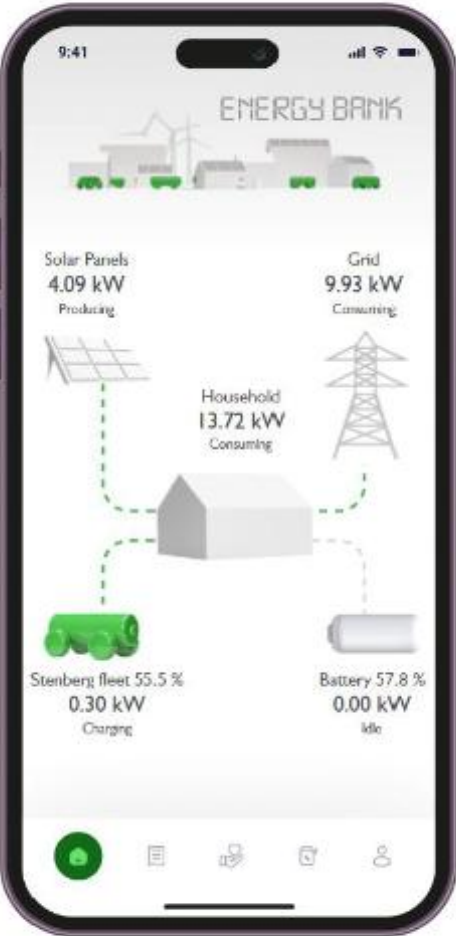
use the storage to

- load-shifting
- peak-shaving
- self-sufficiency / autarky

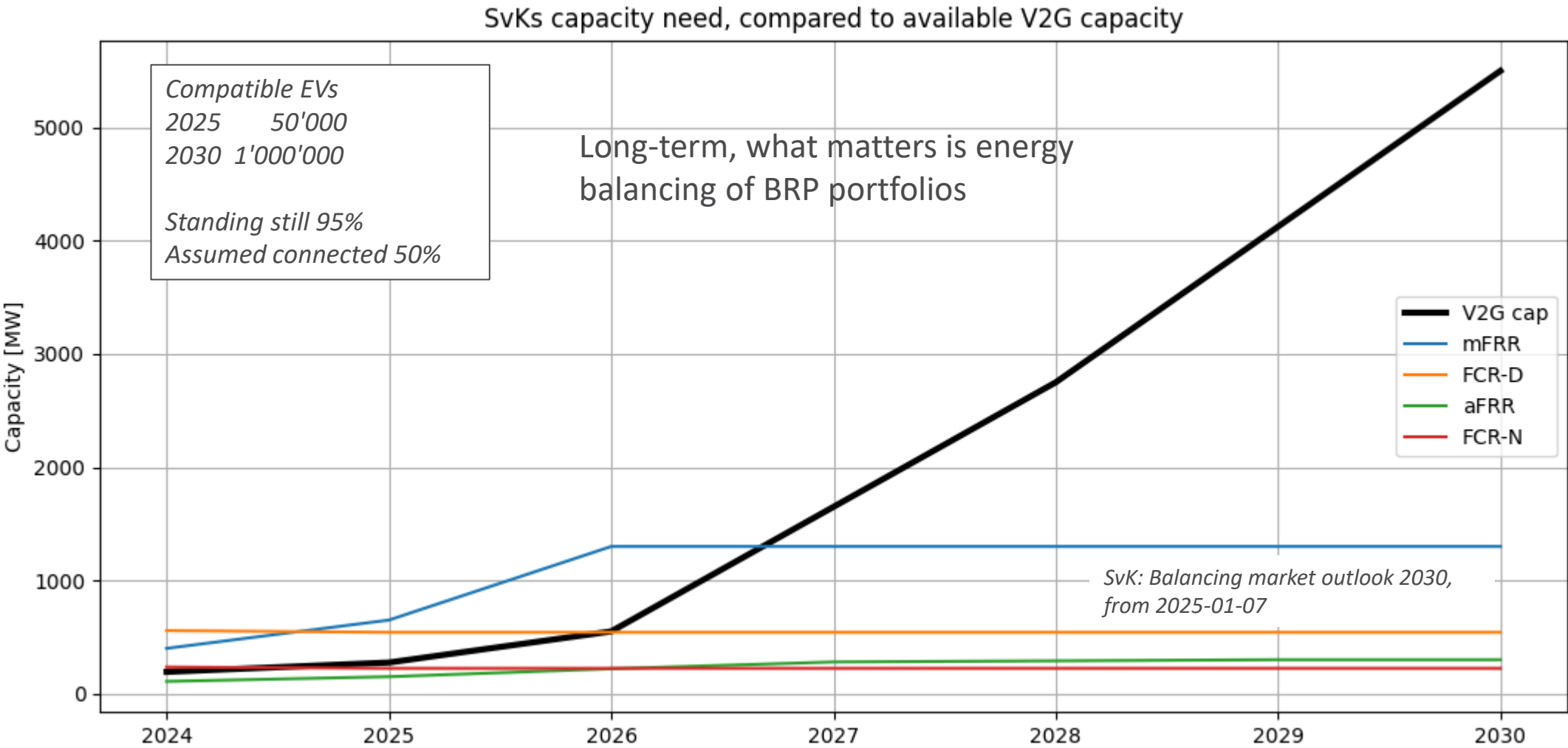
and save on your costs



Mobile-App & Cloud Dashboard



V2G capacity, now and in the future



200 V2X pilots



Energy Bank is rolling out 200 V2X pilots in Sweden

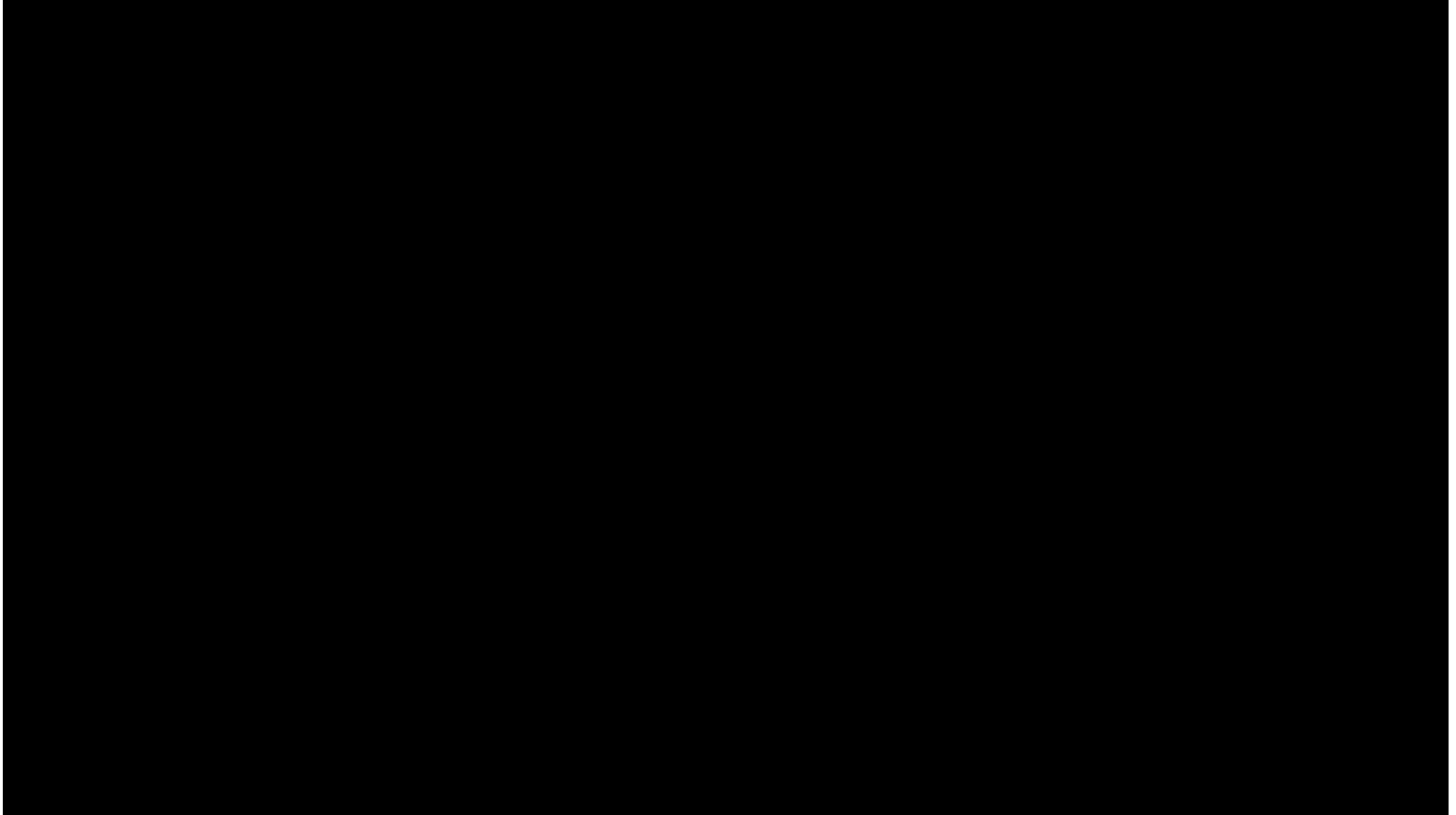
...together with **Volkswagen** and **Vattenfall**

15 are installed... in 5 energy ecosystems...

Many more to come



Stenberg: Energy Banks Living Lab



Eastern Uusimaa and Porvoonjoki Water and Air Protection Association (FI)

Engaging Local Communities for a Greater Good in the Mustijoki River Basin, Finland

19.9.2025
Juha Niemi
Water and Air Protection Association for Eastern
Uusimaa and River Porvoonjoki

Water and Air Protection Association for Eastern Uusimaa and River Porvoonjoki

A non-profit organization
11 municipalities as members + 16 other
organizations
Projects for public benefit
Local water and environment specialist in
help for the area and members

Area of operation:
7 rivers with their catchment areas
+ coastal waters

Sipoonjoki
Mustijoki-Mäntsälänjoki
Porvoonjoki
Ilolanjoki
Koskenkylänjoki
Loviisanjoki
Taasianjoki



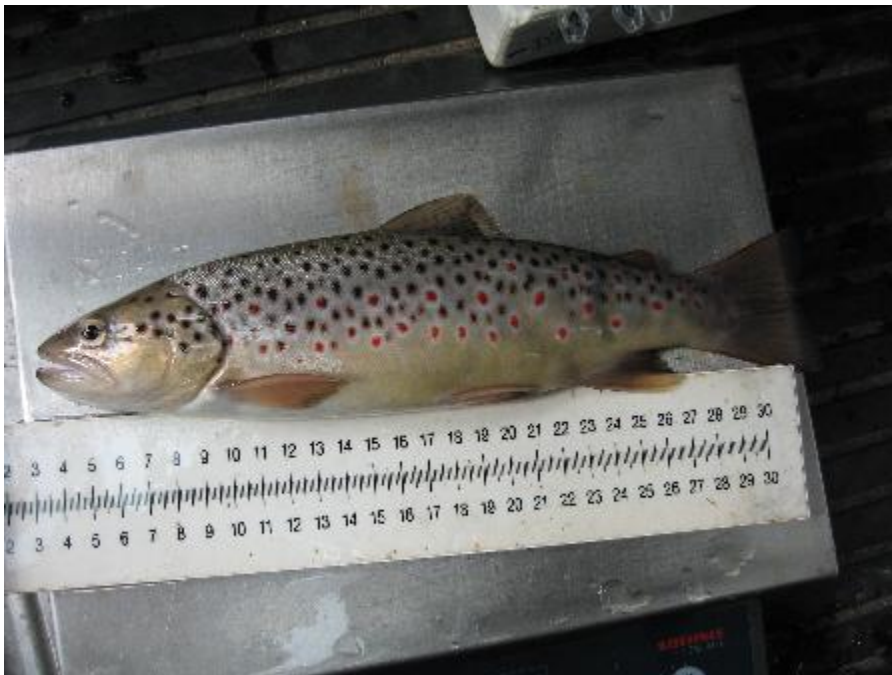
River Mustijoki

- Runs through the municipalities of Mäntsälä, Pornainen and Porvoo
- Branches of River Mustijoki and River Mäntsälänjoki join together in Mäntsälä, from which it flows to the Gulf of Finland
- Holds four hydroelectric power plants and one dam for water intake to Kilpilahti industry area
- Waste waters from Mäntsälä municipality
- Former sea trout and salmon river
- Only on fish pass to date



Former sea trout river

Migration possibilities were cut in 1965 due to Brasas dam (fish pass in 1995)



Kalkinoja, Pornainen



Tyysterinkoski in 1930

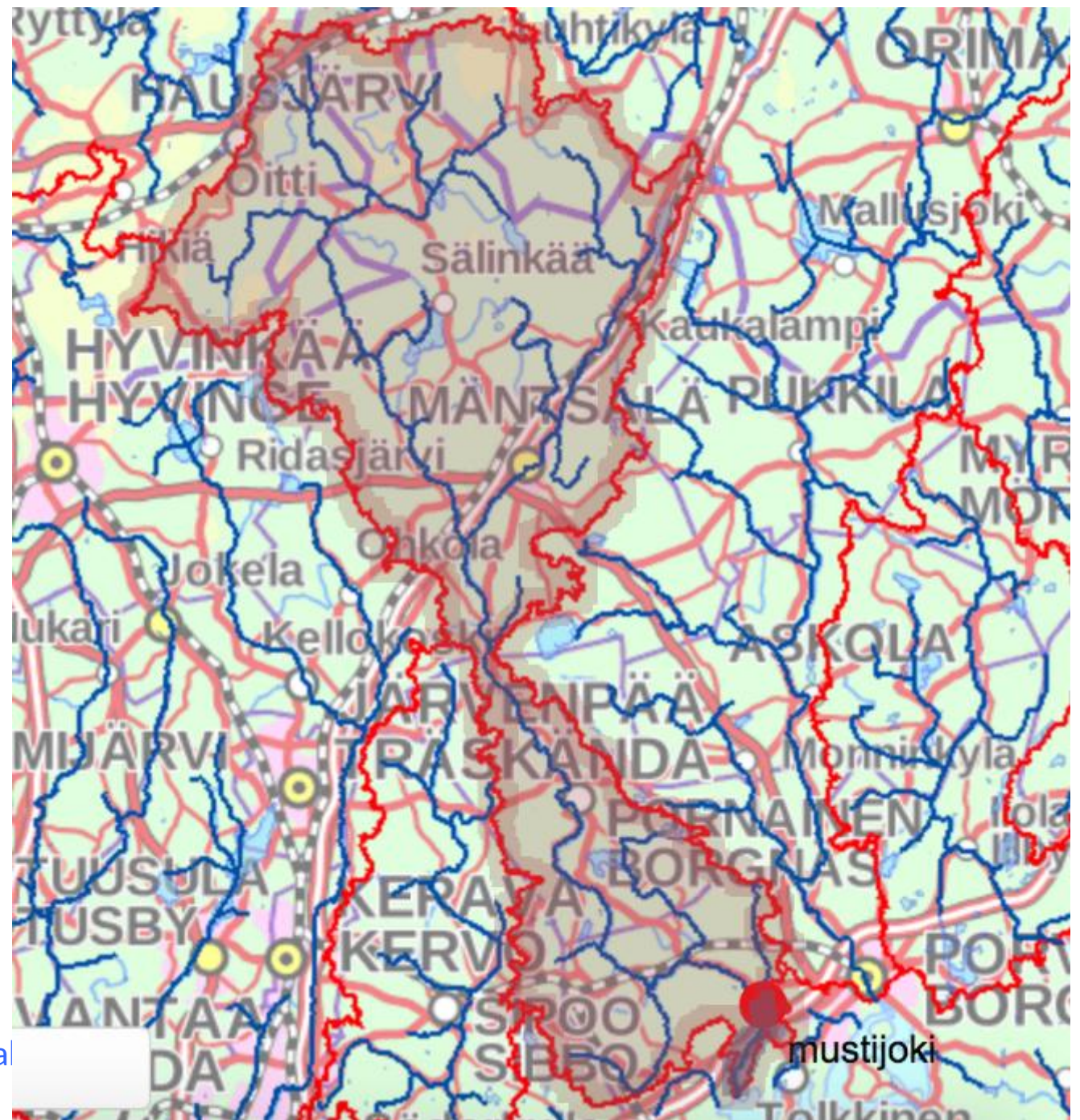


Vekkoski, Porvoo 1890

River Mustijoki catchment area

- It is important to know from where the waters flow
- Only few lakes
- Mainly forest and arable land (agriculture)
- Drainage and ditching as well as hydropower leads to huge variations in discharge

Source: SYKE VALUE-työkalu
Map: Maanmittauslaitos



Ditching and alterations in ecosystems

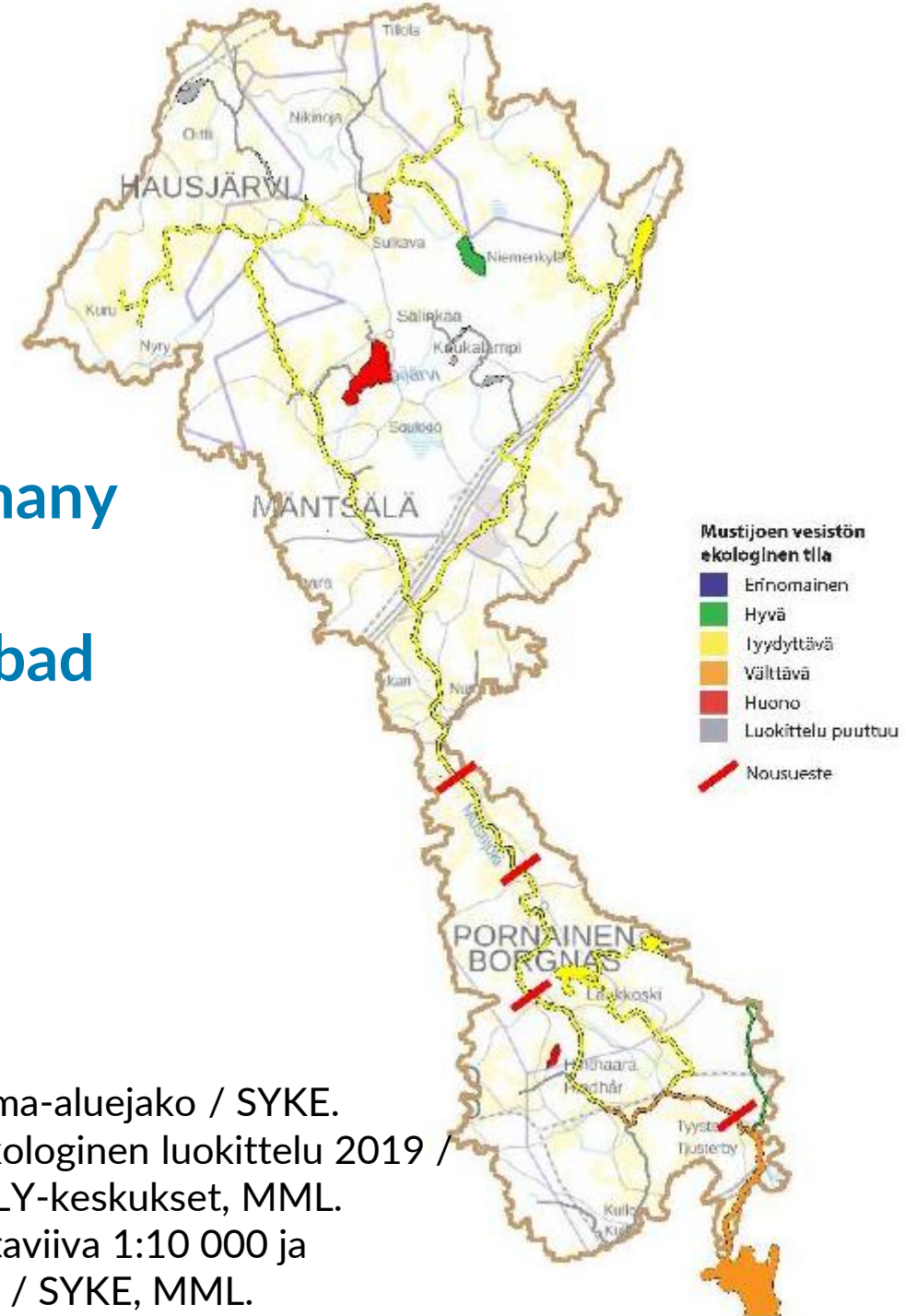


River Mustijoki ecological status

Ecological status mainly
moderate or ever poor in many
areas

Lakes also in poor or even bad
state

Dams lower the status



Sources: Valuma-aluejako / SYKE.
Pintavesien ekologinen luokittelu 2019 /
SYKE, Luke, ELY-keskukset, MML.
Ranta10 - rantaviiva 1:10 000 ja
uomaverkosto / SYKE, MML.

Recreation



Mustijokilaakso
Mustijoki valley

Pyöräily- ja melontareitti/Cycling and canoeing trail

UUSIMAA

Pyöräily/CYCLING HYVINKÄÄ-MÄNTSÄÄ-PORNAINEN-PORVOO
MELONTA/CANOEING KALKINKOSKI-PORNAINEN-HINTHAARA-PORVOO

2-6 PÄIVÄÄ/DAYS

PYÖRÄILY 103 KM, MELONTA 69 KM
CYCLING 103 KM, CANOEING 69 KM

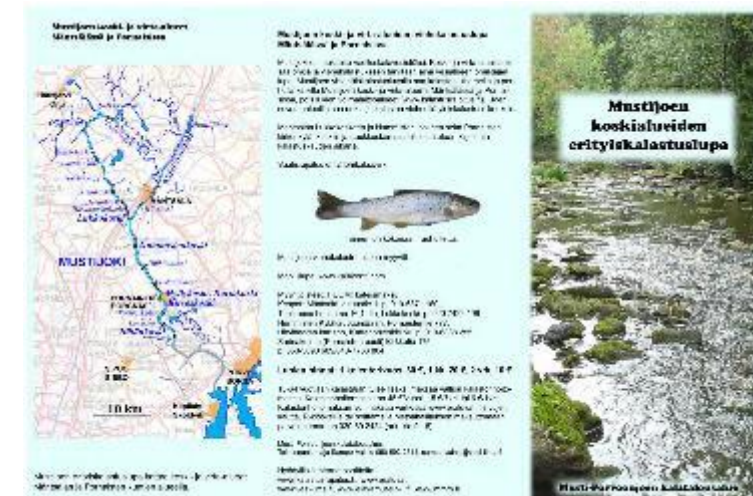
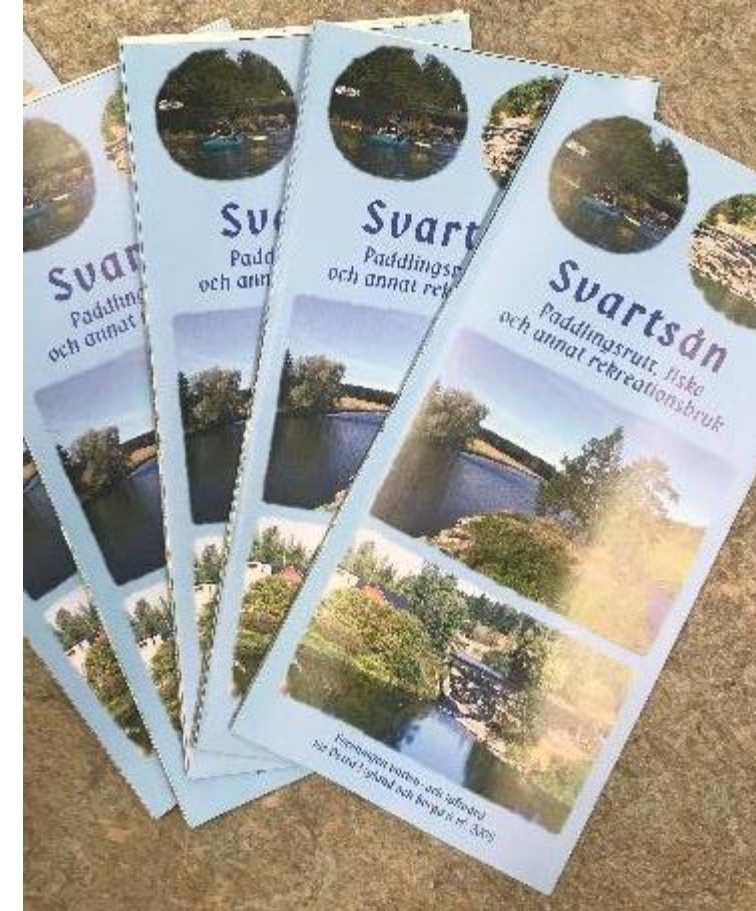
PYÖRÄILY HELPPO, MELONTA KESKIVAATIVA
CYCLING LEVEL EASY, CANOEING LEVEL MEDIUM

www.outdoorfinland.fi

The Finnish Outdoor Trail
in Finland
Päättökäytös: ulkoilu

QR code

- Only one beach in Numminen (unofficial ones in Hintaara and Vekkoski)
- Fishing – local fishery area
- Paddling and cycling routes
- Local institutions to take care of those
- Fireplaces



Engaging local communities - Mustijoki water vision

- Resources are few in the area
- Cooperation and open communication is the key to success.
We have to get everyone involved!
- Municipalities important authorities to excite and get excited
- Important to understand the industry and sources of livelihood in the area, to find solutions for nature and humans to live hand in hand
 - Not at the expense of nature, but taking the nature into consideration first hand
- Protecting and improving the state of the environment is always a compromise

Vivid and vigorous Mustijoki!



- **Agriculture and forestry the key when reducing nutrient loads to waters**
 - Cooperation with landowners to find the solutions
 - Mainly based on voluntariness
 - Ditching corporate bodies – change of culture needed
- **Hydroelectric power plants**
 - Fish passes in the future
 - Migration upstream and downstream
 - Finding the compromise
- **River restorations**
 - With land- and water owners
 - With local communities
 - Mainly with volunteer work
 - Schools involved





Engaging local people is important

- Good and positive experiences
- Working together for the same cause and community spirit
- Sharing knowledge and activating people
- Enabling the longevity – river janitors
- Open policy
- Spreading the good word – jungle drum
- Lowering the costs
- Free buckets and sausages always attracts people ☺





Schools and educational institutions involved



- Lighting up a spark
- Important to get really in touch with the water and environment nearby – local context
- Our future environmentalists
- Making more vice decisions in the future than we have done



Thank you!



Podkarpackie - Live and Breathe (PL)



PODKARPACKIE
live and breathe



NATIONAL FUND
FOR ENVIRONMENTAL PROTECTION
AND WATER MANAGEMENT

LIFE Integrated Project:

Effective implementation of the Air Quality Plan for the Podkarpackie Voivodeship, taking into account the problem of energy poverty.
„Podkarpackie – live and breathe!”

Project number: 101103531

Anna Lorynowicz
Project Manager

The project: Effective implementation of the air protection program for the podkarpackie voivodeship, considering the problem of energy poverty: 'Podkarpackie – live and breathe' is being implemented with co-financing from the European Union's LIFE program and funds from the National Fund for Environmental Protection and Water Management in Warsaw. LIFE22-IPE-PL-LIFE Podkarpackie.

OBJECTIVE: Implementation of the Air Quality Plan for the Podkarpackie Voivodeship and effective use of available EU and national funds allocated to improving air quality and energy efficiency

Implementation period: 01.01.2024 - 31.12.2033

Project budget: 23,400,000 €

- EU co-financing: 14,04 mln € (60%)
- NFEP&WM co-financing: 8,19 mln € (35%)



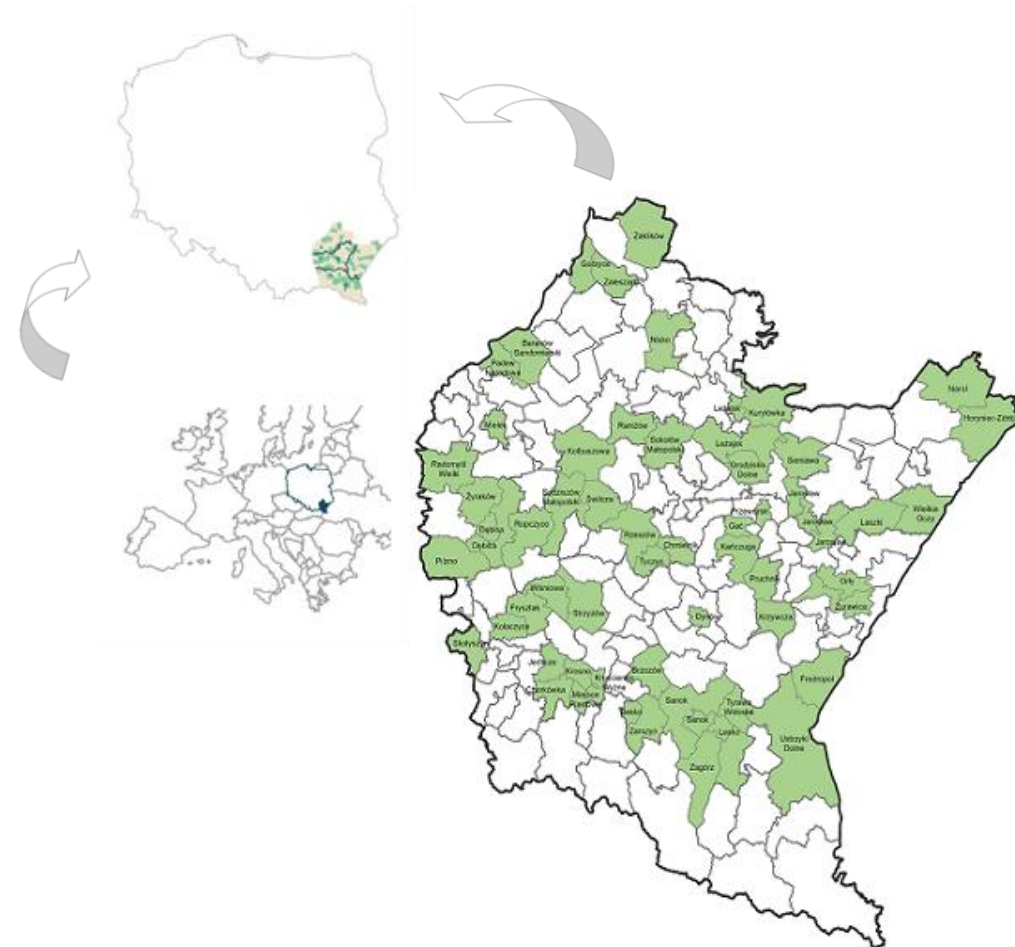
PODKARPACKIE LIFE PROJECT PARTNERS

"Podkarpackie - live and breathe"

COORDINATING BENEFICIARY: Podkarpackie Voivodeship

61 MUNICIPALITIES IN PODKARPACKIE VOIVODESHIP:

BARANÓW SANDOMIERSKI, BESKO, BRZOSZÓW, CHMIELNIK,
CHORKÓWKA, M.DEBICA, FREDROPOL, FRYSZTAK,
JAROSŁAW, LEŻAJSK, GAĆ, GORZYCE, GRODZISKO DOLNE,
HORYNIEC ZDRÓJ, M. JAROSŁAW, JEDLICZE, KAŃCZUGA,
KOŁBUSZOWA, KOŁACZYCE, M. KROSNO, KROŚCIENKO
WYŻNE, KRZYWCZA, KURYLÓWKA, LASZKI, LESKO,
M. DYNOW, MIEJSCE PIASTOWE, M. MIELEC, NAROL, NISKO,
ORŁY, PADEW NARODOWA, PILZNO, PRUCHNIK,
M. PRZEWORSK, RADOMYŚL WIELKI, RANIŻÓW, ROPCZYCE,
M. RZESZÓW, SANOK, M. SANOK, SĘDZISZÓW MAŁOPOLSKI,
SIENIAWA, SKOŁYSZYN, SOKOŁÓW MAŁOPOLSKI,
STRZYŻÓW, ŚWILCZA, TYCZYN, TYRAWA WOŁOSKA,
USTRZYKI DOLNE, WIELKIE OCZY, WIŚNIOWA, ZAGÓRZ,
ZAKLIKÓW, ZALESZANY, ZARSZYN, ŻURAWICA, ŻYRAKÓW



PROJECT PARTNERS



Rzeszow Regional
Development Agency



Institute of Energy and Fuel
Processing Technology



Prof. Żmijewski Association for
Efficiency



Innovation Partnership
Centre of Presov

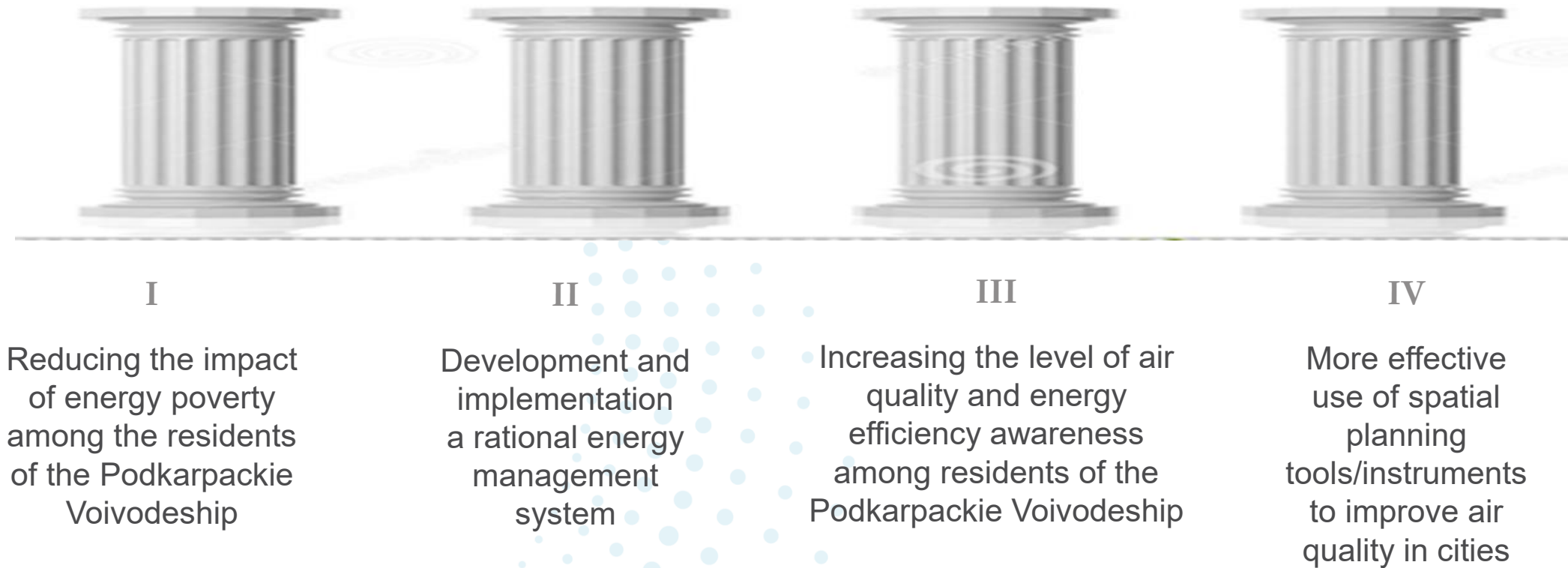


Ekoskop Association



Anna Lorynowicz
Project Manager

The integrated project includes 4 pillars:



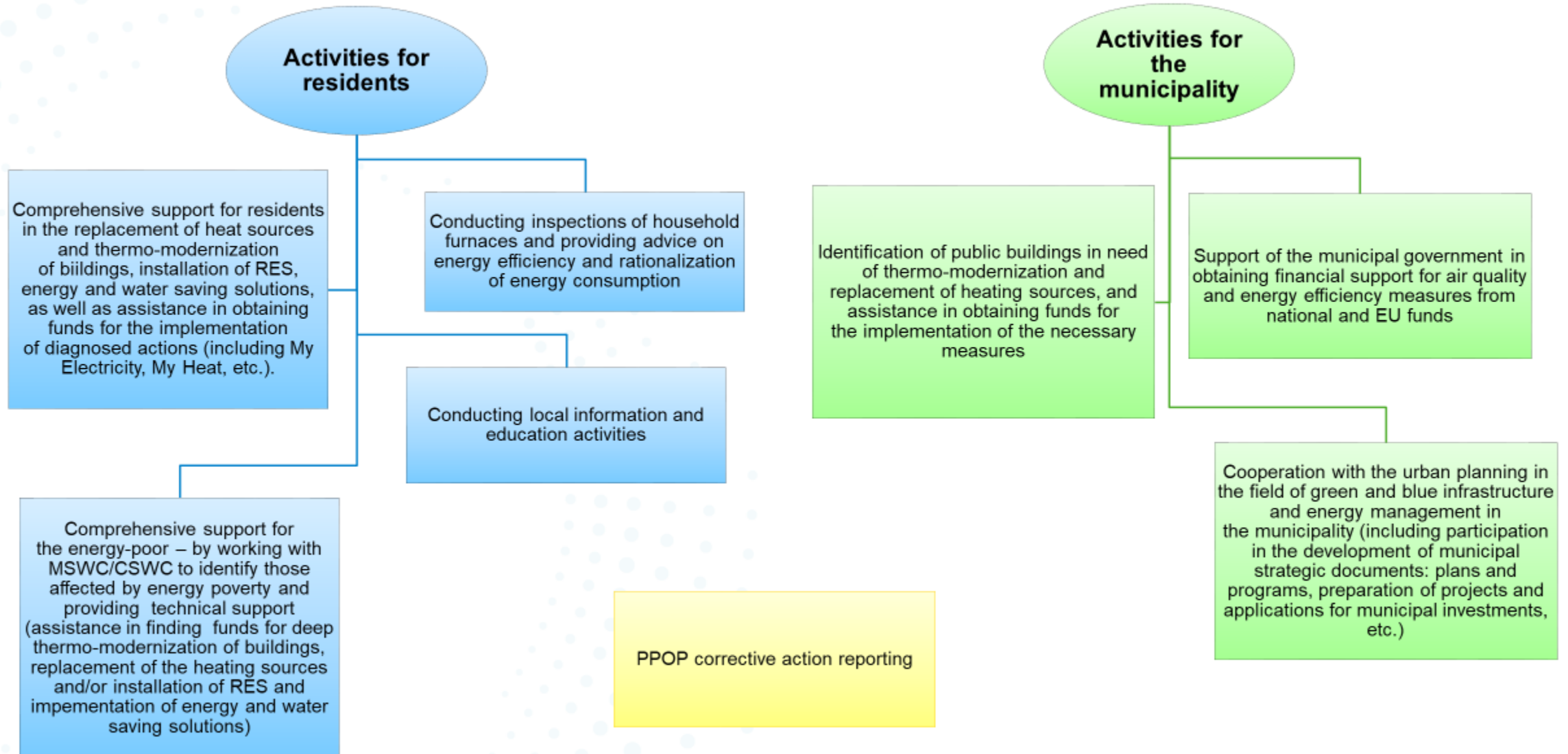
Pillar 1

Reducing the impact of energy poverty among the residents of the Podkarpackie Voivodeship

- Establishment of a coordinated support system for municipal self-governments (network of advisors) and strengthening of human resources responsible for the implementation of the AQP
- Increase the usefulness of the www.powietrze.podkarpackie.pl platform
- Improvement of equipment for personnel responsible for conducting controls of the implementation of the Anti-Smog Resolution
- Raising the level of knowledge in the field of energy and air quality management among local government staff



THE MAIN TASKS OF THE AIR AND ENERGY ADVISOR



The network of subregional business and energy advisors employed at the Rzeszow Regional Development Agency

- **Rzeszow** - covering all municipalities located in the counties of: Rzeszow, Debica, Lezajsk, Lancut, Ropczyce-Sedziszow, and the city of Rzeszow;
- **Krosno** - covering all municipalities located in the counties of: Krosno City, Krosno, Jaslo, Brzozow, Sanok, Lesko, Bieszczady, and Strzyzow;
- **Przemysl** - covering all municipalities located in the counties of: Przemysl City, Przemysl, Jaroslaw, Lubaczow, and Przeworsk;
- **Tarnobrzeg** - covering all municipalities located in the counties of: Tarnobrzeg City, Tarnobrzeg, Stalowa Wola, Mielec, Nisko, and Kolbuszowa.

The main tasks of SUBREGIONAL BUSINESS AND ENERGY ADVISOR

- Providing **technical support to air and energy advisors**, municipalities and local entrepreneurs in a given subregion. Advisors will be equipped with thermal imaging cameras and trained in their use. Based on the needs identified by municipal advisors, the subregional business and energy advisors will use thermal imaging cameras to measure energy efficiency in individual households (in cooperation with municipal advisors)
- **Cooperation with municipalities and with MSWC/CSWC to identify people affected by energy poverty** and provide technical assistance to these households (assistance in finding funding for deep thermomodernization of buildings, replacement of heating sources and/or installation of the renewable energy ones, and implementation of energy and water-saving solutions)
- **Supporting local information and educational activities in municipalities** where there is no advisor (providing advice and information during local outdoor events, distributing materials, organizing meetings with local leaders, such as municipal or city guards, volunteer fire departments, priests, doctors, the farmer housewives' clubs – to inform about the need to change heating sources, etc.)

- Supporting all municipalities in **identifying public buildings requiring thermomodernization and replacement of heating sources**, and **provide assistance in obtaining funds** to carry out the diagnosed activities and investments
- Supporting municipalities that do not employ air and energy advisors **in obtaining funds for the implementation of the AQP assumptions** (including the preparation of applications for the financing of investments in public buildings (FEP 2021 – 2027, FENiKS Programme, etc.) and investments for residents (e.g. FEP 2021 – 2027)
- Participating in **inspections of household heating systems** through **conducting anti-smog drone inspection campaigns**
- **Organizing meetings** for municipal advisors and staff of Environmental Protection Departments/Units to identify needs, exchange information between municipalities, initiate joint actions, etc.

Pillar 2

Developing and implementing a system for rational energy management

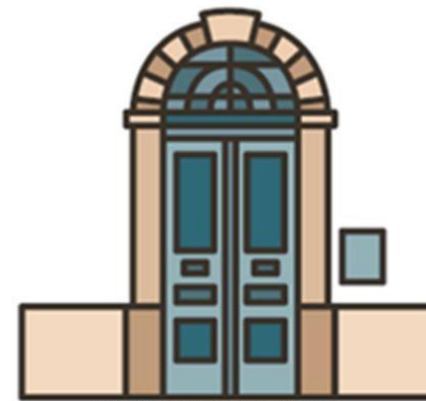
- **Conducting pilot in 5 municipalities** - individual concepts for rational energy management
- Creation of the **Social Energy Incubator**
- **SEMS** – Smart Energy Management System
- **Training** in renewable energy sources and creation of local energy communities



Energy management teams



Creating a social energy incubator



Piloting a local rational energy management system



Energy independence of municipalities

Pillar 3

Increasing the level of awareness of air quality and energy efficiency among residents of the Podkarpackie Voivodeship

- Establishment of a local air quality information system;
- Conducting regional and local information and education campaigns;
- Strengthening the educational function of control activities under the Anti-Smog Resolution;
- Motivating local governments to implement actions to improve air quality.



Pillar 4

More effective use of spatial planning tools/instruments to improve air quality in cities

- The use of the existing **urban greenery** and the design of new green spaces aimed at improving the air quality and the quality of life of city residents;
- Developing **municipal climate change adaptation plans**;
- **Information and education campaigns** to encourage residents to take individual action to increase green areas;
- **Organisation of a conference** to promote good practice and actions taken by municipalities to make more effective use of planning tools to improve air quality.



EXPECTED IMPACTS

Key parts of plan/strategy implemented by the end of STRAT:

- At least 48% increase in primary renewable energy production by 2033
- Annual reduction of CO₂ by 5852.7 tonnes eq. CO₂/year
- Annual reduction of PM₁₀ by 804.09 Mg/year
- Annual reduction of PM_{2.5} by 631.53 Mg/year
- Annual reduction of B(a)P by 0.2795 Mg/year
- Reduction of the area particularly vulnerable to climate change by at least 260.7 ha by 2033



Thank You



PODKARPACIE
live and breathe



NATIONAL FUND
FOR ENVIRONMENTAL PROTECTION
AND WATER MANAGEMENT

Announcement

Next webinar: January 14, 2026!



Contacts

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interreg-baltic.eu/project/enercracy

The Enercracy project is co-financed by the Interreg Baltic Sea Region Programme, which fosters transnational cooperation to address shared challenges and drive sustainable development across the region. The project's total budget is EUR 1,591,594.51 (including EUR 1,273,275.59 of EU funding)