

Designing Pathways Toward Climate Neutrality  
LIFE ClimatePath2050 International Conference



**LIFE**  
CLIMATE  
PATH  
2050

# The Climate Action Mirror and the Local Climate Action Scoreboard

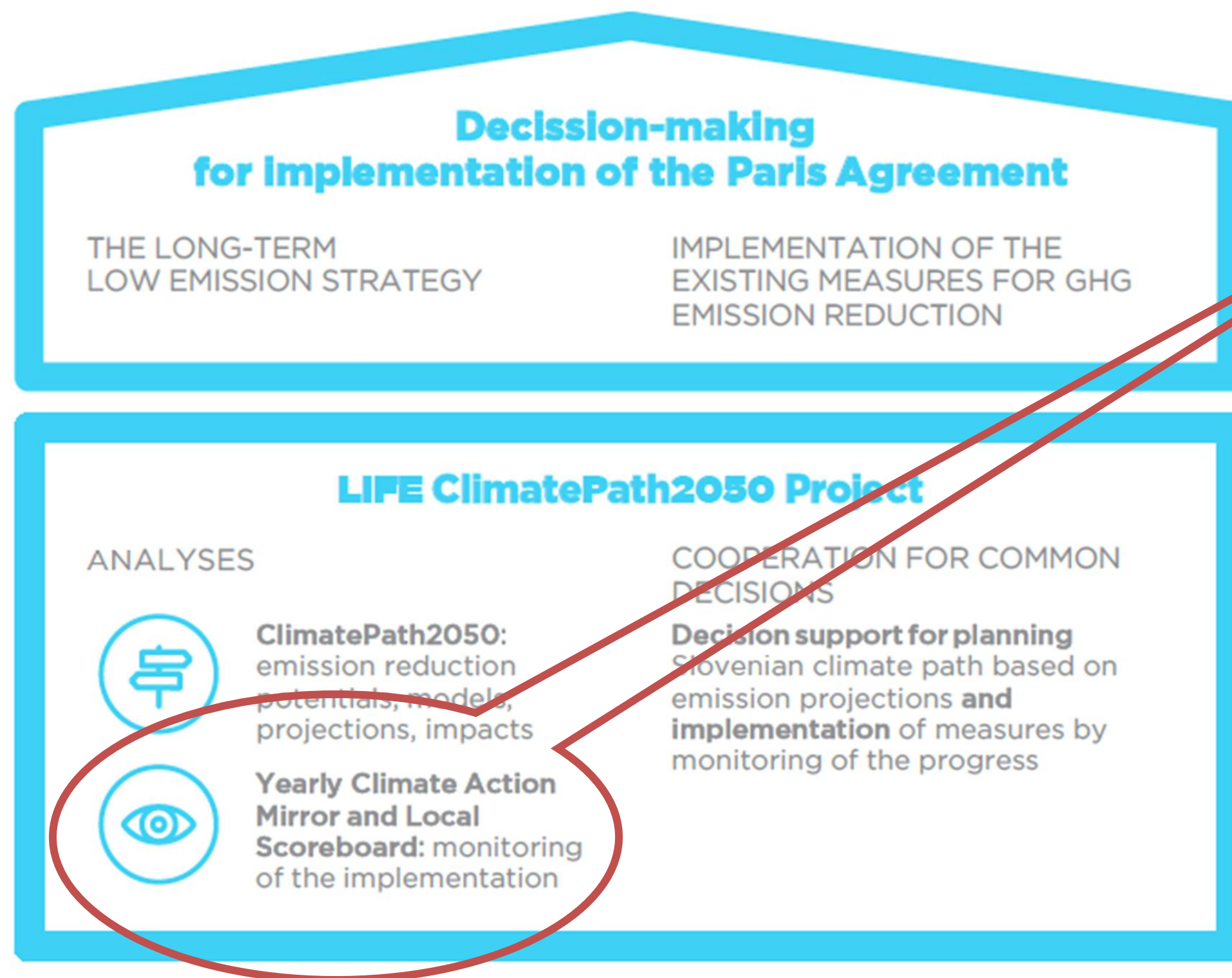
Barbara Petelin Visočnik  
Jožef Stefan Institute, Energy Efficiency Centre

Hybrid event; 6. – 8. October 2021

Projekt LIFE ClimatePath2050 (LIFE16 GIC/SI/000043)  
je financiran iz finančnega mehanizma LIFE, ki ga  
upravlja Evropska komisija, in iz Sklada za podnebne  
spremembe Ministrstva za okolje in prostor RS.



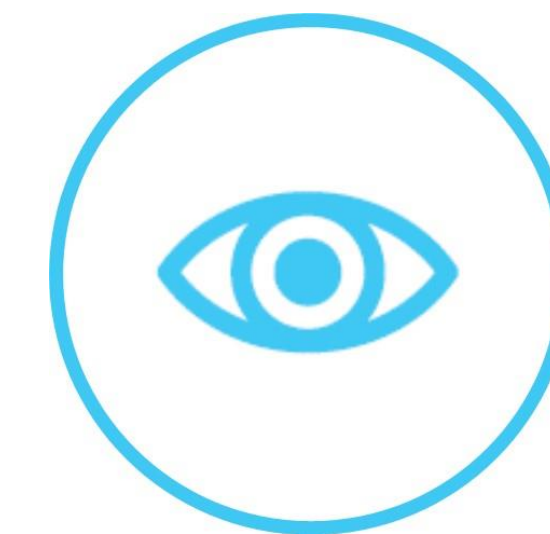
# The Climate Actions Monitoring System in the LIFE ClimatePath2050 project



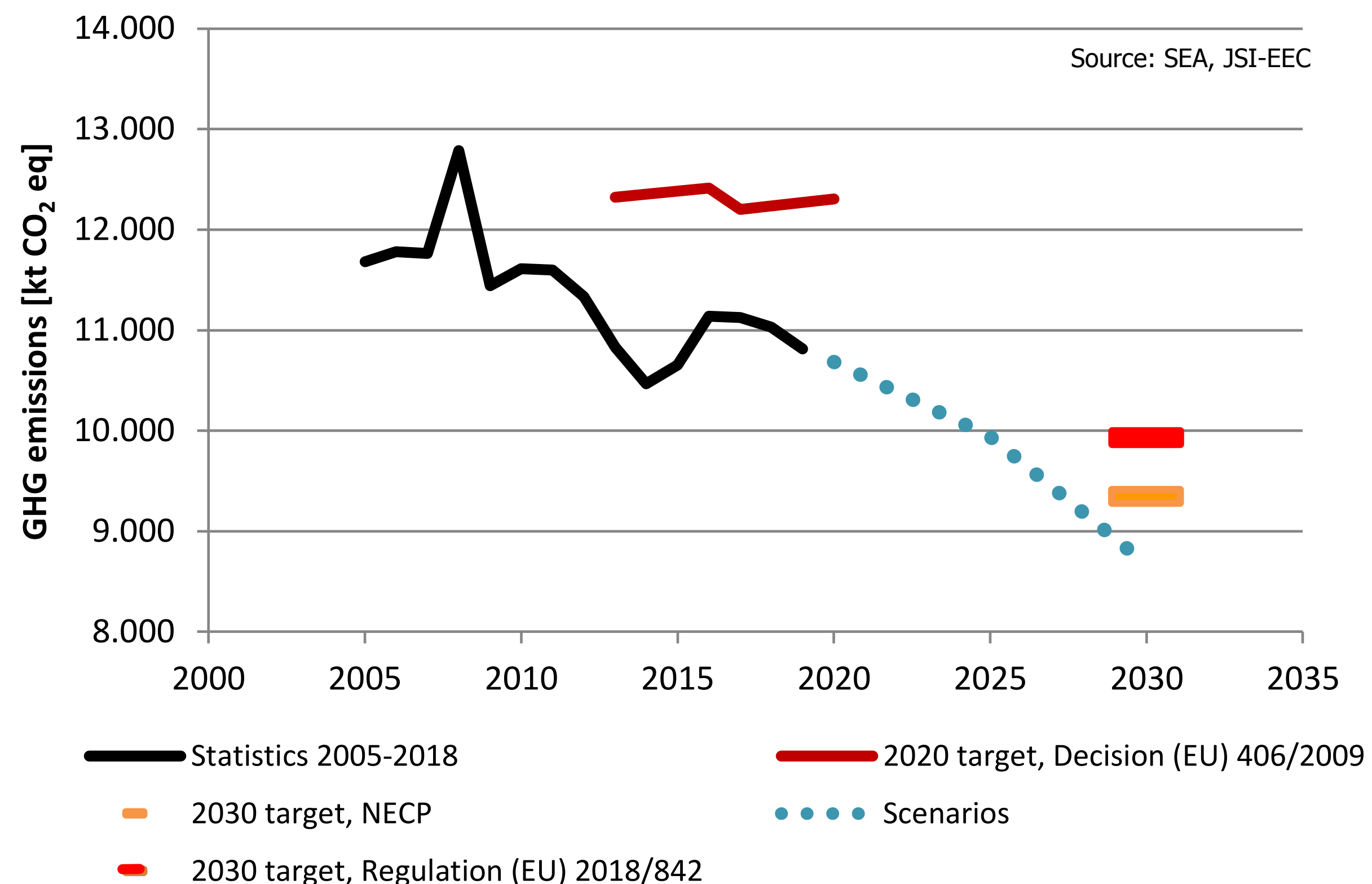
- Two main elements of the system
  - **The Climate Action Mirror** – national level; recommendations for decision-making supporting the design of short-term corrective actions
  - **The Local Climate Action Scoreboard** – web application for municipalities; monitoring their climate activities and progress
- Main objectives of the system are to:
  - ensure **coherent, transparent, and high-quality information**
  - **improve access to the information** to be used in decision-making
  - implement a **PDCA ('plan–do–check–act') cycle for short-term corrective actions**
  - provide specific **guidelines for mid- and long-term planning**
  - **reduce the administrative burden**

# The Climate Action Mirror

## Evaluation of compliance with targets



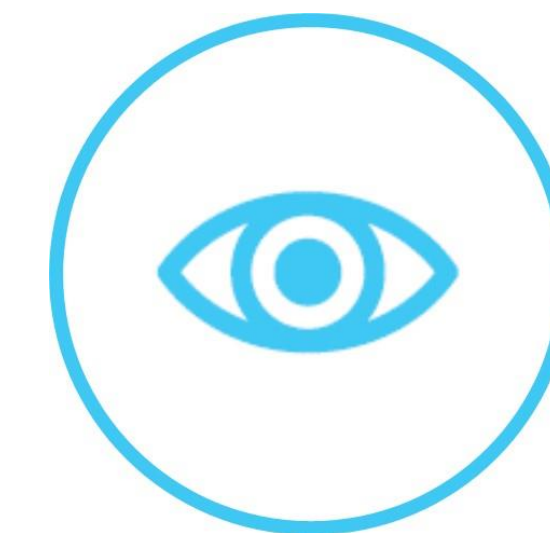
- Main indicators
  - Annual **GHG Emissions** According to Decision No. 406/2009/ES
  - **Primary Energy Consumption** by Fuel (Final Energy Consumption by Sector)
  - The **Share of Renewables** in Final Energy Consumption
- Information on progress towards targets in **one place**
- **Climate-related monitoring and reporting** regarding the decarbonization and energy efficiency dimensions of the Slovenian NECP in **one system**



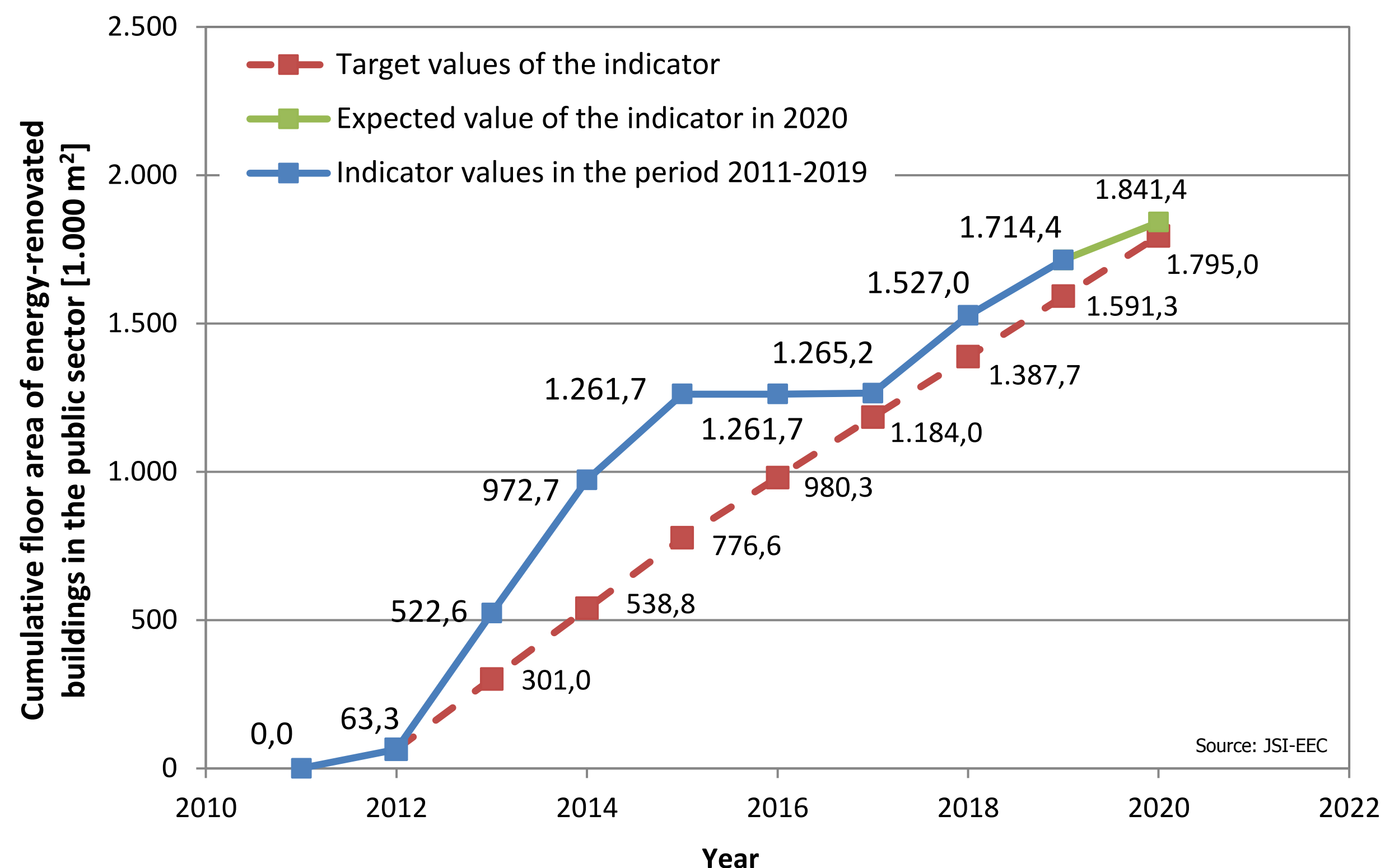


# The Climate Action Mirror

## Sectoral progress tracking indicators

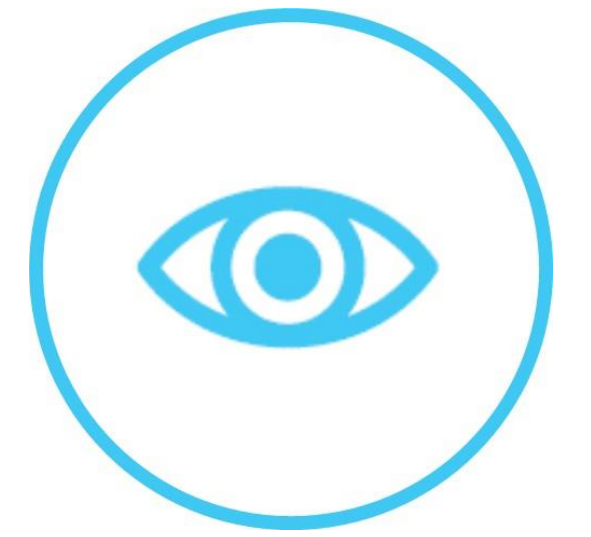


- The aim of indicators is to:
  - indicate the **stronger and weaker points** of climate actions
  - support the design of **short-term corrective actions**
  - provide specific guidelines for **mid- and long-term planning**
- **29** sectoral progress tracking indicators (green growth (5), buildings (7), transport (4), agriculture (5), industry (3), waste (1), LULUCF (4) + EU-ETS (4))
- All indicators are available **online**
  - Slovene:  
<http://kazalci.arso.gov.si/sl/themes/climate-mirror>
  - **English:**  
<http://kazalci.arso.gov.si/en/themes/climate-mirror>



# The Climate Action Mirror

## An example of a summary of sectoral indicators



No.	Indicator	Unit	Year observed	State	Annual target	2020 target	Indicative annual target achievement	Impact on mid-term emissions	Assessment of the impact on mid-term emissions – Explanation
<b>Transport</b>									
PO02	CO <sub>2</sub> emissions of new personal vehicles	gCO <sub>2</sub> /km	2018	120	113	101	☹️	Yellow	In 2016 and 2017, the trend of a reduction in the specific emissions of new vehicles stopped, and in 2018 such emissions even slightly increased, so that achievement of the 2020 target is questionable.
	and of all personal vehicles	gCO <sub>2</sub> /km	2018	178	160	152	☹️	Yellow	The average emissions of all vehicles decreased significantly in 2017 and then again increased in 2018. Here, too, achievement of the target is on a critical path, and the implementation of measures in this field will need to be strengthened.
PO03	Share of RES in transport	%	2018	5.5	8.3	10.0	☹️	Red	The indicator improved for the second year in a row, but still lags behind the annual target.
PO04	Passenger-kilometres in public passenger transport	Million pkm	2018	1,514	1,946	2,092	☹️	Yellow	In 2018, the total number of passenger kilometres in public passenger transport decreased, thus interrupting the multi-year growth trend. Achievement of the target is on a critical path; it will be necessary to strengthen the implementation of measures in this field. The year 2020 will not be representative; the target will not be achieved due to the changed circumstances during the coronavirus pandemic.
PO05	Sustainable freight transport (share of rail transport in total transport volume)	%	2018	25	25	26	😊	Yellow	The share of rail transport in total freight transport with at least one point in Slovenia continues to stay above the indicator projected values; however, in 2018 it fell below the 2020 indicative target.

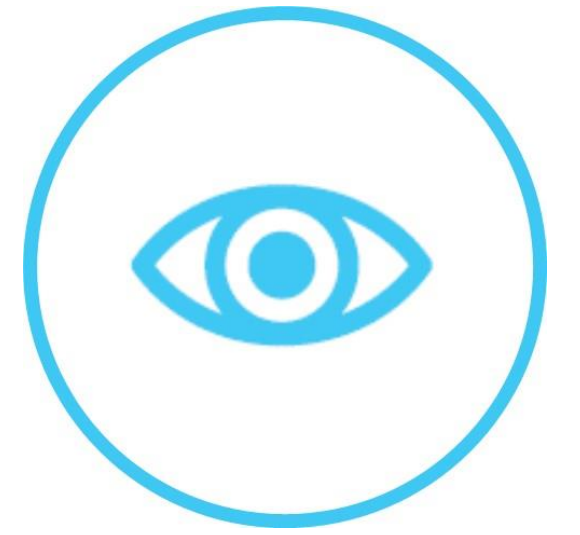
- Indicator (no. / name / unit)
- Year observed
- State
- Annual / 2020 target
- Indicative annual target achievement / Impact on mid-term emissions
- Assessment of the impact on mid-term emissions - explanation



PRENOVA STAVB KULTURNE DEDIŠČINE IN DRUGIH POSEBNIH SKUPIN STAVB	
<b>SPLOŠEN OPIS</b>	
OZNAKA INSTRUMENTA	OP TGP: NS-6 AN URE: J.6 OP EKP: prednostna os 4, prednostna naložba 4.1
UČINEK V SEKTORJU	stavbe – splošno
VPLIV NA SEKTOR ETS ALI NEETS	neETS <input checked="" type="checkbox"/> ETS <input type="checkbox"/>
TGP NA KATERE VPLIVA INSTRUMENT	ogljikov dioksid (CO <sub>2</sub> )
VRSTA INSTRUMENTA	sklop instrumentov
ODGOVORNOST ZA IZVAJANJE	MzI DE
NA KATERE CILJE VPLIVA INSTRUMENT	zmanjšanje rabe energije <input checked="" type="checkbox"/> zmanjšanje emisij TGP <input checked="" type="checkbox"/> povečanje rabe OVE <input type="checkbox"/> drugo: <input type="checkbox"/>
KRATEK OPIS	V okviru ukrepa bodo pripravljena merila za prenovo stavbne kulturne dediščine in drugih posebnih skupin stavb. Predvidena je izvedba demonstracijskih projektov, razvoj in uvajanje primernih tehnologij, vzpostavitev sheme finančne podpore in zagotovitev finančnih sredstev za obdobje 2014–2020.
<b>PRAVNE IN STRATEŠKE PODLAGE</b>	
EU ZAKONODAJA	/
NACIONALNE PRAVNE PODLAGE	/
NACIONALNE STRATEŠKE PODLAGE	Operativni program ukrepov zmanjšanja emisij toplogrednih plinov do leta 2020 (OP TGP) Akcijski načrt za energetske učinkovitost za obdobje 2017–2020 (AN URE) Dolgoročna strategija za spodbujanje naložb energetske prenove stavb (DSEPS) Operativni program za izvajanje evropske kohezijske politike v obdobju 2014–2020 (OP EKP)
<b>IZVAJANJE INSTRUMENTA V LETU 2018</b>	
POTEK IZVAJANJA	Instrument se še naprej izvaja samo delno. <i>Smernice za energetske prenove stavb kulturne dediščine</i> sta MzI in MK izdala že leta 2016, leta 2017 pa je bil potrjen pilotni projekt energetske prenove petih stavb Ministrstva za kulturo, s skupno tlorisno površino skoraj 55.500 m <sup>2</sup> , po modelu energetskega pogodbeništvu. V letu 2018 je bil objavljen javni razpis za podelitev koncesije za izvedbo tega projekta, ki je trenutno v drugi fazi konkurenčnega dialoga.  V okviru razpisov za energetske prenove stavb javnega sektorja se za stavbe kulturne dediščine upoštevajo specifična merila za ocenjevanje, in sicer se lahko v izračunu upoštevata tudi prihranki tistih ukrepov, ki jih zaradi varovanja kulturne dediščine ni mogoče izvesti v celoti ali delno. V skladu z <i>Dopolnitvijo DSEPS</i> so bila omenjena merila januarja 2019 v okviru prenove  <i>Navodil za delo posredniških organov in upravičencev pri ukrepu energetske prenove stavb javnega sektorja</i> še nekoliko nadgrajena.  V <i>Dopolnitvi DSEPS</i> je za stavbe kulturne dediščine predvidena tudi prilagoditev višine dodeljenih sredstev glede na zahtevnost in obseg posegov, ki zaenkrat še ni bila vzpostavljena, enako pa velja tudi za shemo finančnih podpor za projekte energetske prenove stavb kulturne dediščine. Takšna shema bi bila zaradi velikega deleža javnih stavb, ki so v celoti ali delno spomeniško zaščitene, nujna, za njeno delovanje pa bo potrebno zagotoviti ustrezne finančne spodbude.
DOSEŽENI UČINKI	Spremljanje učinkov je predvideno samo za pilotni projekt, ki pa leta 2018 še ni bil izveden.
<b>PREDVIDENO IZVAJANJE INSTRUMENTA V OBDOBJU 2019–2020</b>	
PREDVIDENO IZVAJANJE	Predvideno je izvajanje pilotnega projekta.
PREDVIDENI UČINKI	V okviru pilotnega projekta je predvideno: • zmanjšanje rabe energije: 3,5 GWh/leto • povečanje proizvodnje energije iz OVE: 81 MWh/leto • zmanjšanje emisije CO <sub>2</sub> : 0,7 kt/leto
<b>PRIPOROČILA ZA ODLOČANJE</b>	
Za večji obseg energetske prenove stavb kulturne dediščine in drugih posebnih skupin stavb je nujno, da MzI DE čim hitreje vzpostavi izvajanje ukrepa v celotnem obsegu iz <i>Dopolnitve DSEPS</i> in zagotovi sofinanciranje, prilagojeno tem ciljnim skupinam (npr. tudi v ločenih razpisih oz. pozivih).	
<b>VRKI PODATKOV</b>	
<ul style="list-style-type: none"> <li>MzI DE, Projektna pisarna za energetske prenove</li> <li>MzI, Portal energetika, Projektna pisarna za energetske prenove (<a href="http://www.energetika-portal.si/podrocja/energetika/energetska-orenova-javnih-stavb/projektna-pisarna/">http://www.energetika-portal.si/podrocja/energetika/energetska-orenova-javnih-stavb/projektna-pisarna/</a>)</li> </ul>	
<b>DATUM PRIPRAVE</b>	
22. marec 2019	

# The Climate Action Mirror

## Qualitative overviews of the implementation of measures

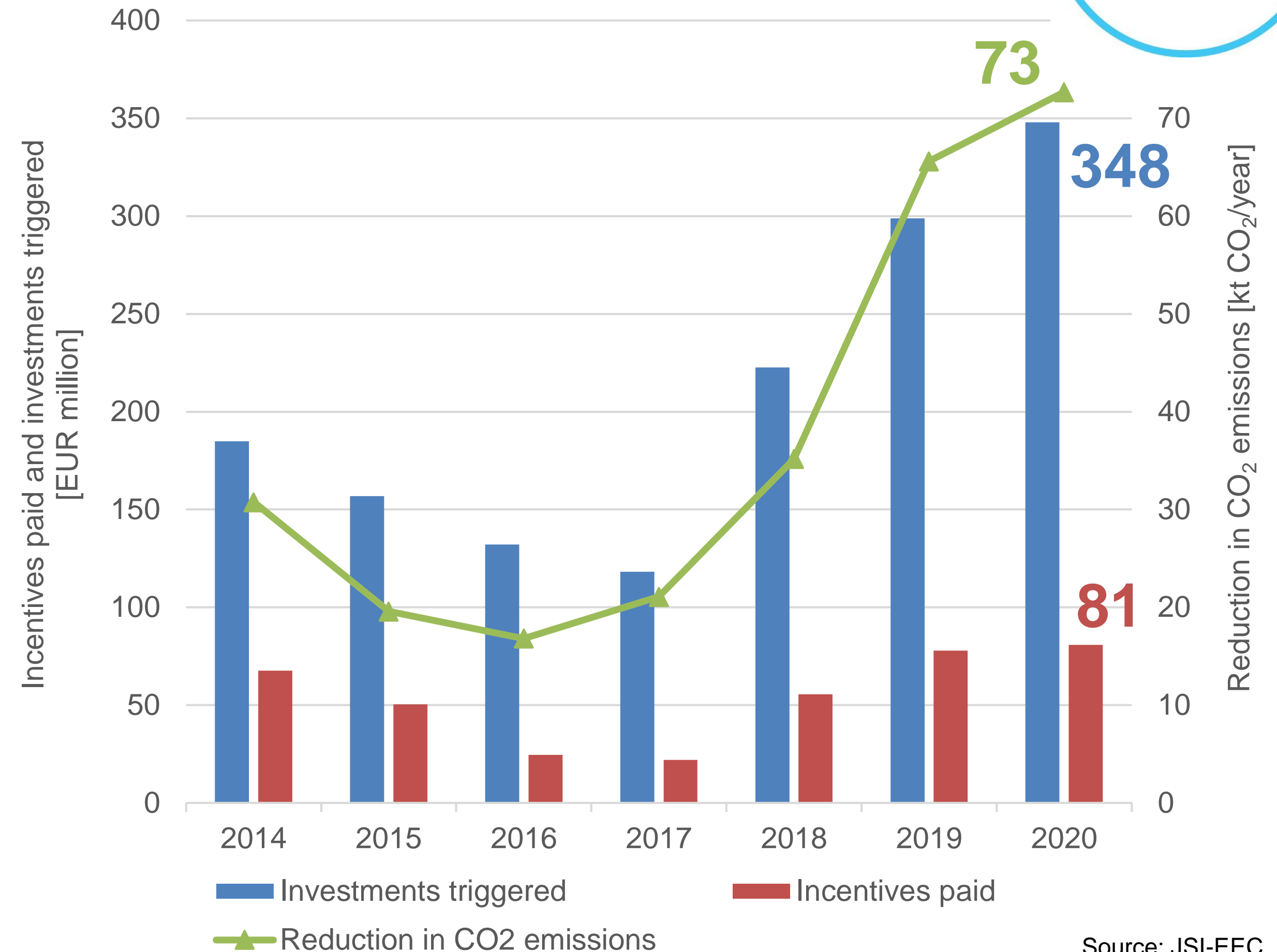


- Why qualitative overviews?
  - Some measures cannot be directly assigned the quantitative impacts
  - Their failure can hinder the implementation of other measures or achievement of targets
- Almost **100 climate mitigation measures** (transport, buildings, agriculture, non-ETS industry, the non-ETS energy sector, waste management, multisectoral measures, and LULUCF + EU-ETS) implemented by **14 different ministries and institutions**
- Important aspects of the qualitative overviews
  - **Revision and evaluation** of all the data and information collected by sectoral experts
  - **Inclusion and co-operation of the relevant stakeholders**
  - Preparation of **recommendations for decision-makers** → supporting the design of short-term corrective actions (PDCA cycle)

# 7 The Climate Action Mirror

## Financial data

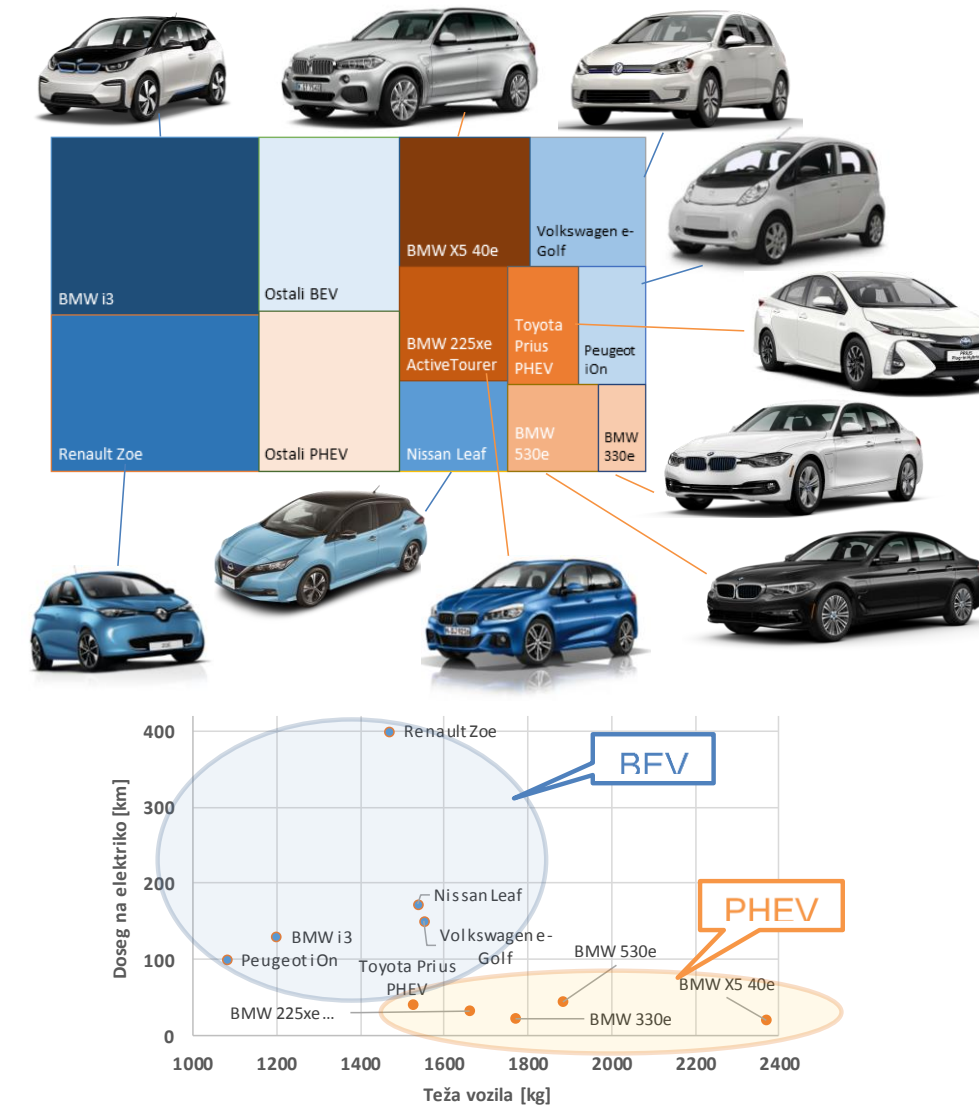
- **Overview of funds** used to finance climate mitigation measures, including the impact on GHG emissions reduction
- 3 major sources of incentives
  - **Energy efficiency contribution** in the price of energy / managed by Eco Fund
  - **Climate Change Fund**
  - **Cohesion Fund**
- Importance of **constantly available** incentives and **evenly distributed** investments
- 2020 – efficiency of incentives: **EUR 1,000 per t of CO<sub>2</sub> emissions reduction**



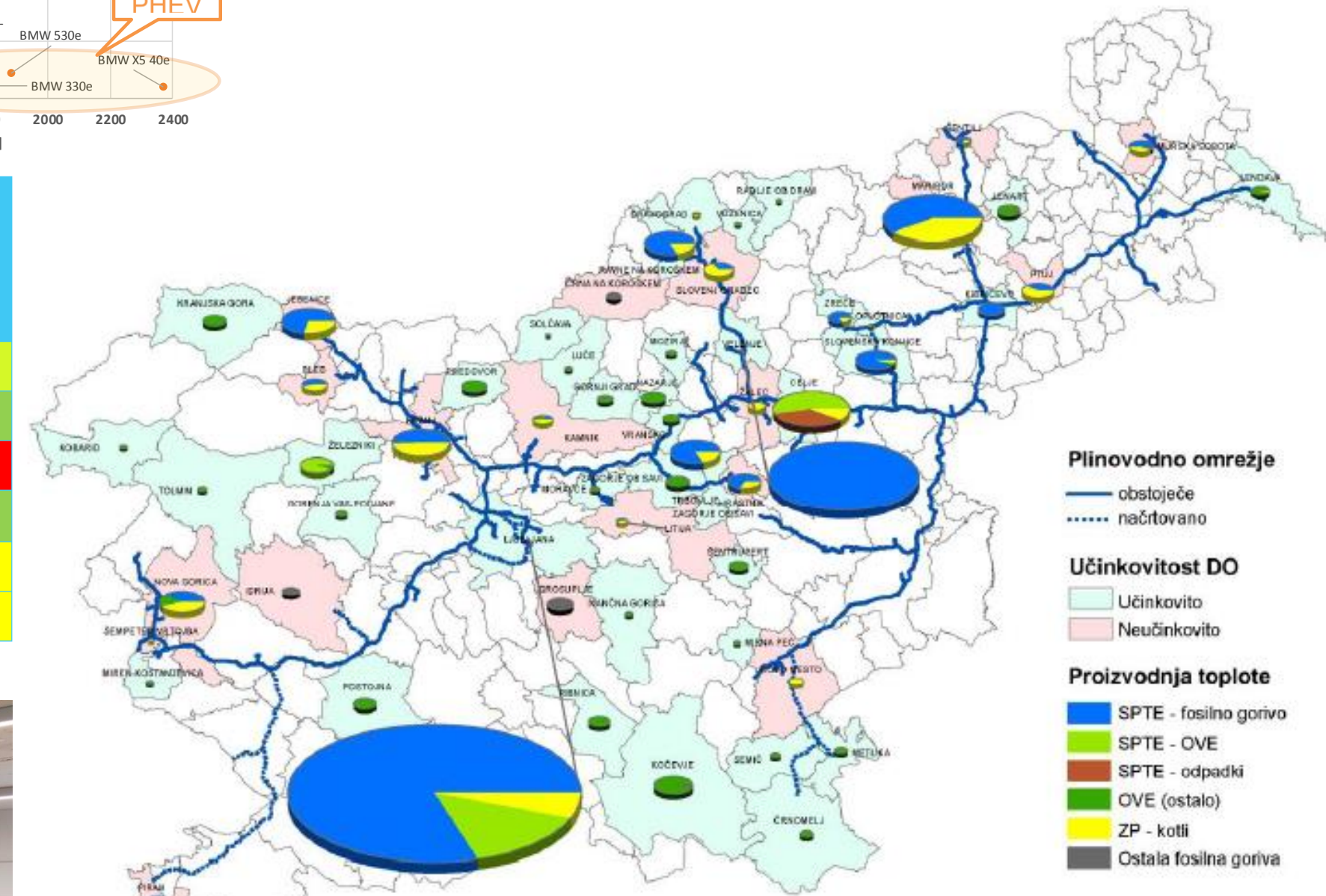


# The Climate Action Mirror Measures in focus

- Detailed analysis of selected measures due to their under-achievement in terms of expected effects and implementation dynamics
- 3 measures in each annual cycle, 9 measures altogether
- Significant response from the general public and the press (energy poverty, electric mobility, supporting companies in the transition to a low-carbon society, green fiscal reform, the energy renovation of central government buildings)



Element vrednotenja	Projekt ZERO	Nepovratne finančne spodbude socialno šibkim občanom za zamenjavo starih kurilnih naprav na trdna goriva	Nepovratne finančne spodbude socialno šibkim etažnim lastnikom za naložbe v večjo energijsko učinkovitost starejših večstanovanjskih stavb
Relevantnost	VISOKA	SREDNJA	SREDNJA/VISOKA
Učinek	SREDNJI	NIZEK	VISOK
Efektivnost	NIZKA	NIZKA	NIZEK
Dolgoročnost učinka	NIZKA/NI PODATKA	VISOKA	VISOKA
Prilagodljivost	SREDNJA	SREDNJA	SREDNJA
Predvidljivost	NIZKA	SREDNJA	SREDNJA



Projekt LIFE ClimatePath2050 (LIFE16 GIC/SI/000043) je financiran iz finančnega mehanizma LIFE, ki ga upravlja Evropska komisija, in iz Sklada za podnebne spremembe Ministrstva za okolje in prostor RS.





# The Climate Action Mirror Conclusions

- Developed in **3 annual cycles**
- Prepared in **close consultation with stakeholders** and including **a wide network of experts**
- Encouraging policymakers to use available analyses and results more **to track the progress of the implementation of climate actions**
- **Recommendations** for the design of short-term corrective actions, thus implementing a **PDCA ('plan-do-check-act') cycle**, for which the **active participation of stakeholders is essential**
- Good basis for climate-related monitoring and reporting under the **decarbonization and energy efficiency dimensions** of the Slovenian NECP
- Already began „after LIFE“: **The Climate Action Mirror 2021 and 2022 (MESP)**

<https://podnebnapot2050.si/results-for-slovenia/annual-climate-action-mirror/?lang=en>

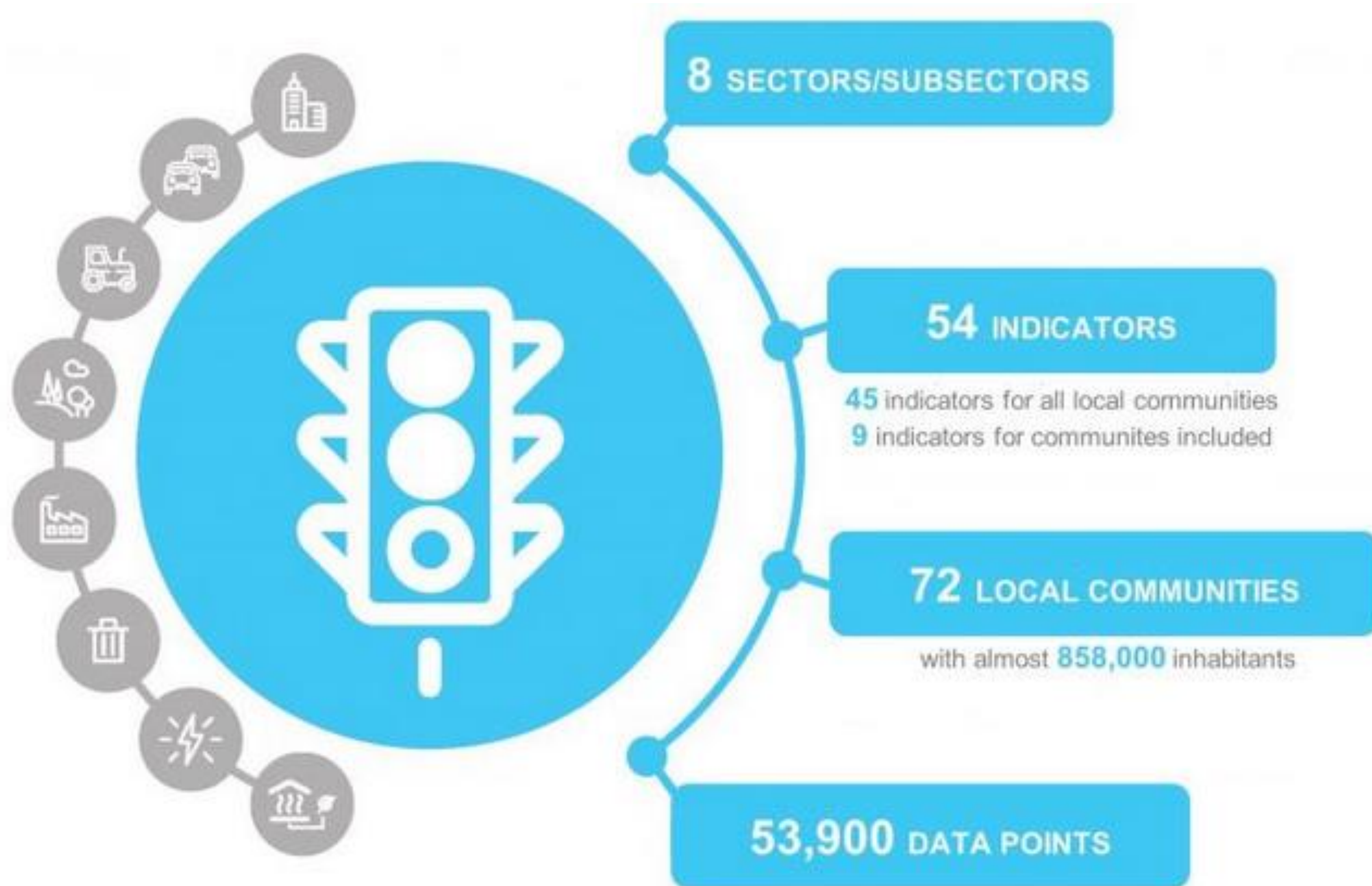
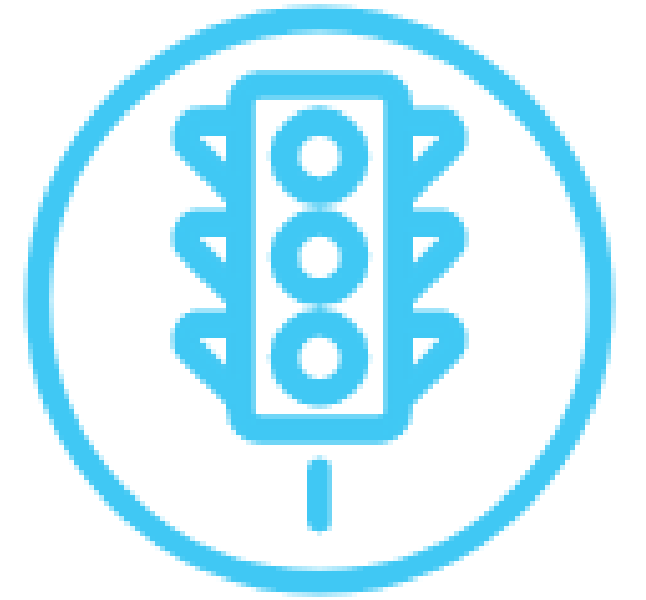
<https://podnebnapot2050.si/rezultati-slovenije/letno-podnebno-ogledalo/>





# The Local Climate Action Scoreboard

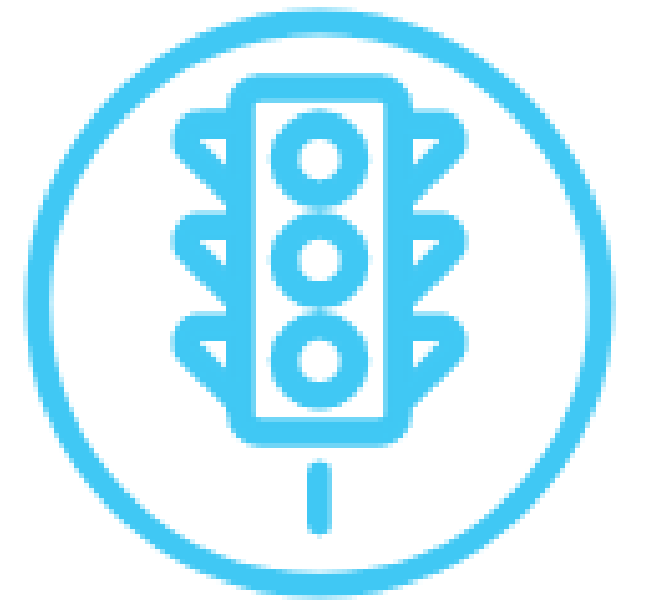
## Think global, act local!



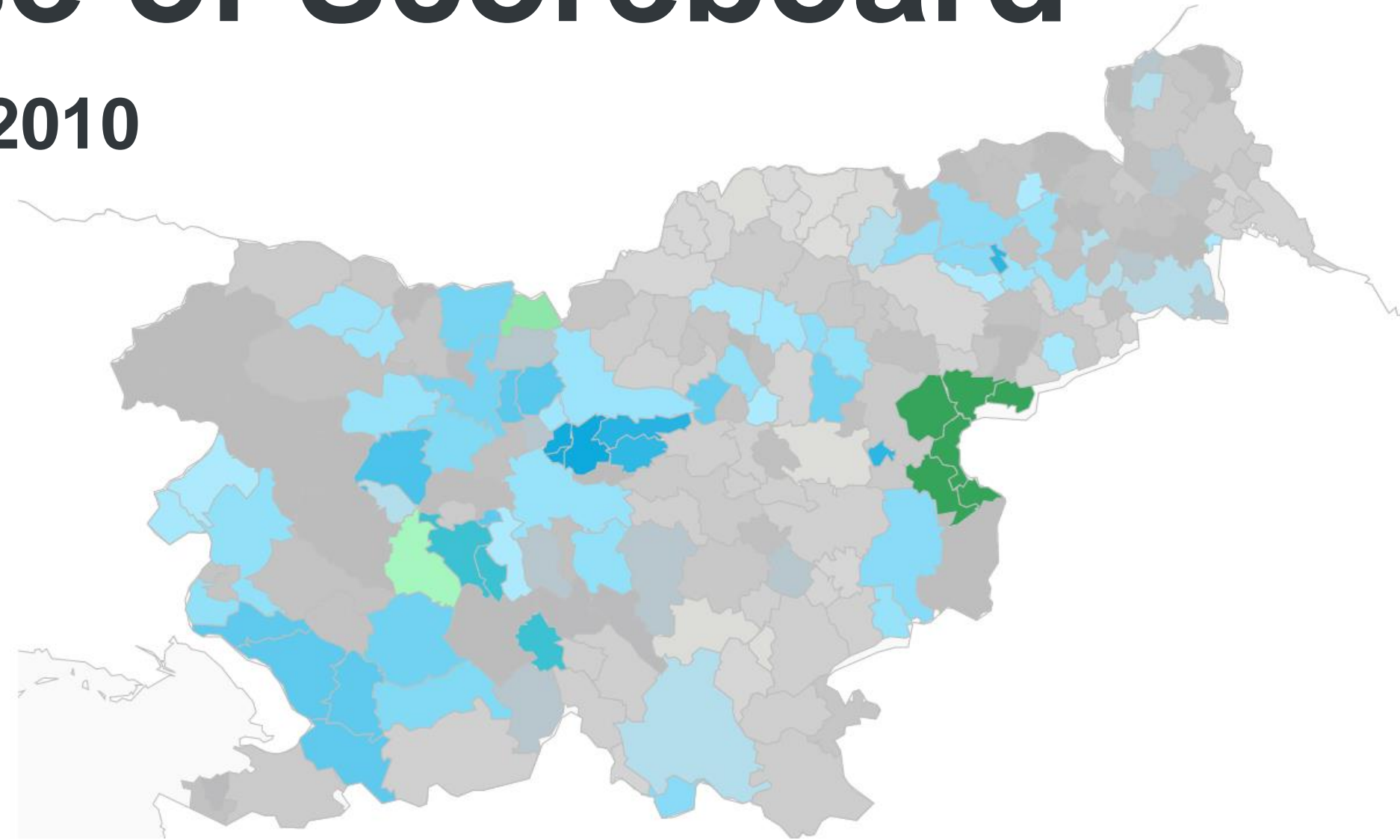


# The Local Climate Action Scoreboard

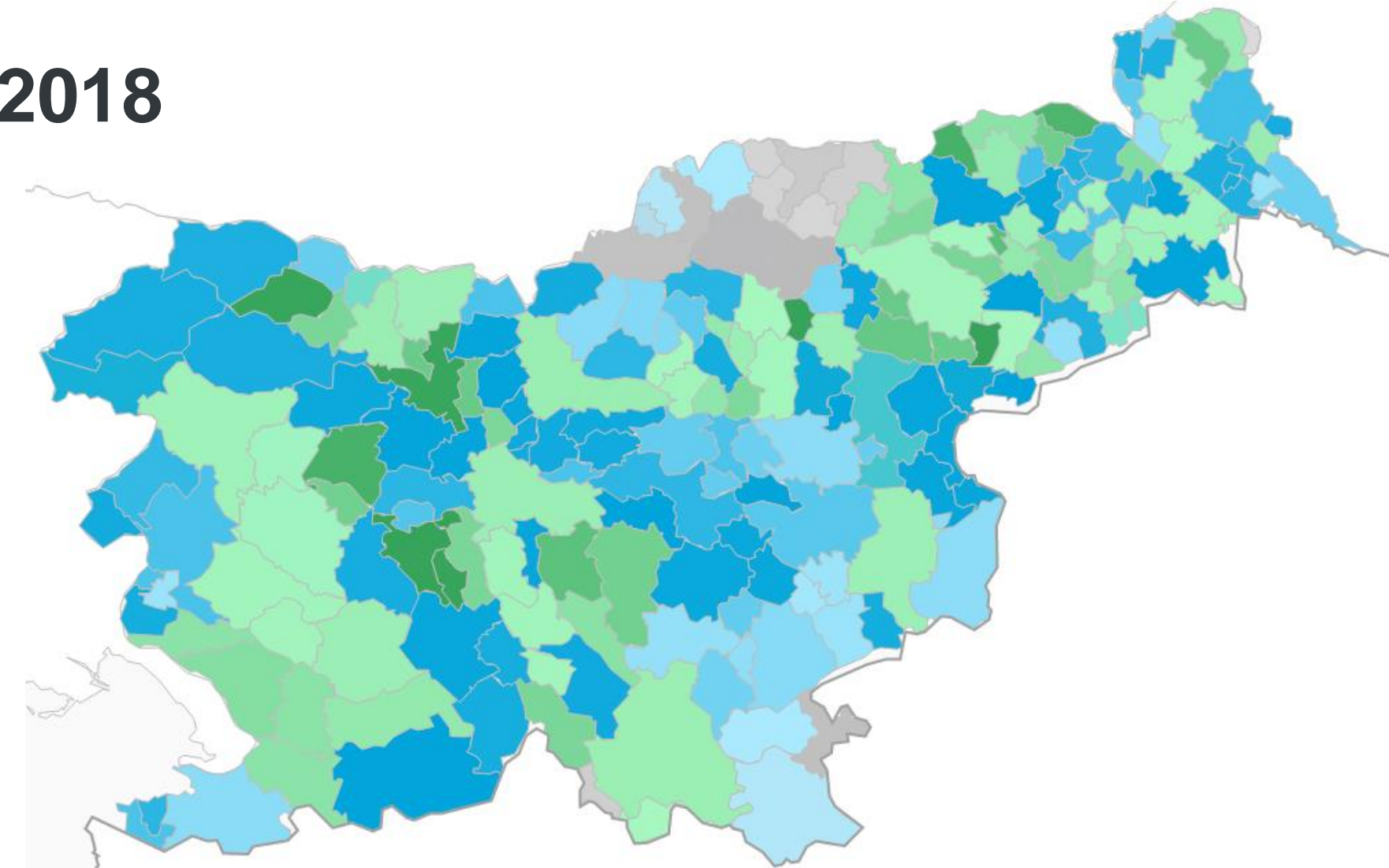
## Use of Scoreboard



2010



2018



The Scoreboard presents data in **maps, graphs and tables**.  
It enables municipalities to:

- track their own progress
- compare with other municipalities
- access and export the data to make own analyses



# The Local Climate Action Scoreboard

## Conclusions

- Supports municipalities in **monitoring their climate activities** and progress
- Provides the information on the current situation and trends which can be used for **more comprehensive local planning** (for example for the preparation of local energy concepts)
- It can be used as the **basis for the exchange of ideas and experiences** between municipalities, which have good results in individual areas
- It is a tool that **encourages municipalities** for the implementation of climate activities and monitoring of measures



<https://podnebnapot2050.si/results-for-local-communities/local-climate-action-scoreboard/?lang=en>

<https://semafor.podnebnapot2050.si/>



# Thank you for your attention!

Barbara Petelin Visočnik  
[barbara.visocnik@ijs.si](mailto:barbara.visocnik@ijs.si)