

HOW SETTING UP AN EMAS CHANGES YOUR OPERATIONS:

THE ENERGY COMMUNITY SECRETARIAT`S STORY ON ASPECTS, IMPACTS, RULES & CHECKS



#EUSEW2024

Energy Community Secretariat`s EMAS Team



SUSTAINABLE
ENERGY WEEK

- **KEYNOTE SPEECH**

Ms. Claudia Canevari, Head of Energy Efficiency Unit, DG ENER

- **What is EMAS? What is it good for? What are the steps?**

Ms. Naida Taso, Renewable Energy Expert, ECS

- **A staff member's story: EMAS all day long**

Ms. Mariam Darchia, Intern at European Green Deal Unit, ECS

- **Secretariat's key EMAS actions / performance / achievements**

Mr. Peter Vajda, Senior Environmental Expert, ECS

- **In focus: Secretariat's energy management**

Mr. Borko Raicevic, Senior Energy Efficiency Expert, ECS

- **EMAS Statement: everything you need to know about reporting & synergies**

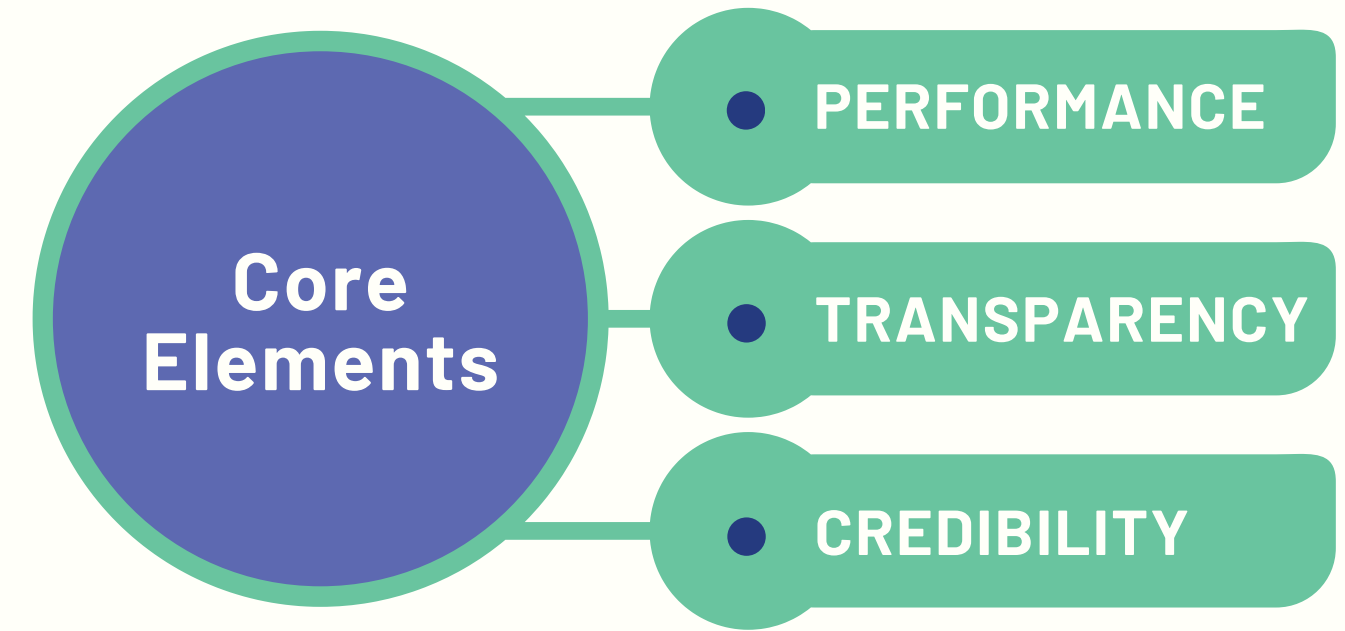
Ms. Heli Lesjak, Information and Internal Sustainability Officer, ECS

- **OPINION POLL**

- **Q&A SESSION**



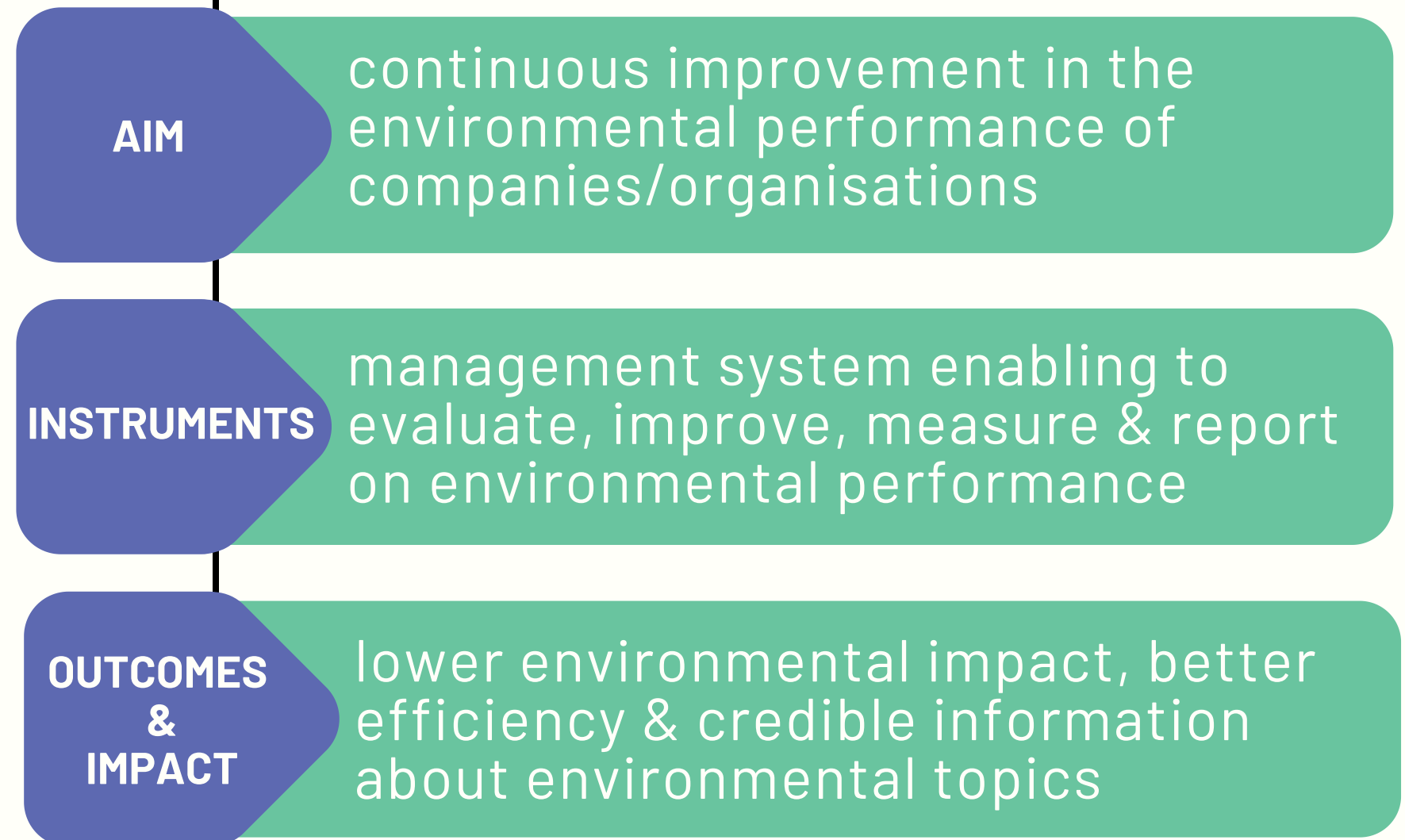
WHAT IS EMAS?

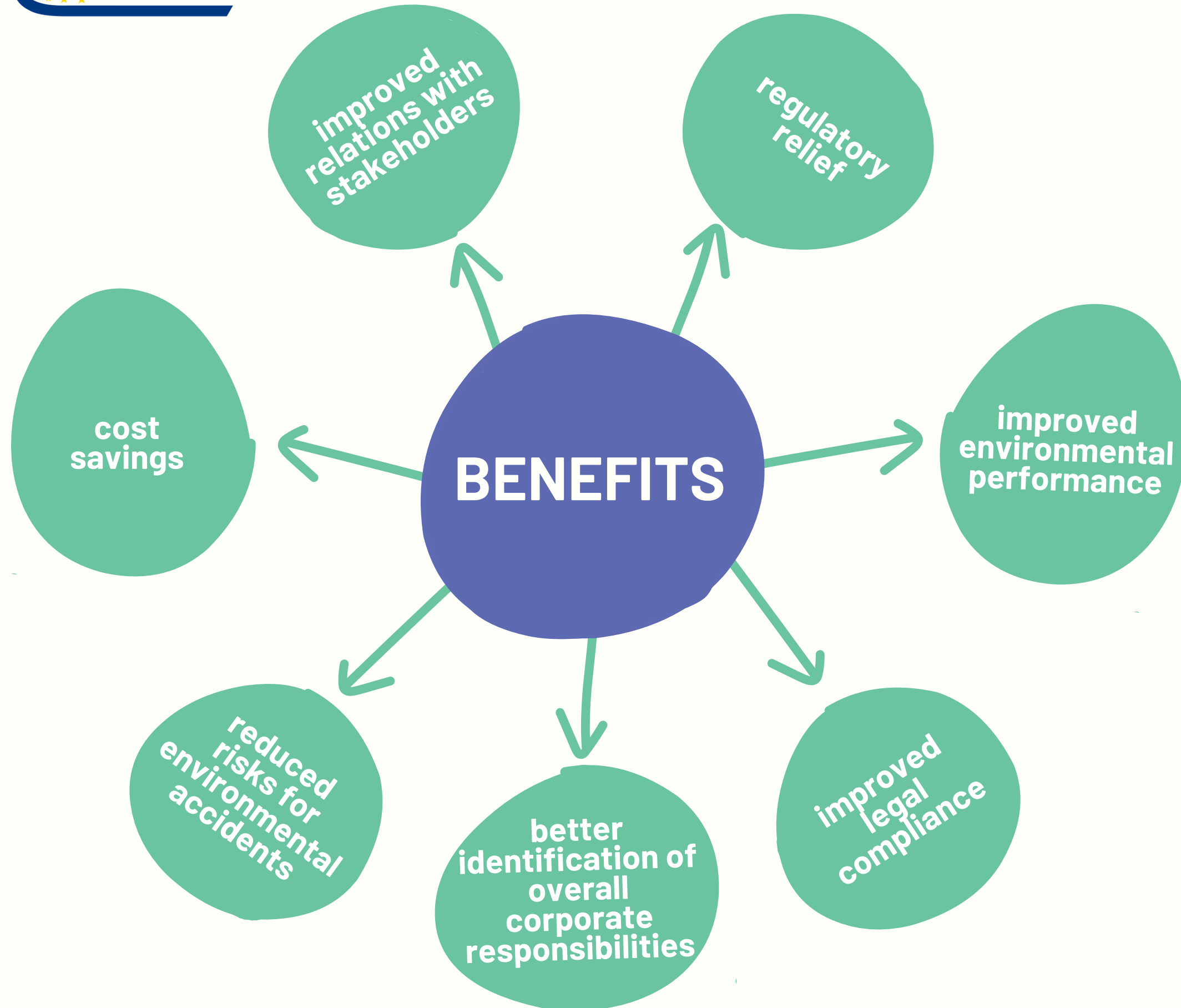


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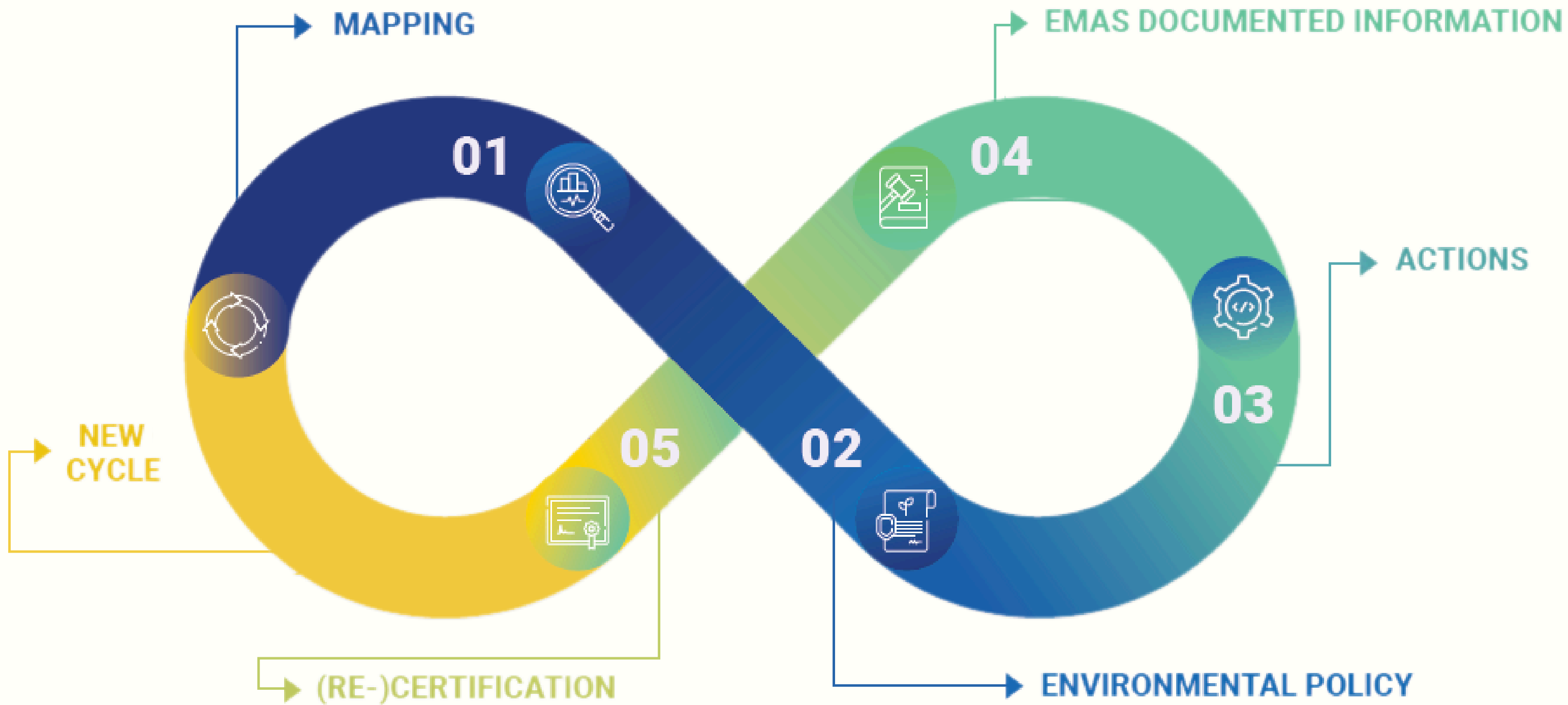
A voluntary premium environmental management tool for organisations designed by the European Commission

”





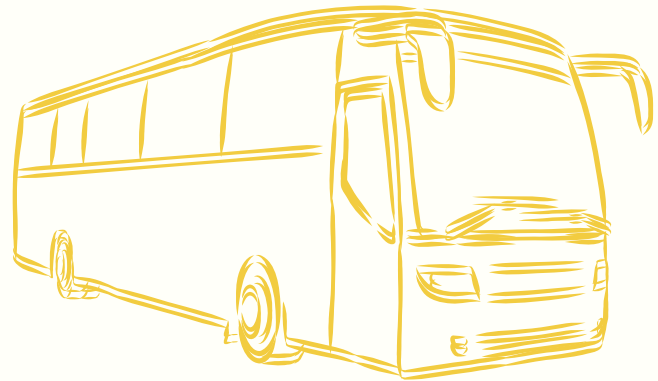
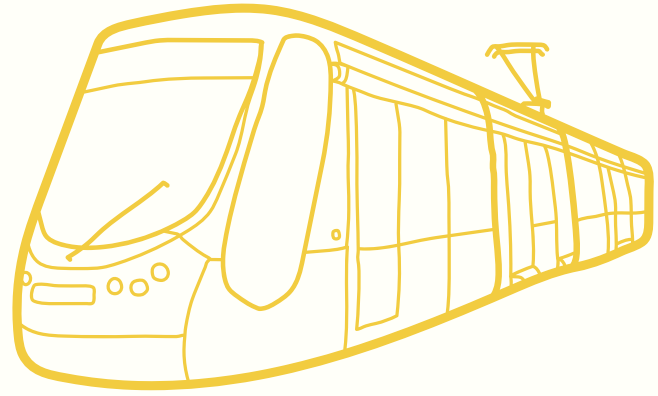
BENEFITS OF SETTING UP AN EMAS



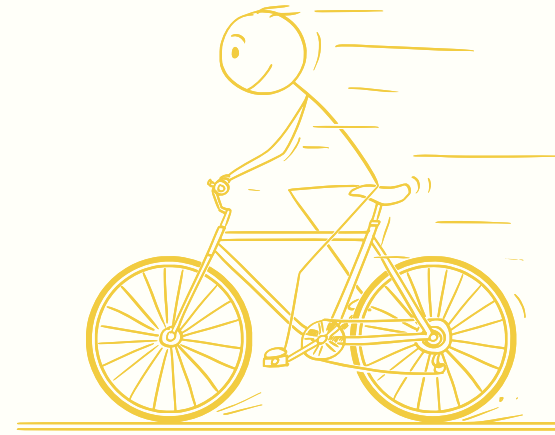
#EUSEW2024

EMAS STEPS EXPLAINED

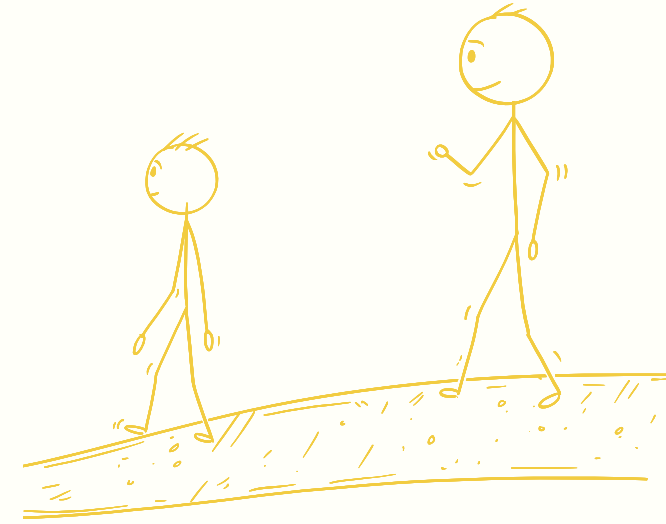
TAKING A PUBLIC TRANSPORT



RIDING A BIKE



WALKING



CLIMBING STAIRS



EMAS ALL DAY LONG (PART 1)



**DRINKING
TAP WATER**

EMAS ALL DAY LONG (PART 2)

**SEPARATING AND
DISPOSING WASTE**

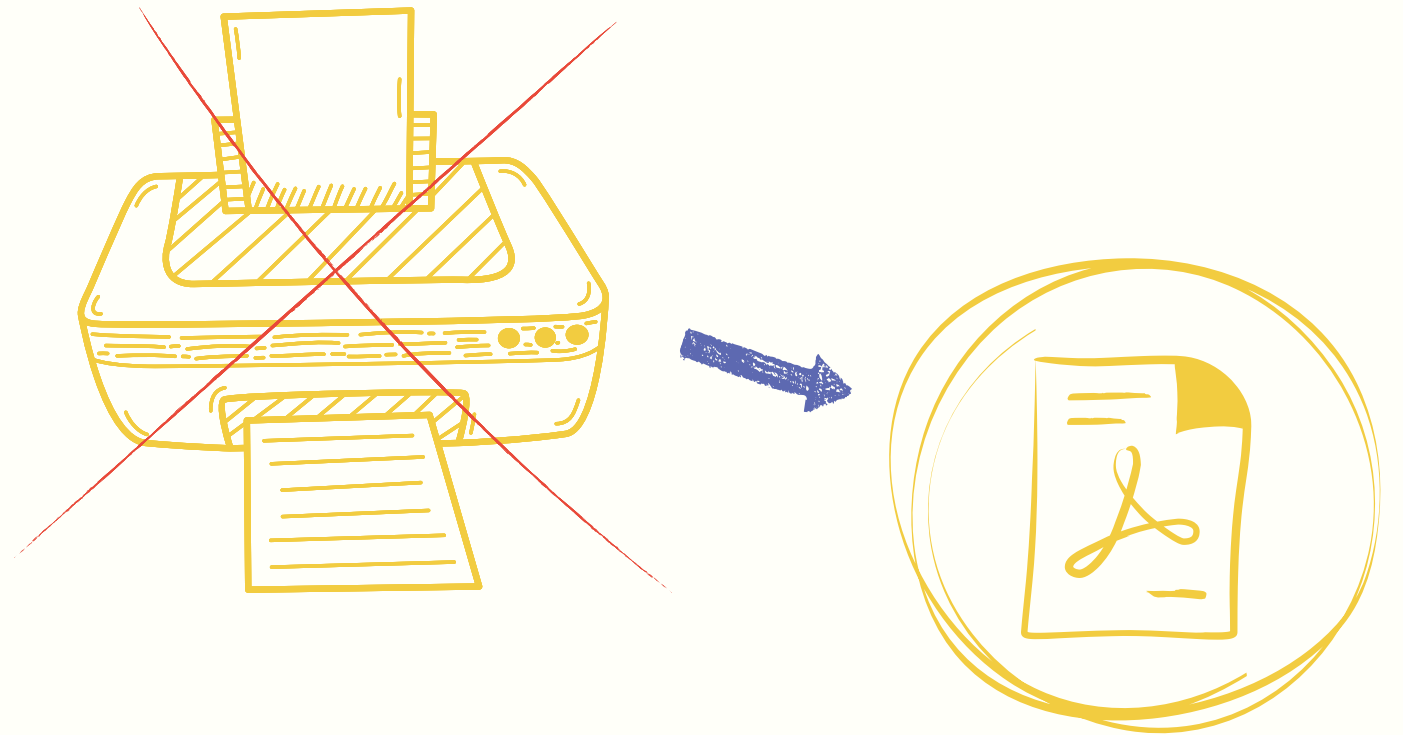


**LIMITED PRINTING,
WORKING IN DIGITAL DOCS**

EMAS ALL DAY LONG (PART 3)



**ALWAYS SWITCHING OFF THE
LIGHTS BEFORE LEAVING**



WHAT ARE THE EMAS KEY ACTIONS?



Event management based on hybrid events principle



Only eco-friendly goods & services are procured



100% renewable energy, efficient LED lighting and smart H&C system



Water conservation, waste separation and disposal measures in place



SUCCESSFULLY COMPLETED ACTIONS INCLUDE:



GREEN HOTELS

list of recommendation published/circulated.

Hybrid / onsite event invitations with a sentence prompting to

BOOK VIA ECS GREEN HOTEL recommendations list



First participation to

EUROPE-WIDE EMAS SOCIAL MEDIA CAMPAIGN

#EMAShero

To increase
ENERGY EFFICIENCY,



SYSTEMATIC FITNESS CHECKS

of the electric equipment in the three office kitchens.



REPLACEMENT OF SERVER ROOM A/C EQUIPMENT



Changed approach to IT hardware disposal:

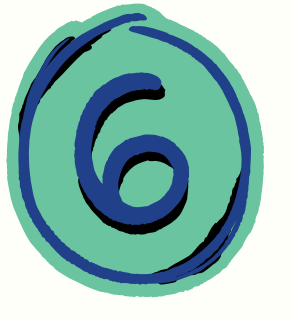
NO INTERNAL AUCTIONS, BUT DISPOSING TO VIENNESE CHARITIES



Web further development project: to establish

SYSTEM OF RECORDS

to calculate the not flown km / not emitted CO₂ by ECS participants



**TRAVEL
AND GHG
EMISSIONS
SAVINGS**

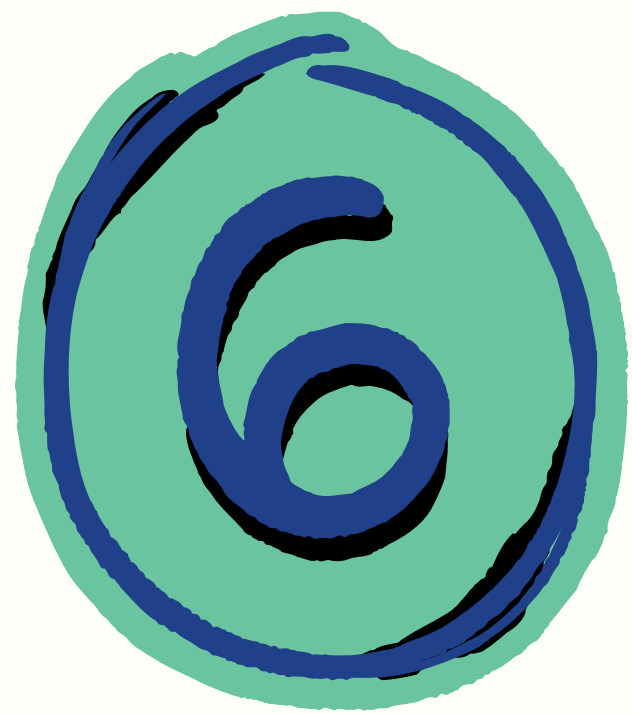
**SUSTAINABLE
EVENT
MANAGEMENT**

**ENERGY
CONSUMPTION**

**WASTE AND
DISPOSAL**

**MATERIAL
CONSUMPTION**

**SUSTAINABLE
PROCUREMENT**



KEY PERFORMANCE INDICATORS (KPIs)

TRAVEL AND GHG EMISSIONS SAVINGS

CONTROLLING:

Action for the staff: promoting video conferencing as an alternative to travelling; prioritizing travelling by train whenever possible

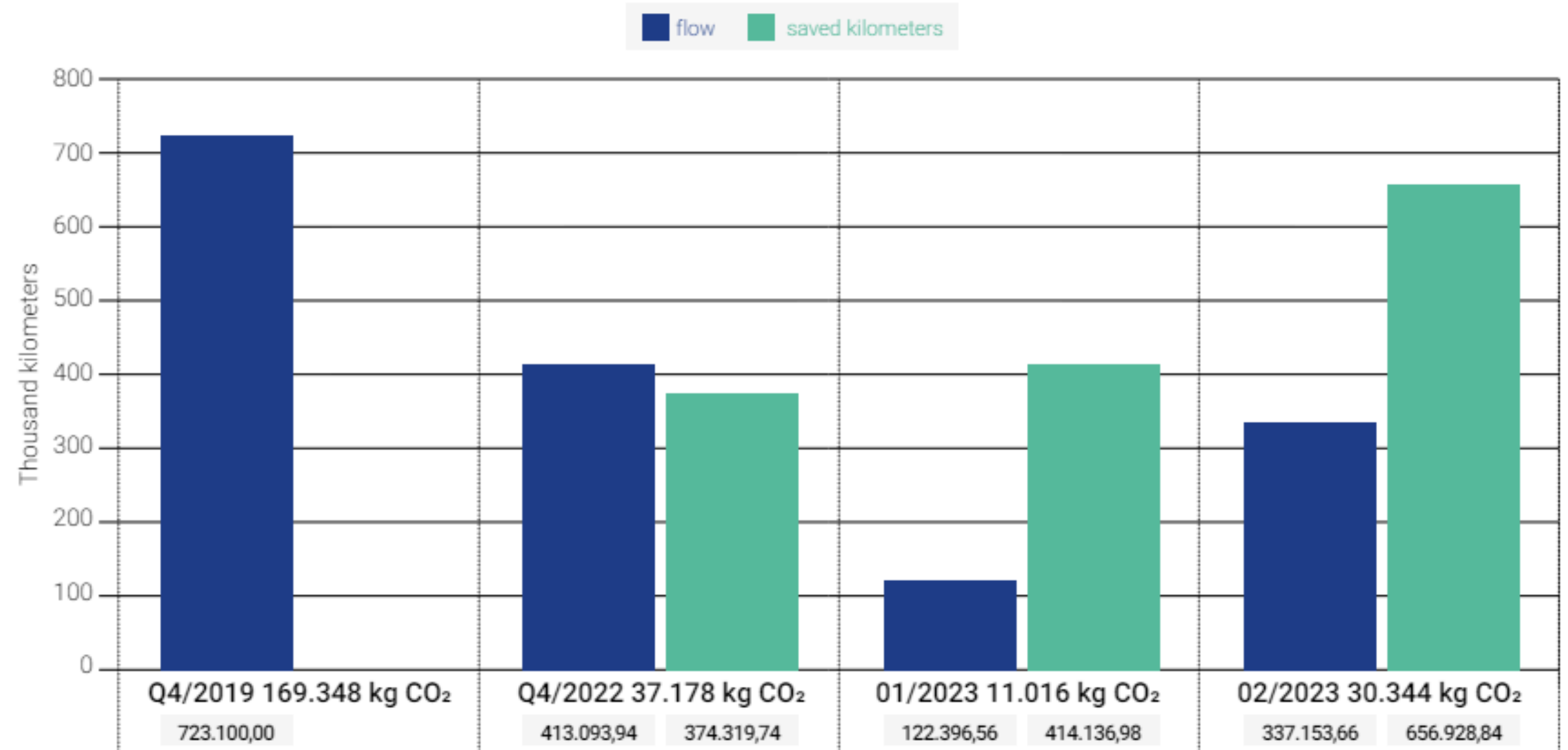
INFLUENCING:

Online event registration tool upgraded to calculate the flown/not flown km per participant

Q4/2022 - Q2/2023 flown and saved kilometers

by Secretariat's event participants

compared to Q4/2019 baseline: 100% onsite events



Q4/2019 169.348 kg CO₂

723.100,00

Q4/2022 37.178 kg CO₂

413.093,94

374.319,74

01/2023 11.016 kg CO₂

122.396,56

414.136,98

02/2023 30.344 kg CO₂

337.153,66

656.928,84

MATERIAL CONSUMPTION AND SUSTAINABLE PROCUREMENT

- purchasing 100% recycled copy/print paper
- EMAS team sharing practical tips how to reduce printing

- the volume of purchased paper decreased way below in comparison to pre-Covid levels

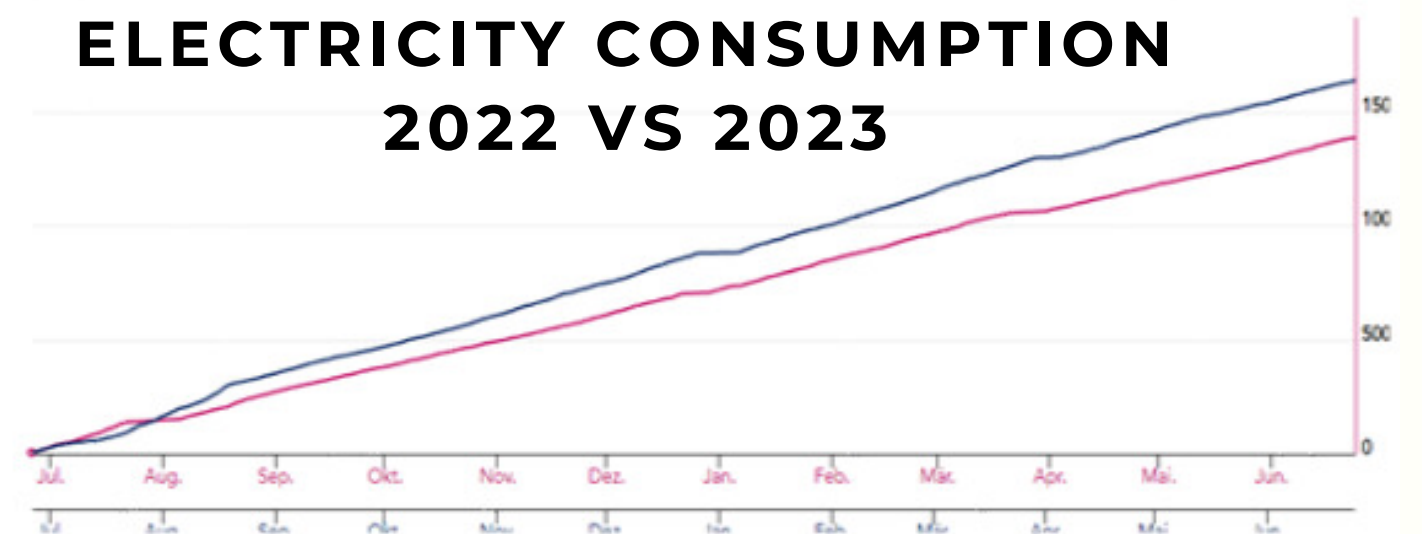
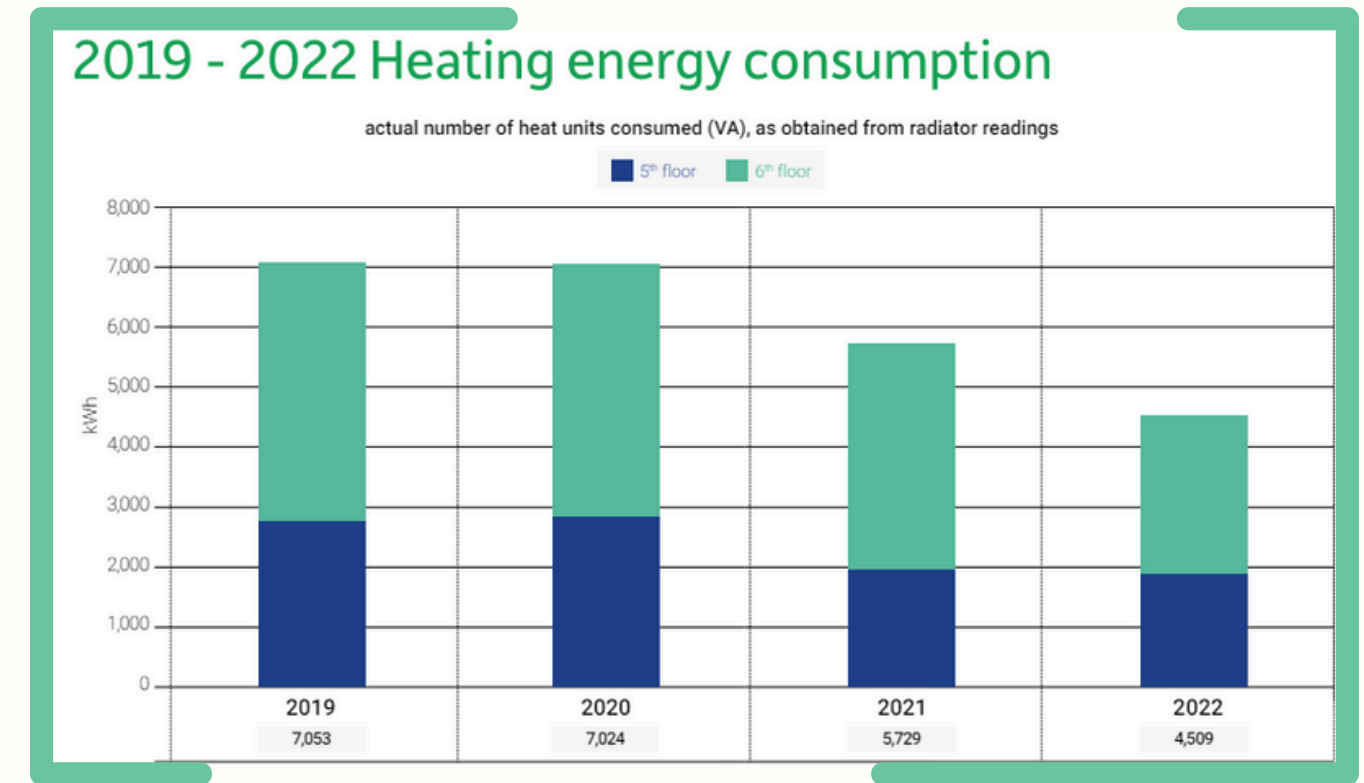
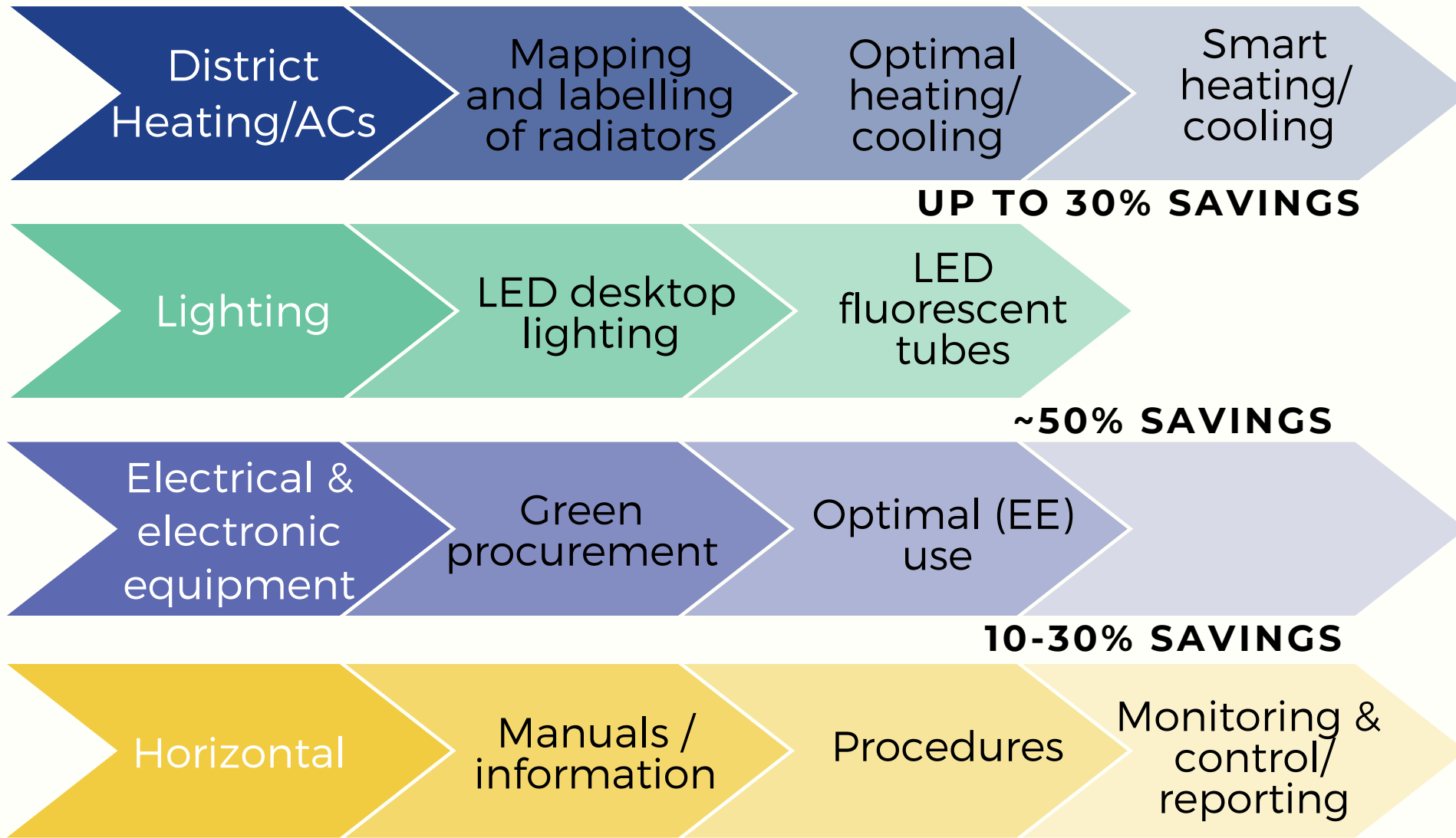
- even more drastic fall was observed in the volume of printed reports

ECS's EMAS environmental performance indicators: 2017-2022 Material efficiency							
Material efficiency		2017	2018	2019	2020	2021	2022
Purchased office paper	sheets	220,500	178,000	121,250	152,500	60,250	72,500
	sheets per person per year	5,335	4,147	3,044	4,075	1,483	1,693
	Share of recycled paper %	0%	0%	0%	21%	99.6%	86.2%
Material efficiency		2017	2018	2019	2020	2021	2022
Printed report pages	pages	613,200	1,721,600	239,200	22,300	42600	85200
	pages per person per year	14,837	40,112	6,006	596	1,048	1,989
	Share of recycled paper %	0	0	0	100	100	100

SECRETARIAT`S ENERGY COSTS



ENERGY EFFICIENCY MEASURES



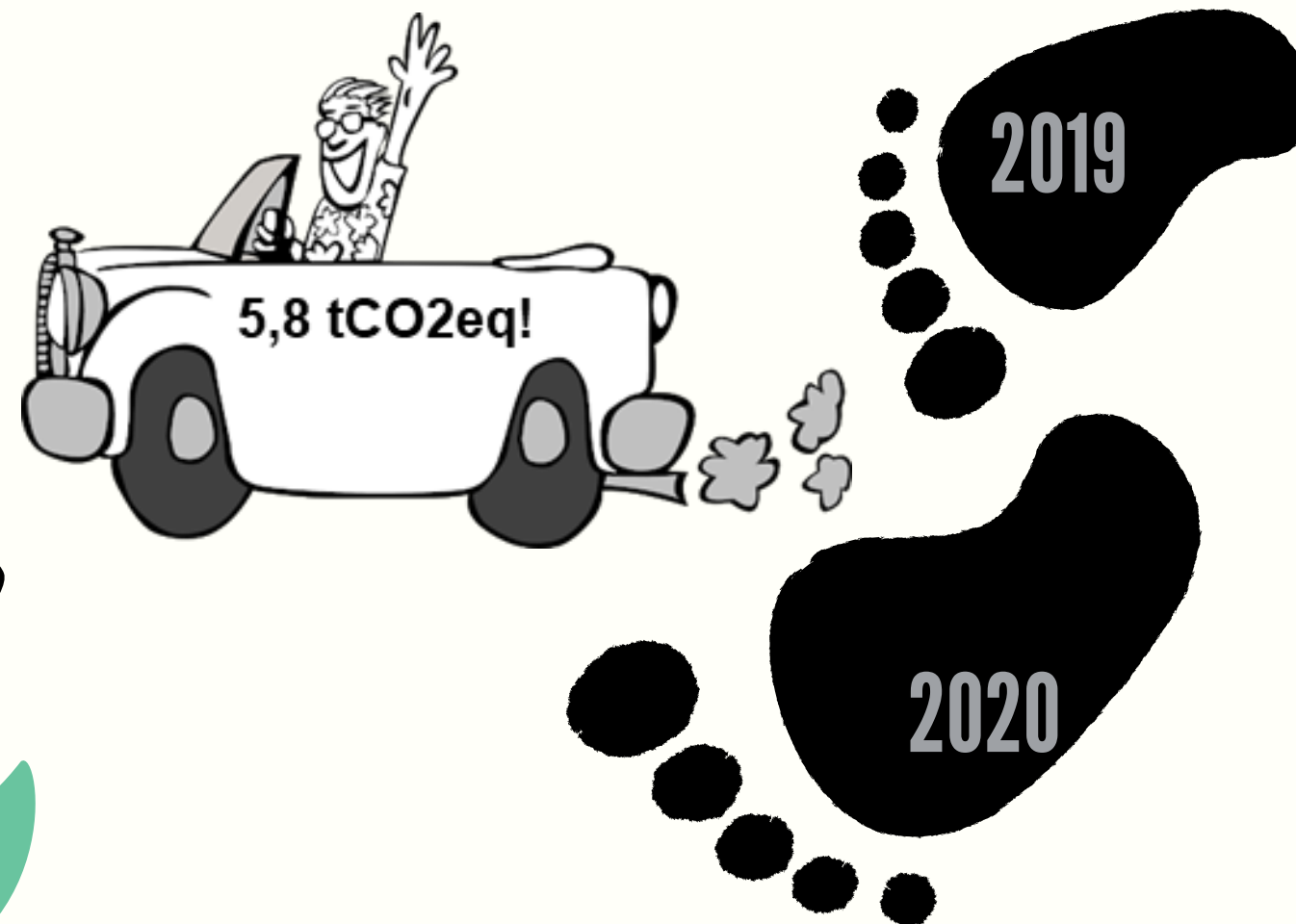
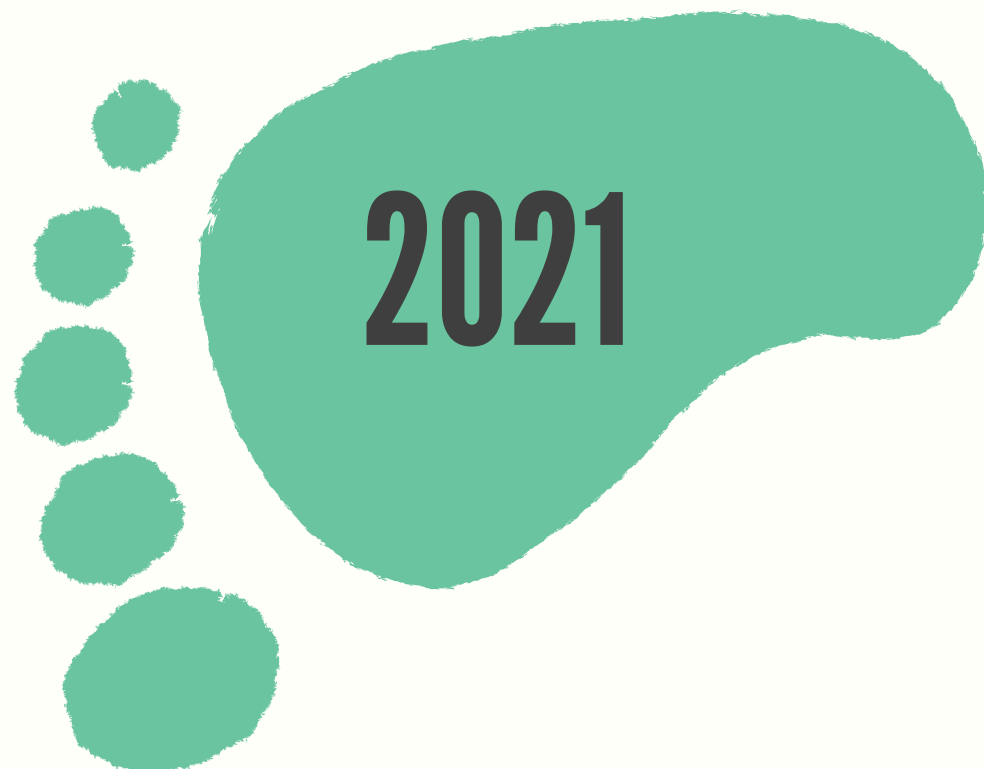
ENERGY EFFICIENCY MEASURES AND RESULTS

SECRETARIAT'S ELECTRICITY SUPPLY GOES 100% GREEN

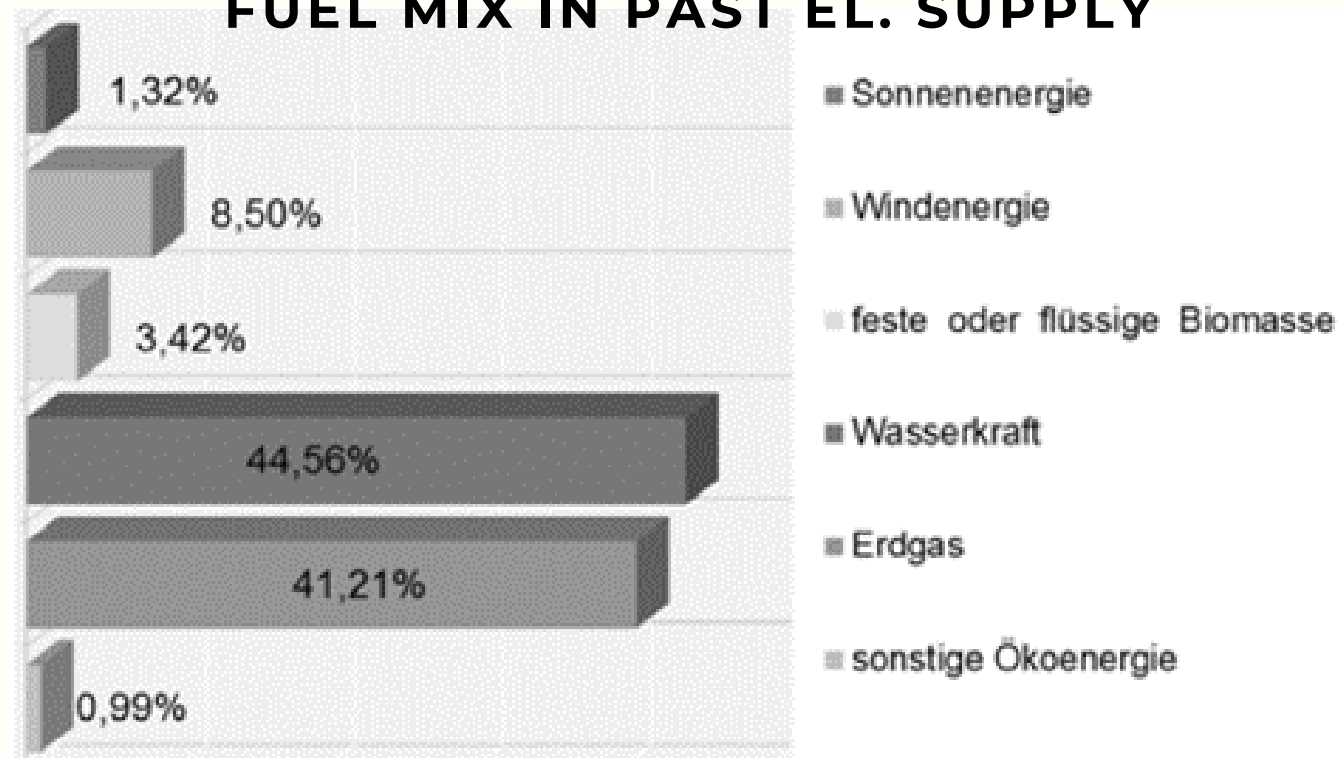
easygreenenergy strom future:



- 68,12 % Wasserkraft
- 31,88 % sonstige erneuerbare Energie
 - 21,91 % Windenergie
 - 6,46 % Sonnenenergie
 - 2,57 % feste und flüssige Biomasse
 - 0,94 % sonstige Ökoenergie



FUEL MIX IN PAST EL. SUPPLY



100% LED LIGHTNING PROJECT

Research and 3w testing (light intensity, color, comfort)

Replacement of 165 old fluorescent tubes (5th floor) with LED

Waste disposal in cooperation with manufacturer

CHARACTERISTICS OF NEW LED:



- Highest A++ class - 55% more efficient
- No flickering and right cool white colour (4000K) - ideal for offices
- Average duration: 60 000 h and 5 y guarantee (3 times more than old, > 15 years)
- Adjustable position (up to 160° angle)

COSTS / SAVINGS / PBP

Tubes 60cm (pcs)	62
Tubes 150cm (pcs)	103
Electricity price - last bill (eur)	0,20
Average working hours of bulbs (h)	5
Consumption per year kWh OLD (kWh/y)	9217,0
Annual costs OLD (EUR)	1845,2
Consumption per year NEW (kWh/y)	3724,5
Annual costs NEW (EUR)	745,6
Annual savings kWh	5492,5
Annual savings EUR	1099,6
Investment costs for purchase of new LED tubes (EUR)	2000,0
Payback period (years)	1,8
Addition savings due to 3 x greater lifespan (cover instalation costs)	716,3

NEXT STEPS

Corridor light optimisation and control

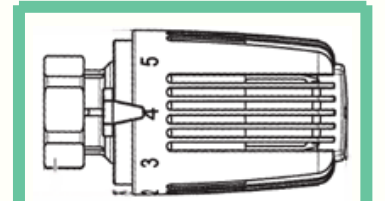
Split light switching in some offices

Integration of lighting in smart app

ENERGY MANAGEMENT - SMART HEATING SYSTEM

BEFORE

MANUAL REGULATION OF TEMPERATURE

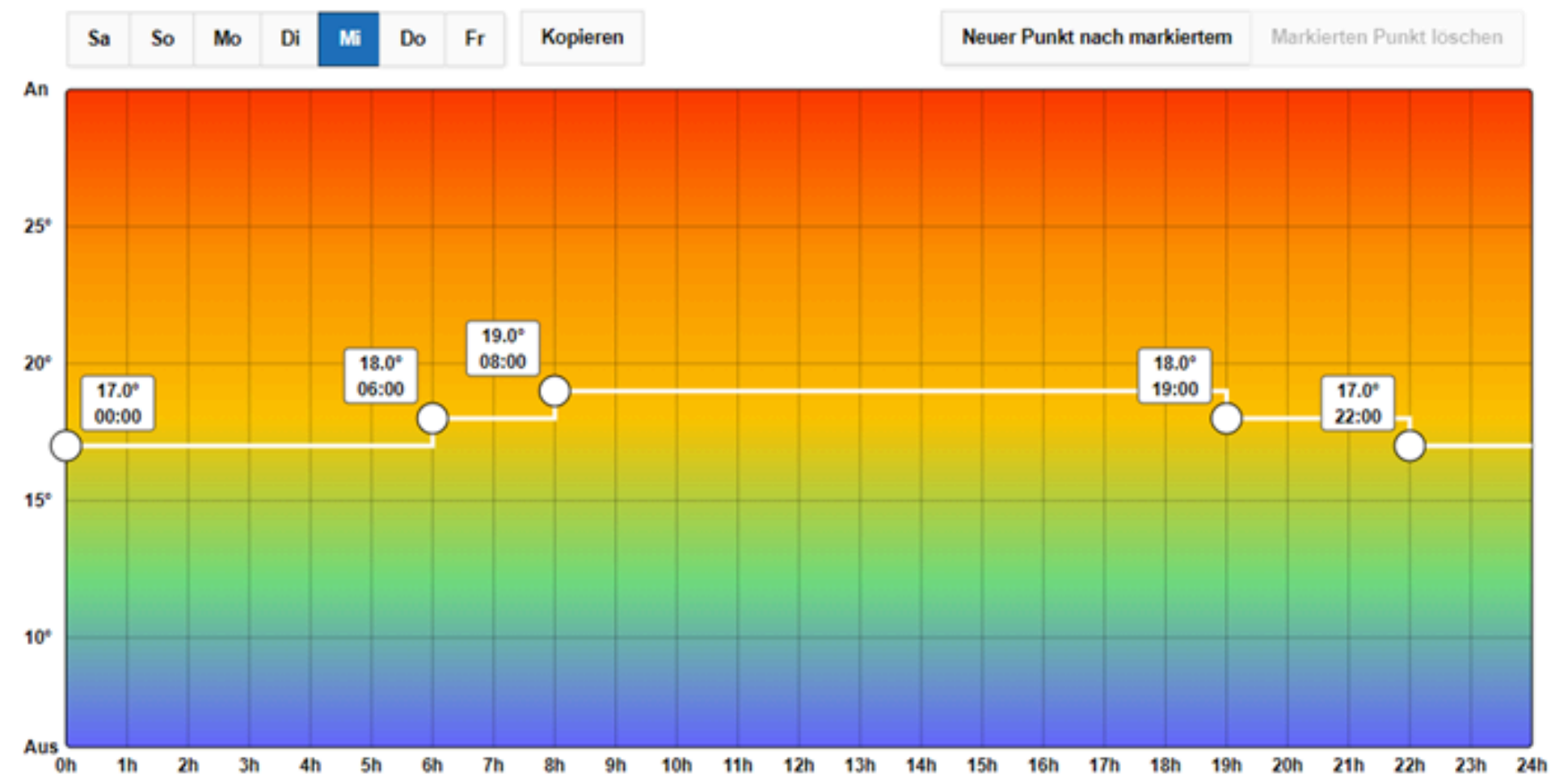


Markierung	*	1	2	3	4	5	6
°C	6	9,5	13	16,5	20	23,5	28

SMART HEATING SYSTEM



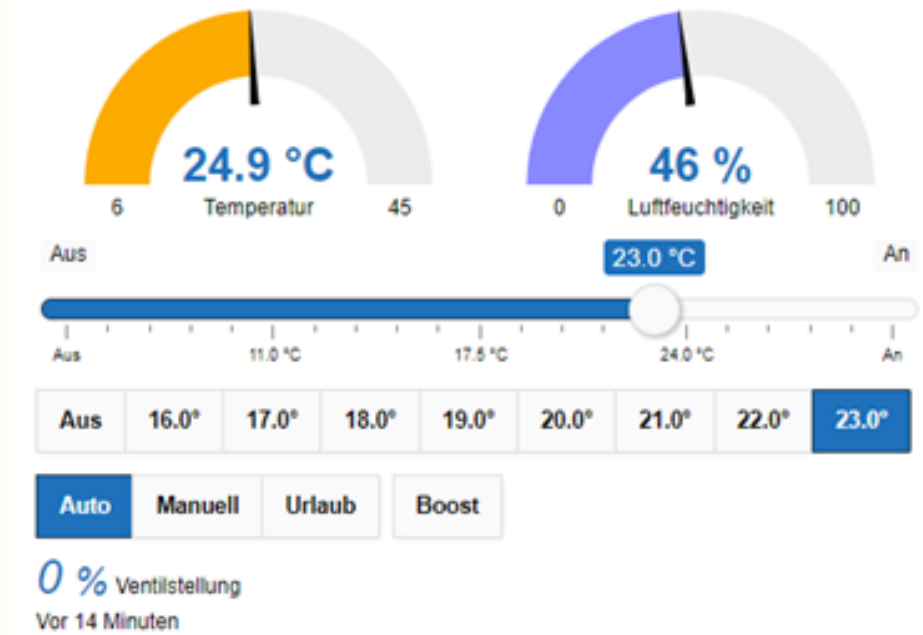
- Automatic regulation
- Up to 30% reductions
- Humidity increased 10-20% (now between 45-55%)
- Easy app and central monitoring



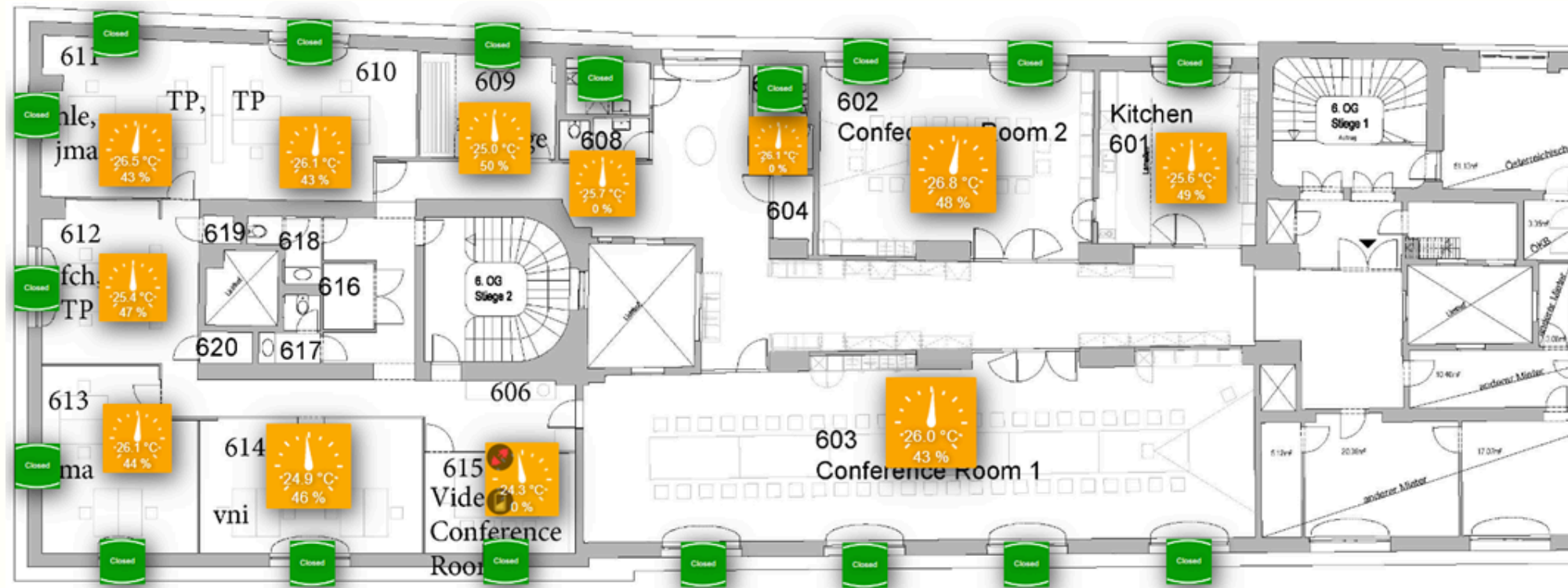
AFTER

ENERGY MANAGEMENT - SMART HEATING SYSTEM

OFFICE LEVEL (WEB/APP)



MONITORING & CONTROL - FLOOR LEVEL (WEB)



DEVICE LEVEL (WEB/APP)

- HTH 615 5254**
 Batteriestand niedrig (2xAA)
 18.05.2024 17:17:28
- HTH 615 5254**
 Kommunikation zur Zeit gestört
 19.05.2024 00:33:50

PLANS FOR ENERGY MANAGEMENT



COMPLETE ENERGY MANAGEMENT SYSTEM:

adding smart cooling system, and Integration of lighting and standby equipment



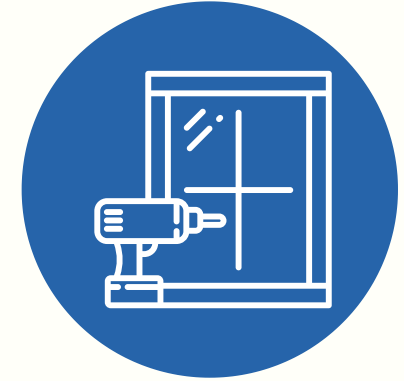
PV INSTALLATION ON THE ROOF TO GENERATE GREEN ELECTRICITY

there is good orientation and tilt of the roof to maximize solar gain



SMART HEAT PUMP-BASED H&C SYSTEM

heat pumps are highly efficient, leading to lower energy costs and a smaller carbon footprint



WINDOW UPGRADE OR PARTIAL REPLACEMENT WITH ENERGY-EFFICIENT WINDOWS

THE CORPORATE SUSTAINABILITY REPORTING DIRECTIVE (CSRD)

Key references to EMAS from CSRD

Recital 41

"...Standards should take account of Union environmental law, including EMAS Regulation..."

Article 29 point (b)

When adopting delegated acts pursuant to paragraph 1, the Commission shall, to the greatest extent possible, take account of EMAS Regulation

EUROPEAN SUSTAINABILITY REPORTING STANDARDS (ESRS)

Disclosure B1 - Basis for Preparation

Disclosure B2 - Practices for Transitioning towards a more sustainable economy

Environmental Metrics

B3 - Energy and greenhouse gas (GHG) emissions

B4 - Pollution of air, water and soil

B5 - Biodiversity

B6 - Water

B7 - Resource use, circular economy, and waste management

Social Metrics

B8 - Workforce - General characteristics

B9 - Workforce - Health and Safety

B10 - Workforce - Remuneration, collective bargaining, and training

B11 - Workers in the value chain, affected communities, consumers and end-users

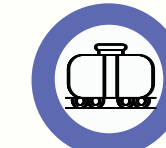
Governance Metrics

B12 - Convictions and fines for corruption and bribery

EMAS KPIs



ENERGY



MATERIAL USE



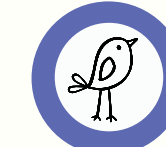
WATER



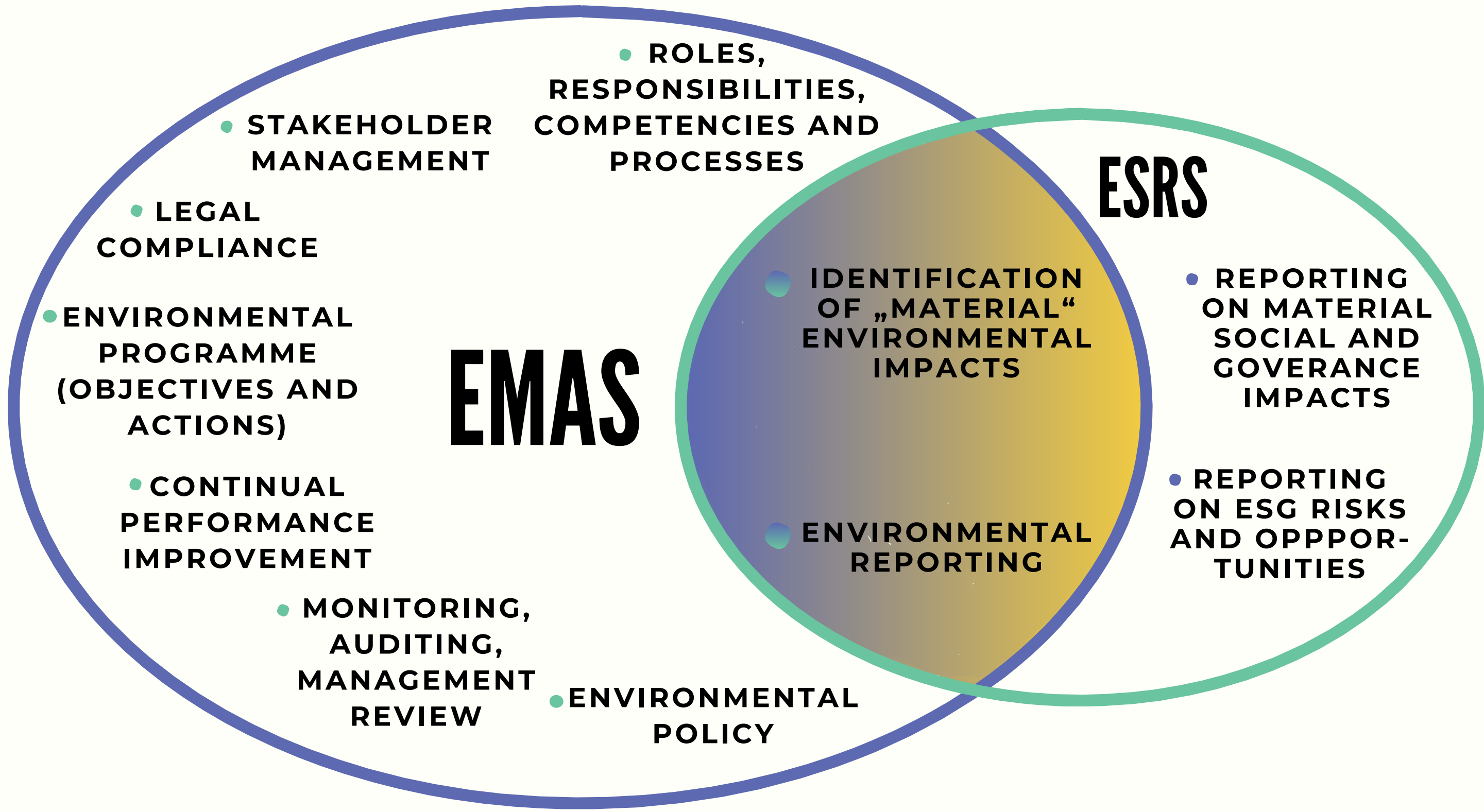
WASTE



EMISSIONS



BIODIVERSITY



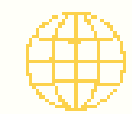
EMAS
is a tool for improving environmental performance, enabling to report progress.

MANAGEMENT SCHEME vs REPORTING STANDARD

REACH US



#EUSEW2024



www.energy-community.org



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