



Partner of green smart cities

SISMA, 21.06.2018

PETROL

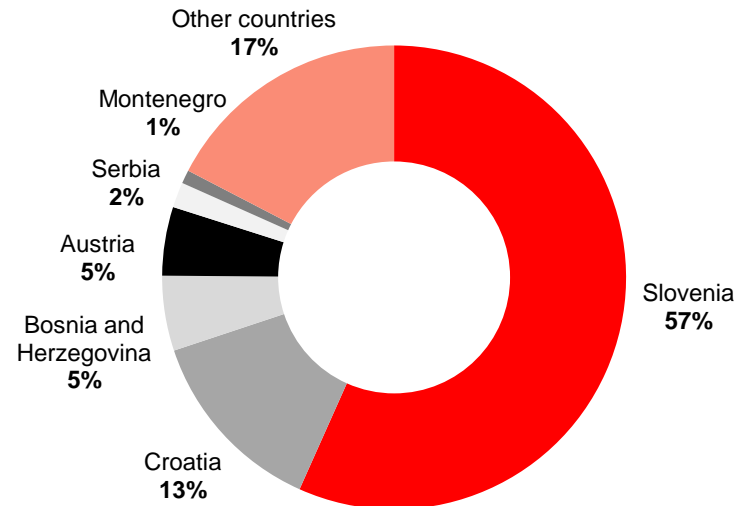
Energy for life

Interreg 
Mediterranean
 SISMA

INTRODUCTION OF THE PETROL

- The leading Slovenian energy company and the principal strategic supplier of petroleum products and other energy products in Slovenia.
- Main business areas: Sales of petroleum products, merchandise, LPG, natural gas and electricity, Energy and environmental systems and Trading activities.
- The largest company and largest group in Slovenia by turnover in 2015.
- The second largest company by market capitalization on the Ljubljana Stock Exchange as per 31.12.2016.
- The BBB- long-term (stable outlook) and A-3 short-term credit rating from Standard & Poor's.
- Employees: 4.250

Sales revenue in 2016: EUR 3,857 billion



THE PETROL GROUP – 27 COMPANIES IN 10 COUNTRIES

Country	Retail and wholesale				Utility, Energy & Environm. Systems	Trading	Production
	Petroleum products & merchandise	Natural gas	LPG	Electricity			
Slovenia	x	x	x	x	x	x	x
Croatia	x		x		x	x	x
BIH	x		x			x	x
Serbia	x	x	x	x	x	x	
Kosovo	x		x			x	
Montenegro	x		x			x	
Macedonia			x			x	
Austria	x					x	
Romania			x			x	
Czech Republic						x	
Germany	x					x	
Italy	x					x	
Hungary	x					x	
Slovakia	x					x	
Bulgaria			x			x	
Other countries*						x	

Note:

* Albania, Greece, France, Belgium, Switzerland

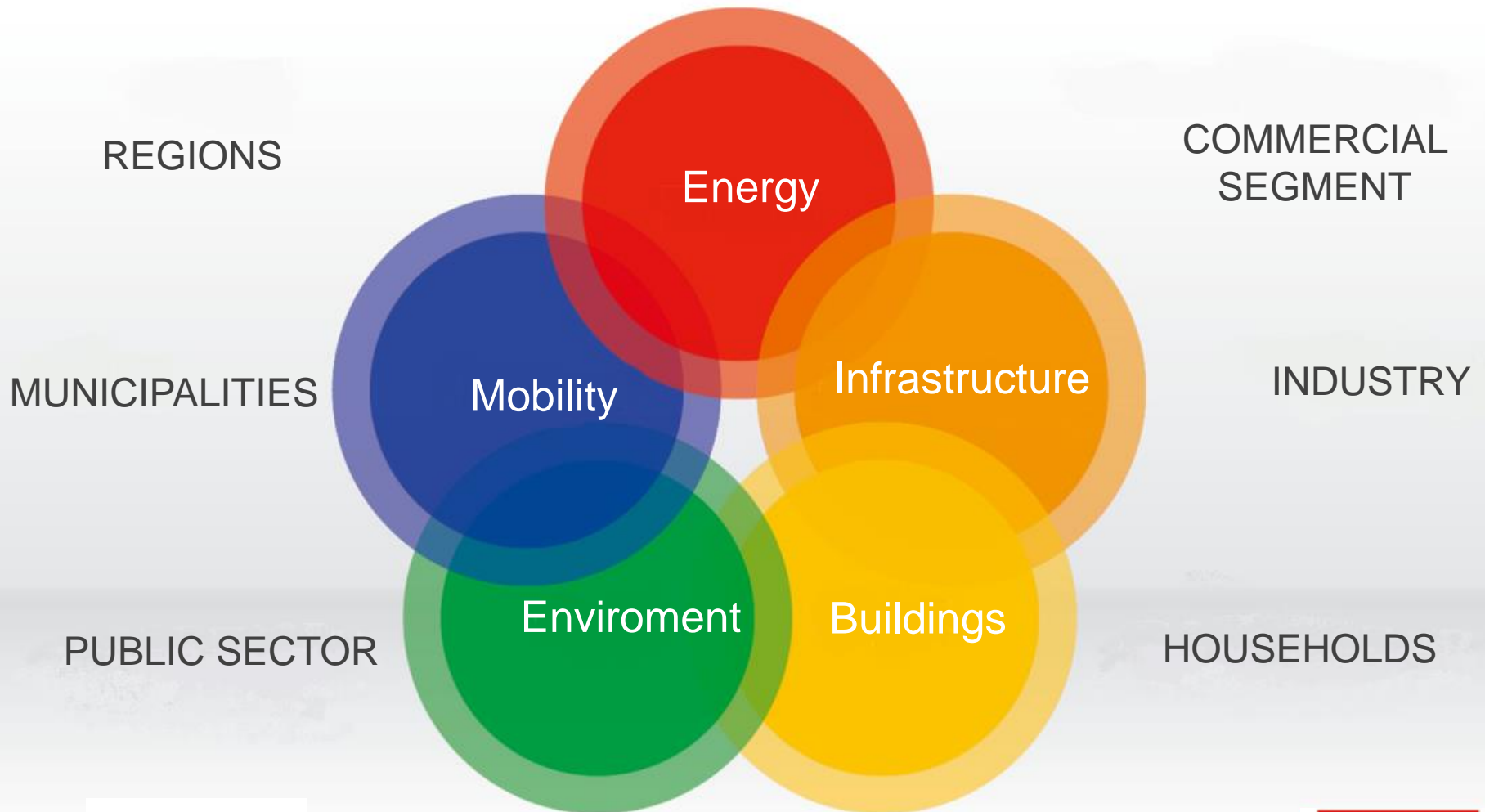
Legend:

x Physical presence

x Sales reach



COMPLETE SOLUTIONS



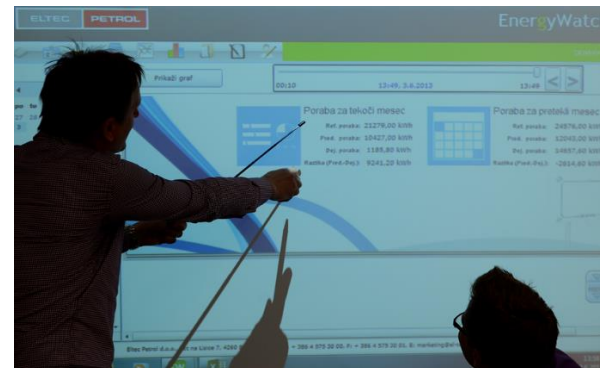


ENERGY MANAGEMENT
OF PUBLIC BUILDINGS
HISTORY&REFERENCES



FIRST ENERGY CONTRACTING PROJECT IN SLOVENIA 2002-2017

Energetsko pogodbeništvo



Energy retrofit of the buildings and CHP

Energy retrofit of the buildings	2017	2018
Nr. of contracts	39	49
Nr. of buildings	146	306
Surface (m2)	475.510	887.430

CHP	2017	2018
Nr. of devices	10	59
Installed power (MW)	1,65	3,63
Electricity production	10.640	21.222

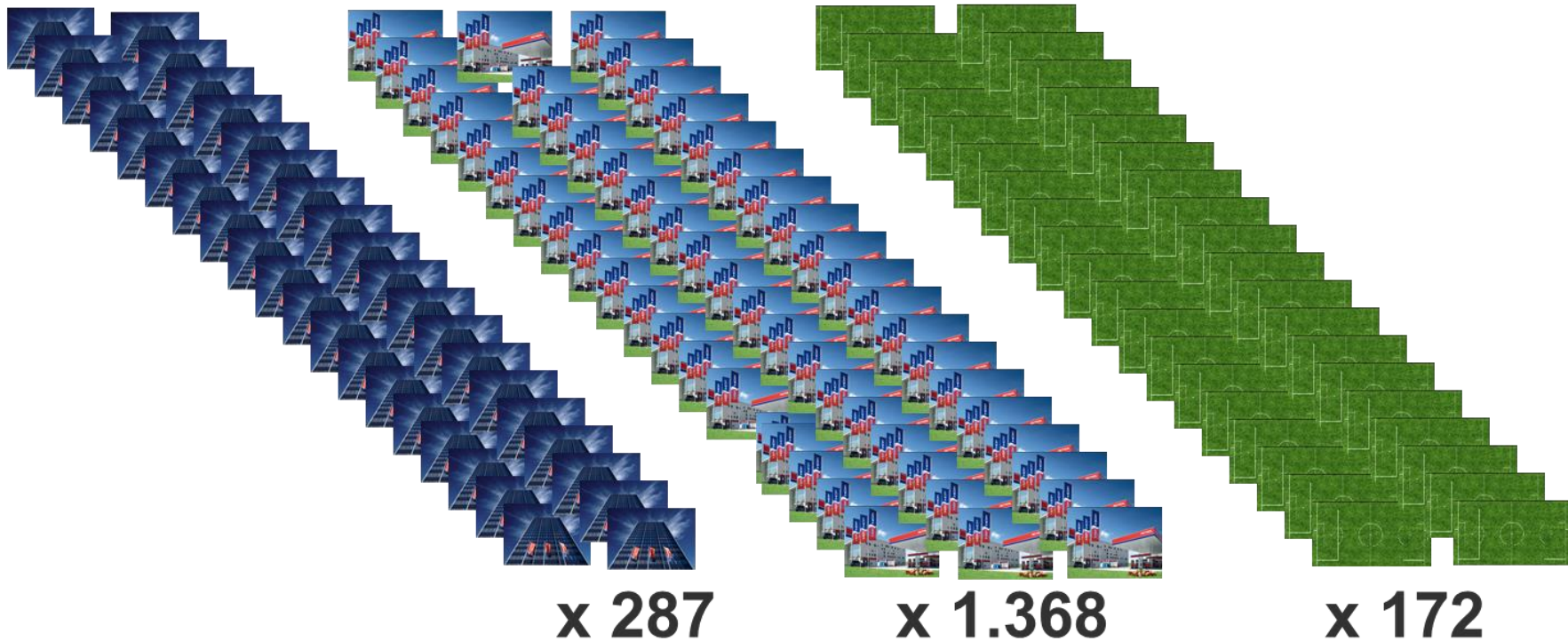
The surface of which we manage...

Headquarters
Petrol d.d.
4.292 m²

Petrol station
cca 900 m²

Football pitch Stožice
7.140 m²

e



Or ...



2.391 basketball courts

ENERGY MANAGEMENT OF PUBLIC BUILDINGS: PRESENT STATE



Municipality	Remote heating	Building	Water	Public lighting	Mobility
Ljubljana	PETROL	PETROL	PETROL	JRL	PETROL
Maribor	PETROL	PETROL UM + MB In Preparation	PETROL	In Preparation	
Kranj	PETROL	PETROL	PETROL	MOK	
Koper		PETROL		PETROL	PETROL
Celje	PETROL	PETROL PO in MP Energetika Celje		In Preparation	
Novo Mesto		PETROL	In Preparation	MONM	PETROL
Velenje	PETROL		PETROL	JRL	
Nova Gorica	Reconstruction	Conceptual phase		Tender phase	
Ptuj	Reconstruction	In Preparation ŠC Ptuj	PETROL	MO Ptuj	
Murska Sobota	PETROL	PETROL Law Court	PETROL	MO MS	
Slovenj Gradec	DOLB (biomass remote heating)	PETROL Law Court			



CŠOD BOHINJ – CASE STUDY

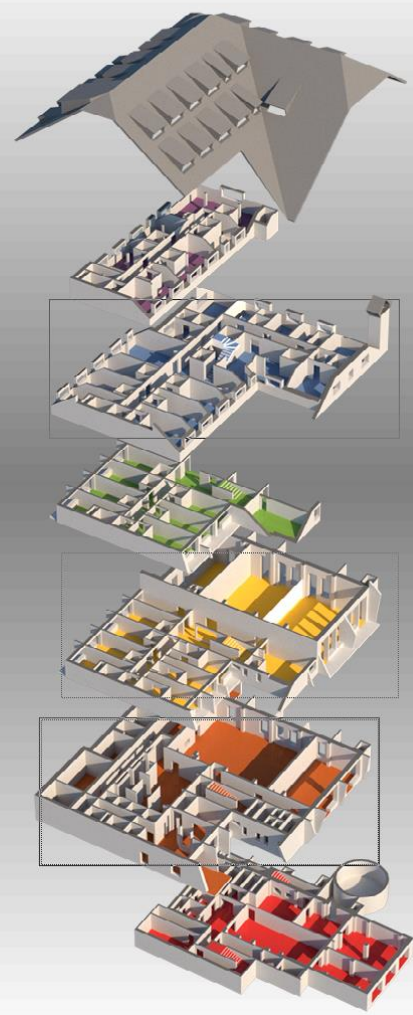


Project Highlights

- First PPP project of the new Slovenian Public Buildings Retrofit Programme
- First PPP Energy performance contract - EPC in the sector of the state owned buildings
- First Energy retrofit project with the participation of Cohesion Fund

Project Data

- Project investment value: **714.413,18€**
- Measures: reconstruction of the boiler room, balancing the central heating system, lighting retrofit, installation of ventilation system, advanced building management system, building envelope & joinery.
- Private partner's share 50,2%: **358.635,42 €**
- Annual savings in EUR: **44.200,00 €**
- Annual savings in MWh: **224 MWh**
- Renewable resources: **100%**
- Service includes: EPC, maintenance, ensuring standards of comfort. **How do we do it!**



Zunanja temperatura 30 °C

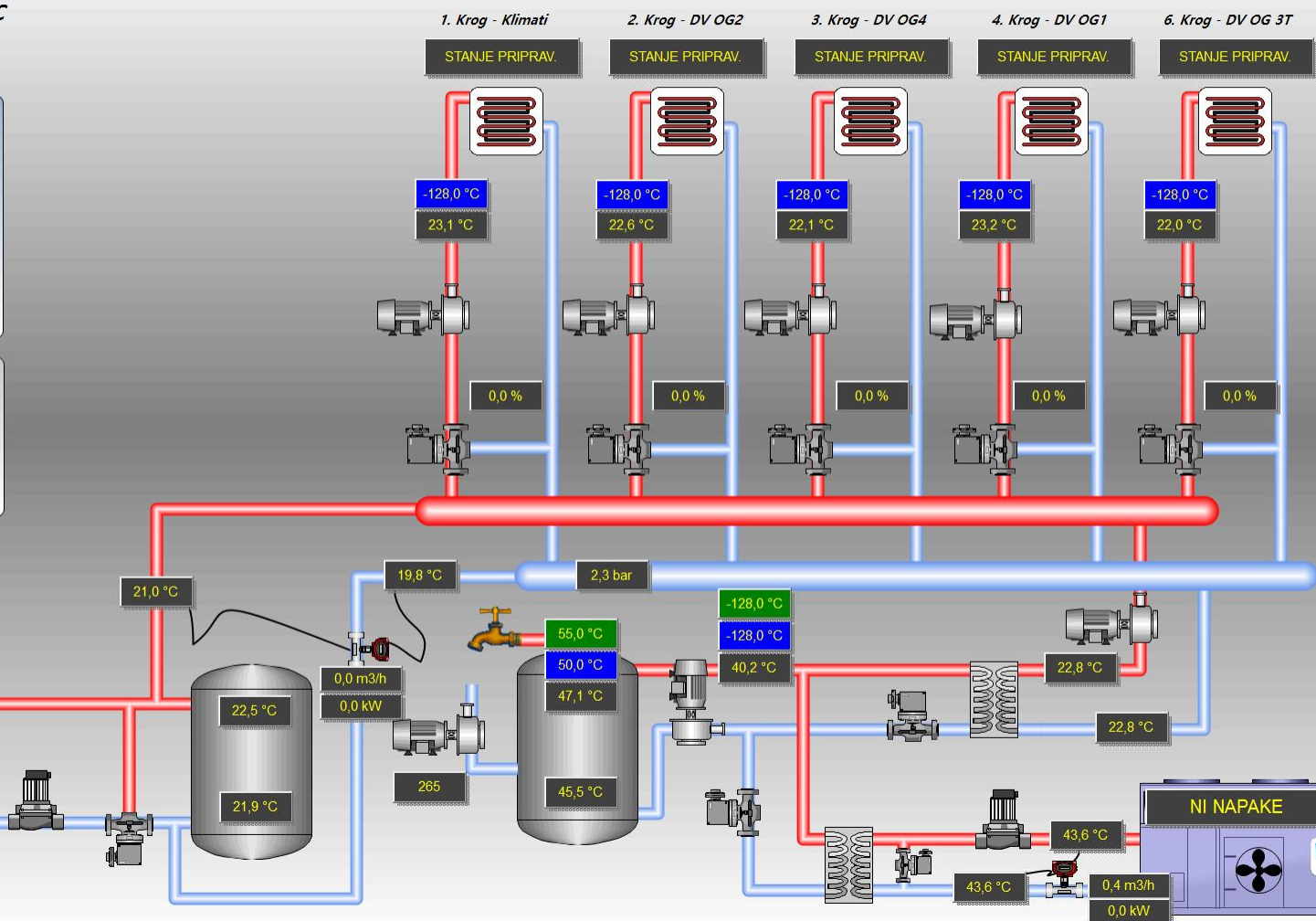
	TŠ1 - Kotel	TŠ2 - TČ
ENERGIJA	125,43 MWh	2,19 MWh
TRENTNI PRETOK	0,0 m ³ /h	0,4 m ³ /h
TRENTNA MOČ	0,0 kW	0,0 kW
SKUPNI PRETOK	13987,8 m ³	2269,5 m ³
TEMPER. DOV.	21,0 °C	43,6 °C
TEMPER. POV.	19,8 °C	43,60 °C


TP-08 nastavitve

TP-08 WEB
 TP-08 PLUGIN

Krmiljenje OG ventilov


Ventili OG1-OG2
 Ventili OG4

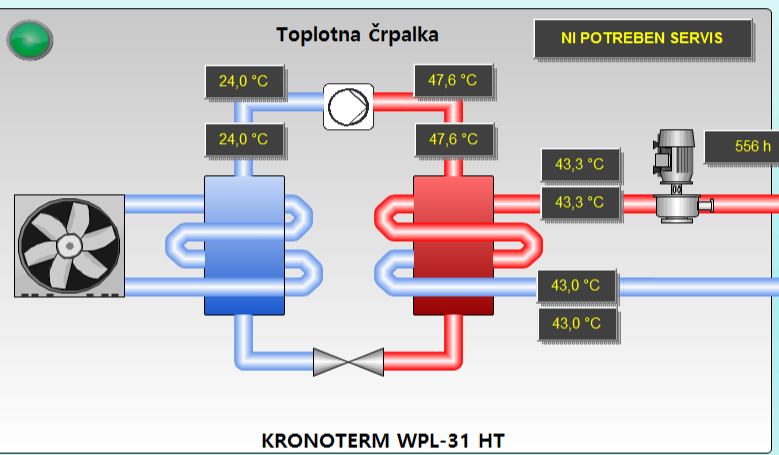


Vklop sistema:


Izbira programa delovanja:
 AUTO ECO **KOMFORT**
KOMFORT

Korekcija temperature sistema:
 0,01 °C

Zunanja temperatura

 29,5 °C



STATUSI DELOVANJA TOPLOTNE ČRPALKE:

DELOVANJE SISTEMA:	ON
FUNKCIJA DELOVANJA TČ:	VAROVANJE KOMPR.
STATUS DODATNEGA VIRA:	ON
STATUS REZERVNEGA VIRA:	OFF
STATUS ALTERNATIVNEGA VIRA:	OFF
STATUS PASIVNEGA HLAJENJA:	OFF
REŽIM DELOVANJA:	ZIMSKI
PROGRAM DELOVANJA:	KOMFORT
ŽELENA TEMPER. ZALOG. - POV.:	54,9 °C
TREN. ŽELENA TEMPER. ZALOG.:	10,0 °C
STATUS DELOV. TČ PO URNIKU:	KOMFORT
OBRATOV. URE TOPLOTNI VIR:	57 h
OBRATOV. URE KOMPRES. GRET.:	30 h
OBRATOV. URE KOMPRES. HLAJ.:	0 h

NI NAPAKE

Register 2114

B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15

Register 2115

B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15

ALARMI

Register 2116

B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15

Register 2117

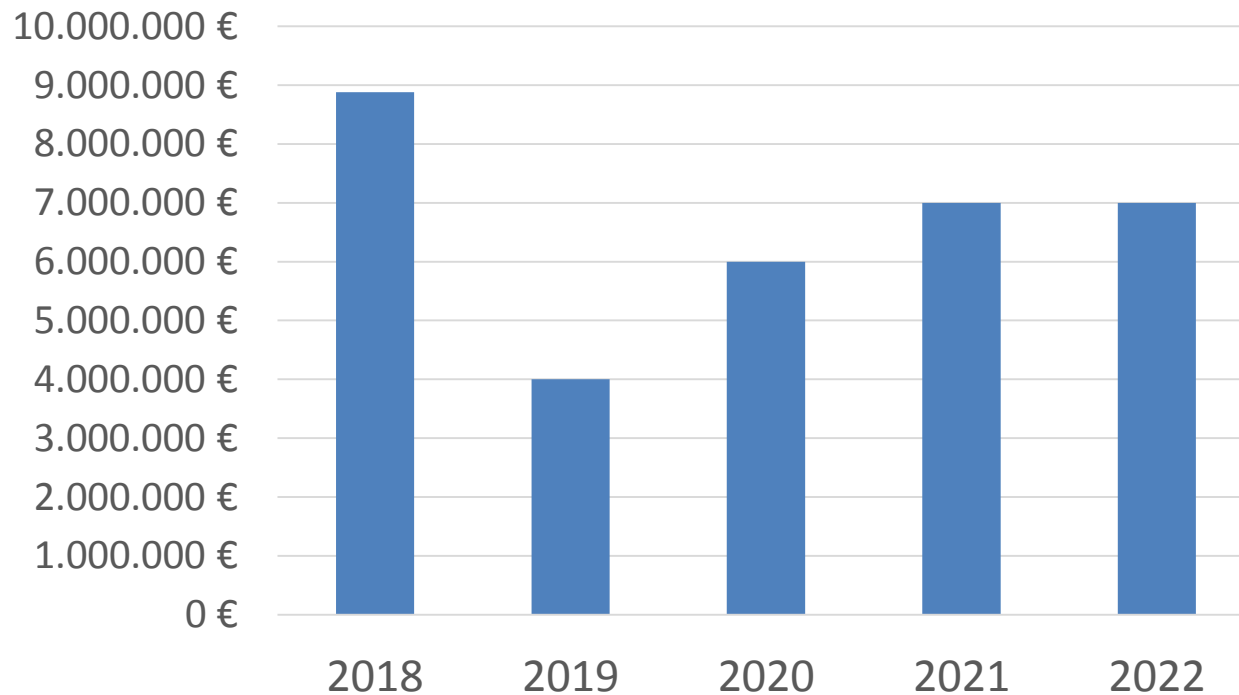
B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15



FUTURE
ACTIVITIES



Petrol investment in Energy retrofit projects 2018 - 2022



FUTURE TRENDS

Revitalization & digitalisation of public infrastructure

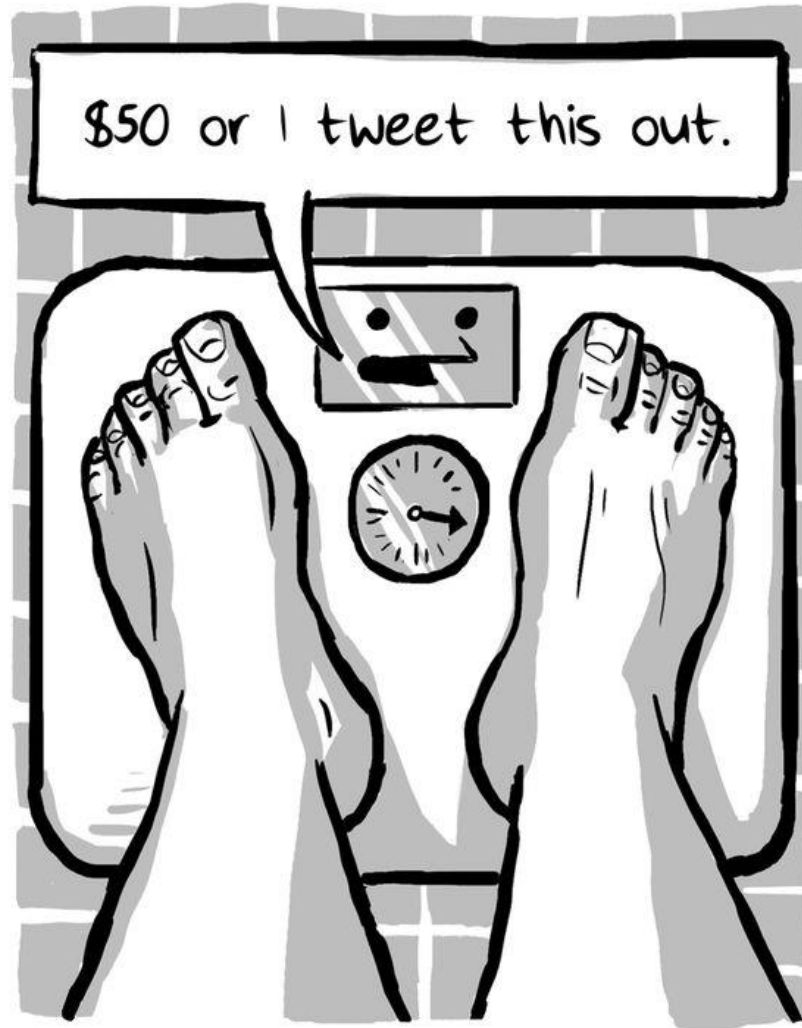
Internet of Things (IoT)

Data lakes

...



IoT and new services





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