



EUROPEAN
REGIONAL
DEVELOPMENT
FUND



Local Energy Efficiency Group (LEEG) in Gulbene Municipality

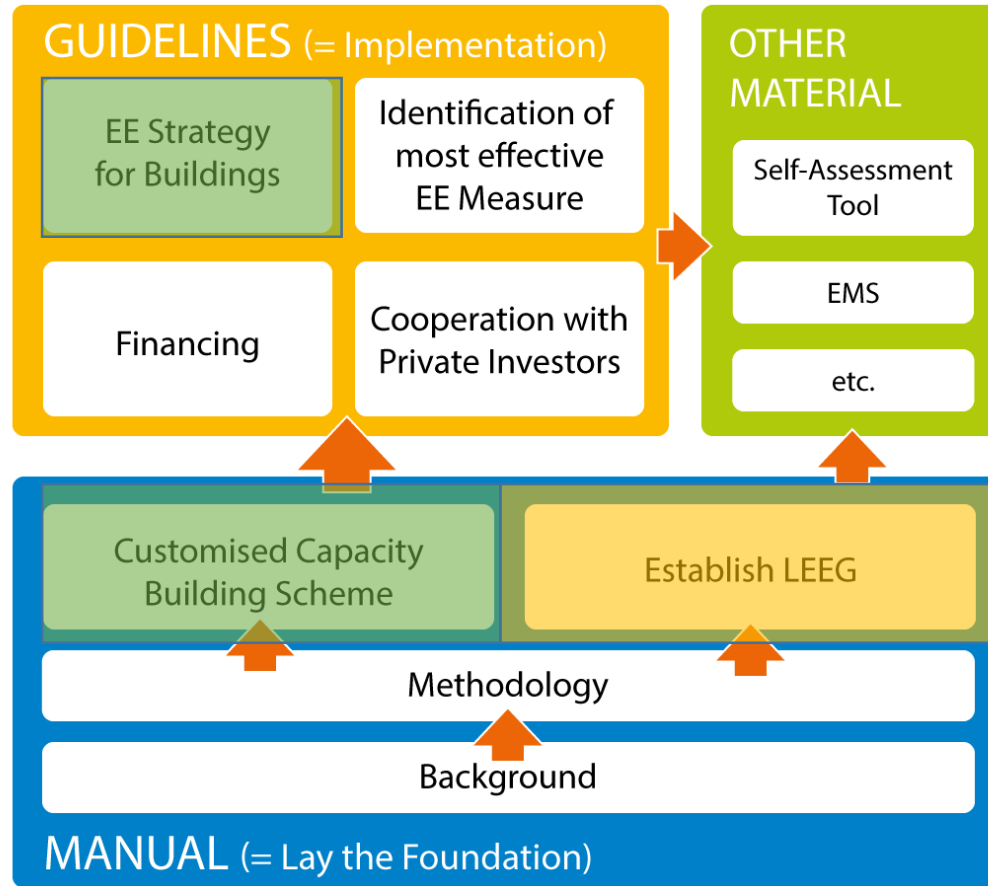
Krišjānis Upāns, Baiba Kalmane, Gulbene Municipality
Francesco Romagnoli, Marika Rošā, Riga Technical University

ActNow! online Conference „Green economy – the heating market changes – Act Now!“
19.11.2020

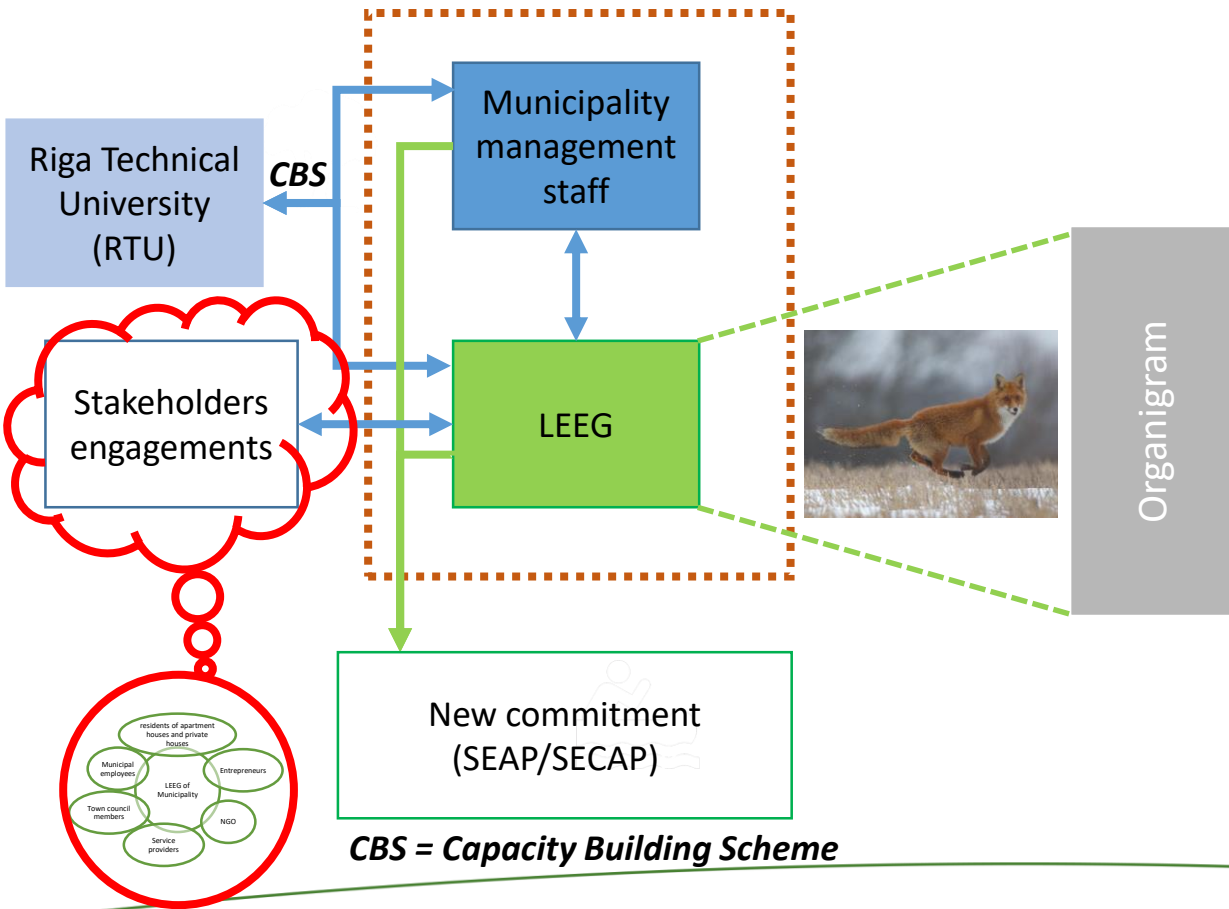
Contents

- *ActNow!* approach
- LEEG structure in Gulbene
- Capacity Building Scheme in Gulbene
- LEEG activities and main milestones
 - Energy management system
 - SECAP finalization
 - SECAP outputs
 - LEEG stakeholder's communication strategy
- Most effective energy efficiency measure - Investment
- Conclusions

ActNow! approach



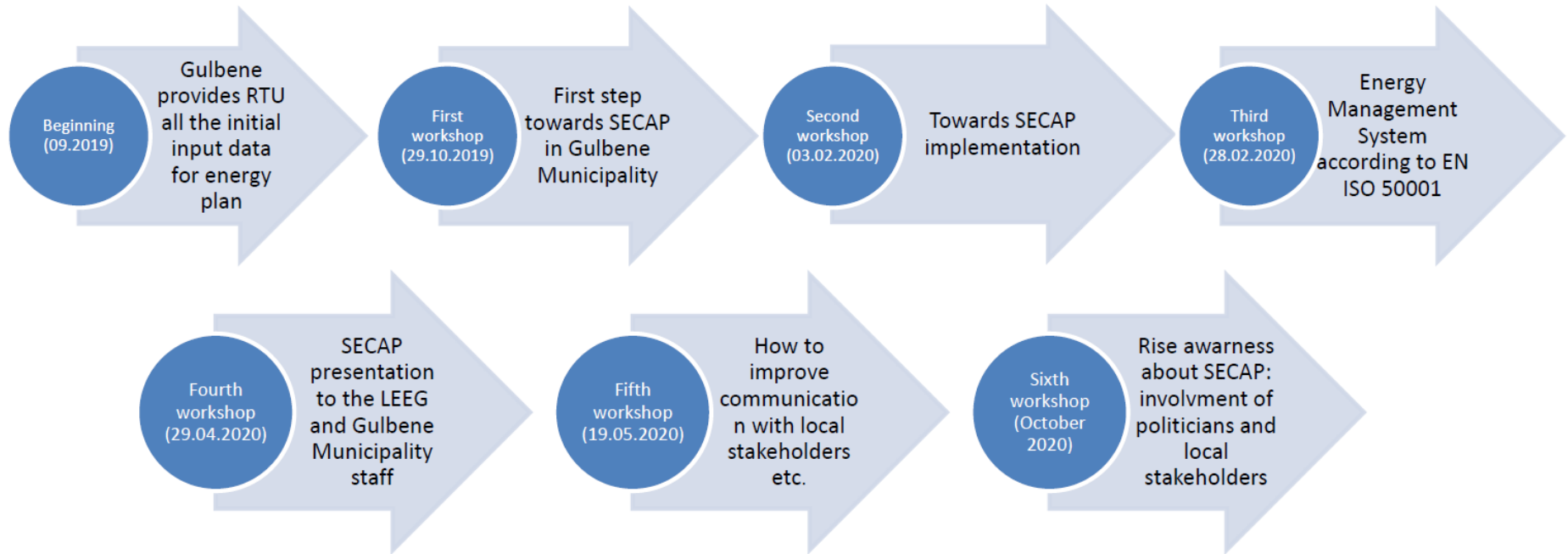
Structure of LEEG



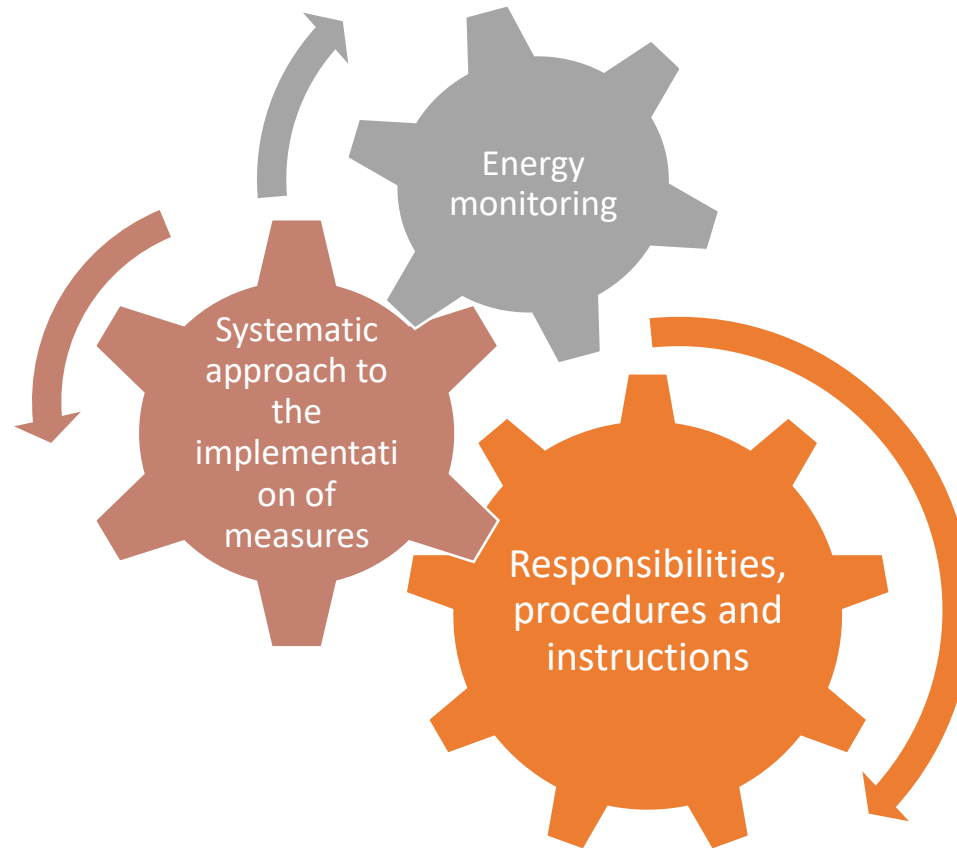
CBS = Capacity Building Scheme

- Executive director of the municipality
- Energy Manager in the Development and Project department
- Head of Development and Project department
- Communal Engineer in the Gulbene Town Government
- Financial economist in the Financial and economic department
- Senior public relations specialist
- Head of Legal department
- Environmental Management specialist in the Property Management department

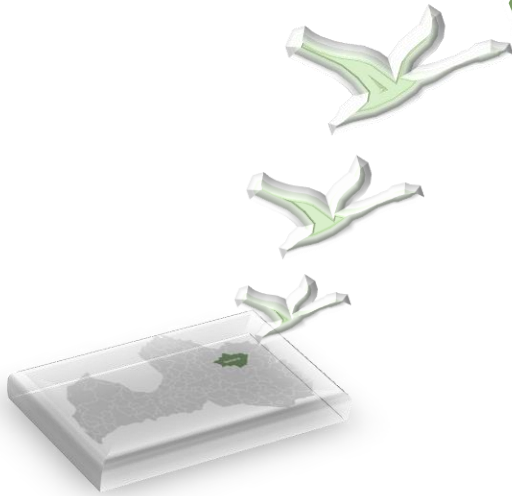
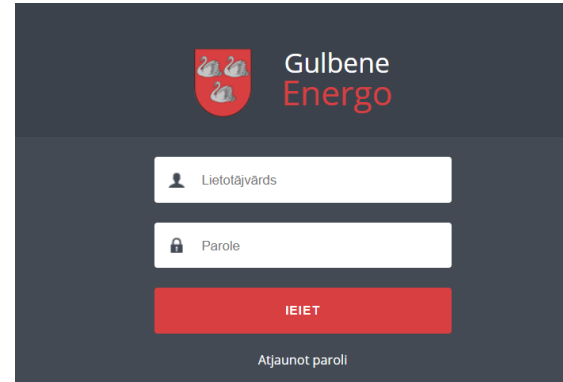
Capacity Building Scheme in Gulbene



Energy Management System (EnMS)



EnMS in Gulbene town



SECAP finalization: tandem approach



SECAP finalization: focus sectors



Municipal infrastructure



Apartment and private houses



Transport and mobility

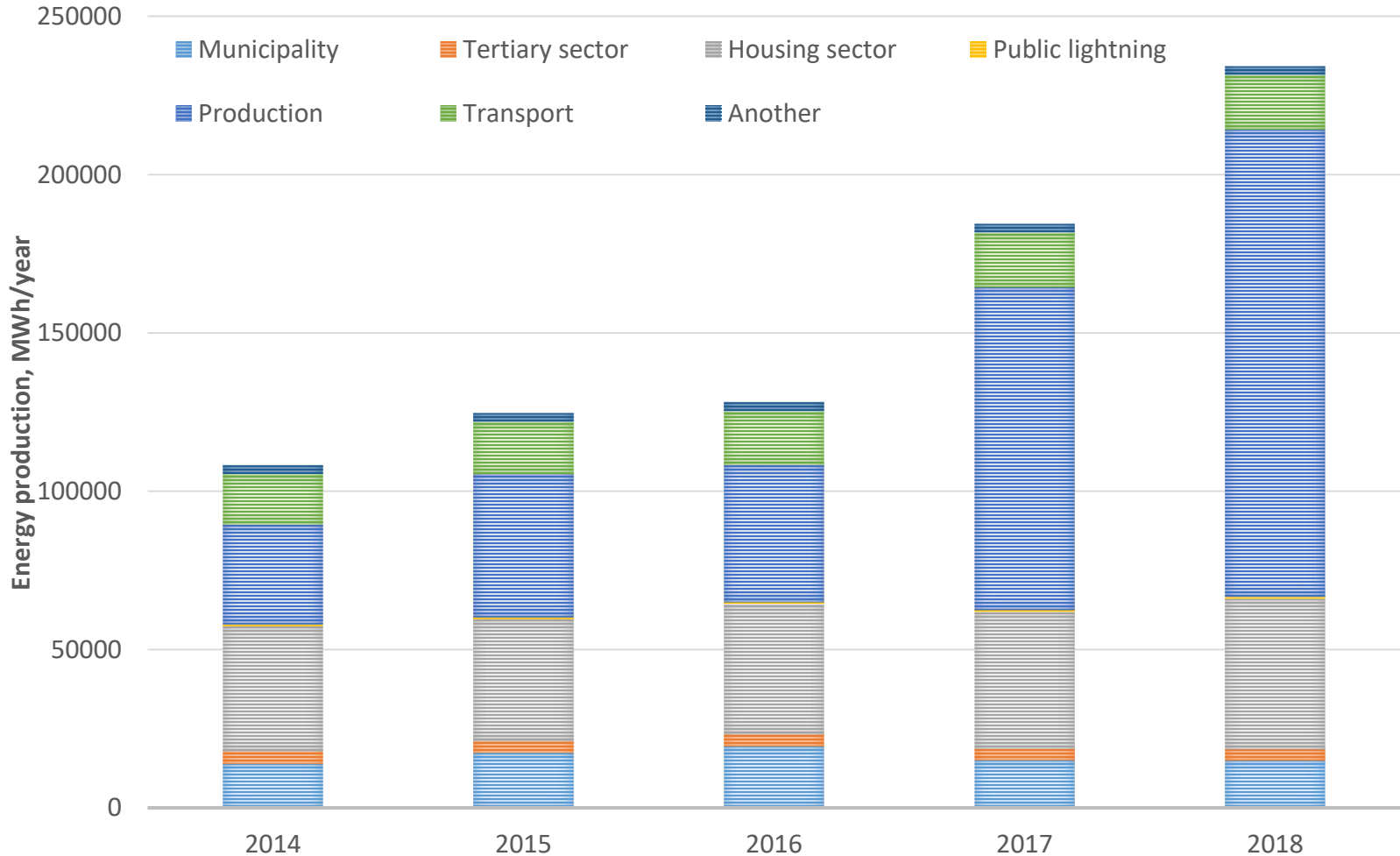


Services

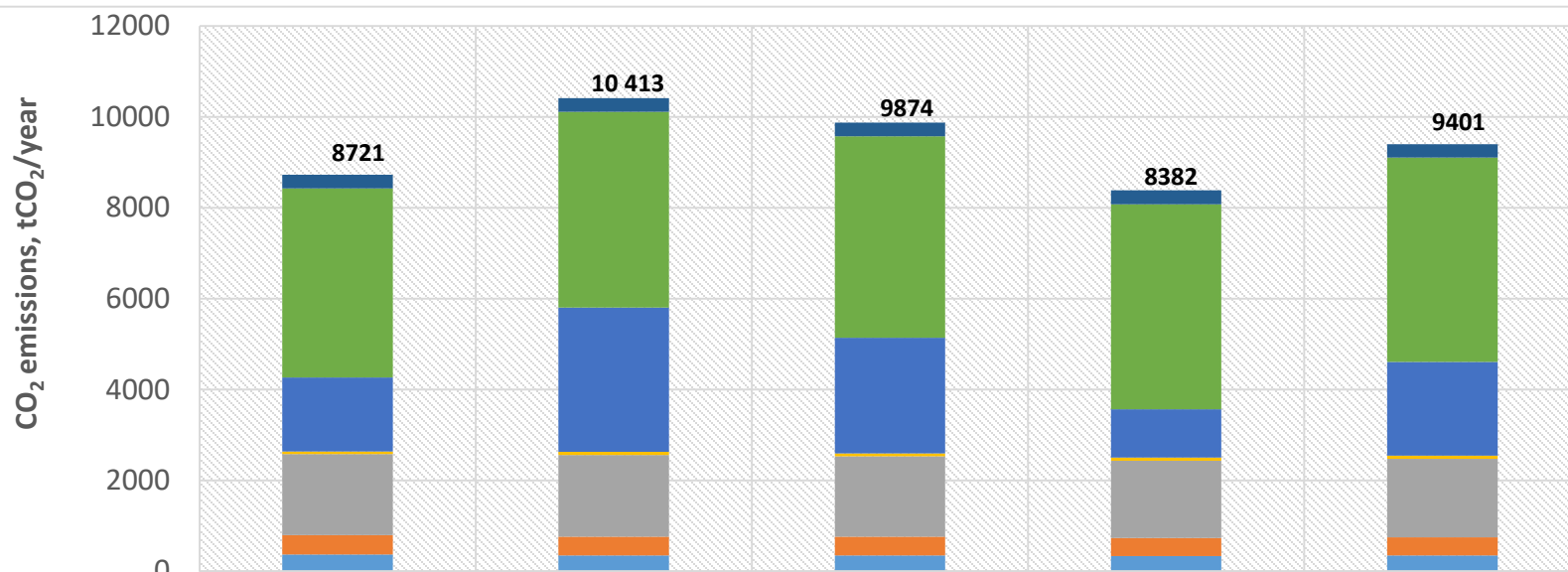
SECAP finalization: risk assessment

Type of climate threat	Level of risk	Expected changes in intensity	Expected changes in regularity	Period
Extremely high temperature	!!	↑	↑	▶
Extremely low temperatūra	!	↓	↓	▶
Extreme rainfall	!!	↑	↑	▶ ▶
Floods	!	↑	↑	▶ ▶
Drought	!!	↑	↑	▶ ▶
Storms	!!	↔	↔	▶ ▶ ▶
Forest fires	!!	↑	↑	▶ ▶
Eutrophication in rivers and lakes	!!!	↑	↑	▶ ▶
Biodiversity loss	!!!	↑	↑	▶
Spread of invasive plants and animal species	!!!	↑	↑	▶ ▶ ▶

Changes in final energy consumption by main sectors in Gulbene region



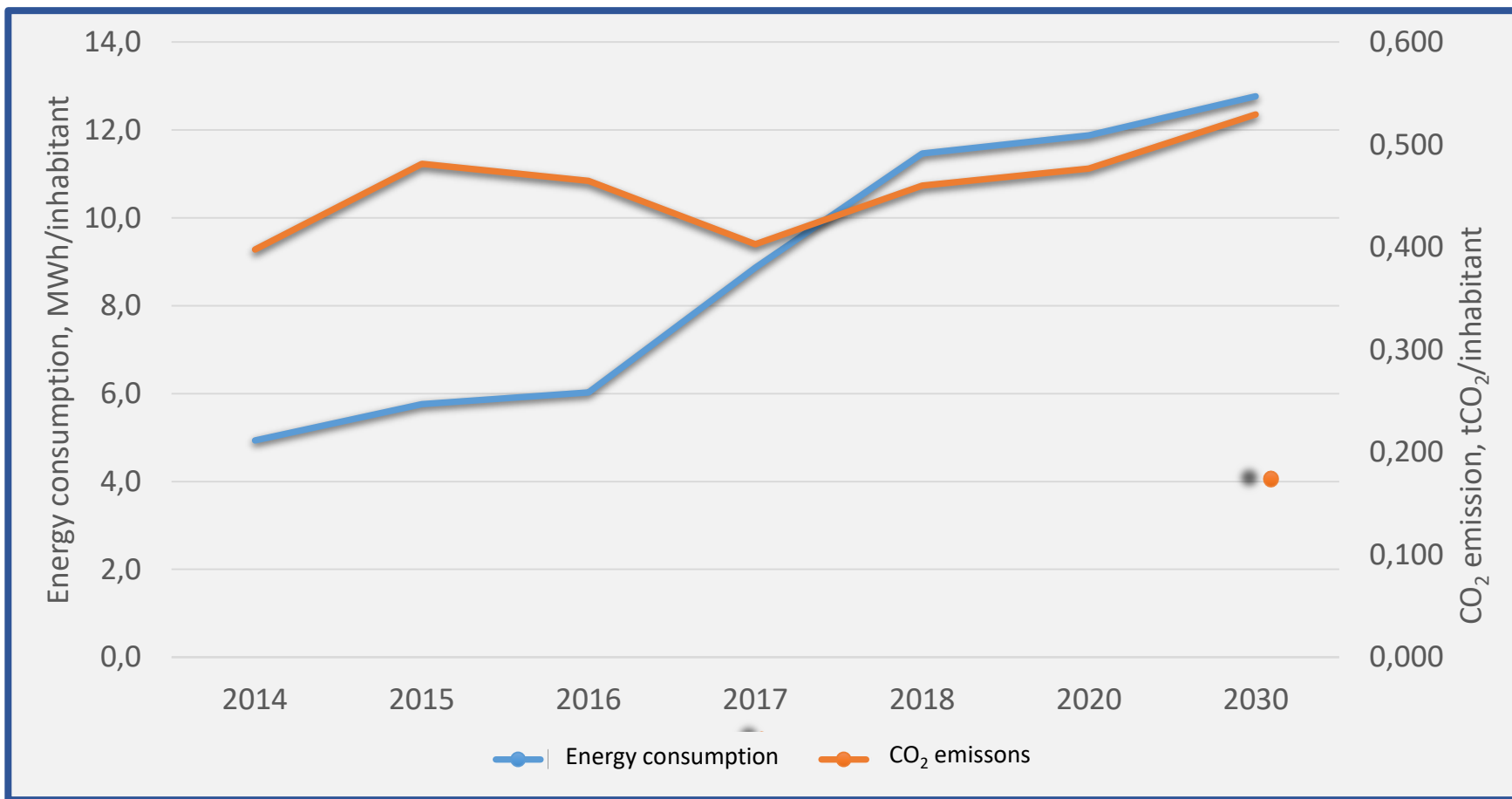
CO₂ emission changes in Gulbene region



	2014	2015	2016	2017	2018
■ Agriculture	301	301	303	303	294
■ Transport	4164	4307	4433	4517	4499
■ Production	1625	3181	2544	1061	2064
■ Public lightning	60	68	66	66	68
■ Housing sector	1782	1800	1773	1703	1731
■ Tertiary sector	428	411	413	401	402
■ Municipality	366	346	343	331	344



CO₂ emission changes in Gulbene region: forecasts

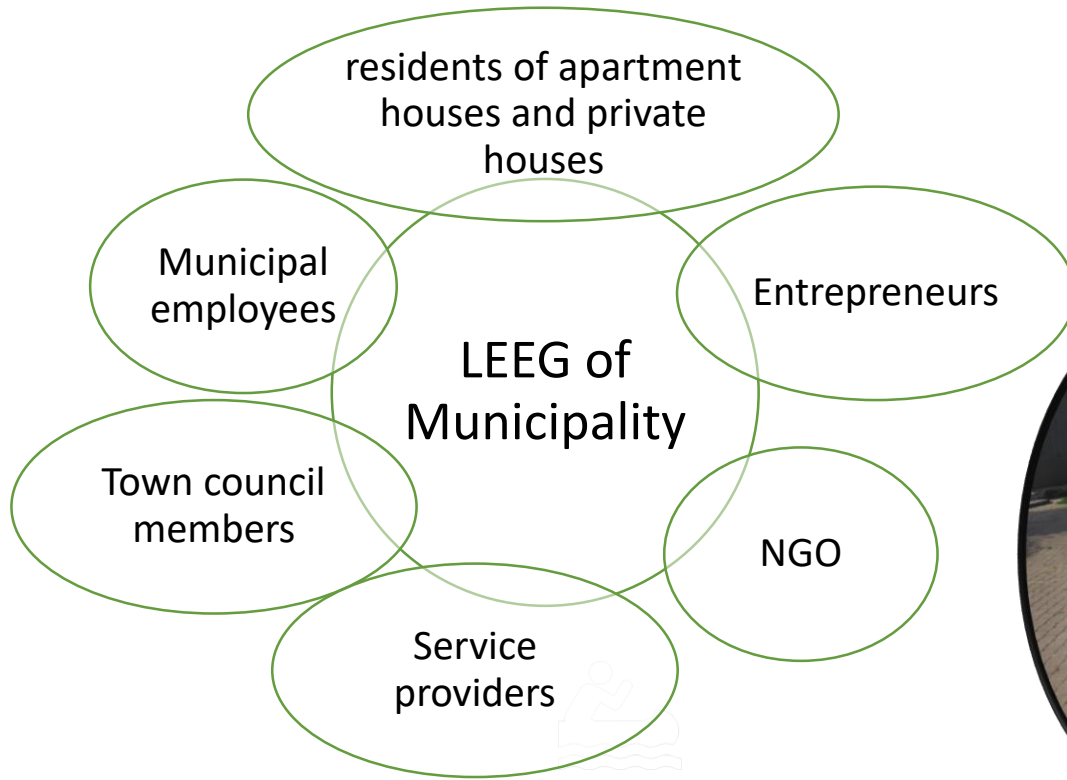


SECAP: set targets

Targets	Target value	Target year	Baseline year
Implement an energy management system in the municipality in accordance with the ISO 50001 standard	-	2020	-
Reduce energy consumption in municipal buildings and equipment	20%	2030	2018
Promote the reduction of energy consumption in the housing sector through information campaign	5%	2030	2018
Reduce energy consumption in the apartment building sector by promoting cooperation between all parties involved (2 apartment buildings renovated on average per year)	3000 MWh	2030	2018
Ensure new renewable energy capacity in Gulbene region	1 MW	2030	2018

CO ₂ target	Target year	Base year	CO ₂ emissions in the base year, tCO ₂ /year	CO ₂ emissions on 2030.year, tCO ₂ /year
-16%	2030	2015	10 413	8743

LEEG communication strategy



Most effective energy efficiency measure - Investment



PV PANELS ON THE ROOF OF GULBENE COUNTY MUNICIPALITY ADMINISTRATION BUILDING



INSTALLATION COSTS

~ 75 000 EUR without VAT

WITH SUPPORT
~ 5 YEAR

WITHOUT SUPORT
~ 15 YEAR

PAYBACK TIME

ETS SUPPORT (70%)
Emissions Trading Scheme

"Reduction of greenhouse gas emissions with smart urban technologies" project "Use of solar energy in Gulbene municipality administration building"

Conclusions





Contacts

Krišjānis Upāns
Energy Manager
Gulbene municipality
Phone: +37164497727
E-pasts: dome@gulbene.lv
www.gulbene.lv

Prof. Francesco Romagnoli
Riga Technical University
Institute of Energy Systems
and Environment
Phone: +371 67 089 943, e-
mail:
francesco.romagnoli@rtu.lv
www.rtu.lv;
www.videszinatne.lv



EUROPEAN UNION

EUROPEAN
REGIONAL
DEVELOPMENT
FUND

