

Säästva energia_(majanduse) ja kliima_(poliitika) tegevuskava SECAP lähenemisviis

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PANEL2050

1. märts 2018, EMÜ, Tartu

LÄHENEMISI JA VAATEID

- Energiapoliitika ja linnapeade pakti
'KLIIMASTUMINE'?
- SECAP teemad ja indikaatorid? Heiteinventuur,
seire ja tulemustabelid.
- Kohanemisgeograafia?

KUIDAS EL ENERGIAPOLIITIKAST SAI KLIIMAPOLIITIKA?

- 1990 Kliimapaneeli aruanne algatas arutelud
- 1996 Elektrituru direktiiv (1998 maagaas)
- 1997 Kyoto protokoll
- 2007 Energia ptk. Lissaboni lepingusse ja energiapoliitika Euroopale 20/20/20
- 2009 kauplemisüsteemi, süsinikusalvestuse ja taastuvenergia direktiivid
- 2010 Energia 2020 ja teekaart 2050 süsinikuvabamast Euroopast
- **2013 kohanemisstrateegia**
- **2014 kliima- ja energiaraamistik 2030 40/27/27**
- **2016 Pariisi kliimakokkuleppe ratifitseerimine – 2kraadi ja kliimaneutraalsuse suunas**

KUIDAS ENERGIAPOLIITIKAST SAI KLIIMAPOLIITIKA?

	Pre-Kyoto (1990–1997) aimed at 2000	European Climate Change Programme and additional legislation (1998–2006) aimed at 2010 (or 2008–12)	Climate and Energy Package and additional legislation (2007–2010) aimed at 2020
GHGs	No European policy (discussion on CO ₂ tax, which was not adopted) → Mainly national policies	EU ETS (2003)	EU ETS review (2008, 2009) (One EU-wide ETS target / including aviation)
			Effort Sharing Decision (National non-ETS targets)
		Fluorinated Gases Regulation	Fluorinated Gases Regulation review
		Mobile Air-Conditioning Systems Directive	Further implementation
		Voluntary agreement with car manufacturers (1998/1999)	Mandatory standards for cars and vans
RES	ALTENER Renewable Electricity Directive (2001) Biofuels Directive	Renewable Energy Directive (RED) & Fuel Quality Directive	
EEff	SAVE Energy Services Directive Combined Heat and Power Directive Ecodesign of Energy Using Products Directive Energy Labeling Framework Directive Energy Performance of Buildings Directive		Energy Efficiency Directive (EED)
			Further implementation
			Energy Labeling Framework Directive review
			Energy Performance of Buildings Directive review

KUIDAS EESTI ENERGIAPOLIITIKAST SAI KLIIMAPOLIITIKA?

- 2000 Süsinikumaks - välisõhu kaitse seaduse kohaselt heitetasu CO₂
- 2002 Kliimakonventsiooni Kyoto protokollu ratifitseerimine
- 2016 Pariisi kliimakokkuleppe ratifitseerimine
- **2017 Kliimapoliitika põhialused 2050 –
9 lk leevendamist ja 1 lk kohanemist**
- **2017 Kliimamuutustega kohanemise tegevuskava (44 lk)
2017-20 M€ 8,1, sh M€3 biomajandusse, M€1,5
haridustöö**

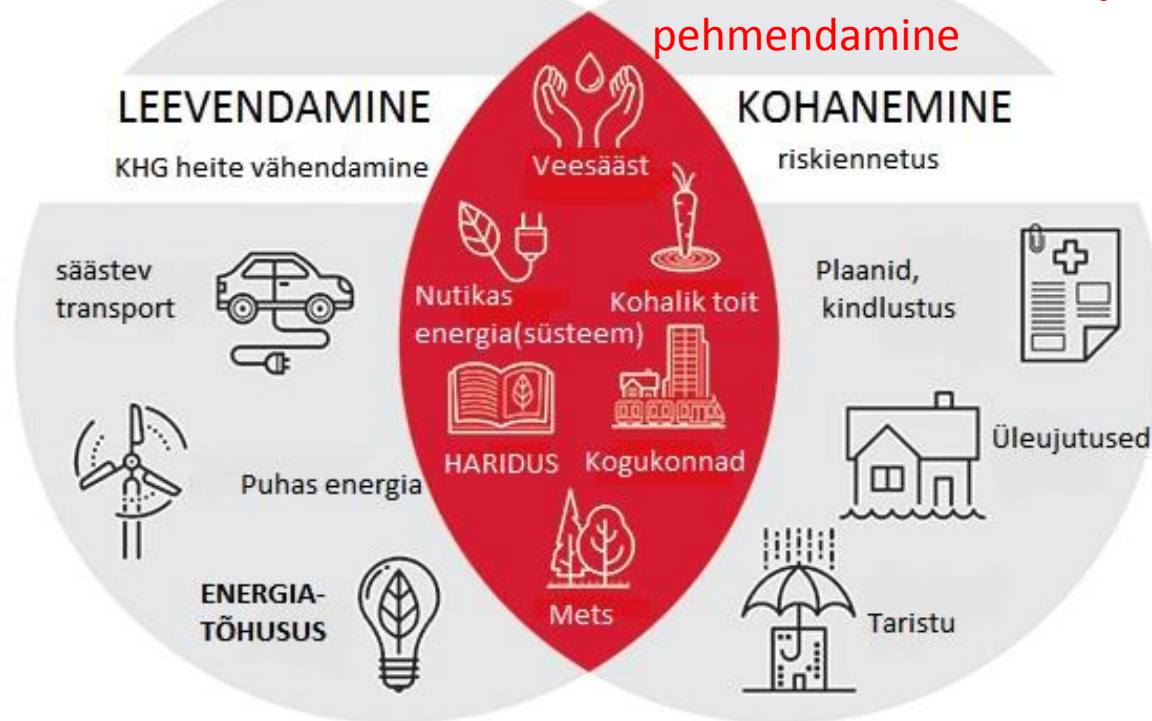
KLIIMAPOLIITIKA 2 SUUNDA

Leevendamispoliitika - peame muutusi leevendama

kasvuhoonegaaside heite vähendamine

Kohanemispoliitika - peame muutustega kohanema

kliimariskide
ennetamine, vältimine ja tagajärgede
pehmdamine



LINNAPEADE PAKTI 3 SAMMAST

MITIGATION LOW CARBON CITIES

ADAPTATION RESILIENT CITIES

SECURE, SUSTAINABLE AND AFFORDABLE ENERGY

- At least 40 % CO₂ reduction in their respective territories by 2030
- Increased resilience to the impacts of climate change
- Increased cooperation with fellow local and regional authorities within the EU and beyond to improve access to secure, sustainable and affordable energy

LINNAPEADE PAKTI AJALUGU

- 2008 - avati ühinemiseks
- 2010 – juba 2000 KOV
- **2015 – laienes kliima ja energia linnapeade paktiks**
- 2016 - rahvusvaheliseks P- ja L-Ameerika, Aasia ja Aafrikasse
- 21.2.2018 – 10.a s.pidu Brüsselis: CO₂ -23%, TE +8%

LINNAPEADE PAKT KOHALIKU POLIITIKA PEAVOOLUKS

- 9200 KOV (alates 2008)
- 7755 KOV ühinenud
- 6038 KOV tegevusplaaniga=heiteinventuur (78%)
- 1743 KOV andnud aru (22%) - CO₂ -23%, RES_{tarb}+8%
- 360 regionaalvalitsust jt agentuuri / 280 koordinaatorit
- Alt-üles EL algatus: ei ole riigipoliitika

LINNAPEADE PAKTI KITSAS KANDEPIND EESTIS

Linn/KOV	Ühinemine	Tegevuskava
Rakvere	2009	2010
Tallinn	2009	2011
Jõgeva	2014	2015
Tartu	2014	2017
Rõuge	2013	2017

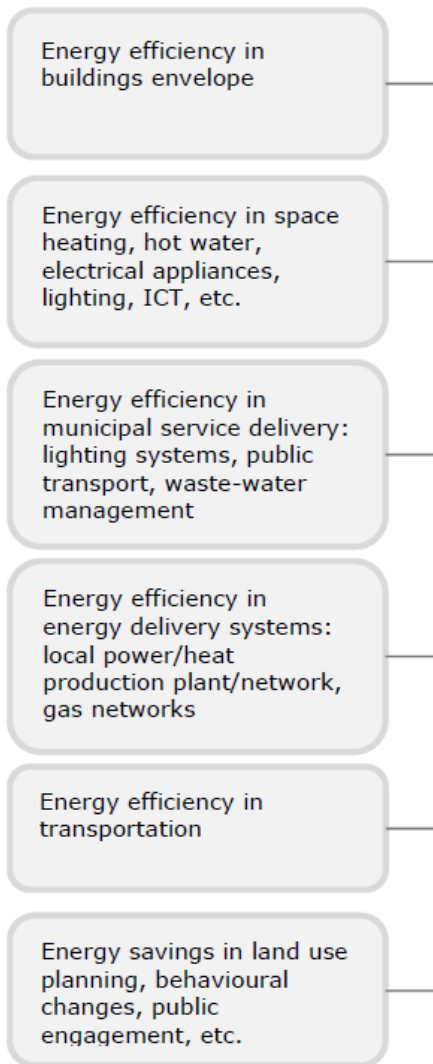
Võru ja Viimsi? Tallinnal ainsana seirearuanne + SECAPi allkiri.

SECAP MEETMED ENERGIA TARBIMISE JA HEITE SUNAL

Measures that affect final energy use in local authorities territories

Energiatõhusus

82%



GHG emission reductions

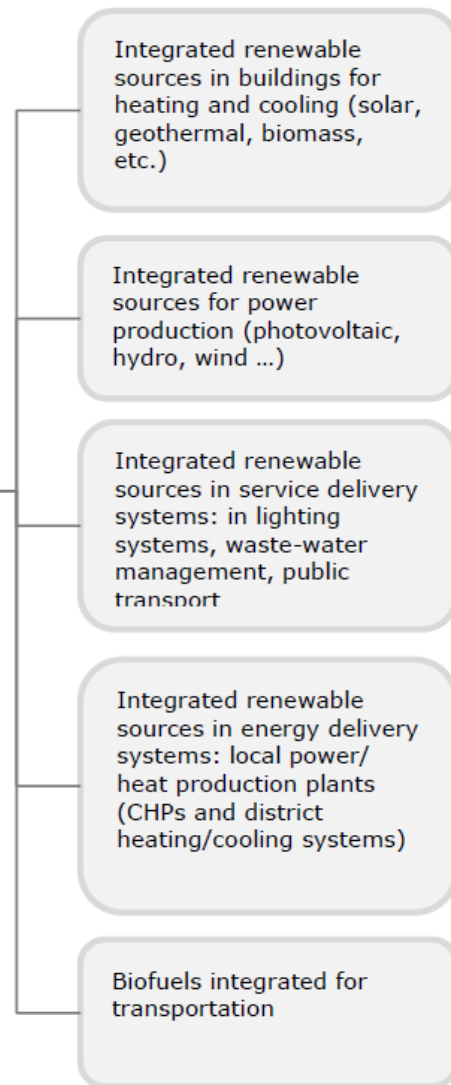
Reduction of the emission factors
(tCO₂-eq/MWh)

Reduction of the final energy consumptions
(MWh)

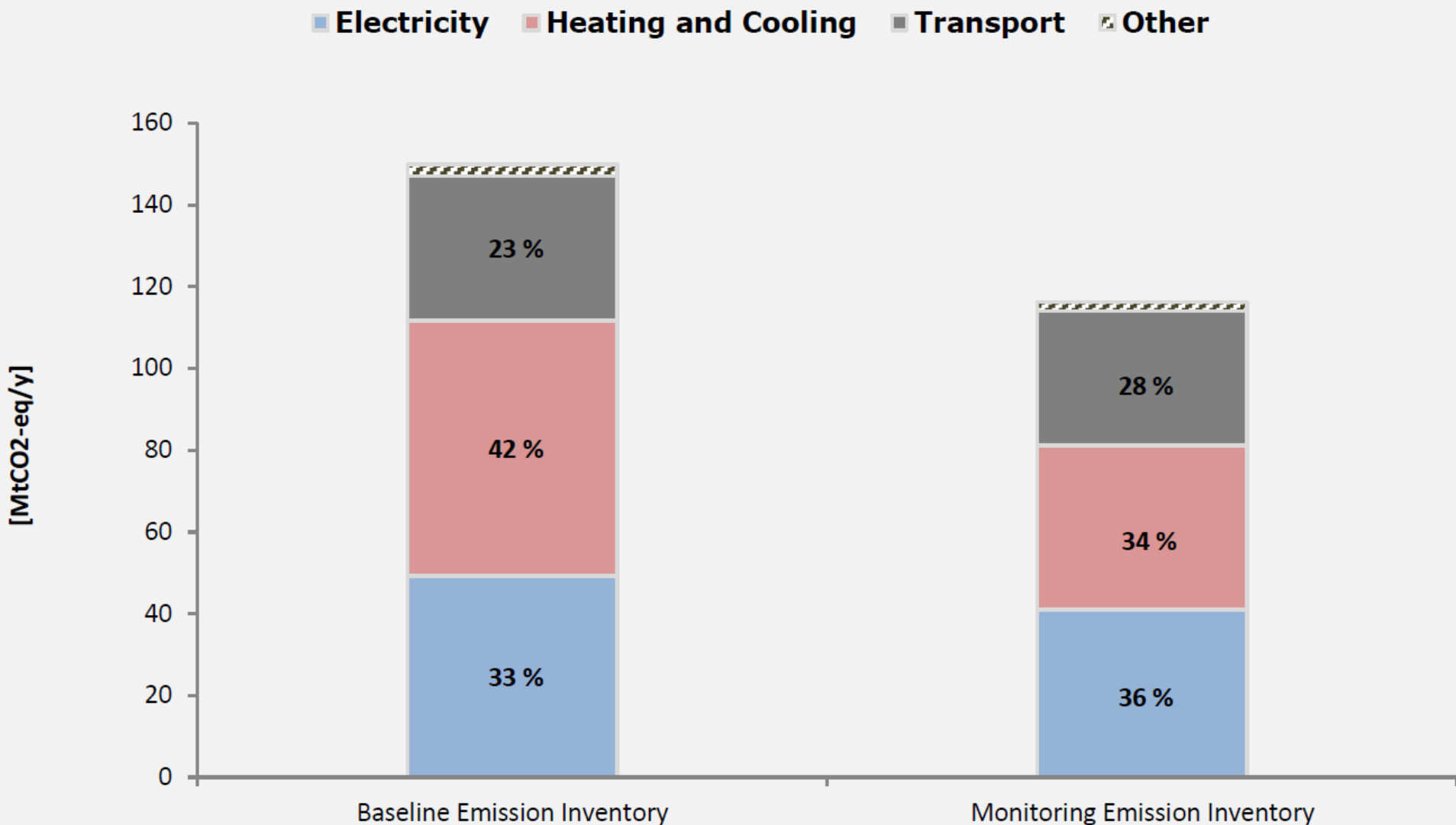
Measures that affect emission factors in local authorities territories

Taastuvenergia

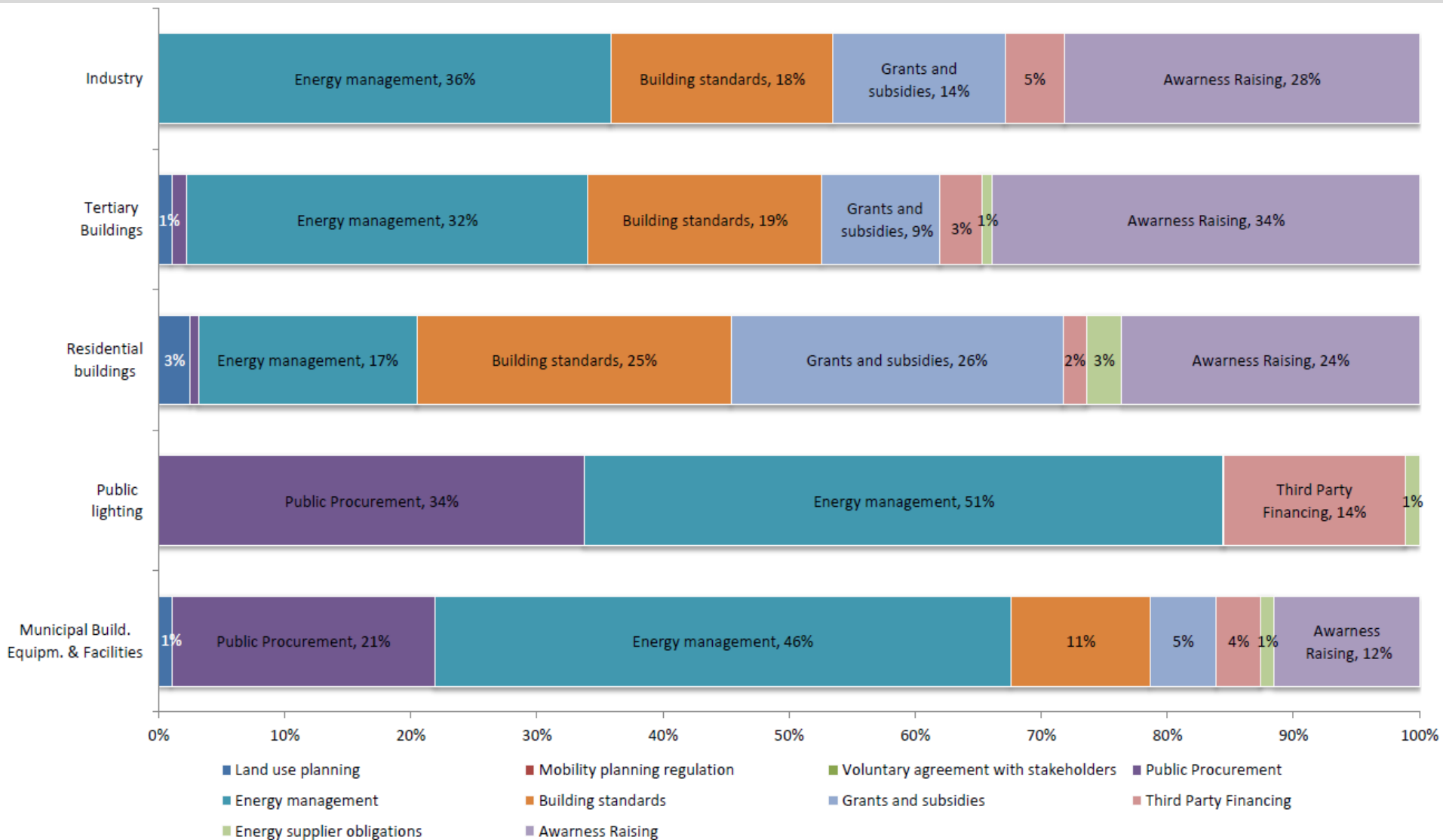
18%



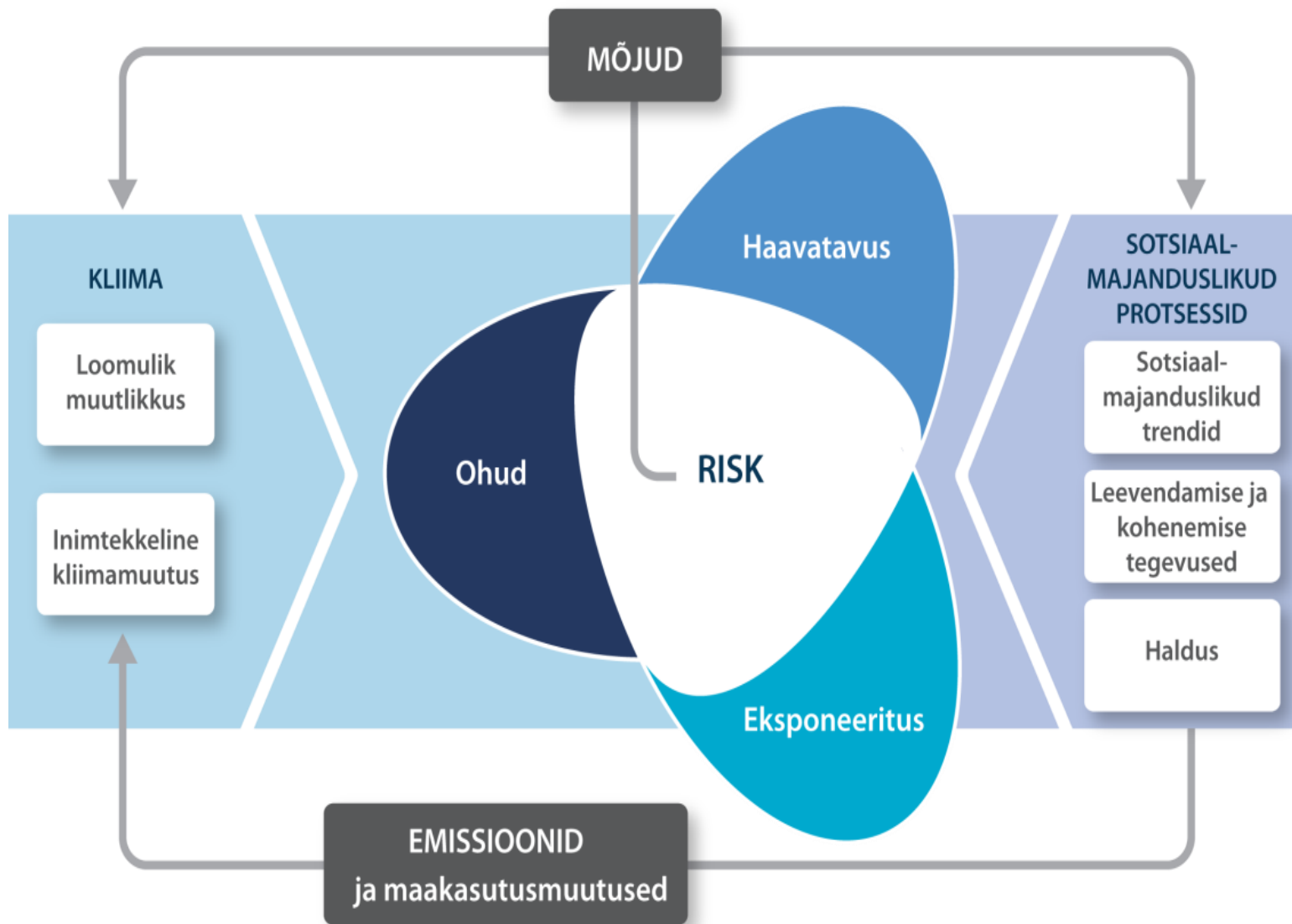
CoM LINNADE KHG HEITE VÄHENDAMINE 2016 seisuga



TEGEVUSTE MÕJU KHG VÄHENDAMISEL 2016 seisuga



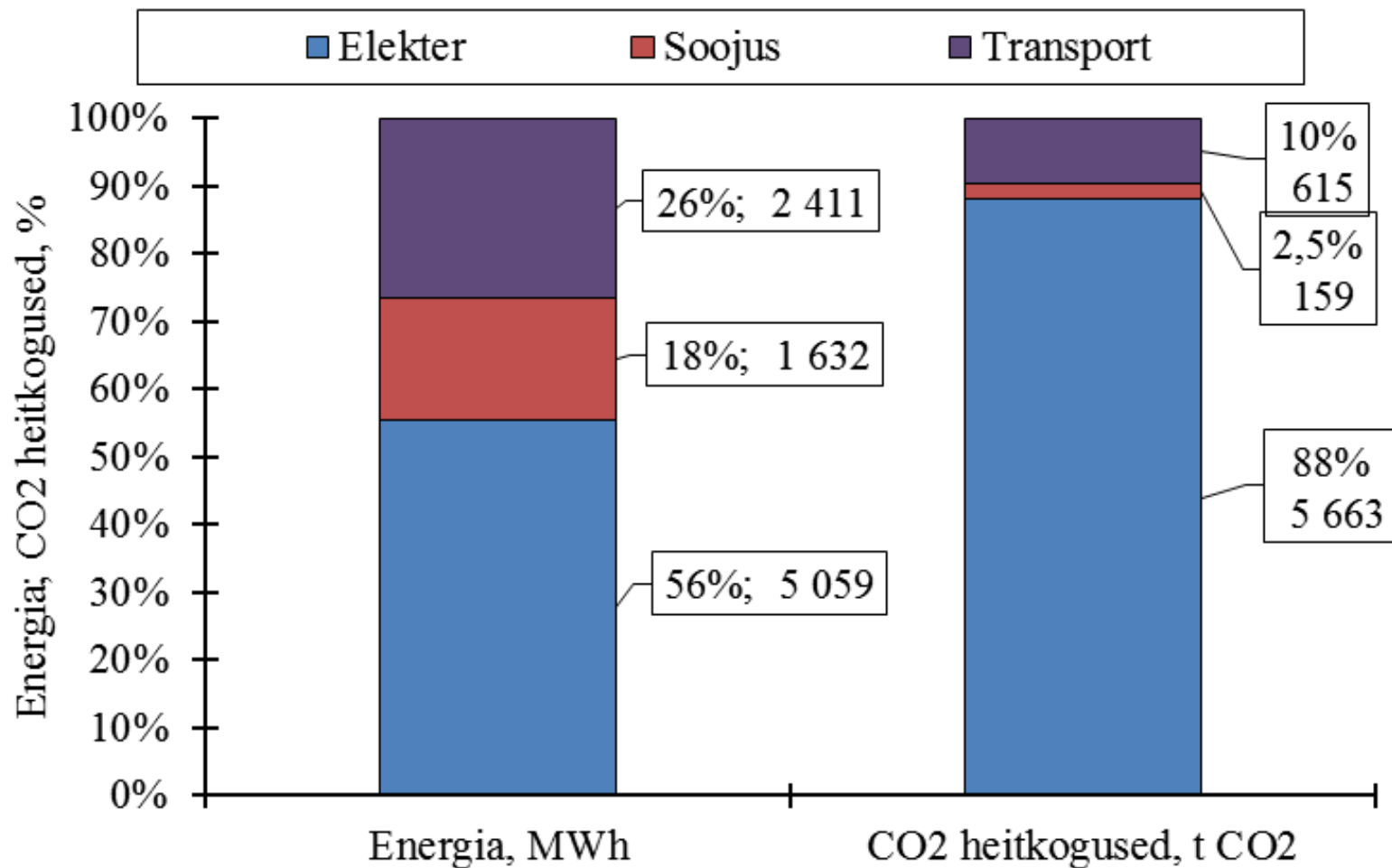
KLIMAPANEELI RISKIHINDAMISE METOODIKA



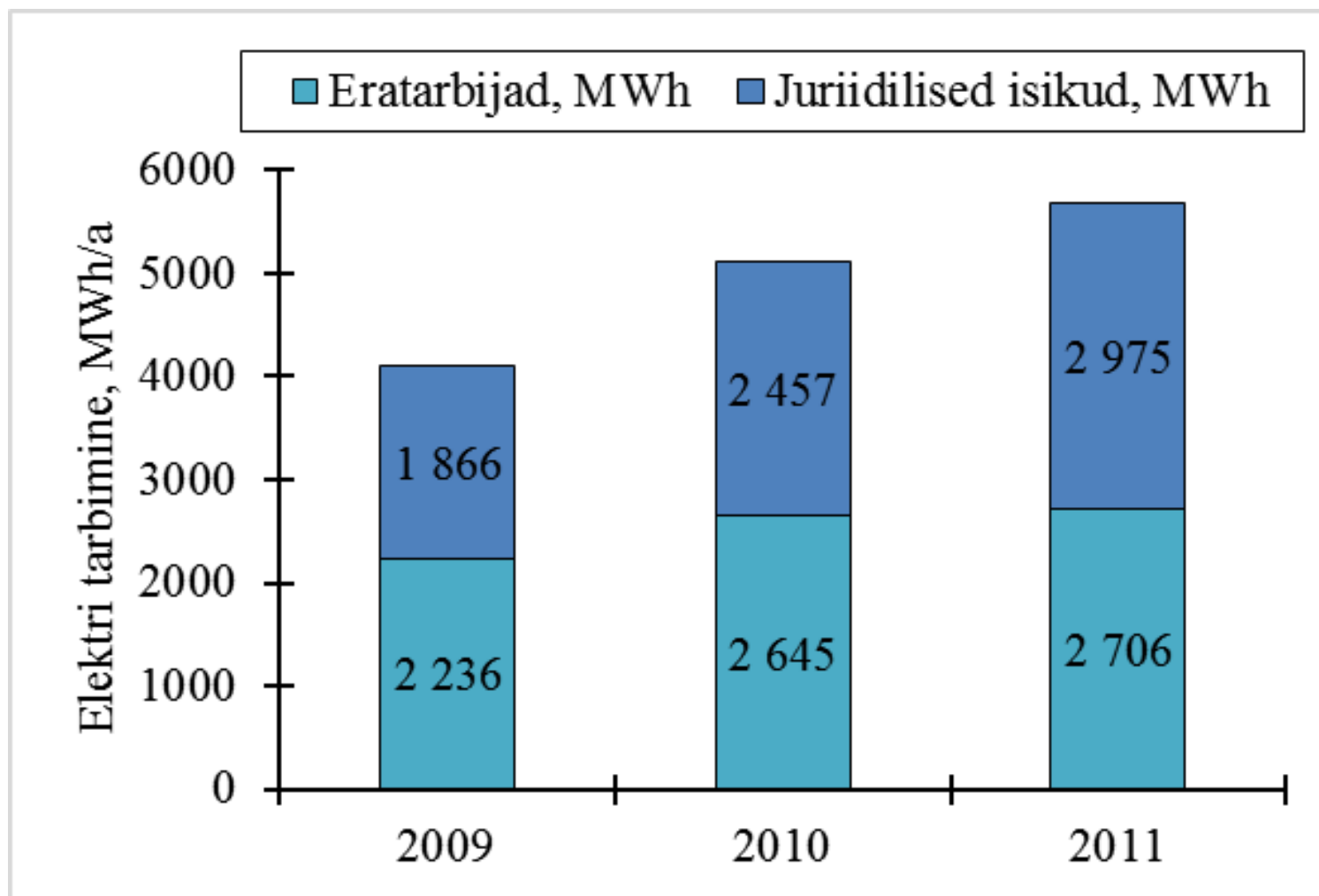
SECAP LEEVENDAMISINDIKAATORID

Indicators	Parameters required
GHG emissions per unit of Gross Domestic Product (GDP) [t CO ₂ or t CO ₂ eq./ million €]	Municipal GDP
Energy intensity of buildings [kWh/m ²]	Square meters of building floor area
Carbon intensity of transport [CO ₂ /km]	km driven by transport category
Public transport ridership [pkm/capita]	Passenger-km in public transport
Energy expenditure in the municipal sector [€/year]	Municipal energy expenditure
Energy expenditure in the residential sector [€/year]	Residential end-use energy price per energy carrier
Share of household income spent on fuel and electricity [%]	Annual household energy expenditure; Average household income
Share of population without access to electricity or commercial energy [%]	Number of population without access to electricity or commercial energy
Access to public transport [number]	Number of people within 0.5 km of public transit
Primary energy use per capita [MWh/capita]	Primary energy consumption
Emissions of air pollutants from road transport [µg/m ³ or mg/m ³]	Emissions of nitrogen oxides (NO _x), Sulphur oxides (SO _x), fine particulates, carbon monoxide (CO).

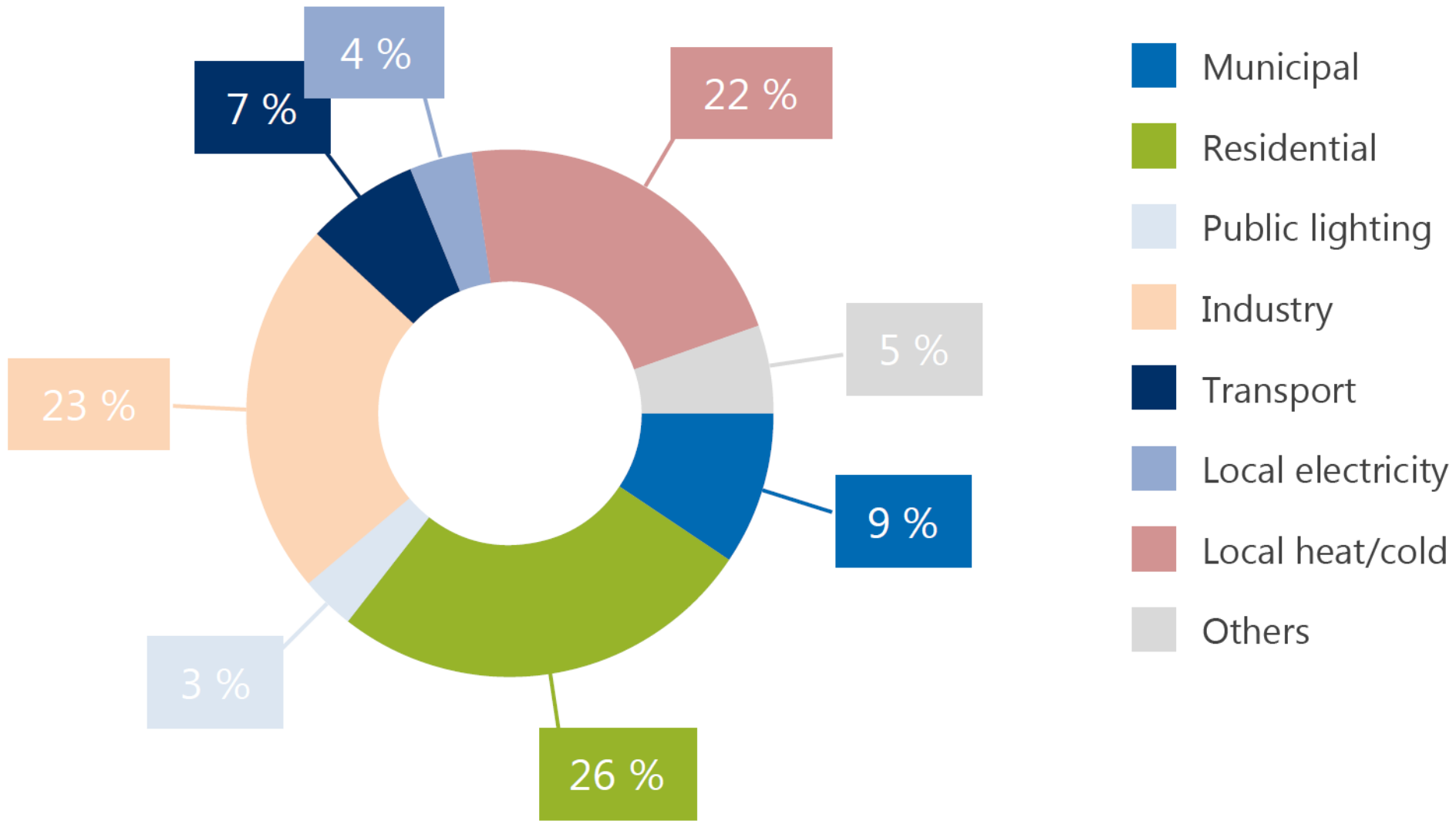
HEITEINVENTUUR (BEI): Rõuge lähteüksus 2010



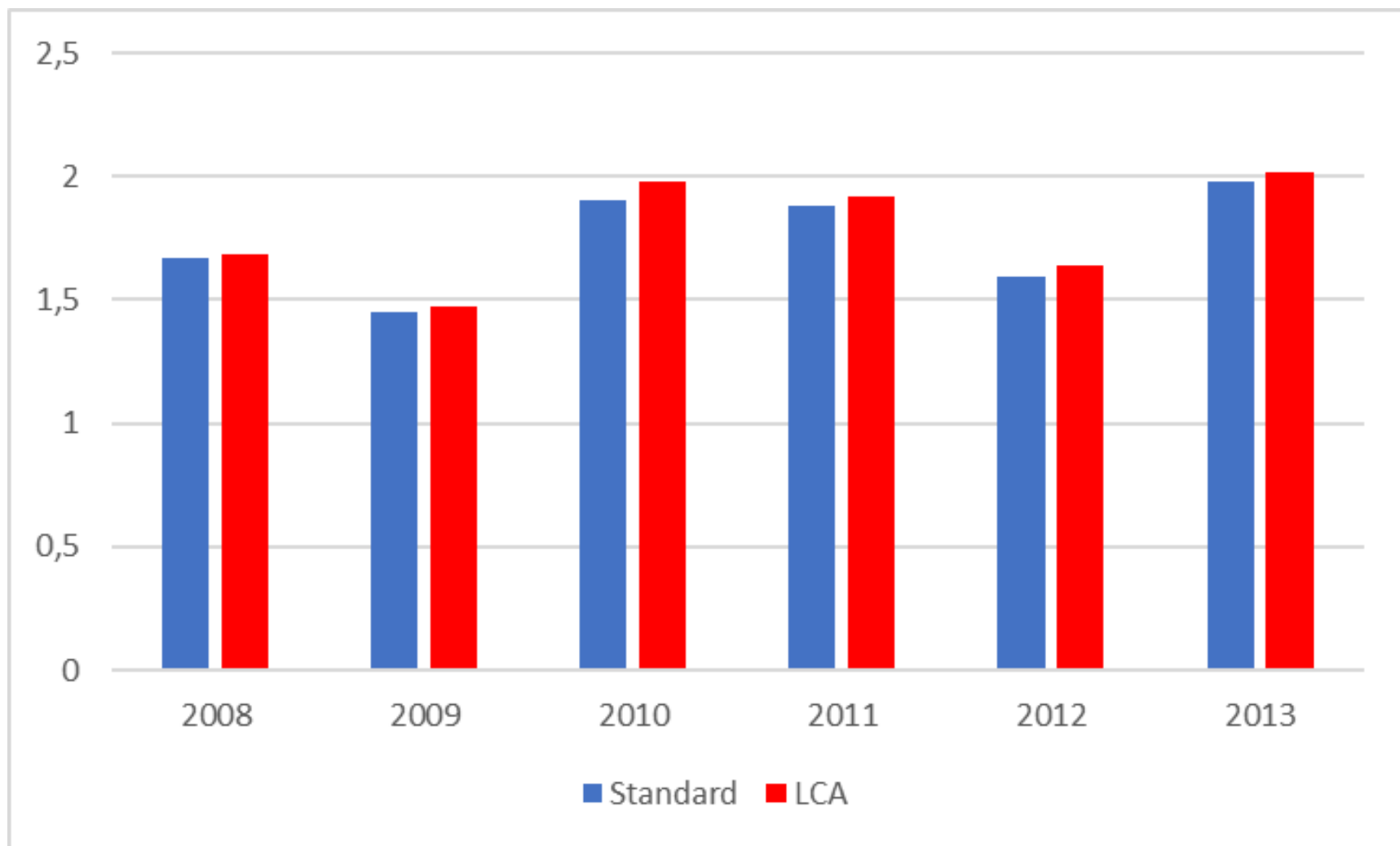
HEITEINVENTUUR: Rõuge elektritarve 2010



EESMÄRK CO₂ -20%: Rõuge -1300 t, RES 3%







HEITEINVENTUUR: Eesti heitetegur t CO₂ ekv / MWh


















Poola 1,1; Saksa 0,66; Soome 0,206; Läti 0,18; EL28 0,44

TEGEVUSKAVA: Rõuge SEAP

Key Actions of the SEAP

 Add action
  Delete action
  Edit action
  Select/edit action as Benchmark of Excellence

Please start by providing your totals by sector and add your key actions afterwards.

Key Actions	Area of intervention	Policy Instrument	Origin of the action	Responsible body	Implementation timeframe		Estimated implementation cost (€)	Estimates in target year			
					Start time	End time		Energy savings [MWh/a]	Renewable energy production [MWh/a]	CO ₂ reduction [t CO ₂ /a]	
MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES							20000	200	100	122	
Improving energy efficiency	Building envelope	Building standards	Local authority	Local authority	2014	2020	18000	160	100	100	  
Training	Behavioural changes	Awareness raising / training	Local authority	Local authority	2014	2020	2000	40	0	22	  
TERTIARY BUILDINGS, EQUIPMENT/FACILITIES							0	0	0	0	
RESIDENTIAL BUILDINGS							60000	450	130	340	
Renovation and energy management	Integrated action (all above)	Grants and subsidies	Other (national, regional, ...)	Households and KredEx Fund	2014	2020	60000	450	130	340	  
PUBLIC LIGHTING							90000	20	20	43	
Lighting reconstruction	Energy efficiency	Public procurement	Local authority	Government	2014	2020	85000	20	20	43	  
Lighting landmarks and homes	Other	Energy management	Not possible to say	Local authority and households	2014	2020	5000	0	0	0	  

TEGEVUSKAVA: Rõuge SEAP

INDUSTRY							60000	180	100	300	
Energy efficiency	Energy efficiency in buildings	Energy management	Other (national, regional, ...)	Firms	2014	2020	60000	180	100	300	☆ ✎ ✕
TRANSPORT							15000	50	20	90	
Construction charging station of electric car	Electric vehicles (incl. infrastructure)	Grants and subsidies	Other (national, regional, ...)	KredEx Fund	2014	2016	10000	0	20	20	☆ ✎ ✕
Mobility planning and promoting electric cars	Cleaner/efficient vehicles	Awareness raising/training	Local authority	Government	2014	2020	5000	50		70	☆ ✎ ✕
LOCAL ELECTRICITY PRODUCTION							30000	0	50	50	
PV and Solar park	Photovoltaics	Grants and subsidies	Local authority	Local authority	2014	2015	30000		50	50	☆ ✎ ✕
LOCAL HEAT/COLD PRODUCTION							152000	460	500	285	
District heating plan	District heating/cooling network (new, expansion, refurbishment)	Energy suppliers obligations	Local authority	Local authority	2014	2016	2000				☆ ✎ ✕
Solar energy heating	District heating/cooling network (new, expansion, refurbishment)	Grants and subsidies	Local authority	Local authority	2014	2016	20000	0	80	43	☆ ✎ ✕
Conversion of Viitina DH	District heating/cooling plant	Grants and subsidies	Local authority	Local government	2014	2018	50000	190		50	☆ ✎ ✕
Upgrading DH and network in Rõuge	District heating/cooling plant	Grants and subsidies	Local authority	Local government	2014	2020	80000	270	420	192	☆ ✎ ✕
OTHERS							43000	140	30	70	
Upgrading energy park and energy trail	Other	Awareness raising / training	Local authority	Government	2014	2020	23000	100	30	30	☆ ✎ ✕
Energy school and class, energy days	Other	Awareness raising / training	Local authority	School	2014	2020	20000	40		40	☆ ✎ ✕
TOTAL							470000	1500	950	1300	

SECAP KOHANEMISINDIKAATORID

- Haavatavusindikaatorid – erak. Ilmastikusündm., tundlikud elanikkonnagrupid
- Mõjuindikaatorid – kahjustatud hooneid ja taristut, elutähtsate teenuste katkestusi, hoiatuste arv
- Tulemusindikaatorid – riskiuuringud €, ennetustöö €

HINDAMISMETOODIKA: linnapeade pakti kontroll-lehed

Climate Change Risks and Vulnerabilities

HOME

		<< Current Risks >>		<< Anticipated Risks >>		
Climate Hazard Type		Current hazard risk level	Expected change in intensity	Expected change in frequency	Timeframe	Risk-related indicators
<u>Extreme Heat</u>		Low	Increase	Increase	Medium-term	
<u>Extreme Cold</u>		Moderate	Decrease	Decrease	Medium-term	
Extreme Precipitation		Low	Increase	Increase	Medium-term	
<u>Floods</u>		Moderate	Increase	Increase	Medium-term	
Sea Level Rise		Low	No change	No change	Current	
<u>Droughts</u>		Low	Increase	Increase	Short-term	
<u>Storms</u>		Low	Increase	No change	Current	
<u>Landslides</u>		Low	No change	No change	Current	
Forest Fires		Low	Increase	No change	Current	
<u>Other</u>	[please specify]	[Drop-Down]	[Drop-Down]	[Drop-Down]	[Drop-Down]	

Hide the rows that do not concern your local authority

To be completed for the climate hazards that concern your local authority only

Click here to see examples of risk-related indicators

3) Vulnerabilities of your local authority or region

Vulnerability Type	Vulnerability Description	Vulnerability-related indicators
Socio-Economic:		
Physical and Environmental:		

Click here to see examples of vulnerability-related indicators

4) Expected impacts in your local authority or region

Impacted Policy Sector	Expected Impact(s)	Likelihood of Occurrence	Expected Impact Level	Timeframe	Impact-related indicators
<u>Buildings</u>		[Drop-Down]	[Drop-Down]	[Drop-Down]	
<u>Transport</u>		[Drop-Down]	[Drop-Down]	[Drop-Down]	
<u>Energy</u>		[Drop-Down]	[Drop-Down]	[Drop-Down]	
<u>Water</u>		[Drop-Down]	[Drop-Down]	[Drop-Down]	
<u>Waste</u>		[Drop-Down]	[Drop-Down]	[Drop-Down]	
<u>Land Use Planning</u>		[Drop-Down]	[Drop-Down]	[Drop-Down]	
<u>Agriculture & Forestry</u>		[Drop-Down]	[Drop-Down]	[Drop-Down]	

HINDAMISMETOODIKA: linnapeade pakti indikaatorid

ANNEX - Indicators for Adaptation

<u>Outcome indicators</u>	quantify progress in delivering adaptation actions and outcomes (e.g. vulnerabilities reduced / resilience strengthened) in the different sectors.	Optional (but at least 1 highly recommended per "Key Action" reported in the "Actions" tab)	Key facts & figures on the Covenant (to come on the Covenant website)
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→ Indicators

Ⓜ Below is a list of indicator examples (non-exhaustive); please select any indicators that your local authority is using to measure progress and complete the list with your own indicators - simply add/hide the rows according to your needs. Indicators are classified according to the different sectors and categories you can find in the previous tabs of this present template.

Vulnerability Type	Vulnerability-related indicators	Unit	Base year	Expected Change
Climatic	Number of days/nights with extreme temperature (compared to ref. annual/seasonal temperatures at day/night times)	Number of days/nights		[Drop-Down]
Climatic	Frequency of heat/cold waves	Average per monthly/year		[Drop-Down]
Climatic	Number of days/nights with extreme precipitation (compared to ref. annual/seasonal precipitation at day/night times for each year)	Number of days/nights		[Drop-Down]
Climatic	Number of consecutive days/nights without rainfall	Number of days/nights		[Drop-Down]
Socio-economic	Current population vs. projections 2020/2030/2050	Number of inhab.		[Drop-Down]
Socio-economic	Population density (compared to national/regional average in year X in country/region X)	People per km ²		[Drop-Down]
Socio-economic	% share of sensitive population groups (e.g. elderly (65+)/young (25-) people, lonely pensioner households, low-income/unemployed households) - compared to national average in year X in country X	%		[Drop-Down]
Socio-economic	% of population living in areas at risk (e.g. flood/drought/heat wave/ forest or land fire)	%		[Drop-Down]
Socio-economic	% of areas non-accessible for emergency / firefighting services	%		[Drop-Down]
Physical & environmental	% change in average annual/monthly temperature	%		[Drop-Down]
Physical & environmental	% change in average annual/monthly precipitation	%		[Drop-Down]
Physical & environmental	Length of transport network (e.g. road/rail) located in areas at risk (e.g. flood/drought/heat wave/ forest or land fire)	Km		[Drop-Down]
Physical & environmental	Length of coastline / river(s) affected by extreme weather conditions / soil erosion (without adaptation)	Km		[Drop-Down]
Physical & environmental	% of low-lying or at altitude areas	%		[Drop-Down]
Physical & environmental	% of areas at coasts or rivers	%		[Drop-Down]
Physical & environmental	% of protected (ecologically and/or culturally sensitive) areas / % of forest cover	%		[Drop-Down]
Physical & environmental	% of (e.g. residential/commercial/agricultural/industrial/touristic) areas at risk (e.g. flood/drought/heat wave/ forest or land fire)	%		[Drop-Down]
Physical & environmental	Current energy consumption per capita vs. projections 2020/2030/2050	MWh		[Drop-Down]
Physical & environmental	Current water consumption per capita vs. projections 2020/2030/2050	m ³		[Drop-Down]
Other [please specify]	Other [please specify]	[please specify]		[Drop-Down]

HINDAMISMETOODIKA: linnapeade pakti indikaatorid

Impacted Sector(s)	Impact-related indicators	Unit	Base year	Expected Change
Buildings	Number or % of (public/residential/tertiary) buildings damaged by extreme weather conditions/events	(per year / over a certain period)		[Drop-Down]
Transport, Energy, Water, Waste, ICT	Number or % of transport/energy/water/waste/ICT infrastructure damaged by extreme weather conditions/events	(per year / over a certain period)		[Drop-Down]
Land Use Planning	% of grey/blue/green areas affected by extreme weather conditions/events (e.g. Heat Island Effect, Flood, Rockfalls and/or Landslides, Forest/Land Fire)	%		[Drop-Down]
Transport, Energy, Water, Waste, Civil Protection & Emergency	Number of days with public service interruptions (e.g. energy/water supply, health/civil protection/emergency services, waste)			[Drop-Down]
Transport, Energy, Water, Waste, Civil Protection & Emergency	Average length (in hours) of the public service interruptions (e.g. energy/water supply, public transport traffic, health/civil protection/emergency services)	hours		[Drop-Down]
Health	Number of people injured/evacuated/relocated due to extreme weather event(s) (e.g. heat or cold waves)	(per year / over a certain period)		[Drop-Down]
Health	Number of deaths related to extreme weather event(s) (e.g. heat or cold waves)	(per year / over a certain period)		[Drop-Down]
Civil Protection & Emergency	Average response time (in min.) for police/fire-fighters/emergency services in case of extreme weather events	min.		[Drop-Down]
Health	Number of water quality warnings issued	%		[Drop-Down]
Health	Number of air quality warnings issued	%		[Drop-Down]
Environment & Biodiversity	% of areas affected by soil erosion / soil quality degradation	%		[Drop-Down]
Environment & Biodiversity	% of habitat losses from extreme weather event(s)	%		[Drop-Down]
Environment & Biodiversity	% change in number of native species	%		[Drop-Down]
Environment & Biodiversity	% of native (animal/plant) species affected by diseases related to extreme weather conditions/events	%		[Drop-Down]
Agriculture & Forestry	% of agriculture losses from extreme weather conditions/events (e.g. drought/water scarcity, soil erosion)	%		[Drop-Down]
Agriculture & Forestry	% of livestock losses from extreme weather conditions	%		[Drop-Down]
Agriculture & Forestry	% change in crop yield / evolution of the annual grassland productivity	%		[Drop-Down]
Agriculture & Forestry	% of livestock losses from pests/pathogens	%		[Drop-Down]
Agriculture & Forestry	% of timber losses from pests/pathogens	%		[Drop-Down]
Agriculture & Forestry	% change in Forest composition	%		[Drop-Down]
Agriculture & Forestry	% change in water abstraction	%		[Drop-Down]
Tourism	% change in tourist flows / tourism activities	%		[Drop-Down]
Other	€ annual direct economic losses (e.g. in commercial/agricultural/industrial/touristic sectors) due to extreme weather event(s)	€/year		[Drop-Down]
Other	€ annual amount of compensation received (e.g. insurance)	€/year		[Drop-Down]
Other	Other [please specify]			[Drop-Down]

➔ RISKS

Concerned Sector(s)	Outcome-related indicators	Unit	Base year	Expected Change
Buildings	% of (public/residential/tertiary) buildings retrofitted for adaptive resilience	%		[Drop-Down]
Transport, Energy, Water, Waste, ICT	% of transport/energy/water/waste/ICT infrastructure retrofitted for adaptive resilience	%		[Drop-Down]

TULEMUSTABELI/KAARDI MEETOD

**EL kohanemisstrateegia ja selle tulemustabel/scoreboard
JAH/TÖÖS/EI**

EESTI KOHANEMISSTRATEEGIA

Tegemisel:

Piiriülesed ja valdkondlikud kohanemisplaanid

Puudused rakendamisel:

Hädaolukorra ja kliimakohanemise sidustamine

Planeerimine ja maakasutus ei võta arvesse kliimat

Kindlustus- ja pangandusmeetmed

Tasandite koostöö

Juhendid kliimakohanemise alternatiivideks

Puudub tulemusseire

EESTI KLIIMAKOHANEMISE TEGEVUSKAVA

5.8. Energeetika ja varustuskindlus

Alaeesmärk 8. Kliimamuutuste tõttu ei ole vähenenud energiasõltumatus, -turvalisus, varustuskindlus ja taastuvenergiaressursside kasutatavus ning ei suurene primaarenergia lõpptarbimise maht.

Mõõdik	Algtase	Sihttase 2030
Imporditud energiakandjate osakaal primaarenergiaga varustuses ³⁹	44,8% (2014)	< 25%
Energiaressursside kasutatav varu ⁴⁰	53,316 TWh/a (2013)	> 78,089 TWh/a
Primaarenergia lõpptarbimise maht ⁴¹	2818 ktoe (2010)	< 2058 ktoe
Kütusevabade energiaallikate osakaal lõpptarbimises ⁴²	4,4% (2012)	> 10%

EESTI KLIIMAKOHANEMISE TEGEVUSKAVA

5.7. Taristu ja ehitised

Alaesmärk 7. Kliimamuutuste mõju tõttu ei ole vähenenud elutähtsate teenuste kättesaadavus ega hoonete energiatõhusus.

Möödik	Algtase	Sihttase 2030
Transpordisüsteemi kasutajate rahuolu indeks ³⁵	4,47 (2012)	> 4,8
Kevadise raskeveokite massipiiranguga riigimaanteed kogupikkus ³⁶	3000 km (2015)	< 4000 km
Energiamärgisele C vastavate väikeelamute osakaal > 40% (2011. a 25%) ³⁷	25% (2011)	40%
Primaarenergia tarbimine soojatootmiseks ³⁸	20,4 TWh/a (2012)	< 11,8 TWh/a

EESTI KLIIMAKOHANEMISE TEGEVUSKAVA

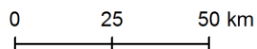
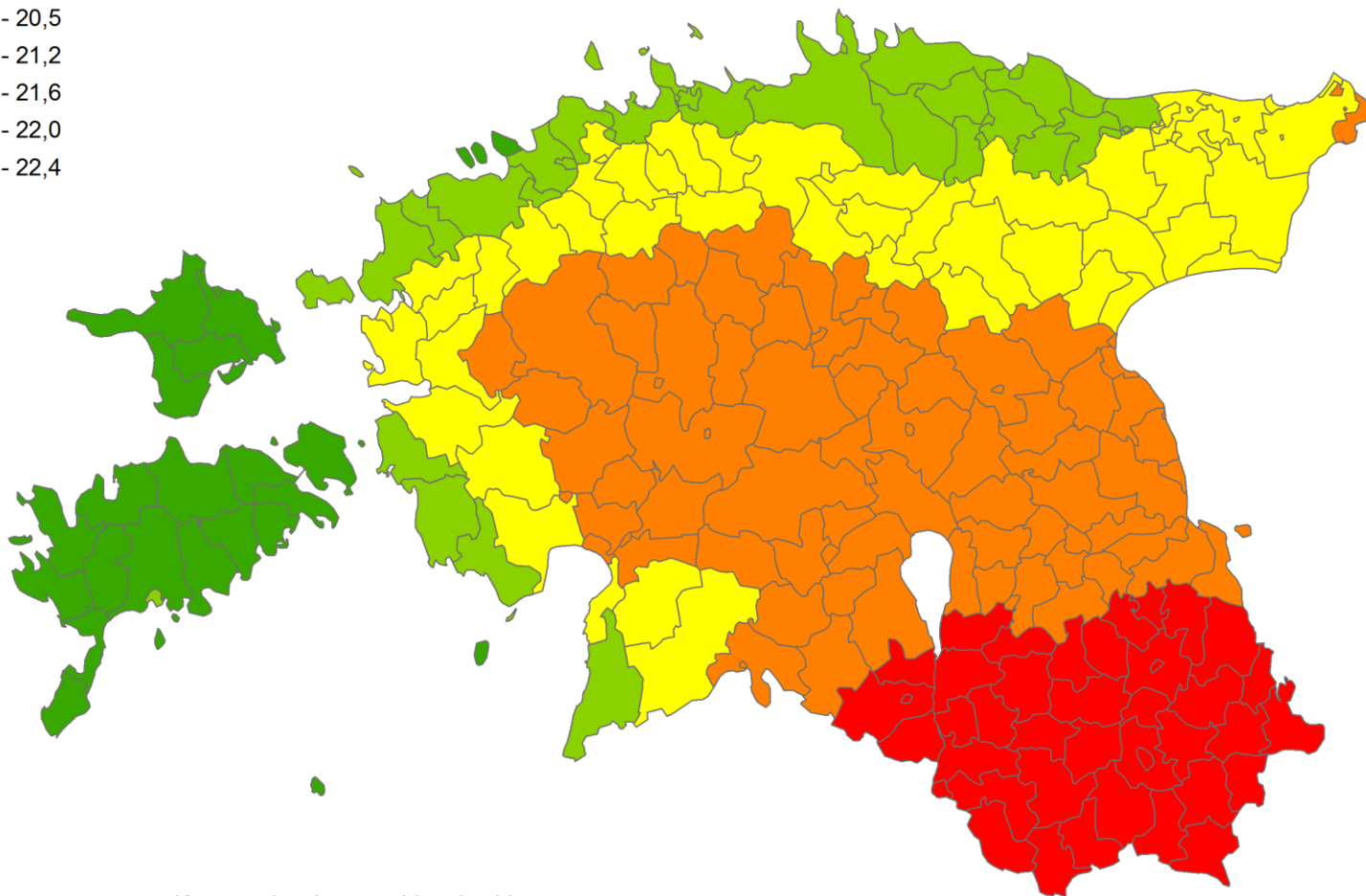
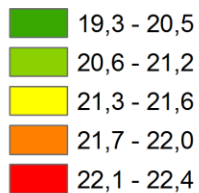
5.2. Maakasutus ja planeerimine

Alaesmärk 2. Tormi-, üleujutus- ja erosioonirisk on maandatud, soojussaare efekti on leevendatud, asustuse kliimakindlust on suurendatud, valides selleks parimad lahendused maakasutuses ja selle planeerimises.

Mõõdik	Algtase	Sihttase 2030
Kliimarisikide kajastus koos tõenäosustega riiklikus ruumiandmebaasis ¹⁹	Üleujutusriskiga alad tiheasustuspiirkondades (2015)	Kõik kliimarisikid ja nende tõenäosus on kajastatud riiklikus ruumiandmebaasis
Kliimamuutuste mõjuga arvestavate üldplaneeringute (ÜP) arv kohalikus omavalitsuses ²⁰	5 ÜP (2015)	20 ÜP
Eluhoonete arv potentsiaalse üleujutusohuga alal (1% tõenäosus) ²¹	3700 (2012)	> 4000

HAAVATAVUS: KESKMINE MAX ÕHUTEMP. JUULIS

Normkliima keskmine maksimaalne temperatuur juulis



Kasutatud on järgnevaid andmeid:

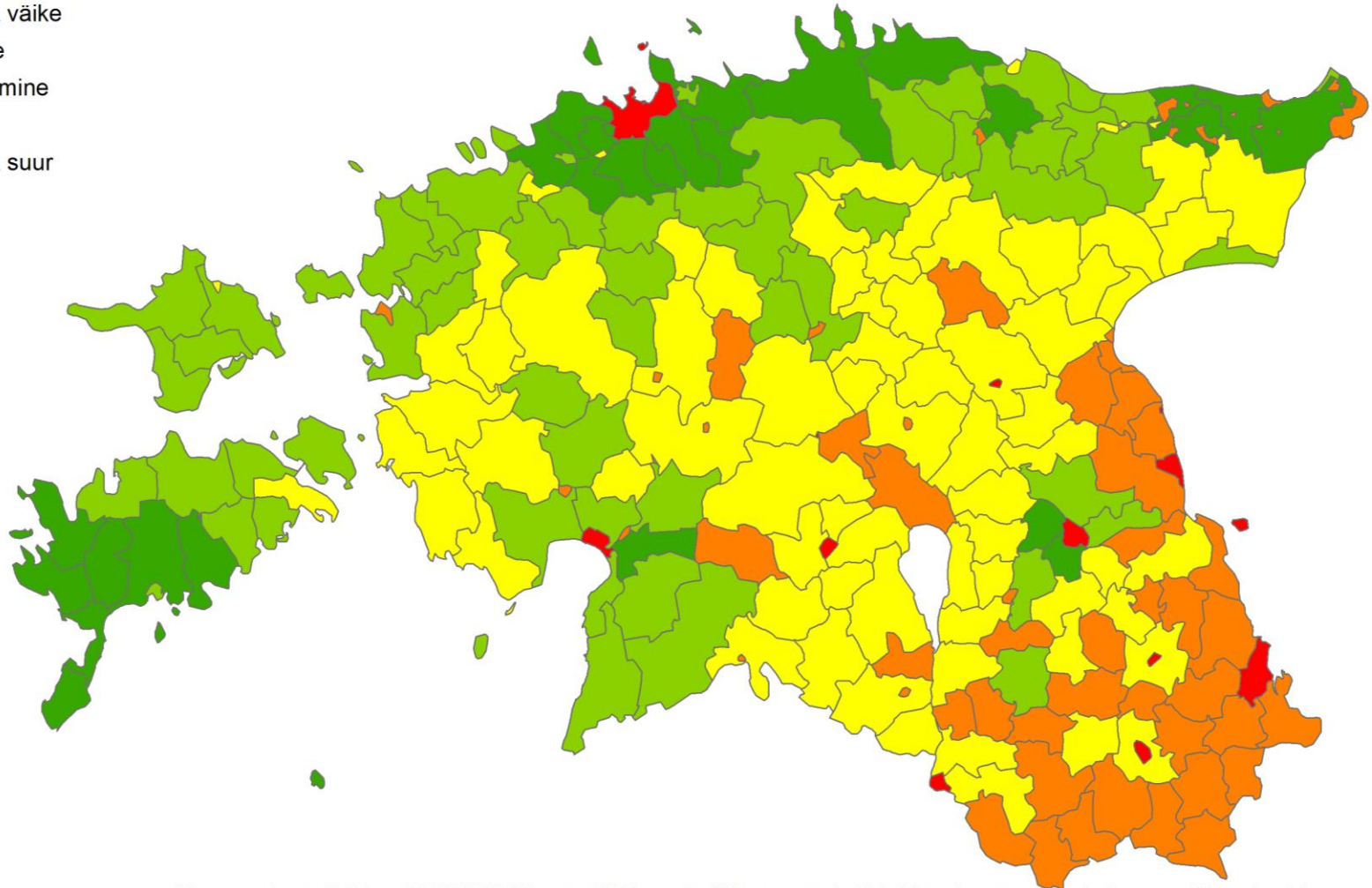
*Ilmateenistuse mõõtejaamade andmed 1971-2000

*Statistikaameti Eesti haldusjaotuse generaliseeritud piire mõõtkavas 1: 2 500 000.

HAAVATAVUS KUUMAPÄEVADE SUHTES

0-4 ja 65+ vanuserühmade haavatavus kuumapäevade suhtes

- väga väike
- väike
- keskmine
- suur
- väga suur



0 25 50 km

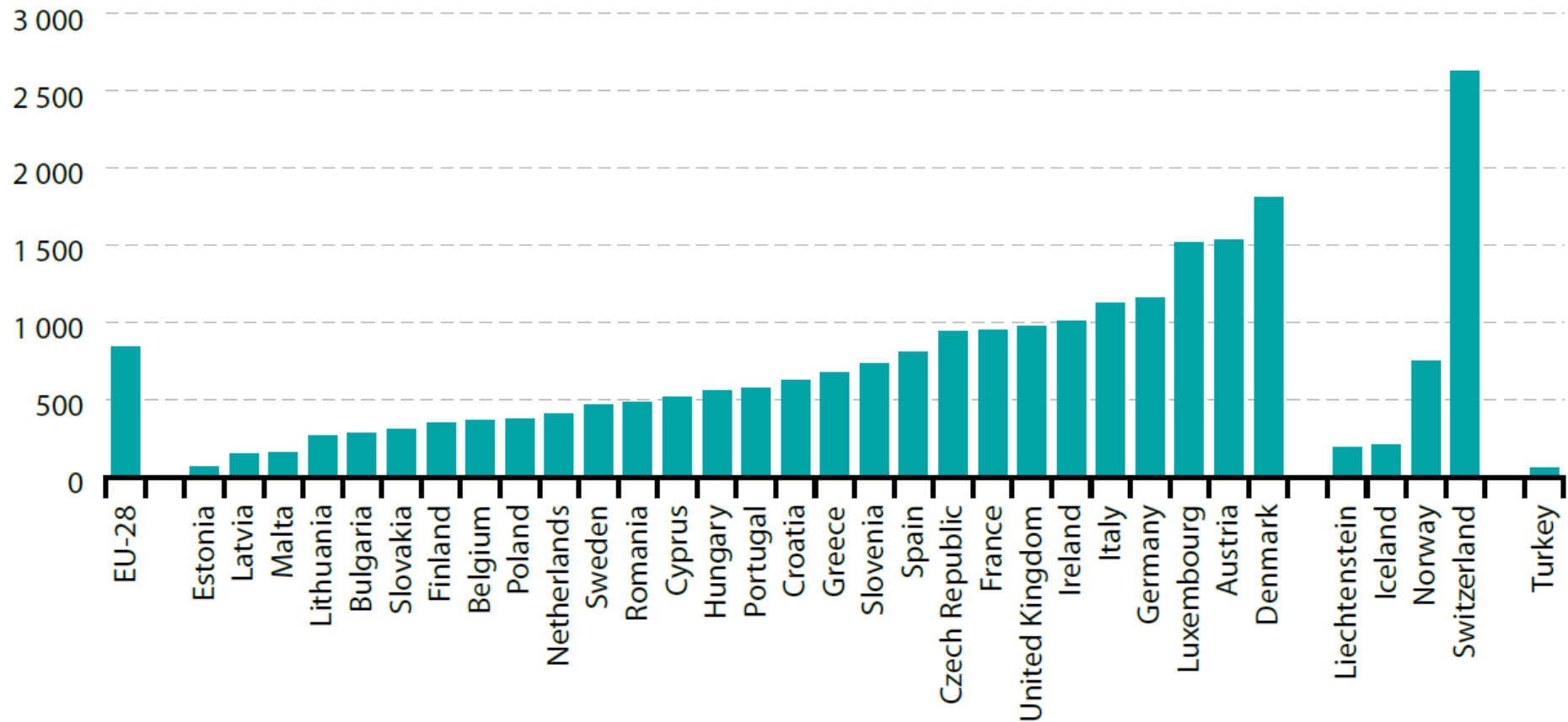
Kasutatud on allviidatud ESPON Climate 2011 teaduslikkus raportis kirjeldatud meetodikat ja järgnevaid andmeid:

* Kuumapäevade mõju 0-4 ja 65+ vanuserühmadele ning kohanemisvõimekuse kaarte.

* Eesti haldusjaotuse generaliseeritud piire mõõtkavas 1: 2 500 000.

KLIIMAKAHJUD EESTIS EUROOPA VÄIKSEMAID

Figure 13.10: Climate-related economic losses, by country, 1980–2015
(cumulative losses since 1980 in EUR per capita (2015 values))



Source: European Environment Agency (EEA) (Eurostat online data code: [sdg_13_40](#))

ÜLEUJUTUSALAD: Tartu, Supilinn, aprill 2010

Tartu linna arengukava 2018-25 (2017):

Maandada kliimarisike, sh sademevete juhtimise ja immutamise ning vältida linna soojasaarte teket haljastuse ja veestikuga.

Tänavate rekonstrueerimisel kliima soojenemisega kaasnevate riskide leevendamine tänava-haljastusega, tänavate projekteerimisel ja ehitamisel tänavadisaini elementide kasutamine.

Tartu linna üldplaneering 2030+ (keht. 14.sept 2017):

Tartu arvestab kliimamuutustega. Vihmavalingute, mitmepäevaste sadude, tormide ning ekstreemsete kuumaperioodide leevendamiseks rajatakse piisavalt haljastust ja immutatakse vihmavett pinnasesse.

Foto: Indrek Ranniku

- **Kohaliku tasandi tuletis kliimapoliitika põhialustest**
- **Innustada KOV ühinema SECAPiga, et tähtsustada kliima-energia agendat**
- **Avada 40% CO₂ vähendamise ja kohanemislahendused**