



REPUBLIC OF ESTONIA
MINISTRY OF THE ENVIRONMENT

Decarbonisation as a driver for innovations and partnerships

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International climate cooperation

100 bn goal – in 2009, developed countries agreed to a goal to upscale the International climate-related aid for developing countries to at least 100 bn annually by 2020



Estonian contribution and pledge – amounts to **1 MEUR** annually



Estonian contributions to date

Green Climate Fund

Global Climate Change Alliance adaptation to climate change in Bhutan

UNEP adaptation to climate change in Afghanistan

ITU Project for small island states in the Pacific

Let's Do It! World clean-up



New approach for climate-aid

Promote Estonian technologies, solutions and know-how to developing countries.

- Enhance International cooperation
- Establish business links and connections with distant countries
- Provide EE companies access to distant markets

→ **The data confirms that currently Estonian SMEs in cleantech sector are not exporting to developing countries**

Other forms of financing are not excluded!





Projects and key components

Project must address recipient's needs and preferences

- Nationally Determined Contribution (NDC)
- Technology Needs Assessment (TNA) → Technology Action Plan (TAP)

Priority recipients:

- Least Developed Countries
- Small Island States
- Priority partners highlighted in Estonian development and humanitarian aid action plan



Needs of the developing countries

UNFCCC 2013. analysis:

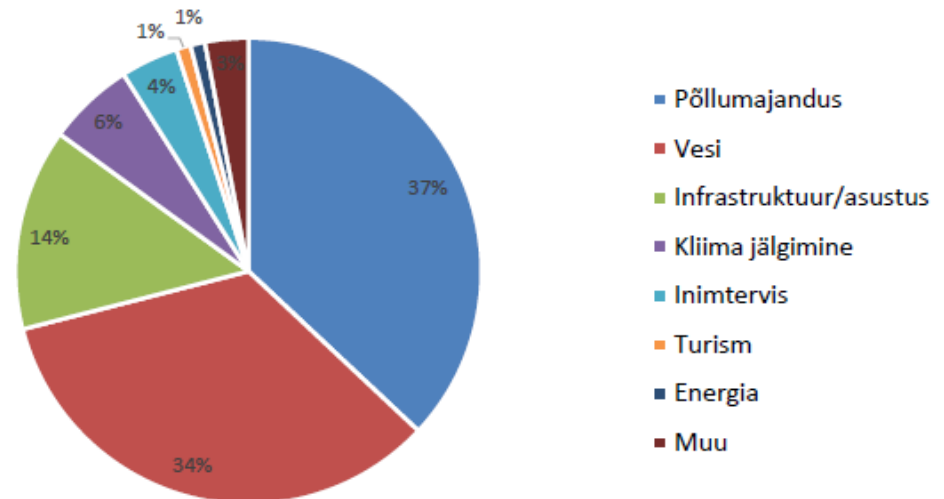
Mitigation needs:

- 90% of countries considers energy (energy production+transport) to be a priority, 55% as a first priority – electricity production (solar+biomass/biogas, effective lightning)
- Around ¼ of countries deems agriculture+forestry+land-use as a first priority;

Adaptation needs:

Agriculture: biotechnology, best agricultural practices, agroforestry

Water: gathering of rainfall, valgalade tehnoloogiad, climate monitoring technologies





Study on Estonian greentech sector and climate change needs of developing countries

Not to direct financial aid to 'black hole'

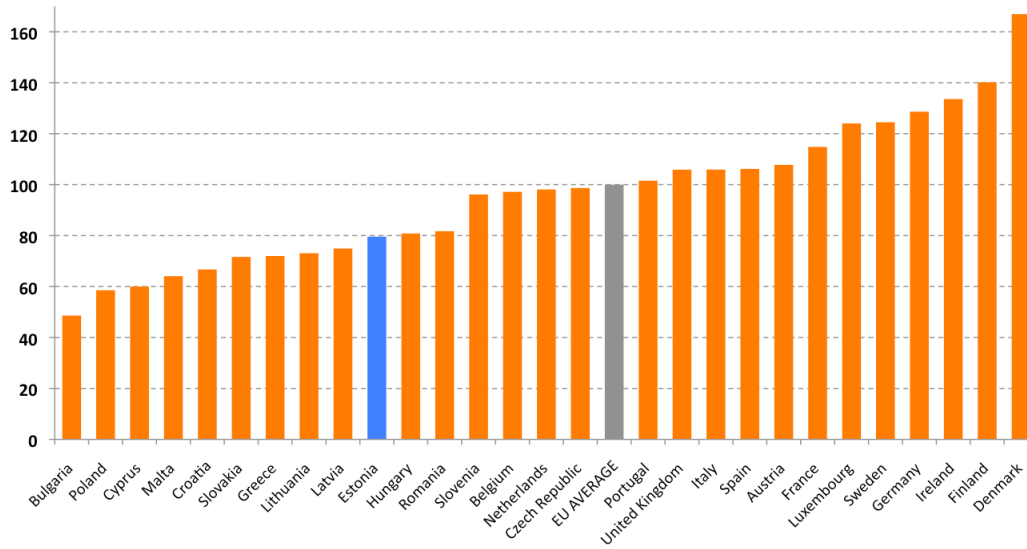
To understand better needs of LDCs,
opportunities, markets, etc

To have a clearer picture of the Estonian
cleantech sector, companies and capacity

→ Work in progress!



Estonian Cleantech sector

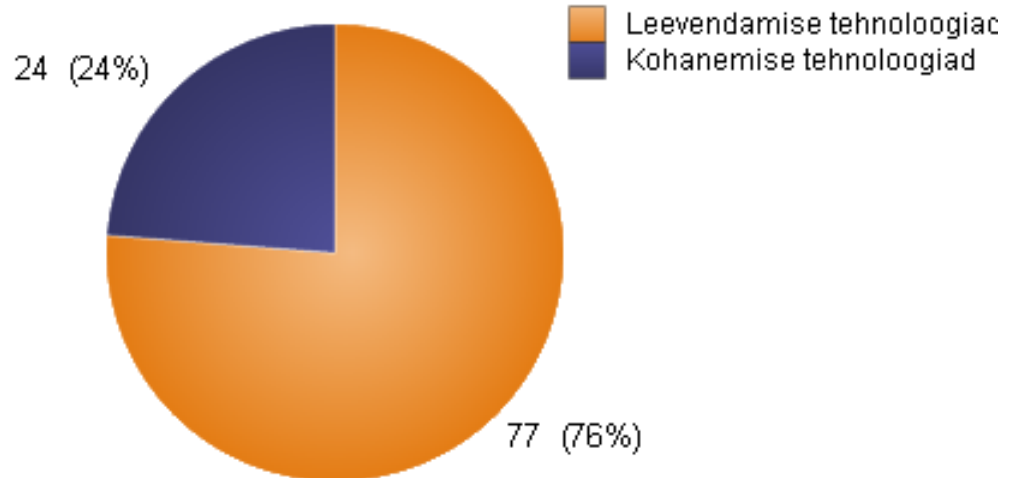


Ecoinnovation in the EU

3/4 of technologies are dealing with mitigation of climate change

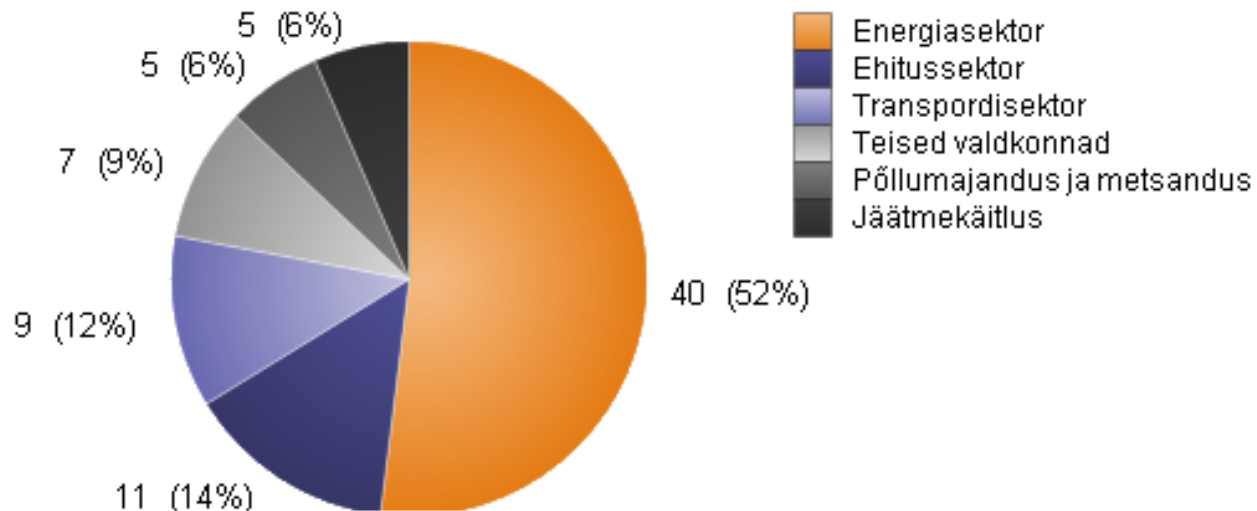
2/3 of mitigation and over 1/2 of adaptation technologies can be considered **'mature'**

Majority of technologies are unique!





Technologies for climate change mitigation



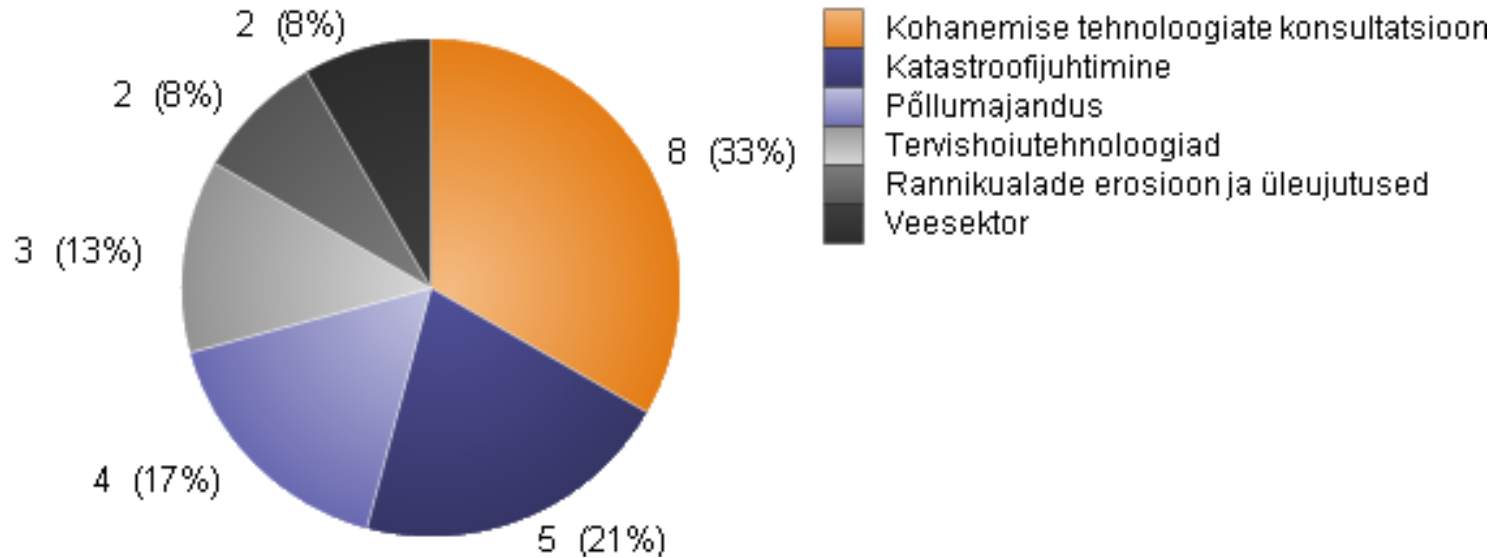
Over 50% in energy sector, where majority is of energy production

In **building sector** – carbon capture + less CO₂-emitting practices

In **agriculture and forestry** - combined only 5% of technologies!



Adaptation to climate change



1/3 of adaptation-related solutions are labeled as ‘consultancy’;
additionally 20% of solutions are considered as ‘disaster
management’

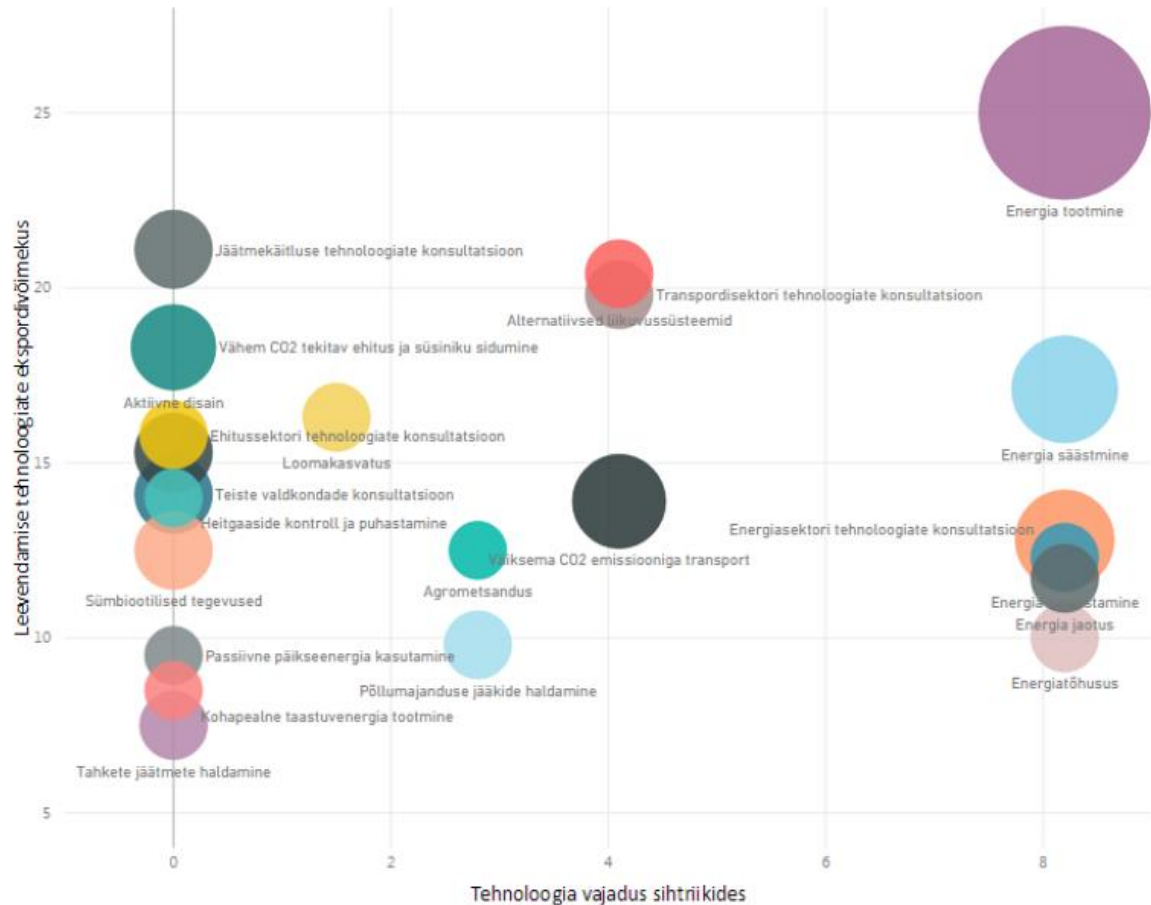
2/3 of consultancy solutions are not EE patented



Mitigation Technologies with biggest potential

Tehnoloogia

- Agrometsandus
- Aktiivne disain
- Alternatiivsed liikuvussüsteemid
- Ehitussektori tehnoloogiate konsultatsioon
- Energia jaotus
- Energia säästmine
- Energia salvestamine
- Energia tootmine
- Energiasektori tehnoloogiate konsultatsioon
- Energiatõhusus
- Heitgaaside kontroll ja puhastamine
- Jäätmekäitluse tehnoloogiate konsultatsioon
- Kohapealne taastuenergia tootmine
- Loomakasvatus
- Passiivne päikseenergia kasutamine
- Põllumajanduse jääkide haldamine
- Sümbiootilised tegevused
- Tahkete jäätmete haldamine
- Teiste valdkondade konsultatsioon
- Transpordisektori tehnoloogiate konsultatsioon
- Vähem CO2 tekitav ehitus ja süsiniku sidumine
- Väiksema CO2 emissiooniga transport





Adaptation Technologies with biggest potential

Tehnoloogia

- Diagnostilised kiirtestid
- Energiajaotusvõrgu optimeerimine
- Haiguste seiresüsteemid
- Ilma- ja kliimaandmebaas
- Infiltreeruvad pinnakatted
- Katastroofiseiresüsteemid
- Kliimamuutusteks valmistumine
- Konsultatsioon tervisetehnoloogiate valdkonnas
- Kriisivarjupaigad
- Regeneratiivne meditsiin kriisikolletes
- Säästev loomakasvatus
- Säästev taimekasvatus
- Sademevee kogumine, puhastamine ja hajutamine
- Üleujutuste seiretehnoloogiad
- Veesektori konsultatsioon



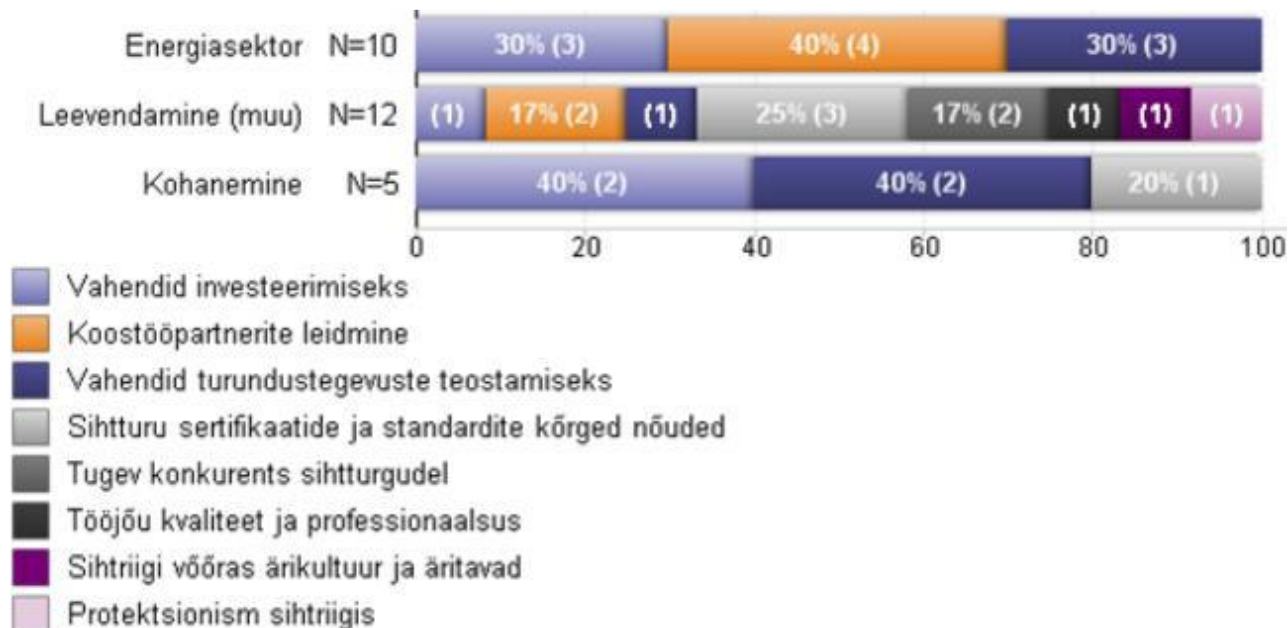


Estonian Cleantech sector plans, risks and needs

The sector is not currently considering finding new markets as a top priority!

Developing countries are undervalued as potential new markets; EU eastern partnership countries not so much

Increasing production within reasonable timeframe is not a problem for Estonian companies.





Support to Cleantech sector export activities

Estonia needs a national strategy for developing
Cleantech sector (that includes **Organic Estonia** vision)

Select **5 priority** developing markets

Financial support to renewable energy technologies to
penetrate developing country markets

Support for International cooperation – finding partners,
taking part of international tenders, market analysis,
organizing conferences + other events, networking with
other technology developers



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Thank You!