

The role of the peat industry in the economy and climate change

Riga | 15. IX 2022

Erki Niitlaan | Estonian Peat Association

Content

Selections of thoughts and questions

Where we are?

In 2021 European Commission presented the EU “Fit for 55” package to transform the European economy. The package includes a series of 13 cross-cutting legislative proposals that set new ambitious targets to be implemented by 2030:

	Pervious targets
✓ at least 55% cuts in GHG emissions in total from 1990 levels	-40%
✓ at least 40% share for renewable energy	-32%
✓ at least 36% improvement in energy efficiency	-32,5%
✓ at least 61% cuts in GHG in ETS sectors compared with 2005	-43%
✓ at least 40% cuts in GHG in non-ETS sectors compared with 2005	-30%
✓ increase carbon removals to -310 mill t CO ₂ eq in LULUCF sector	0 t CO ₂ eq)
✓ European Climate Law sets legally binding objective for Europe's economy and society to become climate-neutral by 2050	

A question

Conclusion - compared with 2019 nothing has gotten easier; nothing has been eased or put on hold, on the contrary.

It is evident that in minimum, LULUCF targets for Baltic countries, especially for Estonia, are not achievable. Actual reduction is inevitable if target remains.

If it were up to you, which sector would you close or where would you reduce?

LULUCF i.e. Land use, land use change and forestry:

Forest land		Forest industry - big and important
Wood products		Agriculture - holy and untouchable
Cropland		
Grassland		
Wetlands		Peat industry - small and unknown
Settlements		Residential areas - incorrigible
Other land		Irrelevant

So, what we can do to improve?

Not to be unknown ...

... in the winter 2022 Ernest & Young conducted a study of the socioeconomic impact of the Estonian peat industry on behalf of the Estonian Peat Association

Same people have done similar studies about forest industry for several times

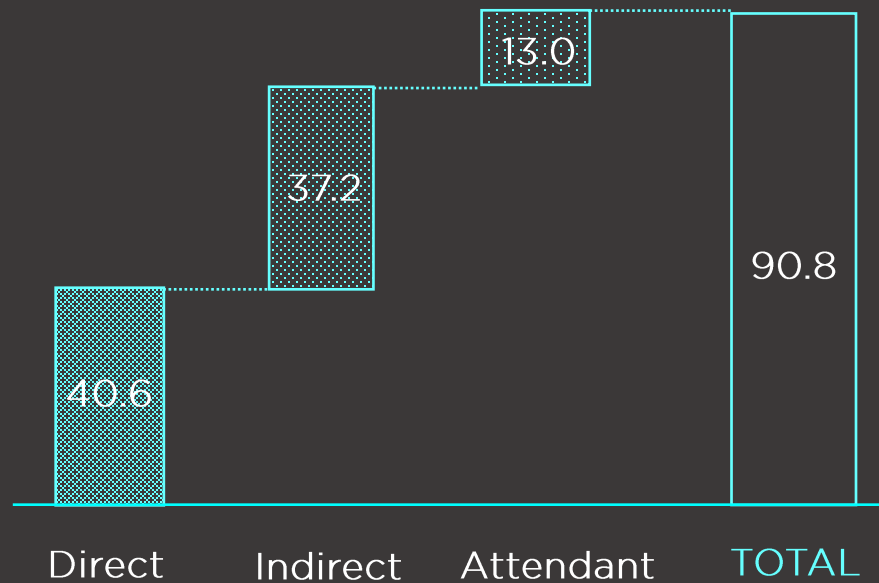
We used the same methodology

We introduced different ratios to compare different sectors

Starting from this autumn, a special media campaign is planned to introduce the result of the study, importance of the peat industry and its actual environmental impact.

What we learned?

The total added value created by the peat sector | mill €



In 2020, the peat sector generated a €90.8 million of total added value to the Estonian economy.

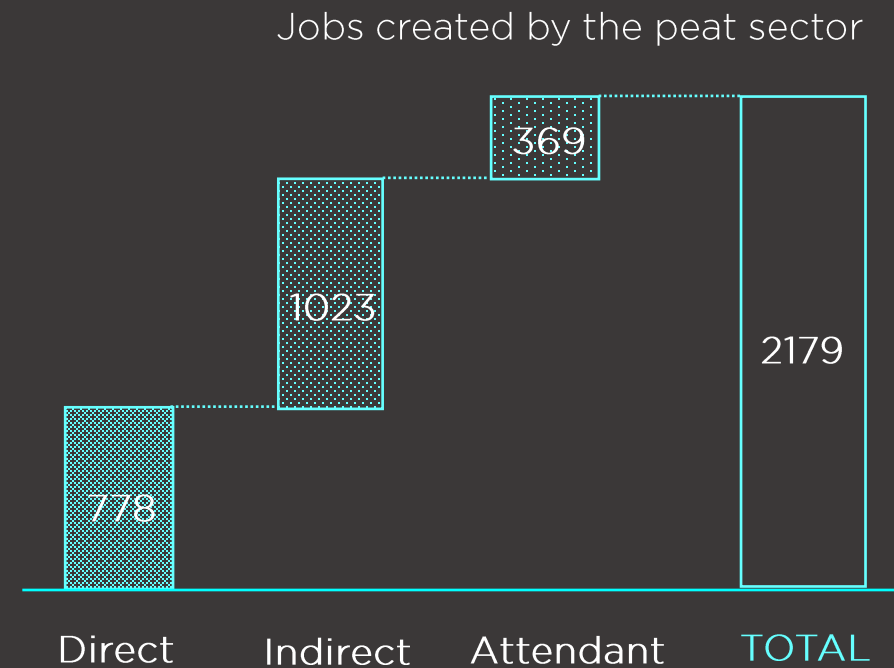
This made up 0.6% of the total added value created in Estonia (€15.92 billion).

The sector accounts for €40.6 million of the total added value direct impact, €37.2 million indirect and €13 million attendant effect.

What we learned?

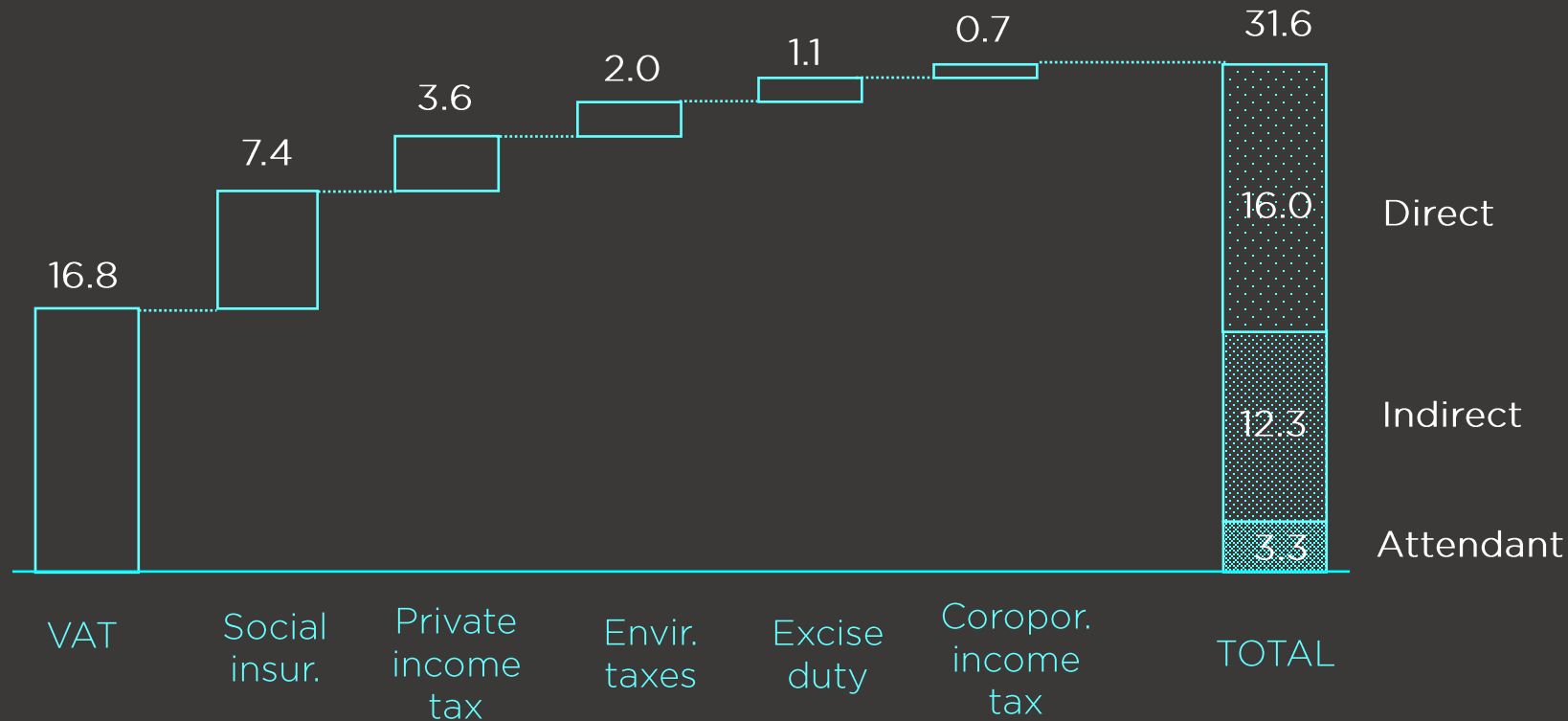
No of employees	No of companies	Distribution
< 10	14	30%
10-24	16	34%
25-50	12	25%
> 50	5	11%
TOTAL	47	100%

Peat sector occupies 0.32% of the total number of employees.



What we learned?

Taxes paid by peat sector | mill €



Peat sector created in 2020 nearly €32 million of tax revenue (direct, indirect and implied)

The biggest share of the tax revenue (53%) was VAT - €16.8 million.

Social insurance payments (23% or €7.4 million) and personal income tax (11% or €3.6 million) also made up a large part of this tax revenue.

Conclusion

Sector	Estonia in total	Peat sector		Agriculture & forestry		Wood industry		Tourism	
Indicator	No	No	Share	No	Share	No	Share	No	Share
No of companies	100 123	47	0.05%	3 947	3.9%	1 146	1.14%	3 916	3.91%
No of employees	457 653	778	0.17%	31 206	6.8%	17 465	3.8%	27 641	6.04%
Revenue, mill €	66 480	119.8	0.18%	4 146.2	6.2%	2 548	3.83%	1 351,3	2.03%
Revenue per company, thousand €	664.0	2 548.9	N/A	1 050.5	N/A	2 223.9	N/A	345.1	N/A
Revenue per employee, thousand €	145.3	154.0	N/A	132.9	N/A	145.9	N/A	48.9	N/A
Profit, mill €	4 490.8	12.5	0.24%	516.2	11.5%	150.3	3.35%	56.4	1.3%
Profit per employee, thousand €	9.8	16.0	N/A	16.5	N/A	8.6	N/A	2.04	N/A
Direct added value (DAV), mill €	15 920	40.6	0.26%	1 194	7.5%	631.3	3.96%	994.3	7.3%
DAV per employee, thousand €	34.8	52.2	N/A	38.3	N/A	36.2	N/A	36.0	N/A

A realization

Peat sector generates ...

0.6%

of Estonian
added value
of economy

~10%

of Estonian CO₂
emissions

Globally <0,02%

0.3%

of Estonian
tax revenue

A realization

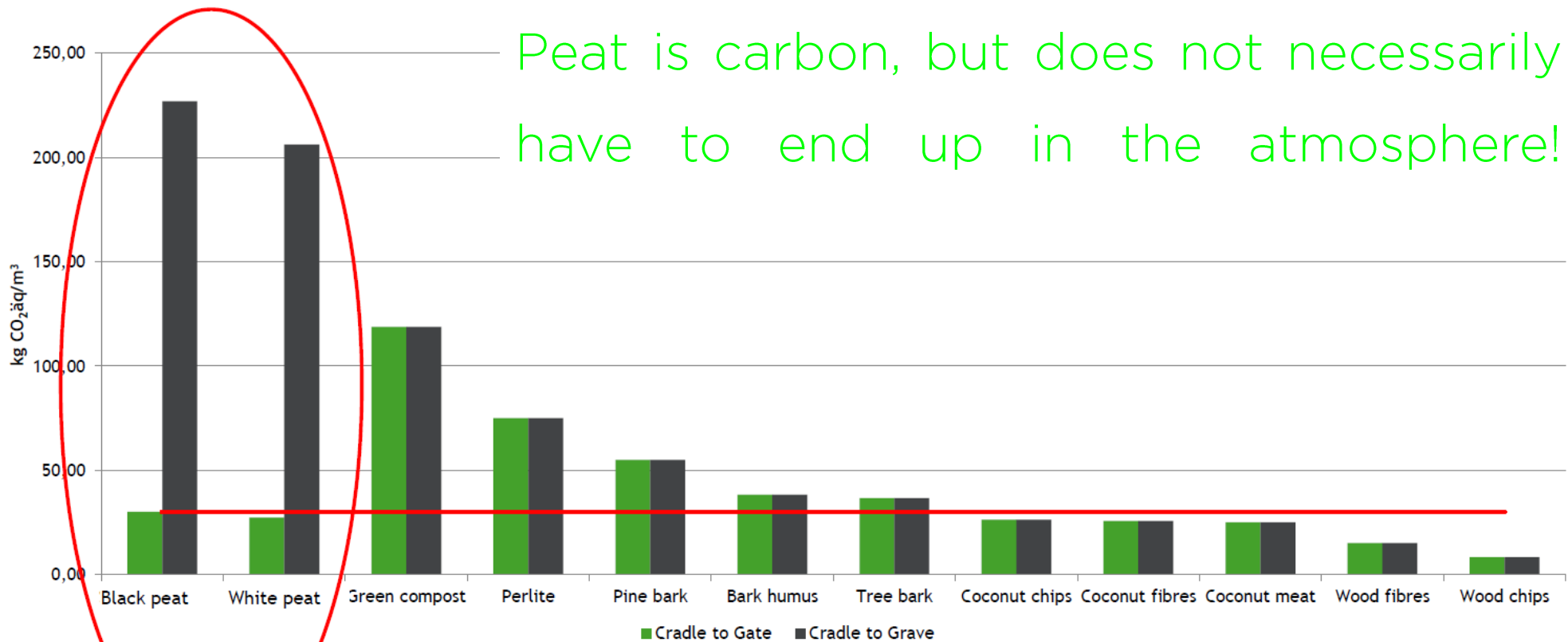
For peat, the impact of climate policy is amplified by the fact that the European Union's climate policy is the most advanced and ambitious, yet superficial and does not go into the depths of the peat. There are a lot of emotions.

A change in thinking is needed – production ≠ emissions!

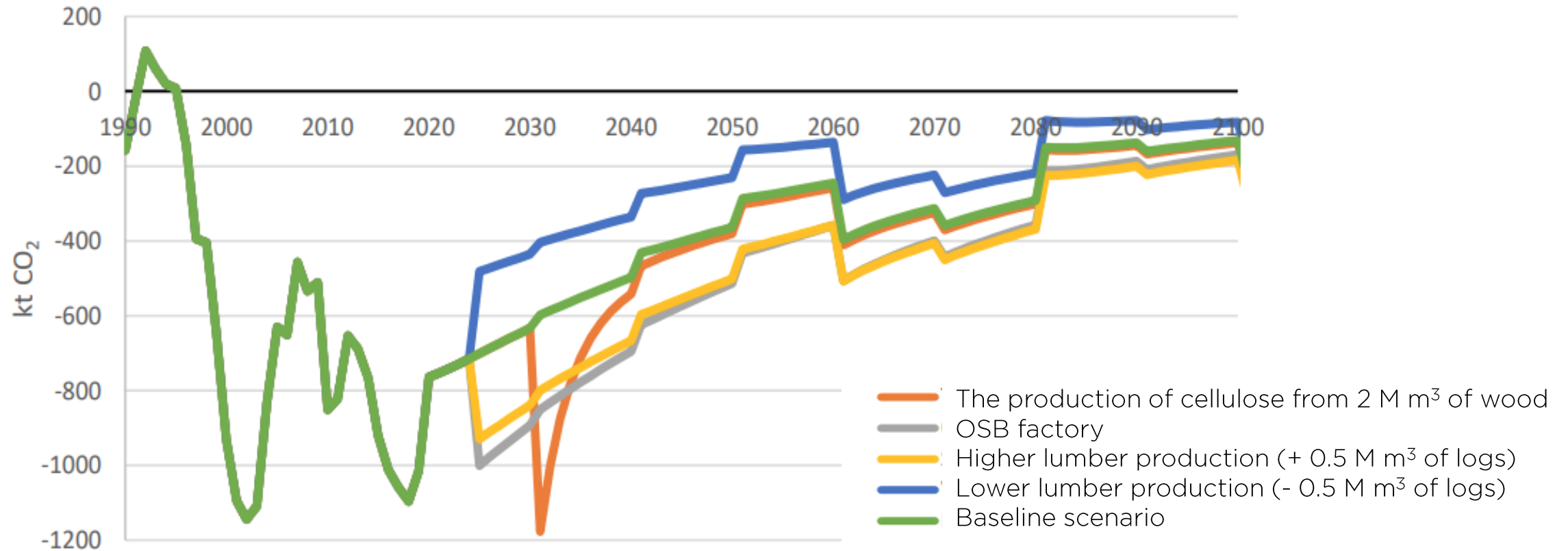
EU regulations on wetlands and peatlands aim to prevent peatland drainage, restore peatlands to their natural water regime, maintain and increase soil carbon. All of this has been more or less done. The contribution of peat production and use to the greenhouse gas emissions is not shown separately from the overall emissions of the peatlands. In fact, its role is small, but the peat sector has to constantly swim upstream in an ever-accelerating flow.

Unless current policies change significantly, achieving climate neutrality is an existential challenge for the peat sector!

Core problem

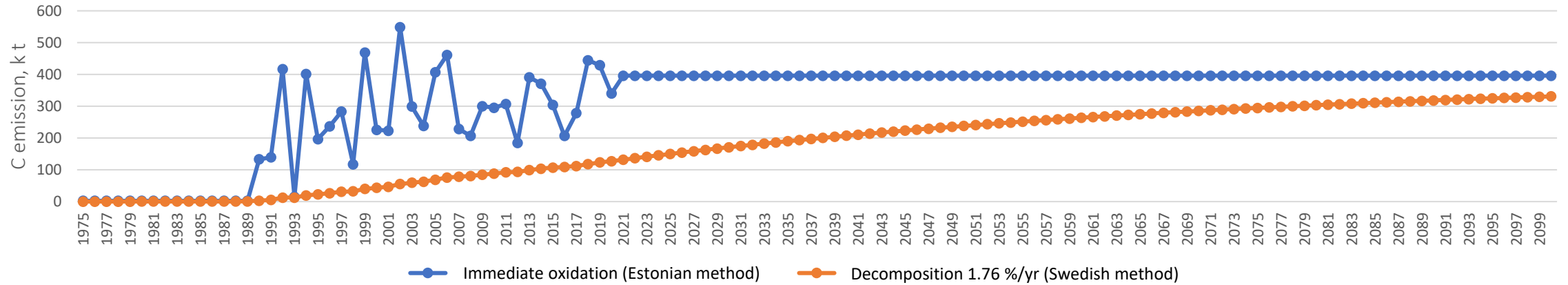


Additional influences

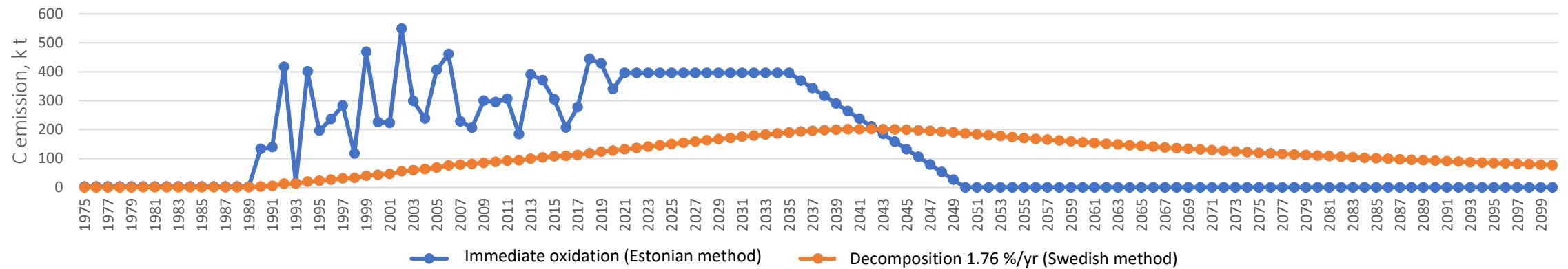


Witch method is correct?

The methodology of calculating horticultural peat emissions:
Estonia (immediate oxidation) vs Sweden (1.758% decomposes per year)



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A realization

Actual emissions from horticultural peat use are much smaller than declared in NIR.

Due to using of instant oxidation principle Estonia has declared during the past 30 years about 20 mill t CO₂eq more than actual emissions.

Because of wrong chemical composition in IPCC, we declare anyway every year 25% bigger emissions than theoretically possible.

We expect that on-site emissions are also about 20% smaller than estimated.

We cannot discuss solutions before data is correct.

So, what we can do to improve?

Improve the methodology and reduce emissions ...

R&D agreement with the
University of Tartu | 13. X 2021

Estimated duration | up to 10 years

Estimated capacity | 5 – 6 mill €



OBJECTIVE - To ensure the long-term sustainability of the Estonian peat industry:

- Analysis of reclamation options of depleted peat production sites, and giving recommendations for the ecological restoration.
- Developing emission factors of the peat production that meet Estonian conditions, taking into account seasonality, bog condition and production technology.
- Identifying opportunities to reduce greenhouse gas emissions from peat use in the existing peat cycle.

Sustainability roadmap

2030 view | -25%

To restore ecologically about 5 000 ha of depleted peatlands | Activities have started on about 3 000 ha
Implementation of a more accurate calculation methodology | Study will be conducted 2022 to 2024 | Tender phase
Introduction of new emission factors | Separate study will be started 2023 | Preparatory phase

2040 view | -40%

To change the management practices of the used peat and reduce actual emissions

2050 view | -35%

To compensate by management or financially for emissions that cannot be avoided by previous methods

An opinion

If not directly prohibited, peat use will change in long perspective

It is logical to estimate that peat use will shift more to applications where emissions could be avoided and where it is more complicated to replace peat. That does not necessarily mean drop of volumes.

Perhaps it would be better for peat companies to become circular companies to adopt the change

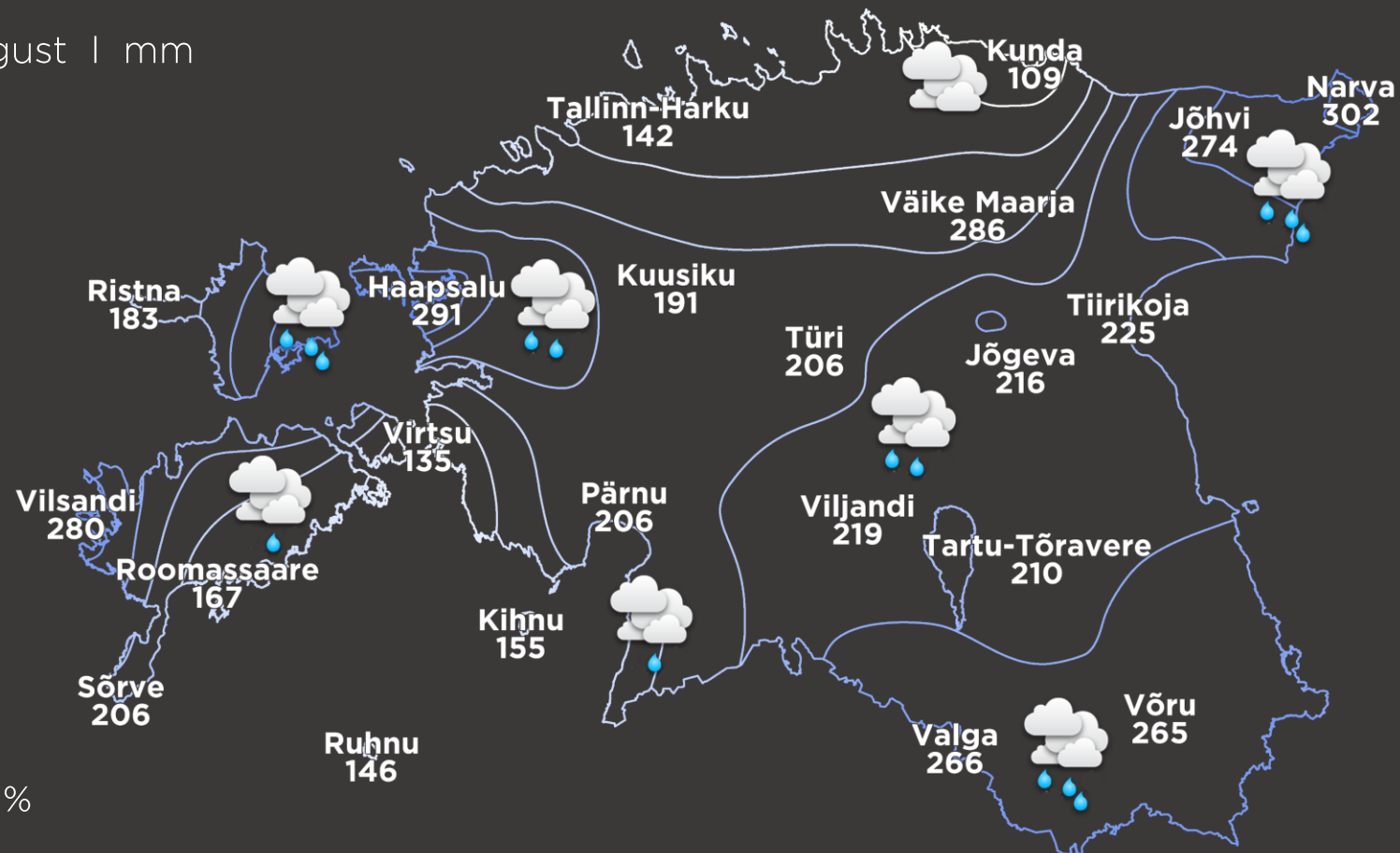
It is easier to protect climate if one company controls the full lifecycle of peat inc. production, after use of peat and peatland after production inc. Restoration combined with other usages.

Principles of climate fight have to be changed

If you remember the first slide, only a few of those targets bring significant climate winning if successful. The rest only burden the society, fades the focus and amplifies present problems we have already enough.

Season 2022

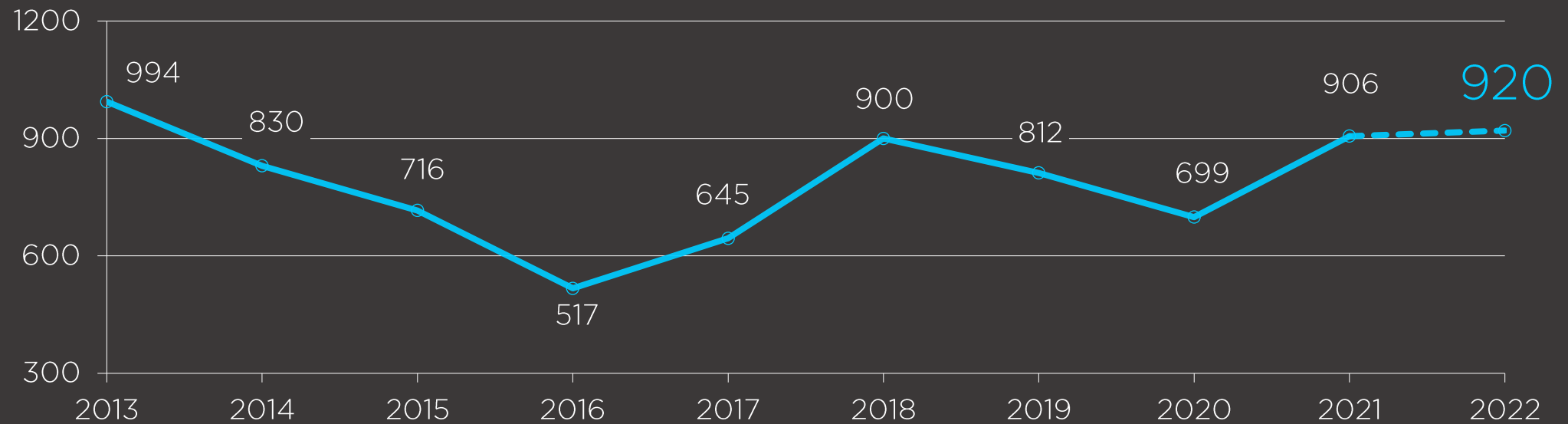
Rainfall | May - August | mm



Average - 258 mm

2022 - 208 mm | 80 %

Season 2022



Peat production in Estonia 2013 - 2022, thousand t

Small challenges | Business as usual

Keywords of the season

- ✓ Season started in April, but start was slow and for the last it just ended
- ✓ Production was about 90 – 100+%, pretty much everybody could get as much wanted
- ✓ Despite good previous season, most companies had very limited stocks from last season if at all
- ✓ The mid-season market for loose peat was some cases more modest than average
- ✓ On the other hand there is slight increase in demand for the fuel peat, new customers also came
- ✓ Labor, fuel and energy costs have increased
- ✓ The good news is that there were fewer large wildfires this year

Upcoming events

XXI Baltic Peat Producers Forum

09. – 11. VIII 2023

Radisson Collection Hotel, Tallinn

Thank you!
