A PARADIGM SHIFT FROM 'HOW TO BUY' TO 'WHAT TO BUY’

SUSTAINABILITY EVENT GF+ BELGIUM

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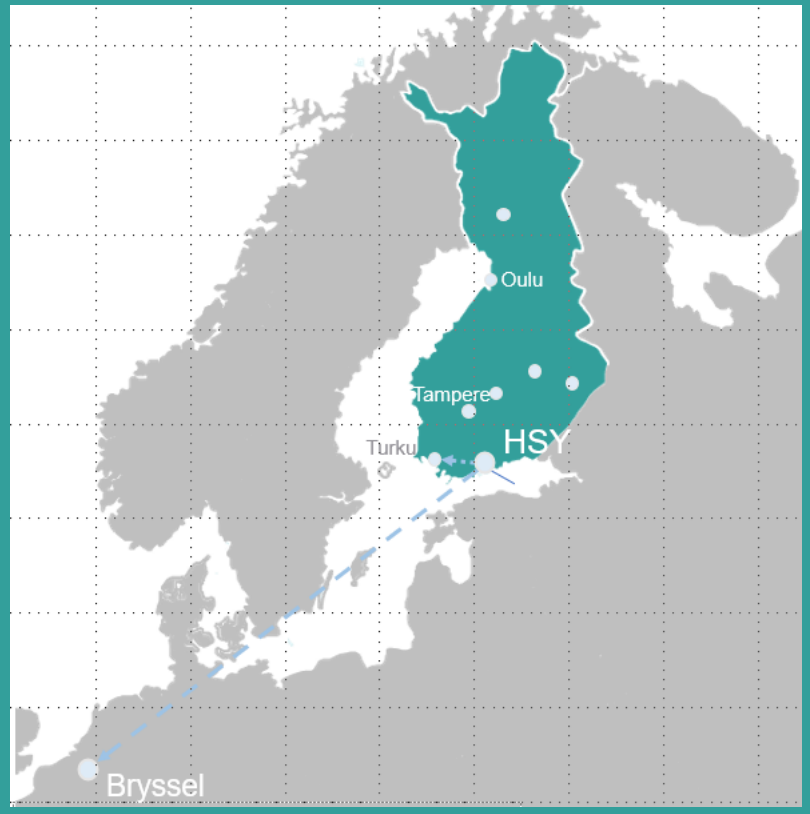
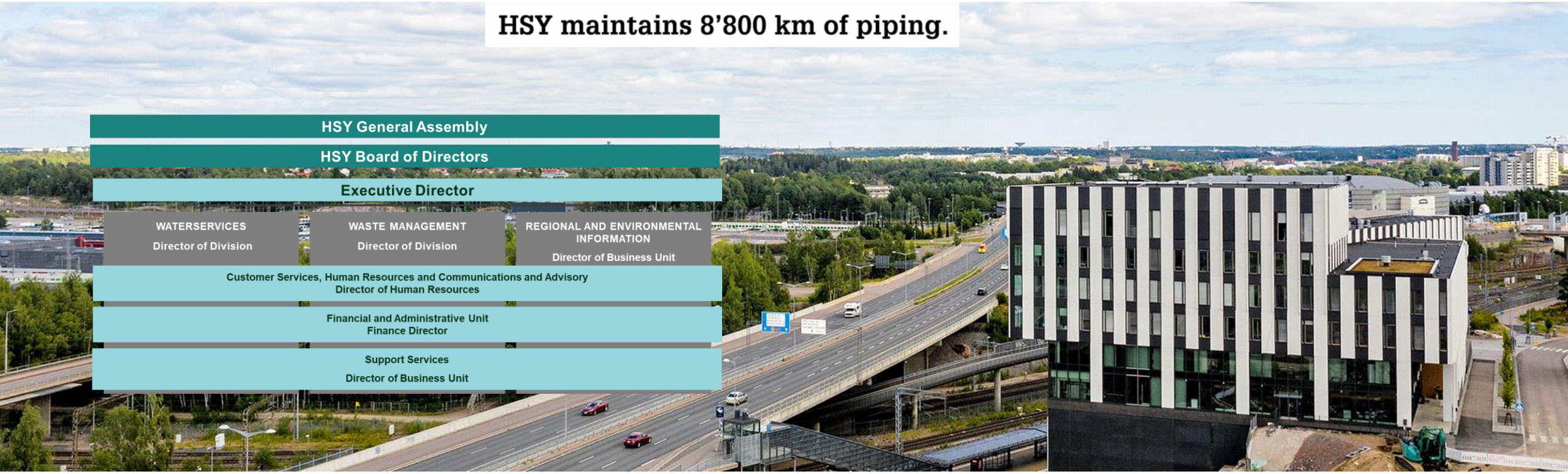


We produce municipal water services and waste management services and information on the Helsinki Metropolitan Area and the environment



Municipalities

Helsinki,
Espoo,
Vantaa,
Kauniainen

Sites

2 wastewater treatment plants
2 water treatment plants
1 groundwater intake plant
5 Sortti Stations, **1** Sortti Mini Station
11 air quality monitoring sites
1 eco-industrial centre

Carbon neutral

by 2030

Investments

in 2023–2032
EUR 1.9 billion

People

Approximately **800** employees
We serve **1.1** million people

HSY

SUSTAINABLE DEVELOPMENT GOALS

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

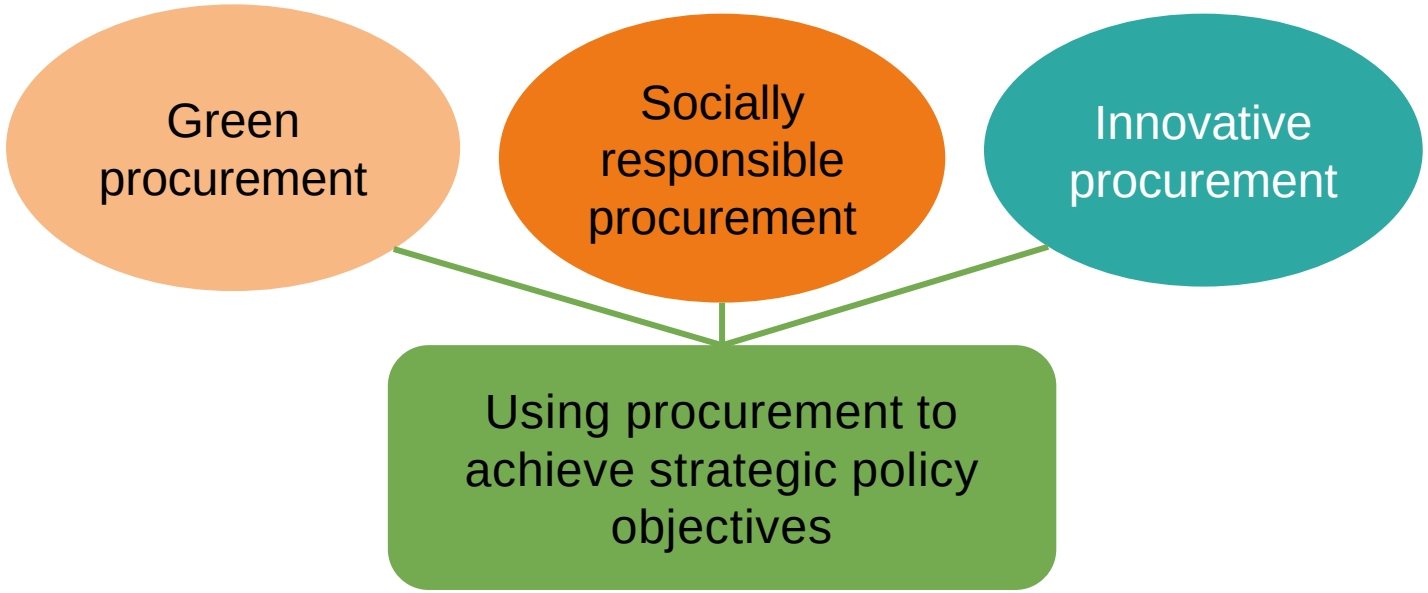
16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Sustainable development & public procurement

- Treaty of Paris
  - CO2 reduction in 2030 by 49 % compared to 1990;
  - Reduction of green house gasses in 2050 by 95 % (no more than 1,5 degrees increase).

- EU Green Deal 11.12.2019
  - First Climate Neutral Continent by 2050;
  - Drop CO2 emissions by 55 % by 2030 compared to 1990;
  - Economic growth does not rely on use of resources.
  - Public procurement as a strategic tool to achieve the strategy's objectives

- Public Procurement as a lever for societal change
  - 14–19 % of the EU GDP;
  - Trendsetting role of public purchasers;
  - Enormous potential for a green society.



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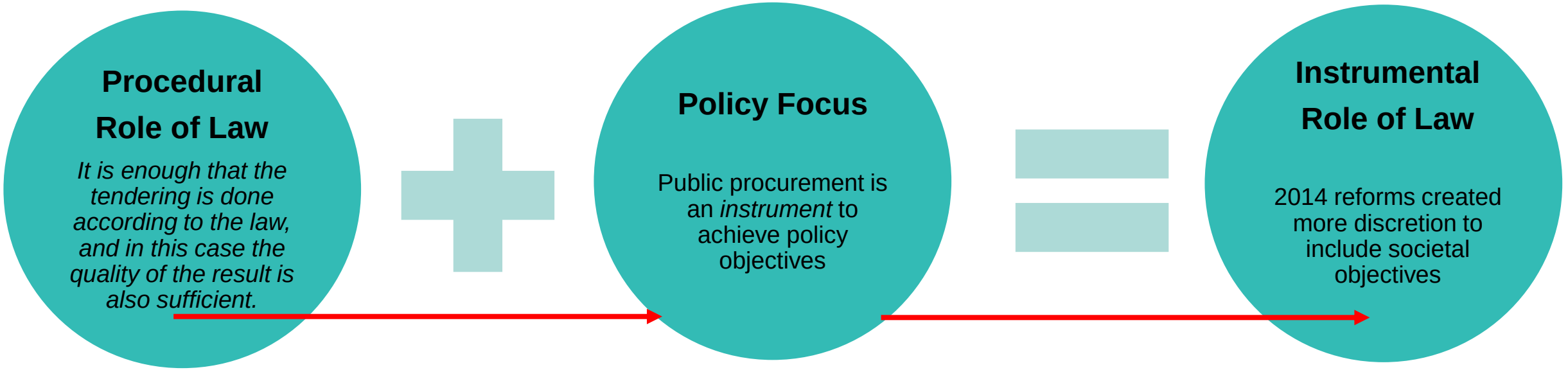
Status quo: from procedural law to instrumental law

- According to the Treaty on the Functioning of the European Union (TFEU) public procurement is the most important way to realize the EU's internal market.
- The publication of invitation for bids on EU-wide basis ensures transparency and creates opportunities for businesses across the Union.
- Discussion of paradigm shift towards regulating ‘what to buy’ based on the Public Procurement Directives, and many sectoral pieces of EU legislation.



Shifting Towards EU Mandatory Sustainability Requirements in EU Public Procurement Law (Janssen).

A paradigm shift: from regulating ‘how to procure’ to ‘what to procure’

Instrumental role

2014 reforms created more *discretion* to include societal objectives

Lack of Green Public Procurement (or not fast enough?)

Mandatory sustainability requirements!

Article 36 (2) Directive 2014/25/EU “Members states must pay attention to more fields of environmental, social and labour law established by Union law...”

Link with the Corporate Sustainability Due Diligence Directive (CSDD)

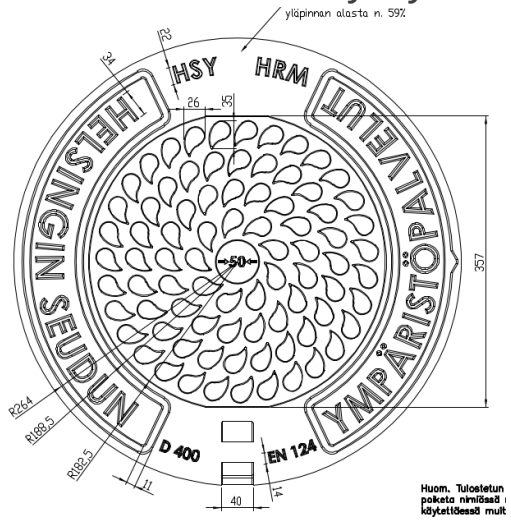
CSDD: Requires companies to investigate the environmental and human rights impacts of their operations, to prevent, mitigate and eliminate negative impacts.

The Commission has proposed mandatory minimum green criteria or targets for public procurement by sectors (e.g., batteries, clean vehicles, energy, raw materials, etc.).

What came up with the idea of taking CO2e emissions into account Case: Cast iron well covers

HSY had problems with the well covers produced in India

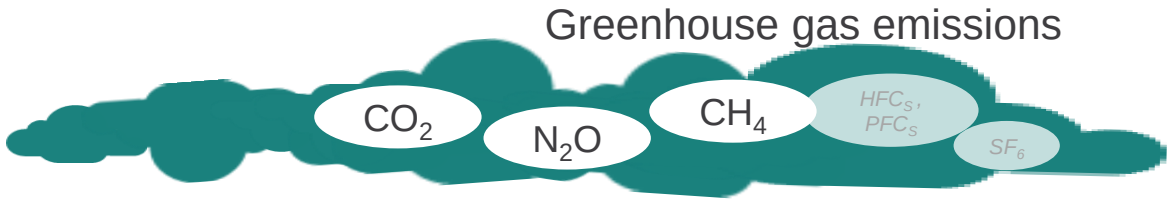
- Deliveries were very late and construction sites were at standstill
- An accident occurred at the supplier's warehouse when the load was unloaded, in which a person died
- Finnwatch ry has, among other things, reported poor working conditions at Indian foundries.
- There were also many problems with the well covers produced in Eastern Europe.
- The well covers and deliveries of the Finnish foundry have always been of high quality
  - Finland is an EU member state, HSY can not say that only Finnish products are accepted
  - In public procurement, criteria based on locality or regionality have been considered discriminatory by case law, unless locality has had an impact on the price or quality of the tender.‘
  - ***Could CO2e emissions prevent choice of Indian well covers?***
    - ***Yes, it can >> barrier***



The most used calculation method for GHG

- The most used standard developed for calculating environmental impacts is the GHG Protocol (Greenhouse Gas Protocol), published in 2010, which divides emissions into three impact categories:
  - Scope 1 includes direct emissions from the company's operations. These can typically be directly and most easily influenced by the company, such as the fuel emissions of the company's own vehicles.
  - Scope 2 includes indirect emissions related to purchasing energy, for example, from the production of electricity and heat used by the company.
  - Scope 3 includes all indirect emissions from the company's value chain, such as those from the end use of products sold and the purchase of goods and services. These also include waste management, water supply, logistics, emissions from materials procurement.
  - Corporate Sustainability Reporting Directive (CSRP) requires large companies to report emissions.

Some of the climate impacts of HSY are directly related to our operations, some indirectly related to the use of products and services



Scope 1 Direct GHG emissions
- Own processes and fuel use

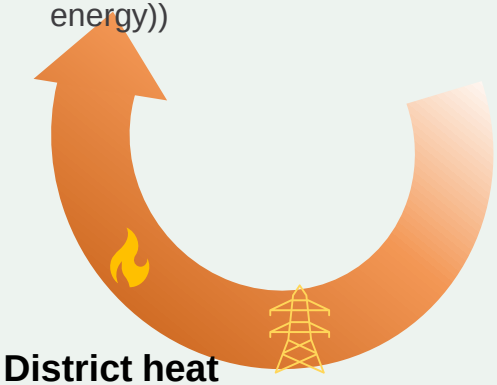
Composting

Landfill Gases

Wastewater treatment

Use of fuels at plants and in own vehicles and machinery

Scope 2: Indirect GHG emissions
- Energy services (purchasing energy))



District heat (and -cold)

Purchasing electricity

Scope 3: Indirect GHG emissions
- Outsourced functions and services
- Manufacture of purchased products and material
- Travel(s) on duty

Waste disposal

Transportation & Work Machine Services and Taskst

travel(s) on duty

Manufacture of purchased products (e.g.GF+)

Other purchasing services

Carbon handprint
- E.g. Biochar from sewage sludge

The first (1) stage of greenhouse gas calculation, mass

The mass data must be completed, if the tenderer wants to obtain quality points for the CO2e-emissions.

PRICE ANNEX 1 COMPONENTS

Technical requirements in accordance with Annex 3

HSY:s product number	Product description	Size	Observe!	Estimated consumption 2020 -	Price/unit (€)	Average mass [kg/m] or
1140	Smooth drainpipe, SN 8	real estate sewer grey 110	1 m bars	450	123,00 €	6,10
1146	Smooth drainpipe, SN 8	underground sewage pipe 1	1 m bars	370	199,00 €	9,52
1230	Smooth drainpipe, SN 8	- de 200	1 m bars	250	249,00 €	18,00
1233	Smooth drainpipe, SN 8	- de 250	2 m bars	40	3,90 €	0,07
1153	Elbow	- de 110	88,5 degrees	160	4,10 €	0,10
1158	Drainpipe Elbow	- de 110	45 degrees	300	7,00 €	0,19
1159	Drainpipe Elbow	- de 160	45 degrees	70	12,30 €	0,41
1162	Drainpipe Elbow	- de 110	30 degrees	400	9,10 €	1,39
1163	Drainpipe Elbow	- de 160	30 degrees	140	12,00 €	1,41
1166	Drainpipe Elbow	- de 110	15 degrees	450	19,00 €	3,49
1167	Drainpipe Elbow	- de 160	15 degrees	210	27,00 €	5,60
1170	In situ connector	250/160		40	34,00 €	6,63
1180	Reduction spigot nal	- de 160x110		150	16,19 €	0,87
					15 566 169,50 €	15,37

... Price components Section 1 | Transports Co2e Section 1 | Total emissions CO2e Section 1 | Othe ...

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Second (2) phase Greenhouse gas calculation, transports

Transport routes, CO2e-emissions Section 1 (manufacturing site - customers destination), Annex 6 stage C.	Total transport distance [km]/route	Number of transports during the contract period	Transportation route performance [tn] during the contract period	CO2e-emissions totally [tn]/shipment	Number of the EcotransIT-annex attached to the offer
Product from site 1 to warehouse	1 421,00	1,00	0,78	0,08	5
Product from site 2 to warehouse	1 481,00	1,00	1,83	0,20	6
Product from site 3 to warehouse	20 484,00	1,00	0,94	0,13	4
Product from warehouse to customer	830,00	24,00	3,64	0,01	7
	Totally [tn]		-	0,65	
Transport route for the raw material (origin-manufacturing site), if the transport isn't organized as return loads on the transport of the manufactured products, Annex 6 stage A.	**Total transport distance [km]**	**Number of transports during the contract period**	**Transportation route performance [tn] during the contract period**	**CO2e-emissions totally [tn]/shipment**	**Number of the EcotransIT-annex attached to the offer**
Raw material to site 1	263,00	1,00	0,78	0,02	2
Raw material to site 2	261,00	1,00	1,83	0,04	3
Raw material to site 3	1 322,00	1,00	0,94	0,10	1
	Totally [tn]			0,15	
	Total CO2e-emissions all transports [tn]			0,79	3,55

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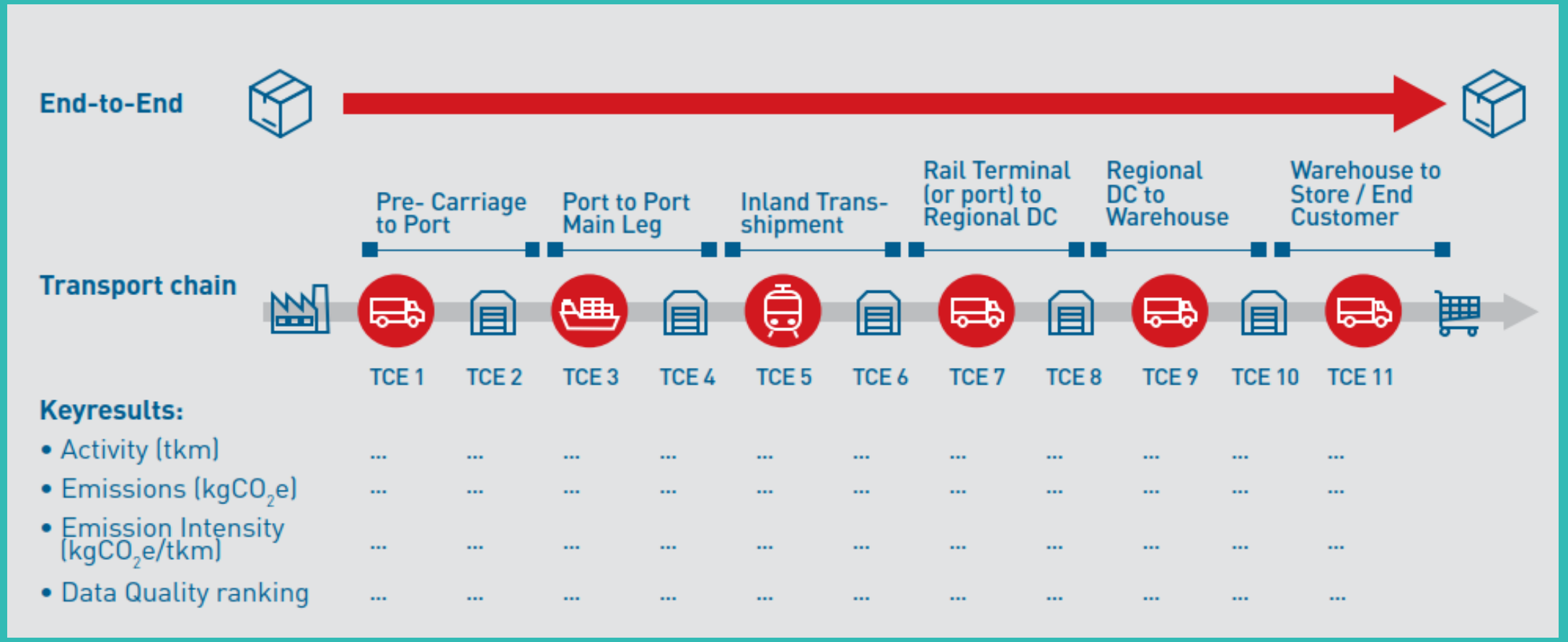
End-to-End GHG Reporting ISO 14083*



*The European Commission published a proposal on 11.7.2023 CountEmissions to establish a framework for the calculation and reporting of greenhouse gas emissions from goods and passenger transport. The EU proposal refers to the new international standard ISO 14083:2023 for emissions calculations.

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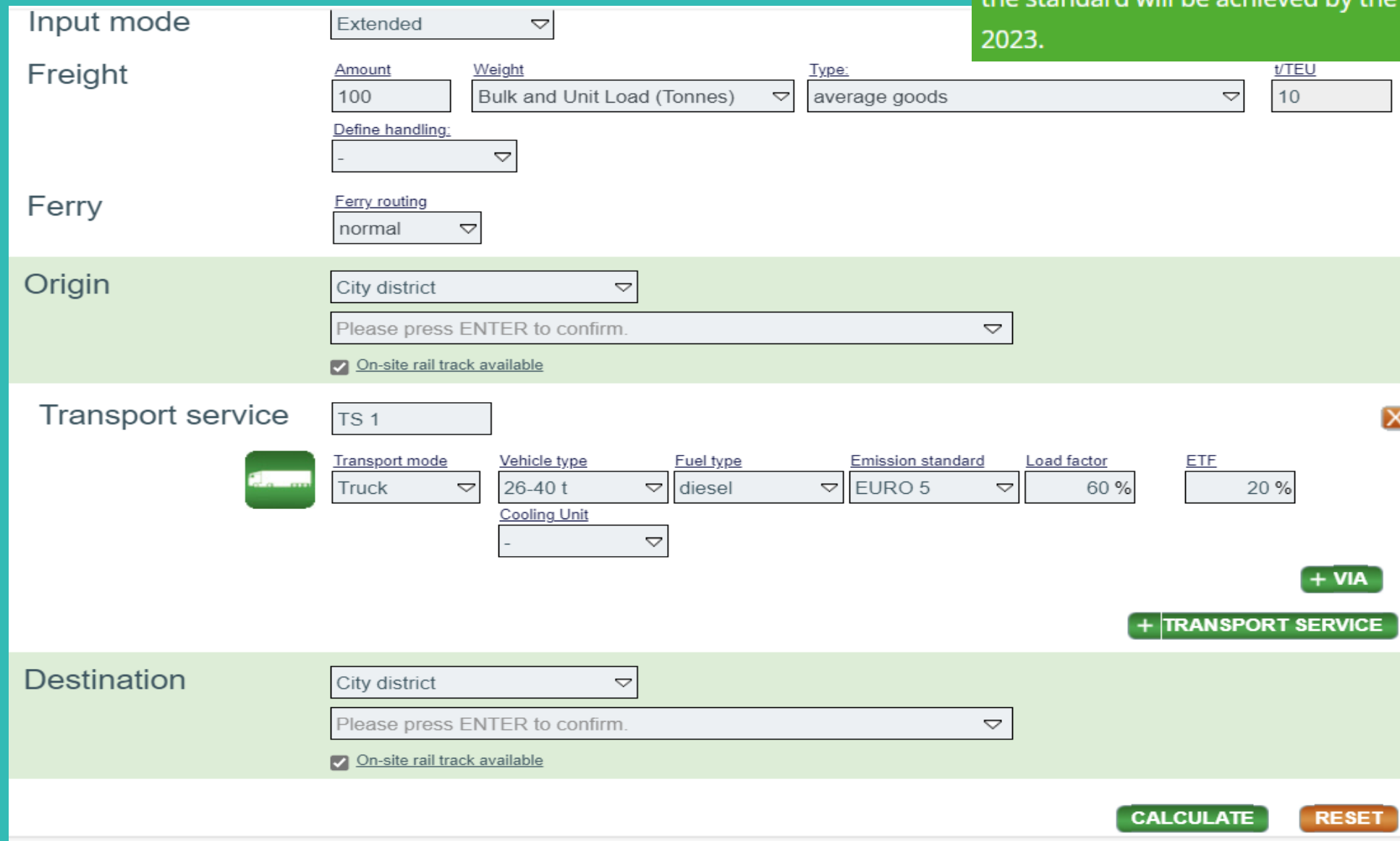
Calculation tool

EcoTransIT World's emissions calculation is already standard-compliant with the brand-new ISO14083 in many areas. Full compliance with the standard will be achieved by the end of 2023.



HOME | CALCULATION | TARGET GROUP | FIRST STEPS | BUSINESS SOL. | CONTACT

CALCULATION PARAMETERS

Weight:	30 Bulk and Unit Load (Tonnes)
TEU:	14.5
Define handling:	Bulk

Change

Transport service TS 1

Origin:	44.41716307960772 / 26.089980206365112
Class:	26-40 t, EURO 6
Fuel type:	diesel
LF:	100.0%
ETF:	0.0%
Destination:	60.20744408097813 / 24.915535677757703

Change

ACCOUNTING PROFIT

GRAPH | TABLE | DISTANCES

DECLARATION | CSV DOWNLOAD

Show Well-to-tank/ Tank-to-wheel ☐

Energy unit: ◉ Megajoule ○ Kilowatthours ○ Diesel equivalents

Show all transport services in a map

Transport service TS 1

Distance [km]	Transport mode	Origin	Destination
2,015.17	Truck	44.41716307960772 / 26.089980206365112	59.444104 / 24.767434
82.90	Truck (Ferry)	59.444104 / 24.767434	60.163314 / 24.969325
8.85	Truck	60.163314 / 24.969325	60.20744408097813 / 24.915535677757703

29	CO2 emissions
30	,TS 1
31	Truck,3.987
32	
33	GHG emissions as CO2e
34	,TS 1
35	Truck,4.137
36	
37	Nitrogen oxides
38	,TS 1
39	Truck,7.772
40	
41	Non-methane hydrocarbon

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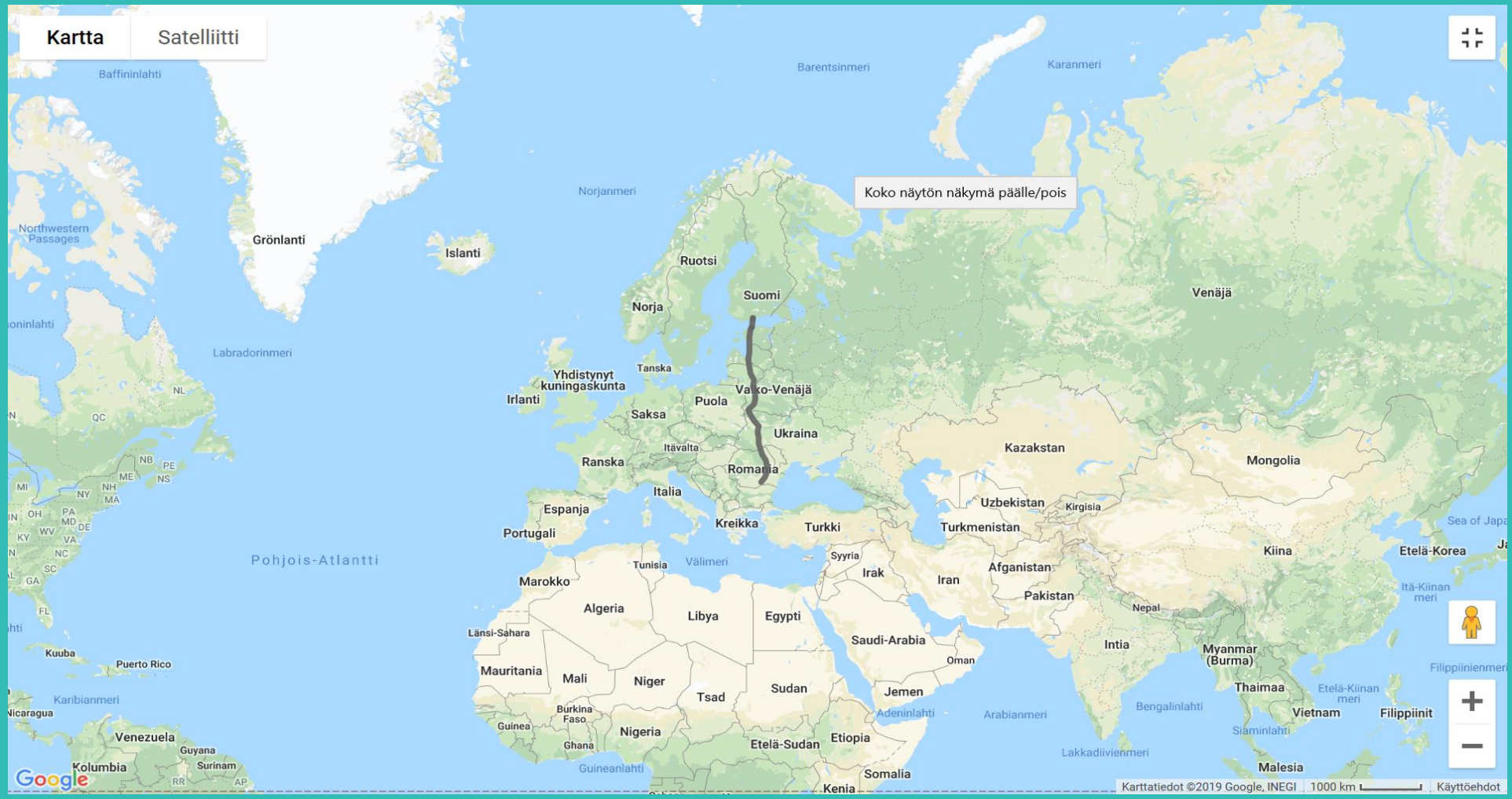
Calculation tool



Greenhouse gas calculation phase three (3) total emissions

CO_2e-emissions from the transports.	0,79	Pipes production site 1	Pipes production site 2	Components production site 3	Components production site 4
		CO_2e [tn]	CO_2e [tn]	CO_2e [tn]	CO_2e [tn]
Total CO2e-emissions from lighting, electricity (incl. production), ventilation and heating of the buildings.		0,037	0,044	0,622	-
Total CO2e-emissions from the extrusion line.		-	-	-	-
CO2e-emissions caused by external coating (if they are not included in the emissions from the extrusion lines).		-	-	-	-
Total CO2e-emissions during the lifecycle of the plastic raw material (granulate) until when it's delivered to the manufacturer.		1,518	3,552	1,471	-
Total CO2e-emissions caused by the production of water (if they are not included in the emissions from the extrusion lines).		-	-	-	-
Total CO2e-emissions from manufacturing other (secondary) materials.		-	-	-	0,053
Total CO2e-emissions from the production site [tn] (rounded to 100 % of the CO2e-emissions per production site).		**1,56**	**3,60**	**2,09**	**0,05**
Total CO2e-emissions from the transports and the production sites [tn]. The tenderer must mark the CO_2e-value in Section 1 of the Offer request. The number is marked in the field Acquisition Criteria 1. If the Offer includes the additional Total Emissions-Annex, the tenderer must mark its CO2e-value in field F28. See possible further clarifications in the offer request.				**7,30**	

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The invitation to tender contained a number of clarifying questions, e.g. Scope 2: Indirect GHG, electrical energy used

8. INTERNAL PROCESSES OF PARTS PRODUCTION PLANTS (STRAIGHT FACTORS OF THE MAJOR PRODUCTION PLANTS OF THE PRODUCTS PROVIDED)		
8.1. With what energy is the electrical energy used in the production plant produced? *Production facility 1.*	Choose one	Menu Lines: Renewable energy (solar, wind, water and bioenergy, geothermal) Atomic power Fossil fuel (oil, coal, natural gas)
8.2. *With what energy is the electrical energy used in the production plant produced?* *Production facility 2.*	Choose one	Menu Lines: Renewable energy (solar, wind, water and bioenergy, geothermal) Atomic power Fossil fuel (oil, coal, natural gas)
8.3. Are the products offered produced in more than two (2) production facilities?	Choose one	Menu Lines: Yes No

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Result of a competitive bidding (pipes) company A

Kuljetusten CO_2e-päästöt.	22,21	Putket tuotantolaitos 1	Putket tuotantolaitos 2	Osat tuotantolaitos 3	Osat tuotantolaitos 4
		CO_2e [tn]	CO_2e [tn]	CO_2e [tn]	CO_2e [tn]
Valaistuksen, sähkön (sisältää tuoannon), ilmanvaihdon ja rakennusten lämmityksen CO_2e kokonaispäästöt yhteensä.		4	2	0	0
Suulakepuristuslinjaston yhteiset CO2e kokonaispäästöt.		4	-	-	-
Ulkopuolisen pinnoituksen aiheuttamat CO2e päästöt (jos eivät sisälly suulakepuristuslinjaston päästöihin).		-	-	-	-
Muoviraaka-aineiden (granulaatin) elinkaaren aikaiset CO2e-päästöjen kokonaismäärät siihen asti, kun ne on luovutettu valmistajalle.		58	554	4	10
Valmistukseen käytetyn veden CO_2e kokonaispäästöt (jos eivät sisälly suulakepuristuslinjaston päästöihin).		-	-	-	-
Muiden (toissijaisten) materiaalien käytöstä ja valmistuksesta aiheutuvat CO2e kokonaispäästöt.		-	-	-	-
Laitoksen CO2e -päästöt yhteensä [tn] (pyöristettynä 100 %:iin CO2e-päästöistä per laitos).		**66,00**	**556,00**	**4,19**	**10,04**
Kuljetusten sekä laitosten CO2e päästöt yhteensä [tn]. Tarjoaja merkitsee CO_2e arvon tarjouspyynnön Osio 1 kohtaan Hankinnan kohteen kriteerit.[1] Jos tarjoukseen on liitetty kokonaispäästöt lisäliite, tarjoajan on merkittävä sen CO2e-arvo soluun F28. Ks. Tarjouspyynnön kohta mahdolliset lisäselvitykset.				**658,44**	

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Result of a competitive bidding (pipes) company B

Jos tarjoukseen on liitetty kuljetusten lisäliite, tarjoajan on merkittävä sen CO2e-arvo soluun B18. Ks. Tarjouspyynnön kohta mahdolliset lisäselvitykset.		Valmistuksen päästöt (Liitteen 6 vaihe B tuotantovaiheen CO2e-päästöt.			
Kuljetusten CO_2e-päästöt.	**23,44**	**Putket tuotantolaitos 1**	**Putket tuotantolaitos 2**	**Osat tuotantolaitos 3**	**Osat tuotantolaitos 4**
		CO_2e [tn]	**CO_2e [tn]**	**CO_2e [tn]**	**CO_2e [tn]**
Valaistuksen, sähkön (sisältää tuoannon), ilmanvaihdon ja rakennusten lämmityksen CO_2e kokonaispäästöt yhteensä.		5	0	0	21
Suulakepuristuslinjaston yhteiset CO2e kokonaispäästöt.					
Ulkopuolisen pinnoituksen aiheuttamat CO2e päästöt (jos eivät sisälly suulakepuristuslinjaston päästöihin).					
Muoviraaka-aineiden (granulaatin) elinkaaren aikaiset CO2e-päästöjen kokonaismäärät siihen asti, kun ne on luovutettu valmistajalle.		502	8	10	8
Valmistukseen käytetyn veden CO_2e kokonaispäästöt (jos eivät sisälly suulakepuristuslinjaston päästöihin).					
Muiden (toissijaisten) materiaalien käytöstä ja valmistuksesta aiheutuvat CO2e kokonaispäästöt.		3	0	0	-
Laitoksen CO2e -päästöt yhteensä [tn] (pyöristettynä 100 %:iin CO2e-päästöistä per laitos).		**510,00**	**8,40**	**9,70**	**29,00**
Kuljetusten sekä laitosten CO2e päästöt yhteensä [tn]. Tarjoaja merkitsee CO_2e arvon tarjouspyynnön Osio 1 kohtaan Hankinnan kohteen kriteerit.[1] Jos tarjoukseen on liitetty kokonaispäästöt lisäliite, tarjoajan on merkittävä sen CO2e-arvo soluun F28. Ks. Tarjouspyynnön kohta mahdolliset lisäselvitykset.				**580,54**	

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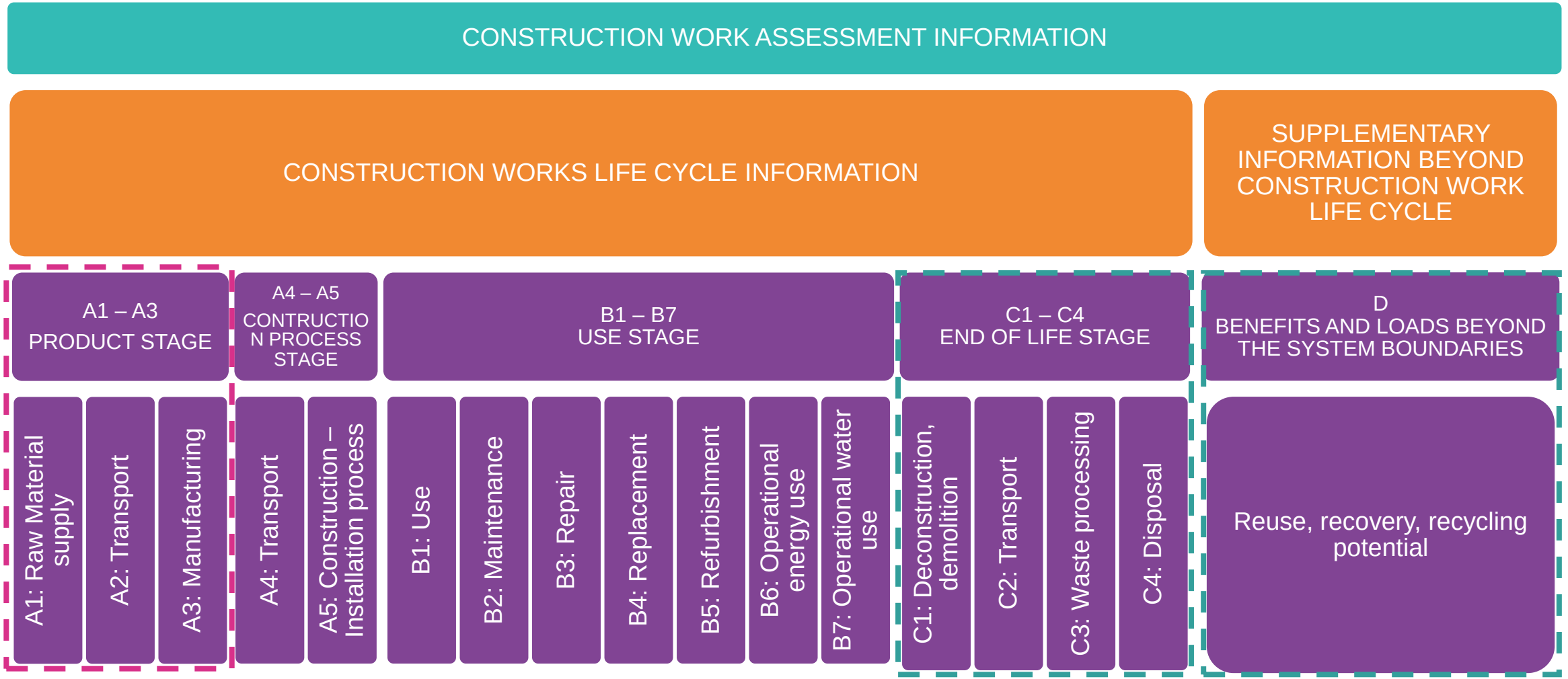
GF+ modules compared to the HSY model



Weighting of greenhouse gases in the procurement decision

- In practice, the quality weighting I have used has been 10 - 40 %.
  - In Case C-448/01 Wienstrom, the EU Court of Justice ruled that a 45 % environmental focus was allowed in the selection of the most economical tender, given the importance of the objective pursued by the criterion.
  - The criteria for comparison shall not give the procurement entity unlimited choice.
- Due to the requirement of equal treatment of bidders, it is not enough to take greenhouse gas emissions from transports into account in the invitation to tender alone, it is necessary to consider the total greenhouse gas emissions during the life cycle of the goods to be procure.
- The presentation of environmental requirements as quality criteria is often complex and almost always requires a holistic approach (technical, juristic and commercial expertise).

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Weighting of greenhouse gases in the procurement decision

- Taking into account life-cycle greenhouse gas emissions also requires considerable additional work from the procuring entity and the provider.

- A company that has completed a carbon footprint calculation can increase its awareness of its environmental emissions and thus manage its carbon footprint at all levels of the organization and improve its position in public procurement.

- The four fundamental freedoms on which the internal market is based have developed into very strong fundamental principles in Community law. In this case is conflict between two principles of EU law, the free movement of goods and environmental values.
  - Environmental values come first. As one of the EU's main objectives, environmental protection may have justified the restriction of the free movement of goods.

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istakes made and other things to think about

- Mistakes made
  - ➢ The transportation part has sometimes been done carelessly.

  - The procurement unit has accumulated information, so the offer details information must be realistic.

- GHG calculation requirement in conjunction with Article 35 (2) of the Utility Sectors Procurement Directive can be an effective barrier to long-distance imports (e.g. India, China) if necessary.
  - ➢ A tender submitted for the award of a supply contract may be rejected if the products originating in a third country exceed 50 % of the total value of the tender (35 (2)).

  - HSY's pilot project tested a pipeline made of bio raw material.
    - ➢ The price is still relatively expensive compared with using the same money to reduce our own emissions.

  - Many legal opportunities to procure sustainable outcomes
    - ➢ (Eco-)labels, technical specifications, award criteria based on quality, lowest life cycle costs etc.
      - ➢ but, questions do remain: are they enablers or barriers?

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Thank you!

Helsingin seudun ympäristöpalvelut -kuntayhtymä
Samkommunen Helsingforsregionens miljötjänster
Helsinki Region Environmental Services Authority