

Introduction to **LEAN & GREEN** *International*

*The Recognition Program for carbon reduction in logistics
for shippers, retailers and logistics service providers*

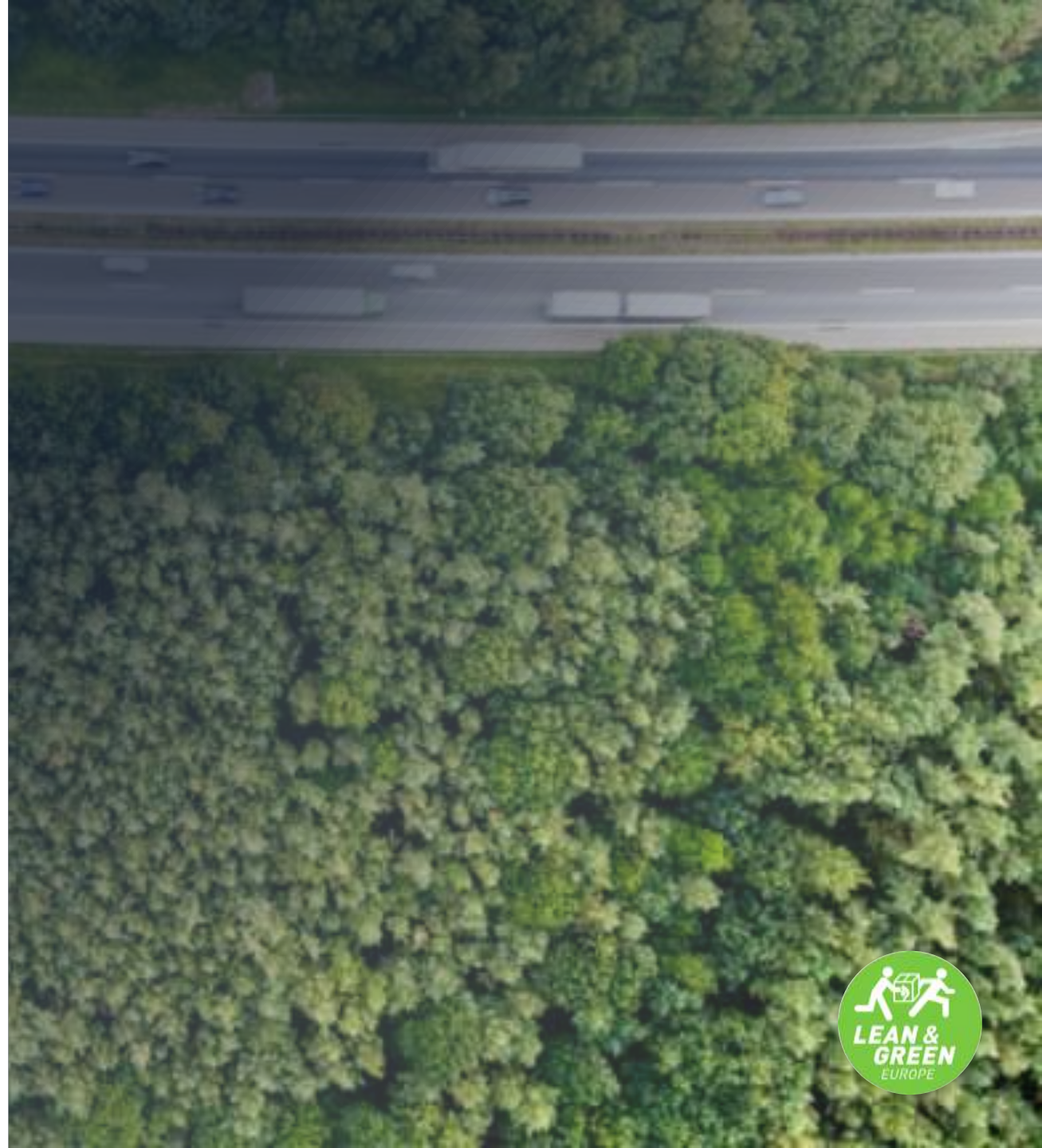
2023





Dirk van der Lee

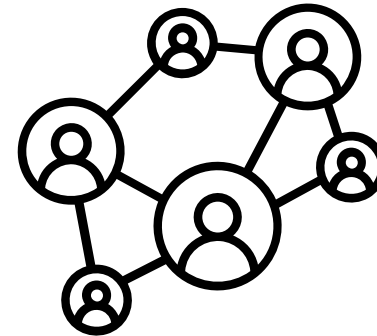
Program director
Lean & Green International
+ Lean & Green NL



Lean & Green International

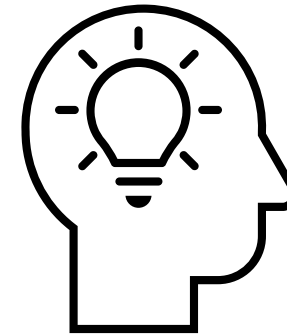
COMMUNITY – sharing knowledge

The community of Lean & Green participants is open and willing to share their experience and best practices to accelerate sustainable logistics.



INSIGHTS – measure and reduce

Annual monitoring of carbon emissions leads to better understanding how to further reduce your CO2 and report results to supply chain partners.



RECOGNITION – audit on carbon reduction

Every Star certification symbolizes an achieved reduction target and has been verified by an external certicator or accountant.



Lean & Green International

Leading CO2-reduction program for logistics

Founded by Connekt in the Netherlands in 2008

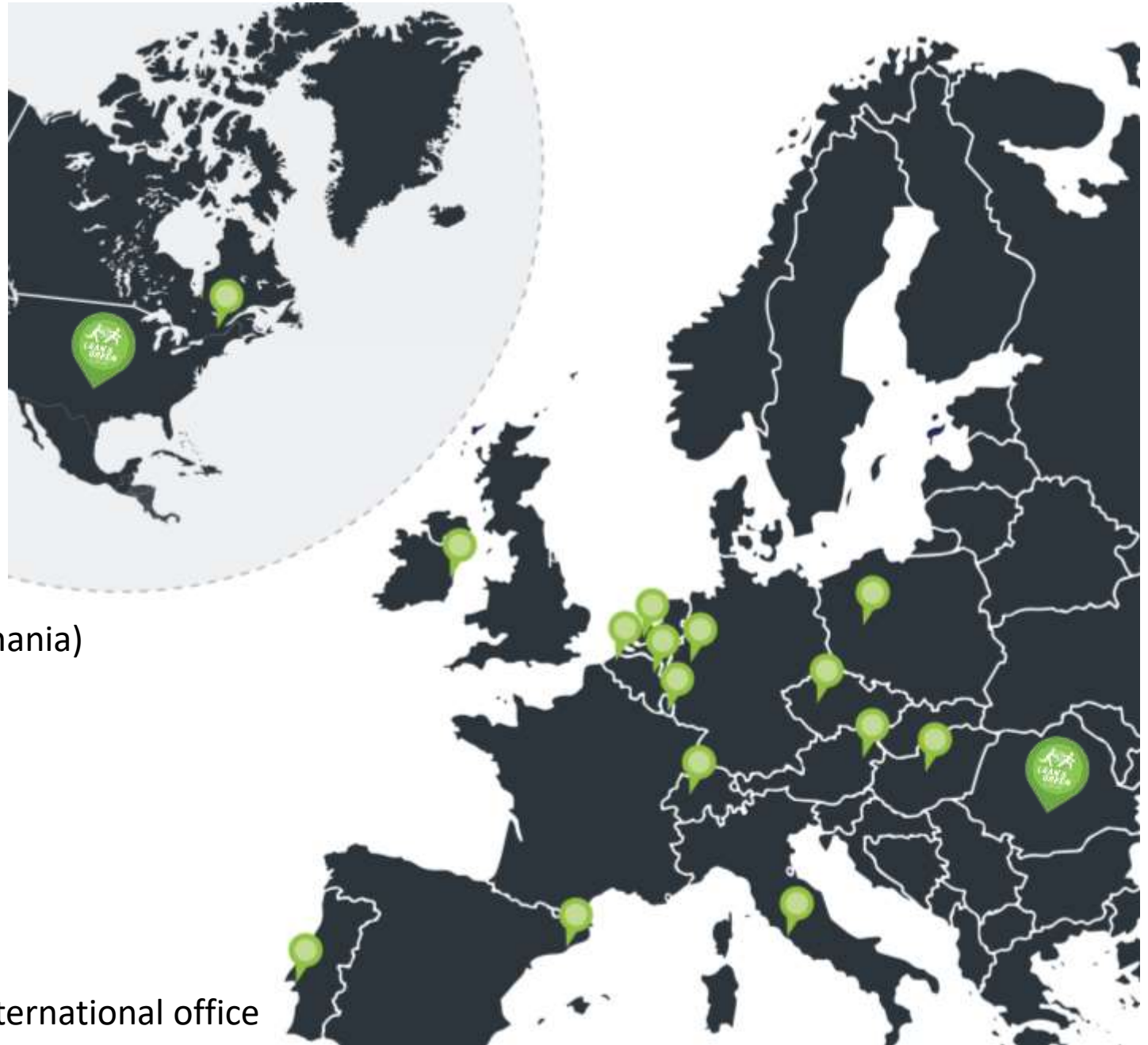
Community of 550+ participating companies

17 National Programs (Most recently USA & Romania)

International program for multinationals

5 Star framework in line with ISO 14083

Participation available in any country through International office



The Lean & Green 5-Star framework



PARIS CLIMATE GOALS ACCOMPLISHED

Data quality: Gold (perfect data)

Scope: 90%

Data: Actual real data



ON TRACK TO PARIS CLIMATE GOALS

Data quality: Gold (direct or perfect data)

Scope: 85%

Data: Actual real data



5% CO₂ REDUCTION IN MAX 2 YEARS

Data quality: Silver (actual data)

Scope: 75%



10% CO₂ REDUCTION IN MAX 3 YEARS

Data quality: Silver (actual data)

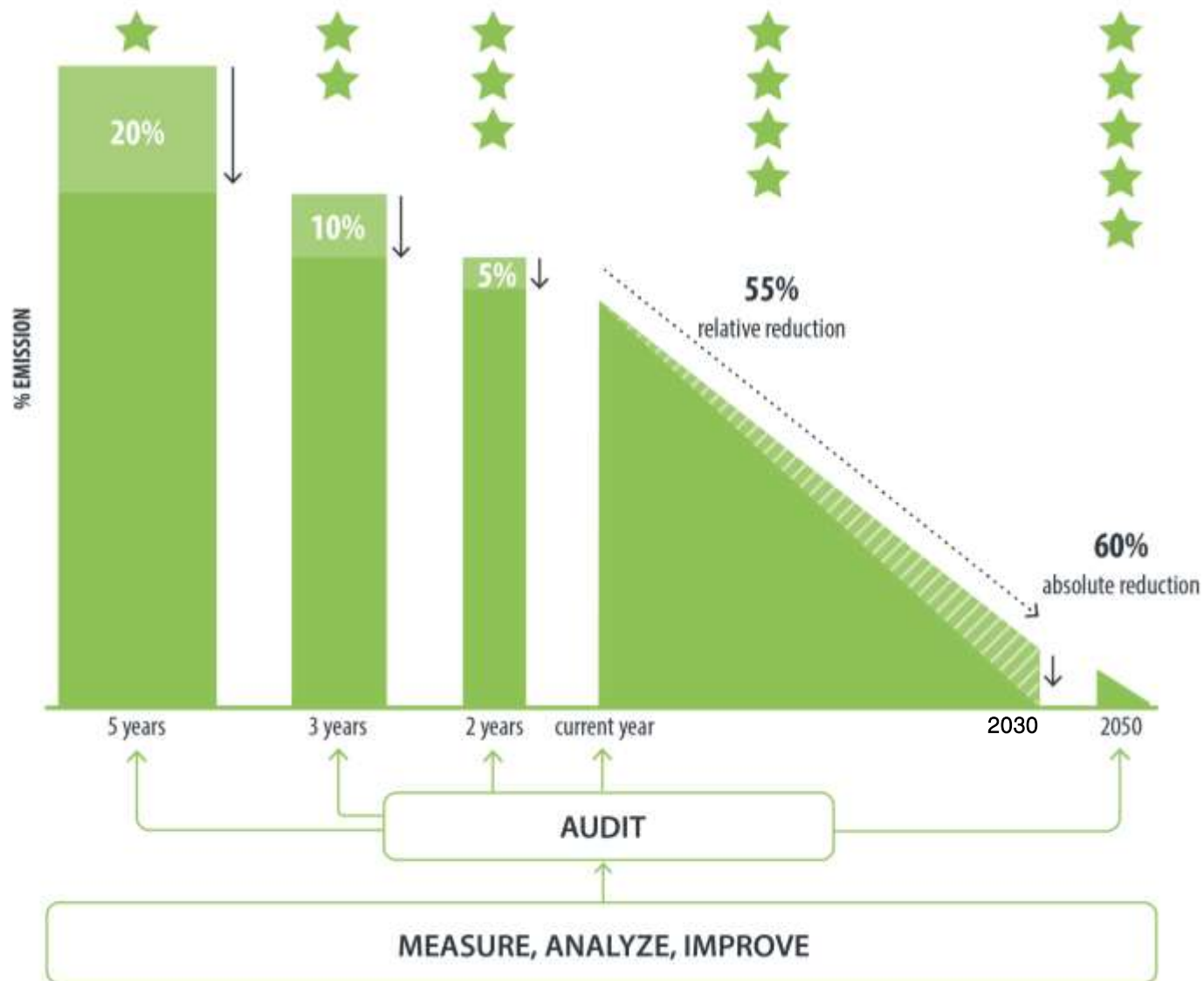
Scope: 65%



20% CO₂ REDUCTION IN MAX 5 YEARS

Data quality: Bronze (default or industry averages)

Scope: 50%



Data quality



Gold+: Complete perfect data

Shipment data (zipcodes) combined with fuel consumption (liters) per shipment
Shipment data (km's+zipcodes) combined with usage liters/km per shipment

Gold: Actual data (monthly)

Shipment data (zipcodes) combined with monthly fuel consumption (liters)
Shipment data (km's+zipcodes) combined with monthly usage liters/km

Silver: Actual data (anual)

Shipment data (zipcodes) combined with anual fuel consumption (liters)
Shipment data (km's+zipcodes) combined with anual usage liters/km

Bronze: Actual data combined with estimates-aggragates-key figures

Actual volume comined with fuel estimate or industry standard (GLEC) Actual fuel combined with volume aggragates or averages.

CO2 Action Plan

ORGANISATION

Description of the organization and logistical operation.

SCOPE

Determine the percentage of volume for the analysis.

MEASURES

Describe the measures and projects for reduction.

BASE ANALYSIS

Analyse the logistical data according to requirements.



1st Star Action plan

Reduction:	20% in 5 yrs (CO2.unit)
Scope:	Minimum 50% volume (national outbound/EU)
Dataquality:	Bronze
Volume:	Annual total
Fuel:	Annual total

Measures (example):

- Internal and operational efficiency
- Fuel saving measures and fleet
- Planning



2nd Star Action Plan

Reduction:	10% in 3 yrs (CO2.unit)
Scope:	Minimum 65% volume (national outbound/EU)
Dataquality:	Silver
Volume:	Shipment data (BigMile)
Fuel:	Actual annual total/usage

Measures (example):

- Improved dataquality
- Optimisation and collaboration with customers and principals
- Sustainable energy and innovations



3rd Star Action Plan

Reduction:	5% in 2 yrs (CO2.unit)
Scope:	Minimum 75% volume (national outbound/EU)
Dataquality:	Silver
Volume:	Shipment data (BigMile)
Fuel:	Actual annual total/usage

Measures (example):

- Horizontal collaboration, supply chain improvement
- Multi modal transport, modal shift
- Zero emission transport / storage



Measures - Projects

1st Star level measures (example):

- Internal and operational efficiency
- Fuel saving measures and fleet
- Planning

2nd Star level measures (example):

- Improved dataquality
- Optimisation and collaboration with customers and principals
- Sustainable energy and innovations

3rd Star level measures (example):

- Horizontal collaboration, supply chain improvement
- Multi modal transport, modal shift
- Zero emission transport / storage

Lean & Green factors for reduction measures and projects

Sustainable/alternative fuels, energy and vehicles

Energy efficiency of vehicle and driver

Logistic efficiency, planning en infrastructure

Product density

Length of supply chain

Supply chain optimazation

Innovation

Circularity





Support from Lean & Green

INTRODUCTION

Join a webinar or request an online introduction.

ACTION PLAN

Receive all documentation once you join the program.

KICK OFF

Start of the project support with drafting your plan.

UPDATES

Periodic check-ups to steer you in the right direction.



Annual monitoring cycle

Annual

1. Scope: % volume for analysis
2. Update CO2-reduction projects
3. CO2 Data collection and analysis (BigMile)

Achieved reduction target

4. Review of data-analysis and projects (L&G)
5. External audit/verification of data and calculations (accountant)

Celebrating your Lean & Green Star(s)!



BigMile - Calculate and analyze transport-related emissions

Comprehensive Carbon Footprinting (cloud) software

- CO2 calculation en **allocation** in logistics
 - CO2 per unit
 - CO2 per unit kilometer
 - CO2 per customer
 - CO2 per modality
 - CO2 Benchmark
- **BigMile Carbon Footprint:** (Included for Lean & Green participants)
Carbon footprint and reduction opportunity's
- **BigMile Carbon Analytics:** www.bigmile.eu
BI solution and optimisation tool. (Licence)



Upcoming rules and regulations

- EU carbon reduction target is ~~55~~ 57% in 2030 (Fit For 55)
- Carbon reporting and standardisation (EN 16258 / ISO 14083)
- Carbon pricing is part of EU Green deal plans
- Carbon Border Adjustment Mechanism (CBAM)
- **CSRD** reporting (including 'SCOPE 3' emissions) starting 2024/2025

Reporting actual carbon emissions will become standard in the near future.



CSRD



Scope:

All listed and large entities that meet 2 of 3 criteria:

- > 250 FTE
- > 40 mln revenue
- > 20 mln assets

Comply:

2024: PI2024: PIEs
2025: All large entities (> 50.000 companies)
2026: Listed SMEs

CSRD – Draft ESRS

DRAFT EUROPEAN SUSTAINABILITY REPORTING STANDARDS

ESRS E1

Climate change

Disclosure Requirement E1-6 – Gross Scopes 1, 2, 3 and Total GHG emissions

41. The undertaking shall disclose its:

(a) gross Scope 1 GHG emissions; (b) gross Scope 2 GHG emissions; **(c) gross Scope 3 GHG emissions;** and (d) total GHG emissions.

42. The objective of the Disclosure Requirement in paragraph 41 in respect of:

(a) ...

(b) ...

(c) gross Scope 3 GHG emissions as required by paragraph 41(c) is to provide an understanding of the GHG emissions that occur in the undertaking's value chain beyond its Scope 1 and 2 GHG emissions.

For many undertakings, Scope 3 GHG emissions may be the main component of the GHG inventory and are an important driver of the undertaking's transition risks.

...

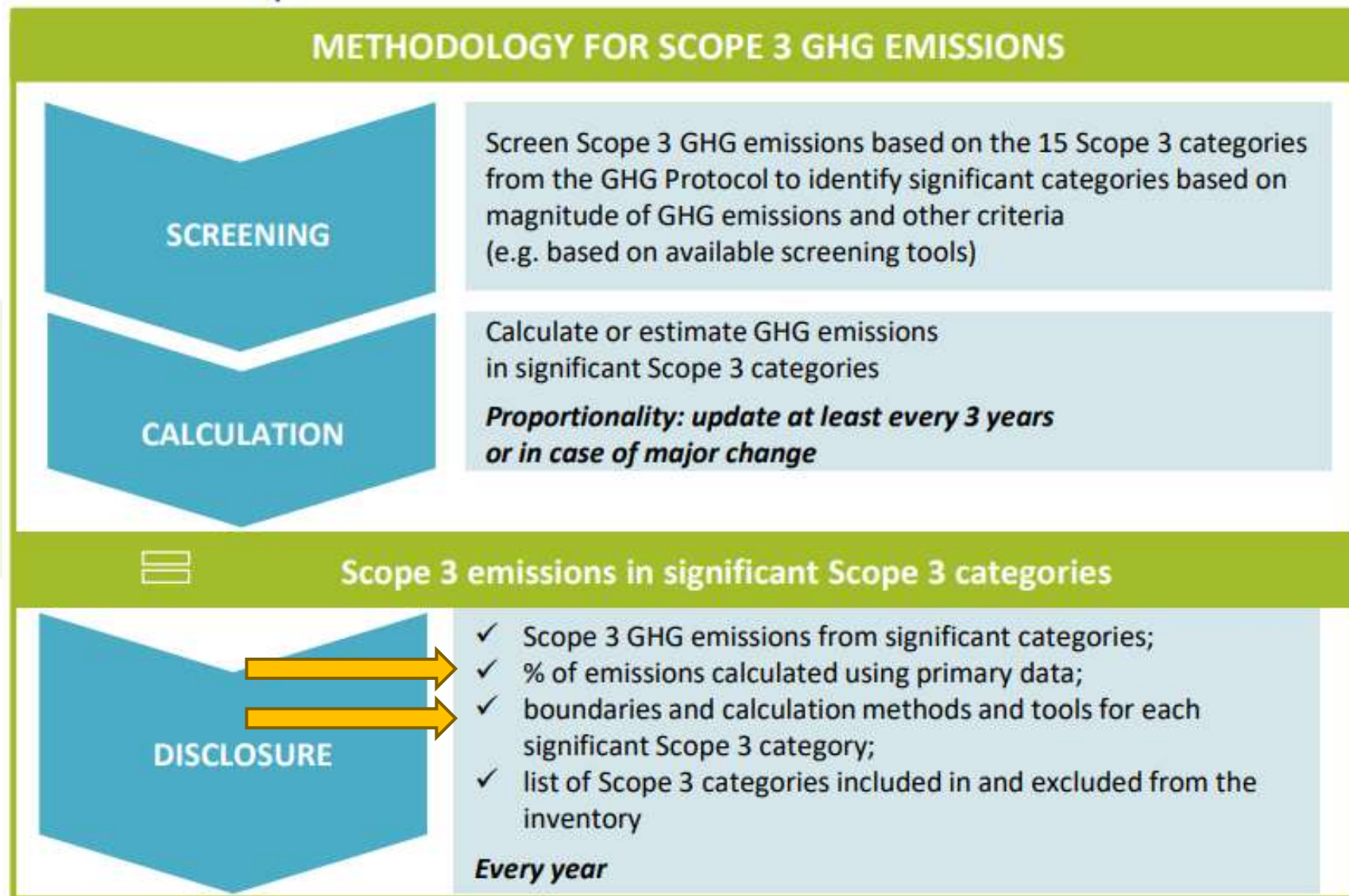
48. The disclosure of gross Scope 3 GHG emissions required by paragraph (c) **shall include GHG emissions in metric tonnes of CO₂eq from each significant Scope 3 category** (i.e., each Scope 3 category that is a priority for the undertaking).

CSRD – Action plan, measures and scope 1, 2, 3 emissions

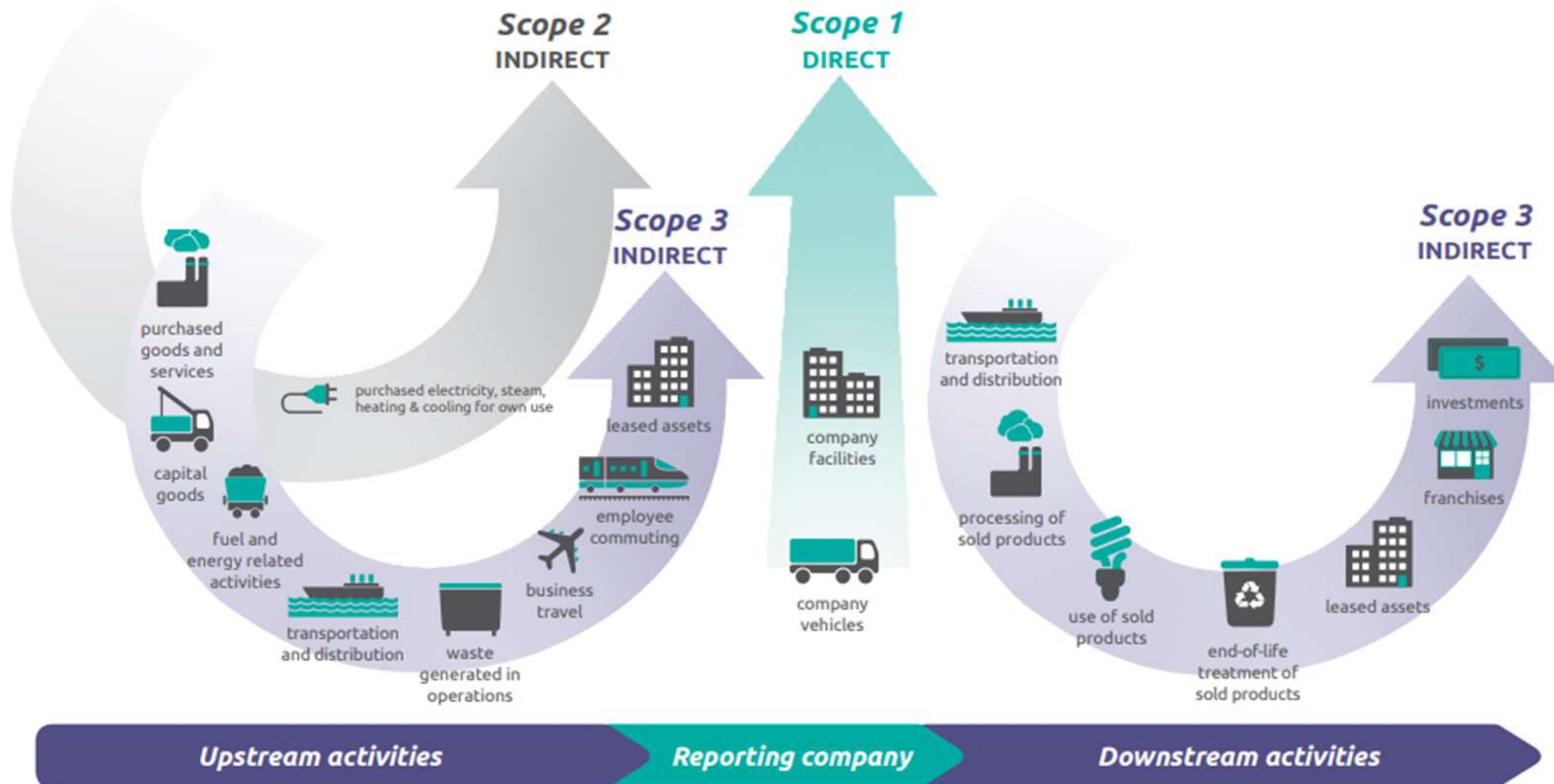
- The undertaking shall **disclose the climate-related targets** it has adopted.
- **Tracking effectiveness of policies and actions through targets.**
- The undertaking shall disclose whether and how it has set **GHG emissions reduction targets and/or any other targets to manage material climate-related impacts,**
- **The undertaking shall disclose its gross Scope 1, 2 and 3 GHG emissions;**
- **For many undertakings, Scope 3 GHG emissions may be the main component of the GHG inventory and are an important driver of the undertaking's transition risks.**
- The disclosure...**shall include GHG emissions in metric tonnes of CO₂eq from each significant Scope 3 category**



CSRD –Disclosure



GHG protocol Scope 1, 2, 3



Why companies join Lean & Green



Taking responsibility. Proof of taking action against global warming.

Show actual reduction. Carbon offsetting more often seen as a temporary solution or even greenwashing.

The hunt for talent. Employees look for sustainability in employer.

Growing customer awareness. Growing demand for sustainable transport and delivery.

Activism in boardrooms. Stakeholders, strategies and risk management focus on climate.

Certification. Validated recognition and audited reduction.



Pricing Lean & Green Europe 2022/2023

Annual fees:	National Partner programs:	Pricing per country
	National participation through International office <i>(If no National Partner is available in the country the companies resides)</i>	€ 3500,- (ex VAT)
	Lean & Green International: Including: <ul style="list-style-type: none">• International recognition from Europe's leading reduction program in logistics• Joining the Lean & Green sustainable logistics community• Invitation to join the European steering group of leading companies• Carbon reporting with standard version BigMile (EN16258 – ISO 14083)• Key-accountmanagement by international office or national partner of choice	€ 9500,- (ex VAT)

Please contact us for more pricing options with additional support and BigMile carbon analytics licence.





		Package A	Package B	Package C	Package C +
PACKAGE DEAL		€ 9.500,00	€ 17.000,00	€ 23.500,00	€ 42.500,00
LEAN & GREEN		International	International	International	International
Membership	Participation International	✓	✓	✓	✓
	Basic Support (8 hours)	✓	✓	✓	✓
		€ 9.500,00	9.500,00	€ 9.500,00	€ 9.500,00
Support	Online support desk	✓	✓	✓	✓
	Additional support (8 hours)		✓		
	Additional support (20 hours)			✓	
	Full Project support (160 hr)				✓
	Extra hours € 150,- /hr		1.200,00	€ 2.800,00	€ 24.000,00
BIGMILE		CF	CA	CA	CA
Functionality	Data validation	✓	✓	✓	✓
	Static carbon footprint reports	✓	✓	✓	✓
	Max # records storage per license	1 million	1 million	5 million	5 million
	Interactive BI user environment		✓	✓	✓
	Data sharing			✓	✓
	Scenario analyses (fuel, modalities)			✓	✓
Subcontractor Portal	€ 600 / subcontractor user / year			✓	✓
API	Bulk Upload API		✓	✓	✓
Support	Online support	✓	✓	✓	✓
	3 month support program LG		✓		
	6 month support program LG + BM			✓	✓
		€ 750,00	7.500,00	€ 13.500,00	€ 13.500,00
TOTAL PRICE		€ 10.250,00	18.200,00	€ 25.800,00	€ 47.000,00
Discount		€ 750,00	1.200,00	€ 2.300,00	€ 4.500,00



Contact us



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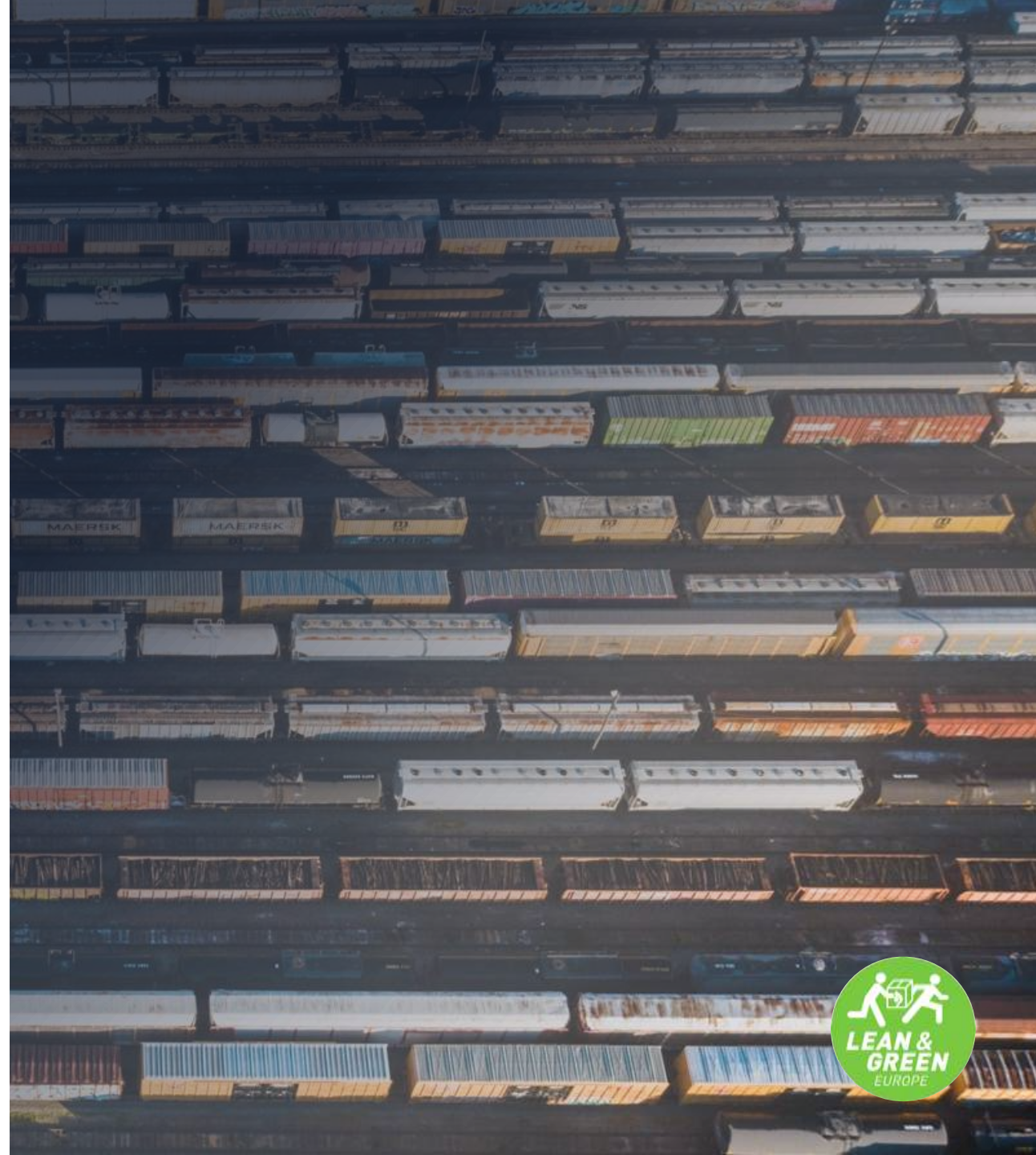


Jenny Schlatter

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ANY QUESTIONS?



CASES



e van wijk
LOGISTICS

E. VAN WIJK

1st to 2nd Lean & Green NL Star



-11,06%

Totaal Laadmeter verscheept (pijlen) & Totale uitstoot (kg CO₂e) (bol)



Data compleetheid
99,3%

Zendingen
182.366

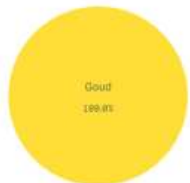
Totaal verscheept (Laadmeter) ☞
373.752

Totaal kg CO₂e ☞
13.790.688

Kg CO₂e per Laadmeter ☞
36,9

Kg CO₂e per Laadmeter.km(GC...
0,1907

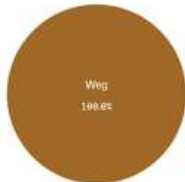
Datakwaliteit



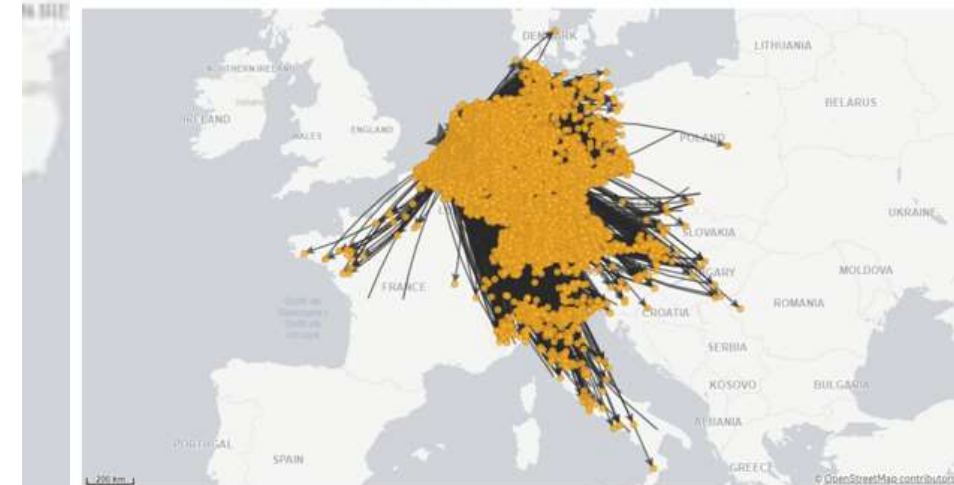
Totaal verscheept per modaliteit (Laadmeter)



Totaal kg CO₂e per modaliteit



Totaal Laadmeter verscheept (pijlen) & Totale uitstoot (kg CO₂e) (bol)



Data compleetheid
99,6%

Zendingen
162.602

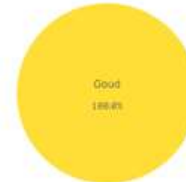
Totaal verscheept (Laadmeter) ☞
335.901

Totaal kg CO₂e ☞
11.025.726

Kg CO₂e per Laadmeter ☞
32,82

Kg CO₂e per Laadmeter.km(GC...
0,1797

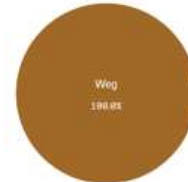
Datakwaliteit



Totaal verscheept per modaliteit (Laadmeter)



Totaal kg CO₂e per modaliteit



Measures

- Driver Performance
- Focus on efficiency (data tool to improve planning)
- LED-lighting in warehouse
- Fleet replacement
- Intensive collaboration with customers to optimize planning

Learnings

- Improved data quality through Lean & Green project
- Analyse effectiveness of CO2 reduction measures
- Employee involvement in more sustainable transport

ANY QUESTIONS?



CASE Lean & Green International

RICOH Europe

1st Star Lean & Green Europe

RICOH
imagine. change.



Introducing RESCM

RICOH
imagine. change.

Ricoh Europe Supply Chain Management
is the Central Supply Chain organisation for Ricoh in Europe, Middle-East and Africa (EMEA)

Ricoh Europe SCM



1 primary location
7 satellite locations
100 RESCM staff
430 DHL staff



Volumes per year

4.7M service parts
2.5M supplies
360K MFP's
230K printers
3600 production printers

Stock Figures

€1.7Bln turnover (FG)
€200M stock value (FG)
€280M turnover (Parts)
€50M stock value (Parts)

Delivery Capability

97% in-night service parts
97% < 48H boxed
93% < 24H supplies
>90% on requested date
<400 PPM complaints

Configurations

134K per year
45 min per machine



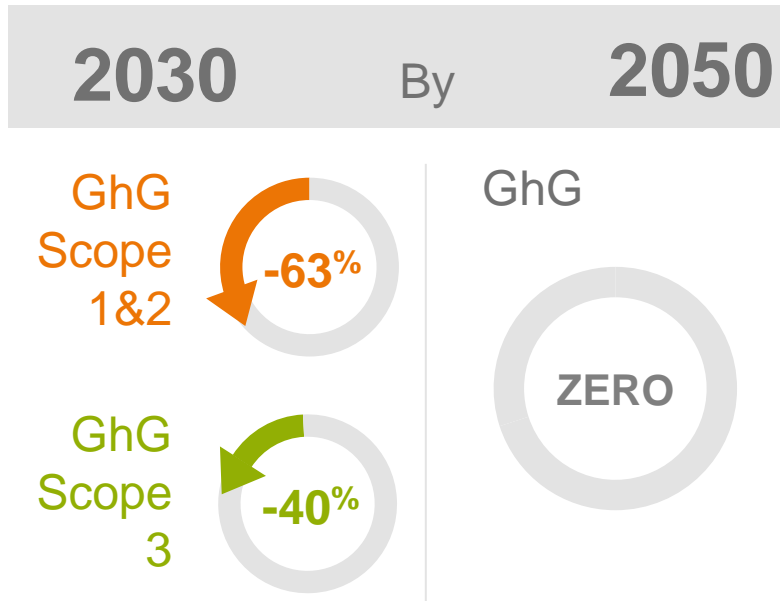


Our long-term sustainability targets

Energy conservation and prevention of global warming

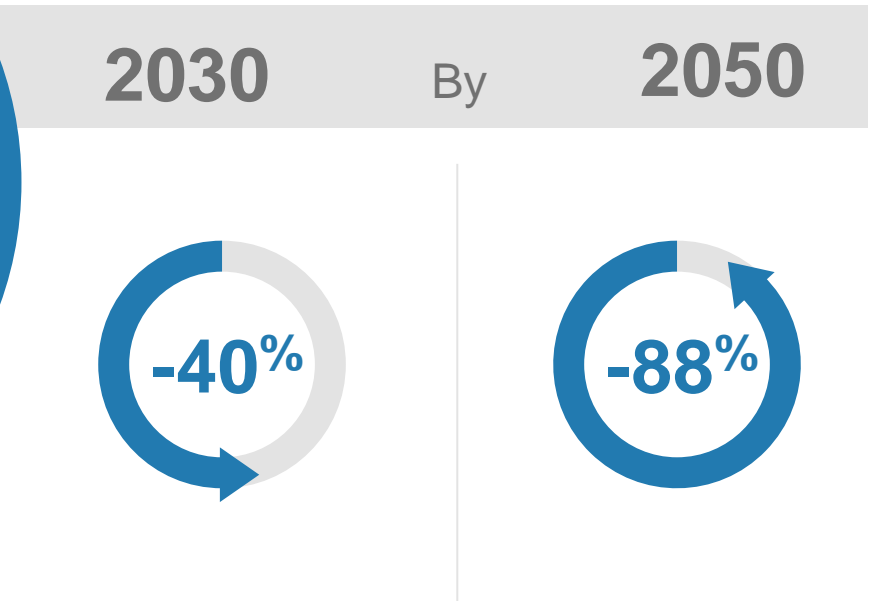
Reduce total lifecycle

Greenhouse gas emissions (GhG)



Reduce, Re-use, Recycle (circular economy)

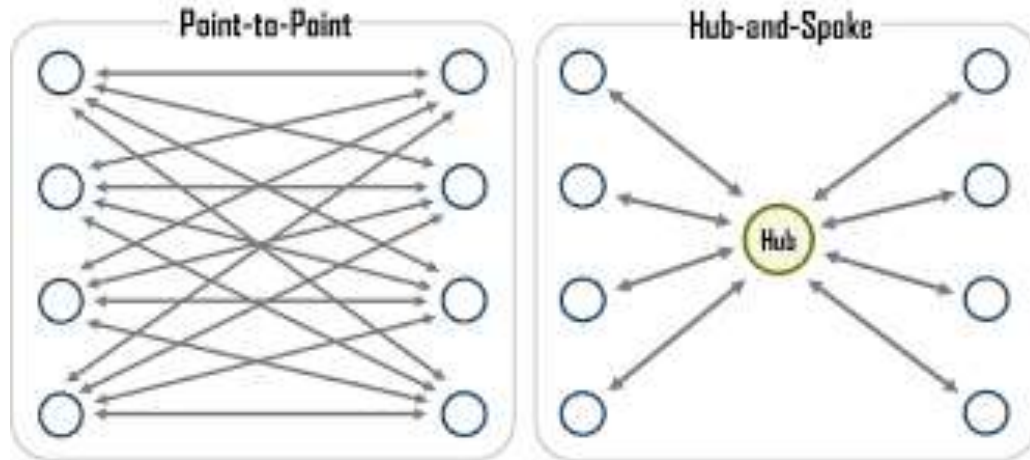
Reduce the new input of resources (reduction of 'virgin materials' as % of total weight of all materials)



From the 2015 level



Reduction & optimization measures



From a local to a central configuration center



Use double deck trailers



From air to container transport by rail

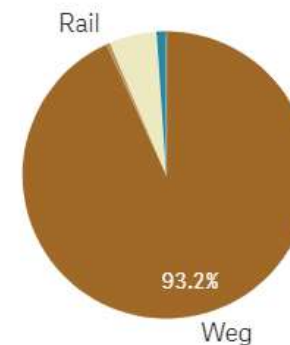
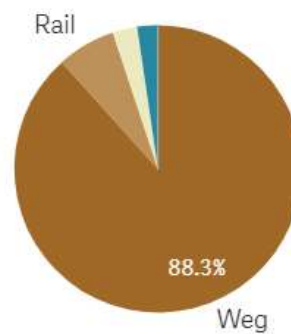


From truck to container transport by rail



2015 analysis

Totaal M3 verscheept (pijlen) & Totale uitstoot (kg CO₂e) (bol)



Data compleetheid

100,0%

Zendingen

64

Totaal verscheept (M3) ↗

340.188

Totaal kg CO₂e ↗

15.296.018

Kg CO₂e per M3 ↗

44,96

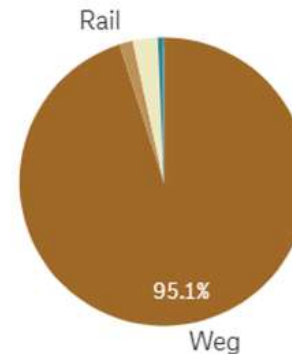
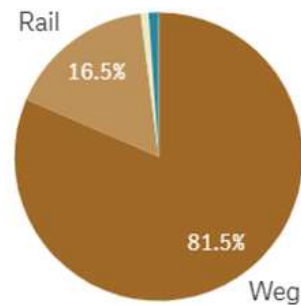
Kg CO₂e per M3.km(GCD) ↗

0,0590



2020 analysis

Totaal M3 verscheept (pijlen) & Totale uitstoot (kg CO₂e) (bol)



Data compleetheid

100,0%

Zendingen

67

Totaal verscheept (M3) ↗

127.928

Totaal kg CO₂e ↗

4.591.347

-23%

Kg CO₂e per M3 ↗

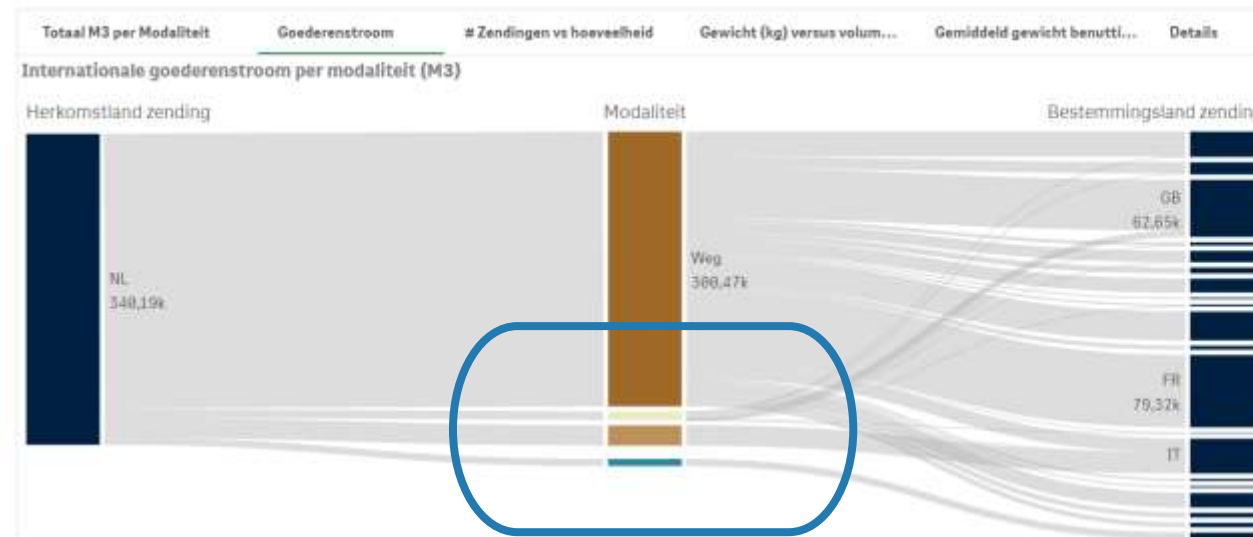
35,89

Kg CO₂e per M3.km(GCD) ↗

0,0552



2015 vs 2020 Modality split



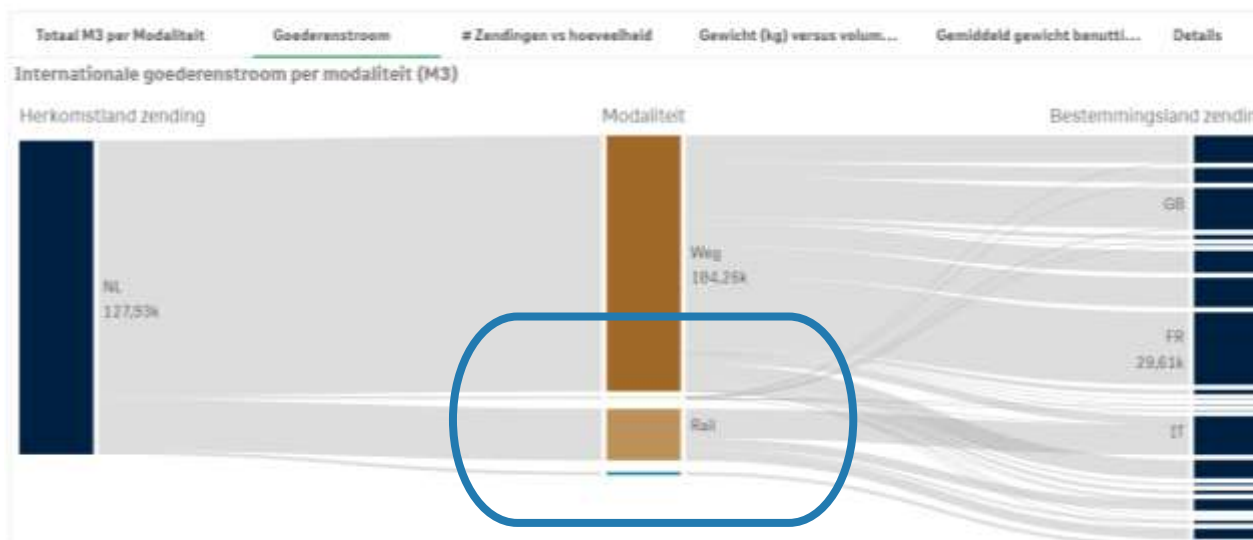
Zendingen
132

Totaal verscheept (M3) \approx
613.618

Totaal kg CO₂e \approx
15.296.018

Kg CO₂e per M3 \approx
44,96

Kg CO₂e per M3.km(GCD) \approx
0,0590



Zendingen
67

Totaal verscheept (M3) \approx
127.928

Totaal kg CO₂e \approx
4.591.347

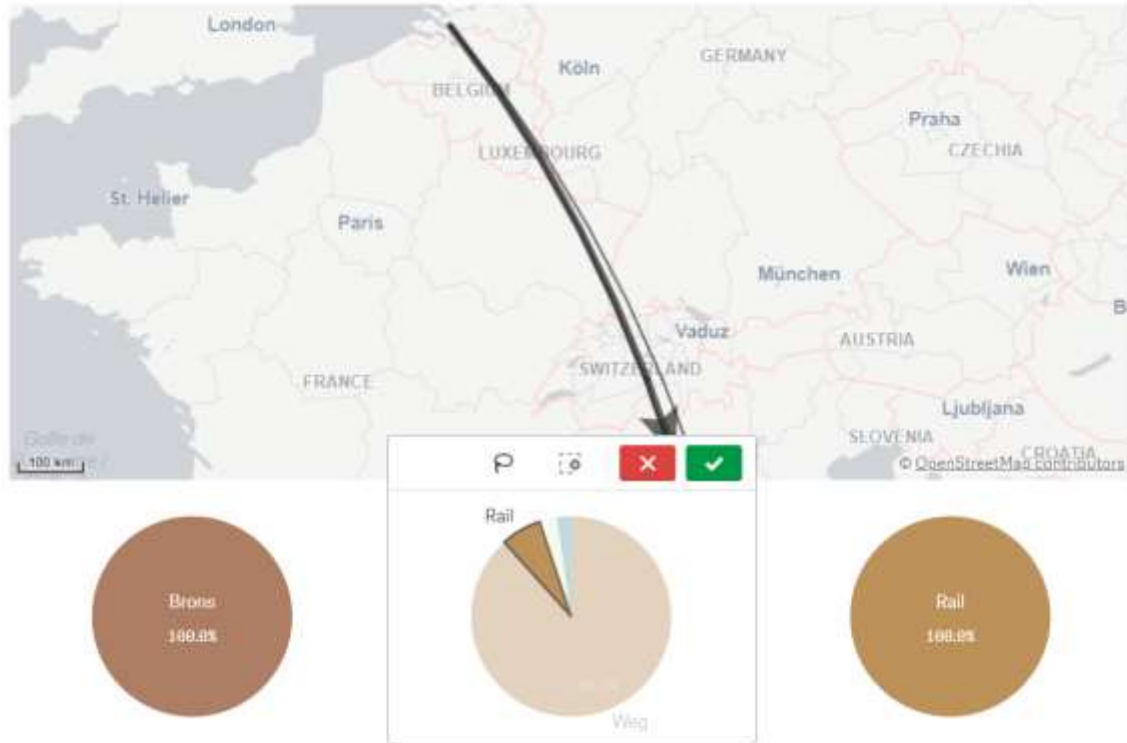
Kg CO₂e per M3 \approx
35,89

Kg CO₂e per M3.km(GCD) \approx
0,0552



2015 vs 2020 Rail routes

Totaal M3 verscheept (pijlen) & Totale uitstoot (kg CO₂e) (bol)



Totaal M3 verscheept (pijlen) & Totale uitstoot (kg CO₂e) (bol)



WOLTER KOOOPS

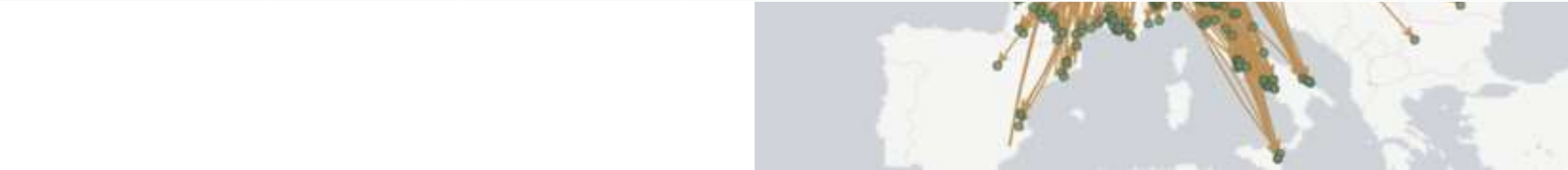
WOLTER KOOOPS

1st Lean & Green NL Star





	Base year					Evaluation
	2014	2015	2016	2017	2018	2019
Pallets	5.811.497	6.078.692	6.181.117	6.506.204	7.111.847	7.756.396
CO2	106.957.115	107.795.194	104.954.646	104.251.874	108.615.149	114.154.922
CO2 per pallet	18,40	17,73	16,98	16,02	15,27	14,57
Reduction	Base year	4%	8%	13%	17%	20%



WOLTER KOOPS

Measures

- 100% Euro 6 trucks
- Speed limiter at 85 km/h
- Fulltime analysis and coaching on fuel consumption per driver
- LHV trucks
- Intermodal logistics
- Distribution concept with own logistic platforms for bundling routes
- Tires management system

Learnings

- Value of data quality
- Face the challenge to map flows for the correct data
- Ability to report to clients in emissions per pallet
- Colleagues are motivated to reduce the carbon footprint
- Lean & Green stimulates the company to further reduce CO2
- Already working on project for the 2nd Lean & Green Star!



ANY QUESTIONS?

