The Use of 'Reasonable Efforts' Approaches to Assess Upstream and Downstream Environmental Impacts of Leased Equipment and Vehicles

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INTRODUCTION



The European Corporate Sustainability Reporting Directive (CSRD) requires large leasing and vehicle rental companies, like other large companies, to use 'reasonable efforts' to report on the key impacts of their activities, including 'upstream' and 'downstream'.

This Leaseurope research paper explores the practical implications of this for firms in the European leasing and vehicle rental industry.

This research aims to explore the feasibility for European leasing and vehicle rental companies to report:

- 'Upstream' value chain information: The Carbon Dioxide equivalent emissions (CO2e) associated with the production and distribution of equipment and vehicles that are purchased for leasing or rental.
- Downstream (post sale) value chain information: The CO2e associated with the use and eventual disposal / recycling of asset that were previously leased or rented.

Simple Value Chain of Leasing or Vehicle Renting Business

Upstream	Period of Ownership	Post sale
Manufacturing of assets that are purchased by leasing and rental companies (typically as specified by customers)		Use of the asset after it is sold by the rental or leasing company for the rest of its working life

Background to the Regulations

The European Corporate Sustainability Reporting Directive (CSRD) requires all large companies¹ in Europe to report on the impact of their activities on the environment and society.

The CSRD states that large companies should use 'reasonable efforts' to report on the key effects of their activities. They should obtain and report 'material value chain information' where this helps users of their sustainability reports to understand their 'material impacts, risks and opportunities.' This includes activities they carry out themselves, and both 'upstream' and 'downstream' activities to the extent this this is possible 'without undue cost or effort'².

The European Sustainability Reporting Standards (ESRSs) provide a standardised methodology for how this reporting should take place. For now, there are only sector-agnostic ESRSs, but the European Financial Reporting Advisory Group (EFRAG) is developing standards for financial institutions, and other sector-specific standards including Financial institutions and Motor vehicles. These standards are expected to be published from 2026.

¹Firms that exceed at least two of the following criteria: 1) Balance sheet total of €20 million; 2) Net turnover of €40 million; 3) Average number of 250 employees during the financial year.

²See, for example, FAQ 9: What is 'reasonable effort' to collect VC data? https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/EFRAG%20IG%202%20Value%20Chain_final.pdf

EXAMPLE POSSIBLE APPROACH



Finding a solution - what is needed?

This research is intended to test whether leasing and rental companies could report upstream and downstream effects using 'reasonable efforts'. It tests one possible approach, based on the following four practical expedients.

1	Use of OEM published data	All data to be taken from the publicly available and verified sustainability reports published by vehicle and equipment manufacturers avoiding a need to obtain and rely on non-published data from manufacturers	
2	Focus on CO2e	Reporting limited to CO2e, at least initially, as it is the most material impact on the environment in the value chain avoiding a need to attempt to report other measures initially, such as waste and water consumption	
3	Sampling of OEMs	Reporting based on average CO2e statistics based on a sample of manufacturers by category of asset avoiding a need to collect and monitor data from large numbers of manufacturers	
4	Simplified method to apply CO2e to leased assets	Reporting based on applying average CO2e to leased assets using simple methods and assumption based on each asset category, e.g. CO2e per €100,000 sale price (or per unit, or per kg if data is available) avoiding a need to obtain data specific to thousands of different assets	

RESEARCH METHODOLOGY FOR UPSTREAM



Below is a summary of how we carried out our research

1. Split market into high-level categories:

700	Information and Communications Technology and Other Business Equipment	
	Machinery and Industrial Equipment	
	Commercial Vehicles	
	Passenger Cars	

2. Select sample of manufacturers by category

We selected manufacturers specialising in the relevant categories (noting that several do also manufacture other types of productst

Information and Communications Technology and Other Business Equipment	Machinery and Industrial Equipment	Commercial Vehicles	Passenger Cars
Konica Minolta	Agco	lveco	BMW
Dell	Caterpillar	MAN	Mercedes-Benz
Ricoh	CNH	PACCAR	Volkswagen
Xerox	Doosan Bobcat	Scania	Stellantis
	John Deere	Volvo	
	Kion		
	Kubota		

RESEARCH METHODOLOGY FOR UPSTREAM



3. Take key data from Sustainability and Annual Financial Reports

(Example data shown for MAN Truck & Bus)

We aimed to select the most relevant metrics from the latest sustainability reports, but many different definitions are used, and the data is unlikely to be fully comparable.

For sales revenue, unless there is specific data, we have assumed that 70% of the revenue of ICT and other business equipment manufacturers is for sale of manufactured items, 80% for machinery and industrial equipment, and commercial vehicles manufacturers. It is likely these assumptions could be refined with further research. For passenger cars, we were able to identify revenue specifically from sale of vehicles.

€	Equipment or vehicle sales revenue 2023	€9.5 bn
	Units sold 2023	116,000
CO ₂	C02e from Manufacturing Process (Includes Scope 1 – Direct emissions and Scope 2 – Indirect emissions from the generation of purchased energy, but not Scope 3 – indirect emissions across the manufacturers' supply chain, including from the production of raw materials)	85Kt

4. Calculate key CO2e statistics

(Example data shown for MAN Truck & Bus)

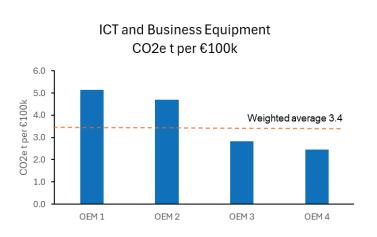
+- ×=	Manufacturing CO2e per €100k sales revenue	85Kt / €9.5bn = 0.9t
	Manufacturing CO2e per unit sold	85kt / 116,000 = 0.7t

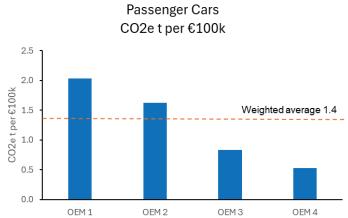
KEY RESULTS FOR UPSTREAM BY SEGMENT

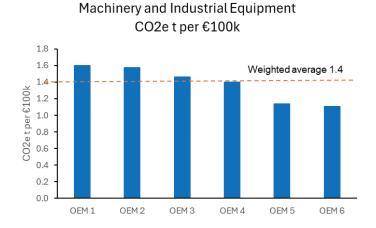


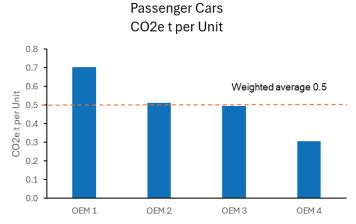
- Emissions vary between manufacturers in each category, in part due to production efficiency, but also due to different reporting methodologies (e.g. most manufacturers report CO2e for their production facilities, but at least one includes all facilities).
- Average emissions for ICT and business equipment are higher, possibly reflecting lower average values per asset.

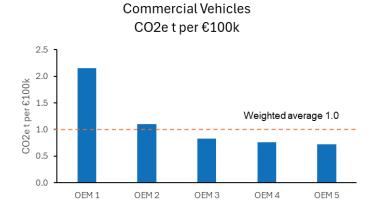
Key Results – Upstream by SectorBased on 2023 Sustainability and Annual Reports









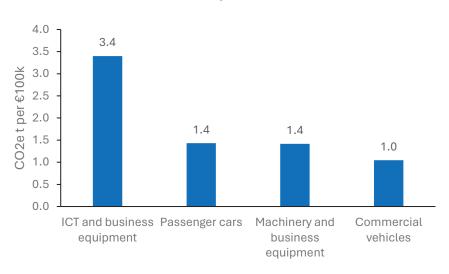


SUMMARY OF UPSTREAM RESULTS BY SEGMENT



- Average emissions by segment are similar for passenger cars, machinery and industrial equipment, and commercial vehicles.
- ICT and business equipment manufacturers appear to have higher CO2e per €100k of production, which may reflect relatively low average unit prices, but also differences in reporting methodologies (for example, Dell does not break out CO2e for its manufacturing facilities from other facilities).

Weighted Average per Sector CO2e t per €100k



Carbon Footprint of Assets in the Downstream Value Chain

Our research found that at present there is typically insufficient detail in many manufacturers' sustainability reports to allow statistics on lifetime CO2e to be reported by leasing and rental companies.

Whilst there may be an estimate of lifetime CO2e for manufactured products in manufacturers' sustainability reports, there is typically no explanation of number or value of produced items included, or average useful working periods.

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS



- This study is based on provisional and illustrative data and is intended only to facilitate ongoing discussion. Additional and ongoing research would be needed to prepare data for use in reporting.
- European Leasing and rental companies' abilities to report upstream and downstream data relies on third-party (manufacturer) data.
- Reporting upstream CO2e might be possible with reasonable effort but relies on simplifying assumptions, such as the ones used for this research, are applied.
- The weighted average CO2e for each asset class will vary as more granularity is added to the assets, more accurate information about the revenue associated with asset production is obtained, and additional company samples are included. Any methodology would need to be accepted by auditors, and this seems more likely if EFRAG provides specific guidance.
- If the broad approach set out in this research was to be accepted by companies in the industry and their auditors, it would be logical for a service provider to maintain the data, which appears to be changing significantly year to year as manufacturers improve their efficiency.
- In addition to CO2e data, in the longer term, further reporting may become possible with reasonable effort, as manufacturer data improves. This might include certain other upstream metrics such as energy consumption, water extraction and net waste from manufacturing, and downstream CO2e.
- As it develops and completes its sector-specific standards, we recommend EFRAG promotes the use
 of practical expedients to reporting upstream and downstream effects with reasonable effort, such
 as the approach set out in this research for leasing and rental companies. Clear guidance will be
 needed for both preparers and auditors of sustainability reports.