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EU Cities for Fair and ethical trade award: Better batteries: Ethical and climate smart batteries



SKÅNE



David Min augusti. A

Got prov
UPPDATER
Det finn

Senaste nytt från Skåne

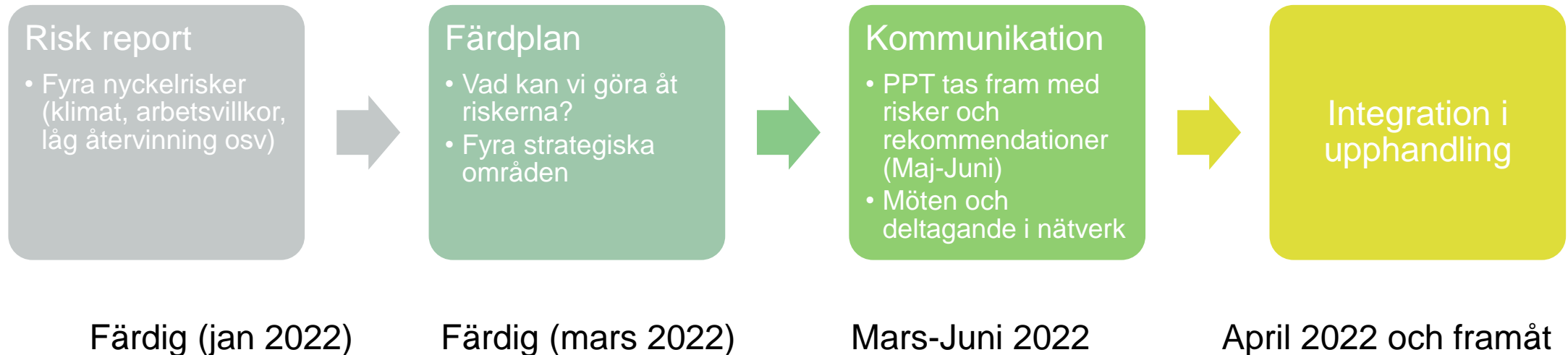
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Malmö stad

Projektets faser

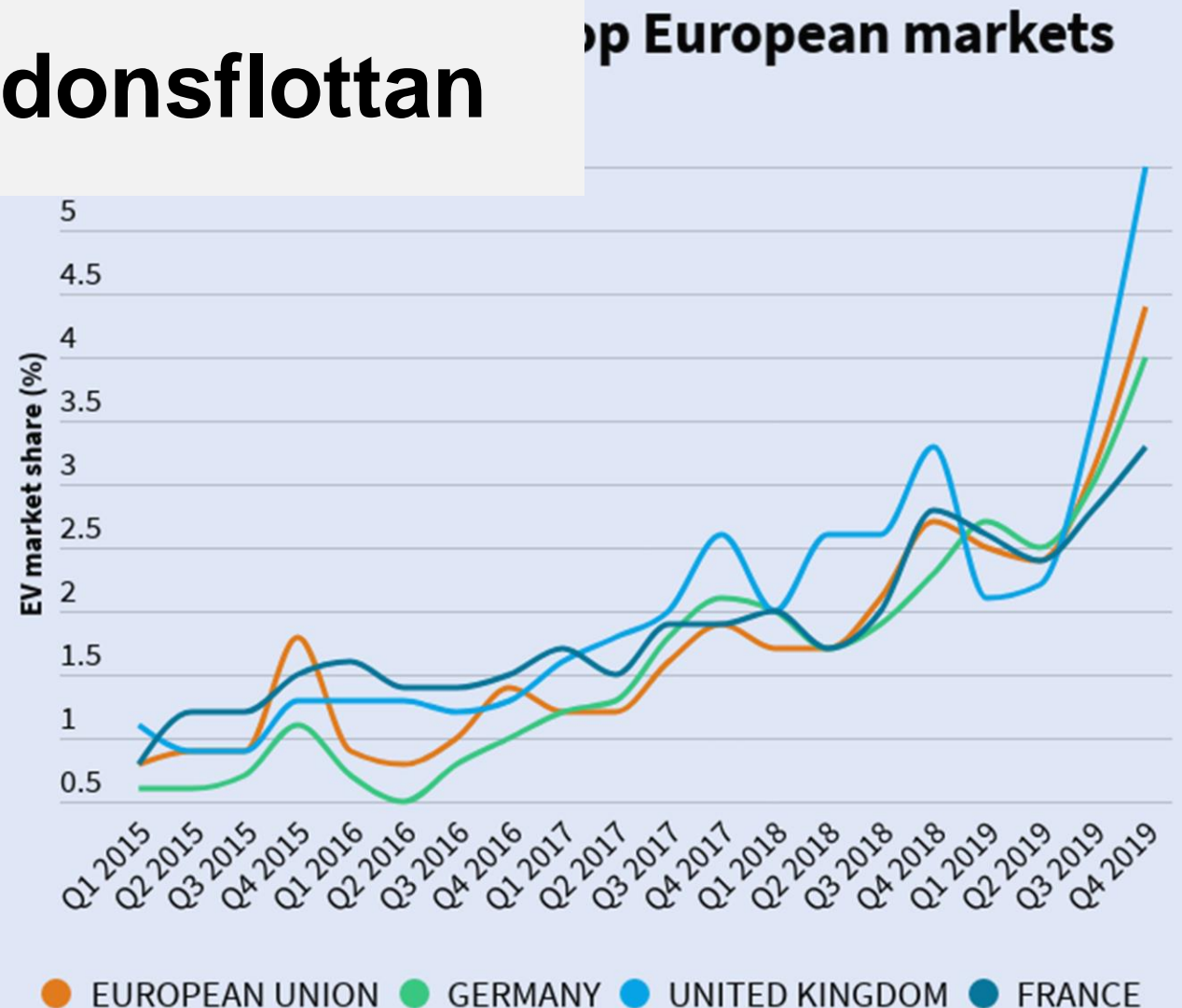
Allt material är på engelska



Fokus på klimat och sociala risker i hela leverantörskedjan. Men vi tittar också på användandefasen och afterlife.

Elektrifieringen av fordonsflottan

- År 2022 spås var tredje bil i Sverige vara en elbil
- År 2030 ska fordonsflottan vara fossilfri i Sverige
- Malmö stad har cirka 10% elbilar (av omkring 1000 fordon)



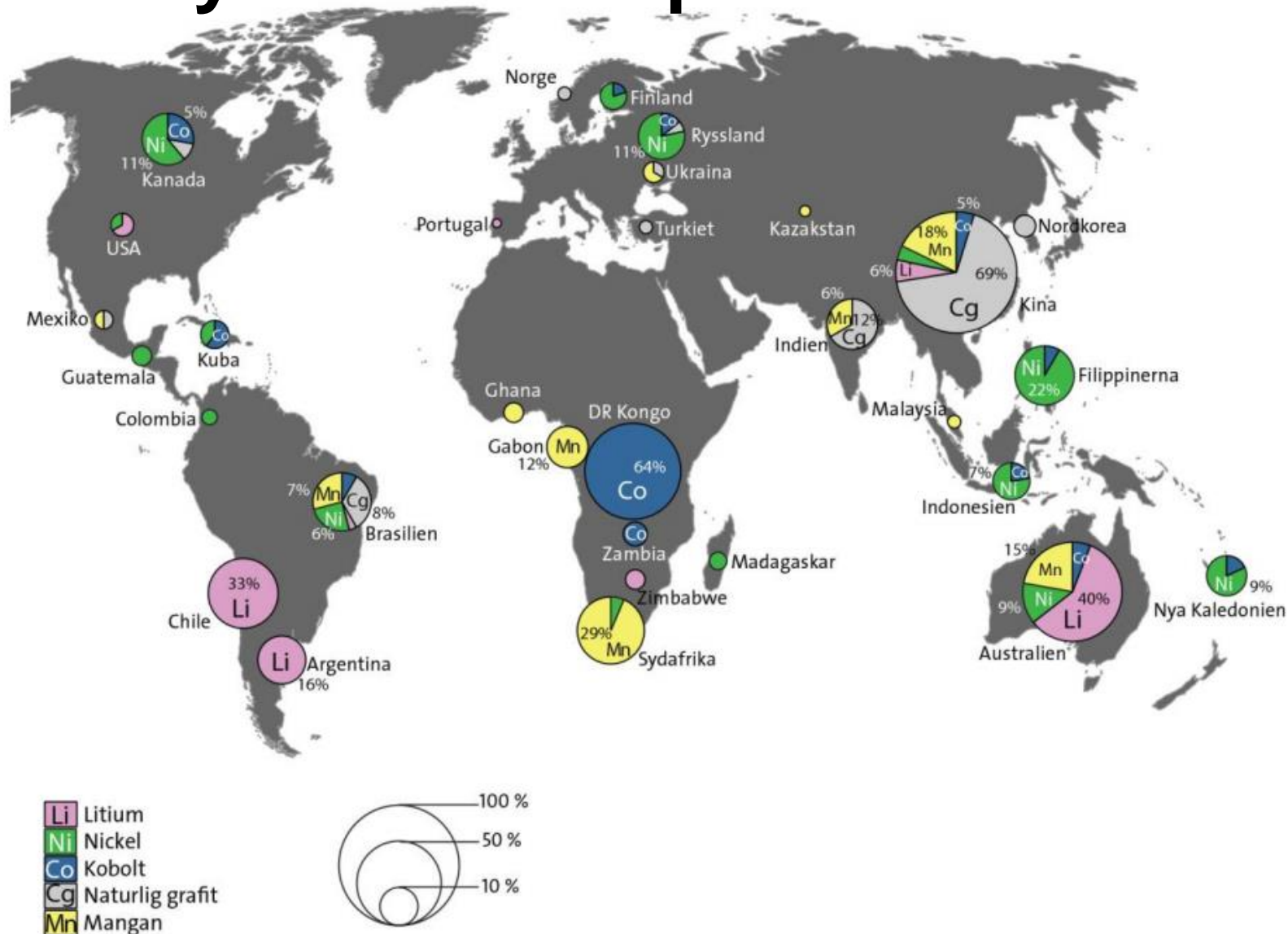
Includes both BEVs and PHEVs: 2.6% BEV and 1.8% PHEV in Q4 2019

Source: ACEA Quarterly Alternative Fuel Vehicle Registrations

Vad ska projektet leda till?

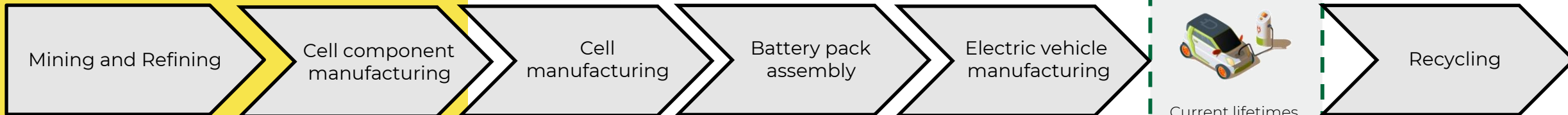
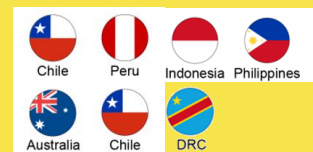
- **Risk-rapporten** ger oss underlag till vilka risker vi behver jobba med
- **Färdplanen** ger oss verktyg för att arbeta med:
 - GHG vid fordonsinköp (Nettonoll-org.)
 - Etisk konsumtion i framkant (Fairtrade City)
 - Kommande lagar
- Att fler inköpare (andra städer osv) arbetar med detta

Battery minerals – producer countries



Figur 2. Världproduktion av batterimetaller (Layout: Lars Norlin SGU, källor: EU-kommissionen 2017b, USGS 2017, BGS 2016).

TDi SUPPLY CHAIN STAGES AND MAJOR PLAYERS



cobalt

Artisanal and small-scale mines

manganese

nickel

lithium

graphite

Asian companies dominate the manufacturing of cathode active materials and anodes. In 2019, 61 per cent of the cathode materials for EVs were produced by Chinese companies as well as 83 per cent of the anodes.

Other Europe-based battery pack assemblers

Use phase

Current lifetimes estimated between 8 years (current warranties) and 15 years. (100,000-150,000 miles)

Europe-based

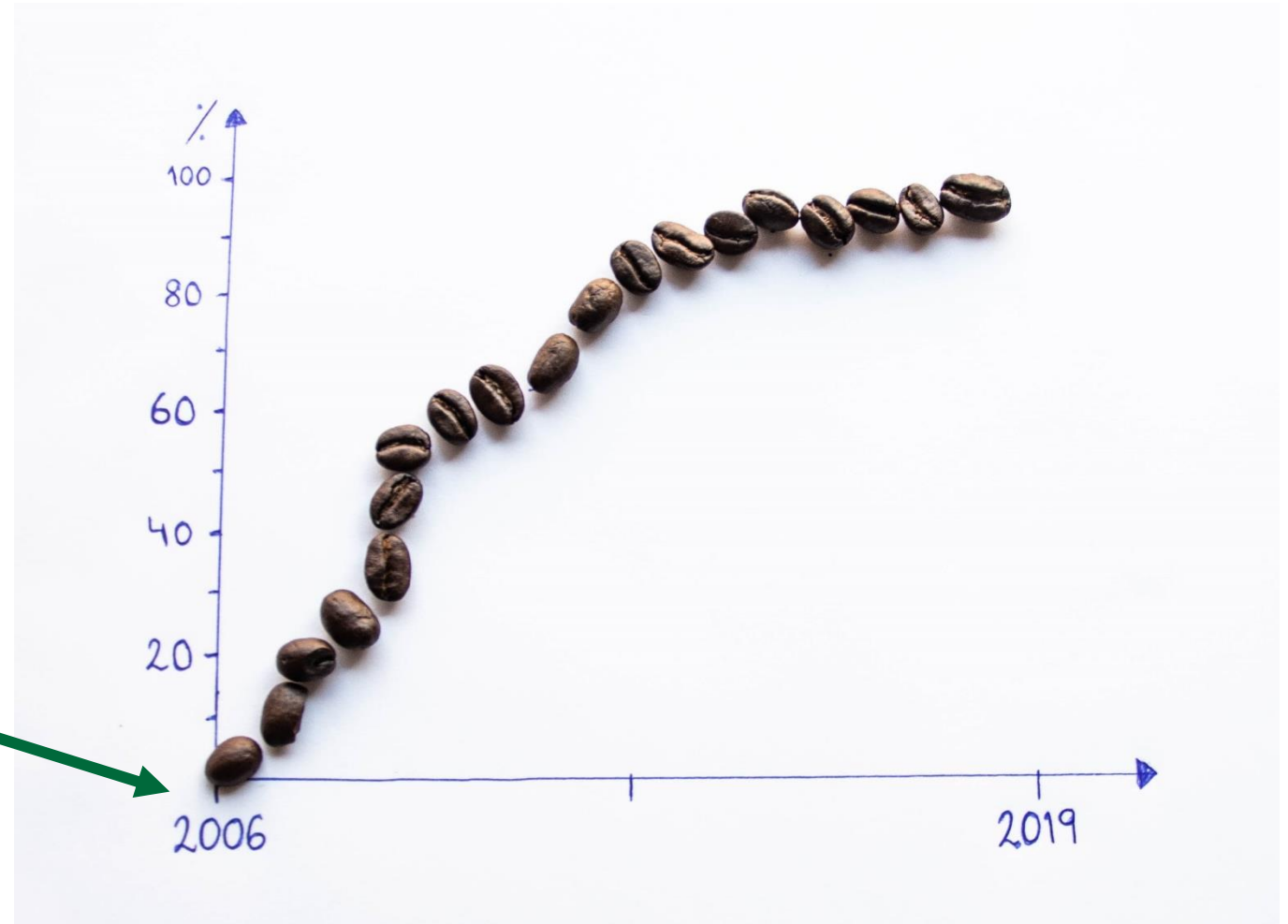
Almost all car manufacturers (a notable exemption is General Motors) keep the design and assembly of the battery pack in-house. In some cases, the assembly of battery pack is done through a joint venture

Finns det ett etiskt fordonsbatteri?

Nej, inte vad vi vet.

Definitivt finns inget etiskt tredjeparts-certifierat fordonsbatteri.

Kanske är vi här (0,45% etiskt certifierat kaffe)



Identify

Find the right standards for you by mixing and matching filters.

Standardsmap.org

Search by

Name ?

Type to search...

Filter by

Sustainability ?

Sector ?

Product ?

Type to search...

battery

No results found

Destination ?


Type to search...

Value Chain ?

Active Filters

Showing 302 over 302 standards

sort by Alphabetical order

-   4C - The Common Code for the Coffee Community  standard profile  add to compare 
-   A.I.S.E.  standard profile  add to compare 
-   ABNT Ecolabel  standard profile  add to compare 
-   ABVTEX PROGRAM  standard  add to 



Resultat (risker)

Public procurement of EV and e-bike batteries: what are the main considerations?

The following four key risk areas were identified and considered:

1

The mining and refining of battery materials, and the manufacturing of battery cells, is associated with **high GHG emissions**. The level of emissions varies depending on where raw materials are sourced and where the battery cells are manufactured.



2

The mining and processing of raw materials used in common battery types is associated with several **ESG issues**, the most serious of which is child labour in cobalt mining.



3

Transparency in battery value chains is generally limited, making it difficult for downstream users to ensure batteries and their raw material inputs are produced in accordance with international best practice.



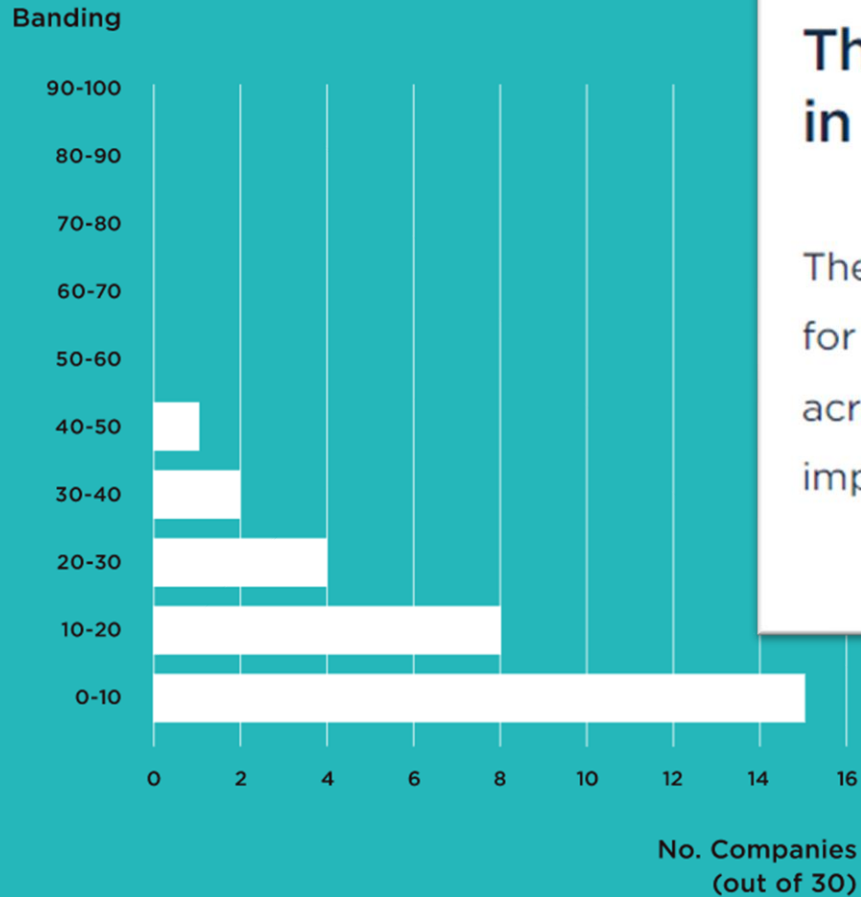
4

Some of the current **recycling methods**, such as hydrometallurgical and pyrometallurgical processes, are associated with negative environmental and social impacts.





Number of automotive companies per band



KEY FINDING

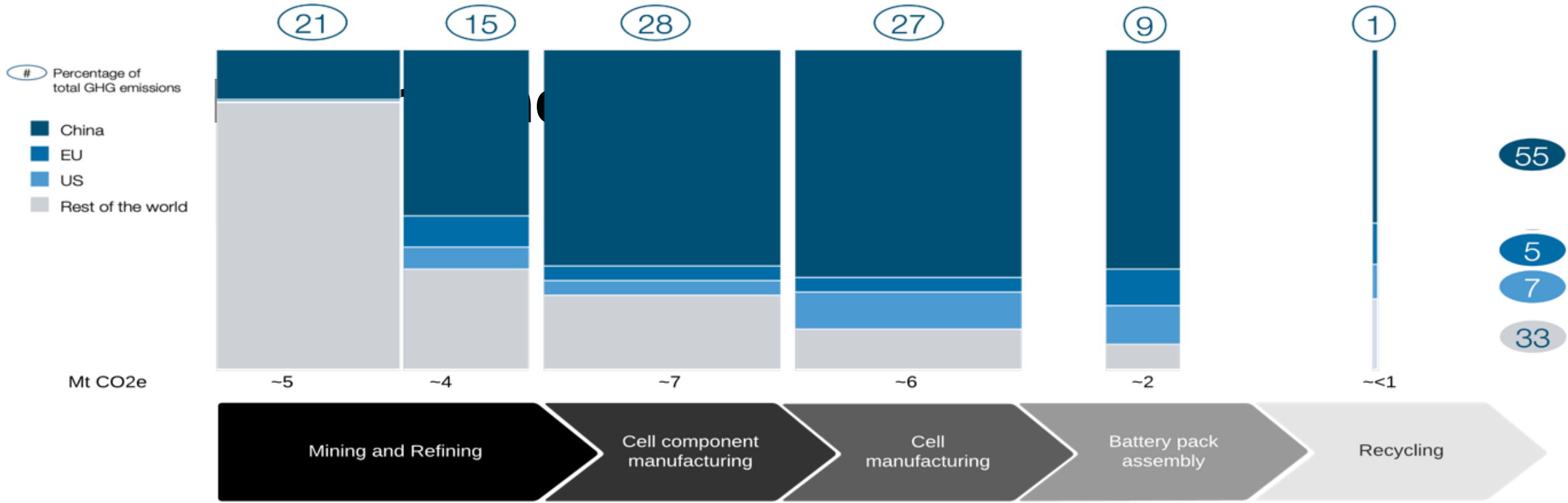
The automotive sector is the worst performing ever in the CHR

The average score for automotive companies is 12%, the lowest score ever for a CHR-benchmarked sector. **Two thirds of the companies scored 0** across all human rights due diligence indicators. These poor results suggest implementation of the UNGPs is weak across the sector.



CHR
Corporate Human
Rights Benchmark





ESG Risks associated with the different EV battery supply chain stages

High GHG emissions	High GHG emissions	High GHG emissions	Labour rights	Association with hazardous chemicals
Tailings breaches and release of hazardous chemicals	Labour rights	Labour rights		Labour rights
Pollution				Health & Safety Risks
Pressure on water scarcity				
Degraded landscapes and deforestation				
Association with ASM and child				

Två stora fabriker på gång i Sverige

- Northvolt i Skellefteå
- Volvo/Northvolt i Göteborg
- Idag använder vi CATL och LG Chem

	SELECTED BATTERY MANUFACTURING LOCATIONS	CO2 INTENSITY OF ENERGY MIX (CO2/TES)
SWEDEN	Northvolt - Skellefteå	16.9 t CO2/Tj
HUNGARY	SK Innovation - Komárom	39.9 t CO2/Tj
	Samsung SDI - Göd	
UNITED KINGDOM	Britishvolt - Blyth	46.8 t CO2/Tj
SOUTH KOREA	Samsung SDI - Ulsan	49.4 t CO2/Tj
GERMANY	Tesla - Grünheide	50.4 t CO2/Tj
	CATL - Erfurt	
UNITED STATES	Tesla - Reno	50.4 t CO2/Tj
JAPAN	Panasonic - Himeji	61.4 t CO2/Tj
POLAND	LG Chem - Wrocław	65.2 t CO2/Tj
CHINA	BYD - Xining	69.5 t CO2/Tj
	CATL - Ningde	

Slutsats risker

- Fordonsindustrin **sämst** i CHRB
- **Utvinningfasen** mest problematisk socialt och ekologiskt
- **Batteriproduktionen** kan flyttas till Sverige
- Malmös **användande** av fordon är ineffektivt
- Extremt låg **återvinningsgrad** – stor potential?

= OBEROENDE
CERTIFIERING
BEHÖVS!

Vad kan vi göra åt detta?

Färdplan

Fyra strategiska områden

Risk Management Measures

Structural recommendations

Executive summary Roadmap

- [Se PDF](#)



På gång i Malmö

- Kommunikationsfasen
- Prioritera utifrån färdplanen
- Utbildningar kring kommande lagar
- Uppföljning i Malmö
 - Förmånscyklar
 - Tjänstecyklar
 - Bilar
- Uppföljning av kinesiska batterifabriker med ETI Sweden
- Adda hållbarhetskollen



ETI Sverige

Tack!

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/fairtrade

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Nyhetsbrev!

