GLENCORE



1197

General presentation Nikkelverk, February 2016

िए Content

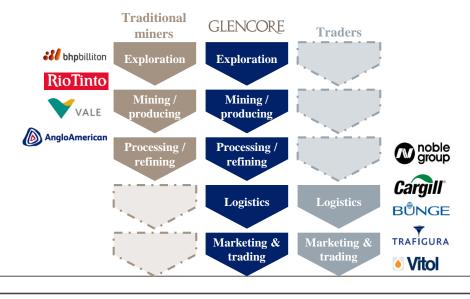
- 1 Glencore
- 2 Our history
- **3** Nikkelverk today
- 4 Our values
- **5** Production, environment and energy
- 6 **Process and quality**
- 7 Applications
- 8 Useful nickel





GLENCORE

- 90 commodities
- Unique business model
- Stock Exchange; London, Hong Kong and Johannesburg



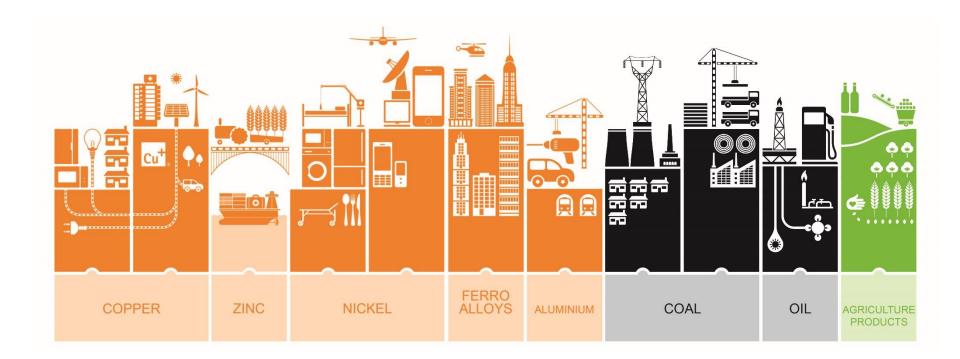
Metals and minerals	Energy products	Agricultural products
 Copper Zinc/Lead Aluminium Ferroalloys Nickel Iron Ore 	CoalOil	Grains Oils/Oilseeds Sugar Cotton

GLENCORE

- Revenue USD224 bn (2014)
- EBIT USD6.7 bn (2014)
- 181 000 employees (incl. contractors)
- 90 offices and 150 operational plants
- Presence in more than 50 countries

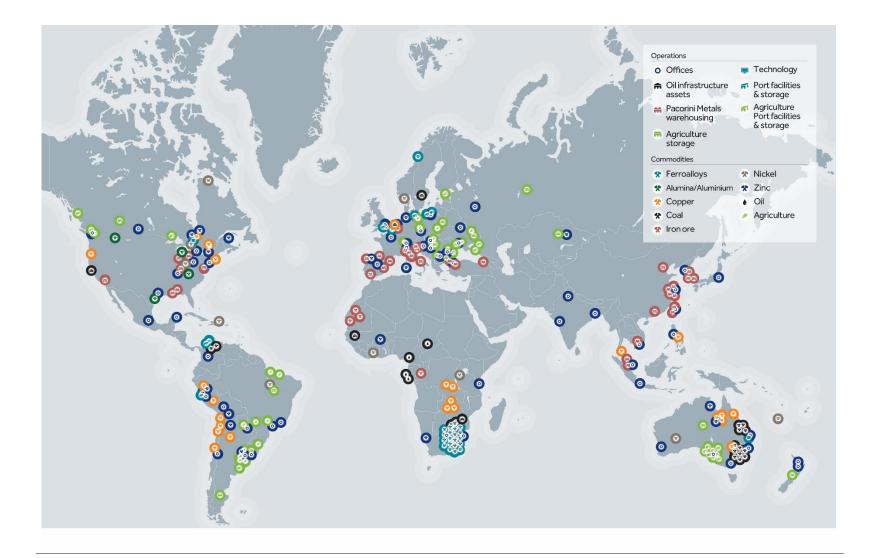
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Vital products in our daily lifes

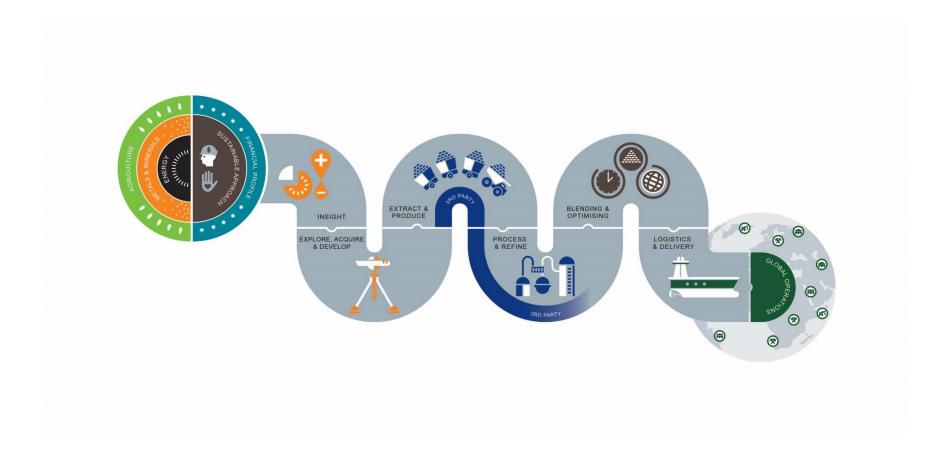


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A global player



Glencore Business Model

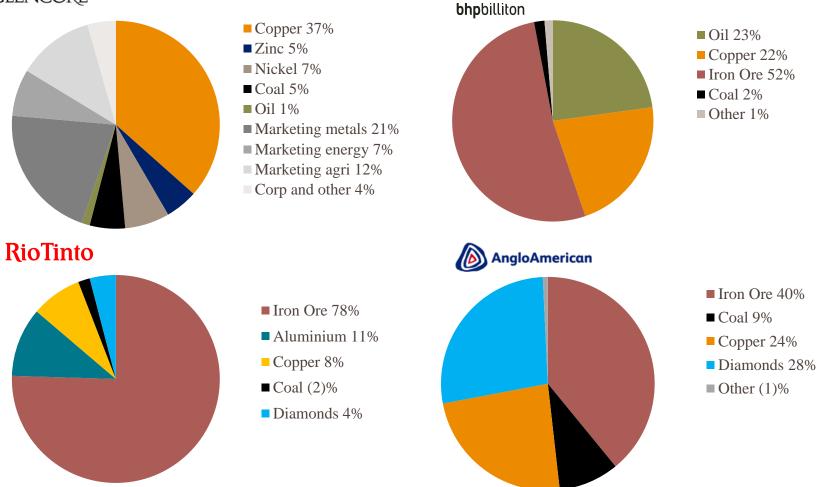


Glencore – the most diversified of the "big miners"

(FY 2014 EBIT)

(1)

GLENCORE





Glencore Nickel Worldwide



Our history

- 1870 1945: «Flåt» mines
- Production 20.000 tonnes nickel
- 1910: Kristiansand
 - Nikkelraffineringsverk A/S
- 1929: Falconbridge Limited
- 1973:1600 employees
- 2006: Xstrata plc
- 2013: Glencore International Ltd





Annual capacity:

- 92 kt nickel
- 39 kt copper
- 5.2 kt cobalt
- 115 kt sulphuric acid

Energy:

• 640 GWH / a

Employees:

- ~550 employees
- ~30 apprentices
- ~60 contractors



Safety is our core value



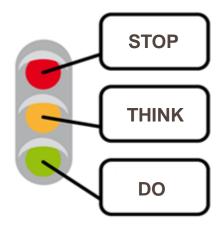
Do you follow procedures? 2.

Do you use right equipment? **3.**

Have you thought about risks you can meet before starting the job? **4.**

Do you think of your own and others' safety every day at work, and complete a STOP and CORRECT if you see a hazard? 5.

Do you participate actively in safety meetings?



7 lifesaving rules



Life-saving rule number . Never walk under a suspended load



Life-saving rule number .2 Always ensure the required permission before entering confined areas



Life-saving rule number . Always be secured when working at height



Always use safety equipment when handling chemicals



Life-saving rule number Release and secure energy and effort when working on equipment



Never set a safety barrier out of action without approval

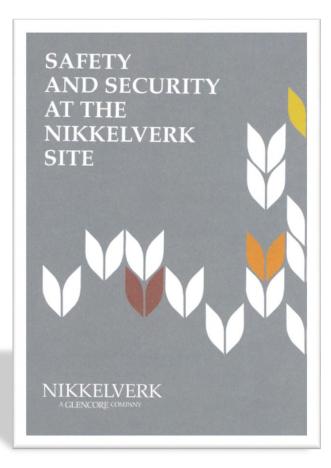
Life-saving rule number Do not break the security zone between vehicles and pedestrian without a clear signal

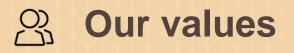


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Health and safety above all

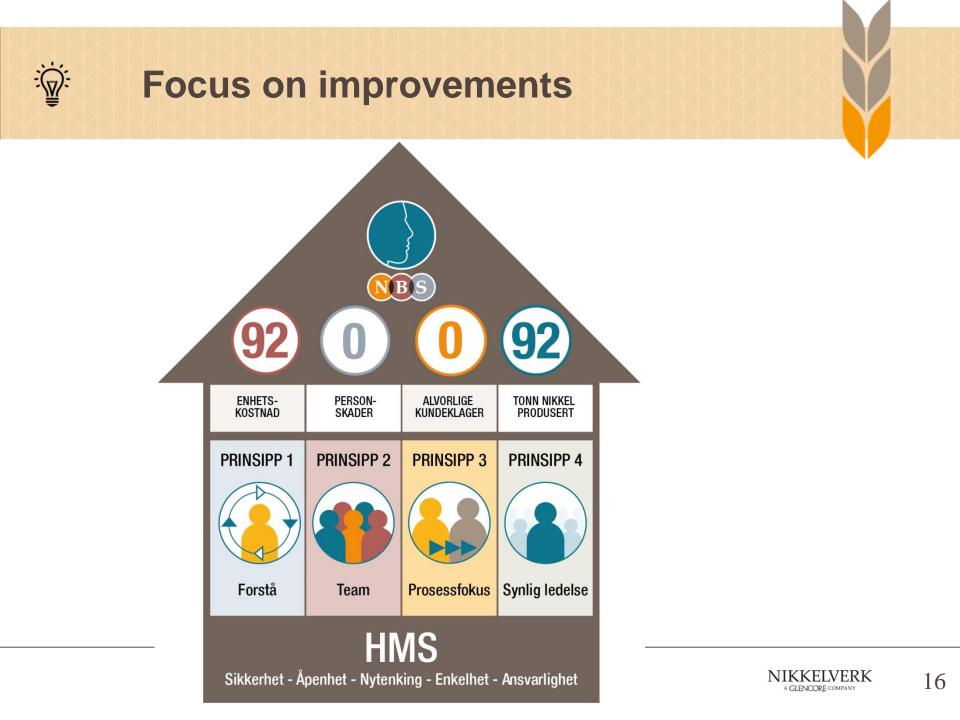
- Emergency Exits
- Rally Point either outside the building or the main parking lot depending on the nature of the event
- Emergency or 1333 or 3810 1333
- No smoking
- Photo prohibition
- Chemical toxicity (Cl₂, SO₂, propane, H₂S)
- Traffic Conditions follow the marked pedestrian crossings, yellow jackets
- Protective Equipment for visitors
- Pacemaker



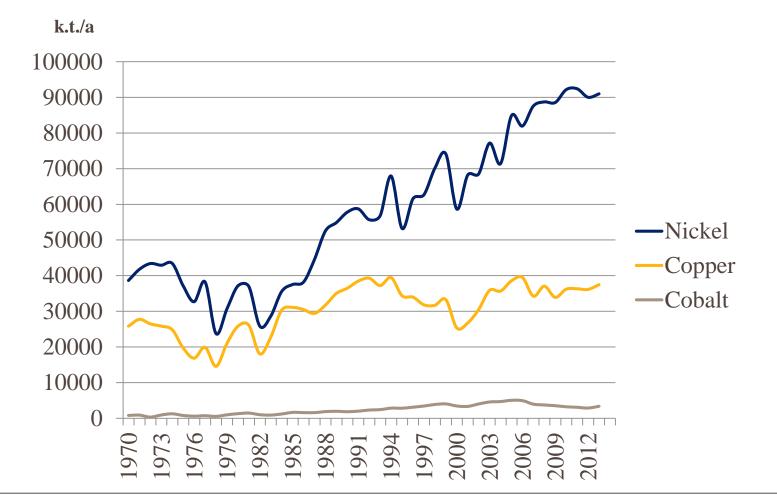


- Safety
- Simplicity
- Responsibility
- Entrepreneurialism
- Openness





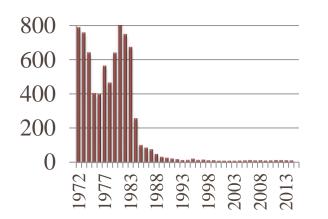




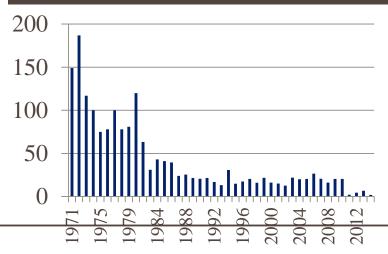
NIKKELVERK 17



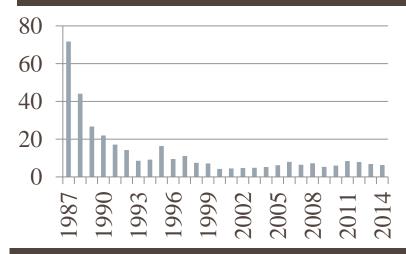
Ni+Cu+Co kg/day 1970-2015



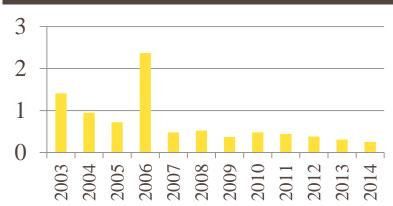
SO₂ kg/hour



Ni+Cu+Co from 1987-2015

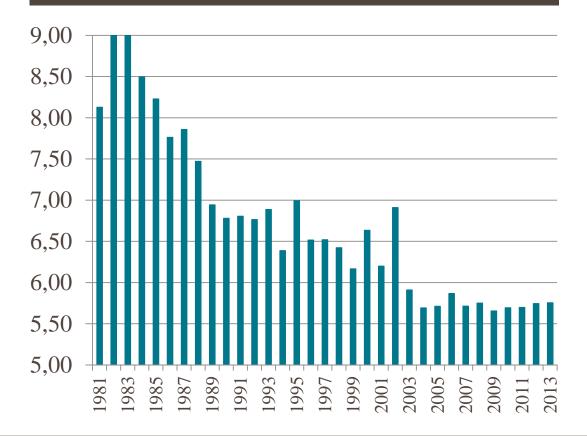


As kg/days





Specific power consumptions







DNV BUSINESS ASSURANCE MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 52974-2009-AHSO-NOR-NA

This is to certify that the Management System of

Glencore Nikkelverk AS

at

Kristiansand, Norway

has been found to conform to the Occupational Health and Safety Management System Standard(s):

OHSAS 18001:2007

This Certificate is valid for the following product or service ranges:

Development and refining of feed materials for production of electrolytic nickel, electrolytic cobalt and electrolytic copper, precious metals and sulphurie acid. hend Confection date.

 2009.05.25
 Havik, 2013.10.22

 Bits Certificare in valid unit 2014.12.22
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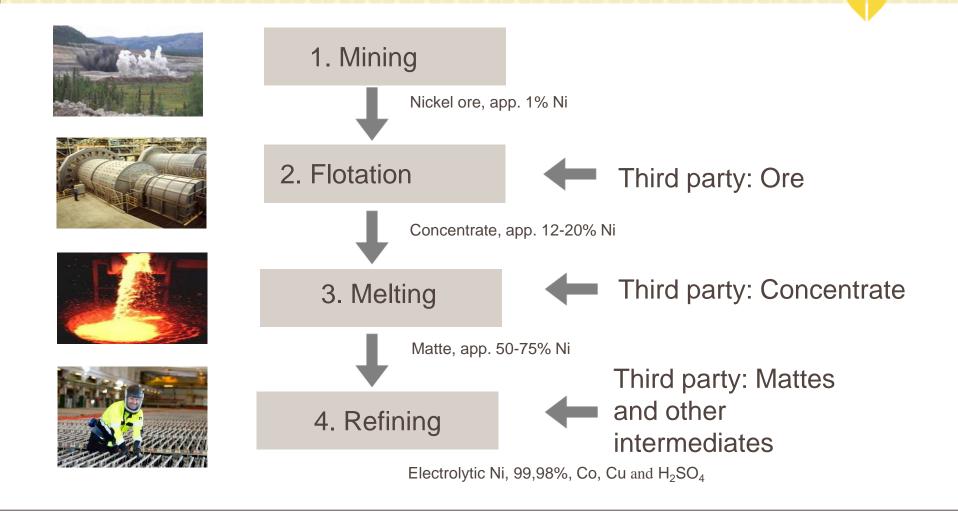
ISO 14001 - Environment

OHSAS 18001 - Health and Safety

ISO 50001 - Energy

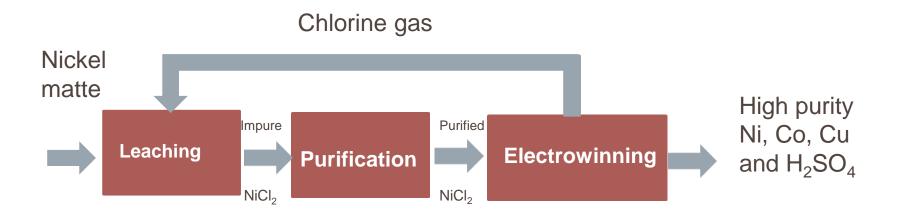


Production flow - Nickel



NIKKELVERK A GLENCORE COMPANY

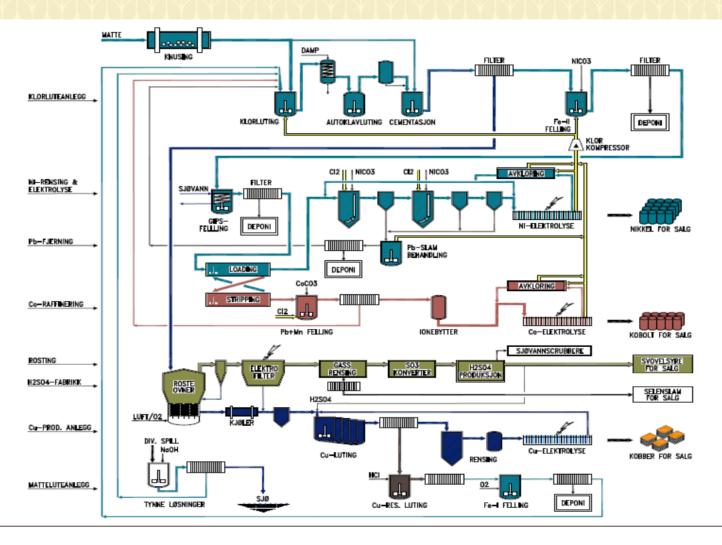








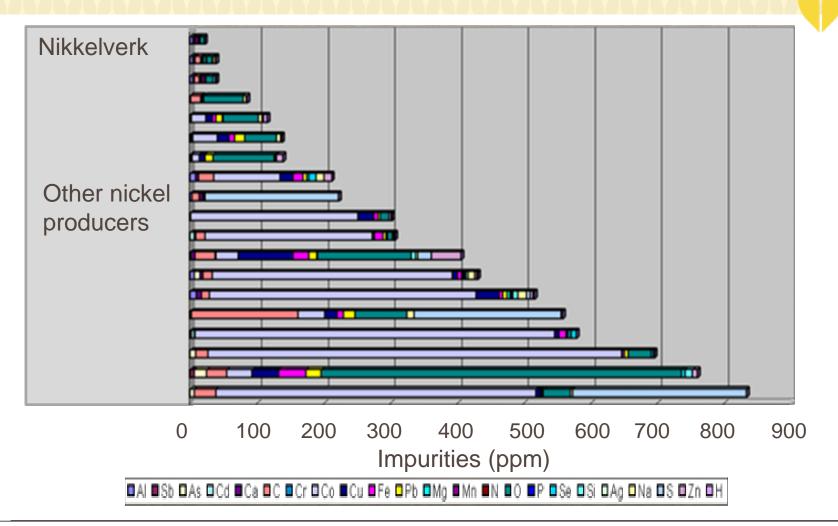
Process chart



NIKKELVERK 23

Nikkelverk nickel is the highest purity nickel available in the market

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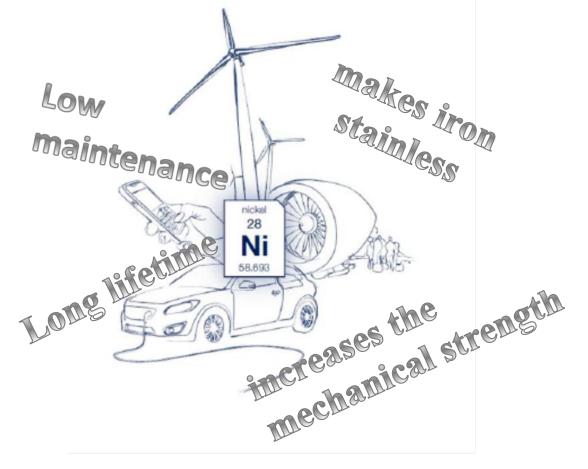
Ö Our products





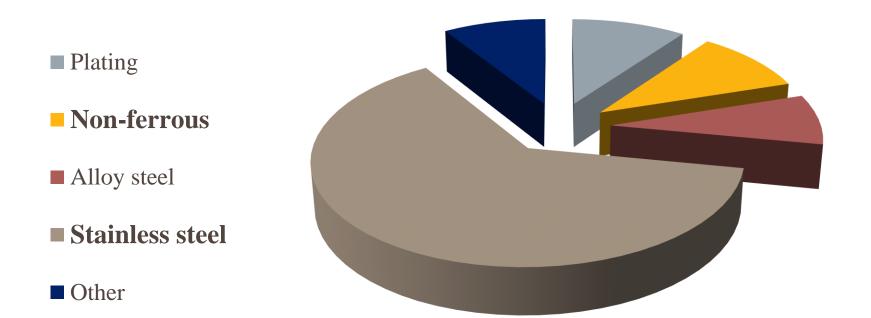
Product characteristics

Nickel has many unique properties that make it possible to combine with other metals which may be processed to hundreds of alloys. All are 100% recyclable.



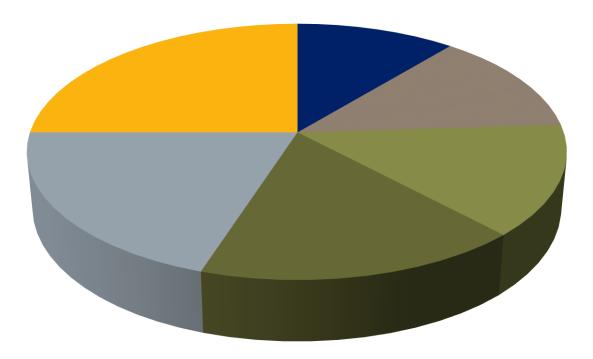


🕑 First use

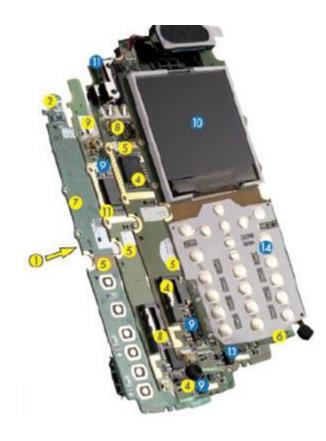


○ Second use

- Tubular products
 Electronic
- Electronic products
- Building and construction
- Transport



Useful nickel



No nickel.... <u>No</u> cell phone....



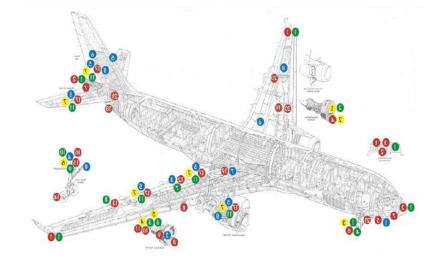




No nickel... No hybrid cars.....







No nickel No airplanes



Thank you for your attention! Questions?