The carbon footprint of the military sectors within the EU

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Scientists for Global Responsibility

http://www.sgr.org.uk/

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Scientists for Global Responsibility

- UK research/ advocacy organisation
- Membership includes 600 scientists and engineers
- Concerns include: climate change; militarism in science and technology
- 2020 report covered carbon emissions of UK military-industrial sectors

- SGR articles/ presentations has highlighted concerns about military carbon emissions for 15 years

Data sources

- UN Framework Convention on Climate Change (UNFCCC)
  - official national carbon emission inventories
- Defence ministry reports
- Corporate annual reports etc
- Academic/ NGO analyses of the military-industrial sectors in other comparable nations
  - Including UK and Norway

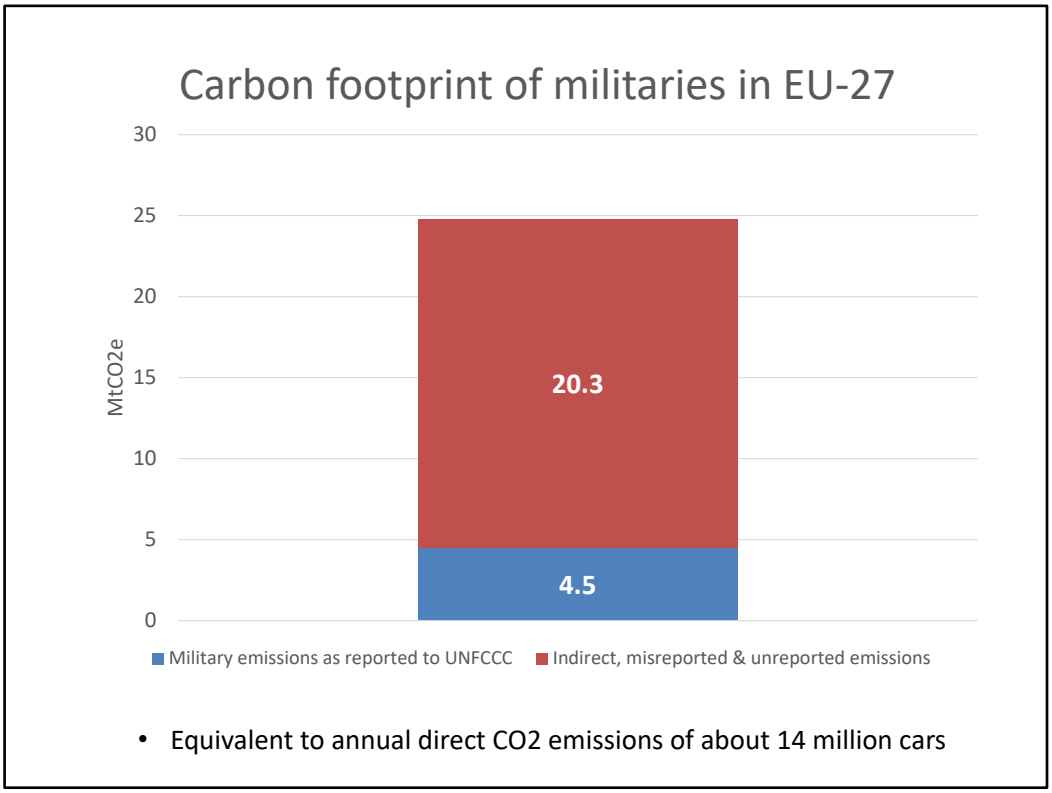
Analysis

- 6 case study nations/ whole EU
- 'Within nation' carbon emissions
  - 'Scope 1 + 2' emissions of relevant sectors
  - Military bodies, especially armed forces
  - Military technology corporations
  - Supply chains estimates
- Carbon footprints of military spending
  - Extrapolation from data on direct emissions using, especially, academic lifecycle analysis of Norwegian military

Poor data quality

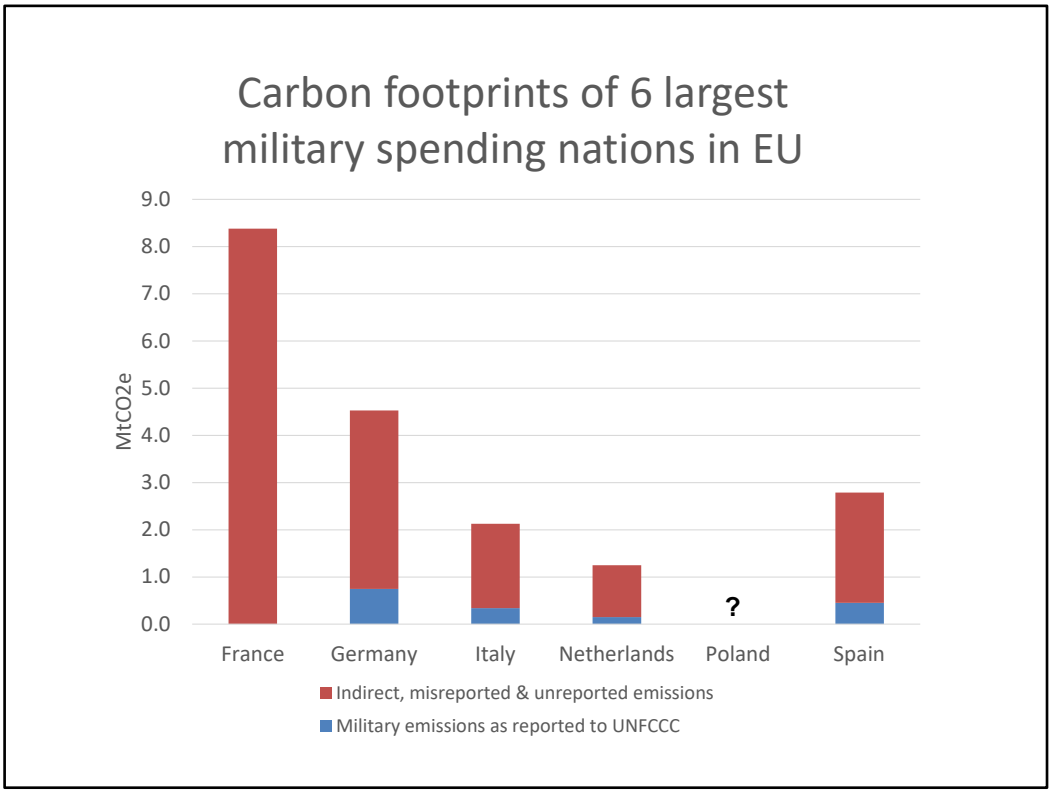
- Poor data quality due to:
  - Data not collected
  - Incomplete data collected
  - Lack of transparency over data that was collected
    - National security, commercial confidentiality used to obstruct access
  - Unclear international reporting standards
- Historical problem due to rules agreed as part of 1997 Kyoto Protocol
- Our estimates are therefore very conservative

- Kyoto Protocol reporting problems due to US lobbying

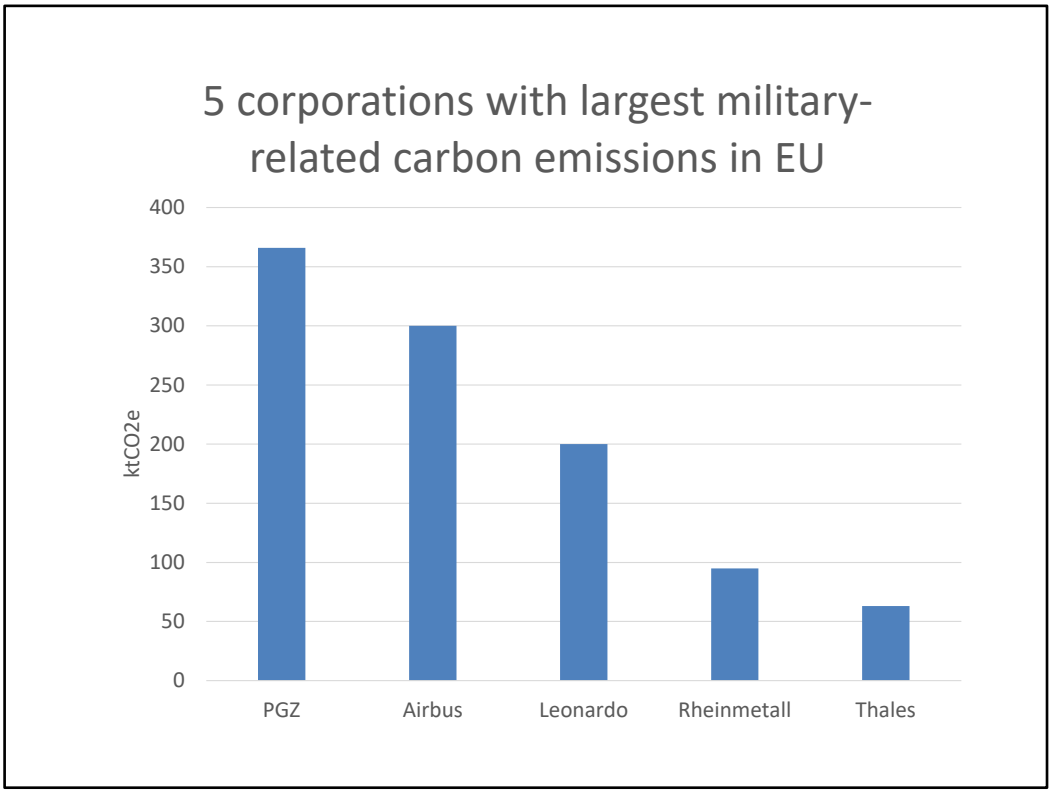


- Equivalent to annual direct CO2 emissions of about 14 million cars

- i.e. military sectors are significant and neglected source of carbon emissions
- UNFCCC figures from 2018
- Our estimate is based on 2019 data

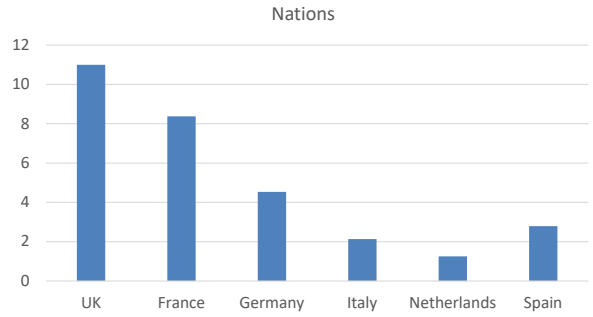


- UNFCCC figures from 2018
- Our estimates are based on 2019 data
- Some reasons for national differences:
    - Level of military spending – France and Germany especially high
    - Numbers of high-consumption vehicles, especially planes & ships – France especially high
    - Size of military technology industries – France especially high
    - Level of overseas military operations – France especially high



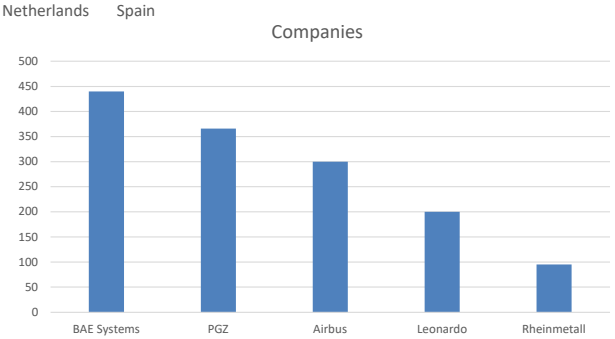
- Scope 1+2 emissions only
- PGZ figure is estimate based on indirect data
- These companies have most employees in the following EU nations:
    - PGZ – Poland; Airbus – France/ Germany; Leonardo – Italy; Rheinmetall – Germany; Thales – France

Comparison with UK



- UK footprint 30% higher than France
- BAE Systems emissions 20% higher than PGZ

- UK military carbon footprint per head of population 3 times that of Germany



- UK military carbon footprint per head of population 25% higher than France – other three nations broadly similar to Germany

Key recommendations

- Improve collection/ reporting of data on military carbon emissions to best practice in civilian sectors
- Expand emission reduction activity to include:
  - Arms control/ disarmament treaties etc
  - Changes in military strategy
  - Reductions in military spending
- International co-operation needed to make progress

Barriers to progress

- Geopolitical tensions
- International arms races
  - e.g. robotic weapons
- Increasing military spending to meet NATO targets
- Military tradition of secrecy

An opportunity?

- Many leading military officials recognise climate change as a ‘threat multiplier’
- Some recognise importance of reducing military carbon emissions
- Potential for international co-operation to reduce military emissions – through both technology and diplomacy

Thank you!

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