

# Impact of Covid-19 Crisis on Logistics Systems and Supply Chains

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Online Q&A Session

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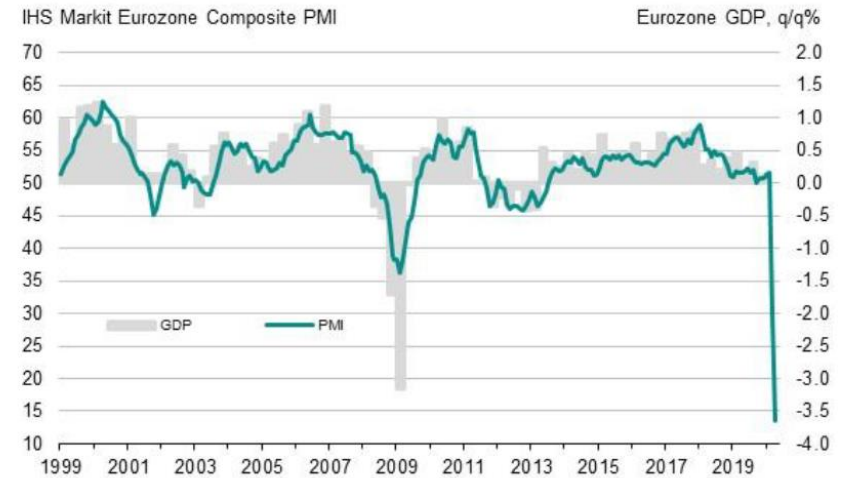
# What has happened over the past month?

Recognition that crisis will be longer, deeper and more transformational than expected

Lock-downs have drastically reduced the level of economic activity

Greater uncertainty about rate and nature of economic recovery

## IHS Markit Eurozone PMI and GDP



Sources: IHS Markit, Eurostat.

As rate of infection and deaths have peaked and are in decline in some countries, attention is shifting from the medical emergency to the economic recovery

Public profile of logistics and supply chain management has continued to rise:

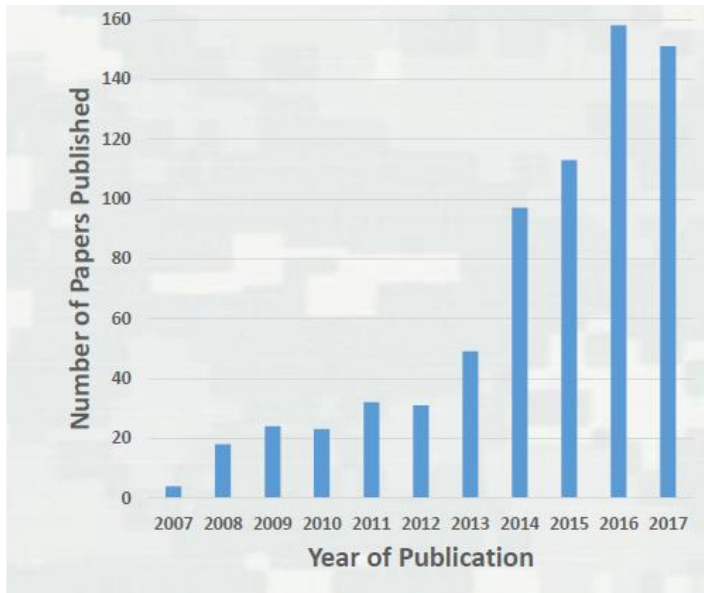
- Overcoming public '*freight blindness*' problem? [bit.ly/2RRud6j](https://bit.ly/2RRud6j)
- UK government: Covid medical deliveries = '*biggest logistical challenge of peacetime*'

# Why were **companies'** supply chains not adequately prepared to deal with Covid19 crisis?

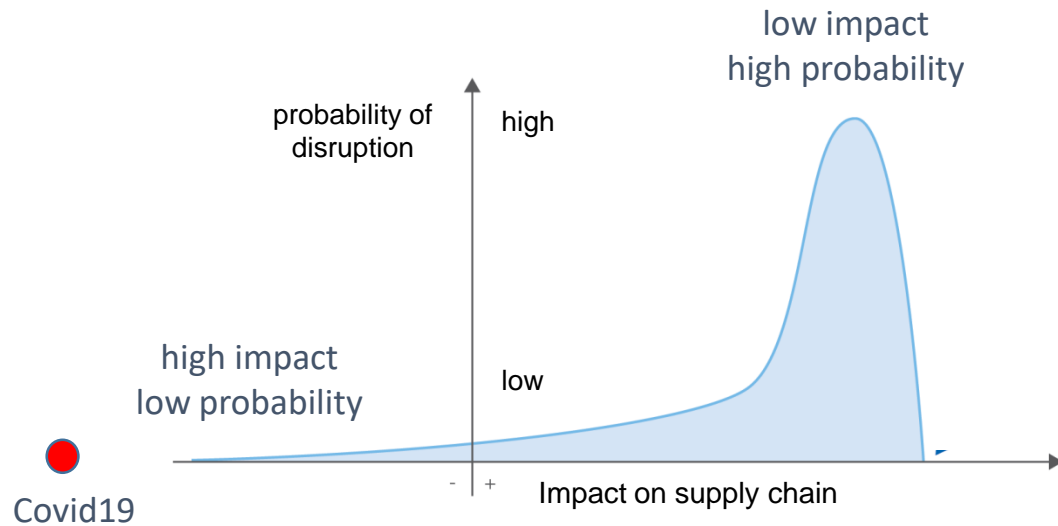
## No Shortage of Literature / Advice on Supply Chain Risk and Resilience



### journal papers on supply chain resilience



supply chain contingency planning is not prepared for such an extreme event

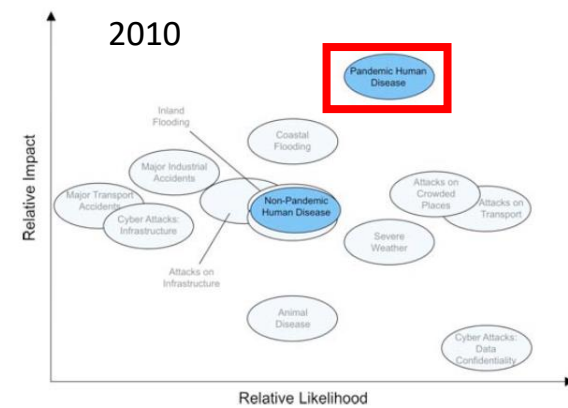
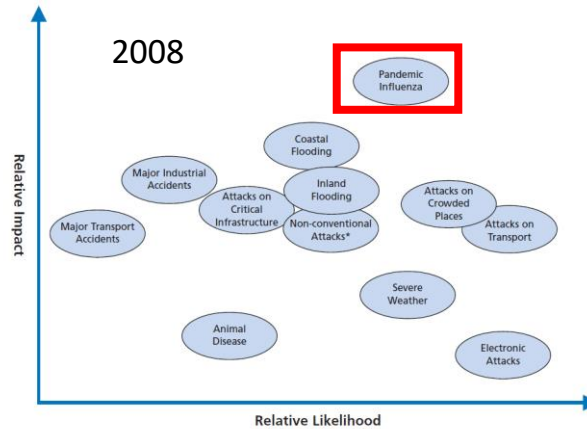
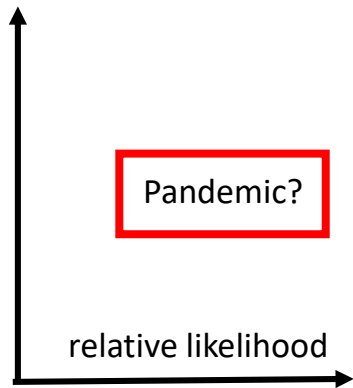


# Why have **governments** not been adequately prepared to deal with Covid19 crisis?

## Risk / Impact Ratings of Pandemic in UK National Risk Registers 2008 - 2015

<https://bit.ly/3bLugZb>

relative impact



2012



2013



2015



UK Cygnus Exercise (Oct 2016): predicted serious shortages of ICU beds, ventilators and PPE

“There has been a reluctance to put Cygnus out in the public domain because frankly it would terrify people,” said the former senior government source yesterday. Daily Telegraph 28 April 2020

# What has been the impact Covid19 on the logistics work-force?

Trucking operations sometimes considered to be a '*pandemic vector*' – *spreading disease*

In coronavirus crisis, truck drivers are being classed as **essential** workers

Critical dependence on home delivery staff – *many with insecure jobs in the Gig Economy*

Crisis is likely accelerate the switch to online retailing, increasing reliance on these jobs

transfer of coronavirus risk exposure from consumers to logistics employees



Department store



Fulfilment centre



many distribution centres closed because of concerns about virus transmission

need to change working practices to keep logistics workers safe in pandemics

**amazon.co.uk**

TV advert reassuring public that its Covid19 working conditions are safe

Is the pandemic likely to accelerate the automation/ digitalisation of logistics processes?

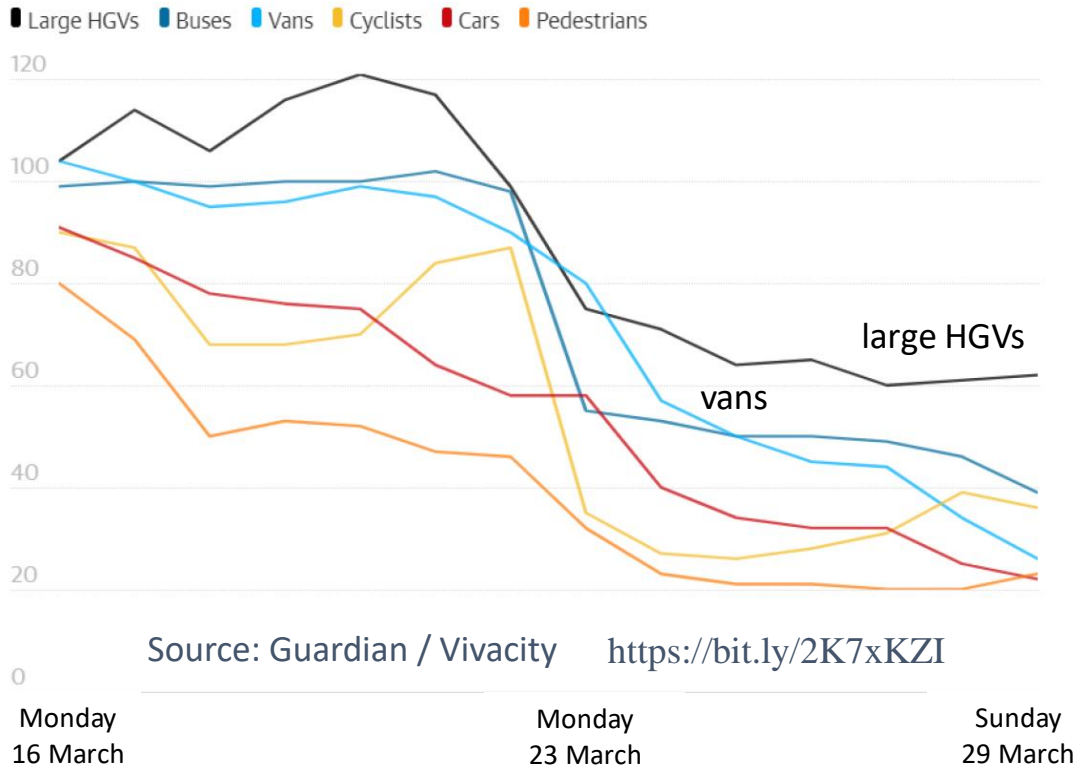
Freight forwarders able to switch office work to remote working at competitive advantage

# How big an impact has the coronavirus crisis had on freight traffic levels?

'almost half of the UK's lorries are parked up because of a plunge in demand' (*Financial Times*, 12 April 2020)

traffic levels in England (based on video monitoring)

Index: average for same day of the week over previous six weeks = 100



## Railfreight (UK)



50-55% running normally  
95% drop in passenger traffic

Allowing longer, heavier and faster freight trains

Average truck speed higher through major bottlenecks in US highway network due mainly to large reduction in car commuter traffic



# What has been the impact on the cross-border movement of freight in Europe?

Financial Times 17-3-2020

## Flow of goods slows as Poland tightens borders

Truck drivers face queues of up to 40km following virus measures



Trucks queue on the A12 highway between Berlin and the Polish border in Frankfurt Oder, Germany. © Michael Sohn/AP



<https://bit.ly/2YkyItW>

EUROPEAN  
COMMISSION

## COVID-19

Guidelines for border management  
measures to protect health and ensure the  
availability of goods and essential services

Border 'green lanes' for trucks

## Border delays for trucks – 29 April 2020

France to Switzerland  
*Saint Louis / Basel crossing*  
**2 hour delay**

Slovakia to Hungary  
*Ratja / Bratislava crossing*  
**1 hour delay**

Romania to Hungary  
*Biharkeresztes / Oradea crossing*  
**3 hour delay**

<https://covid-19.sixfold.com/>



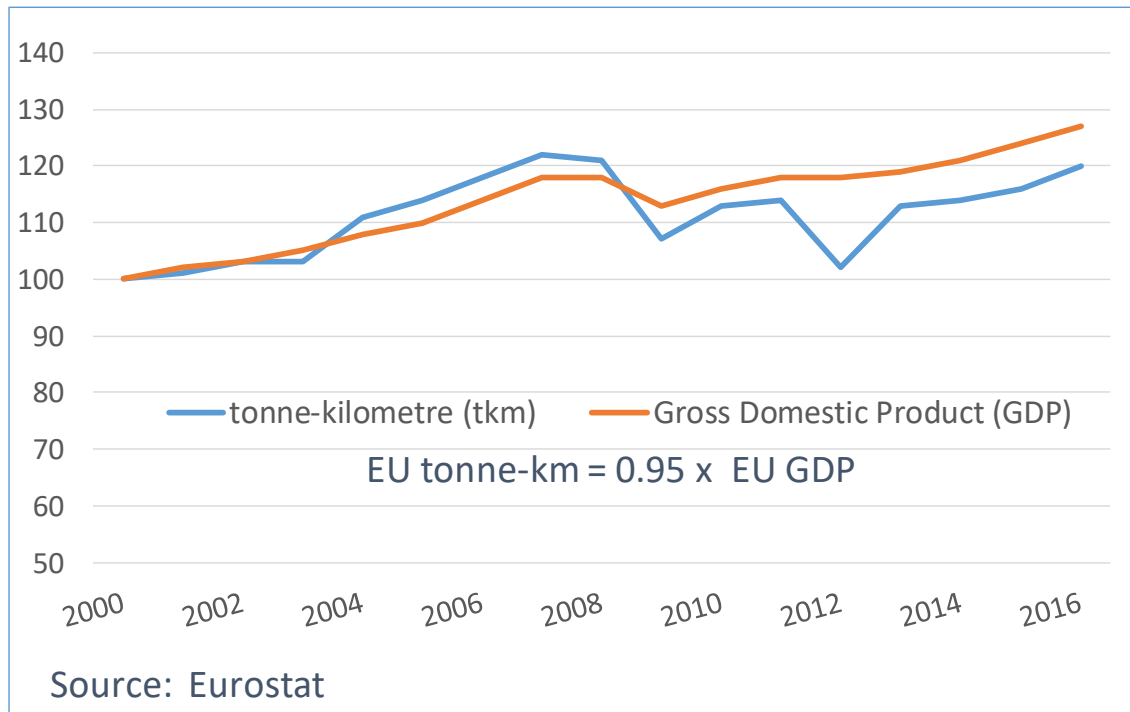
# To what extent is the crisis threatening the financial viability of logistics businesses?

Pre-Covid 2-3% profit margins typical across EU road haulage sector

38% of 2000 larger UK road haulage businesses in financially *'cautious or dangerous state'*,  
28% of 318 larger German trucking companies in similar state (Plimsoll, 2019)

Richard Burnett, head of UK Road Haulage Association *'We're seeing cash flow run out. Hauliers have reached a tipping point.'* *'Sector needs a cash injection of £4bn to survive.'* (FT 11-4-2020)  
*'40% of haulage businesses will only survive another month of lockdown'*

State of freight transport sector is a 'barometer' of economic activity





# Will Covid19 help us to reach our climate change targets for logistics?

## Post-Covid Low Carbon Recovery / Building Back Greener

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### The unholy alliance of covid-19, nationalism, and climate change

Learn how the World Bank Group is helping countries with COVID-19 (coronavirus). Find Out

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Published on Development and a Changing Climate

### Thinking ahead: For a sustainable recovery from COVID-19 (Coronavirus)

STÉPHANE HALLEGATTE & STEPHEN HAMMER | MARCH 30, 2020  
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### COVID-19

### Will Covid-19 have a lasting impact on the environment?

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### Addressing climate change in a post-pandemic world

April 2020 | Article

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### The Analogy Between Covid-19 and Climate Change Is Eerily Precise

First deny the problem, then say the solution is too expensive? The playbook here is all too familiar.

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### Our approach to covid-19 can also help tackle climate change

We can't lose sight of the climate emergency when dealing with the covid-19 pandemic, say **Christiana Figueres** and **Tom Rivett-Carnac**

Smart Freight Centre

Blogs

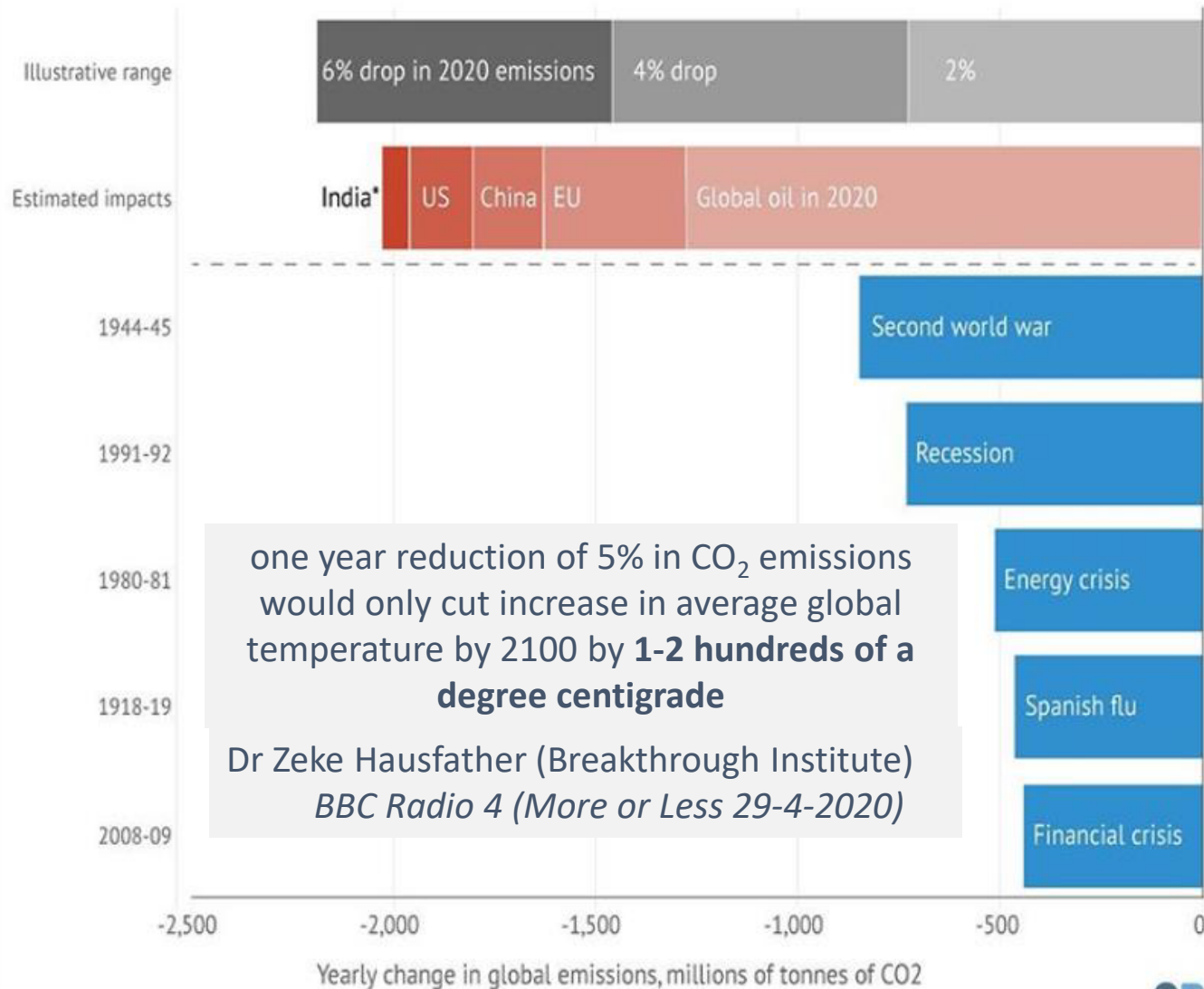
### Supply Chains in the Time of Corona

25 March 2020 - By Sophie Punte, Executive Director, Smart Freight Centre

# Will Covid19 help us to reach our climate change targets for logistics?

## Coronavirus could trigger the **largest ever annual fall** in CO2 emissions

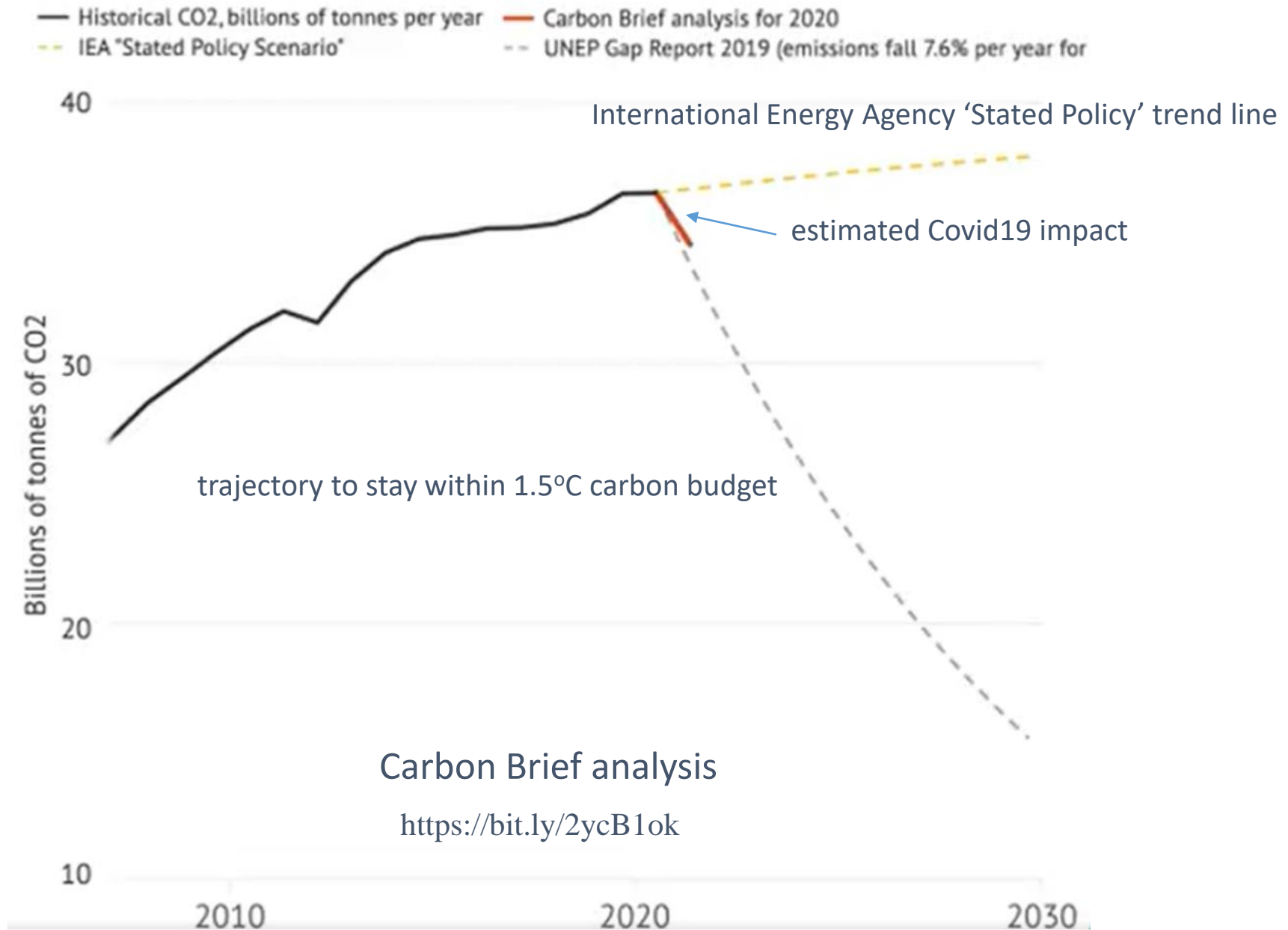
Pre-crisis GDP estimates suggested CO2 would rise by more than 1% in 2020 (470MtCO2)



one year reduction of 5% in CO<sub>2</sub> emissions would only cut increase in average global temperature by 2100 by **1-2 hundreds of a degree centigrade**

Dr Zeke Hausfather (Breakthrough Institute)  
*BBC Radio 4 (More or Less 29-4-2020)*

# Even if sustained longer-term Covid19 rate of CO<sub>2</sub> reduction would not keep us within 1.5°C carbon budget by 2030

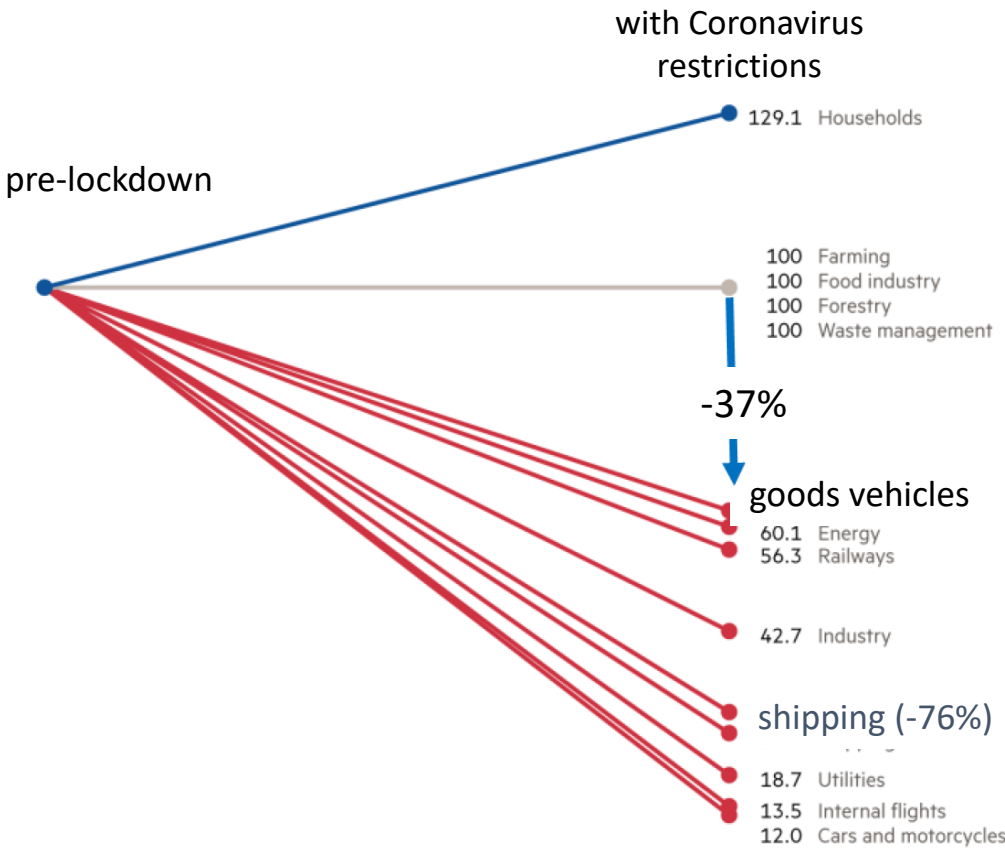


# By how much have logistics emissions been reduced by the Covid crisis?

Logistics = 10-11% of CO<sub>2</sub> emissions and rising

one-off deep reduction in logistics-related emissions – resetting the CO<sub>2</sub> baseline

Daily CO<sub>2</sub> emissions as % of normal for EU27



## post-Covid economic recovery scenarios

low carbon



high carbon

supply chain restructuring  
*localised sourcing*  
*relaxing JIT pressures*

priority for boosting growth,  
restoring employment and  
clearing debt

public policy instruments  
*linking support to emissions*  
*ending fossil fuel subsidies*

limited resources for green  
investment by government  
and business

acceleration of trends  
*digitalisation, online*  
*retailing, circularity, 3DP*

logistics decarbonisation  
given low priority by  
businesses

A test of the commitment to  
the EU's New Green Deal

# Where are the main logistics bottlenecks in the coronavirus crisis?

## Lack of storage space for excess oil



floating storage for oil



Global oil storage full in 3-4 weeks  
(Goldman Sachs 24-4-2020)

## Lack of warehousing space

UK could run out of space in 2 weeks  
(UK Warehousing Association, 20 April 2020)

90% of 3<sup>rd</sup> party warehouse operators - full  
1.5 million available slots  
750,000 imported pallet-loads /week



<https://bit.ly/35iG2Yx>

Particular problem for fashion clothing

## Air cargo 'capacity crunch' (IATA April 2020)

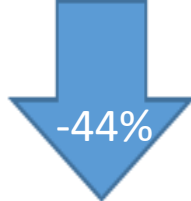
<https://bit.ly/35kqNOE>

March 2020 data

cargo tonne-kms

capacity

bellyhold capacity



- constrained by:*
- *charter permits*
  - *quarantine exemptions*
  - *availability of ground staff*

# How will companies try to improve supply chain resilience after the pandemic?

## How likely is it that the coronavirus crisis will:

- reverse globalisation
- promoting reshoring / nearshoring of production
- force a relaxation of the just-in-time principle
- increase inventory levels
- encourage more diversified sourcing
- increase supply chain agility

could also yield an environmental benefit

Rapid diversification of production in response to medical needs

- emergency re-orientation of supply chains – lessons in agility for the future

L'ORÉAL



dyson



In lockdown switch from *eating-out* to *eating-in* creating a major food logistics challenge

Diverting inventory intended for restaurants to supermarkets and home delivery – to meet demand and minimise food waste



# What logistics trends are likely to be reinforced / accelerated and which ones reversed?

## Supply Chain and Transport *transformation map*



World Economic Forum / KLU

<https://www.weforum.org/platforms>

Digital transformation of supply chains



Restructuring global value chains



Supply chain sustainability



Logistics skill shortages



Logistics property and infrastructure



Reduced risk / increased resilience



Ecommerce-driven demand chains



Supply chain collaboration



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Impact of Covid19 on logistics and supply chains - issues and information sources

<https://bit.ly/34jS3wi>