

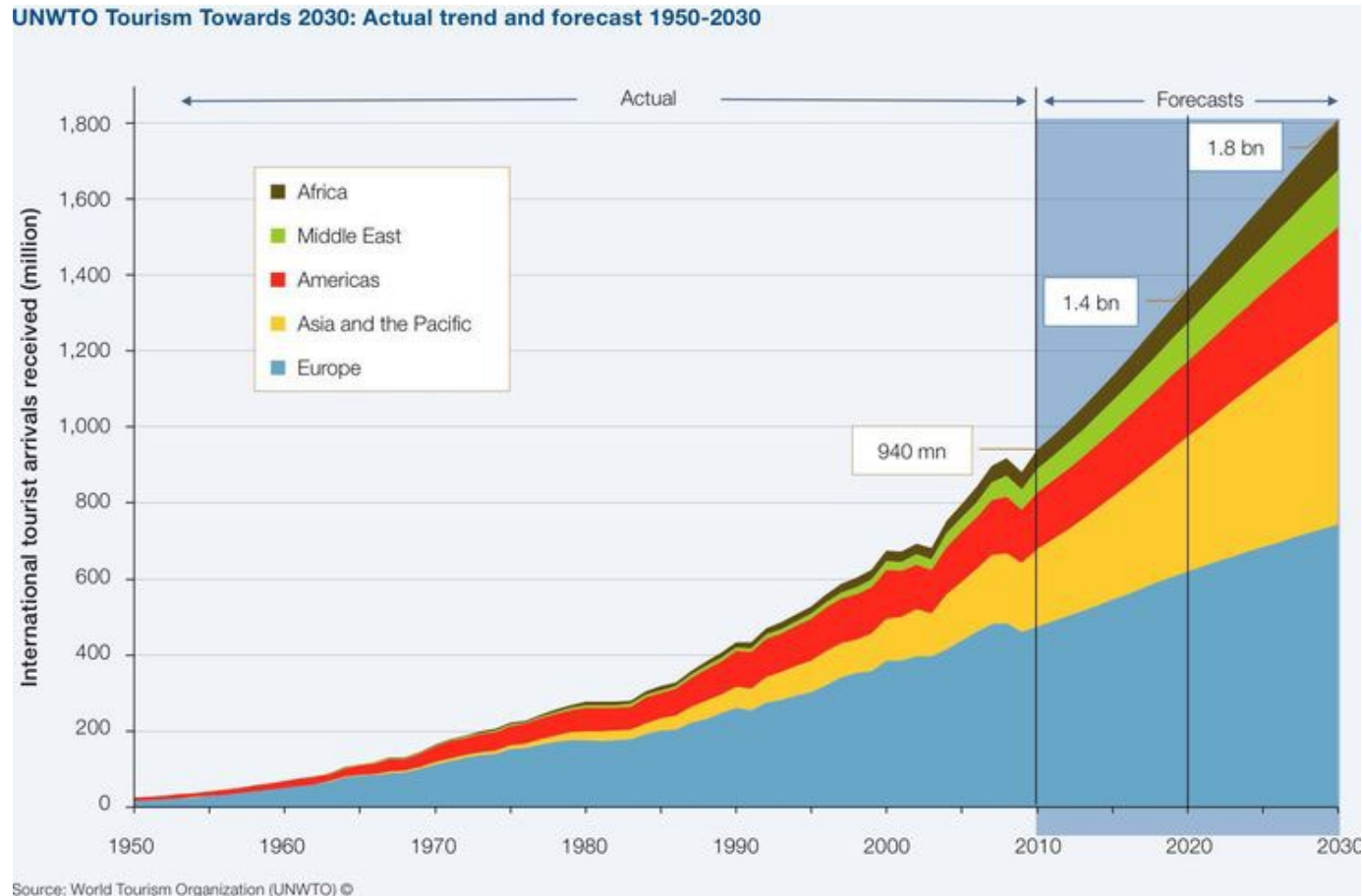
Build back better, or back on the (unsustainable) tourism development track? What has the covid pandemic taught us, and are we already forgetting it?

Carlo Aall

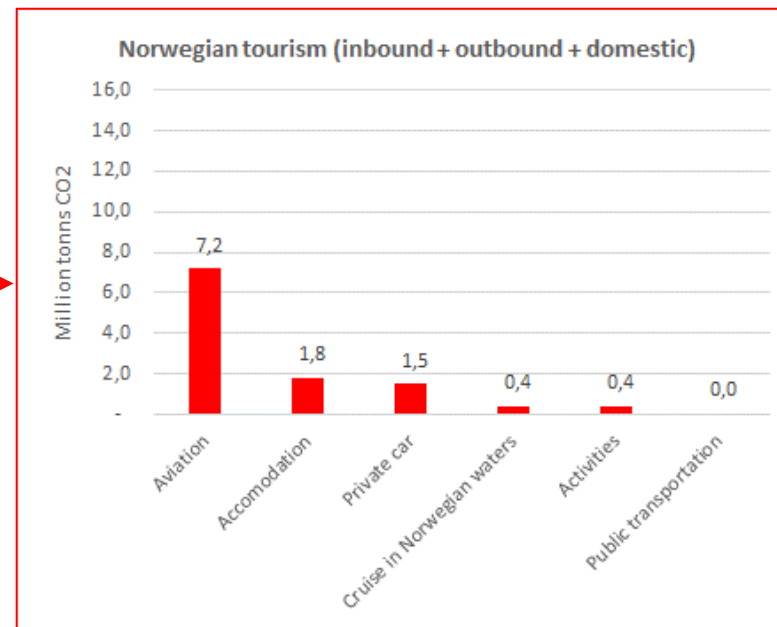
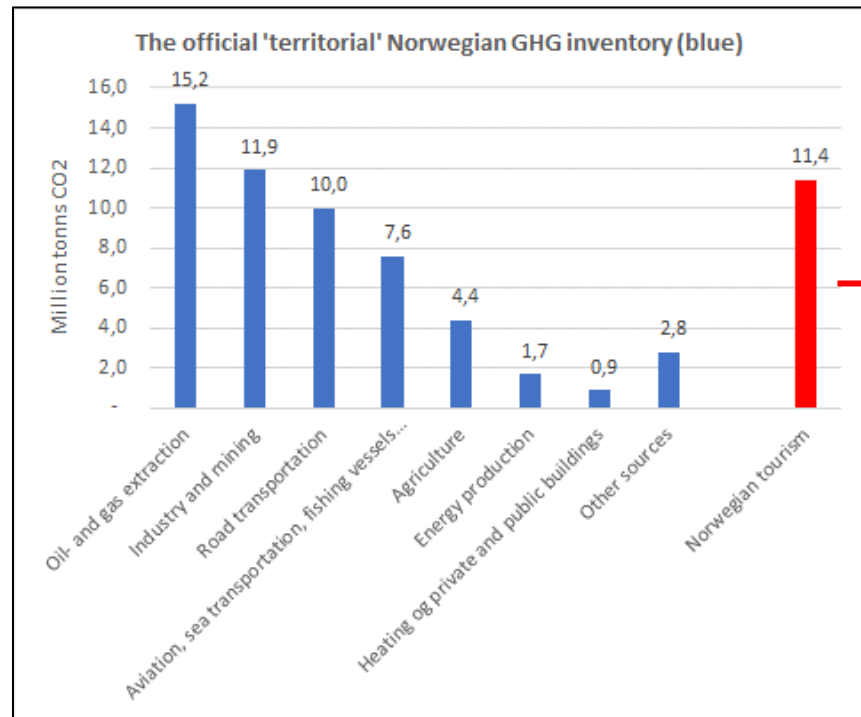
Professor in sustainable development

Leader of the Norwegian Research Center for Sustainable Climate Change Adaptation (Noradapt)

# Pre-covid global tourism development prospects



# GHG emissions from 'Norwegian' tourism



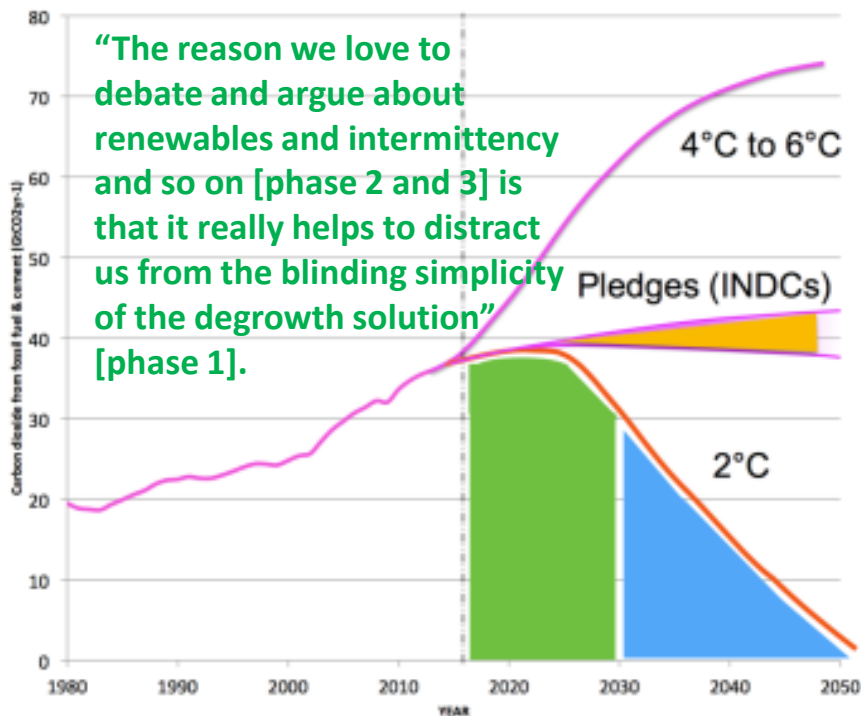
**Σ tourism = second largest source of GHG emission in the official Norwegian (territorial) GHG inventory**

**Aviation alone = fourth largest source**

Adopted from: [https://www.vestforsk.no/sites/default/files/migrate\\_files/r-sdn-sluttrapport-endeleg-260611-2-.pdf](https://www.vestforsk.no/sites/default/files/migrate_files/r-sdn-sluttrapport-endeleg-260611-2-.pdf)

<https://www.ssb.no/klimagassn/>

# A roadmap towards the 1,5/2 degree goal



“The reason we love to debate and argue about renewables and intermittency and so on [phase 2 and 3] is that it really helps to distract us from the blinding simplicity of the degrowth solution” [phase 1].

Business As Usual or the 'Inaction Scenario'

Keeping to Paris NDCs (commitments) not enough (equiv. to 3.5C)

Phase 1 - Deep cuts in consumption, particularly by high emitters to 2030

Phase 2 - Major Programme to build-out zero carbon energy production and infrastructure by 2050

Phase 3 - They'll be need for longer-term artificial carbon sequestration to go from 400+ to 350 ppm

“..a large reduction in consumption (in all its forms) amongst high emitters in all countries, but principally the ‘west’ – could be implemented in the short term (the shorter the better but let’s say, by 2030)”.

“It is not that a zero or low carbon infrastructure is not needed, but that the time to fully implement it is too long – even if we managed to do it in 30 years time – to address the issue of rising atmospheric greenhouse gases. This has already started, but from a low base, but will have a large impact in the medium term (by 2050)”.

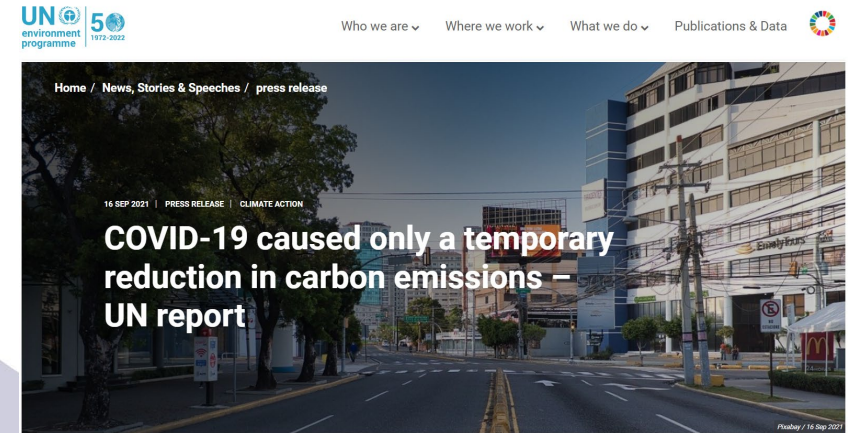
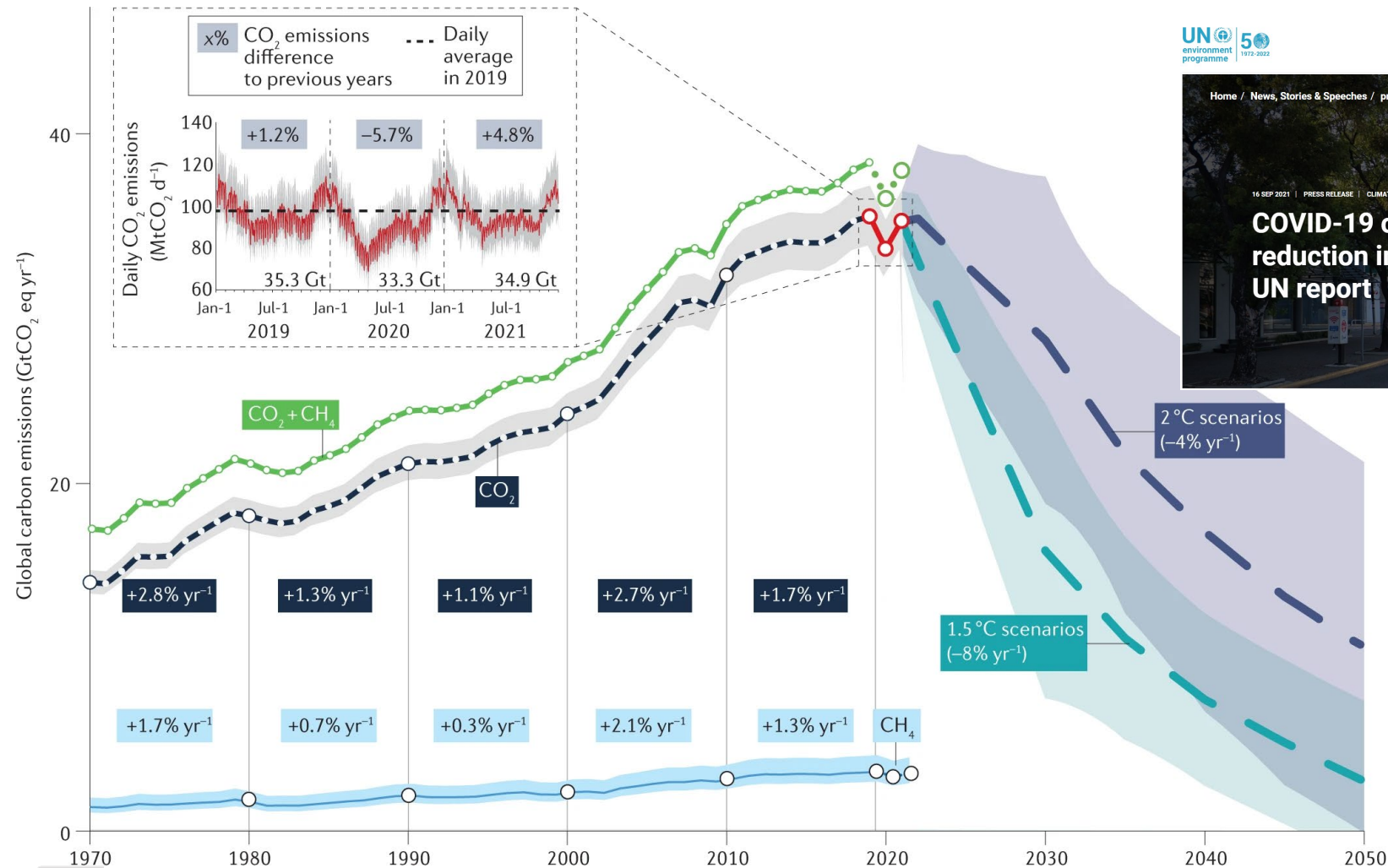
“artificial carbon sequestration methods, such as BECCS and several others ...will be needed, but it is again about timing. These solutions will be national, regional and international initiatives, and are mostly unproven at present; they live in the longer term, beyond 2050

Figure adapted from: Kevin Anderson and Alice Bows-Larkin, "Going beyond dangerous climate change: does Paris lock out 2°C?", Tyndall Centre, February 2016, <https://www.gov.im/media/1350732/isle-of-man-tyrwald-30-mins-anderson-larkin.pdf>

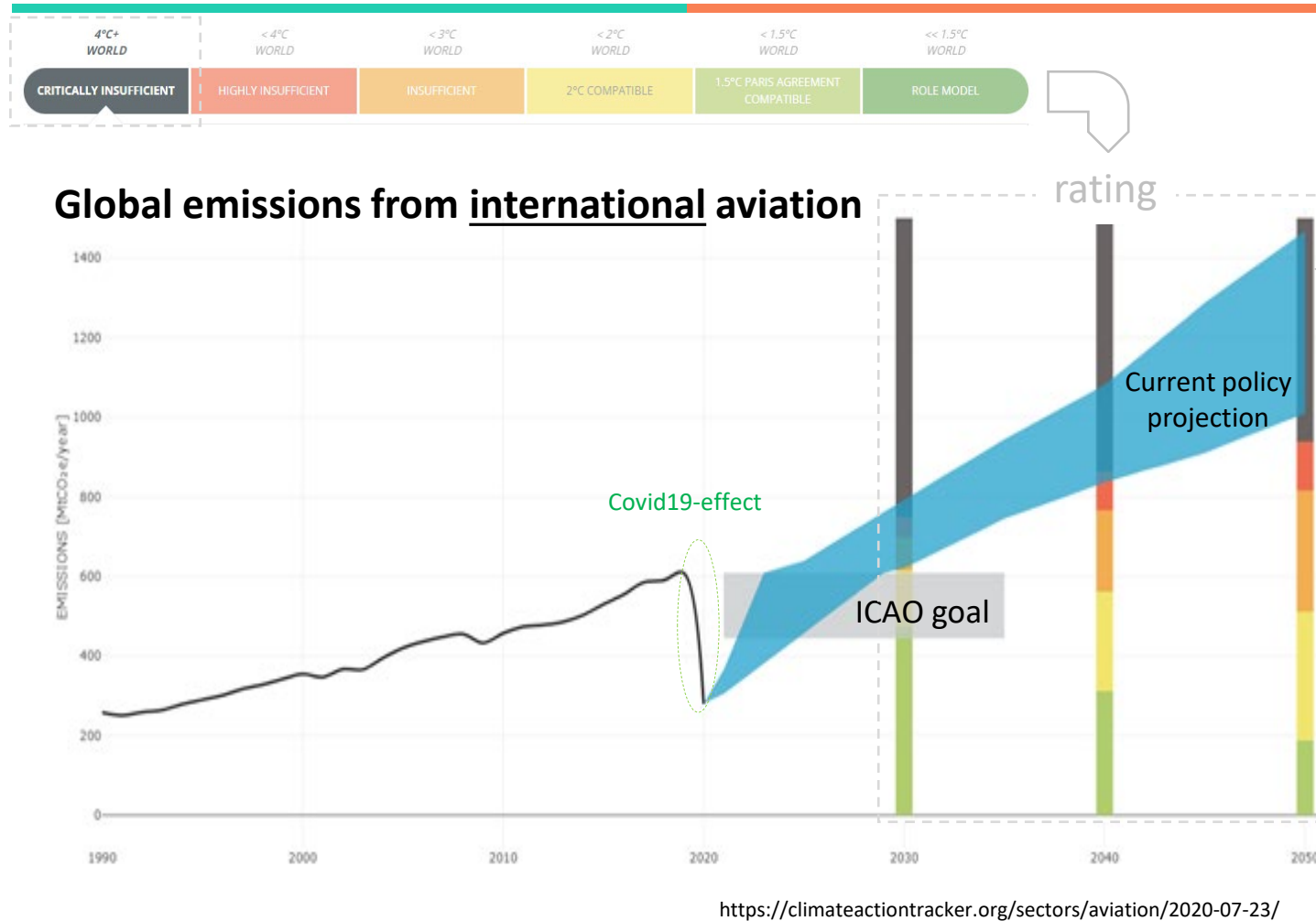
Global Warming & Solutions Workshop/Richard W. Erskine/3-Nov-17

<https://www.gov.im/media/1350732/isle-of-man-tyrwald-30-mins-anderson-larkin.pdf>

# Covid gave a kick-start towards the 1,5/2 degree reduction track, but.....



# What happens next with aviation?



ICAO set a goal of “carbon neutral growth from 2020” levels. The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) it has set up to achieve this goal is extremely unlikely to do so: it will probably cover less than half of international aviation emissions between now and 2035 and is likely to allow compensation without real emission reductions elsewhere. Further, CORSIA is planned to end in 2035 and ICAO currently has no plans for the period after that.

Therefore, the organization “carbon action tracker” rates the international aviation sector’s carbon neutral growth goal as critically insufficient



# Changing mobility is the difficult part of climate transformation

## The “HOPE project”:

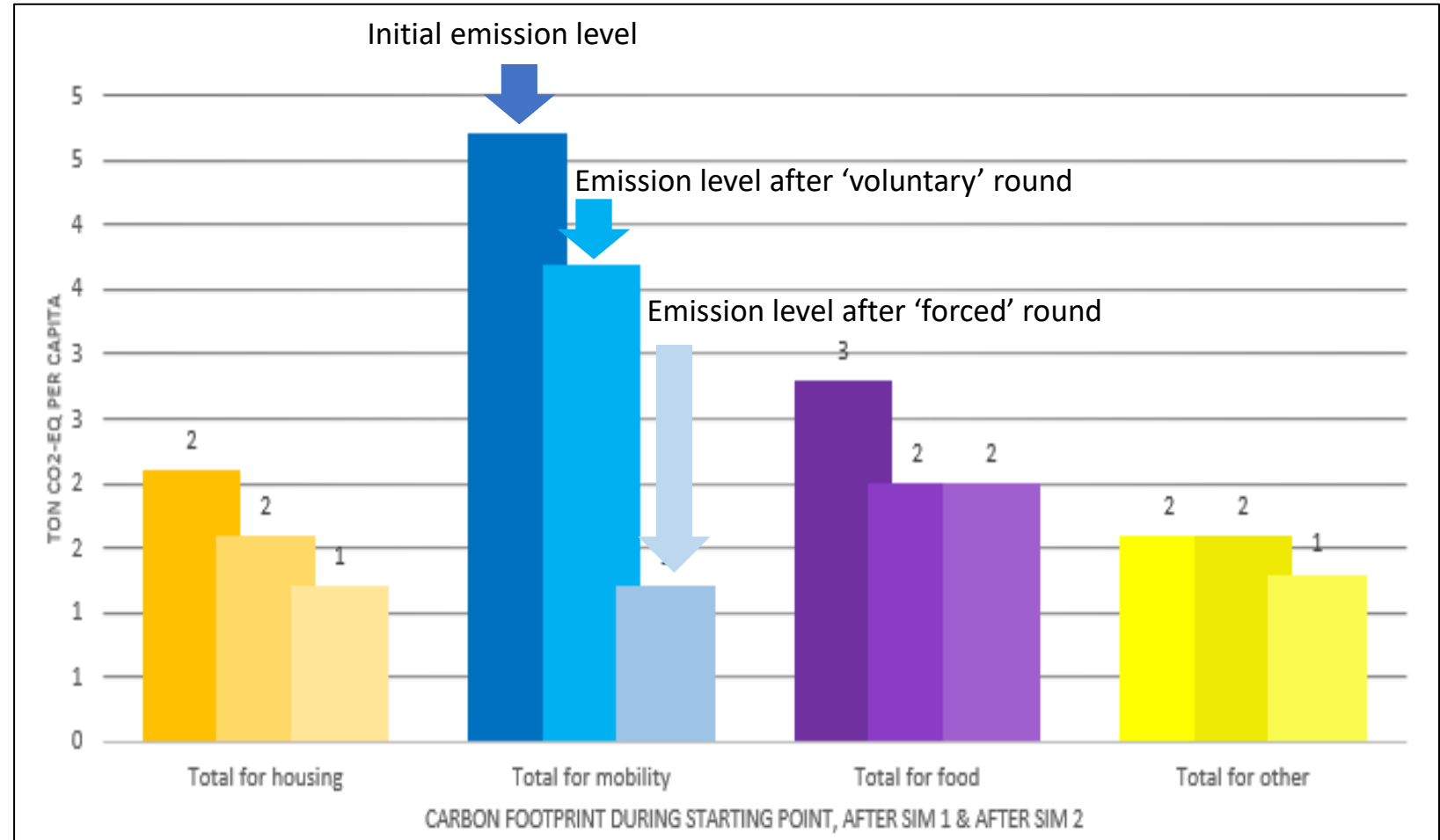
A climate game on household preferences for changing consumption patterns and levels in order to reach the Paris goal.

Played with 400 households in four European cities

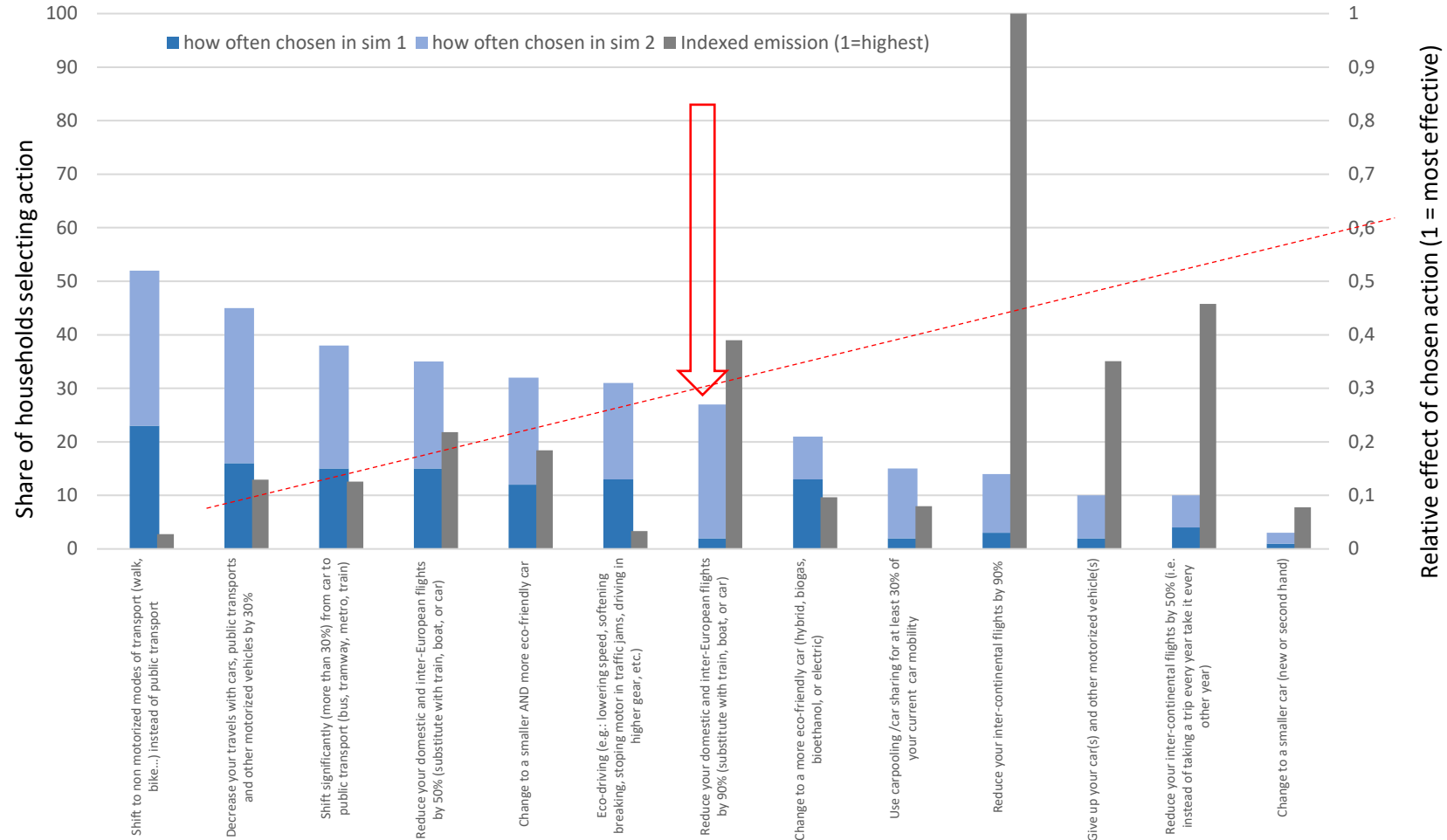
Households had to select among 60 predefined consumption changes in two rounds: Voluntary and forced.

The voluntary round took them to -25%.

The forced round implied that they selected on behalf of the whole country population, and had to select until the goal of -50% were reached. Only then radical mobility changes were selected



# Selected consumption changes for 'mobility'





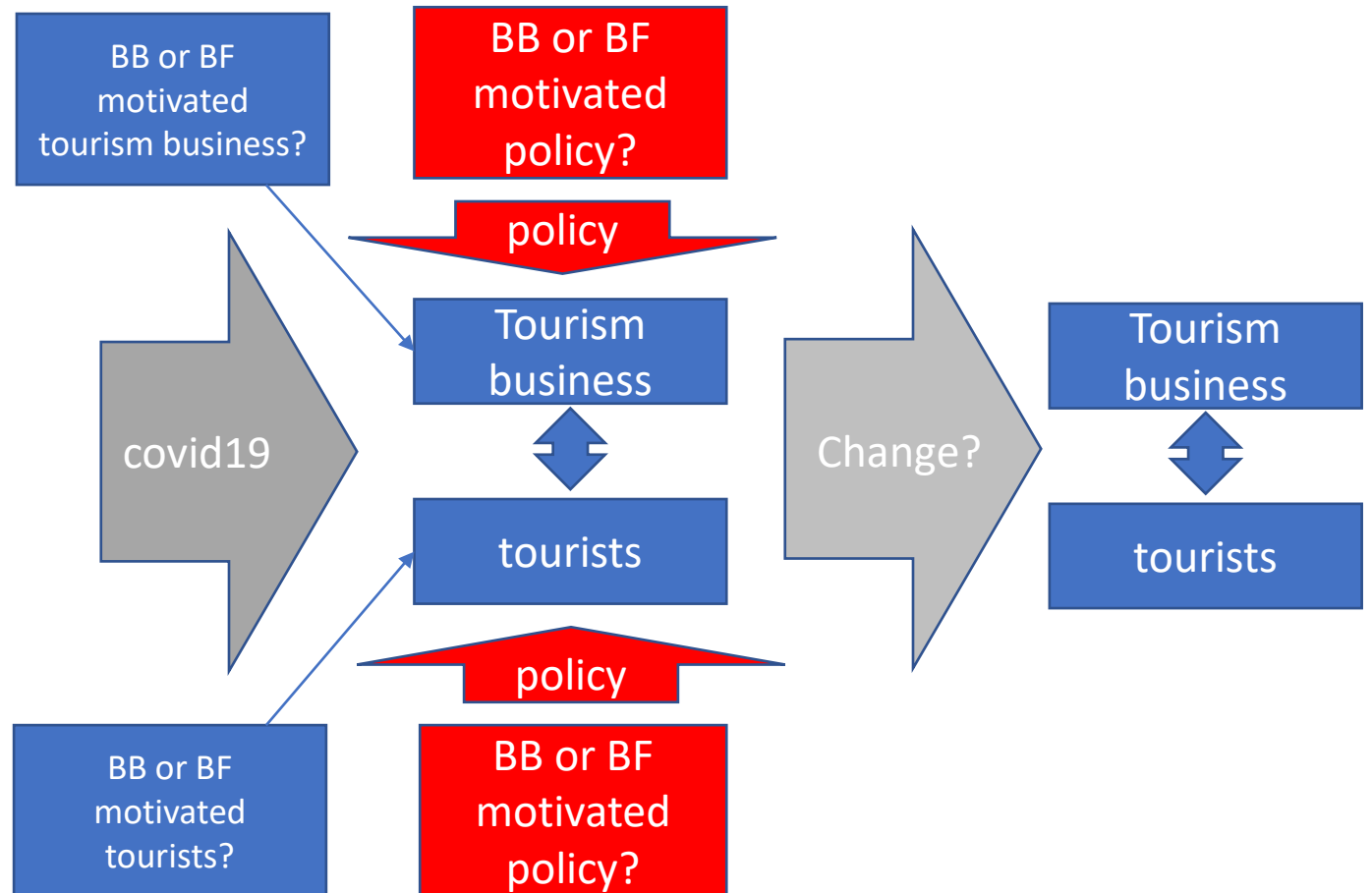
# Two modes of responding to external crises

- **Build Back (BB)**

- Resilience understood as 'bounce back' to 'business as usual'

- **Build Forward (BF)**

- Resilience understood as 'bounce forward' to something 'new'



# Climate transformation $\neq$ “build back”!

- **IPCC 2012 on climate change adaptation**

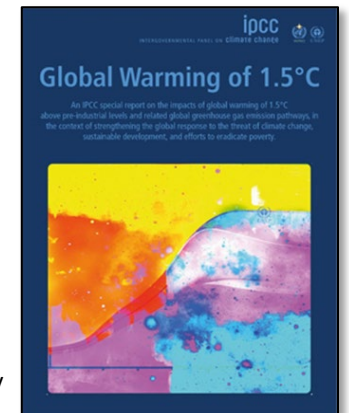
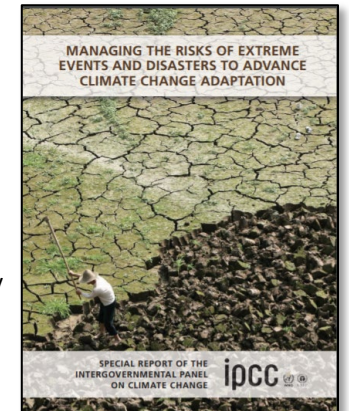
- “The altering of fundamental attributes of a system (including value systems; regulatory, legislative, or bureaucratic regimes; financial institutions; and technological or biological systems)”

<https://www.ipcc.ch/report/managing-the-risks-of-extreme-events-and-disasters-to-advance-climate-change-adaptation/>

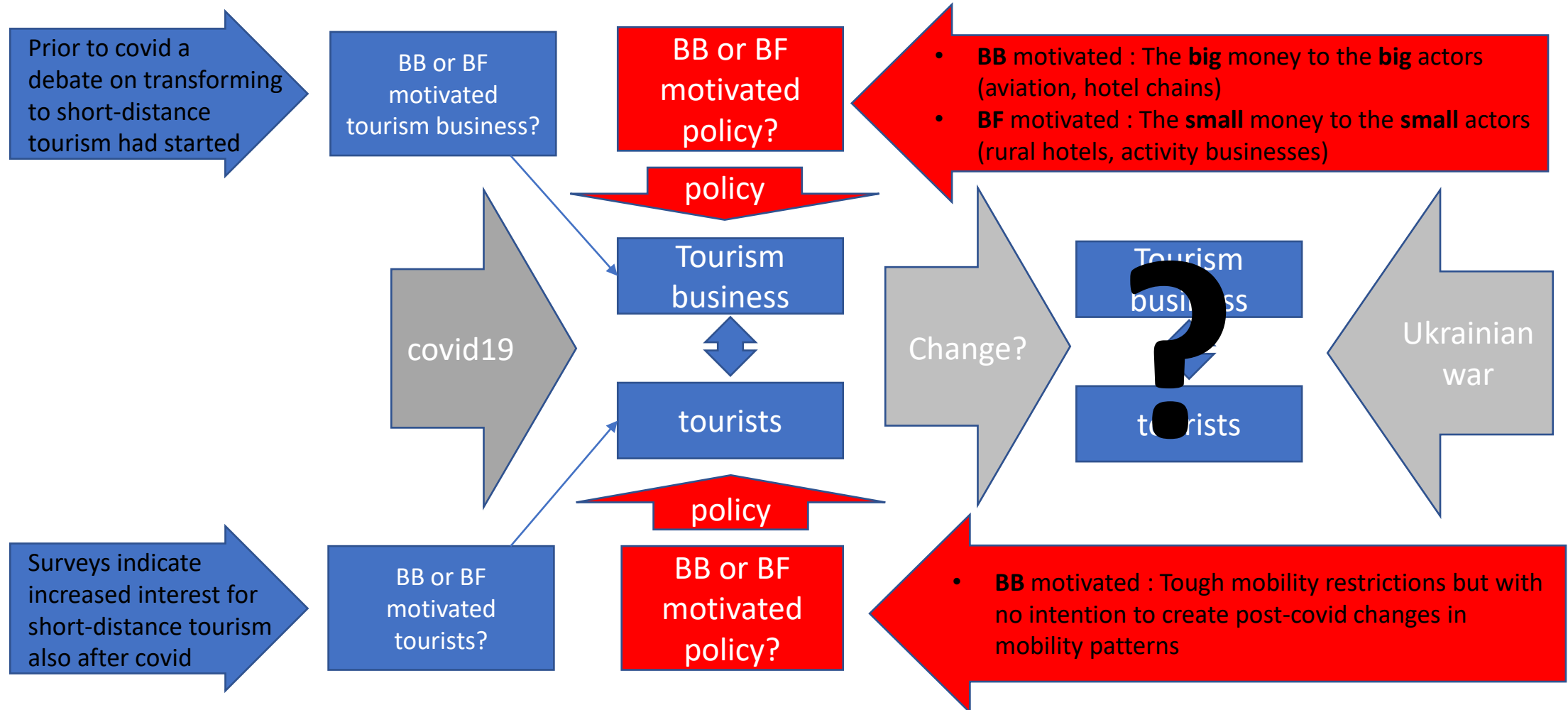
- **IPCC 2018 on climate change mitigation**

- “The global transformation that would be needed to limit warming to 1.5°C requires enabling conditions that reflect the links, synergies and trade-offs between mitigation, adaptation and sustainable development.
- [These changes imply] “rapid and far-reaching transitions in energy, land, urban and infrastructure..., and industrial systems.. [which are]... unprecedented in terms of scale, but not necessarily in terms of speed”

<https://www.ipcc.ch/sr15/>



# What happened: The case of Norway



# Lessons learned – but hopefully not already forgotten – during the covid pandemic

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- **Policy style**

- Improved procedures for working **cross-disciplinary**
- Improved procedures for **multi-level** governance
- Improved skills and courage to use **‘whip’**, not only ‘carrots’ in policymaking
- Improved skills in **science-based** policymaking
- Increased **trust** among policymakers in believing that the population can withstand strong regulations

- **Tourism resilience**

- Some tourism businesses have proven a high ‘build forward’ resilience capacity
  - But many of the ‘big’ actors are caught in a ‘build back’ modus operandi
- Some tourists have signalled an interest to change their demand towards ‘short-distance’ tourism
  - But many cannot wait to get on the plane...

Fem ledige stillingar hjå Vestlandsforskning



*Med Sogndal som arbeidsstad har du kort veg til nydelege turområde. Foto: Morten Hagen*

For tida har vi fem ledige stillingar: ei stilling som postdoktor i tekstutvinning (Text mining), ei forskarstilling i tekstutvinning/NLP og djuplæring, ei forskarstilling innan reiseliv, ei forskarstilling på feltet klimaomstilling og ei traineestilling innan stordata.

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