

Reiselivsforsking

Berekraftig cruiseturisme i fjordane



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My background

- **Public government**

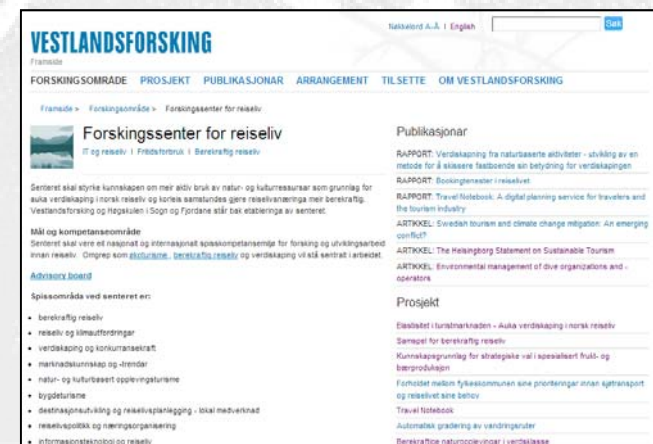
- Environmental officer in the municipality of Ølen (1988-90)

- **Tourism industry**



- Taken part in a farm tourism enterprise since 1995 in my hometown (www.henjatunet.no)
- Presently taking part in establishing a restaurant in my hometown (<http://cafeherman.no>)

- **Tourism research**

- Researcher at Vestlandsforsking since 1990
- Extensive research on sustainable development, climate change and tourism



FOSSHAUGANE CAMPUS







SGNsKIS Season Edit 2013 from SGNsKIS on Vimeo

SGNsKIS INSPIRED BY MOUNTAINS

03:18

Idrett og helse Forskning og utvikling Media og IT

Sogndal



VESTLANDSFORSKING

30 researchers doing research (and no teaching!) on:

- ICT
- Sustainable Development



United Nations Educational, Scientific and Cultural Organization

World Heritage Convention

2012



"nothing can compare to this incredible beauty"

Outline

- **Relevant projects at Vestlandsforskning**
- **The elephant in the room**
- **Knowledge backdrop**
- **The sustainable cruise project**

Relevant projects at Vestlandsforsking

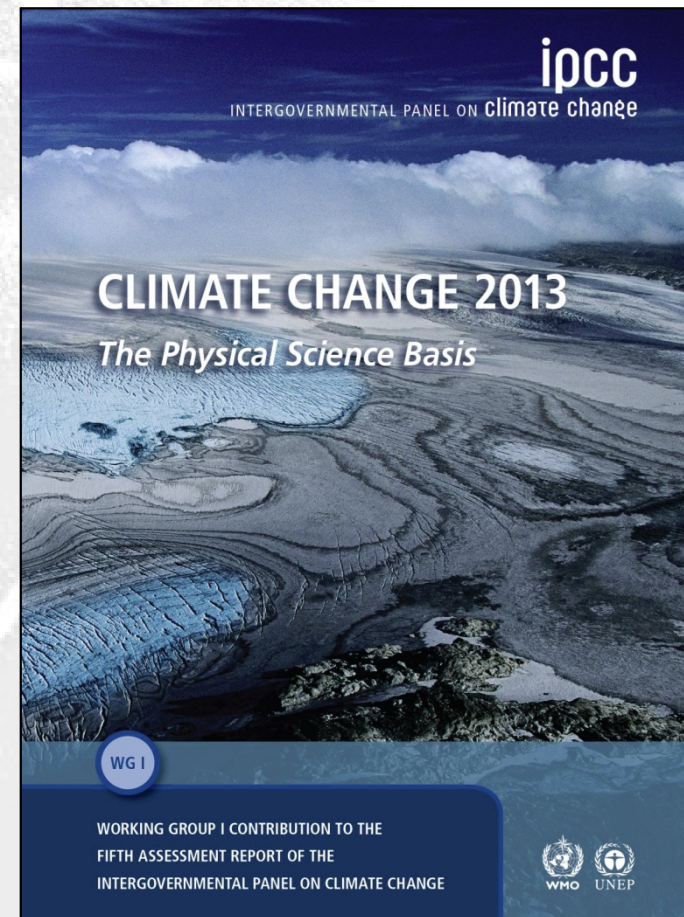
- **Research on sustainable development and climate policy (1990→)**
 - A number of local, national and international research as well as development projects
- **Previous ST projects (2007-2013)**
 - Sustainable destination Norway
 - Mapping energy-use and GHG emissions from leisure consumption in Norway
 - Two PhD-studies on local value-creation and rural tourism
 - Sustainable tourism indicators (ARENA Innovativ Fjordturisme)
- **Recently started ST projects (2013-2016)**
 - «Tourism Elasticities», in which willingness-to-pay and cruise is included
 - “Policy integration and sustainable tourism”, which includes a case on cruise tourism development in Aurland municipality
 - “Sustainable cruises: Understanding and Optimizing People, Planet and Profit” (**not yet started**)



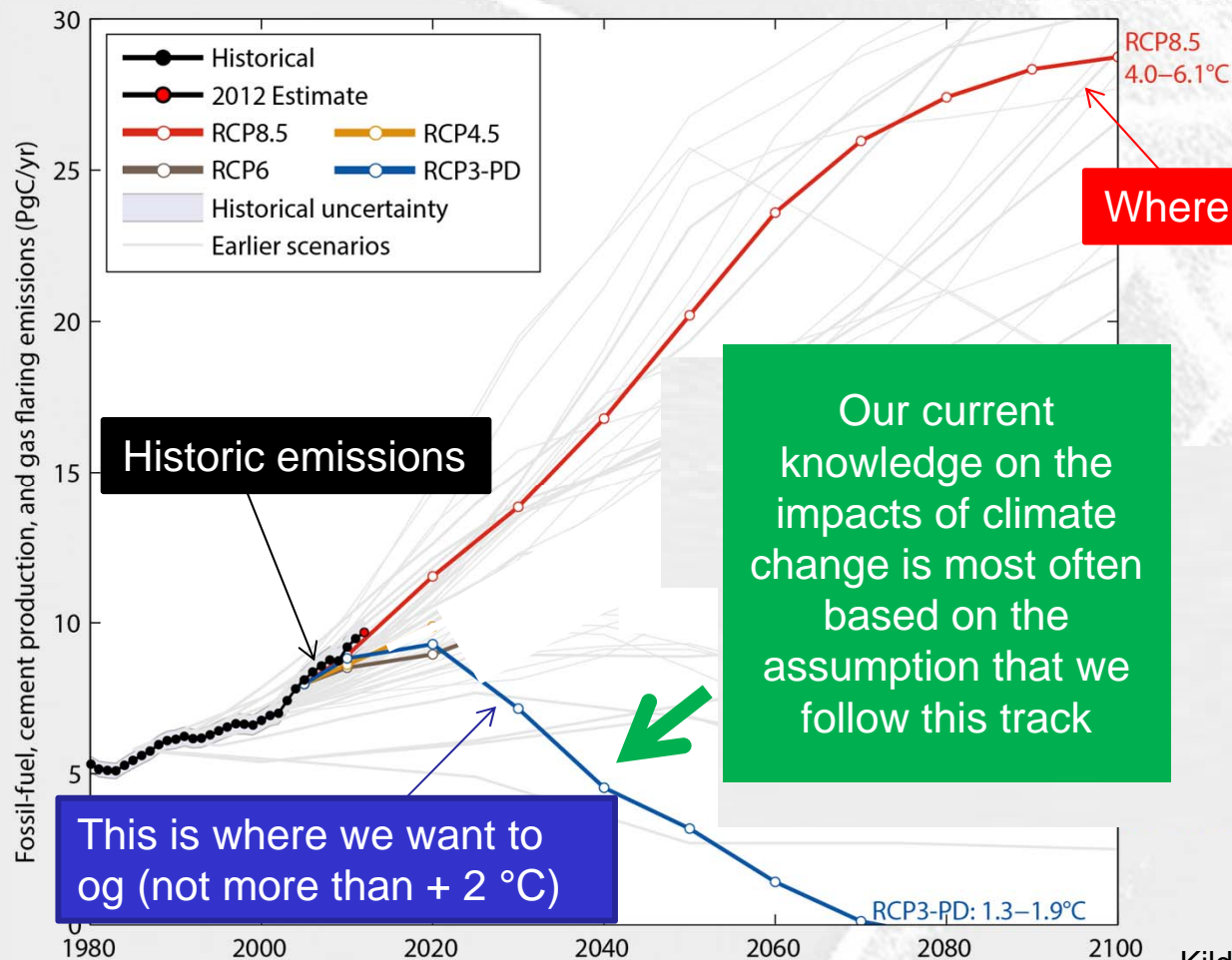
- Relevant projects at Vestlandsforsking
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Main messages in the fifth IPCC report (2013)

- From 90% (in 2007) to 95% certain that climate change is man-made
- Global surface temperature change for the end of the 21st century is likely to exceed 1.5°C relative to 1850 for all scenarios
- Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions
- If we are to achieve a goal of avoiding more than + 2°C in global temperature we have to leave 80% of the known fossil fuel reserves in the ground!



Are we right on track - or on the right track?



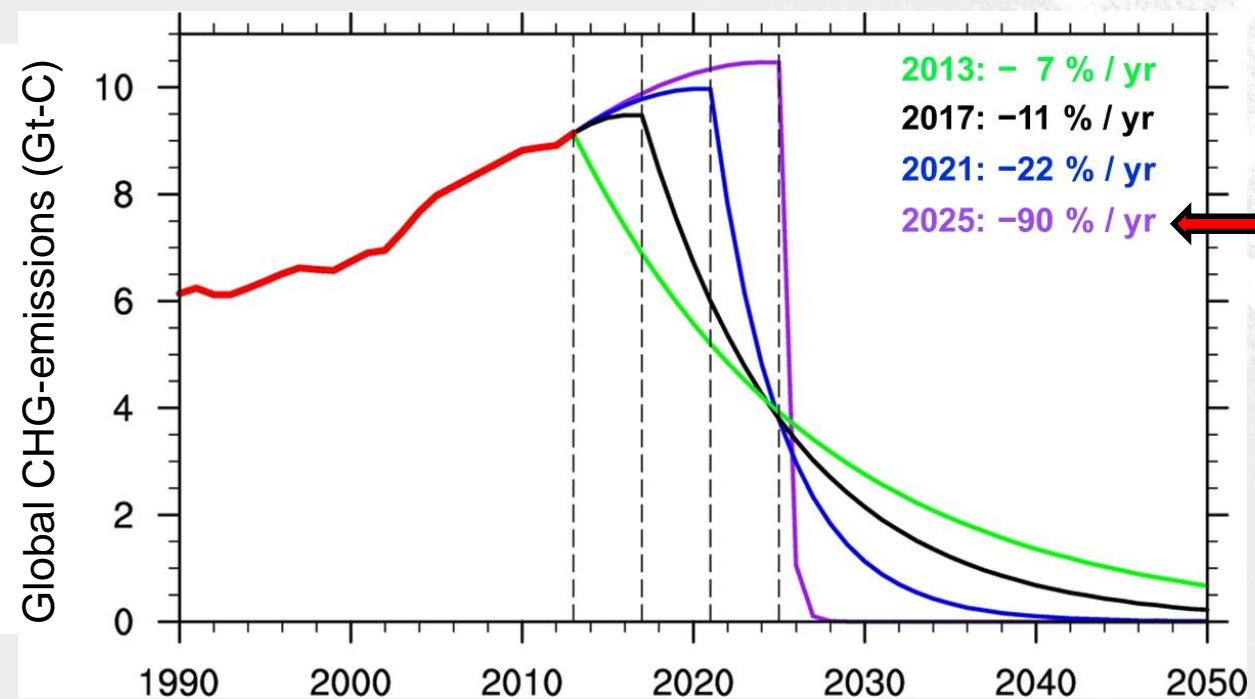
Where we are heading (+ 4-6,1 °C)

Our current knowledge on the impacts of climate change is most often based on the assumption that we follow this track

This is where we want to go (not more than + 2 °C)

We are running out of time....

Consequences of postponing global GHG gass reduction means needed to achive a global goal of maximum 2 degrees global temperature rize

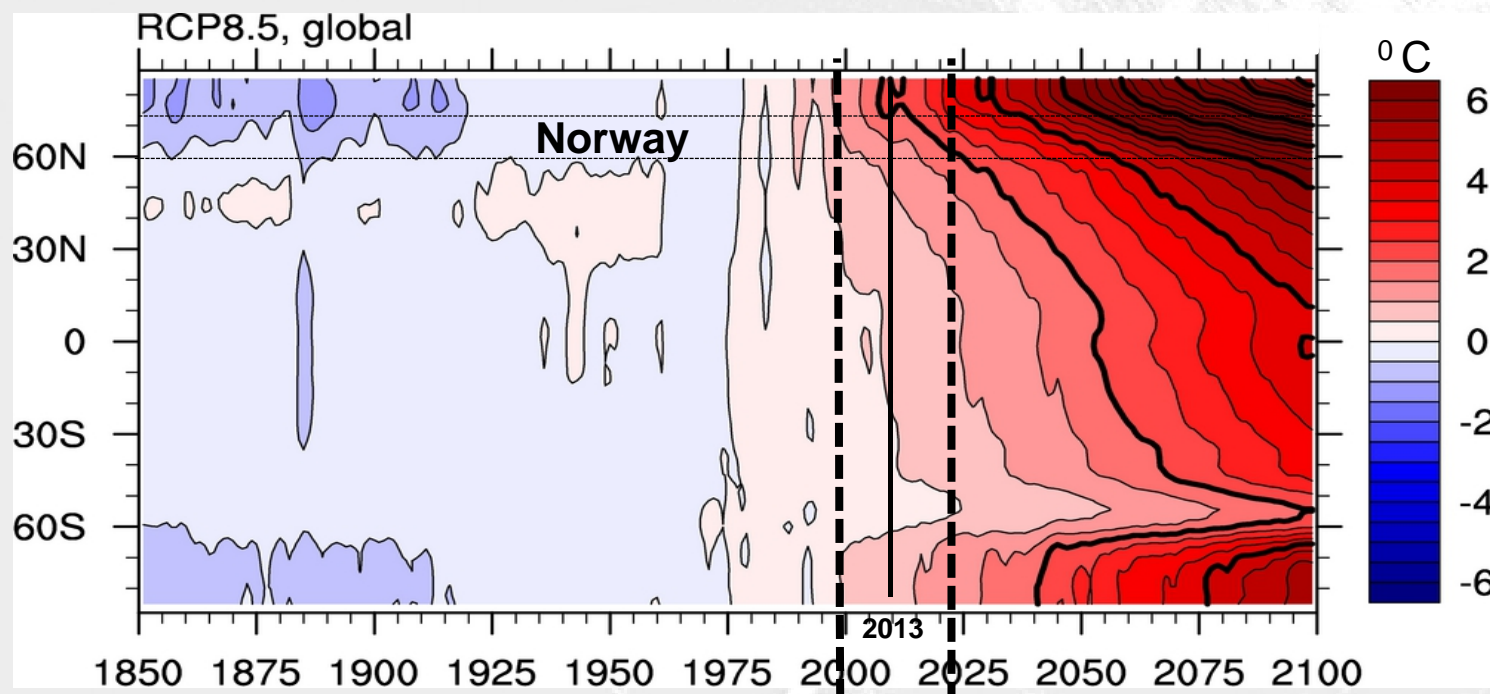


If we wait until 2025 by implementing new GHG reduction means other than what exists today, we have to implement means that allows for 90 % or more reduction per year; which means we then have to move from “adjusting” to “transforming” society

Source: <http://www.nature.com/nature/journal/v458/n7242/full/nature08017.html> and recalculations done by Helge Drange (<http://www.vestforsk.no/filearchive/helge-drange-presentasjon.pdf>)

The «adjustment window» on adaptation

Expected changes in global mean temperature relative to 1961-1990 with a «business as usual» GHG emission scenario



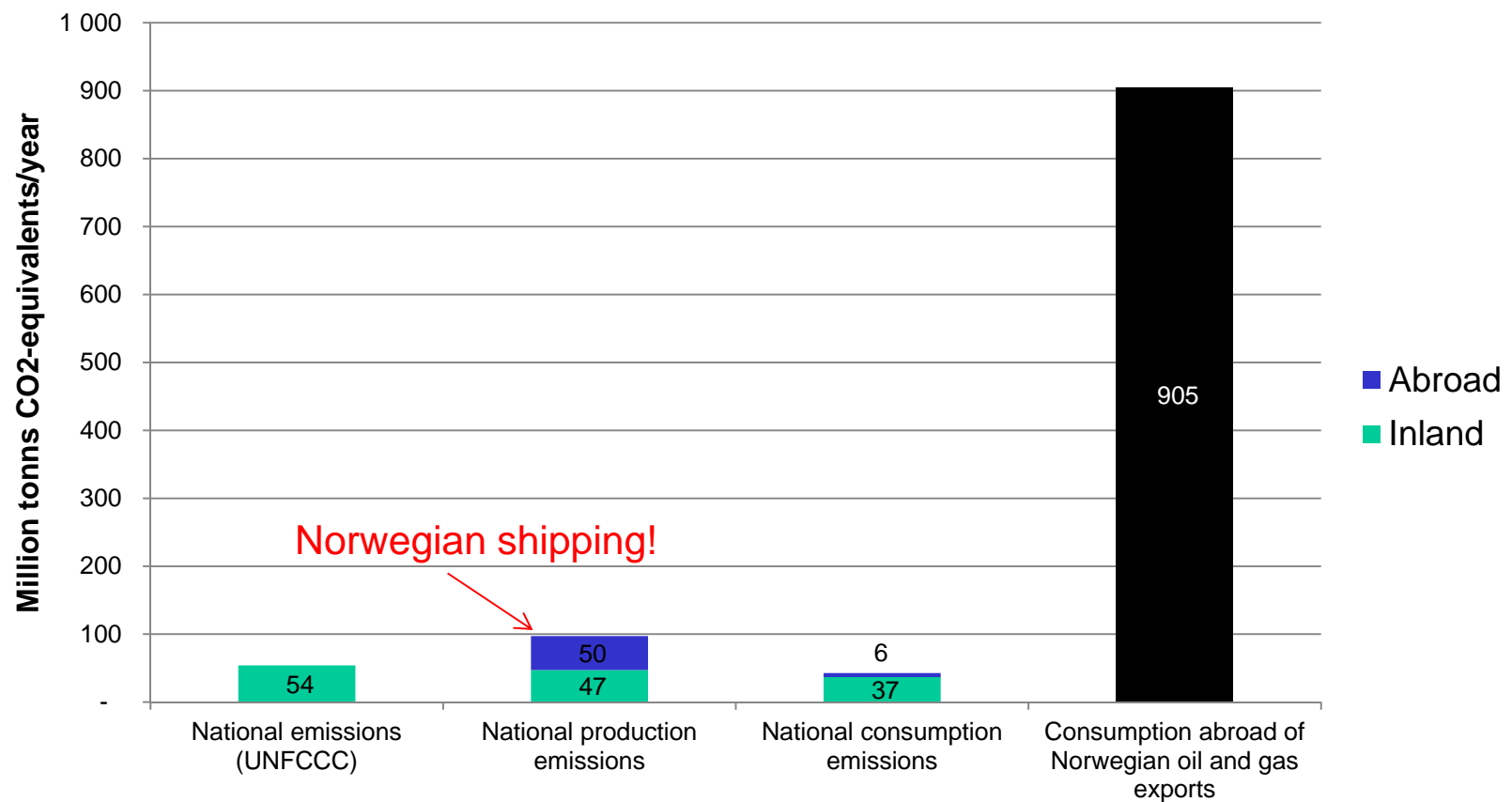
No action

Adjustment

Transformation

Source: IPCC

GHG emissions from "Norway"



Source: Hille, J., Storm, H.N., Aall, C., Sataøren, H.L. (2008): Miljøbelastningen av norsk forbruk og produksjon 1987 – 2007. En utredning for Miljøverndepartementet og Barne- og likestillingsdepartementet. VF-rapport 2/08. Sogndal: Vestlandsforskning.

- Relevant projects at Vestlandsforskning
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Crash course on sustainable development

Other (than sustainable development) policy areas

Sustainable

development

Ecological conditions

Socio-economic conditions

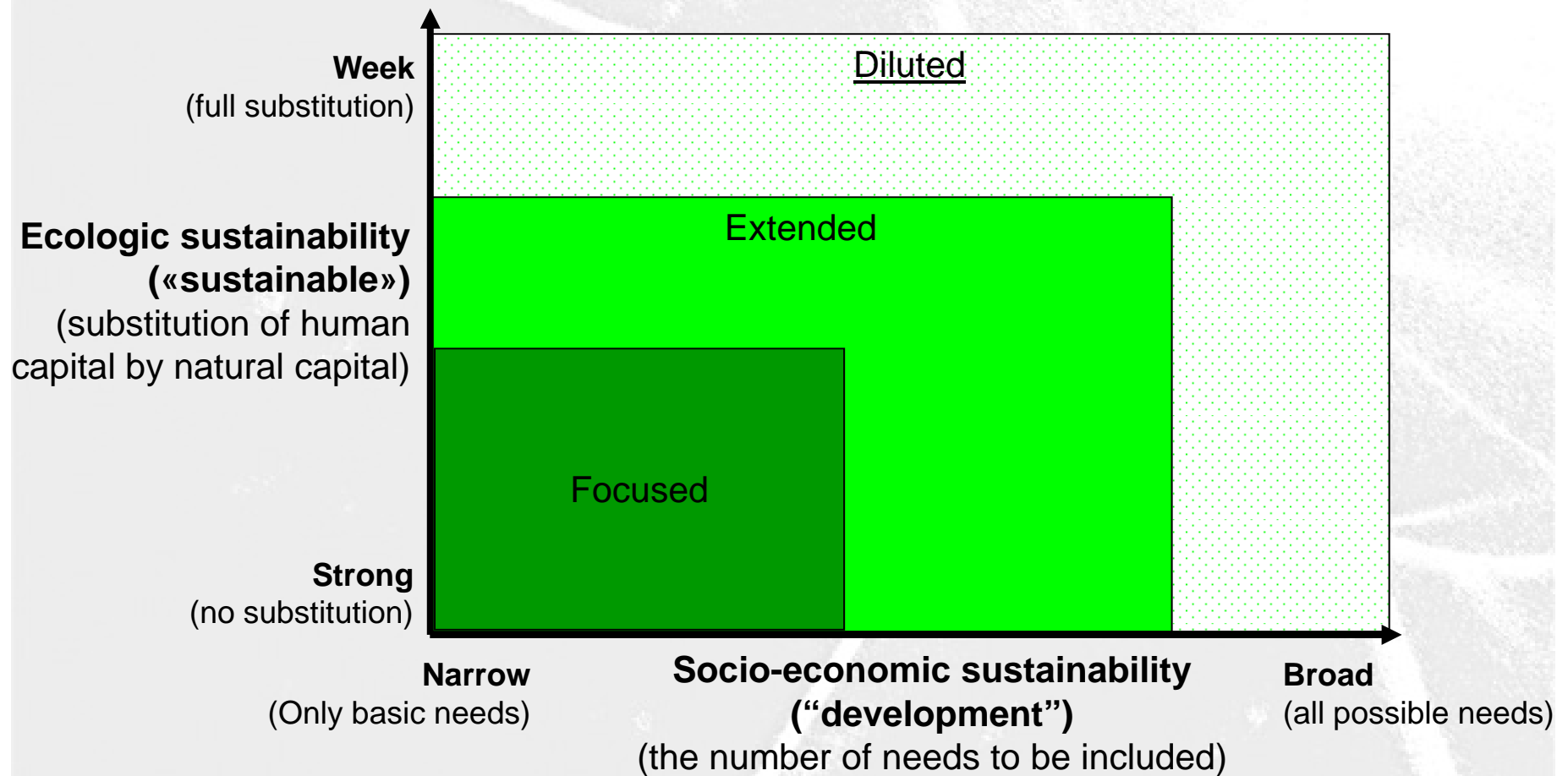
Ecological sustainability:

Maintain all ecological life-support systems

Socio-economic sustainability

Maintain the basic needs of everybody today (global justice) and for future generations (generational justice)

If sustainable development is everything – maybe it is nothing?



Sogn og Fjordane Tourism Master Plan: Tourism development indicators

Reiselivsmål	Undertema	Negativ påverknad	Tilstand	Positive tiltak
Ressursgrunnlag for naturbasert reiselivsutvikling	Fjellnatur	Del urørt natur som vert påverka av tekniske inngrep	Del urørt natur (meir enn 1 km frå tekniske inngrep)	Midlar nytta til skilting, merking og stell av stiar i utmark
	Kystnatur	Del strandlina som vert privatisert	Del strandline tilgjengeleg for ålmenta	Midlar nytta til drift av verne-/friluftsområde
	Fjordnatur	Del fossar ned mot fjorden som vert utbygd til vasskraft	Del av fjordlandskapet utan storskala moderne tekniske inngrep	Midlar nytta til skjøtsel av verne-/friluftsområde
	Kulturlandskap	Del gardsbruk som vert lagt ned	Tal medlemmar i Hanen	Midlar nytta til skjøtsel av kulturlandskap
	Snøoppleving	Lokalisering av vintersportsanlegg i område som kan tape snø i framtida	Tal dagar med tilstrekkeleg snødjupne for ønska aktivitetar (alpin, telemark o.a.)	Midlar nytta til tilrettelegging for ønska aktivitetar i snø
Lokal verdiskaping	Gjestedøgn	(ikkje utvikla)	Tal gjestedøgn totalt	(ikkje utvikla)
	Heilårs arbeidsplassar	(ikkje utvikla)	Tal gjestedøgn i vinterhalvåret og skuldersesongane	(ikkje utvikla)
	Lokaløkonomiske overrisslingseffekt	(ikkje utvikla)	Direkte og indirekte økonomisk omsetnad lokalt	(ikkje utvikla)
	Lokal eigenart	(ikkje utvikla)	Del serveringsverksemder som tilbyr lokalmat	(ikkje utvikla)
Berekraftig utvikling	Lokal miljøbelastning	Auke i storleiken på nybygde fritidsbustader	Del miljøsertifiserte reiselivsverksemder	Del hytte- og anna reiselivsutbygging omfatta av reguleringsplan
	Global miljøbelastning	Energibruk/ klimagassutslepp per gjestedøgn og ferieform	Del norske gjestedøgn	Del reiselivstilbod tilgjengeleg med kollektivtransport

Choice of perspective in cruise studies at Vestlandsforskning

Sustainable tourism criteria as defined by Innovation Norway

Conserving nature, the environment and culture	Strengthening of social values	Economic sustainability
1. Cultural wealth	5. Local quality of life and social values	9. Economic sustainability and competitive tourism destinations
2. The physical and cultural integrity of the landscape	6. Local control and commitment	10. Economic sustainability and competitive tourism businesses
3. Biological diversity	7. Job quality for tourism employees	
4. Clean environment and resource efficiency	8. Guest satisfaction and security; quality of experience	

Source: Innovation Norway (2011).

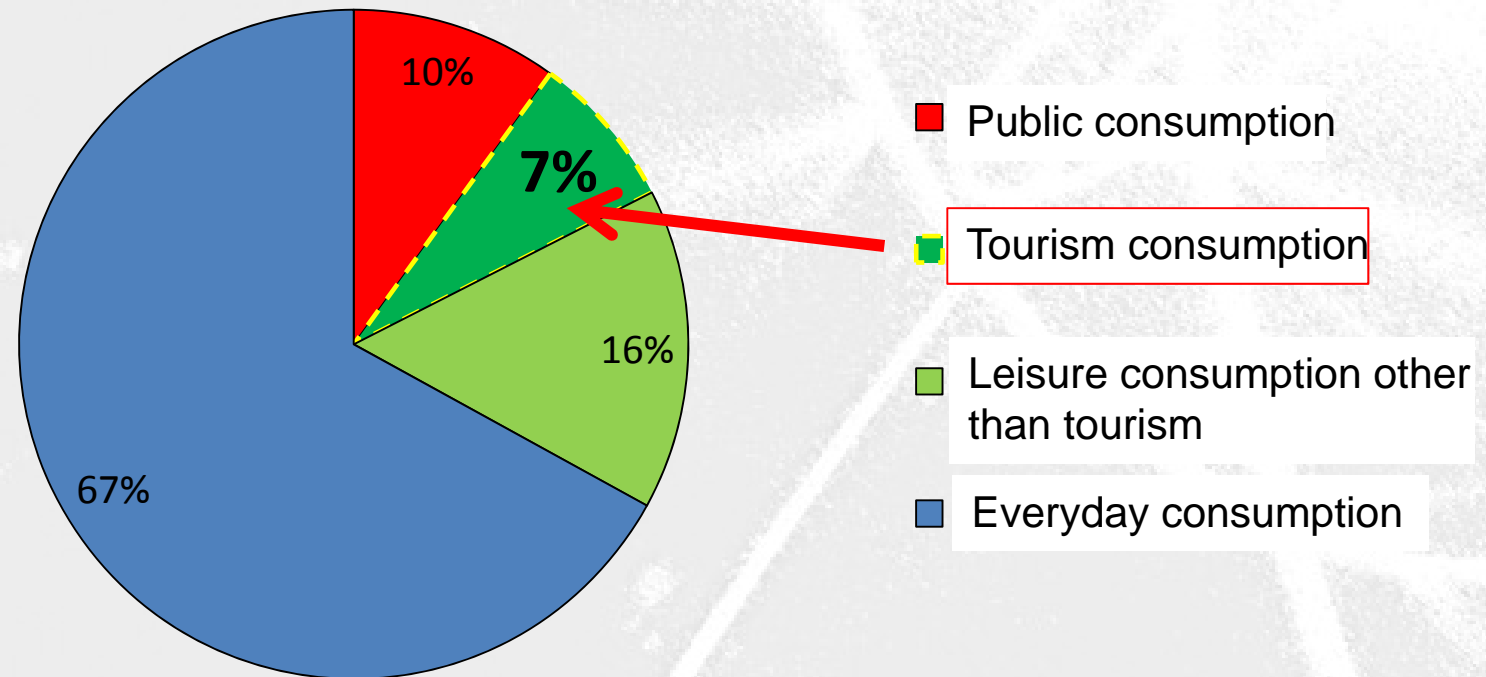
Reducing energy-use
GHG-emissions

Core indicators

Local value creation

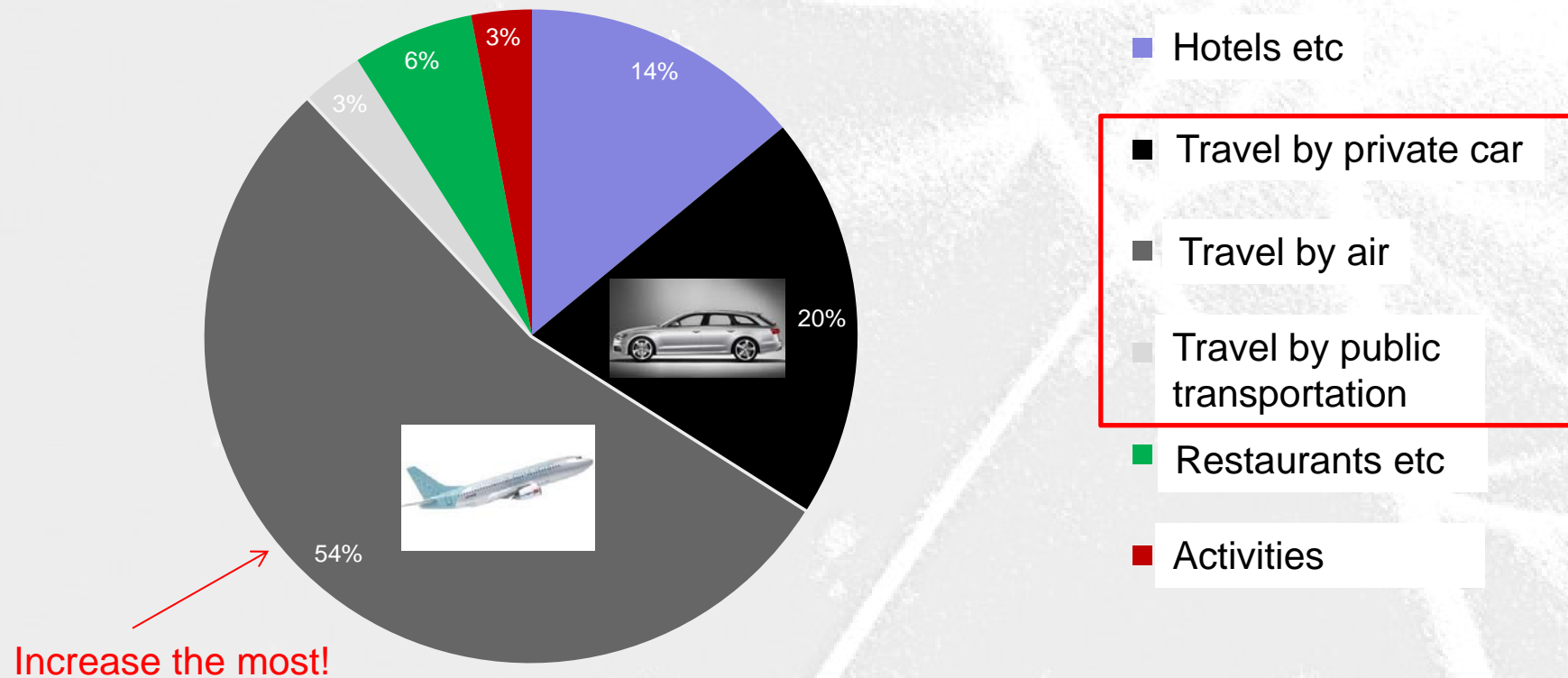
What is the energy-use (and GHG-emission) contribution from tourism?

Direct and indirect energy use embedded in consumption of products and by Norwegians (2005)



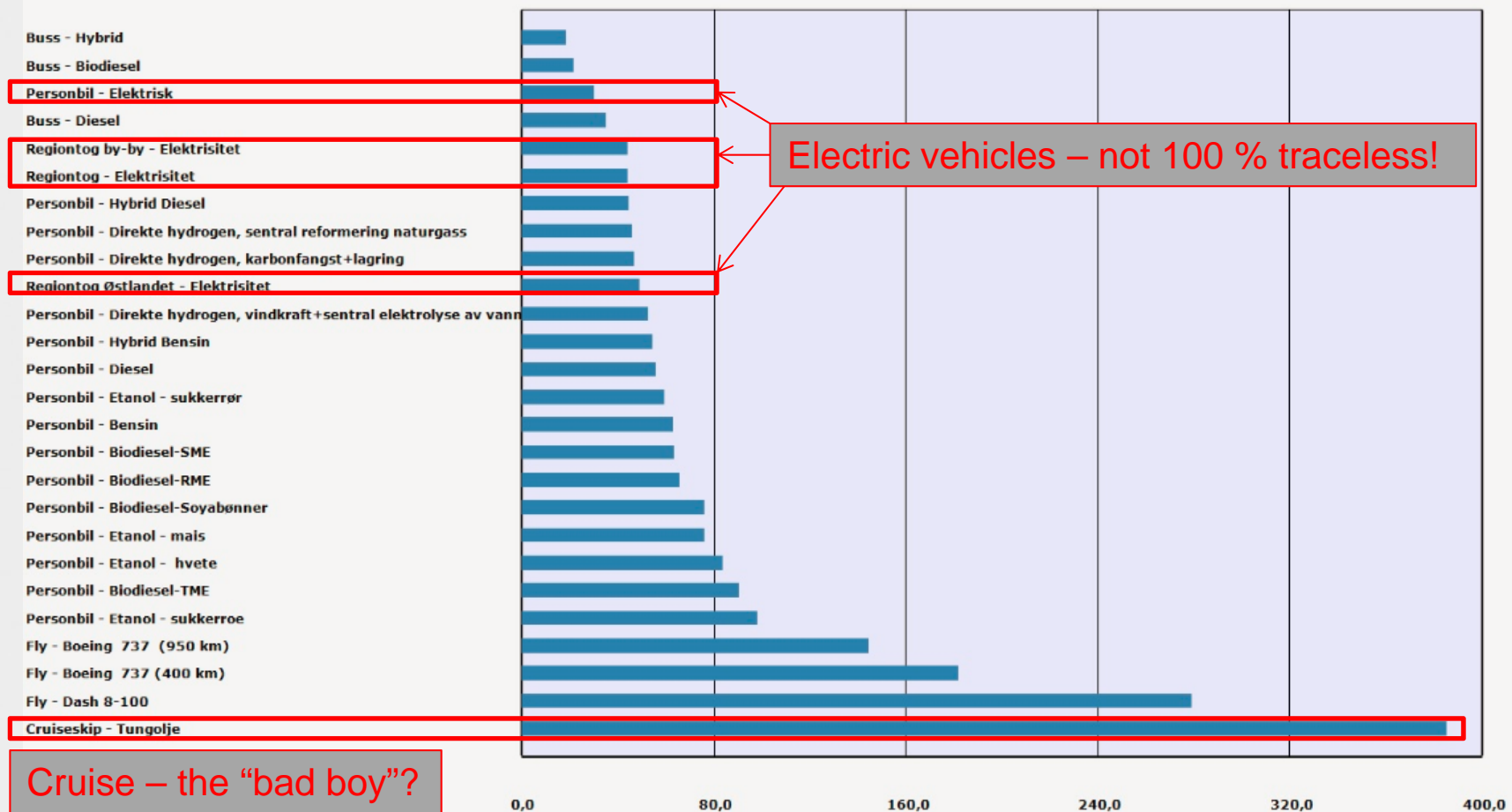
What contributes the most within "tourism"?

Direct and indirect energy use embedded in tourism consumption inland and abroad by Norwegians (2005)



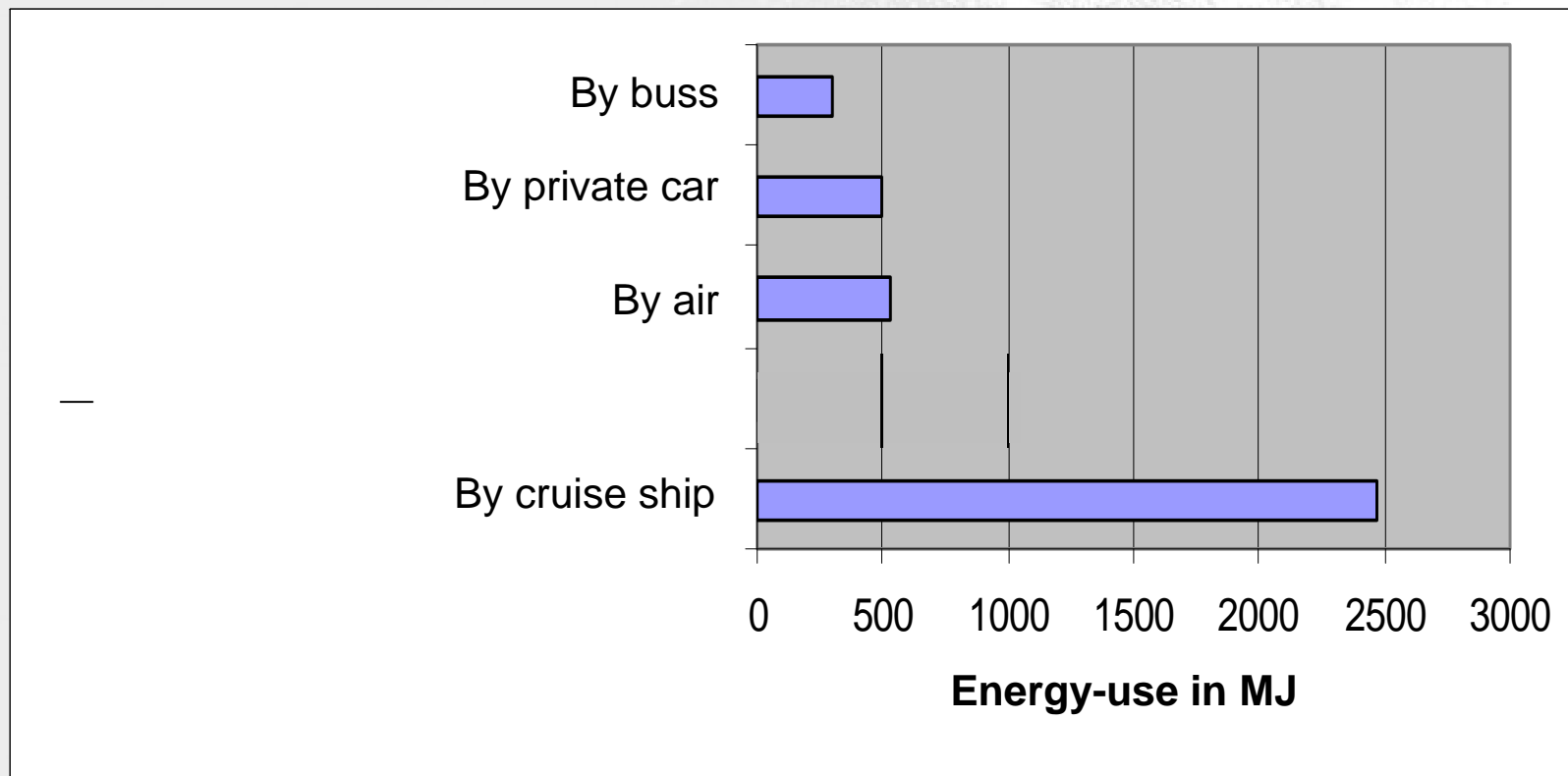
GHG intensity for different transport modes

Life-cycle emissions in gram CO₂-eqv per passenger km for long-distance travelling



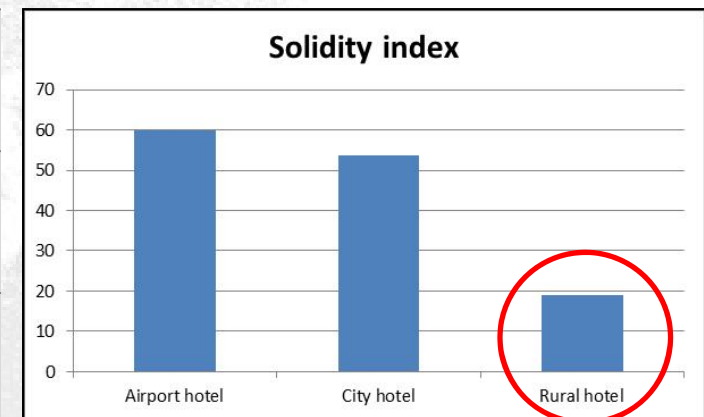
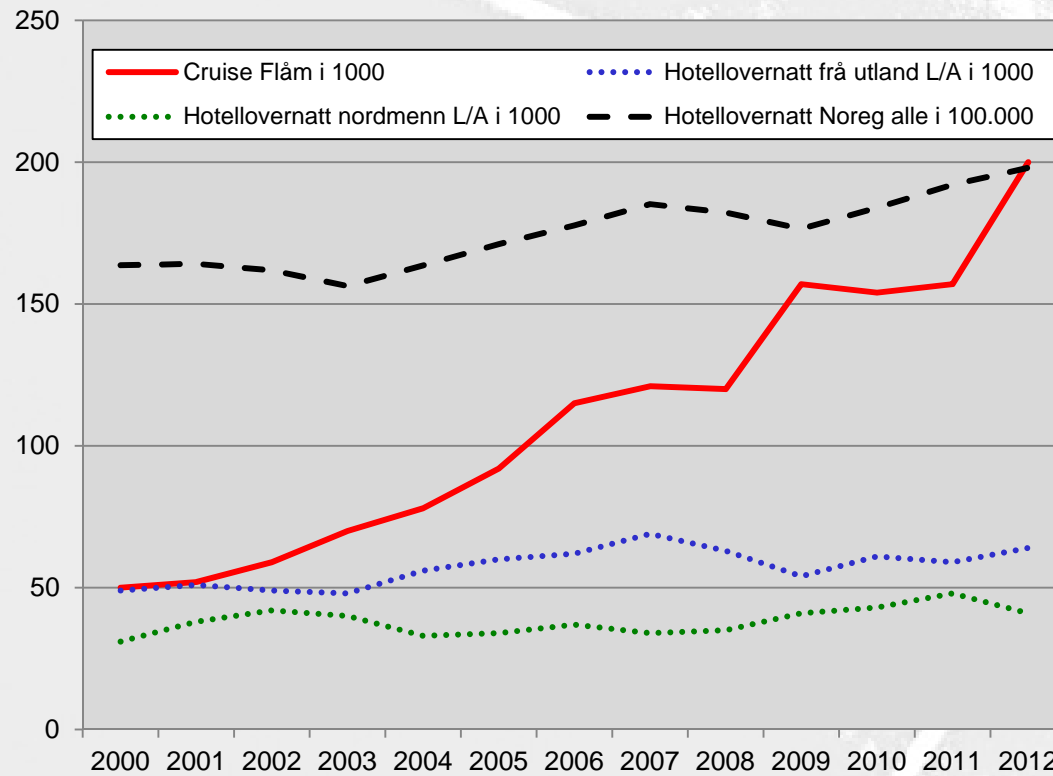
How to spend the most environmentally friendly holiday?

Energy-use per passenger during a 5 day trip from Germany to Western Norway (including energy-use for eating and hotels)



Kilde: Gössling, S., Aall, C., Vik, M.L., Engeset, A.B., Ekström, F., Brendehaug, E., Walnum, H.J. (2011): Sustainable Destination Norway 2025. Sluttrapport. VF-rapport 5/2011

Regional policy relevance

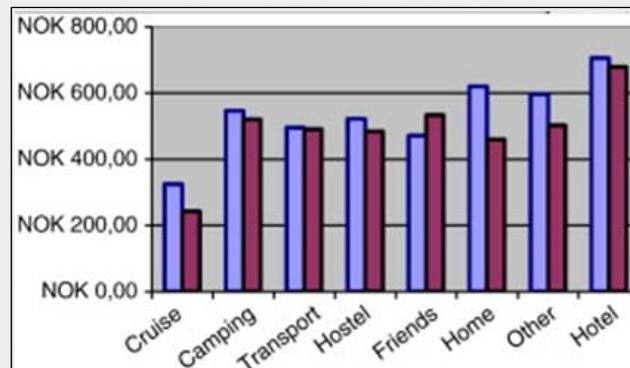


Sources: Horwath C

Sources: www.aurlandhavn.no, Horwath C, Flåm Utvikling og www.statistikknet.com

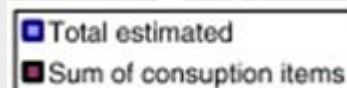
Previous Norwegian research- and consultancy studies on local value creation from cruise

Place and reference	Number of respondents	NOK per pax going ashore	Total value creation	Comments
Oslo. Wild, 2012	1 444	468 NOK (50% on excursions)	190 mill NOK	50 % of those going ashore attends excursion
Lofoten (Leknes). Kjensli, 2005	714	631 NOK (72% on excursions)	10 mill NOK	<u>Including</u> profit to the shipping company
Oslo, Bergen, Trømsø. Dybedal et al., 2006	972	440 NOK (54% on excursions)	625 mill NOK	<u>Excluding</u> profit to the shipping company
Oslo. Winther & Dybedal, 2006	1 742		206 mill NOK	<u>Excluding</u> profit to the shipping company
Aurland. Horwart HTL		680 NOK		



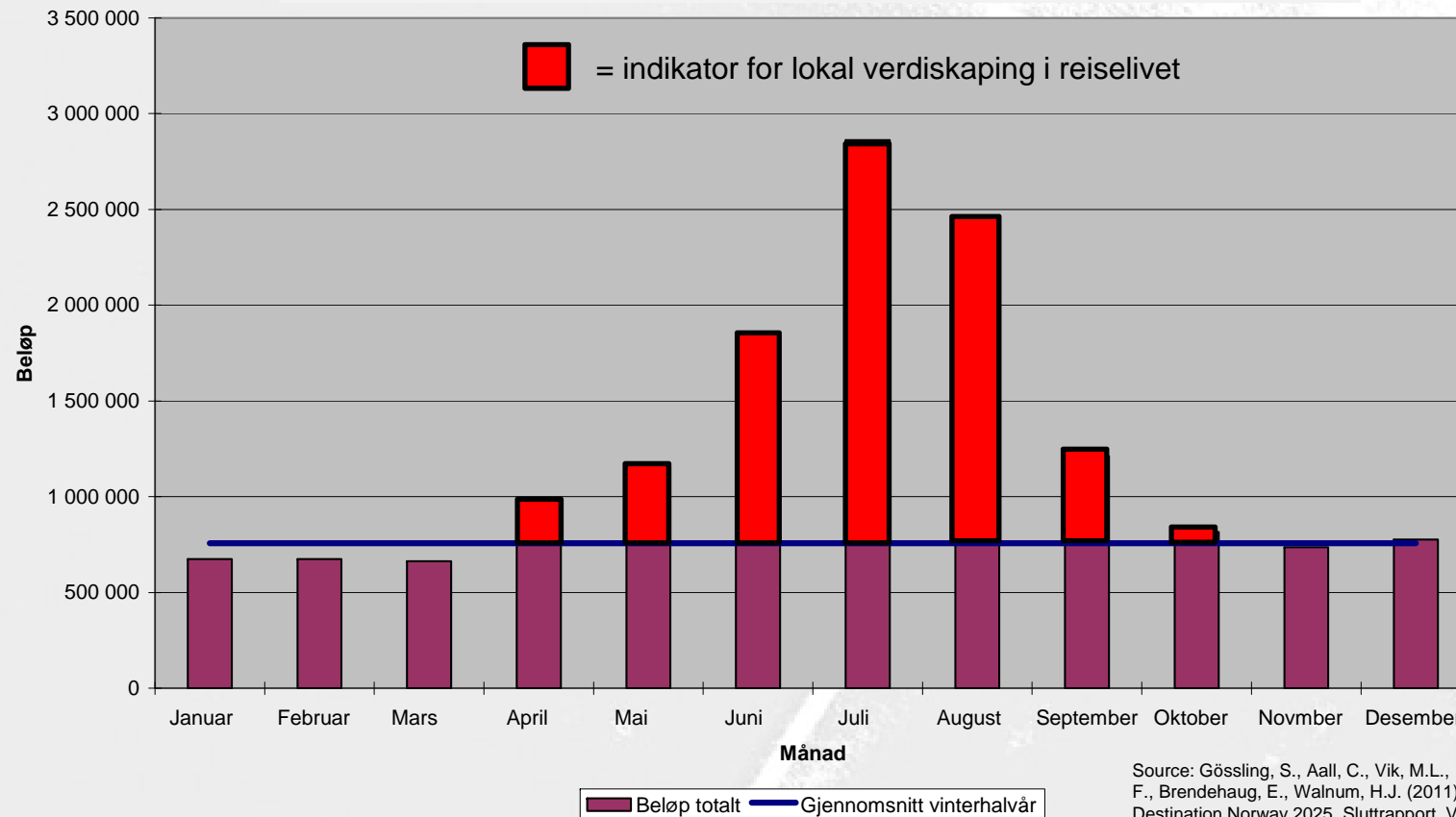
Expenditure "today" (not including overnight stay) in Bergen by overnight category 2011

2 478 respondents (Larsen et al, 2013)



Using electronic money transfer data for estimating local value creating from tourism

Varekjøp og kontantuttak I Fjærland (2005)



Source: Gössling, S., Aall, C., Vik, M.L., Engeset, A.B., Ekström, F., Brendehaug, E., Walnum, H.J. (2011): Sustainable Destination Norway 2025. Sluttrapport. VF-rapport 5/2011

- Relevant projects at Vestlandsforskning
- The elephant in the room
- Knowledge backdrop
- **The sustainable cruise project**

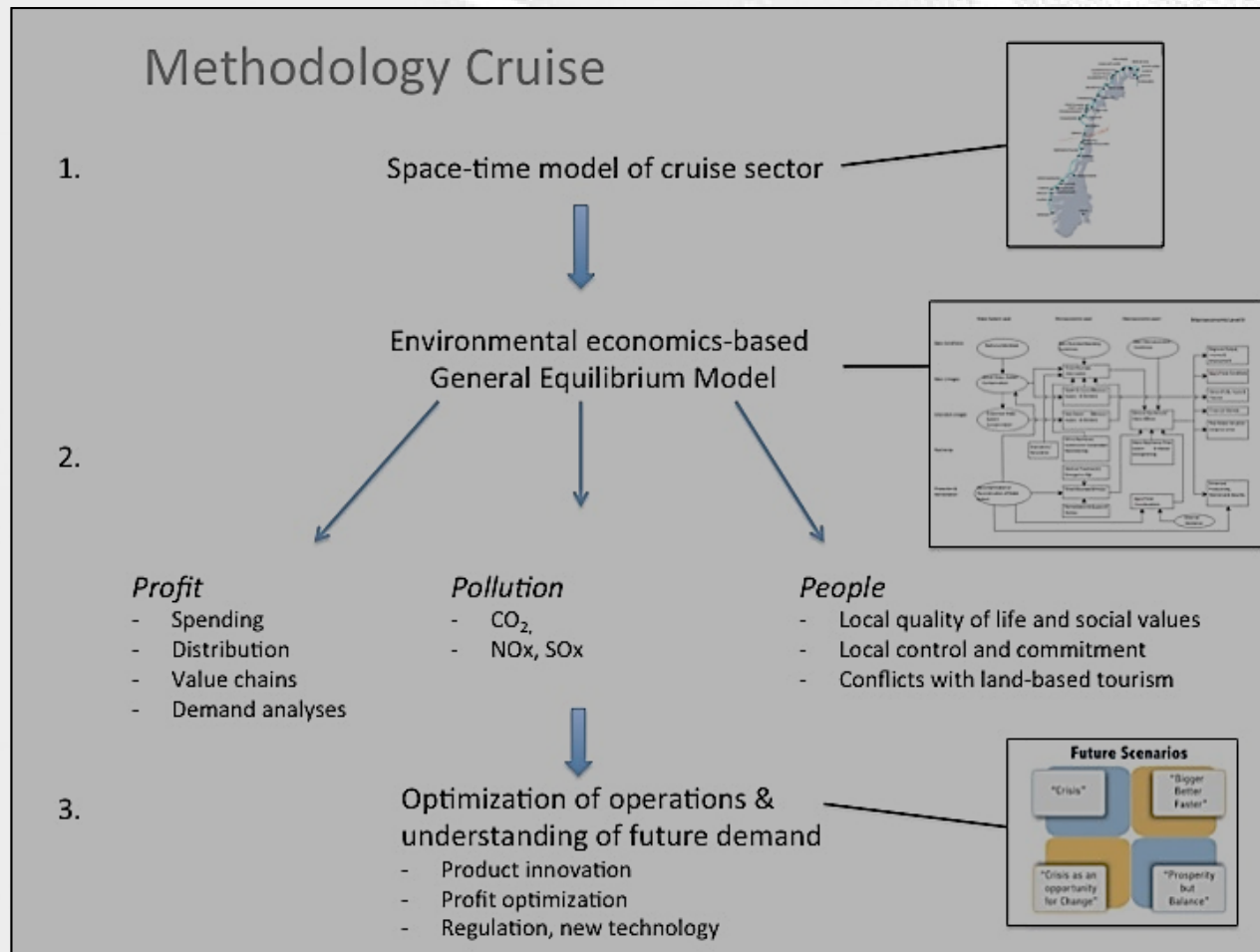
Hypothesis regarding the public cruise debate in Norway

Issues	Competing views on the effect of cruise tourism		
Local value creation	Cruise gains high local value creation (due to large number of tourists)	or	Cruise gains low local value creation (due to low value creation per cruise tourist)
Competition with on-shore tourism	Win-win relationship	or	Negative competition
Local pollution	Is important for local pollution	or	Is not important for local pollution
GHG-emissions	Has higher emissions than other types of tourism	or	Has not higher emissions than other types of tourism
Integration in local development and governance processes	Is well integrated	or	Is not well integrated

Organization and main goal

- **Project partners**
 - Fjord Norge AS / NCE Tourism (project owners)
 - Tourism companies (**still possible to join!**)
 - Vestlandsforskning (project leader), Norges Handelshøyskole, Universitetet i Stavanger and Transportøkonomisk institutt
 - Steering committee put together by project partners that contribute economically to the project
- **Financing**
 - Regionalt Forskningsfond Vestlandet
 - Project partners
- **Main goal**
 - To define options to optimize the cruise sector from integrated environmental, social and economic viewpoints.

Project design



Research questions

1. Destinasjonar & distribusjon av trafikk

- Kva er besøksintensiteten i cruisehamnene langs Vestlandskysten?
- Når, kvar og kor mange besøkande i dag?
- Kva kan situasjonen bli i framtida gitt utbyggingsplanar og attraksjonskraft i dei ulike destinasjonane?

2. Økonomi & lokal verdiskaping

- Kva er forbruksmønsteret i dag og korleis er dette fordelt i tid og for destinasjonar?
- Korleis er fordelinga mellom lokale, nasjonale og internasjonale interessentar?
- Korleis er verdiskapinga fordelt mellom by og land?
- Kva faktorar påverkar forbruksnivået og påverkar cruiseturismen landturismen?

3. Berekraftig reiselivsutvikling

- Kva er kostnadene med miljøeffektar?
- Kva er muleg tiltak for å redusere miljøeffektar?
- Kva er effekten av cruise for andre lokale og regionale reiselivsaktivitetar?
- Korleis kan framtidig utvikling stimulere involvering og påverknad i lokale småsamfunn?

4. Framtidige behov

- Kva er dei viktige drivarane i framtidig utvikling av cruisenæringa?
- Korleis kan sektoren bli utvikla i samarbeid med innovasjonar i tenester og produkt hjå landbasert reiseliv og med spreining av besøkande i tid og rom?

Aiming at small or big changes?

Adjustments:

- «The process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities”

Transformation:

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

Takk for oppmerksomheten!

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Norwegian Centre of Excellence
NCE Tourism
Fjord Norway

VESTLANDSFORSKING

**Invitasjon til å delta i prosjekt i
Regionalt forskingsfond Vestlandet**

Prosjekttittel:
Berekraftig cruise – kunnskap om og optimalisering av sosiale, miljømessige og økonomiske effekter av cruiseturisme

(Søknadstittel: Sustainable cruises: Understanding and Optimizing People, Planet and Profit)

Prosjektpartnerar

- Fjord Norge AS / NCE Tourism (prosjekteigar) + bedrifter
- Vestlandsforskning (prosjektleiar), Norges Handelshøyskole, Universitetet i Stavanger og Transportøkonomisk institutt

Prosjektperiode
Hausten 2013 – hausten 2016

Bakgrunn
Cruiseturismen er i kraftig vekst og mange stader på Vestlandet er attraktive reisemål. Norge befesta i 2013 posisjonen som Europas fjerde største cruisedestinasjon. I **innvekande** sesong har det pr oktober **vare** 2187 cruiseanløp til Cruise **Norway's** 41 medlemshavner, med tilsamen 2.982.594 dagsbesøk. Dette er ein auke på seks prosent frå 2012 målt i tal cruiseanløp og pluss 18 prosent i tal besøkande. Per oktober 2013 er 2098 cruiseanløp meldt inn for 2014 med en prognose på 2 740 693 gjester.

