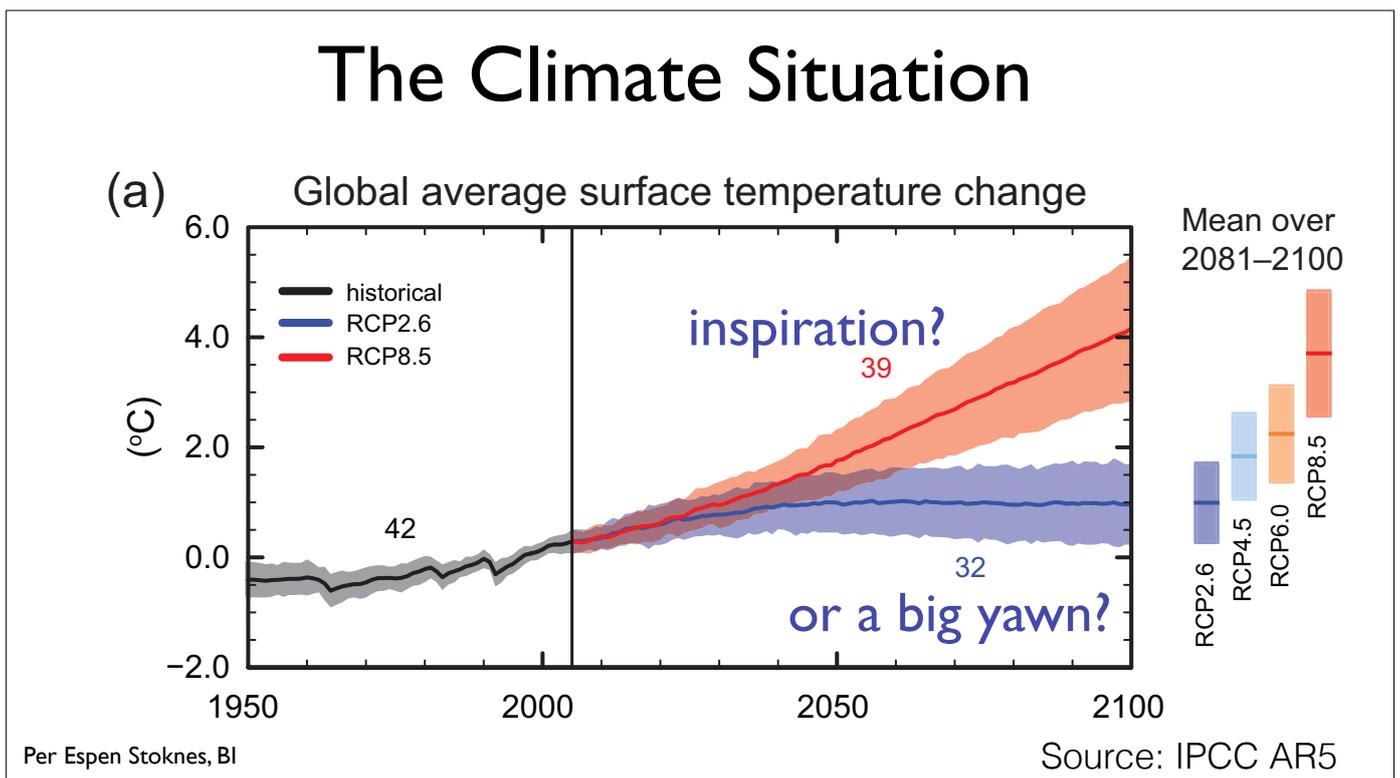
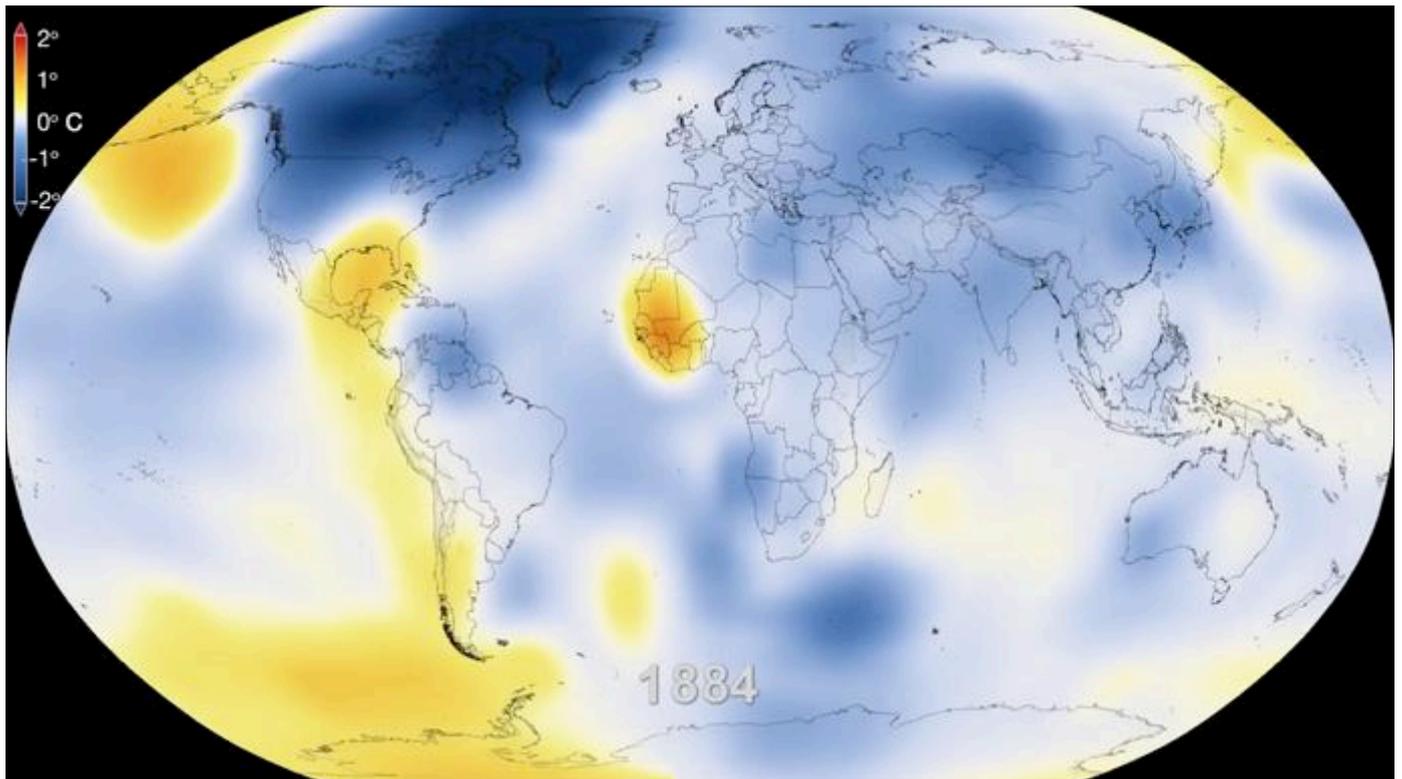


Per Espen Stoknes, BI

# How (not) To Build Support for Climate Policy?

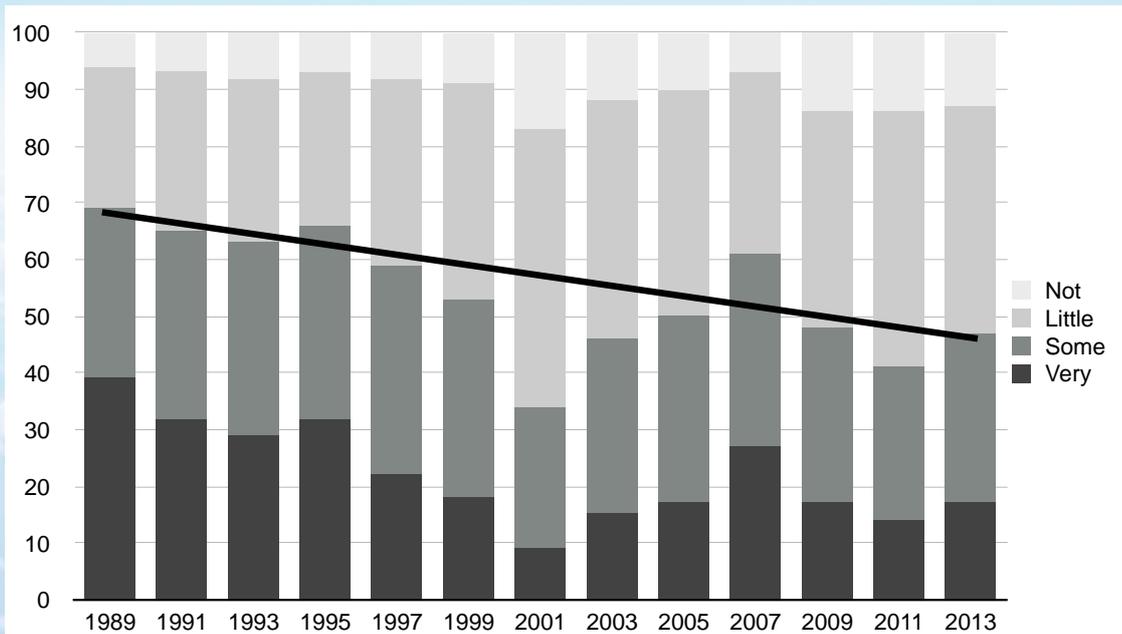
Per Espen Stoknes  
 Director  
 Center for Green Growth  
 Norwegian Business School  
 on twitter: @estoknes





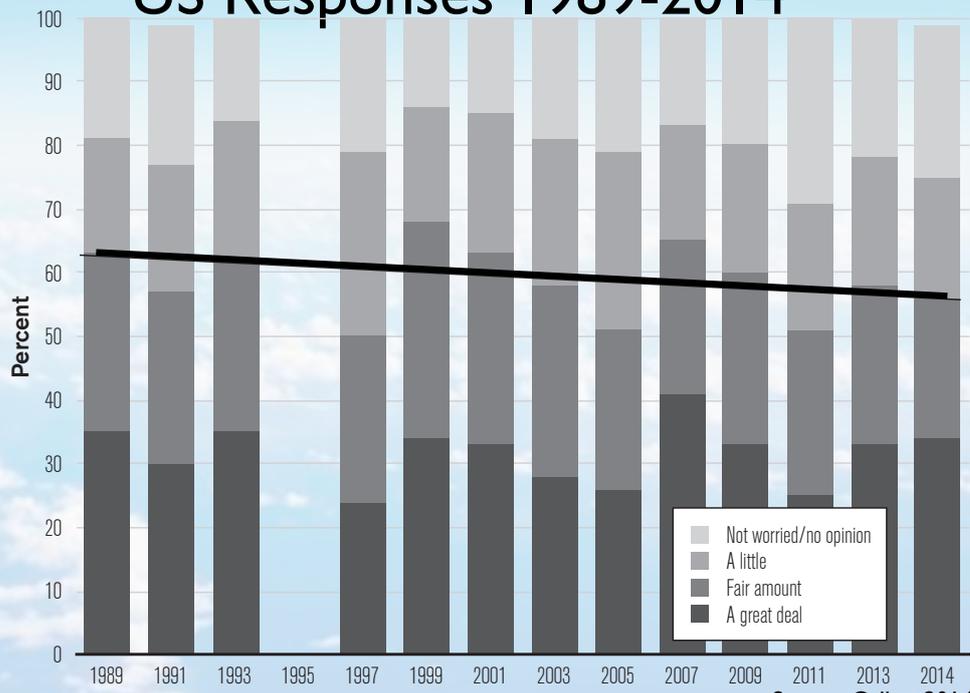
## Norwegian Responses 1989-2013

“How concerned are you for greenhouse effects and climate change?”



“How much do you personally worry about the greenhouse effect or global warming?”

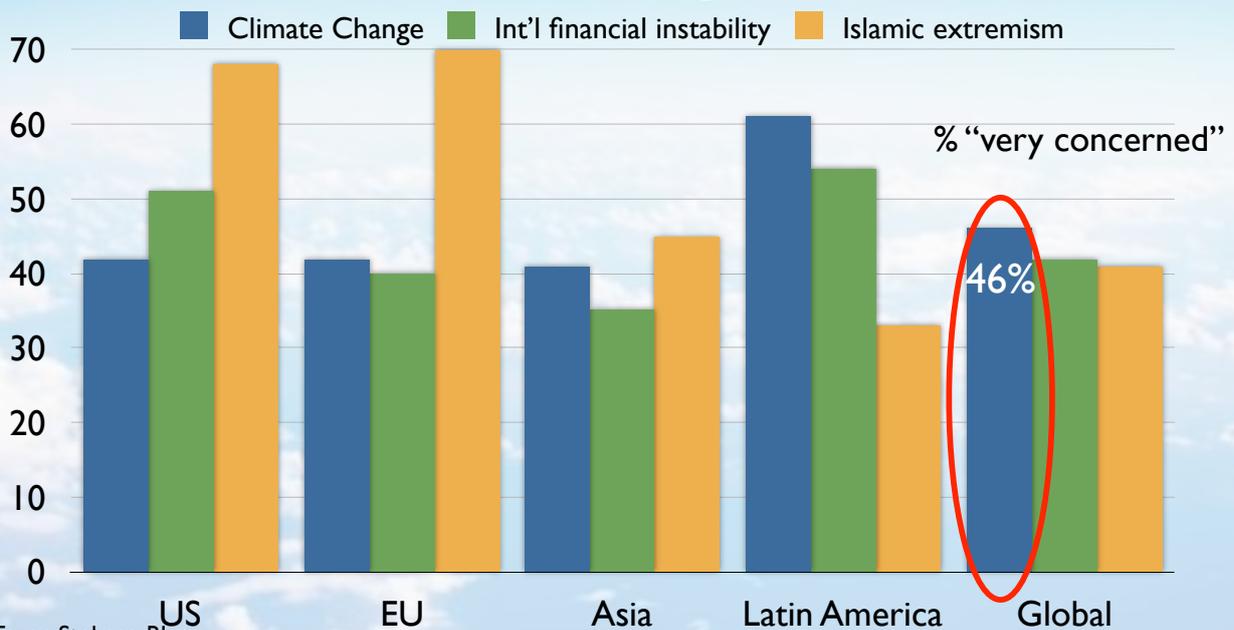
## US Responses 1989-2014



Per Espen Stoknes, BI

Source: Gallup, 2014.

## How concerned are you about...

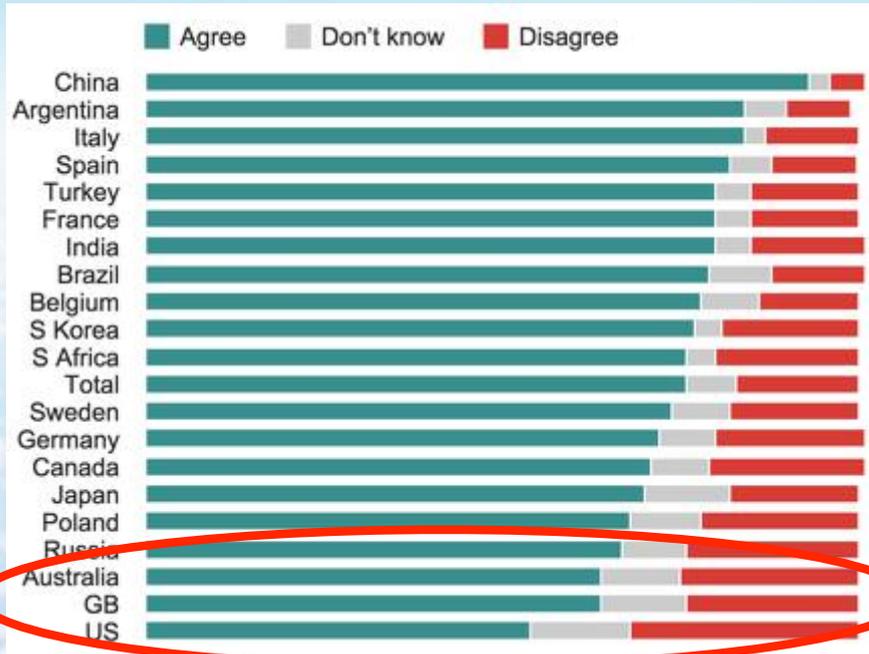


Per Espen Stoknes, BI

Source: Pew Research Centre, Climate Change and Financial Instability Seen as Top Global Threats, June 24, 2013

## International Responses 2014

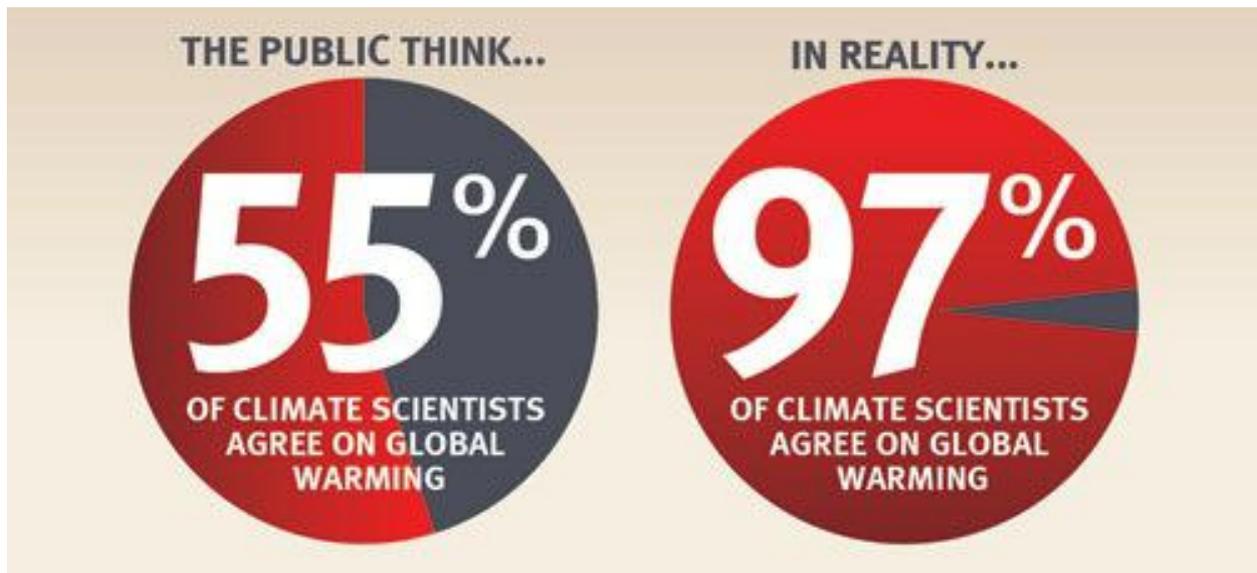
“The climate change we’re currently seeing is largely the result of human activity.”



Per Espen Stoknes, BI

Source: Ipsos MORI Global Trends, 2014

## the climate paradox



Per Espen Stoknes, BI

Source: Cook et al 2013, <http://www.skepticalscience.com/>  
 Leiserowitz, Maibach et al (2015). Climate change in the American mind: March, 2015.

# Why?

Certainty

Concern

Per Espen Stoknes, BI

## What We Think About



When We Try Not To Think About

## Global Warming

Toward a **NEW PSYCHOLOGY** of Climate Action

**Per Espen Stoknes**

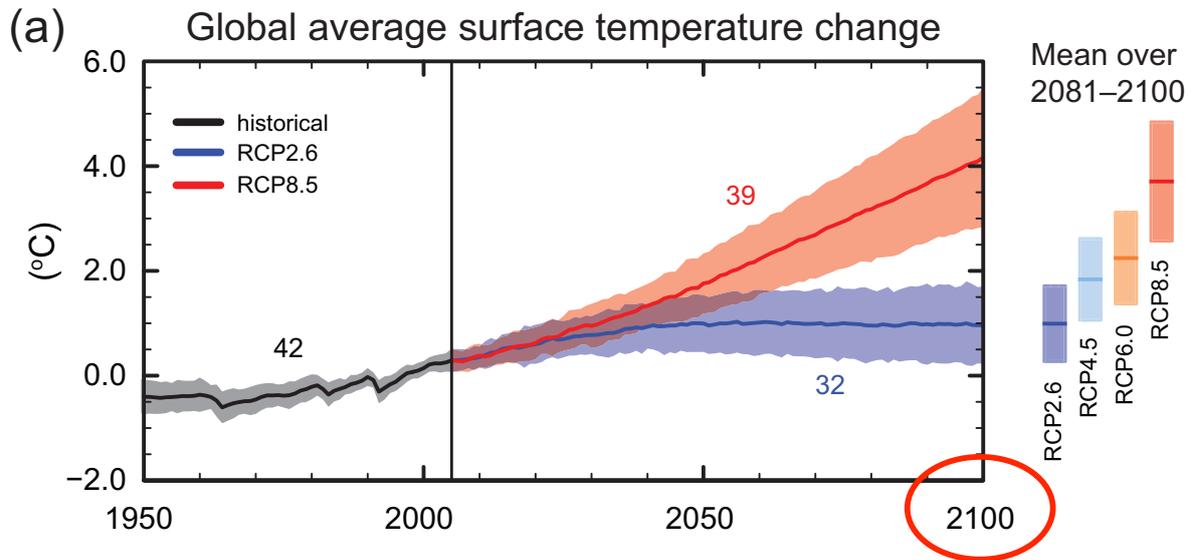
*Foreword by Jorgen Randers*

➡ 5 Defenses

➡ 5 Solutions



## Distant in time ...



in space ...

Per Espen Stoknes, BI



Distant socially...



Credit: <http://inapcache.boston.com/>

in responsibility ...



## *Psychological distancing*

- ➔ low feeling of personal risk
- ➔ reduces sense of urgency
- ➔ low issue priority

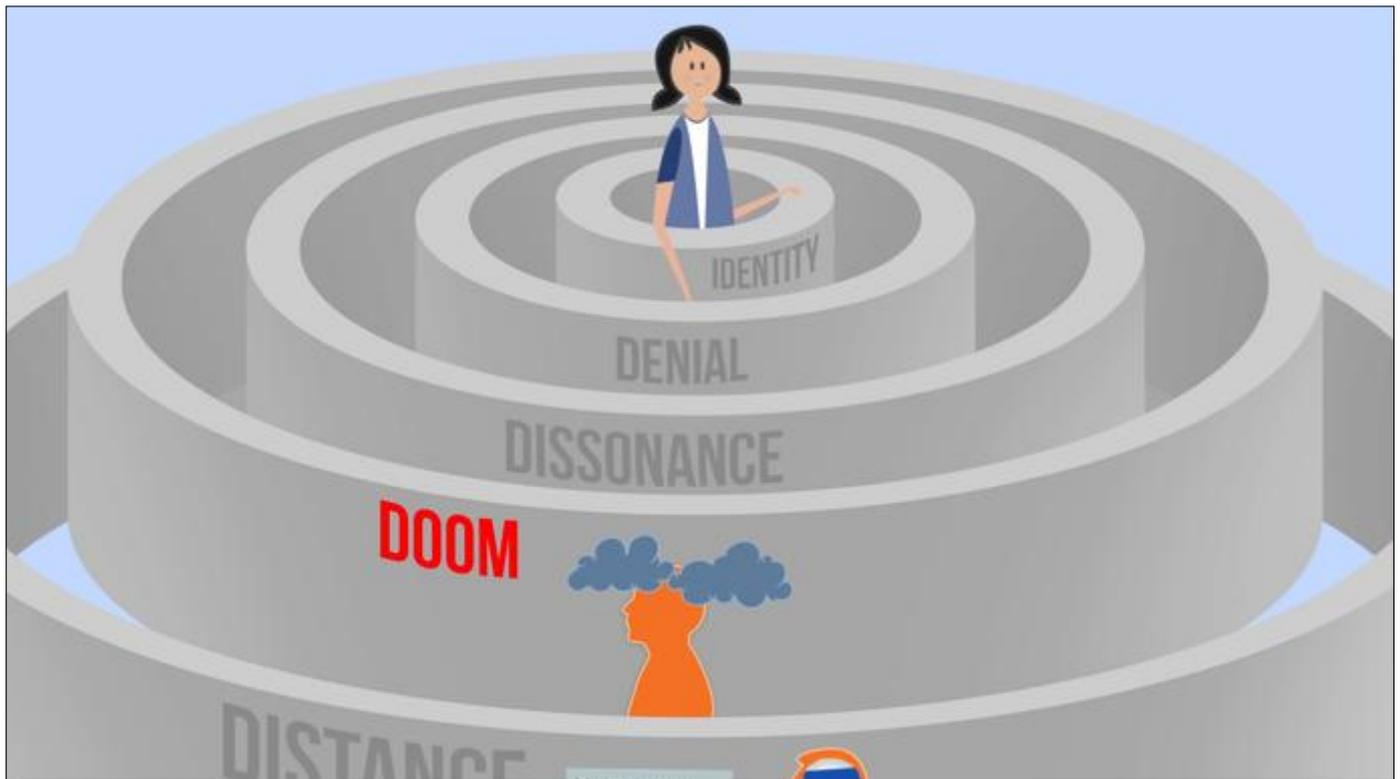
Per Espen Stoknes, BI

Sources:

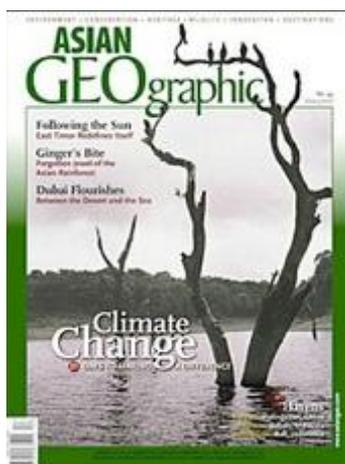
Leiserowitz, 2005, "American Risk Perceptions: Is Climate Change Dangerous?". *Risk Analysis*, 25(6), 1433–1442. <http://doi.org/10.1111/j.1540-6261.2005.00690.x>

Spence and Pidgeon, 2010, "Framing and communicating climate change: The effects of distance and outcome frame manipulations," *Global Environmental Change*, vol. 20, no. 4, pp. 656–667, Oct.

Spence, Poortinga, and Pidgeon, 2012, "The Psychological Distance of Climate Change: Psychological Distance of Climate Change," *Risk Analysis*, vol. 32, no. 6, pp. 957–972..



# Too much doom?

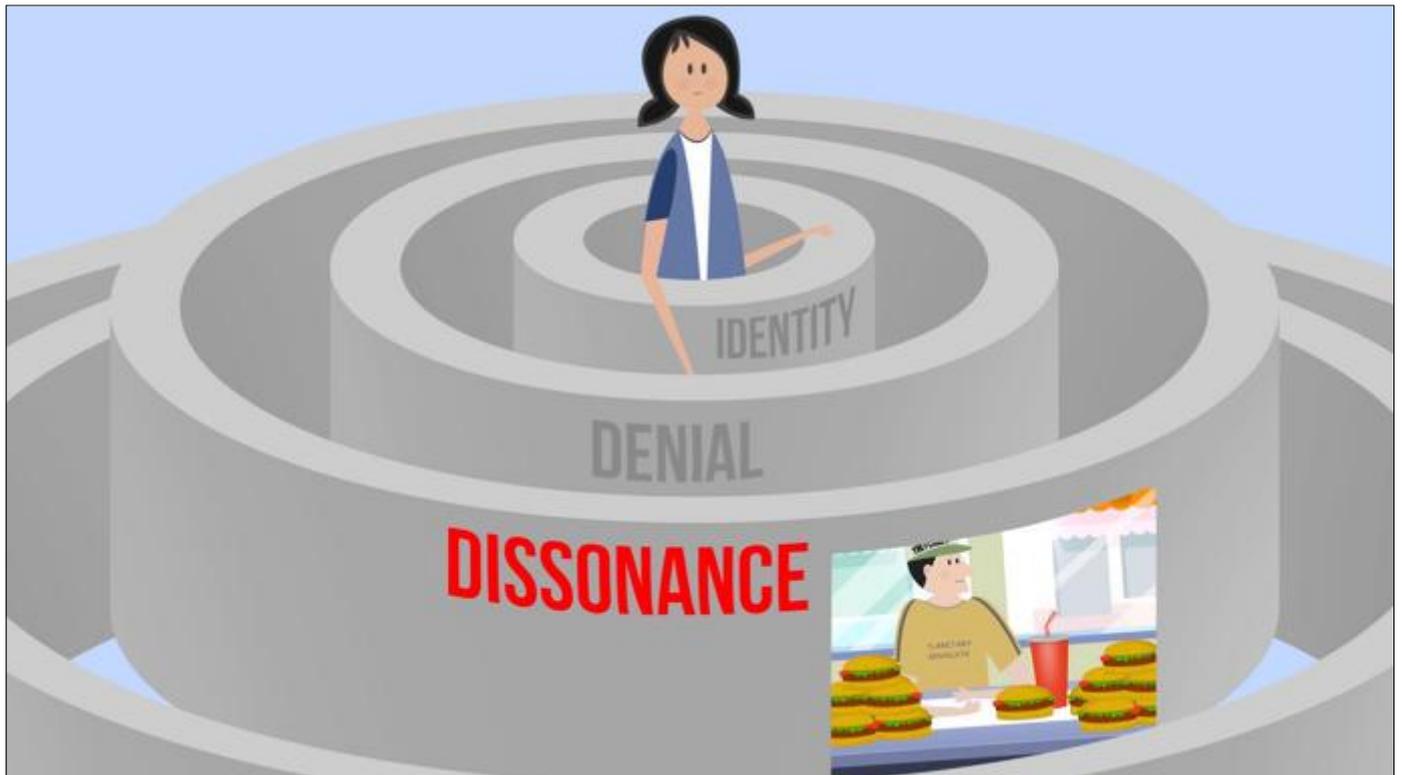


leads to habituation, avoidance & stereotyping



Per Espen Stoknes, BI

Credit: [www.AuthenticSustainability.com](http://www.AuthenticSustainability.com) 19



# Dissonance when actions conflict with knowledge

I fly and drive. Everyone does the same. Our governments want to pump more oil and gas, so it can't be that serious...

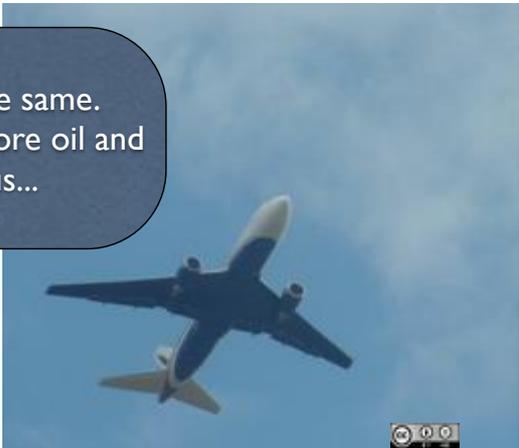


Photo Credit: [planetimagesagency](#)





behavior  attitudes



“The alarmists on global warming got a problem because the science doesn't back them up.”  
Ted Cruz

Photo Credit: <http://i.huffpost.com/gen/1305857/images/o-TED-CRUZ-facebook.jpg>  
Quote: "Late Night with Seth Meyers" interview, March 17, 2015

# Denial

a “social contract”

both to know  
*and* not-to-know

better: “resistance”?

Norgaard, 2011, Living in Denial



## Cars - express identity



Per Espen Stoknes, BI

## “Rollin’ Coal”: identity-protective cognition



Per Espen Stoknes, BI

Source: <https://www.youtube.com/watch?v=hsC0kLNSLAQ>

# defending one's identity

**Watchdog says electric cars 'are as dirty as diesel'**  
By RAY MASSEY FOR THE DAILY MAIL  
UPDATED: 02:39 GMT, 26 February 2011

Electric cars may portray themselves as 'zero emissions' but the overall pollution they generate can be almost as great as a frugal conventional diesel car, consumer watchdogs said today.

Electric cars are a lot more expensive to buy - though they are generally cheaper to run as they plug in for their power from the domestic mains, say experts at Which?

The amount of carbon dioxide - the so-called 'greenhouse gas' blamed by scientists for global warming - created to generate the electricity powering an electric car, can be just as great as that created by the internal combustion engine, they say.

**MailOnline**

Per Espen Stoknes, BI

**Electric cars and the coal that runs them**

Inside a Tesla factory

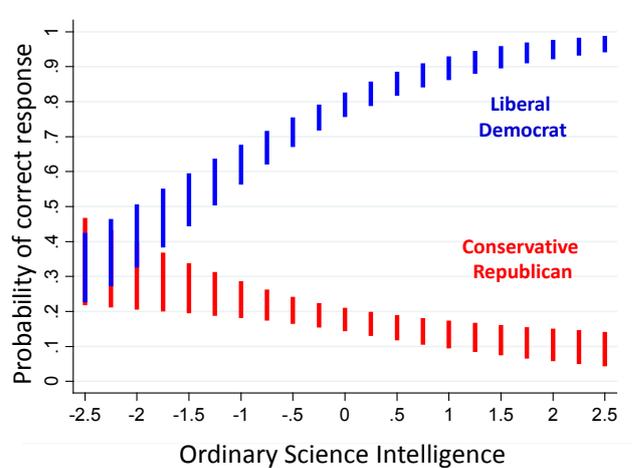
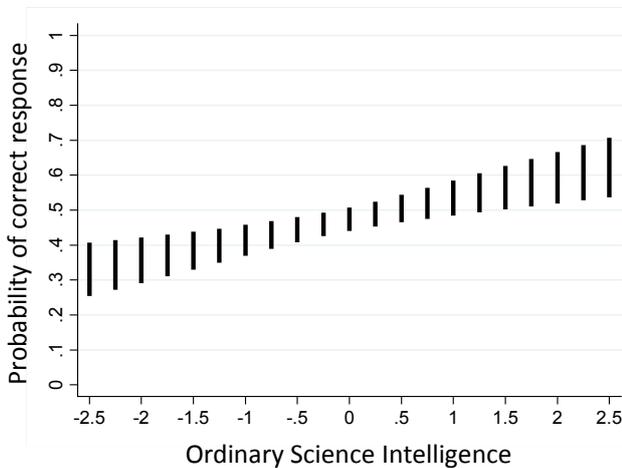
**The Washington Post**

**Most Read**

- 1 Here's what a Russian tank... after getting... made missile
- 2 Pentagon and Department of U.S. troops diplomats to

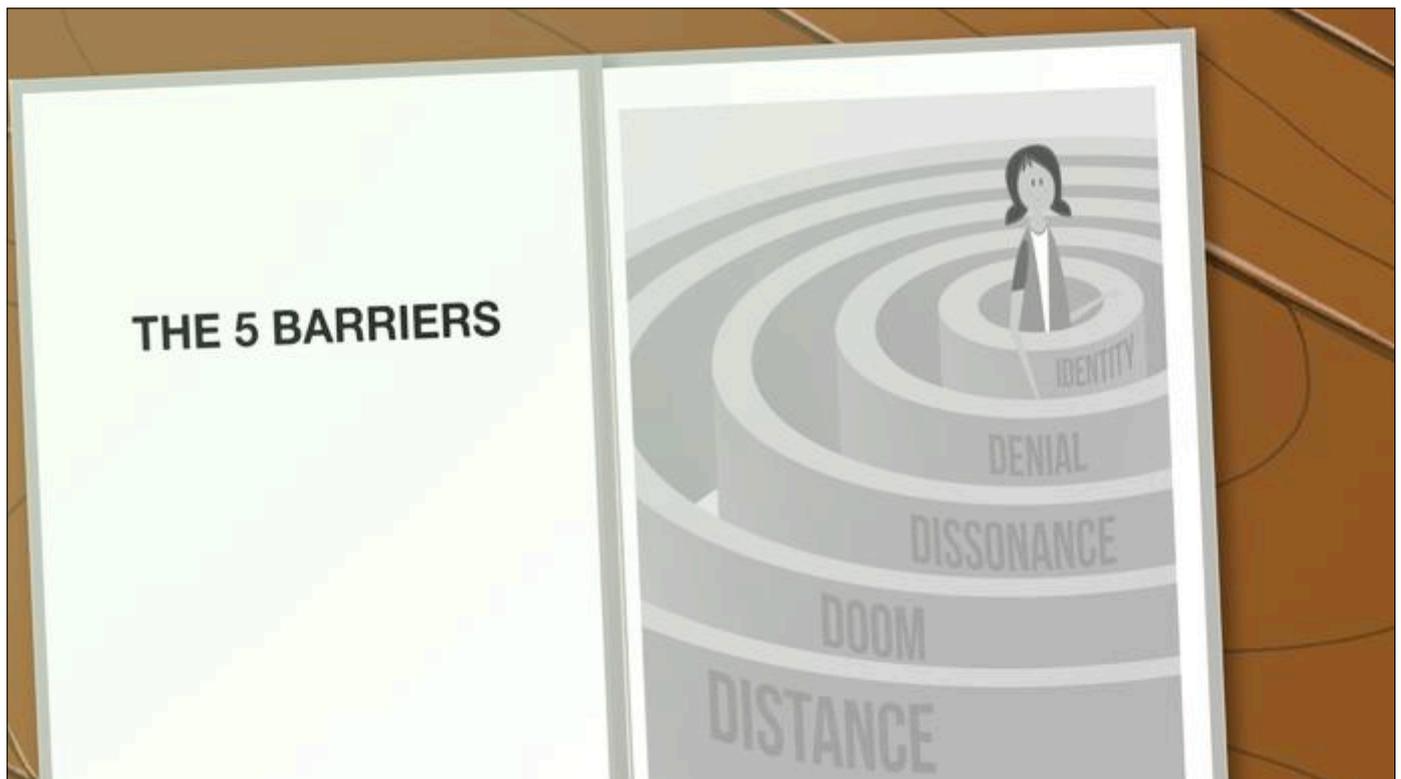
# identity overrides knowledge

*"[Is the earth] getting warmer (a) mostly because of human activity such as burning fossil fuels or (b) mostly because of natural patterns in the earth's environment?"*



Per Espen Stoknes, BI

D. M. Kahan, 2014 "Climate Science Communication and the Measurement Problem," *Advances in Political Psychology*, vol. in press.



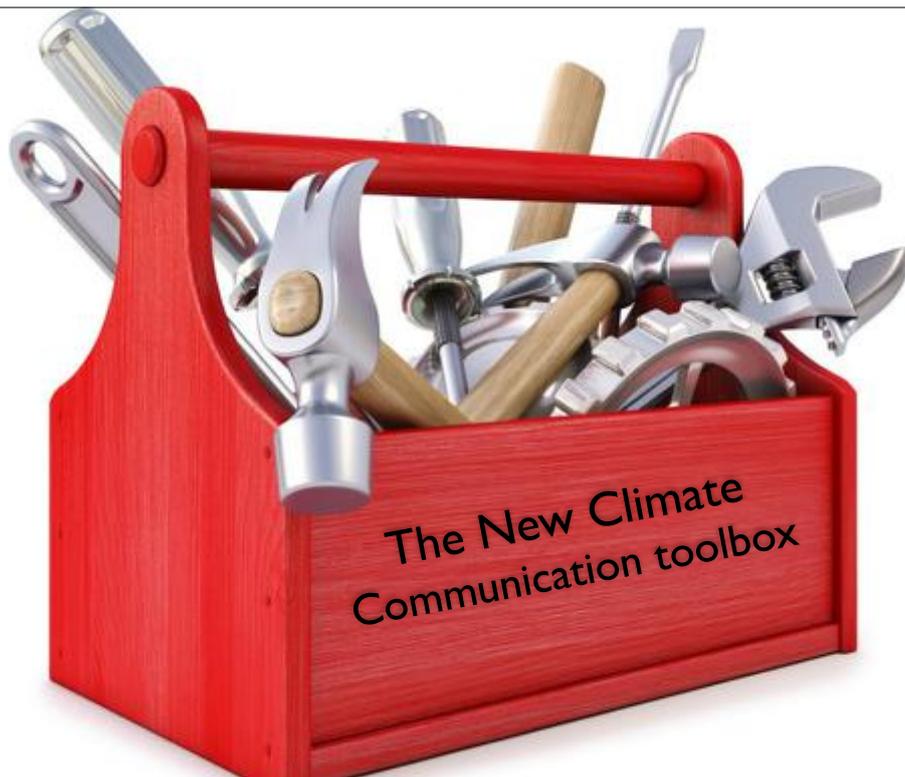
**How to break through  
the barriers ?**

**or maybe by-pass them?**

# We've enough reports

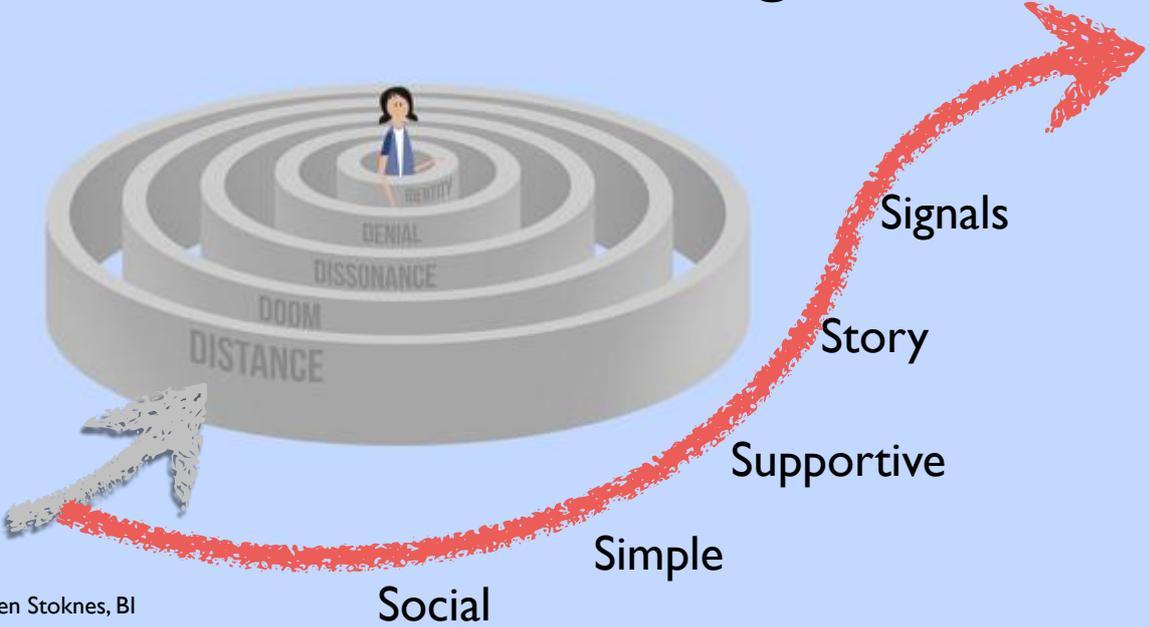


Per Espen Stoknes, BI



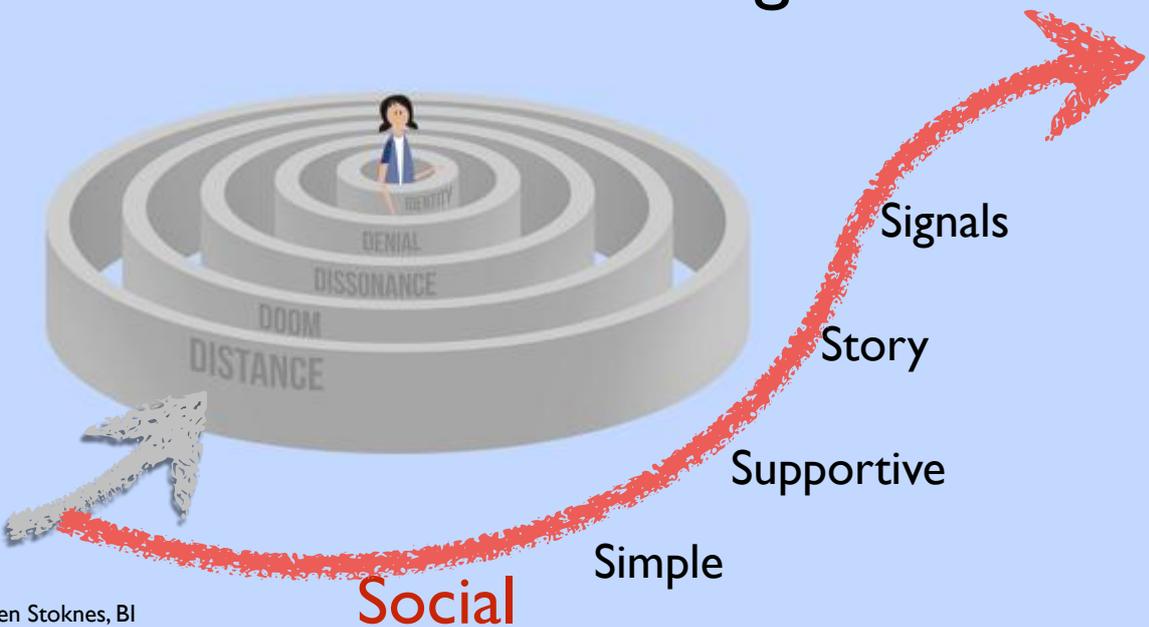
Per Espen Stoknes, BI

# Five new strategies



Per Espen Stoknes, BI

# Five new strategies



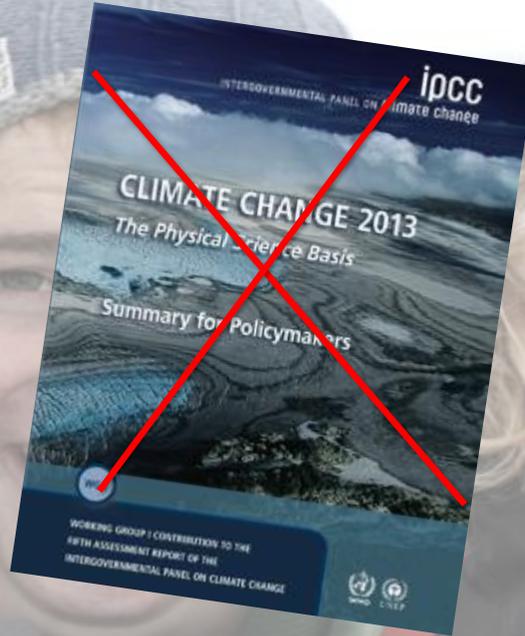
Per Espen Stoknes, BI

# Make it social and local!

Use:

- Social norms
- Social media
- Local issues
- Flow & glow

Per Espen Stoknes, BI



## I. Use Power of Social Networks:

rooftop solar is contagious

Sources: Graziano, M., & Gillingham, K. (2014). Spatial patterns of solar photovoltaic system adoption: the influence of neighbors and the built environment. *Journal of Economic Geography*. <http://doi.org/10.1093/jeg/lbu036>

# I. Use Power of Social Networks:



Experimental studies to reduce domestic power consumption by comparing four groups:

1. for the sake of sustainability and the earth
2. for future generations
3. because it is profitable
4. because your neighbours do it

Per Espen Stoknes, BI

Sources: Using Peer Pressure as a Tool to Promote Greener Choices by Richard Conniff, Yale Environment 360: Allcott, H., Social norms and energy conservation, J. Public Econ. (2011), doi:10.1016/j.jpubeco.2011.03.003

# I. Use Power of Social Norms

Last Month Neighborhood Comparison | Last month you used 15% LESS electricity than your efficient neighbors.



“People don’t just want to conserve energy, they want to be *acknowledged* for conserving energy.”  
Robert Cialdini, Arizona S.U.

Per Espen Stoknes, BI

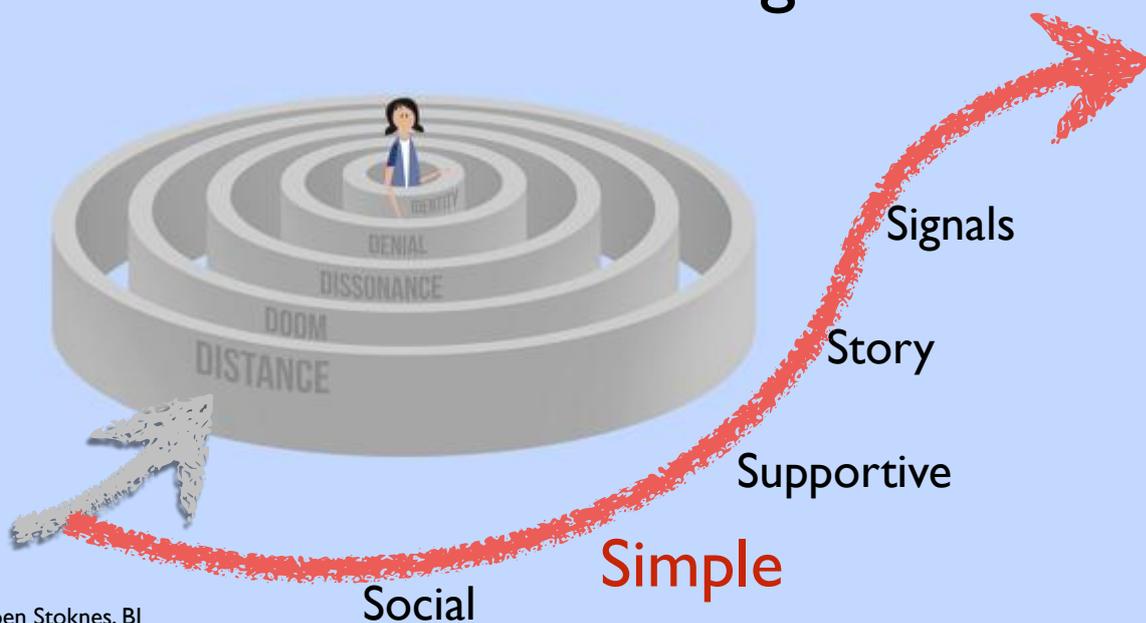
Sources: Using Peer Pressure as a Tool to Promote Greener Choices by Richard Conniff, Yale Environment 360: Allcott, H., Social norms and energy conservation, J. Public Econ. (2011), doi:10.1016/j.jpubeco.2011.03.003

# Green Sports Alliance

- More peer messengers
- Use local-patriotism: LA vs SF, Texas vs California
- Make eco-teams out of existing groups and networks

Photo by Annie Marie Musselman

## Five new strategies



Per Espen Stoknes, BI

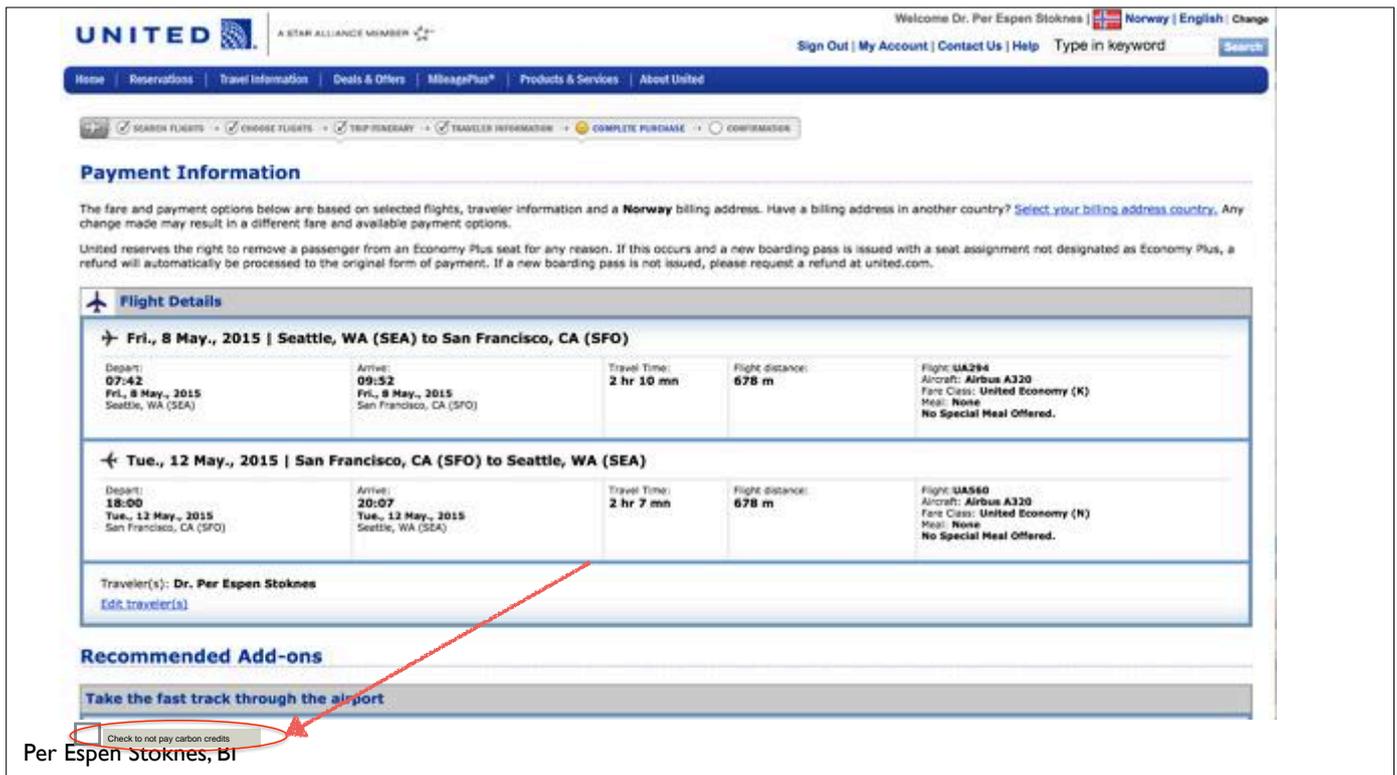
## 2. Simple to choose climate friendly



- **Default two-sided printing:**  
15% less paper
- **If applied to all US offices**  
800 ktCO<sub>2</sub>e/year  
equivalent to 150.000 cars

Sources: Egebark and M. Ekström, "Can Indifference Make the World Greener?," IFN Working Paper No. 975, 2013.  
Pichert and Katsikopoulos, "Green defaults: Information presentation and pro-environmental behaviour," *J. of Environmental Psychology*, vol. 28, no. 1, pp. 63–73, Mar. 2008

Per Espen Stoknes, BI



The screenshot shows the United Airlines website interface. At the top, it says "UNITED A STAR ALLIANCE MEMBER" and "Welcome Dr. Per Espen Stoknes | Norway | English | Change". Below the navigation bar, there's a progress bar for the booking process: SEARCH FLIGHTS, CHOOSE FLIGHTS, TRIP ITINERARY, TRAVELER INFORMATION, COMPLETE PURCHASE, and CONFIRMATION. The main section is titled "Payment Information" and includes a disclaimer about the fare and payment options. Below that, the "Flight Details" section shows two flights: Fri., 8 May., 2015 | Seattle, WA (SEA) to San Francisco, CA (SFO) and Tue., 12 May., 2015 | San Francisco, CA (SFO) to Seattle, WA (SEA). The "Recommended Add-ons" section is visible at the bottom, with a red arrow pointing to a checkbox labeled "Check to not pay carbon credits".

UNITED A STAR ALLIANCE MEMBER

Welcome Dr. Per Espen Stoknes | Norway | English | Change

Sign Out | My Account | Contact Us | Help | Type in keyword | Search

Home | Reservations | Travel Information | Deals & Offers | MileagePlus® | Products & Services | About United

SEARCH FLIGHTS | CHOOSE FLIGHTS | TRIP ITINERARY | TRAVELER INFORMATION | COMPLETE PURCHASE | CONFIRMATION

### Payment Information

The fare and payment options below are based on selected flights, traveler information and a **Norway** billing address. Have a billing address in another country? [Select your billing address country.](#) Any change made may result in a different fare and available payment options.

United reserves the right to remove a passenger from an Economy Plus seat for any reason. If this occurs and a new boarding pass is issued with a seat assignment not designated as Economy Plus, a refund will automatically be processed to the original form of payment. If a new boarding pass is not issued, please request a refund at [united.com](#).

#### Flight Details

→ Fri., 8 May., 2015   Seattle, WA (SEA) to San Francisco, CA (SFO)				
Depart: <b>07:42</b> Fri., 8 May., 2015 Seattle, WA (SEA)	Arrive: <b>09:52</b> Fri., 8 May., 2015 San Francisco, CA (SFO)	Travel Time: <b>2 hr 10 mn</b>	Flight distance: <b>678 m</b>	Flight: <b>UA294</b> Aircraft: <b>Airbus A320</b> Fare Class: <b>United Economy (K)</b> Meal: <b>None</b> <b>No Special Meal Offered.</b>
← Tue., 12 May., 2015   San Francisco, CA (SFO) to Seattle, WA (SEA)				
Depart: <b>18:00</b> Tue., 12 May., 2015 San Francisco, CA (SFO)	Arrive: <b>20:07</b> Tue., 12 May., 2015 Seattle, WA (SEA)	Travel Time: <b>2 hr 7 mn</b>	Flight distance: <b>678 m</b>	Flight: <b>UA560</b> Aircraft: <b>Airbus A320</b> Fare Class: <b>United Economy (N)</b> Meal: <b>None</b> <b>No Special Meal Offered.</b>

Traveler(s): **Dr. Per Espen Stoknes**  
[Edit traveler\(s\)](#)

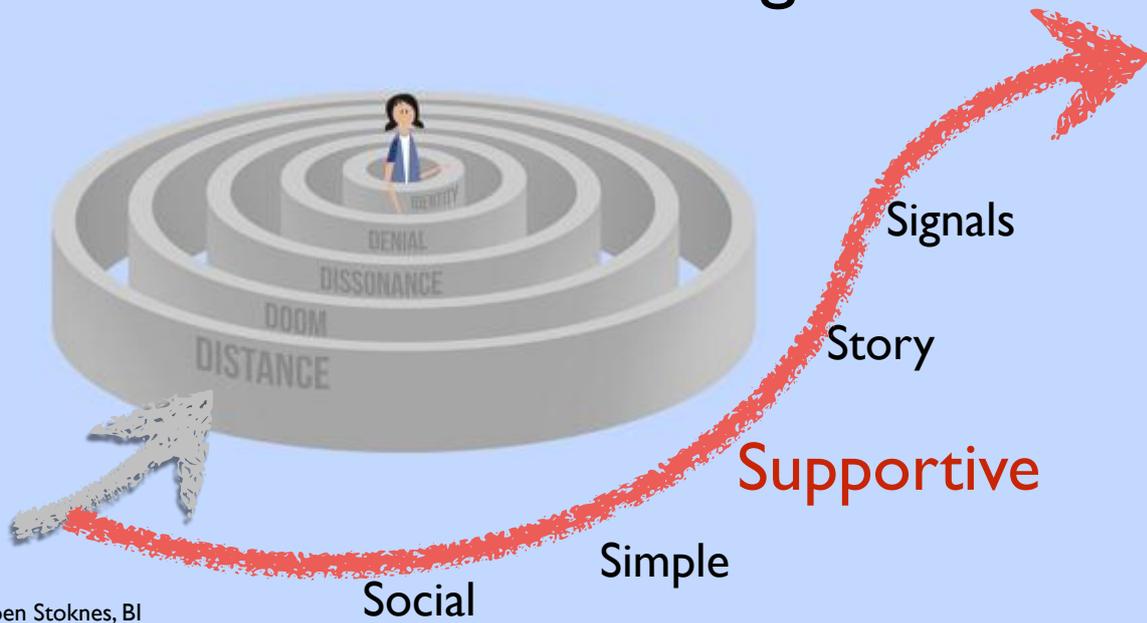
#### Recommended Add-ons

Take the fast track through the airport

Check to not pay carbon credits

Per Espen Stoknes, BI

# Five new strategies



Per Espen Stoknes, BI



Per Espe



photo credit: Parrchristie via Flickr

# Health!

Per Espen St

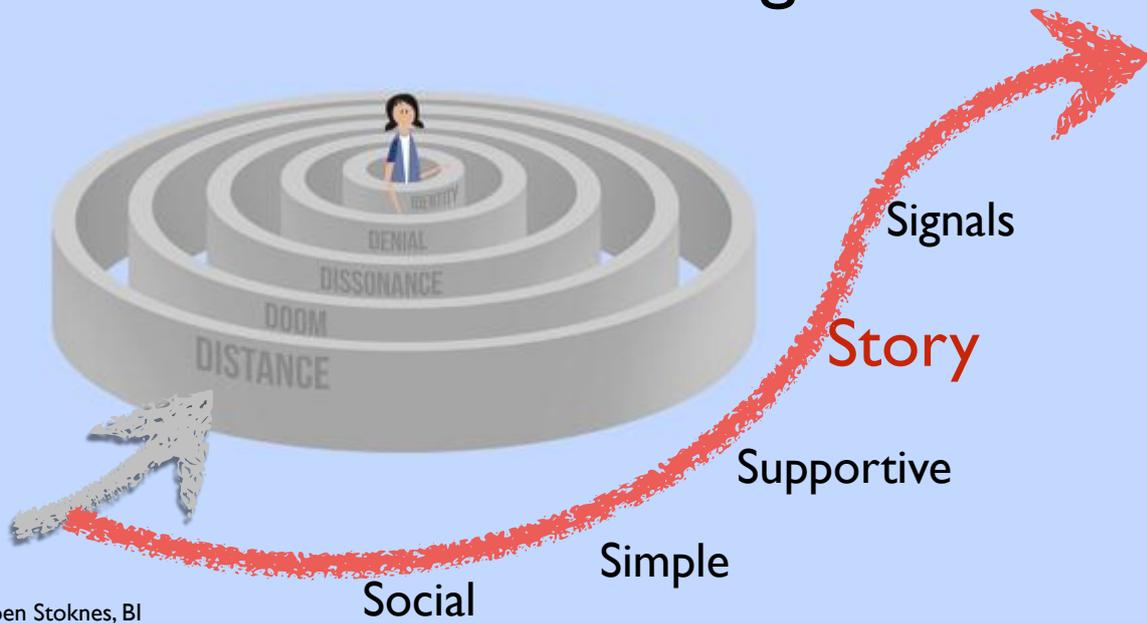
photo credit: deadlyvibe.com.au

# endless opportunities!

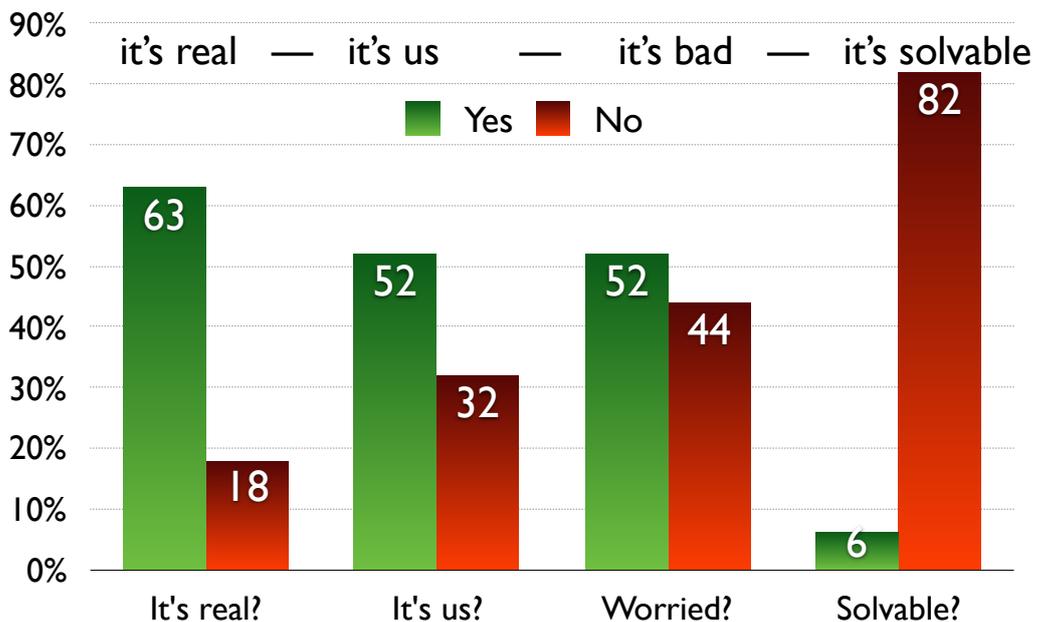
solar roadway

Source: Solarroads

# Five new strategies



## The 'Big 4' Climate Beliefs



Source: Leiserowitz & al., Yale PCCC, Mar 2015, N=1,263, p. 27, 29, 30, 39

When faced with hell,  
we sell the dream



Photo: Timothy Allen

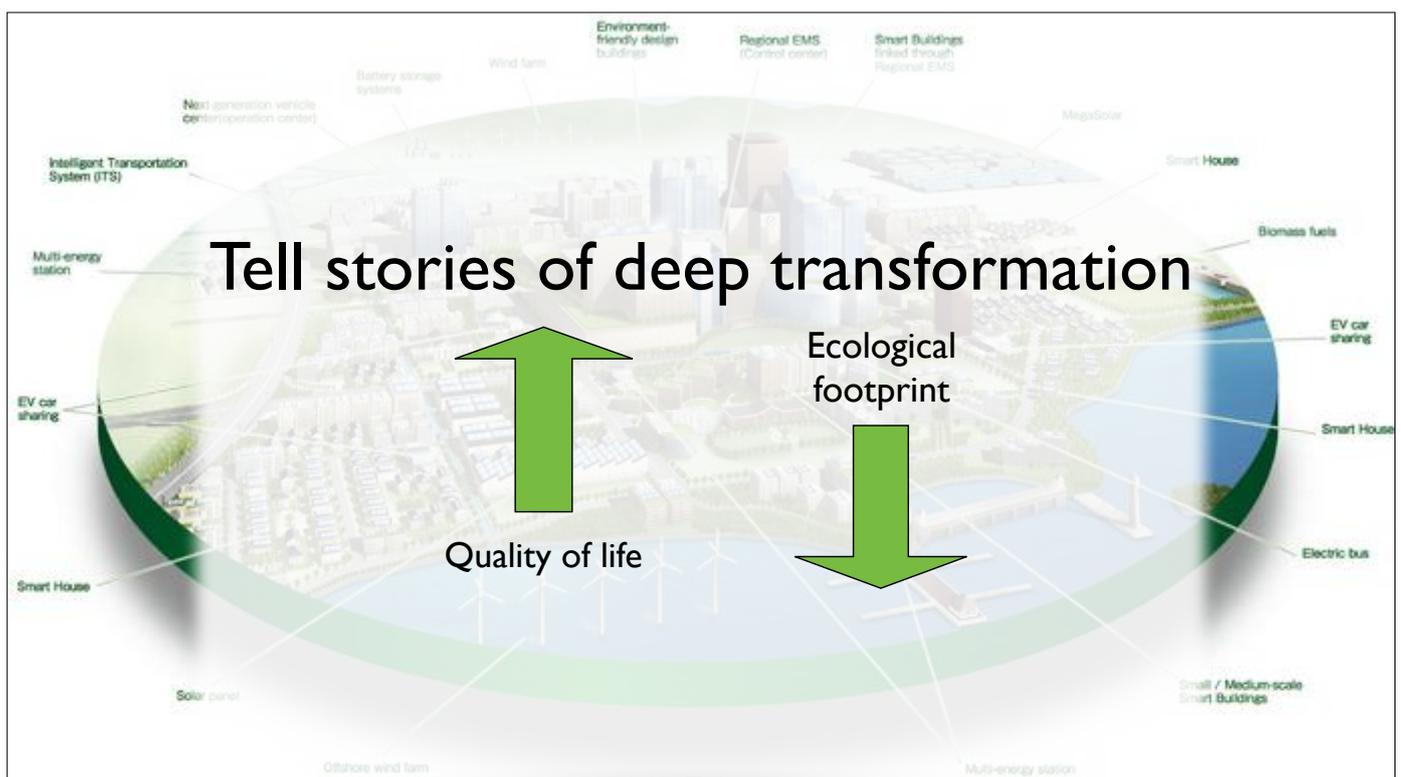
*green growth*  
is smart!



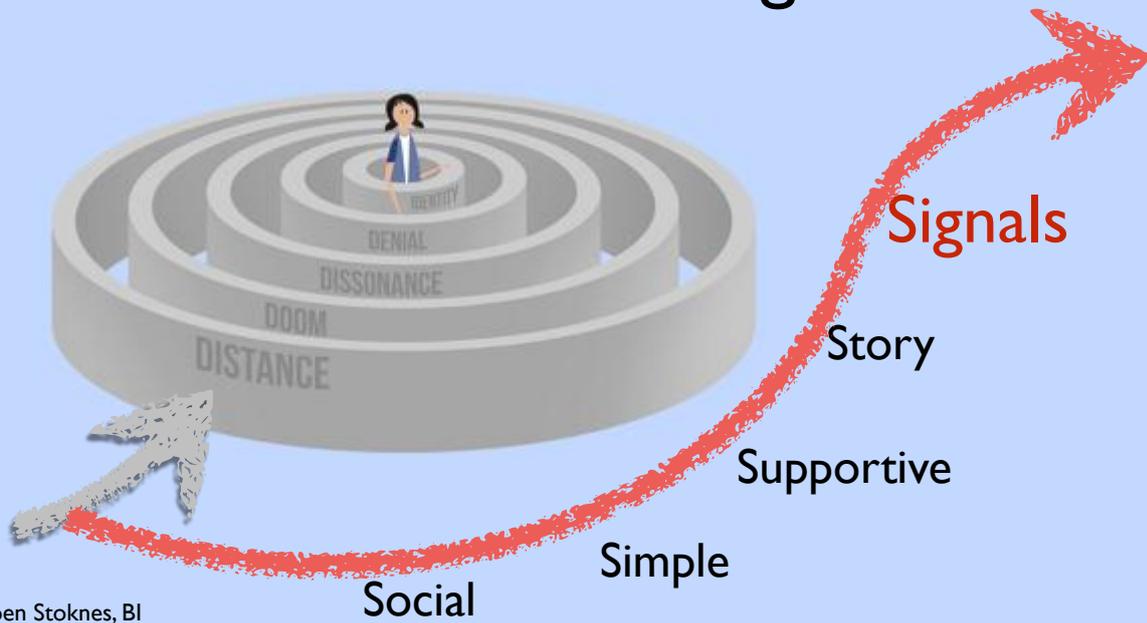
# Why smart, green growth?



- Because it's profitable
- Because it's more expensive to continue as today
- The stone age didn't end because of lack of stones
- The petroleum age won't end because of lack of oil, but...
- "Thank you, oil - It's been good."



# Five new strategies



Per Espen Stoknes, BI

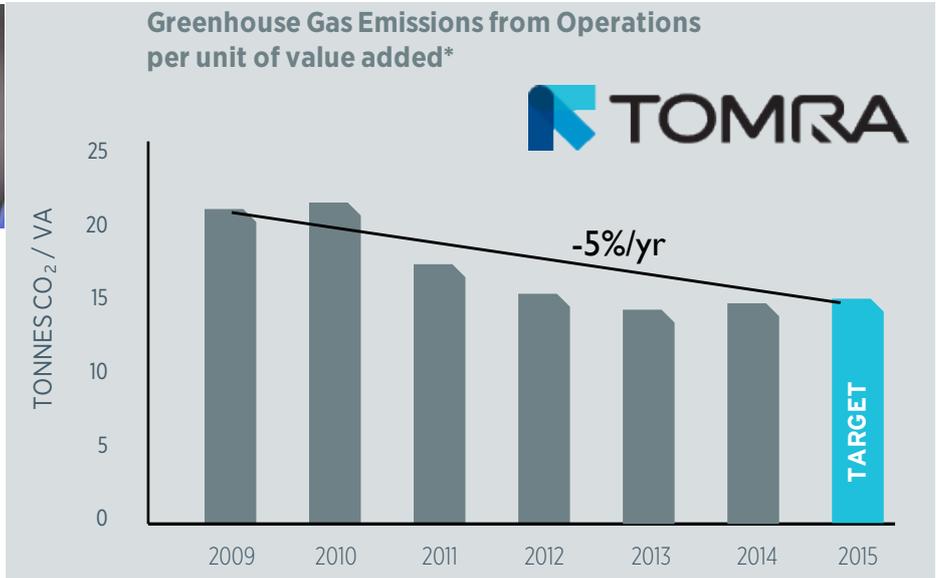
## CO<sub>2</sub> footprint in the bank statement?



Per Espen Stoknes, BI

Source: Kirsti Blikeng & al, MM GreenGrowth BI

# Companies doing their fair share

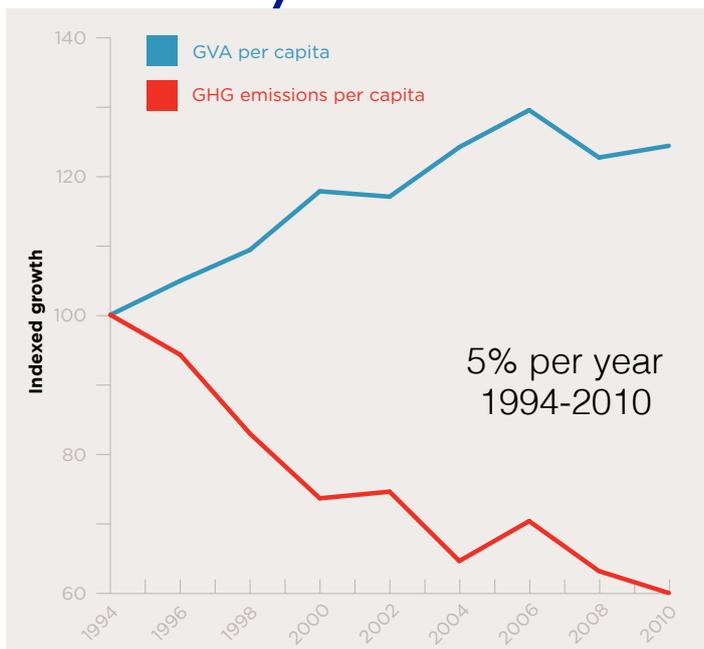


Per Espen Stoknes, BI

59

Source: Tomra Corporate Responsibility report, 2012

## Smart City Green Growth



### Copenhagen Denmark

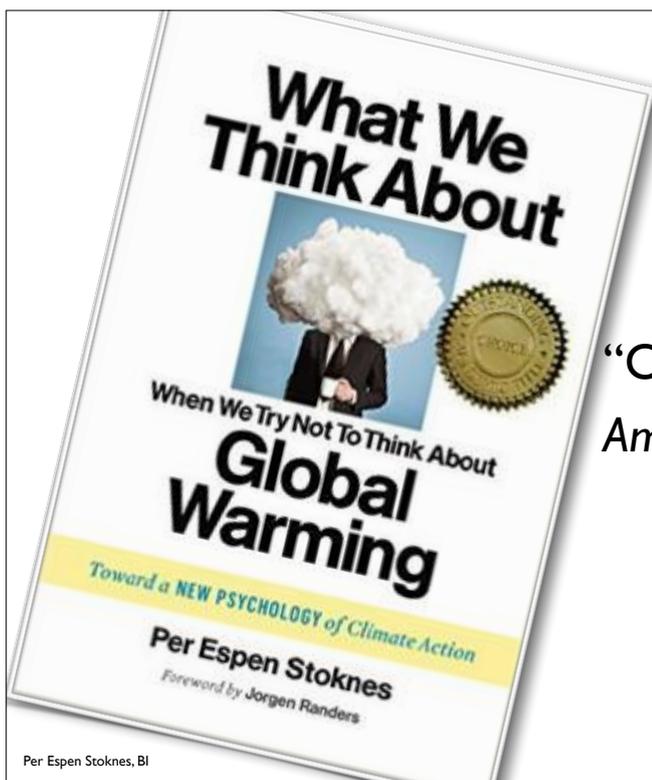
Per Espen Stoknes, BI

Source: The New Climate Economy Report, 2015 60

## Conclusions:

# Are humans inevitably short-term?

1. Rational facts are insufficient to create lasting engagement
2. Humans will act for the long-term when conducive conditions are in place: social norms, supportive frames, simple actions, stories and signals
3. Individual actions do *not* solve the climate problem, but *do* build bottom-up support for structural change



“Outstanding Academic Title of 2015”  
*American Libraries Association*

on twitter: @estoknes