



# Good Practice In Climate Adaptation - Norway

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MINISTERUL MEDIULUI



Proiect "Calea Verde spre Dezvoltare Durabilă"  
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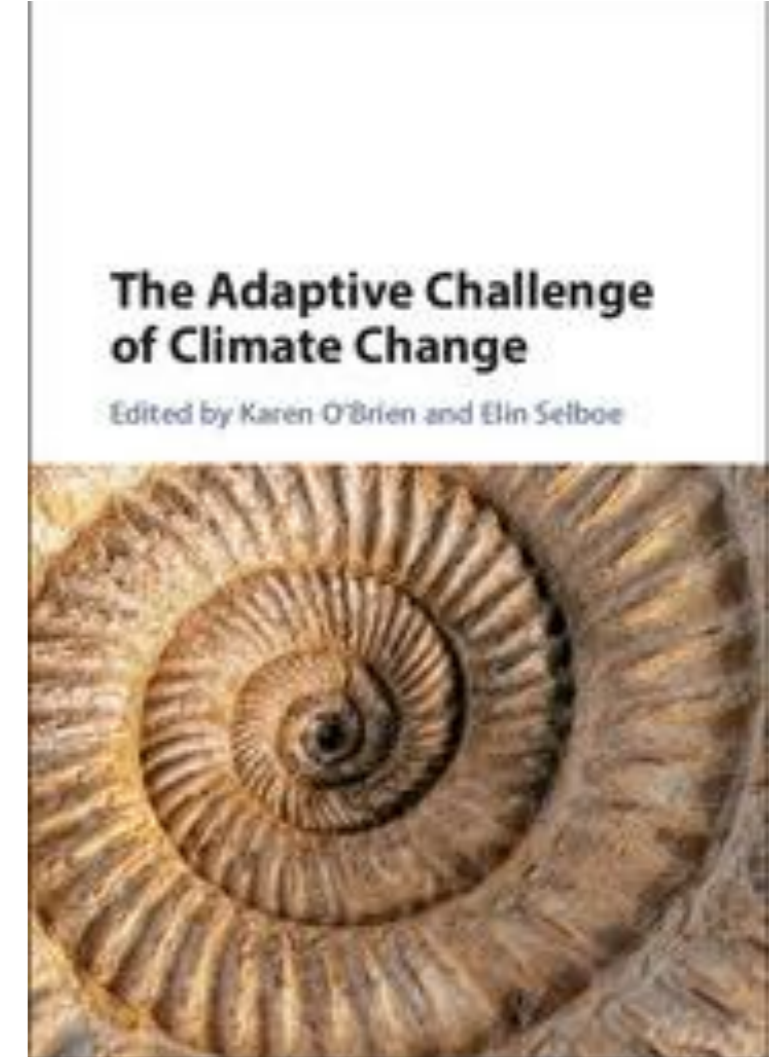
# Good Practice in Climate Adaptation Norway

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- Adaptation - practical, political, personal
- Actions in Oslo
- Education & Outreach
- Future of adaptation - Business vulnerability, Business opportunity

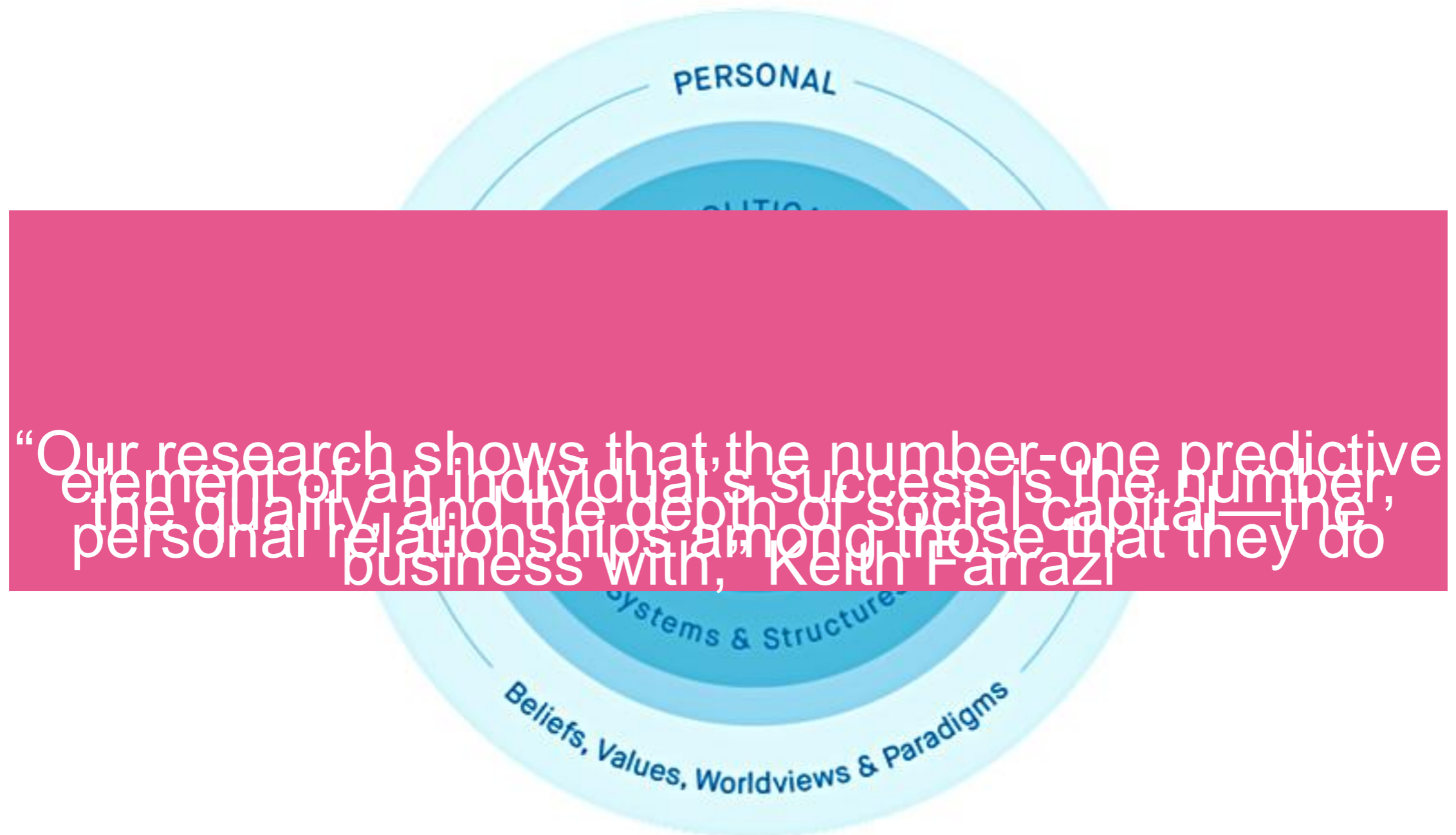


## Adaptation: Addressing the implementation gap



Karen O'Brien, UIO,  
[Science Committee for Future Earth](#)  
co-founder of cCHANGE.no

## Adaptation- Practical, Political, Personal



The three spheres of transformation (after Sharma, 2007)

# Climate Change Business Risk - Business Opportunity



## Top 10 risks in terms of Likelihood

- 1 Extreme weather events
- 2 Large-scale involuntary migration
- 3 Natural disasters
- 4 Terrorist attacks
- 5 Data fraud or theft
- 6 Cyberattacks
- 7 Illicit trade
- 8 Man-made environmental disasters
- 9 Interstate conflict
- 10 Failure of national governance

## Top 10 risks in terms of Impact

- 1 Weapons of mass destruction
- 2 Extreme weather events
- 3 Water crises
- 4 Natural disasters
- 5 Failure of climate-change mitigation and adaptation
- 6 Large-scale involuntary migration
- 7 Food crises
- 8 Terrorist attacks
- 9 Interstate conflict
- 10 Unemployment or underemployment

## Categories

-  Economic
-  Environmental
-  Geopolitical
-  Societal
-  Technological

# Oslo Electric Car Capital of the World...



“What an amazingly awesome country. You guys rock!”



The three spheres of transformation (after Sharma, 2007)

# City Climate Action Planning

## Guiding Principles for City Climate Action Planning

### Case Study 3:

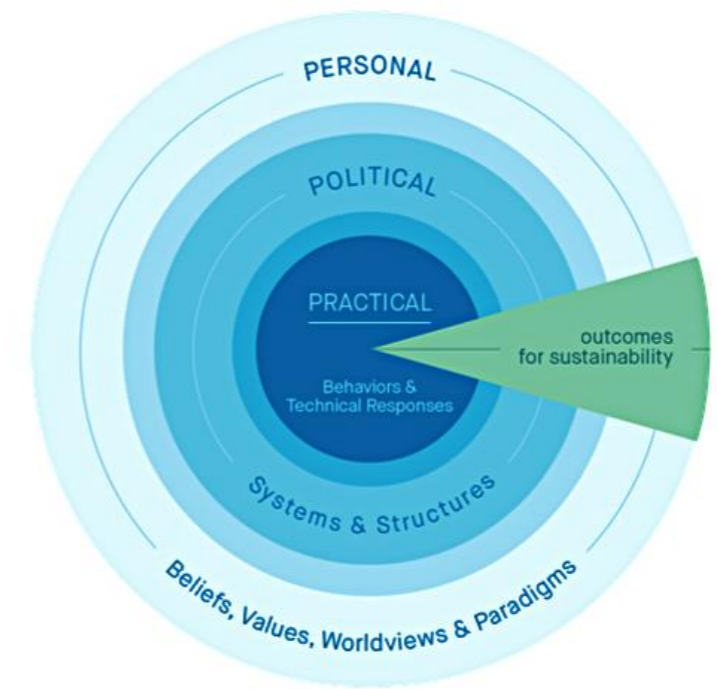
Oslo – The electric vehicle capital of the world, Norway  
(Population: 618,683, 2012)



Former Oslo Mayor, Mr. Fabian Stang in a model electric vehicle . © Oslo Kommune

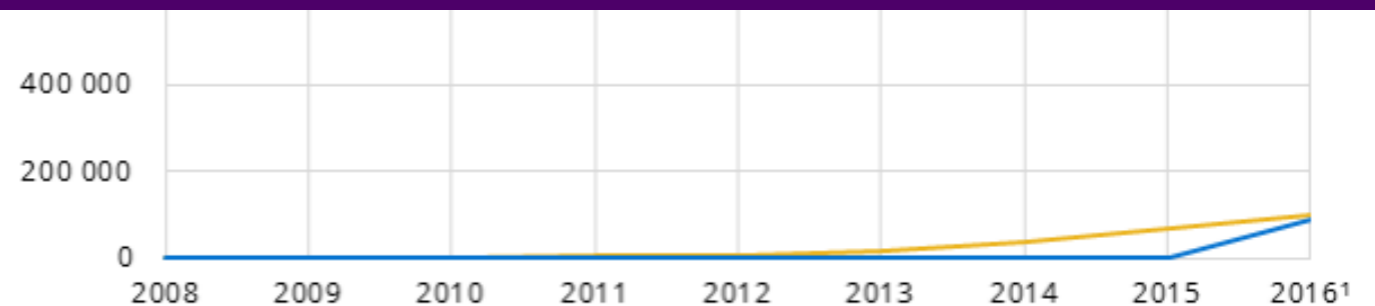
Systems thinking - electric cars do not resolve issues of vulnerability

## Green Transport Green Business?



Seizing an opportunity - Good for business  
But not addressing the underlying cause  
of our vulnerability

According to the Norwegian Institute of Public Health, air pollution causes 185 premature deaths in Oslo each year.



<sup>1</sup> As from 2016, petrol-hybrid passenger cars are separated from the fuel group petrol and placed under Other fuel (about 88 000 in 2016, nearly 50 000 in 2015)

Source: Central Vehicle Register, Directorate of Roads.

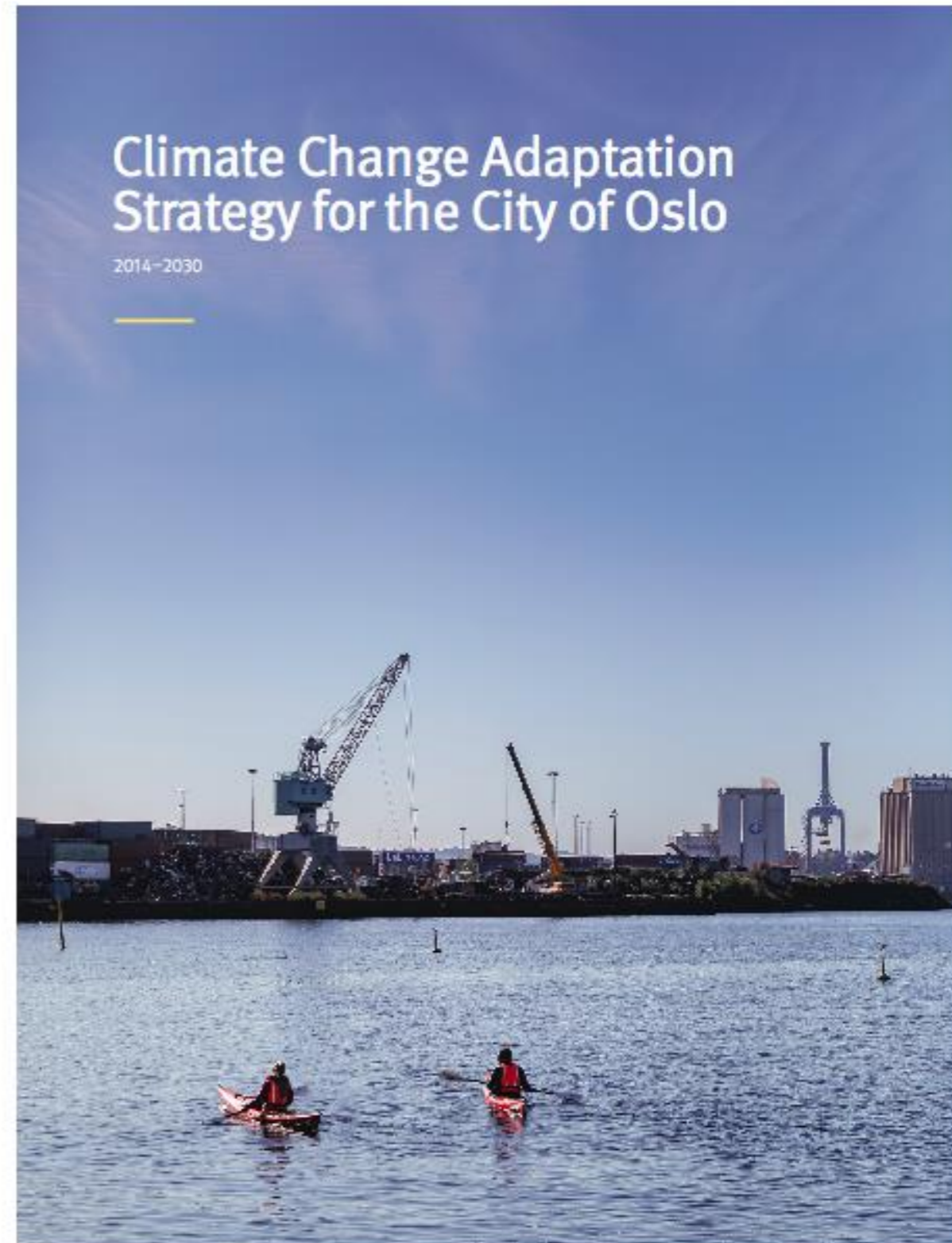
# The core drivers of climate change cause other problems too...

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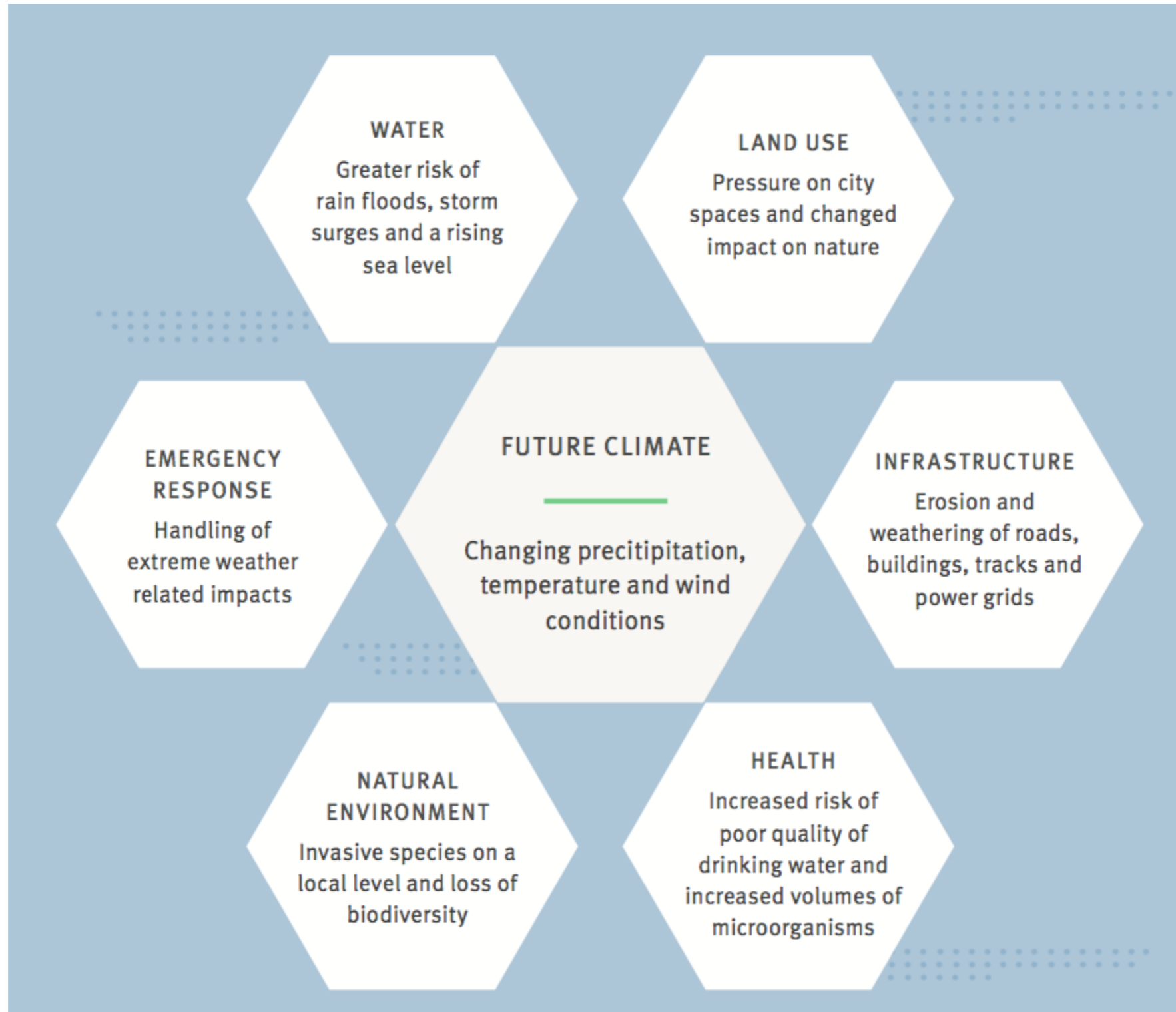


Oslo kommune

- Climate change vulnerability is not **THE** issue - but a symptom of an underlying problem that also produces ill-health, injustice, and insecurity.
- Multifaceted adaptations - adaptation actions that do more than one thing
- More attractive political solutions but require systems thinking



# Climate Adaptation Strategy Oslo



QuickTime™ and a  
decompressor  
are needed to see this picture.

## Climate Adaptation Strategy Oslo

### Oslo Offers Citizens \$1,200 to Buy an E-Bike

The goal is to help residents—rich and poor alike—find a new reason to leave the car at home.

FEARGUS O'SULLIVAN | [@FeargusOSull](#) | Jan 31, 2017 | 3 Comments



## Technological leap-frogging



## Rethinking Electric Transport Sibiu



# Rethinking Electric Transport Sibiu

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## Rethinking Electric Transport Sibiu

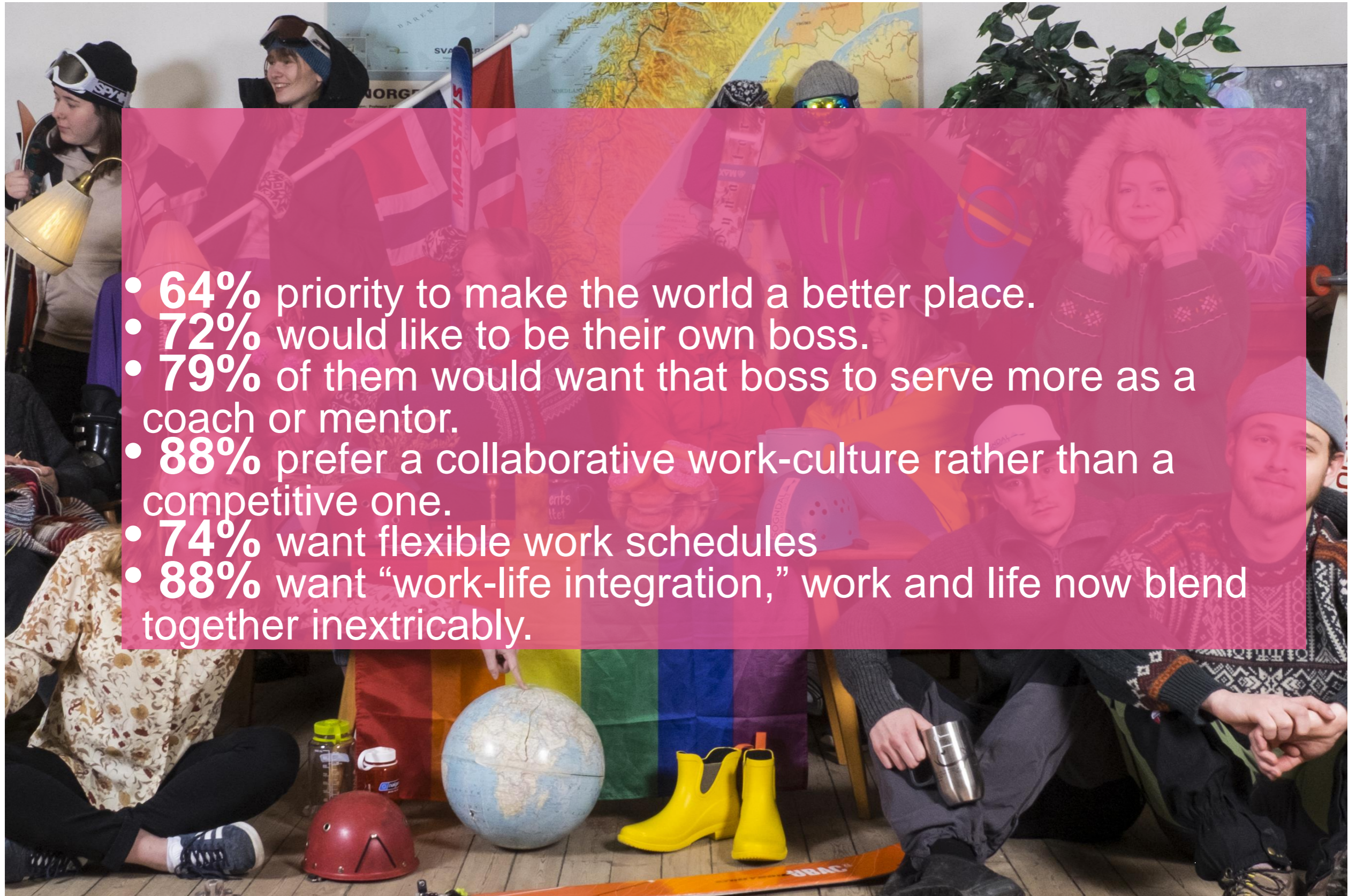


EVs are only as clean as their source of power. The e-mobility revolution has to go hand-in-hand with a transition to clean energy or it doesn't make any sense.

## Rethinking Electric Transport Sibiu



<https://tuktukfactory.com/e-tuk-vehicles>



- **64%** priority to make the world a better place.
- **72%** would like to be their own boss.
- **79%** of them would want that boss to serve more as a coach or mentor.
- **88%** prefer a collaborative work-culture rather than a competitive one.
- **74%** want flexible work schedules
- **88%** want “work-life integration,” work and life now blend together inextricably.

Millennials - born early 1980's onwards

A group of young people, mostly teenagers, are gathered in a room decorated with maps and flags. They are dressed in winter clothing like jackets, sweaters, and hats. Some are sitting at a table with a rainbow tablecloth, while others are standing. The room has a cozy, lived-in feel with lamps and plants. A large pink text box is overlaid on the top half of the image.

**We are the last generation that  
can stop climate change**

**They are the generation that will  
have to live with climate change**

International Youth Peace Conference on Climate Change 2017

# International Youth Peace Conference





- Post Professional Certificate: land-use planners, landscape architects
- Teacher training Incorporating climate change into the syllabus
- 
- Master's in Climate Change Management - Societal transformation

## Concluding Comments



Cities are leading the way  
on climate change



Cooperation between cities and businesses can  
lead to more resilient cities - but beware not to  
replace one set of problems with another!  
Involve citizens, industry, universities & attractive for  
business settlement.



Thank you

Deborah E. Davies  Høgskulen på Vestlandet



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