

# Private-Public-Project:

- sharing insurance loss data to local and national authorities, (and scientists) in DRR and resilience work



Association for the norwegian banks and insurance companies

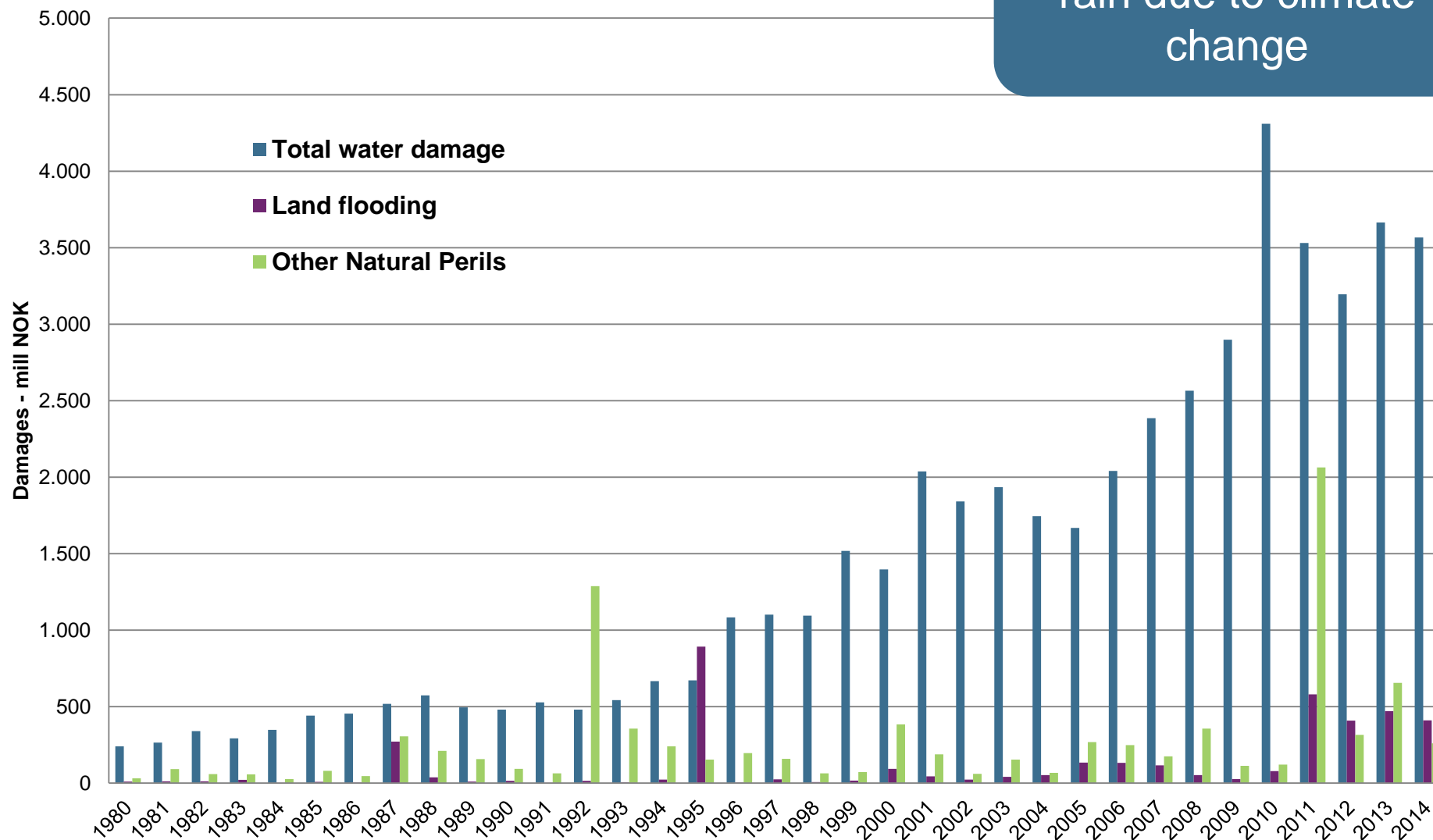
Mia Ebeltoft, Finance Norway

NORDRESS,  
Island, 1.12.16

1980 - today

## Trend: "water-related" loss vs NatCat loss

Expect 50 % rise in  
rain due to climate  
change

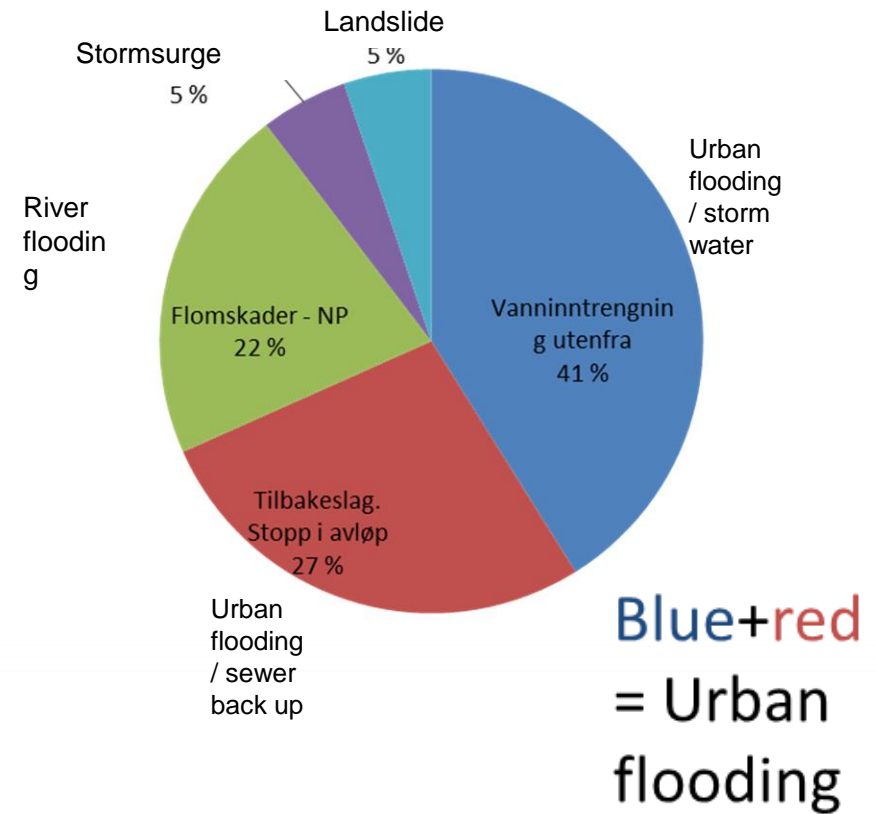


# Urban flooding: 70 % of “natcat” insurance loss



2/3 of Europeans live in cities

## Average insurance pay outs last 10 years



# Norwegian property insurance system

- Nat Cat

- Premium equal (not based on risk of damage)
- Solidarity system – “no one`s fault, an act of God”

- Urban flooding

- Due to insufficient infrastructure
- not an “Act of God”, premium is risk-based

- Both part of property insurance in private, commercial/industry and municipality insurance

- 100 % penetration (= all the loss data)

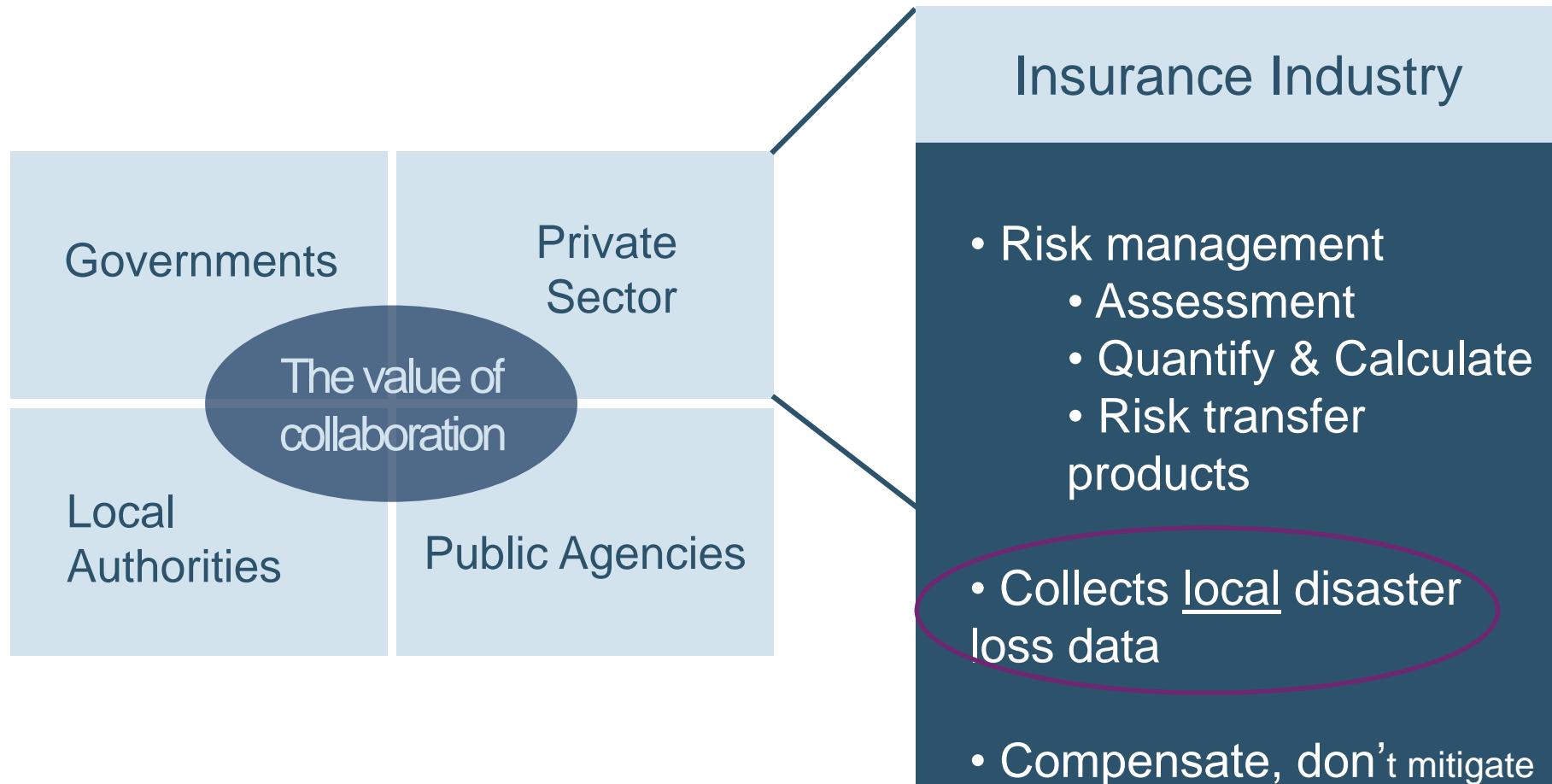
## Property insurance

- Theft
- Fire
- Water& Urban flooding

Natcat coverage automatic included (mandatory) under the “fire” insurance

- Similar to France

# Holistic risk picture: You need collaboration cross sectors



# Private Public Project - how did it start?

From 2010 - 2013:

- Dialogue with municipalities,
- Small workshops with national agencies, ministries, researchers and insurance

New  
Thinking  
With  
enthusiasm!





# Insurance loss data improve DRM

- 3 Public Private Projects (PPP)
  1. Sharing local insurance loss data with municipalities for DRM
  2. Sharing local insurance loss data with national agency of flood and landslide for DRM (NVE)
  3. Using insurance loss adjuster to collect DRM-data for national agency of flood and landslide (NVE)

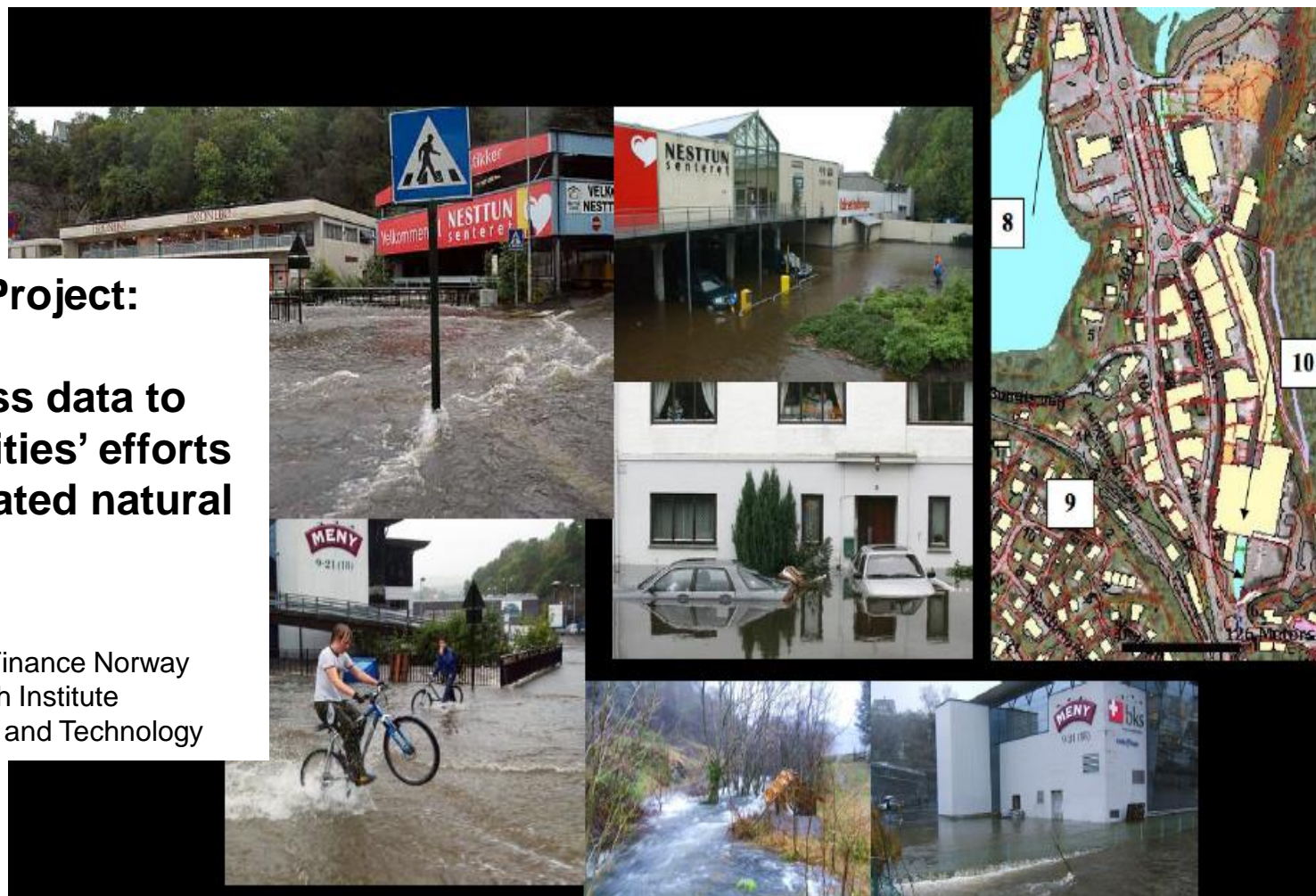
Number 1  
PPP

# Sharing local insurance loss data with municipalities

## Private – Public Project:

Using insurance loss data to  
strengthen municipalities' efforts  
to prevent climate-related natural  
hazards

Collaboration project between Finance Norway  
Western Norway Research Institute  
Norwegian University of Science and Technology





# What helped to kick off the project?

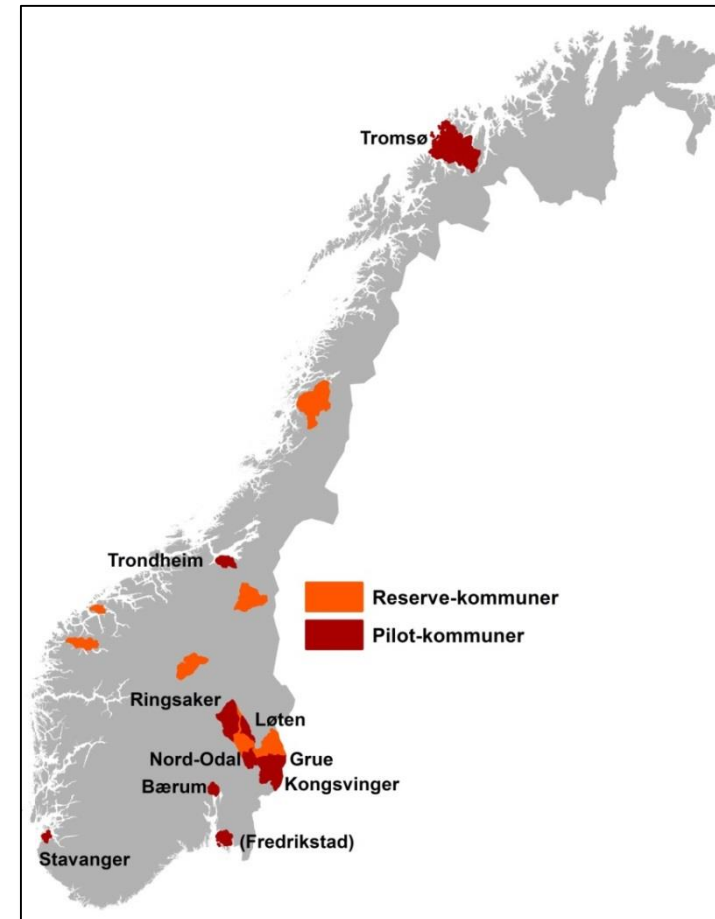


National  
Green  
Paper  
2010:10

- **“In order to improve adaptation, and to be able to prioritize, and to take the right, optimal decisions, you need to understand what is at risk and where are the “risk zones” (vulnerable areas). “**
- **The report NOU2010:10 recommended to (and by that challenges the insurance industry):**
  - “Establish a national database for **public use and research** using aggregate, anonymised data on climate-related damage from the insurance companies and the Norwegian Natural Perils Pool”».

# First «public-private-project» in Europe in its kind

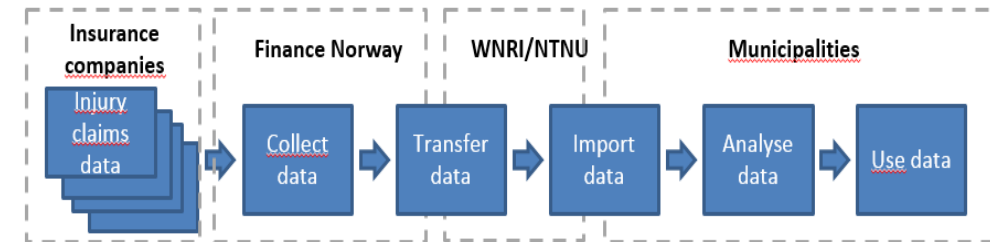
- Initiated by Finance Norway in close dialogue with municipalities and national agencies
- Financed by:
  - Finance Norway/ insurance industry and
  - Norwegian Government (Ministry of Climate and Environment)
- Ten different “pilot” municipalities/cities
- Reference group:
  - five different agencies and meteorological inst.
- Project period: 2013 - 2015



# Main goals

- Can insurance loss data help climate - resilient and disaster risk reduction work in the municipalities?
- Will these loss data strengthen municipalities' knowledge base for *preventing* for natcat and urban flooding-related natural hazards?
- Will the insurance loss data help secure and preserve the insurance willingness to (still) offer covered?
  - Avoid repetitive damages and diminish the increasing number of damages
  - Avoid “unaffordable” insurance premium or withdrawal of insurance coverage

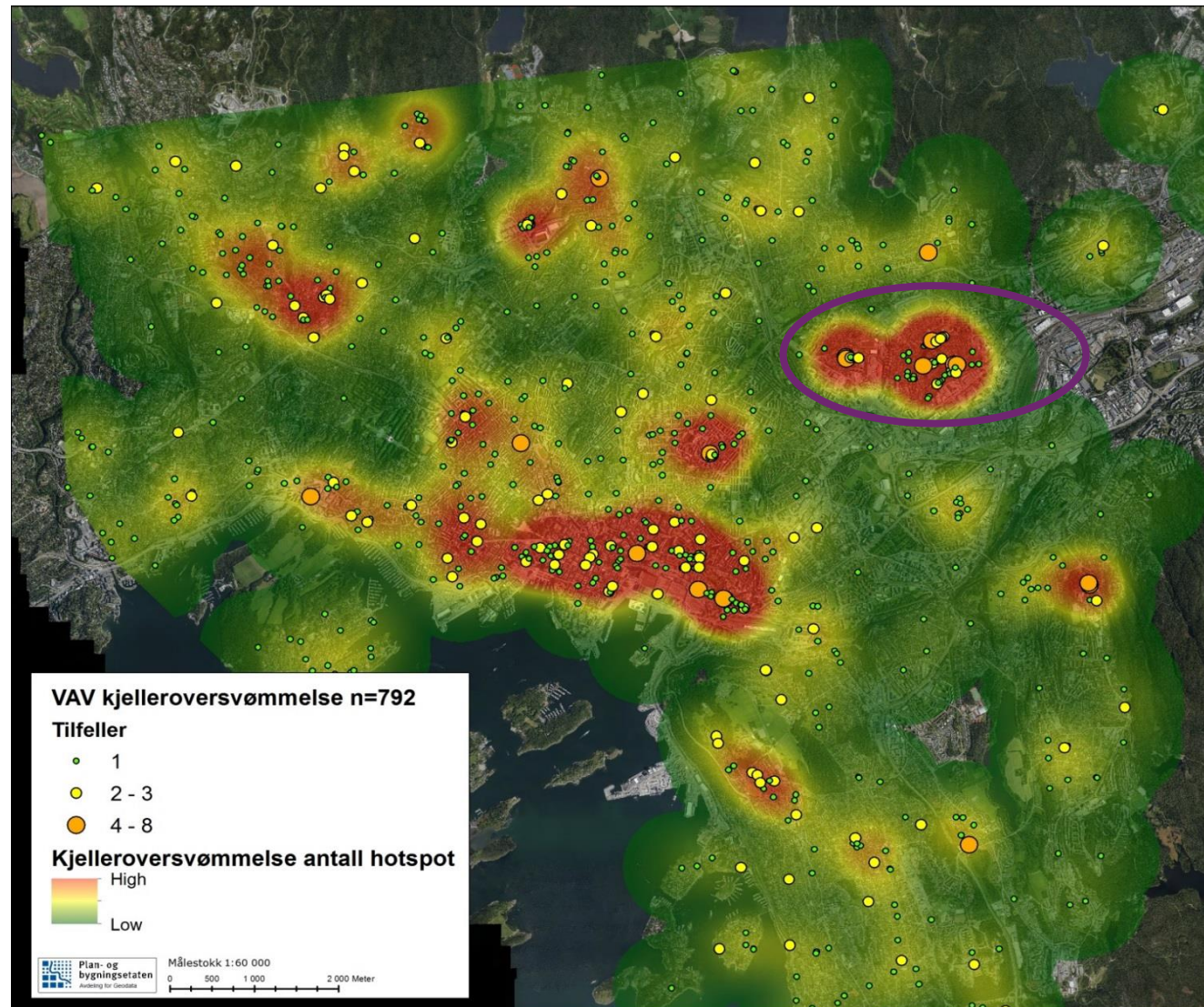
## The project step-by-step



# Main results

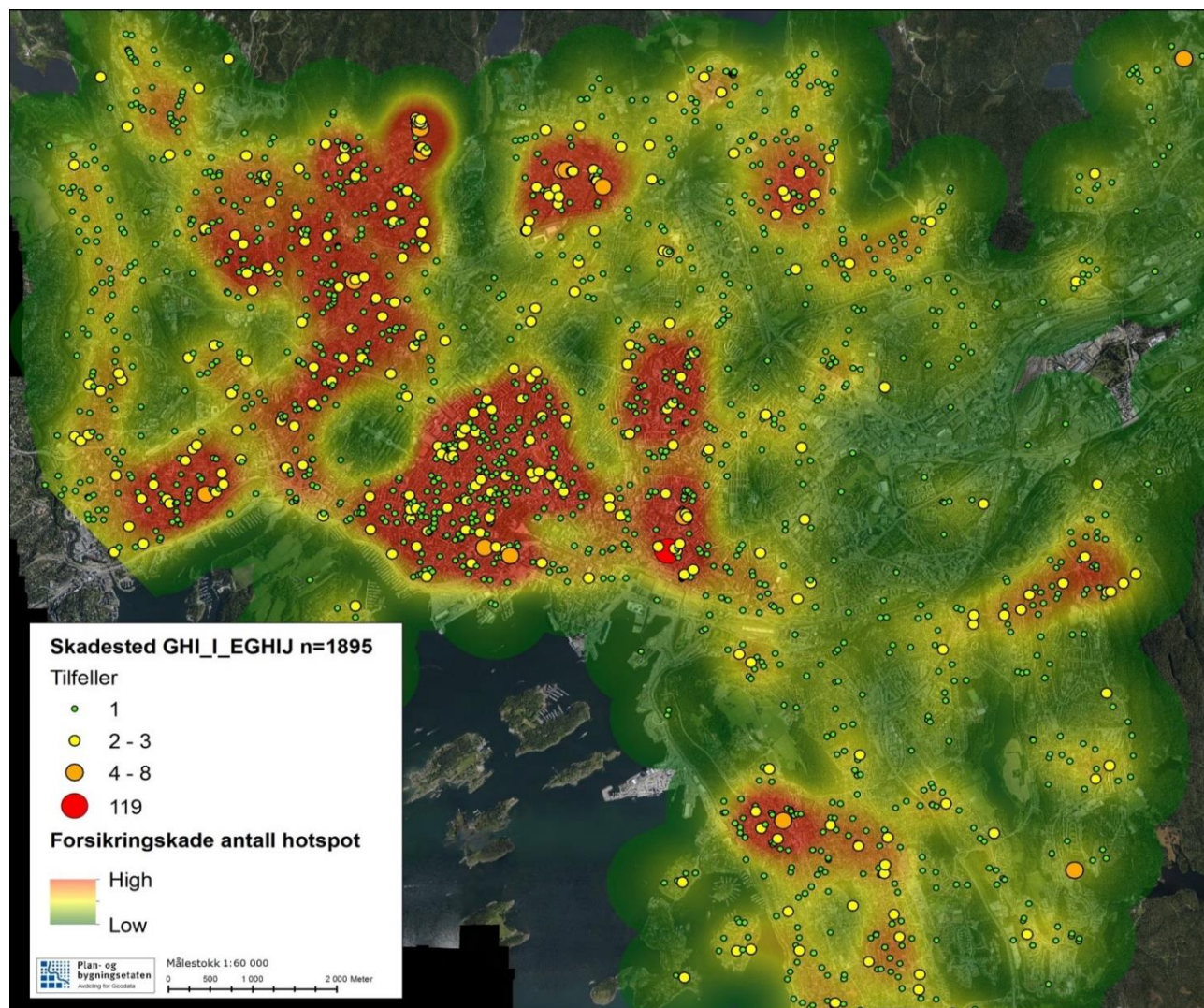
- **Generally**
  - Increase collaboration within the municipalities (planning og technical)
  - Got new insights into risks previously unknown and vulnerable areas (hot spots)
  - Improved understanding of how climate change affects society (did not show on the budget!)
- **Land-use planning**
  - Improved knowledge base to
    - select areas with the lowest possible risk of natural hazards
    - prioritize security measures
- **Construction and maintenance of water and sanitation**
  - Improved knowledge base for
    - prioritizing management, maintenance, rehabilitation, and reinvestment
    - collaboration between municipal water/sanitation and planning units
- **Preparedness**
  - Improved knowledge base for risk and vulnerability analyses (ROS-analyses required by law)

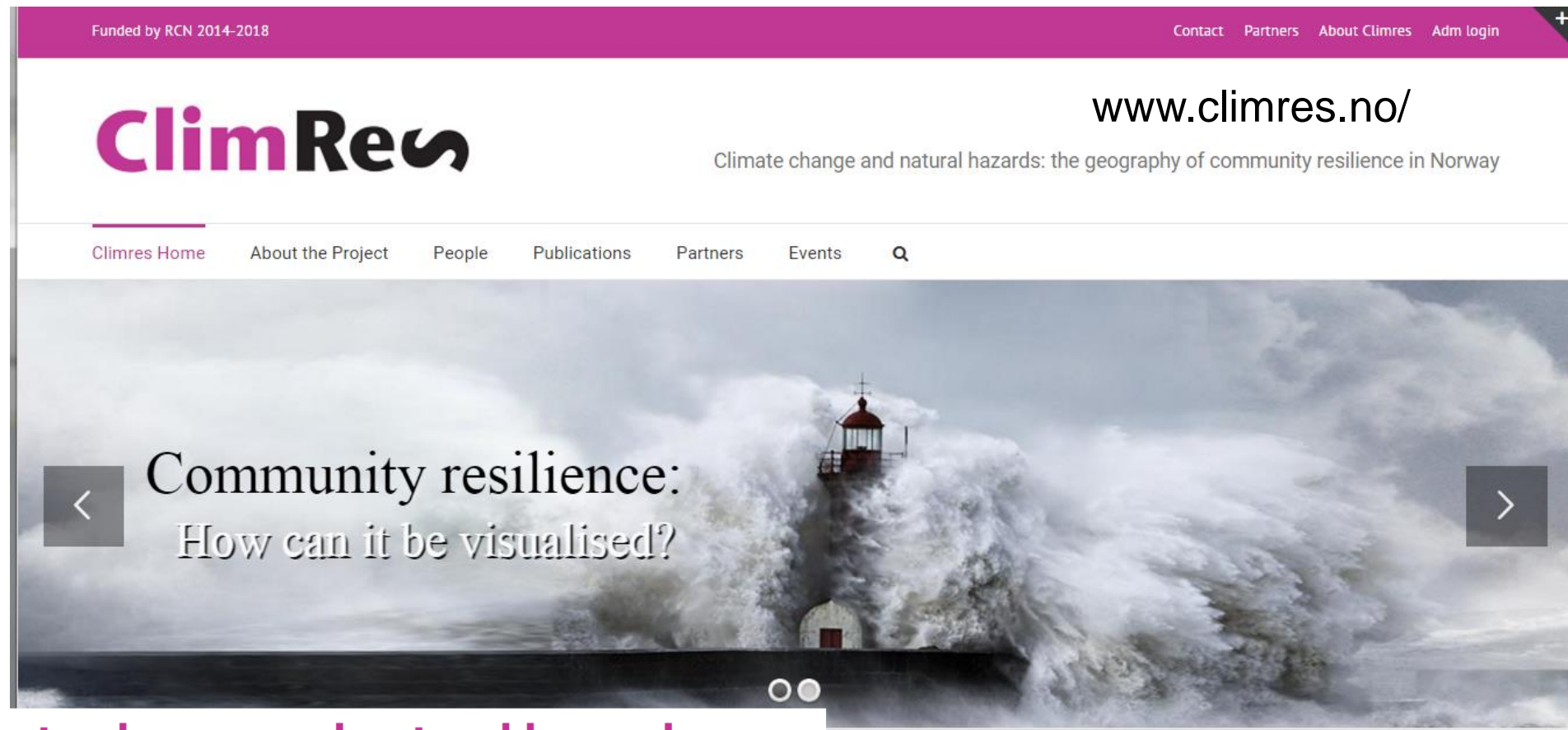
# Oslo capital – the city's own loss data





# Oslo – local /assets insurance loss data from private, business and municipality buildings





## Climate change and natural hazards: the geography of community resilience in Norway

...n relation to climate  
change related natural hazards. It is a fact that climate change affects countries, regions and communities differently. Norway as a nation, may cope with climate change reasonably well because the country scores high on so-called key resilience-resources: economic development, social capital, community competence and information and communication. Research shows, however, that vulnerability to climate related hazards may vary considerably between regions and municipalities in Norway. [Read more about the projects](#)

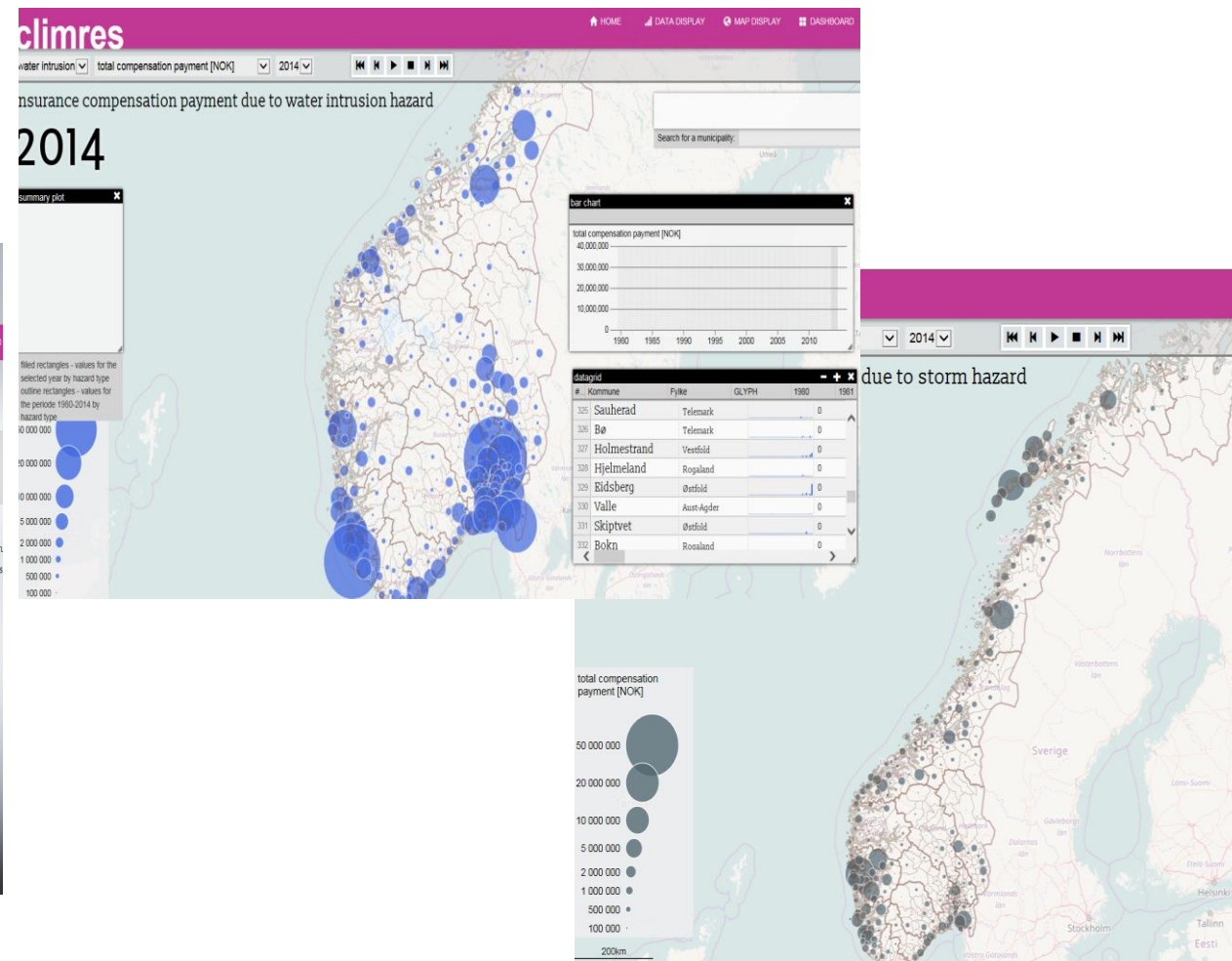


With funding from  
The Research Council of Norway



# Insurance loss data on municipal level:

Geovisualization tools showing insurance compensation due to various natcat (river flooding, storm, storm surge, landslide) and storm water and sewage backup (urban flooding) from 1980 - 2014



<http://setebos.svt.ntnu.no/climres/>

### Number 3 PPP

## Using insurance loss adjuster to collect DRM-data for National agency of flood and landslide

- Used to data to calibrate flood models and better prioritizing of local flood maps

Building no.	<i>ID or type of building</i>
Water level	<i>cm +/- relative to ground floor level</i>
Basement?	<i>yes/no</i>
Erosion, under-mining of building?	<i>yes/no</i>
Mass deposition outside of the building?	<i>yes/no - thickness</i>
Damage due to floating objects etc. hitting the building?	<i>yes/no</i>
Supplementary information	

# New PPP due to PP- cooperation:

- These projects has kicked several other research projects using local insurance loss data....
  - New project – “Cost/Benefit for the municipality using insurance loss data”
    - Two of the municipalities from the pilot project + insurance
  - Combining local insurance loss data (showing vulnerable areas) and local weather
    - Meteorological institute and insurance
  - “Know the risk of your house” – addressing house owners
    - NTNU/University, Metrological, Insurance ++