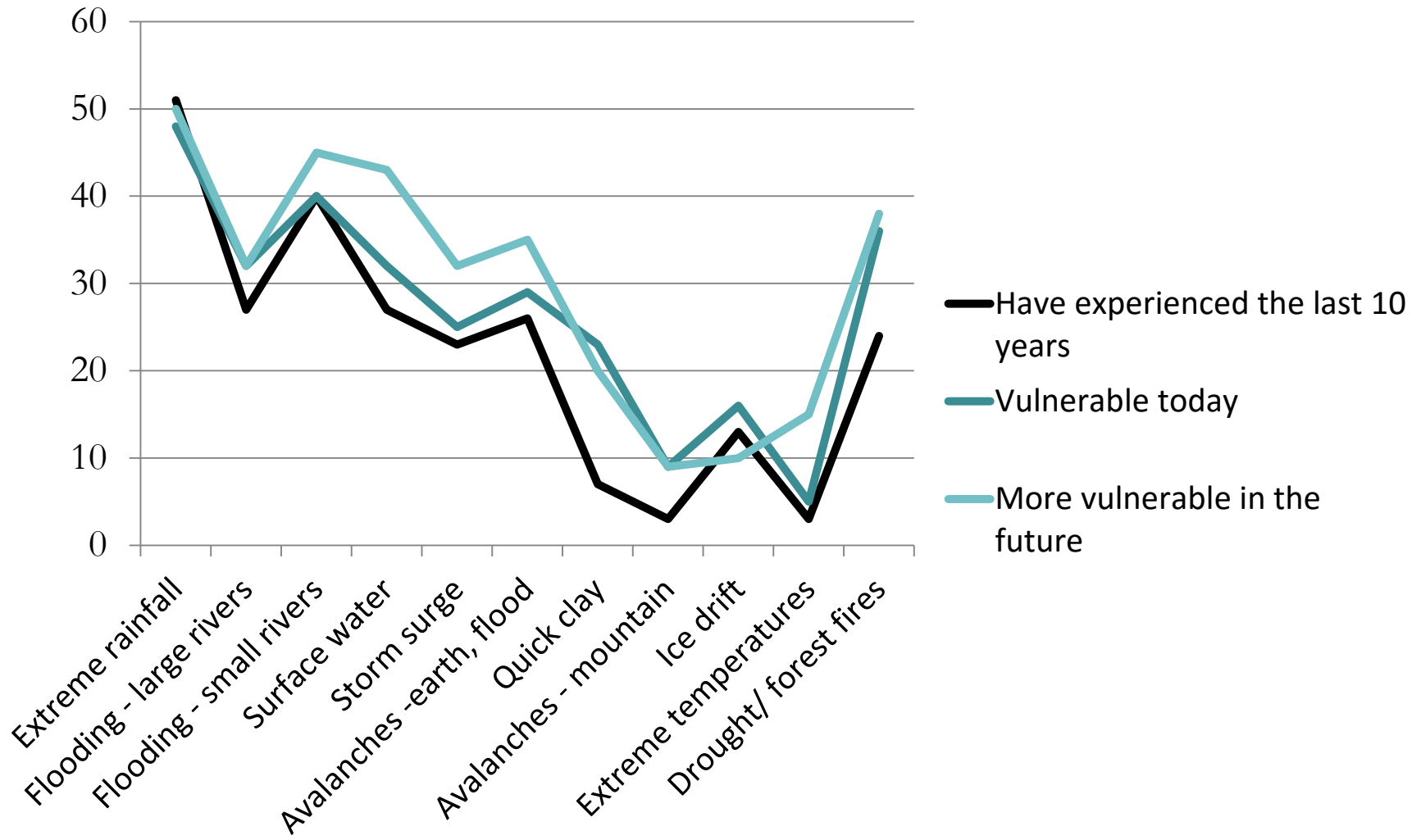# Governing risk society: Increasing local adaptive capacity by planning and learning networks (GOVRISK)

Gro Sandkjær Hanssen
Norwegian Institute for Urban and Regional Research

Vulnerability for weather and natural hazards

Legend:
- **Have experienced the last 10 years** (black)
- **Vulnerable today** (dark teal)
- **More vulnerable in the future** (light teal)

X-axis categories: Extreme rainfall, Flooding - large rivers, Flooding - small rivers, Surface water, Storm surge, Avalanches -earth, flood, Quick clay, Avalanches - mountain, Ice drift, Extreme temperatures, Drought/ forest fires

Y-axis: 0 to 60

Three major challenges

- The translation challenge
- The coordination challenge
- The political challenge

How can planning and learning networks increase local adaptive capacity?
(GOVRISK: Governing risk society)

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The translation challenge

1. GLOBAL WARMING

2. REGIONAL EFFECTS

3. EFFECTS ON HYDROLOGY, NATURE, BUILT STRUCTURES

Link these two knowledge types

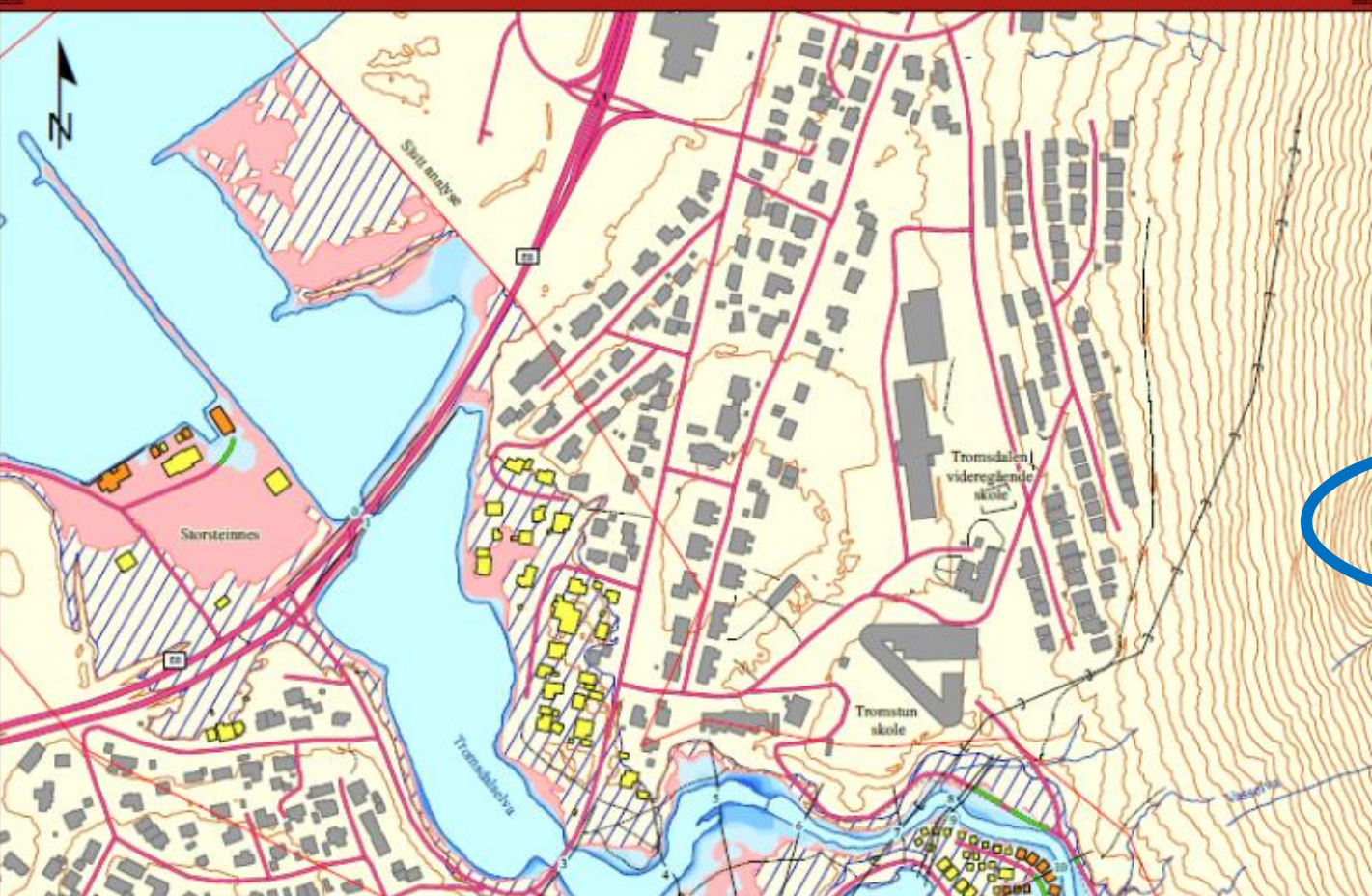4. DIRECT AND INDIRECT EFFECTS ON ECOLOGICAL STATUS OF WATER

5. LEGAL REQUIREMENTS – KNOWLEDGE, PLANNING

6. ADEQUATE MEASUREMENTS

Flomsonekart Tromsdalen

TEGNFORKLARING

Dagens 200-årsflom

< 0,5		1.5 - 2
0.5 - 1		> 2
1 - 1.5		

Lavpunkter - områder som ikke har direkte forb
med elva (bak flomverk, kulvert, m.v.). Sannsyn
for oversvømmelse må vurderes nærmere

Sone med fare for vann i kjeller - områder som
mindre enn 2,5 m høyere enn flomsonen

Analyseområde

Flomutsatte bygninger

Bygninger med fare for vann i kjeller

Endret klima i år 2100

Oversvømt areal ved 200-årsflom i år 2100

Lavpunkt ved 200-årsflom i år 2100

Ikke flomutsatte bygninger

Elv og vann

Gravplass

Tverrprofil med profilnummer

Europa-, riks- og fylkesvei med vegnummer
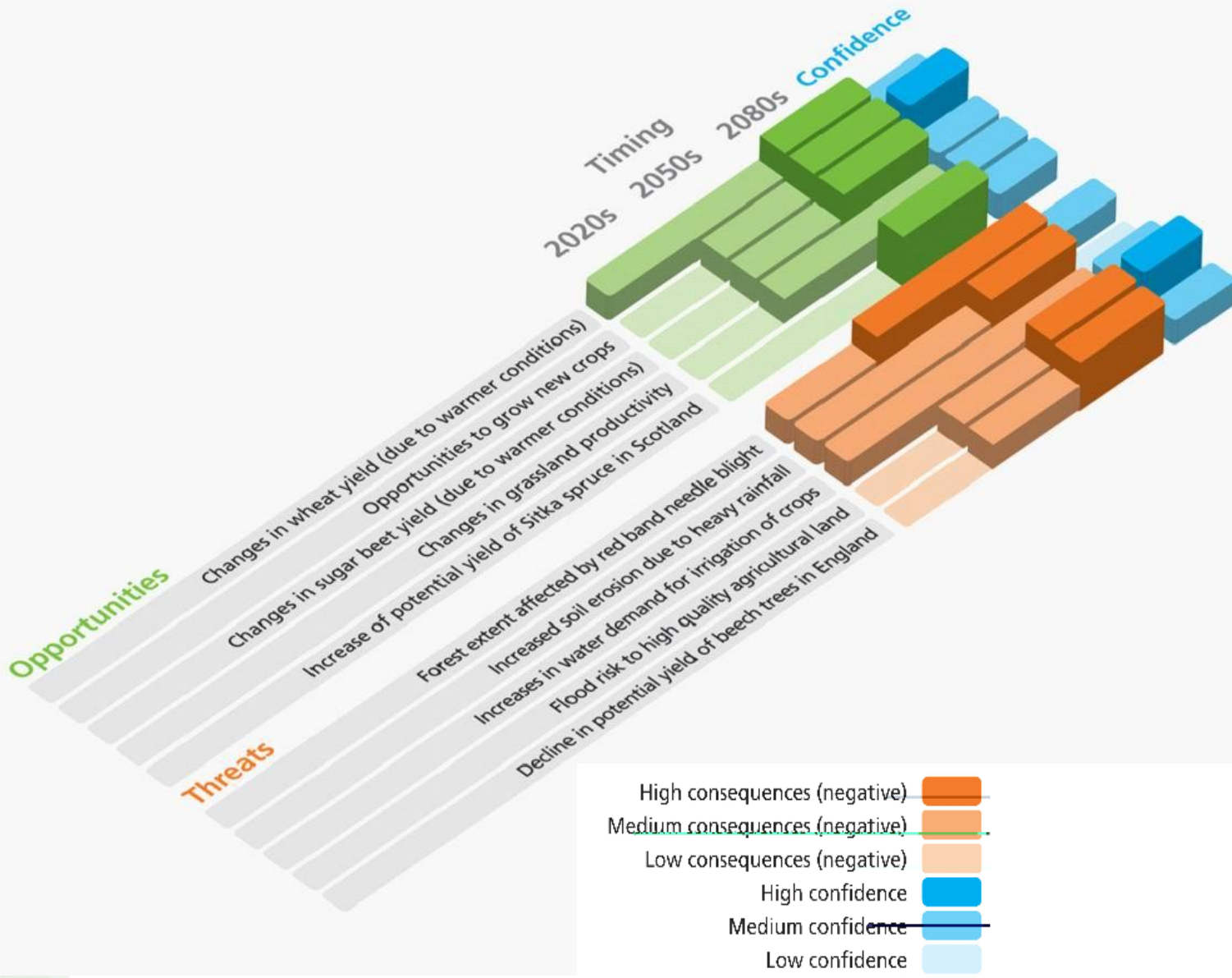
Kommunal og privat vei

Kraftline

Bekk

Høydekurver med fem meters ekvidistanse

NIBR
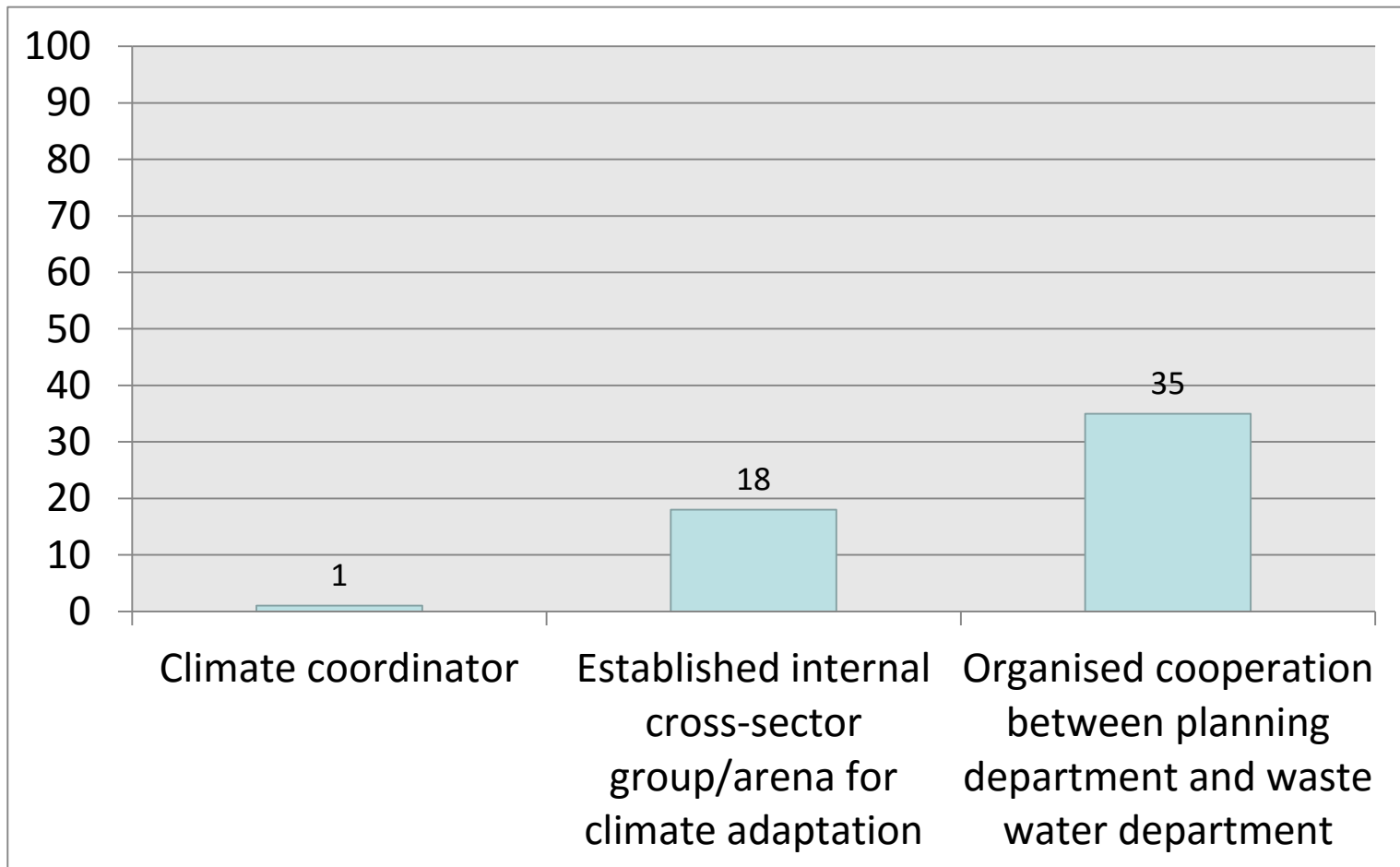Norsk institutt for by- og regionforskning

The figure gives indicative results from the agriculture and forestry sectors, and shows the timing and magnitude of a selection of the impacts analysed. It also shows the respective level of confidence. Such information exists for all the risks analysed, across all sectors.
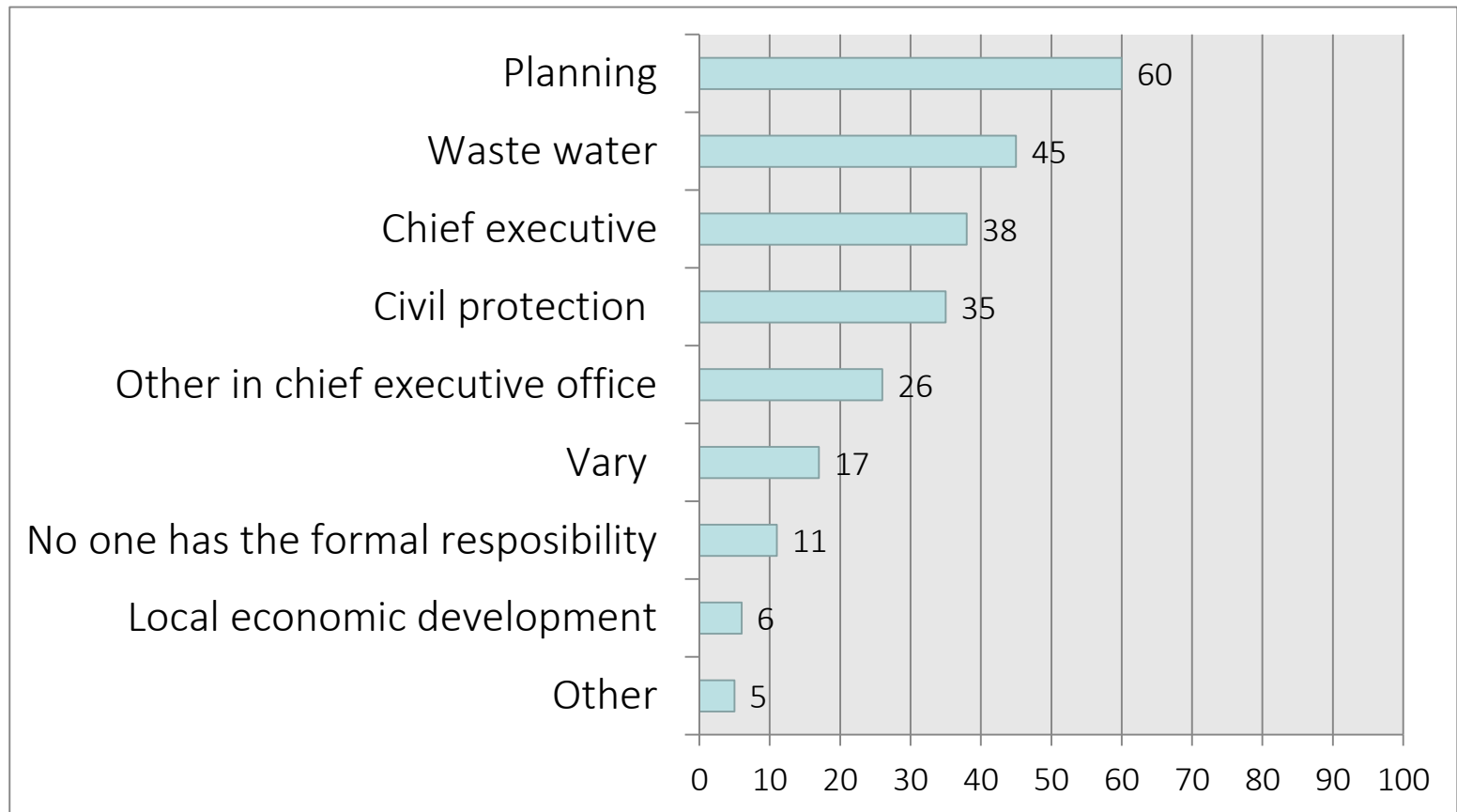
The coordination challenge

➢ National level: 4 Ministries, 3 National Agencies (with regional offices)

➢ Difficult to ensure internal coordination in municipalities

- Difficult to ensure coordination between planning department and water/waste water department

Institutionalized cross-sector cooperation?

Who in your municipality has the administrative responsibility for climate change adaptation?

Category	Value
Planning	60
Waste water	45
Chief executive	38
Civil protection	35
Other in chief executive office	26
Vary	17
No one has the formal resposibility	11
Local economic development	6
Other	5

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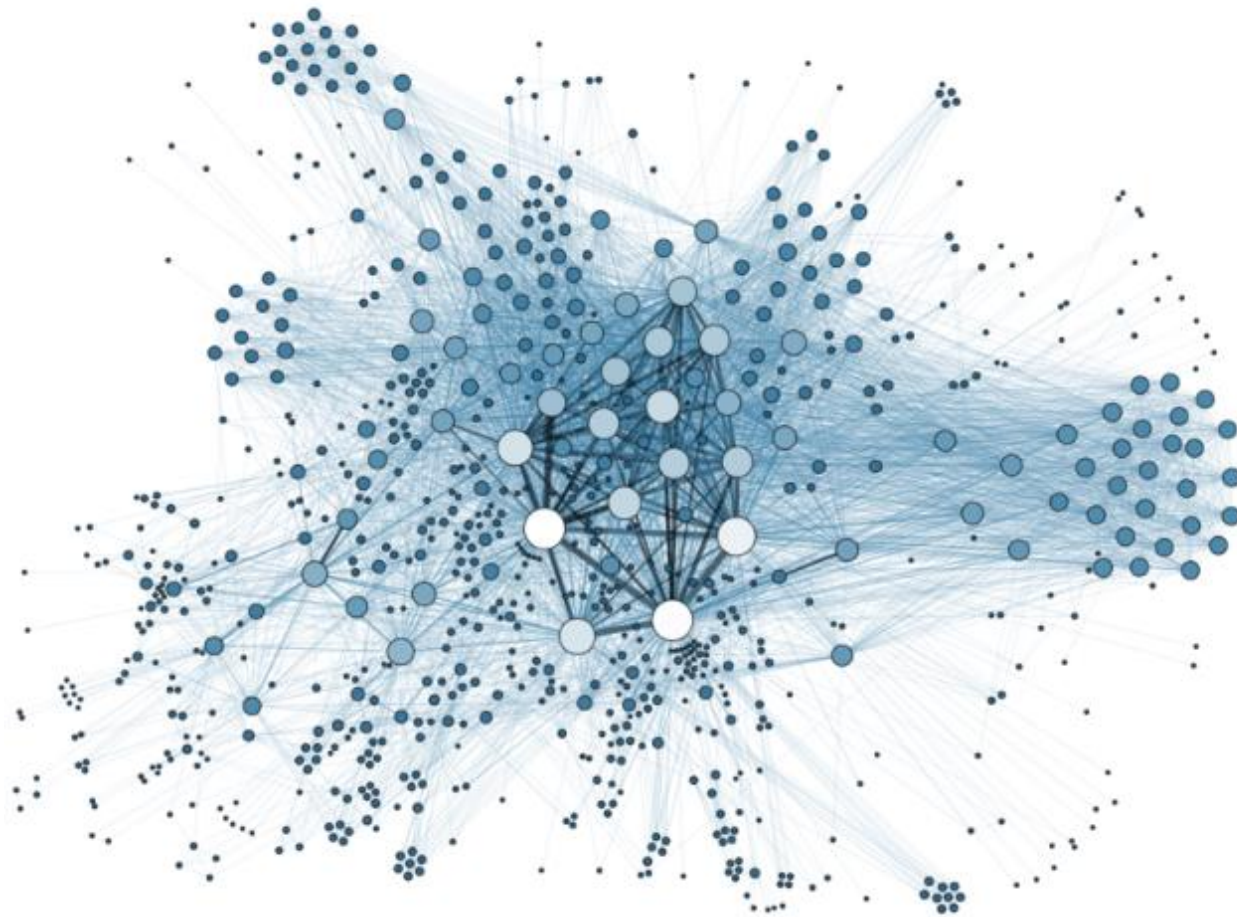
NETWORKS

NETWORKS: Can learning networks contribute to increase local adaptive capacity?

- Especially important in this policy field
  - From hard science to local policy and planning: many steps of translation
- "Boundary organisations"
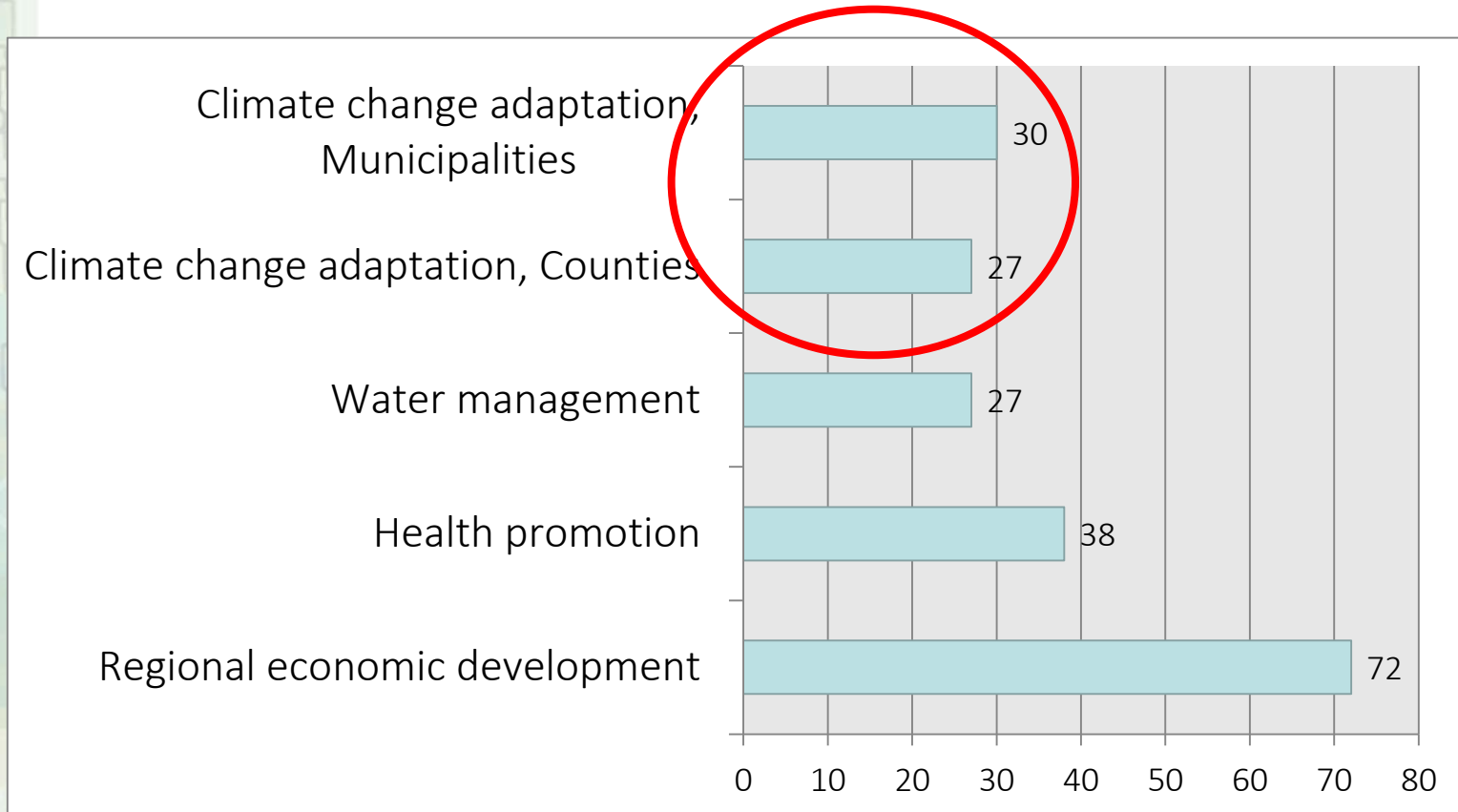 - Ensure *"negotiations between science assessments and decision-making and in the context of regional and local adaptation»* (Corfee-Morlot mfl 2011:182)
  - Knowledge producers, knowledge "users" of knowledge, and controlling/supervising authorities (National agencies, County governor)
- Examples
  - Cities of the future
  - Professional organizations
  - INTERREG, EU-research projects
  - Civil protection network
  - Regional (multi-level) networks

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Networks

Do you attend networks/cooperations with external actors related to the following policy-fields?

What is the contribution of networks in climate change adaptation?

6. **Political and administrative prioritizing:** *decisions, budget, measures*

5. **Institutional anchorage:** *establish cross-sector arenas and new procedures*

4. **Strategical anchorage:** *Anchoring in plans, strategies*

3. **Development of joint goals, strategies and measures.**

2. **Coordinating world-views:** *Knowledge translation, development of joint problem-definition*

1. **Mediation:** *Information and knowledge sharing*

CHANGE IN OWN ORGANIZATION

IN THE NETWORK

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What is the contribution of networks in climate change adaptation?

	Counties	Municip-alities

6. Political and administrativ prioritizing: decisions, budget measures — **26%** — **17%**

5. Institutional anchorage: establish cross sector arenas and new procedures

4. Strategical anchorage: Anchoring in plans, strategies

3. Development of joint goals, strategies and measures. — **30%** — **17%**

2. Coordinating world-views: Knowledge translation, development of joint problem-definition — **36%** — **50%**

1. Mediation: Information and knowledge sharing — **44%** — **62%**

Percent answering «To a large extent»

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The translation challenge

1. GLOBAL WARMING

2. REGIONAL

Regional downscaled effects - Climateprofile «Troms»

Strengthen the M as purchaser (forms – geology, hydrology), how to discover avalance fan

6. ADEQUATE MEASURES

5. LEGAL REQUIRED KNOWLEDGE, PLANNING

An overview of the requirements in two Acts (Planning + civil protection)

4. DIRECT AND INDIRECT EFFECTS ON ECOLOGICAL STATUS OF WATER
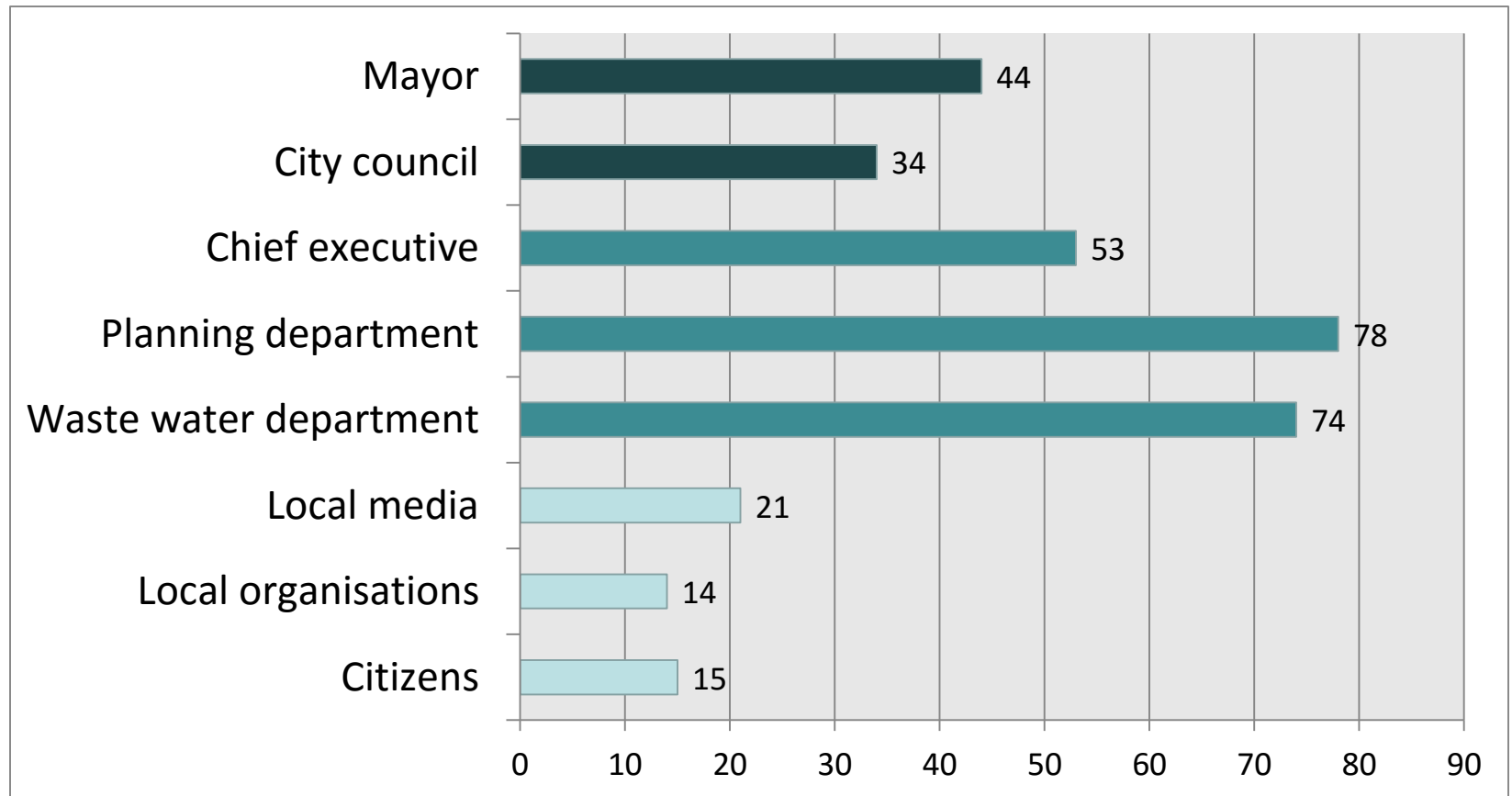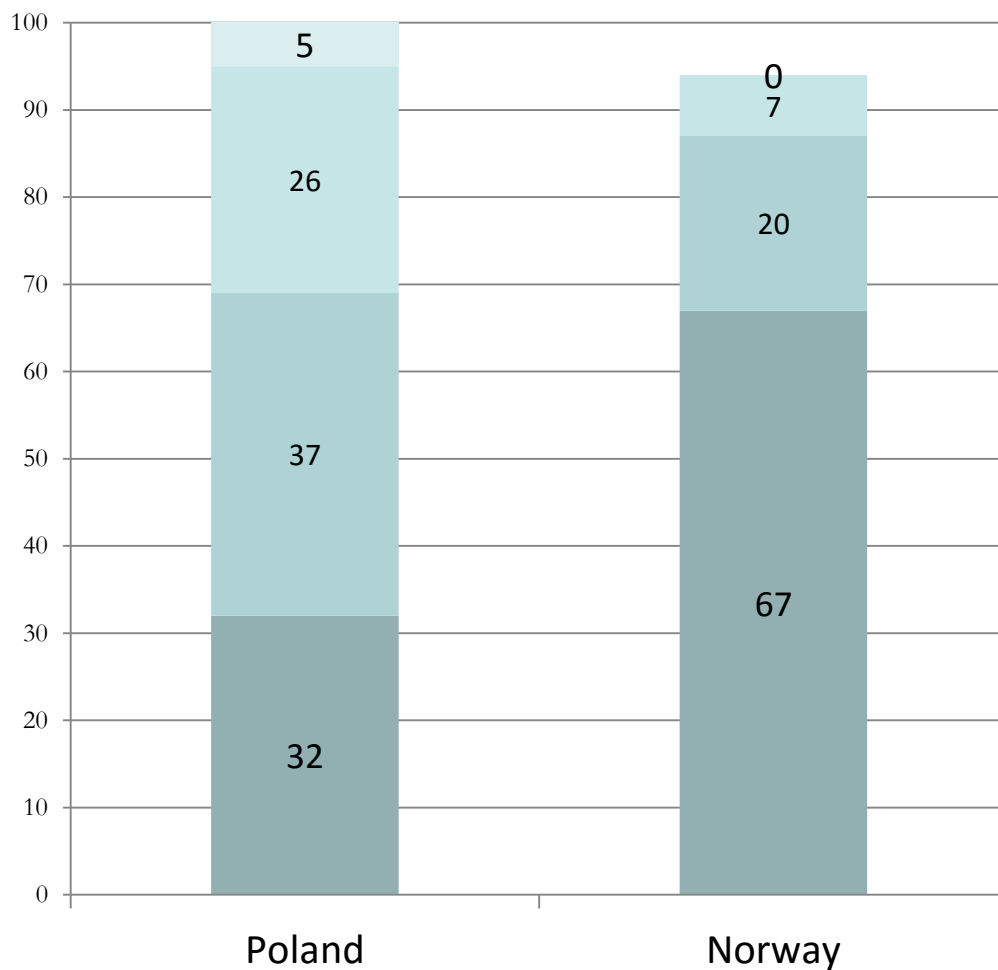
Climate change adaptation as local policy

To what extent are the following actors in your municipality concerned with climate change related questions?

Actor	Value
Mayor	44
City council	34
Chief executive	53
Planning department	78
Waste water department	74
Local media	21
Local organisations	14
Citizens	15

The end

Perception of human activity impact on climate change

To what extent du you consider your municipality to be capable of handling the effects of climate change?

Legend:
- To a large extent
- To a certain extent
- To a little extent
- Not at all
- Do not know/not responded

Pie values: 28, 57, 5, 2, 8

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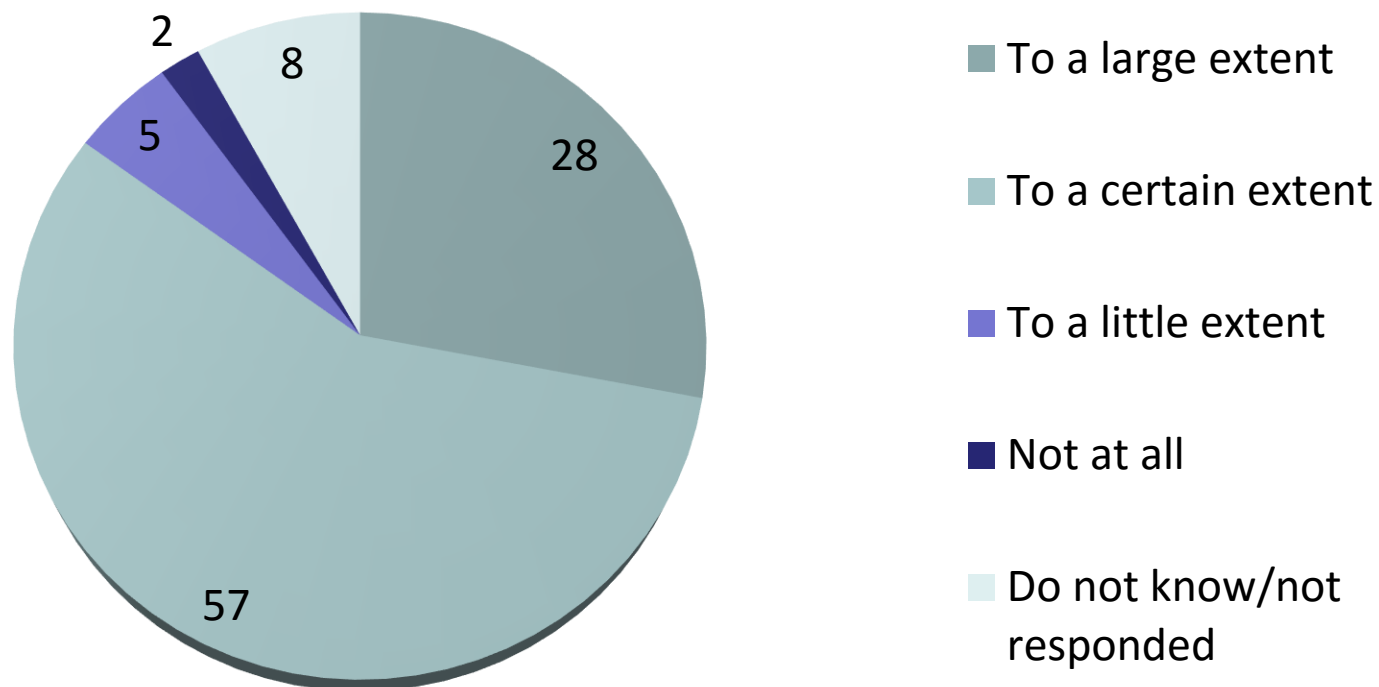
Integration in municipal planning

Category	Value
Planning strategies	60
Municipal master plan (general part)	49
Municipal master plan (general part): Specific aims about climate change	30
Municipal master plan (general part): Specific aims to reducenatural hazards	26
Master plan (land use)	59
Master plan (land use): Planning provision (guidelines)	51
Zone of special concern	46
Municipal sub-plan	50
Area regulations (zoning plan)	41
Detailed regulations (zoning plan)	49