

Smart Grid Development in Québec

A media perspective

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Background

- In Quebec, deployment of smart grids have been limited by production, supply and market issues
 - Quasi monopoly structure – Hydro-Québec
 - Low electricity prices and production of renewable hydroelectricity
- Growing number of smart grid initiatives
- Perceptions and acceptance of smart grids / smart meters
- Raising concerns : health and safety, privacy, energy efficiency, economic issues

Smart grid initiatives in Québec

- IBM Smart Energy Research Institute (partner with IREQ)
- Equation: Mobilizing Project EcoloTic
- Experimental project on vehicle-to-grid (V2G) and vehicle-to-home (V2H)
- Development of charging stations for electric vehicles
- CanMet Energy research project to enable the integration of renewable energy to the electricity grid by the smart grid technology
- **Hydro-Québec's smart meters installation project**

Social resistance



Methodology (1)

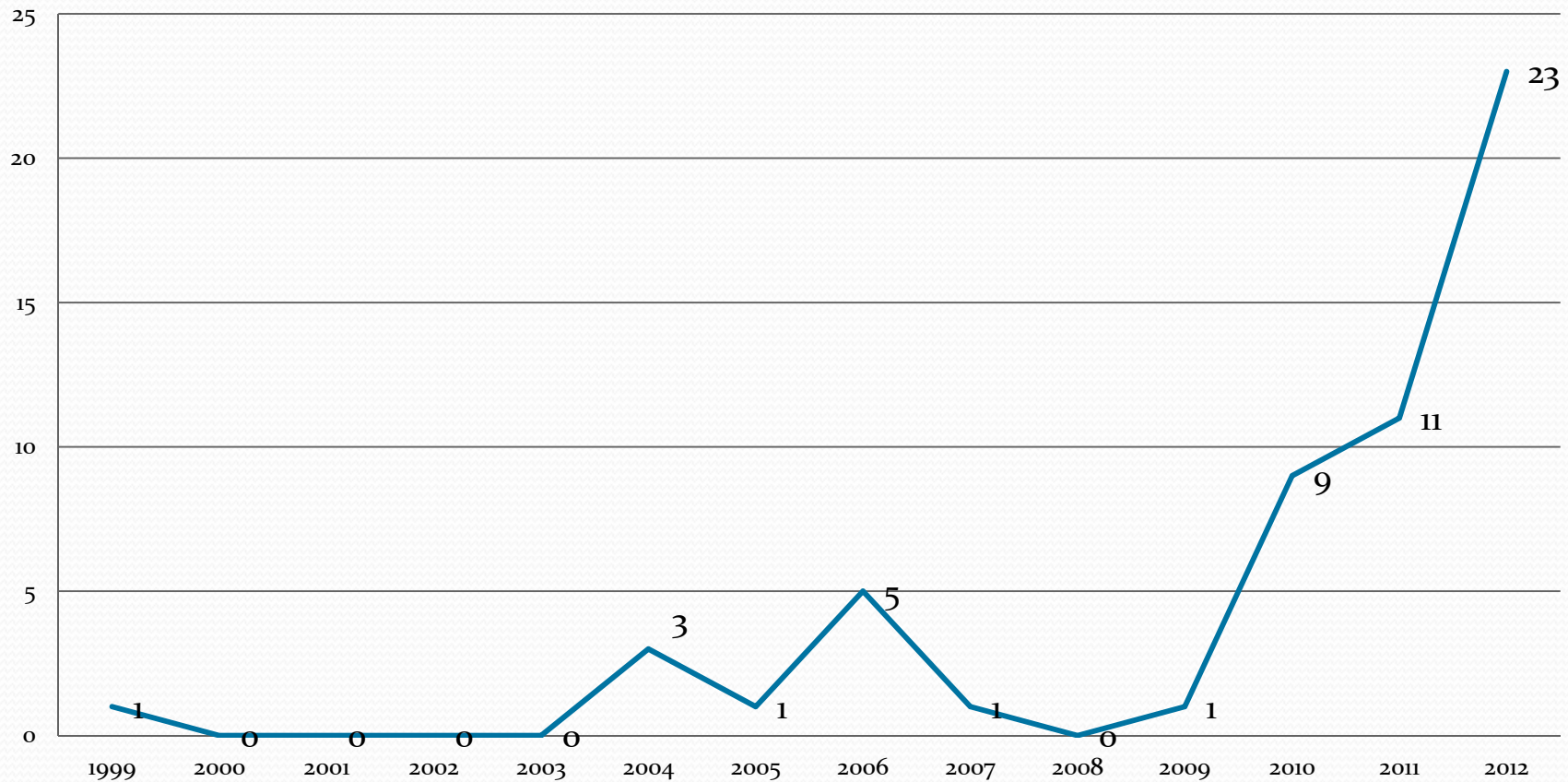
- Provincial level media analysis
- Resonance and evolution of smart grid issues in Quebec over time
 - Are smart grid salient issues?
 - How are they framed?
 - Who are the key actors?
 - What are the key drivers?
 - What are the key frames?

Methodology (2)

- Methods based on US media analysis
- Search engine: Eureka.cc
- Newspaper: **La Presse** & **Le Devoir**
- Date range: January 1st, 1990 to December 31st, 2012
- Content analysis software: Nvivo 10
- Keywords: smart grid(s); réseau(x) intelligent(s); réseau(x) électrique(s) intelligent(s); compteur(s) intelligent(s)

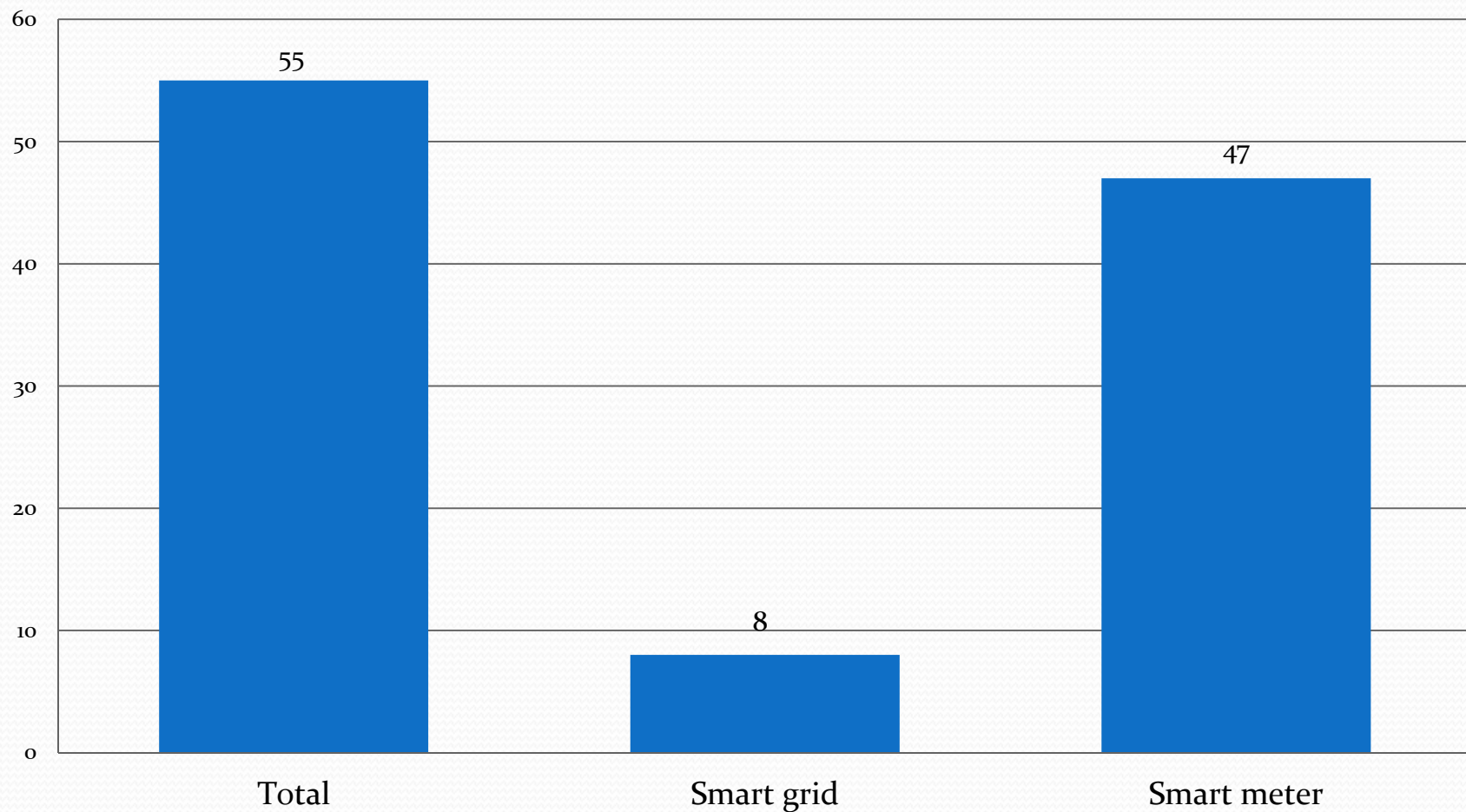
Smart grid/smart meter articles over time

La Presse



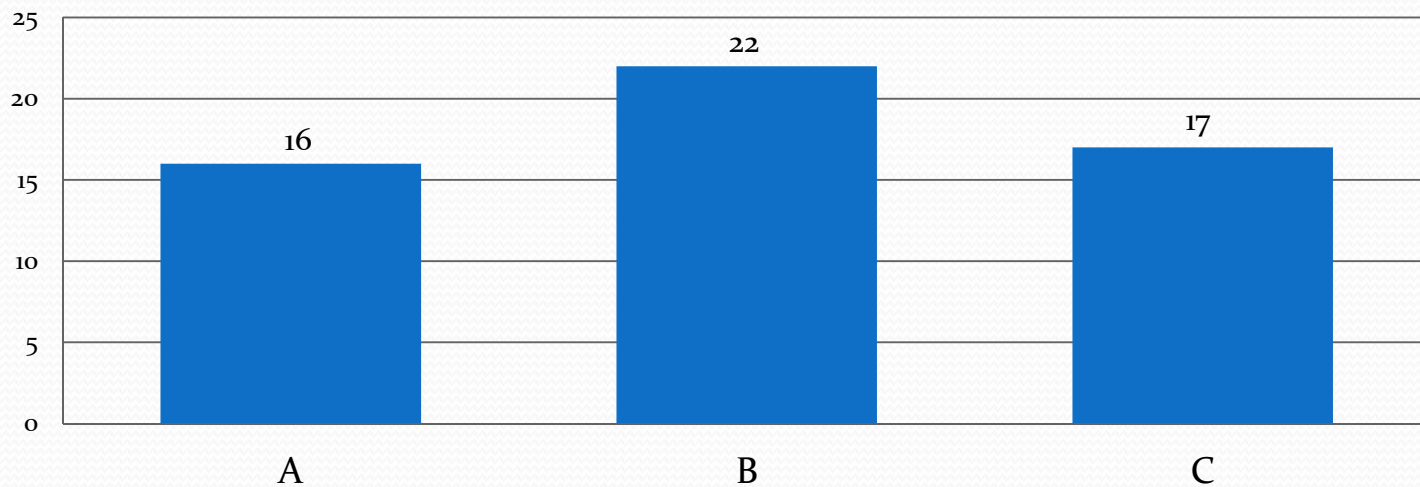
Media coverage

Number of articles La Presse – smart grid(s) / Smart meter(s)



Type of articles

Number of article La Presse by category

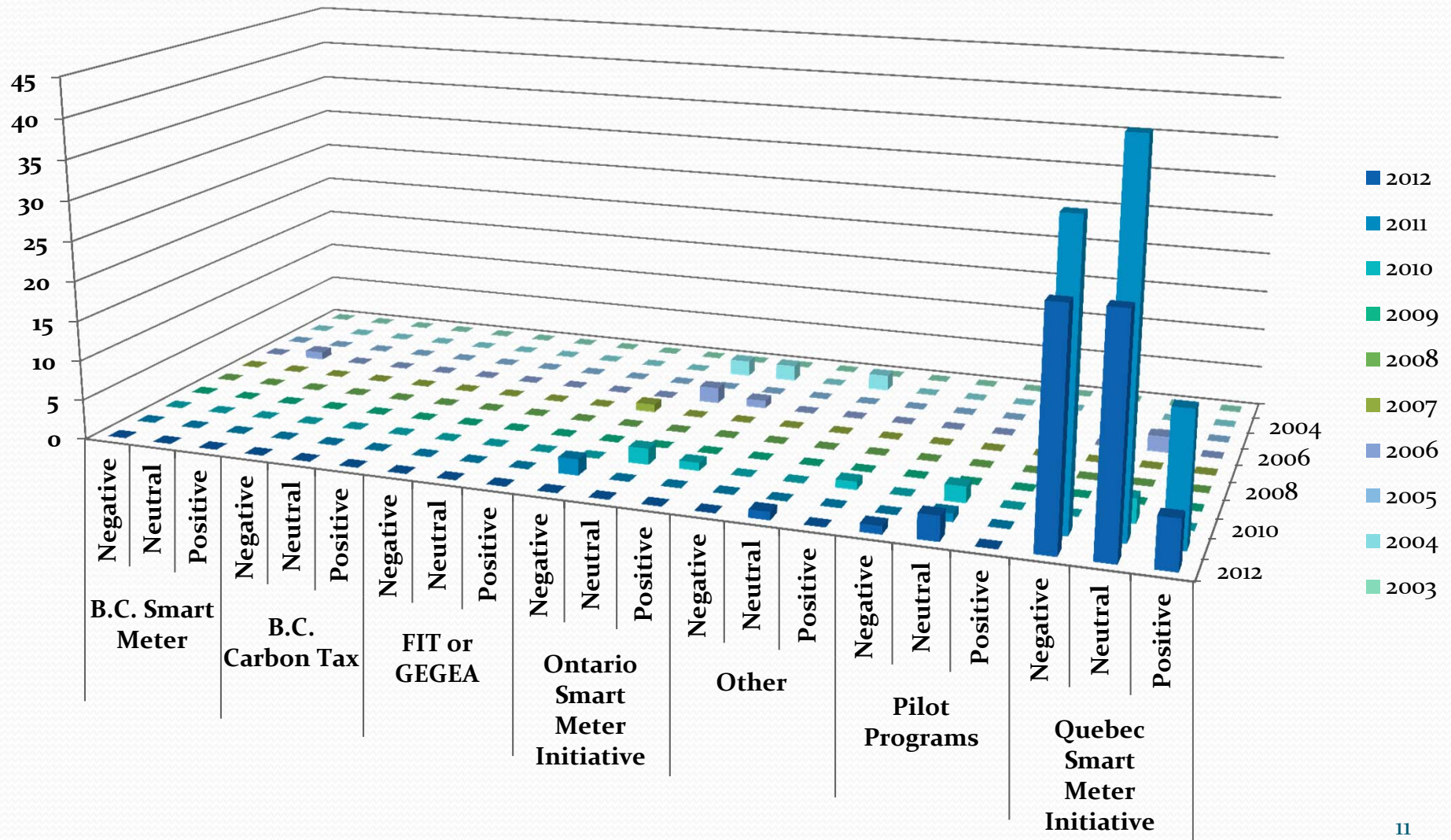


- Categorized articles:
 - A: primarily about the smart grid or smart grid technologies
 - B: discusses smart grid or an aspect in a subsection
 - C: mentions the search term(s) without further information
- A & B articles coded

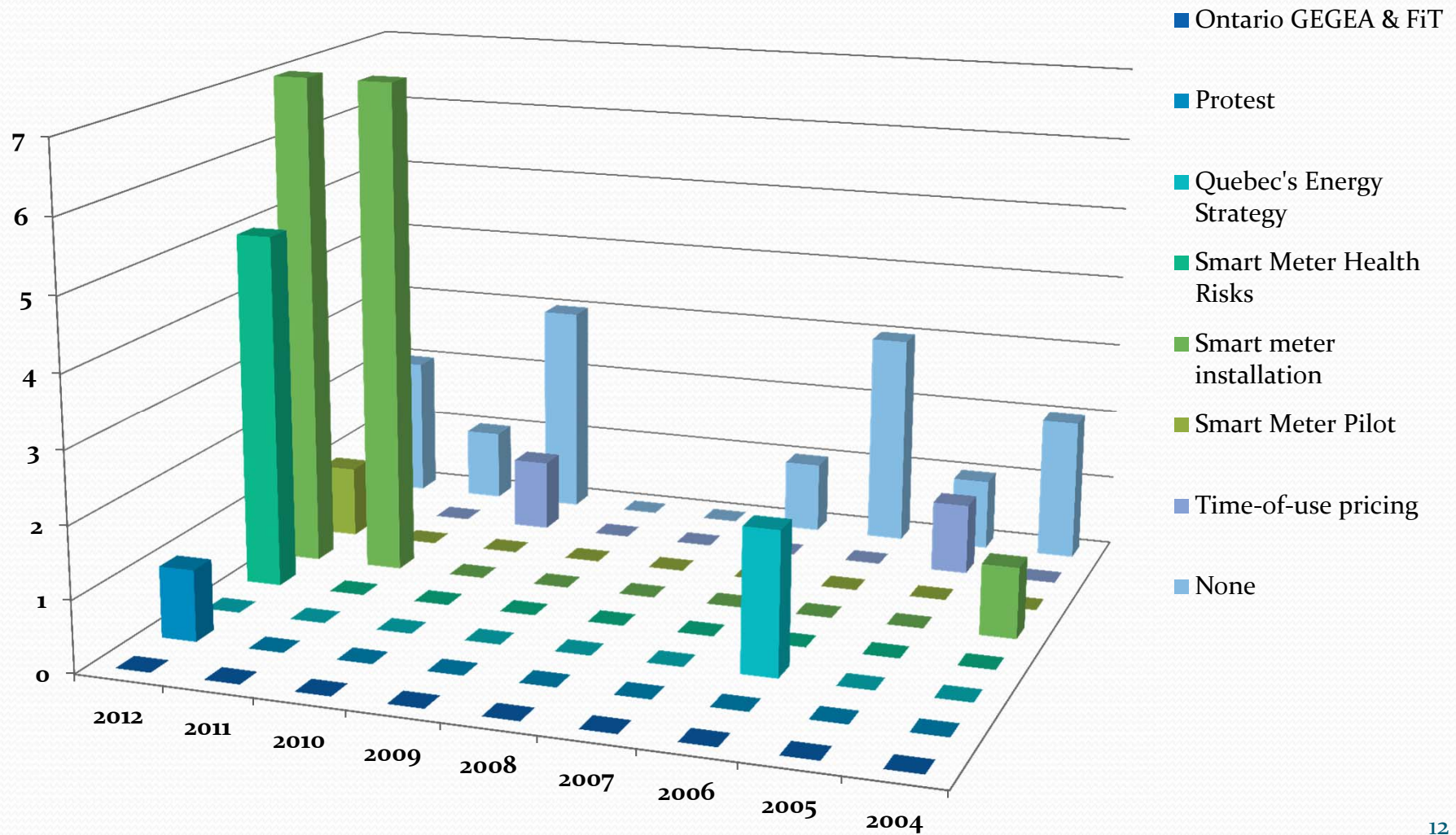
Most frequent terms

business year powerplant cents account **meters** consumers
consumption costs electricity demand energy state d'hydro
rights effect electric bill subsidiary government **hydro** smart day
electricity **energy** installation megawatts **millions** montréal new new waves
ontario peak **project** **québec** québécois qu'hydro
radiofrequencies **board** grid health society tariff pricing **rates** technology
time toronto trilliant

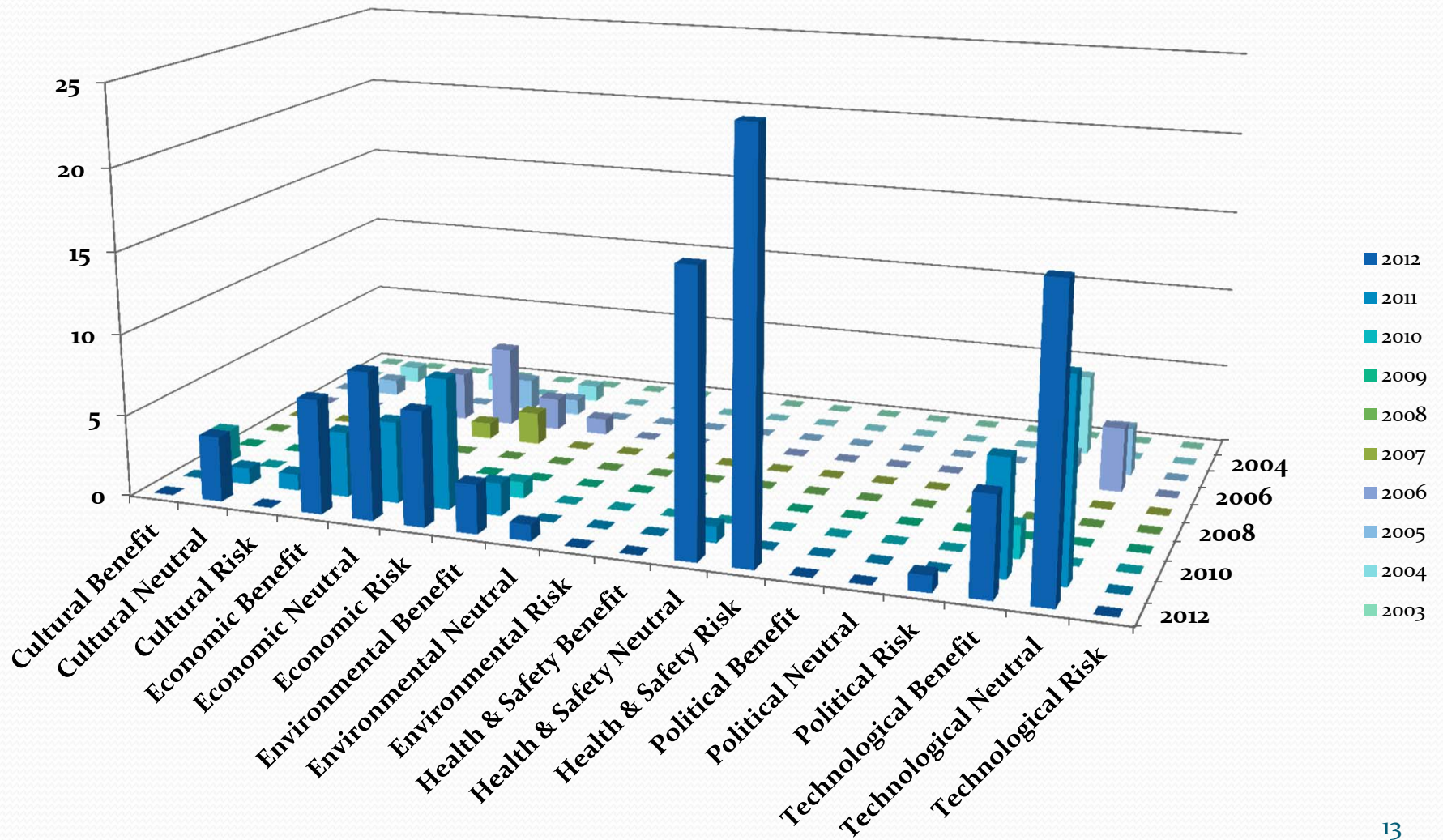
Policies and programs over time



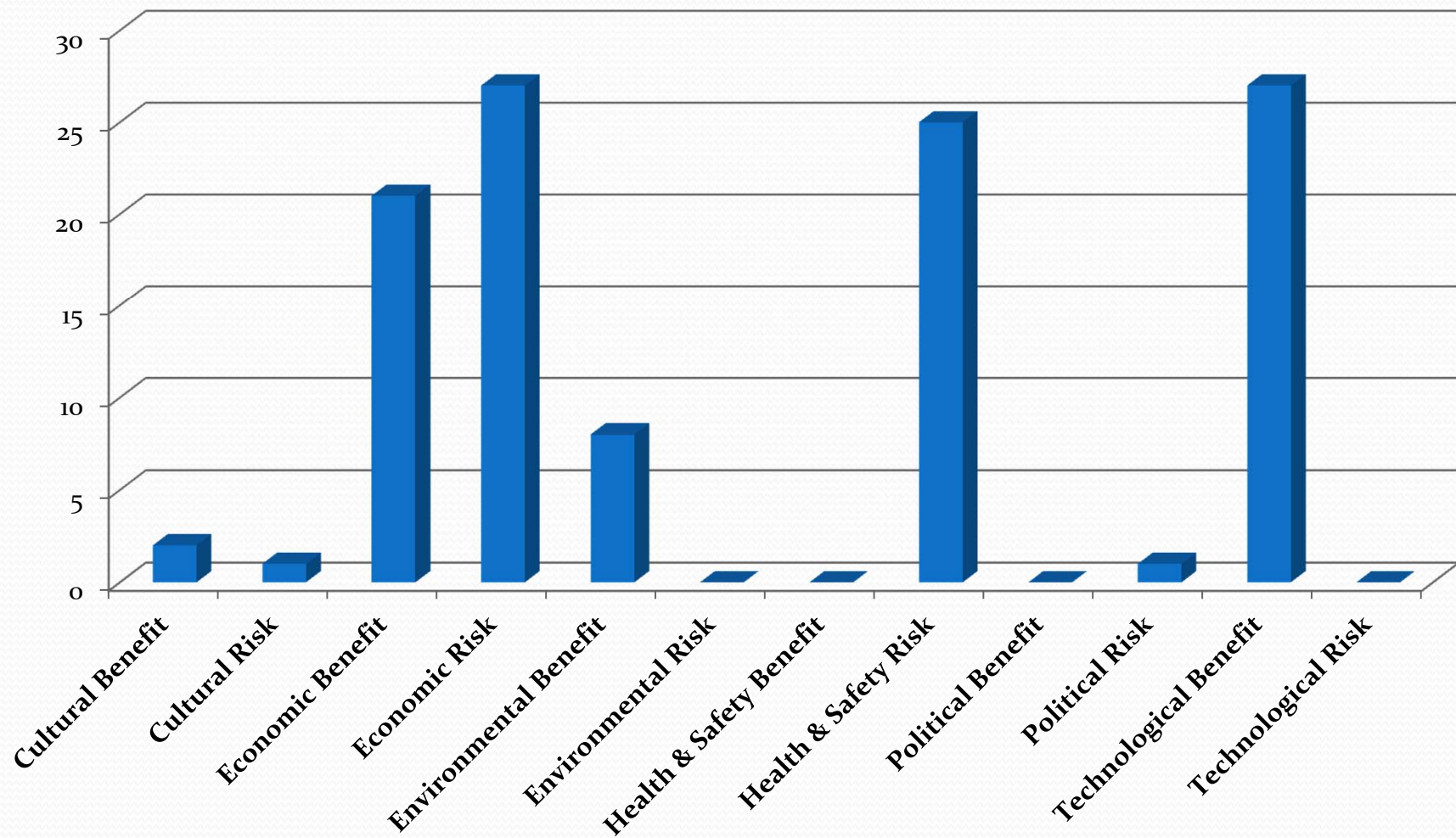
Key triggers over time



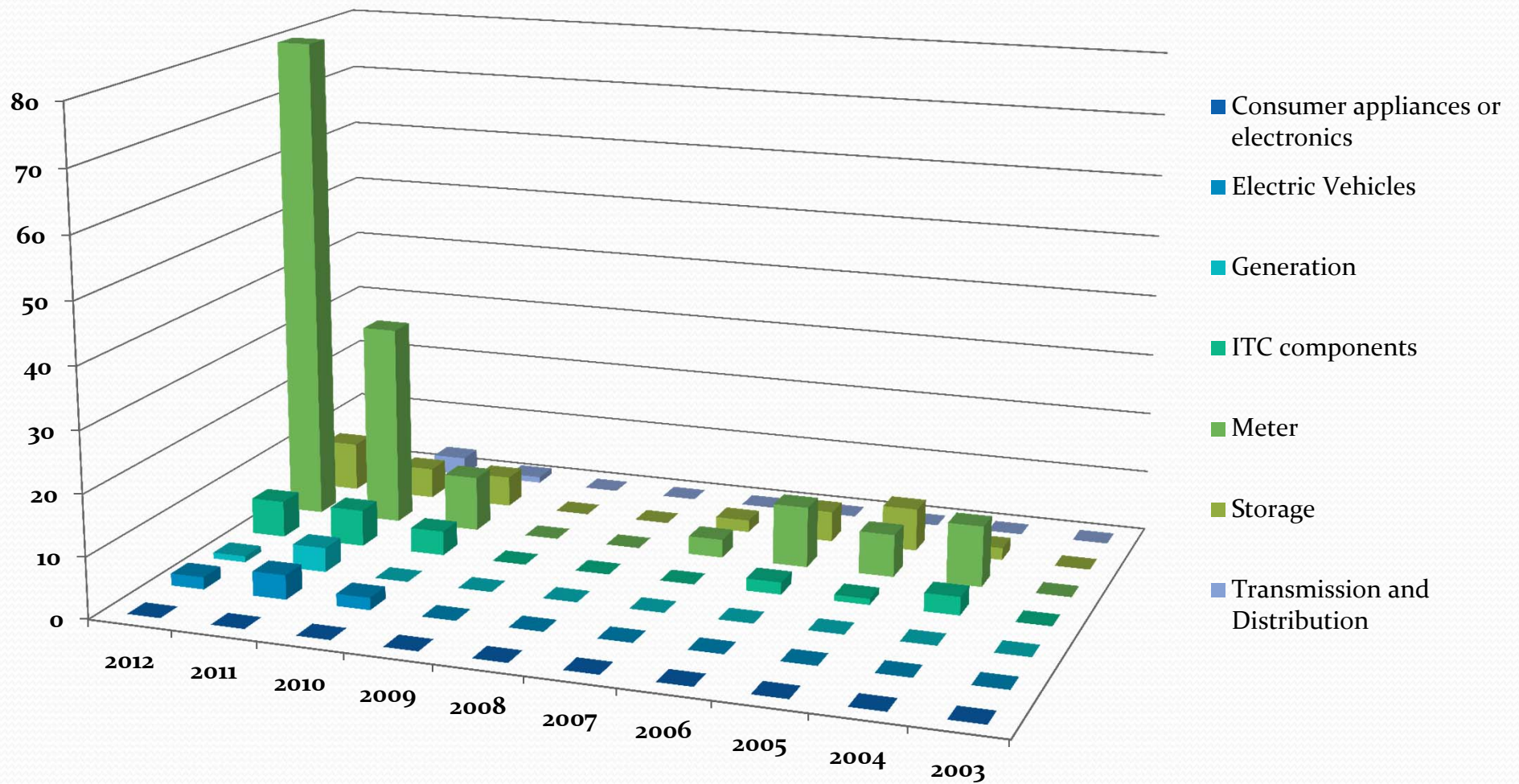
Perception of smart grid risks and benefits



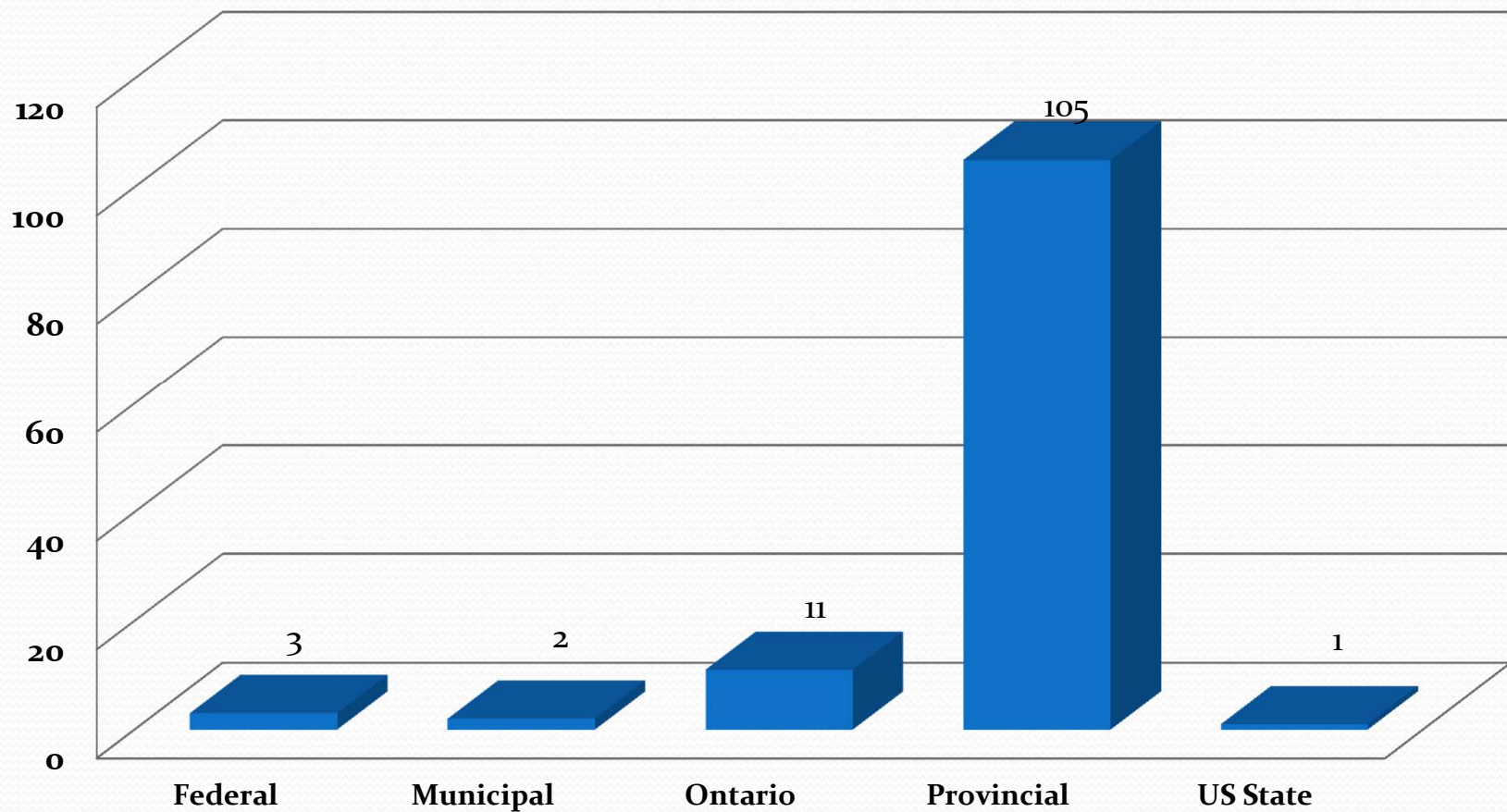
Risk and Benefit's media coverage



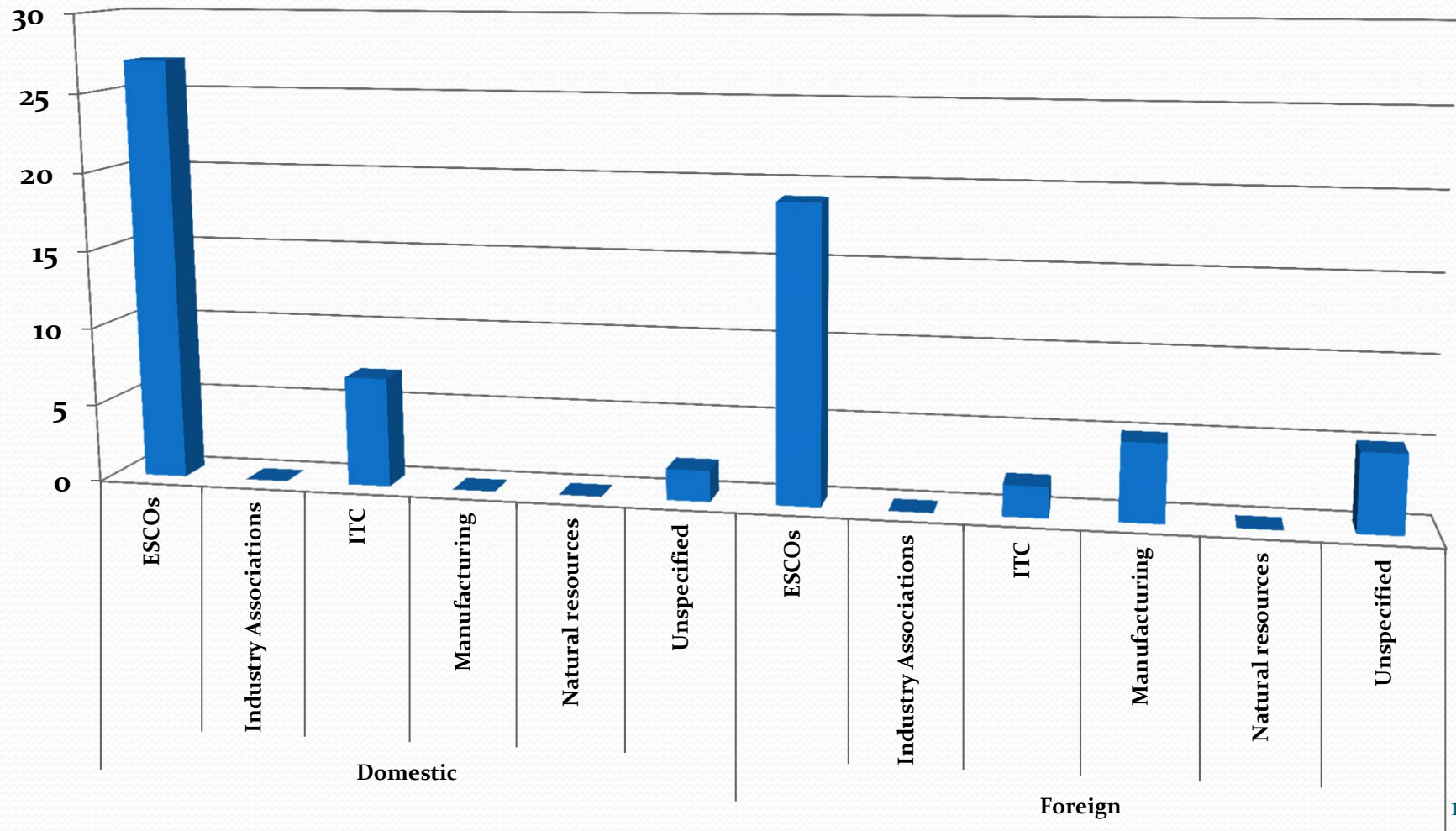
Component focus over time



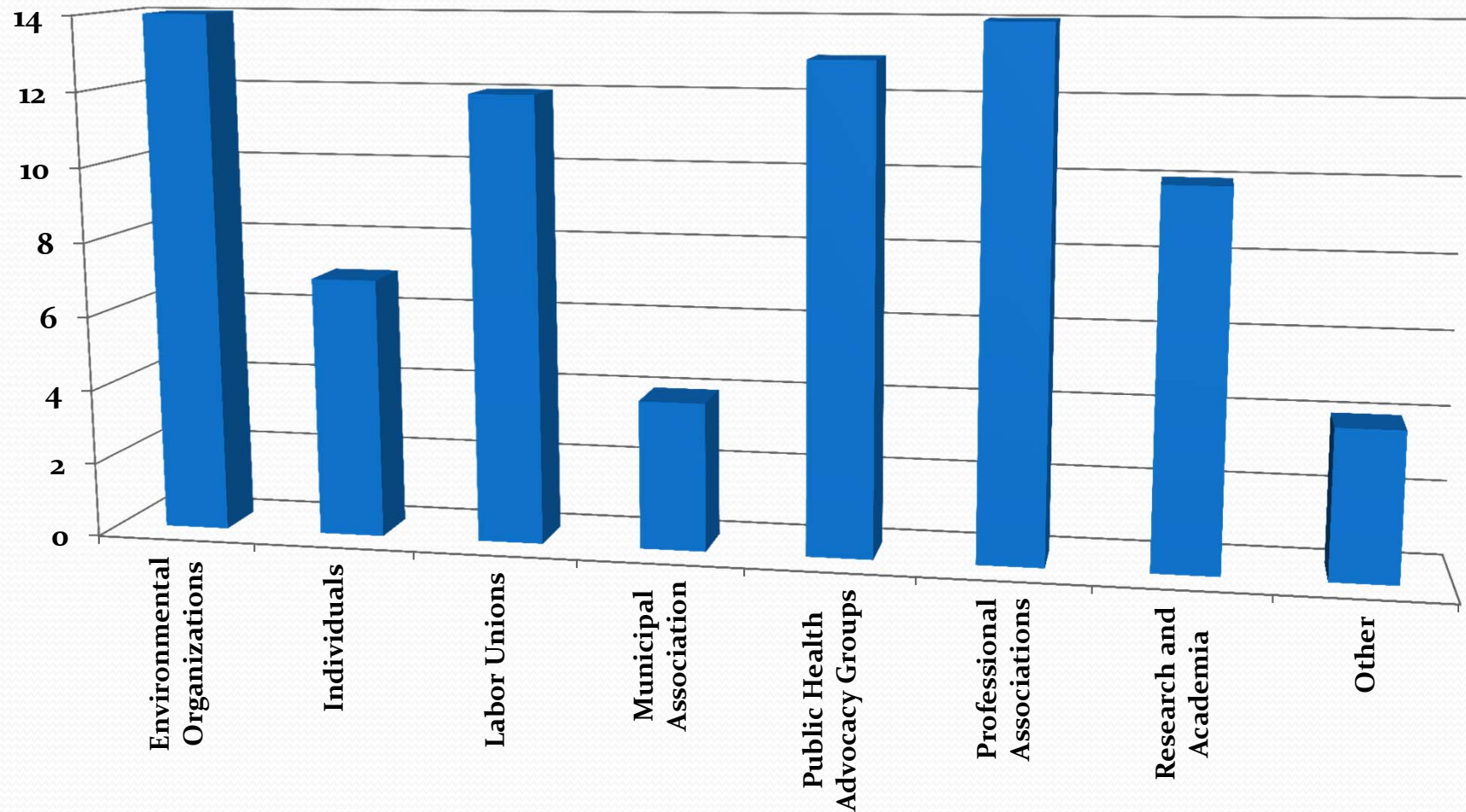
Governments' media coverage



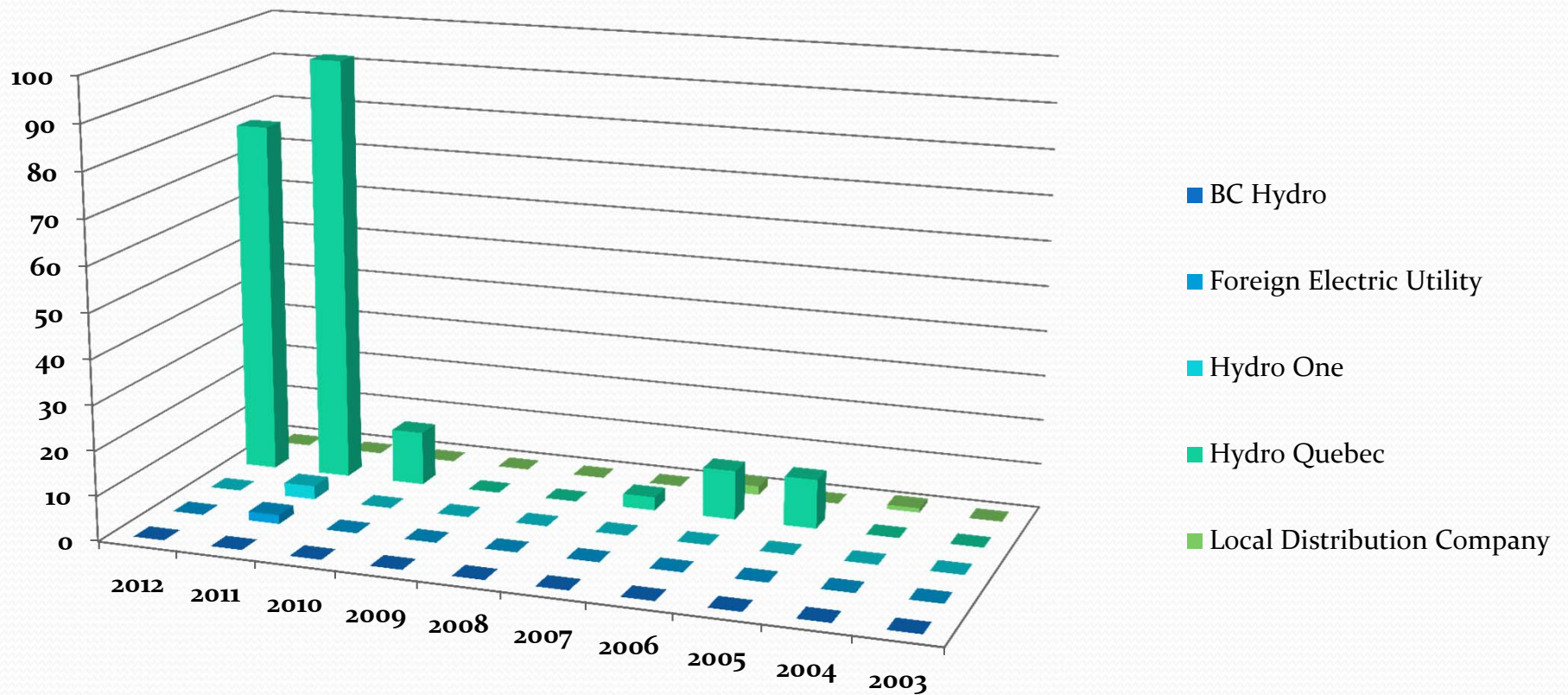
Private sector's media coverage



Non-governmental actors' coverage



Utilities coverage over time



Preliminary conclusion

- Smart grid is mostly framed as a smart meters issue
 - Predominance of Hydro-Québec's smart meters installation project in the media
- Perception of smart meters/smart grid :
 - Health & safety risks
 - Balanced perception of economic risks and benefits
 - Environmental benefits
 - Technological benefits