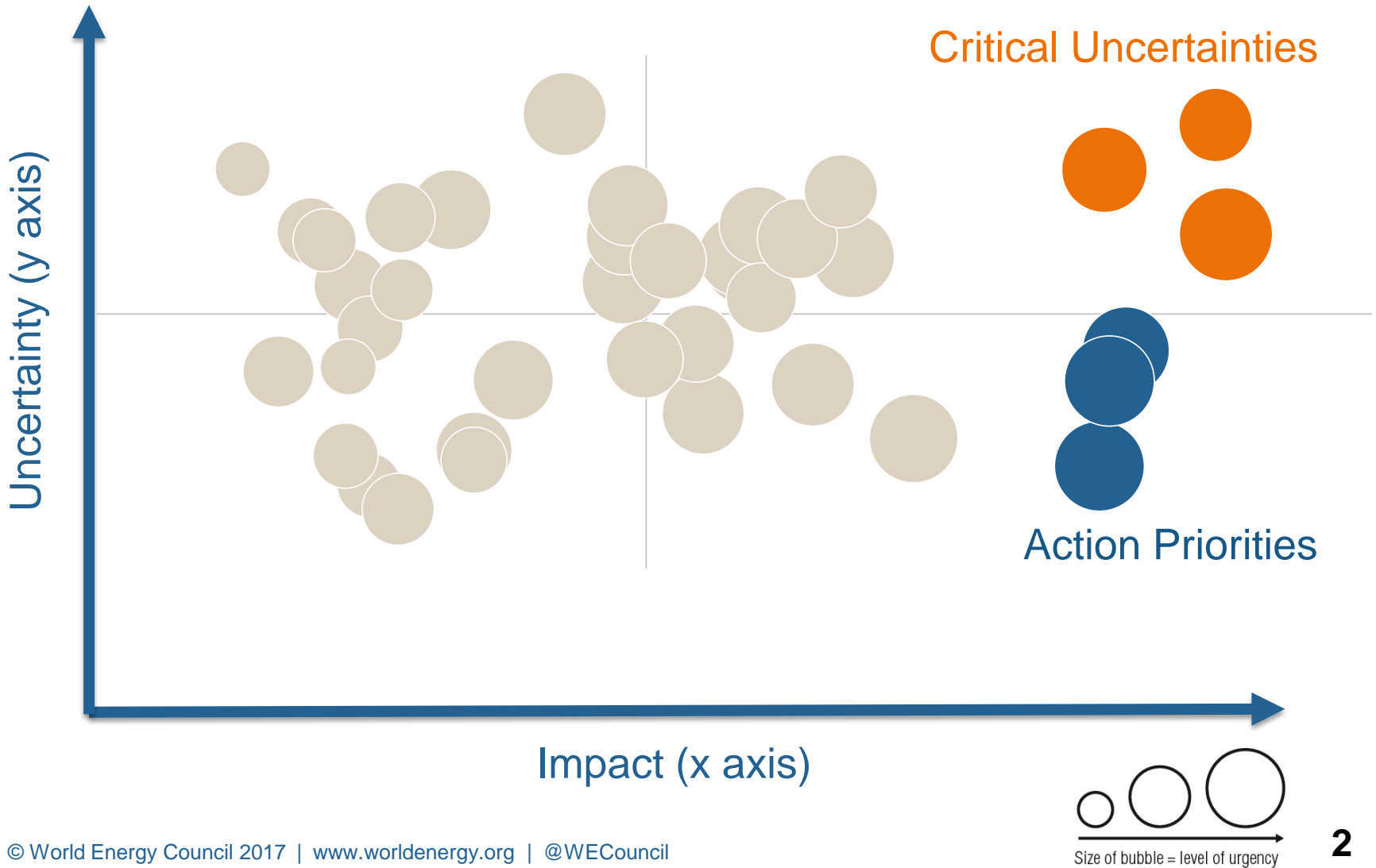


# World Energy Issues Monitor 2017

## New Zealand and the World

# How to read the Issues Monitor?



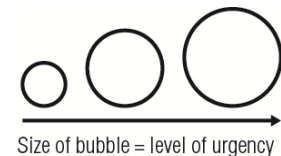
# How to read the Issues Monitor?

**Critical uncertainties:** Issues with high uncertainty and high impact (in the top-right quadrant) are the 'critical uncertainties' with no clear path of action which keep energy leaders most awake at night. These issues need to be part of the energy leaders' dialogue and scenario analysis. → **What keeps energy leaders awake at night?**

**Action priorities:** The issues in the high-impact and low-uncertainty space are those which keep energy leaders most busy (bottom-right, 'action issues').  
→ **What keeps energy leaders busy at work?**

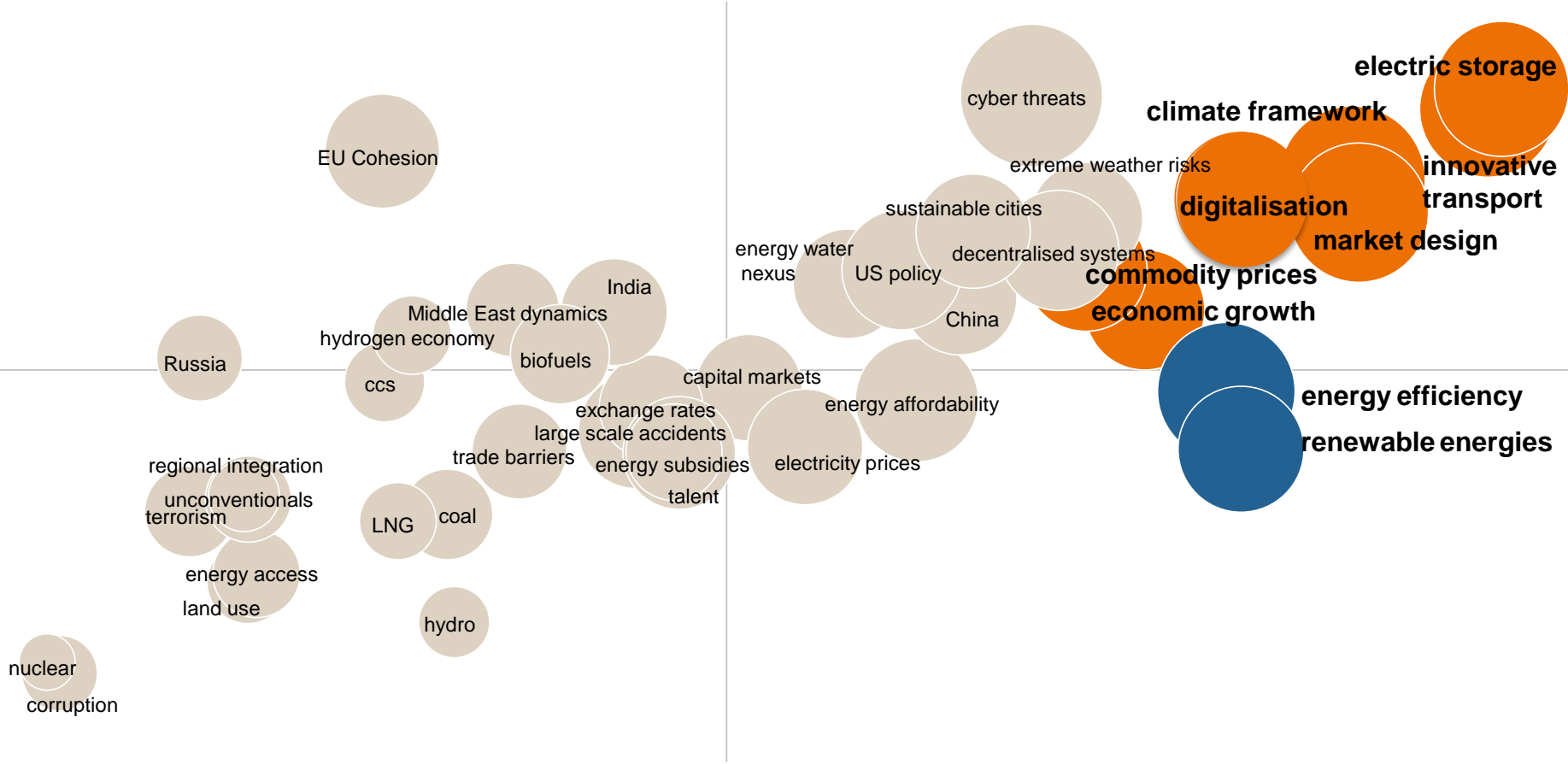
Weak signals: The low-impact and low-uncertainty issues (bottom-left quadrant) include those of perceived lesser importance or those that are still not fully understood and in need of further investigation.

The responses are translated into issue monitors with the three assessed dimensions: the impact of an issue on the energy sector – this forms the x axis; the degree of uncertainty related to its impact – this forms y axis; the urgency with which we need to address the specific issue – represented by the proportional size of the issue bubble where a larger size corresponds to a higher degree of urgency.



# New Zealand

# 2017 Issues Monitor New Zealand



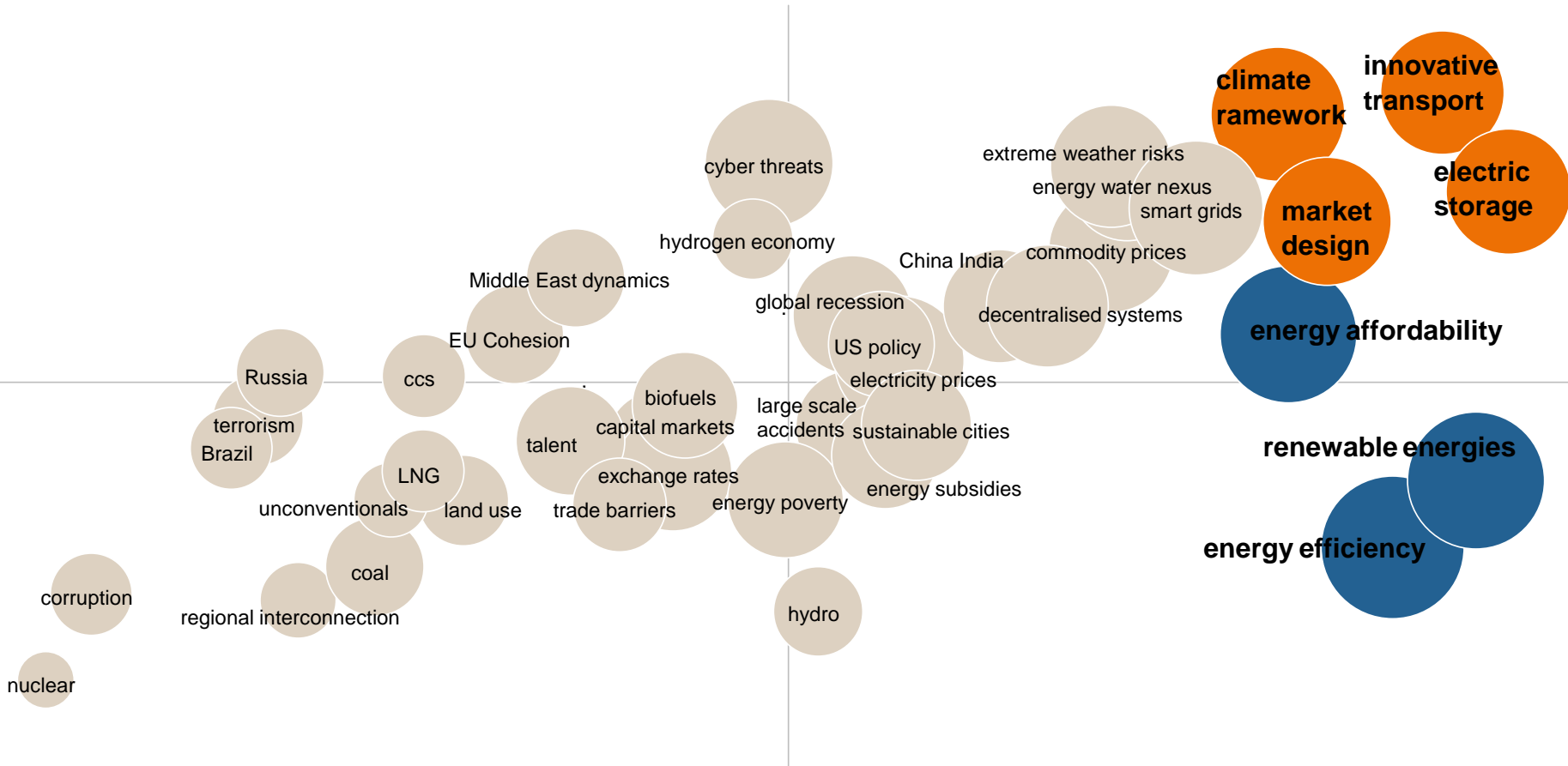
# 2017 Issues Monitor

## New Zealand – Summary

- Keeping energy leaders most awake at night: electric storage , innovative transport , climate framework , market design
- Keeping energy leaders most busy at work: renewable energies , energy efficiency , economic growth , commodity prices
- With highest change over last period: energy access , EU Cohesion , sustainable cities , energy affordability , hydrogen economy , energy water nexus
- - top heating up movers: economic growth , cyber threats , climate framework , sustainable cities
- - top cooling down movers: energy access , energy affordability , hydro , hydrogen economy
- With lowest change over last period: Russia , China , ccs , unconventionalals
- With highest variance (most controversial): energy water nexus , decentralised systems , hydrogen economy , energy subsidies
- With lowest variance (greatest consensus): corruption , nuclear

# Previous issues map NZ 2016

# 2016 Issues Monitor New Zealand



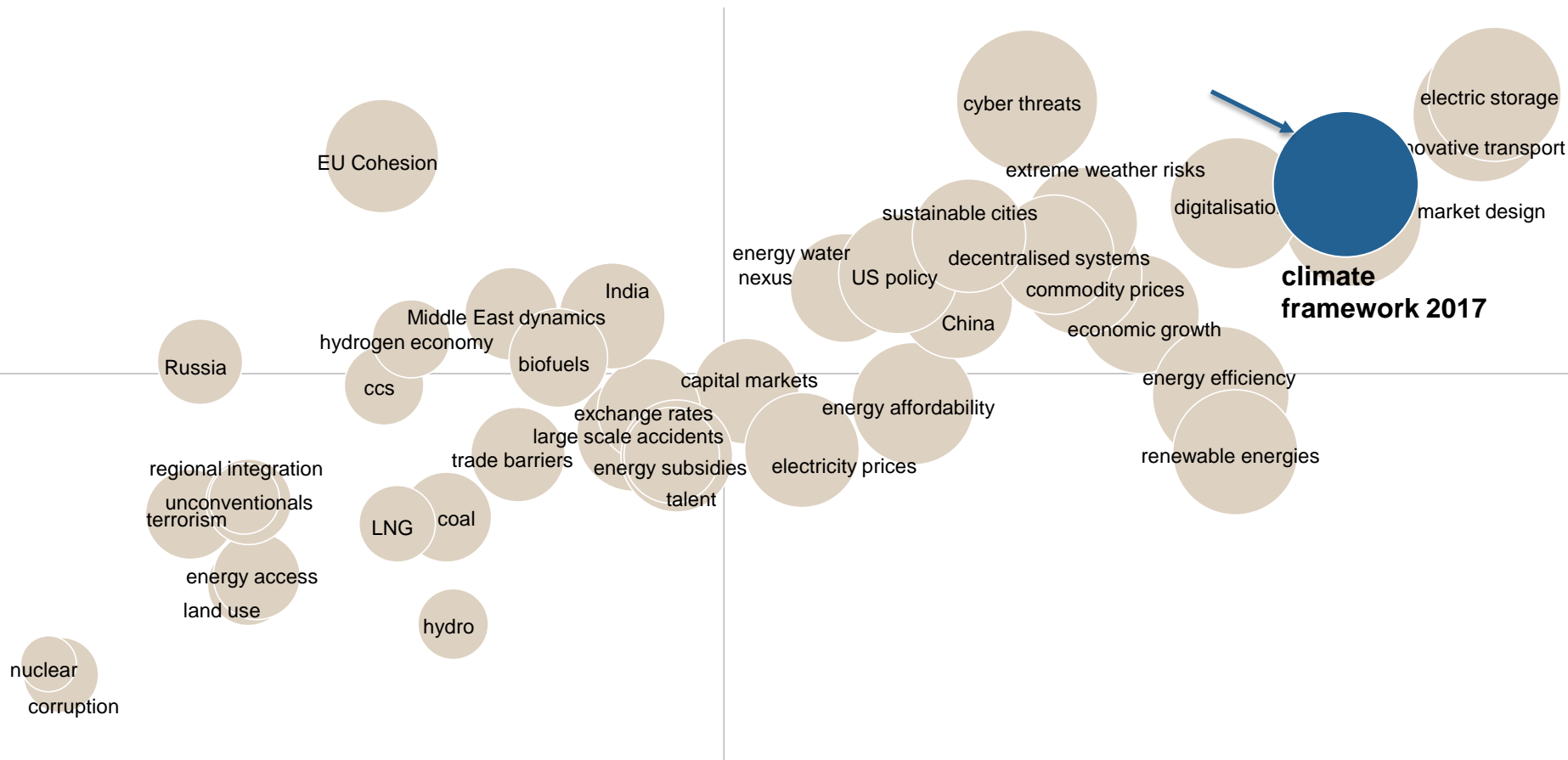


# Time-tracking

Name of presenter | date and name of event

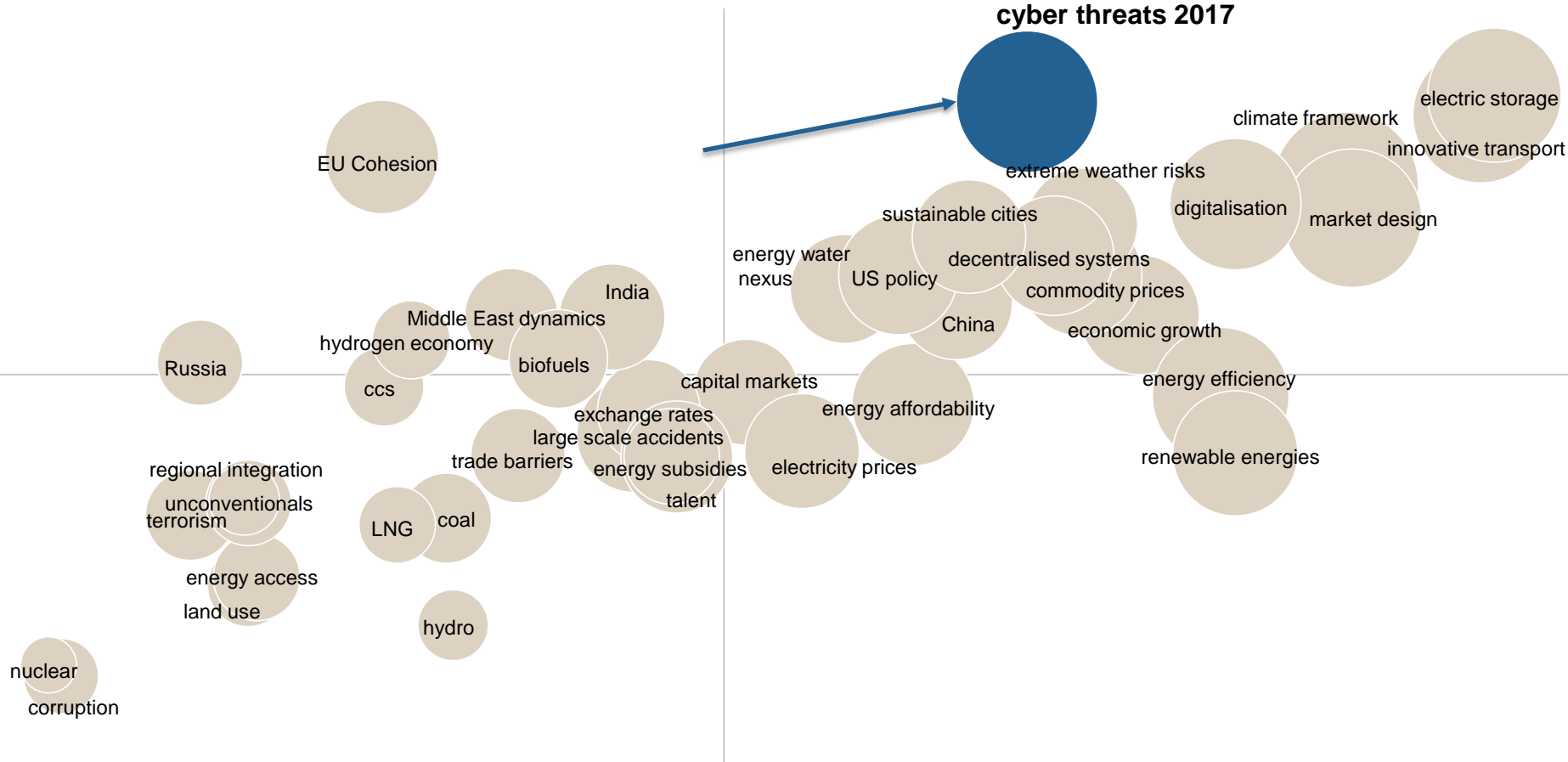
# 2017 Issues Monitor

## New Zealand – Climate Framework



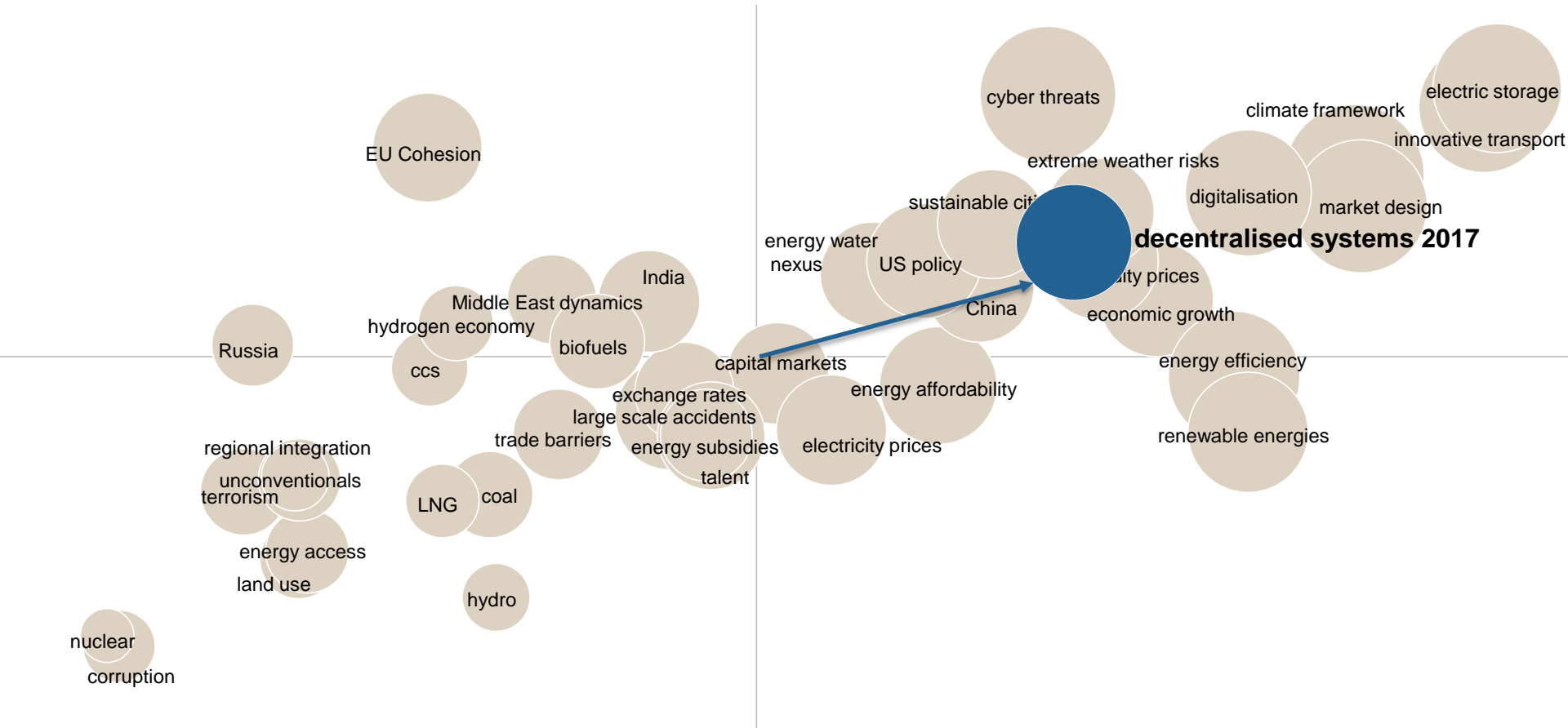
# 2017 Issues Monitor

## New Zealand – Cyber threats



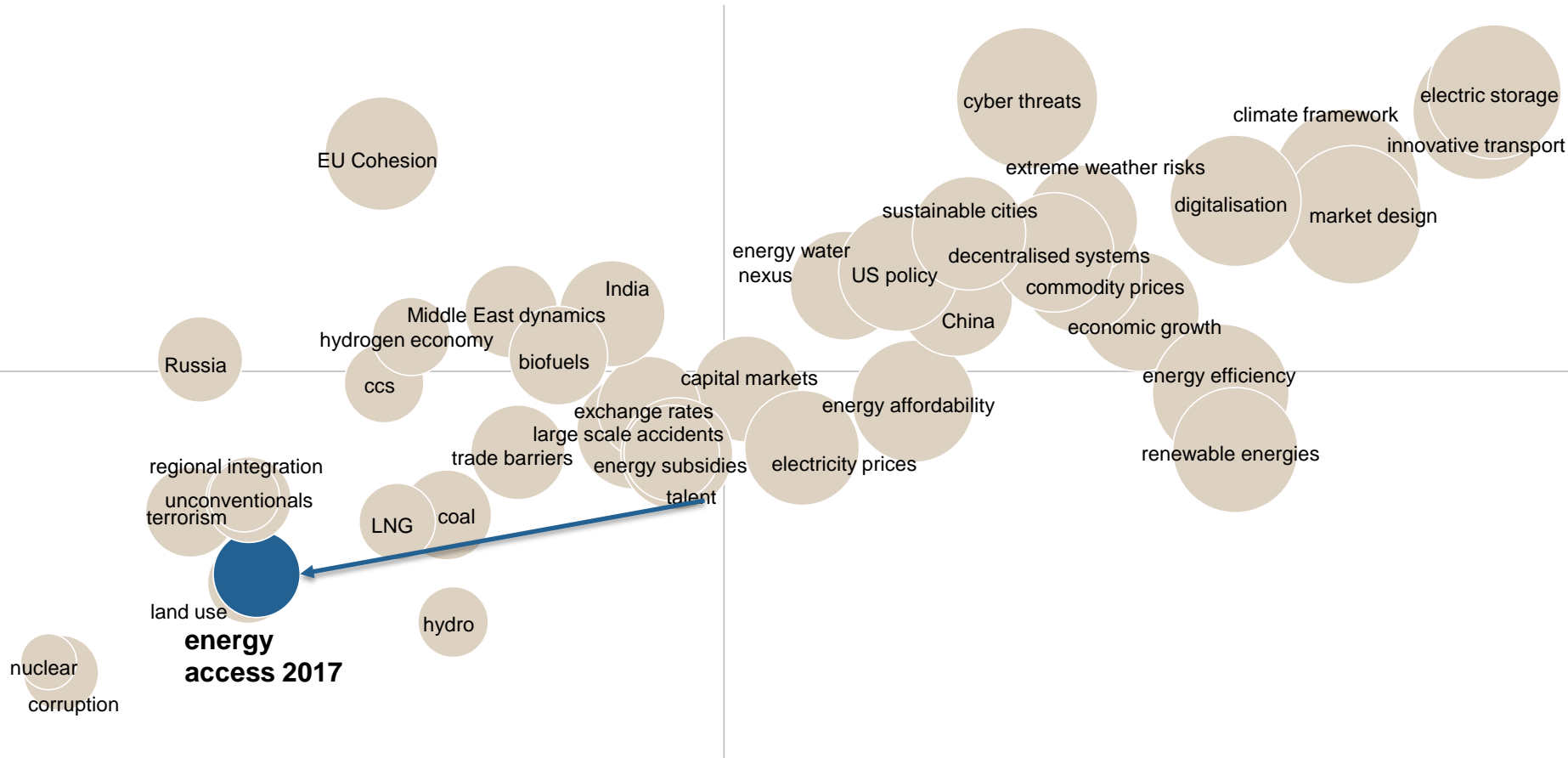
# 2017 Issues Monitor

## New Zealand – Decentralised Systems



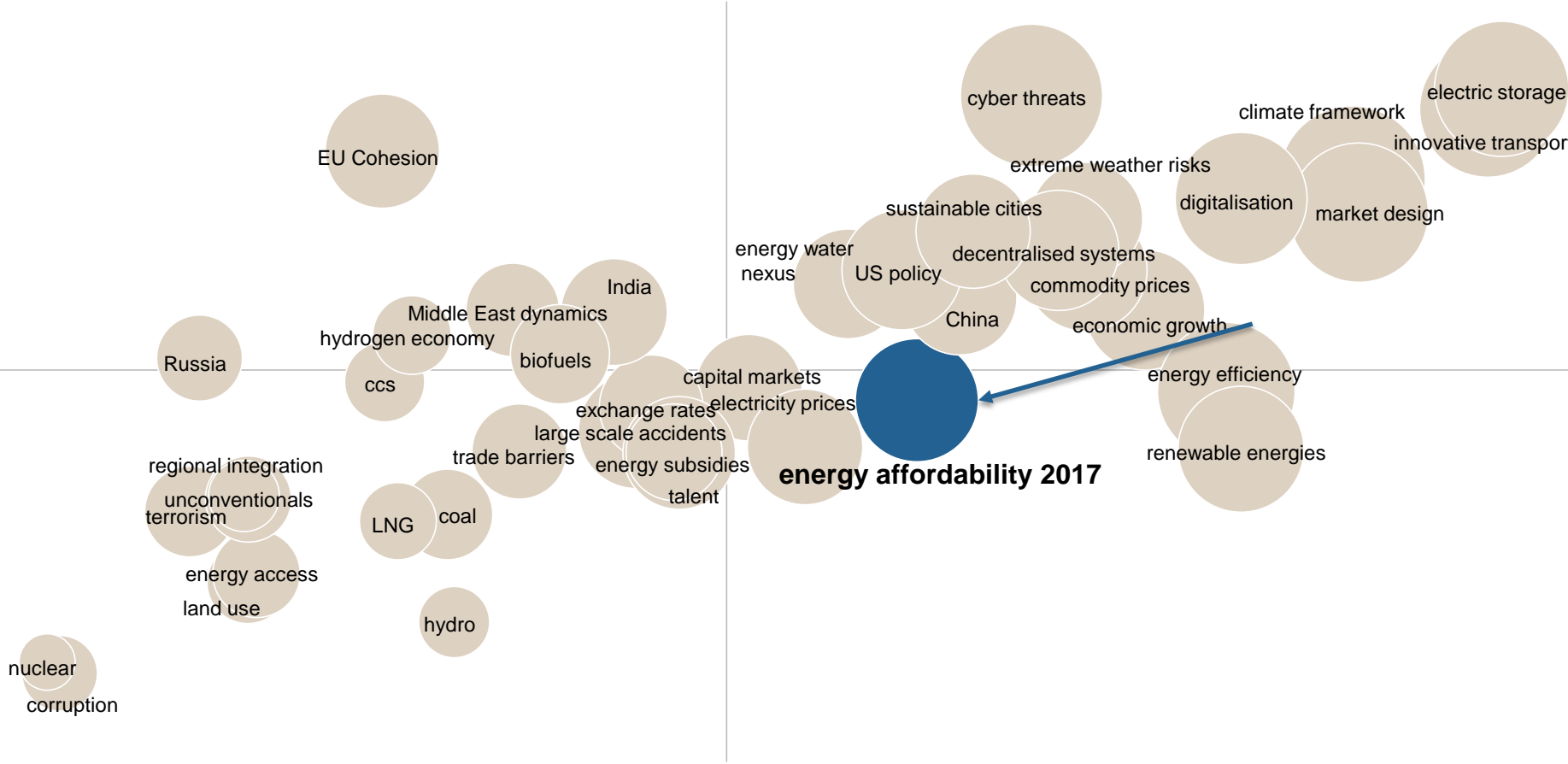
# 2017 Issues Monitor

## New Zealand – Energy Access



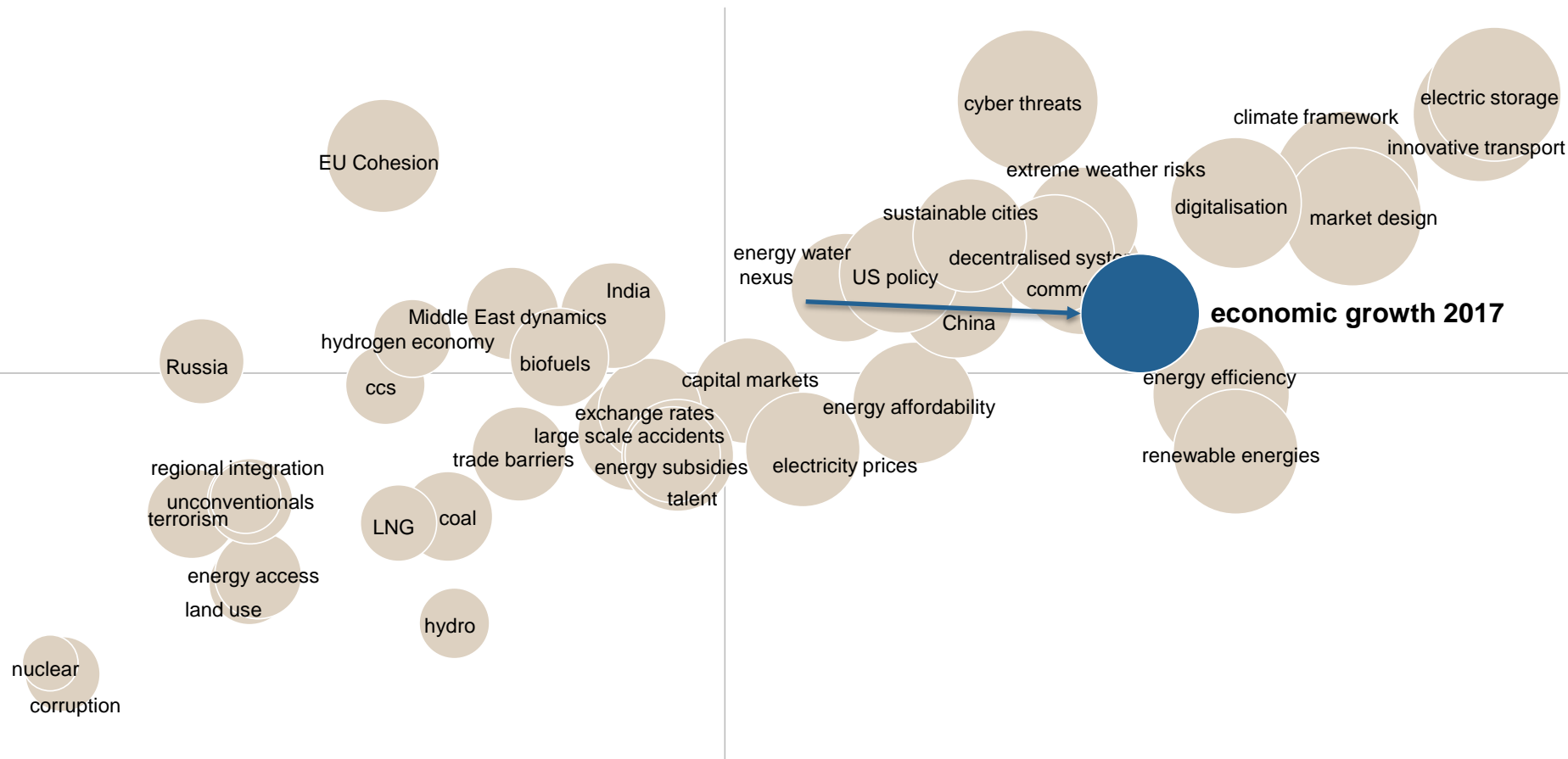
# 2017 Issues Monitor

## New Zealand – Energy Affordability



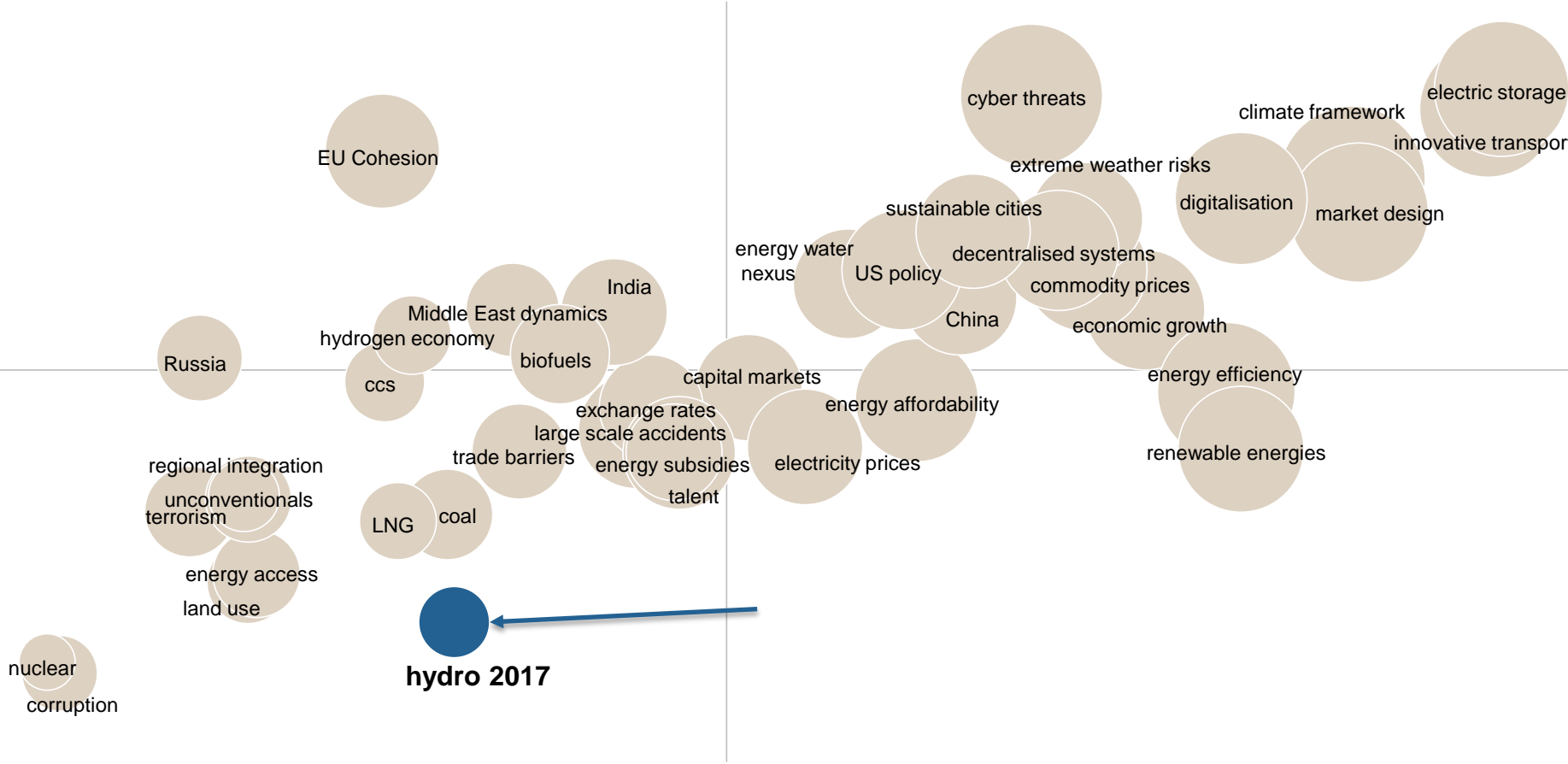
# 2017 Issues Monitor

## New Zealand – Economic Growth



# 2017 Issues Monitor

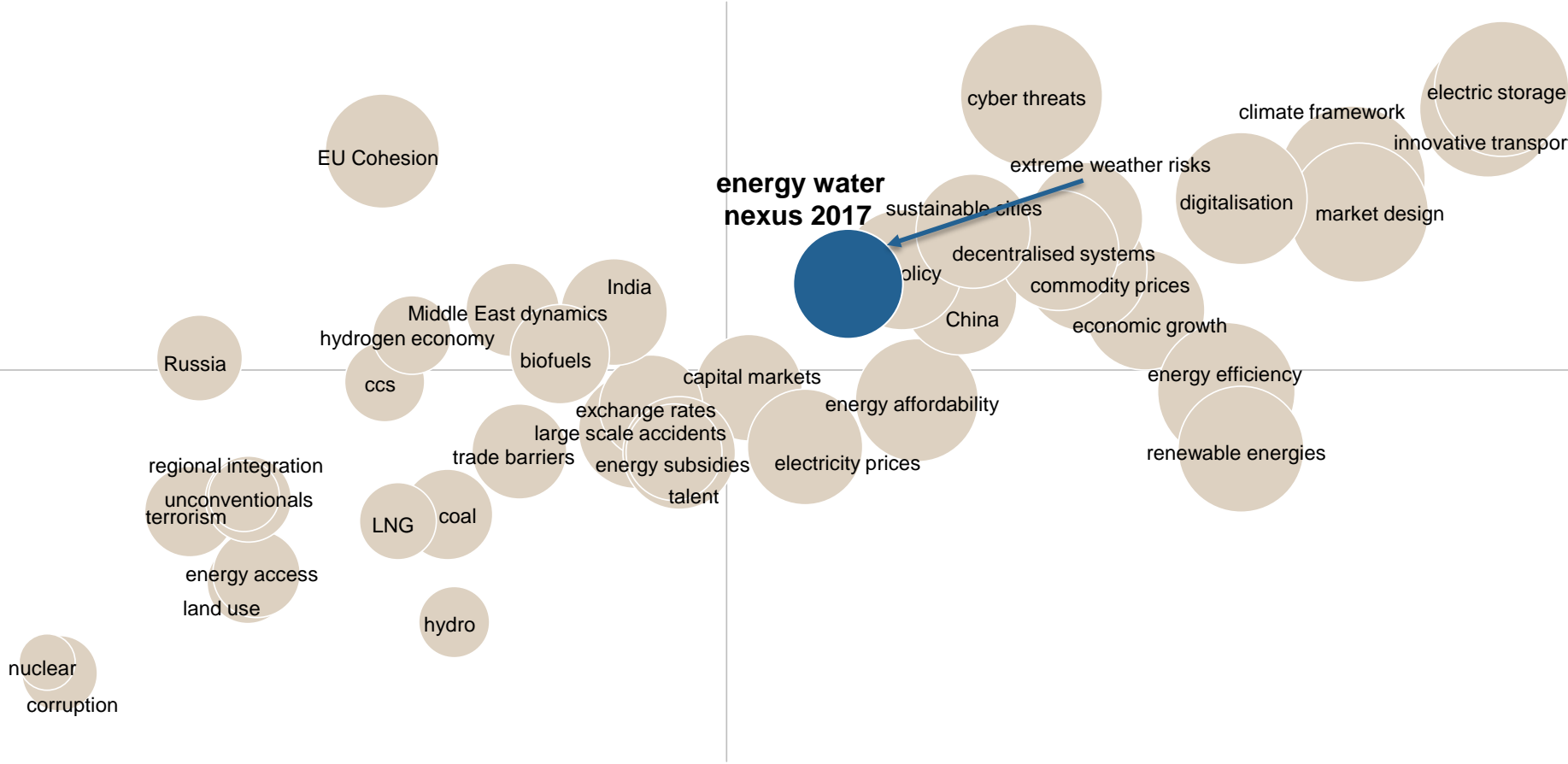
## New Zealand – Hydro





# 2017 Issues Monitor Preview

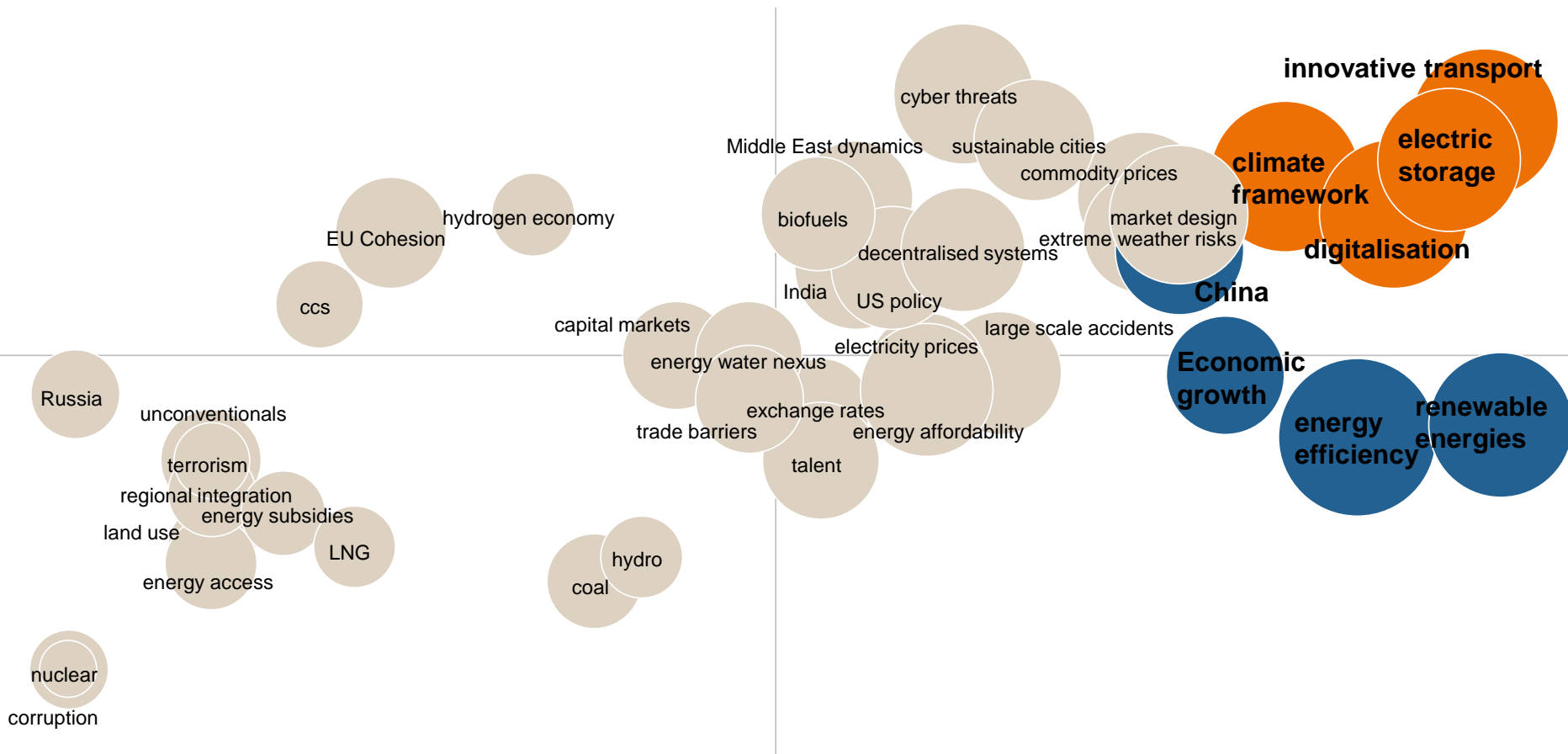
## New Zealand – Energy Water Nexus



# Public Sector

# 2017 Issues Monitor

## New Zealand – Public Sector



# 2017 Issues Monitor

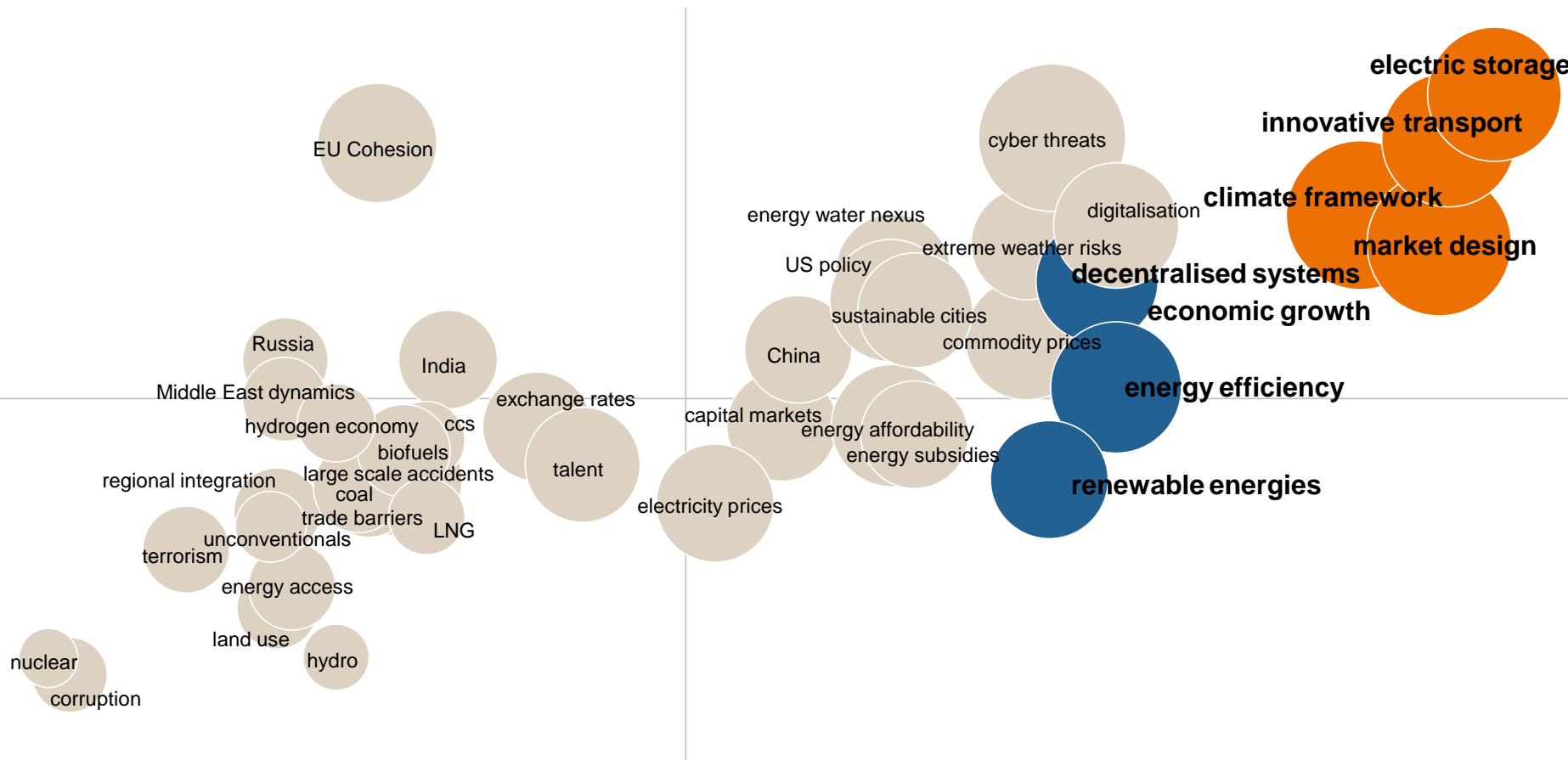
## New Zealand – Public Sector - Summary

- Keeping energy leaders most awake at night: innovative transport , electric storage , climate framework , digitalisation
- Keeping energy leaders most busy at work: energy efficiency , renewable energies , economic growth , China
- With highest variance (most controversial): ccs , hydrogen economy , energy efficiency , biofuels
- With lowest variance (greatest consensus): corruption , energy affordability

# Private Sector

# 2017 Issues Monitor

## New Zealand – Private Sector



- Keeping energy leaders most awake at night: electric storage , cyber threats , innovative transport , climate framework
- Keeping energy leaders most busy at work: energy efficiency , economic growth , decentralised systems , market design
- With highest variance (most controversial): energy water nexus , decentralised systems , energy subsidies , renewable energies
- With lowest variance (greatest consensus): corruption , nuclear

# Sectoral tracking NZ public & NZ private

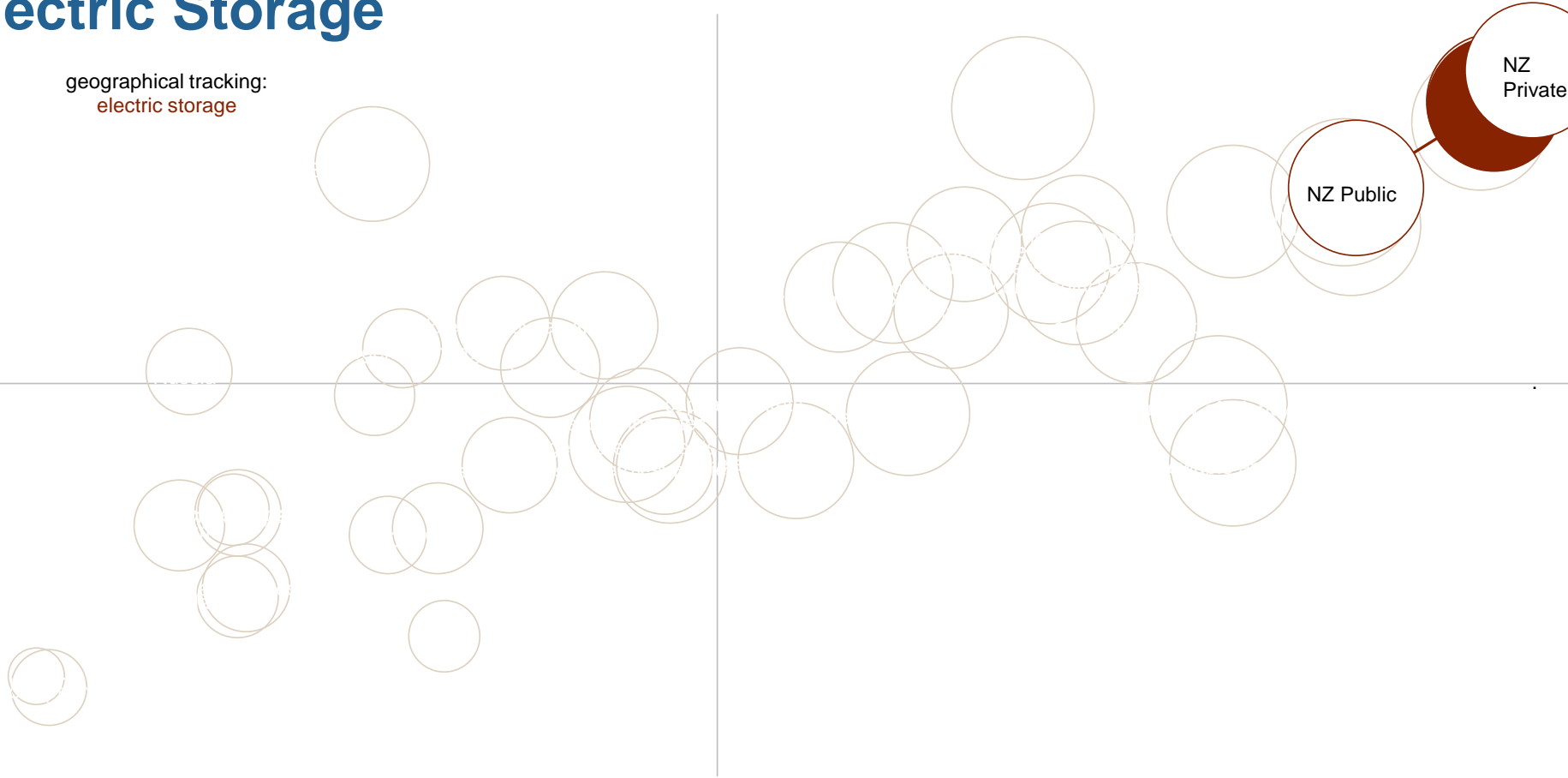


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Electric Storage

geographical tracking:  
electric storage



# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Innovative Transport

geographical tracking:  
innovative transport

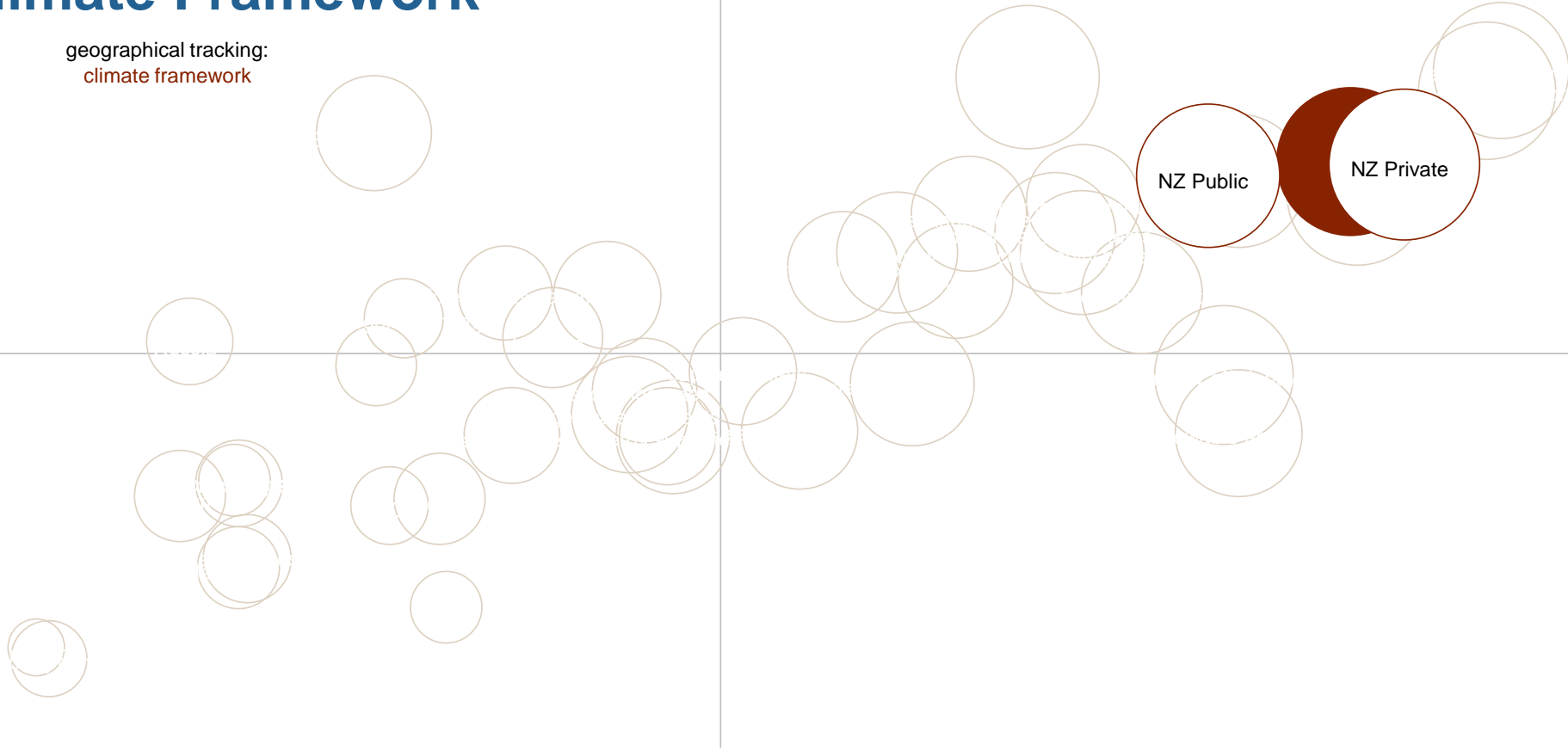


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Climate Framework

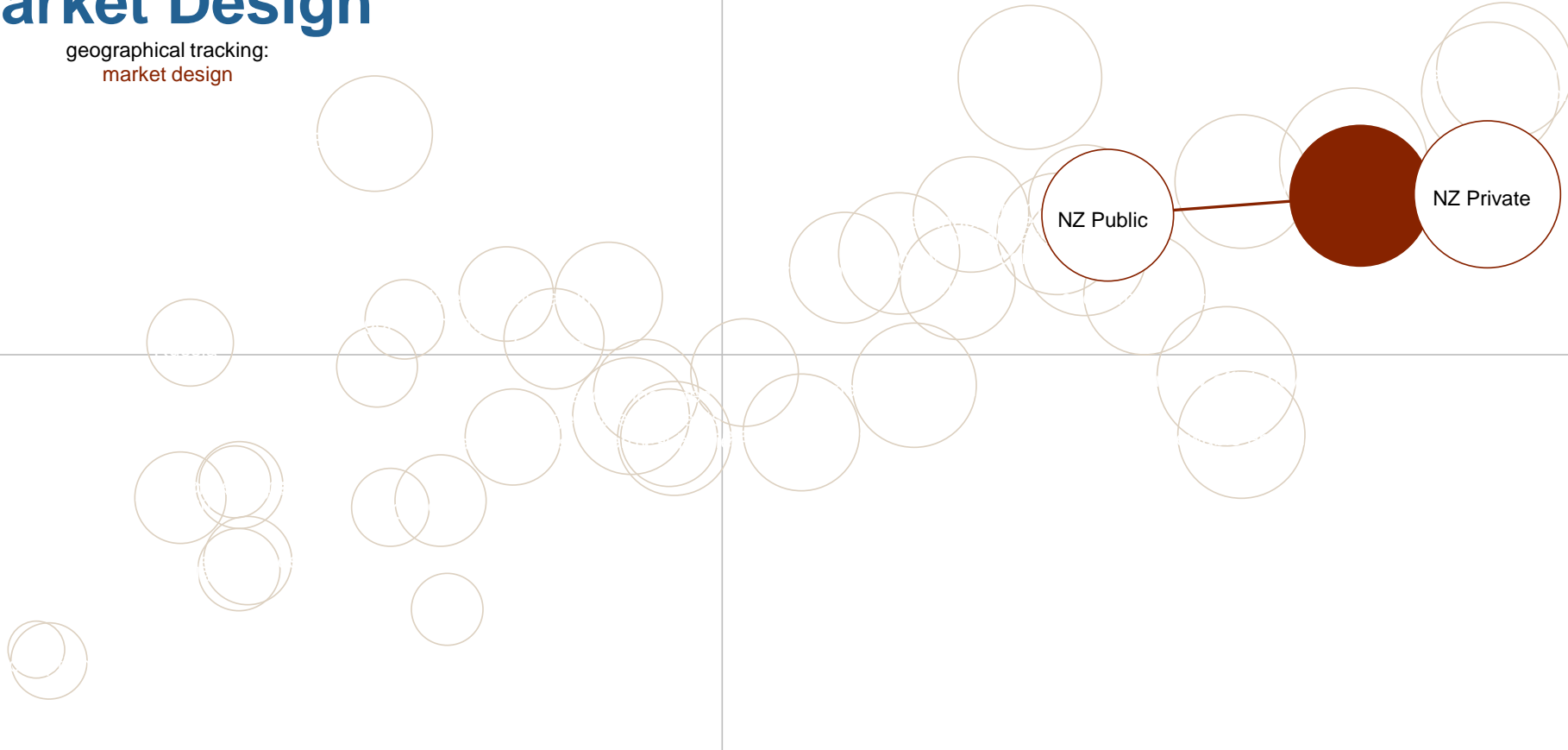
geographical tracking:  
climate framework



# 2017 Issues Monitor

## New Zealand – Sectoral Tracking Market Design

geographical tracking:  
market design

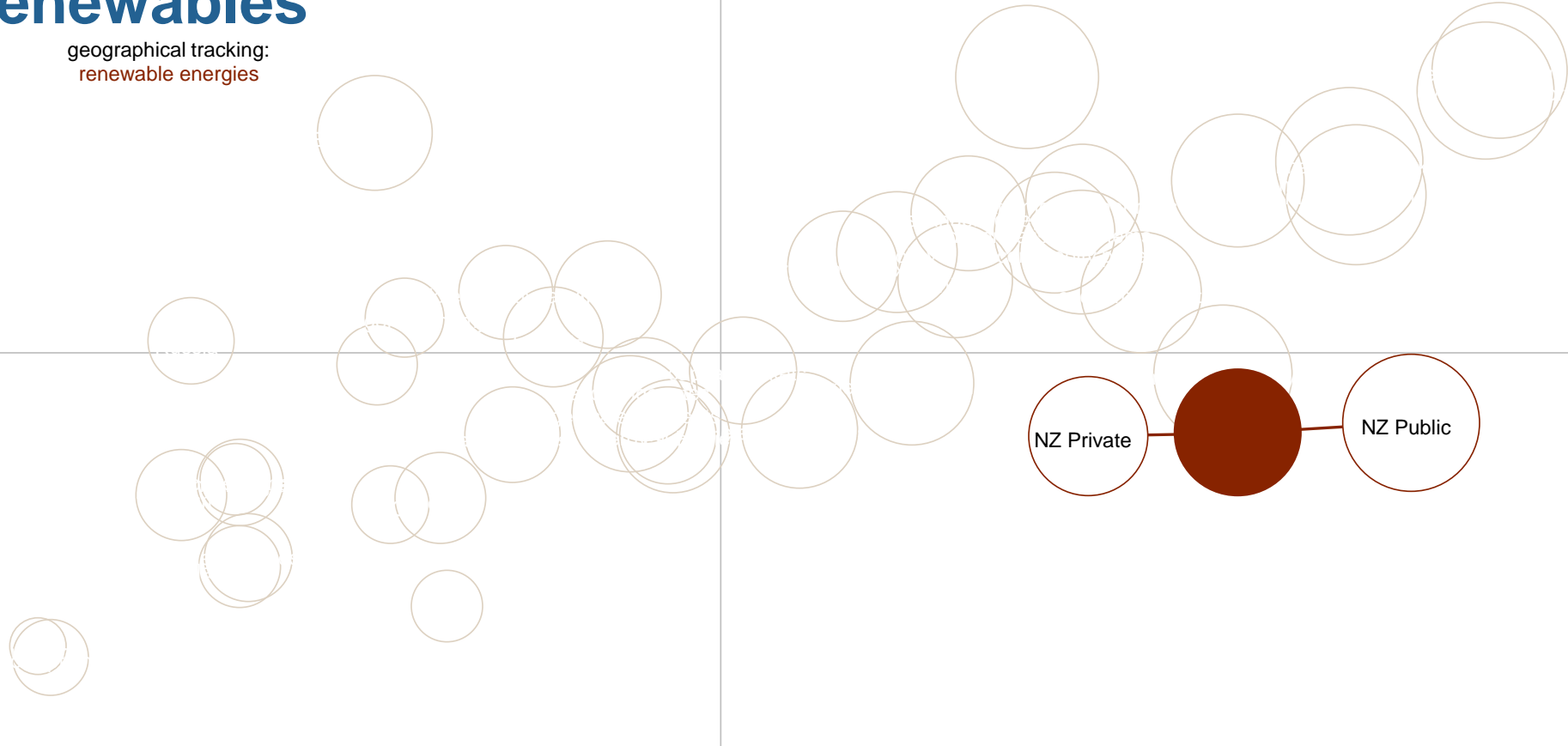


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Renewables

geographical tracking:  
renewable energies

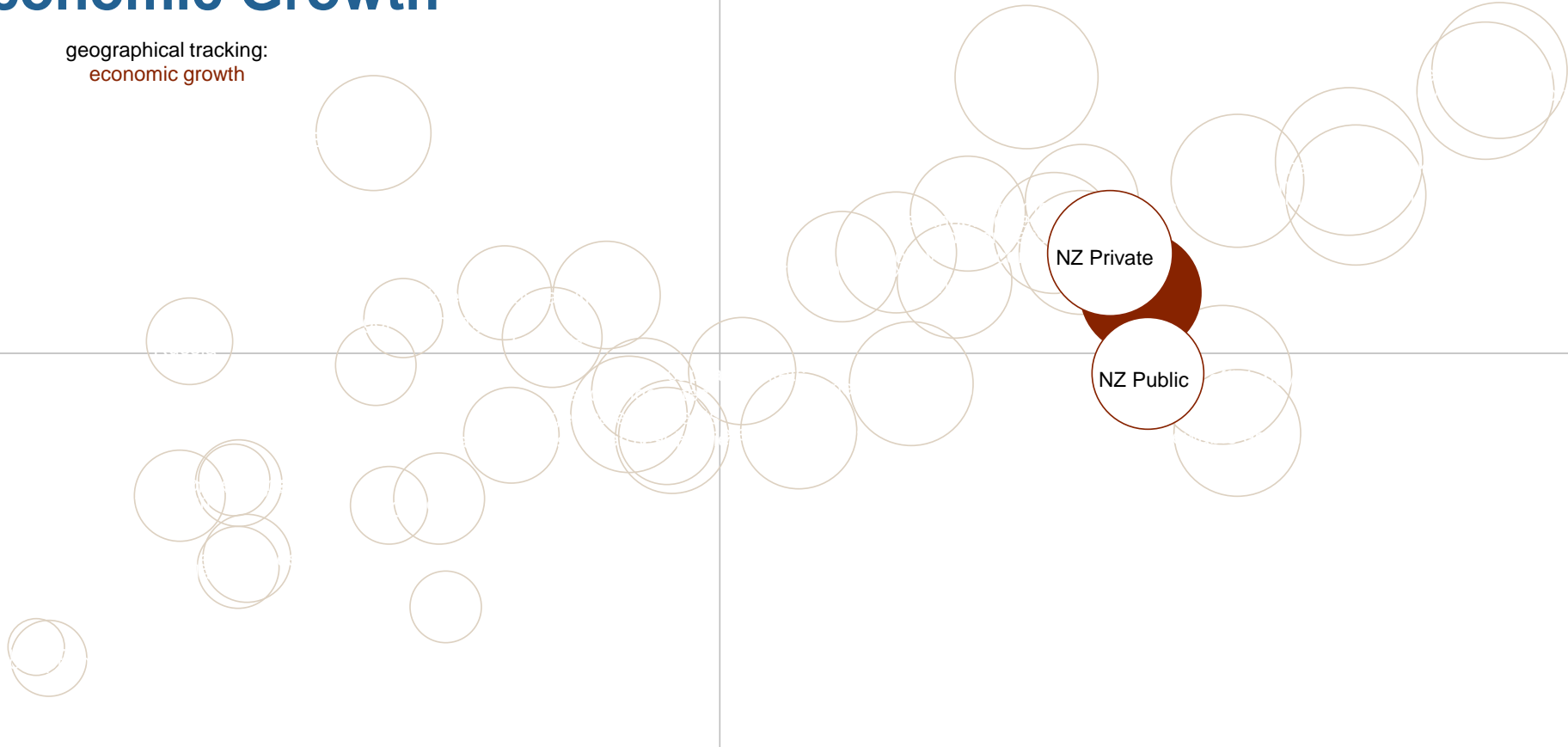


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Economic Growth

geographical tracking:  
economic growth

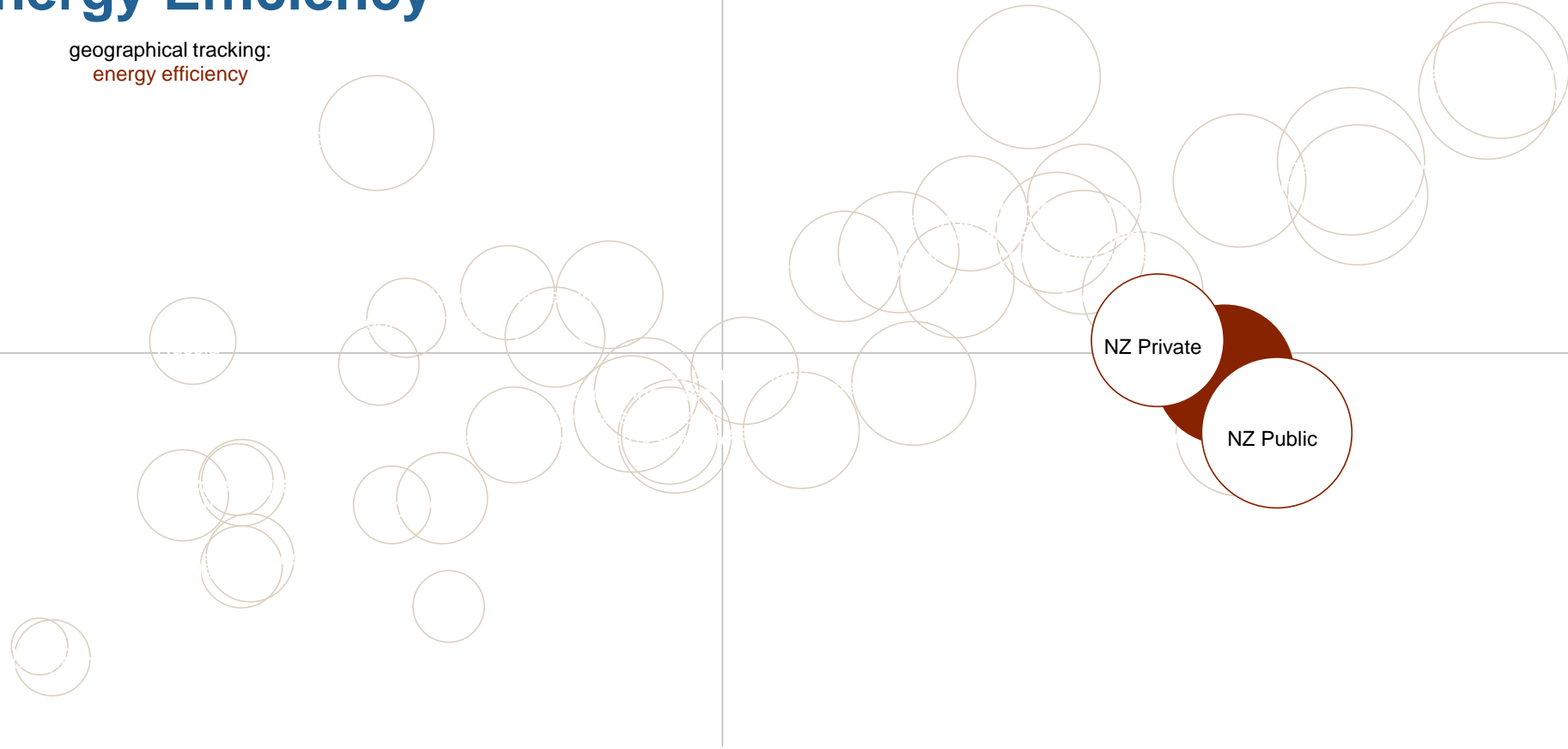


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Energy Efficiency

geographical tracking:  
energy efficiency

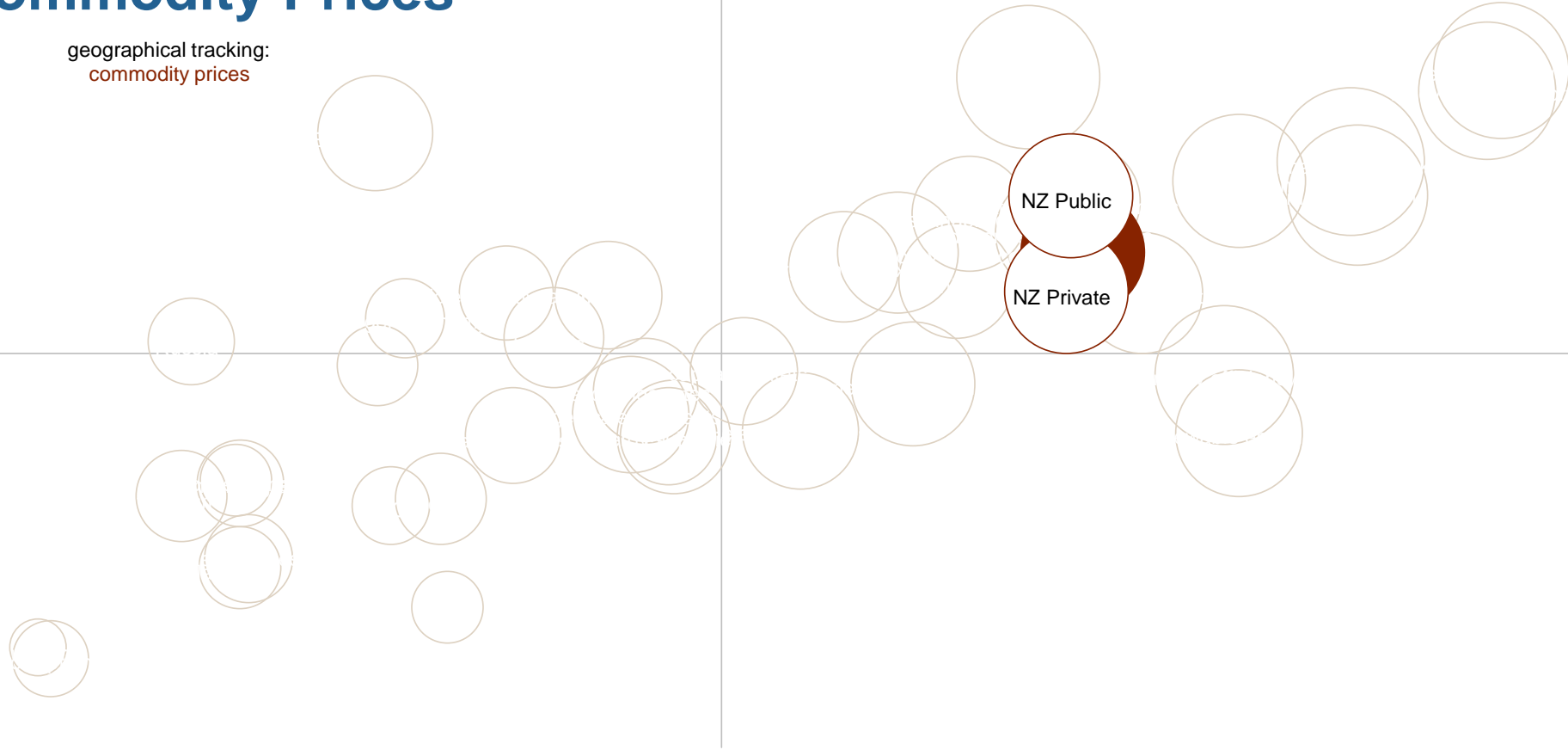


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Commodity Prices

geographical tracking:  
commodity prices



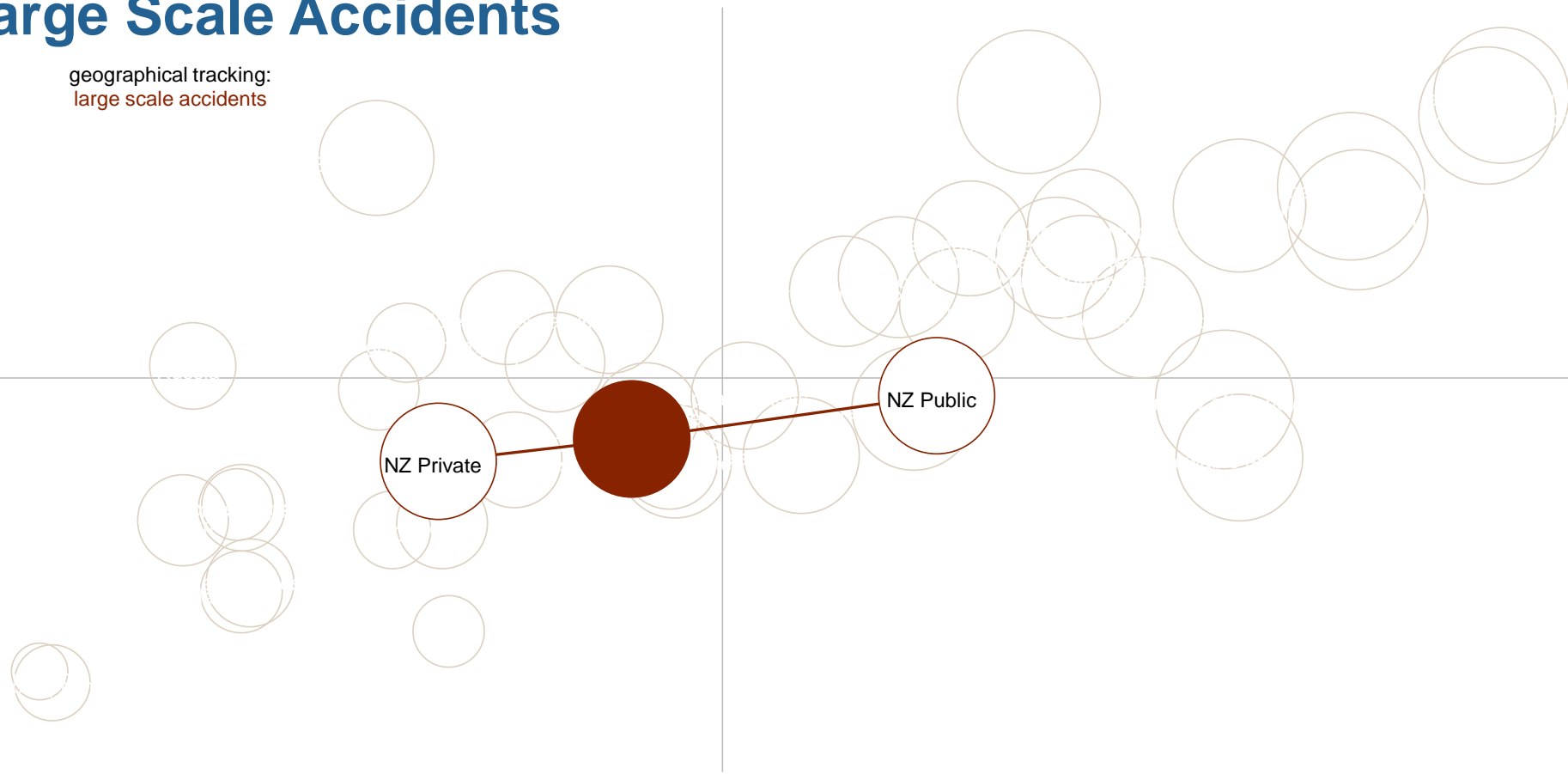


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Large Scale Accidents

geographical tracking:  
large scale accidents

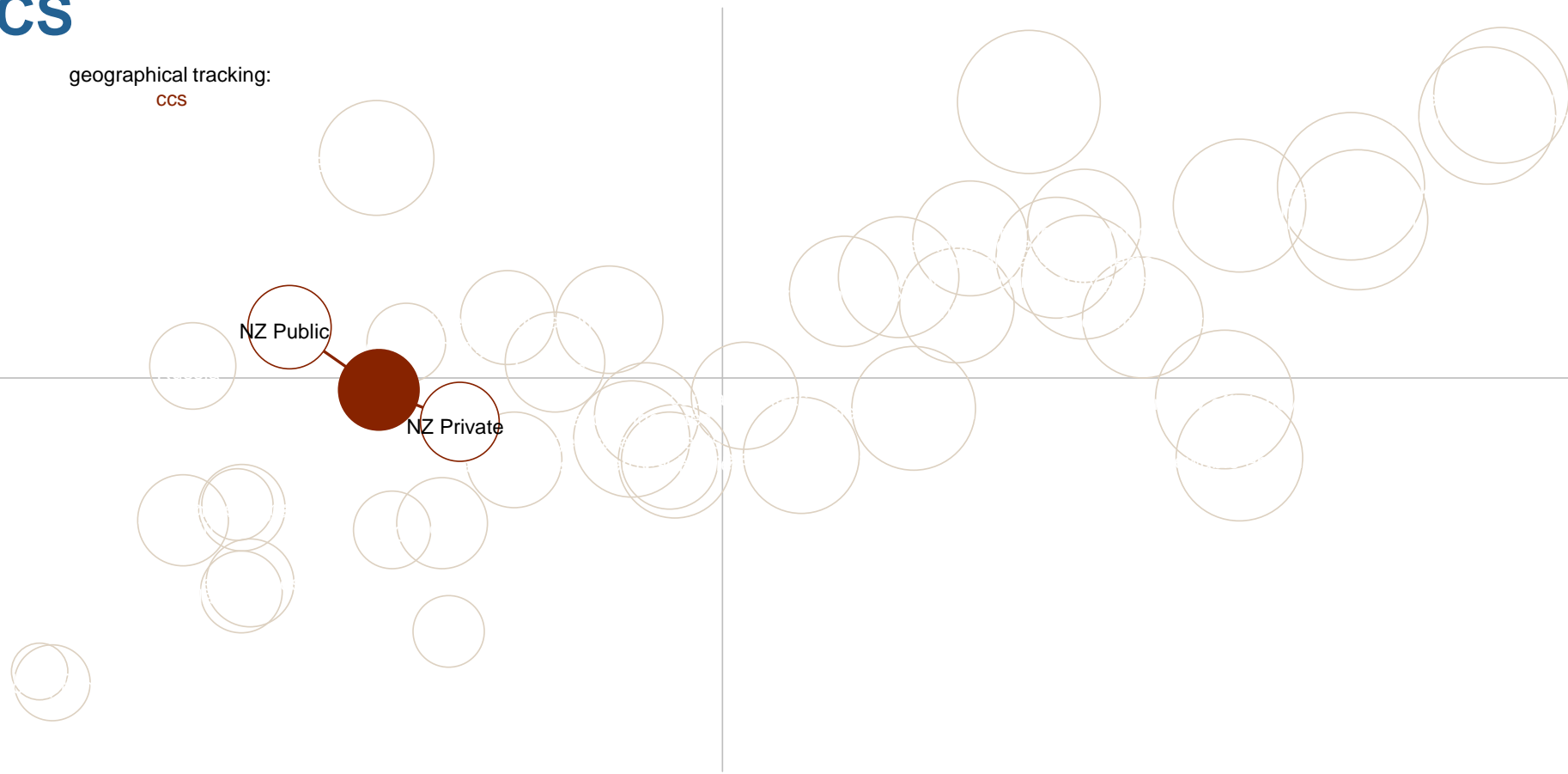


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### CCS

geographical tracking:  
CCS

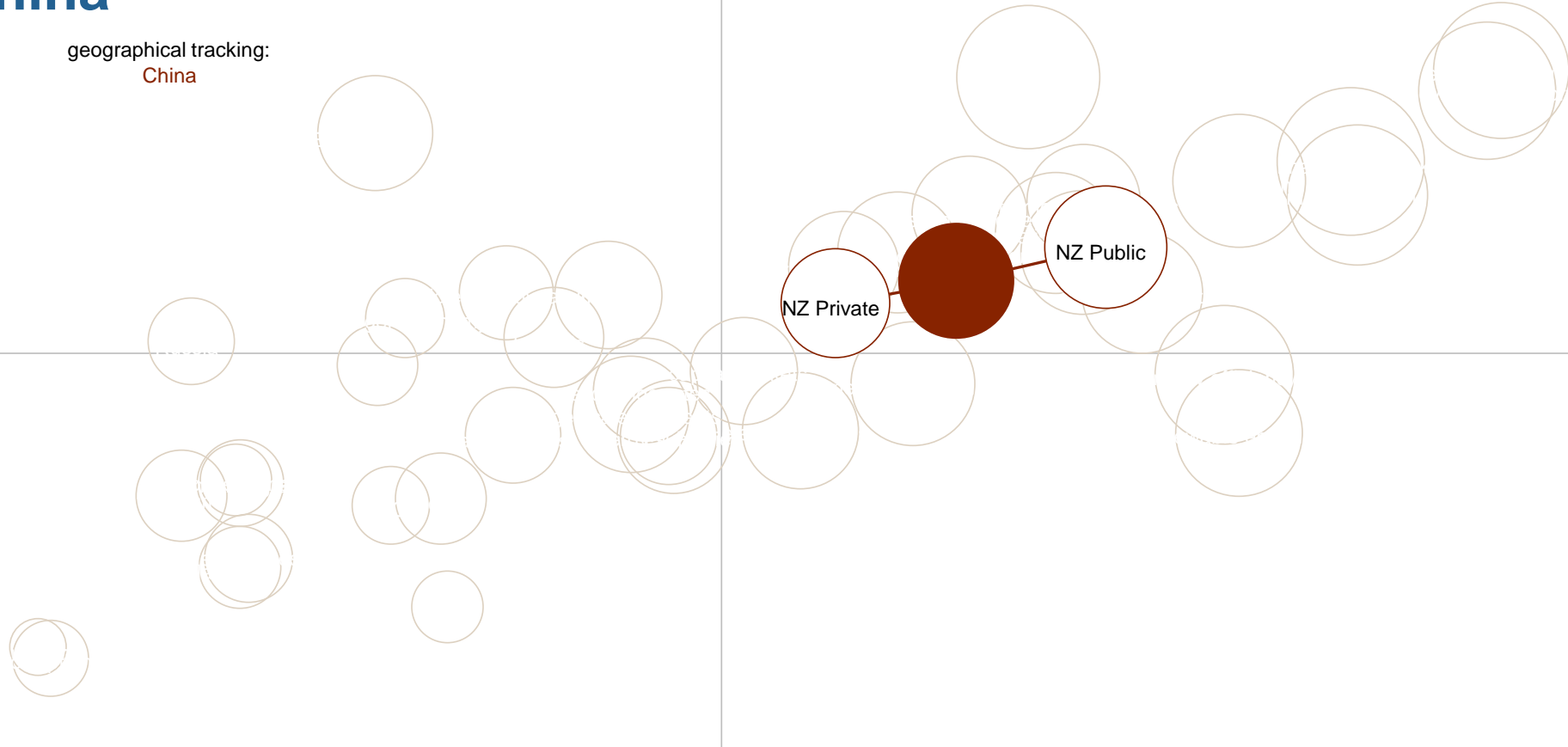


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### China

geographical tracking:  
China

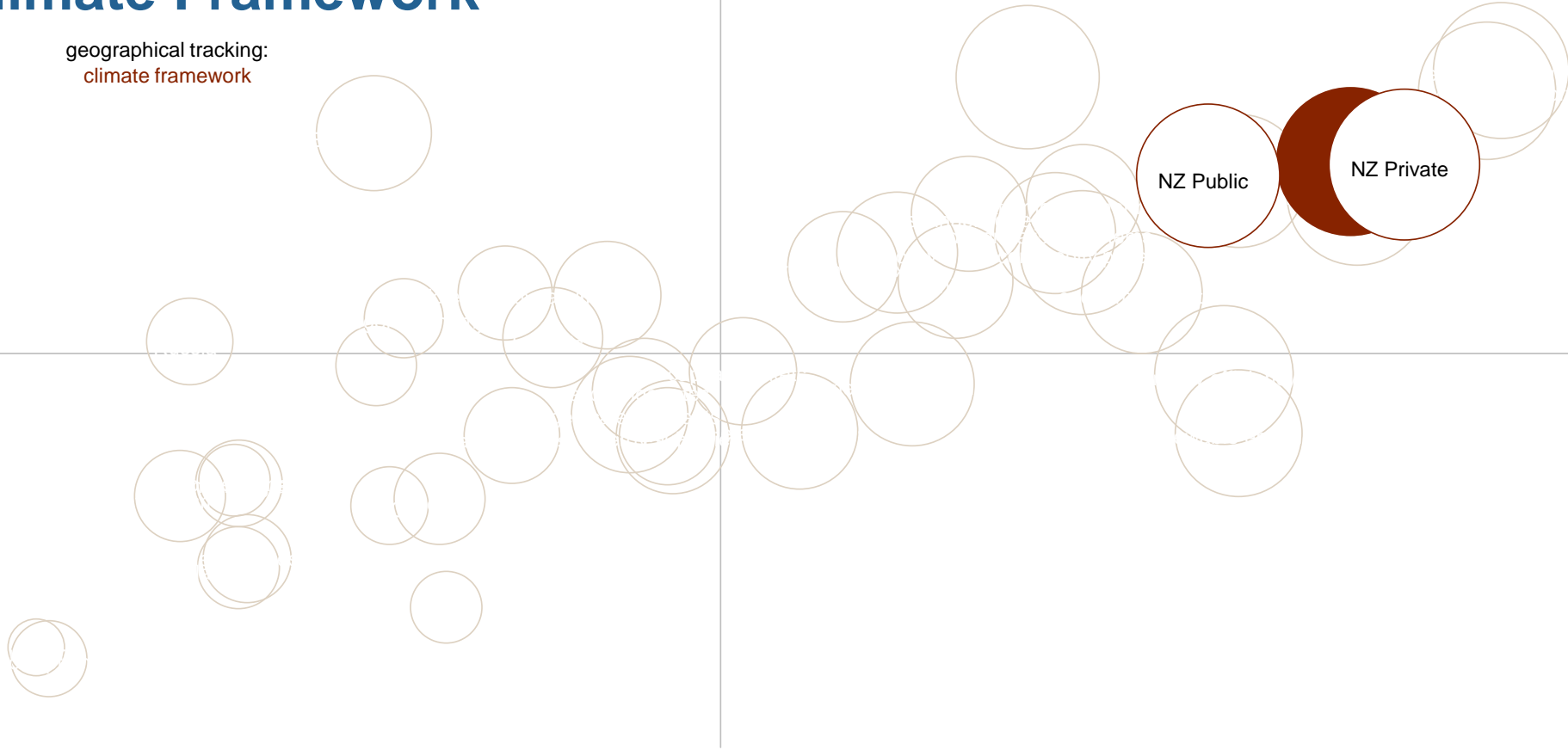


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Climate Framework

geographical tracking:  
climate framework

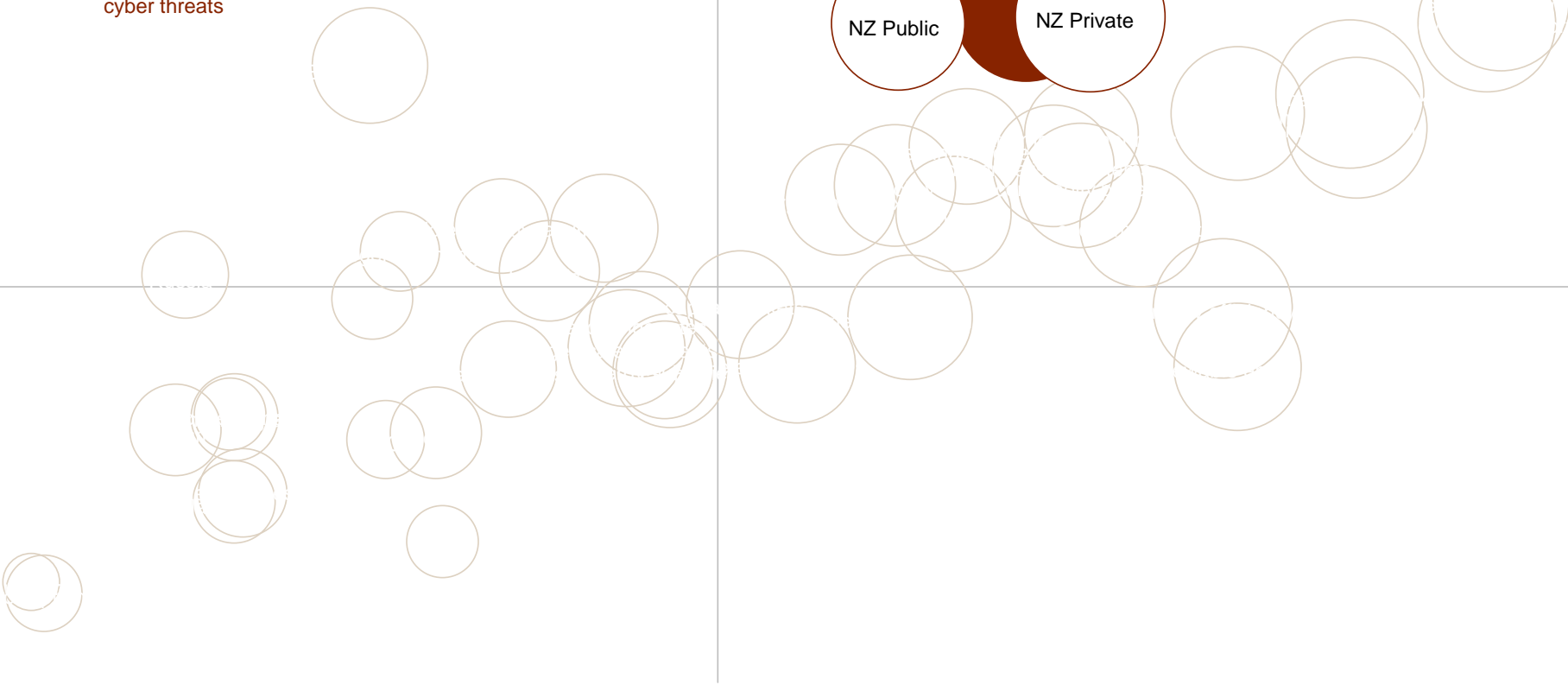
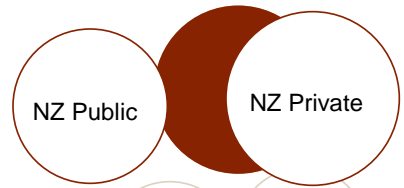


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Cyber Threats

geographical tracking:  
cyber threats

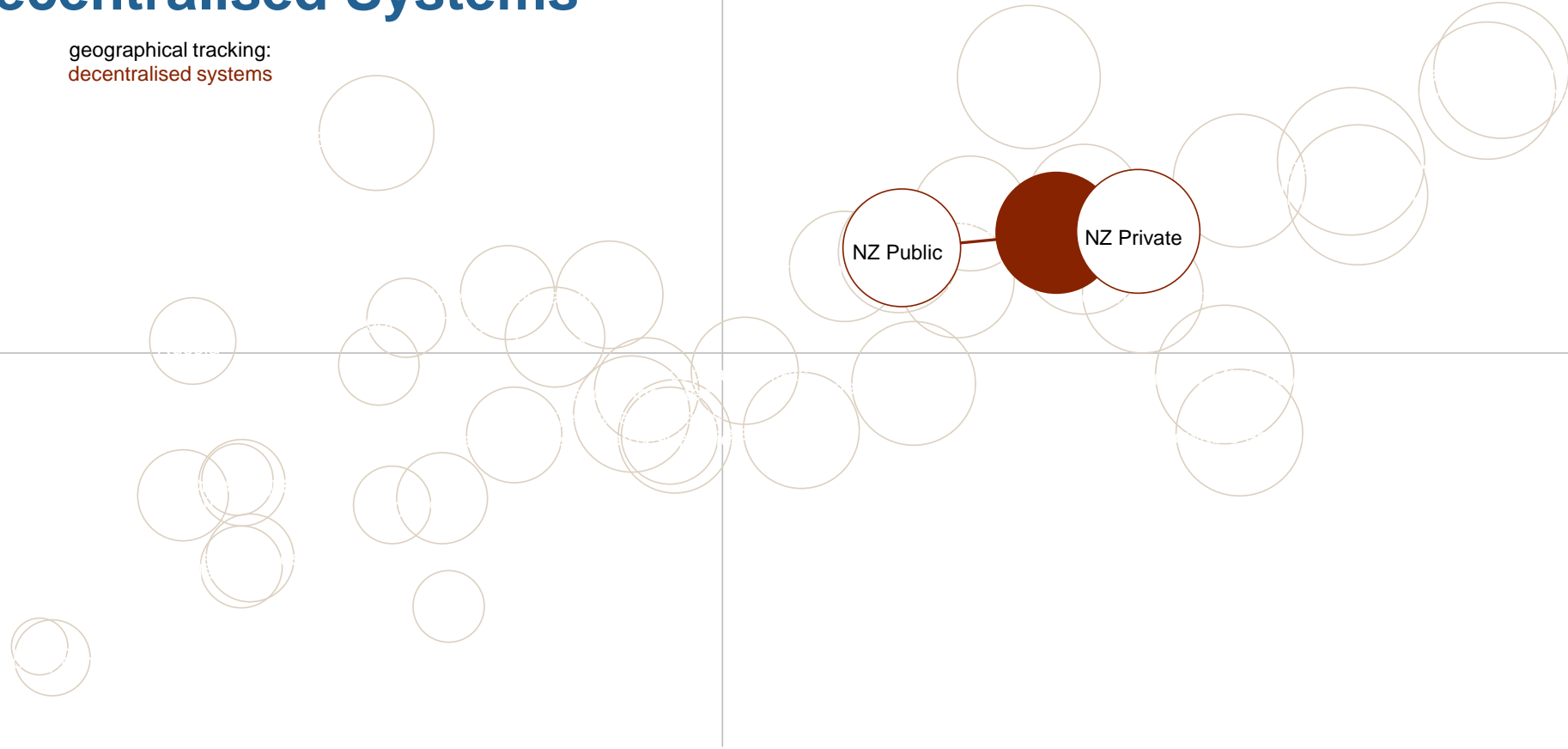


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Decentralised Systems

geographical tracking:  
decentralised systems

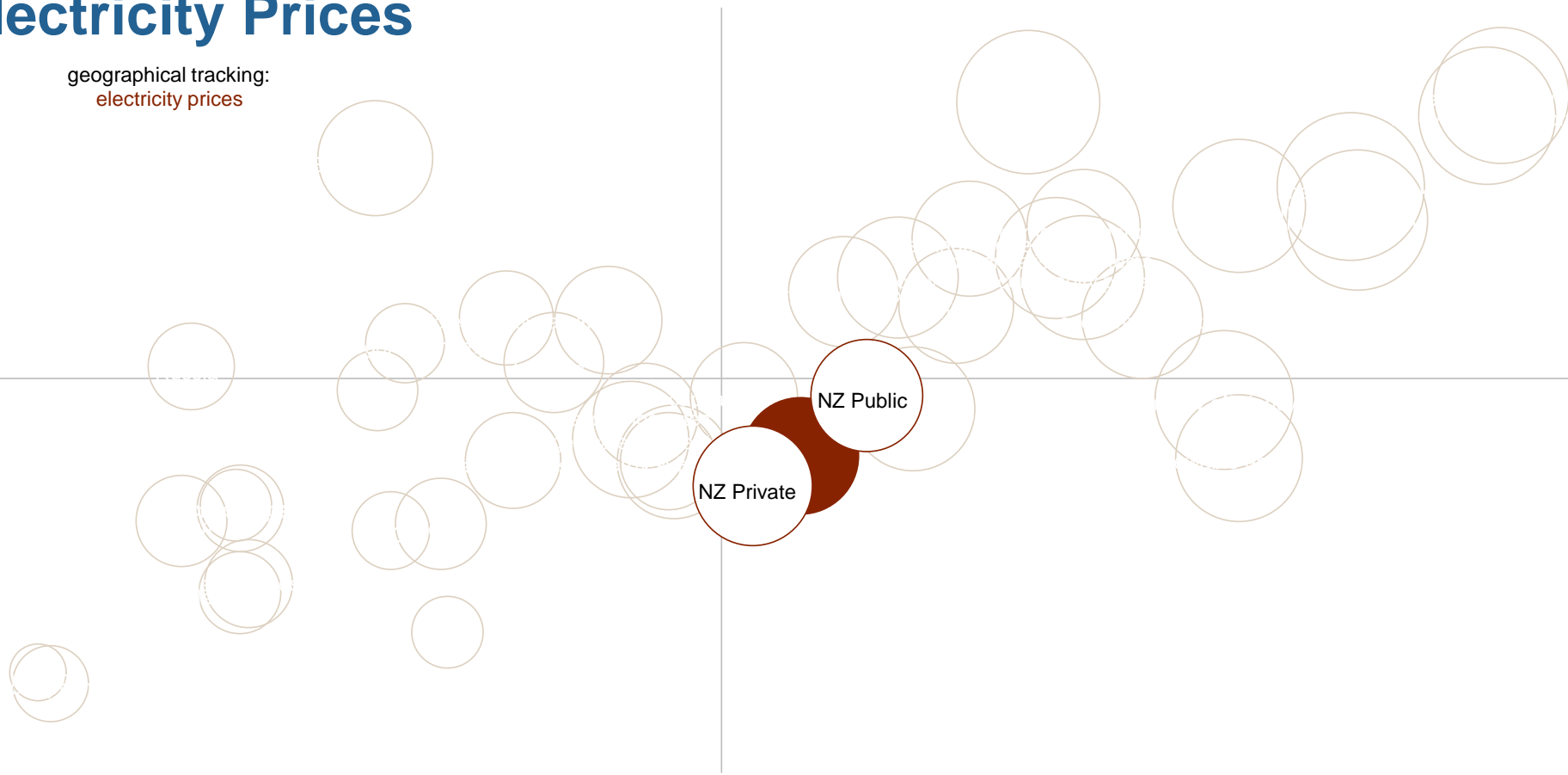


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Electricity Prices

geographical tracking:  
electricity prices

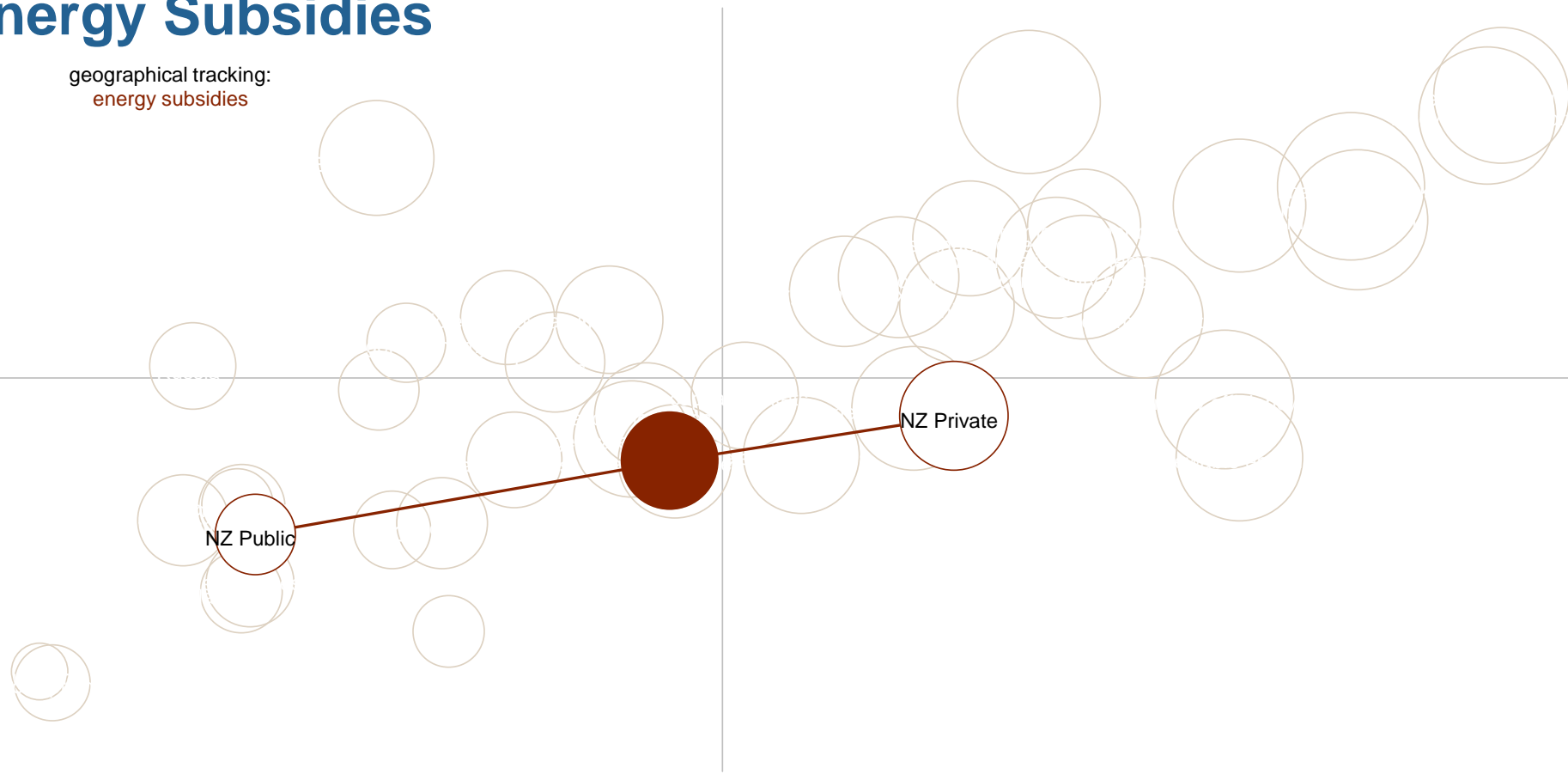


# 2017 Issues Monitor

## New Zealand – Sectoral Tracking

### Energy Subsidies

geographical tracking:  
energy subsidies





# Geographical tracking NZ vs. regions & countries

geographical tracking:  
climate framework

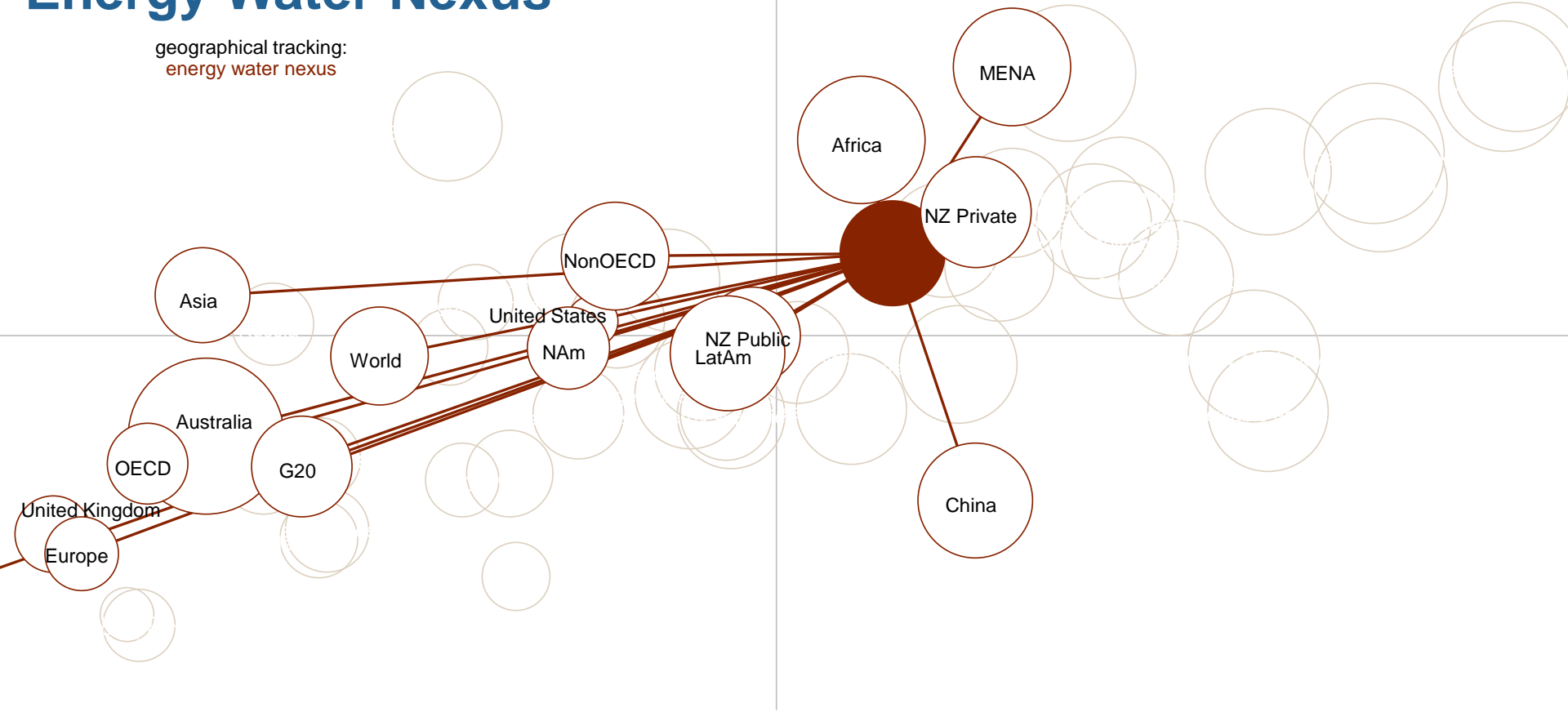


# 2017 Issues Monitor

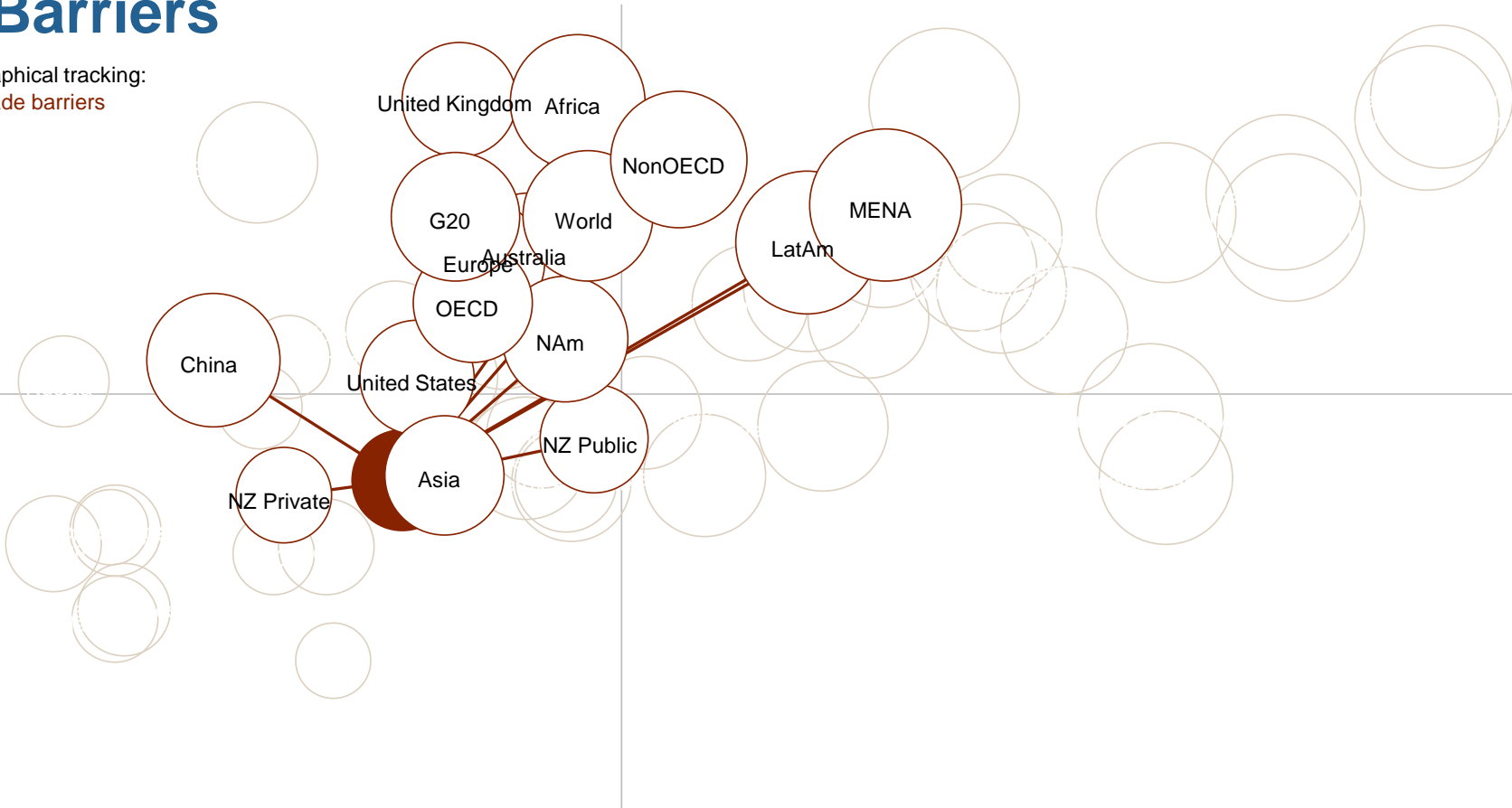
## New Zealand – Geographical Tracking

### Energy Water Nexus

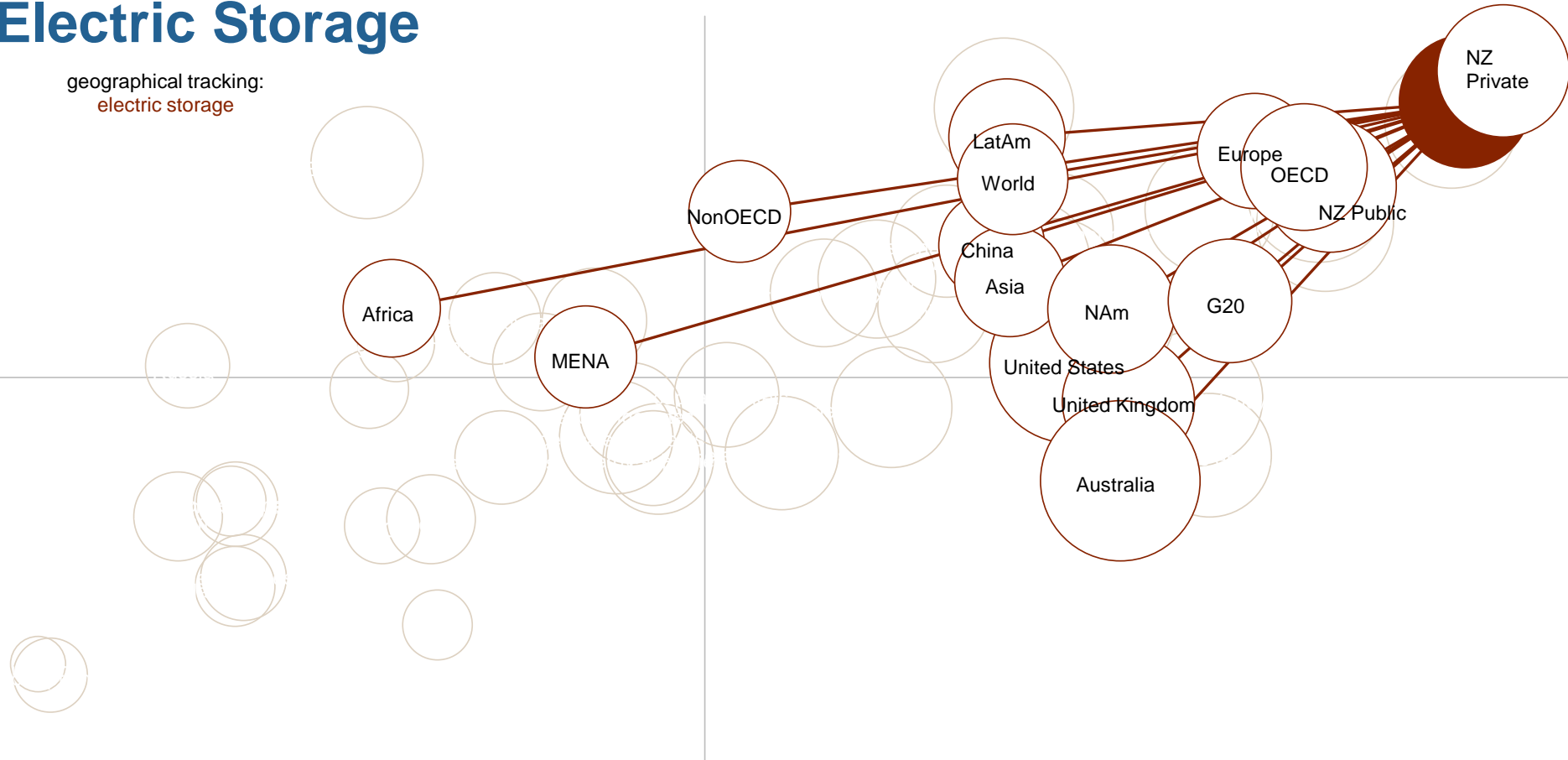
geographical tracking:  
energy water nexus



geographical tracking:  
trade barriers



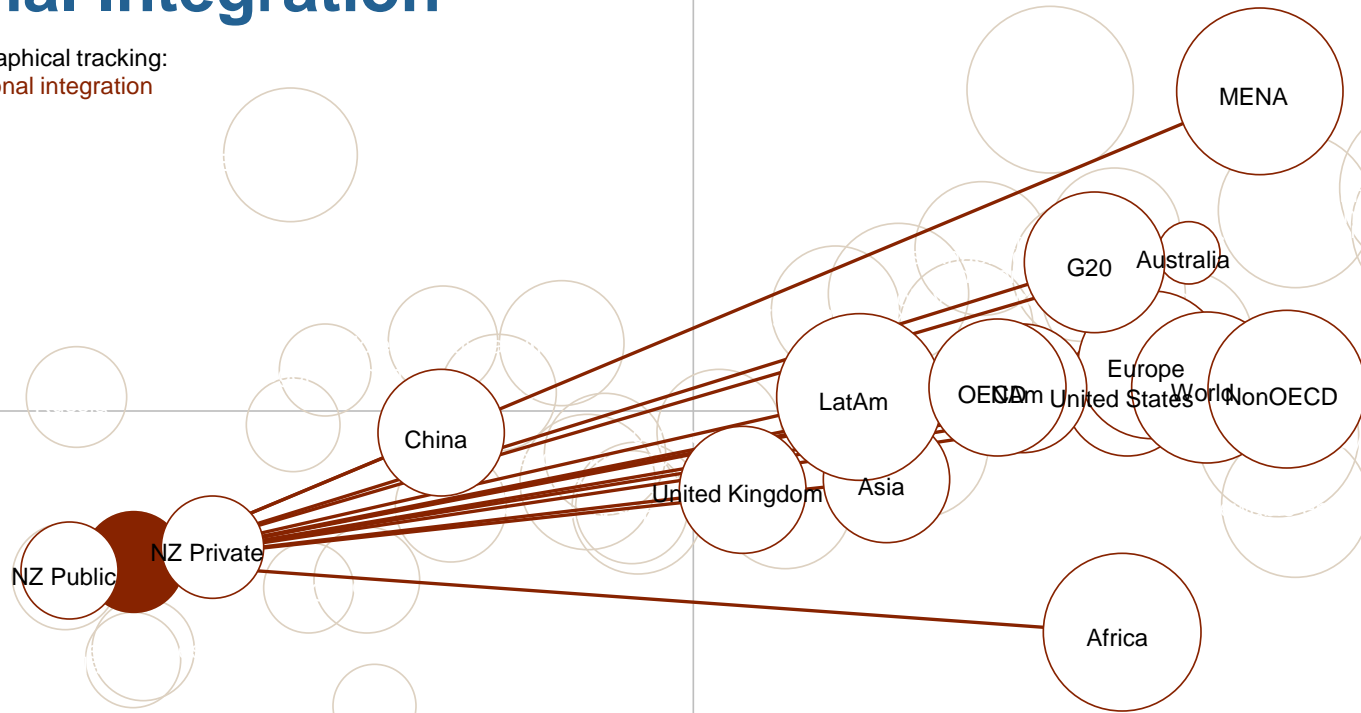
geographical tracking:  
electric storage



geographical tracking:  
renewable energies



geographical tracking:  
regional integration

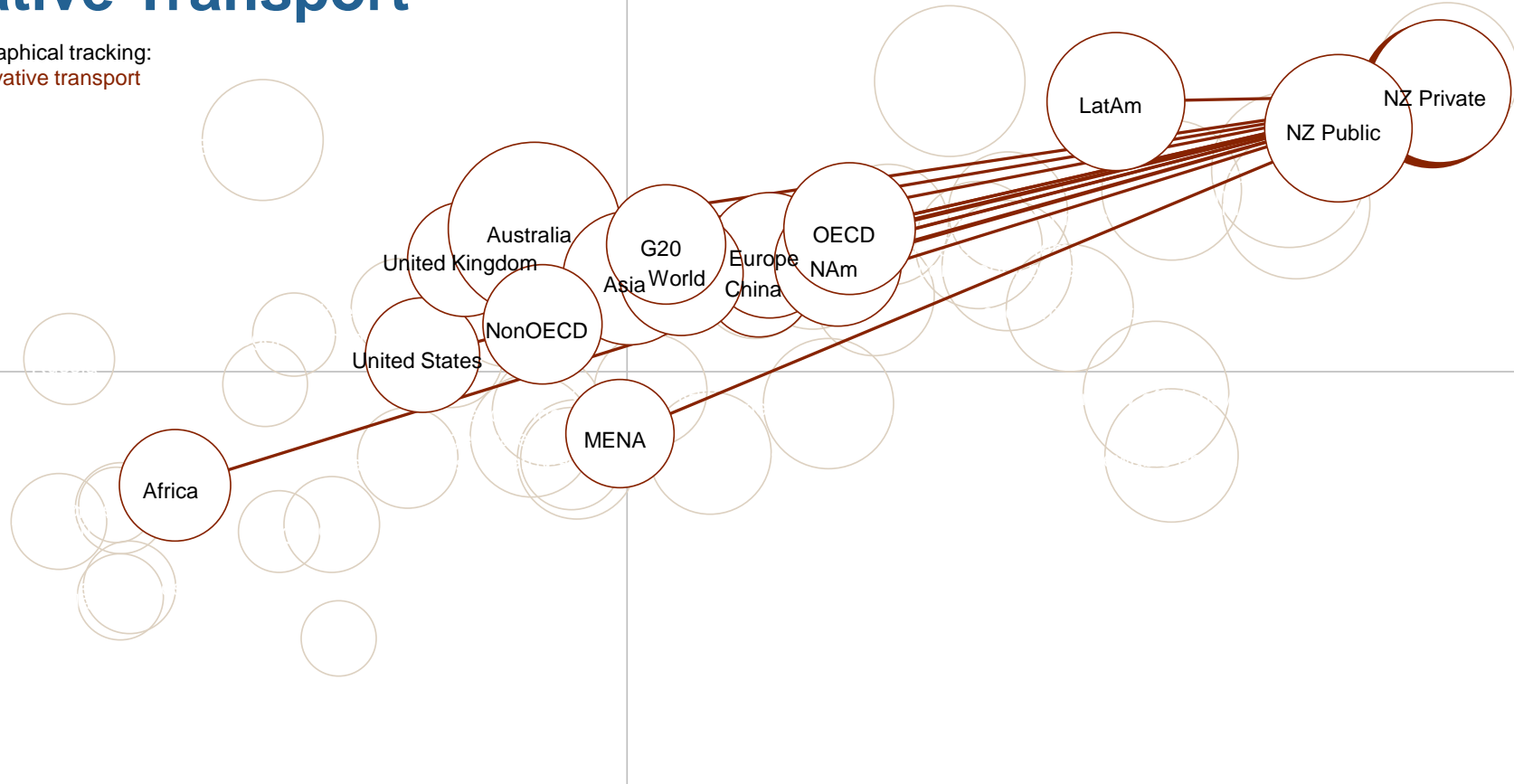


geographical tracking:  
market design

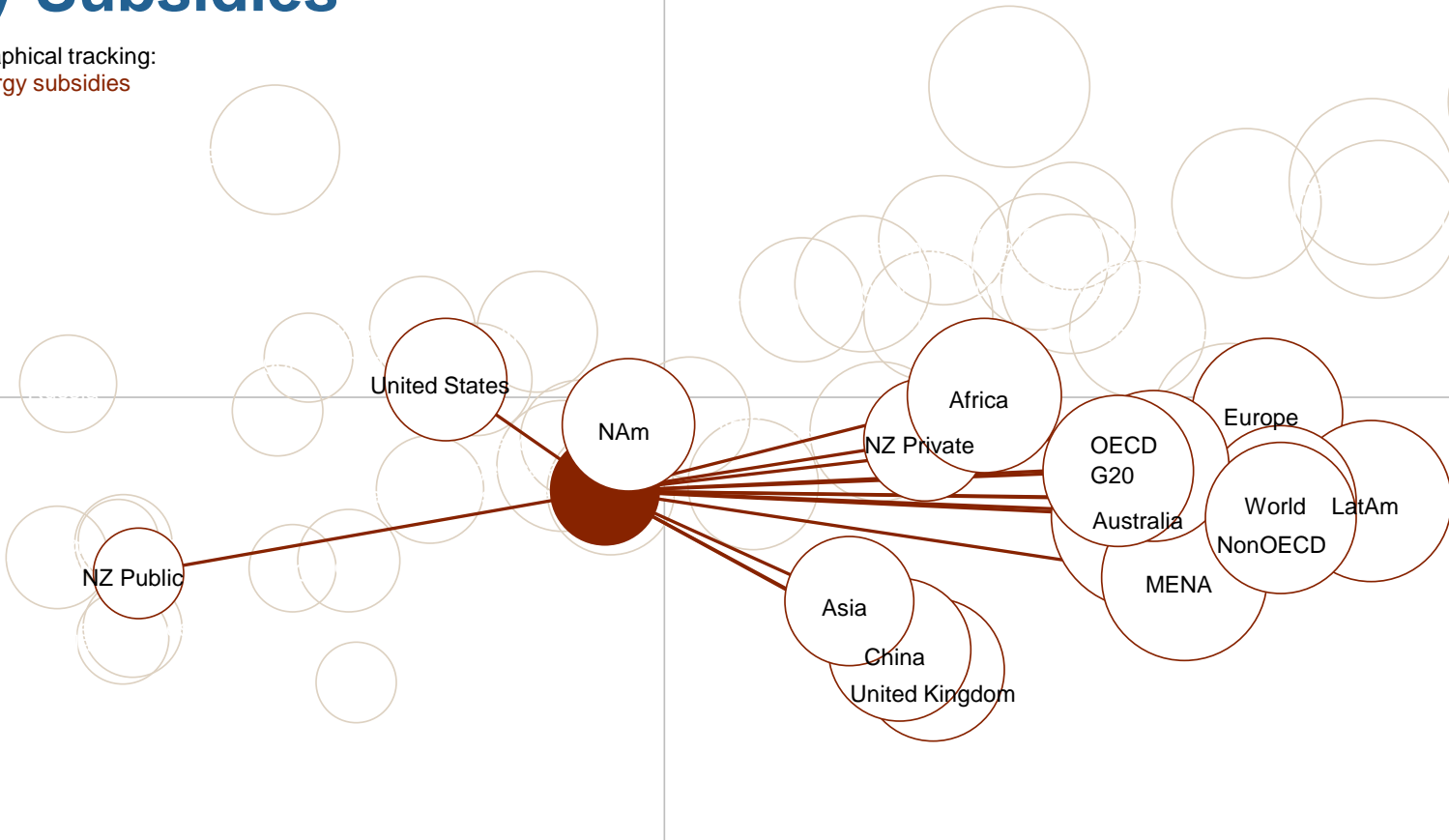




geographical tracking:  
innovative transport

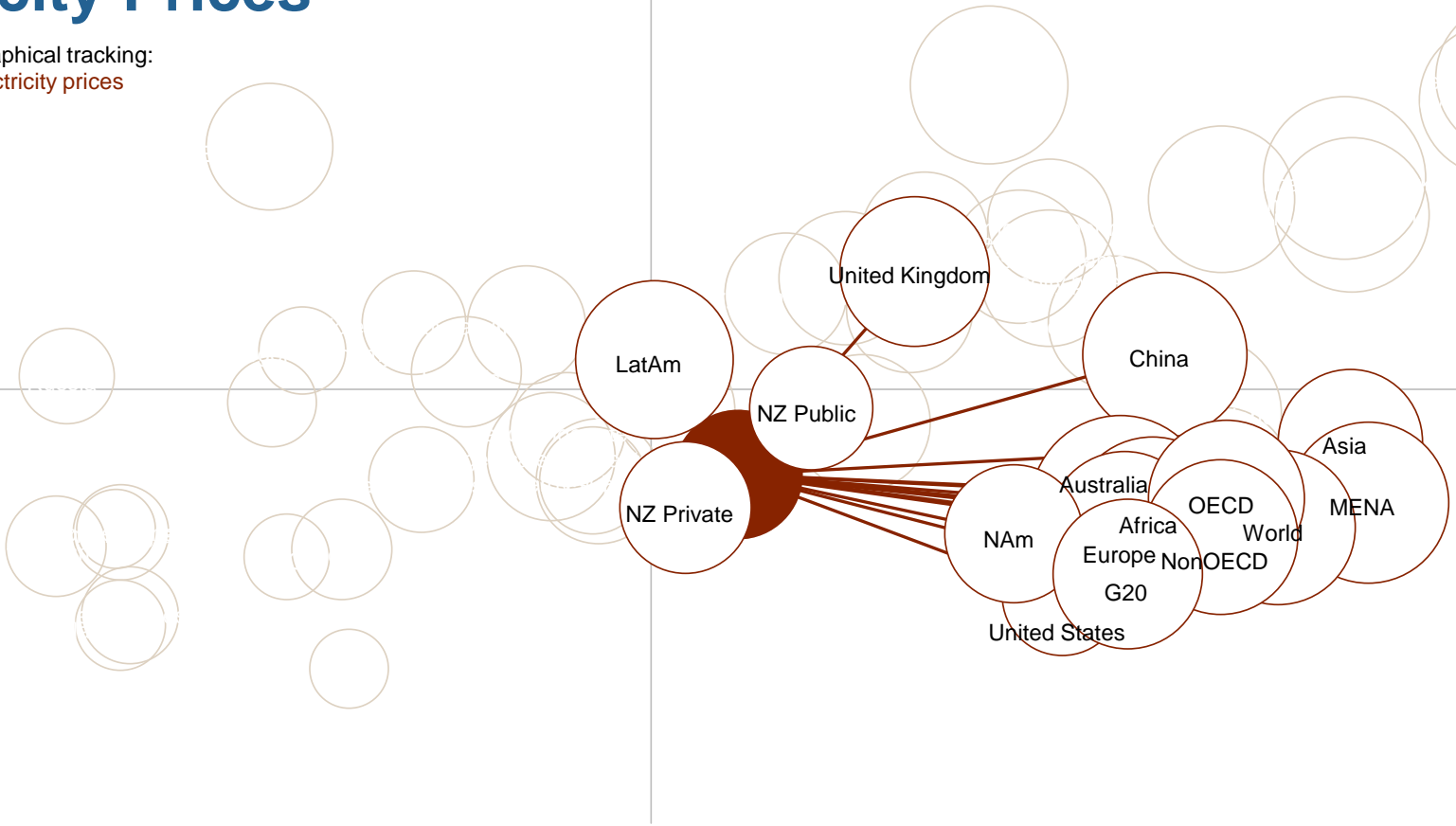


geographical tracking:  
energy subsidies



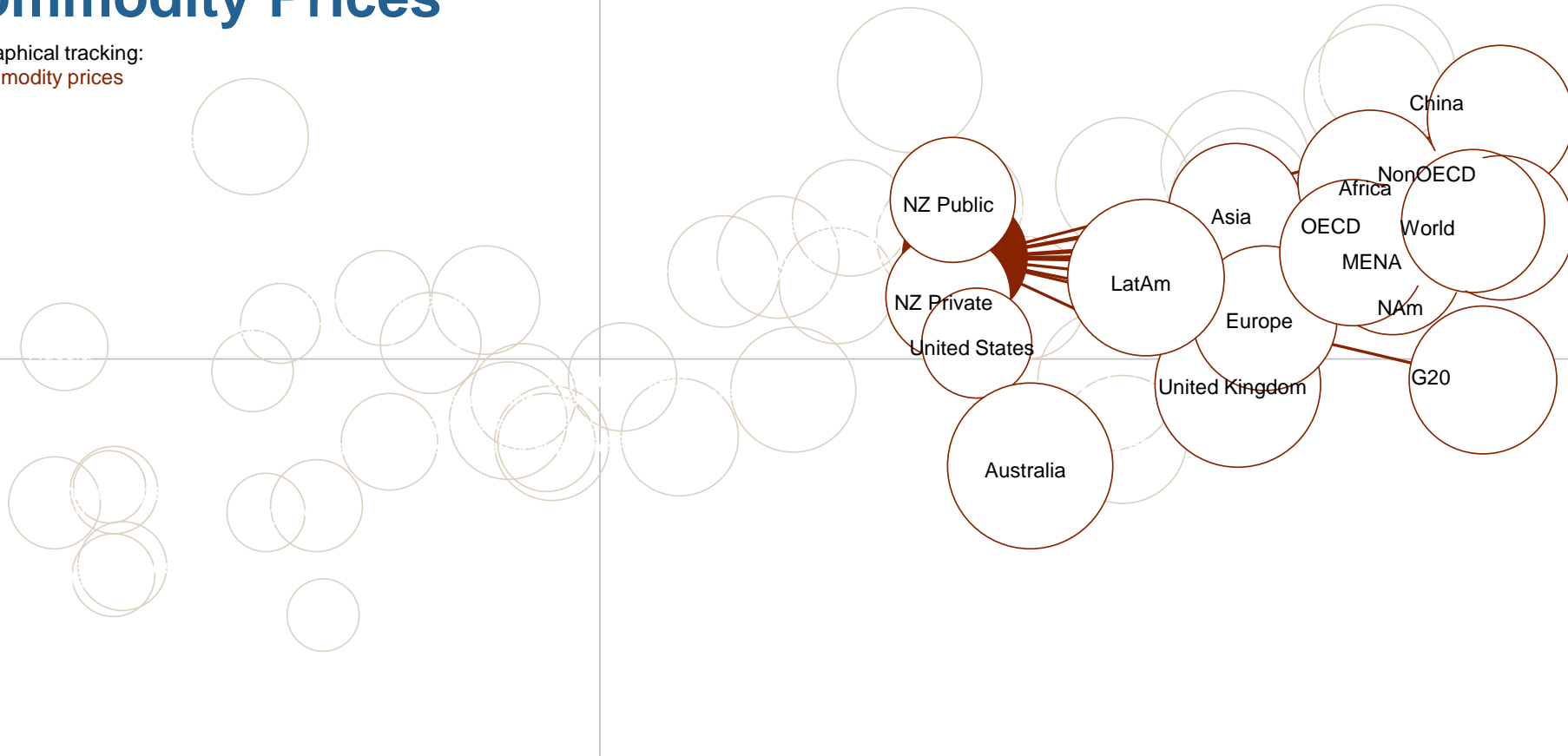
## New Zealand – Geographical Tracking Electricity Prices

geographical tracking:  
electricity prices



## New Zealand – Geographical Tracking Commodity Prices

geographical tracking:  
commodity prices

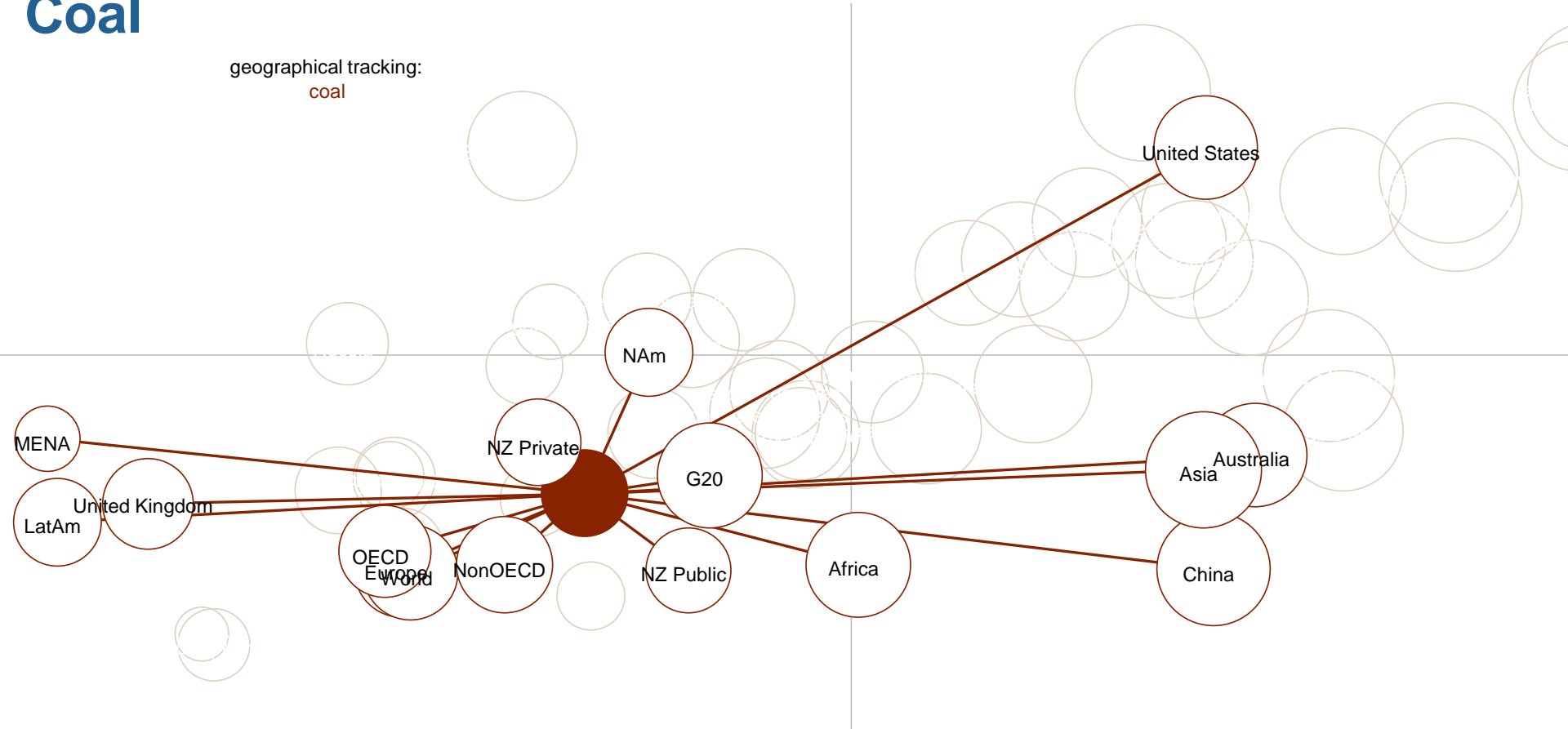


# 2017 Issues Monitor

## New Zealand – Geographical Tracking

### Coal

geographical tracking:  
coal

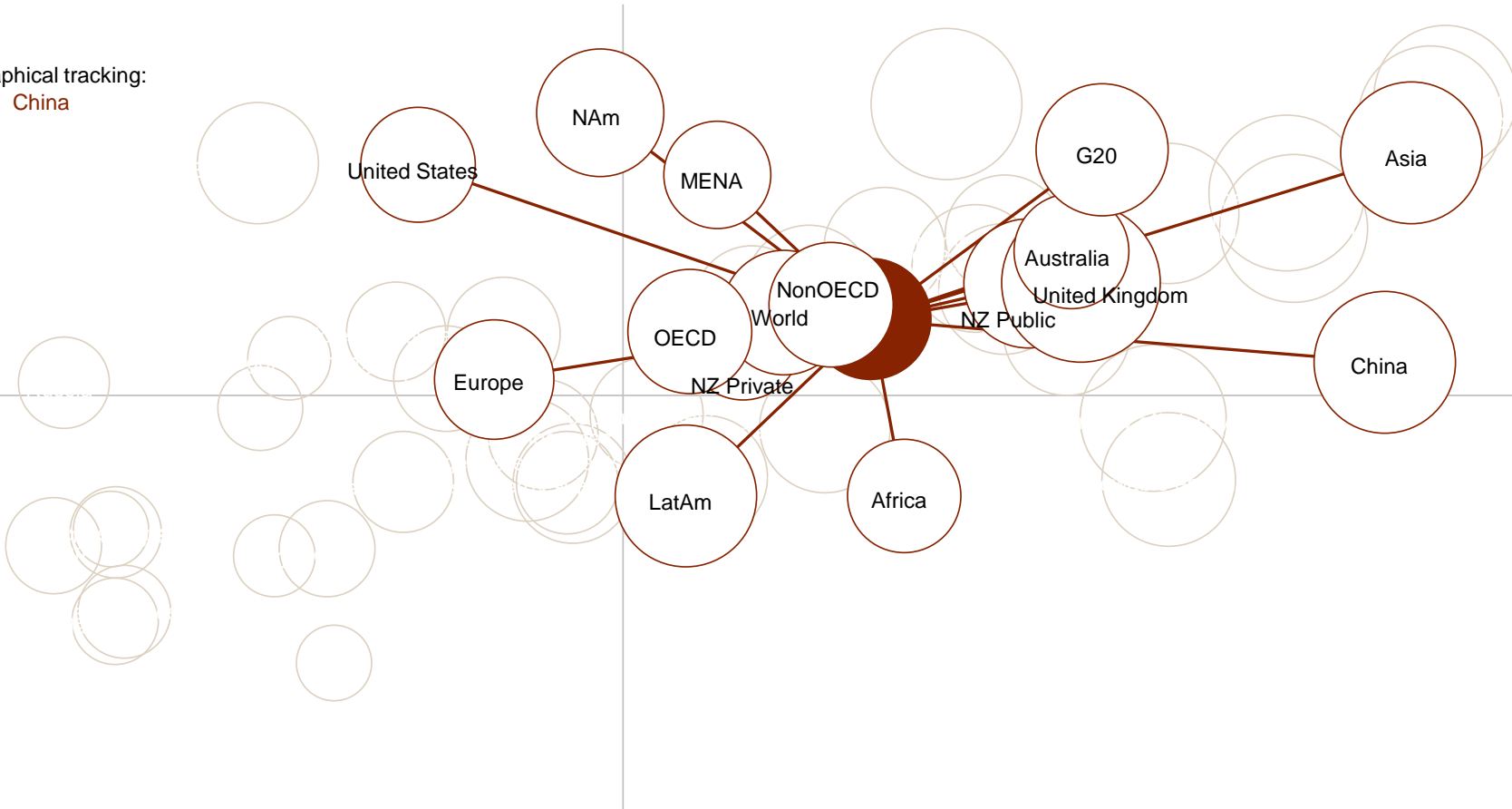


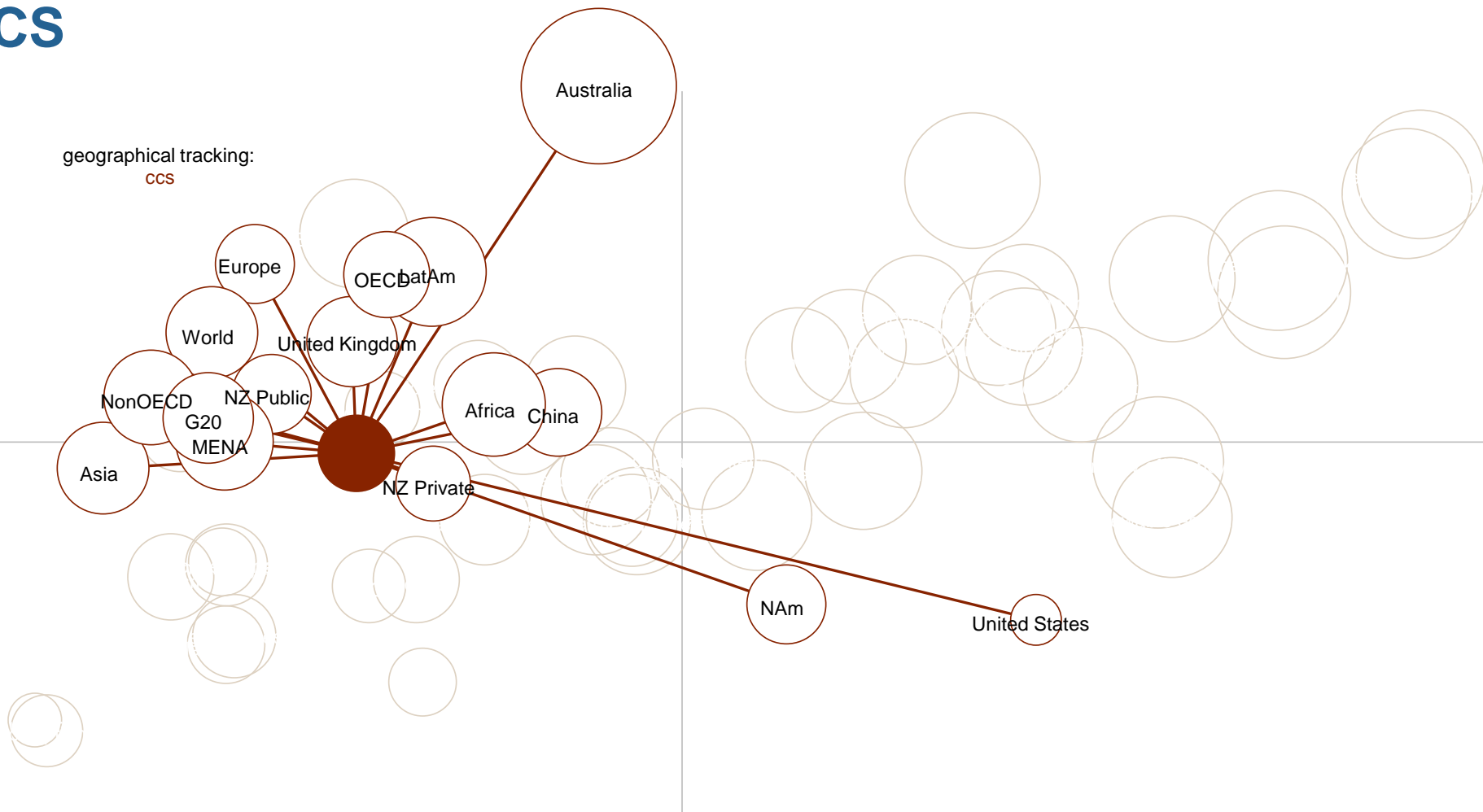
# 2017 Issues Monitor

## New Zealand – Geographical Tracking

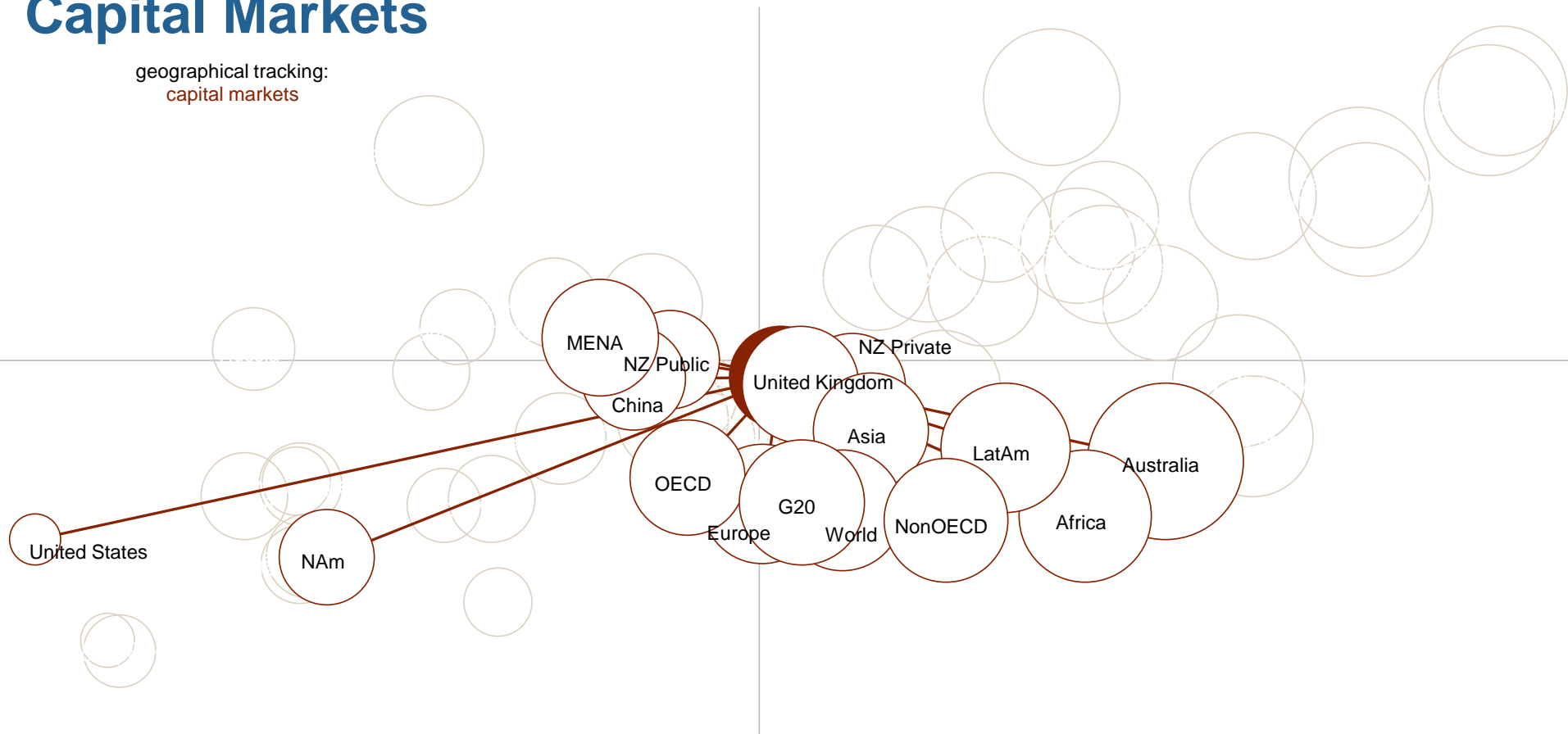
### China

geographical tracking:  
China





geographical tracking:  
capital markets

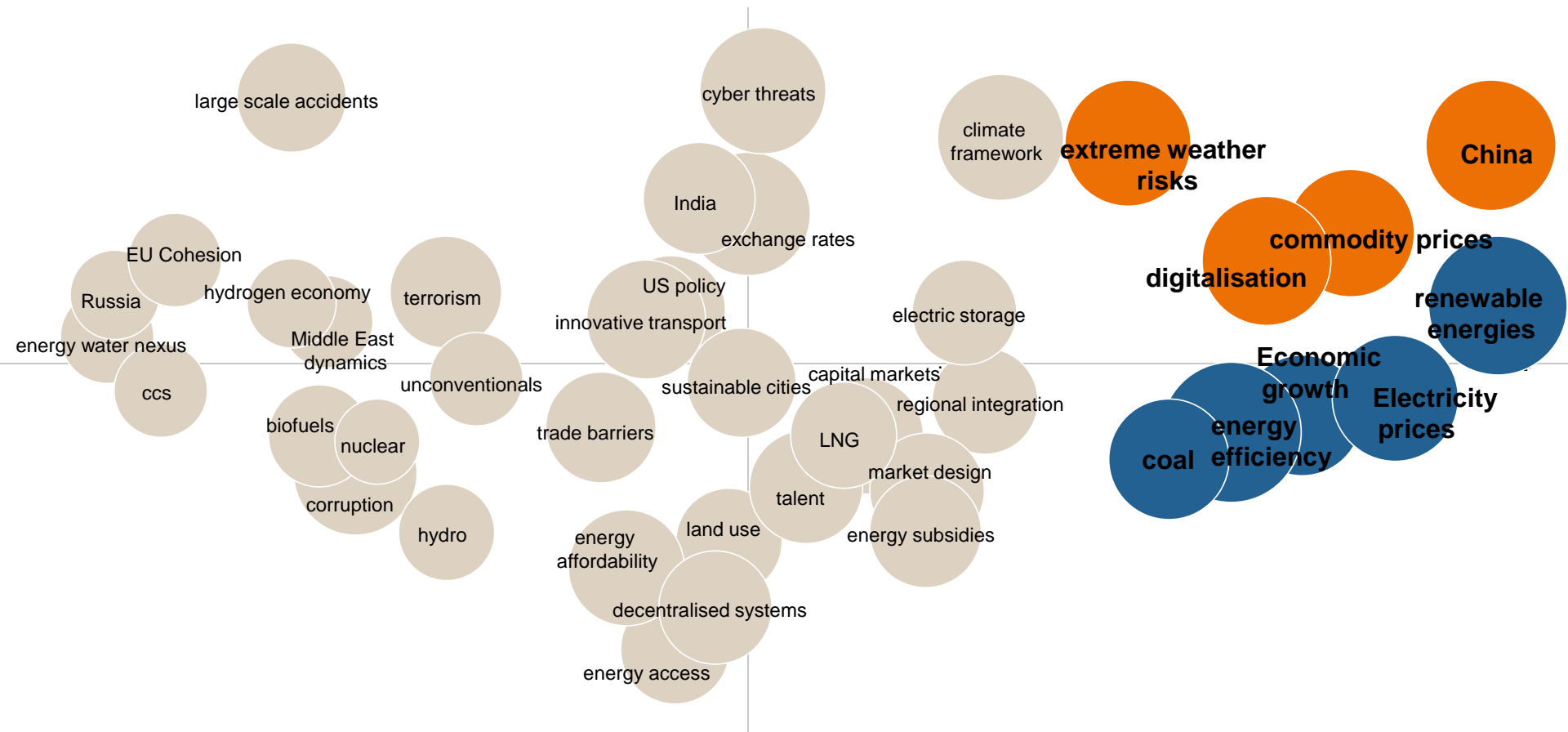




# Asia

# 2017 Issues Monitor

## Asia



# 2017 Issues Monitor

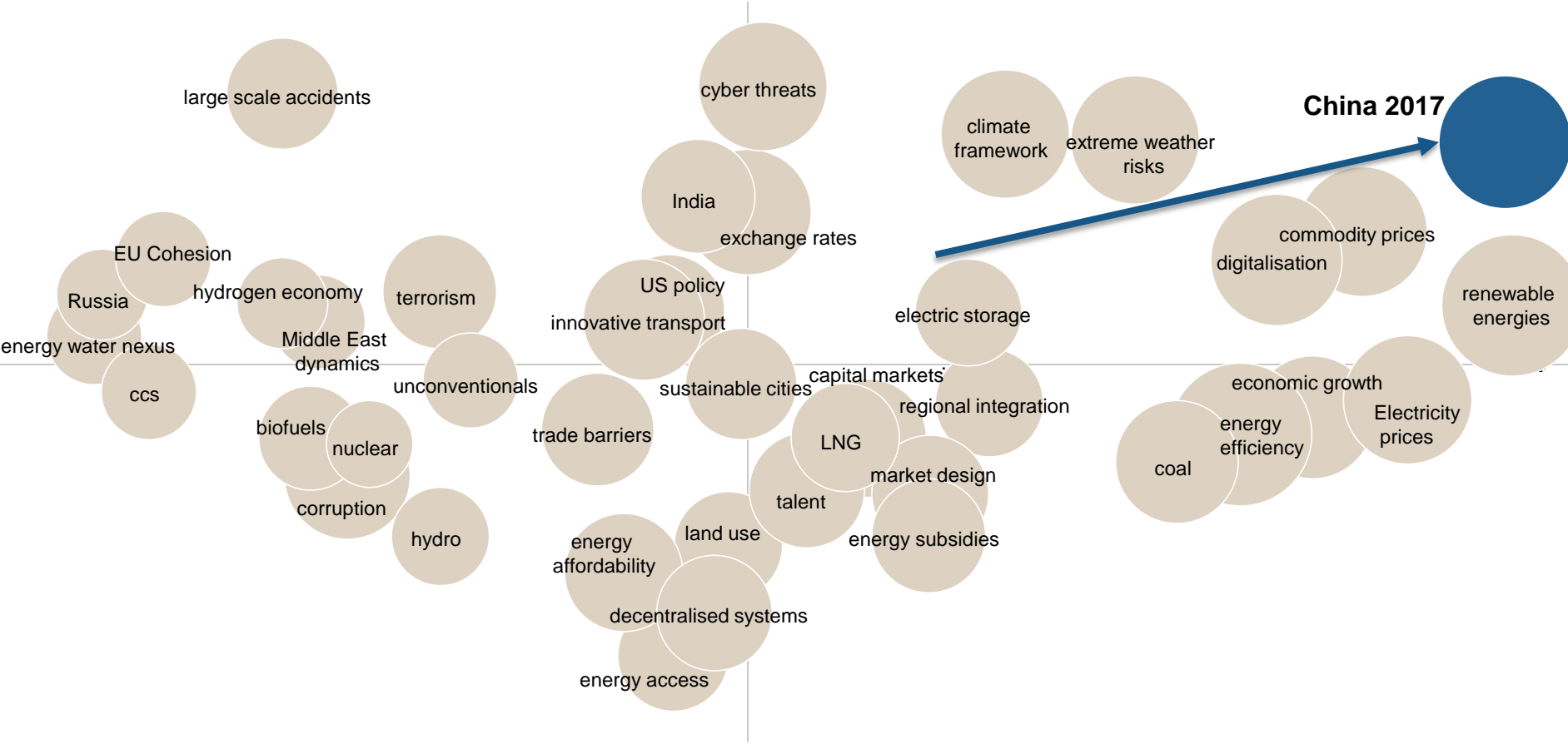
## Asia – Summary

- Keeping energy leaders most awake at night: extreme weather risks , China , commodity prices , digitalisation
- Keeping energy leaders most busy at work: renewables , energy efficiency , economic growth , electricity prices
- With highest change over last period: hydro , economic growth , energy subsidies , large scale accidents , decentralised systems , climate framework
- - top heating up movers: China , renewable energies , economic growth , digitalisation
- - top cooling down movers: energy water nexus , large scale accidents , hydro , nuclear
- With lowest change over last period: commodity prices , capital markets , biofuels , energy affordability
- With highest variance (most controversial): terrorism , corruption , energy access , cyber threats
- With lowest variance (greatest consensus): talent , energy efficiency , India , innovative transport

# Time-tracking

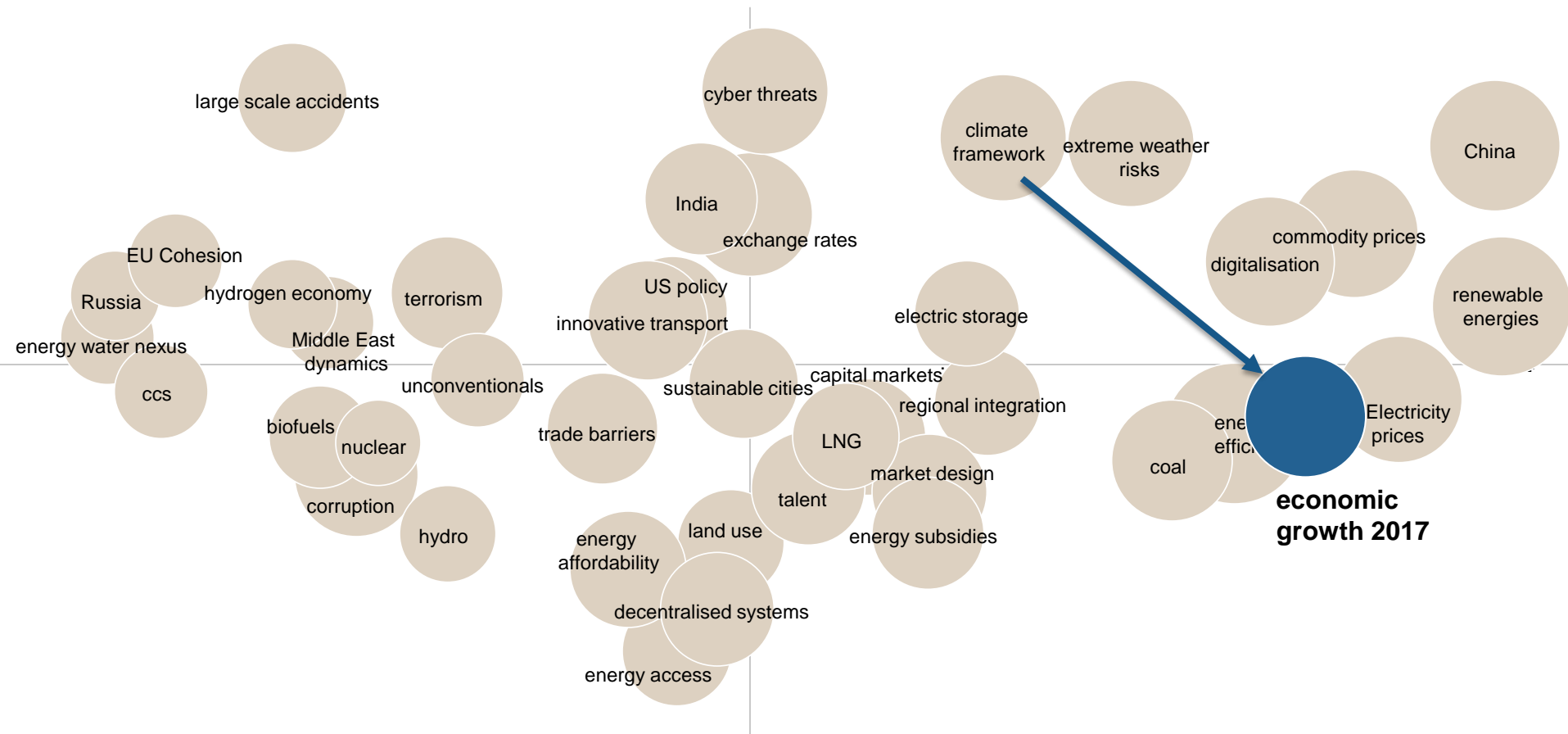
# 2017 Issues Monitor

## Asia – China



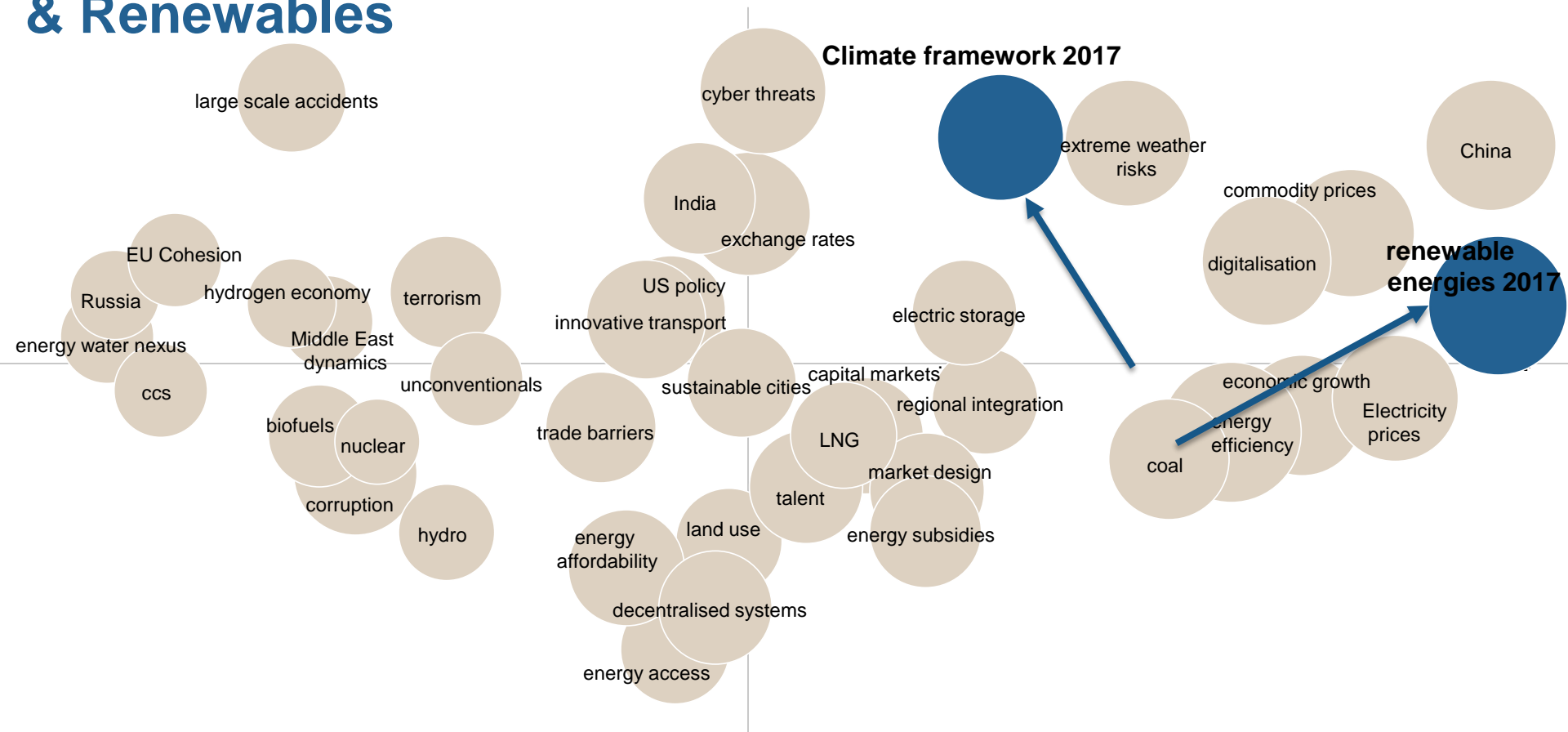
# 2017 Issues Monitor

## Asia – Economic Growth



# 2017 Issues Monitor

## Asia – Climate Framework & Renewables

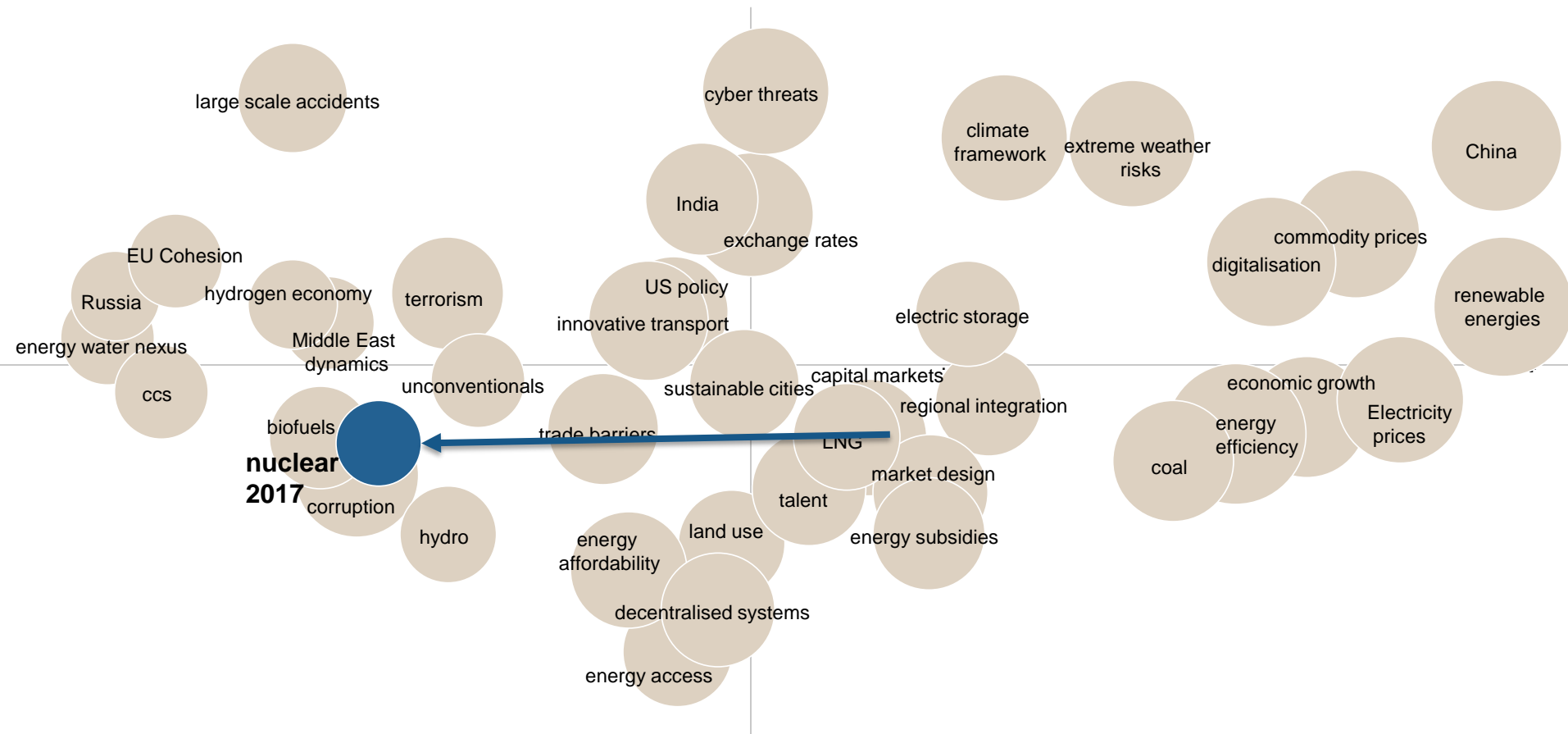






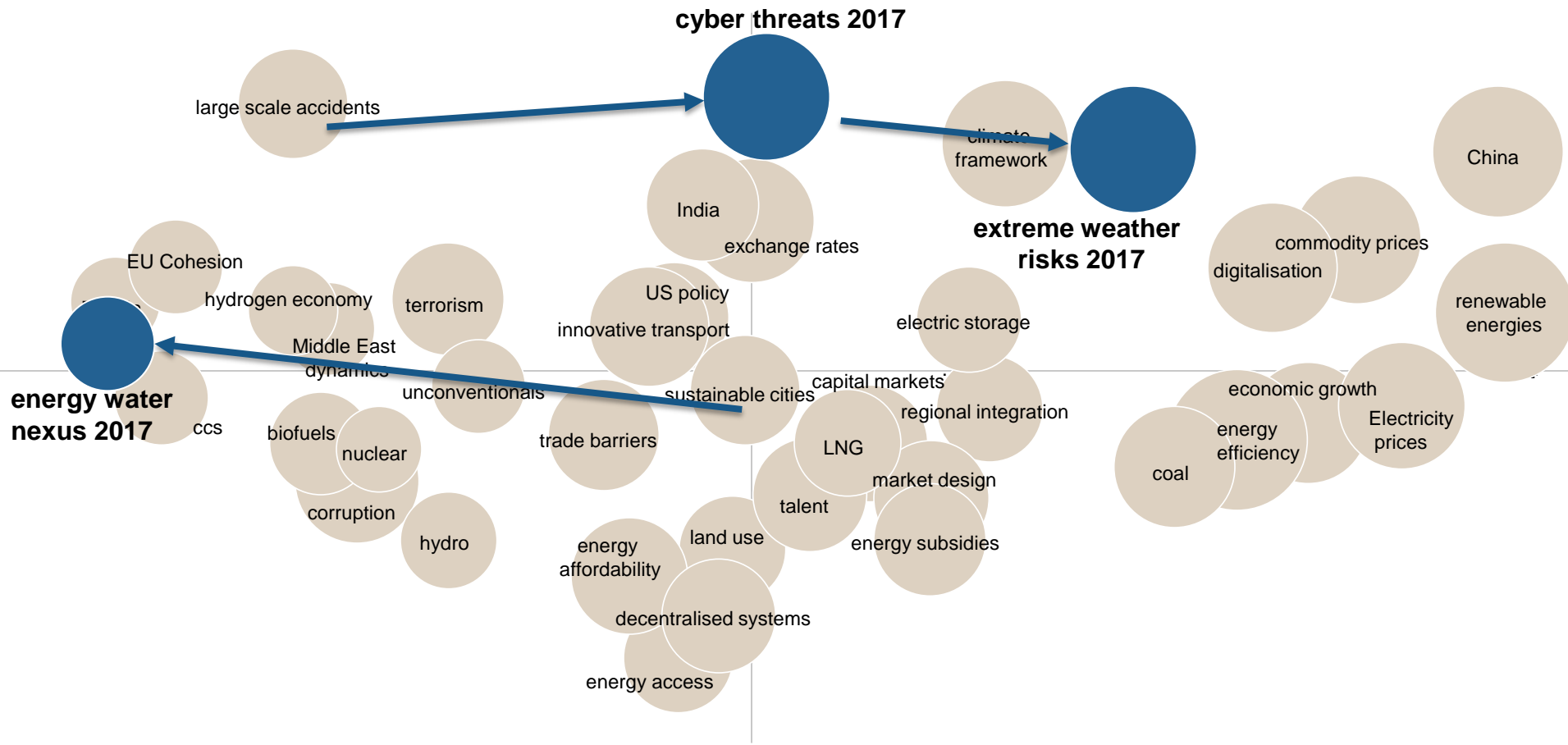
# 2017 Issues Monitor

## Asia - Nuclear



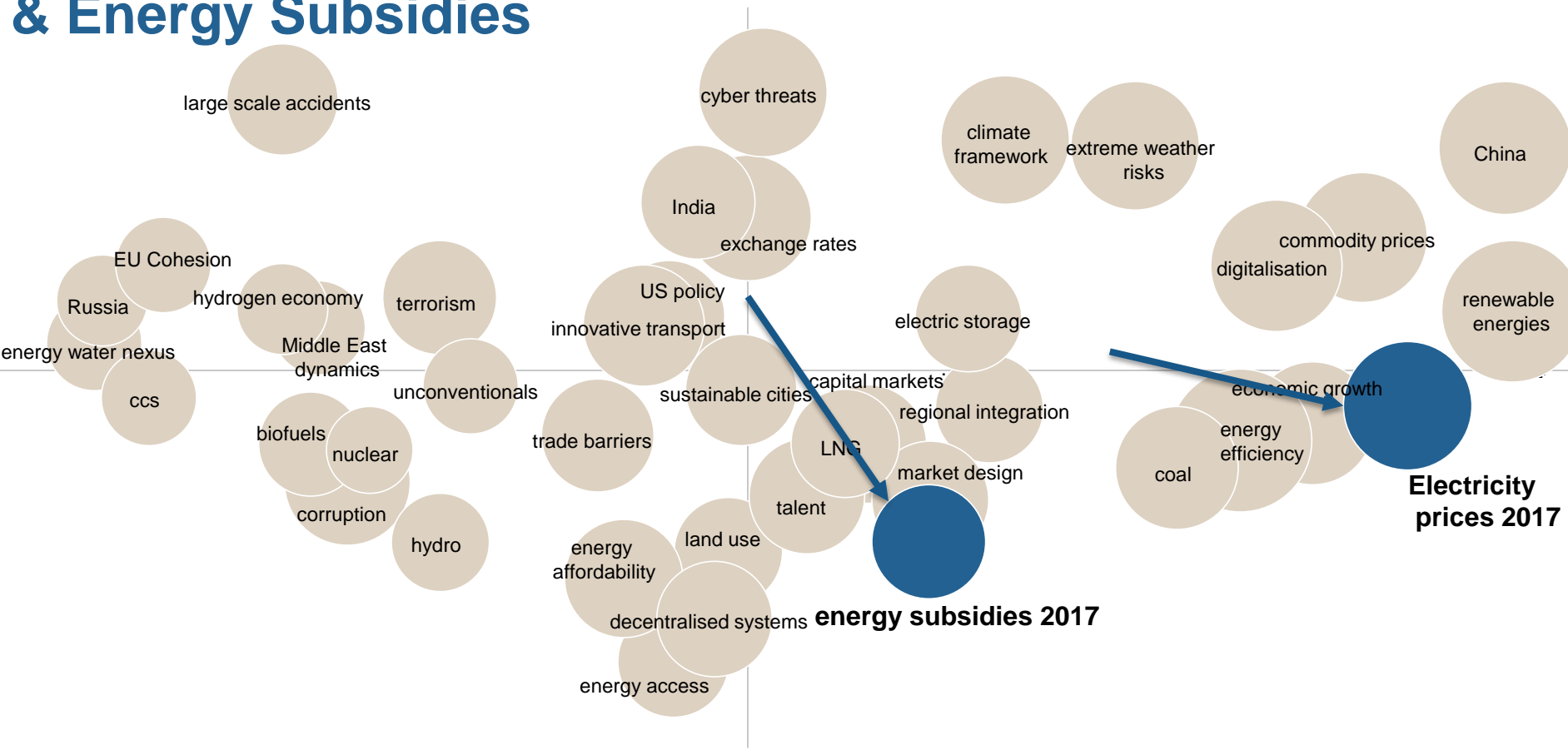
# 2017 Issues Monitor

## Asia - Risks



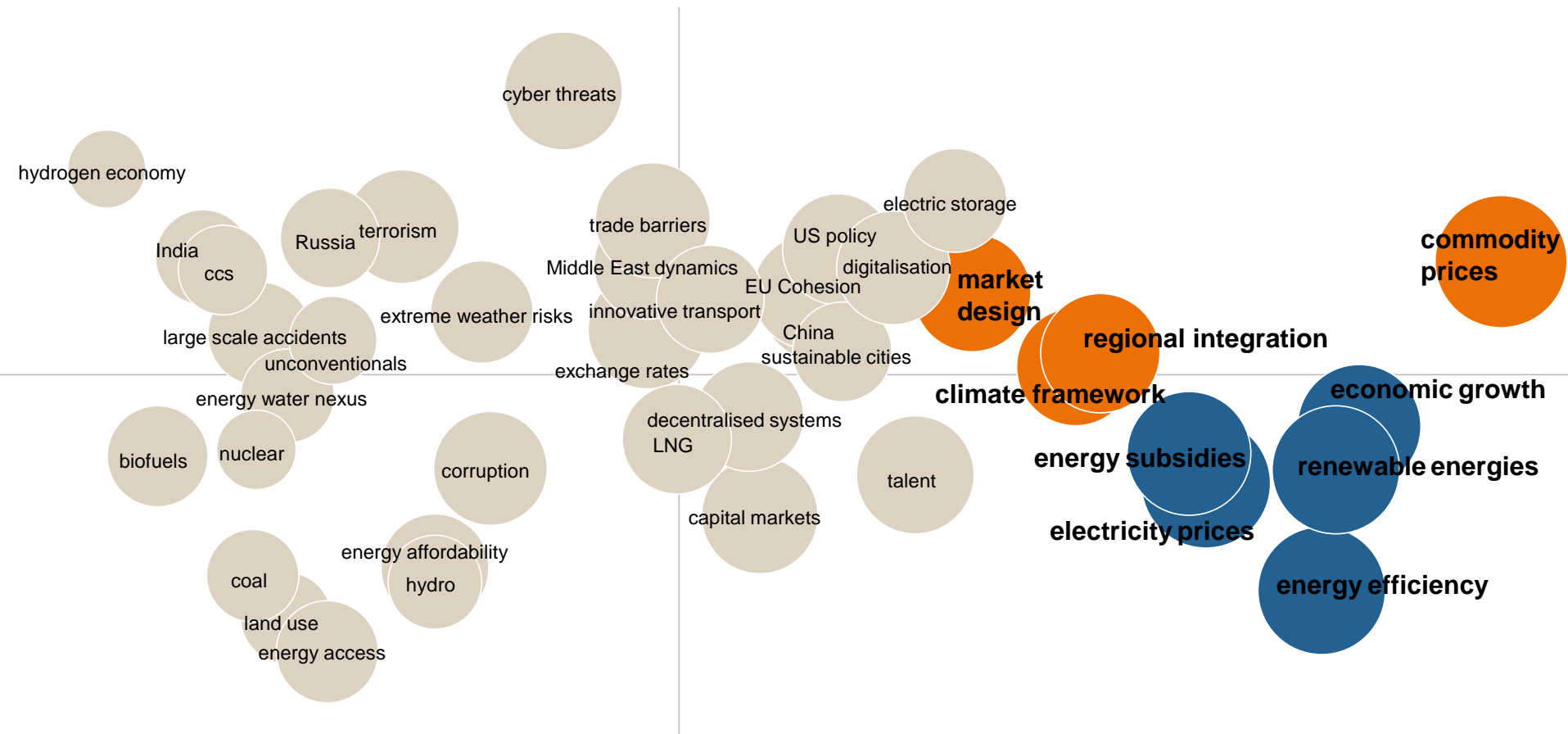
# 2017 Issues Monitor

## Asia – Electricity Prices & Energy Subsidies



# World Map

# 2017 Issues Monitor World



# Geographical & Sectoral Tracking

## World vs. Regions & Sectors

# 2017 Issues Monitor

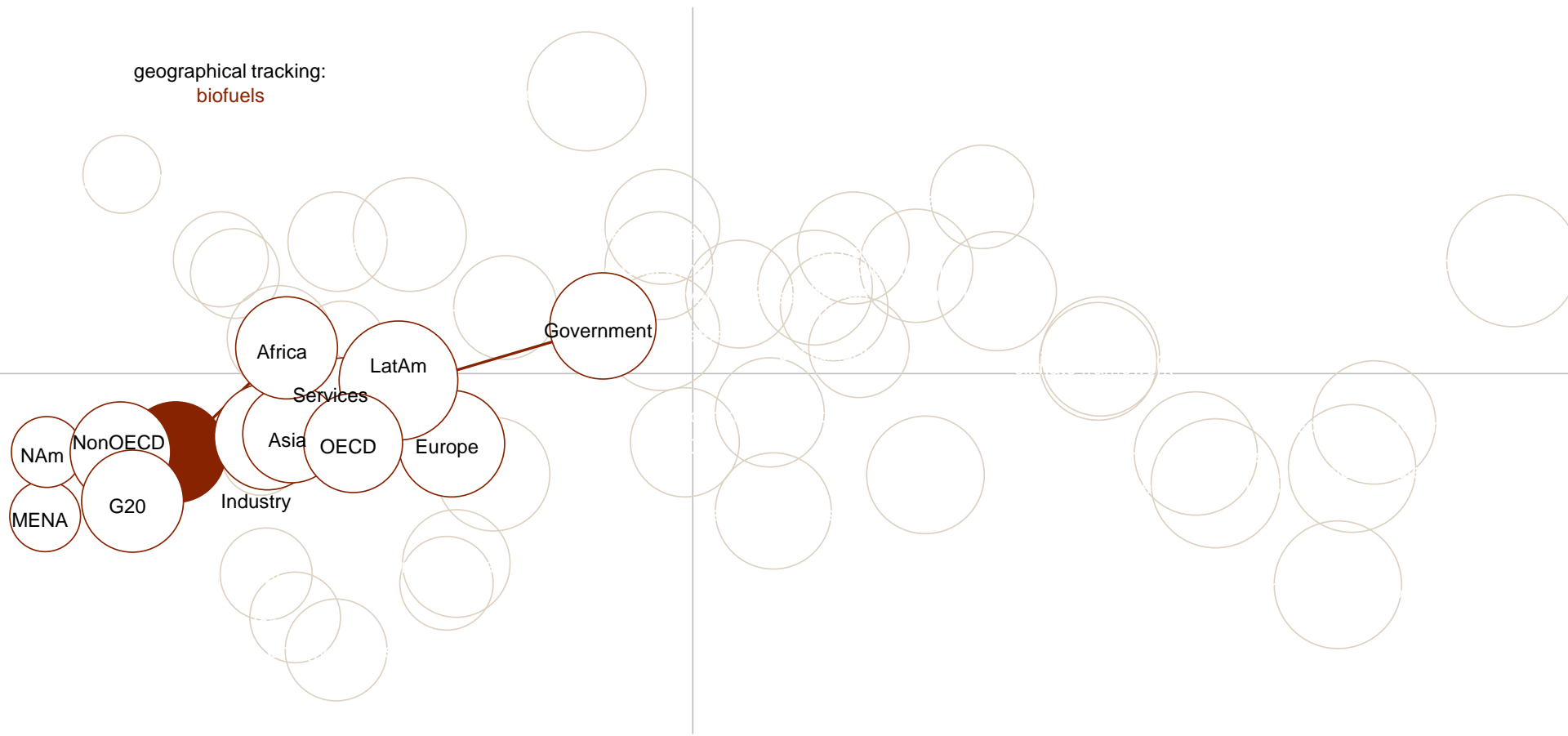
## World – Large Scale Accidents



# 2017 Issues Monitor

## World – Biofuels

geographical tracking:  
biofuels





# 2017 Issues Monitor

## World – Capital Markets

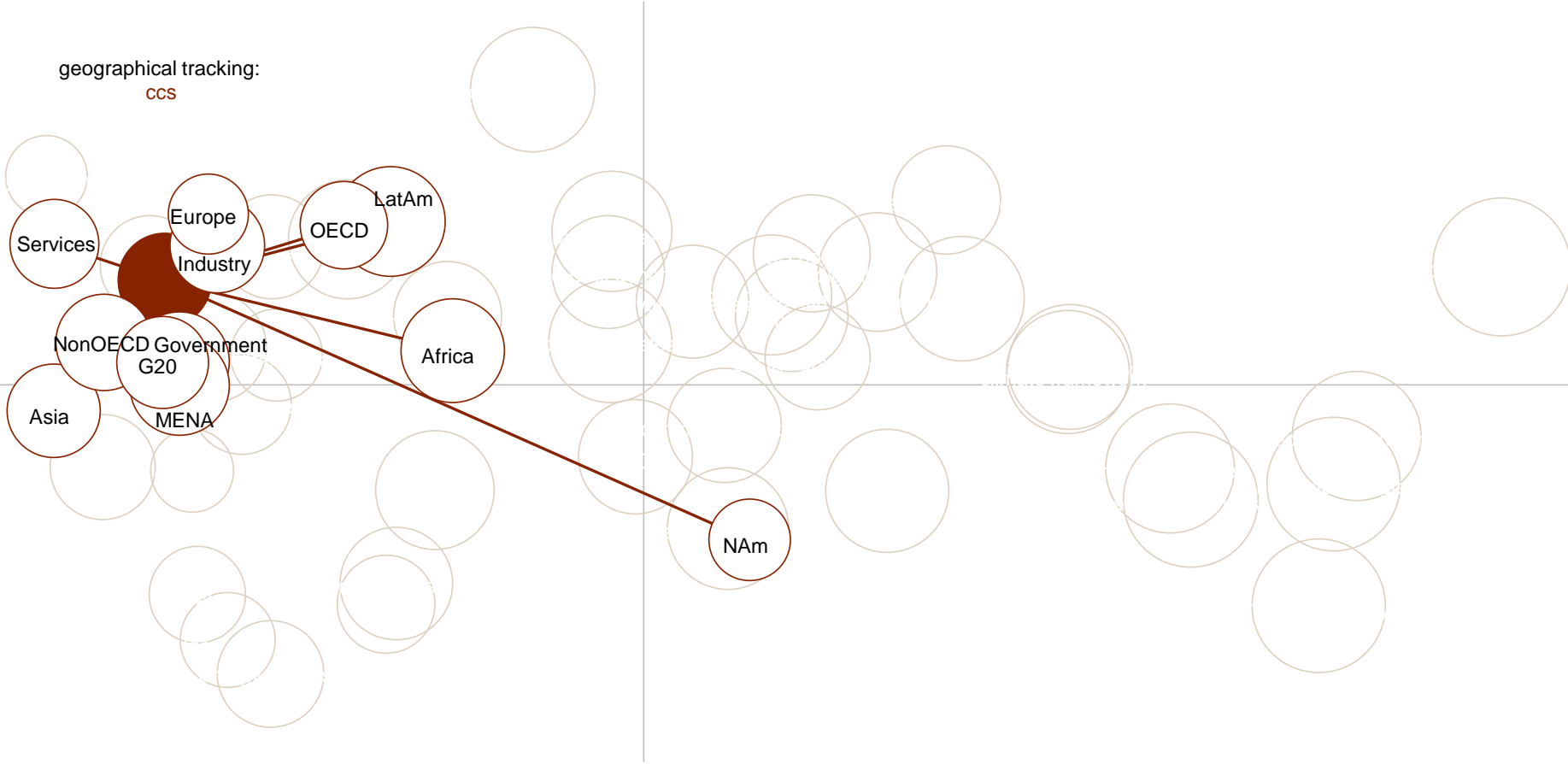
geographical tracking:  
capital markets



# 2017 Issues Monitor

## World – CCS

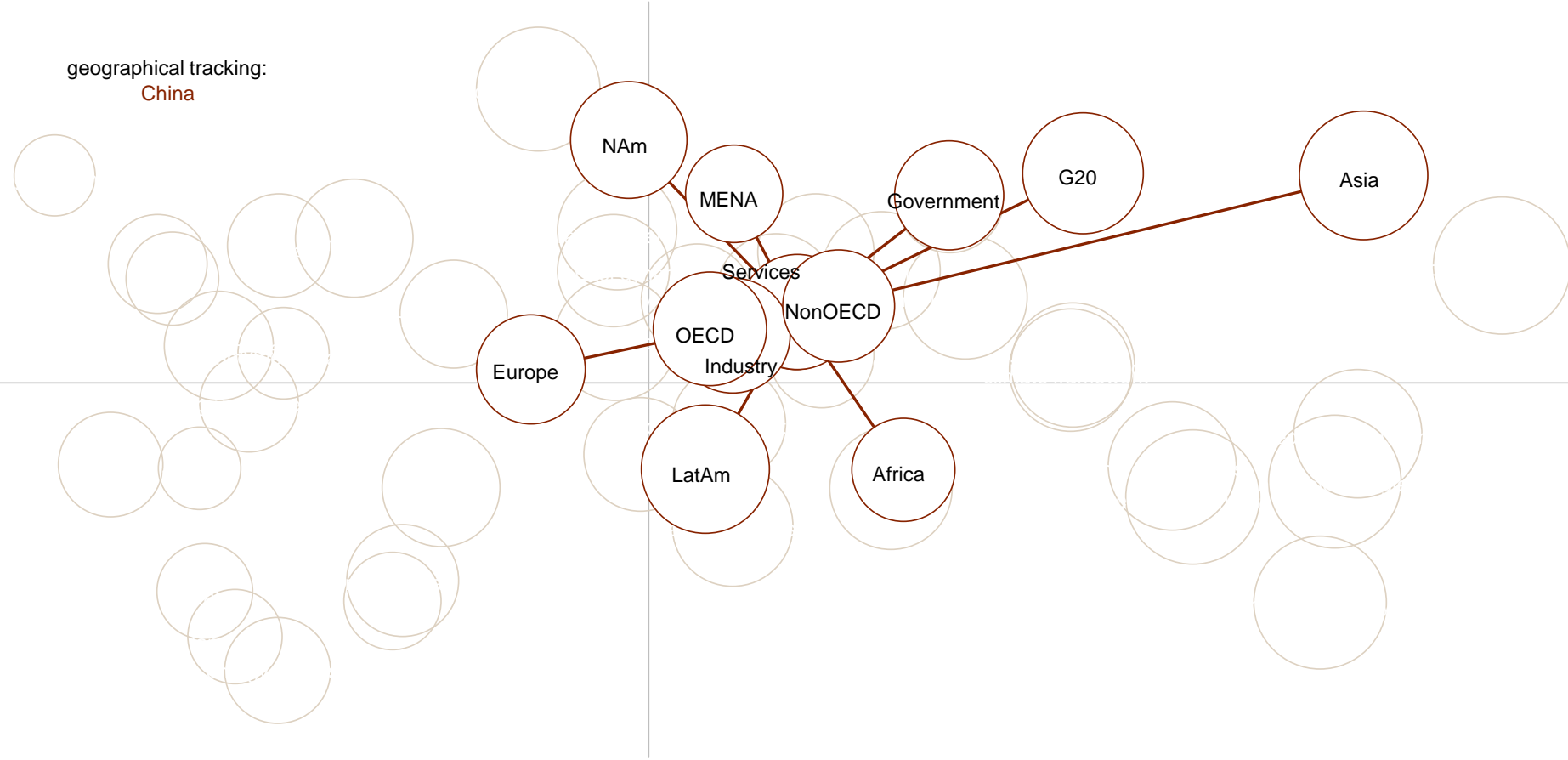
geographical tracking:  
CCS



# 2017 Issues Monitor

## World – China

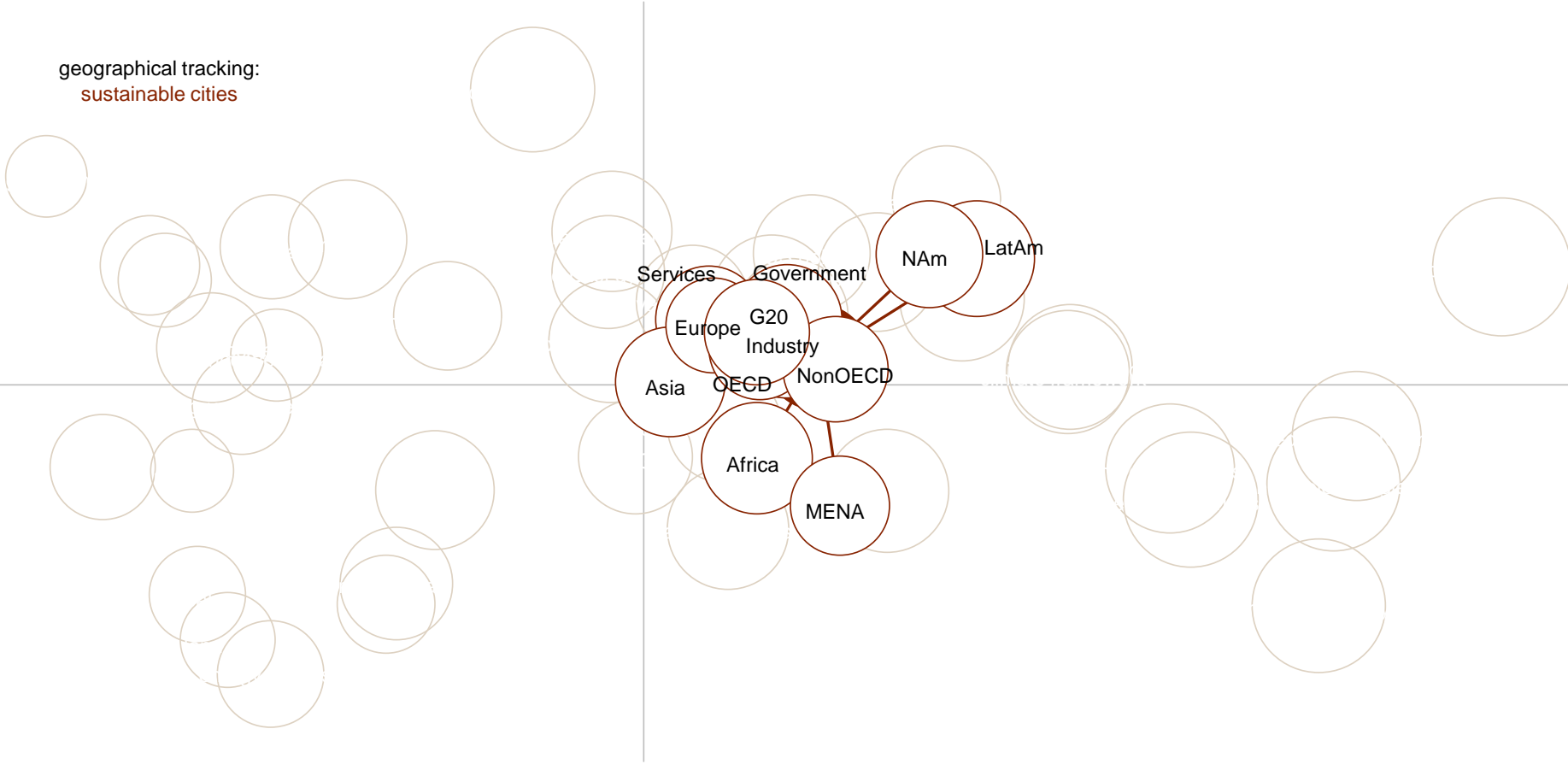
geographical tracking:  
China



# 2017 Issues Monitor

## World – Sustainable Cities

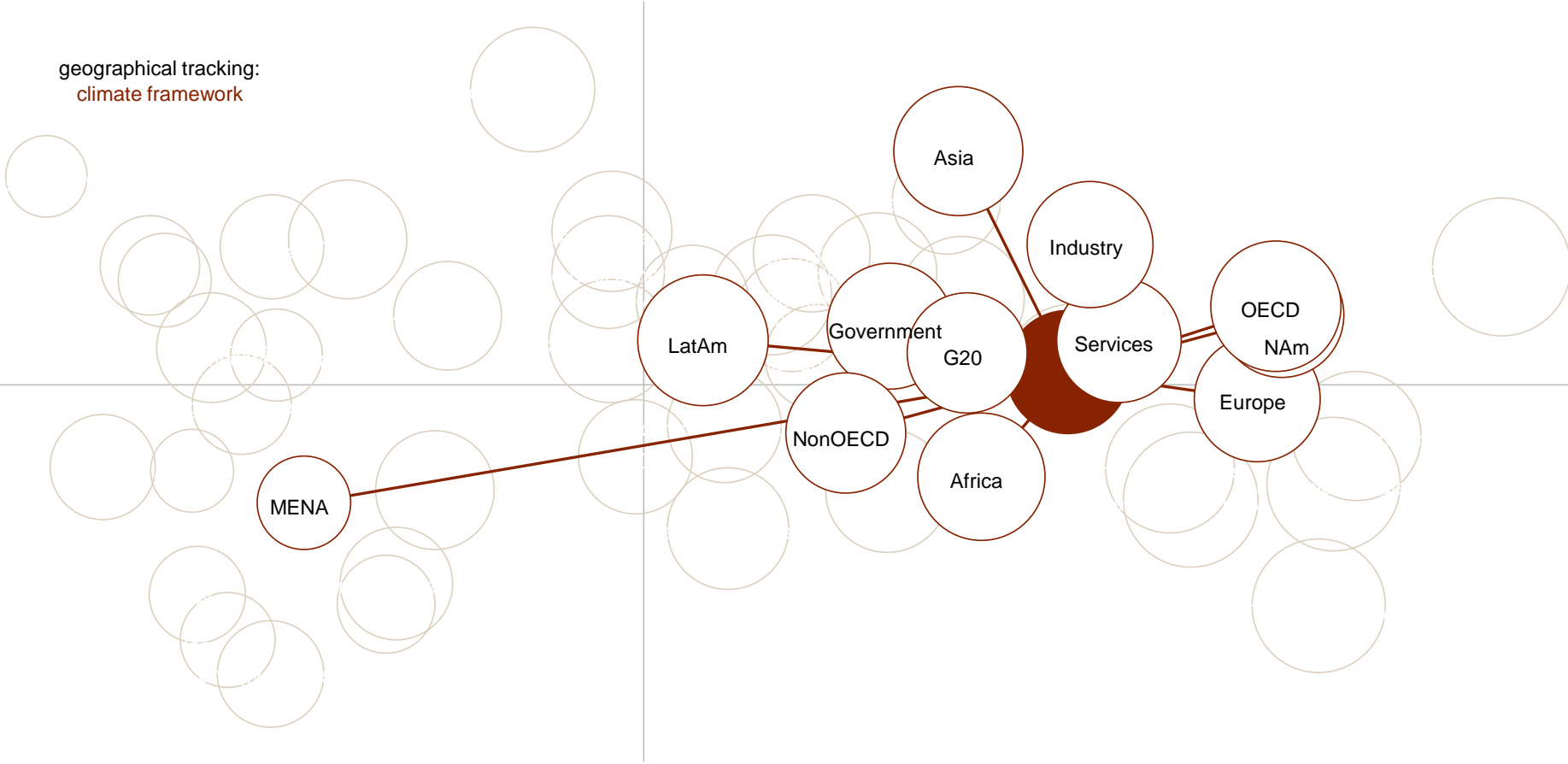
geographical tracking:  
sustainable cities



# 2017 Issues Monitor

## World – Climate Framework

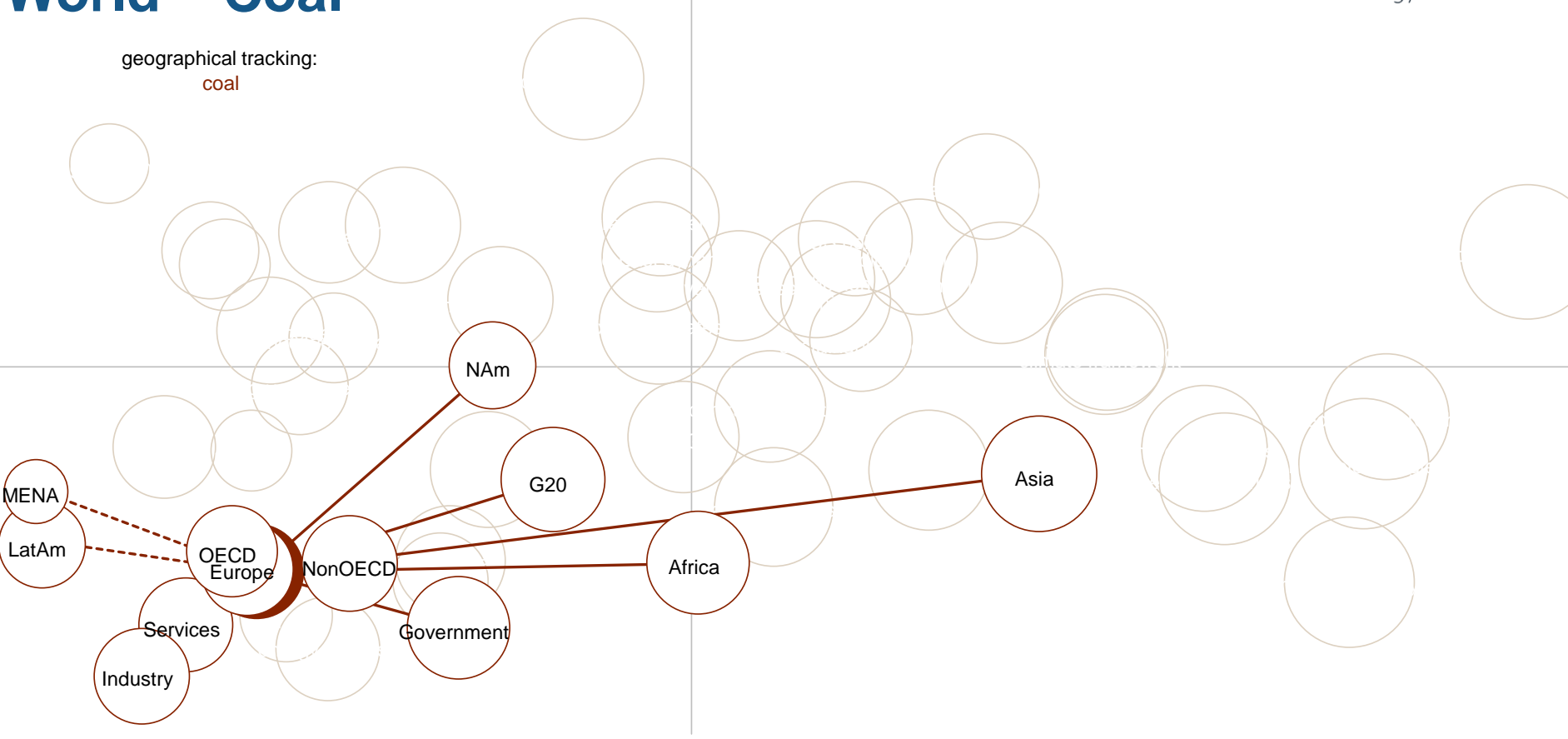
geographical tracking:  
climate framework



# 2017 Issues Monitor

## World – Coal

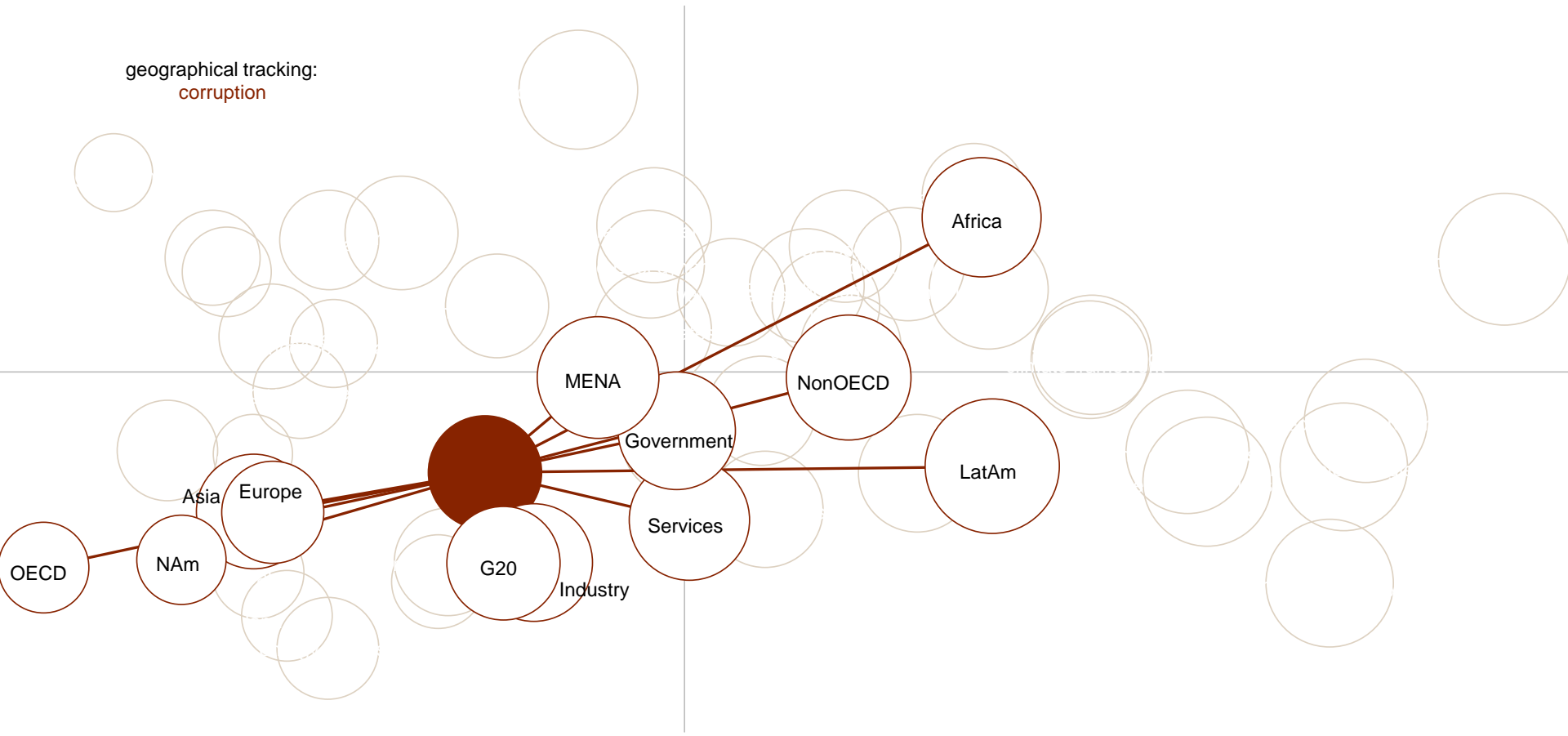
geographical tracking:  
coal



# 2017 Issues Monitor

## World – Corruption

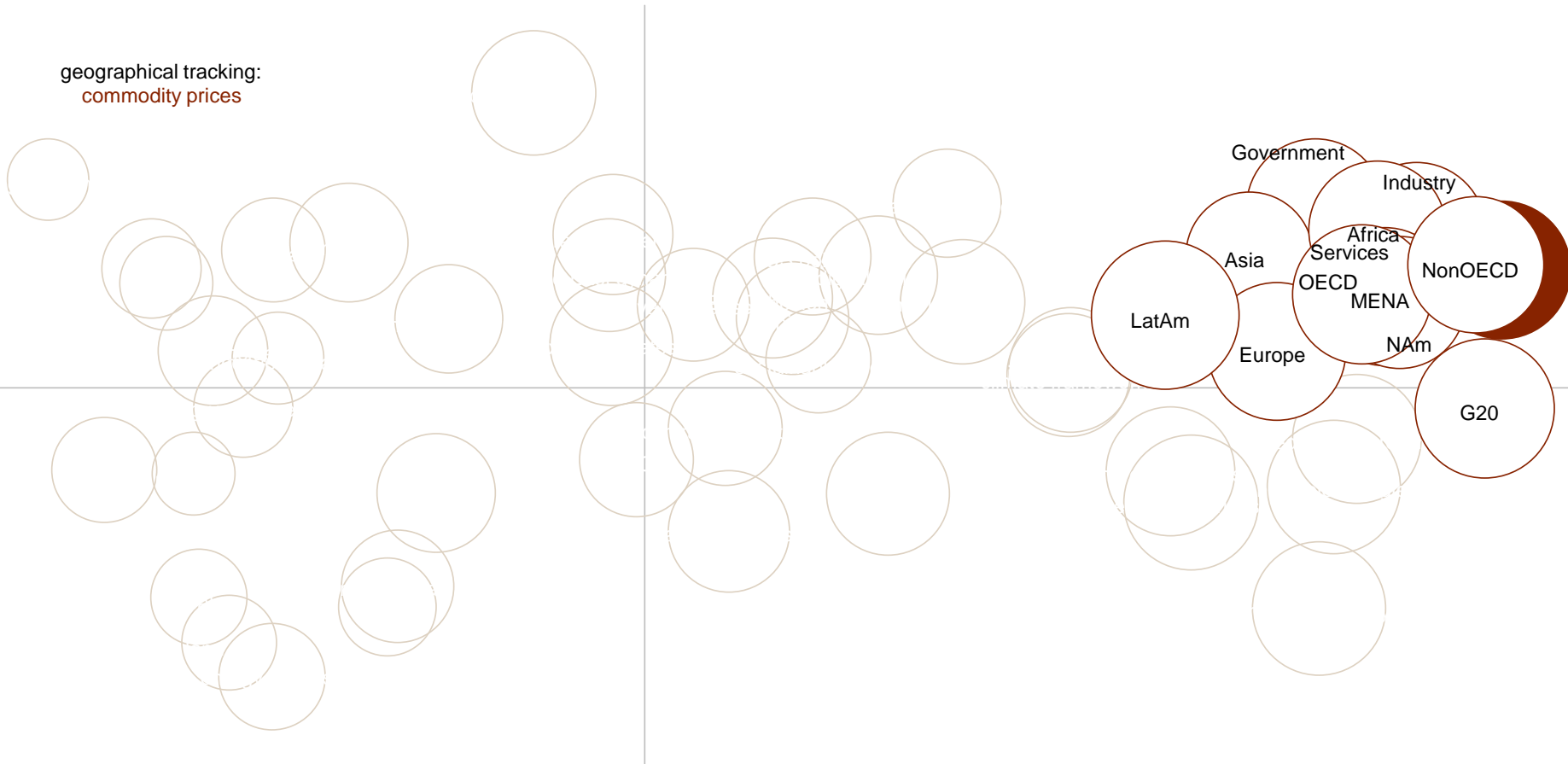
geographical tracking:  
corruption



# 2017 Issues Monitor

## World – Commodity Prices

geographical tracking:  
commodity prices

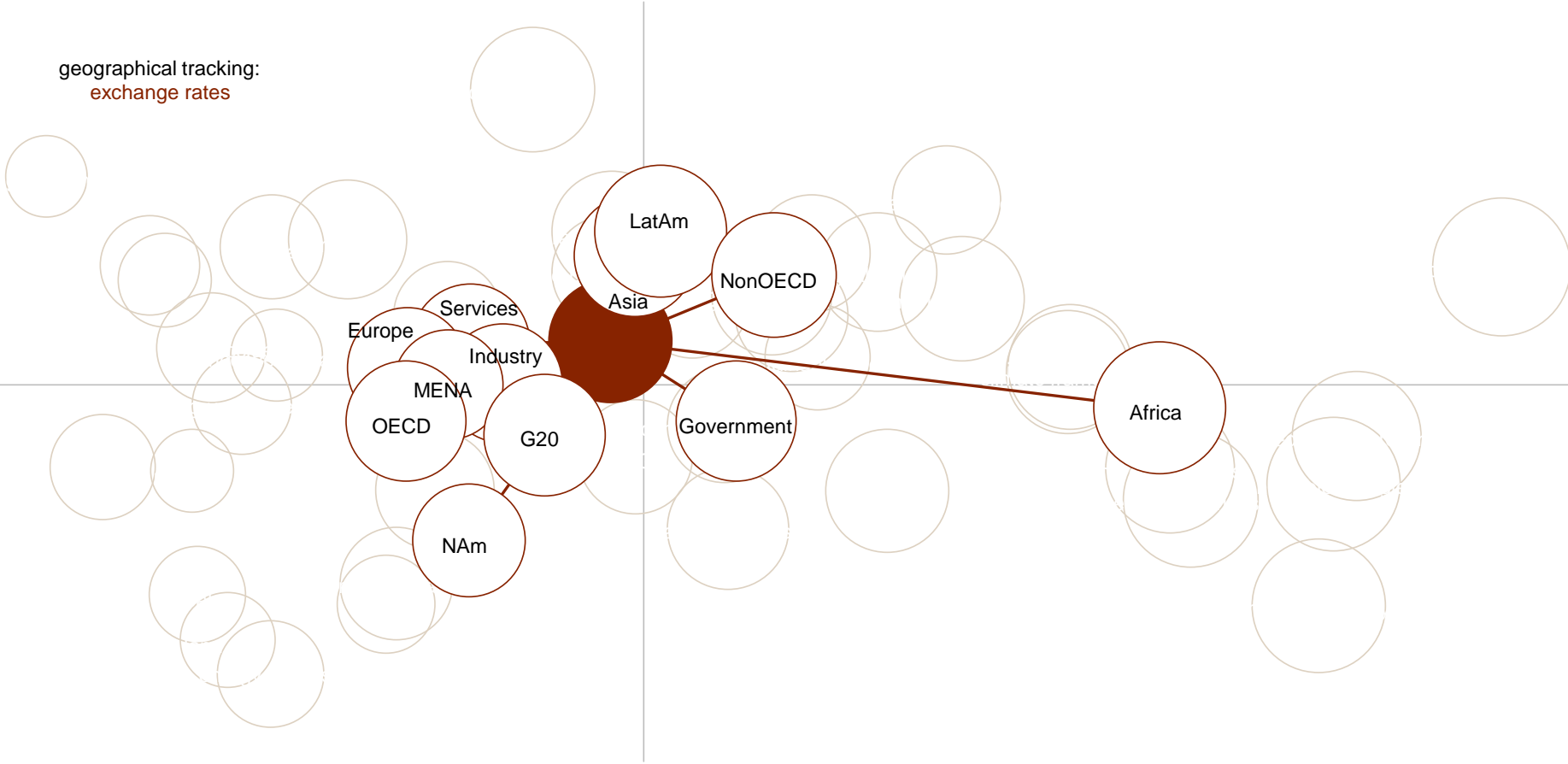




# 2017 Issues Monitor

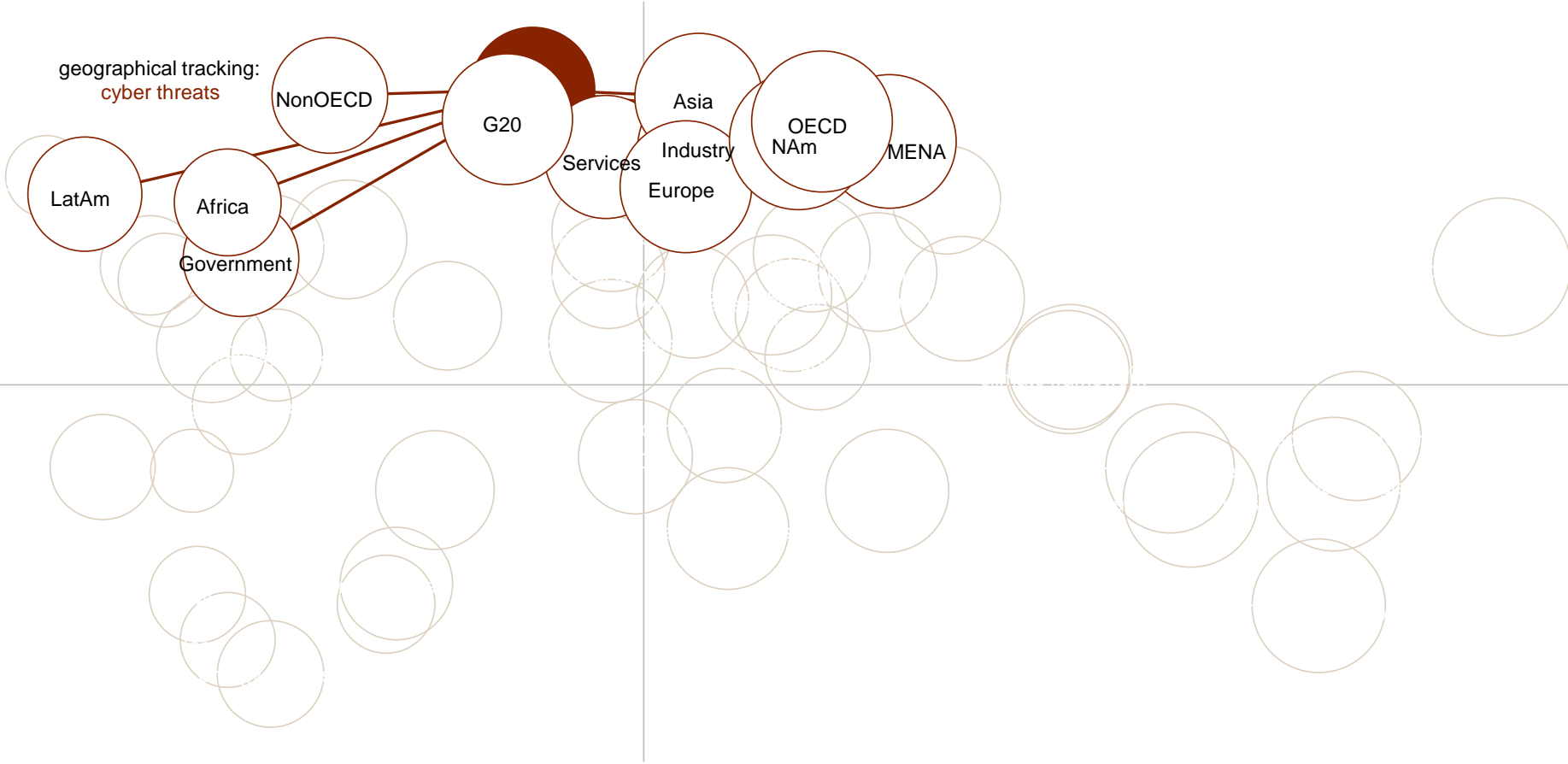
## World – Exchange Rates

geographical tracking:  
exchange rates



# 2017 Issues Monitor

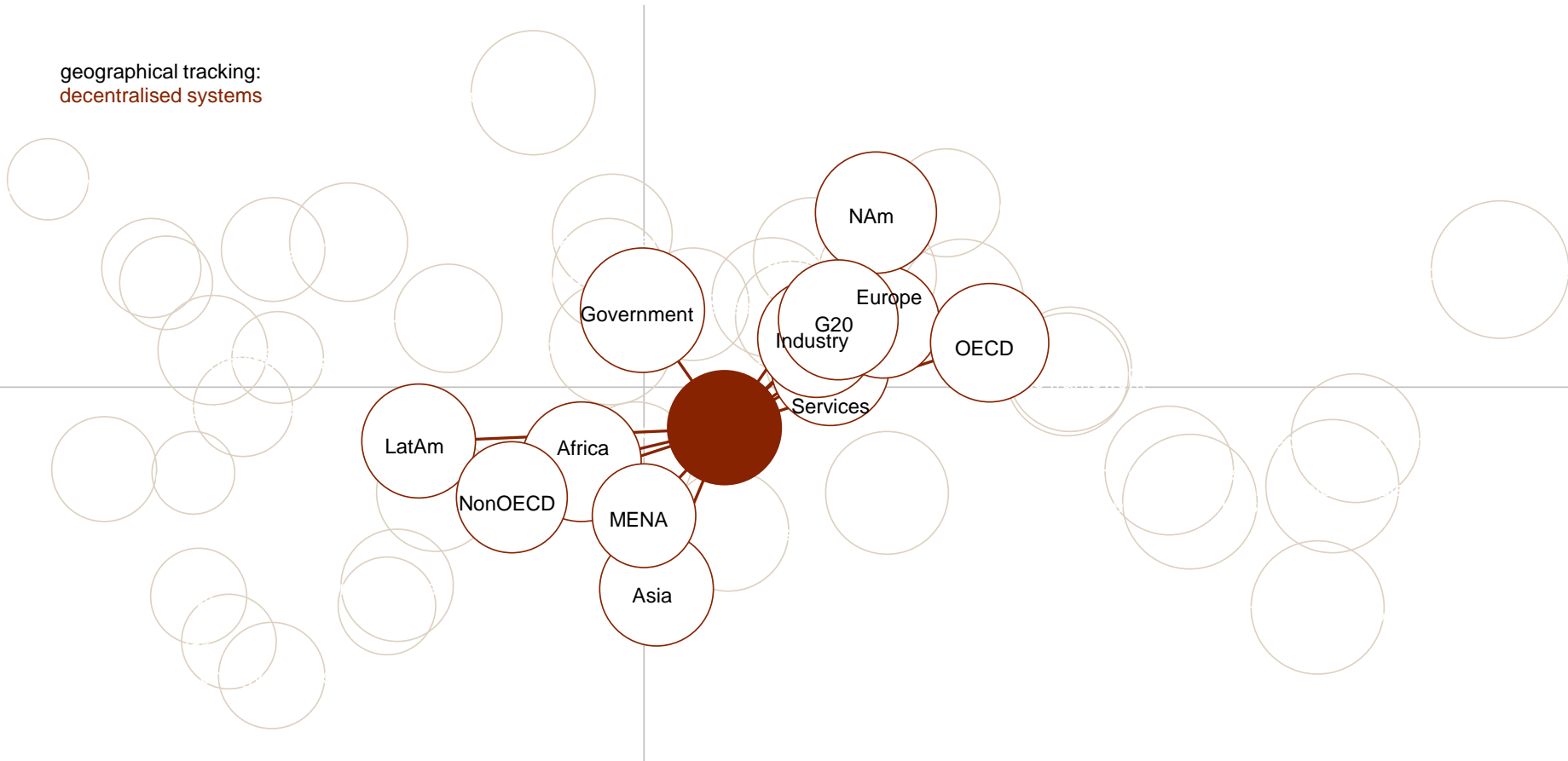
## World – Cyber Threats



# 2017 Issues Monitor

## World – Decentralised Systems

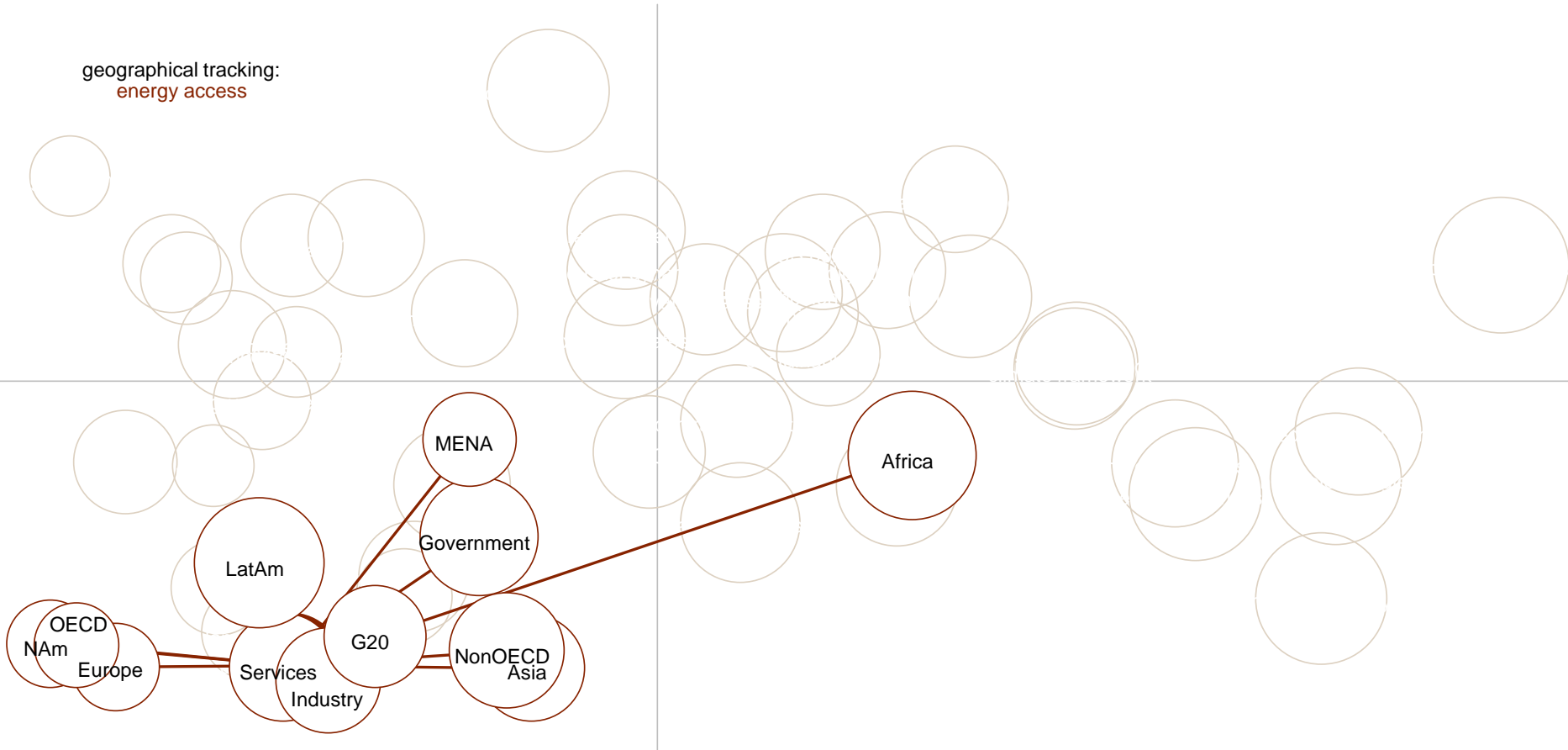
geographical tracking:  
decentralised systems



# 2017 Issues Monitor

## World – Energy Access

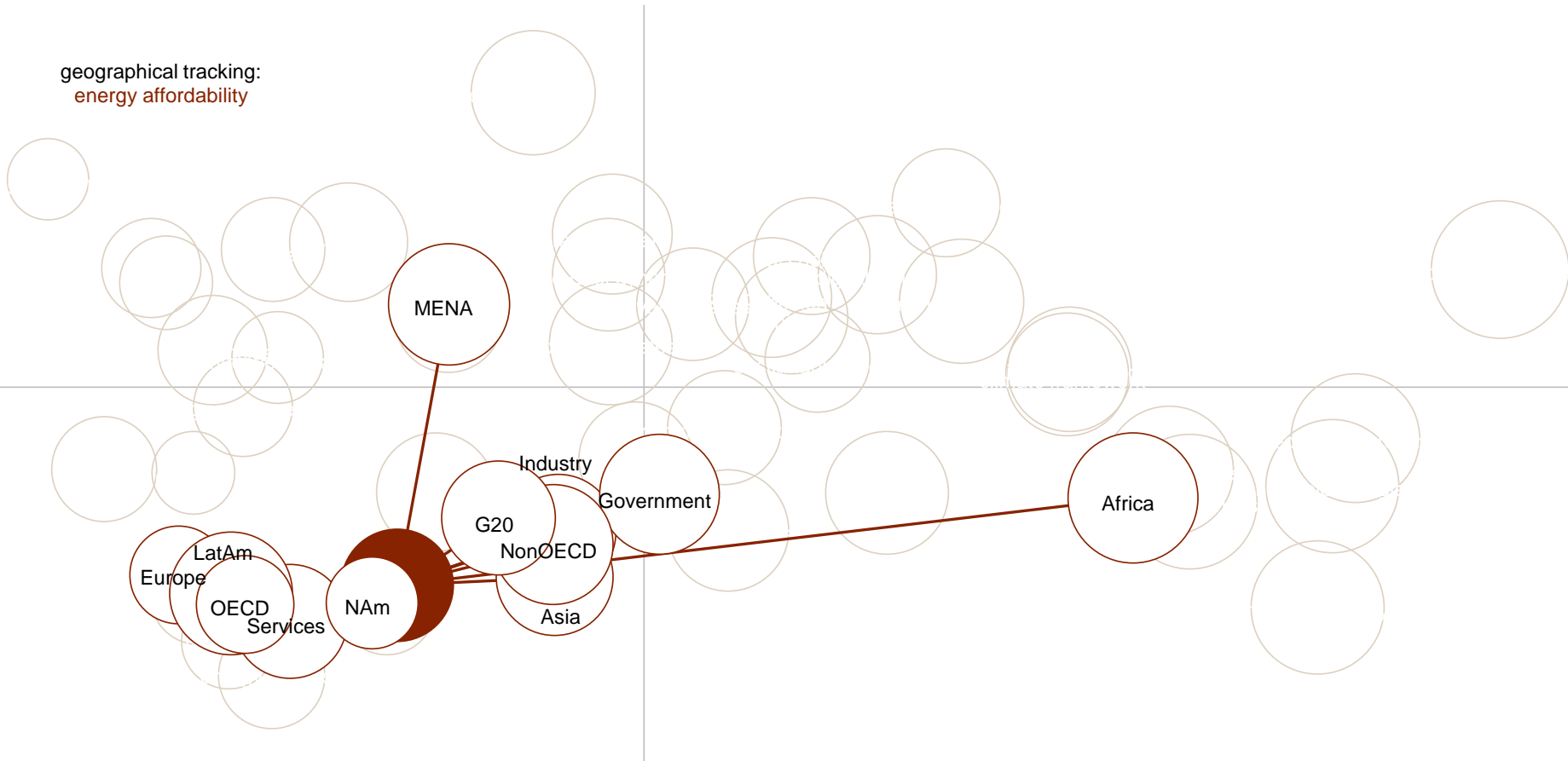
geographical tracking:  
energy access



# 2017 Issues Monitor

## World – Energy Affordability

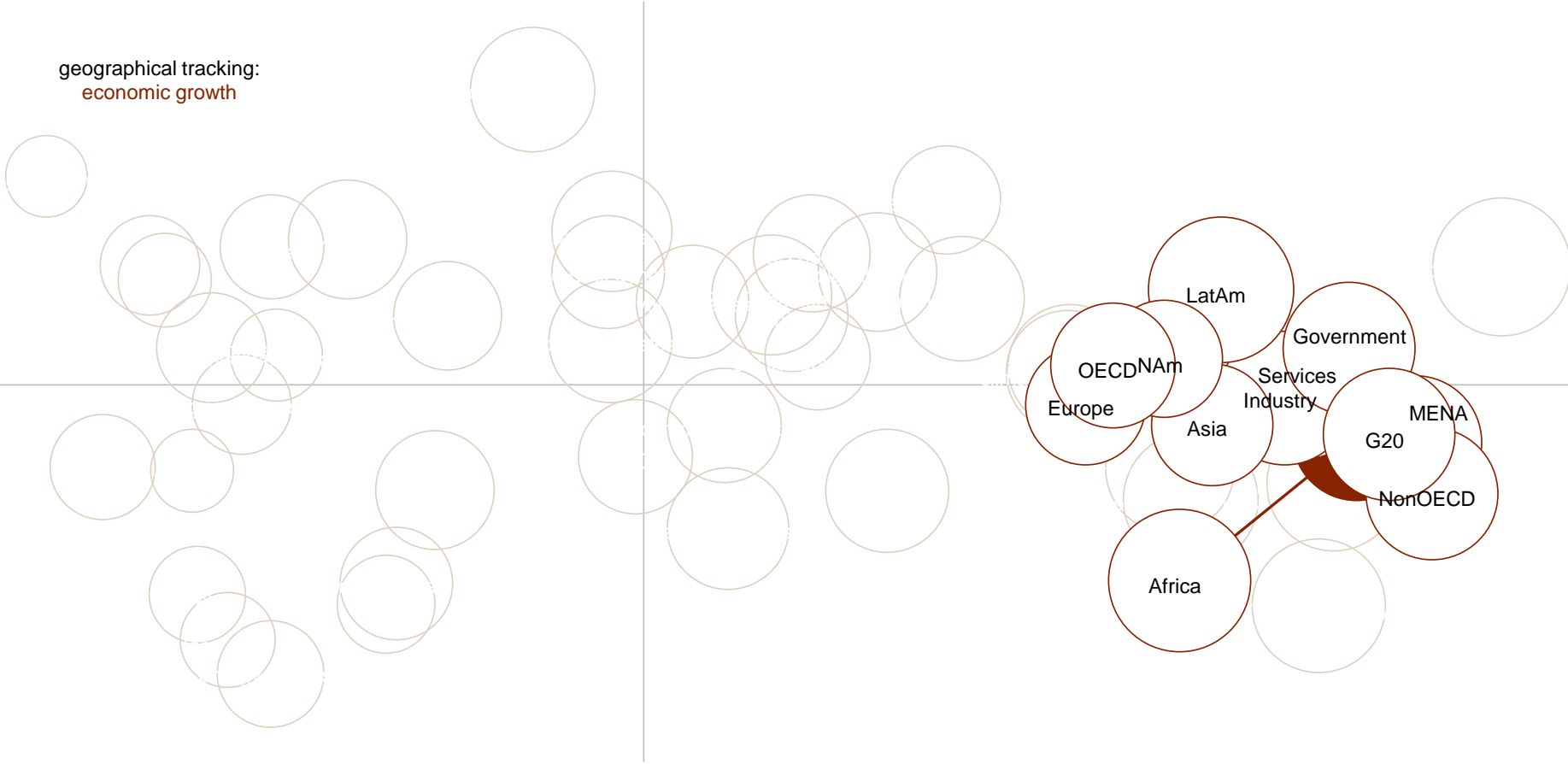
geographical tracking:  
energy affordability



# 2017 Issues Monitor

## World – Economic Growth

geographical tracking:  
economic growth



# 2017 Issues Monitor

## World – Energy Efficiency

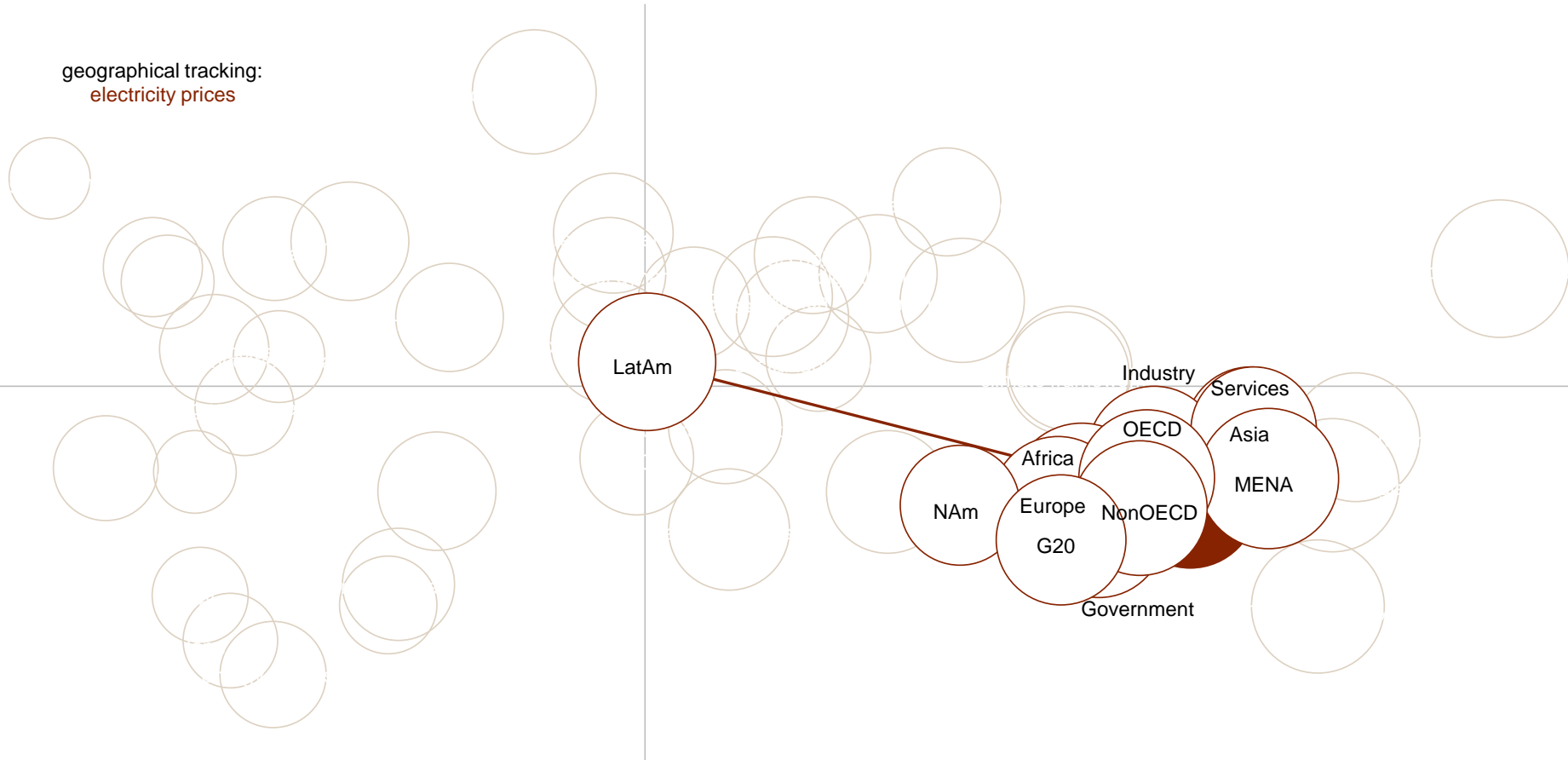
geographical tracking:  
energy efficiency



# 2017 Issues Monitor

## World – Electricity Prices

geographical tracking:  
electricity prices





# 2017 Issues Monitor

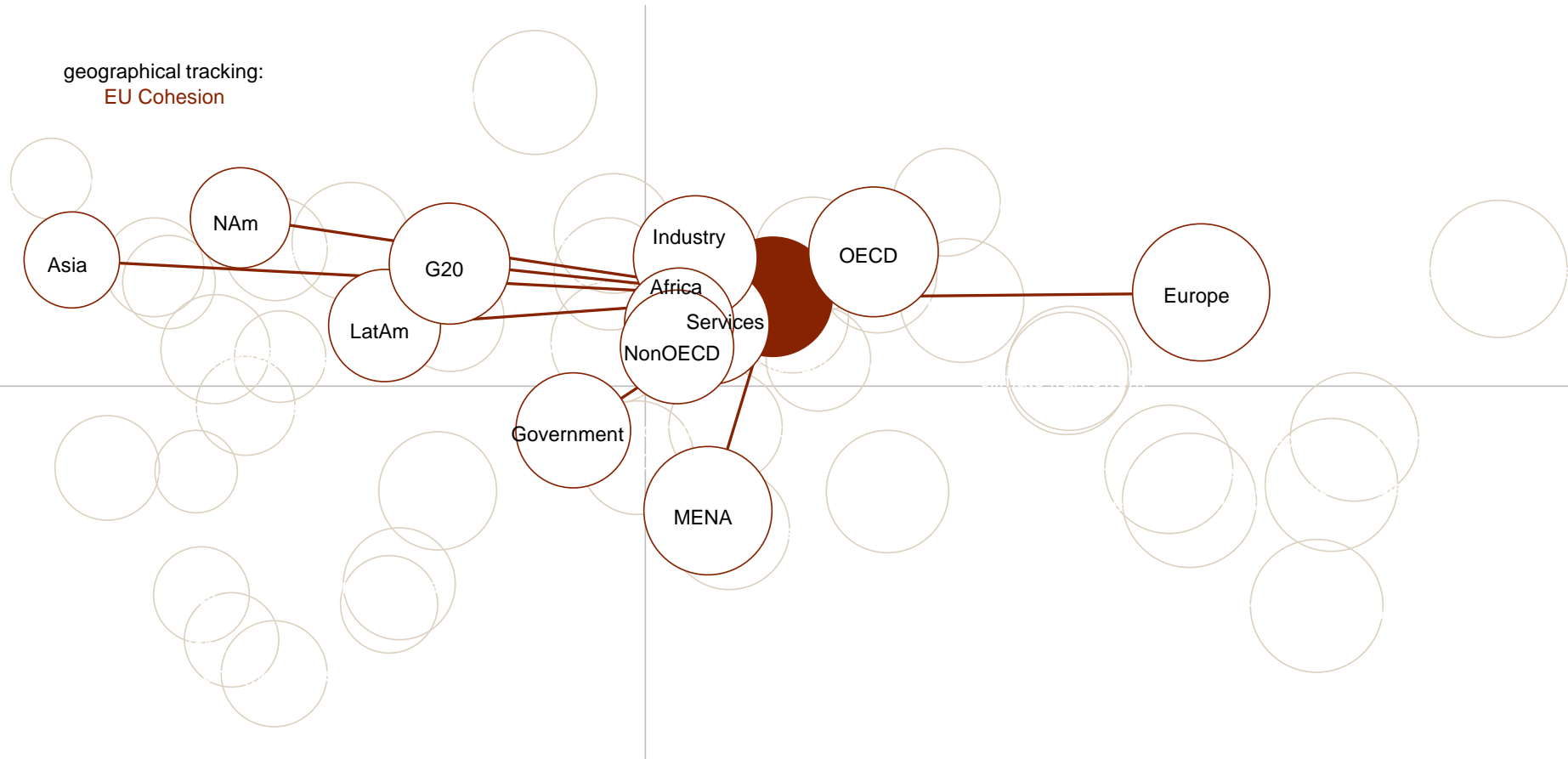
## World – Energy Subsidies

geographical tracking:  
energy subsidies



# 2017 Issues Monitor

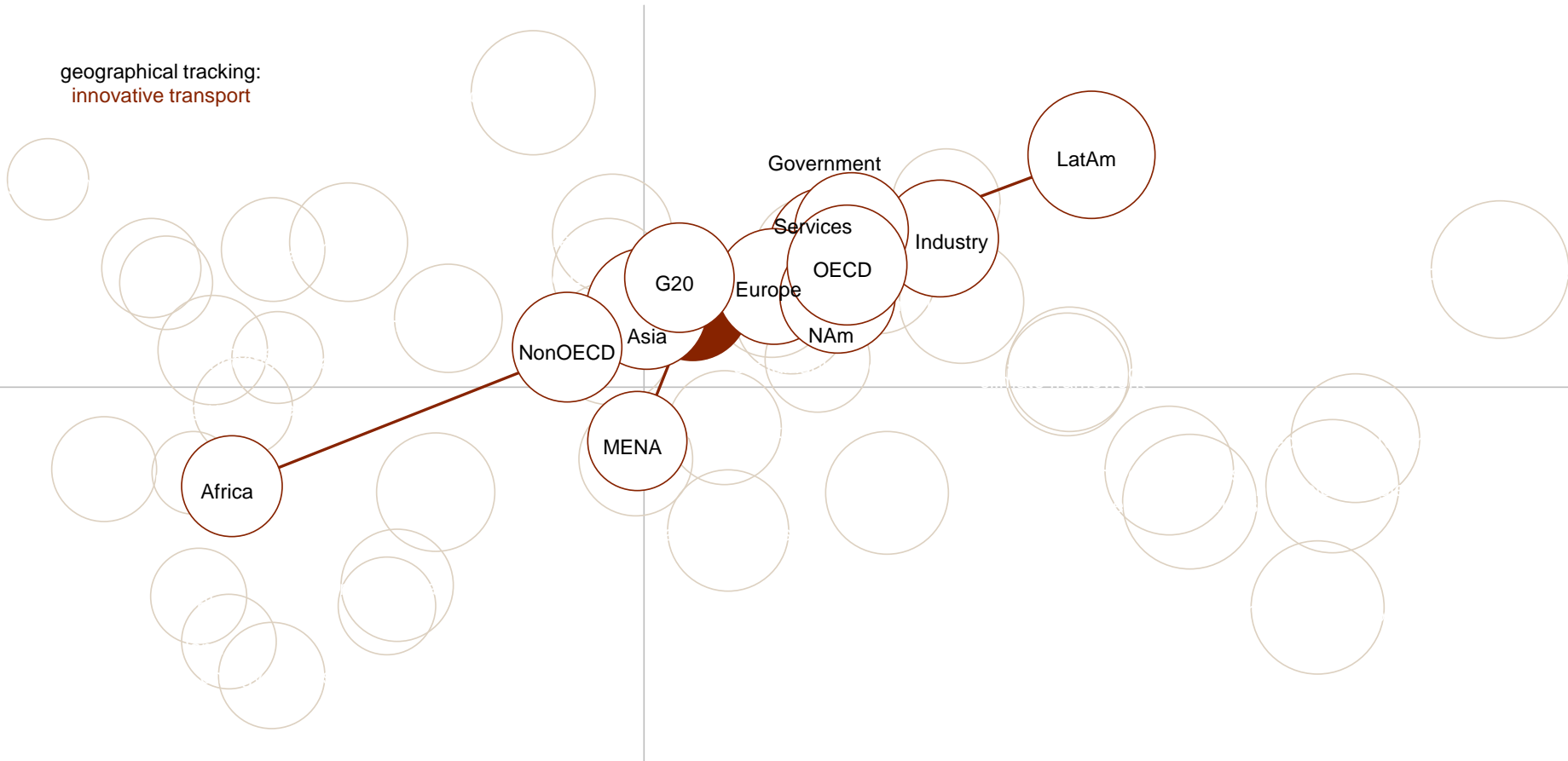
## World – EU Cohesion



# 2017 Issues Monitor

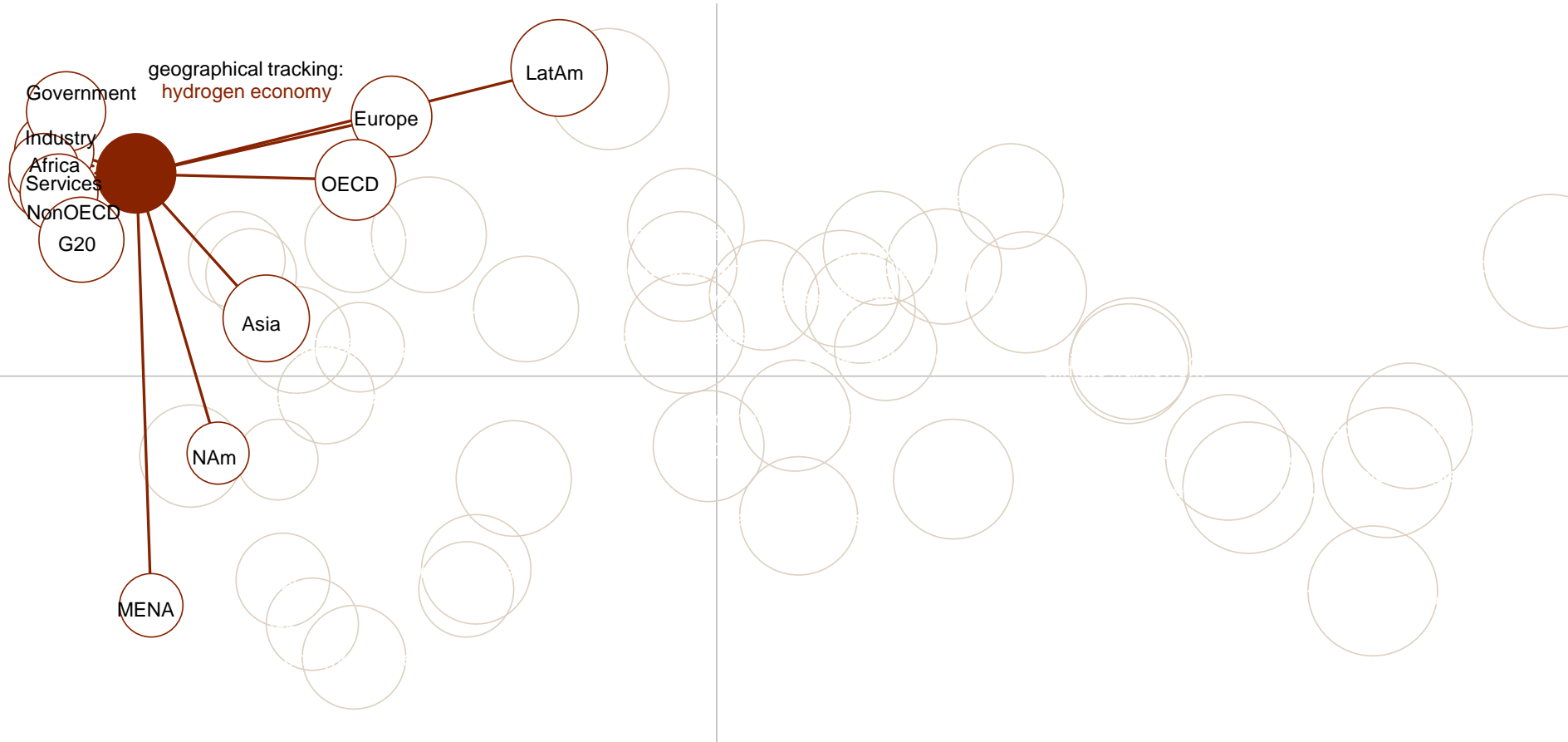
## World – Innovative Transport

geographical tracking:  
innovative transport



# 2017 Issues Monitor

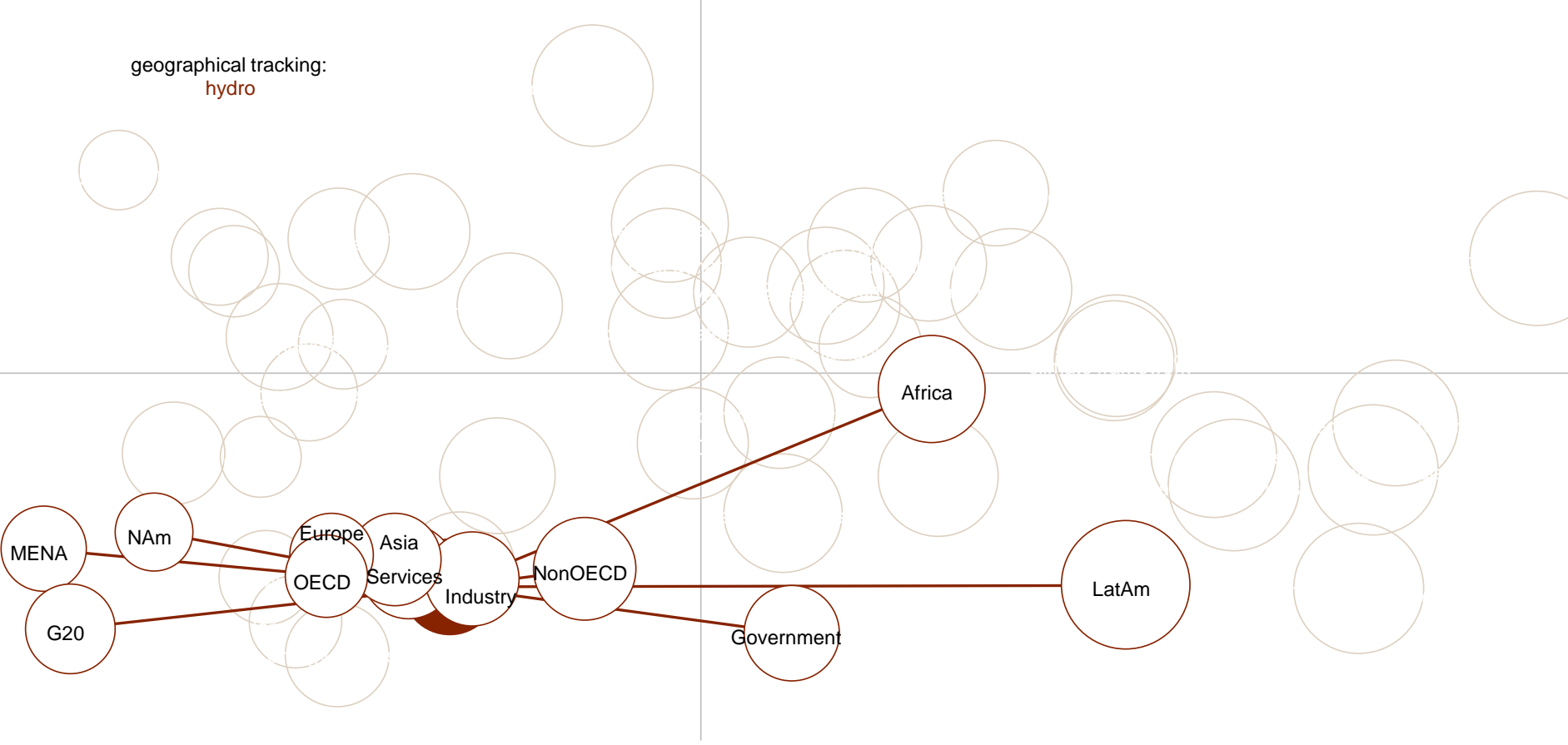
## World – Hydrogen Economy



# 2017 Issues Monitor

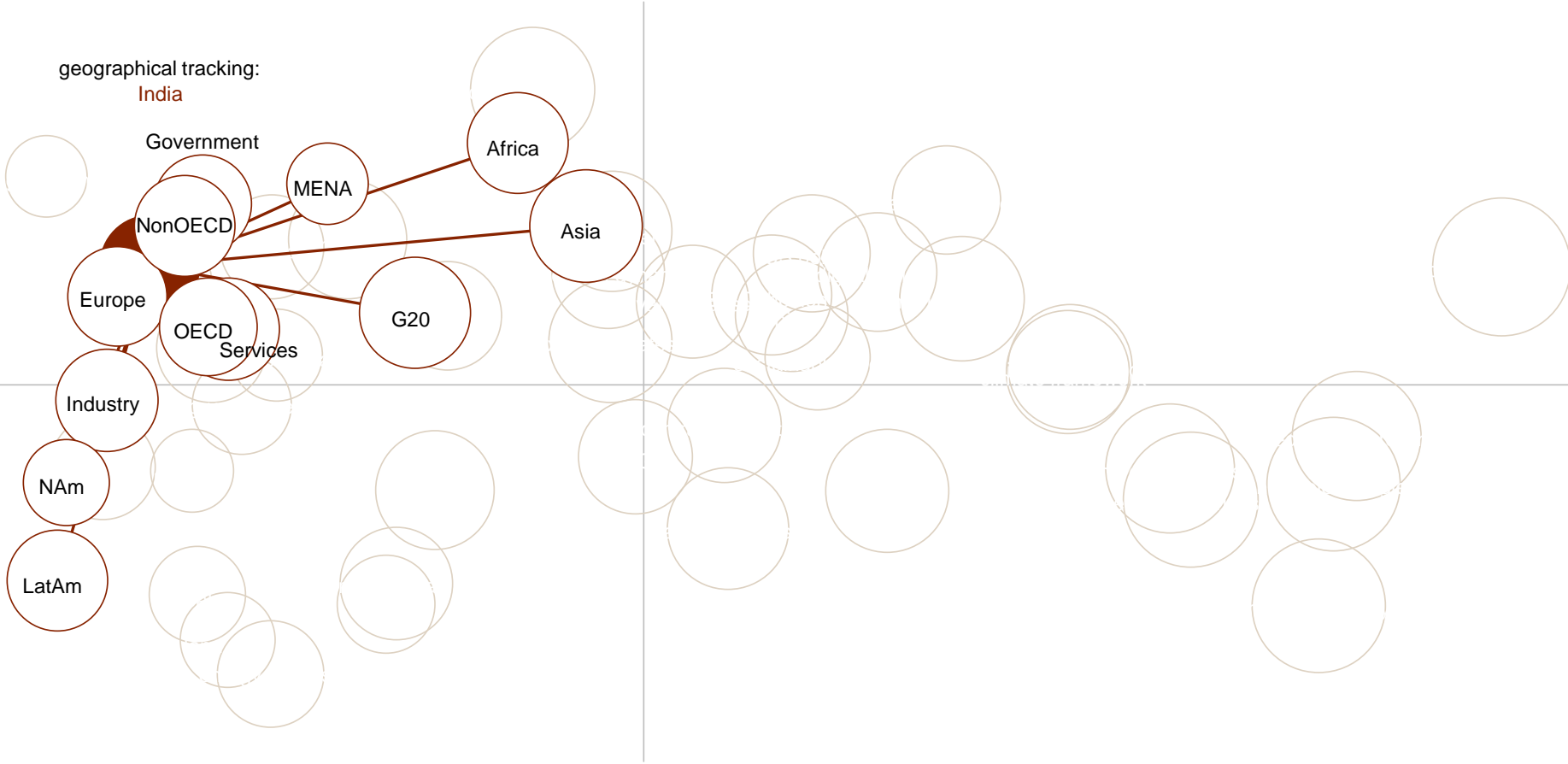
## World – Large Scale Hydro

geographical tracking:  
hydro



# 2017 Issues Monitor

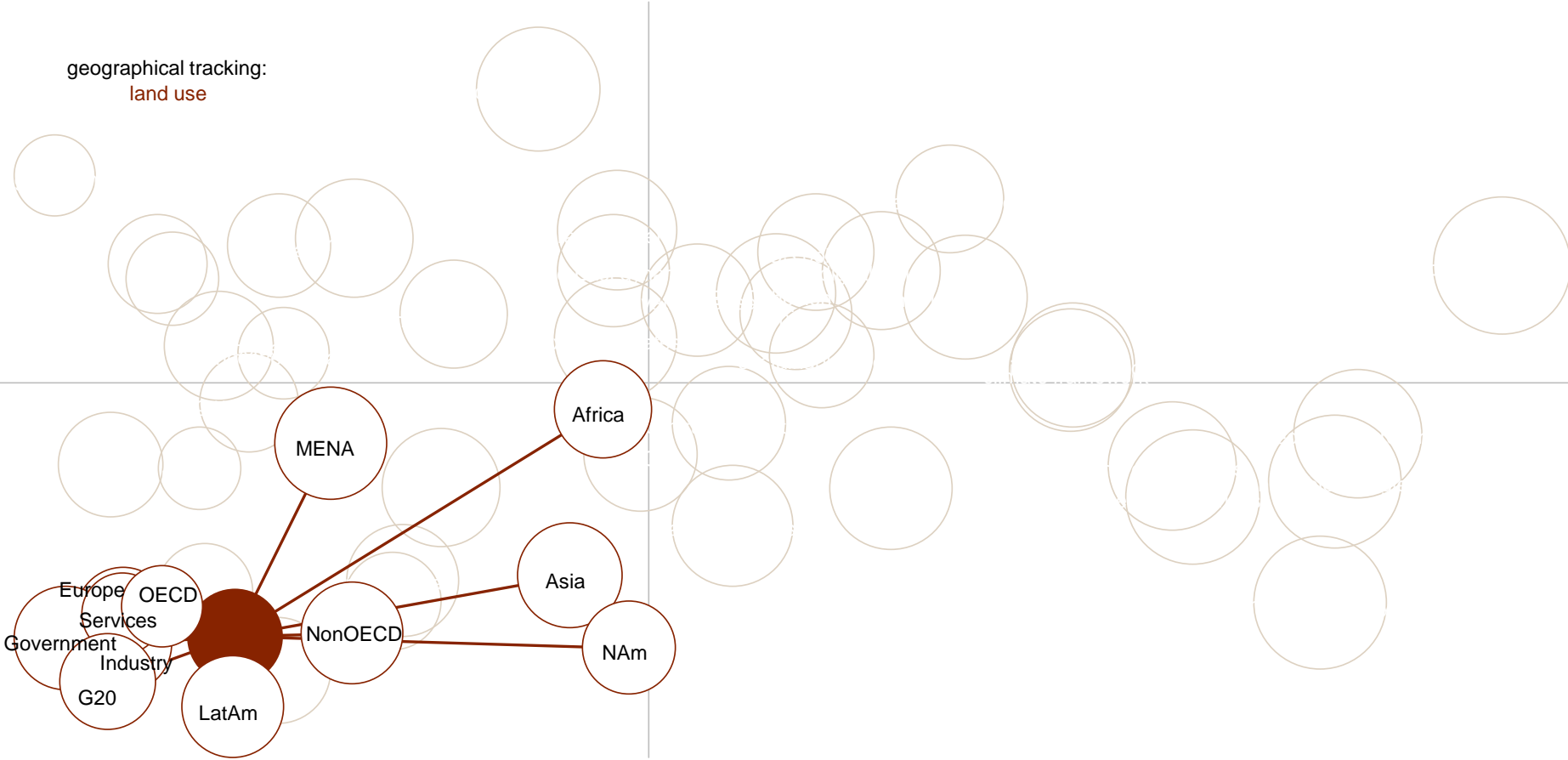
## World – India



# 2017 Issues Monitor

## World – Land Use

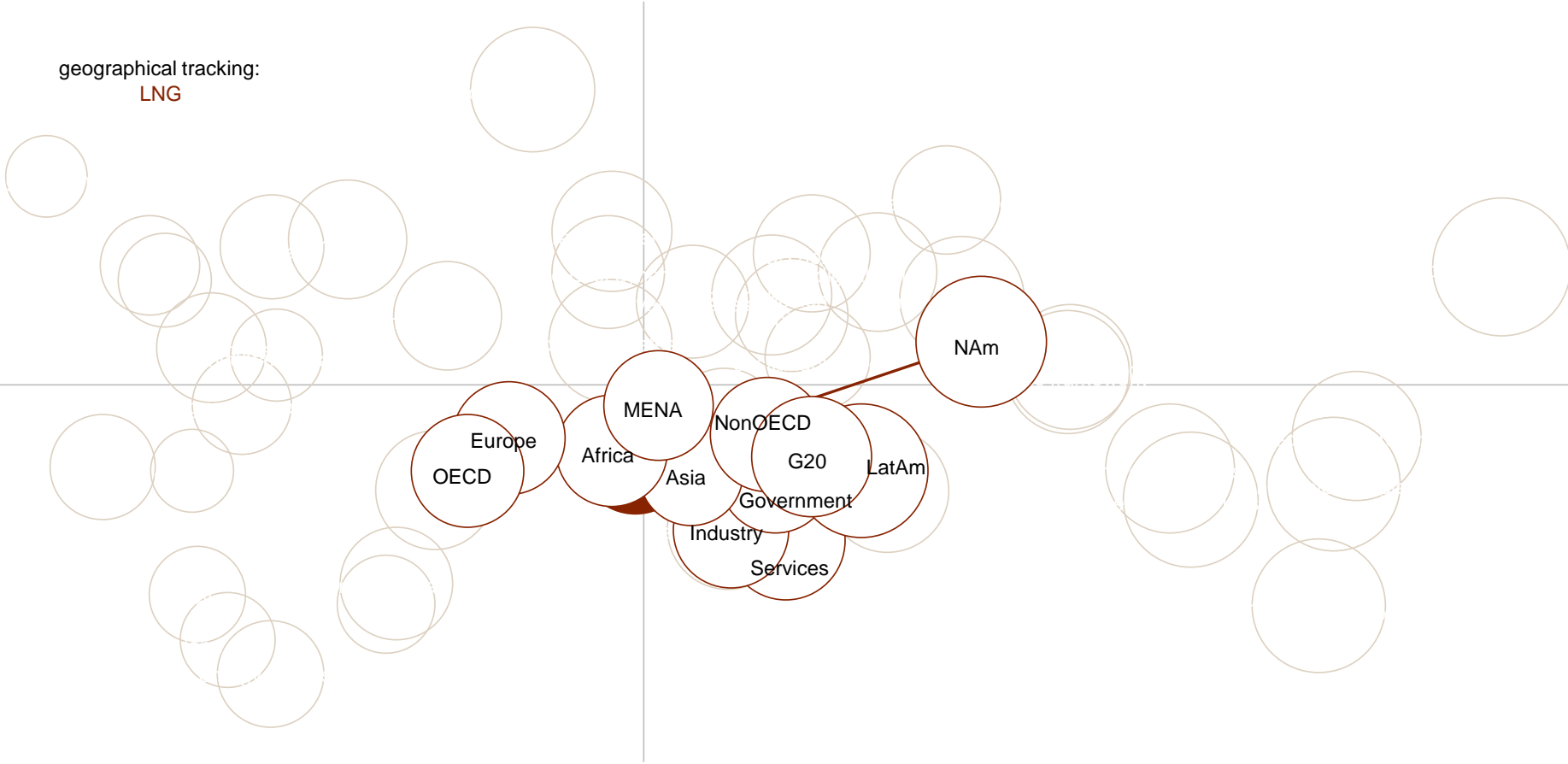
geographical tracking:  
land use



# 2017 Issues Monitor

## World – LNG

geographical tracking:  
LNG

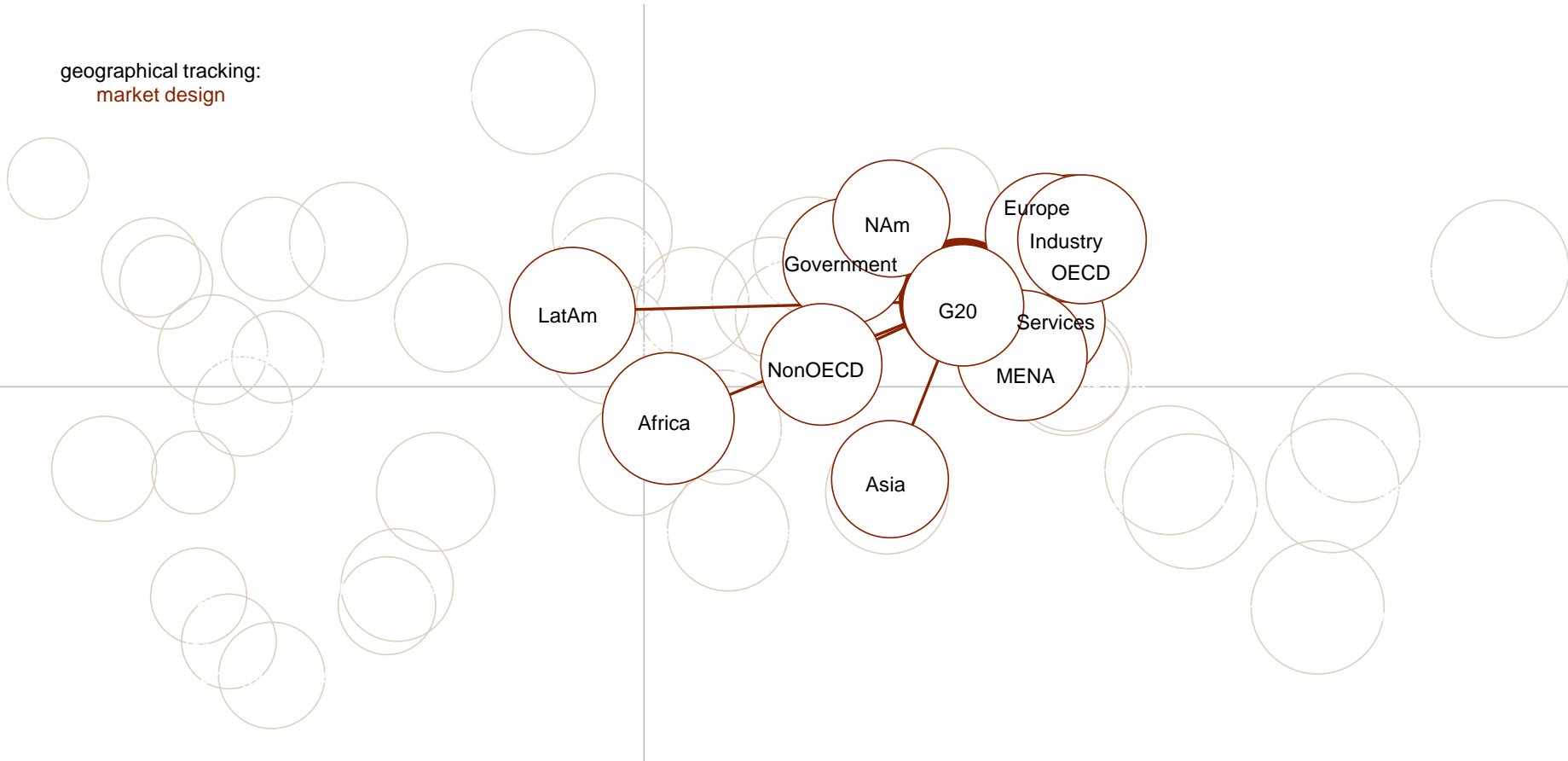




# 2017 Issues Monitor

## World – Market Design

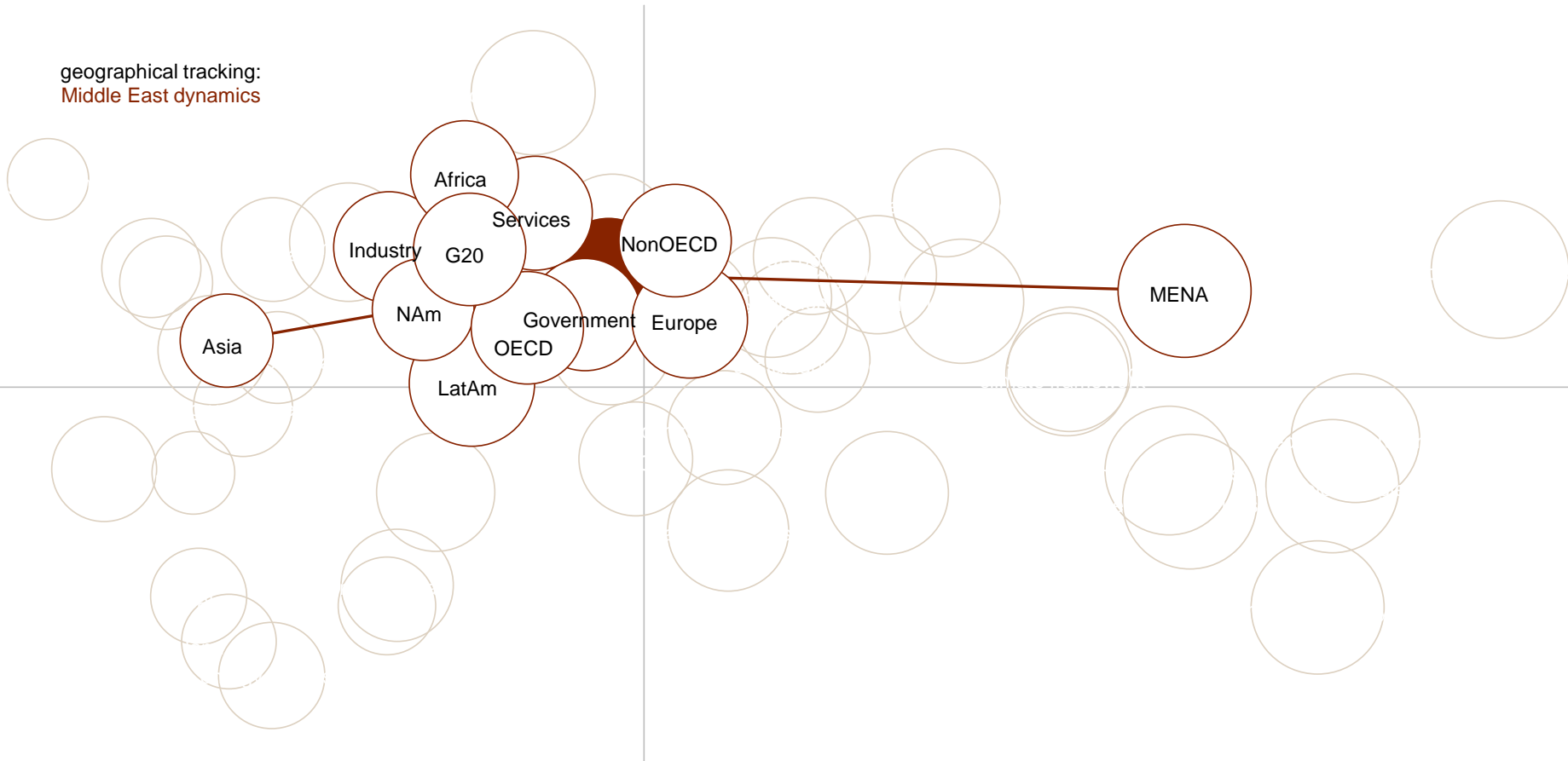
geographical tracking:  
market design



# 2017 Issues Monitor

## World – Middle East Dynamics

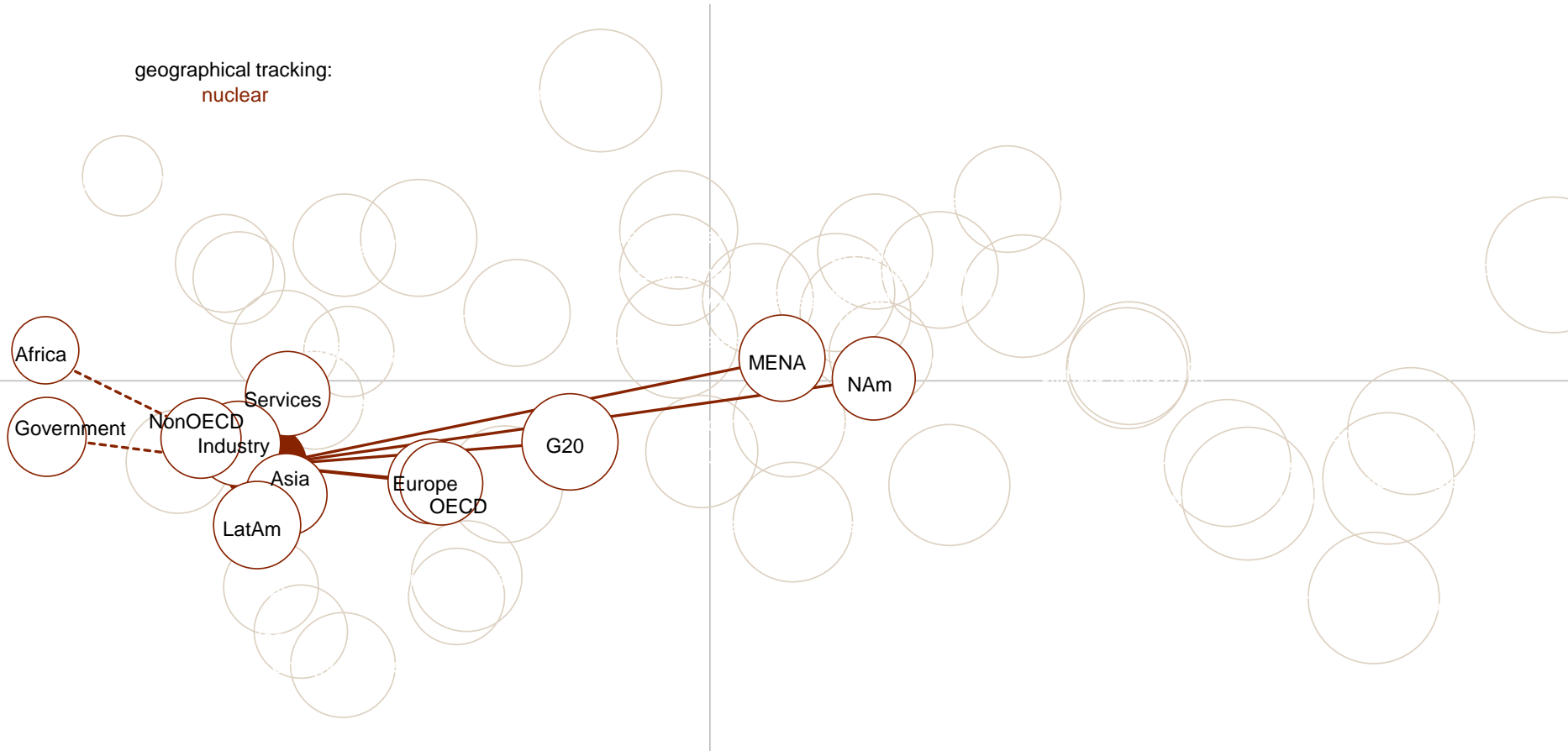
geographical tracking:  
Middle East dynamics



# 2017 Issues Monitor

## World – Nuclear

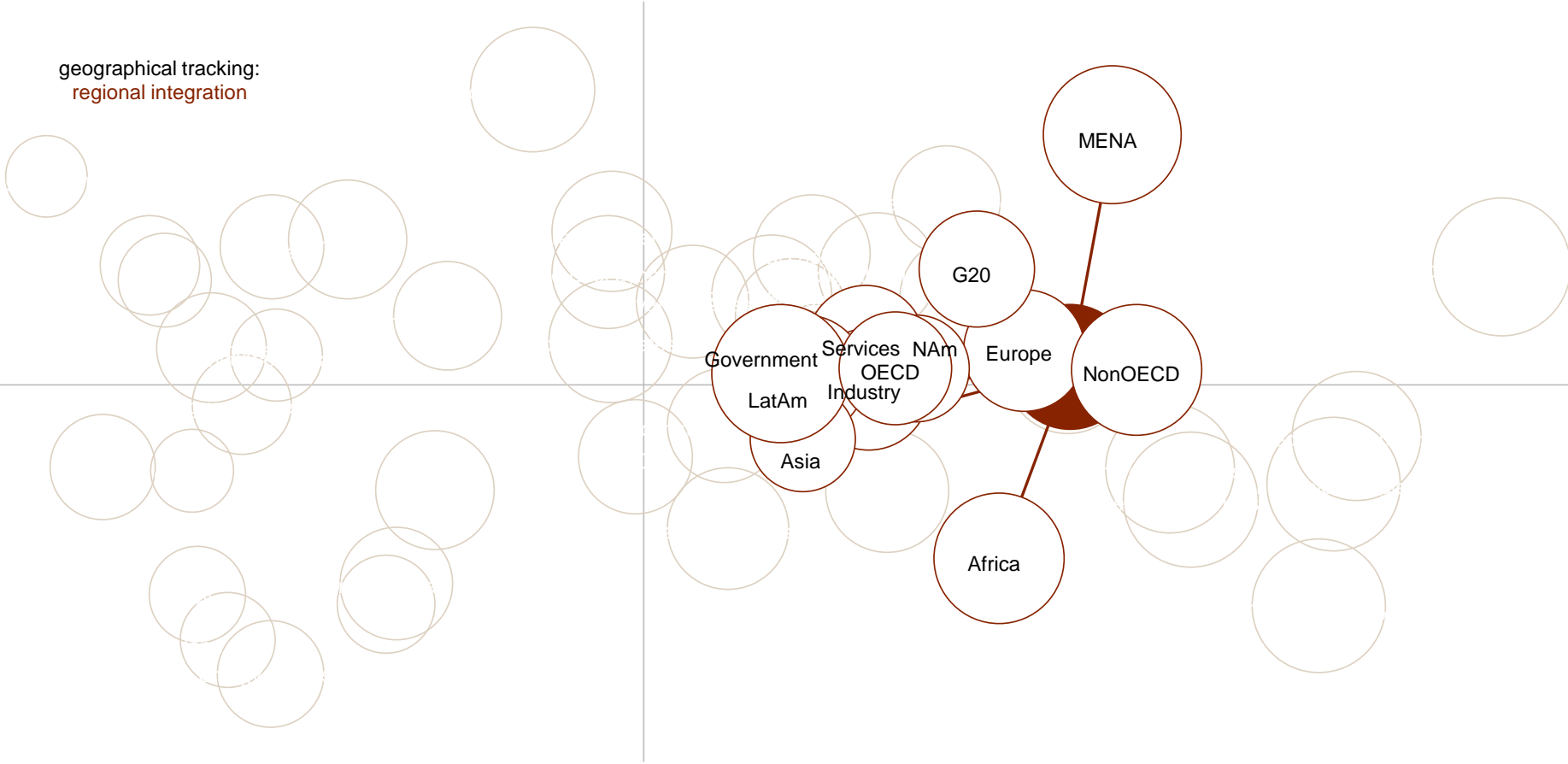
geographical tracking:  
nuclear



# 2017 Issues Monitor

## World – Regional Integration

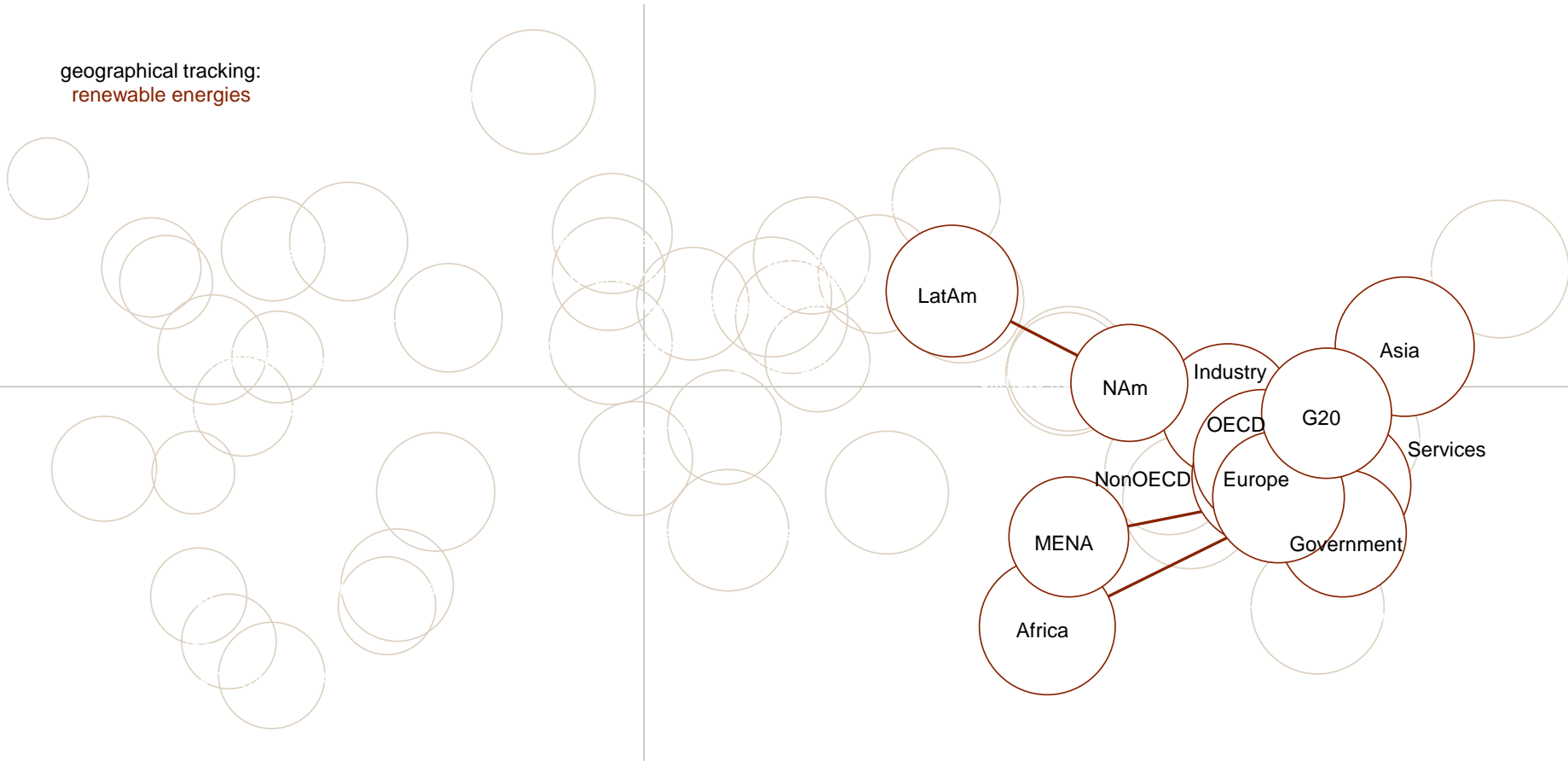
geographical tracking:  
regional integration



# 2017 Issues Monitor

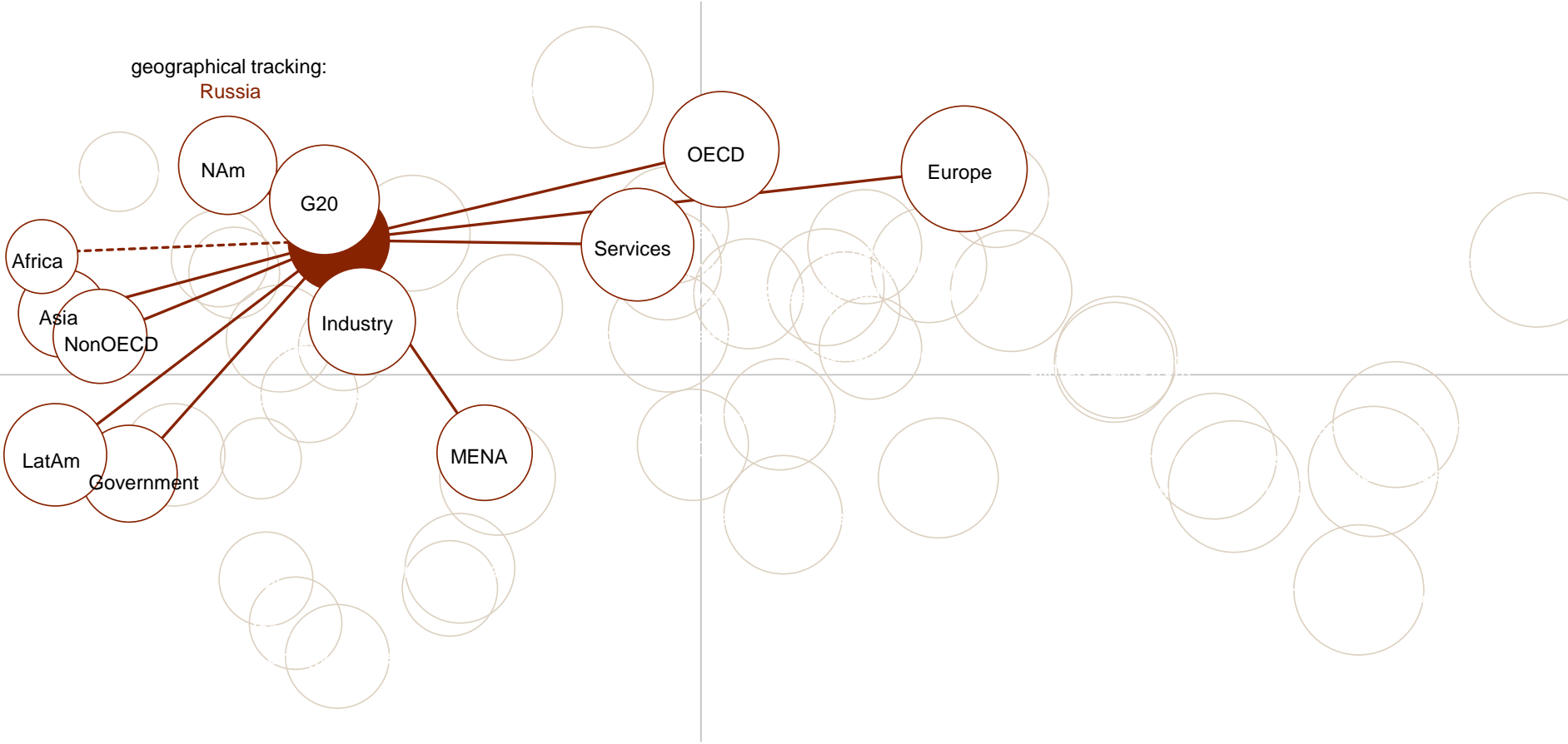
## World – Renewables

geographical tracking:  
renewable energies



# 2017 Issues Monitor

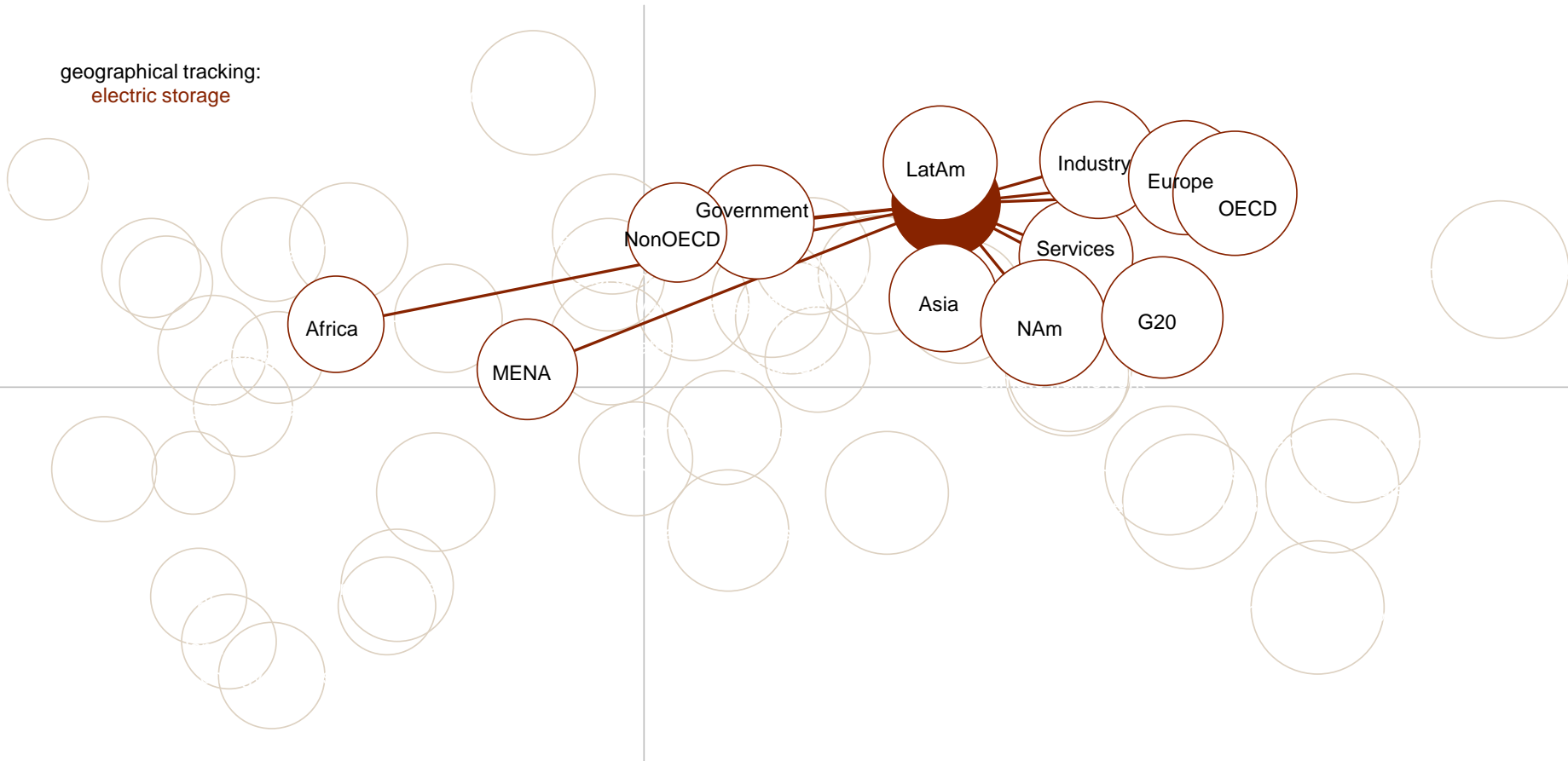
## World – Russia



# 2017 Issues Monitor

## World – Electric Storage

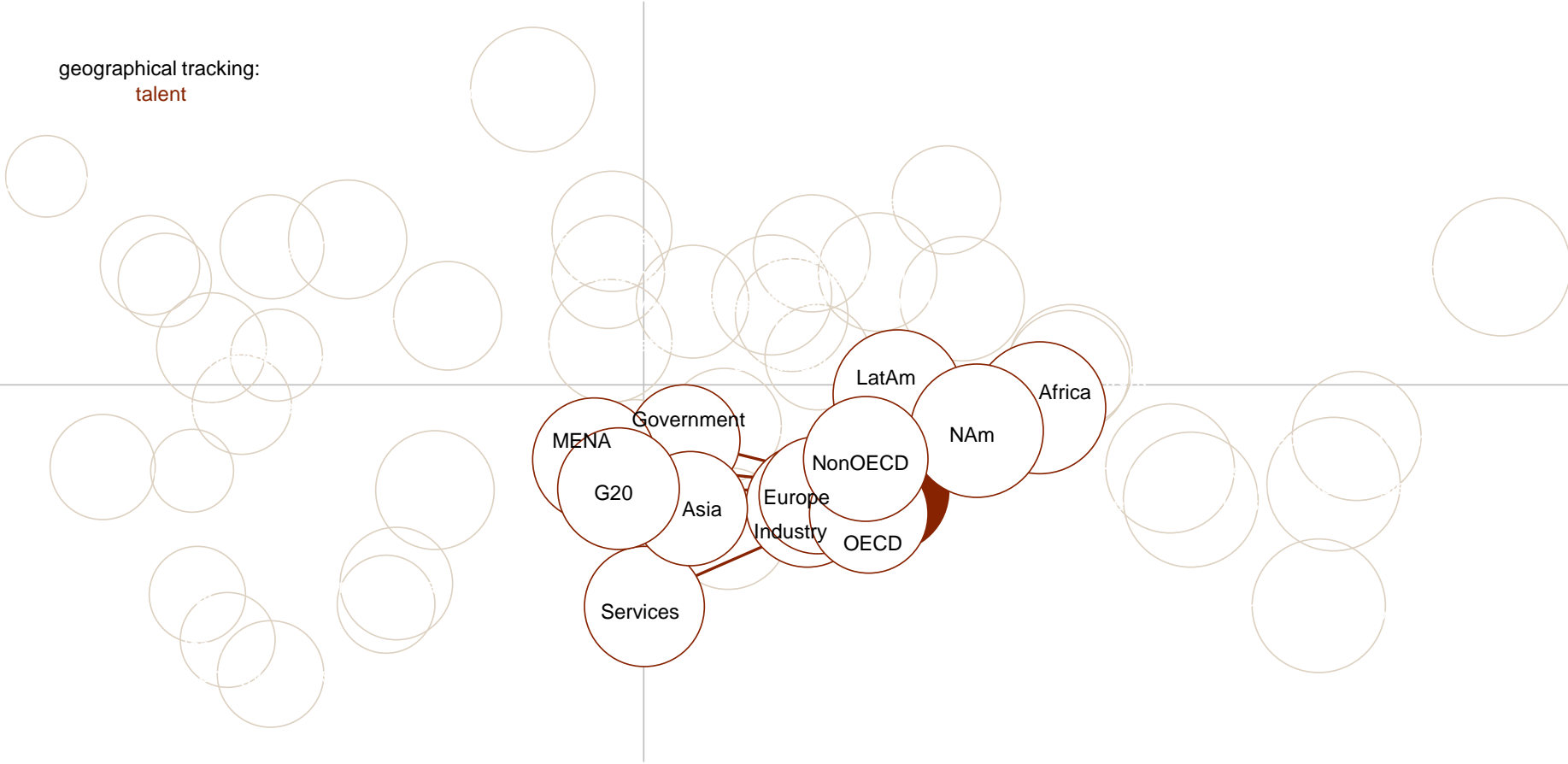
geographical tracking:  
electric storage



# 2017 Issues Monitor

## World – Talent

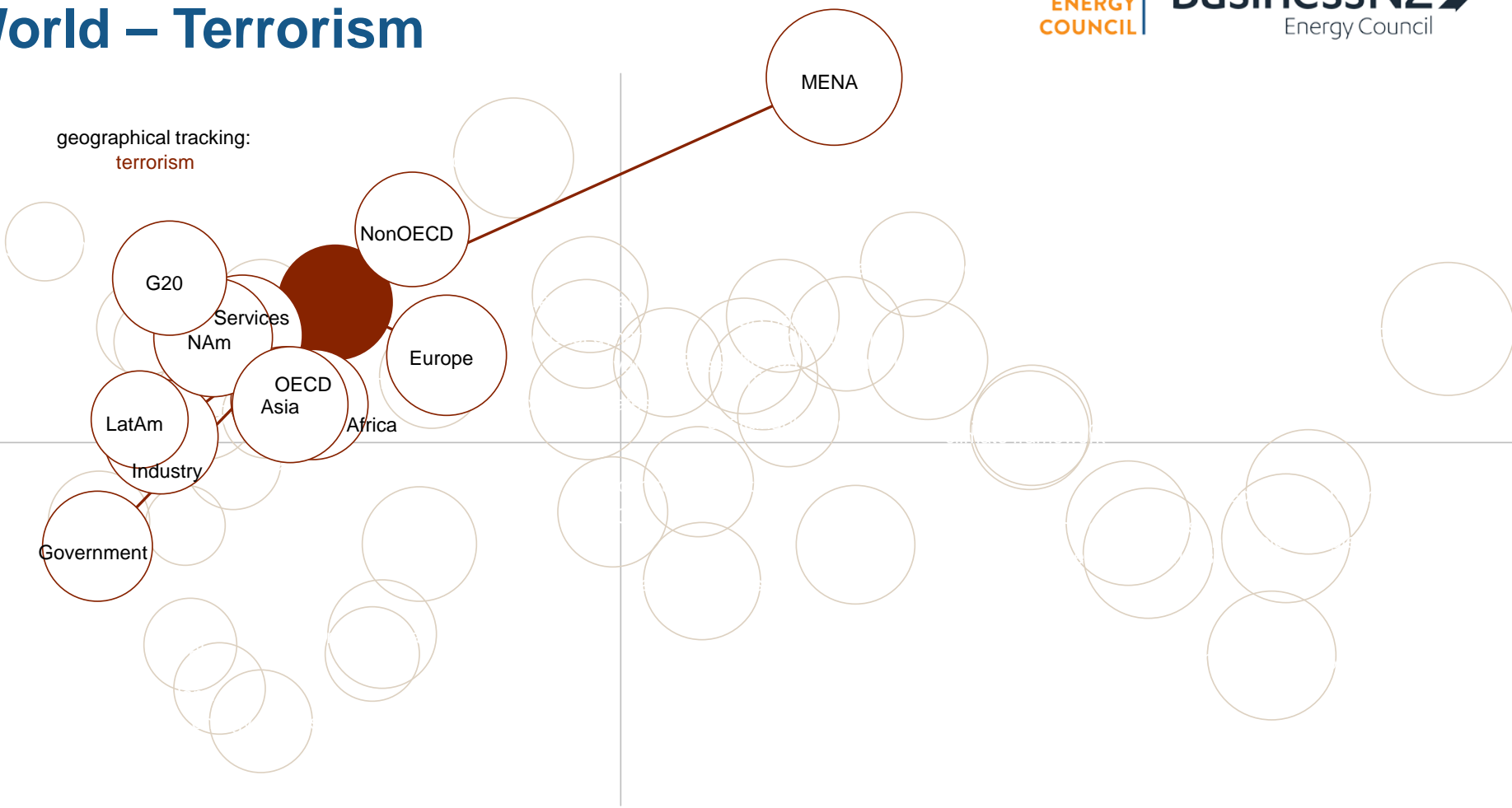
geographical tracking:  
talent





# 2017 Issues Monitor

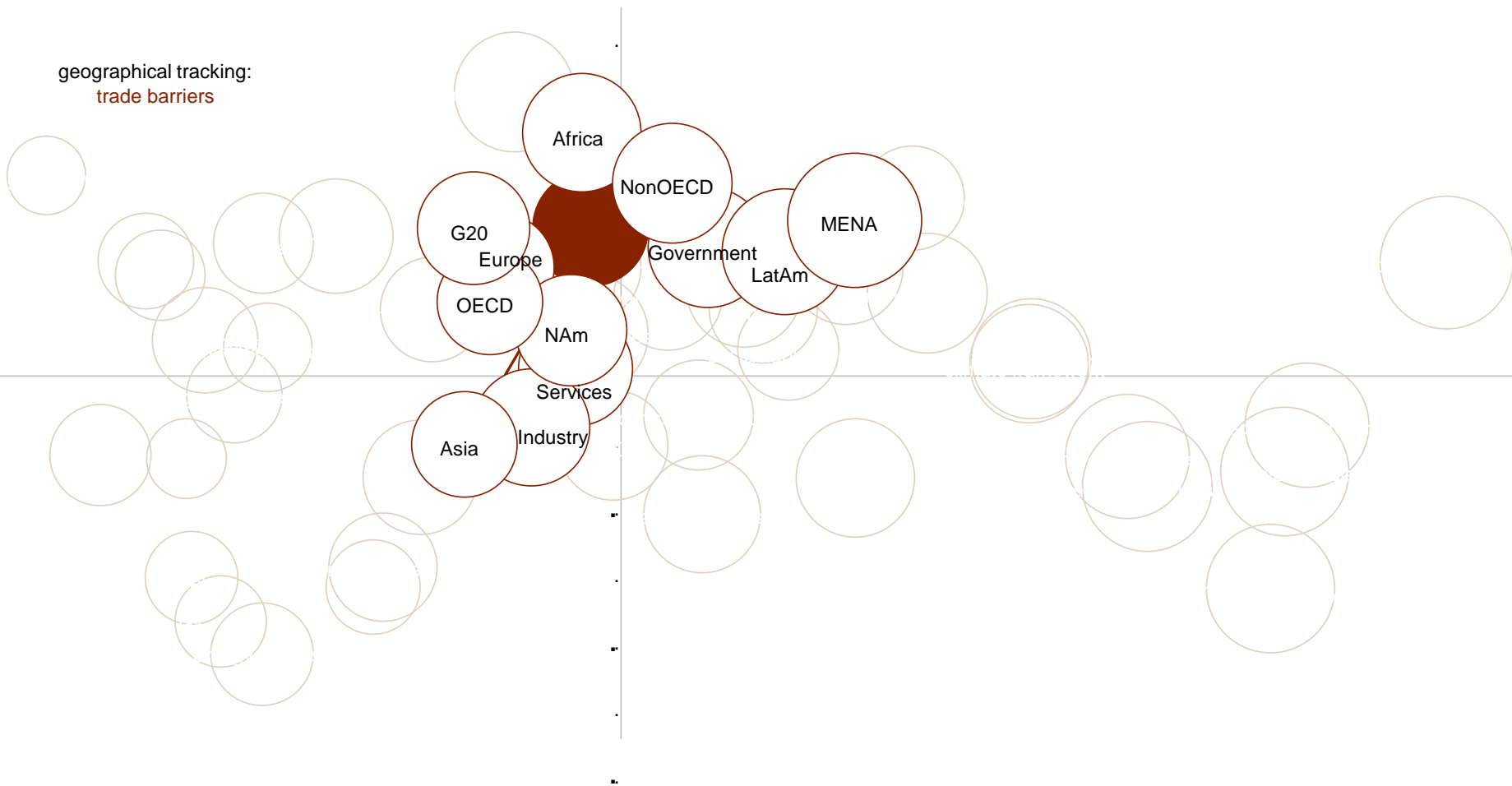
## World – Terrorism



# 2017 Issues Monitor

## World – Trade Barriers

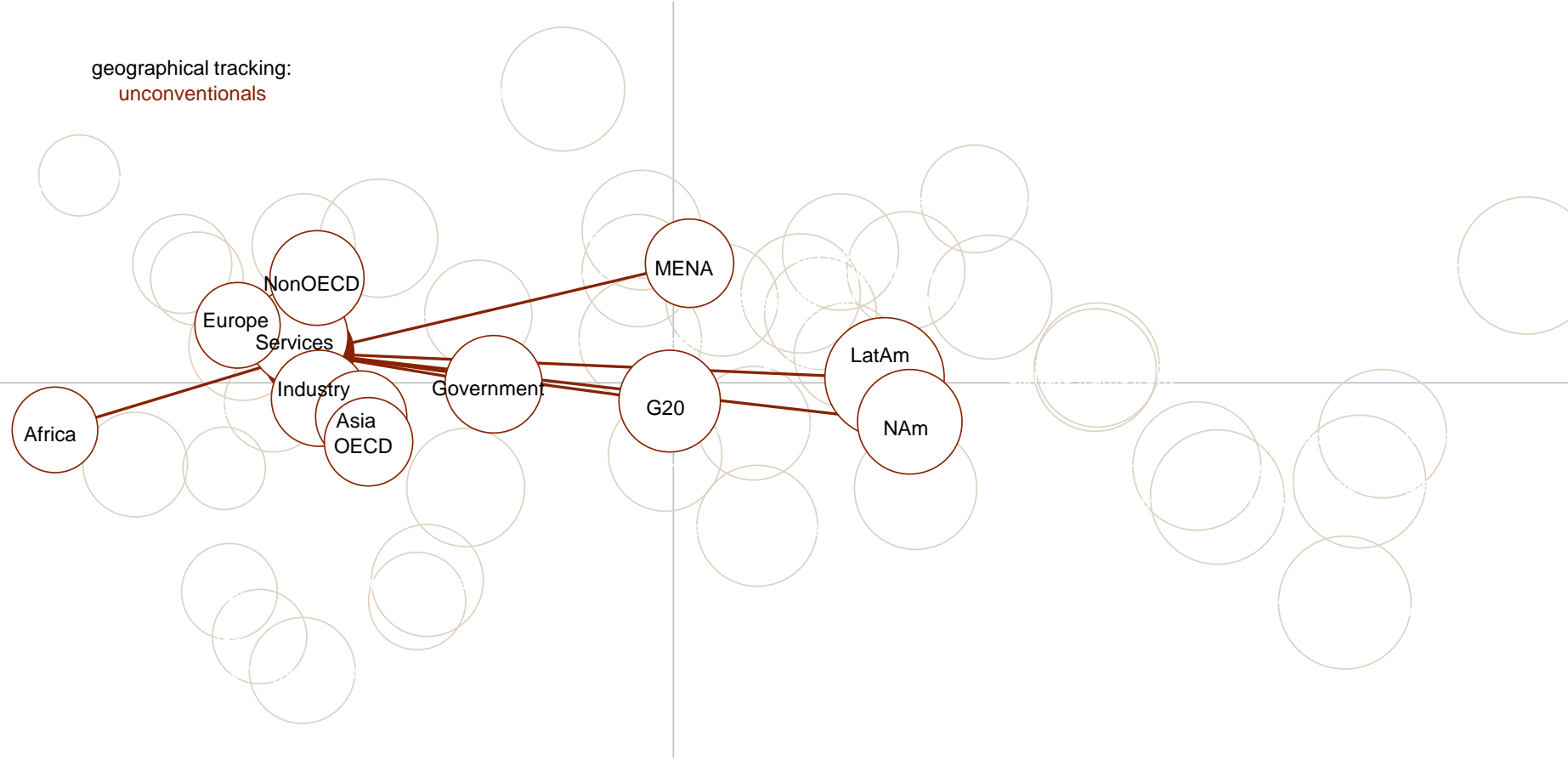
geographical tracking:  
trade barriers



# 2017 Issues Monitor

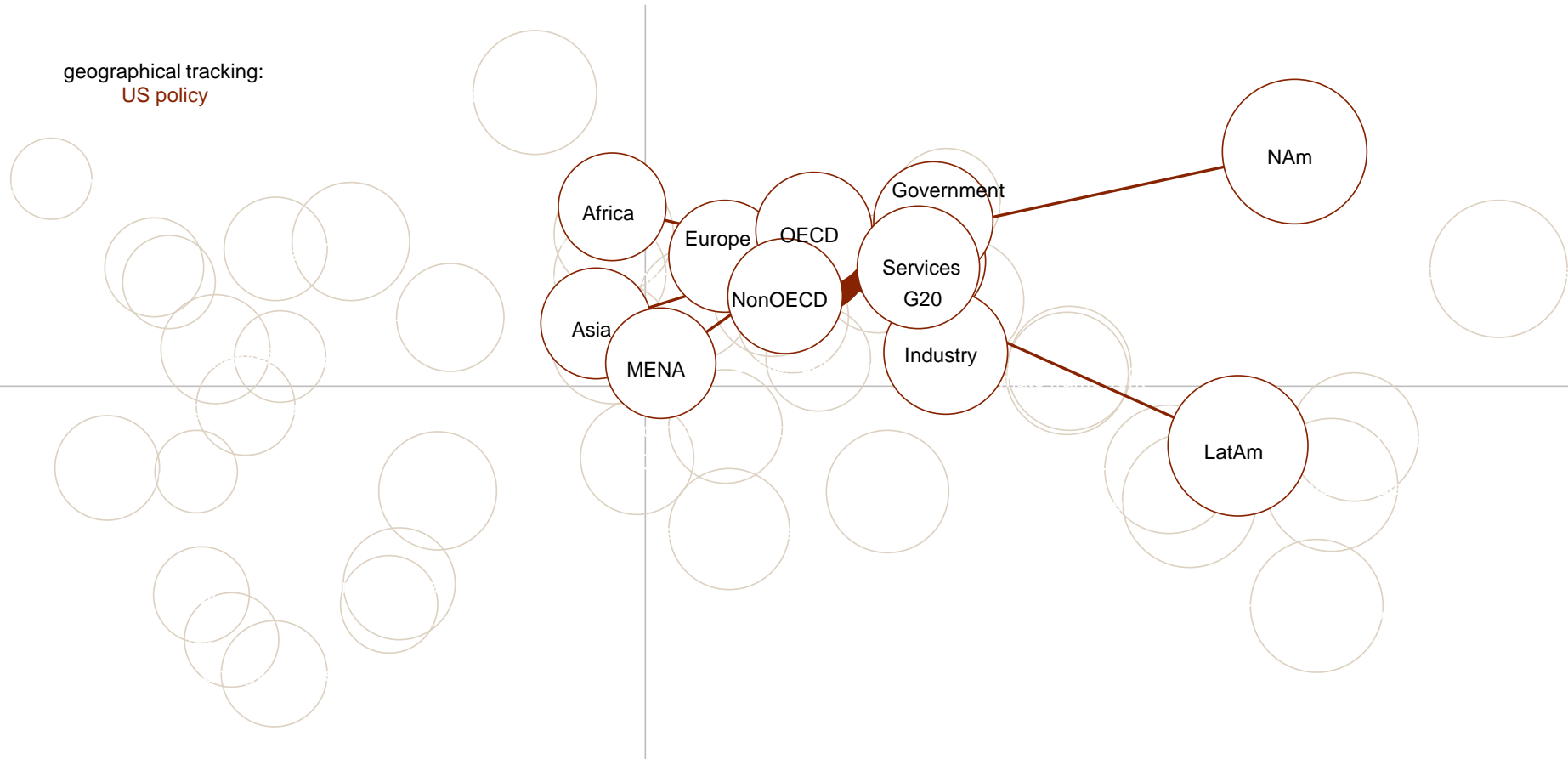
## World – Unconventionals

geographical tracking:  
unconventionals



# 2017 Issues Monitor

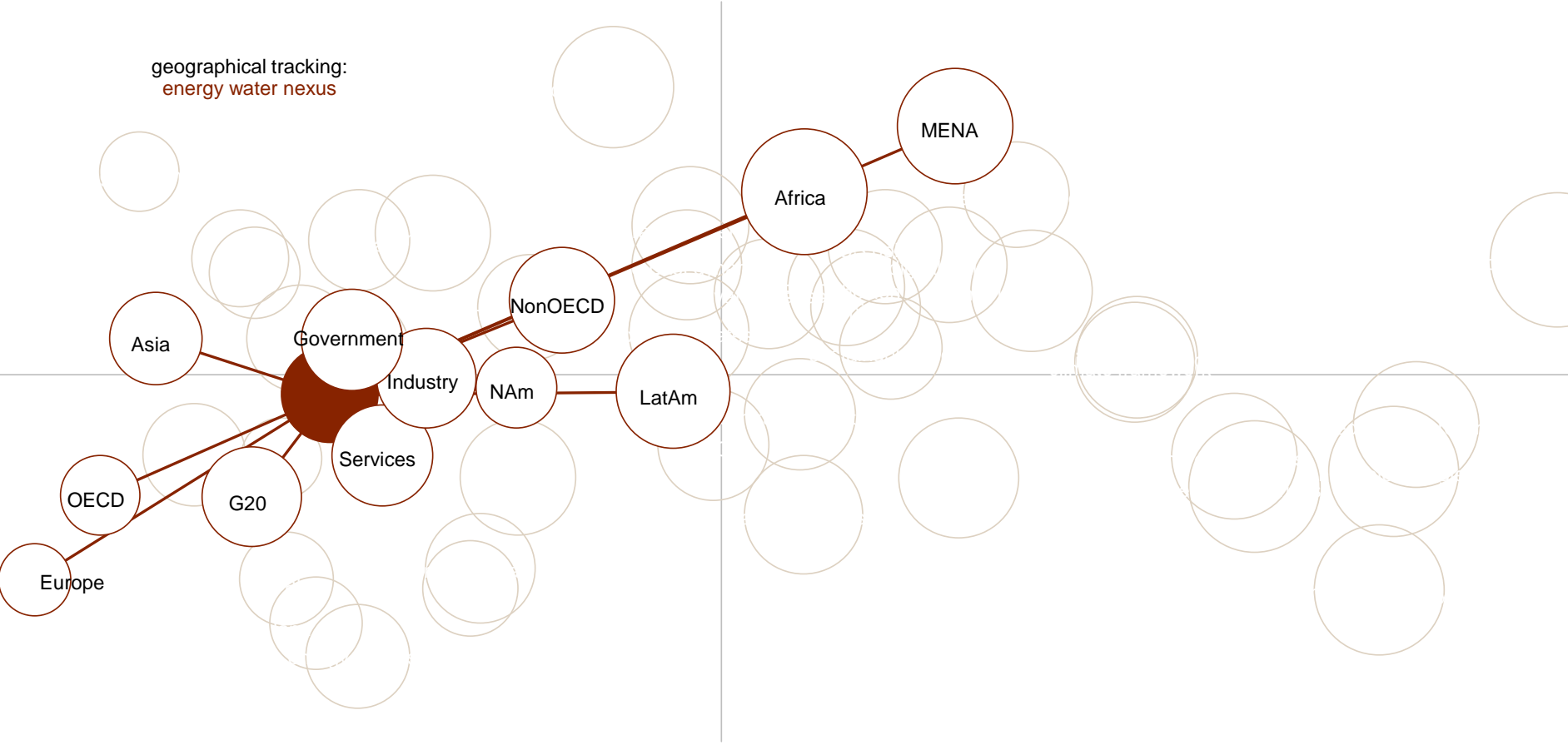
## World – US Policy



# 2017 Issues Monitor

## World – Energy Water Nexus

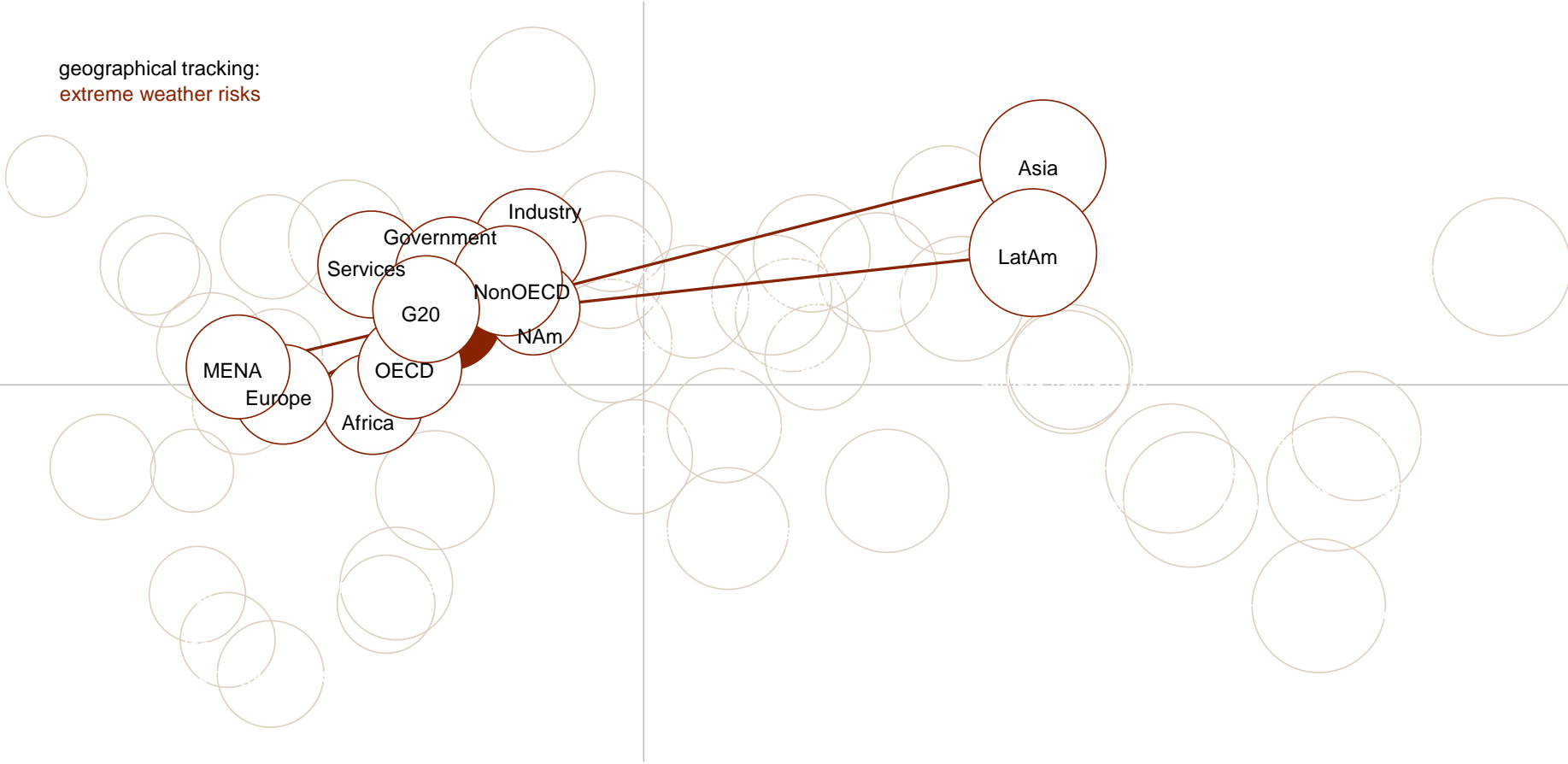
geographical tracking:  
energy water nexus



# 2017 Issues Monitor

## World – Extreme Weather Risks

geographical tracking:  
extreme weather risks



END