

# What risk factors can explain project outcome ?

The data available :  
WB Project DB + IEG Ratings

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# Motivation : what accounts for project success ?

About 75% to 80% of projects are rated moderately satisfactory or better.

Known variables only explain 12% of the variation between projects.

# Motivation : what accounts for project success ?

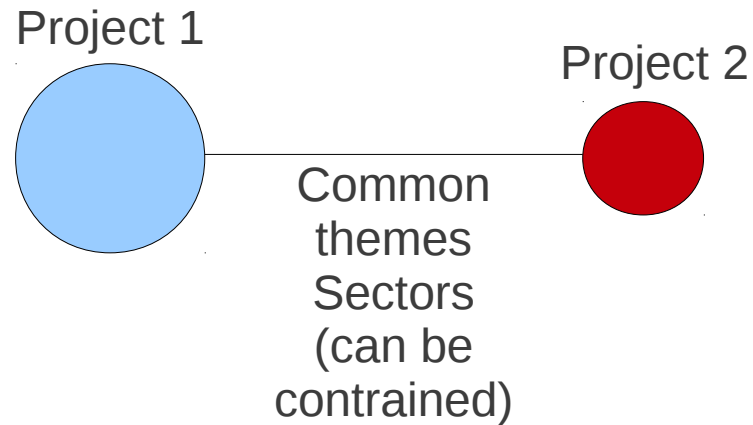
Let's use an **inductive** approach to discovering the determinants of success: group similar projects together and look for successful vs unsuccessful groups

*A start : group projects by sectors and themes.*

*Relevant data : projects / amounts / sectors / themes / outcome ratings*

*Let's put our hands in the data !*

# Creating the network



## Visual encoding

*Size* : amount

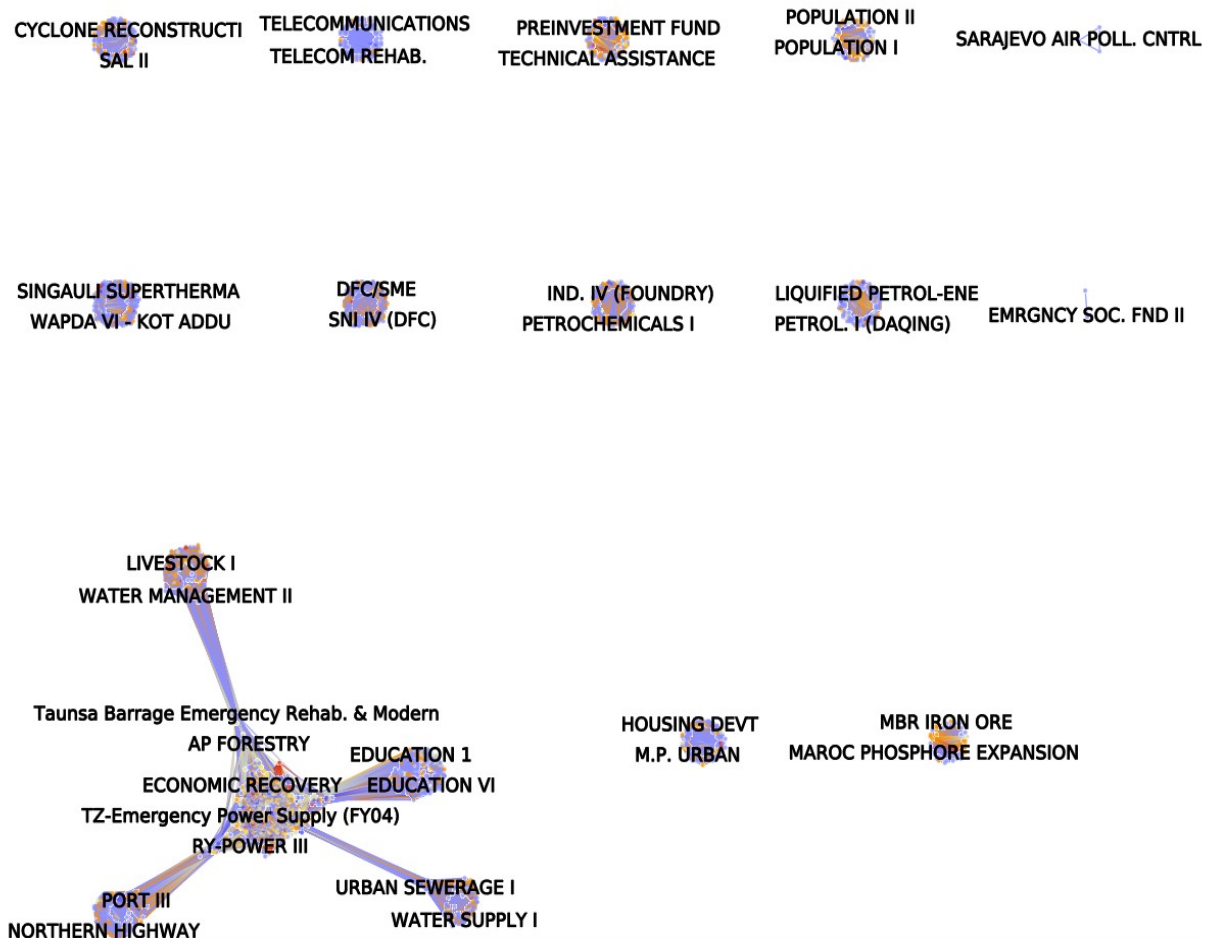
*Color* : outcome rating

→ satisfactory : blue

→ unsatisfactory : red

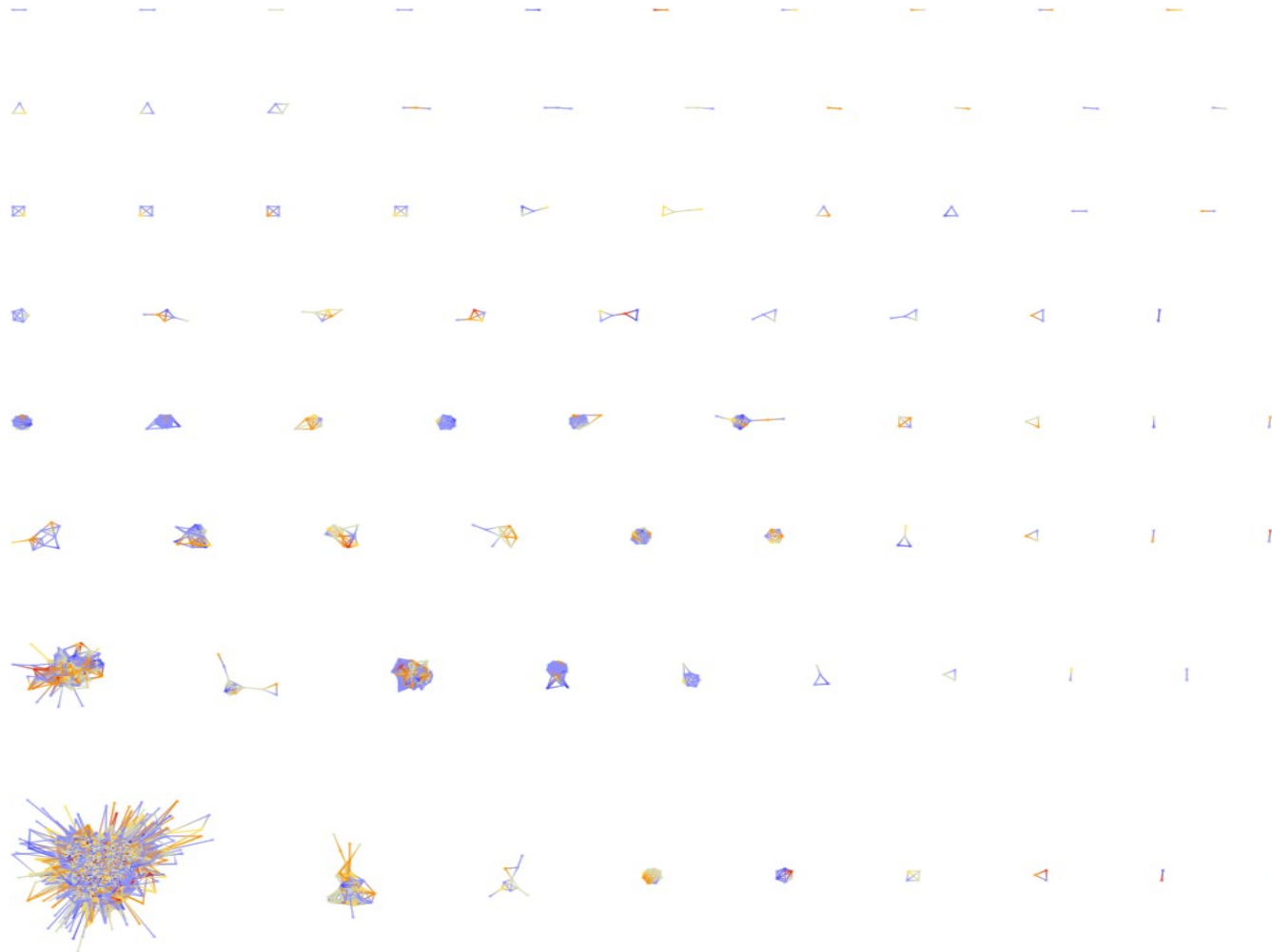
# Results

~8000 projects / ~5M edges



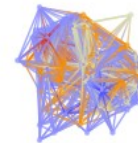
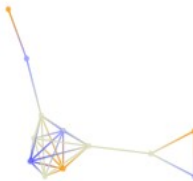
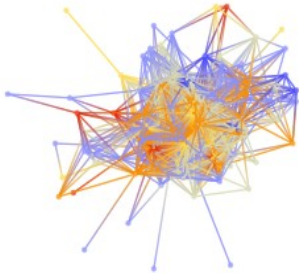
# Results

~8000 projects / ~700k edges



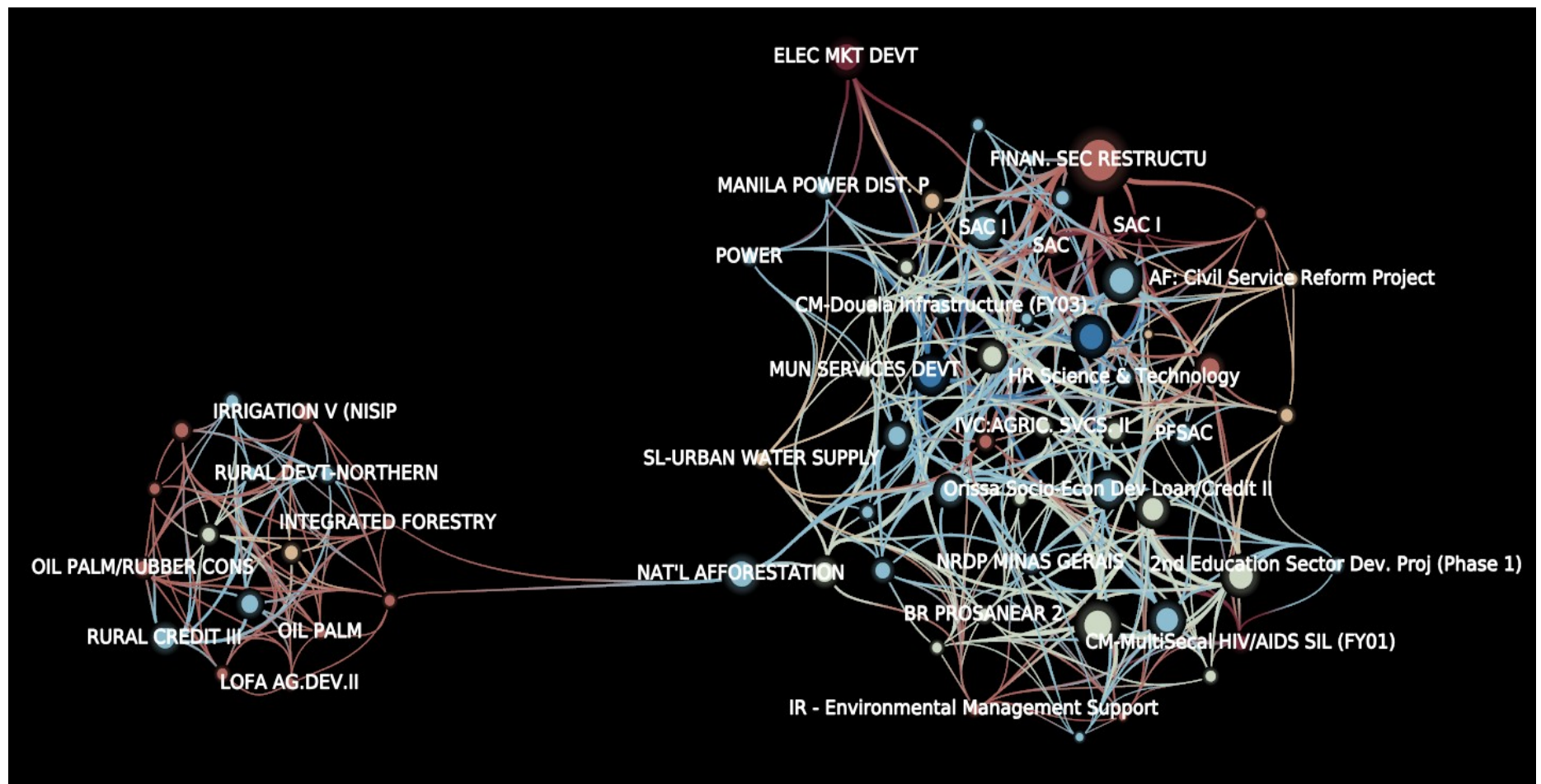
# Results

Clusters of projects around themes/sectors  
→ variety of outcomes



# Closeup

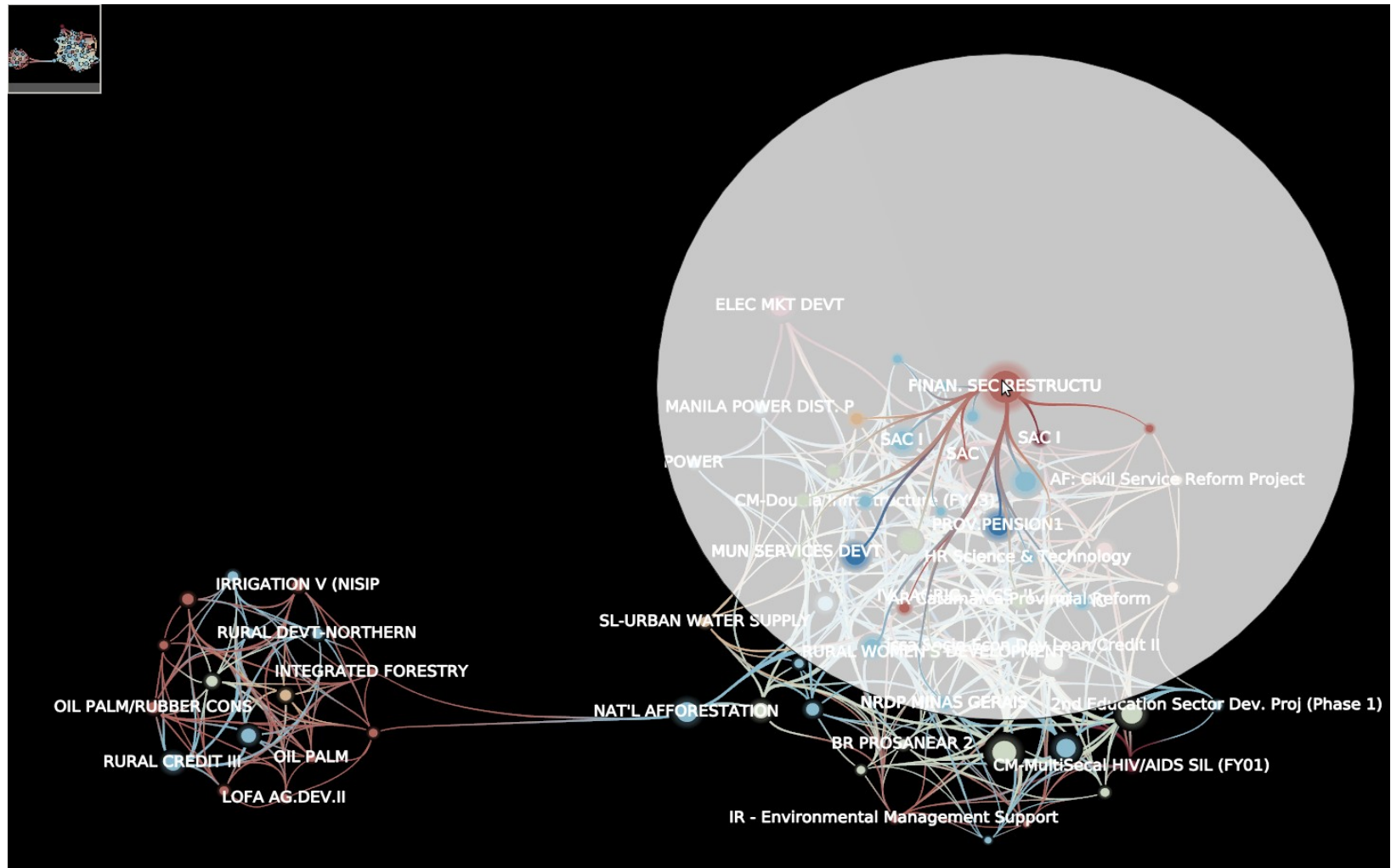
Focus on one example





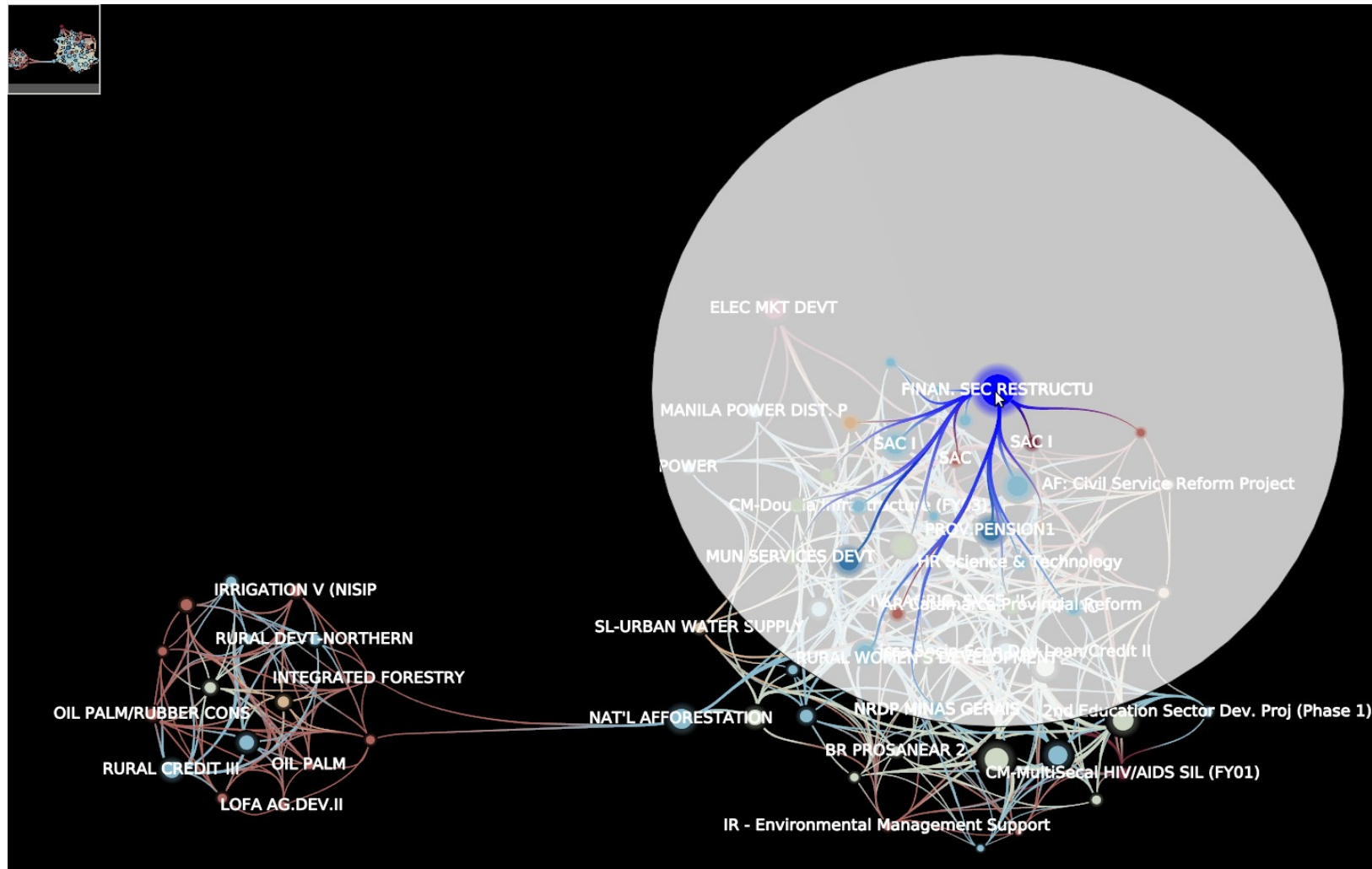
# Closeup

## Interest on a particular project



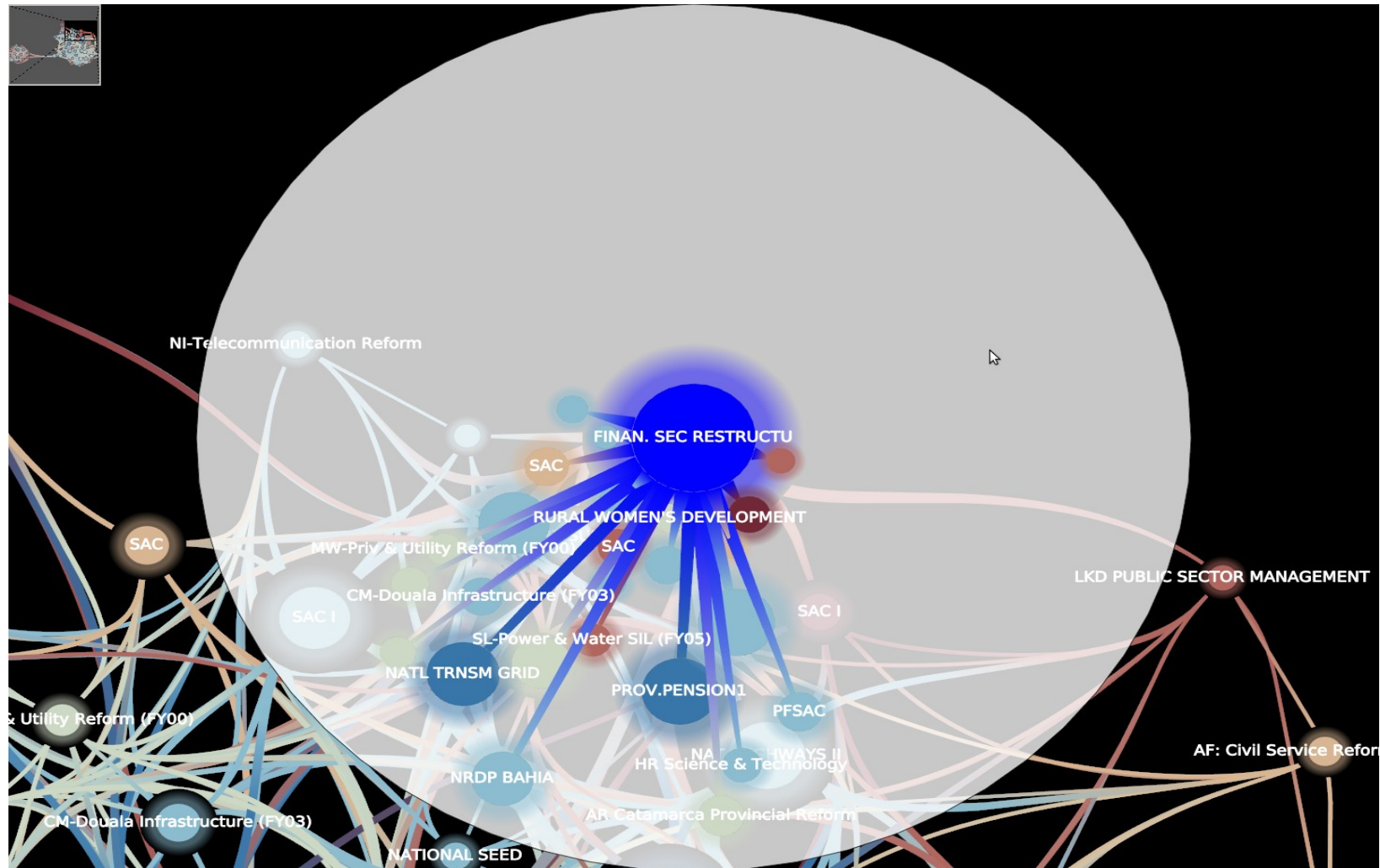
# Closeup

Interest on a particular project



# Closeup

## Exploring its neighborhood

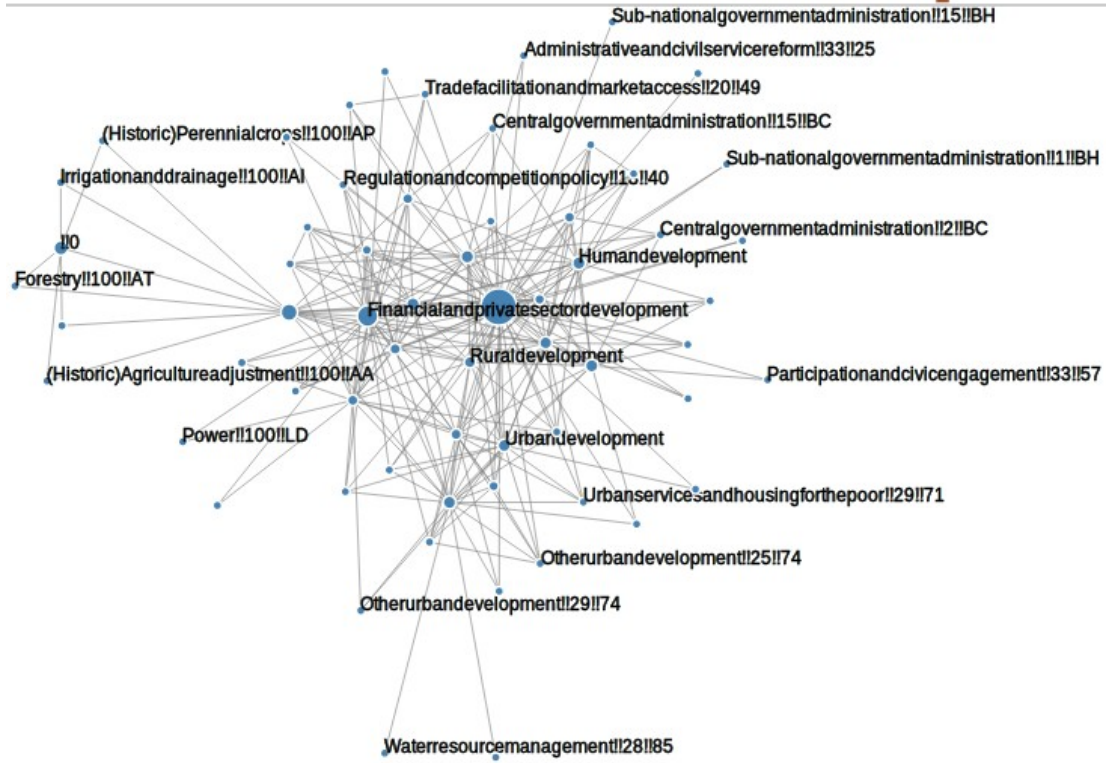
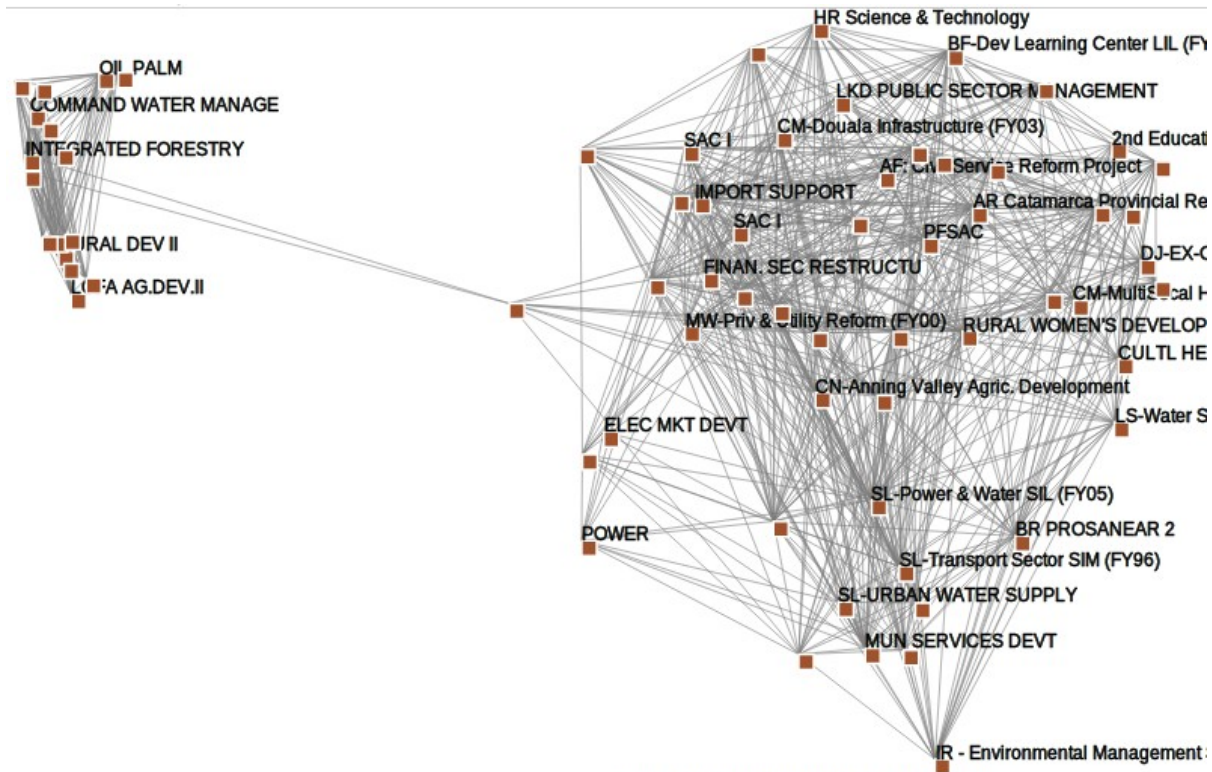


# Understanding

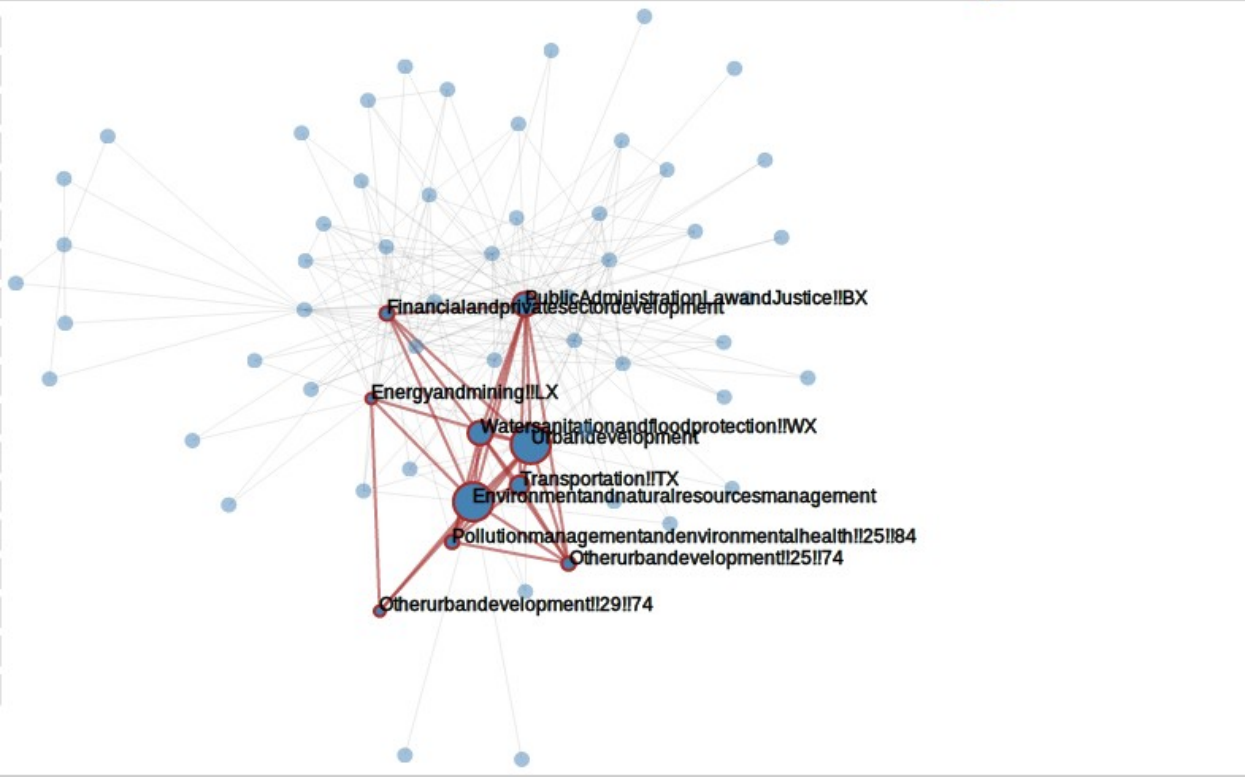
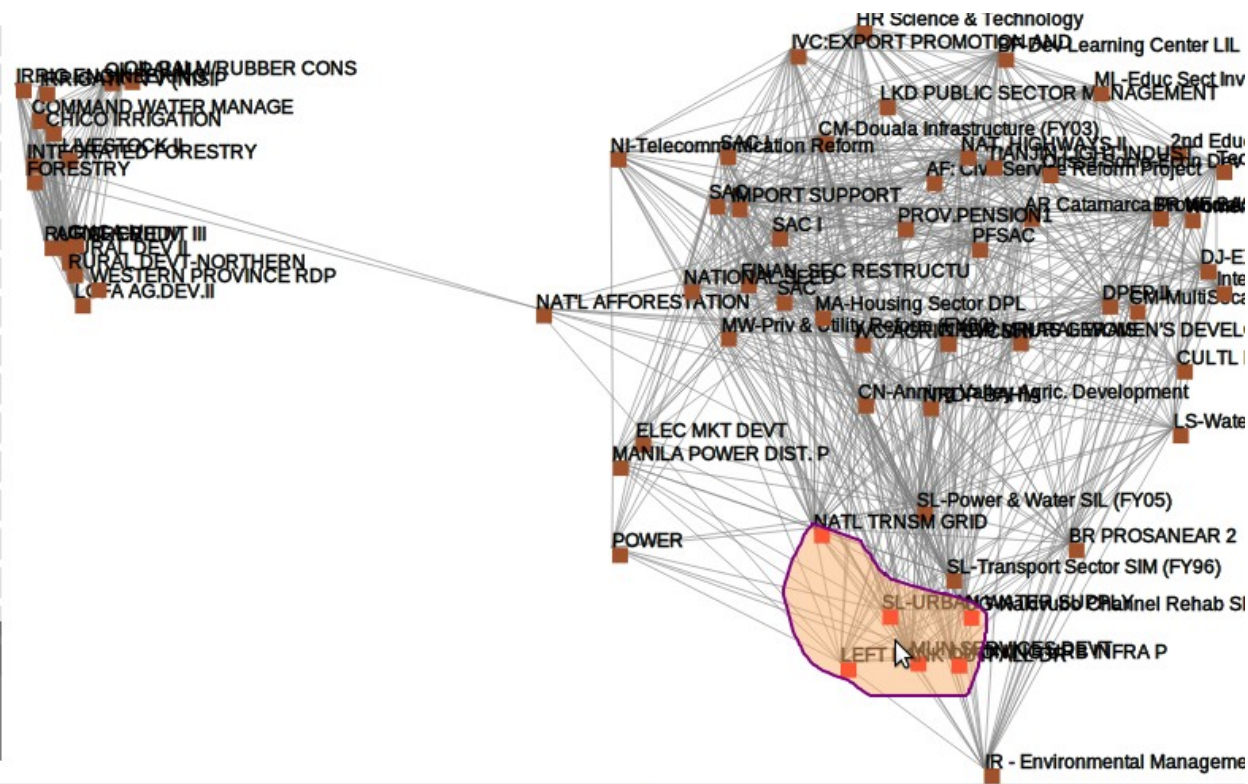
What lays behind a set of similar projects ?

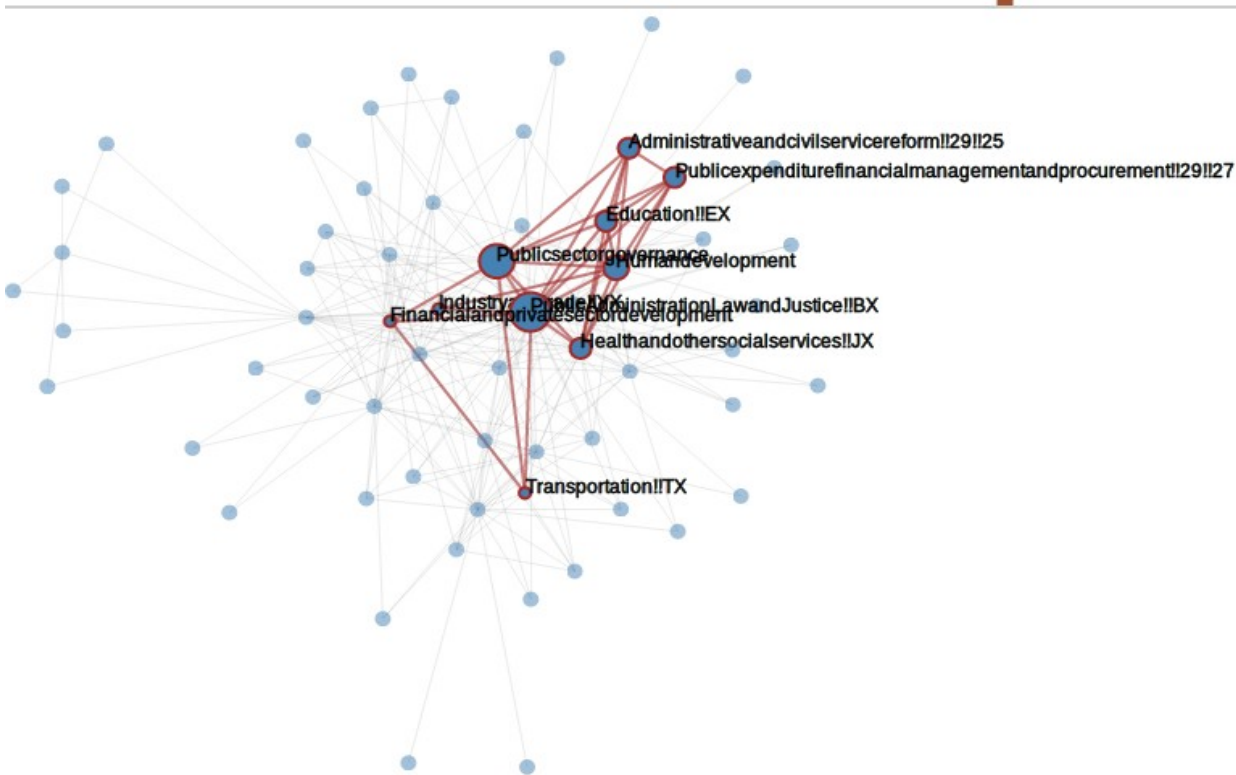
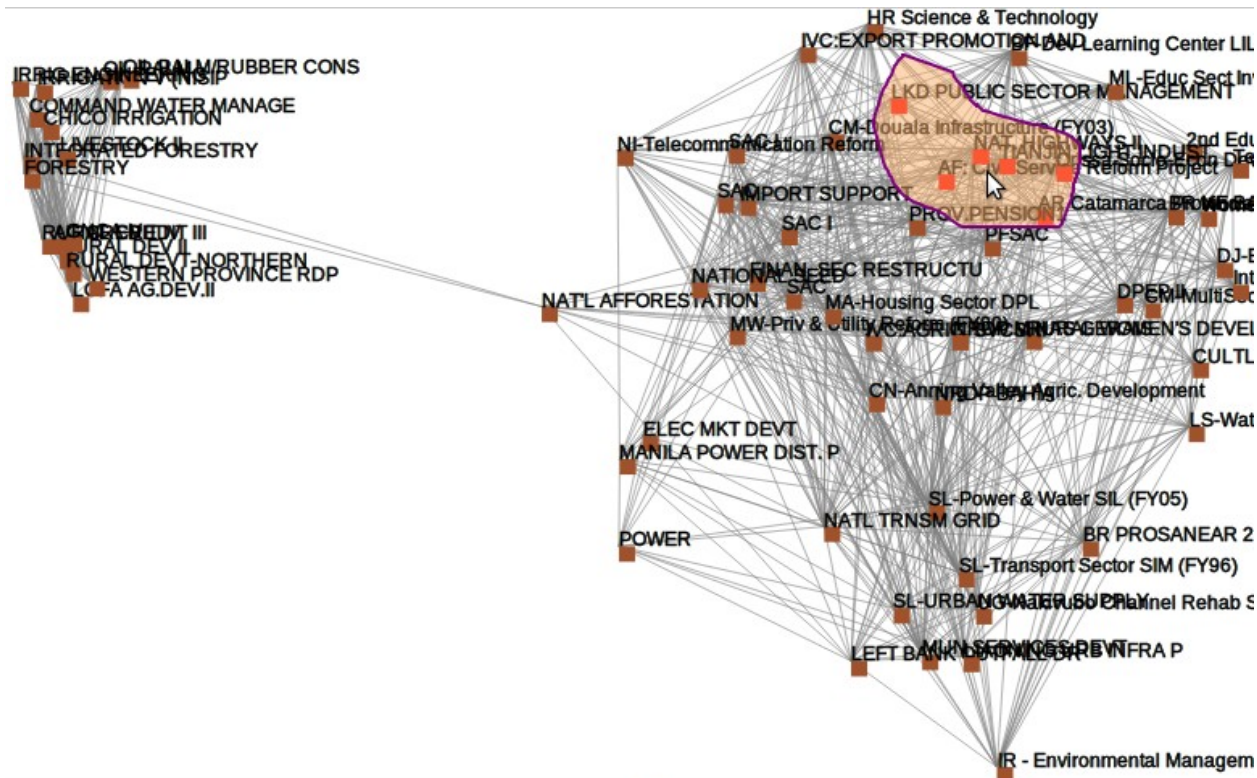
Exploration to find the common  
factors between projects

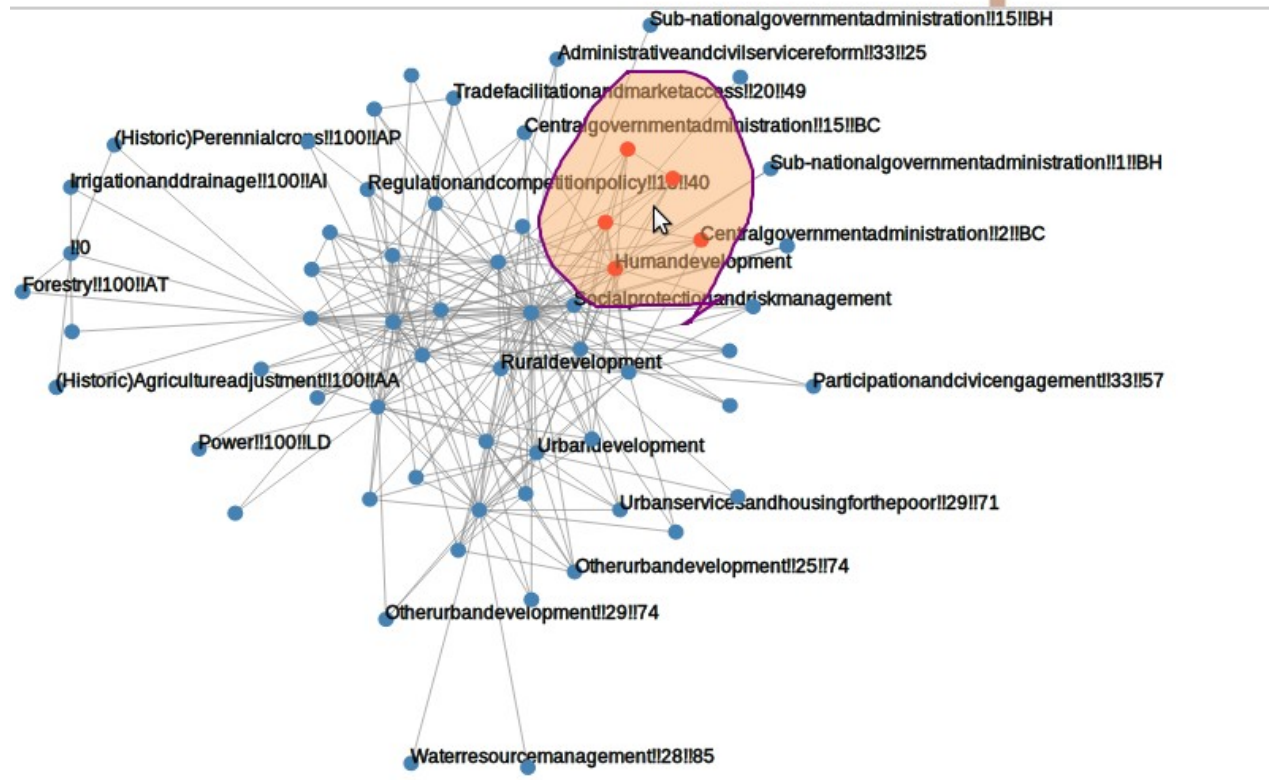
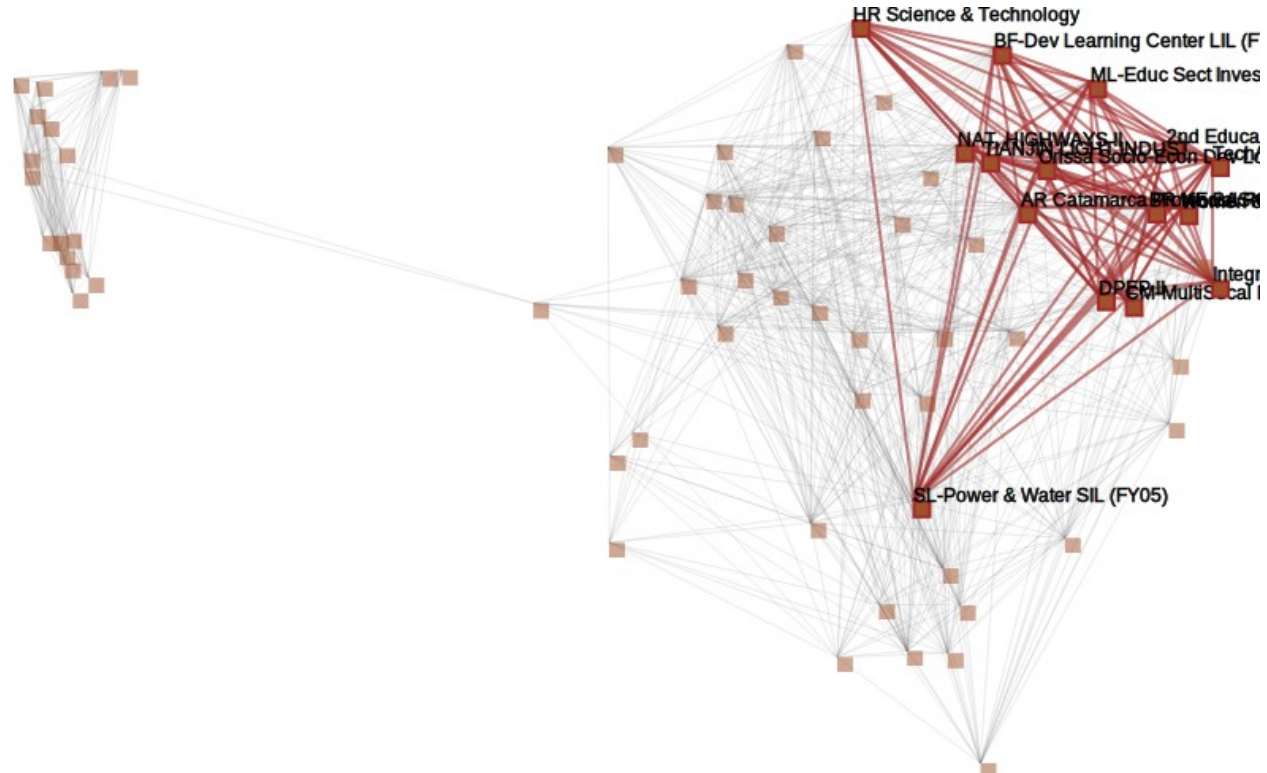
2 networks :  
Projects **vs** Themes and sectors













# First iteration of the ***back and forth process*** :

- need of experts for in-depth analysis
- identify subgroups of projects with similar outcomes
- extend the set of characteristics
- refine the measures of connectedness  
(people/social network,  
semantic analysis of objectives)

# we've paved the way for exploratory research !

## Tools :

Tulip (c++/python) <http://tulip.labri.fr>

TulipPosy (javascript/python/d3.js) – <https://github.com/renoust/tulipposy>

→ contributors are welcome !

## Data :

IEG Performance Rating :

<http://data.worldbank.org/data-catalog/IEG>

WB Project API :

<http://data.worldbank.org/data-catalog/projects-portfolio>

## People :

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