



Using Computer Games Techniques for Improving Graph Viz Efficiency

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Gephi is a modular and extensible **open-source network visualization platform**. It follows a pragmatic approach for visualization by using two different engines for two different purposes. Large scale graph drawing requires performance and interactivity, but also **customization** and **implementation flexibility**. We observed that fulfilling all aspects in a single rendering engine is technically not viable on a long-term view and we propose to use different technologies. Gephi project aims to create a sustainable software and technical ecosystem, driven by a large international open-source community, who shares common interests in networks and complex systems. It focuses on **visualization** and **manipulation**, **simplicity** and **extensibility**.

Gephi aims at being **sustainable, open to many kinds of users, and creating a large, international and diverse open-source community**

➤ We power a growing community



Discover



Stay in touch



Get help



Contribute

+ Getting started,
+ Tutorial,
+ Live demo...

+ Code documentation
+ Dev Wiki

+ Manual
+ Visuals
+ Screenshots
+ Videos
+ Localization

+ Google Summer of Code

Exploration engine

“Video-game”-like specs:

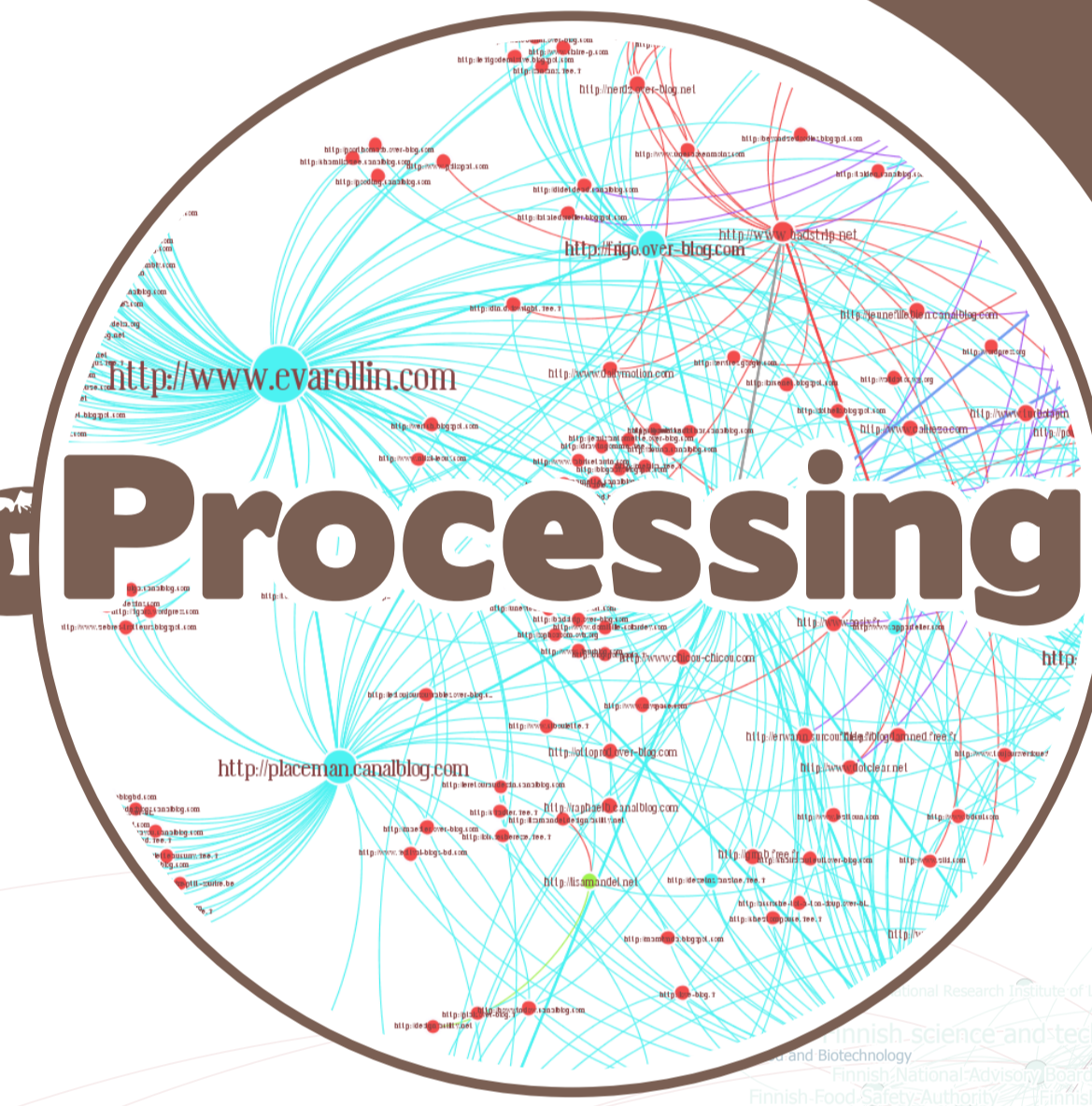
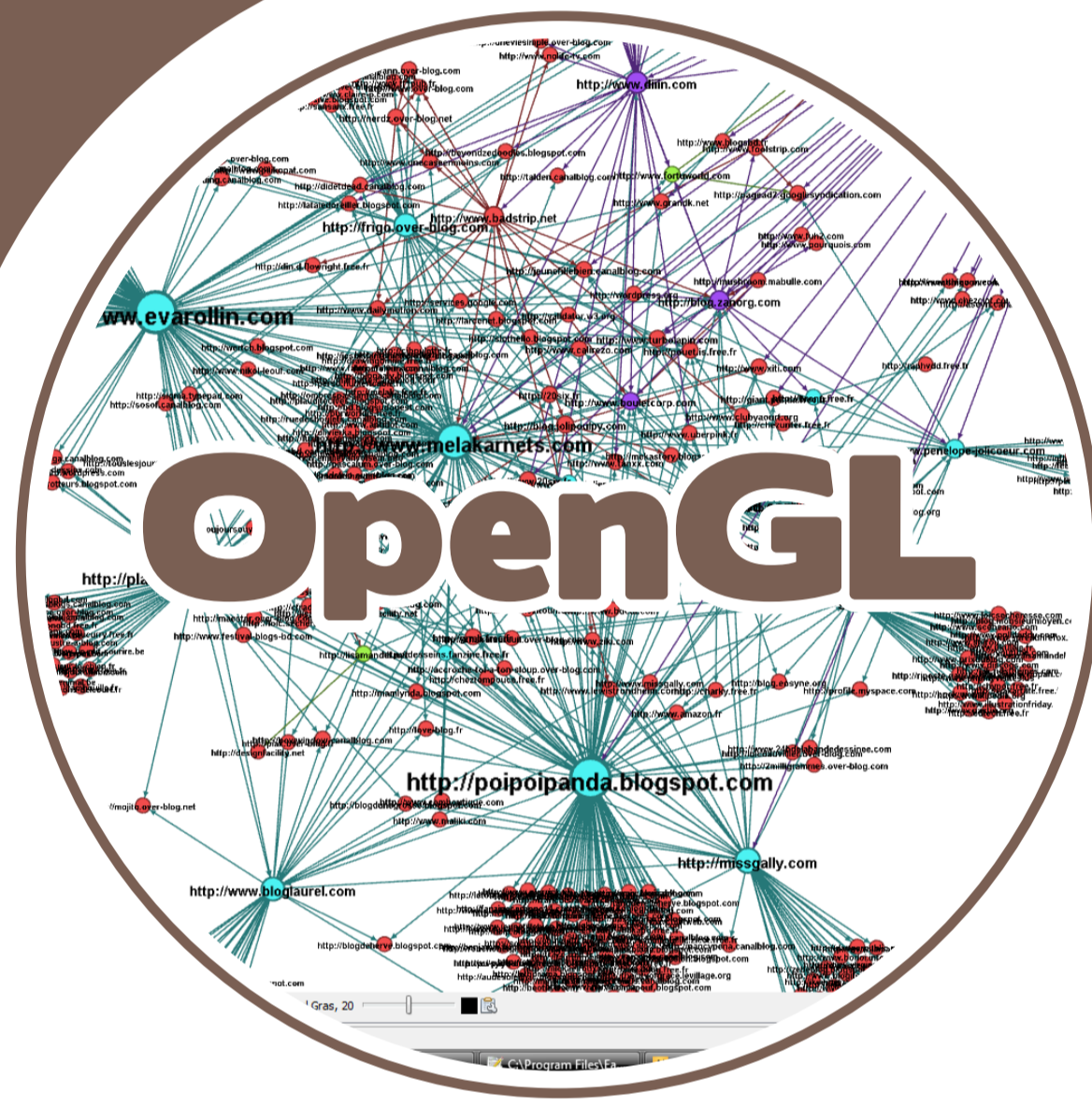
- Frustum culling + octree
- Level of detail (LOD)
- Multi-thread

Performance

Interaction-oriented

Strongly **dynamic** and poorly customizable
Designed to make you **manipulate** data

2 different engines for 2 purposes



Mapping engine

“Illustrator”-like specs:

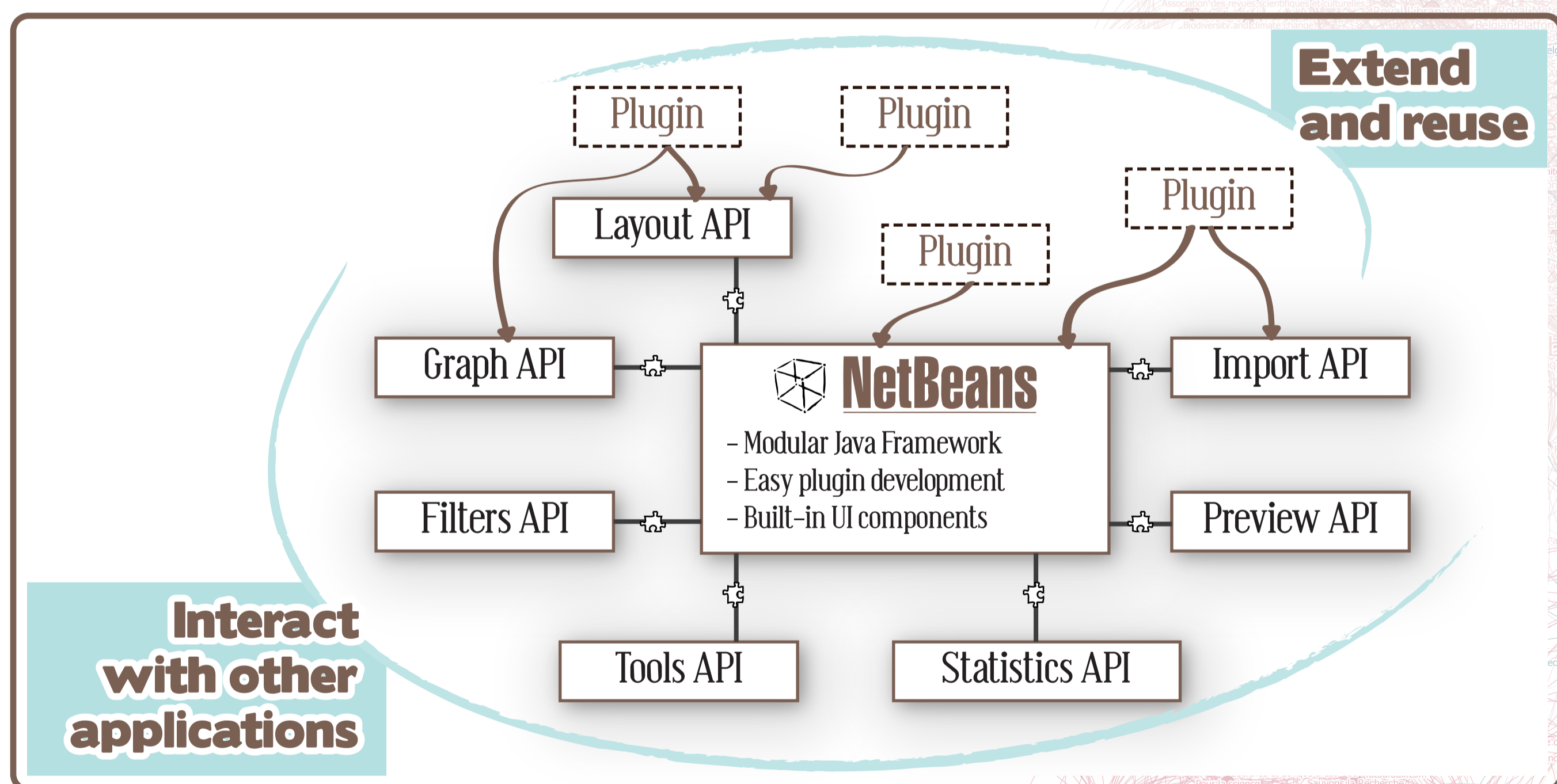
- Aesthetics refinement
- Vectorial rendering
- SVG / PDF export

Quality

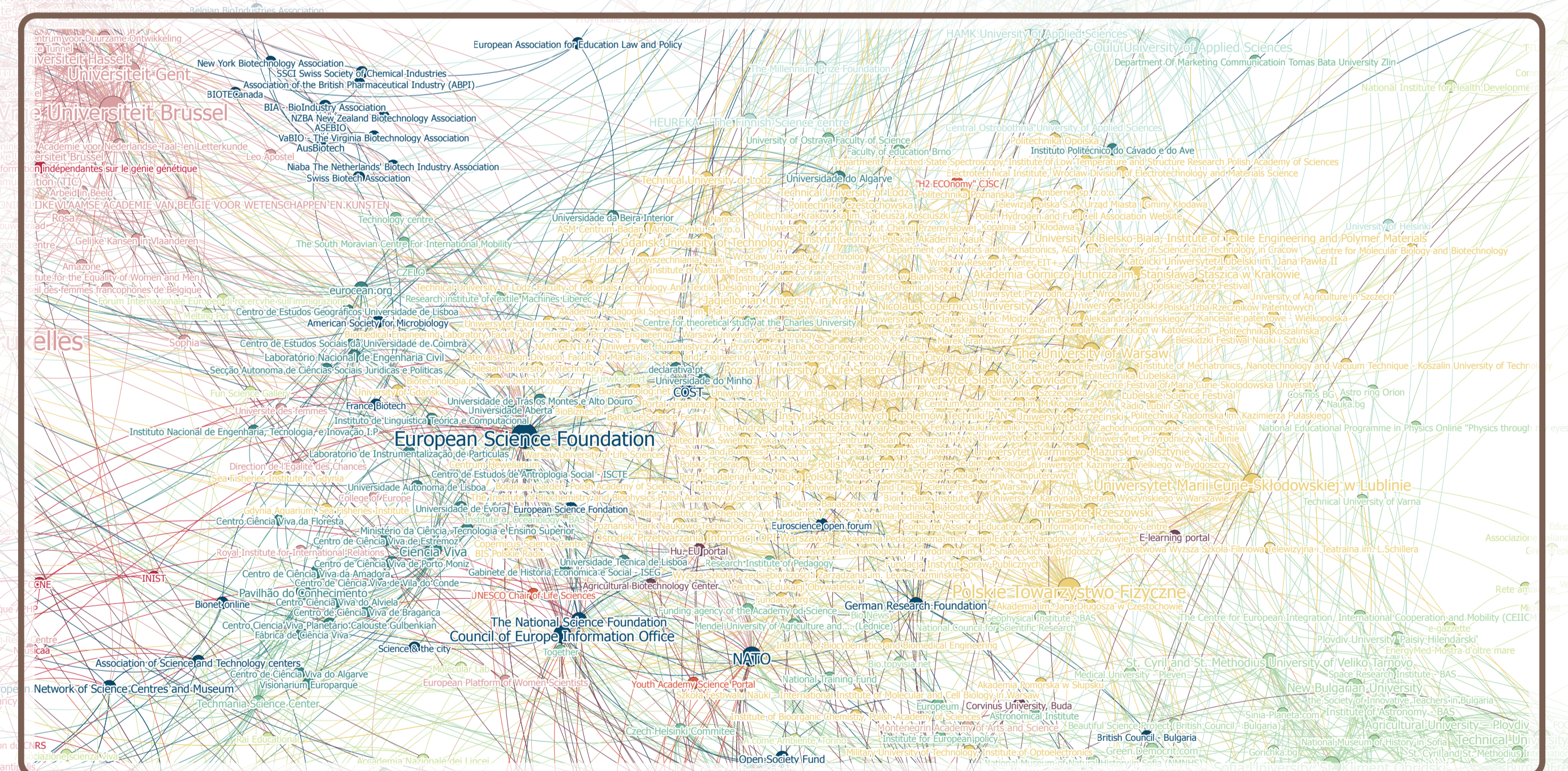
Visualization-oriented

Highly **customizable** and completely static
Designed to make you **communicate** data

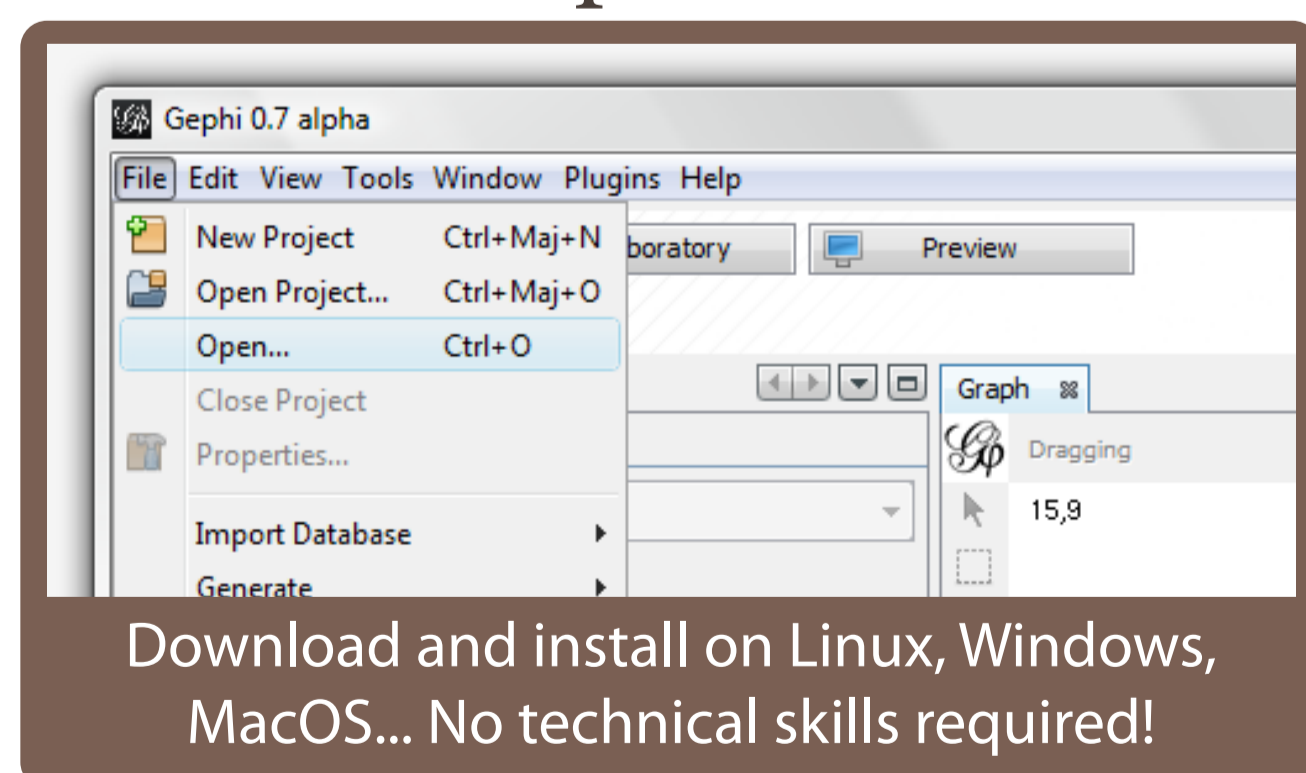
Researchers! Architecture matters



Engineers! Semiotics matters

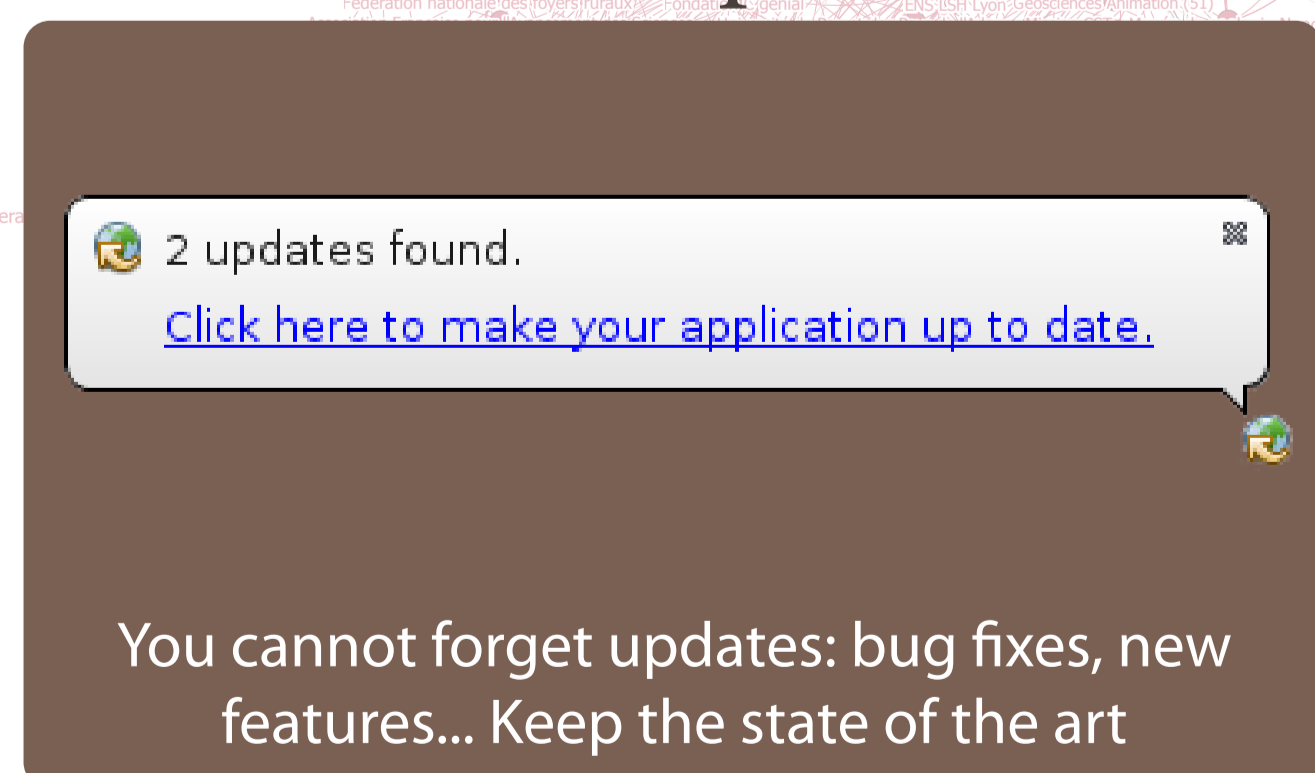


☞ Install, Open, Save



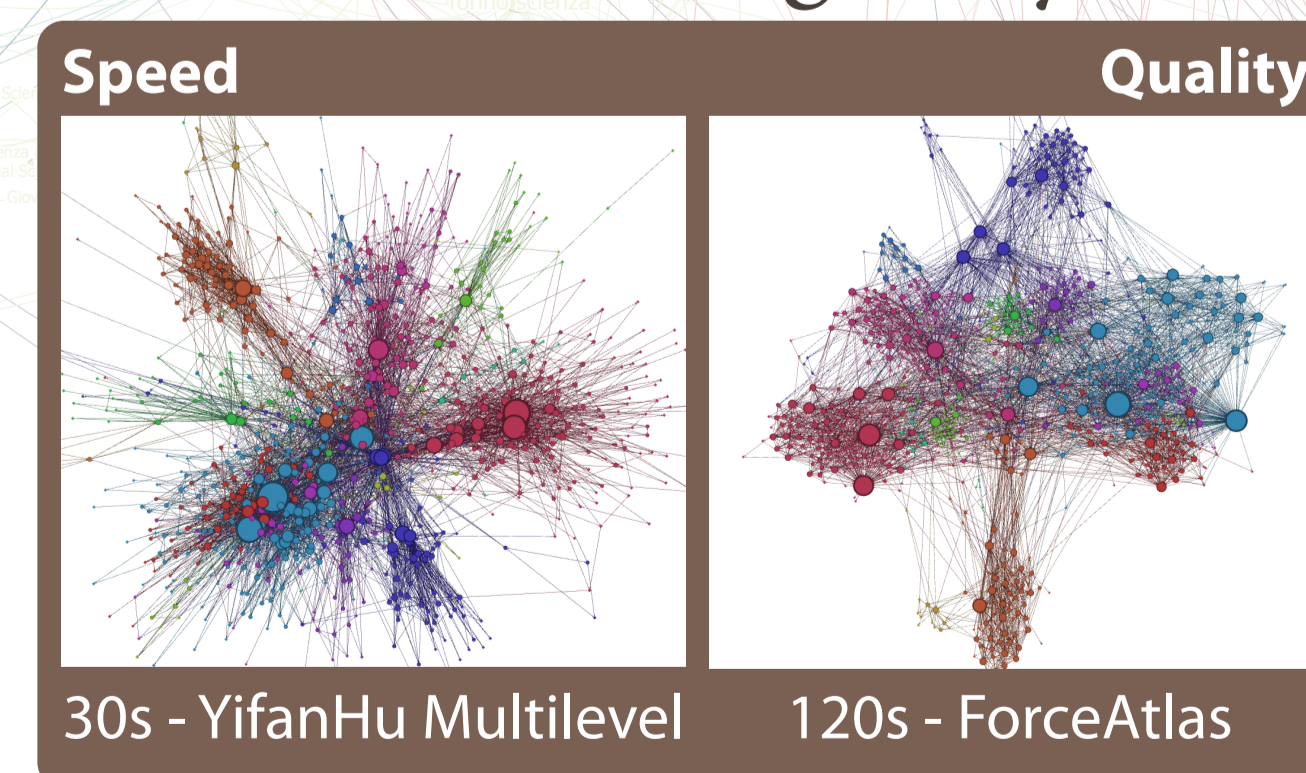
Download and install on Linux, Windows, MacOS... No technical skills required!

☞ Automatic updates



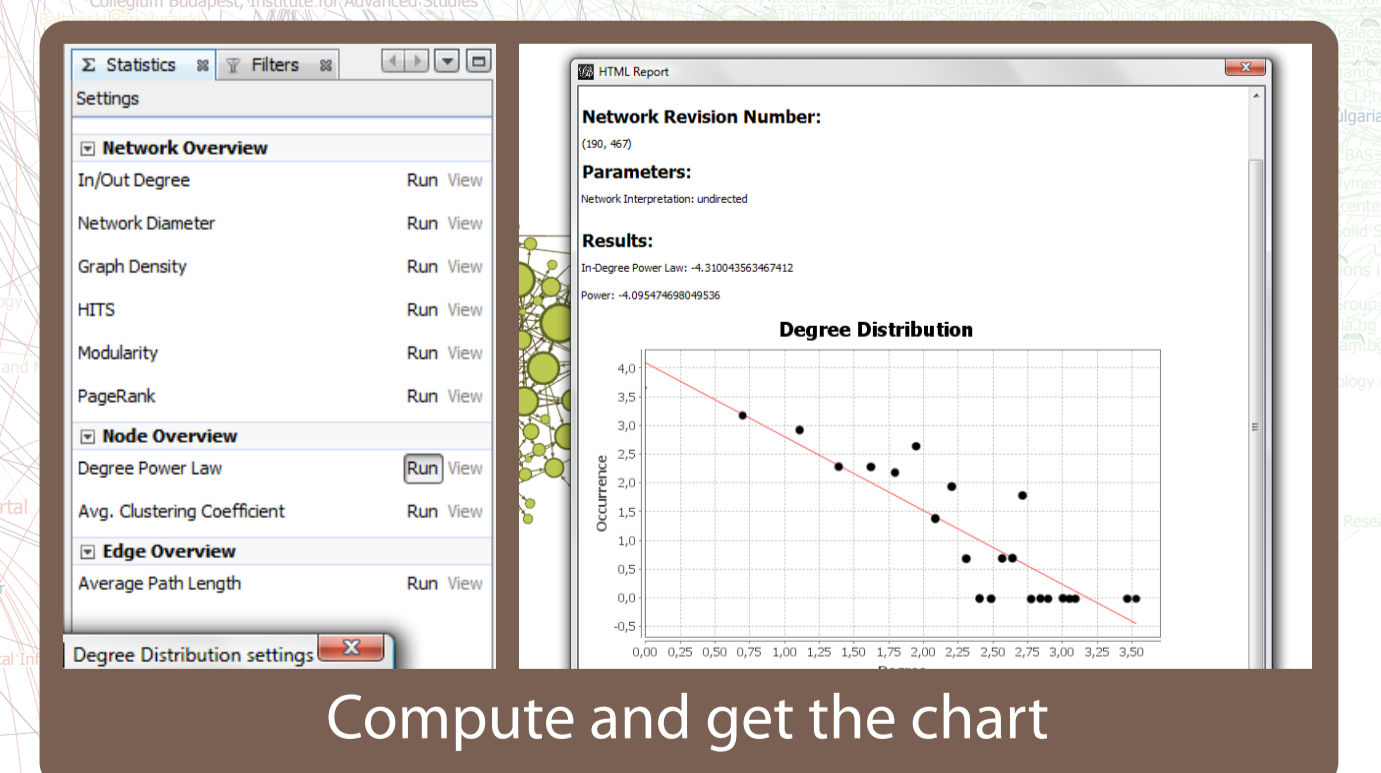
You cannot forget updates: bug fixes, new features... Keep the state of the art

☞ Choose the right layout



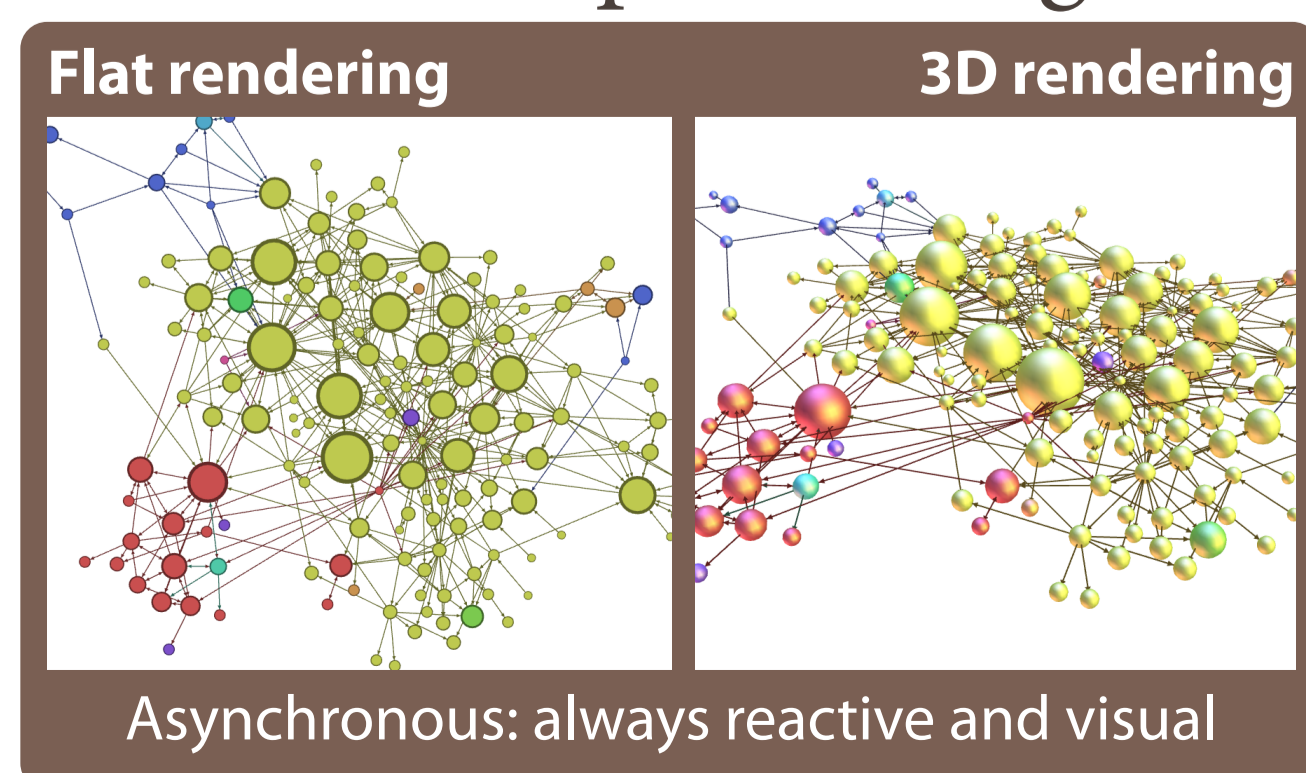
30s - YifanHu Multilevel | 120s - ForceAtlas

☞ Stats & Metrics



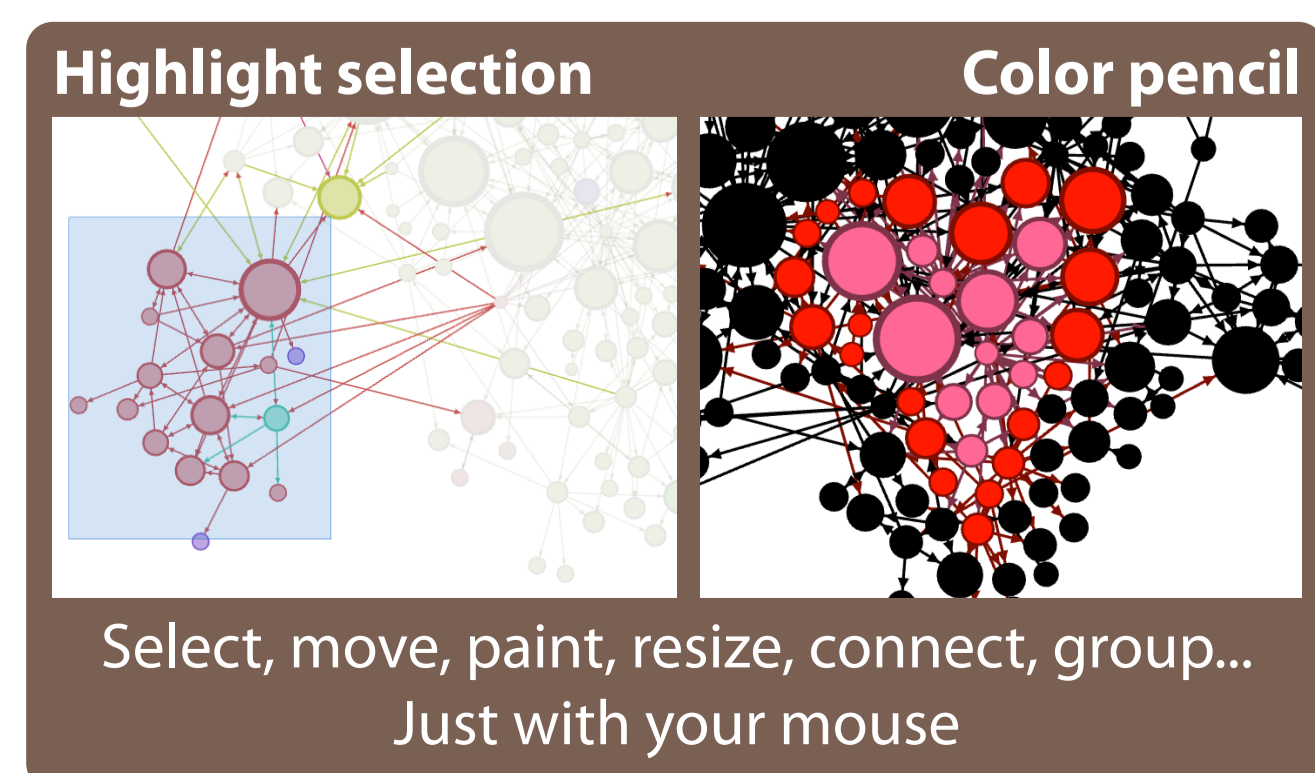
Compute and get the chart

☞ Mature OpenGL engine



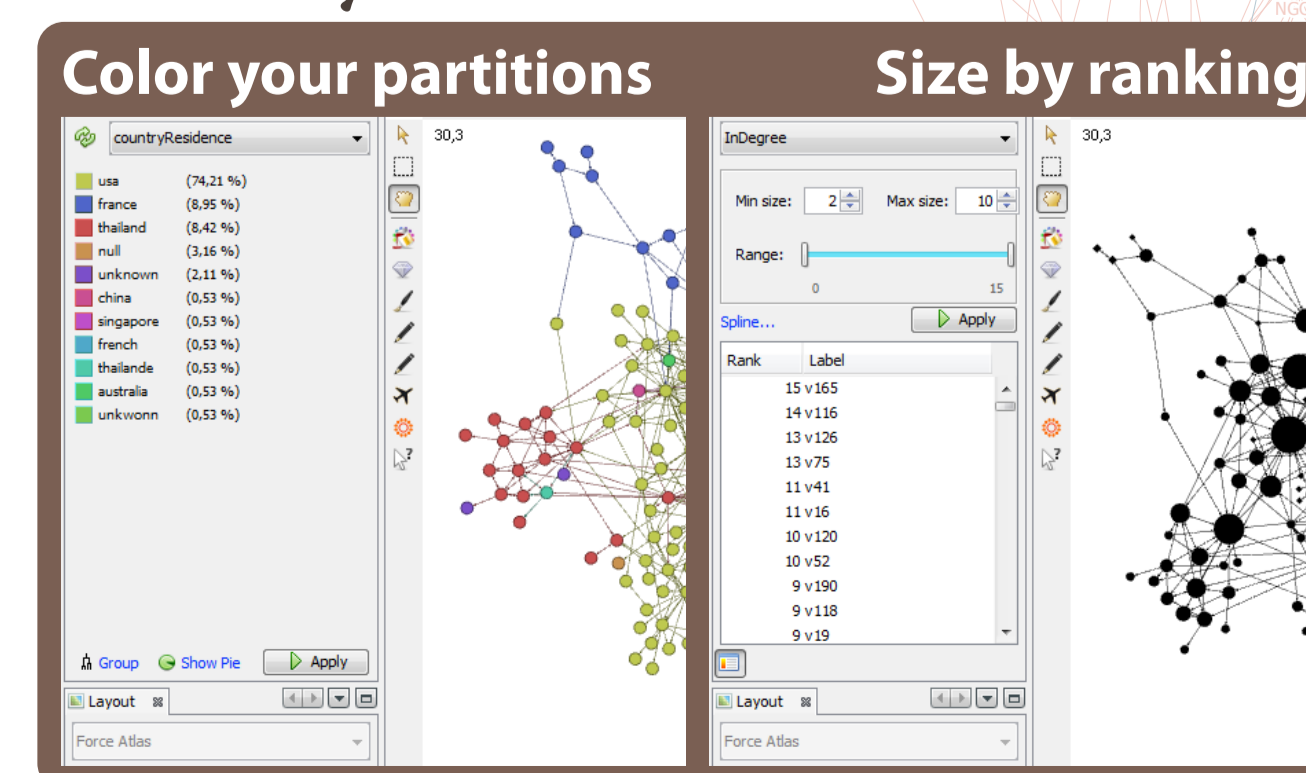
Asynchronous: always reactive and visual

☞ Interaction oriented

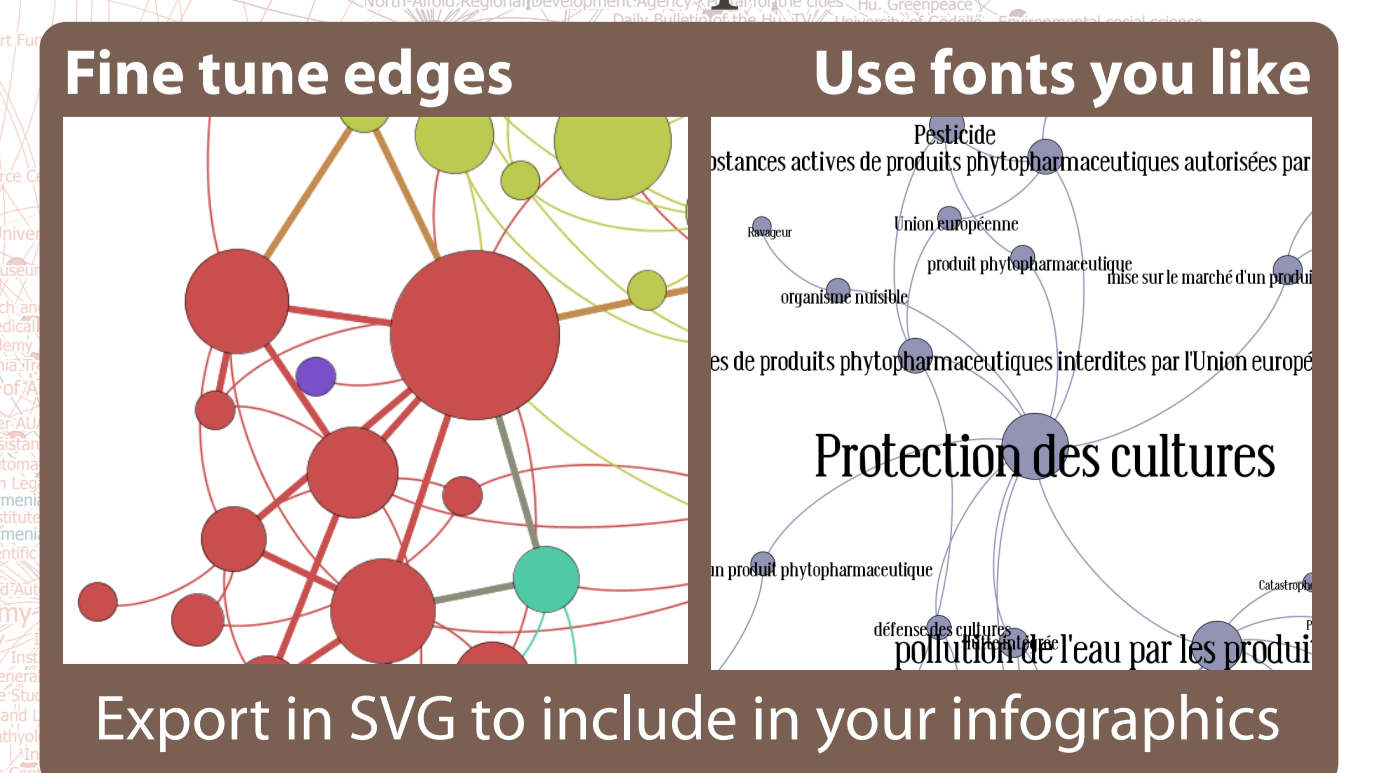


Select, move, paint, resize, connect, group... Just with your mouse

☞ Easy sizes & colors



☞ Vectorial export



Export in SVG to include in your infographics