



InnoRenew CoE

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Common themes in wood modification and environmental impact assessment of wood

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ModWoodLife

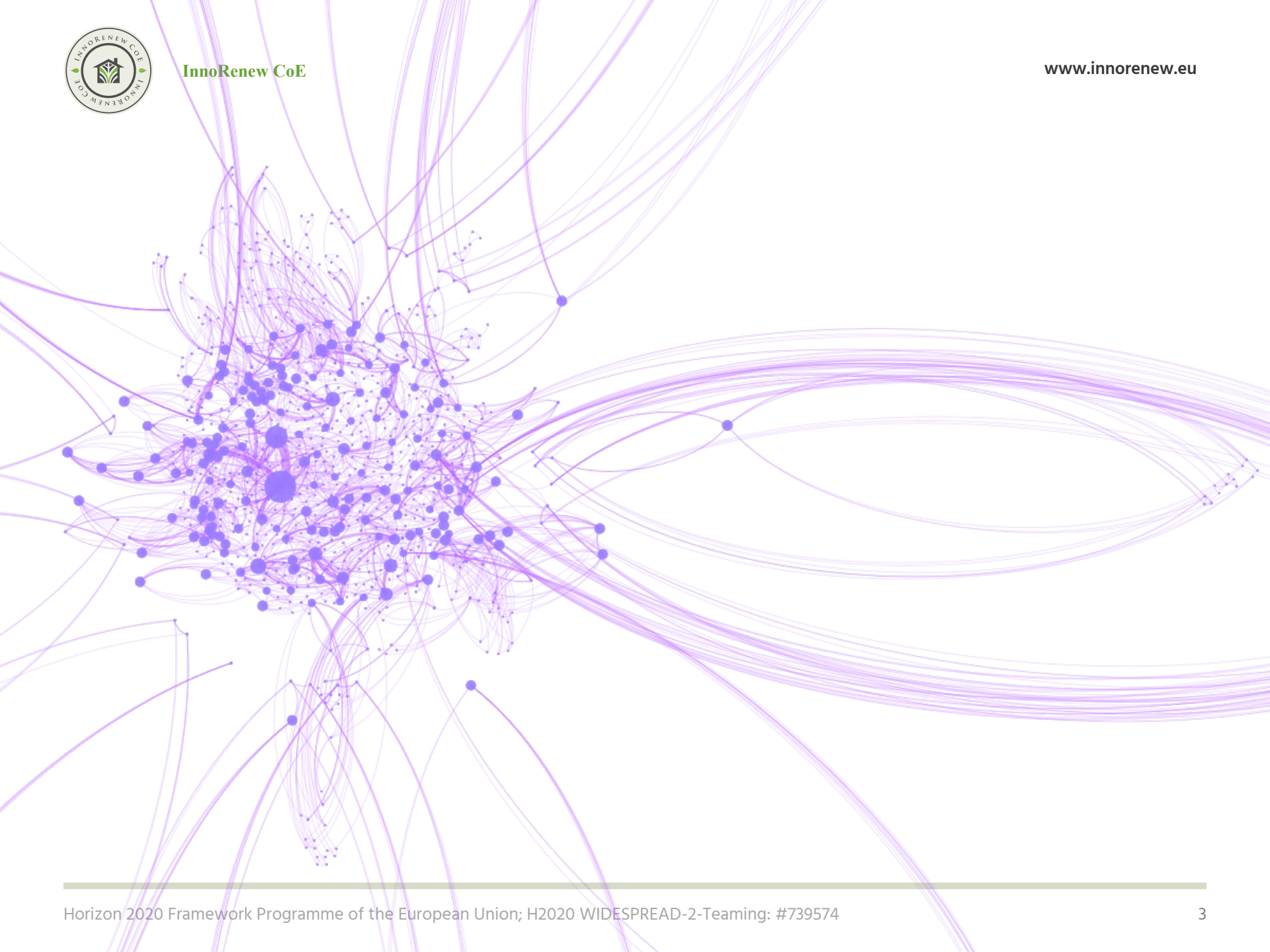
COST Action FP1407 3rd
International Conference

Kuchl, Austria



Mining academic literature

- Find common themes
- Study history of our fields
- Map collaboration
 - Find collaborators
 - Identify those “left out” to bring them in
- Other bibliometric tasks: citation networks, etc.





Data and process

- Publications from Scopus
- Search phrases for:
 - Wood modification
 - Environmental impact assessment of wood
- Check if topics match



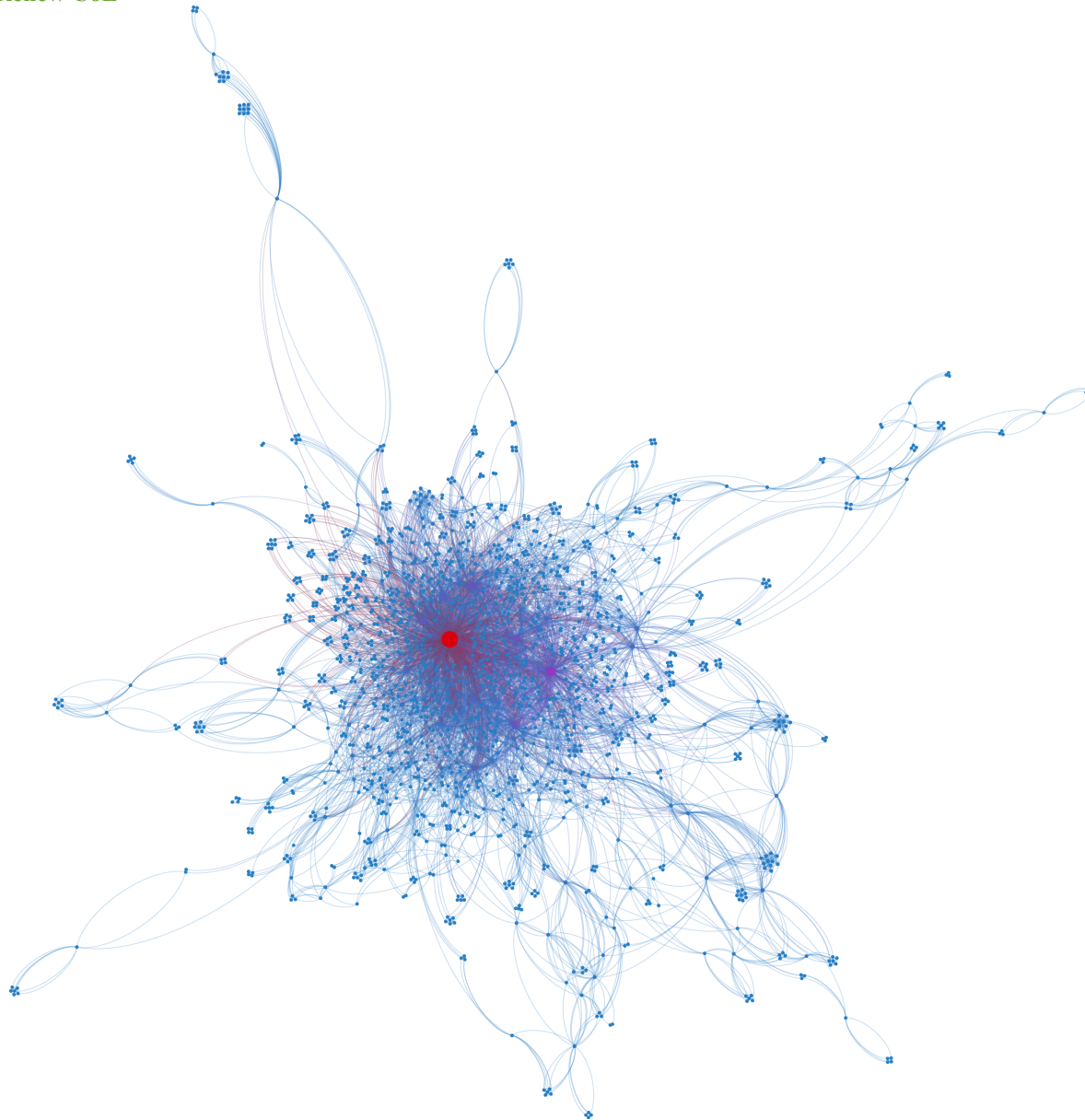
Data and process

- Extract keywords, authors, countries, institutions, other data
- Clean the data:
 - M. Burnard, M.D. Burnard, Burnard, M. -> M Burnard
 - Plural to singular, Fiber to Fibre, etc.



Data and process

- Process the data in your favorite statistical environment (R)
 - Find frequencies (publications by authors, collaborations between authors, keywords)
 - Changes over time
- Using network analysis to find communities of collaborators or topics



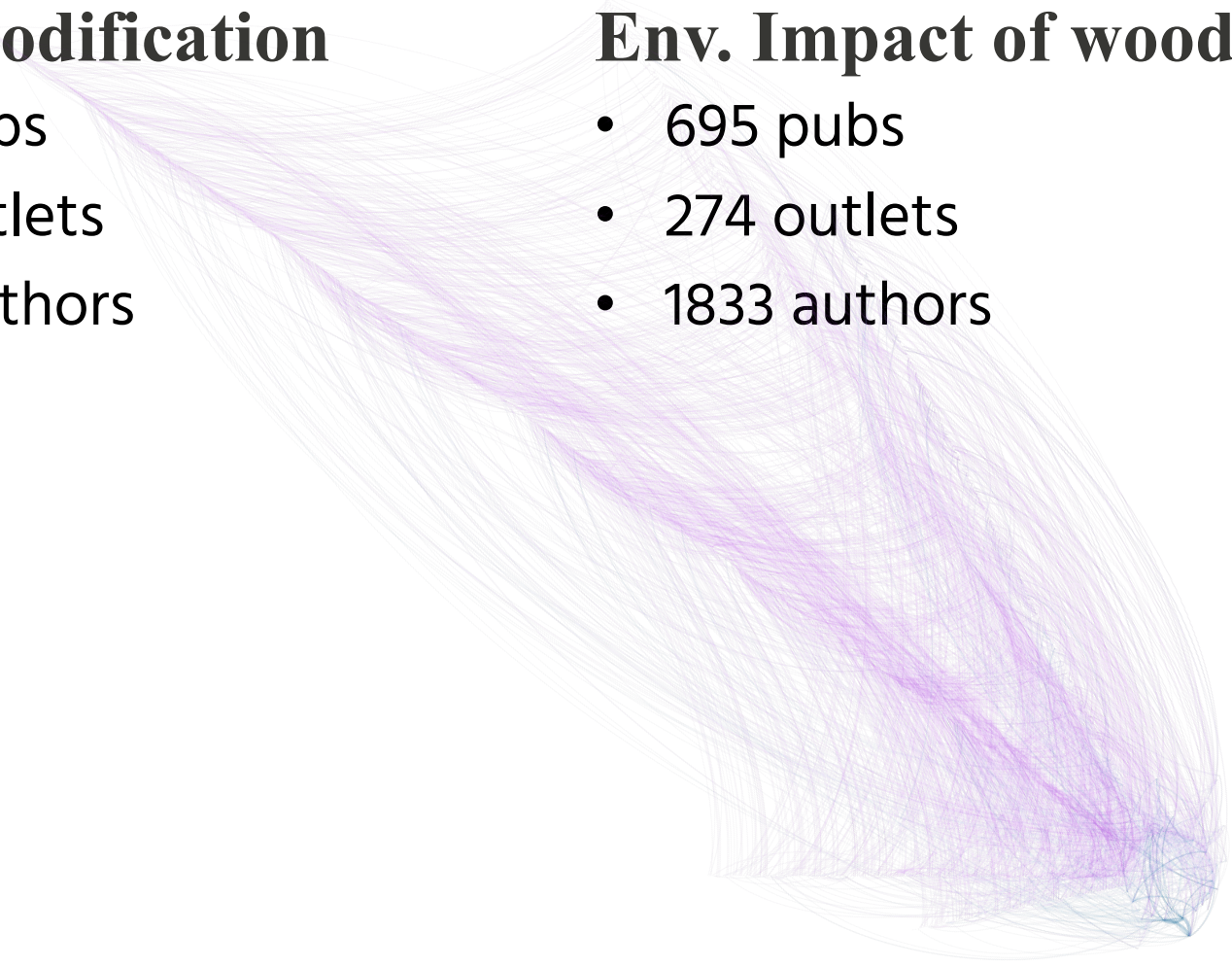


Wood modification

- 922 pubs
- 278 outlets
- 1775 authors

Env. Impact of wood

- 695 pubs
- 274 outlets
- 1833 authors

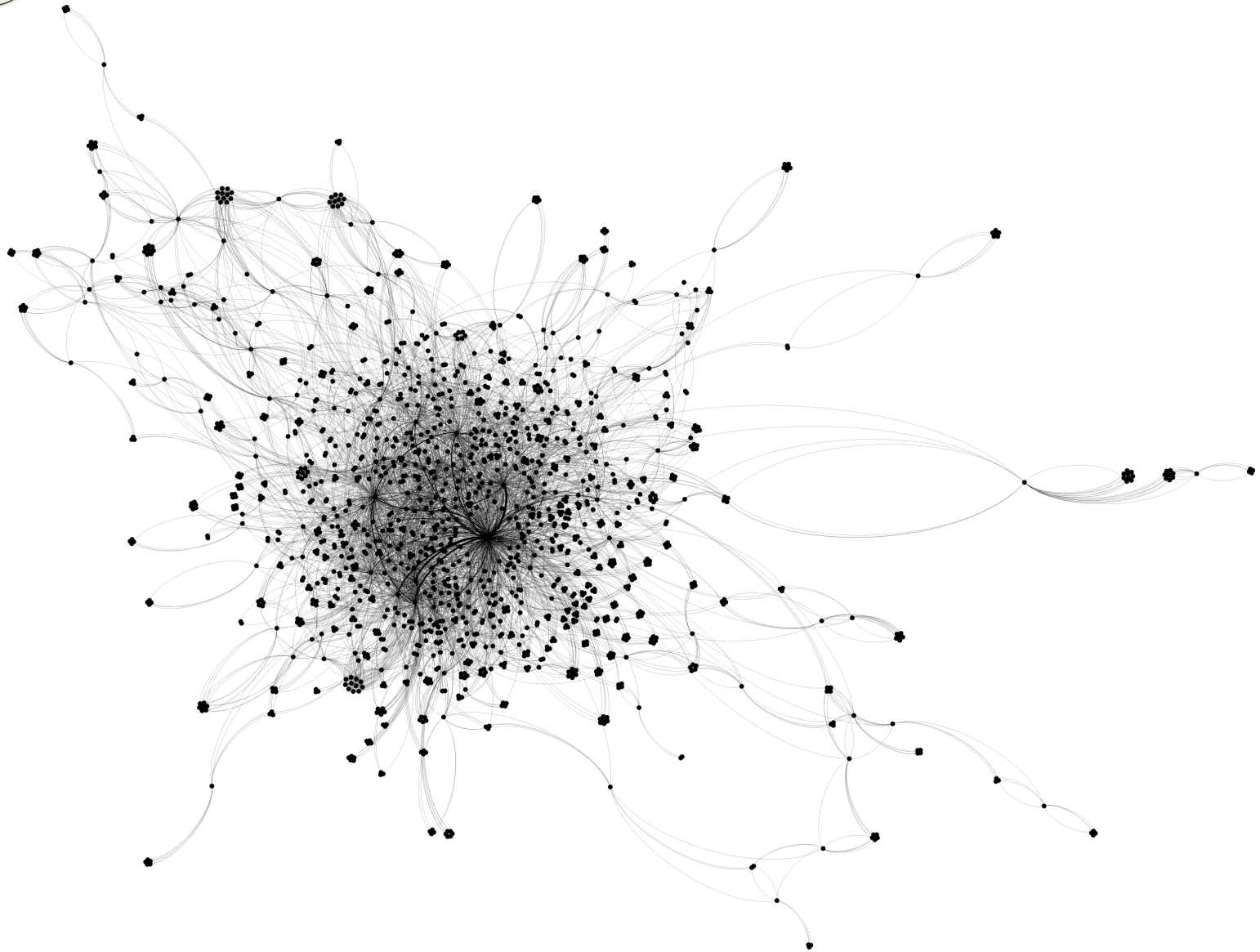


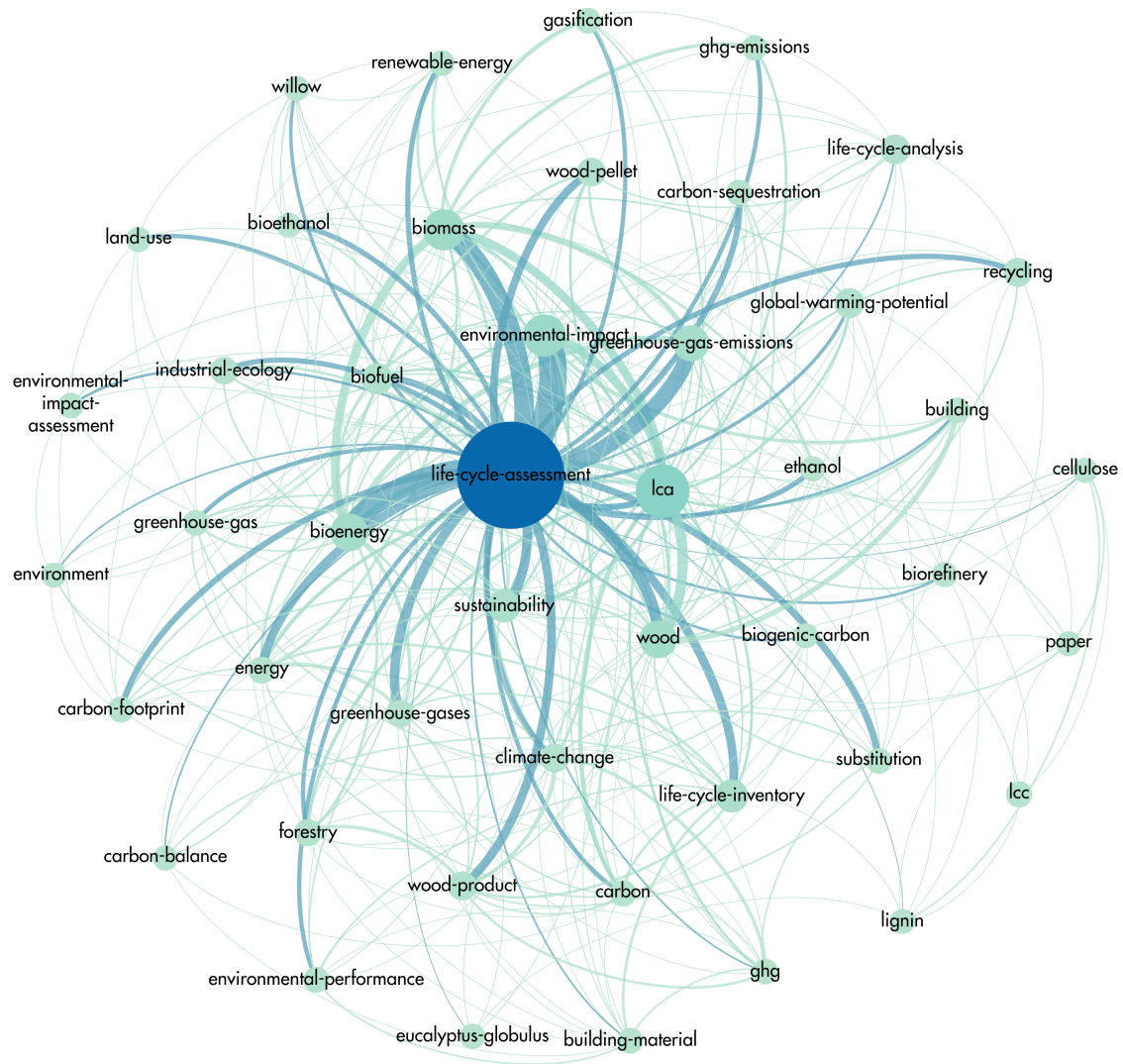


Wood modification & Env. impact of wood

- 5 publications appeared in both datasets
- 86 authors publish in both fields
- 61 outlets appeared in both sets

- 1 author in top 10 of both fields (by pub count)







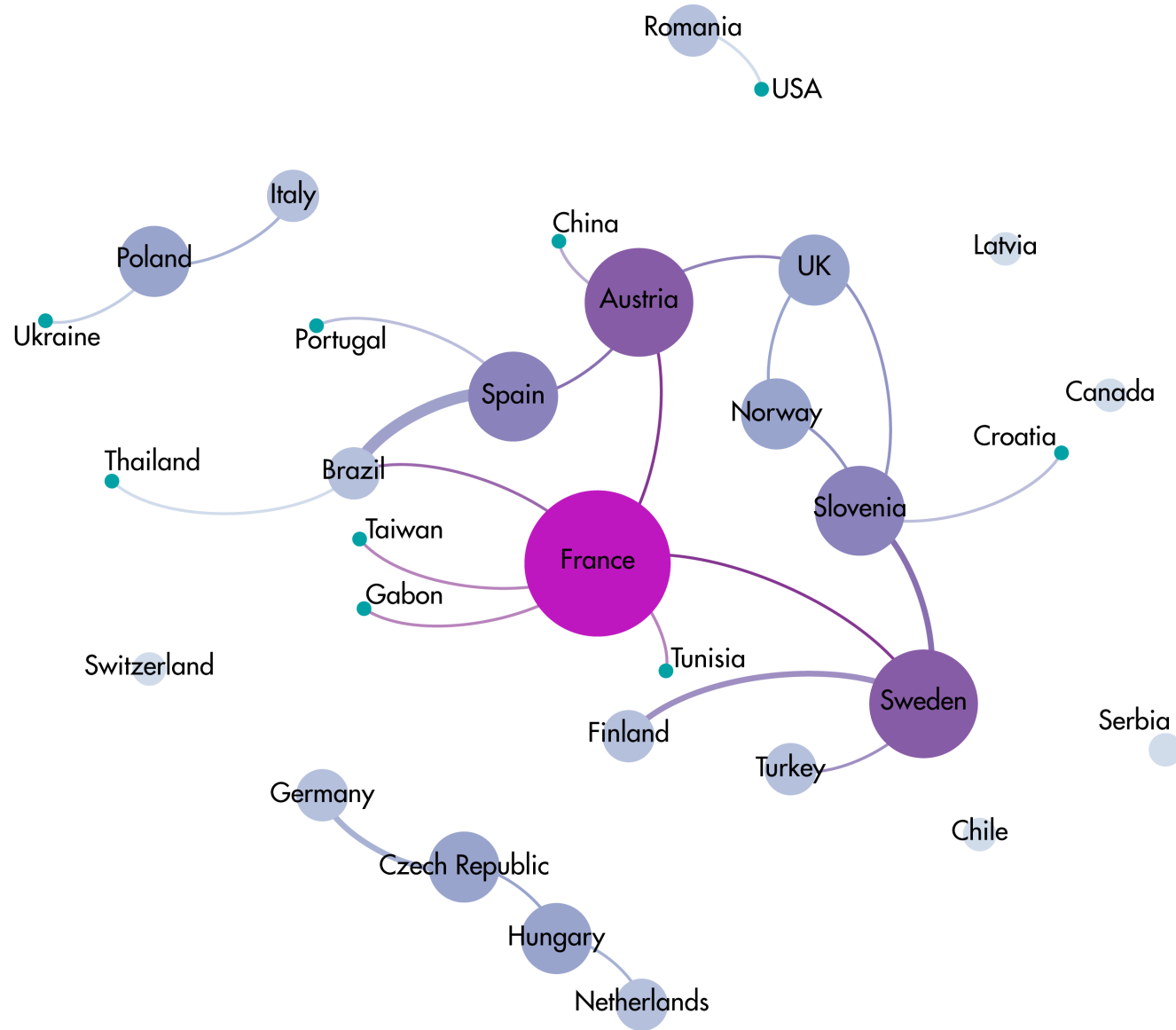
Common themes...

- Environmental, carbon, energy, impact
- Biomass, pine, forest, composite
- Thermal, chemical, mechanical
- Treatment, thermal, heat



Some notes...

- FP1407 works
 - Bringing established researchers together
 - Making connections with ESR/ECI
 - Topics covered are relevant to existing research and are moving the fields forward together
 - In a few years, we can repeat this and highlight publications directly related to the action.





For more details...

- Publication forthcoming in the iForest Special Issue for FP1407
- Data and scripts on figshare:
<https://doi.org/10.6084/m9.figshare.4596100>



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Thank you for your time.