



CropBooster-P Project (2018-2022). Towards a roadmap for future crops sustainable yield improvement. Bibliometric analysis of International Cooperation in Europe

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CropBooster-P Project (2018-2022)



European
Commission

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for Research & Innovation

Towards a roadmap for future crops sustainable yield improvement

Bibliometric analysis of International Cooperation in Europe

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➤ About CropBooster-P:

www.CropBooster-P.eu

The H2020 CropBooster-P project is a CSA (Coordination and support action) led by a consortium of European universities and research institutes to prepare a roadmap for the development of improved crops to future-proof European agriculture.



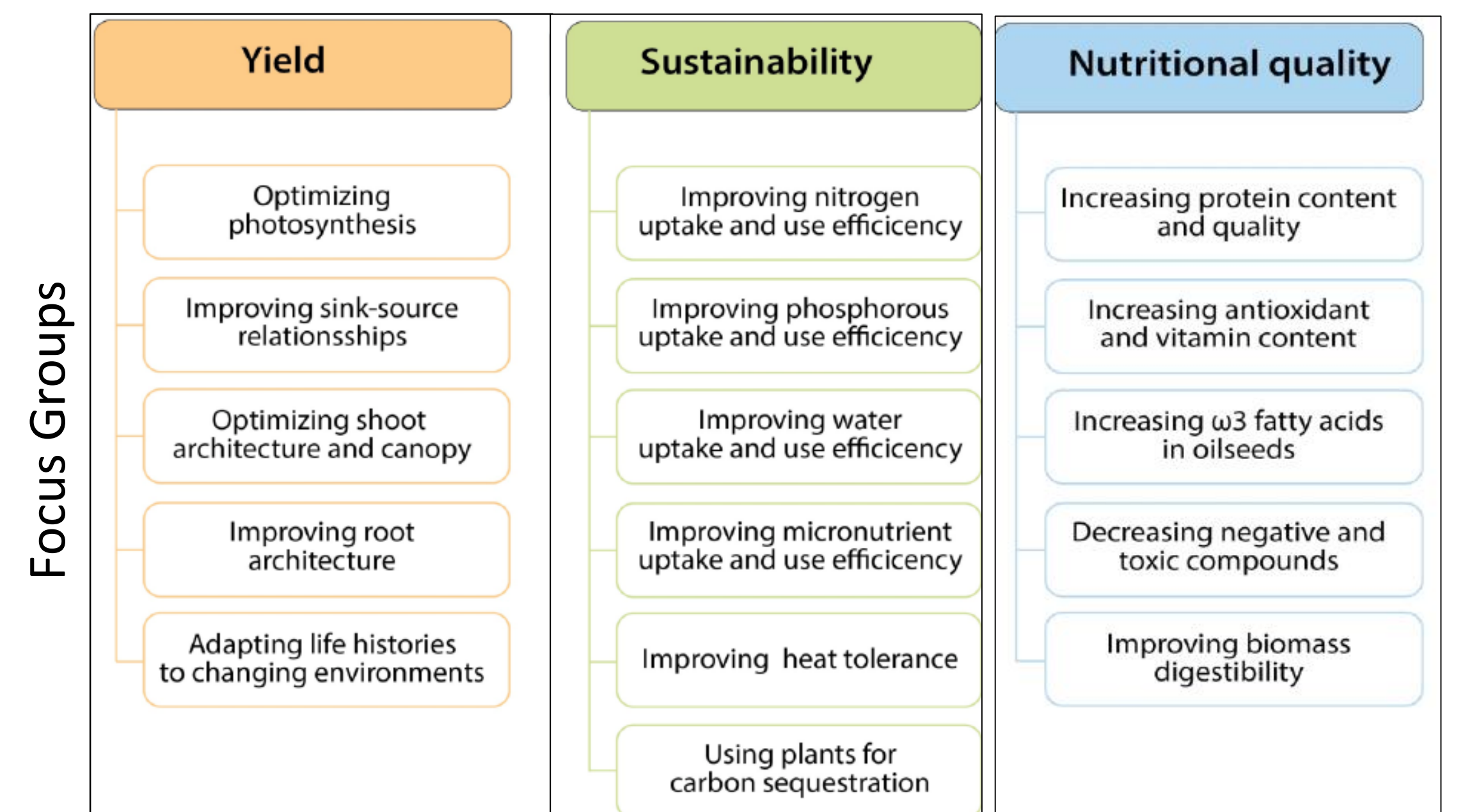
➤ Methodology and tools:

- The scientific production in Europe was screened during the period 2015-2019 using key terms linked to the different traits (**Yield, Sustainability, Nutritional quality**)
- The bibliographic search was carried with the **Web of Science (WOS)** database. The results were imported into **VosViewer** tool to visualize collaborations networks by author keywords, institutions and authors.

➤ Aim of the bibliometric analysis:

(Word package 4: International Cooperation; Task 4.1)

Identify the main European institutions and experts which publish in the fields corresponding to different traits (**Yield, Sustainability, Nutritional quality**). The results obtained allowed to link research communities by organizing joint meetings between plant scientists, with a coordinator for each Focus group (Word package 4; Task 4.2) and then to write a White paper for the Strategic Research Agenda (Word package 4; Task 4.3).



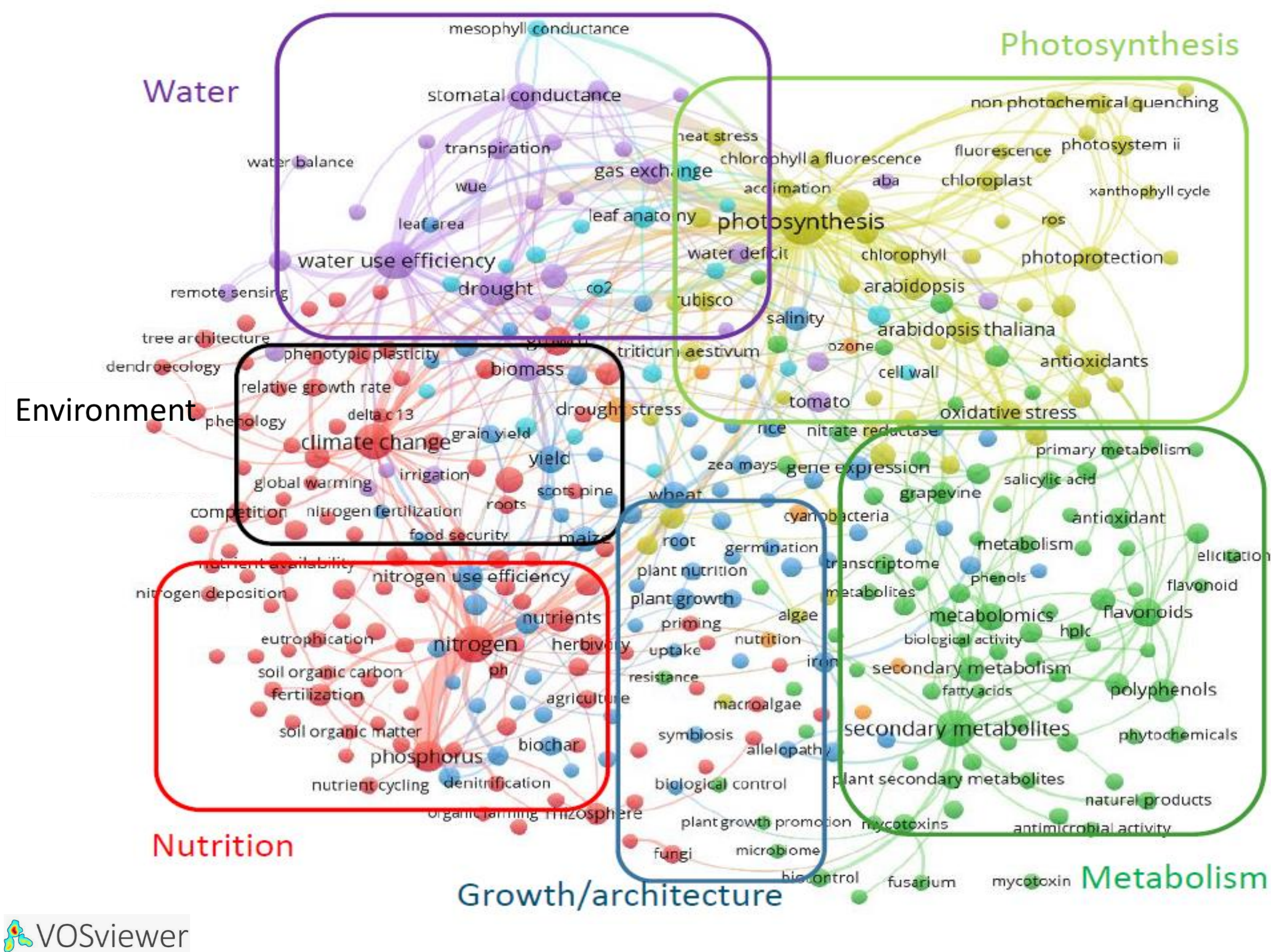
Yield + Sustainability
14053 publications

Nutritional quality
> 10000 publications

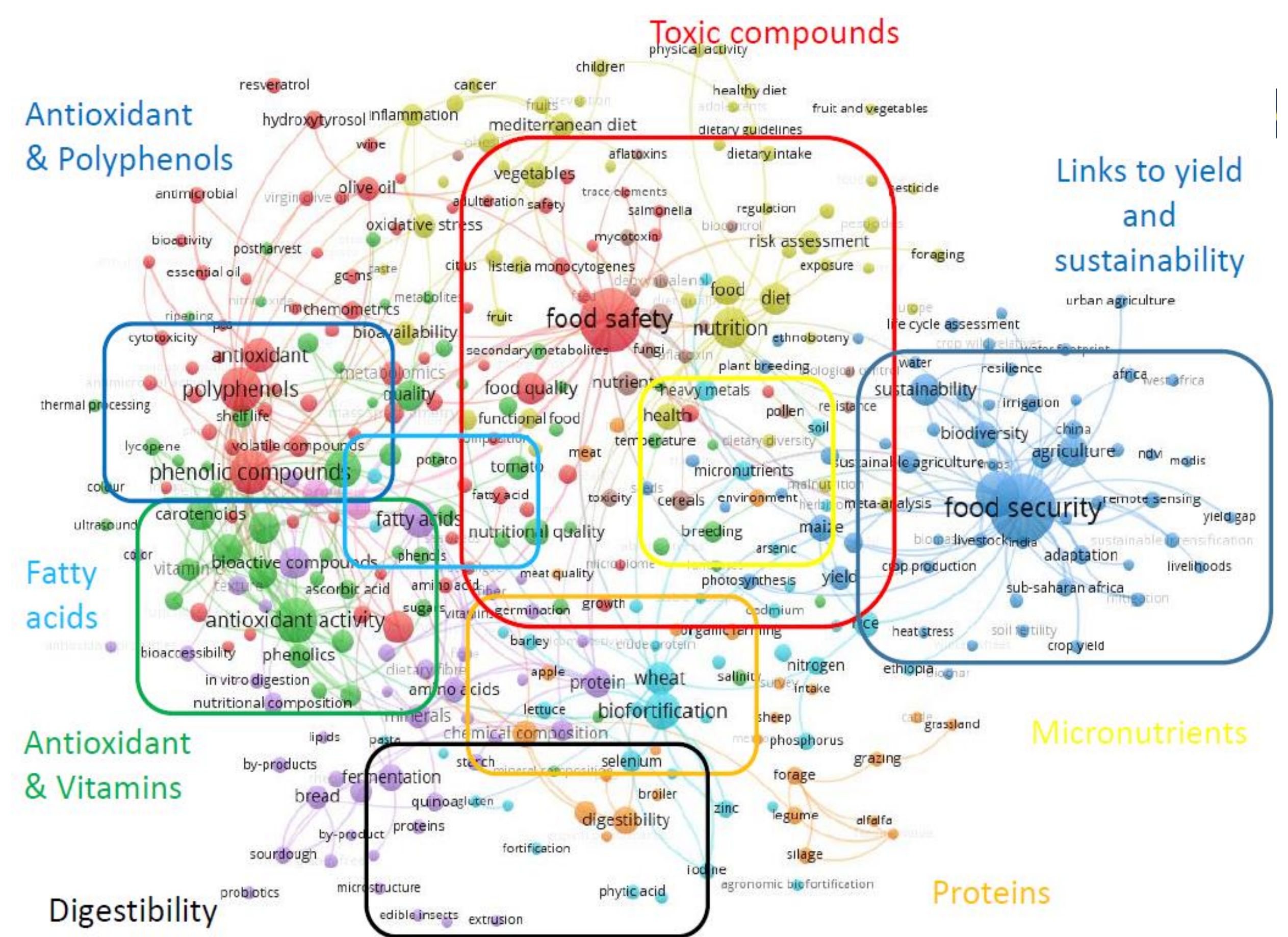
❖ Network of author keywords co-occurrence helps defining main research fields

The network represents the co-occurrences of the main author keywords (minimum 20 occurrences) and the links indicate the existence of at least 5 publications with the 2 terms.

Yield and Sustainability



Nutritional quality



❖ Main actors (Institutions) in all fields

Publications by EU28 institutions
(threshold: at least 200 publications)



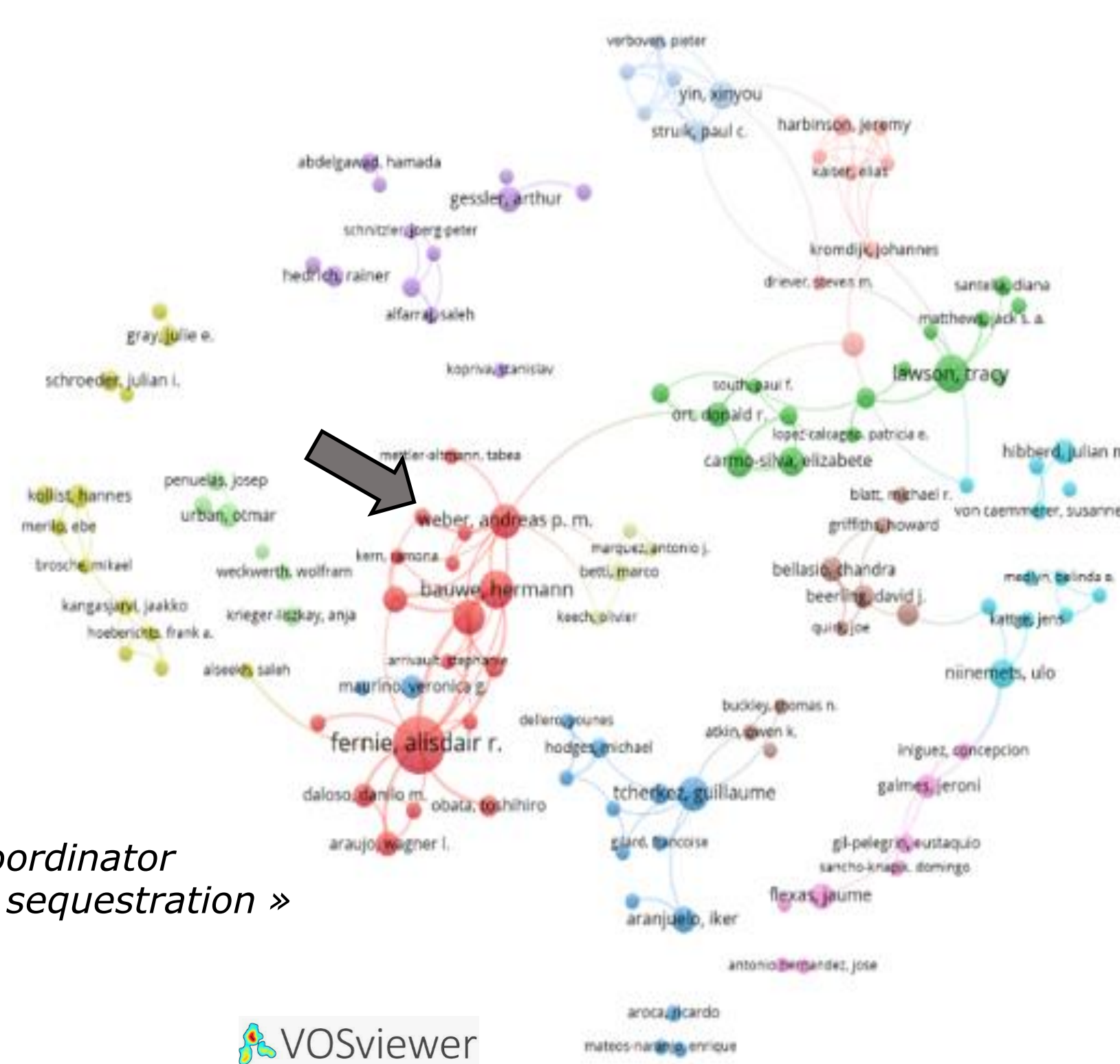
Contacted Focus group coordinator
« Using plants for carbon sequestration »



VOSviewer

❖ Network of co-publications between UE28 actors helps to identify main experts and their collaborations for each trait

For example here, the authors network for the trait « Biochemistry-Carbon assimilation » illustrates co-publications between UE28 authors who have published at least 4 publications between 2015 and 2019 in this field (threshold: 1 co-publication or more)



❖ Conclusion: networking activities was organized with the different Research communities (Deliverable 4.2) to assemble an expert panel and to review strategies (Deliverable 4.3): Suggestion of Topics for EU Research Agenda

See Network Map of Research Networks (<https://www.cropbooster-p.eu/data/upload/files/d4-1-final-report-17-12-2020.pdf>), presentations of experts during the CropBooster meeting in 2021 (<https://www.cropbooster-p.eu/the-project/presentations.html>) and the White Paper and Scientific Basis of the Strategic Research Agenda (<https://www.cropbooster-p.eu/data/upload/files/d4-2-report-22-11-2021-v1.pdf>).

