

# Enhancing Interdisciplinary Cooperation in Large Scale Research Networks

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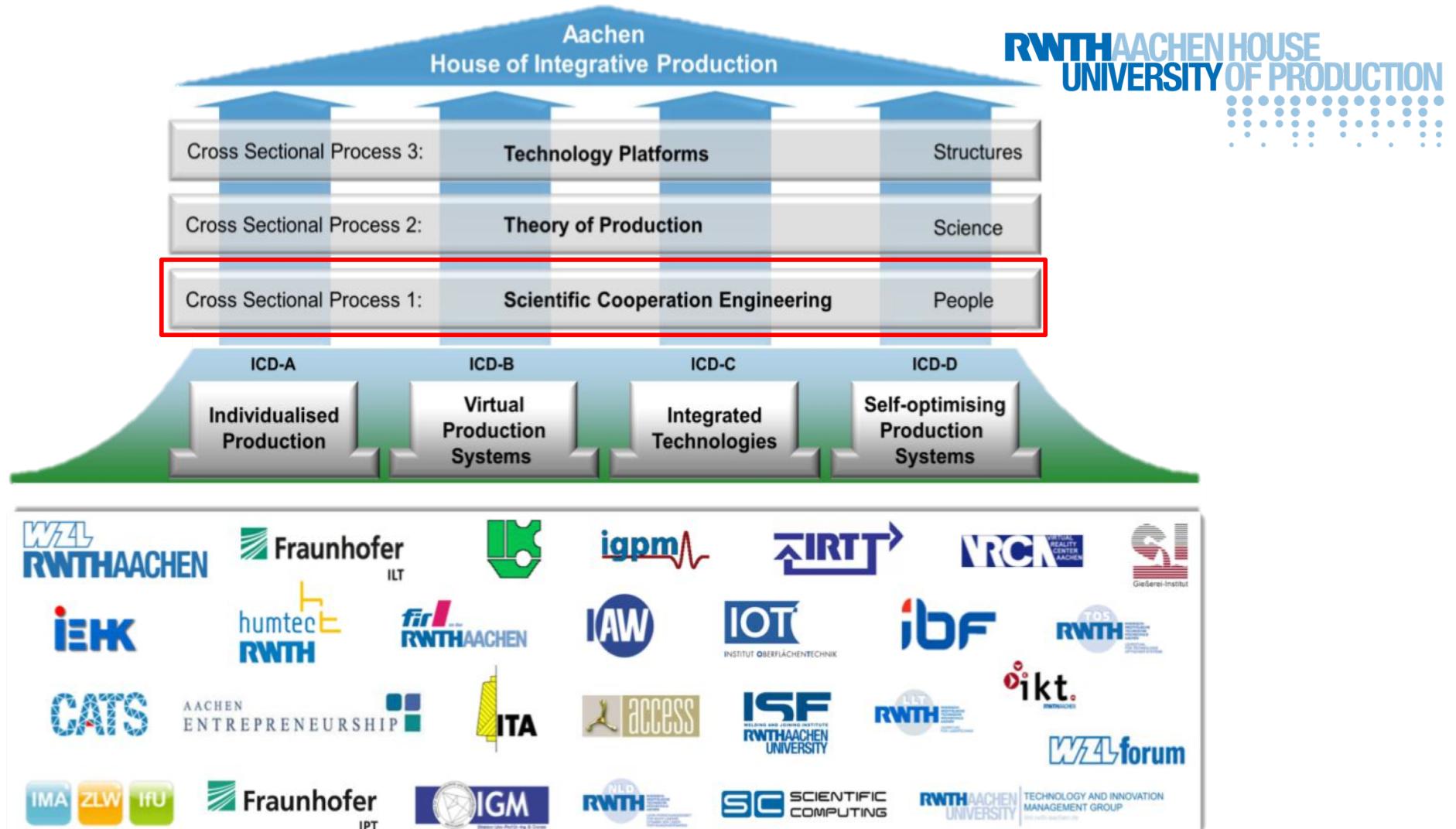


# Agenda

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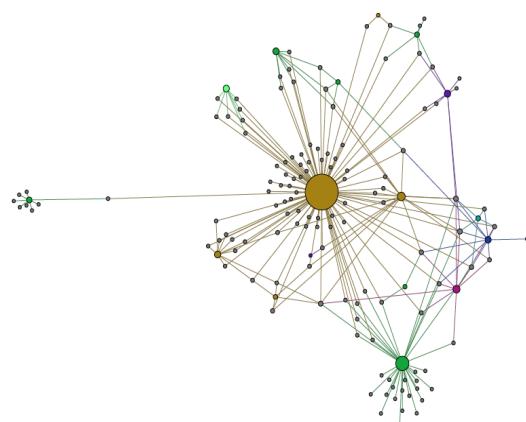
- 1 Overview “Interdisciplinary Innovation Management”**
- 2 Investigating and supporting interdisciplinarity in research clusters**  
Study: Benefits and Barriers of a bibliometric visualization
- 3 Lessons learned and outlook on future work**

# Research Background



# Overview „Interdisciplinary Innovation Management“

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- **Part of the CSP 1 Team:** Scientific cooperation Engineering
- **Main research question:** How can a visualization instrument for cooperation contribute to ensuring success in interdisciplinary research teams?
- **Underlying research questions:**
  - How can one measure scientific success in interdisciplinary teams?
  - Which means can support interdisciplinary cooperation?
- **Our approach:** Combination of:
  - User-centered design of a publication visualization tool for steering, self-measurement and scientific analysis of interdisciplinary teams
  - **accompanying research in form of surveys, interviews, user tests**

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**1 Overview “Interdisciplinary Innovation Management”**

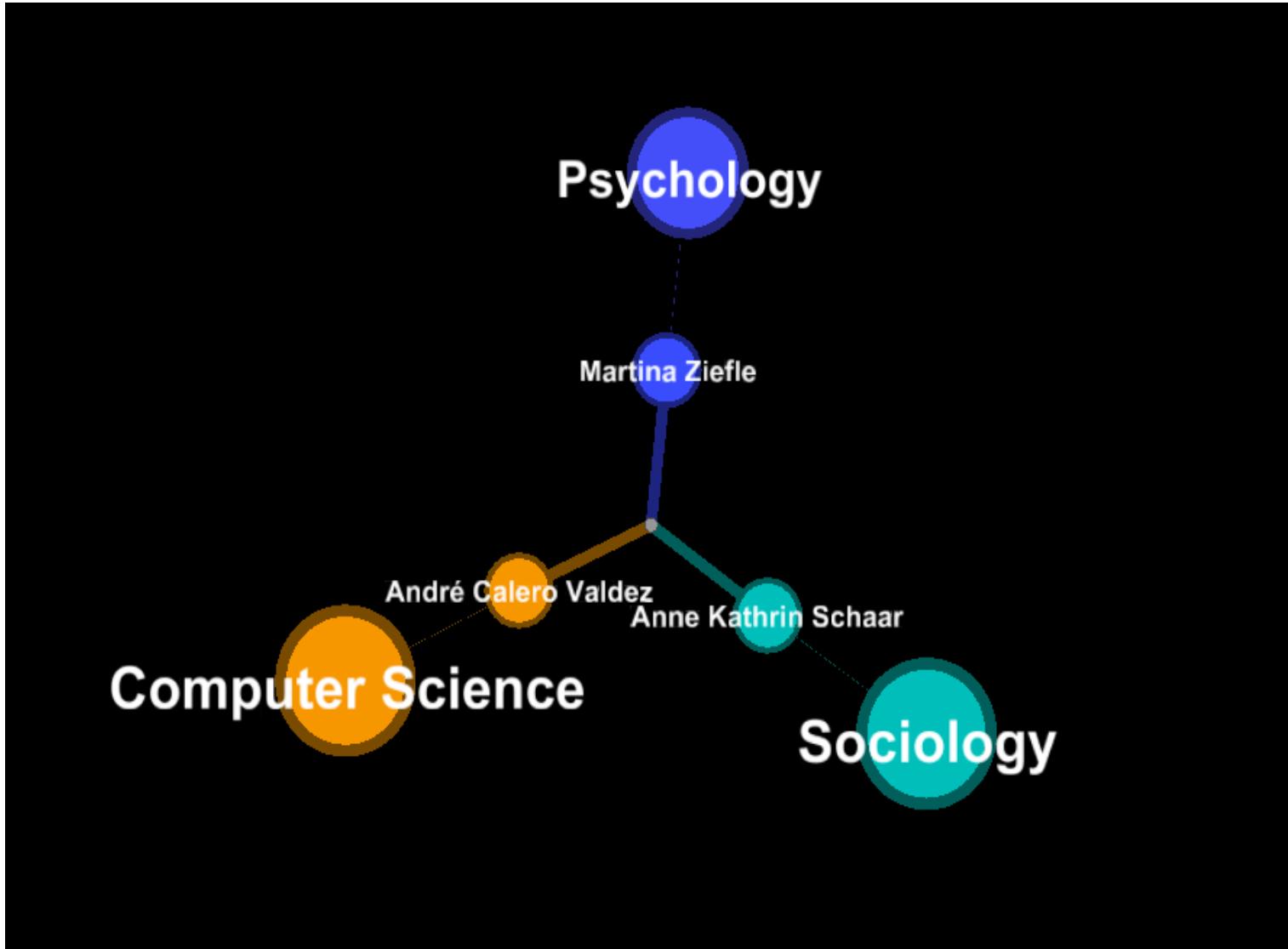
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**3 Lessons learned and outlook on future work**

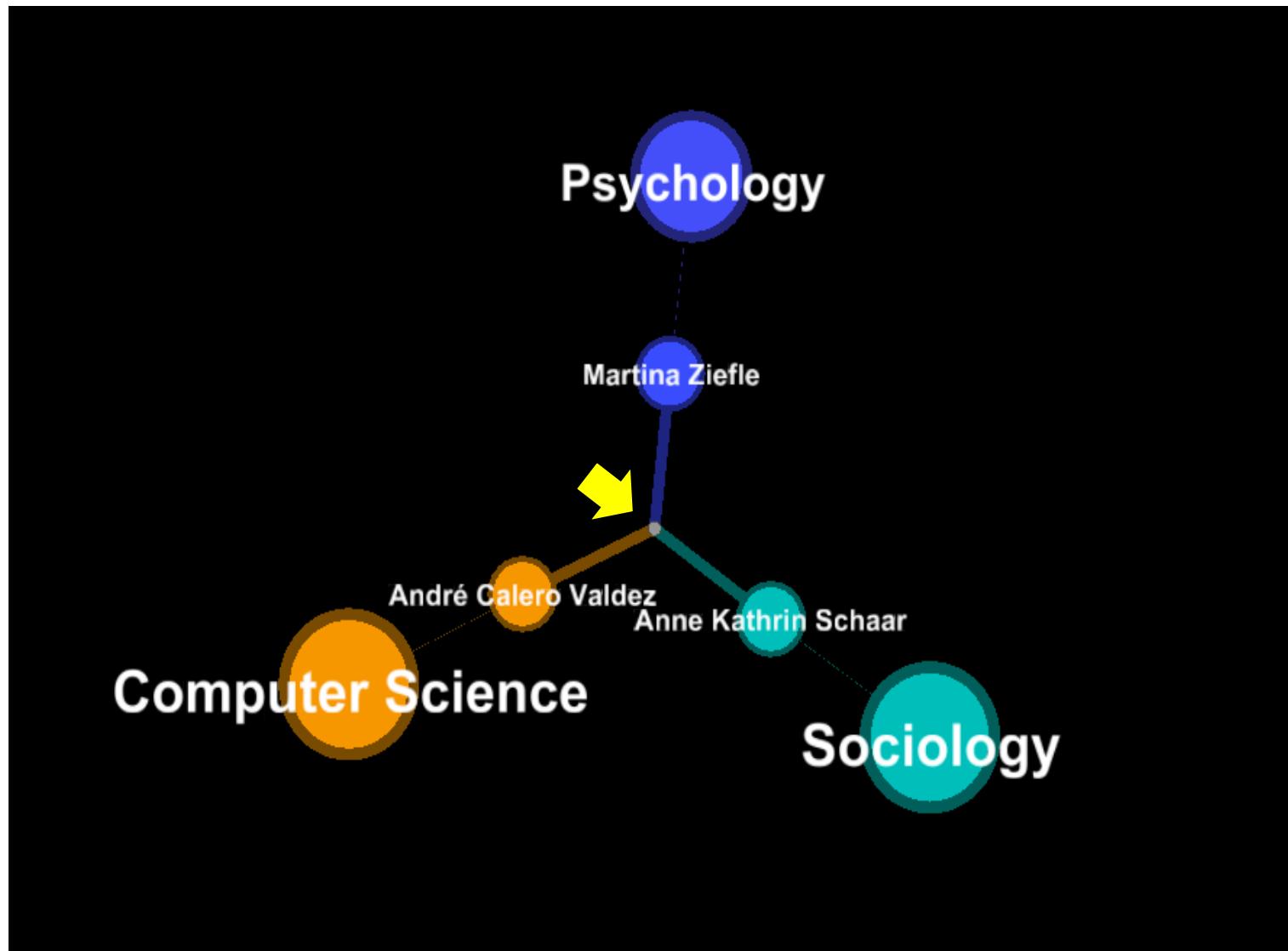
# Example: State of the (Net)work Address (2012)

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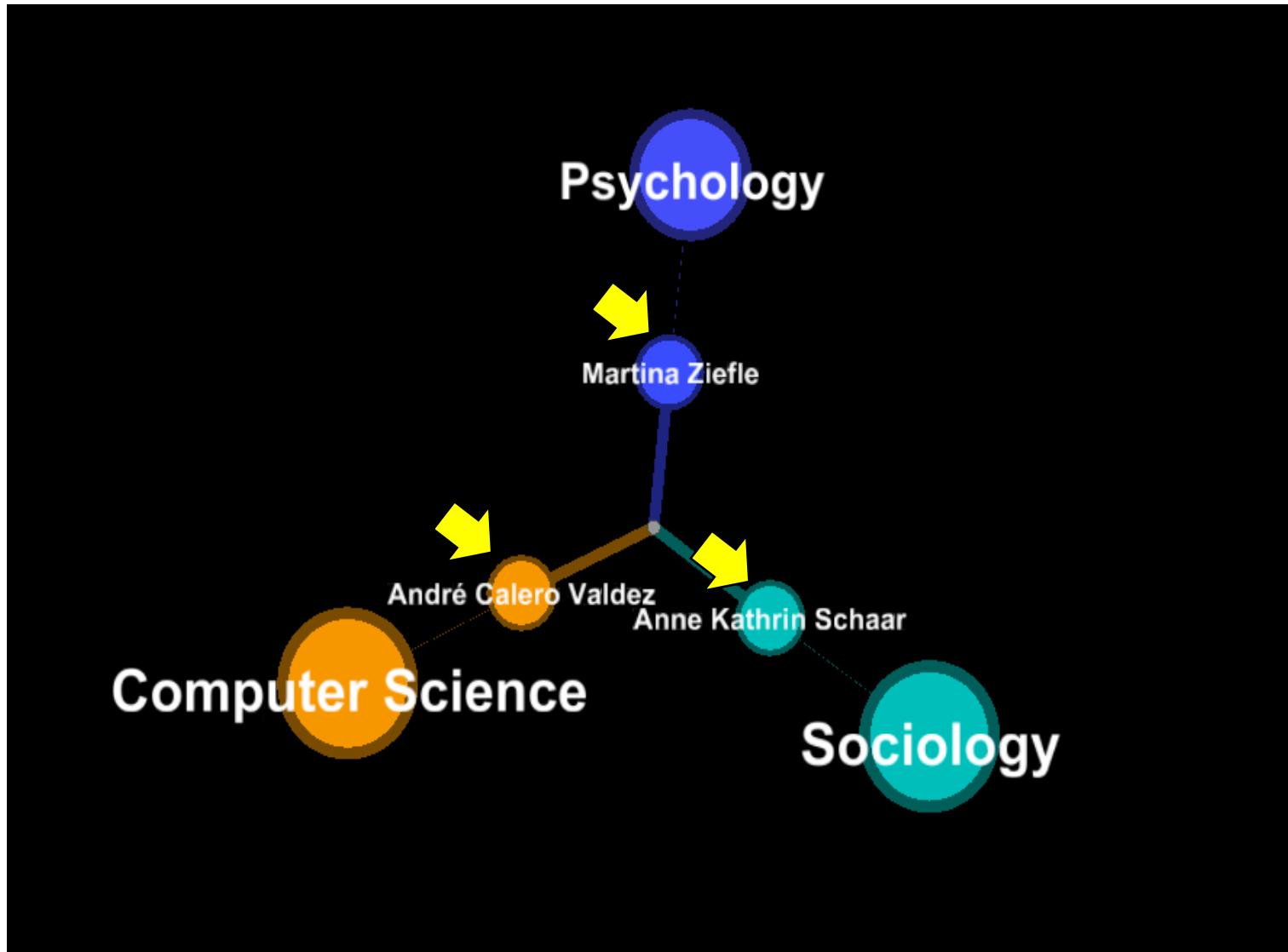
# Example: Publication Node

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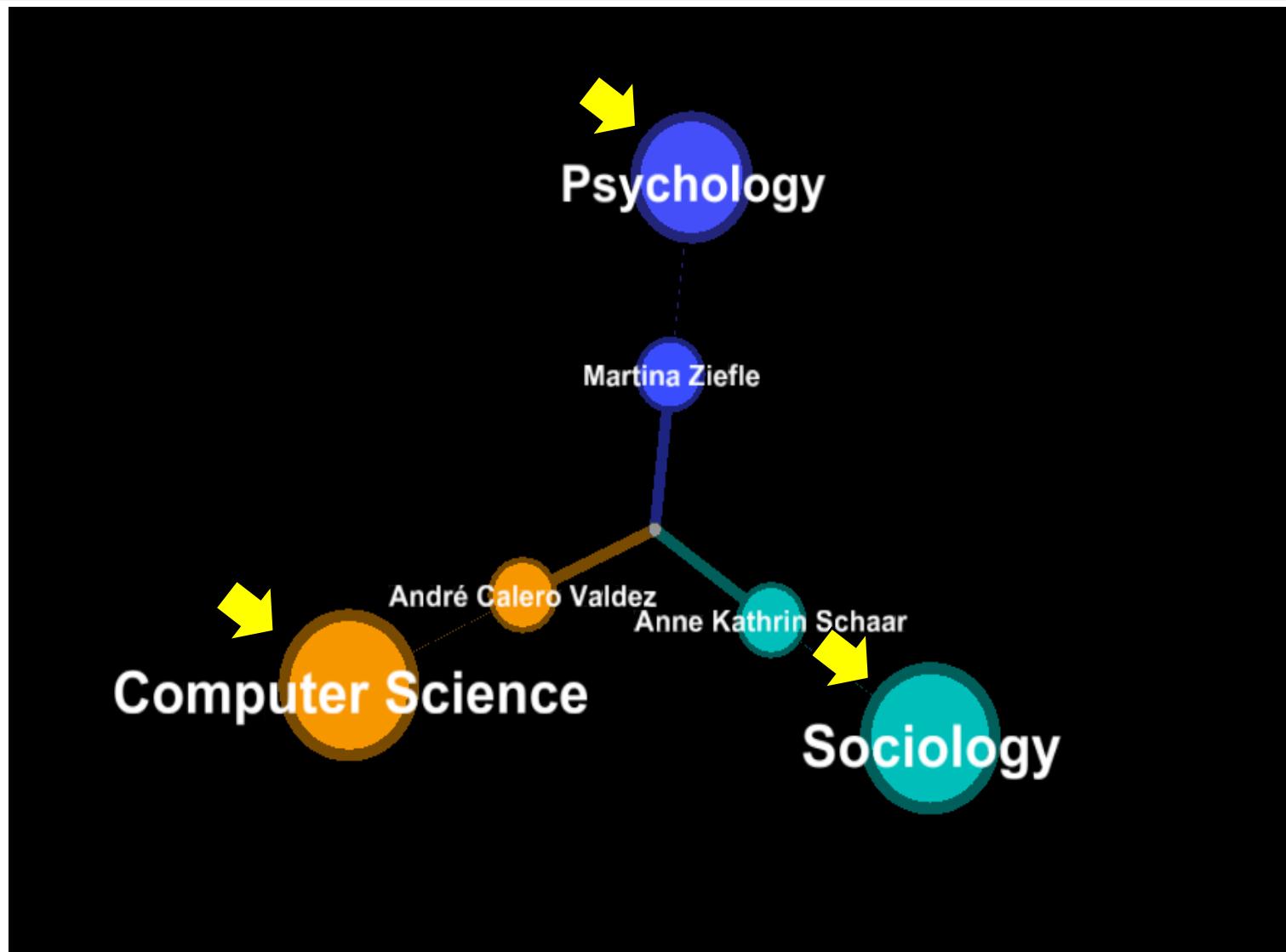


# Example: Author Node

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# Example: Discipline Node





# Study Design

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- Semi-Structured Interview Study (n=22)
- Researchers from the cluster
- 4 parts
  - Validity of the approach in regard to interdisciplinary performance
  - Validity for steering
  - Evaluation of possible impacts
  - Evaluation in regard to self-measurement
- Transcription
- Quantitative Analysis (cf. Mayring)

# Results Overview

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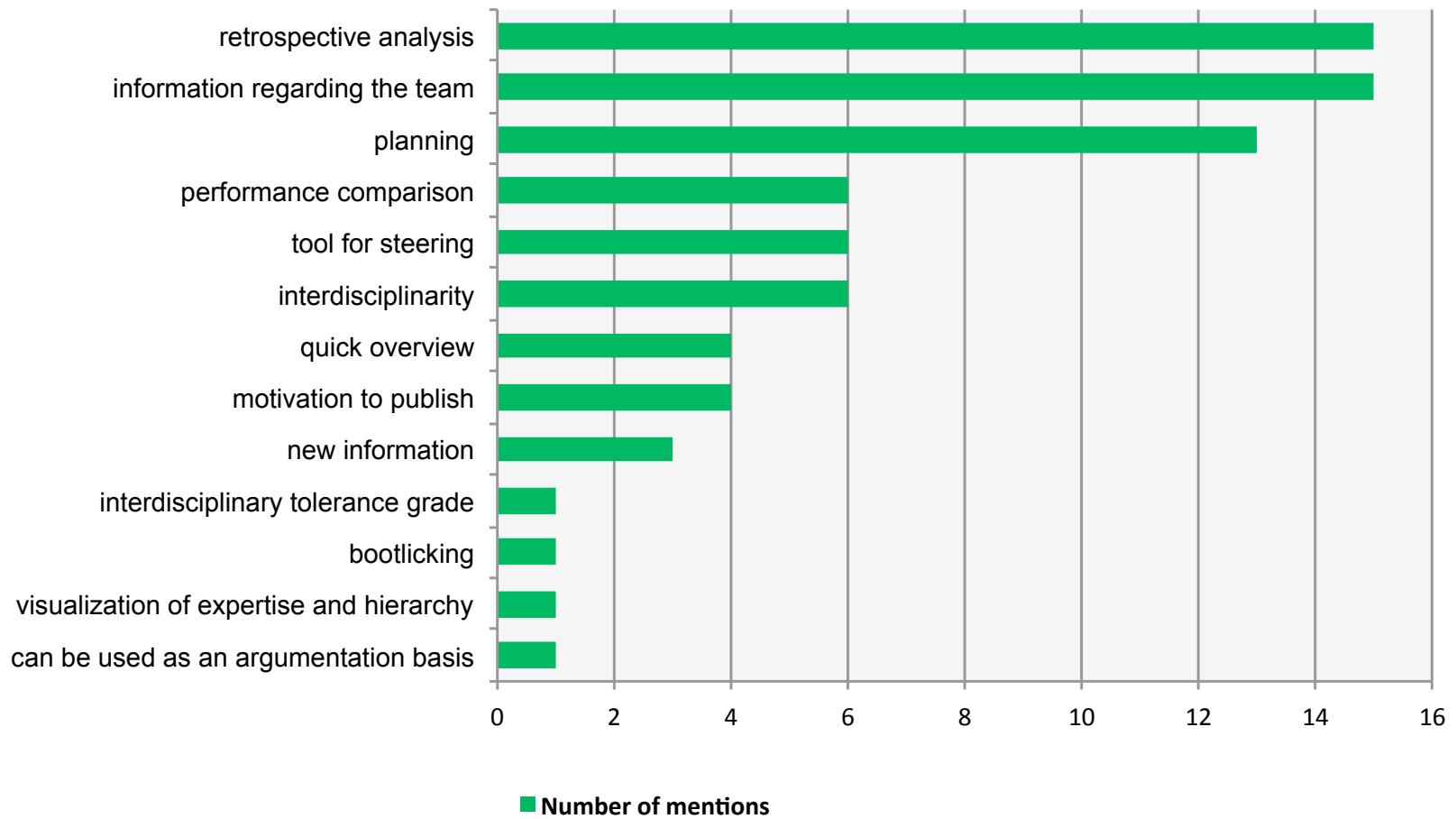
- 26 underlying concepts identified
- 76 mentions positive
- 63 mentions negative

Concept	Transcript text
Pro 1) Retrospective analysis	<i>“One can say he did everything he should have done, if you look at it divided over the years.”</i>
Pro 2) Information regarding the team	<i>“[...] when I see myself related to the others, it mirrors the degree of cooperation.”</i>
Pro 3) Planning	<i>“It is interesting to look at for yourself and the head of the institute and to find blind spots and develop or strengthen relationships.”</i>
Con 1) Missing information	<i>“There is no information about the impact factor or who the first author is.”</i>

# Results - Pro

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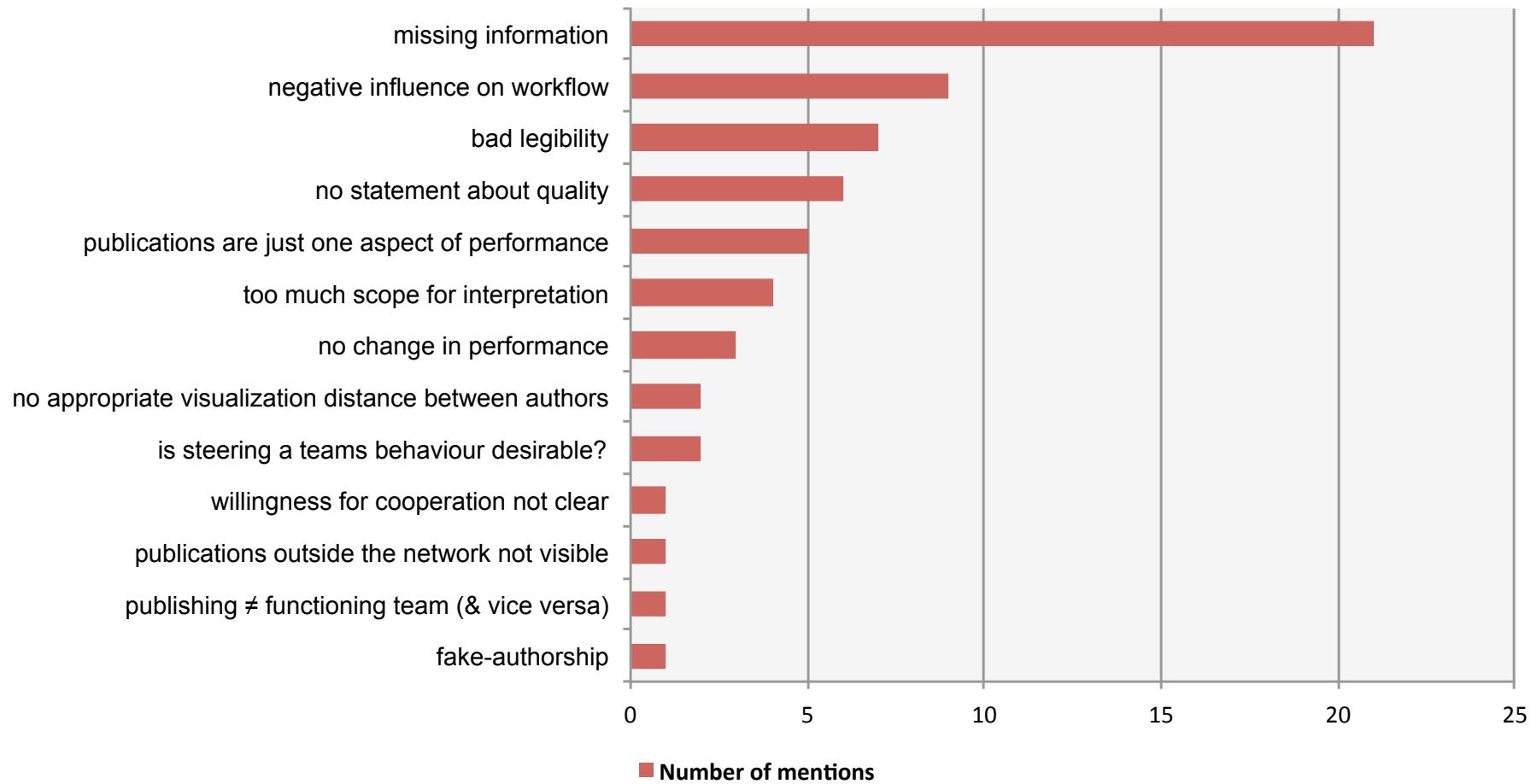
## Pro arguments for publication visualization approach



# Results - Con

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## Con arguments against publication visualization approach



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Study: Benefits and Barriers a bibliometric visualization

**3 Lessons learned and outlook on future work**

# Lessons learned

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- Retrospective analysis of interdisciplinary efforts is possible
  - Researchers have differing views on bibliometric analysis
  - Accuracy and Privacy are high concerns
  - Fear of over-interpretation data
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- Teaching about bibliometric interpretation necessary  
=> Workshops „Interdisciplinary Publishing

# Thank you for your attention!

## Contact

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