A Modeller's Compass

How Modellers Navigate Dozens of Decisions

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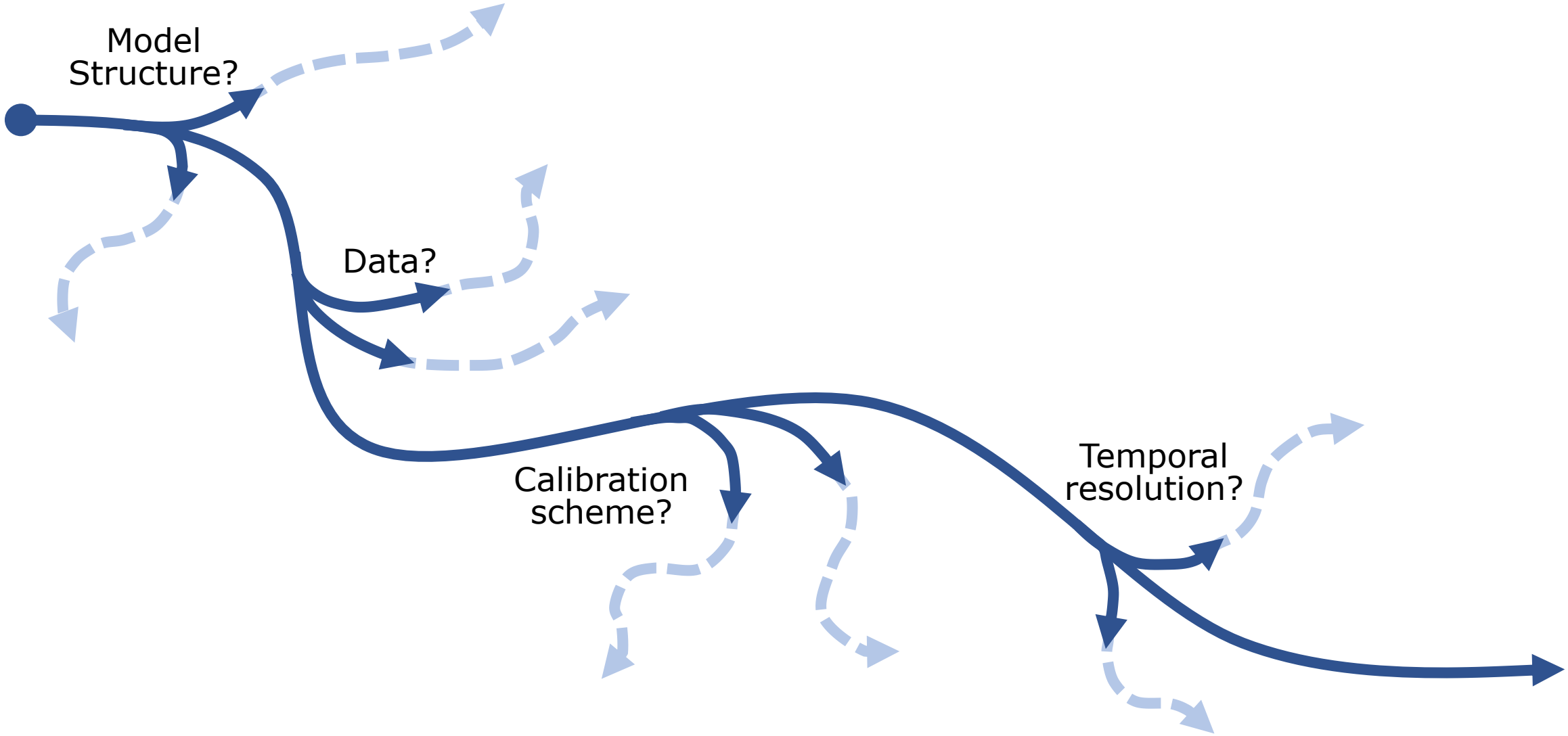
Modelling process: path dependency



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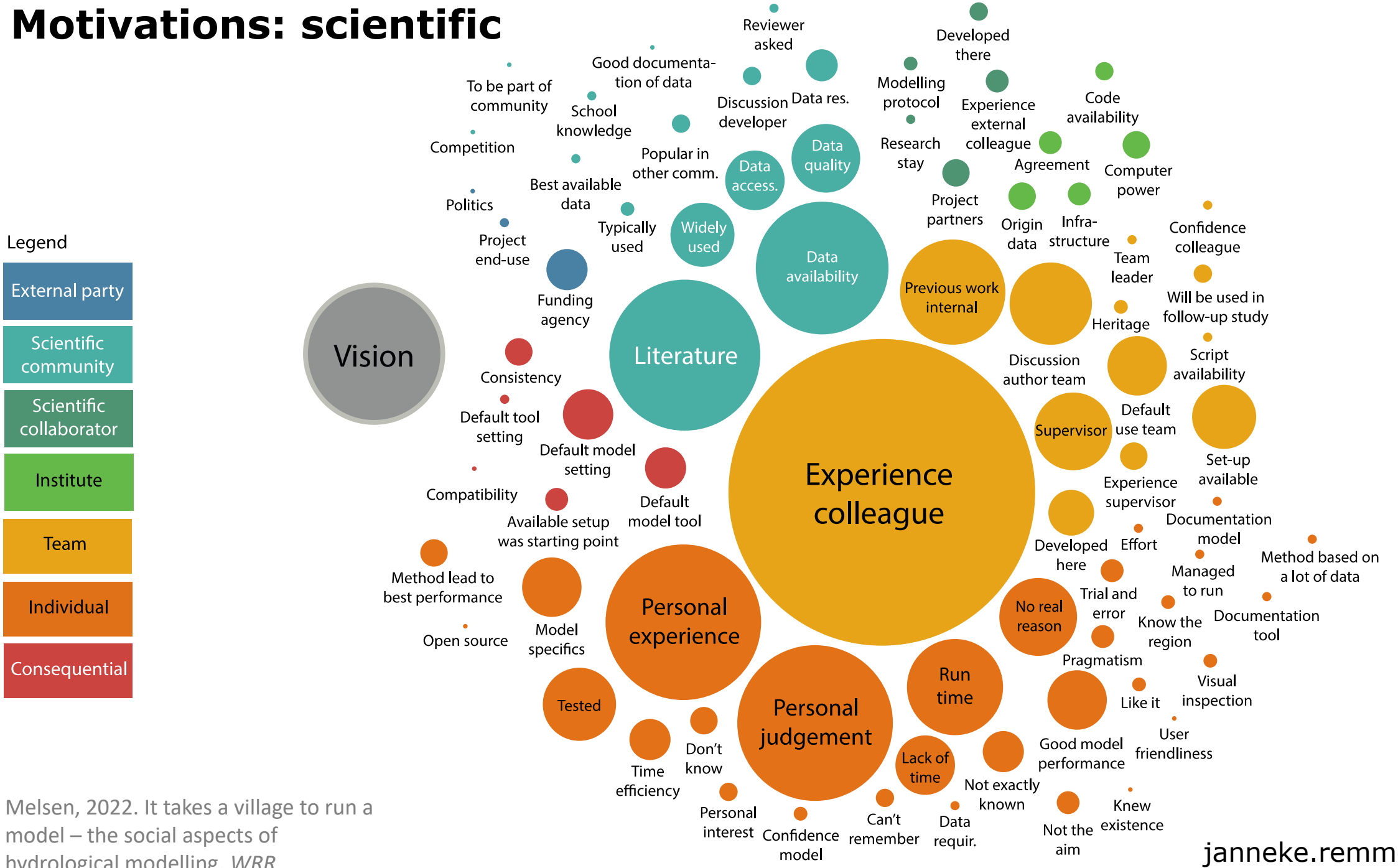
Motivations: scientific



Melsen, 2022. It takes a village to run a model – the social aspects of hydrological modelling, *WRR*

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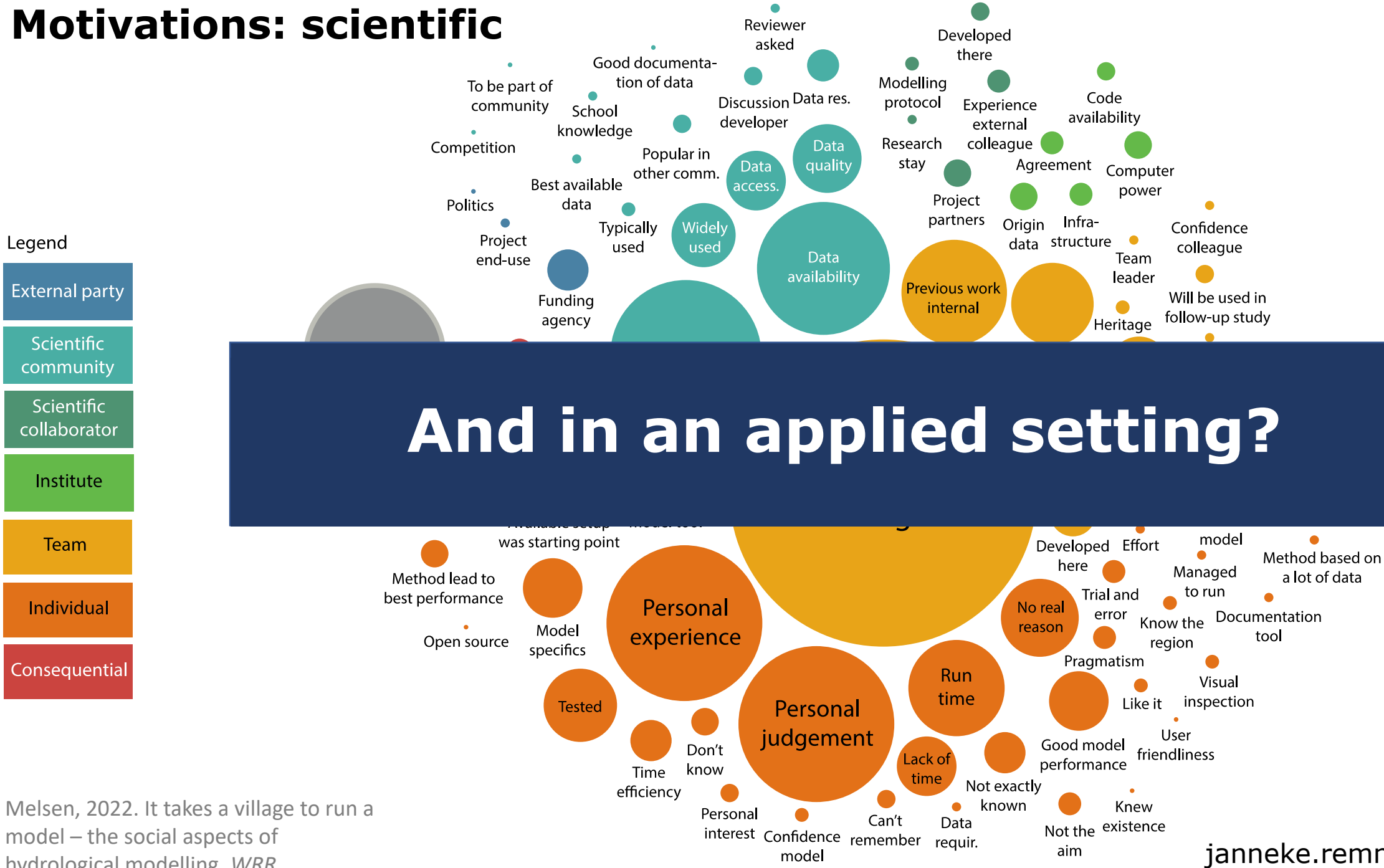
Motivations: scientific



And in an applied setting?

Melsen, 2022. It takes a village to run a model – the social aspects of hydrological modelling, *WRR*

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My study

14 interviews

~ 1400 minutes

~ 350 pages

Inductive Content Analysis

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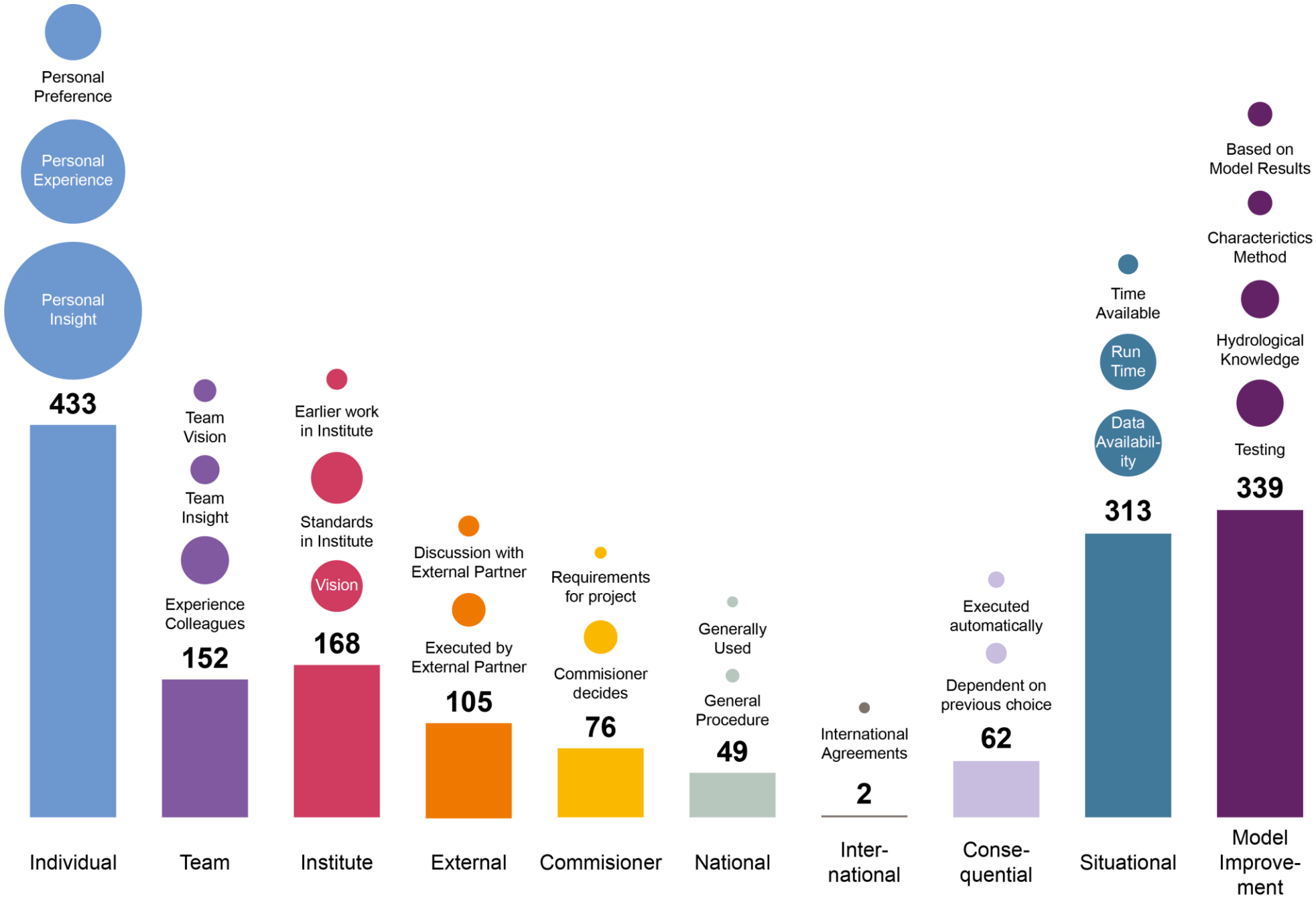
Motivations: general

Total number of Codes:

1699



Motivations: general

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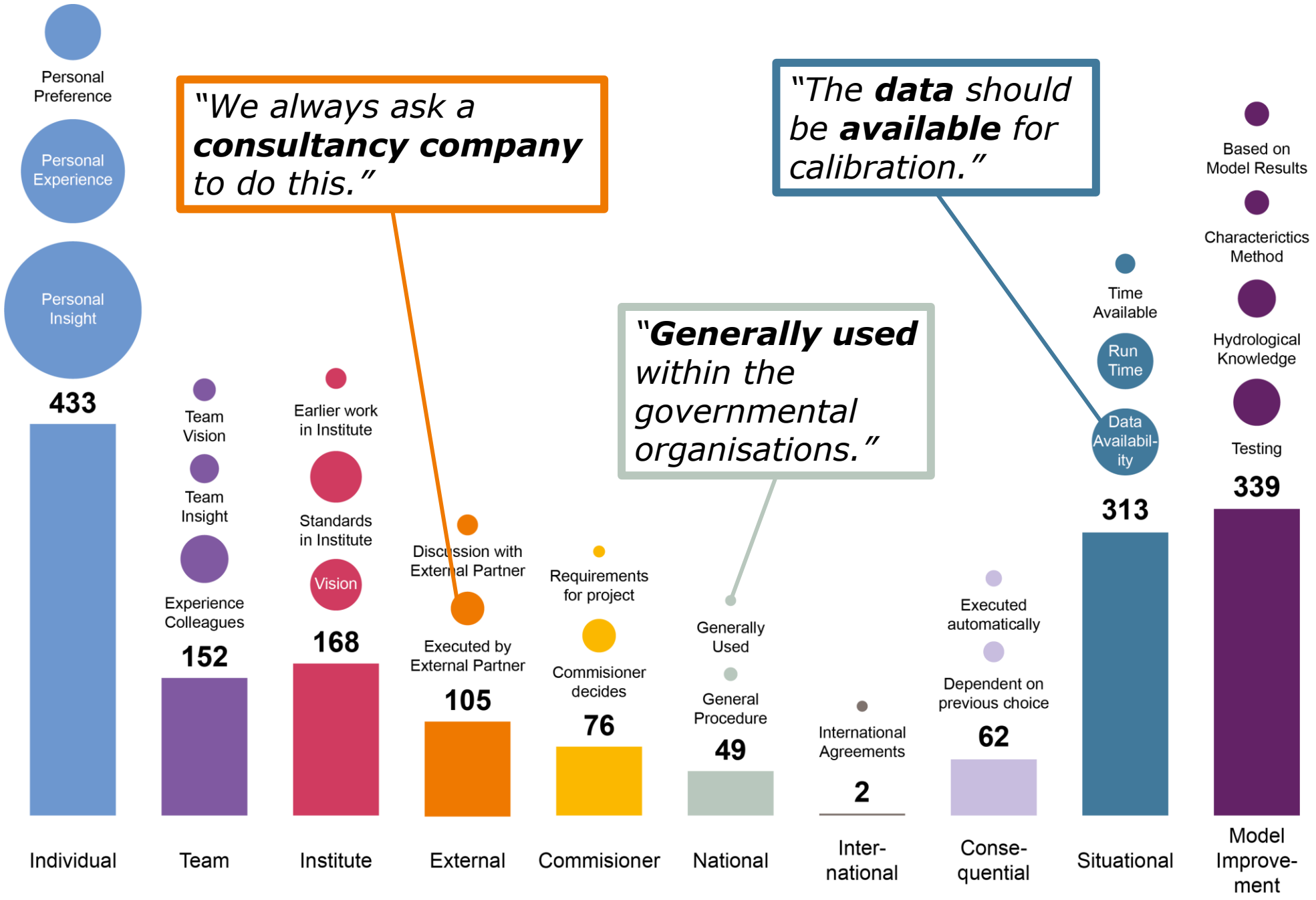


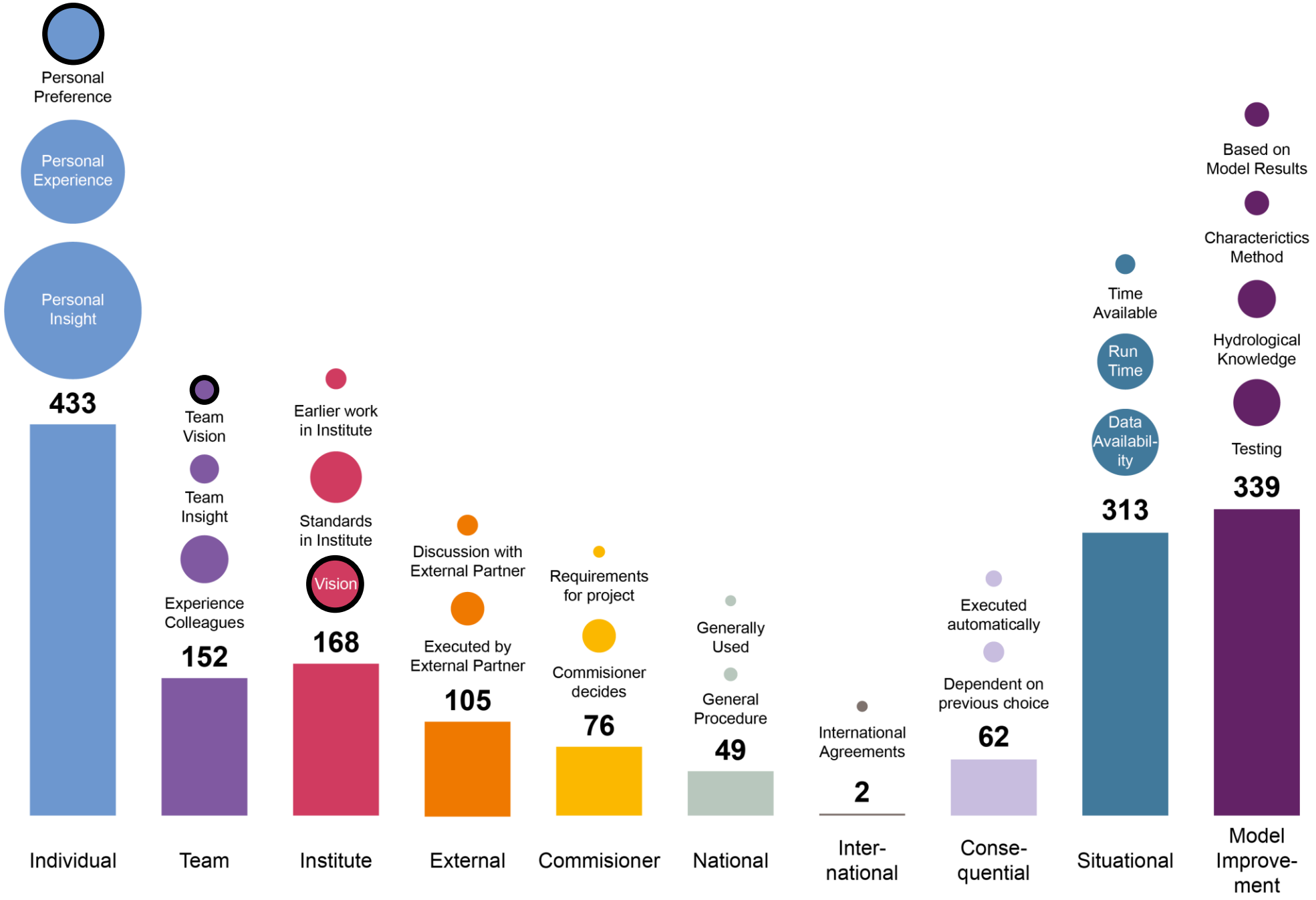
Motivations: general

Total number of Codes:

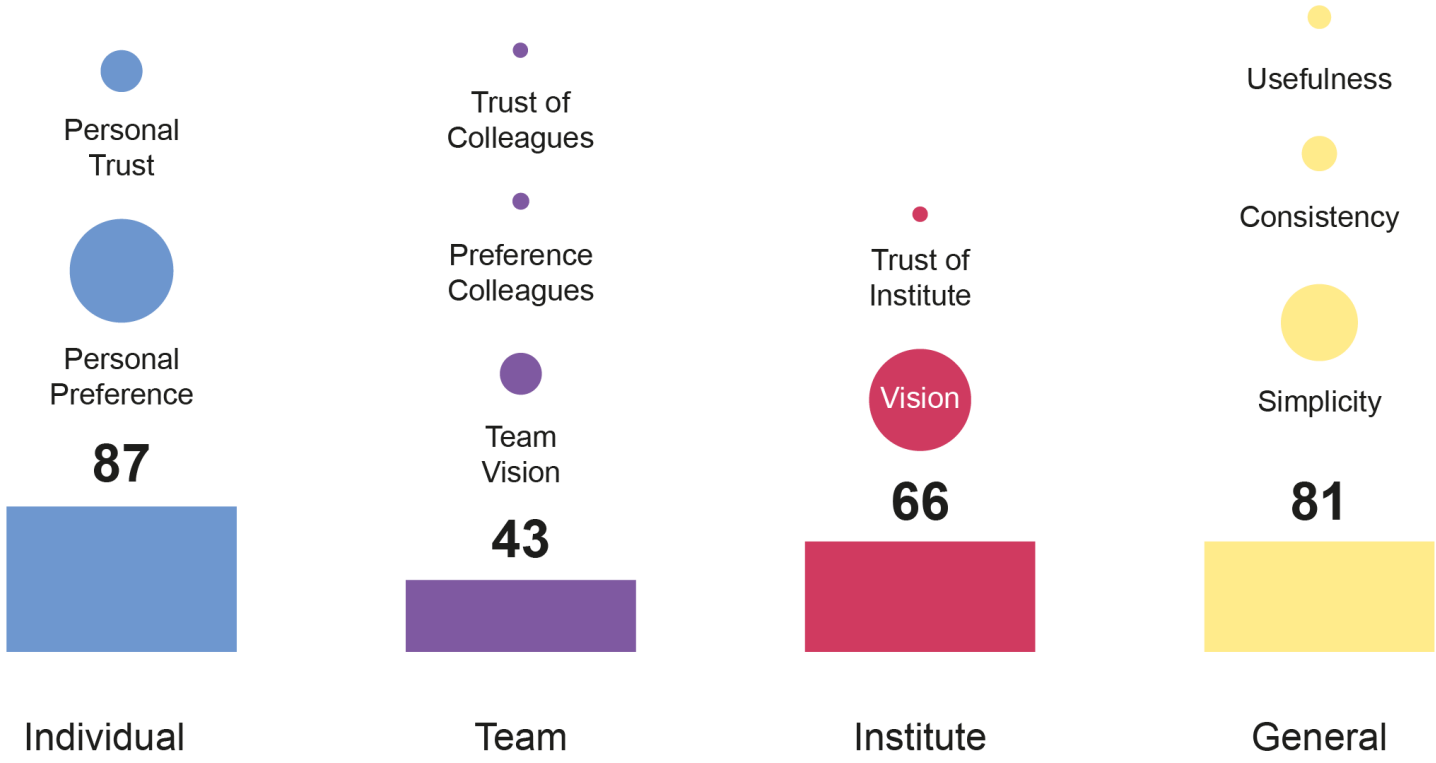
1699

Overarching concepts:

1. **Vision**
   - Individual
   - Team
   - Institute
2. Standards



Motivations: Vision



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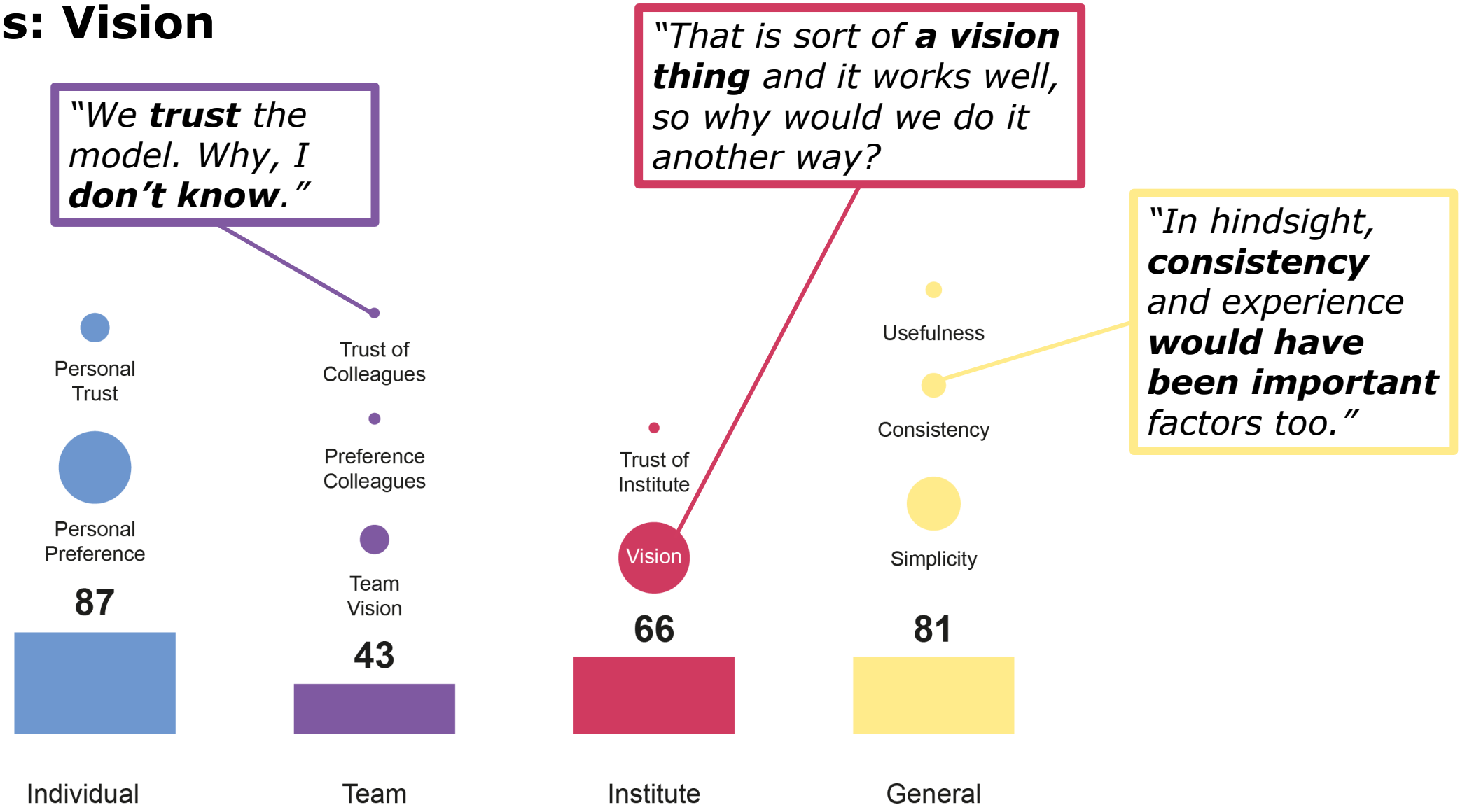
Motivations: Vision



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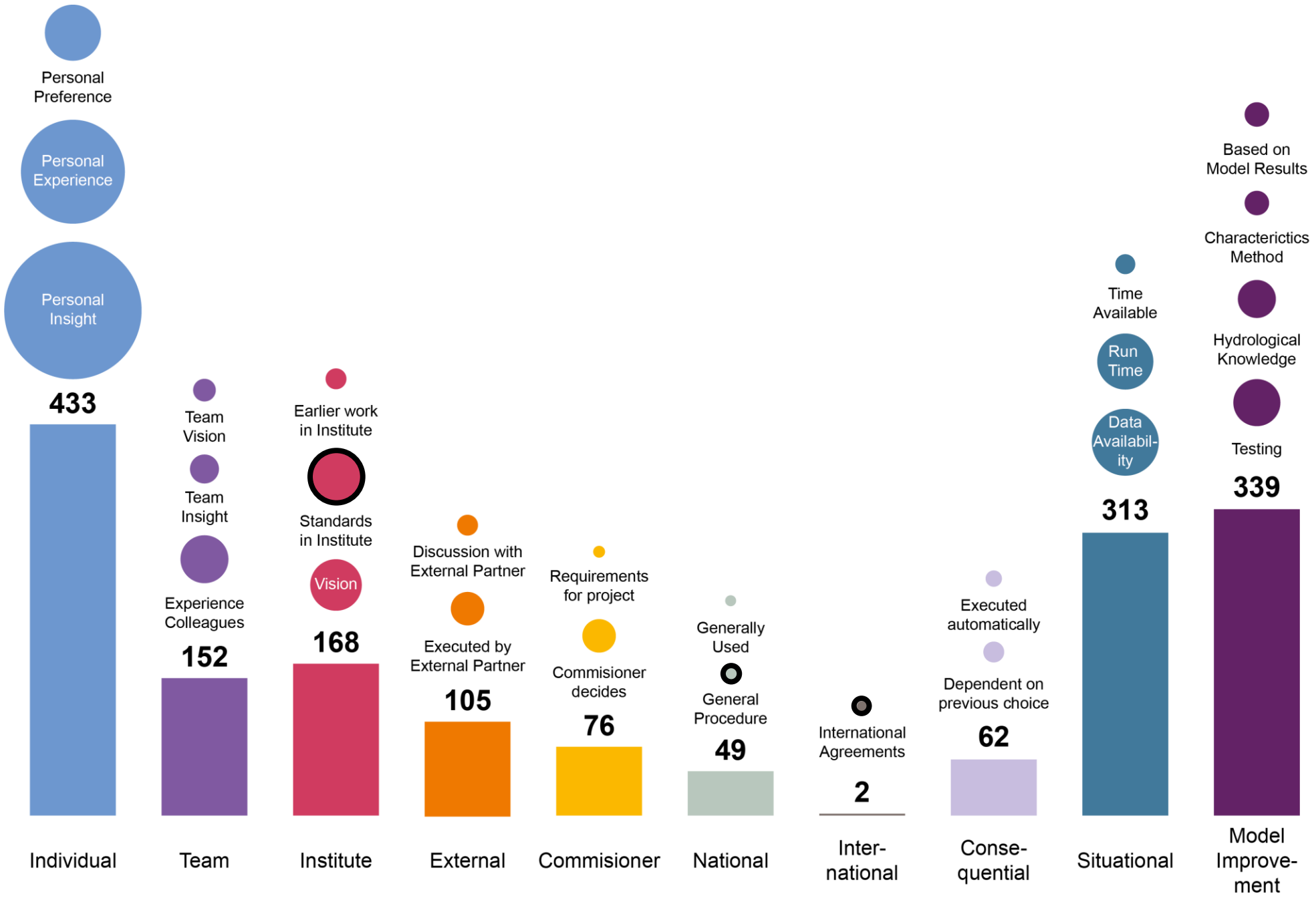
Motivations: general

Total number of Codes:

1699

Overarching concepts:

1. Vision
2. **Standards**
   - Institute
   - National
   - International



Motivations: Standards

Institute

Codes:

- "Standards in institute"

*"We mostly choose to run the model in **1D as a standard**."*

National

Codes:

- "General procedure"
- "National laws/norms"
- "Nation-wide agreement"
- "Based on handbook"

*"They have to adhere to certain **national norms**."*

International

Codes:

- "International agreements"

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Motivations: Standards

Institute

Codes:

- "Standards in institute"

National

Codes:

- "General procedure"
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- "Based on handbook"

International

Codes:

- "International agreements"

Not mentioned in the following groups, but possibilities for standards too:

Team

External

Commisioner

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Good Modelling Practice?

Different approaches:

Voluntarily | **Certification** | **Legal/juridical** | **Automation**

"Standards in institute"

"Based on handbook"

"National laws/norms"

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Good Modelling Practice?

Different approaches:

Voluntarily | **Certification** | **Legal/juridical** | **Automation**

"Standards in institute"

"National laws/norms"

"Based o

How do modellers perceive these approaches?

Current/future research:

- Perception of GMP approaches in NL and Australia
- Automation case study NL

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Thank you!

Any questions?

Feel free to reach out:

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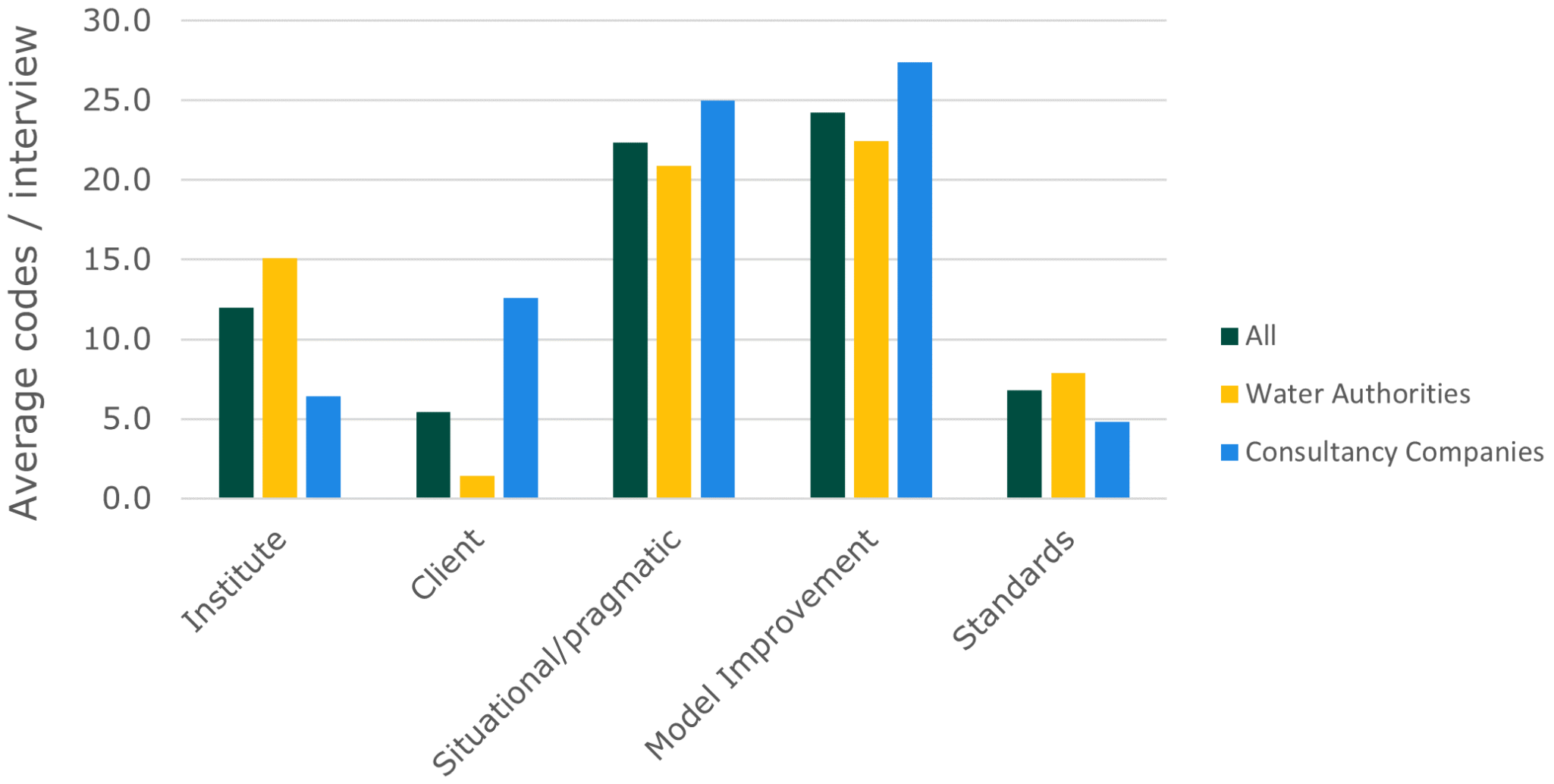
Motivations: Water Authorities & Consultancy Companies

Additional slide



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