STELLA: Towards a Framework for the Reproducibility of Online Search Experiments

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gesis
Leibniz Institute
for the Social Sciences

ZB MED
Information Centre
for Life Sciences

Technology
Arts Sciences
TH Köln

STELLA (InfraSTructurEs for Living LAbs)

Living lab framework

- Bridge the gap between experimental search systems and user interactions.

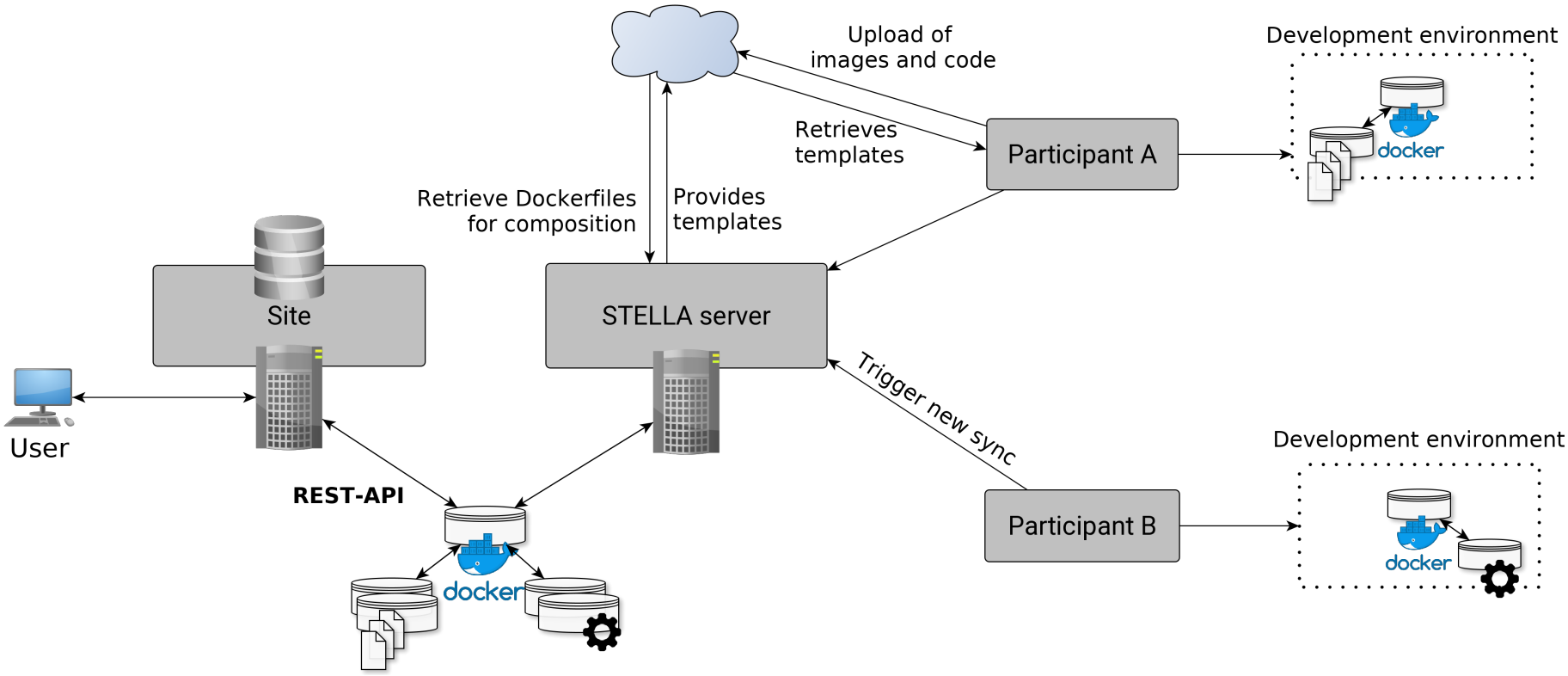
Academic Search

- Early adopters: GESIS (social sciences) + ZB MED (live sciences)

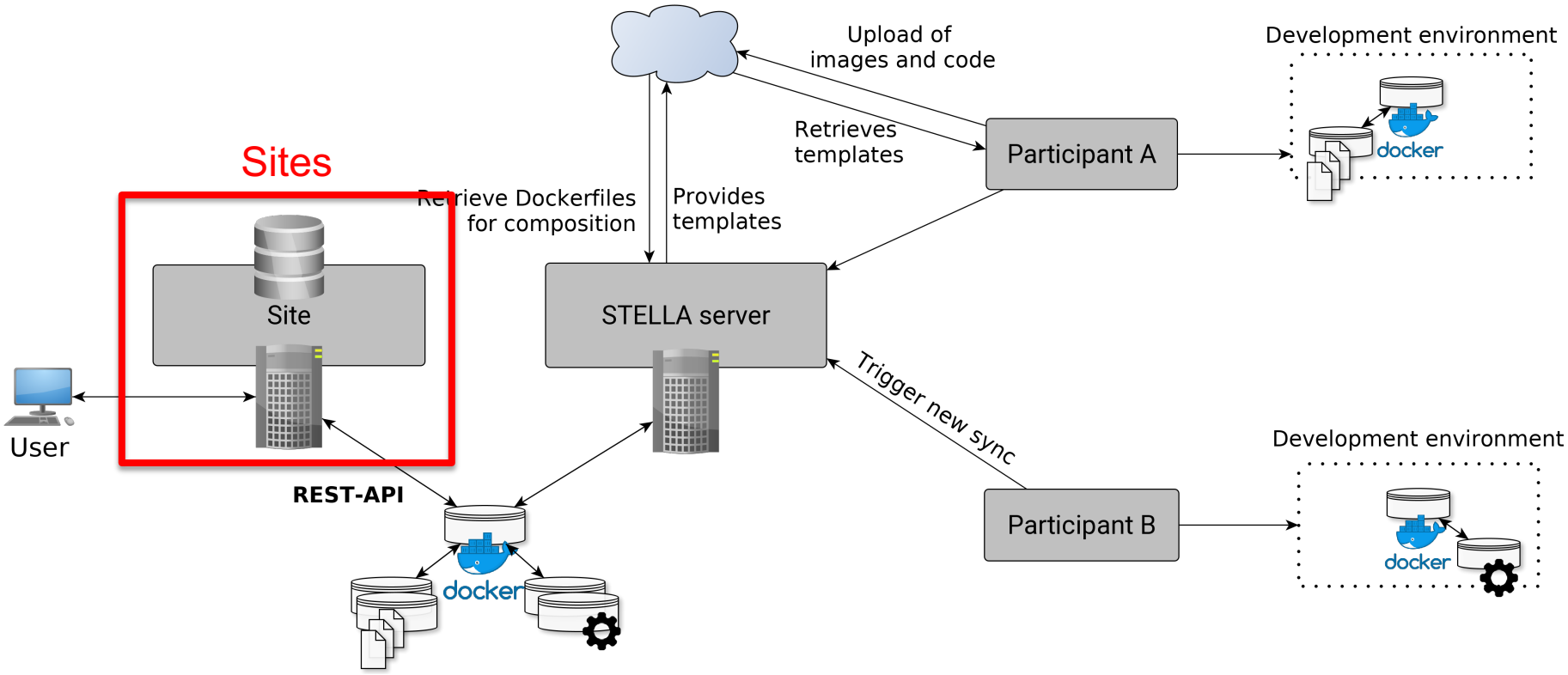
Focus on reproducible online experiments

- Infrastructural components are aligned to PRIMAD (Ferro et al. 2016)

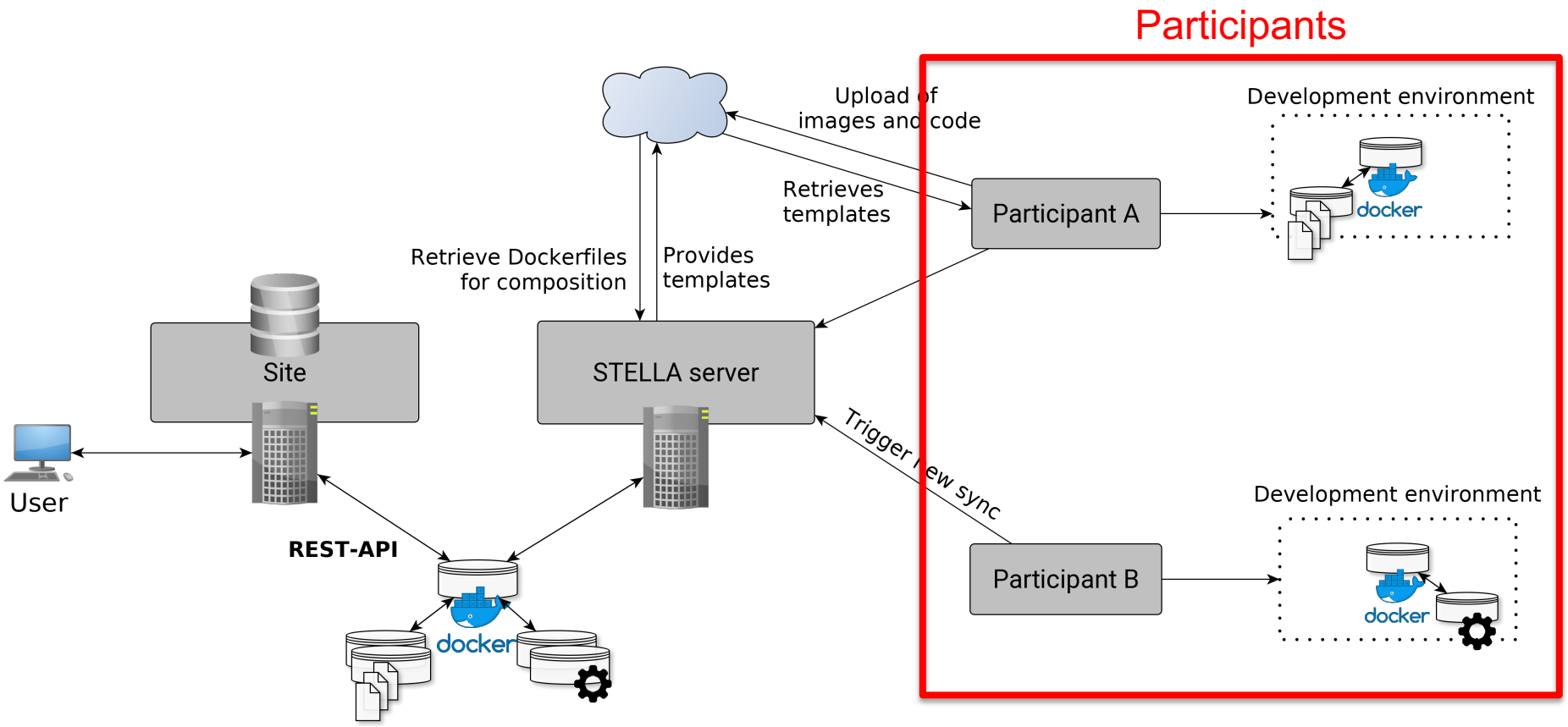
STELLA - Infrastructure



STELLA - Infrastructure



STELLA - Infrastructure



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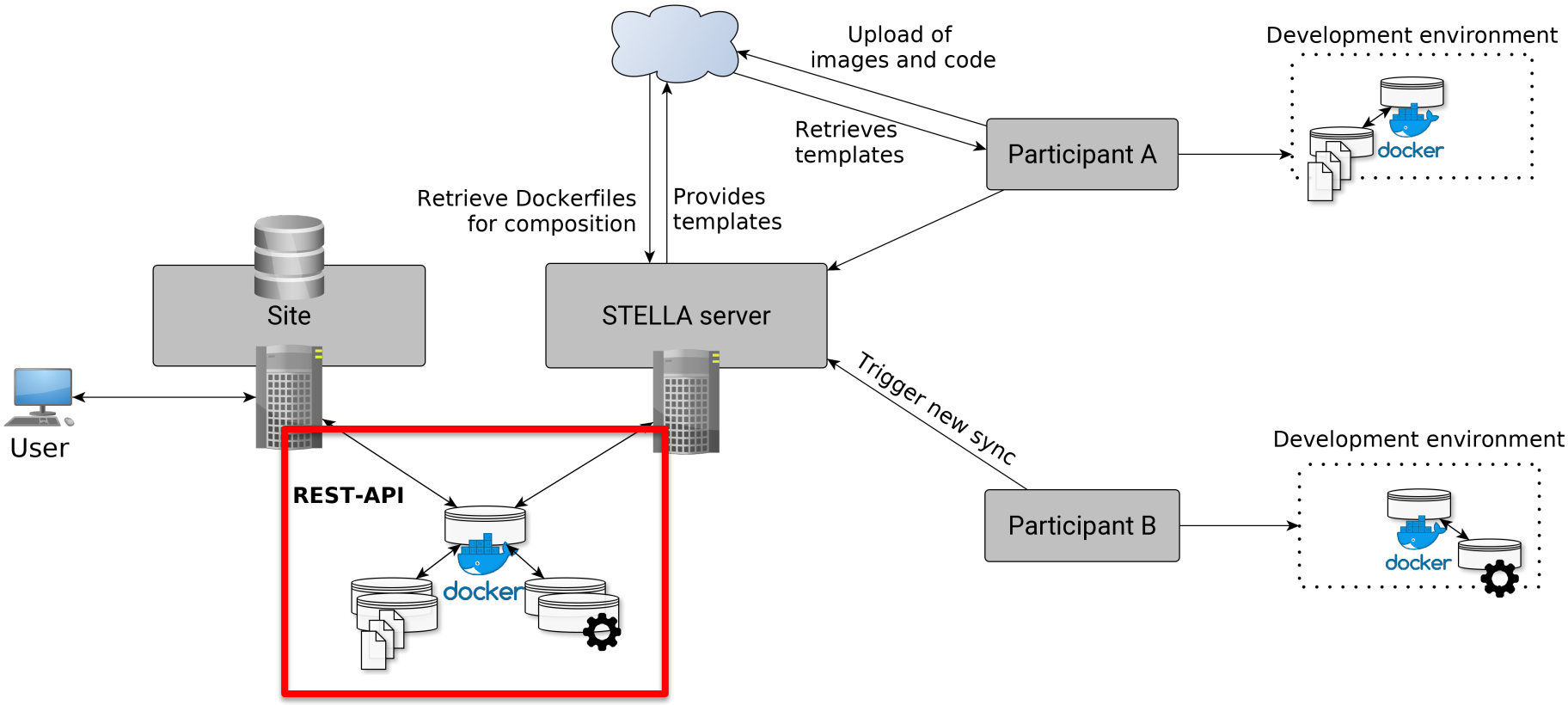
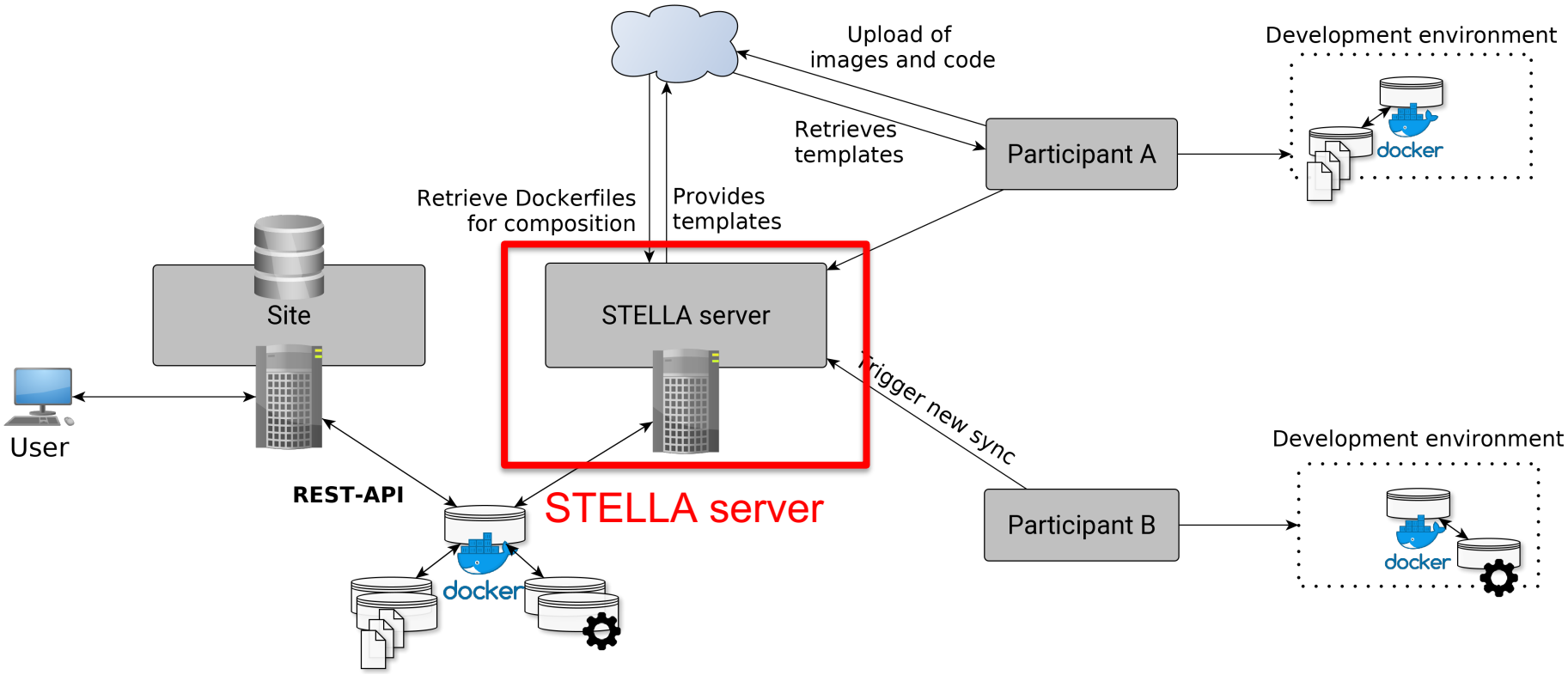


Multi-container application

STELLA - Infrastructure

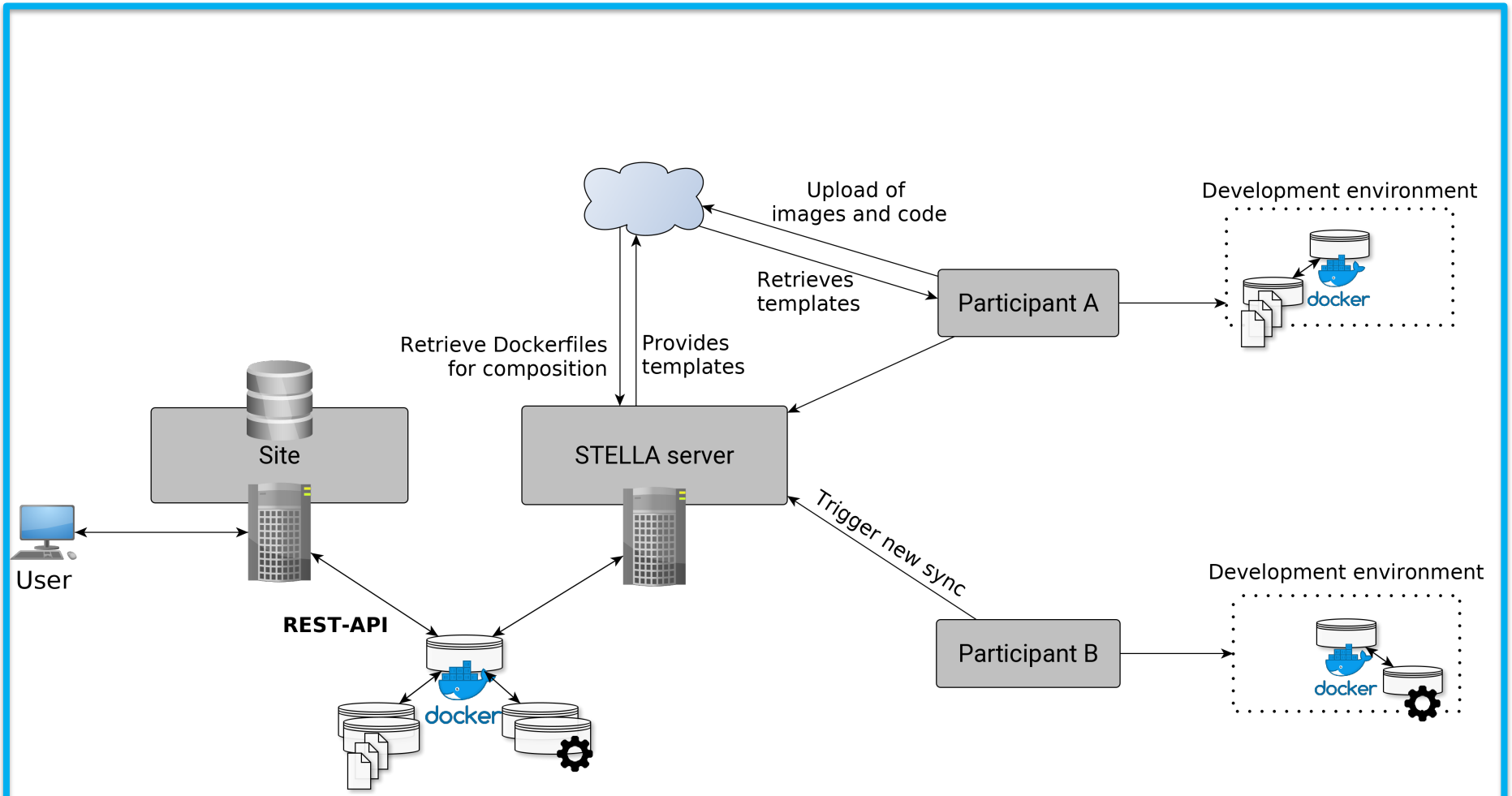


PRIMAD (Ferro et al. 2016)

PRIMAD defines six variables that affect reproducibility

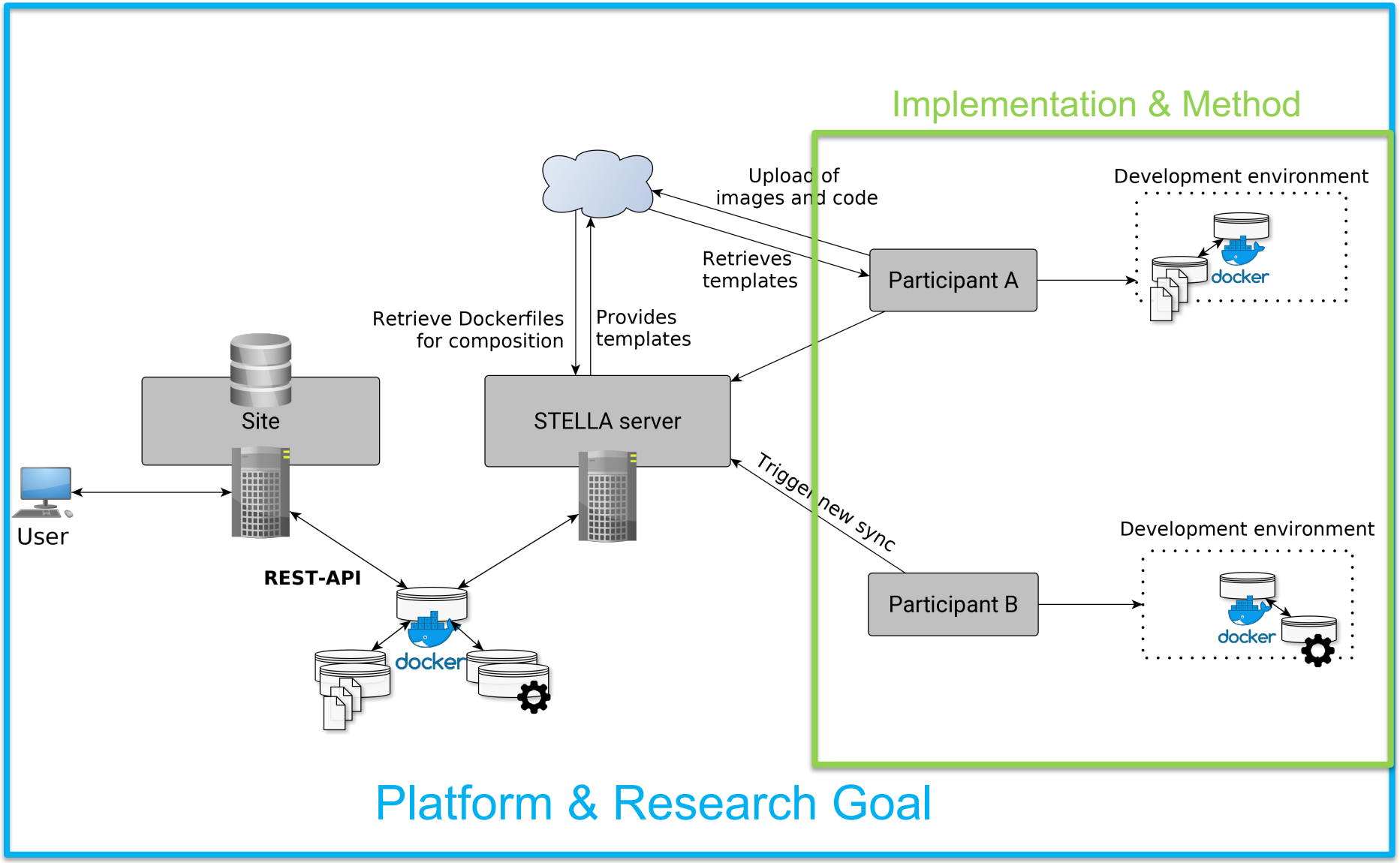
- Platform
- Research goal
- Implementation
- Method
- Actor
- Data

A PRIMAD version of STELLA



Platform & Research Goal

A PRIMAD version of STELLA



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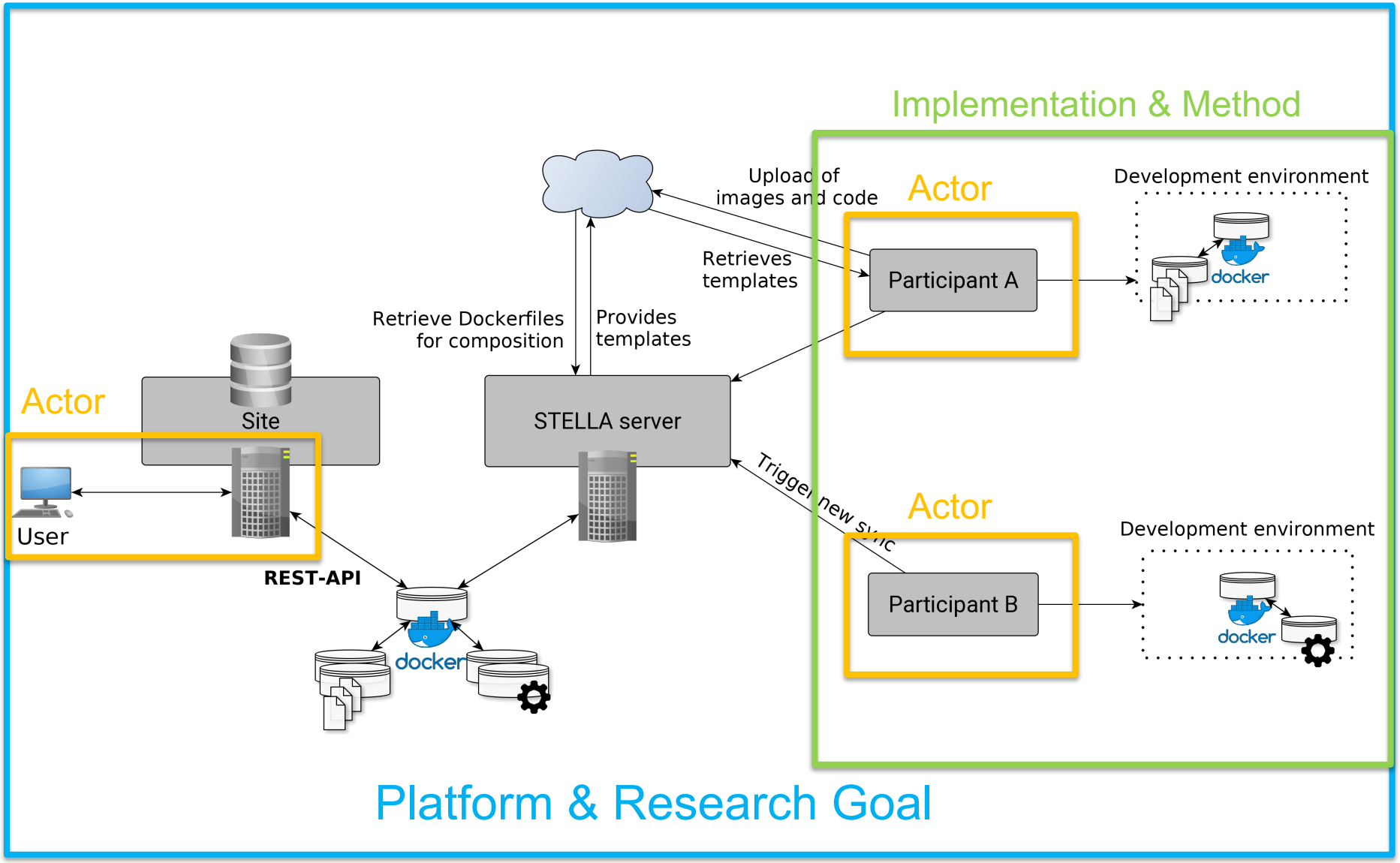

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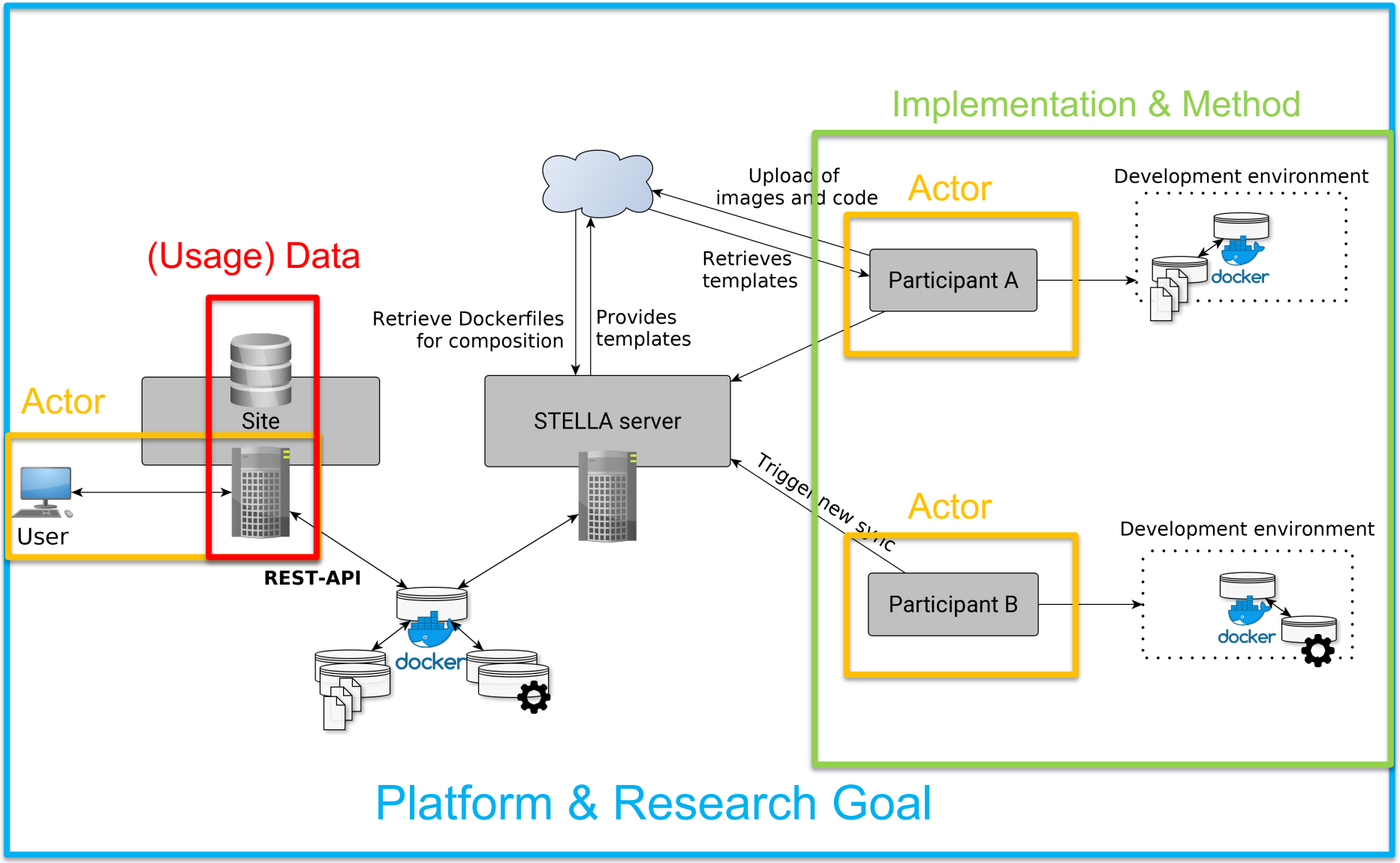

References

Nicola Ferro, Norbert Fuhr, Kalervo Järvelin, Noriko Kando, Matthias Lippold, and Justin Zobel. 2016. Increasing Reproducibility in IR: Findings from the Dagstuhl Seminar on "Reproducibility of Data-Oriented Experiments in e-Science". SIGIR Forum 50, 1 (June 2016), 68–82. https://doi.org/10.1145/2964797.2964808