

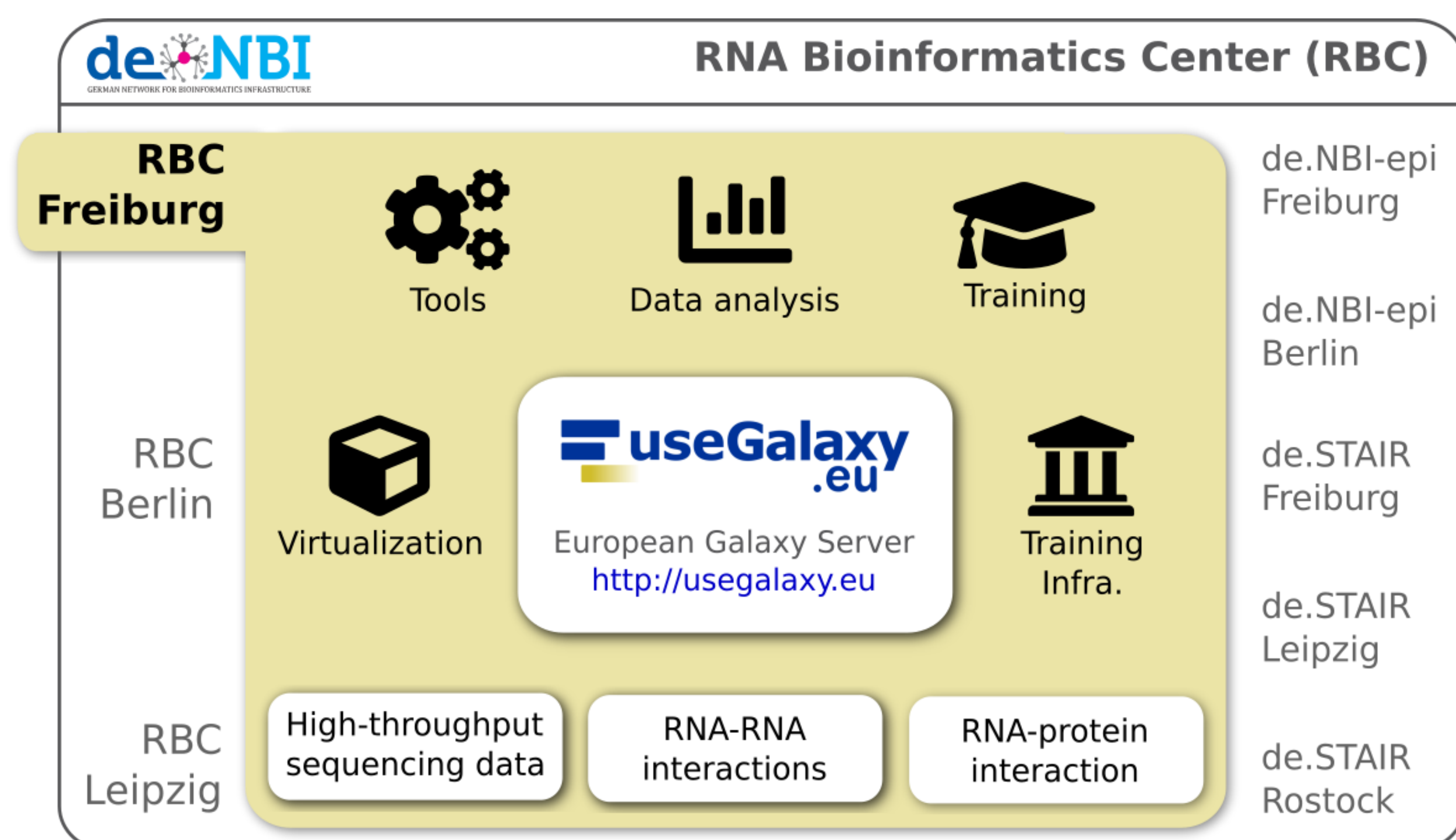
RBC-FR

RNA Bioinformatics Center Freiburg Galaxy Team

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RBC Freiburg



Progress report

Services

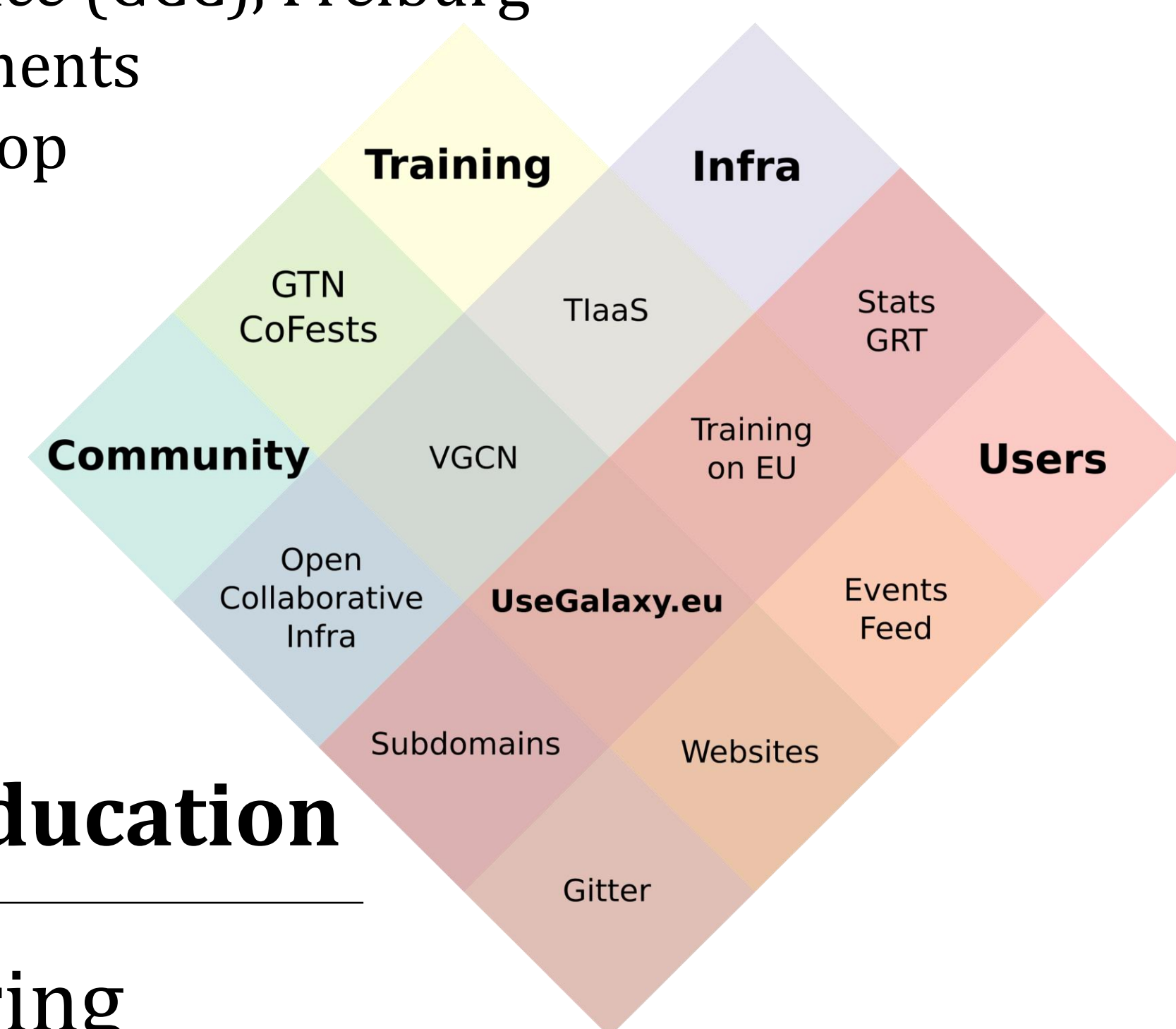
- Opening of the **Freiburg Galaxy Server** to all **European researchers**, a huge step for open, accessible and reproducible research in **Germany and Europe!**
- Launch of the **ELIXIR Galaxy community**
- Publication of the **Bioconda manuscript** in Nature Methods
- Recognition of **Biocontainers** as one pillar of the ELIXIR tools
- Expansion of **de.NBI Cloud FR** to 3.5k cores, 15TB RAM

Major events

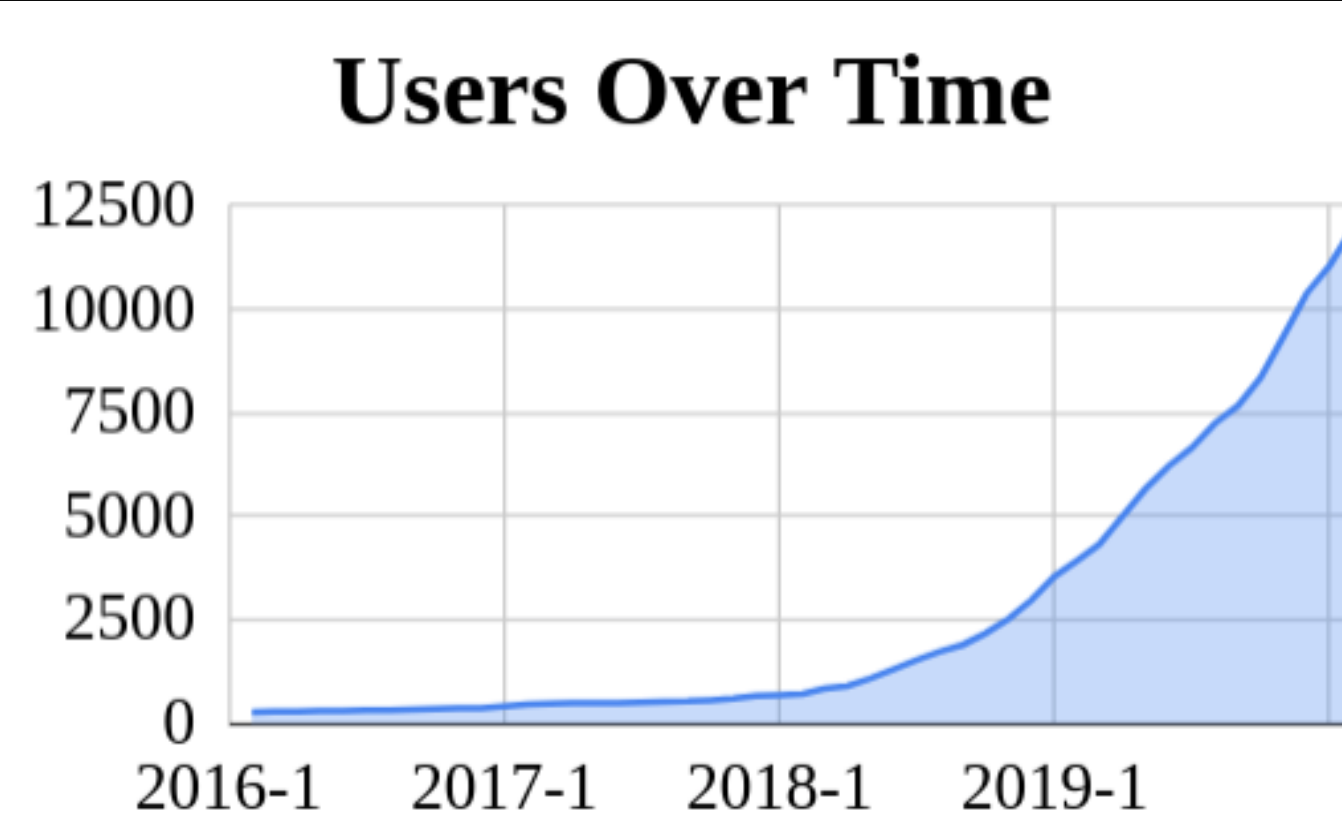
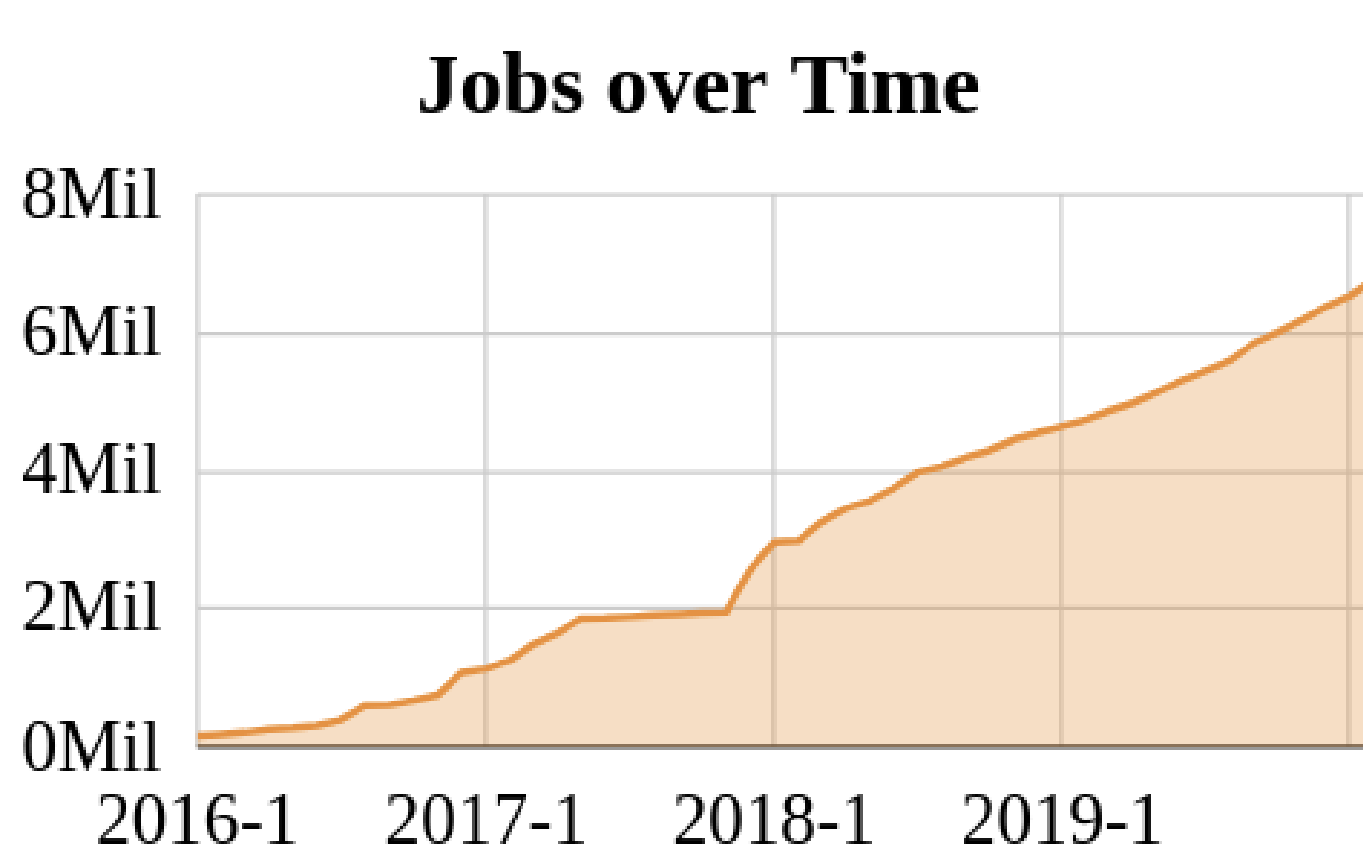
- Galaxy Community Conference (GCC), Freiburg
> **230 participants**, 5 continents
- Gallantries RNA-seq workshop
> **50 participants**

Training (2018-2020)

- > **75** training events
- > **2,700** trainees



de.NBI services

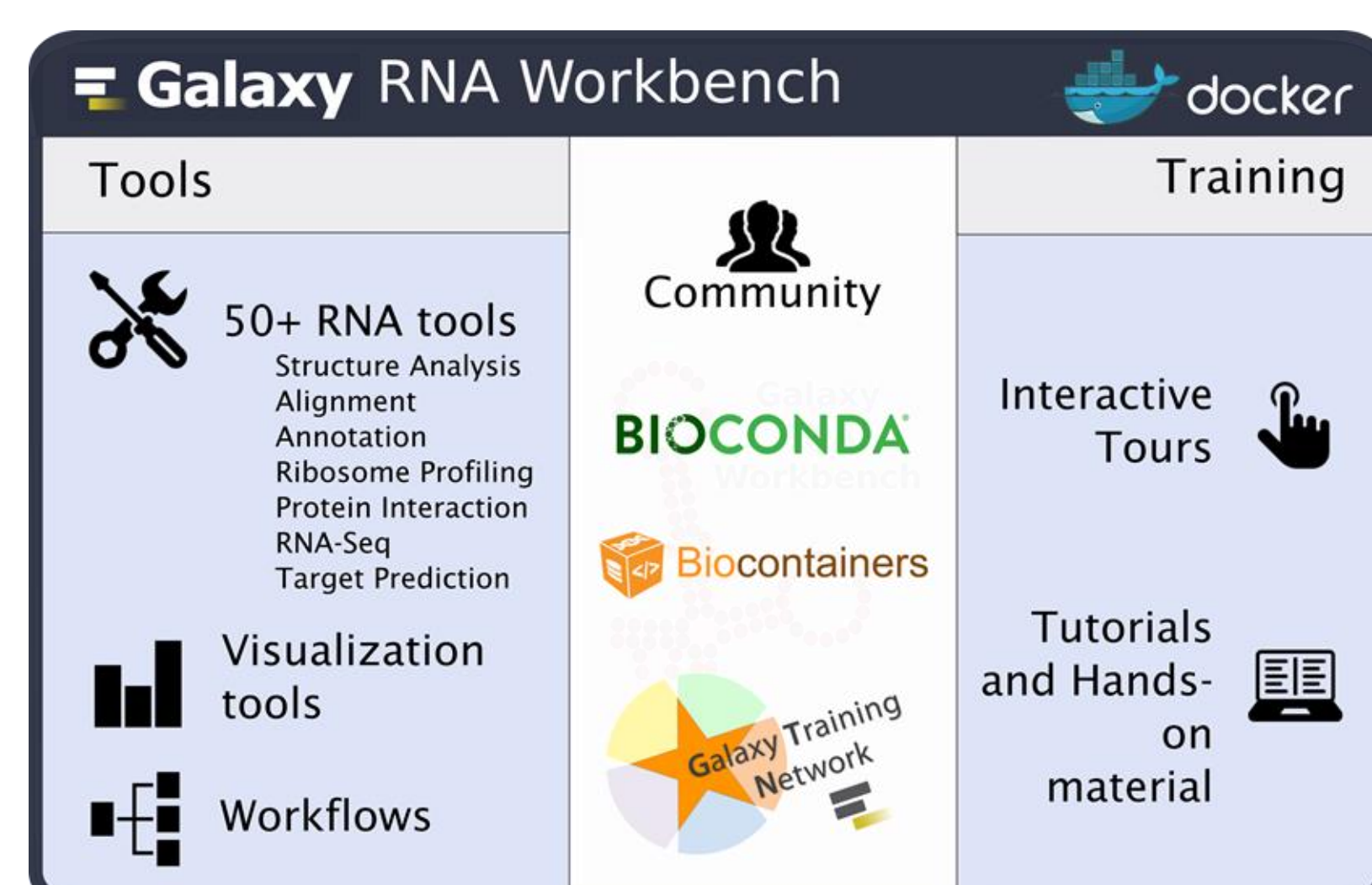


> 3,000 tools
> 18,000 workflows

Our flagship service is our Galaxy server (<https://usegalaxy.eu>) which is the **biggest Galaxy instance in Europe**, and one of the biggest worldwide, powered by **de.NBI cloud** and **GDPR** compliant.

BIOCONDA

Virtualization



RBC Freiburg is actively involved in making software user-accessible and **cloud-ready**. We joined and are leading the **Bioconda** and **Biocontainers** communities, to fix the software **deployment** problem once and for all. We also developed **Galaxy Docker**, a production-ready, scalable Galaxy instance with customized tool sets. We provide the RNA-workbench flavour for all RNA related research.

General information on the project

4 staff paid by de.NBI grant + 1 cloud staff +
1 cloud certification staff + 3 other staff involved

de.NBI Training and education

Workshops and mentoring

- **Twice per year** a full-week hands-on high-throughput sequencing data analysis workshop
- New workshops for **Single-cell** and **Machine learning**
- **Training** around the world on demand for data analysis, developers and administrators
- **On-site** mentoring
- HTS lectures and Galaxy courses for **Master students**

Online training material

- **Main contributors** of Galaxy training material
- Online: <https://training.galaxyproject.org>
- **Freely accessible** online material designed for both self-training and workshops
- > **130** tutorials with hands-on and/or slides

Training Infrastructure-as-a-Service (TlaaS)

- Dedicated **compute resources** for Galaxy trainings
- In past 6 months - > **1,700** trainees, > **35** events, **4** continents

Publications

Wibberg, D. *et al.* (2019), The de.NBI/ELIXIR-DE training platform-Bioinformatics training in Germany and across Europe within ELIXIR, F1000Research, Vol. 8.
 Miladi, M. *et al.* (2019) GraphClust2: annotation and discovery of structured RNAs with scalable and accessible integrative clustering, Oxford University Press, Vol. 8, GigaScience.
 Fallmann, J. *et al.* (2019) The RNA workbench 2.0: next generation RNA data analysis, Nucleic acids research, Oxford University Press.
 Afgan, E. *et al.* (2018) The Galaxy platform for accessible, reproducible and collaborative biomedical analyses: 2018 update. Nucleic Acids Research, 46.
 Batut, B. *et al.* (2018) Community-Driven Data Analysis Training for Biology. *Cell Systems*, 6, 752–758.e1.
 Grüning, B. *et al.* (2018) Bioconda: sustainable and comprehensive software distribution for the life sciences. *Nature Methods*, 15, 475–476.
 Grüning, B. *et al.* (2018) Practical Computational Reproducibility in the Life Sciences. *Cell Systems*, 6, 631–635.