

Imagine it's 2025...

The NRDC has achieved world wide legendary status and our institutions and their researchers are world leading...

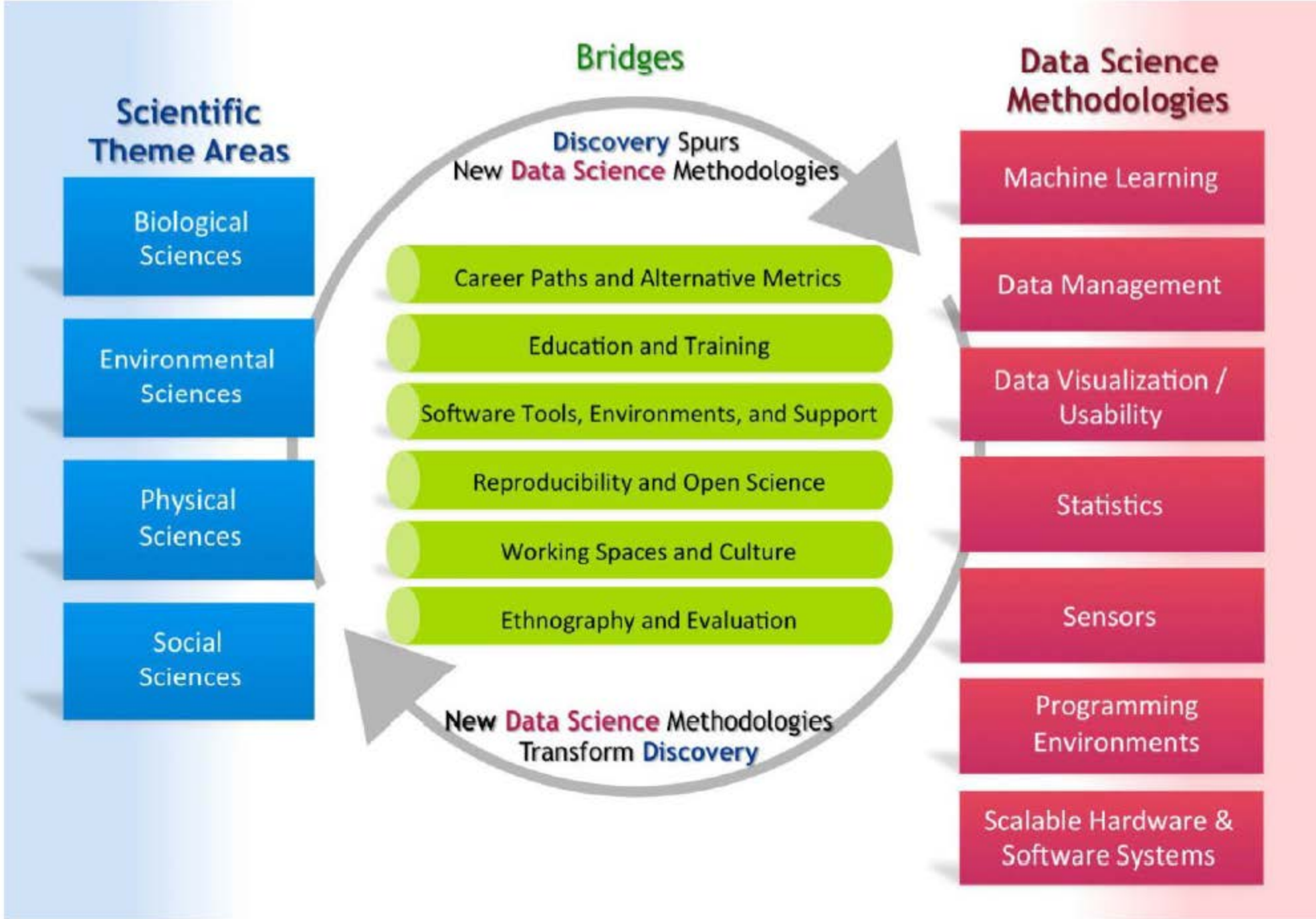
What skills will our researchers have & what skills will they be relying upon?





The Data Science Environment







- Institutes as catalysts within a university landscape
- Broad-based, engaged leadership
- A dedicated space for collaborative activities
- Professional data scientists

Outreach

Consulting, Incubator and “machine shop” programs for researchers and students, Software training and support with a focus on open source and harnessing the cloud, Seminar series and other outreach activities

Engagement

Designation of “data science fellows”, Accelerating data science–savvy faculty hires, Postdoctoral programs, Formal educational programs



Priority challenges and the skills most in need of improvement are:

- Data complexity
- Data standards
- Data discovery, finding relevant and potential data sources
- Data management
- Overcoming barriers to data sharing, **including cultural and interdisciplinary issues**
- Improving **programming and data analysis workflow**
- Improving **computational and numerical analysis skills**





Cross-cutting challenges of:

- i) new and changed skills needs which **combine technical and scientific skills** and require **interdisciplinary thinking and communication**;
- ii) recognizing **new job profiles** and tasks rising from the emergence of **computing intensive and data-driven science** with integral role of e-infrastructures;
- iii) need for effective European level **collaboration and coordination to avoid duplication of efforts** and join the forces for **developing high quality human capital** for e-infrastructures.





There are specific challenges relating to the skills and human resources for:

- i) e-infrastructures development,
- ii) digital research service provision,
- iii) scientific usage of e-infrastructures, and
- iv) **the institutional strategies for effectively tackling the human resources challenges.**





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