



BERKELEY LAB

Scientific software Research for User experience, Design, Engagement and Learning (STRUDEL)

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<https://strudel.science>

STRUDEL - simplifying planning & user interfaces for science softwares

Our project develops tools to ease the process of planning & designing scientific software from core requirements to UI development.

- Key outputs:
- Typology
 - Design System
 - Task-flows
 - UI library

- Key users:
- project leaders
 - funding officers
 - domain experts
 - software dev
 - project contributors

User eXperience is important for research

User experience is often an afterthought in scientific software that impacts usability, accessibility, design, & functionality of products.

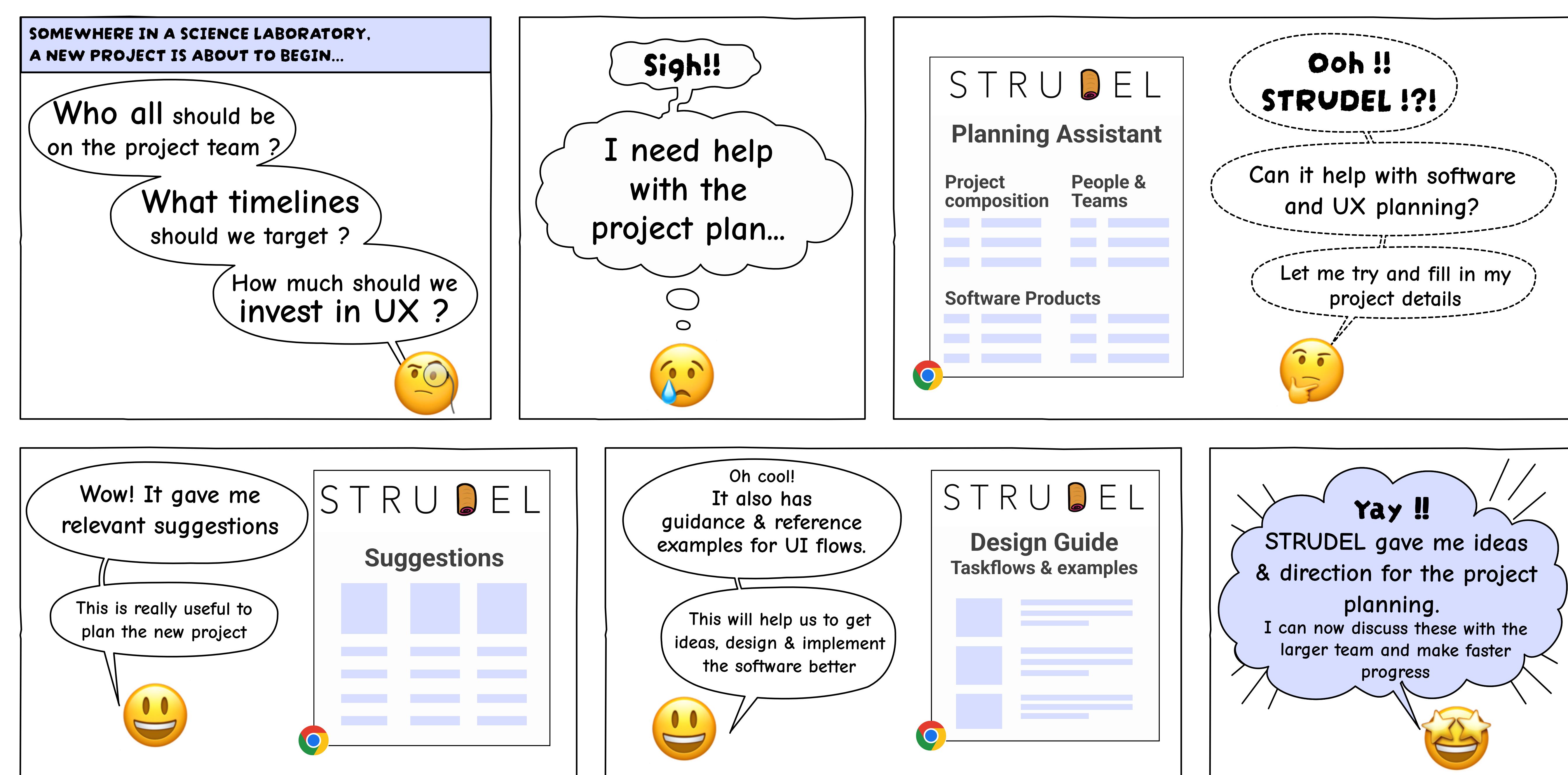
Iterative scientific inquiry results in always evolving user needs

Software sustainability & efficiency needs regular UX investment

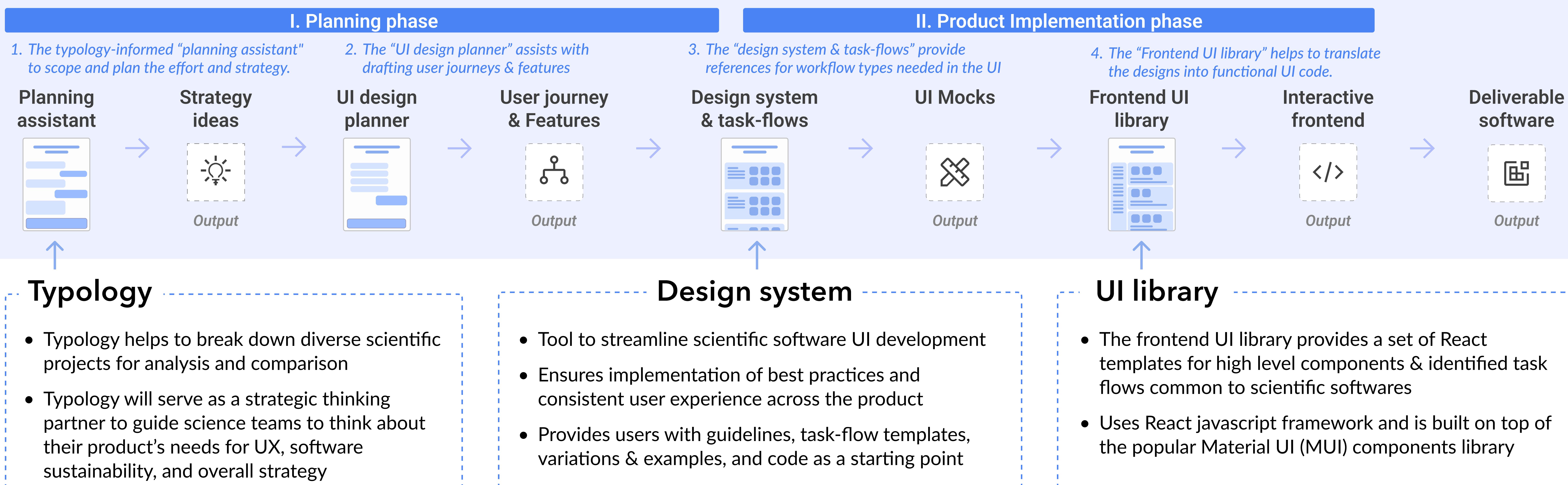
Science projects often lack the UX processes & best practices

Commercial software practices can't be directly applied to science softwares

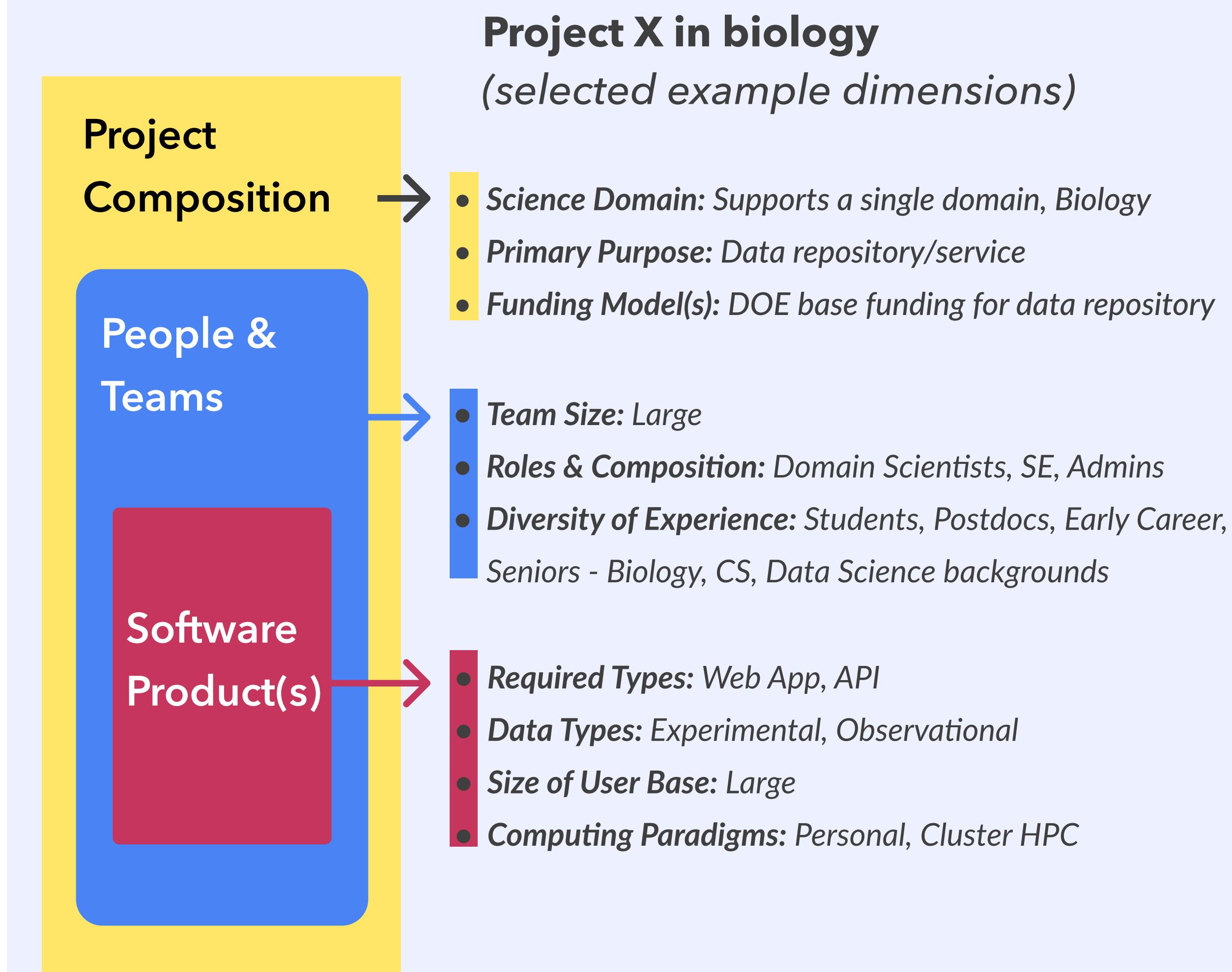
The STRUDEL vision



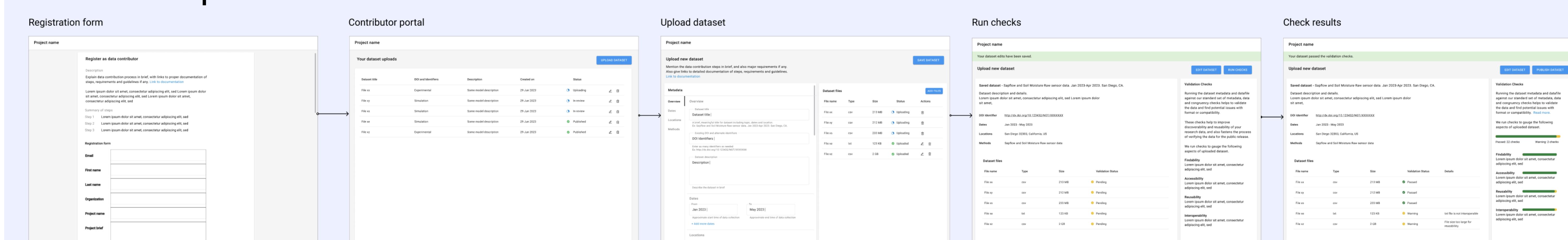
Approach



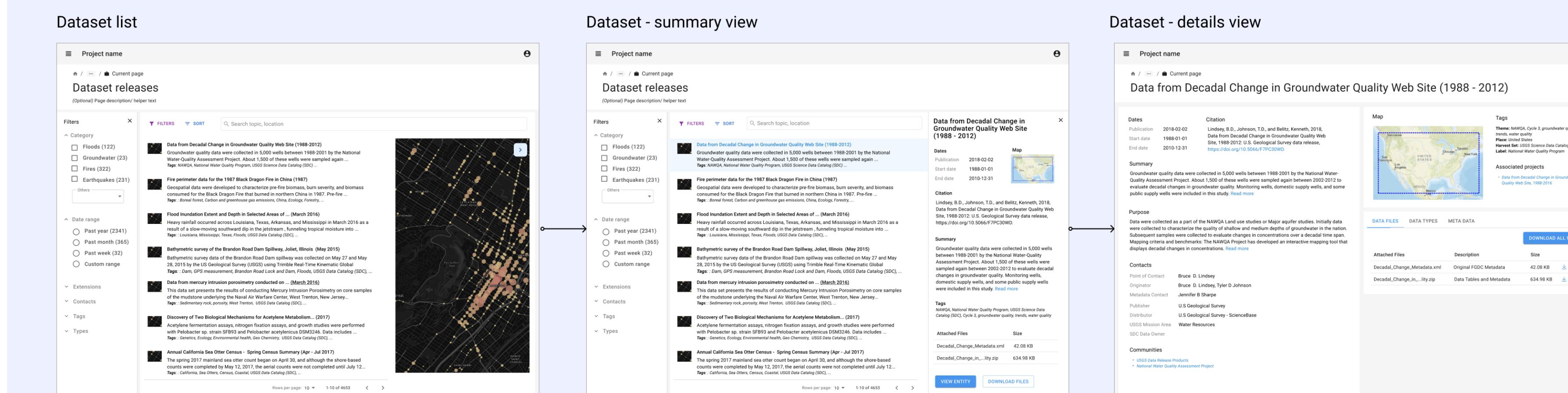
Primary facets of typology & example application



Task flow template for 'Data contributions'



Task flow with example data for 'Exploring datasets'



Other task-flows in STRUDEL

- Running optimizations
- Viewing & comparing scenarios
- Exploring entities
- Creating process models
- Lab notebooks
- Data analysis
- Scientific catalogs
- Project management

Vote for the 3 main challenges

in your software projects

Technology

Resources

Community Engagement

Others

We need you!



Participate :

- Give feedback
- Participate in workshops & contribute ideas, task-flows
- Help start a US-RSE UX working group
- Sign up for our mailing list to learn more!