ECP IDEAS Project: Improve Exascale Computing Project (ECP) developer productivity and software sustainability while ensuring continued scientific success.

1. Interviews with Exascale Computing teams
2. Productivity and Sustainability Improvement Plans (PSIPs)
3. Customize and curate methodologies
4. Outreach and training
   - Better Scientific Software site [https://bssw.io](https://bssw.io)
   - www.ideas-productivity.org

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- Several ECP projects (Checkpointing VeloC, Exascale operating system/resource management through ARGO)
- Fault tolerance, Programming models
- Sustainability/Developer Productivity
How to create an ecosystem to communicate theory to teams and communities in order to facilitate correct and efficient development and sustainability of corresponding software?

- Disconnect between folks who propose theory and developers who develop software
- Software developers lack ways to see “forest” from “trees” – lack of capture tools
- Frequent churn of developers and lack of best practices for sustainability increases gap between theory and software
- Lack of appropriate training for folks to understand theory and even develop software
- Software is many times a means for publications: which dilutes the software as well as theory needs best practices