



Secure Platform for Collaborative Research in CS.

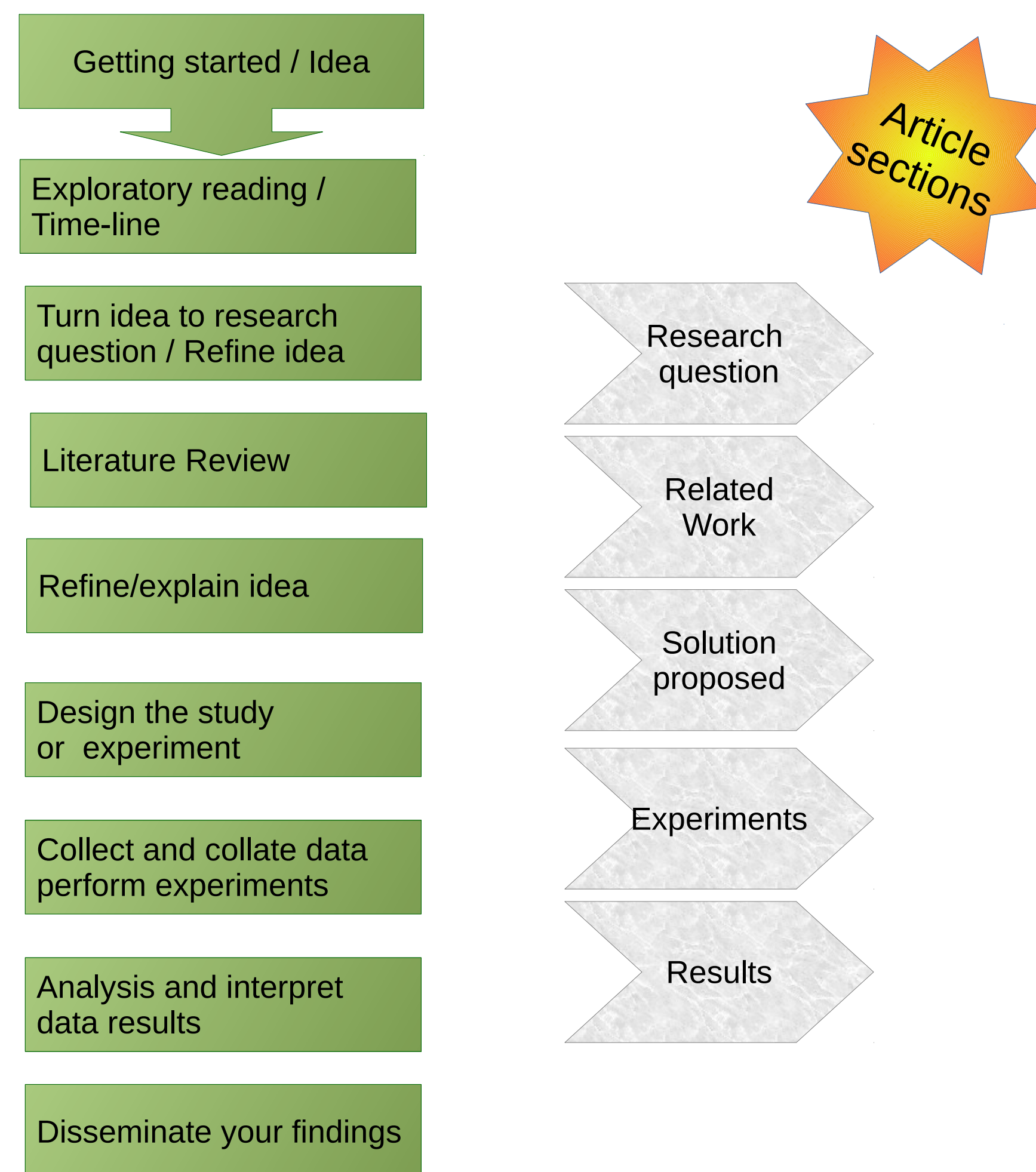
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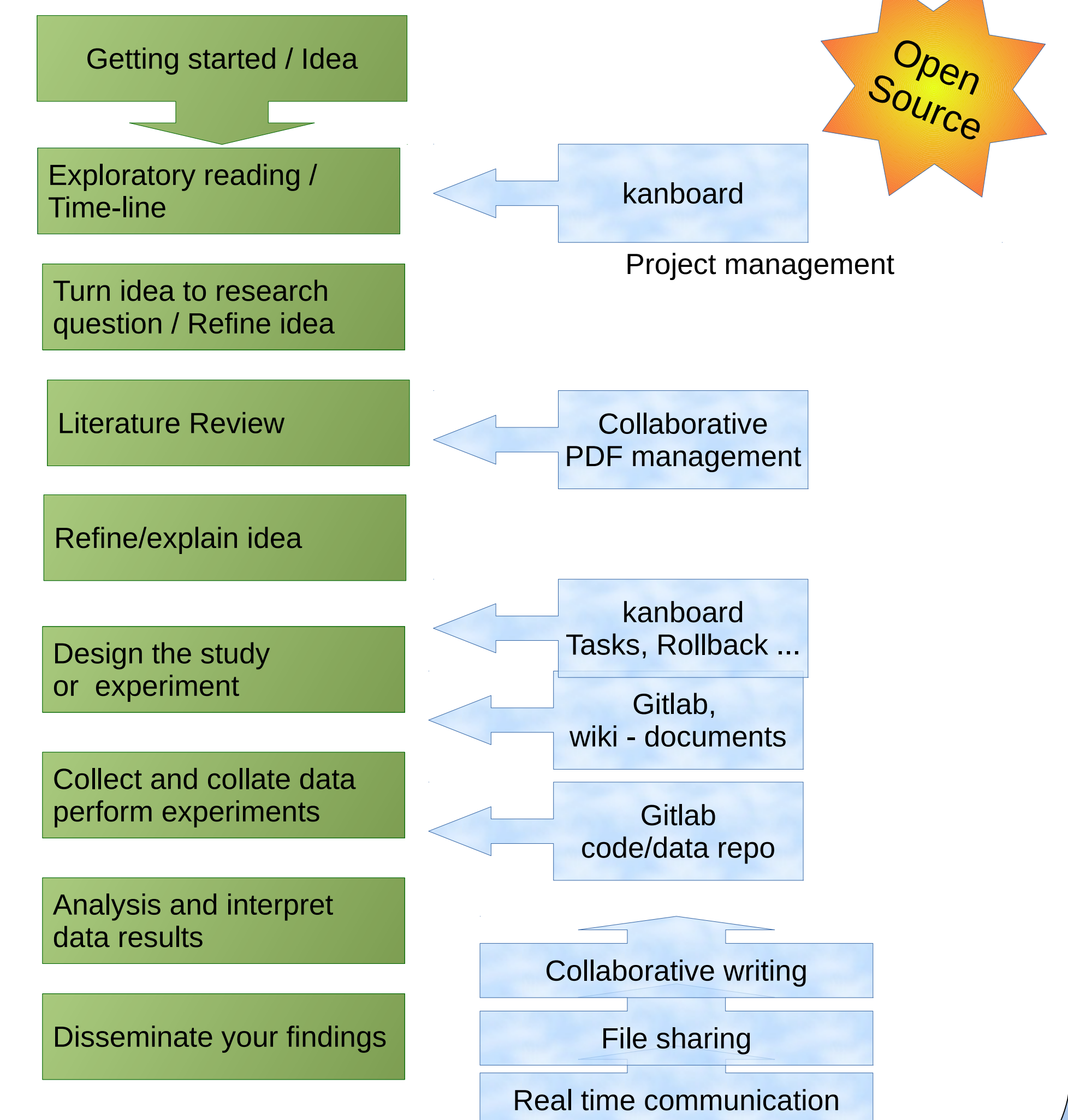
Motivation

- Collaborative Research Groups
- Improve communication
- Improve collaboration
- Improve performance
- Secure
- Private
- Lead by agile methodologies
- Open source tools available

Research process: overview



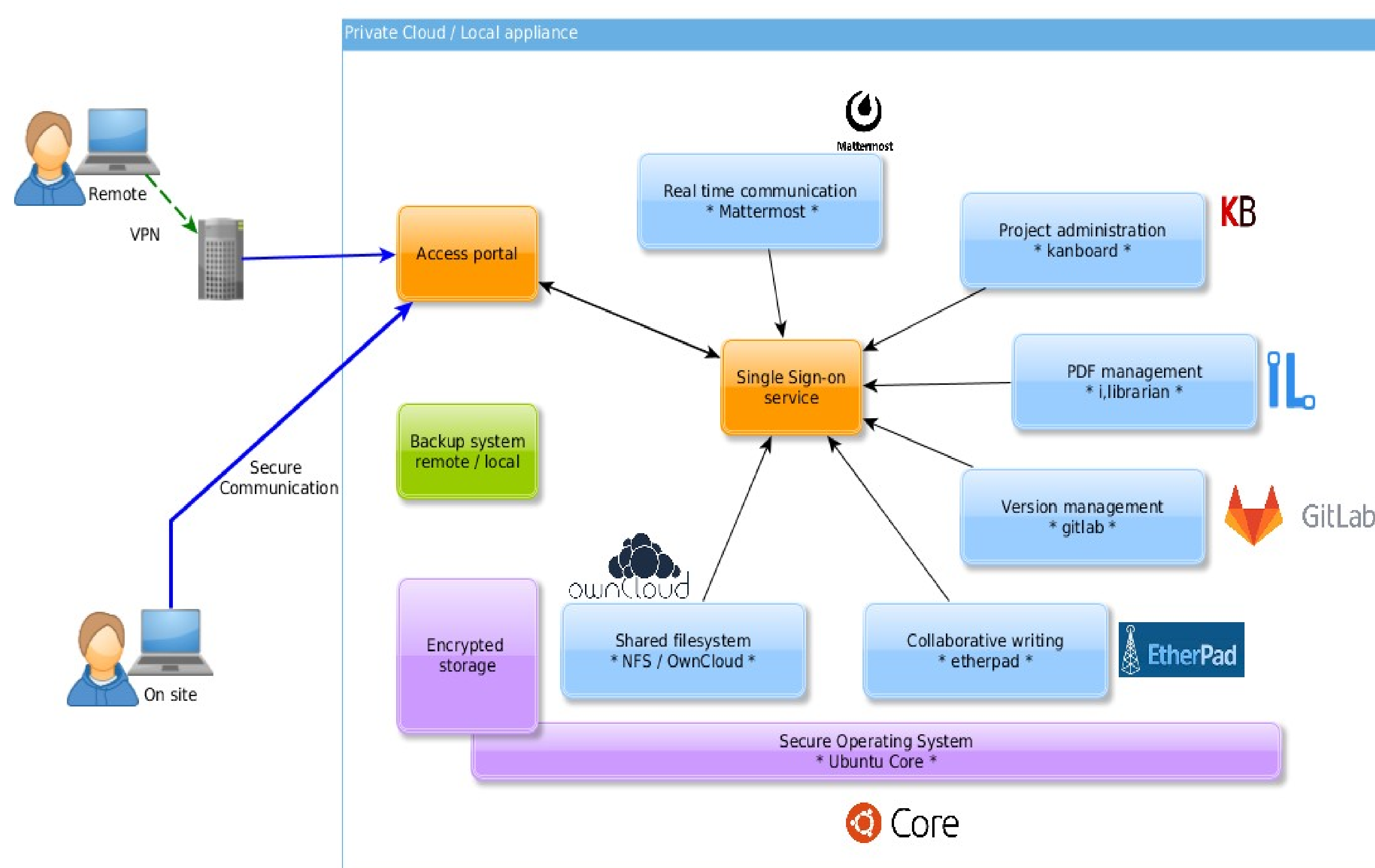
Research process: Software tools



Key components

- Secure Operating System
- Project management software
- Articles management software
- Control version system
- Real time writing collaboration tool
- File sharing tool
- Real time communications
- Single sign-on

Platform design



Cloud adversarial model

- Clouds must protect against traditional adversaries
 - Hackers, malware, botnets, spammers, ...
- And against
 - Rogue employees: can access part of infrastructure
 - Steal hard drives
 - Tenants: are like traditional adversaries but inside cloud
 - DoS, cross-VM attacks
 - Providers: control entire infrastructure
 - hardware, OS, network, data center
 - Governments: can issue subpoenas, get warrants, ...
 - Get keys, hard drives, servers; monitor communications

Conclusions

- Define a flexible research flow
- Keep track of tasks and changes.
- Improve communication and collaboration
- Avoid excessive meetings
- Ad modules as necessary for new tasks and approaches.