

Management Plan: Objectives and Best Practices

Management Plan Goals

- Defining project tasks, identifying interactions, and associated timelines
- Ensuring timely accomplishment of all project goals
- Ensuring that all teams are adequately resourced
- Identifying and mitigating stragglers and pain points
- Integrating all aspects – research, development, education, outreach, impact, and technology transfer
- Facilitating seamless flow of information within and beyond project team
- Instituting best practices to ensure that the whole is greater than the sum of its parts

Management Principles

- Funding based on investigations, as opposed to investigators
- Incentivizing collaborative efforts that maximize research and impact
- Develop mechanisms for student leadership
- Build relations with external stakeholders to facilitate exchange of emerging trends, data, models, and project artifacts
- Develop mechanisms for external involvement in projects – through externally funded projects, personnel exchanges, licensing agreements, and other forms of technology transfer.

Management Principles

- Education, outreach, and external relations are not ancillary parts of the project – they are essential and integral components
- Develop mechanisms to facilitate this strong integration:
 - Incentivizing BPC activities within the framework of research projects
 - Incentivizing educational contributions accompanying all research and development components
 - Develop mechanisms for knowledge transfer, e.g., through CropHub, through external stakeholder events (annual workshops), and licencing opportunities
 - Integrate recruitment and mentoring activities with research

Management Best Practices

Keeping Project Personnel Engaged/ Focused

- Best practices gleaned from the NSF/STC Center for Science of Information
 - Center fellow and researcher programs: these programs require individuals to be supervised/ affiliated with two investigators from two distinct themes
 - Physical collocation of project investigators and personnel
 - Online collaboration tools (slack, project wikis) for all aspects of the project
 - Weekly brown-bags, seminars, and informal presentations
 - Student led projects – incentivizing students from distinct themes to propose funded efforts (funding is typically for undergraduate researchers, visits to labs, conferences)

Integrating Evaluation, Roadmapping

- Develop mechanisms for continuous evaluation of various tasks
- Identify bottlenecks in progress (resource/ data availability, staffing issues, investigator engagement) through periodic internal reporting
- Institute intervention strategies for supporting bottlenecked tasks
- Institute assessment mechanisms for all aspects of the project
- Interface with internal advisory committee, external advisory committee, and the annual review team for effective communication of assessment and recommendations