

Problem Statement

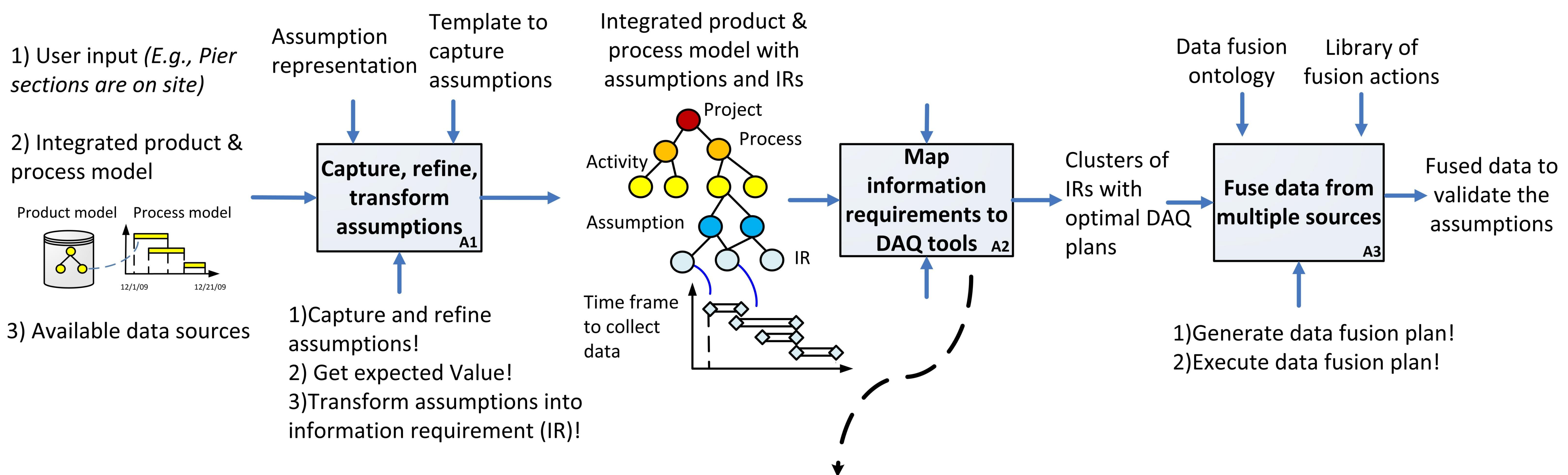
- Time, money and resources are wasted due to the uncertainties that exist related to the availability of equipment, materials and work crews (National Academies Press 2009).
- 50-80% of problems on site are due to missing and delayed information (Howell and Ballard 1997).
- Reactive productivity management takes corrective actions only after the problems are identified.
- Engineers make decisions based on biased assessments which don't reflect the actual situations of a job site (Pradhan and Akinci 2007, Pradhan 2009).

Vision and objectives

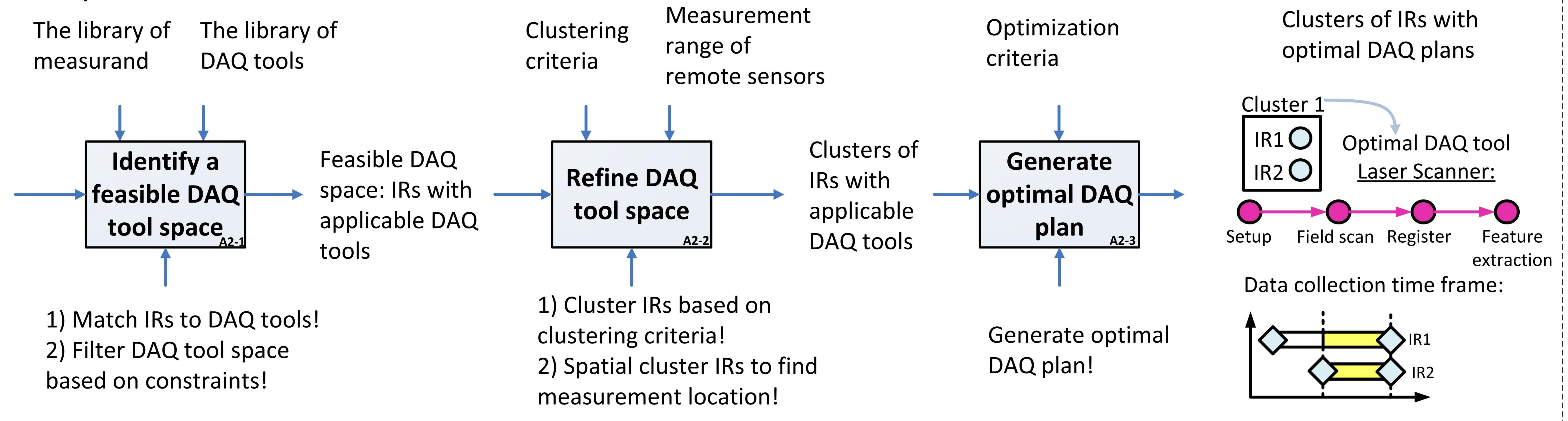
To develop a framework in order to support proactive productivity management. The primary functions are:

- enabling a structured search of opportunities to remove information bottlenecks before processes begin.
- evaluating different data capture technologies, and support the decisions on when and where to deploy the data capture technologies on site.
- defining how to fuse data from different data sources so as to provide a comprehensive view of construction productivity performance.

Vision



Sub-steps of A2



Expected Contributions

- A framework to support proactive productivity management.
- An early warning mechanism to detect possible problems before their consequences are unmanageable.
- Guidelines for construction professionals to deploy advanced data capture technologies in a timely and efficiently manner.