

Potential synergies and trade-offs	Design implications
<p>For organizers</p> <ul style="list-style-type: none"> • Some costs are “fixed” and can be shared across stages. E.g., <ul style="list-style-type: none"> – Building digital project infrastructure, algorithmic management tools – Recruiting crowd members – Organizers’ skills and relationships <p>→ Larger synergies if the same Crowd Science Paradigms can be leveraged across multiple stages</p> <ul style="list-style-type: none"> • Involving crowds across multiple stages requires greater resources in terms of time, infrastructure, etc 	<ul style="list-style-type: none"> • Optimize design decisions across multiples stages (including potential future expansion) • Identify core infrastructure that can be used across multiple stages (especially if the same Crowd Science Paradigms apply) • Develop additional modules for needs that are stage-specific • Develop specialized roles on project teams to leverage learning that applies across stages and to provide stable points of contact for participants
<p>For crowd members</p> <ul style="list-style-type: none"> • Knowledge gained by crowd members in one stage can increase their effectiveness in other stages • Broader involvement across stages can increase motivation and engagement • Broader involvement imposes additional costs on participants. E.g., <ul style="list-style-type: none"> – Time to train and learn, time to perform multiple activities, stress if cannot live up to expectations – Costs of other resources such as materials, transportation, etc. (see AKRD Crowd Contribution Matrix) <p>→ Benefits and costs typically differ for different crowd members in a given project</p>	<ul style="list-style-type: none"> • Develop mechanisms to transfer knowledge across stages and crowd members (e.g., knowledge repositories) • Enable crowd members to see the “big picture” that arises over the course of the project; explain how involvement in one stage helps in another • Recognize and help mitigate costs especially for highly involved crowd members • Offer different levels of engagement (with respect to breadth across stages but also depth within each stage); enable crowd members to self-select based on abilities, interests, and time • Create “career ladders” for participants that lead from smaller to larger breadth of involvement