Planning for Co-design: Mapping 'Know Who' and 'Know How'

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The Importance of Know Who

- A collaborative design team is only as strong as:
  - the expertise of people sitting at the table
  - The strength of the ties among those people
  - The interactions that take place that surface and make use of varied forms of expertise.

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Implication 1: You may need to expand your own network and learn more about your existing network, in terms of who is good at what, and what groups or teams (e.g., at schools) can work together effectively.

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Implication 2: A key form of expertise needed is in organizing and adapting design processes.

Know How

- Additional forms of expertise are needed to co-design three-dimensional curriculum and assessments:
  - Science
  - Research on how students learn science
  - Assessment development
  - Curriculum design
  - Teaching and its contexts

Implication 3: Co-design teams must be diverse and employ strategies for surfacing and making use of relevant expertise

Network Composition: Initial iHub Team

Initial Network Members	Domains of Expertise
CU Researchers	Computer Science, Science Education, Assessment and Evaluation, User-Centered and Participatory Design
BSCS	Curriculum development
UCAR	Technology development
District leadership	District instructional guidance infrastructure (e.g., standards, pacing guides, interim assessments)

Expanding the Network

| Initial Network Members	Domains of Expertise
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BSCS	Curriculum development
UCAR	Technology development
District leadership	District instructional guidance infrastructure (e.g., standards, pacing guides, interim assessments)
Teacher leaders	Existing curriculum, students, local school contexts
Experts in *Framework* and *NGSS*	Biology, coherent curriculum design
Ecologists	Forestry, Ecological monitoring
Community partners	Forestry, City Policies and Ordinances

Key Lessons

- You can seek out partners who are not necessarily close by, if you can target your ask in a way that appeals to their aims and motives.

- The evolution of the work itself can lead you to seek out new partners purposefully (with much benefit to the team).

- The process of network expansion can't happen all at once, and will likely hit some bumps.
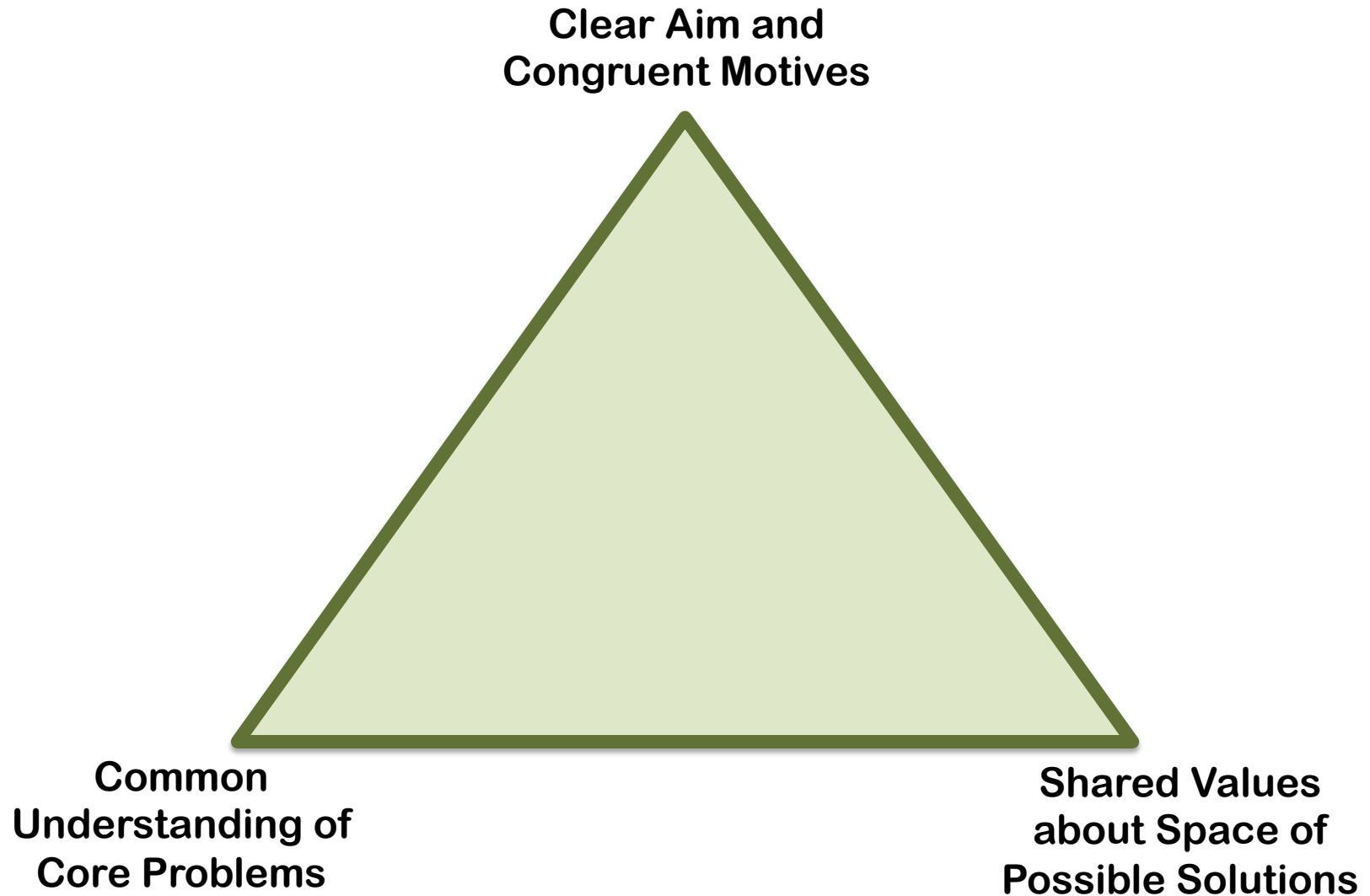
Mapping 'Know Who'

- Map your own networks and identify both resources (know-how) and key needs for collaborative design

- Make a plan for asking partners to map their networks to identify location and access of relevant expertise

Questions