

CAIAC: Consortium for Accelerated Innovation and Insertion of Advanced Composites

Where Do We Go from Here?

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*Roadmapping Workshop
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“KAYAK”



CAIAC Program Deliverables

Two Outcomes Are Required from Our Planning Grant Effort:

- A complete and ready to implement technology transfer roadmap that clearly shows each composite technology readiness for transfer to key industrial markets and government
- An identifiable consortium organization that is ready to implement the CAIAC mission

An Effective Technology Roadmapping Approach: Meta-Roadmapping

- Meta-Roadmapping involves analysis of existing roadmaps, scientific publications and patents to derive useful information about the emerging technologies. Based on the result of this analysis, a meta-roadmap is developed in conjunction with experts' opinion.
- This approach differs from traditional roadmapping process in that it can provide an idea about the technology under study from different perspectives in a single meta-roadmap.

Four Phases of Meta-Roadmapping

Phase 1: Roadmaps Analysis

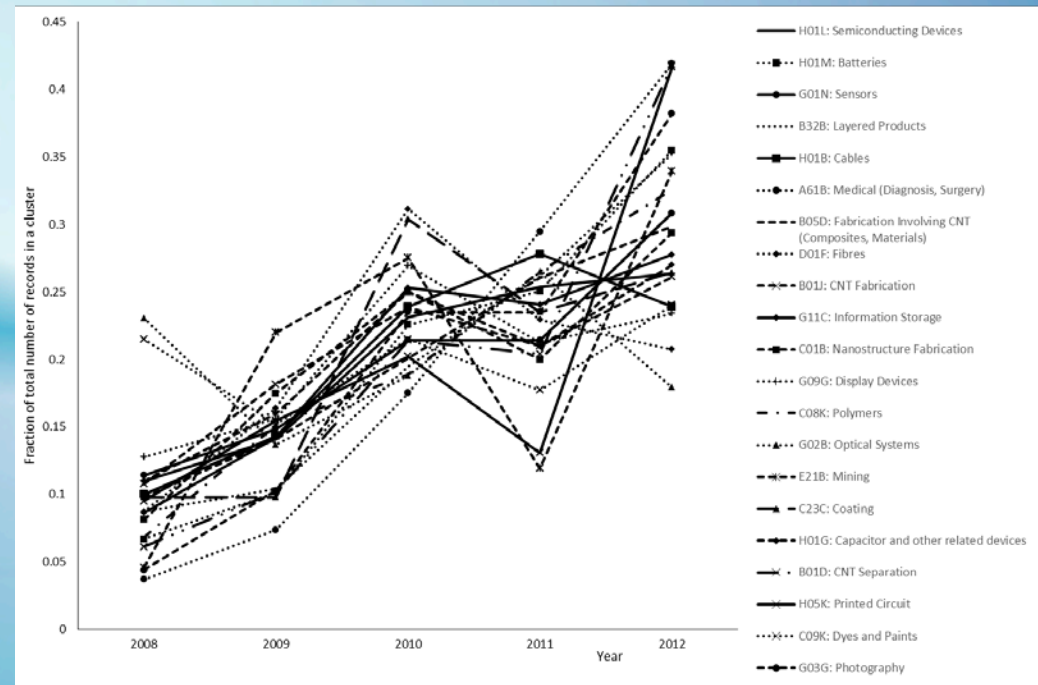
Phase 2: Publications Analysis

Phase 3: Patents Analysis

Phase 4: Triangulation

In Phase 4, results from Phases 1-3 are combined to define a list of emerging technologies to become a starting point for the development of meta-roadmap by subject experts.

Patents analysis for emerging technologies related to carbon nanotubes

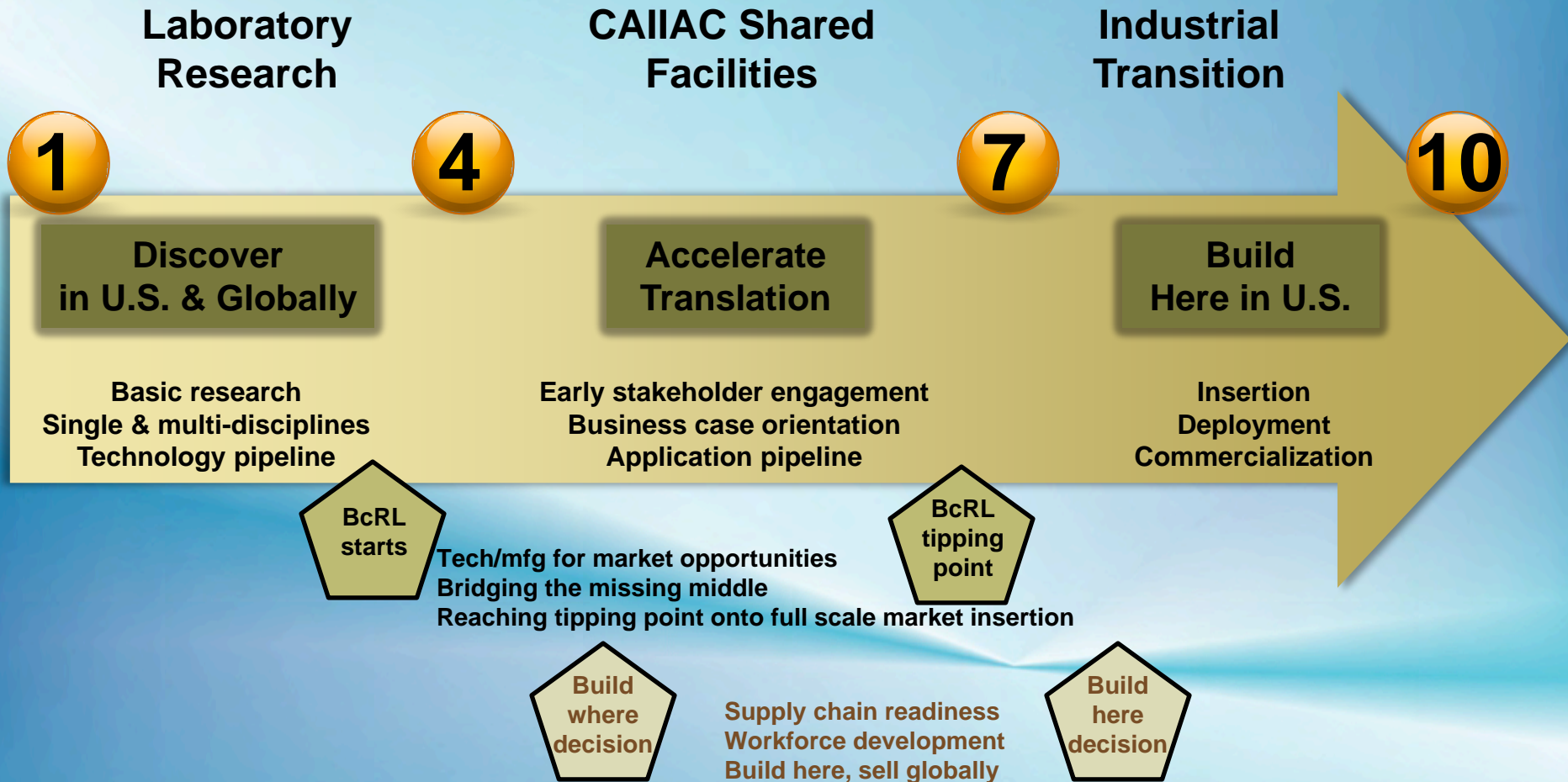


Grand Technical Challenges

Prioritized Based on Polling Key Leaders:

1. Standardized composite design and testing for faster and more affordable certifications
2. Scalable and reproducible out-of-autoclave processes and affordable tooling
3. Quick and reliable joining and repairs
4. Inclusion of nanomaterials for improved performance
5. Structural health monitoring of life cycle performance
6. Recycling and reuse of composites

CAIAC Technology Maturation Approach



xRL Readiness Maturity with Time



CAIAC Membership Activities

- Identified Key Potential Partners in the Composites Industry – Many are Here Today
- Established Database of Potential Partners
 - Highlights Composite Expertise
 - Identifies Market Segment Represented
 - Covers Technologists to Business Specialists
- Contact via F2F, Phone, Text and/or E-mail
- Two More Workshops Planned for 2015
- Preparation for NIST AMTech Phase II Award (Project-Based)

Summary

**Thank you all for participating in
CAIIAC Workshop I.**

**We look forward to your active
participation in the upcoming CAIIAC
activities and workshops.**