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Deliverable 4.1: 4C Program Incubation and Commercialization Best Practices Report

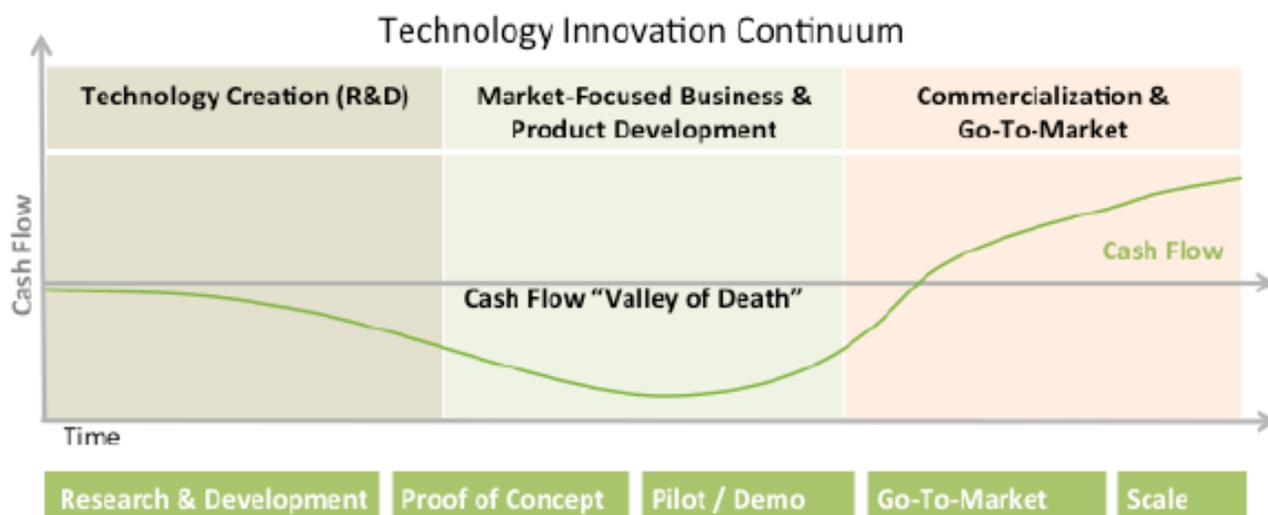
4C Program Incubation and Commercialization Best Practices Report

The purpose of this report is to build off the earlier 4C Program deliverable, *Commercialization Methodologies and Practices Document*, and articulate how the 4C Program members' individual commercialization best practices and methodologies will be integrated to create an impactful, statewide cleantech commercialization network under the Clean Energy Incubators Network grant.

As a reminder, the primary task of the 4C Program is to increase the commercialization rate of cleantech companies in California. Commercialization, broadly defined, is the innovation continuum of developing and introducing a new product or service into the market. For measurability, the 4C Program defines commercialization as encompassing a startup's: (a) preparation, (b) incubation, (c) commercial-scale pilot / demonstration, and (d) first customer.

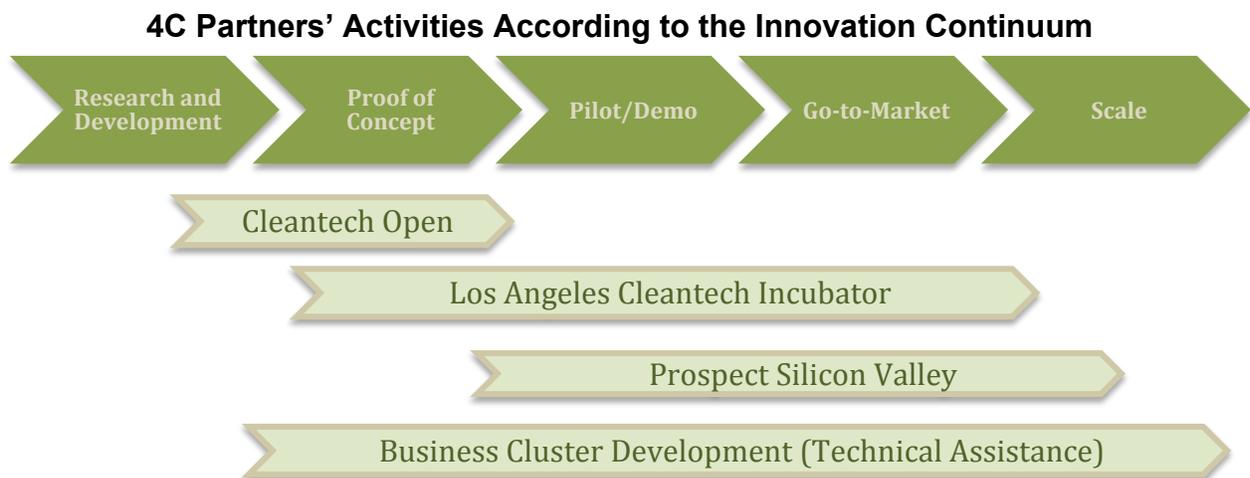
Mapping the 4C Program to the Innovation Continuum

After reviewing each 4C Program team members' approach to commercialization, the 4C Program team compared each 4C Member's program activities to the stages Technology Innovation Continuum (see diagram below) in order to identify opportunities for deeper inter-organizational collaboration, streamline startup company handoffs among 4C Partners, and build the broader cleantech ecosystem in California.





As explained in our earlier report, Clean Tech Open’s expertise lies in helping very early-stage start-ups refine their thinking and develop relationships to move their innovative clean technologies closer to market. The companies Cleantech Open works with are generally less mature than those suited for the Los Angeles Cleantech Incubator’s (LACI) incubation programs. Similarly, LACI incubation programs provide earlier stage business and financing assistance for cleantech startups than what is offered by Prospect Silicon Valley (ProspectSV), which focuses on commercial-scale demonstration programs, field trials, and early market assistance. Finally, the 4C team relies on a modified version of Business Cluster Development’s (BCD) original incubation program format, which has now been updated to include commercial scale pilot/demonstration stage companies, as the basis for the Coalition’s structure and general approach to reducing early stage companies’ commercialization hurdles. For a visual interpretation of how 4C Partners’ activities overlay the Innovation Continuum, please see the graphic below.



As noted in our NIICE application and again in our earlier reports, the 4C Partners have been informally supporting each other’s activities and the broader cleantech innovation ecosystem for years. After a thorough review of each organization’s activities in the context of building California’s cleantech ecosystem, the 4C Partners have developed a set of 4C Program activities that will capitalize on each 4C Partner’s strengths and reduce some of the friction early stage California cleantech companies experience getting their clean technologies out to the market.

4C Program Incubation and Commercialization Best Practices

After exchanging and comparing each 4C Partner’s pre-NIICE program objectives and



best practices, the 4C Partners discussed how to translate and leverage these learnings for the new 4C Program. Recognizing that operationalizing the 4C Program will take some time, the 4C Partners have prioritized the following activities and optimized them to become the 4C Best Practices for the 4C Program's first year of operation.

4C Best Practice: Frequent and Regular Communication

As mentioned earlier, all the 4C Partners knew each other before the NIICE grant opportunity, but communication was ad hoc and typically focused on a particular project or topic. Among the first tasks for the 4C Program was to assess each organization's structure and communication preferences and develop a set of regular structured interactions that gave each 4C Partner an opportunity to participate in the program's operations and shape the discussions. Core to the 4C Program's new communication structure are the 4C Program Monthly Teleconferences, which include agenda items such as individual organizational program updates, 4C event planning, and 4C Program implementation planning. In addition, each 4C Partner has designated a representative for the monthly meetings as well as a point person for specific tasks such as monitoring program metrics or inter-organizational company referrals. This has streamlined communication among the 4C Partners and will provide an organizational foundation for new 4C programming in the future.

4C Best Practice: Shared Documentation and Operational Processes

Once the communication methodology was settled, the 4C Partners discussed how to best operationalize the 4C Program to achieve the increased cleantech commercialization rates in California. Since Cleantech Open, LACI, and ProspectSV all function based on lean startup principles, each organization agreed to the least cumbersome and costly solution is to rely on Google Drive to host the company cross-referral tracker, the company commercialization status tracker, and the 4C company status tracker. For the upcoming 4C Transportation Challenge (see below for more information), 4C Partners will create additional outreach, recruiting, and participation trackers to follow promotional efforts and measure the pilot's success.

From a functional standpoint, the 4C Program has also allocated 4C Program functional roles to 4C Partner staff members. While LACI retains its core coordinating role, other tasks such as marketing, public relations, cleantech company recruitment, metrics tracking, and reporting are shared among the 4C Partners.

4C Best Practice: Streamlined Inter-Organizational Referral System for Companies

The ad hoc inter-organizational referral system previously used among 4C Partners facilitated only limited referrals. This was due not to a lack of commitment to refer early stage cleantech companies to other organizations, but resulted from constrained resources and infrequent communication. With the benefit of a deeper understanding of



each 4C Partner's programming and more frequent communication, we anticipate a much more efficient inter-Partner referral system. The referral system will be tested during the 4C Transportation Challenge to be piloted later this year. We anticipate adapting our referral processes over time as more companies advance through the Continuum.

4C Best Practice: Target Sub-Sectors to Build Awareness, Educate, and Expand Our Pipeline of Companies

While 4C Partners already have solid individual reputations in the cleantech sector, the broader cleantech community doesn't understand how the 4C Program works and its value. To address this, we have decided to pilot an annual competition that focuses on a specific sub-sector, starting with transportation, within the cleantech sector. The Transportation Challenge will be held later this year and, if successful, the program will be scaled up and applied to multiple sub-sectors every year.

The Transportation Challenge will have several goals:

- Create awareness of the 4C Program in the cleantech community
- Educate stakeholders about cleantech issues
- Build a pipeline of companies to participate in the 4C Program
- Foster conversation between 4C cleantech early stage companies and corporate/industry partners

The 4C Transportation Challenge comprises of two phases:

Phase 1: Development

The Development phase of the program will be led by Cleantech Open and will focus on business model development, customer discovery, and investor preparation. During this phase of the program, advisors from the Cleantech Open, participating OEMs, and suppliers will work with companies over the Summer of 2015 to refine their business models, channel strategies, investor pitches, and more. In Fall 2015, companies will:

- Present their businesses to a panel of judges
- Meet one-on-one with angels, family office, and corporate, strategic and VCs investors
- Showcase their solutions in a Transportation Showcase & Networking event.

At the Transportation Showcase & Networking event, the most promising among the participating companies will be invited to continue on into the Market Engagement program.

Phase 2: Market Engagement

The Market Engagement phase of the program, to be led by LACI and ProspectSV, will focus on securing pilot demonstrations, market trials, customers, and investment. To



achieve these goals, a customized engagement will be crafted for each participating company and will take advantage of the expertise, networks, facilities, and demonstration environments of LACI & ProspectSV.

If it works, Cleantech Open might role this out nationally and 4C Partners will expand into new sectors, likely the built environment and water.

Conclusion

During the first 4C Annual Best Practices meeting, all 4C Program Partners recognized that the strength of the 4C Program rests on each 4C Partner:

1. Focusing its daily operations on serving a different segment of the Innovation Continuum
2. Assisting early stage cleantech companies in different geographies
3. Supporting other 4C Partners to help commercialize clean technologies as quickly as possible

Therefore, much of this first year of the 4C Partnership will be spent structuring 4C Program administrative tasks, codifying the formerly ad hoc inter-agency referral and communication methods, piloting innovative methods to coax new clean technologies out of the academic setting and into the marketplace, and initiating new connections between 4C Partners and industry/corporations. 4C Program Partners will be tracking program commercialization rates and the outcomes from the Transportation Challenge pilot project and we anticipate adapting our strategies over the course of the year.