BUILDING ON A CULTURE OF VISION
This is an extraordinary project that requires an extraordinary approach.

Today is a Working Session.

We will provide an update on the progress, the process and perceptions that are leading to framing/putting boundaries on a direction for the rest of the project.
This is an extraordinary project that requires an extraordinary approach.

Today is a Working Session. We will provide an update on the progress, the process and perceptions that are leading to framing/putting boundaries on a direction for the rest of the project.

- Where we are
- What we’re finding out
  - Ecosystem Elements - Kevin
  - Innovators & Cultivators - Jetta
  - Area Demography and Real Estate Analysis - BAE
  - Site Analysis - JFAK
PROPOSED TIMELINE

PHASE 1
Determining the Current State of the Warm Springs Ecosystem
Duration: 1 Month
- IA: Kick-off Meeting
- 1B: Ecosystem Scan
- 1C: Real Estate Analysis
- 1D: Discovery Interviews
- 1E: Site Analysis

PHASE 2
Gap Analysis: Fremont Ecosystem
Duration: 1 Month
- 2A: Gap Analysis

PHASE 3
Programming
Duration: 1 Month
- 3A: Programming Content
- 3B: Space Use Planning
- 3C: Diagramming

PHASE 4
Concept Design
Duration: 1.5 Months
- 4A: Site Planning & Modeling
- 4B: Refine & Visualize Alternatives

PHASE 5
Cost Estimate, Financial Feasibility, Financing Options
Duration: 1 Month
- 5A: Construction Cost Estimate
- 5B: Financial Feasibility Analysis
- 5C: Financing Options
- 5D: Real Estate Strategy

PHASE 6
Final Presentation & Final Booklet
Duration: 5 Month
- 6A: Final Presentation
- 6B: Final Booklet

PH 1 Deliverable(s)
- Warm Springs Ecosystem Report
- Site Analysis Submission

PH 2 Deliverable(s)
- Gap Analysis Report

PH 3 Deliverable(s)
- Programming Report
- Programming Diagrams

PH 4 Deliverable(s)
- Concept Design Submittal including up to 60 Site Plan Options, with associated 3D Modeling Options and Renderings

PH 5 Deliverable(s)
- Cost Estimates
- Financial Feasibility Report
- Financing Report
- Real Estate Strategy Report

PH 6 Deliverable(s)
- Final Submittal including 11.7 x 17 Report and 11 x 17 Graphic Assets
- Final Digital Files

BUILDING ON A CULTURE OF VISION
Determining the Current State of the Warm Springs Ecosystem

- 1A: Kick-off Meeting
- 1B: Ecosystem Scan
- 1C: Real Estate Analysis
- 1D: Discovery Interviews
- 1E: Site Analysis

Deliverables:

- Warm Springs Ecosystem Report
- Site Analysis Submittal

Next Step:

- Agreed upon goals and objectives for the Warm Springs Innovation Campus (WSIC) to perform Phase 2 – Gap Analysis
Innovation districts constitute the ultimate mash-up of entrepreneurs and educational institutions, startups and schools, mixed-use development and medical innovations, bike-sharing and bankable investments—all connected by transit, powered by clean energy, wired for digital technology, and fueled by caffeine.

- Bruce Katz and Julie Wagner,
  *The Rise of Innovation Districts*
INNOVATION ECOSYSTEM MODEL

BUILDING ON A CULTURE OF VISION
Completed Interviews (59)

- Sources of Ideas – 9
- Innovation & Entrepreneur Support – 14
- Source of Funding – 7
- Stakeholder Engagement – 17
- Policy Support – 4
- World Market Connections – 2
- BAE Real Estate – 6
Ecosystem Element Comments

• Sources of Ideas – 16
• Innovation & Entrepreneur Support – 30
• Source of Funding – 19
• Stakeholder Engagement – 23
• Policy Support – 12
• World Market Connections – 9
Company Evolution Comments

• Genesis – 9
• Acceleration – 13
• Incubation – 11
• Growth – 15
• Expansion - 7
Industry Sector Comments

- Manufacturing – 32
- Cleantech – 9
- Biotech – 6
- Software – 13
- Social Value – 30
- Education – 30
- Other - 7
Caveats

- Respondent Bias
- Sample Bias
- Qualitative not Quantitative
Emerging Indications

• Three industry sectors emerging:
  • Manufacturing
  • Cleantech
  • Biotech

• Bay Area has great support for early stage companies. Later stage companies are not as well supported.

• Indications that social good might be a Fremont differential.

• Strong interest in CSUEB establishing a presence.

• No major gaps in the ecosystem.
Emerging Indications (cont.)

- Interest in building an iconic symbol for Fremont. Building height, traffic, parking all mentioned as issues.
- Housing and its related elements (cost, traffic, schools) mentioned.
- Event space and the programming to fill the space might be a something to start.
- Potential major gap in Fremont branding
- Fremont has a reputation as a bedroom community. The ‘cool’ factor needs proper prior planning.
Ecosystem Scan: Innovation Cultivators

29 November 2017
“Ecosystem comprising more than 3000 Silicon Valley firms had evolved to provide businesses with startup expertise. These venture capitalists, chip designers, glass blowers, fabrication houses, dye cutters, equipment suppliers, and specialized law, recruiting, and public relations firms were themselves entrepreneurial ventures. They helped launch a new generation of entrepreneurs many of whom built on the breakthroughs and precedents set by the troublemakers who had come before.”

– Leslie Berlin, *Troublemakers: Silicon Valley’s Coming of Age*
Ecosystem Scan: Innovation Cultivators

Methodology
1. Identified 50 relevant cultivators, active in the Bay Area (including Elemental from Hawaii), based on:
   • Definition and Innovation Cultivators identified in RFP
   • Organizations identified in interviews
   • Network of organizations known by LACI
2. Considered various dimensions of programming, site, focus, structure and other relevant dimensions identified in the Team LACI Ecosystem Framework
3. Analysis focused on identifying existing landscape of activities
4. Additional analysis will focus on some academic institutions and a deeper dive on specific Innovation Cultivators based on a narrowed scope of Innovation Center. (Phase 2)

Innovation cultivators are companies, organizations or groups that support the growth of individuals, firms and their ideas. They include incubators, accelerators, proof-of-concept centers, tech transfer offices, shared working spaces, community colleges and universities advancing specific skill sets for the innovation-driven economy.*

*Warm Springs Innovation Center Feasibility Study RFP #17-006
Did not include California Green Technology Center due to lack of information
Includes 6 co-working only spaces
<table>
<thead>
<tr>
<th>500Startups</th>
<th>Founders Space</th>
<th>QB3</th>
</tr>
</thead>
<tbody>
<tr>
<td>AngelPad</td>
<td>Gateway</td>
<td>River Ecosystems</td>
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<tr>
<td>Autodesk Pier 9</td>
<td>Hanhai</td>
<td>RocketSpace</td>
</tr>
<tr>
<td>Batchery</td>
<td>Hax</td>
<td>Second Workspace</td>
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<tr>
<td>BioCube</td>
<td>Highway 1</td>
<td>SF Made (Manufacturing Foundry at 150 Hooper)</td>
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<tr>
<td>Bolt</td>
<td>ImpactHub</td>
<td>Silicon Climate Accelerator</td>
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<td>BootUp</td>
<td>IndieBio</td>
<td>SkyDeck</td>
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<td>BriteLab</td>
<td>Kapor Center</td>
<td>StartX</td>
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<tr>
<td>CalCharge</td>
<td>Lemnos Labs</td>
<td>Sudo Room</td>
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<tr>
<td>Circuit Launch</td>
<td>Matter.</td>
<td>TechShop</td>
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<td>Citris at Foundry</td>
<td>Oakland Startup Network</td>
<td>The Cleantech Open</td>
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<tr>
<td>Critosphere Cowork Space</td>
<td>OtherLab</td>
<td>The Foundry</td>
</tr>
<tr>
<td>Cyclotron Road/Activate</td>
<td>Parisoma</td>
<td>Triple Ring Labs</td>
</tr>
<tr>
<td>Energy</td>
<td>Playground</td>
<td>WeWork</td>
</tr>
<tr>
<td>DevLabs</td>
<td>Plug and Play</td>
<td>Y Combinator</td>
</tr>
<tr>
<td>Elemental</td>
<td>Port Workspaces</td>
<td></td>
</tr>
<tr>
<td>Factory 510 at The Gate 510</td>
<td>Powerhouse</td>
<td></td>
</tr>
<tr>
<td>Flextronix Innovation Labs</td>
<td>Prospect Silicon Valley</td>
<td></td>
</tr>
</tbody>
</table>
Ecosystem Scan: Innovation Cultivators Locations
Ecosystem Scan: Innovation Cultivators Attributes

- Networking
- Training
- Accelerator
- Incubator
- Maker
- Co-Working
- Co-Located Facilities
- Event
- Hardware Only
- Software Only
Ecosystem Scan: Innovation Cultivators Maker Space Focus Areas

Number of focus areas:

- None: 11
- Electronics/Robotics: 2
- Energy: 2
- Life Science/Biomed: 4
- Science: 1
Ecosystem Scan: Innovation Cultivators Product Development
Stages of Maker Spaces

- Prototyping
- Manufacturing Scale Up
## Ecosystem Scan: Innovation Cultivators Energy Related

<table>
<thead>
<tr>
<th>Name</th>
<th>City</th>
<th>Networking</th>
<th>Training</th>
<th>Accelerator</th>
<th>Incubator</th>
<th>Maker</th>
<th>Co-working</th>
<th>Co-Located Facilities</th>
<th>Event</th>
<th>Hardware only</th>
<th>Software only</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclotron Road/Activate Energy</td>
<td>Berkeley</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Energy</td>
</tr>
<tr>
<td>Powerhouse</td>
<td>Oakland</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Energy</td>
</tr>
<tr>
<td>Prospect Silicon Valley</td>
<td>San Jose</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Energy, Smart Cities</td>
</tr>
<tr>
<td>Elemental</td>
<td>Hawaii, Palo Alto</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Energy, Water, Ag, Transportation</td>
</tr>
<tr>
<td>Silicon Climate Accelerator</td>
<td>SF</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Climate</td>
</tr>
<tr>
<td>CalCharge</td>
<td>Oakland</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Energy Storage</td>
</tr>
</tbody>
</table>

- **Networking**: Y (Yes), N (No)
- **Training**: Y (Yes), N (No)
- **Accelerator**: Y (Yes), N (No)
- **Incubator**: Y (Yes), N (No)
- **Maker**: Y (Yes), N (No)
- **Co-working**: Y (Yes), N (No)
- **Co-Located Facilities**: Y (Yes), N (No)
- **Event**: Y (Yes), N (No)
- **Hardware only**: Y (Yes), N (No)
- **Software only**: Y (Yes), N (No)
## Ecosystem Scan: Innovation Cultivators Bio-Related

<table>
<thead>
<tr>
<th>Name</th>
<th>City</th>
<th>Networking</th>
<th>Training</th>
<th>Accelerator</th>
<th>Incubator</th>
<th>Maker</th>
<th>Co-working</th>
<th>Co-located Facilities</th>
<th>Event</th>
<th>Hardware only</th>
<th>Software only</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Foundry</td>
<td>Redwood City</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Life Science/ Biomed</td>
</tr>
<tr>
<td>QB3</td>
<td>San Francisco</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Life Science/ Biotech/ Biomed</td>
</tr>
<tr>
<td>IndieBio</td>
<td>SF</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Life Science/ Biotech</td>
</tr>
<tr>
<td>BioCube</td>
<td>San Jose</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Life Science/ Biotech / Cleantech</td>
</tr>
</tbody>
</table>
Ecosystem Scan: Patent Data

29 November 2017
Methodology

1. Data was pulled from http://www.patentsview.org/web/ using the "Data query" method at the bottom of the page, this is the method by which data is currently organized by USPTO
2. CPC Section/Subsection is a method of classification used in patents, the definitions for these can be found at https://www.uspto.gov/web/patents/classification/cpc.html

Note: Tesla (307 patents for all years) and Apple (2138 patents for all years) not included in data, these patents assignee locations are Palo Alto and Cupertino respectively.
Ecosystem Scan: Patent Data All Patents w/ Assignee in Fremont
Ecosystem Scan: Patent Data All Patents w/ Assignee in Fremont

All Patents with Assignees in Fremont - 2007 to 2017
Ecosystem Scan: Patent Data

Distribution of patents per single Assignees

- Total number of Assignees
- Total number of Patents

Number of Patents Per Single Assignee

- 1: 165
- 2: 68
- 3-5: 75
- 6-10: 45
- 11-100: 57
- >100: 9

Total number of Assignees: 165
Total Number of Patents: 3000
Ecosystem Scan: Patent Data

H: Electricity
- Largest categories: Semiconductor Devices, Electric Solid State Devices and Electrical Discharge Tubes or Discharge Lamps
- Smaller categories of note are Telephonic Communication and Processes or Means eg. Batteries, for the Direct Conversion of Chemical into Electrical Energy

G: Physics
- Largest categories Information Storage Based on Relative Movement Between Record Carrier and Transducer, Electrical Digital Data Processing
- Other categories of note are Optical Medium Elements, Optical to Electrical or Magnetic Elements Measuring Electrical/Magnetic Variables Information Storage/Static Stores
Ecosystem Scan: Patent Data

Patents by section of small assignees (<=2 patents) from 2007-17

- A: Human Necessities
- B: Performing Operations, Transporting
- C: Chemistry; Metallurgy
- F: Mechanical Engineering; Lighting; Heating; Weapons; Blasting
- G: Physics
- H: Electricity
- None

Patents by section of large assignees (>100 patents) from 2007-17

- A: Human Necessities
- B: Performing Operations, Transporting
- C: Chemistry; Metallurgy
- F: Mechanical Engineering; Lighting; Heating; Weapons; Blasting
- G: Physics
- H: Electricity
- None
Summary

• No Innovation Cultivators in Fremont (only two co-working spaces)
• Most Innovation Cultivators do not have a specific focus area and there are only 6 that focus on energy and 4 that focus on bio-related activities, yet the patent data shows that there are patents in both of these areas, with companies that have fewer patents having more in the Human Necessities category (i.e. bio-related)
• There are 20 organizations with some kind of Maker Space, but most of these spaces are focused on earlier stage prototyping activities with only three focused on manufacturing scale up.
• Most patents are held by a few companies with hundreds of patents (likely large companies).
• The profile of patents held by companies with fewer (likely smaller companies) patents reflects the same sector breakdown as patents held by companies with hundreds of patents.
• Patents in Fremont reflect the sector of some of the largest companies in the city (i.e. semi-conductors, and memory storage devices). Some bio-related patents.

Takeaway
Opportunity for innovation cultivator to focus on energy and bio-related (likely bio-medical equipment) startups that already have a prototype but need to fund a way to manufacture and scale up their products.
Area Demography and Real Estate Analysis
Site Analysis
site location
site location
environmental conditions
Local climate

**Precipitation (inches)**

- 16.2 inches of annual rainfall
- 40 precipitation days per year

**Wind speed (mph)**

**Relative humidity**

**Ideal comfort zone**

**Comfort zone**

**Air temperature (°F)**

- Comfort zone
- Average high
- Average low
context + site adjacencies
Planning Areas
Planning areas define the locations and boundaries of various land-use zones and interests within the Warm Springs / South Forest District based on proximity to transit, existing use, and the desired type(s) of development at that location (Fig. 2.2 Planning Areas and Land Use Mix Plan). The Planning Areas are as follows:

1. Warm Springs Boulevard
2. Old Warm Springs Boulevard north
3. Old Warm Springs Boulevard south
4. Innovation Way
5. Loop Court
6. Southwestern
7.高新技术研究
8. SMART area
9. Warm Springs Boulevard east
10. Warm Springs Court

Land Use Mix
The Land Use Mix establishes the desired combination of land uses within each Planning Area. A wide variety of land uses are allowed to support the goal of creating an employment-based, mixed-use district.

- Mix A: Industrial and Research & Development
  This mixed-industry job-related uses, Mix A provides an optimal setting for the ongoing process of advanced manufacturing, research, and product testing and experimental production.

- Mix B: Industrial, Research & Development, Office & Convention, Hotel and Retail & Entertainment
  A combination of low and high intensity jobs-related uses, Mix B establishes an innovation zone where productive, research, administrative, and the sharing of new discoveries can merge and evolve. An amenity and service uses are included in Mix B to support and enhance the functioning of this mix.

- Mix C: Research & Development, Office & Convention, Hotel, Retail & Entertainment and Residential
  A combination of the highest intensity jobs-related uses, residential, and community oriented uses, Mix C is a mixed-use environment where people are encouraged to live, work, shop, play, study, and learn.

- Mix D: Hotel, Retail & Entertainment, Residential
  Mix D establishes mixed-use, transit-oriented residential neighborhoods that offer high quality living environments.
masterplan + zoning

ZONING LEGEND

- URBAN RESIDENTIAL
- URBAN MIXED USE
- SUBAREA 44A OF WSI DISTRICT
- SCHOOL
- INDUSTRIAL
- URBAN CORRIDOR

SITE

SOUTH GRIMMER BOULEVARD
PUBLIC PARK
LONG CIRCLE
INDUSTRIAL DRIVE
INNOCATION WAY
WARM SPRINGS BART STATION

Site Analysis | Context and Site Adjacencies

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site circulation
3D context model
massing + zoning

4 STORY
EL +48'-0"

GROUND
EL +40'-0"

12 STORY
EL +144'-0"

20 STORY
EL +240'-0"

- COMMON SPACE - 18,000 SF
- MIXED USE - 50,000 SF
- VEHICLE PARKING - 54,000 SF
  126 SPACES

- COMMON SPACE - 18,000 SF
- MIXED USE - 200,000 SF
- VEHICLE PARKING - 100,000 SF
  240 SPACES

- COMMON SPACE - 18,000 SF
- MIXED USE - 350,000 SF
- VEHICLE PARKING - 190,000 SF
  410 SPACES

* PARKING RATIO:
  COMMON SPACE - 1 SPACE / 500 SF
  MIXED USE - 1 SPACE / 1000 SF
massing + zoning

LEVEL 7 TO 20
MIXED USE - 350,000 SF
MAKER SPACE, RESEARCH CENTER, OFFICE, CONVENTION.

LEVEL 3 TO 6
PARKING - 100,000 SF
210 PARKING SPACES

LEVEL 1 & 2
COMMON SPACE - 18,000 SF
CONVENING SPACE, OPEN TO THE PLAZA.

BASEMENT 1 TO 5
PARKING - 90,000 SF
200 PARKING SPACES

LEVEL 1 & 2 - CONVENING SPACE STUDY

INSIDE
PLAZA
INSIDE
PLAZA

AUTO PARKING PROVIDED
TOTAL 410 SPACES
42 SPACES/LEVEL

PROGRAM LEGEND
- RETAIL
- COMMON SPACE - 10,000 SF
- MIXED USE - 350,000 SF
- VEHICLE PARKING - 190,000 SF, 410 SPACES
parking + access

- COMMON SPACE - 18,000 SF
- MIXED USE - 350,000 SF
- VEHICLE PARKING - 390,000 SF
  - 410 SPACES
site adjacencies

- 20 STORY EL +260'-0''
- MIXED USE
- PARKING AREA W/ GREEN WALL COVERED
- COMMON SPACE OPEN TO THE PLAZA
- GROUND EL+0'-0''
- UNDERGROUND PARKING AREA
- BART STATION
- NEW PLAZA
- NEW PEDESTRIAN BRIDGE CONNECTS STATION TO NEW PLAZA
site adjacencies