VertueLab is a climate impact accelerator
Investment Geography

Past

Future
VertueLab partners with funders and innovators in clean technologies to make a global environmental impact. Through focused programs and funding opportunities, we advance promising technologies to market and help innovators find the resources they need to move their vision forward.
How We Accelerate Climate Solutions

Holistic Assessment
- Evaluate team & technology quality
- Forecast potential for climate impact
- Evaluate business potential
- Assess diversity, equity, & inclusion
- Identify how VertueLab can help

Long-Term Support
- Mentorship/Coaching
- Cascadia CleanTech Accelerator
- SBIR Grantwriting Assistance
- Connections to other Capital (Government & Private sources)

Specialized Capital
- Informed by expertise
- Patient
- Risk-tolerant
- Impact before returns
Climate change is the challenge of our time
The good news is that the solutions are known. Research tells us new technology is needed.
The global seed and pre-seed stage investment needed for climate solutions by 2050

$14.38 billion
State of Climate Impact Funding

Climate change solutions are vastly underfunded in both investment and philanthropy initiatives.


Solution: Catalytic capital fills gaps through an approach that accepts disproportionate risk and/or concessionary returns.
Catalytic Investments

Catalytic capital is investment capital that is patient, risk-tolerant, concessionary, and flexible in ways that differ from conventional investment.

“No longer an idealistic niche, impact investing is becoming a dynamic, diverse market, brimming with optimism and confidence.”

DEBRA SCHWARTZ, MACARTHUR FOUNDATION
VertueLab’s Theory of Change

1. We focus on climate impact via regional innovators, and on the capital gap they face.
2. Our focused mission attracts catalytic capital to our programs and fund.
3. We invest in the funding and support companies need to accelerate.
5. Companies grow and create positive impact that we can measure.

- Traditional capital is attracted to invest.
- No GHG emissions.
- Job creation.
- Clean water.
- Circular economy.
- Prosperity for all.
Without more **catalytic capital** available, critical technology solutions that can **reverse climate change** will never have a chance.
Grid-scale redox flow battery with all-iron electrolyte chemistry
- Company founded in 2011
- DOE Research grant in 2013 — **VertueLab provided catalytic matching grant**
- First units sold in 2015
- $13 million raised in Series B in 2018
- Expanded into 100k square feet manufacturing space
- Entered global markets
- $30 million raised in Series C in 2019
opconnect
Electric Vehicle Charging System

Accelerating the adoption of electric vehicles by transforming the vehicle charging experience

• Company founded in 2012
• VertueLab funding for testing (2016)
• VL funded mentorship with Entrepreneur-in-Residence (2017)
• Early demonstration project with Hawaiian Electric (HECO)
• Focus on 3 key markets:
  • Multi-family residential
  • Workplaces
  • Fleets
• Go-to-market partnership with Clipper Creek
Three-wheeled electric vehicle

- Company founded in 2007
- VertueLab provided funding for early prototype in 2015
- Raised $19 million in 2017 via Regulation A IPO
- Shipped Signature Series and Beta Series in 2018
- Built manufacturing plant in Eugene
- Production units began shipping in September 2019
Mass-customized thermal window inserts

- Company founded in 2010
- VL introduced research partner at Portland State Univ for first proof of concept tests in 2010
- VL provided funding for field testing in 2012
- VL funded intern to create a GIS tool for strategic market identification
- Raised over $5 in follow-on funding
- Product installed in thousands of homes in the US and Canada, saving homeowners an average of 20% on their home energy bills

“VertueLab’s funding essentially catapulted us into the next phase of our growth; they helped guide our national expansion through their strategic support.” - Sam Pardue
VertueLab was the first in the nation to apply catalytic capital to cleantech innovations and has pioneered a proven model for climate change innovation acceleration.
Cleantech and Job Creation
Manufacturing:
Cleantech creates white collar jobs (science & tech) and blue collar jobs (making hard goods)
- 40% of VertueLab companies are actively manufacturing and shipping

Rural Jobs:
Cleantech jobs are geographically distributed and they improve the rural/urban economic balance
- Over 50% of VertueLab’s manufacturing companies are outside the Portland Metro region

Sources: Brookings Institution, UC Berkeley Labor Center, NRDC, Institute for Policy Studies
Diversity, Equity, and Inclusion
Diversity, Equity, and Inclusion (DEI)

U.S. Population

- White Men: 31%
- White Women: 31%
- Non-White Men: 19%
- Non-White Women: 19%

Source: U.S. Census, 2019
Diversity, Equity, and Inclusion (DEI)

Seeking to ensure that the new, clean economy increases prosperity for all, DEI is central to our success:

- Minority populations are **DISPROPORTIONATELY IMPACTED** by climate change
- **DISCOVER OPPORTUNITIES** missed by mainstream investors – avoid overlooking 69% of the population
- **BETTER COMPANIES** with reduced risk
- **MORAL IMPERATIVE** to have strong ESG positioning across our portfolio
- **DIVERSE TEAMS PERFORM BETTER** - DEI within VertueLab will make us better
- Our prospective **FUNDERS** share this priority

Source: U.S. Census, 2019
Available Levers

People
- Hiring and educating staff
- Board recruitment
- Vendor selection
- Interns placed with investees

Policies & Processes
- How we assess startups
- Influencing investees’ policies
- Cultivating an inclusive culture

Public Face
- Transparency in goals & progress
- Educating investors we work with
- Showing up
- Hosting themed events
- Speaker selection
Improving DEI in Our Portfolio

- Female Founders
  - Society at Large
  - In Technology
  - Our Portfolio

- Founders of Color
  - Society at Large
  - In Technology
  - Our Portfolio
Improving Access to Capital for Underserved Populations

Share of VC to Women:
- Society at Large
- All Startups
- Our Portfolio

Share of VC to Minorities:
- Society at Large
- All Startups
- Our Portfolio

Sources: Harvard Business Review, TechCrunch
Investment Criteria

- **Climate Impact Potential**: The company’s product will deliver significant impact in achieving VertueLab’s climate impact objectives if it reaches commercial scale.

- **Commercial Success Potential**: The company currently has the necessary ingredients for achieving commercial success or, by virtue of participating in VertueLab programs, it is believed that the company can acquire the needed ingredients for commercial success.

- **Additionality**: The company qualifies for a program-related investment as it is unable or unlikely to attract private capital investments at its current stage of development or private capital will not invest without intervention by VertueLab.
Climate Impact Fund I Team

**Investment Committee**
*Selection of investments*

- **Kirk Washington**
  Cleatech Investor & VirtueLab Board Chair

- **Ken Vaughn**
  Fund Manager & VirtueLab Director of Impact Investments

- **Abigail Sarmac**
  Impact Investing Consultant

- **David Kenney**
  VirtueLab Executive Director

- **Jeff Canin**
  Cleatech Investor & E8 Fund Manager

**Advisory Committee**
*Advising on fund strategy and investments*

- **Allison Shaw**
  E8 Angels

- **Jim Huston**
  Portland Seed Fund

- **Jon Maroney**
  Oregon Venture Fund

- **Juan Barraza**
  Portland State University

- **Karin Berardo**
  ABREN

- **Katherine Fox**
  Americh Massena

- **Marilyn Waite**
  Hewlett Foundation

- **Marc Manley**
  Willamette Valley Capital
VertueLab Leverages its Expanding Network

Our Connections

Regional universities
National laboratories
Incubator/accelerators
National peers
Downstream investors

VertueLab partners with an established network of innovation centers & downstream investors
Regulation & Innovation Are Connected

**Figure 8.** US patenting activity in sulfur dioxide removal technologies, 1880-2000 (Source: Taylor, et al., 2005)
Demonstration Projects

Tech Development and Demonstration are key paths to impact in cleantech:

Cleantech venture capital investors prefer the funding of technology demonstration projects over all other forms of direct public policy interventions.

Why?

Proving performance potential = reduced technology risk
Testing business model strategies in real market settings = reduced business risk

Actions to take:

• Incubatenergy Labs Challenges, via EPRI (Electrification 2020 conference)
• Incentivize utility innovation and new tech demonstration projects

Source: Burer and Wustenhagen
APPENDIX & ADDITIONAL INFORMATION
City of Portland Clean Energy Community Benefits Fund

- Oregon's first-ever environmental initiative created and led by communities of color
- Funded sustainably through a 1% surcharge on the retail sales of large retailers within Portland - $50-70M annually
- The Fund will finance programs such as:
Holistic Assessment Tool

When we first meet a company, VertueLab assesses companies for their strengths and weaknesses along key indicators of success.

Once VertueLab accepts a company into our program, we commit the resources best suited to help them mature along each of the key indicators and become a well-rounded company.