



A Clean Economy – Path to Our Region's Future

Milestone #4

November 30, 2016

School for International Training, Brattleboro, VT



Welcome & Introduction

Bethaney LaClair- Co-chair of International Action
Team

World Learning Chief of Staff, Corporate Secretary, and Executive
Director for Office of the President and Board of Trustees



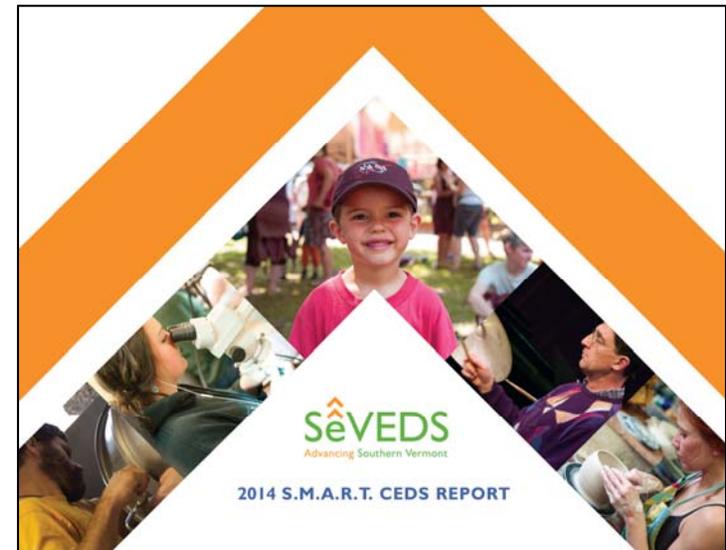
Milestone #3 Agenda

- I. Welcome & Introduction
- II. Celebrating Conclusion of Phase One
- III. Meeting Objectives
- IV. Lightning-Round Presentation of Business Opportunities
- V. Plan for Phase Two
- VI. Statement from the Leadership Team
- VII. Network and Celebration



Celebrating the Conclusion of Phase One

Laura Sibilis, BDCC





Meeting Objectives

1. Give a synopsis of what has been accomplished so far
2. Describe Ecovation Hub organization for the long term, implementation underway and a resourcing plan
3. Show how all key stakeholders will engage with the Ecovation Hub going forward
4. Expand regional participation and recruit new champions



Business Opportunities: Lightning-Round Presentation

Candace Pearson, BuildingGreen



Projects with Champions

Projects That Are Self-Advancing

Business Opportunities without
Champions (yet)



Projects with Champions

FIRE	International	Research, Product & Services	Knowledge Center	Regenerative Agriculture and AgroForestry
Merchant Bank/CDFI	Foreign Trade Zone	LEAN Retrofit	Education & Training Consortia	Agriculture & Solar Arrays
Insurance		Resilient Design Advisor	Living Community Challenge	Medicinal Herbs
Appraisers		Cross Laminated Timbers		Hazelnuts & Chestnuts
		Wool Insulation		Mushrooms
		Green Rural Development		Agro-Tourism
				AgroForestry Services and Courses
				Hemp in Building Materials



LEAN Energy Retrofit

Project Team Leader: Taryn Fisher, Antioch University New England



Value Proposition

Projects with Champions

Homeowner

What motivates the homeowner?

- Reduced operating cost
- Increased home value
- Increased comfort
- Reduced GHG emissions

What motivates the funder?

- Less energy capacity required
- Increased home value
- Reduced GHG emissions
- Increased ROI of investment
- Project Management

“Connector”

Certified Energy Coach
Building Science Expert
Building Systems Approach
Conductor / Traffic Cop
Start-to-Finish Hand-Holder
Project Manager

Funders:

Lenders
Insurance Firms
Utilities
Government

Contractors:

Insulation
Windows / Doors
HVAC

What motivates the contractor?

- Increased revenue-generation
- Efficient project design and products



Resilient Design Advisor (RDA)

Project Team Leaders: Michael Knapp and Sierra Dickey,
Green River



SCREEN 1

CAMPUS RECOMMENDATIONS

Do Now

-  Begin planning a CHP plant to provide islandable electricity (since such a project would be long-term).
-  Add low-e storm windows to improve thermal passive survivability.
-  Modify field house so that it can serve as an emergency shelter

Do Later

-  Landscape berms to protect main university quad from flooding
-  Organize bussing plan for future evacuation needs
-  Put a key card room access system on a power-over-Ethernet system that can be supported by uninterruptible power supply



Foreign Trade Zone

Project Team Leader: Stephen Dotson



Foreign Trade Zone (FTZ) tool: in the process of being re-established under updated regulations from the federal government, this should be available to the Ecovation Hub in the foreseeable future and will create more opportunities than are currently possible for our action group.





Cross Laminated Timber (CLT)

Project Team Leader: Andrew Dey, Unity Homes



CLT Manufacturing



Projects with Champions



Wool Insulation

Project Leader: David Ritchie, Green Mountain Spinnery
Alex Wilson, Leadership Chair



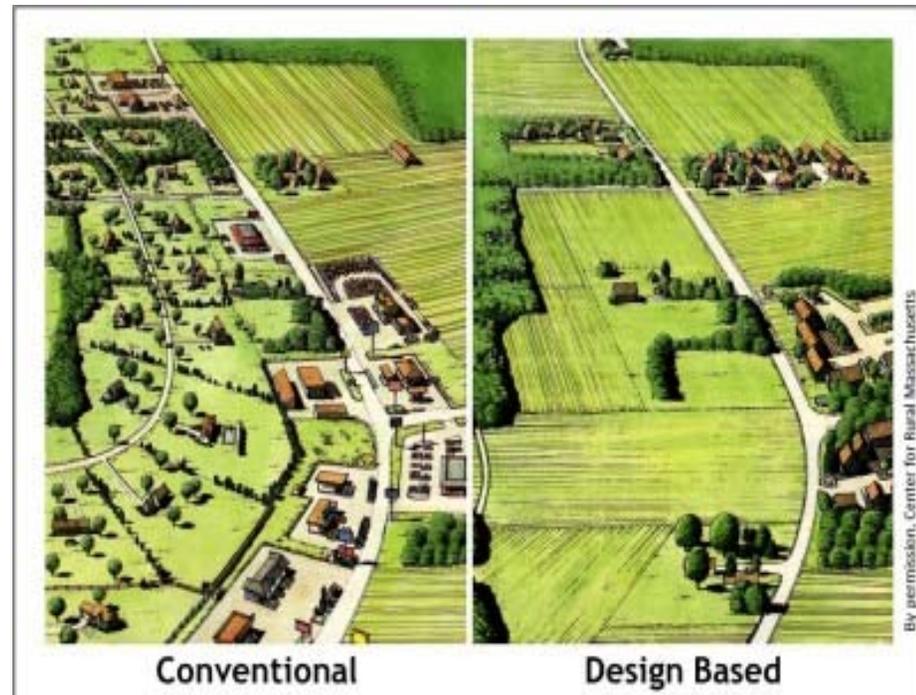


Green Rural Development

Project Team Leader: Keith Dewey, Dewey and Associates



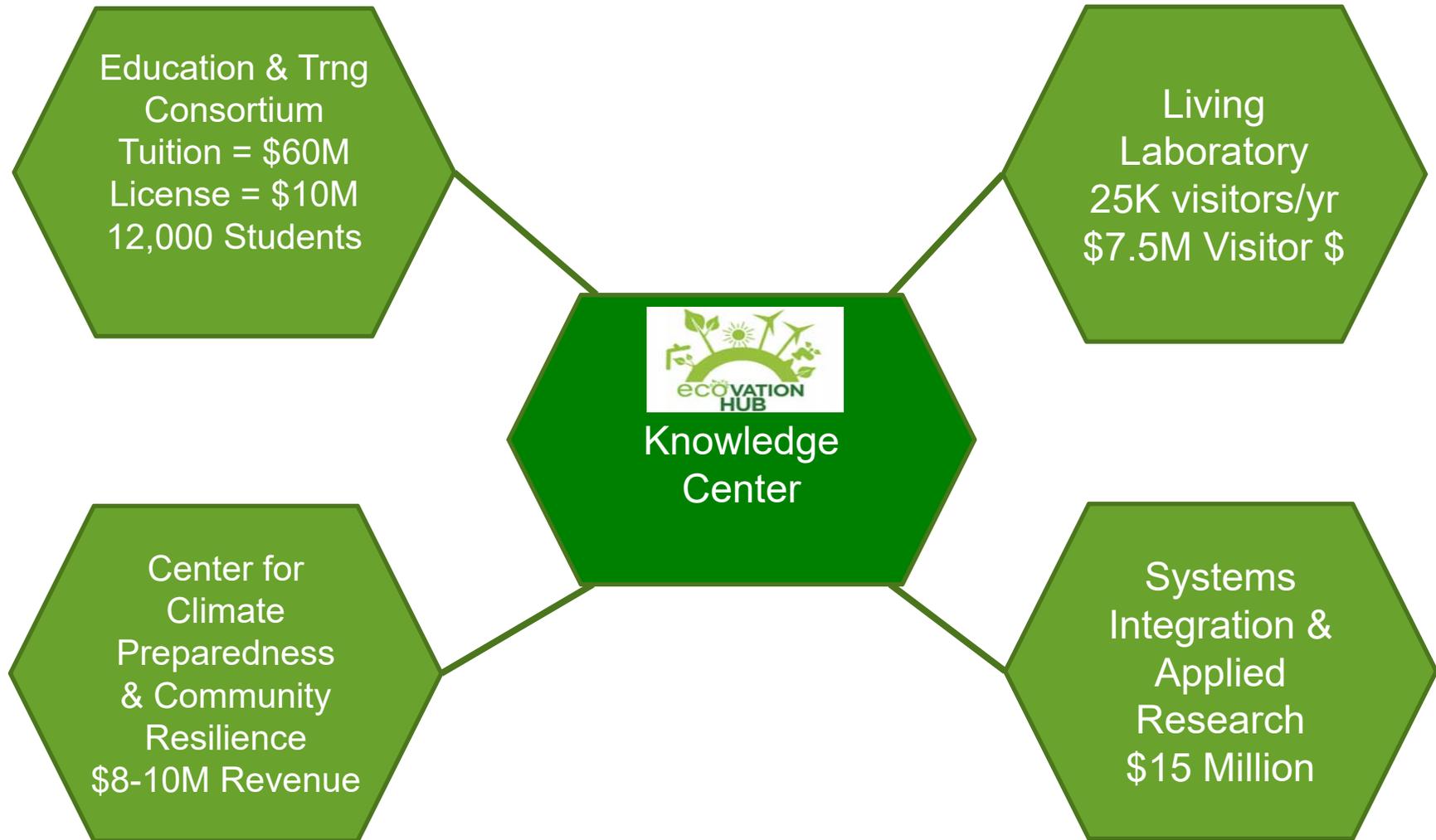
The design and construction of a prototype ultra-green rural residential development within the GEIH region of Vermont or New Hampshire which provides attractive, durable, efficient, environmentally friendly, self-sufficient and affordable residential housing in a comfortable rural setting, but also offers shared commercial, industrial, agricultural, transportation, educational, recreational and community facilities which extend convenience, holistic expense savings and opportunities in those facets of life far beyond just owning a home.





Education and Training Consortia

Project Team Leader: Abigail Abrash Walton, Antioch
University New England



Community Scale Knowledge Engine for Region, Nation and the Globe



Living Community Challenge

Project Team Leader: Susan McMahon and Candace Pearson



Projects with Champions

LIVING COMMUNITY CHALLENGESM 1.0

A Visionary Path to a
Regenerative Future



INTERNATIONAL
LIVING FUTURE
INSTITUTE™



Regenerative Agriculture and Agroforestry Projects

Project Team Leader: Tad Montgomery, Tad Montgomery and Associates



Implementation and Sustainability Plan

Medicinal Herbs

Project Leader: Gino Palmer



Projects with Champions



Hazelnuts, Chestnuts

Project Leader: Daniel Hartigan



Projects with Champions



Mushrooms

Project Leader: Tad Montgomery





Agriculture & Solar Arrays

Project Leader: Tatiana Schreiber

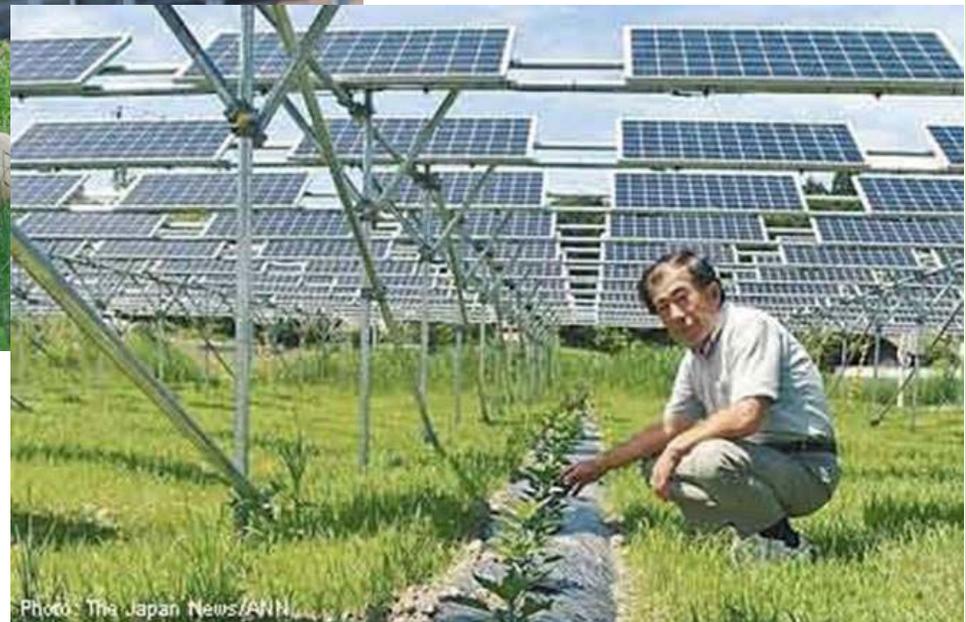


Photo: The Japan News/ANN



Agro-Tourism

Project Leader: Daniel Hartigan

Projects with Champions





AgroForestry Services and Courses

Project Leader: Tad Montgomery

Projects with Champions





Hemp in Building Materials

Project Leader: Emily Peyton



Projects with Champions



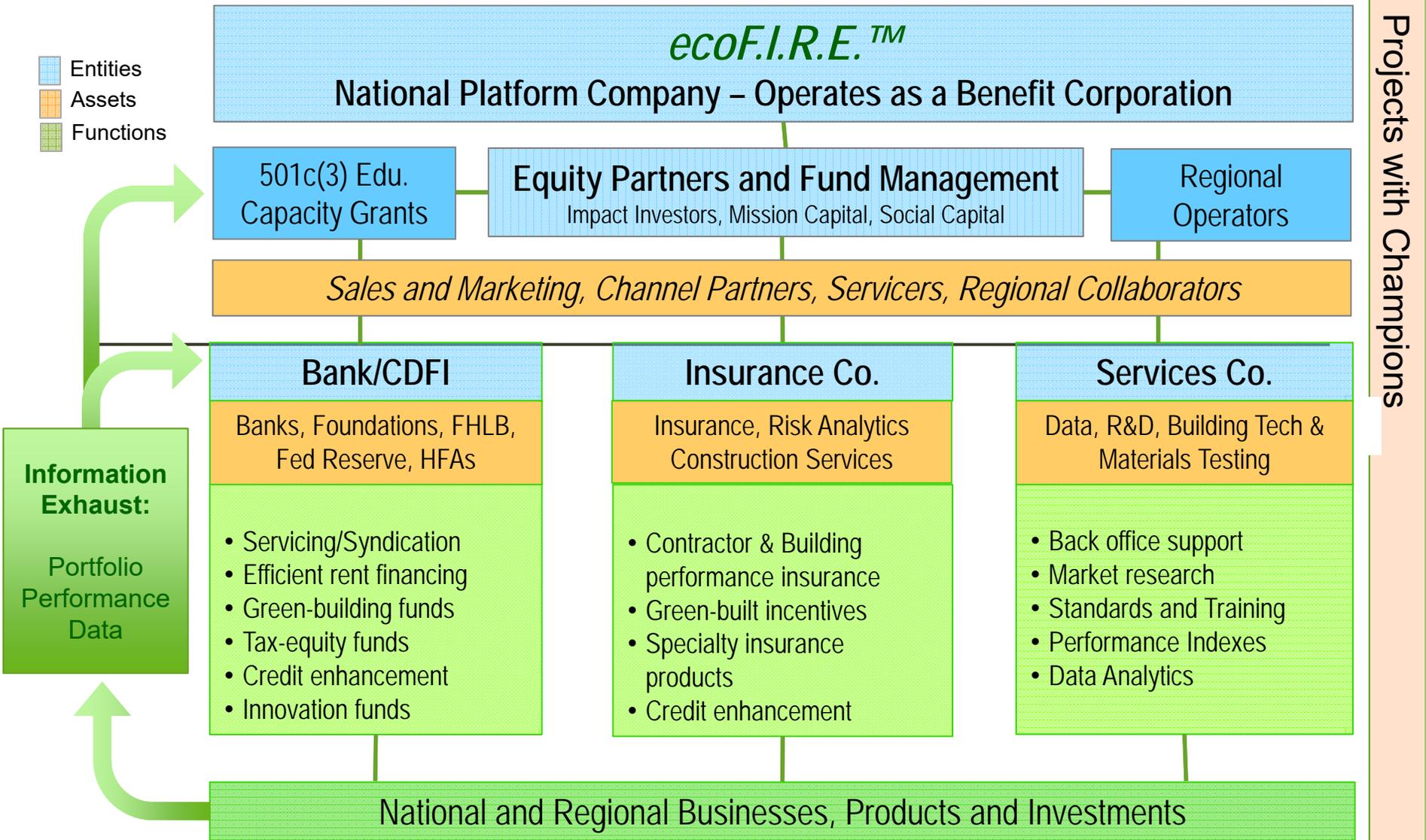
ecoF.I.R.E.

Dan Yates

Kevin Warner

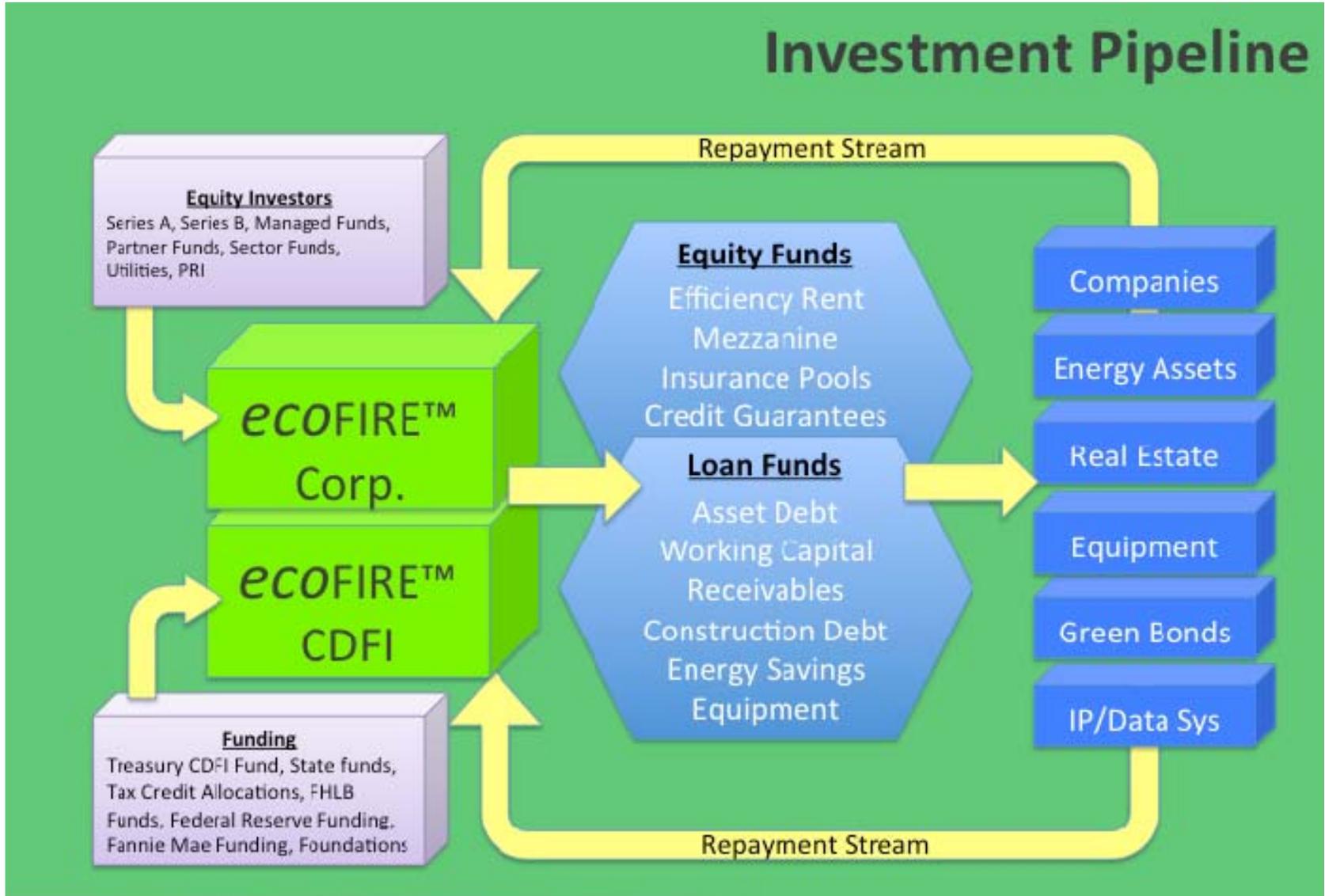
ecoF.I.R.E.TM

Catalyzing finance, insurance and real estate for the clean economy.





Investment Pipeline





Projects that Are Self-Advancing

FIRE	International	Research, Product & Services	Knowledge Center	Regenerative Agriculture and AgroForestry
		Rich Earth Institute	Center for Climate Preparedness and Community Resilience (Expansion)	Food Connects
		Biomass Energy Systems	Retreat Farm	



Rich Earth Institute

Project Leader: Kim Nace and Abraham Noe-Hays



Fertilizer from Urine Clean Rivers, Sustainable Farms



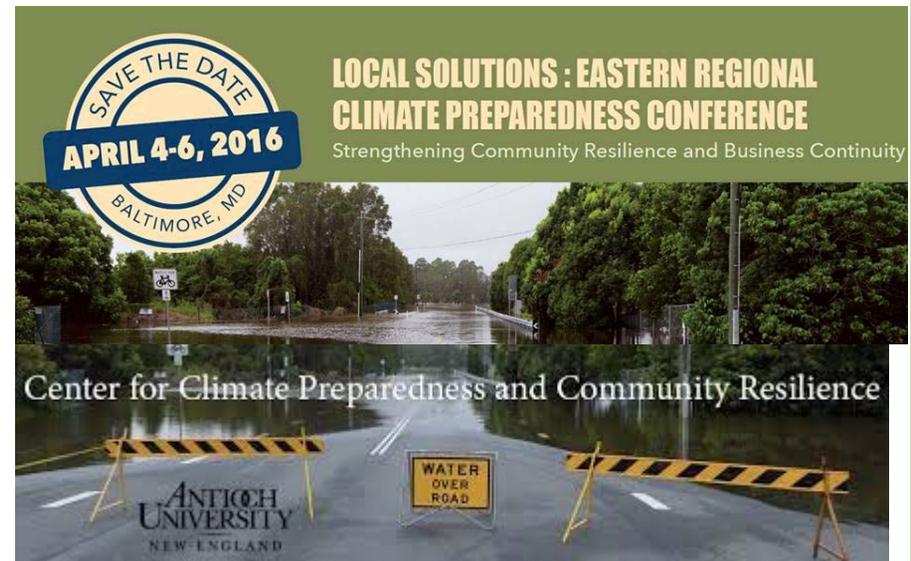
Biomass Energy Systems



Projects that are Self-Advancing



Center for Climate Preparedness Expansion



Projects that are Self-Advancing



Retreat Farm



Projects that are Self-Advancing



Food Connects



Projects that are Self-Advancing



Projects without Champions

FIRE	International	Research, Product & Services	Knowledge Center	Regenerative Agriculture and AgroForestry
	Natural Building and Affordable Housing	HVAC	Systems Integration and Applied Virtual Research Center	Wildlife Habitat Enhancement
	Green Bridge	Community Level Resilience Planning	Demonstration Living Lab	Small Farm Tool & Equipment Sales
	Green Gap	Wood-fiber Insulation	Environmental Service Corps	
		Standardized retrofit auditing tool		
		Vacuum Insulated Doors		
		Vermont Data Center		



A Clean Economy – Path to Our Region's Future

Governance Recommendations

VITAL Economy Alliance

Frank Knott - fknott@vitaleconomy.com

Jim Haguewood – jim@onegroupconsulting.com



How is the Ecovation Hub organized?

The Ecovation Hub is organized around two distinct but integrated components; a strategic framework platform and an operational model. It functions as a non-profit member based association or cooperative for the Green Goods and Services (GGS) sector of the regional economy.

The **strategic framework** defines the separate but integrated platforms that generate the community and economic outcomes of a high performing regional industry cluster. Each platform plays a specific role within the Ecovation Hub, but share asset and implementation relationships with other platforms.

The **operational model** defines how the Ecovation Hub is organized to implement its strategy and research as well as opportunities developed by the action teams as well as connect GGS assets and build collaboration across the region.



Vision

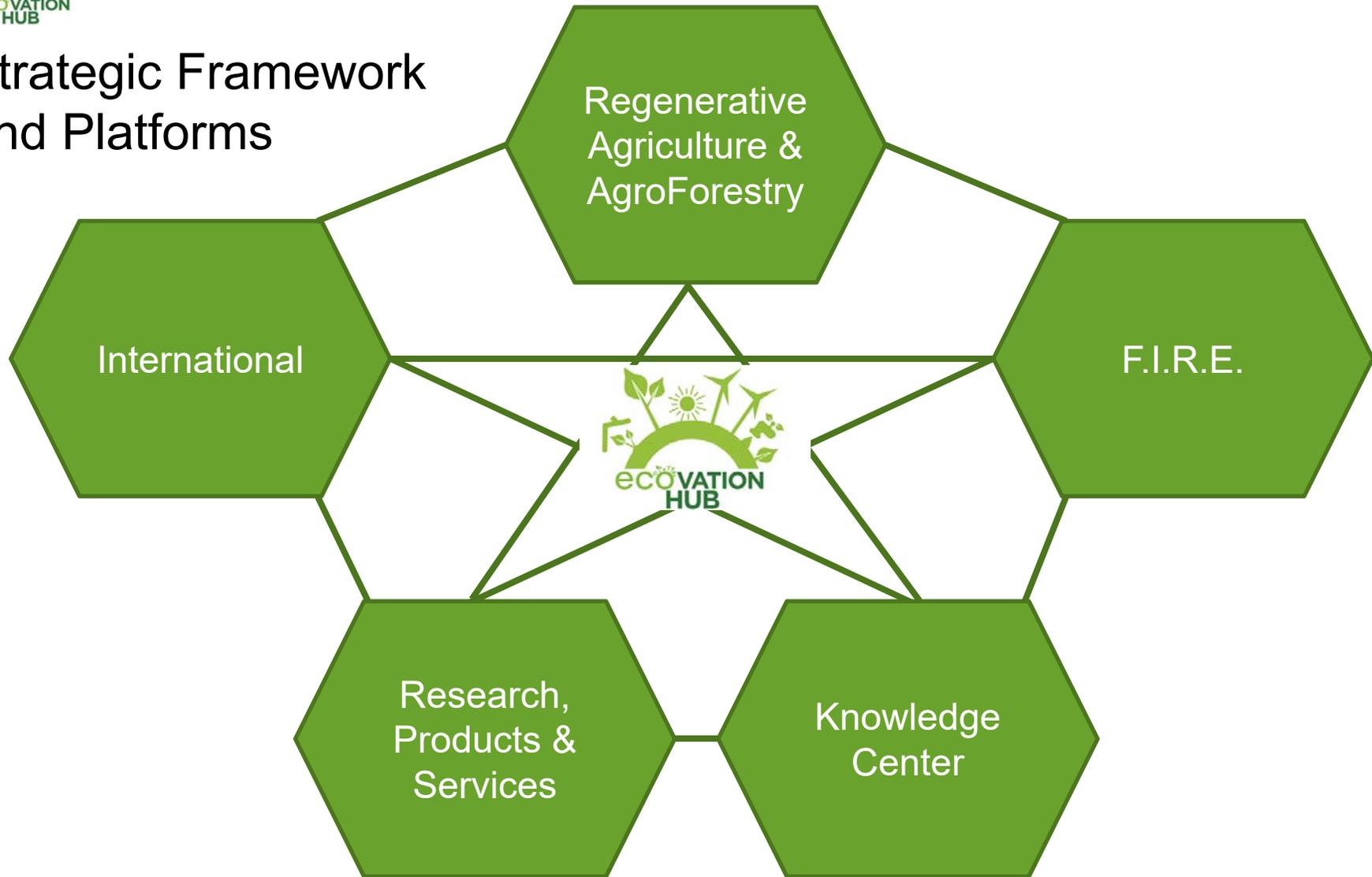
Become a recognized national leader in creating resilient, sustainable buildings and communities

Mission

To build a hub of sustainability and resilience that acts as an incubator, accelerator, and engine of economic growth in balance with our resources



Strategic Framework and Platforms



Each of the platforms has an Action Team that convenes interested stakeholders, empowers work groups on attractive opportunities and is a launch point for new ideas and innovations. Networking within each of the platforms is key to information exchange and ignition of new opportunities.

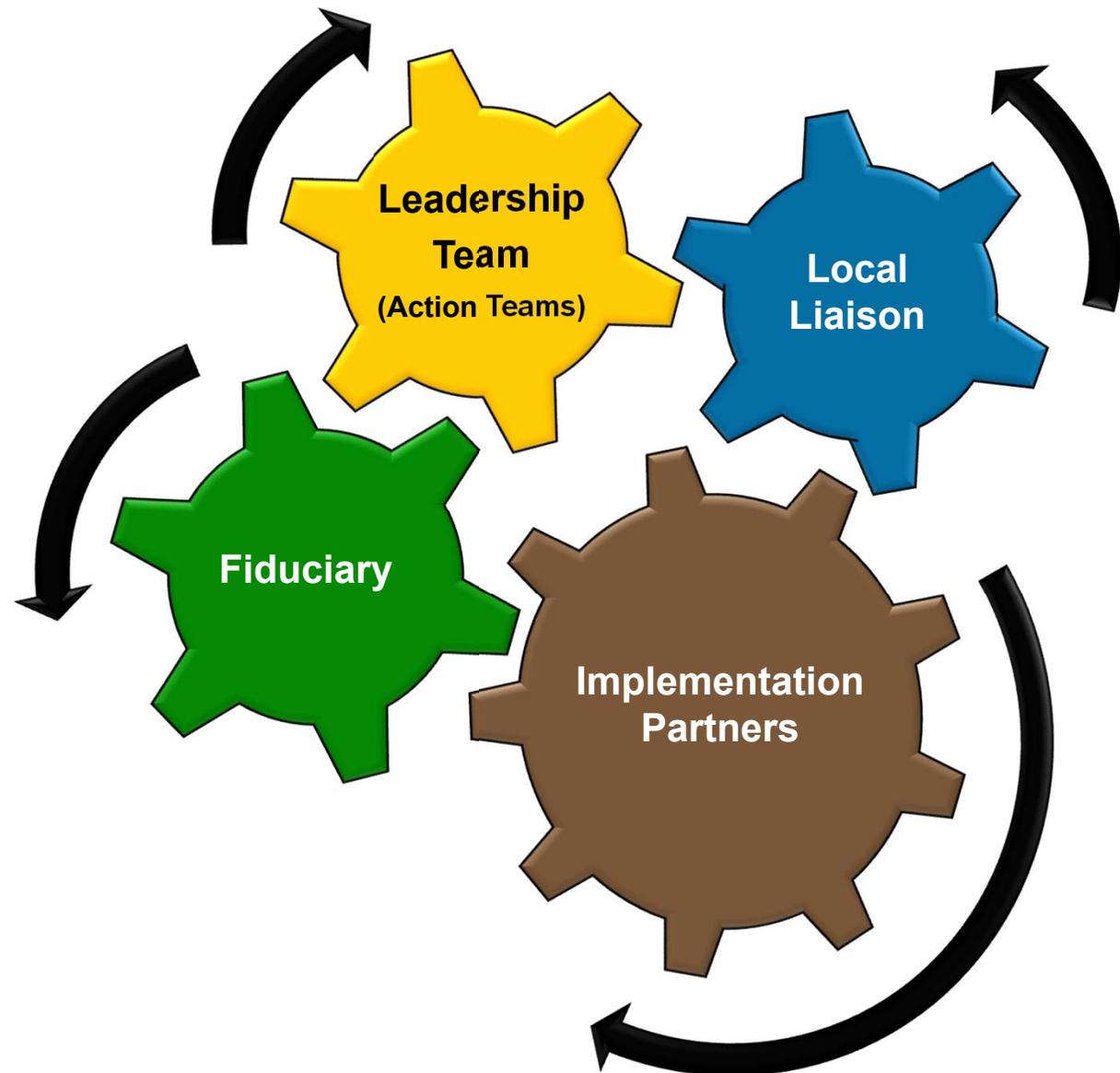
Operational Model

The operational model for the Ecovation Hub has four interdependent components. It is based upon a “form follows function” lean design.

Roles and responsibilities of each component functions are defined in the following slides.

This color coded gear graphic depicts each of the four components as connected to each other.

The separate but interlocking nature of the components provides energy and momentum to the overall operation of the Ecovation Hub.





Action Teams have representation on and a direct connection to the Leadership Team. Strong and visionary leadership is important for the Leadership Team and each Action Team.

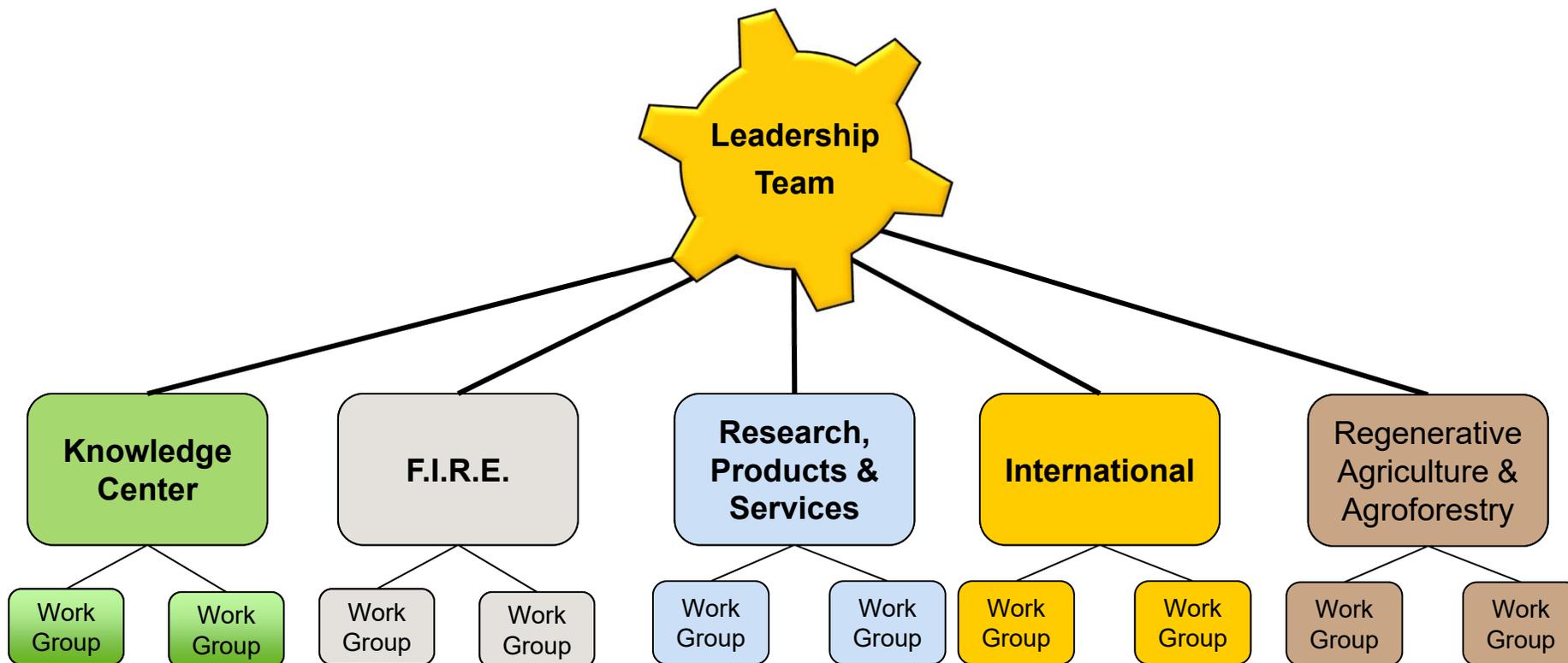
Primary Leadership Roles and Responsibilities

- Chief catalyst, convener, marketer and champion of and for the Green Economy Innovation Sector for the region.
- Recruits and evaluates the performance of implementation partners, staff, fiduciary and liaisons responsible for implementation of the Ecovation Hub strategy.
- Coordinates work of priority platform action teams that continue to identify and connect unique regional assets to develop new opportunities for GGS innovation and growth.
- Raises and allocates short and long-term funds necessary to support implementation of each segment of the Ecovation Hub strategy and staff operations of the Ecovation Hub
- Responsible for annual evaluation, modification and updates to the rolling 5-year Ecovation Hub, budget, strategy, S.M.A.R.T. goals and performance of staff
- Hires and evaluates performance of Executive Director

The Hub may contract for professional, technical and administrative expertise and support services to fulfill these responsibilities

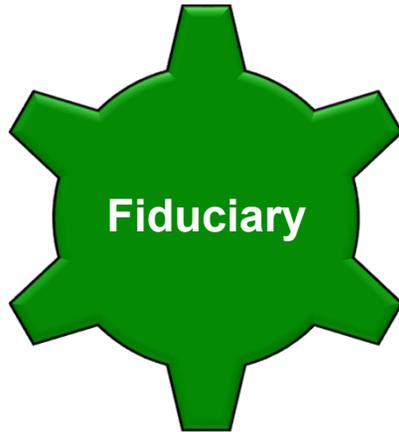


Ecovation Hub Leadership and Action Team Structure



Action Teams – Convene regional industry leaders and expertise on each strategic platform topic area and report regularly to the Leadership Team. Action teams launch and coordinate work groups to develop opportunities to be considered for implementation.

Work Groups – Refine and develop specific business opportunities that have been prioritized by the Action Team. They are empowered like a “taskforce” to complete an Action Plan Template including opportunity value and implementation responsibility and timeline.



Fiduciary Roles and Responsibilities

- Accounting and Financial Reporting
- Grant Development, Writing, Administration, Audit and Reporting
- Depository and Treasury Functions
- Human Resource Management and Payroll
- Information Technology and Collaboration Tools
- Office and Meeting Spaces
- Miscellaneous Back Office Support Functions

Ecovation Hub will contract in the short-term for services with an existing 501c3 organization to establish initial fiduciary roles and responsibilities until internal capacity is developed.



5 primary areas of strategic focus:

- Knowledge Center
- F.I.R.E.
- Research, Products & Services
- International
- Regenerative Agriculture and Agro-Forestry

Implementation Roles and Responsibilities

- Each of the five strategic focus areas will have a lead implementation partner(s) responsible for achievement of specific objectives, including work plan design, resource identification and allocation and reporting of progress.
- Implementation partners will enter into memorandums of understanding that clarify objectives, reporting, use of resources and performance assessment.
- Initial implementation partners may be launched immediately such as ecoFIRE™ and Education & Training Consortia which will be responsible for implementing fully developed work plans.
- The regional Innovation Ecosystem should have primary responsibility for igniting and supporting the growth of EcoVation Hub™ prioritized innovation and entrepreneurship growth opportunities.



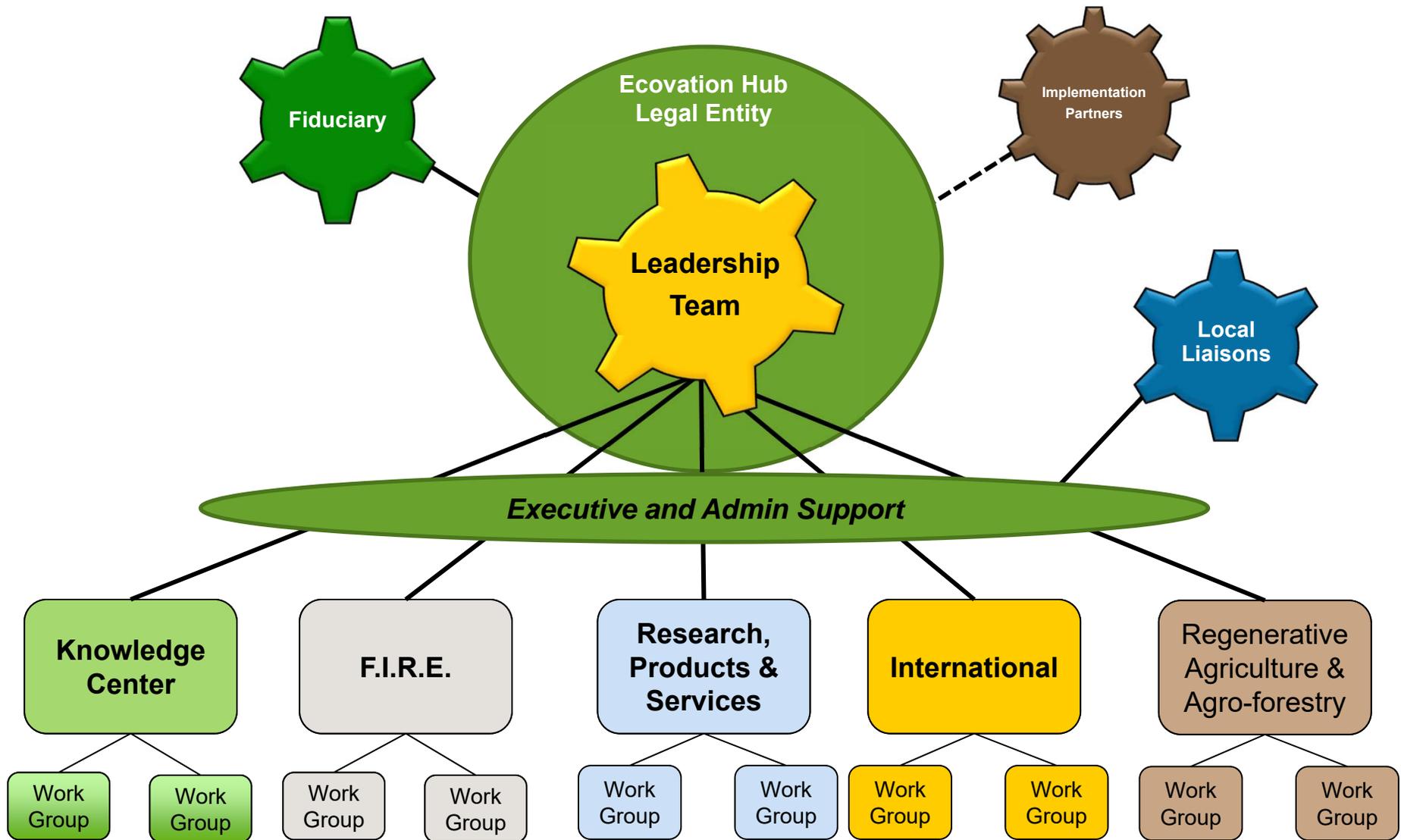
Local Liaison Roles and Responsibilities

- Champion Ecovation Hub interests and priorities to the county, town and local leaders, private and non-profit sectors.
- Facilitate continuous identification, recruitment and connection of GGS assets, expertise and resources within the county and into the Ecovation Hub.
- Work with Ecovation Hub Executive Director to connect local resources for participation with leadership team, action teams, opportunity work groups and implementation partners,
- Assist Ecovation Hub Executive Director to coordinate resources for meetings, events and other activities.
- Collaborate with Ecovation Hub leaders to develop local S.M.A.R.T. goals that achieve balanced GGS growth in each county that is in concert with Ecovation Hub S.M.A.R.T. goals.

Local liaisons will possess extensive community connections, GGS sector knowledge and a reputation of regional collaboration, networking and leadership.



EcoVation Hub Organization Model





Leadership Team Design

The Ecovation Hub Leadership Team is representative of the regional Green Goods and Services industry sector and supplemented with specialty expertise to achieve the vision and goals.

- ✓ **Five representatives of the priority platforms**, FIRE, Knowledge Center, Research, Products and Services, International and Regenerative Agriculture and Agro-Forestry
- ✓ **Three representatives from three economic regions**• recommended to the Advisory Board/Leadership team by representatives of each region, which are directly involved in Economic and Workforce development, Regional Planning, Municipal Administration and/or Business Promotion (i.e. Chambers of Commerce). •Monadnock Region NH, Upper Pioneer Valley MA and Southern Vermont
- ✓ Up to **three additional at large members** selected by the Advisory Board, who represent the strategic interests of the GGS sector across the region, but may have expertise that crosses over the specific interests of more than one of the five priority focus platforms.
- ✓ **Two elected officers that are independent of the members described above**. This will be the Chair and Co-Chair of the Advisory Board. A person can be elected from any of the members serving as members above. If this occurs, then the Board of Advisors would have to appoint a new representative to the Advisory Board for the vacancy that resulted from the election of officers.
- ✓ The Leadership Team should total a maximum of 13 members.
- ✓ The Leadership Team should meet a minimum of six times per year

Leadership Team Terms:

Members will serve for a period of 2 years. Officers can only serve two consecutive terms, but can be re-elected as an officer after a one term absence from the Advisory Board.



Ecovation Hub Relationship to Others in the Region



The Ecovation Hub is a priority initiative within existing community economic development entities, like....

- Federal Comprehensive Economic Development (CEDS) Strategies
- Regional Planning Commissions
- Local/Regional Economic Development Organizations
- Private Sector Companies and Entrepreneurs
- Education and Workforce Development
- Chambers of Commerce
- Non-Profits related to each platforms

Ecovation Hub™ is part of a long-term regional community economic development strategy (CEDS). It is a priority driver of a new regional economic growth engine...the Green Goods and Services Sector



How will we fund the Ecovation Hub?

Ecovation Hub core operations will achieve financial sustainability by 2020

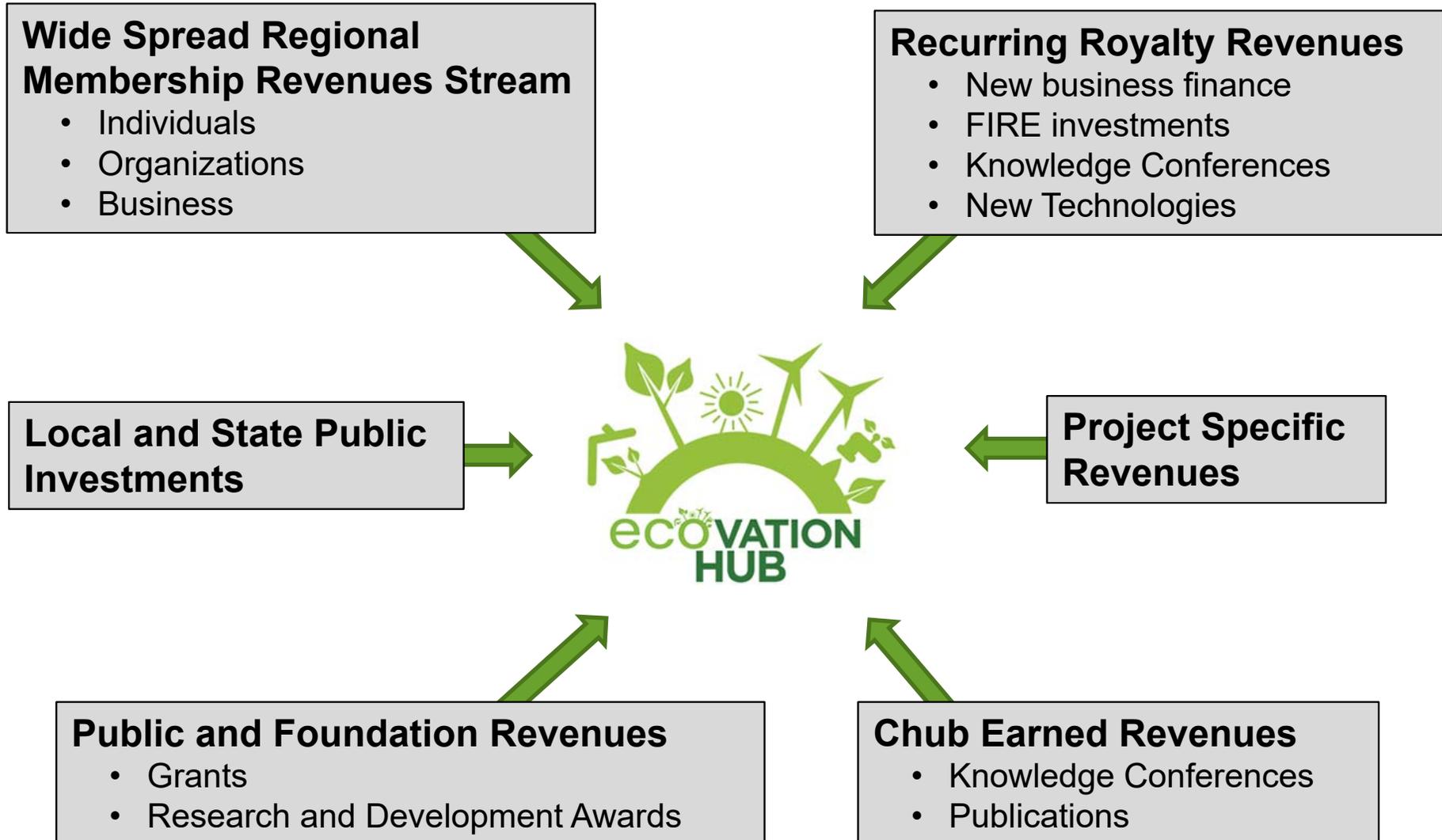
Ecovation Hub is a member based enterprise, which is collaboratively funded by philanthropic, corporate and public grants

Funding for core operations will be separate from funding for launch of new business opportunities researched and prioritized by Action Teams

EcoFIRE™ will provide fund development for Ecovation Hub opportunities



EcoVation Hub Collaborative Funding Model





Ecovation Hub™ Operating Budget⁴	2017	2018	2019	2020
Source of Funds				
Regional Memberships	\$50,000	\$75,000	\$90,000	\$100,000
Private & Corporate Philanthropy	\$100,000	\$150,000	\$150,000	\$150,000
State & Local Public	\$100,000	\$100,000	\$75,000	\$75,000
Federal	\$0	\$100,000	\$100,000	\$50,000
National ESG and Regional Foundation	\$150,000	\$100,000	\$125,000	\$150,000
Earned Revenue	\$0	\$0	\$25,000	\$50,000
Royalty Revenue	\$0	\$0	\$50,000	\$75,000
Source of Funds Total	\$400,000	\$525,000	\$615,000	\$650,000
Use of Funds				
Executive Director	\$50,000 ¹	\$100,000 ³	\$110,000	\$120,000
Administration	\$25,000 ¹	\$50,000 ³	\$55,000	\$60,000
Local Liaisons	\$100,000 ²	\$120,000 ¹	\$170,000 ³	\$180,000 ³
Fiduciary & Treasury	\$25,000	\$40,000	\$40,000	\$40,000
Leadership/Project Coaching/Cluster Support	\$75,000	\$75,000	\$75,000	\$75,000
Fund Development/Grant Writing	\$25,000 ⁵	\$40,000 ⁵	\$40,000 ⁵	\$40,000 ⁵
Marketing and Communication	\$40,000	\$40,000	\$60,000	\$60,000
Use of Funds Total	\$340,000	\$465,000	\$550,000	\$575,000
Accumulated Reserve Funds	\$60,000	\$120,000	\$185,000	\$260,000

1: 50% FTE – Assumed to be an outsourced service on a monthly retainer basis

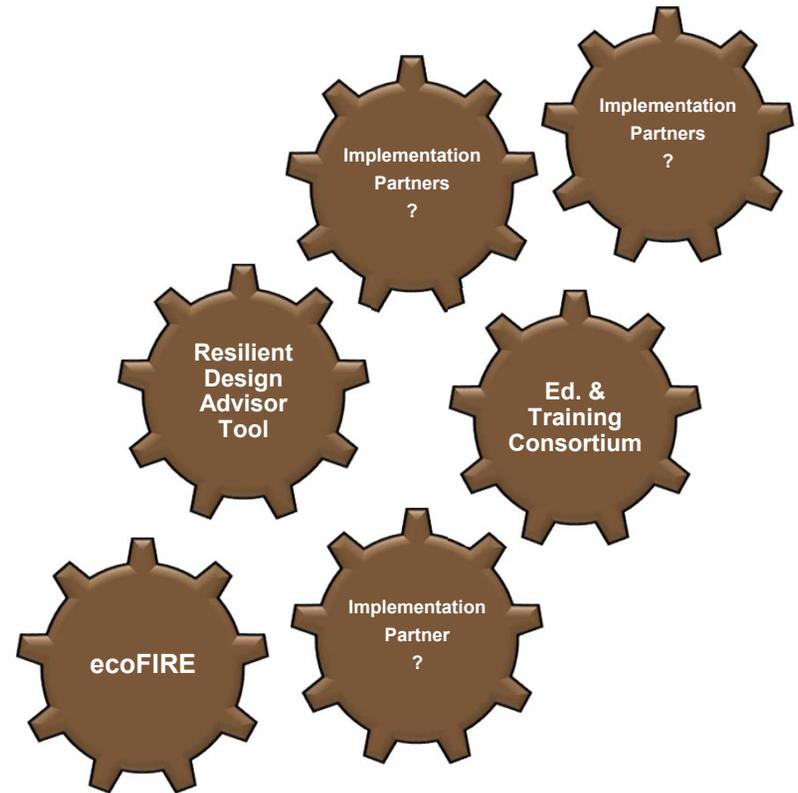
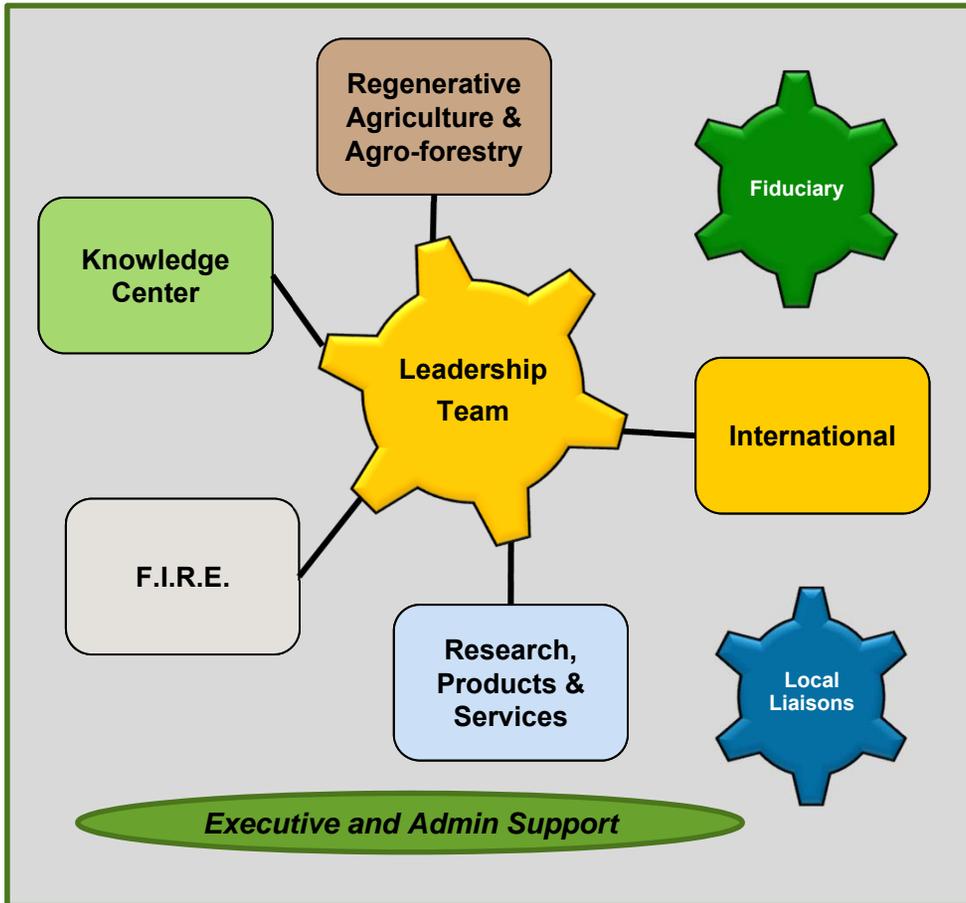
2: \$25,000 per liaison, 33% FTE, positions filled by in-kind resources or local investment as financial capacity is available

3: Full FTE – Will ultimately move from contracted resources to employees of Hub

4: Operations Budget Does Not Include Fund Development for Implementation Partners (i.e. ecoFiIRE™, Ed&Trng Consortia, Resilient Design Advisor Tool, etc.)

5: Provides fund development and grant writing support for Ecovation Hub as well as to Implementation Partner led business opportunities in collaboration with EcoFiIRE™

Action Teams and Implementation Partners Funding Plan



The Leadership and Action Teams and supporting functions will be funded and tracked within the EcoVation Hub operational budget.

The implementation function and partners will be funded separately from the Evocation Operating Budget. Funding will be from a variety of sources and the responsibility of the lead entity.



Short Term Transition Plan

Alex Wilson, Leadership Team Chair



Timeline





3-Month Transition Work Plan Priorities

- EcoFIRE and Education and Training Consortium is moving to implementation
- Recruit and select long term leadership team
- Short term funding plan to put transition team in place
- Establish a fundraising workgroup to secure long term funding
- Small team implements the approved governance plan
 - Fiduciary for back office support and depository
 - Formalizing relationships with implementation partners
 - Formalizing relationship with local liaisons
 - Support continued function of project teams



What Can You Do?

- Suggest people for new leadership team
- Join existing workgroups
- Work on fund development team or provide suggestions for funding sources
- Tell us your thoughts about a membership organization



Statement from the Leadership Team

Michael Knapp, Green River



Let's Celebrate!

Bethaney LaClair