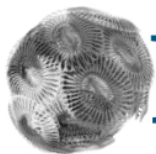# Proposal for an Algal Industry Cluster in Maine

Willie Wilson, Ph.D.

Director

The Provasoli-Guillard National Center for Marine Algae and Microbiota (NCMA)
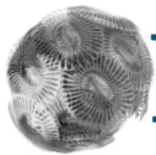
Bigelow Laboratory for Ocean Sciences

NCMA
National Center for Marine Algae and Microbiota

Est. 1981

A biological resource that drives one of the great engines of planetary control.

NCMA: A Snapshot

- The world's largest and most diverse living archive of marine microalgae.

- 35 years in the algae business.

- Started as a algal seed stock for the aquaculture industry.

- A repository for public and private collections of algae.

- 2720 strains of marine, brackish, hypersaline and freshwater algae; including cyanobacteria and macroalgae.

- 359 genera and 723 species.

- 17 products available for every strain.

- 5 growth temperatures (polar to tropical).

- On-site & off-site back-up and cryopreservation.

- Expansion to include new Bacteria and Virus collections.

- Federal, Industry and Bigelow support.

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Proposal for an Algal Industry Cluster in Maine

VISION

To create a complete algal supply chain; from seed cultures to biomass infrastructure, processing, testing, and development of market opportunities; that will allow us to lay a foundation to stimulate algal economic development, and make Maine one of the top states in the U.S. to run an algal-based business. It will be a process driven by innovation, education, collaboration, and branding.
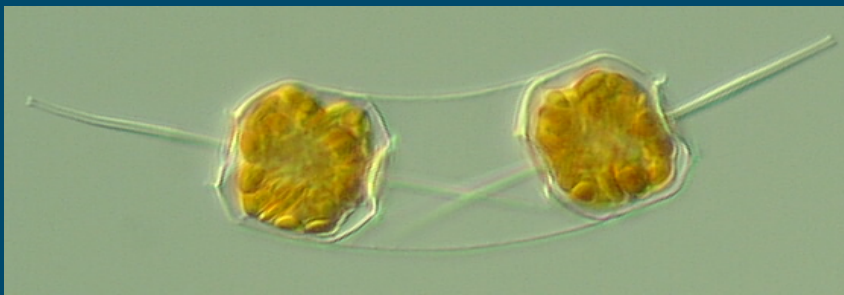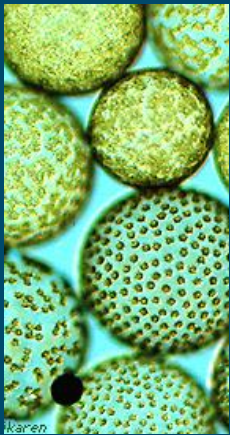
Current Steering Committee

CHAIR **Willie Wilson**: National Center for Marine Algae and Microbiota (NCMA)
Sebastian Belle: Maine Aquaculture Association
Mark Bloom: Bigelow Laboratory for Ocean Sciences
Nick Brown: Center for Cooperative Aquaculture Research
Dick Clime: CEI Capital for Opportunity and Change
Chris Davis: Maine Aquaculture Innovation Center
Paul Dobbins: Oceans Approved
Shep Erhart: Maine Coast Sea Vegetables
Don Gooding: Maine Center for Entrepreneurial Development
Jen Levin: Gulf of Maine Research Institute
Catherin Marin: Maine Technology Institute (MTI)
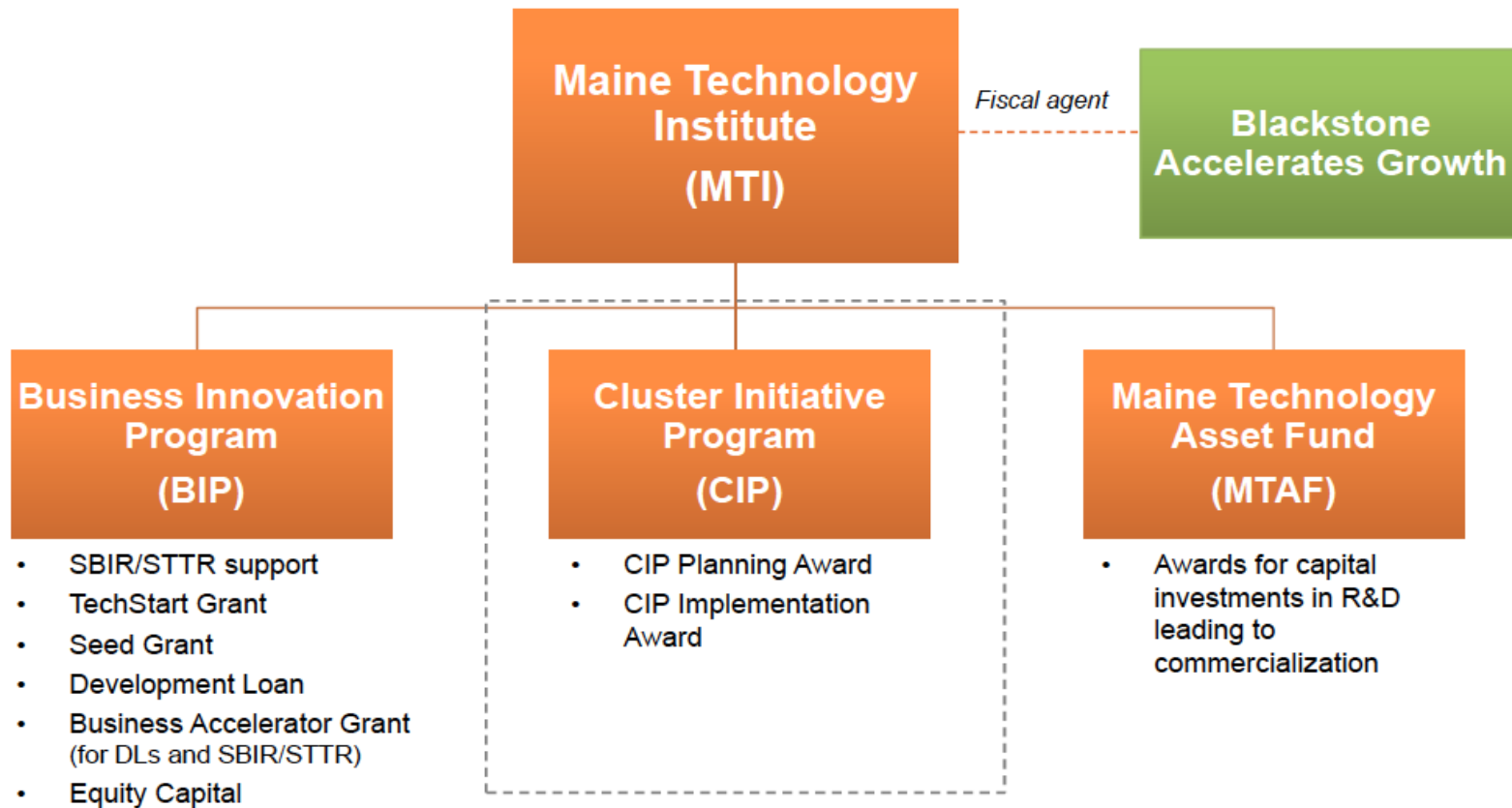**Sarah Redmond**: Maine Sea Grant
George Seaver: Ocean Organics
Liz Solet: Maine Seaweed Institute
Sara Yentsch: NCMA

Overview of MTI

Maine Technology Institute
Investing in Innovation

⌐ Focus of this presentation

Maine Technology Institute (MTI)

Fiscal agent ┄┄┄ **Blackstone Accelerates Growth**

Business Innovation Program (BIP)

- SBIR/STTR support
- TechStart Grant
- Seed Grant
- Development Loan
- Business Accelerator Grant (for DLs and SBIR/STTR)
- Equity Capital

Cluster Initiative Program (CIP)

- CIP Planning Award
- CIP Implementation Award

Maine Technology Asset Fund (MTAF)

- Awards for capital investments in R&D leading to commercialization

www.mainetechnology.org

5

Why a Cluster Initiative Program?

❏ Maine needs more than individually successful technology companies to have a competitive economy.

❏ Companies benefit from being linked to similar companies, near specialized workforce, and surrounded by industry/research resources that can help them thrive.

❏ Technology clusters are an important driver of business growth and economic development, leading to the creation and retention of good jobs.

What Exactly is a Cluster?

The term "Technology Cluster" is an organizing principle

Clusters have the following elements:

- **concentrations of companies** that typically serve related markets or a targeted need, and draw on similar knowledge and employee/workforce skills to develop innovative products and Services

- **supported by common organizations:** universities, trade associations, legal/financial services and government agencies

- **Relationships and the sharing of knowledge and skills** among such industry group are the key to being a cluster, rather than simply industry concentration

These elements lead to a **collective competitive advantage**

Four Cluster Elements
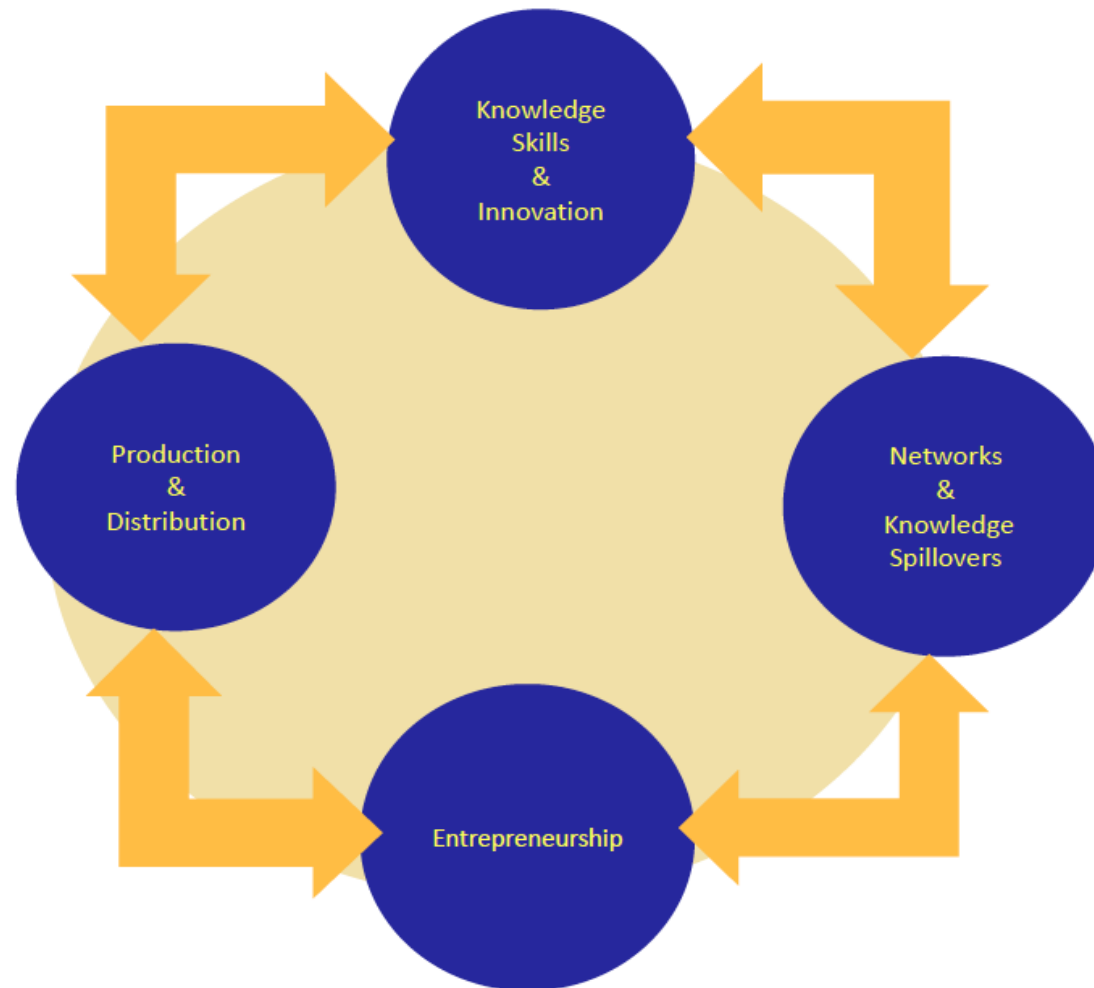
From Charlie Colgan's presentation: "Tracking Cluster Evolution in Maine"

Timescale

- Planning proposal: Sept/Oct 2013
  - $50k – strategy development

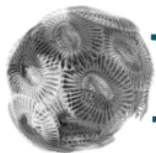- Implementation Proposal. March 2014
  - $500k – build industry cluster.

Questions and Comments

Dr. Willie Wilson

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https//ncma.bigelow.org

207-315-2567 (x310)

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