GLOBEcoMaine
All About Smarter Solutions

E2TECH

GrowSmart Maine
Keeping Maine...*Maine*

DURAFRESH™
MULTI-USE CLOTH MADE IN MAINE
FROM NATURAL WOOD FIBER

Creating a World-Class Eco-Sustainable Bio-fiber Materials Enterprise in Maine

leveraging our:

Most Abundant & Fastest Replenishing Natural Resource,
Heritage in Timber & Textiles, Ingenuity, & Work Ethic

Product - DURA*FRESH*®

Market Proven – Cleaning Cloth

- Spun viscose rayon (wood) fiber
- 1000+ stores ME - OR, top consumer pick, rinses *99.9% germ-free*

Next-Gen Innovation Planning

- Maine Tech. Instit., UM FBRI/Composites, UNE (infectious control)

Primary Production Alliances

- True Textiles (Guilford), Maine Stitching Specialties (Skowhegan)…

Beyond Bootstrapping

- CDBG (Dover-Foxcroft) + CEI match + MTI Awards + Private Investment
  - Forward Looking: NFC (NMTC), NBRC, SBIR, Additional Equity Investors

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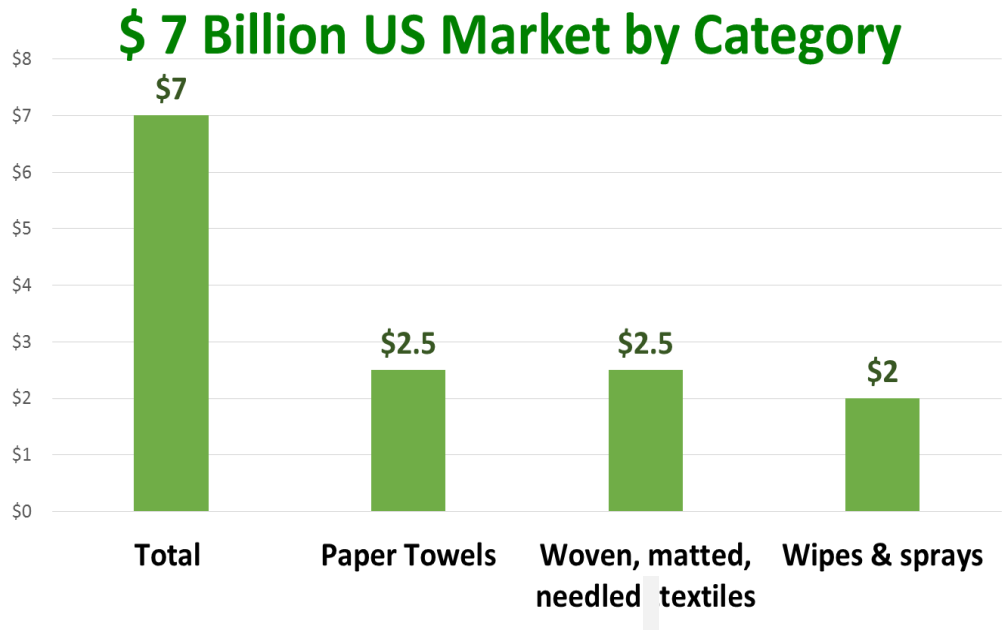
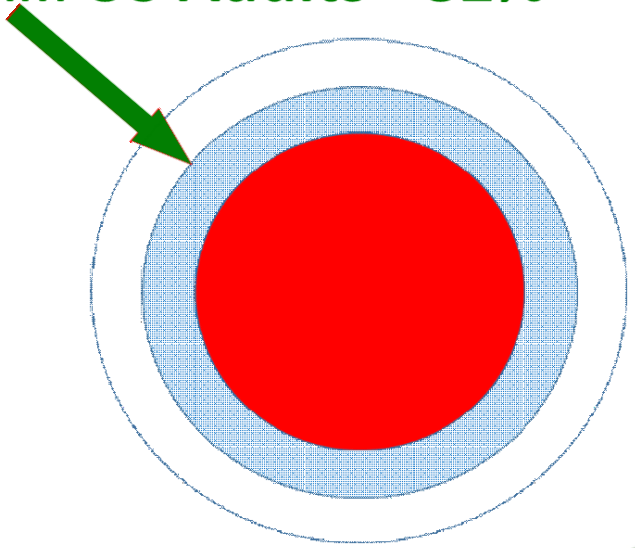
Market Opportunity / Consumer Profile

Primary Target Product Categories



Target Consumer Profile

- **Primary - 80MM US Adults - 38%**
- **Secondary - 93MM US Adults - 44%**
- **Total – Consumer target**
- **173 MM US Adults - 82%**



NMI's Consumer Segmentation model

Consumer Need- Healthier Living, Eco-responsibility, Save $s:

♦ Control Spread of Germs ♦ Reduce cleaning chemical exposure/risk
♦ Boost Eco-Sustainability ♦ Provide Unmatched Value ♦ Live Smarter

Traditional Product Challenges:

♦ Trap & spread germs ♦ Synthetics not sustainable/compostable ♦ Cost more
♦ need chemicals to kill trapped germs ♦ increase waste ♦ take more space

DURAFRESH® Solution - Healthier, Eco-Sustainable Living

- **Fights bacteria -** Open multi-layer design *Rinses 99.9%* germ-free in tap water
  - Always *fresh* & *odor-free*
- **Consumer Value -** Soft, absorbent, durable, 1 cloth replaces 20 paper-towel rolls
- **Eco-Friendly -** from Sustainable Forests, biodegradable (not a synthetic microfiber)

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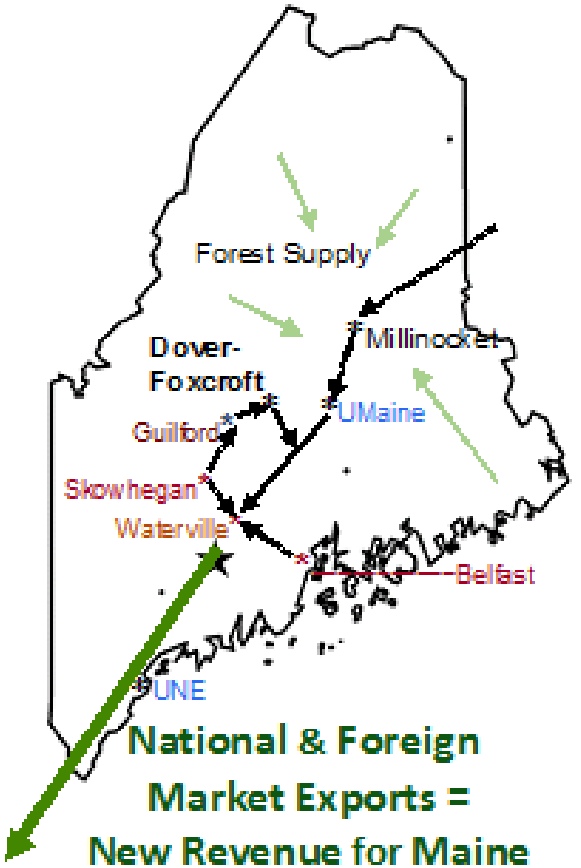
New Industry Opportunity for Maine

Innovative Textile Epicenter Initiative

Base Process Flow →

		Targeted/Expected Jobs* (basic market penetration)
Timber / Pulp Production	— Tech Industry: AV Nakawic, Sappi — UMaine - FBRI (Dr. P., M.B.) Various forest harvestors	**Est. Save or add __ Jobs**
Fiber Spinning, Spooling, Supply	— UMaine Resource, True Textiles — Developing Private Industry — UNE Bio-Chemistry Labs (Bidd.)	**Create __+ Jobs**
Fabric Weave/Treat, Mach. Fixing	— FMI (P.I.), True Textiles, CAA — International Partner Potential- Ocean Bridge, Stafford Tech., etc.	**Create __+ Jobs**
Cut / Sew, Pkg. Fab.	— Allen Mfg. Goodwill, Golden Designs Scarb Smocks, Jazzy Johnnys, Creative Apparel (Belmont, Fort Kent…), etc.	**Create __+ Jobs**
Warehouse/ S&R, Logistics, Transport	— GEM or various contract options throughout Maine	**Create __+ Jobs**
Sales & Tech. Consortium Admin.	— GEM. Management with network & contract assignments	**Create __+ Jobs**



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MIT's new textile institute will blend mill legacy, brainpower

Funded with $317 million, the public-private venture aims to help develop cutting-edge fabrics.

By STEVE LEBLANC
The Associated Press

CAMBRIDGE, Mass. — Massachusetts has been chosen to host a $317 million futuristic textiles manufacturing hub. U.S. Defense Secretary Ash Carter joined Gov. Charlie Baker and other state leaders on Friday in announcing the new public-private partnership based at the Massachusetts Institute of Technology in Cambridge.

Baker says the state is pledging $40 million in matching funds to support capital projects at the facility which will be known as the Revolutionary Fiber and Textile Manufacturing Innovation Institute.

The project's goal is to help develop cutting-edge fabrics – everything from gear to protect firefighters from the hottest flames to innovations that can weave the sensing capabilities of a smart watch into a lightweight fabric.

Other participants in the project include the University of Massachusetts and Quinsigamond Community College.

The innovations could even create fabrics that could help detect when a wounded soldier needs to be treated with an antimicrobial compression bandage.

The Revolutionary Fibers and Textiles Manufacturing Innovation Institute in Cambridge – the first based in New England – will combine $75 million in federal resources with nearly $250 million of non-federal investments.

It will be located near the MIT campus and the U.S. Army-funded Institute for Soldier Nanotechnology.

Baker says the new textiles manufacturing hub will help support the development of the next generation of manufacturing technology and the development of a skilled workforce.

U.S. Rep. Joe Kennedy, who helped rally support for the Massachusetts bid, said new fabrics are modernizing everything from battlefield communication to medical care.

Kennedy also said the initiative helps combine two of the state's economic strengths – the legacy of the old mill towns that were once the backbone of the state's textiles economy and the brainpower that has helped fuel much of its 21st century growth.

"From Lowell to Fall River, our ability to merge cutting-edge technology with age-old ingenuity has sparked a new day for the textile industry," Kennedy said in a statement.

The institute is the eighth manufacturing hub awarded by the Obama administration, which is hoping to help revive the U.S. textiles manufacturing industry.

April 2, 2016 Portland Press Herald

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Forest Bioproducts Research Institute

1865 THE UNIVERSITY OF MAINE

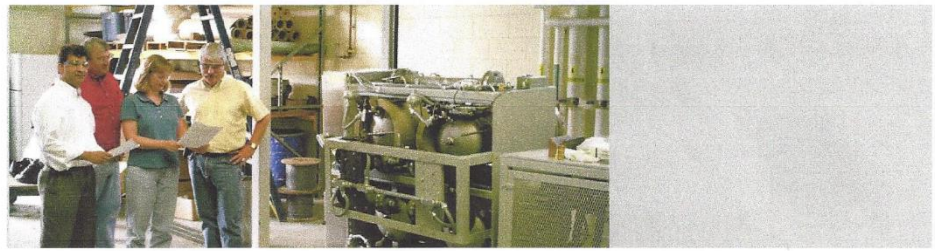
Give Now | Apply | Parents & Family | Emergency

Welcome to FBRI

FBRI's Mission

- To advance understanding of the scientific underpinnings, system behavior and policy implications for the production of forest-based bioproducts.
- To provide and promote technology validation and partnerships that will meet societal needs for materials, chemicals and fuels in an economically and ecologically sustainable manner.

A Message from the Director



Featured Faculty

Clayton Wheeler

Clayton Wheeler is investigating a wood to fuel pathway called UMaine th
UMaine TDO is wholly unique to the university and appears to be the mos

Featured Staff

Amy Luce

As the manager of the new Technology Research Center of FBRI Amy is in charge of overseeing daily operation of the Center and outreach activities of FBRI. More

FBRI FOREST BIOPRODUCTS Research Institute

Northern Forest Center
Thriving Communities & Healthy Forests

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REVOLUTION RESEARCH

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BIOBASED MAINE
ADVANCING SUSTAINABLE MANUFACTURING

GLOBEcoMaine

Meghan May, Ph.D.
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UNE UNIVERSITY OF NEW ENGLAND
INNOVATION FOR A HEALTHIER PLANET

Dr. May was appointed in the Department of Biomedical Sciences at the University of New England College of Medicine in 2013. She was previously appointed in the Department of Biological Sciences at Towson University from 2010-2013, and held the Fisher Endowed Chair of Biological Sciences from 2012-2013, and was appointed as a postdoctoral fellow and then a research assistant professor in the Department of Infectious Diseases and Pathology at the University of Florida. Dr. May earned her B.S. degree in Microbiology from the University of New Hampshire, and her M.S. and Ph.D. degrees in Pathobiology and Bacteriology (respectively) from the University of Connecticut. Her research focus is on the evolution of virulence, not only to determine how new diseases appear and where they come from but also how to predict what new disease might arise next — pathogen forecasting. Her current research uses the microbial parasite, *Mycoplasma synoviae*, as a model system to study mechanisms of pathogen attachment to host cells: the first step in how a pathogen causes disease in a host organism. Additional research projects focus on the dynamics of infectious disease [illegible] *Mycoplasma gallisepticum*, novel diagnostic tests to detect [illegible] using *Haemophilus influ* [illegible] *Escherichia* [illegible] mechanism of a novel [illegible] *ylococcus* [illegible] species, and the chara [illegible] isolates [illegible] *Francisella* species. Dr. [illegible] estigator on a [illegible] ional Institutes of Health, the chair of the American Society for Microbiology's Division G, the chair of the International Research Programme in Comparative Myc[illegible], and an elected member of the International C[illegible] otes (*Mollicutes* Taxonomy Subcommittee). S[illegible] tions in clinical microbiology and mycoplasmol[illegible] pacity (LabCAP) program and for the United [illegible] ural Organization. She is the author of 18 peer- [illegible] apters, numerous editorials in both scientific and [illegible] atform presentations at national and international meetings.

Dissolving Pulp - The Great Come-back

TUESDAY, 02 NOVEMBER 2010 00:00 PÖYRY MANAGEMENT CONSULTING OY

PR Newswire
United Business Media

Largest paper mill In Minnesota shifts its focus to textiles

With paper demand down, Sappi Fine Paper, Cloquet has converted

IS

Sappi Limited Announces Major Investment in North American Operations

Sappi Fine Paper North America to Convert Cloquet Kraft Pulp Mill to Chemical Cellulose and to Upgrade Coated Paper Capability at Somerset

BOSTON and JOHANNESBURG, Nov. 10, 2011 /PRNewswire/ -- Sappi Limited announced today the approval of a US$170 million capital project to convert the kraft pulp mill in Cloquet, Minnesota to chemical cellulose used in textile and consumer goods markets. The planned conversion is slated to come online in 2013 and once complete

sappi

Oct. 2011

PULPING

MILL WISE

Dissolving Pulp GOLD RUSH in High Gear

Chinese demand for alternate textile raw materials spawns dissolving pulp capacity expansions, conversions worldwide

KEN PATRICK

For the past year, with roots extending back at least a decade, dissolving pulp has been undergoing a demand and capacity renaissance, or what some might more accurately describe as a gold rush. Chinese and other Asian dissolving pulp markets have been vibrant to say the least during the past 12 to 18 months, pushed by troubled cotton harvests and rising raw material prices in the rapidly expanding textile, health, and hygiene product arenas worldwide.

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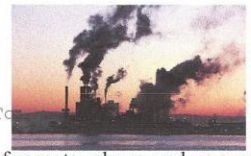
HOME » News and Society » Environmental

Paper Towels-3,000 Tons of Landfill Waste Each Day

By Sam Greyhawk



Ads by Google
Paper Towel
Get Info On Paper Towel & Shop, Compare & Save More To

With over 90% of US households taking advantage of the convenience of paper towels we produce over 3,000 tons of waste each day. Is this problem insurmountable? No - if each home simply replaced one roll of their traditional paper towels with paper tow we could avoid wasting 3.4 million cubic feet of landfill space and prevent 864,000 t

The Benefits of Recycled P

By using recycled paper tow an just reducing landfill waste. According to Ideal Bite, "For every ton of 100% recycled paper that is bought, about 4000kWh of energy and 7,000 gallons of water are saved. It also avoids releasing 60 lbs of pollutants into the air."

Reducing Paper Towel Waste

Even using recy d to have wasteful habits. What ca nd people to reduc on? You can participate in campai te. It is these very projects like "These Come From Trees."

"Remember...

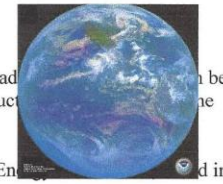
According to the "These Come From Trees" blog they are an "experiment in environmentalism, viral marketing, and user interface design with the goal of reducing consumer s this "experiment?" Using low cost vinyl stickers and guerilla marketing tactics th rees" team spread the message of reducing consumer paper waste. Here is a breakdo

Acid rain withers trees in a coniferous forest in Europe.
Photo by The Ministry of Foreign Affairs of Japan

- affix vinyl "Remember... These C public area paper towel

That e Come From Trees Blog, it really is amazing how the right message at the right time can Since each sticker includes a URL for people to visit (http ntrees.com/) they help promote public awareness to this growing issue.

What about Reusable Replacements for Paper Towels?



Even though paper towels are commonplace they are *not the only solution*, products mad be washed and reused many times over offer a longer product he work you may normally relegate to a

Sam Greyhawk is an energy efficien ol-N-Save(tm), an En d in Huntington Beach, California.

Note: To date GLOBEco Maine has not contacted this author to advise of our cloth alternative. GEM plans to do so as US brand develops.

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REVOLUTION RESEARCH

How Can We Work Together ?

Northern Forest Center
Thriving Communities & Healthy Forests

Hannaford fresh

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