



OBPC Meeting

Mike Whittamore
Cameron Wilson

November 10, 2014

What is Gramitherm®?

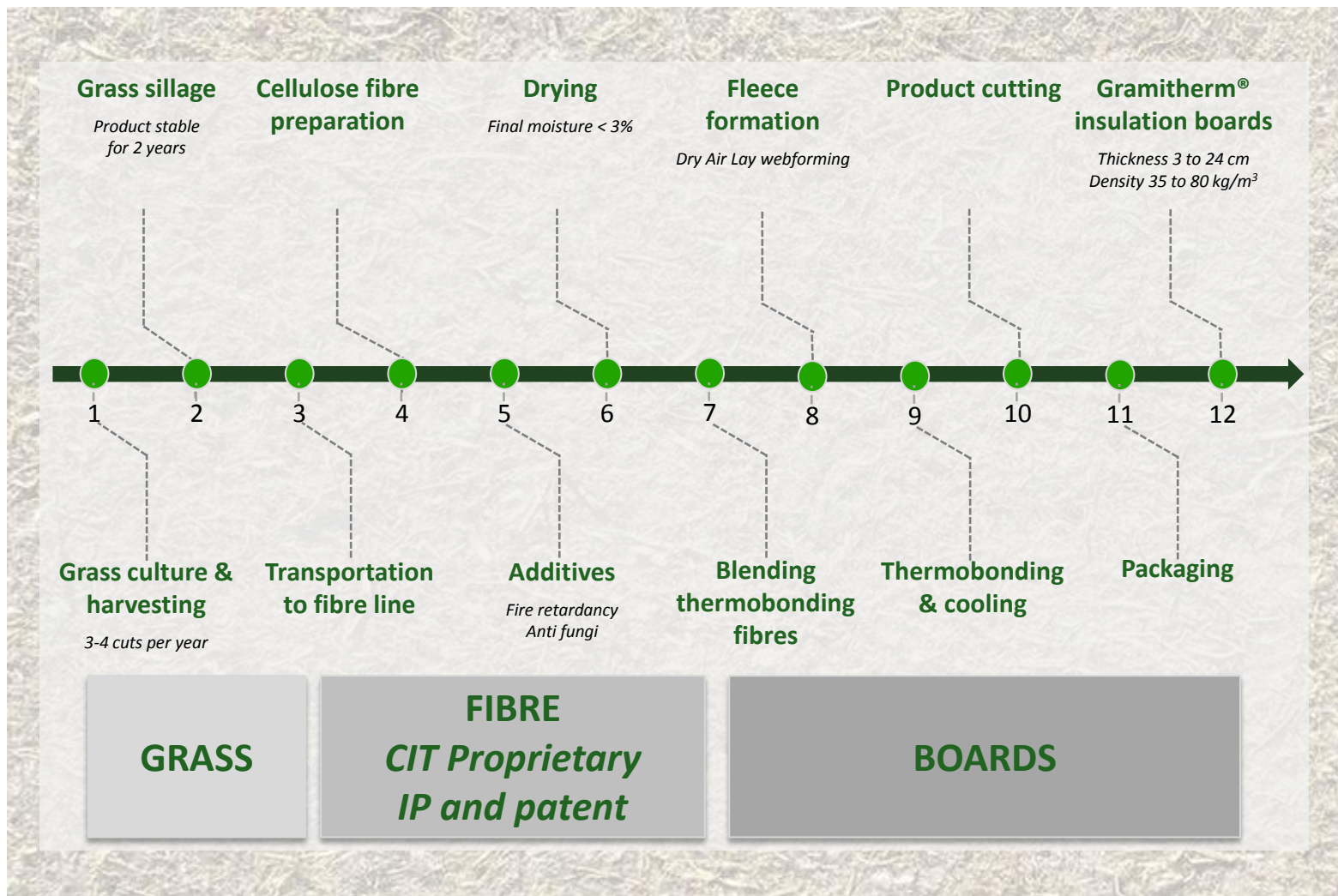
Gramitherm® is thermal insulation made from grass fibres. The batts are produced using a non-woven air-laid process.



The Concept.



Production Process



Positive Impact On Environment.

Lambda : W / (m,K)

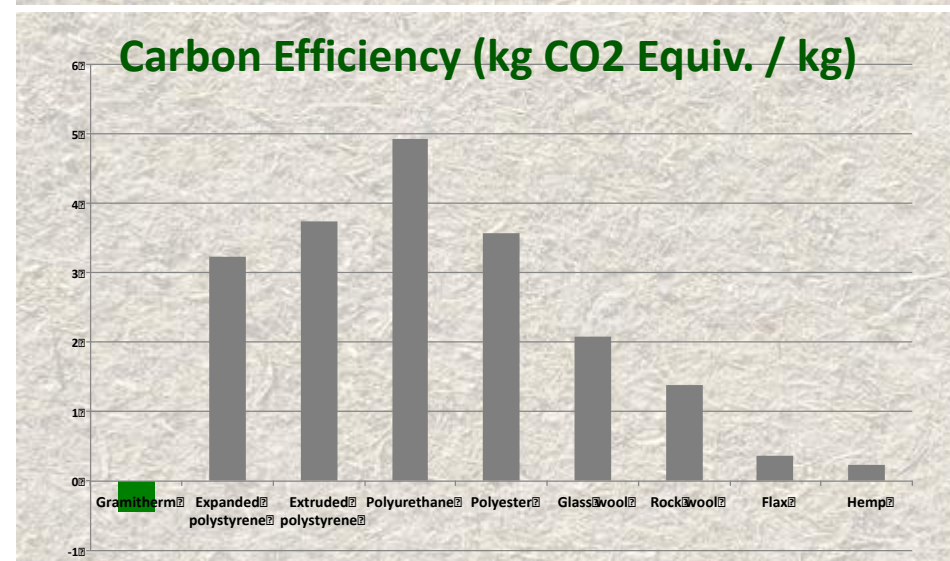
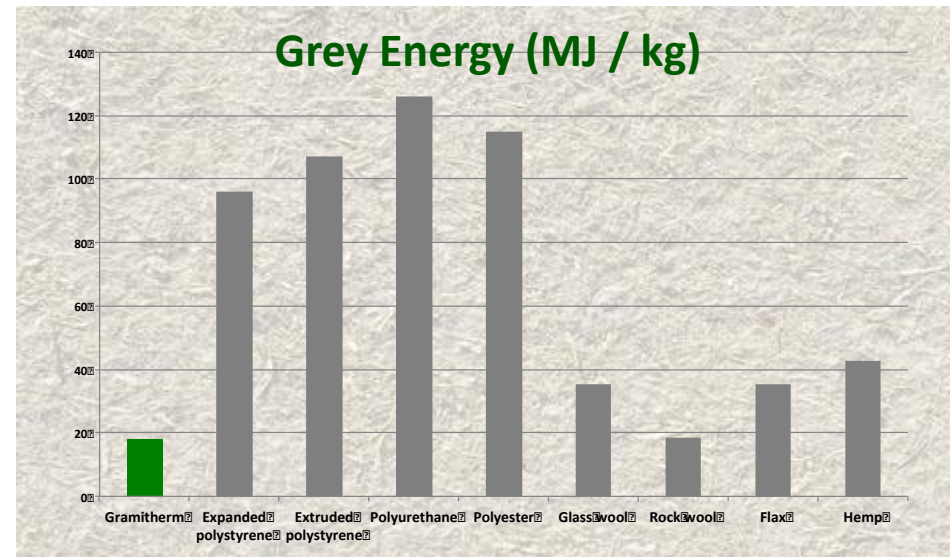
0,038

Grey energy : MJ / Kg

17,92

Kg CO2 equivalent / Kg

-0,44



Sources: HEIG / VD and Ministère de l'Environnement Schlewig - Holstein

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Current Status.

Europe

- 2-3 years ahead of North America
- Growing grass – Winter Rye – in Austria
- Fibre line located next to farm in Austria
 - Using biogas to supply electricity to fibre line
- Board production in Czech Republic, near Austrian border
- Sales beginning November 2014

North America

- Applied to NRC–CCMC for technical documentation
- Working with Simon Fraser University to have testing done
- Production samples arriving this week from Europe for testing and initial marketing
- Investigating manufacturing options for fibre line and board production

Market size – Silage requirements

- US Insulation Market estimated at \$10 billion
- Canada - estimated at \$1 billion
- Growth rate 7% annually in North America
- Location of fibre line(s) would serve an area of 800 km radius
- 1 fibre line requires 2,560 metric tons of grass silage
 - Above volume equates to 3 hospitals
 - Or, about 1,000 2,400 sq.ft. houses
- Approximately \$250,000 per fibre line

Principals- Business and Educational background.

Mike Whittamore

- 30 years of experience in agriculture as a primary producer
- Board Member of Commonwell Mutual Insurance - 13 years
- Director/principle of Canadian technology co. (with C. Wilson)
- BSc – Environmental Biology

Cameron Wilson

- Senior Corporate experience – General management, manufacturing, marketing
- Entrepreneurial experience - Acquired/founded several companies
- Extensive International experience
- Graduate business education

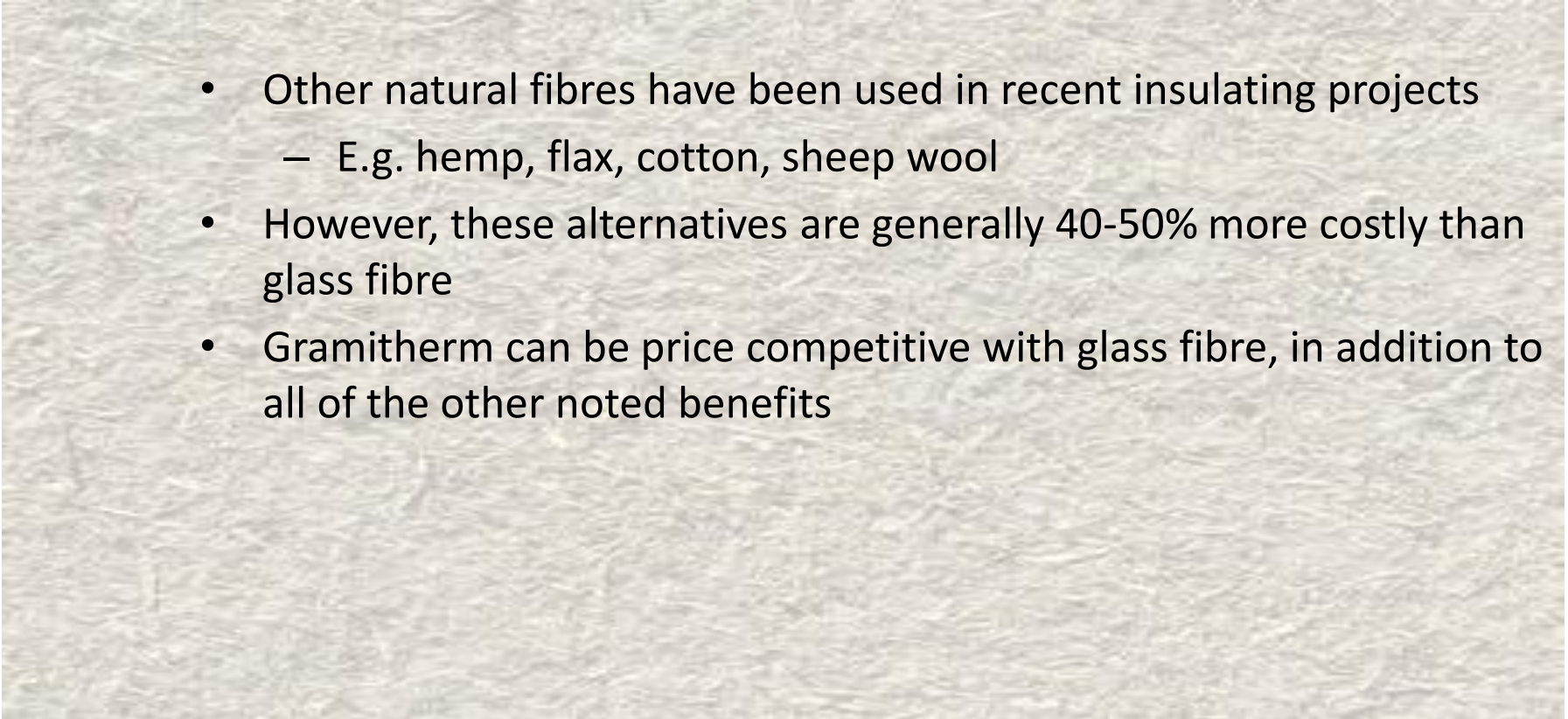
Legal/Business Structure

Gramitherm Inc.

- Canadian controlled company
- Incorporated April, 2014
- Clean Insulating Technologies - 49%
- M. Whittamore/C. Wilson – 51%
- Market/Production plan based on local conditions



Proven Demand for Green Products

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- Other natural fibres have been used in recent insulating projects
 - E.g. hemp, flax, cotton, sheep wool
 - However, these alternatives are generally 40-50% more costly than glass fibre
 - Gramitherm can be price competitive with glass fibre, in addition to all of the other noted benefits

THANK YOU!



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