



A journey towards a fully
integrated vertical
supply chain in New
Zealand

Craig Carr, rubisco Chairman

Fibre forum 2022



Developing a
hemp industry in
New Zealand



Carrfields 

40 PLUS YEARS
OF AGRICULTURAL HISTORY

Carrfields Structure

Carrfields Limited

Carrfields
Livestock

Winseed

Hemp Hot Zone

Carrfields
Wool

Carrfields
Contracting

Carrfields
Machinery

Carrfields
Seed

NZ Natural
Fibres *

* 70/30 Joint Venture with HempNZ



HEMP
NEW ZEALAND

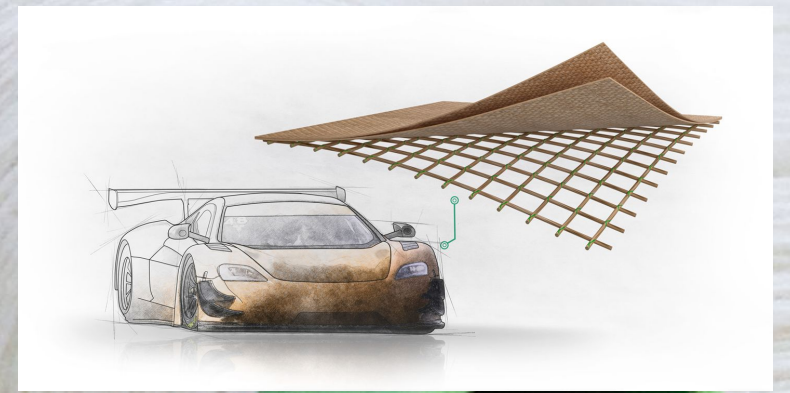
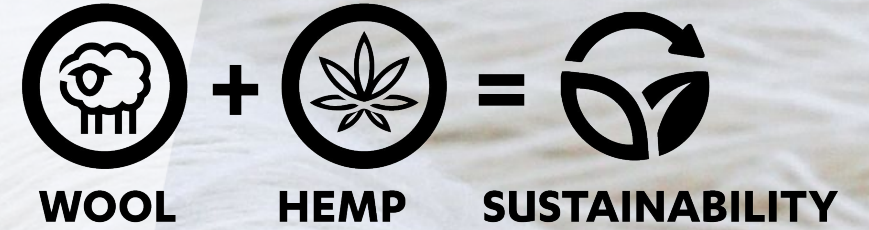
The logo for Hemp New Zealand features a stylized white graphic of three horizontal, curved lines above the word "HEMP" in a large, bold, white sans-serif font. Below "HEMP" is the text "NEW ZEALAND" in a smaller, white sans-serif font.

**Quality
Hemp
Products**

100% New Zealand
grown and processed
hemp seed foods.

A circular graphic with a white border containing text. The text is arranged in a hierarchy: "Quality Hemp Products" in a large, bold, white font, followed by "100% New Zealand grown and processed hemp seed foods." in a smaller, white font.

NEW ZEALAND
natural fibres



Product plan

Increasing complexity

Foundational products



Non-woven

- Geotextile
- Insulation
- Acoustic panels

Hurd

- Hempcrete
- Animal bedding
- Blocks and panels
- Spill kits
- Growing medium

Eco-degummin g



Interiors

- Carpet
- Upholstery
- Bedding

Apparel

- Knitwear
- Outdoor activewear
- Footwear

Advanced products



Bio-composites

- Technical textiles

An aerial photograph of a vast, dense green field, likely a vineyard or agricultural field. The perspective is from directly above, showing the repetitive patterns of the plants. In the lower-left quadrant, a small figure of a person wearing a light blue shirt and dark pants is walking through the field, providing a sense of scale. The overall lighting is bright, creating a rich, vibrant green color palette.

Twelve months on our
journey towards a fully integrated
vertical supply chain in New Zealand
– What progress have we made



rubisco[®]

SWITCH TO A BETTER WAY OF
LIVING

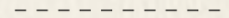
**The Sustainable Materials
Company**

Grow up to draw down carbon

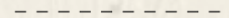
The core idea of our brand system: to grow plants and natural fibre up, to draw down carbon, using nature as the most efficient solution to sustain a healthy way of living.

Rubisco, is an enzyme involved in the first major step of carbon fixation, a process by which atmospheric carbon dioxide is converted by plants and other photosynthetic organisms to energy-rich molecules such as glucose.

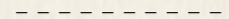
GROW UP



DRAW DOWN



CARBON FIX



Our Core Purpose

To inspire and accelerate a shift to sustainable materials and de-carbonisation - for a better way of living.

Our Vision & Philosophy

We believe farming is the solution, to de-carbonising the future. Everything we need can be made naturally from what we can grow.

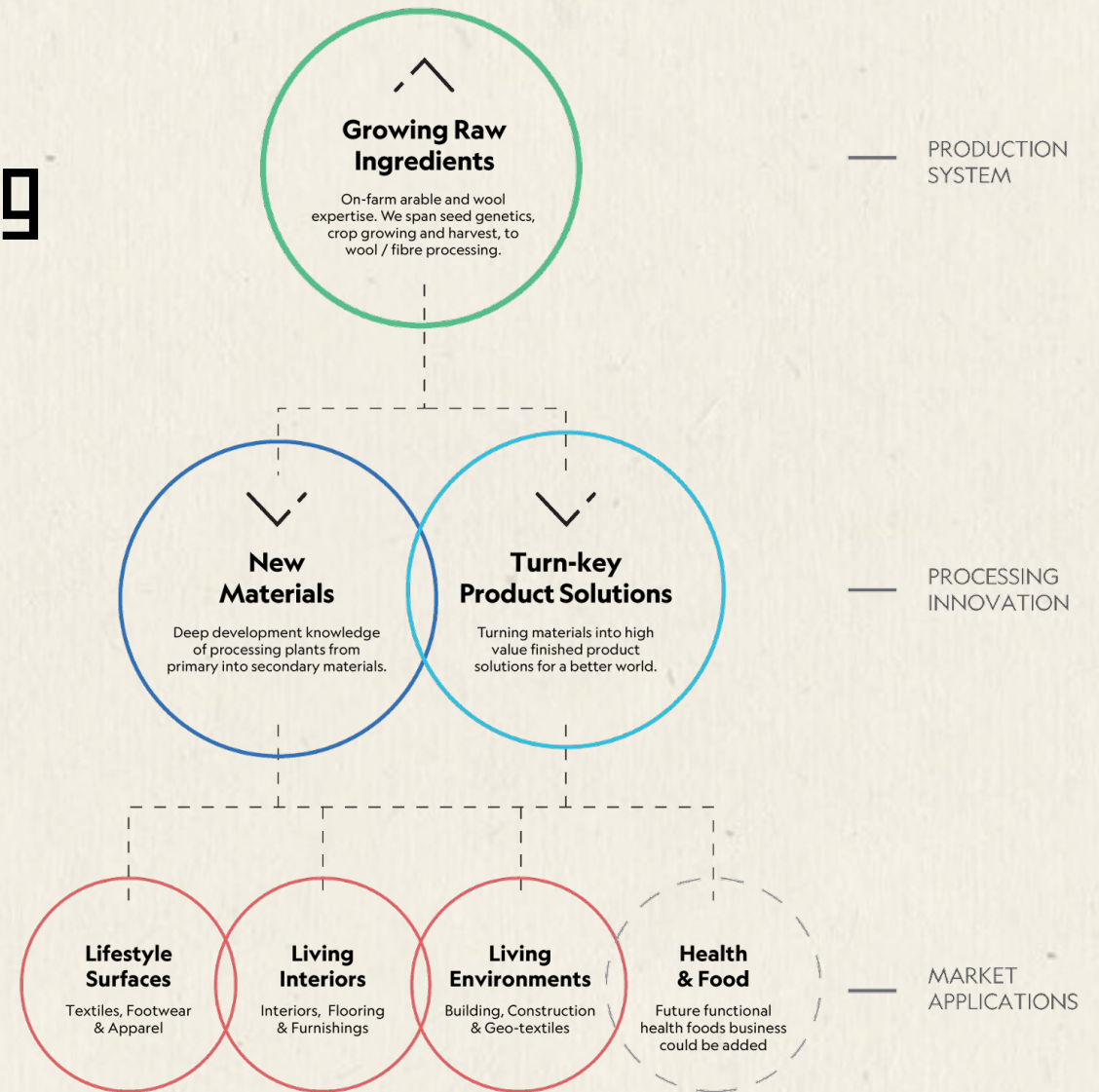
Why Hemp?



Defining our Operating Model:

Vertically integrated customer centric materials

We take a systems approach



Full Hemp Plant Utilisation

Super natural material solutions to power global brands

From seed, all the way to finished solutions. We are uniquely unlocking the benefits of natural materials from the annual harvest and our vertically integrated capabilities, to provide high performing low impact carbon material technologies for global brands.



Hemp
Seed
Genetics



Raw Hemp
Hurd



Natural Hemp
Fibre



Pure Wool
Fibre



Novel Yarns
Systems

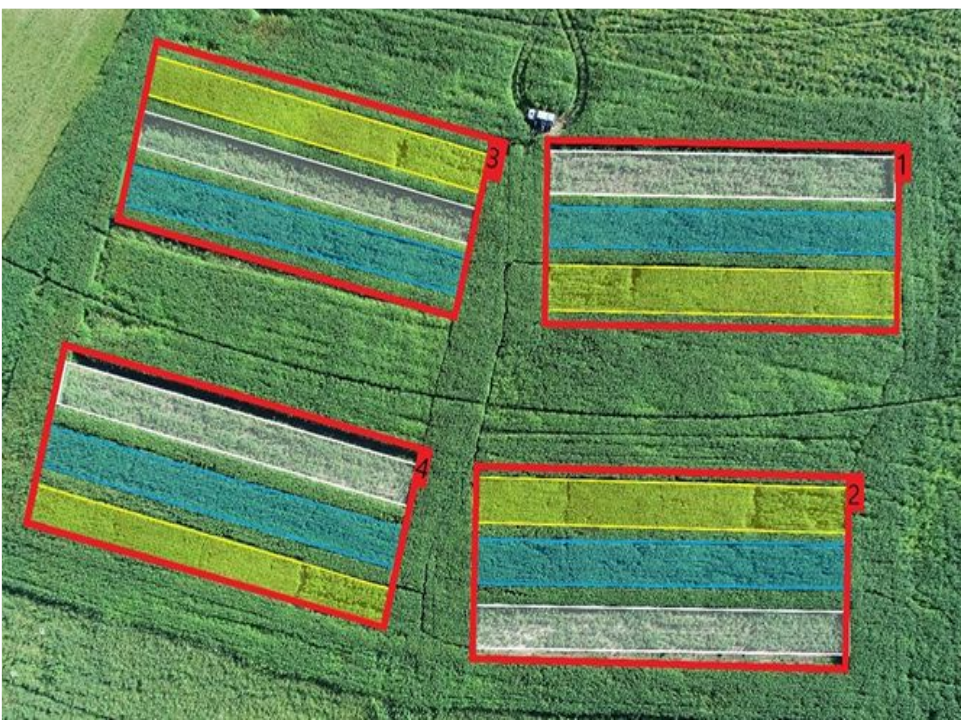


Innovative Textiles
& Bio-composite Fabrics



Low Carbon
Building Solutions

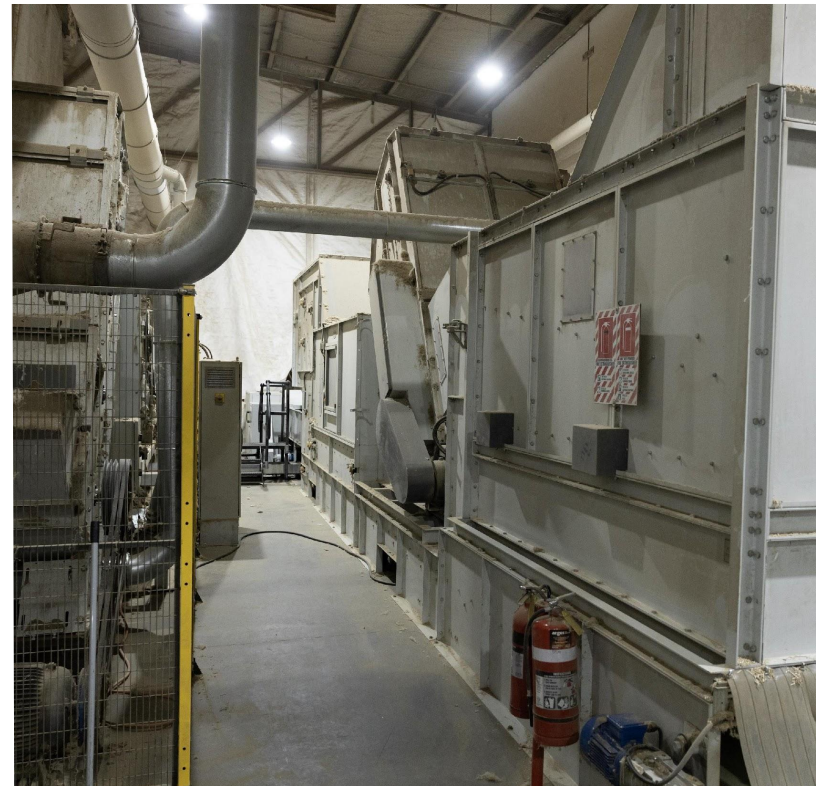
Research & Genetics



Growing & Harvesting



Processing Plant and Equipment



Capability

An experienced world-class Leadership & Governance Team



Guy Wills
Chief Executive
Officer



Ryan Cosgrove
Business Development
Manager



Craig Carr
Chairman



Colin McKenzie
Chief Innovation and
Global Business



Scott Parker
Chief Financial
Officer



Travis Ryan Salter
Research &
Development Manager



Carolyn Mortland
Sustainability and
Legal
Independent director



Maurice Noone
Chair of Finance &
Risk committee
Independent director



Geoff Ross
Advertising &
Agriculture Commerce
Independent director



Mike Allen
Banking and
Governance
Proposed future
Independent Chair



Lain Jager
Agribusiness and
Export
Independent director



Jacob Draper
Hemp Director
Representing Hemp NZ
interest

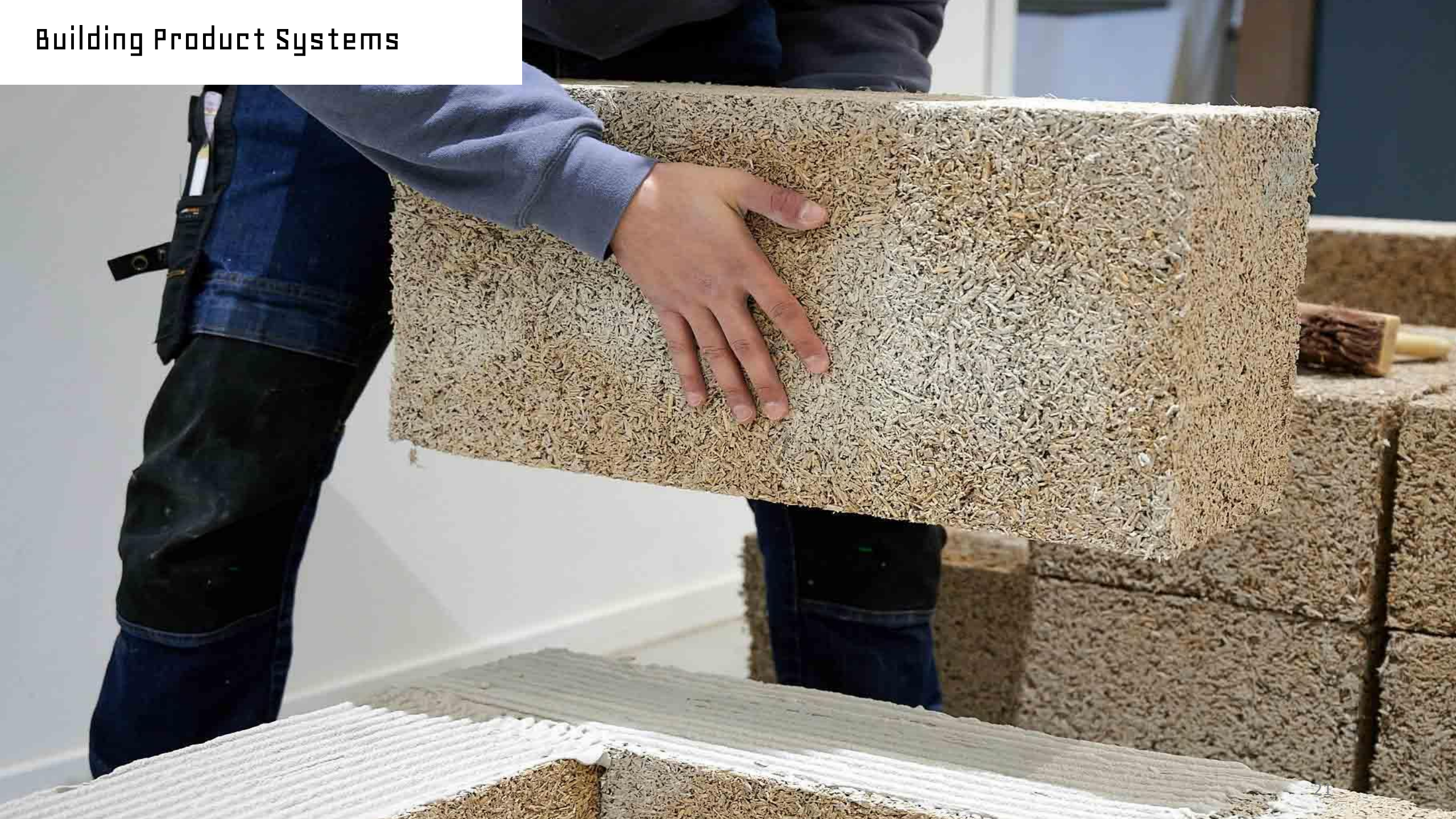
Global Hemp Alliance



Yarn Systems



Building Product Systems



Geotextile & Insulation



Advanced Products



Switch fiber

Mother nature made ours


rubisco®



A Sense of Scale

"The United Nations tell us that by 2100, the world will have a population of 10.4 Billion people. That is 2.4 Billion more people the planet needs to house and clothe from today. To house all of these people we need to build about 2.4 trillion square feet of new built space. To give some sense of scale, that is the equivalent of adding to the planet a New York City – every month, for the next 40 years!"




rubisco®

SWITCH TO A BETTER
WAY OF LIVING

INFORMATION MEMORANDUM
2023

In Summary

- 5 Years into building this vertical supply chain, long road, still a long way to go, talk is easy, action and execution is hard
- 1 Harvest per year – learnings are slow
- Chicken & Egg Scenario – You can not supply hemp ingredients if you don't have the front end in place
- Not 1 size that fits all – where do you want to play, there is no out of the box solution
- Capital Cost upfront is significant, working capital and time to create revenue is long
- Market adoption, approvals, regulatory requirements are slow

"We are the first generation to feel the effects of climate change and the last generation who can do something about it"

- BARACK OBAMA





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