

Hemp Horizons

Thursday 27th February, 2025 in
Association with Teagasc



Hemp: The Future, The Solution, The Revolution

Welcome

Welcome to the **Industrial Hemp Conference**, a collaborative effort between Teagasc and **Textile & Composite Industries (TCI)**. This event aims to explore the multifaceted potential of industrial hemp as a sustainable resource.

From a rural development perspective, Teagasc is keen to investigate hemp's role as an alternative land use option, offering farmers new avenues for income diversification and environmental sustainability.

By bringing together industry leaders, researchers, and policymakers, this conference seeks to promote dialogue on how hemp can contribute to eco-friendly construction, textile innovation, and more.

The conference will explore the research, opportunities, and challenges that could shape the future of Irish agriculture and rural economies.



teagasc.ie



[textilecompositeindustries](https://textilecompositeindustries.com)

Conference Program

9:30 AM — Registration and Networking

- Welcome Coffee & Networking: Connect with industry leaders, innovators, and policymakers.

10:00 AM — Opening Remarks

- Barry Caslin — Teagasc Energy & Rural Development Specialist

10:20 AM — Keynote Address

- Charles B. Kovess — CEO & International Marketing Director, Textile & Composite Industries Pty Ltd; President, Australian Industrial Hemp Alliance
- Topic: "Hemp: A Sustainable Revolution in Textiles and Construction with Revolutionary Profits for Farmers"

11:00 AM — Growing Hemp in an Irish Climate

- Edward Hanbidge — Hemp Farmer

11:20 AM — Economics of Irish Agriculture

- Dr. Fiona Thorne — Principal Research Officer, Teagasc

Panel Discussion One: Shaping the Future of Eco-Friendly Building

11:45 AM

- **Facilitator:** Barry Caslin, Teagasc Energy & Rural Development Specialist

Panellists:

- Liam Donohoe — Chief Operating Officer, UK Hemcrete Bi-Eco
- Hannah Roughneen — R&D Engineer, Kingspan Ltd
- Patrick Daly — Leading academic, consultant, and researcher in sustainability, TU Dublin
- Ronan McDermott — Director, Hemp Build
- Steve Allin — Director, International Hemp Building Association
- Charles B. Kovess — Textile & Composite Industries Pty Ltd

Discussion Points:

- Decarbonising the built environment
- Certification and compliance
- Applications in heritage renovations and retrofits
- Fire-retardant properties of hempcrete
- Potential challenges and areas for further research

12:15 PM — Q&A Session

12:40 PM — Before Lunch Speaker (TBC)

1:00 PM — Lunch

Conference Program

Panel Discussion Two: Bioplastics to Bioeconomy — Hemp's Role in Sustainable Transformation

1:45 PM

- **Facilitator:** Alan Bell — Project Financial Engineering, COO

Panelists:

- Larry McGarry — CEO, Carbon Balance Network
- Peter Quigley — CEO, Athena Blue
- Dr. Josephine McIvor — Ulster University
- Carmen Dominguez — BBioNets

Discussion Points:

- Innovations in hemp textiles
- Biocomposites in automotive and apparel industries
- Sustainable fashion trends
- Expert insights on sustainable fashion and biocomposites
- Potential challenges and areas for further research, including regulatory hurdles, market readiness, environmental impacts

Panel Discussion Three: Innovating with Hemp — Exploring Alternative Uses and Shaping the Policy Landscape

3:00 PM

- **Facilitator:** Charles B. Kovess — Textile & Composite Industries Pty Ltd

Panelists:

- Robert Johnson — Chair, Irish Hemp Cooperative
- Research & Development Manager, Arigna Fuels
- Ian Marshall — Queens University, Belfast
- Diarmaid Mulcahy — Business Advisor
- Daniel Lyons — CEO, Wild Atlantic Hemp
- Ed Horgan — Business Consultant

Discussion Points:

- Bioplastics and biochar applications
- Industrial hemp in carbon farming
- Phytoremediation and environmental benefits
- Making a business case for industrial hemp

4:00 PM — Closing Remarks

- Wrap-up and key insights from the day's sessions

4:15 PM — Networking Reception

About the Speakers

Charles B. Kovess

Charles is an Australian lawyer, business leader, and advocate for industrial hemp. With over four decades of experience, he has played a key role in advancing hemp's use in construction, textiles, and agriculture. As founder of the Australian Hemp Masonry Company and director of the Australian Hemp Council, Charles is known for his expertise in regulatory frameworks and sustainable innovation. A published author and international speaker, he is committed to promoting hemp's potential for economic growth and environmental sustainability.

Edward Hanbidge

Edward is an organic farmer from Keadeen Mountain Farms in County Wicklow, specialising in hemp cultivation and regenerative agriculture. Through his brand, The Hemp Farm, he produces high-quality hemp seed oils and plant protein while also raising organic Dexter cattle. With over a decade of experience, Edward is dedicated to showcasing hemp's potential for sustainable farming. His innovative work has earned industry recognition, including the RDS Sustainability Award.

Dr. Fiona Thorne

Dr. Thorne is a leading agricultural economist at Teagasc, with over 20 years of experience researching farm economics, sustainability, and land use. Holding a PhD from UCD, she has published extensively on farm income and diversification. At the conference, she will discuss the economic potential of industrial hemp as a sustainable alternative for Irish farmers facing environmental and financial challenges.

Barry Caslin

Barry is an Energy and Rural Development Specialist at Teagasc, promoting sustainable farming, renewable energy, and rural innovation. He leads the Teagasc Farm Business Options programme, supporting farmers in diversifying income and adopting new technologies. With experience in EU research projects like Horizon Europe and Interreg, Barry is committed to advancing agricultural sustainability through innovation and knowledge-sharing.

About the Speakers

Liam Donohoe

Liam is the Chief Operating Officer of UK Hempcrete and a lecturer at Technological University Dublin (TU Dublin). With expertise in eco-construction, he champions hemp-based materials like Hempcrete for their carbon-negative properties and thermal performance. As a BER certifier and energy consultant with RetroKit, Liam bridges industry and academia to promote sustainable building practices and energy efficiency.

Hannah Roughneen

Hannah is an R&D Engineer at Kingspan Ltd, a global leader in sustainable construction materials. Specialising in natural materials like hemp, she advances Kingspan's mission to reduce carbon emissions and improve energy efficiency. Her work aligns with Kingspan's acquisition of Hempflax, supporting the development of eco-friendly building products that offer sustainability and superior performance.

Patrick Daly

Patrick is an academic and consultant at TU Dublin, focused on sustainability in construction and the circular economy. With expertise in low-carbon materials and innovative building solutions, he explores the potential of hemp as a sustainable resource. Patrick's research and industry collaborations aim to integrate hemp into modern construction while reducing environmental impact.

Ronan McDermott

Ronan is the Director of Hemp Build, specialising in sustainable construction using hemp-based materials. With a background in heritage renovations, he applies traditional techniques alongside innovative hemp solutions like hemp blocks and lime rendering. His work focuses on energy efficiency, airtightness, and the fire-retardant properties of hemp, promoting eco-friendly construction.

Steve Allin

Steve is a hemp construction expert with over two decades of experience. Based in Kerry, Ireland, he is the author of Building with Hemp and Hemp Buildings: 50 International Case Studies, essential resources for builders and architects. As a member of the European Industrial Hemp Association (EIHA), Steve advocates for hemp's environmental and economic benefits, driving its adoption across Europe and beyond.

About the Speakers

Larry McGarry

Larry is the CEO of Carbon Balance Network, promoting sustainable carbon management solutions using industrial hemp. With experience in renewable resources and environmental sustainability, he advocates for hemp's role in carbon offsetting and decarbonising construction. Larry's expertise in policy development and supply chain management positions him as a key voice in integrating hemp into circular economies.

Peter Quigley

Peter is CEO of Athena Blue, focuses on re-establishing local hemp and flax processing for advanced manufacturing. With expertise in aerospace composites and a passion for environmental innovation, he promotes hemp as a sustainable alternative. Peter holds a Master's in Aeronautical Engineering from Queen's University Belfast and advances hemp-based solutions through industry partnerships and novel technologies.

Dr. Josephine Mclvor

Dr. Mclvor is a Research Associate at Ulster University's Composites Research Group, specialising in bioengineering and advanced materials. Her work focuses on integrating natural fibres like hemp into biocomposites, ensuring performance and sustainability. With experience in material characterisation and industrial applications, she contributes to developing innovative hemp-based solutions.

Carmen Dominguez

Carmen leads the Horizon Europe-funded BBioNets project, advancing bio-based technologies and sustainable biomass processing. With experience in circular economy applications, she promotes bioeconomy practices across Europe. Carmen's background in biology and environmental biotechnology supports her vision of integrating bio-based innovations into global industries.

Robert Johnson

Robert is Chair of Hemp Cooperative Ireland and Research & Development Manager at Arigna Fuels, focusing on sustainable energy and hemp-based biofuels. With expertise in renewable resources and agricultural practices, he advocates for hemp's role in Ireland's energy transition and works to foster collaboration within the industry.

About the Speakers

Ian Marshall

Ian is Head of Business Development and Policy at the Centre for Advanced Sustainable Energy (CASE) at Queen's University Belfast. A former Senator and President of the Ulster Farmers' Union, he champions agricultural innovation and rural development. Ian's research explores hemp's potential for food, fibre, and bio-based materials, supporting evidence-based policy development.

Diarmaid Mulcahy

Diarmaid is a business advisor with over 30 years of experience in strategic development, market expansion, and renewable resources. Specialising in hemp and the bioeconomy, he guides businesses in navigating market complexities and achieving sustainable growth while advocating for policies that drive innovation and economic opportunity.

Daniel Lyons

Daniel is the CEO of Wild Atlantic Hemp, growing hemp since 2018 on the Loop Head Peninsula in County Clare. Through regenerative farming, he produces sustainable hemp products and leads the Hemp4Soil EIP Project, exploring hemp's role in improving soil health. Daniel is dedicated to promoting hemp as an economically and ecologically beneficial crop for Ireland's future.

Ed Horgan

Ed is a business consultant and Chief Operating Officer with expertise in scaling businesses and driving operational efficiency. Focused on the hemp industry, he helps companies develop sustainable models and navigate regulatory challenges. Known for problem-solving and stakeholder collaboration, Ed promotes innovation and economic growth within the evolving hemp sector.



Exploring the Potential of **Industrial Hemp** - Opportunities and Challenges

The world is shifting. Sustainability is no longer an option—it's a necessity. And hemp is the answer.

From farmers to builders, from textile manufacturers to bioplastics innovators, the entire supply chain stands to benefit from industrial hemp. This document isn't just information—it's a wake-up call. If you're in agriculture, construction, textiles, or sustainability, it's time to get excited. Because hemp isn't just another material—it's a revolution.

The Industrial Hemp Opportunity – A Game-Changer for the Entire Supply Chain

Different uses for industrial hemp

Over 50,000 uses

Textiles and Apparel

- Clothing (shirts, jeans, jackets)
- Footwear and accessories
- Upholstery and carpets
- Ropes, sails, and canvas

Agriculture and Gardening

- Animal bedding (for horses, poultry, and pets)
- Mulch and soil conditioner
- Natural weed suppression mats
- Erosion control and bioremediation

Bioplastics and Composites

- Automotive parts (car door panels, dashboards)
- Packaging materials and biodegradable plastics
- Electronics casings and consumer goods
- Sports equipment (bike frames, surfboards, skis)

Health, Nutrition, and Personal Care

- Hemp seeds (protein-rich, omega-3 and omega-6 fatty acids)
- Hemp oil (cooking, skincare, and supplements)
- Plant-based protein powders and dairy alternatives
- CBD oil (wellness, pain relief, anxiety management)

Construction and Building Materials

- Hempcrete (fire-resistant, carbon-negative)
- Insulation and soundproofing panels
- Fibreboard and biodegradable composites
- Sustainable bricks and roofing materials

Paper and Packaging

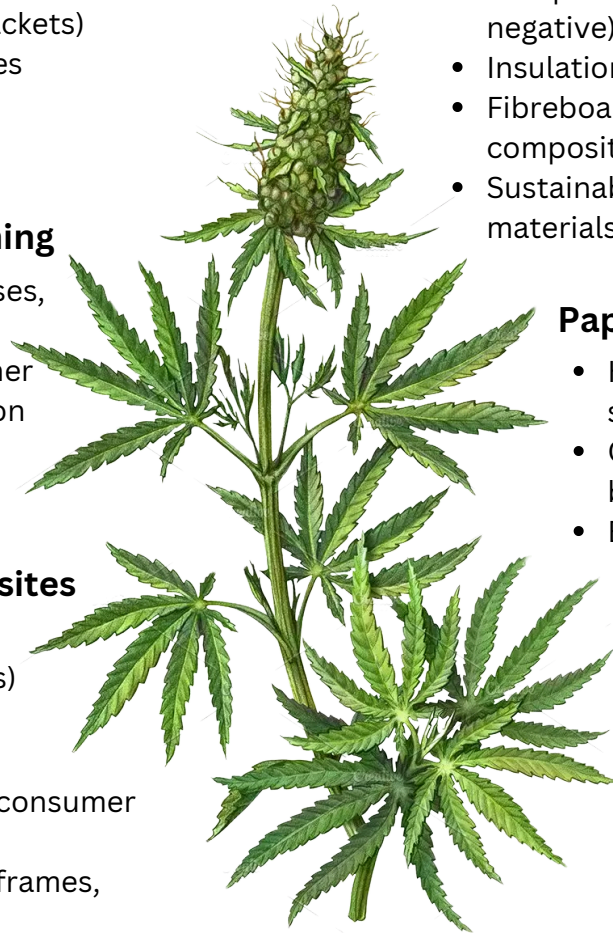
- Hemp paper (stronger and more sustainable than wood pulp)
- Cardboard, packaging, and biodegradable containers
- Eco-friendly printing materials

Energy and Fuels

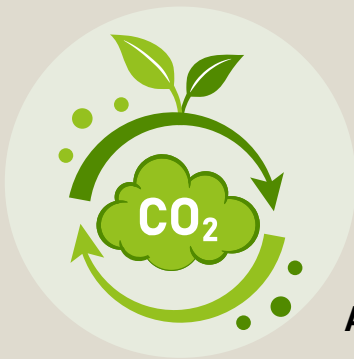
- Hemp biofuel and biodiesel
- Biomass for renewable energy
- Ethanol production from hemp stalks

Environmental and Industrial Applications

- Carbon sequestration (absorbs CO₂ faster than most crops)
- Phytoremediation (cleans soil by absorbing heavy metals)
- Sustainable construction reducing carbon footprints
- Eco-friendly alternatives to synthetic materials



Key benefits of hemp



**Absorbs 15
tonnes of
CO₂ per hectare annually**

**Uses
50% less
water
than
cotton**



**Grows in 90-
120 days
with minimal
pesticides**



**Generates
up to \$3,000 per hectare
in farm profits**

Hemp

The potential of hemp in agriculture



- Fast-growing, high-yielding, and regenerative—hemp improves soil health while delivering superior returns.
- Generates up to \$3,000 per hectare per season, outperforming traditional crops.
- Drought-resistant and low-input—less water, no pesticides, better for the environment.

The world is waking up to hemp's limitless potential. Are you?

Mankind's oldest cultivated crop? Probably hemp. Which means harvesting it might just be the second-oldest profession!

Hemp

Utilisation in sustainable construction



- Australia faces a housing crisis—1.2 million homes are needed, and timber shortages are a disaster.
- Fire-resistant hemp homes could have saved thousands of houses lost to wildfires.
- Zero-carbon building materials—hemp houses stay at a perfect 20°C all year round without heating or cooling.

**Hempcrete, insulation, panels—this is the material of the future.
Why keep building with the past?**



Forget fire-prone homes—hemp houses don't just resist flames, they laugh in the face of wildfires.

Ditch the air-con forever! Hemp homes naturally stay at a perfect 20 degrees year-round.

Hemp textiles

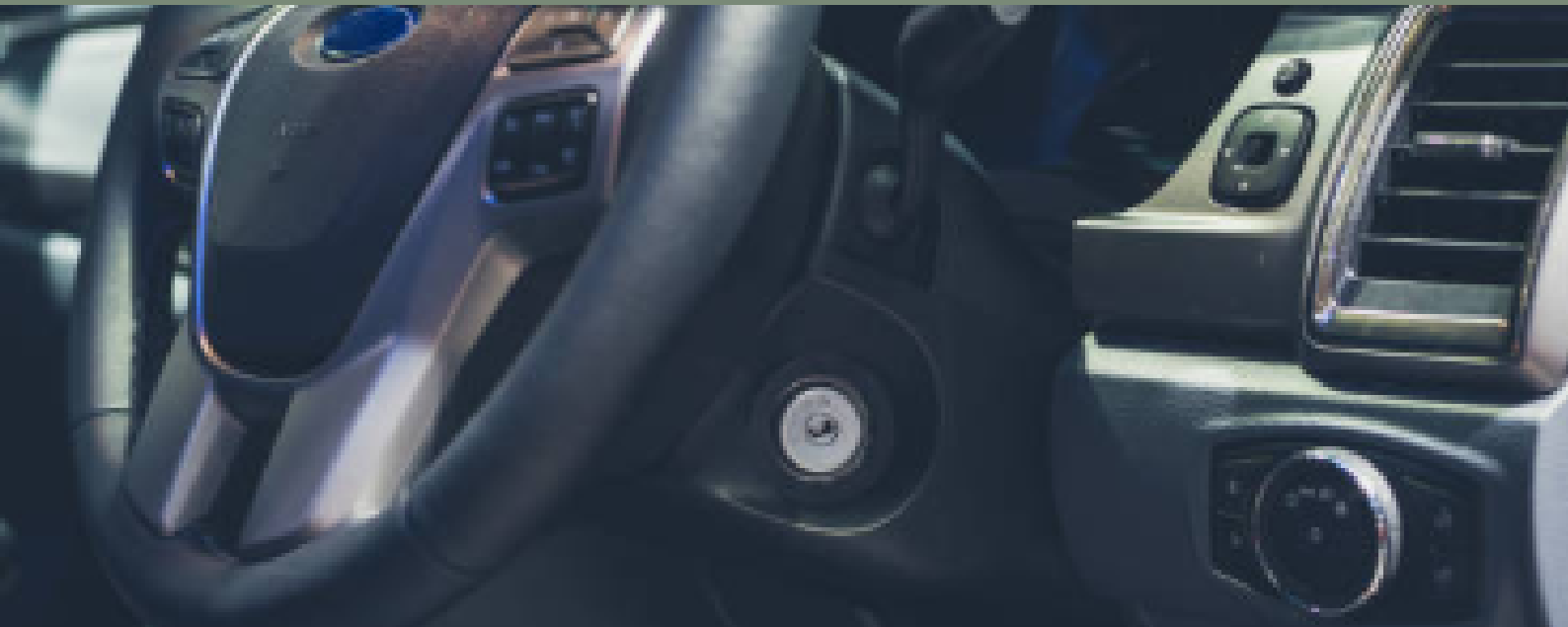


- Hemp fabric lasts five times longer than cotton, softens with wear, and is naturally antibacterial.
- No microplastics, no pollution—hemp is the solution to the synthetic fibre crisis.
- Fire-resistant, moisture-wicking, and UV-blocking—ideal for workwear and performance fabrics.

If you're in textiles, you need to explore hemp. The demand is here. Are you ready?

Hemp bioplastics

•

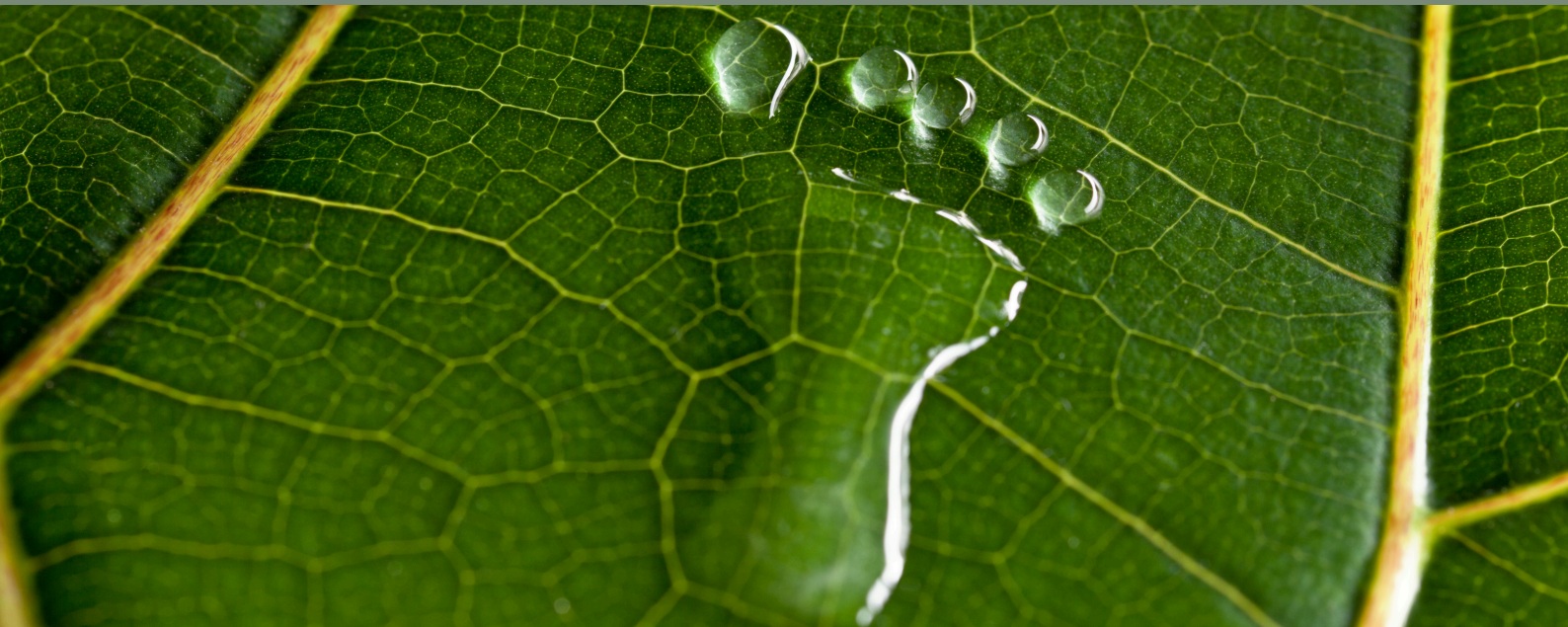


- Our landfills and oceans are drowning in plastic waste. Hemp bioplastics can end this madness.
- Compostable packaging, durable components, high-performance materials—all possible with hemp.
- The bioplastics revolution is happening. Who will lead?

Plastic pollution is choking our planet. Hemp bioplastics can end this madness—if we're willing to make the switch.

Hemp

The carbon-negative superplant



- Carbon sequestration champion—hemp absorbs 15 tonnes of CO₂ per hectare per season.
- Sustainable industries are the future—hemp offers solutions in construction, textiles, energy, and more.
- Want net-zero emissions without crippling the power grid? Hemp is the answer.

Regulatory landscape

Opportunities and challenges for industry adoption



The regulatory framework for industrial hemp in Ireland and Europe is evolving, creating both opportunities and challenges for businesses across the supply chain. Recent policy shifts towards sustainability and carbon reduction have opened the door for hemp's growth in construction, textiles, and bioplastics. However, variations in regulations, licensing requirements, and THC limits remain key factors that can influence industry adoption.

Key Considerations:

- Ireland: Industrial hemp cultivation is legal, with strict THC limits of 0.2% (in line with EU regulations). The government is exploring hemp's role in sustainable agriculture and carbon sequestration, creating new opportunities for farmers.
- European Union: The EU Common Agricultural Policy (CAP) now includes subsidies for hemp production, supporting the sector's growth. The recent increase in allowable THC levels for industrial hemp from 0.2% to 0.3% improves competitiveness with global markets.
- Environmental and Economic Impact: Case studies from countries such as France and the Netherlands demonstrate hemp's potential to reduce carbon emissions, improve soil health, and create rural jobs. These examples highlight the importance of clear, consistent regulations to drive industry growth and investment.

As regulations continue to evolve, businesses that proactively navigate these frameworks will be well-positioned to capitalise on hemp's environmental and economic benefits.

The business opportunity

Why invest in hemp?



- The global industrial hemp market is projected to reach USD \$18.6 billion by 2027 (Source: [Grand View Research](#)), driven by increasing demand for sustainable materials across multiple industries.
- As businesses seek eco-friendly alternatives to synthetic and resource-intensive materials, hemp is gaining traction alongside other renewable resources like bamboo, flax, and mycelium.
- With its diverse applications and scalability, hemp is uniquely positioned to complement and compete with these materials, offering a sustainable option for textiles, construction, and bioplastics.
- New supply chains are forming. Do you want in?
- TCI is leading the way with cutting-edge fibre extraction technology.

Partner with us. Invest in the revolution. The future is hemp.

Ready to join the revolution?

Here's what to do next

- Contact TCI for partnerships, investment, and supply chain opportunities.
- Let's talk about how you can get involved.
- While we're in the process of selecting a uniform, please wear professional attire to all meetings.

Join us in exploring the possibilities and challenges of industrial hemp.

If you're in agriculture, textiles, construction, bioplastics, or sustainability, now is the time to move. Hemp is no longer an alternative—it's the future. Will you be part of the revolution?

Charles Kovess
CEO & International Director of Marketing

+61 412 317 404
charles@kovess.com



