

2026 – 2035



LEAD ORGANISATION

**CzechHemp – Czech Hemp
Cluster**

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PROJECT PERIOD

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2026**

PREPARING CONDITIONS FOR THE REVIVAL OF THE HEMP TEXTILE INDUSTRY IN V4
COUNTRIES AND BEYOND

Strategic Roadmap for the Revival of Hemp Textile Fibre Production in Central Europe

Summary · 2026 – 2035

Strategic directions for rebuilding hemp textile fibre production in Central Europe between 2026 and 2035.

Project partners

ČTPT (CZ) · HEMPSKA (SK) · Textilné centrum (SK) · Kender-Cucc Kft. (HU) · IWNiRZ (PL) · Natuvalis GmbH (DE)

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Hemp textile fibre was a strategic material for European agriculture and industry for centuries.

Today, a convergence of EU sustainability regulation, growing industrial demand and advancing processing technology is creating the conditions for its return — not as a niche crop, but as a commercially viable, regionally anchored component of the European natural fibre value chain.

This Roadmap, developed by CzechHemp and partners from the Czech Republic, Slovakia, Hungary, Poland and Germany with the financial support of the International Visegrad Fund, presents the strategic directions for rebuilding hemp textile fibre production in Central Europe between 2026 and 2035. It is grounded in two years of collaborative research, study visits, partner workshops, a Survey of 26 textile industry stakeholders, pilot processing trials and analysis of European and global fibre markets.

The opportunity in numbers

79% of textile buyers surveyed interested in sourcing CE hemp fibre	€8/kg average import value of hemp yarn vs €1.25/kg for raw fibre	60–65% of global fibre production is synthetic — the gap CE natural fibre can address	<5% bast fibres' share of the global fibre market — hemp a fraction of it
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Why the moment is right

The EU regulatory landscape has shifted decisively in favour of traceable, locally produced natural fibres.

The Ecodesign for Sustainable Products Regulation (ESPR) makes the Digital Product Passport (DPP) mandatory for textiles from approximately 2027, rewarding supply chains with documented provenance.

The EU Bioeconomy Strategy identifies hemp as an industrial platform for textiles, composites, construction and food.

The revised End-of-Life Vehicles Regulation opens automotive composites markets. The CAP raised the hemp THC threshold, expanding the cultivable variety range.

Against this regulatory backdrop, the market opportunity is concrete. Germany alone accounts for 17% of global raw hemp fibre imports by volume; Italy is the largest global importer of hemp yarn by both value (24%) and volume (21%).

Hemp yarn commands average import values of approximately €8/kg against €1.25/kg for raw fibre — an order-of-magnitude jump in value captured at a single processing stage.

Woven hemp fabric exports doubled in value between 2019 and 2022. Demand already exists that CE-region processing is currently not positioned to supply.

The competitive argument for CE hemp fibre is specific: EU-grown, EU-processed, certified-provenance fibre, from a supply chain whose environmental footprint is a fraction of Asian alternatives, produced through processing routes that are climate-resilient and compatible with circular bioeconomy infrastructure.

It addresses real procurement problems for EU automotive suppliers, regional textile manufacturers and European apparel brands repositioning toward sustainable materials.

The Central European hemp fibre landscape

The CE region has relevant agronomic capacity — hemp is cultivated in all five project countries, with authorised varieties adapted to Central European conditions.

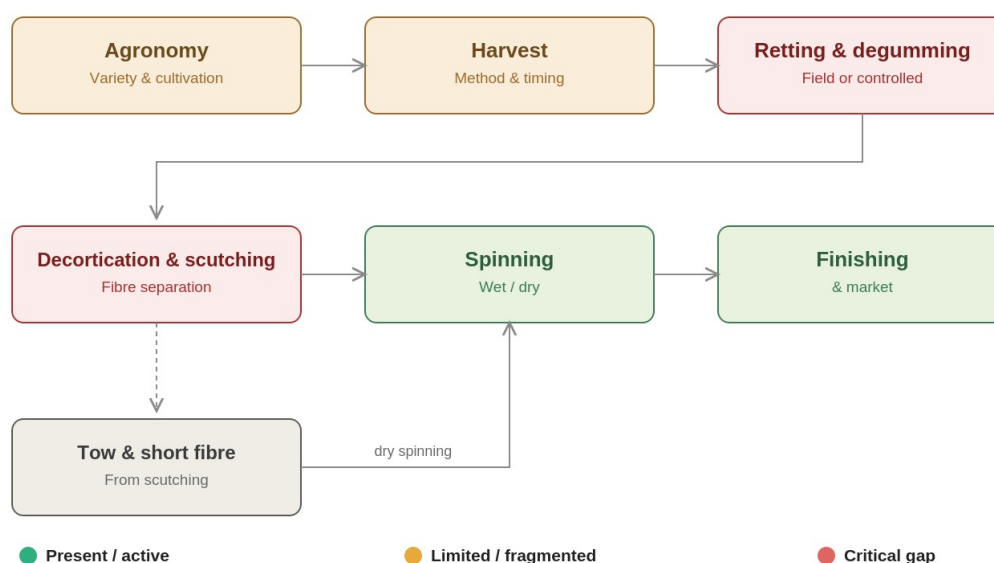
Hungary contributes the Kompolti variety and its hybrids, accounting for an estimated 25% of the genetic base of European hemp varieties, with Kender-Cucc driving the green harvest and controlled retting route within the consortium.

Poland has the most developed institutional support through IWNIrZ; Slovakia manages the Hemp Materials Library mapping processing capacities across the region; the Czech Republic holds the EU's most open cultivation framework and hosts new domestic decortication investment.

What is missing is the middle of the value chain: the controlled degumming, decortication and fibre refinement infrastructure that converts hemp straw into specification-grade fibre at consistent quality, in contractable volumes, within economically viable transport distances.

This gap exists at every scale — from individual farm-level processing to regional hub capacity — and without addressing it, all other elements of the chain cannot function commercially.

Current position of the CE region by value chain node. The region has solid baseline capacity in agronomy and cultivation across all five project countries, and functional spinning, weaving and certification capacity downstream. The critical gap is in the middle: primary processing — controlled retting, decortication and fibre refinement. Straw processing capacity is limited to a single industrial decortication and scutching operation (Lenkon, Poland) and a semi-industrial line at AGRITEC (Czechia), while controlled retting remains at early-stage development within the consortium. Because whole-straw transport economics limit viable delivery to a 75–90 km radius, a regionally distributed network of primary processing infrastructure is the prerequisite for scaling — and its absence is the region's critical bottleneck.



Hemp textile value chain positioning in the CE region — green: present/active · amber: limited/fragmented · red: critical gap

"The technologies for growing, processing and spinning hemp textile fibre are available or achievable. The barriers are economic and infrastructural, not fundamental technical unknowns."

Price competitiveness, raw material availability and processing capacity are the most frequently cited concerns among textile industry stakeholders engaged by the project.

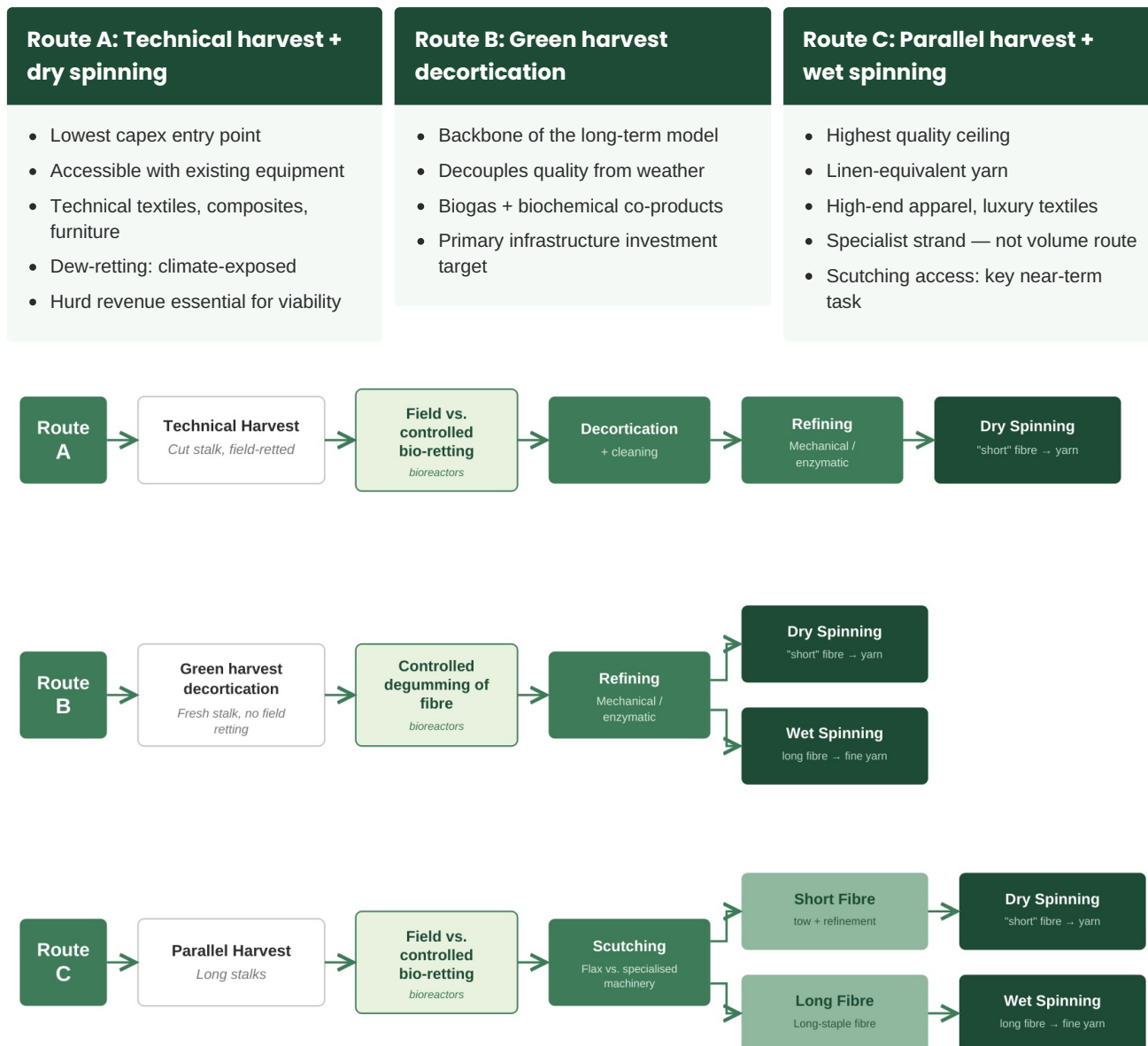
A significant share report that no production adjustments would be needed to use hemp. The manufacturing infrastructure to receive CE hemp fibre already exists in the region.

Three processing routes: complementary pathways

The Roadmap identifies three processing approaches, each with a distinct cost structure, quality profile and market target.

These are complementary pathways that together cover the full range of CE market opportunities.

Green harvest with controlled bio-retting carries the highest investment and processing priority within the Roadmap, as the route that most directly addresses the region's core infrastructure gap.



Target markets

CE hemp fibre does not need to compete with Asian commodity production on price.

It targets the segment of the European market for which commodity supply is structurally inadequate — defined by quality, reliability, provenance and regulatory compliance.

Market entry is sequenced across the three Roadmap phases:

Near-term 2026–2028	Scale-up 2028–2031	Integration 2031–2035
• Technical textiles and composites (primary entry) • Furniture and interior textiles • First supply agreements with EU buyers	• Apparel blends from pilot to regular supply • Volume supply agreements across CE region, Germany and Italy • Automotive composites as a medium-term destination	• Medical and specialty textiles • Premium long-line fibre (parallel harvest route) • CE as recognised certified origin

The Roadmap: vision and action lines

A competitive, regionally anchored hemp textile fibre production ecosystem in Central Europe, integrated into the European natural fibre value chain and aligned with EU sustainability requirements.

The Roadmap operates on a ten-year horizon across three phases — validation (2026–2028), scale-up (2028–2031) and market integration (2031–2035) — implemented through seven action lines:

Action Line	Objective	Horizon
AL1	Processing infrastructure — controlled retting, decortication and refinement capacity	2026–2031
AL2	Supply chain integration — anchor off-take agreements along consortium production lines	2026–2031
AL3	Quality systems and standardisation — alignment with Masters of Hemp Fibre™	2026–2031
AL4	Market validation — full processing chain demonstration under commercial conditions	2026–2031
AL5	Investment readiness and public funding — secure co-financing across all phases	2026–2031
AL6	Skills and education — European vocational training network	2026–2035
AL7	Policy and regulatory engagement — CE common position and ecosystem development	2026–2035

Priority actions for the validation phase

A sequenced set of actions defines the critical path for the validation phase. Their sequencing matters as much as their completion. The following are the most immediate priorities:

1	Establish anchor off-take agreements	Convert buyer interest into formal agreements or letters of intent along the three consortium lines: blended apparel; technical textiles and composites; premium and specialty fibre. Each agreement makes the investment case for processing infrastructure concrete.
2	Commission techno-economic feasibility studies	Facility-specific engineering and financial analysis at candidate CE locations — throughput, energy balance, biogas integration, financing structure. Prerequisite for investment applications.
3	Connect technical fibre route from decortication to refined output	Prove existing and emerging decortication capacity; validate downstream refinement — through refinement technology, enzymatic processing or other available capacity — to achieve dry-spinning quality.
4	Validate CE scutching lines under hemp conditions	Establish achievable throughput, long-line fibre yield and output quality at Polish and Czech lines. Assess IWNiRZ parallel harvest IP as a near-term development pathway.
5	Initiate alignment with Masters of Hemp Fibre™ and advance funding	Engage with the Alliance certification framework. Coordinate funding applications; await I3 investment readiness results (summer 2026); submit ERASMUS+ CoVE application (September 2026).

Conclusions

The conditions for reviving hemp textile fibre production in Central Europe are more favourable today than at any point in the last three decades. The barriers are clearly defined and solvable, the technologies are available or achievable, and EU regulations create strong compliance-driven demand for this traceable, sustainable material. However, building processing infrastructure alone is not enough: ultimate success requires overall ecosystem readiness — growers with agronomic expertise, supportive local authorities, engaged investors and regional vocational training.

The resilience of the sector lies in combining the three complementary processing routes — from low-barrier dry spinning through the climate-resilient controlled-retting backbone to premium wet spinning. The goal is not nostalgia for a pre-industrial crop, but building a commercially viable, regionally anchored alternative to Asian fibre processing, fully aligned with the environmental and regulatory standards of today's European market.

About the project and partners

Project	Preparing conditions for the revival of the hemp textile industry in V4 countries and beyond (October 2024 – June 2026)
Lead organisation	CzechHemp — Czech Hemp Cluster (www.czechemp.cz)
Funded by	International Visegrad Fund
Consortium partners	• ČTPT — Czech Technology Platform for Textiles (CZ) • HEMPSKA — Slovak Hemp Association (SK) • Textilné centrum — Textile Centre (SK) • Kender-Cucc Kft. — Hemp processing and textiles (HU) • IWNiRZ — Institute of Natural Fibres and Medicinal Plants (PL) • Natuvalis GmbH — Natural fibre development (DE)
Full Roadmap available at	www.czechemp.cz

PROJECT PARTNERS



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