



MonXolo – Research & Consortium Overview

*Regulated Compliance Infrastructure for Product and Packaging Ecosystems in Europe

1. Purpose

MonXolo is not a Digital Product Passport tool and not a software platform. MonXolo is a regulated compliance infrastructure designed to make product and packaging regulation operable, auditable and durable across Europe.

Europe is not introducing a feature.
Europe is building a new layer of regulated trust infrastructure.

ESPR, PPWR, CIRPASS, GS1 and related frameworks are not IT requirements. They are institutional mechanisms that redefine how products, packaging and supply chains are governed, trusted and audited across borders.

MonXolo exists to translate this regulatory intent into operational, testable and standardisable infrastructure through applied research and real-world deployment.

2. Research Thesis

Our research addresses a single, structural question:

How can a single regulated backbone support multiple compliance profiles without fragmentation, rework or vendor lock-in?

MonXolo investigates and builds a schema- and rule-based infrastructure capable of supporting:

1. Product + Packaging compliance (DPP/PR) under ESPR and PPWR
2. Packaging-only compliance (DPP/PK) under PPWR and EPR readiness
3. Produce and Food Packaging compliance (DPP/PPK) under PPWR, food safety and circular economy
4. Product-only compliance (DPP) under ESPR

This enables a unified, interoperable and governable compliance layer across sectors, jurisdictions and regulatory regimes.



3. Why Research Is Infrastructure

Digital Product Passports and Digital Packaging Passports fail not because technology is missing, but because trust, governance and interoperability are not designed as infrastructure.

Our research focuses on:

- How trust is created, governed and audited at scale
- How regulatory intent becomes enforceable operational reality
- How cross-border consistency is maintained under heterogeneous national implementations
- How evidence, auditability and authority access are preserved over time

Research is not an academic exercise.

Research is the precondition for infrastructure that can survive standardisation, regulation and market cycles.

4. Core Research Domains

MonXolo leads applied, industry-driven research at the intersection of:

—Regulatory Infrastructure & Governance

ESPR, PPWR, CIRPASS, GS1, EPR, authority access models, standardisation pathways, regulatory alignment

—Cross-Border Trust Architecture

Interoperability, identity, lifecycle governance, jurisdictional consistency, institutional credibility

—Evidence-First Compliance Systems

Event validation, auditability, verifiable lifecycle evidence, long-term responsibility models

—Product & Packaging Identity Infrastructure

Unified identity for products and packaging, lifecycle transparency, traceability, sustainability and authenticity

—Research-to-Standardisation Pipeline

Designing infrastructure that feeds directly into standardisation, regulatory alignment and long-term governance frameworks



5. From Research to Deployment

MonXolo operates through applied research and infrastructure pilots, not demonstrations.

We work with universities, research organisations, manufacturers and public bodies to:

- Run readiness assessments for ESPR and PPWR compliance
- Map real supply-chain constraints and governance gaps
- Design and test cross-border trust and compliance architectures
- Prepare infrastructure for standardisation and institutional adoption

These activities ensure that research outputs are operational, auditable and institutionally credible, not theoretical.

6. Consortium Engagement

MonXolo participates in international research consortia as a regulated compliance infrastructure node, bridging regulatory intent, applied research, and real-world deployment constraints.

Depending on the programme design, MonXolo can contribute in one or more of the following roles:

- Infrastructure Work Package contributor: regulated backbone concepts, governance and interoperability requirements, evidence and auditability principles, standardisation alignment
- Industrial / use-case partner: readiness assessments, deployment framing, supply chain reality mapping, operational constraints and adoption pathways
- Research-to-implementation bridge: translating research outputs into testable infrastructure requirements and long-term governance pathways

MonXolo does not compete with coordinators or research institutions.

We strengthen consortia by providing infrastructure logic and deployment reality, without adding fragmentation or tool-level noise.



7. Funding & Strategic Alignment

MonXolo aligns with funding instruments that support:

- Applied research and infrastructure development
- Regulatory alignment and standardisation readiness
- Cross-border trust and compliance governance
- Product and packaging ecosystem transformation under ESPR and PPWR

Our research programme is designed to support Europe's transition from pilots to regulated infrastructure, across product, packaging, produce and product-only compliance profiles.

8. Positioning Summary

MonXolo is a Regulated Compliance Infrastructure for Product and Packaging Ecosystems.

We build the institutional layer that allows Digital Product Passports and Digital Packaging Passports to function correctly, verifiably and sustainably across Europe.

Not as software.
As infrastructure.

Research is how this infrastructure is designed, governed and standardised.

Contact for research and consortium partnerships:

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