ESG TECHNOLOGY / EXTERNAL PROJECTS

AI & ESG Engineering Partner

Environmental data, carbon MRV, knowledge graphs and ML automation.

AVAILABLE FOR SELECTED CLIENT PROJECTS



Product builders. Engineering partners.

We develop ALMAXIA while dedicating selected engineering capacity to external ESG and environmental technology projects.

OUR OWN DEVELOPMENT

ALMAXIA BioSystems

An intelligence infrastructure linking data, meaning, decisions and verifiable evidence.

01 **Product mindset**

Architecture, implementation and validation are considered together - not as isolated tasks.

02 **Data depth**

Semantics, ontologies, knowledge graphs and provenance are part of our technical foundation.

03 **Flexible delivery**

Led by a core team in Moldova, with ML engineers and additional specialists engaged by project scope.

INDEPENDENT PROJECT DELIVERY · ENGINEERING CAPACITY · TECHNICAL CO-DEVELOPMENT

What we can build for ESG teams

Six practical workstreams - from data acquisition to reviewable reporting and carbon project evidence.

01

Emissions data pipelines

ERP, invoices, energy and logistics records transformed into calculation-ready activity data.

02

AI & ML automation

Document extraction, classification, anomaly triage and human-reviewed workflows.

03

Semantic data & graphs

Shared vocabularies, ontology alignment, entity linking and contextual knowledge graphs.

04

Environmental platforms

APIs, integration services, operational dashboards and data-quality workflows.

05

Carbon project dMRV

Batch evidence, monitoring records, custody events and reviewer-oriented data packages.

06

Evidence-ready reporting

Versioned methodologies, provenance, access controls and reproducible output.

A multidisciplinary engineering toolkit

We combine modern software delivery with a deeper foundation in semantics, scientific data and traceability.

FULL-STACK & INTEGRATIONS

Web interfaces, REST APIs, SQL, services, data pipelines and integrations with existing systems.

INTERFACES · APIS · DATA

AI, ML & AUTOMATION

ML engineers, intelligent document workflows, AI agents, model orchestration and human review.

AI/ML · AGENTS · WORKFLOWS

ONTOLOGY & KNOWLEDGE GRAPHS

Entity modelling, linked relationships, semantic interoperability and graph-oriented information architecture.

ONTOLOGY · SEMANTICS · GRAPHS

GOVERNANCE & VERIFIABILITY

Provenance, permission-aware access, methodology versions, evidence lineage and audit history.

SOURCE · VERSION · EVIDENCE

We work within the client's architecture; technology stack and specialist allocation are confirmed at discovery.

From raw data to reviewable outcomes

An example of how ALMAXIA's evidence-first approach can support ESG product engineering.

01

CONNECT

ERP · invoices · supplier records · sensors · laboratory and operational data

02

UNDERSTAND

Identity resolution · semantic mapping · linked entities · graph context

03

CALCULATE

Methodology rules · emission factors · versioning · uncertainty

04

DELIVER

Dashboards · APIs · reports · review packages · audit-ready lineage

CROSS-CUTTING CONTROLS Source identity · timestamps · method versions · permission checks · review trail

A transaction becomes traceable emissions data

A practical pattern for clients working with Scope 1, 2 or 3 activity information.

01	02	03	04	05
INVOICE	ACTIVITY	METHOD	RESULT	EVIDENCE
Supplier document	**Fuel consumed**	**Emission factor**	**Estimated CO_2e**	**Review package**
Source and transaction identifier	Structured type, quantity and unit	Factor reference, version and unit	Reproducible calculation record	Linked source, assumptions and reviewer status

Value: a reviewer can follow the result back to the original document and the exact calculation method.

Illustrative process; not a completed or independently audited customer case.

Biochar dMRV: evidence across the lifecycle

ALMAXIA is developing a digital monitoring, reporting and verification workstream for biochar-related carbon projects.

01

FEEDSTOCK

Origin, eligibility and biomass records

02

PRODUCTION

Facility, batch and process details

03

LAB TESTS

Carbon analysis, methods and uncertainty

04

CUSTODY

Transfers, quantities and actors

05

END USE

Destination, date and application

06

REVIEW

Methodology, evidence and audit trail

OUR ENGINEERING FOCUS

Linked batch records, provenance, permissions and reproducible reviewer packages.

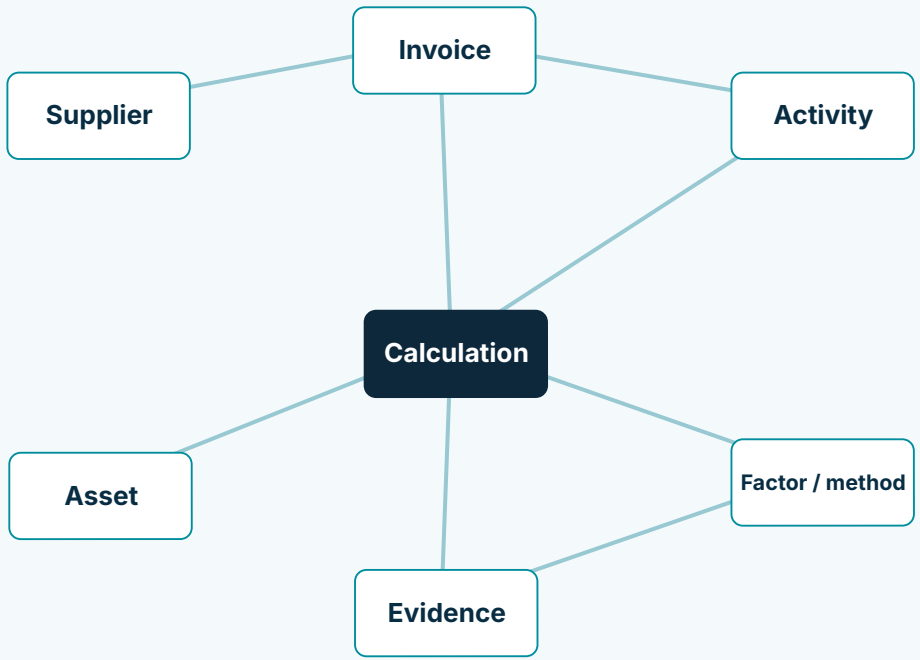
INDEPENDENT METHOD & ASSURANCE

External methodologies, verifiers and registries govern eligibility, certification and issued units.

In development · Project-specific methodology validation required · ALMAXIA does not issue or certify carbon credits.

Why connected meaning matters

Traceable relationships make complex ESG datasets explainable and easier to integrate.



01 EXPLAINABLE ATTRIBUTION

What source, asset, supplier and activity produced this result?

02 INTEROPERABILITY

Align operational, financial and environmental data without losing meaning.

03 REVIEWABLE CALCULATIONS

Link every output to factor versions, methods and supporting evidence.

04 EXTENSIBLE FOUNDATION

Adapt patterns to carbon, water, biodiversity and land-related datasets.

A core leadership team. Flexible specialists.

Moldova-based leadership, supported by software and data specialists assembled to match each client engagement.



Maksim Bukreev

FOUNDER & CHIEF ARCHITECT

AI architecture · semantic models · verifiable data



Elena Pupausis

ADMINISTRATOR & PARTNERSHIPS

Client coordination · requirements · delivery operations



Alexey Kudryakov

CHIEF TECHNOLOGY OFFICER

Engineering leadership · APIs · systems integration

EXTENDED TEAM: ML ENGINEERS · DATA ENGINEERS · BACKEND / FRONTEND · QA · DOMAIN SPECIALISTS

Flexible collaboration. Clear ownership.

Different models for external ESG product teams - with agreed scope, capacity and delivery responsibilities.

01

DEDICATED CAPACITY

Add selected engineers or ML/data specialists to an established product team.

CAPACITY-BASED

02

DEFINED-SCOPE DELIVERY

Deliver an integration, automation workflow, ESG data service or evidence module.

MILESTONE-BASED

03

ARCHITECTURE & CO-DEVELOPMENT

Design semantic models, data contracts, graph layers and technical validation pathways.

COLLABORATIVE

A SIMPLE WAY TO START

01 DISCOVER → 02 SCOPE → 03 DELIVER → 04 REVIEW & HANDOFF

MOLDOVA-BASED · REMOTE-FIRST · INTERNATIONAL COLLABORATION

ESG SOFTWARE / AI / DATA INFRASTRUCTURE

Make ESG data usable, explainable and verifiable.

Let’s discuss your next development project.

Elena Pupausis

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