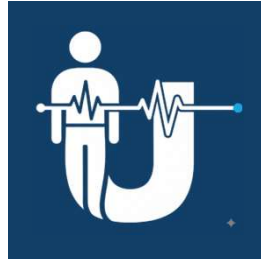


Cluster Health & Mission Cancer Brokerage Event

28 September 2026

Pitching Session 2 : Clinical Trials



Umax Intelligence Stack: Multimodal Health Data and AI Infrastructure

From sensor signals to reproducible evidence for clinical and academic research

Selim Besimzade

Founder & Engineering Lead

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Uma Bilisim (TR)

Türkiye R&D with UK Presence

umaxhealth.co.uk

Multimodal Health Data Remains Fragmented



Wearables & Sensors

Senso, third-party devices, physiological signals



Clinical Data

Assessments, treatment events, health records



Patient-Reported Outcomes

Symptoms, wellbeing, quality of life



Intervention & Context Data

Sessions, adherence, setting, resource use



Research teams need one traceable data pathway across devices, sites and analytical methods



Device-Agnostic Multimodal Data Acquisition

The research protocol determines the device and data-source mix



Umax Senso

Physiological and motion signals

Optional project device



Third-Party Devices

Compatible wearables and research sensors

Integrated according to device interfaces and study requirements



Patient-Reported Outcomes

Symptoms, wellbeing and quality-of-life measures



Clinical, Study & Context Data

Assessments, interventions, sessions and care setting

Umax Intelligence Stack

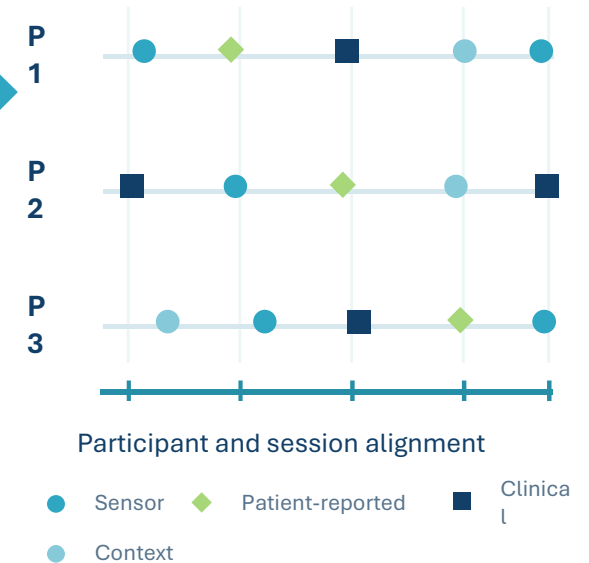
Umax Research Acquisition Layer

Device connectors, APIs and structured imports

- Device connectors and data intake
- Mobile and web capture
- Participant and session identity
- Timestamp and metadata alignment

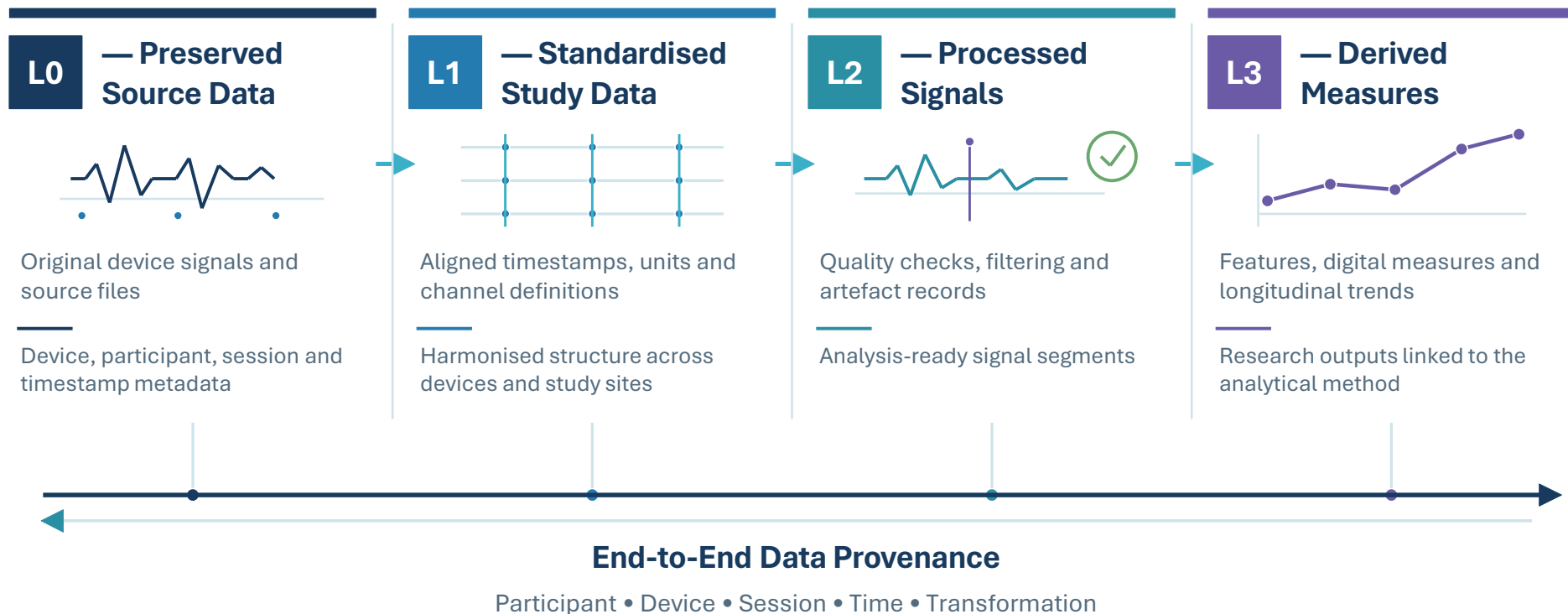
Unified Longitudinal Study Data

Structured by participant, session and time



Traceable L0–L3 Research Data Architecture

Each transformation creates a new research layer while preserving the source record

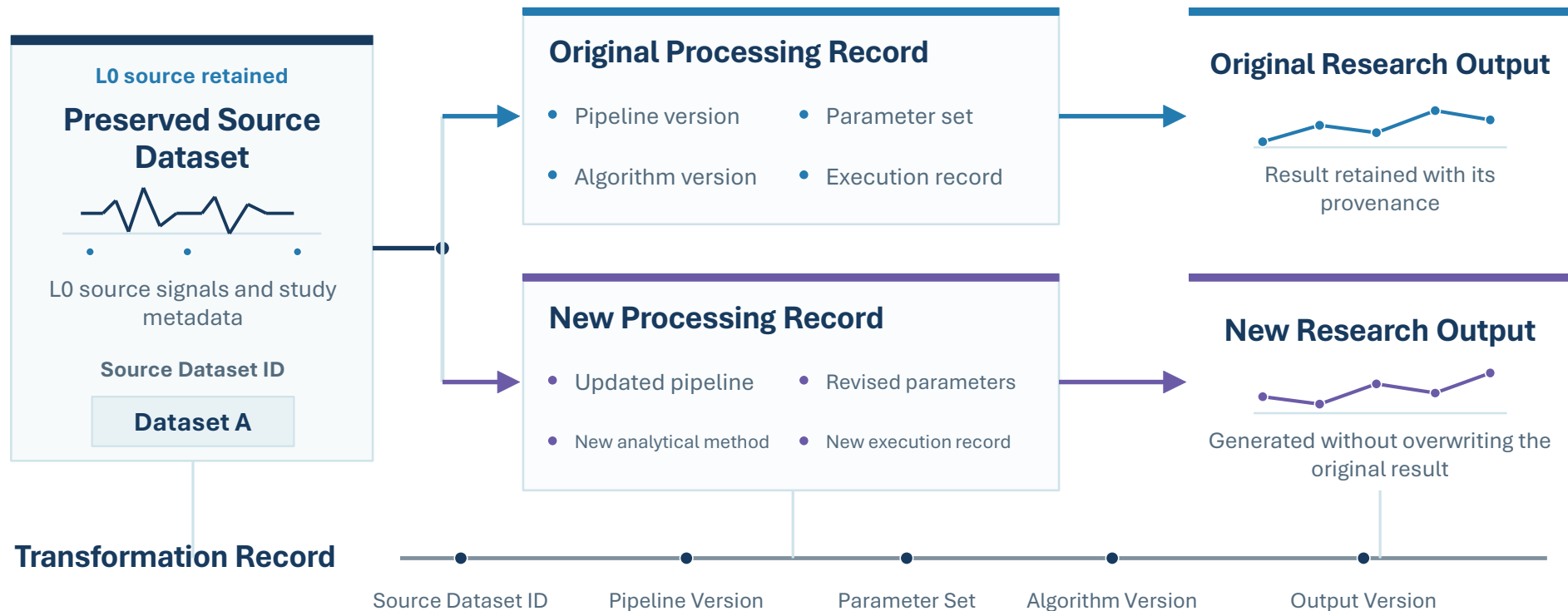


Every derived result remains linked to its source data and transformation history



Versioned Processing and Reproducible Research

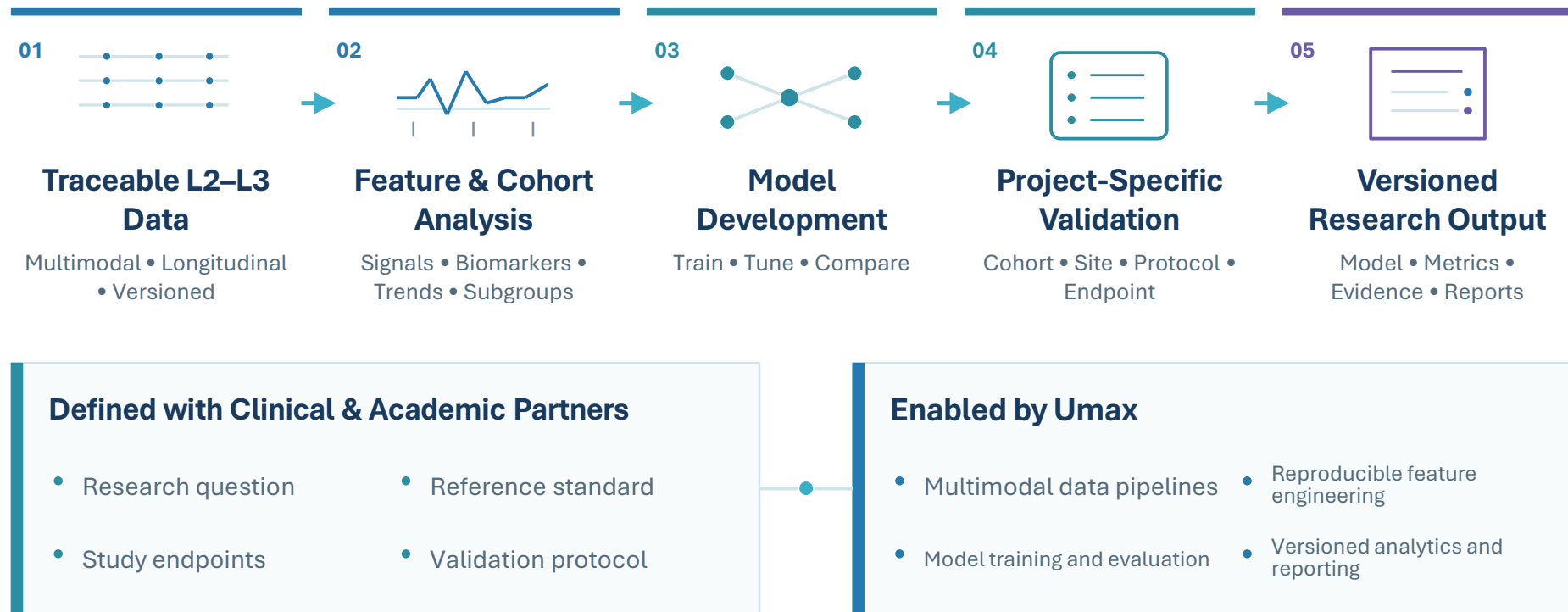
Each analytical output retains the source-data reference and the processing record that produced it



The same preserved source data can be reprocessed without overwriting prior results



Analytics and AI Model Development



From traceable multimodal data to reproducible, project-specific AI evidence.

Applicable across cancer, chronic disease, preventive health, rehabilitation and other Cluster 1 use cases.



Contribution Across Cluster 1 Health and Cancer Mission

One reusable data and AI infrastructure, configured for each research protocol and health use case.

Across Cluster 1 Health

Reusable infrastructure across health research

- Mental health and behavioural research
- Chronic disease and remote follow-up
- Preventive health and rehabilitation
- Multisite clinical and academic studies

Cancer-04

Earlier and more precise palliative care

- Longitudinal symptom and physiological data
- Patient-reported outcome integration
- Supportive care trajectory analysis
- Evidence for research on changing care needs

Cancer-07

Quality of life of older cancer patients

- Longitudinal quality-of-life monitoring
- Physiological and behavioural trend analysis
- Patient-reported and contextual data
- Follow-up across home and care settings

Configured to each project's sensors, protocol, endpoints and governance.

Umax Intelligence Stack

Project-defined configuration and research-led interpretation

01

Multimodal sensor integration

02

L0-L3 data management

03

Longitudinal data versioning

04

Analytics and AI development

05

Scientific reporting infrastructure

A reusable technology layer for consortium data, analytics and research reporting.

Available as a technology partner across work packages, pilots and multisite studies.



Proposed Consortium Role and Partnership Ask

Umax can provide the shared data, analytics and reporting infrastructure for health research consortia.

You define the clinical question and research protocol.
Umax provides the technology to collect, process, analyse and report the evidence.

Our Proposed Role

Technology Partner for Multimodal Data and AI Infrastructure

- | | |
|---|---|
| 01 Data Infrastructure | Sensor integration, L0–L3 pipelines, secure storage and version control |
| 02 Research Analytics | Longitudinal analysis, feature engineering and project-defined AI models |
| 03 Scientific Reporting Technology | Traceable datasets, reproducible outputs and reporting workflows |
| 04 Pilot Integration | Device onboarding, multisite deployment support and research system integration |

Who We Want to Meet

- Project coordinators building Cluster 1 consortia
- Clinical and academic research partners
- Hospitals and multisite pilot owners
- Digital health, medtech and data partners

Relevant opportunities

- Cancer-04 and Cancer-07 consortia
- Other Cluster 1 health proposals
- Projects requiring multimodal sensor data
- Projects requiring reproducible analytics and scientific reporting

Preferred engagement

Consortium technology partner
Contributing to relevant work packages and technical deliverables

Specialist subcontractor
Delivering a defined platform, integration or reporting scope when required

Technology readiness

TRL 5–6
Platform maturity

2 TÜBİTAK Projects
Supported R&D

Sanofi Care4Rare 2025
First Prize

AWS Activate Member
Platform development

Let's identify the work package where Umax can strengthen your proposal.

Available for consortium discussions during and after the brokerage event.



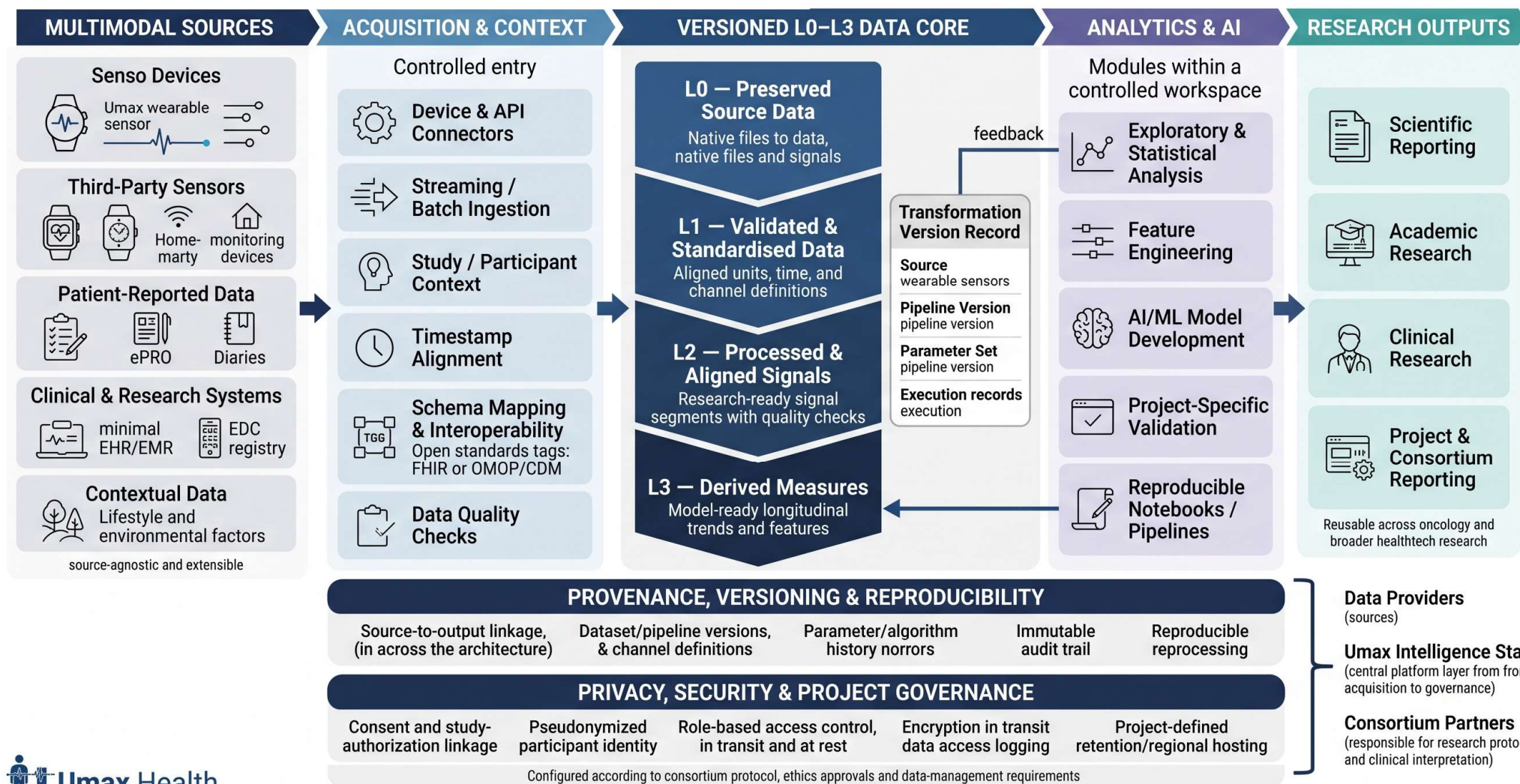
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Healthtech company with
Türkiye-based R&D and UK presence

Cluster Health & Mission Cancer Brokerage Event

Appendix A: Technical Architecture



Appendix B: Organisation and Delivery Readiness



A multidisciplinary global delivery structure covering devices, embedded systems, cloud software, health data and AI.

SUPPORTING INFORMATION

Organisation

TÜRKİYE

Uma Bilişim, TR

Health technology R&D, electronic and embedded development, device engineering and pilot implementation



UNITED KINGDOM

Umax Health Ltd, UK

Platform strategy, intellectual property, international partnerships and consortium engagement

**One integrated product
and research delivery model**

Core Delivery Capability



Devices and Embedded Systems

Wearable and connected sensors, electronics, firmware and BLE integration



Platform Engineering

Mobile applications, web applications, APIs, cloud services and data pipelines



Data Science and AI

Signal processing, longitudinal analytics, feature engineering and project-defined models



Research and Governance Support

Study integration, data traceability, scientific reporting workflows and EU project coordination support

Core team

Selim Besimzade

Founder and Engineering Lead

Cem İstanbullu

Co-founder, Technology and AI Lead

Hakan Haşşerbetçi

EU Business Development and Data Governance

Enes Çeb

Software and Firmware Development

Supported by UK operations, business development and academic advisory relationships.

Current Readiness

- **TRL 5–6**
Integrated platform and connected sensing capabilities under continued development
- **2 TÜBİTAK-supported projects**
1501 and 1507 R&D programmes
- **Sanofi Care4Rare 2025 First Prize**
External innovation recognition
- **AWS-based infrastructure**
Regional cloud hosting and scalable data services
- **Multiple applied pilot settings**
Mental health, chiropractic and oral health environments

Quality and Data Governance

ISO 13485 QMS Certification

Implemented

GDPR, UK DPA and KVKK data governance

Embedded in platform design

EU AI Act readiness activities

In progress

Post-session research analytics

No autonomous diagnosis

Ready to contribute defined technical tasks, work package deliverables and pilot integrations within a partner-led research protocol.

Final legal role, validation scope and regulatory responsibilities will be agreed for each consortium.