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Towards EHDS & EEHRxF

IHE Japan Connectathon joint event
October 19th , 2025

Diogo Martins | Uphill Health

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Today's speaker:



Diogo Martins

Project Manager

UPHILL is a Portuguese digital health company that develops software to improve care quality and efficiency through clinical pathway orchestration, AI-assisted decision support, and interoperable health data solutions.

Project Manager, UpHill Health

- MSc in Healthcare Information Systems Management, Background in Electronics, ICT & Medical Device
- Experience at SPMS and Glintt Global leading initiatives in health data sharing, IHE/XDS (image sharing), and telemedicine.
- Coordination and contributor to several EU projects (e.g. X-eHealth, eHAction, HEALTHeID)
- Manage EU-funded initiatives on ICT implementation, interoperability, and the European Health Data Space (e.g. i2X, MyHealth@MyHands, Route2Spain)

1. I2X | CONNECTING EU HEALTH DATA

Who we are:

Start date: 1st of April 2025

Lengths: 48months

Partners: 38 Partners involving 12 Member States



What is i2X

i2X is a Digital Europe project that aims to demonstrate the real-world value of the EEHRxF, supporting the European Health Data Space (EHDS) and MyHealth@EU. It is an implementation-based project that will test digital health tools in everyday clinical settings to alleviate the burden of healthcare professionals.

Why it Matters

i2X will:

- Advance digital health through AI-powered and standards-based tool
- Support healthcare providers in adapting to the EEHRxF
- Capture real-world evidence and cost-benefit of structured data implementation
- Empower patient to access, share, and manage their health information
- Contribute to policy alignment, standardization, and EU-wide interoperability

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i2X is an 8M EU-funded project that aims to implement EEHRxF in an intelligent way, involving 38 partners across 12 different EU Member States in the next 4 years

What is the EEHRxF?

EEHRxF stands for European Electronic Health Record Exchange Format
=
Standardized medical terms and codes for sharing health data

- Patient Summary
- ePrescriptions & eDispensations
- Lab Results
- Imaging reports
- Discharge reports

What is the purpose of i2X?

- Implement the EEHRxF
- Add intelligent components
- Improve patien's outcomes
- Reducing the burden of HCPs

How will i2X implement the EEHRxF?

STRUCTURE

- WP1 Coordination
- WP2: Intelligent tools research
- WP3 EEHRxF testing
- WP4: EEHRxF demonstration
- WP5: EEHRxF demonstration
- WP6 Project impact
- WP7 Dissemination

DEMONSTRATION

- Tech company
- Healthcare organizaiton
- Implementation of the EEHRxF in 10 countries
- Border exchange

IMPACT

3 mn	1200	35	15	32	5
Citizens/Patients Reached	Healthcare professionals	Demonstrators	Tech companies	Systems where the format will be implemented	AI-based tools implemented

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i2X in a nutshell

WP1: Project Coordination
UpHill (PT) | New Angle (PT)

WP2: Innovative tools for EHRs and data use
UTH (GR) | FTGM (IT)

WP3: EEHRxF Testing, Implementation & Specifications
IHE Catalyst (BE) | DOHIE (IE)

WP4: Demonstrators for first group of priority categories
UNL (PT) | Gnomon SA (GR)

Including identification of X-format requirements and recognition of additional eXcange demonstrators

Patient Summary

ePresciptions & eDispensations

WP5: Demonstrators for second group of priority categories
FTGM (IT) | Gnomon SA (GR)

Exam Results

Imaging Studies and Reports

Discharge Reports

WP6: Evidence gathering on the format's added value
NeHA (CY)

WP7: Dissemination, Outreach and Explotation
Mindview (GR) | UpHill (PT)

WP8: Ethics Work package – Ethics Requirements
UpHill (PT)

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Coordination TEAM



Henrique Martins

i2X Coordinator



Duarte Sequeira

CTO



Diogo Martins

Project Manager



Catarina Camarate

CEO Associate

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Blueprint to real-world scnearios – i2X implementation Focus

🎯 Purpose:

i2X is not just a research project, but an action-driven initiative, proving value in real-world clinical and show the value of implementation in a diverse European landscape.



🏥 12 Hospitals Testing Standards

EHR integration, AI support, decision-making

🛠️ Vendor-Driven Solutions

Real interoperability between systems

👥 Patient & Clinician Involvement

Testing usability and effectiveness

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Expansion – Outreach & Ecosystem Engagement

Why it matters: Expanding beyond the consortium enables i2X to scale impact, test interoperability in diverse settings, and align with real-world needs

Special Interest Groups (SIGs)

- Industry
- Healthcare Providers

Engaging Networks

X-net Industry

Hospitals on HL7 FHIR

- Expansion of entities and early adopters
- Co-create and validate standards in real-world settings
- Drive adoption and ensure alignment with European Strategies
- Foster sustainability and open Innovation

i2X: Integrated Technical Team

Join us!!

KPI | “Are we doing what we promised”

Specific Objective (SO)	KPI Code & Short Name	Target/Why it matters
SO 1 – Best-practice & guidance	KPI 1.1 Best-practice guide completion KPI 1.2 Recommendations document online	Foundational know-how for any future implementor 50 % by M24, 100 % 1 public document online
SO 2 – X-FASE tools & methods	KPI 2.1 Needs-analysis reports endorsed by ≥ 20–30 prof. bodies KPI 2.2 X-FASEs identified 12–16 (6–8 used in demos)	Validates that chosen enablers solve real clinical pains
SO 3 – Testing & implementation lab	KPI 3.1 ≥ 4 service-component test exercises/site KPI 3.2 4–6 EEHRxF domains tested KPI 3.3 ≥ 2 implementation plans KPI 3.4 ≥ 1 projectathon / year	Ensures technical robustness before roll-out
SO 4 – First-wave demonstrators	KPI 4.1 6–8 demos with self-eval complete KPI 4.2 ≥ 5 MS with ≥ 1 demoed category KPI 4.3 Active users: 400 MD, 600 RN/Tech, 2 000 patients, 200 others	Proof that clinicians & patients actually use the format

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KPI | “Are we doing what we promised”

Specific Objective (SO)	KPI Code & Short Name	Target/Why it matters
SO 5 & SO 6 – Scalable, high-value demos	KPI 5.1 ≥ 3 000 000 patients covered KPI 5.2 User satisfaction ≥ 68 (SUS “Good”)	Demonstrates breadth and perceived value of adoption
SO 7 & SO 8 – Capacity-building & economics	KPI 6.1 10–12 partners trained KPI 6.2 Cost-benefit report positively rated by Ethics & Advisory Board	Shows ecosystem is learning and saving money
SO 9 – Outreach & sustainability	KPI 7.2 ≥ 10 D&C activities / year KPI 7.3 ≥ 1 000 social-media followers (Y1) + ≥ 25 % YoY growth KPI 7.4 ≥ 2 500 web visits / month (Y4) KPI 7.5 ≥ 10 national + ≥ 10 major int’l events (Y4) KPI 7.6 ≥ 10 multilingual webinars / year KPI 7.7 ≥ 10 peer-review papers KPI 7.8 ≥ 5 lay-press articles / year	Keeps i2X visible, transferable and self-sustaining

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Key Success Indicators

Strategic Outcome Area	Success Indicator & Baseline → Target
Interoperability of care delivery	Share of health-data transactions using EEHRxF ↑ 65 % across local / regional / national / EU services
Data quality & completeness	Structured EHR data meeting EEHRxF quality rules ↑ 80 % (vs. pre-project)
Patient empowerment	Patients able to exchange data bidirectionally with clinicians using EEHRxF ↑ 75 %
Health-system efficiency & sustainability	Net cost-effectiveness gain ≈ 10 % (fewer readmissions, better outcomes, faster access)
Ecosystem expansion & replication	≥ 16 live demonstrator sites across 10 Member States + readiness model updated & reused
Policy alignment & standardisation	Continuous feedback loop into EEHRxF Standards & Policy Hub (X-Share) – updates logged & adopted
Market stimulation	≥ 350 EU health-IT vendors engaged (10 – 12 directly in consortium; remainder through SIGs / X-Nets)

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i2X Digest - Highlights (Apr–Oct 2025)

Coordination & Ethics



Governance in place: Handbook, PLB, QA & Risk plans

Overall project progress, governance and monitoring
Ethics Advisory Board and Advisory Board

Technical work launched:
- WP2 needs assessment
- WP3 testing strategy
- WP4 demonstrator prep & cluster

Project identity & website live: i2xhealth.eu

Tools & Testing (WP2–3)



Needs & challenges assessment (WP2) & field studies underway

Unstructure to Structed data: NPL, NER, AI

Testing strategy (WP3) aligned with MyHealth@EU

Online testing tools (validators, simulators)

Specs alignment w/ HL7, IHE, openEHR

Demonstrators (WP4–5)



- Use Case & requirements study launched in 11+ healthcare settings
- Use case definitions submitted (Sept)
- User stories & workflows
- WP4 aligned with WP2 tools & WP3 specs

Dissemination & Engagement (WP7)



- Dissemination Plan (D7.1) finalised (M6)
- Visual identity, website, social media activated
- Channels: LinkedIn (1000+ followers), YouTube, Bluesky

Advisory Board | Call for Interest



2. CHALLENGES

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Major challenges ahead

Patient Expectations • MORE TECNOLOGY • AI • ROBOTICS • AR/VR/MR • MORE DATA • MORE INFORMATION • CYBERSECURITY • SOCIAL MEDIA • CITIZENS INFORMED CHOICES • CITIZEN-CENTERED MEDICAL HOMES • 3D PRINTS FOR HEALTH • HOSPITALS AS NETWORKS • PERSONALISED MEDICINE • POCKET MEDICAL DEVICES • CARE WITHOUT BORDERS • ALTERNATIVE TREATMENTS

• • •

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www.i2Xhealth.eu

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