ai4health CRO

JANUARY - APRIL 2026

FROM KNOWLEDGE TO ACTION

Education, real-world data and a national innovation challenge shaped the first four months of 2026.

COVER STORY

Digicyte: from scientific technology to an investment-ready healthcare innovation

GPU OPTIMISATION | CLINICAL PILOT | MARKET READINESS

EDIH European Digital Innovation Hubs Network

Co-funded by the European Union

REPUBLIC of CROATIA Ministry of Economy

A sector-focused gateway for healthcare innovation

AI4Health.Cro connects research, healthcare, business and public organisations around practical routes for testing and adopting responsible AI.

ADVANCING HEALTHCARE

The hub supports startups, SMEs, hospitals, public bodies and research teams. The work begins with the user's real need, then translates that need into a tailored service plan and access to the right expertise.

TEST. LEARN. CONNECT. GROW.

Services combine Test Before Invest, education, ecosystem access and support to find finance. The objective is to reduce technical, clinical and commercial uncertainty before users commit resources at scale.

A MULTIDISCIPLINARY TEAM

Health innovation depends on software, clinical relevance, data governance, infrastructure, regulation, organisational readiness and business models. AI4Health.Cro brings these perspectives into one support pathway.

WHO CAN BENEFIT?

A company developing a digital health product. A hospital testing a new workflow. A public organisation shaping its digital roadmap. A research team validating an AI method. AI4Health.Cro helps each user move from a broad ambition to a defined and measurable development plan.

What shaped January to April 2026

The period linked practical education, a real-world diabetes challenge, a record national response and a success story built over three phases of support.

01

WINTER SCHOOL

A hybrid programme connected AI, data science, digital health, regulation, HPC and business development.

02

AI FOR DIABETES

A national challenge invited teams to address medication adherence using real, anonymised data.

03

RECORD RESPONSE

A total of 150 contestants applied across 44 multidisciplinary teams.

04

KICK-OFF AND DEVELOPMENT

Twenty-four teams and 85 contestants entered the active development phase.

05

EVALUATION AND QUALITY

A shared assessment framework prepared evaluators for the final stage.

06

SUCCESS STORY

Digicyte progressed from a scientifically validated method to clinical evidence and investment readiness.

07

BEST PRACTICES

Structured onboarding and responsible data use remained central to service delivery.

Four months, four layers of innovation

The strongest health AI programmes connect knowledge, real-world needs, responsible data use and implementation planning.

1. BUILD THE KNOWLEDGE BASE

The Winter School gave users a route into core AI and data-science concepts, clinical applications, cybersecurity, regulation, European computing infrastructure and business development.

2. DEFINE THE CARE CHALLENGE

The diabetes competition began with a practical problem: identify the risk of medication non-adherence and design a response that primary-care teams could use.

3. TEST WITH REAL DATA

Anonymised health data allowed teams to examine assumptions, compare methods and connect analytical results with the realities of care delivery.

4. CONNECT EVIDENCE TO SCALE

Digicyte's journey showed why technical optimisation, clinical validation, regulatory guidance, market strategy and investor readiness have to progress together.

> **"Health AI becomes useful when a promising model is surrounded by evidence, workflow understanding and a route to implementation."**

EDITORIAL PERSPECTIVE

The first four months of 2026 made that sequence visible. The Winter School created a shared knowledge base. The innovation challenge translated a public-health need into a structured development task, supported by real data, mentoring and a defined evaluation process. Digicyte demonstrated what sustained, phased support can achieve over time.

The common thread was the discipline of moving from an idea to a testable proposition, from a model to a workflow, and from an isolated project to a credible pathway for adoption.

Winter School 2026: an interdisciplinary route into health AI

2-25 February 2026 | Hybrid and online programme

AI4Health.Cro Winter School visual

AI4Health.Cro opened the year with a Winter School designed for organisations that want to understand, develop or apply artificial intelligence and digital solutions in healthcare. The programme ran from 2 to 25 February and combined online and hybrid learning in Croatian.

The curriculum brought together healthcare, technology, science and entrepreneurship. Participants could build foundations in data science, machine learning and deep learning, while also examining the conditions that determine whether an AI tool can enter a clinical or organisational setting.

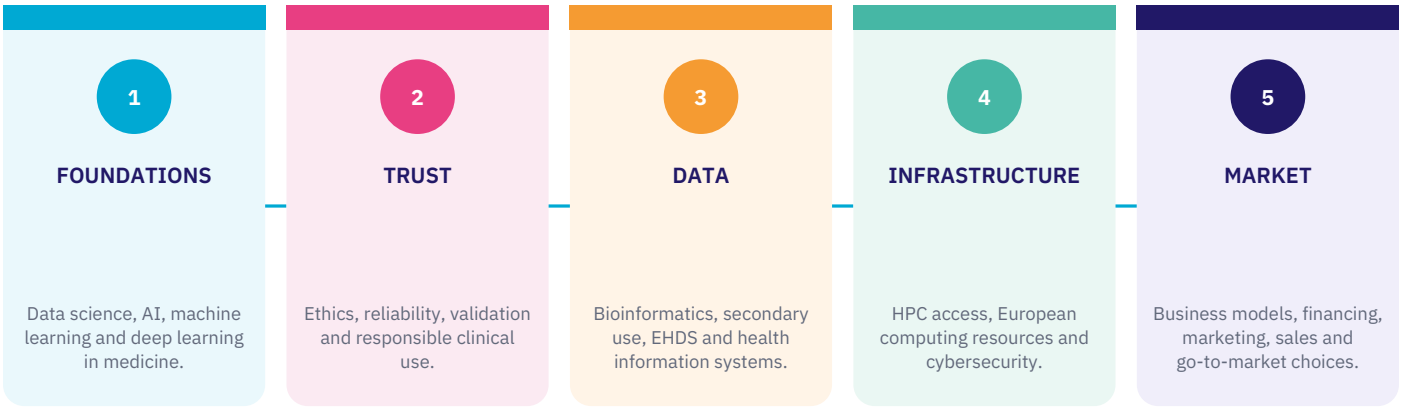
The programme addressed trustworthy and ethical AI, bioinformatics and translational medicine, large language models in healthcare, cybersecurity, eHealth systems, high-performance computing, regulation, secondary use of health data, the European Health Data Space and business development.

The school was offered free of charge to eligible organisations following onboarding and an assessment of state-aid conditions. This model allowed the programme to remain open to SMEs, small mid-caps and public-sector organisations while connecting education directly to the wider AI4Health.Cro service pathway.

EXPLORE THE PROGRAMME

A curriculum built around the decisions health innovators face

The programme combined technical literacy with clinical context, infrastructure, governance and the practical demands of building an organisation around an innovation.



Knowledge that supports action

The value of a multidisciplinary school lies in the connections between subjects. A team may understand model architecture but still need help defining the clinical question. It may have strong evidence but lack a data-governance route. It may know its users but not how to finance the next development stage.

By presenting technical, clinical, regulatory and business topics within one programme, the Winter School helped participants see these dependencies earlier. Case studies and practical examples translated abstract concepts into questions teams can use when planning pilots, preparing documentation or speaking with healthcare partners.

Tailored learning rather than a fixed syllabus

AI4Health.Cro's onboarding process helped organisations select the workshops most relevant to their needs. This matters because a hospital, a startup and a public body enter digital transformation from different starting points. A useful training pathway has to respond to those differences rather than treat every participant as the same type of learner.

"A course becomes valuable when a participant can connect it to a decision they need to make next."

TRAINING PRINCIPLE

A national challenge focused on medication adherence in type 2 diabetes

Applications opened on 17 February 2026, with a EUR 15,000 prize fund and a deadline of 9 March.

AI4Health.Cro invited startups, students, healthcare professionals, researchers and AI specialists to build a prototype that could help people with type 2 diabetes stay on therapy.

The challenge addressed a familiar limitation of prediction projects. Identifying a person at risk of stopping medication is not enough. A useful solution also has to explain the signals behind the risk and support an intervention that healthcare professionals can act on.

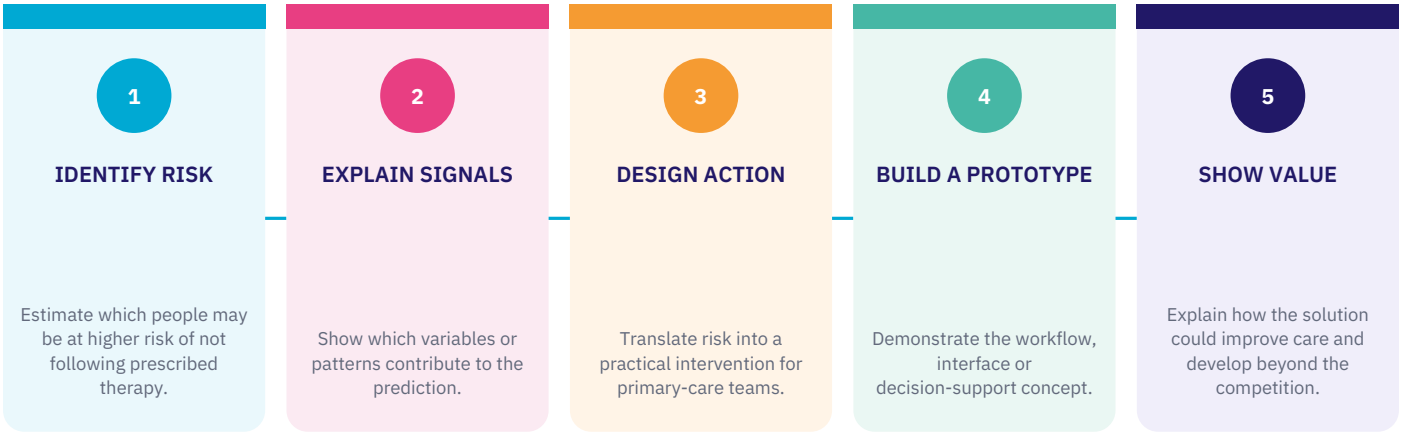
Teams of two to five members were invited to work with real, anonymised data in a controlled environment. The Croatian Health Data Centre supported the data component, while the competition connected participants with mentors, clinical context and a structured route from data exploration to a final prototype.

The prize fund was divided among the three highest-ranked solutions: EUR 7,000 for first place, EUR 5,000 for second and EUR 3,000 for third.

READ THE LAUNCH STORY

The task: move from prediction to a usable response

The competition brief combined analytical performance, explainability and practical design for primary care.



A challenge defined by the people who face it

Medication adherence is shaped by many factors, including treatment complexity, daily routines, side effects, access to care and communication between patients and professionals. A model can only support practice when its output is understandable and linked to a realistic response.

This is why the competition asked teams to consider more than a score. They needed to think about who would receive the information, when it would appear in the workflow, how a professional might verify it and what action could follow.

Technical performance in context

Participants were expected to compare approaches, document assumptions and examine error. A solution that performs well on a development dataset may still require further testing, clinical review and validation before use. The competition created a controlled environment for exploring these questions without presenting prototypes as finished medical products.

“The challenge was designed around a care pathway, not around an algorithm in isolation.”

CHALLENGE PRINCIPLE

Real data changes the question - and the responsibility

Working with anonymised health data allows teams to test assumptions that synthetic or public datasets may not reveal.

A controlled environment

The competition used anonymised data and controlled access. This reduced the risk of unnecessary exposure and made the working conditions part of the learning process. Teams had to understand what they could access, why the data were available and what they were permitted to do with them.

Documentation before interpretation

Health data are produced through care processes. Variables can reflect administrative rules, recording practices and missing information as much as biological or behavioural patterns. Before interpreting a model, teams need a data dictionary, provenance information, quality checks and a clear understanding of the population represented.

Explainability is a clinical conversation

Feature importance or model explanations can help a team inspect a result, but they do not automatically make the result clinically meaningful. Explanation has to be reviewed with people who understand the care pathway and the consequences of acting on the output.

150 contestants across 44 teams

A record response: 24 teams and 85 contestants advanced to the active development phase.

150

Individual applicants expressed interest in the competition.

44

Teams submitted applications by the March deadline.

24

Teams were selected for the active development phase.

85

Contestants joined the selected teams at the kick-off.

EUR 15k

Total prize fund for the three highest-ranked solutions.

The response showed that a focused health challenge can attract a broad community when the problem, data conditions and expected outputs are clearly defined. Applications came from students, startups, researchers, health professionals and multidisciplinary teams.

Selection was necessary because the active phase required more than access to a brief. Teams needed a managed data environment, shared workspaces, mentoring and a fair evaluation process. The 24 selected teams therefore entered a structured development period rather than an open-ended hackathon.

The cohort also created a learning network. Teams could compare approaches, discover where different disciplines interpret the same data differently and test whether an idea remained coherent when presented to people outside the original team.

“High participation matters most when it leads to a development process that protects quality, fairness and learning.”
PROGRAMME DESIGN

Eighty-five contestants, 24 teams and one shared challenge

24 March 2026 | ZICER, Zagreb

Competition kick-off at ZICER. Photo: AI4Health.Cro / IRB

The kick-off marked the transition from recruitment to active development. Teams met the organisers, partners, mentors and one another, received the competition framework and entered the phase in which ideas had to be tested against data and the practical requirements of diabetes care.

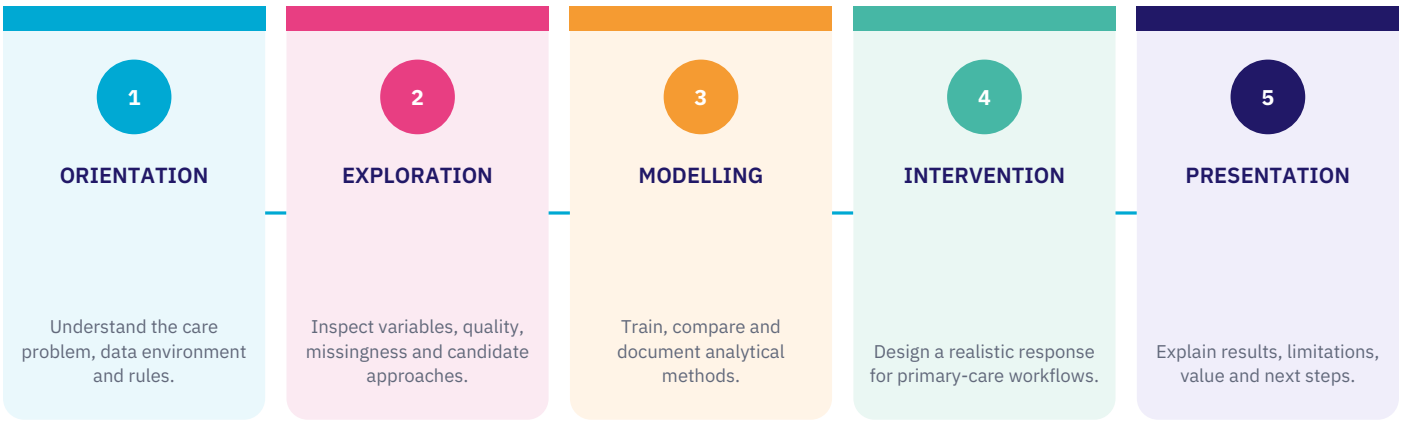
The event clarified the schedule, access conditions, evaluation logic and support available to participants. It also gave teams a first opportunity to identify gaps in their own composition. A strong analytical group may still need clinical interpretation, product design or business thinking; a health-focused group may need deeper technical support.

The central message was visible behind the participants: challenges are solved by the people who lead them. For AI4Health.Cro, this meant connecting those closest to the problem with the people able to analyse data, build prototypes and think through implementation.

READ THE KICK-OFF STORY

A development period with clear gates

Between the kick-off and the final, teams had to turn an initial concept into a documented, explainable and presentable prototype.



What teams had to demonstrate

The strongest submissions would need a coherent chain of reasoning. The problem definition had to match the data. The selected method had to be justified. Results had to be reported with appropriate caution. The proposed intervention had to make sense for the people expected to use it.

Teams were also expected to show how the solution could develop after the competition. That included questions of further validation, access to additional data, integration, regulation, business model and the partnerships required to move beyond a prototype.

Why staged support matters

A deadline creates momentum, but support determines whether that momentum produces learning. Mentoring, documentation, feedback and periodic checkpoints help teams recognise weak assumptions early. They also create a more comparable basis for final evaluation.

KEY DATES

7 MAY
Submission deadline

19 MAY
Final presentations and awards

Preparing a fair evaluation before the final

28 April 2026 | Evaluator meetup

01 CLINICAL RELEVANCE

Does the solution address the defined care problem and a realistic point in the workflow?

02 TECHNICAL QUALITY

Are the data preparation, modelling choices, comparisons and limitations documented?

03 EXPLAINABILITY

Can evaluators understand why the model behaves as reported and how results should be interpreted?

04 USABILITY

Can the proposed intervention be understood and used by the intended professional or organisation?

05 DEVELOPMENT POTENTIAL

Is there a credible next step for validation, integration, regulation, partnership or finance?

The evaluator meetup created a shared interpretation of the assessment framework before teams reached the presentation stage. This is important in multidisciplinary competitions because a technically impressive result can still be weak in clinical relevance, while a compelling care concept may not be supported by adequate analysis.

Calibration helps evaluators distinguish between evidence that is missing, evidence that is not yet possible at prototype stage and claims that should not be made. It also reduces the risk that presentation style outweighs the quality of the underlying work.

From challenge to change: the annual conference takes shape

Save the date announced during the reporting period: 19 May 2026, National and University Library in Zagreb.

During March and April, AI4Health.Cro began inviting its community to the third annual conference, built around health AI, data, innovation, investment and partnerships.

The event was designed as the next public step in the competition journey. Teams would present their solutions, the highest-ranked projects would be announced and the wider programme would connect the challenge to questions of clinical value, adoption, investment and ecosystem development.

The conference theme, “From Challenge to Change”, reflected a broader principle. Innovation challenges are most valuable when they create relationships and evidence that continue after the awards. A final presentation can be the beginning of a pilot, a revised product strategy, a new partnership or a more focused development plan.

The National and University Library in Zagreb was selected as the venue, with the programme scheduled for Hall Judita on 19 May.

CONFERENCE INFORMATION

> “The final is a public checkpoint in a longer innovation process, not the end of the process.”
>
> LOOKING AHEAD

SUCCESS STORY | TEST BEFORE INVEST

DIGICYTE

From scientific technology to investment-ready healthcare innovation

A three-phase journey through GPU optimisation, clinical validation, regulatory guidance, commercial strategy and ecosystem access.

Photo: Digicyte / AI4Health.Cro

A microscopy innovation developed through three phases of support

Digicyte develops software that improves the resolution of medical microscopy images without requiring laboratories to replace existing hardware

The company's Sparse Deconvolution method had demonstrated strong scientific potential, but commercialisation required progress on several fronts at the same time. The algorithm needed to become fast enough for clinical workflows. The team needed feedback from pathologists and evidence from hospital settings. It also needed a clearer commercial and regulatory route.

AI4Health.Cro responded with a phased partnership that evolved as the company matured. Rather than delivering one isolated service, the hub combined infrastructure, technical analysis, clinical access, business development and legal guidance.

PHASE 1 | DISCOVERY

October 2023-April 2024. Workshops, Digital Maturity Assessment, access to an IRB GPU cluster and hospital demonstrations helped define technical priorities and target users.

PHASE 2 | VALIDATION

June 2024-June 2025. Extended infrastructure, performance analysis, usability testing, concept verification and a three-month clinical pilot generated evidence from practising pathologists.

PHASE 3 | MARKET READINESS

July 2025-January 2026. International strategy, continued optimisation, project development, legal and regulatory guidance and a tailored matchmaking event strengthened the route to market.

READ THE FULL STORY

From a better algorithm to a stronger investment case

The company's progress illustrates how technical, clinical and commercial evidence reinforce one another.

2-3x

Resolution enhancement demonstrated by the underlying technology.

4 GPUs

Early access to IRB computing infrastructure supported optimisation work.

3 months

Clinical pilot at Sestre milosrdnice University Hospital Centre.

1 **SPEED**

Optimisation makes a scientifically strong method more compatible with clinical workflow.

2 **EVIDENCE**

Pathologists and hospital pilots test relevance, usability and performance in context.

3 **STRATEGY**

Market segmentation and international planning focus limited startup resources.

4 **COMPLIANCE**

Legal and regulatory guidance clarifies documentation and market-entry requirements.

5 **CAPITAL**

A coherent evidence package improves readiness for seed fundraising and partnerships.

Digicyte is positioned for market entry and seed fundraising, with medium-term plans for commercial activity in Croatia and regional expansion towards Slovenia, Austria and Italy. The long-term ambition is to establish a European position in software-based microscopy enhancement.

The important result is not a single metric. It is the alignment of multiple forms of readiness. Faster software strengthens the clinical proposition. Clinical evidence strengthens the market story. A clearer market story focuses regulatory and investment work. Each layer makes the next decision more credible.

For other healthtech companies, the lesson is practical: do not postpone clinical feedback, infrastructure planning or commercial questions until the technology feels finished. These streams can expose problems early and help the product develop in the direction of real demand.

User onboarding as a pathway to digital transformation

A structured first contact helps AI4Health.Cro understand the user, define responsibilities and select services that match the organisation's maturity.

59

Organisations had used or accessed services by February 2026.

40

SMEs within the active user base.

19

Public-sector organisations within the active user base.

+11 pp

Average improvement between available T0 and T1 digital maturity assessments.

1 EXPLORE

First meeting to understand the organisation, challenge and expected outcome.

2 CONSULT

Internal experts review the request and identify suitable service providers.

3 FORMALISE

A second meeting defines the package, documents, state-aid route and responsibilities.

4 PLAN

Timelines, milestones and expected outputs are recorded in an action plan.

5 DELIVER

Services begin with follow-up, monitoring and adaptation where needed.

By February 2026, 43 organisations had completed an initial digital maturity assessment and 27 had a follow-up assessment. The measured improvement was not treated as proof that every organisation had completed its transformation. It was used as one signal that targeted support can help users strengthen capabilities over time.

Medical data at the heart of innovation

Access to data creates value only when purpose, governance, context and the path to validation are defined together.

01	START WITH THE TASK	Define the clinical or organisational question before selecting data. The dataset should support a specified decision, not an undefined search for patterns.
02	BUILD GOVERNANCE FIRST	Clarify legal basis, permissions, access, anonymisation, retention, roles and security before development begins.
03	CONNECT DATA WITH EXPERTISE	A variable cannot be interpreted safely without knowledge of how it was recorded and how the care process works.
04	DOCUMENT LIMITATIONS	Record missingness, bias, population boundaries, assumptions and transformations so results can be reviewed and repeated.
05	PLAN THE NEXT VALIDATION	A development result is a starting point. Teams should define what evidence, settings and users are needed before a solution can progress.

“The safest route to faster innovation is to make governance and clinical interpretation part of development from the beginning.”

DATA PRINCIPLE

CLOSING PERSPECTIVE

FIVE LESSONS FROM THE FIRST FOUR MONTHS OF 2026

01

KNOWLEDGE WORKS BEST WHEN IT IS CONNECTED

Technical, clinical, regulatory and commercial learning should inform the same development plan.

02

A REAL CARE NEED SHARPENS THE WORK

Teams make better decisions when the problem, data and expected intervention are defined together.

03

REAL-WORLD DATA RAISES THE STANDARD

Authentic data improve relevance while demanding stronger governance, documentation and interpretation.

04

A CHALLENGE NEEDS A PATHWAY

Recruitment, data access, mentoring, evaluation and follow-up turn a competition into a development programme.

05

SUCCESS STORIES ARE BUILT IN PHASES

Digicyte's journey shows how infrastructure, clinical evidence, market strategy and investment readiness compound over time.

WORK WITH AI4HEALTH.CRO

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