AutoPiX

AutoPiX – Imaging for patient benefit in arthritis

Putting images to work for patients

Press-pack

November 2025

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Press-pack

Summary of the first Press Release

Start of new IHI project to advance imaging in arthritis

Vienna, 9 December 2024 — The AutoPiX project, funded by the Innovative Health Initiative (IHI), brings together leading European research partners, industry, SMEs, and patient organisations to transform how imaging is used in arthritis care. By using AI and machine learning, AutoPiX aims to make imaging more interpretable and actionable for clinicians and patients, improving diagnosis, guiding treatment decisions, and monitoring disease over time.

The project targets rheumatoid arthritis, psoriatic arthritis, and axial spondyloarthritis, affecting millions across Europe.

AutoPiX will develop AI tools to convert unstructured images (X-ray, MRI, ultrasound, and even mobile photos/videos) into quantitative biomarkers.

These biomarkers will be clinically validated for diagnosis, monitoring, and prognosis.

In addition, the project will pilot accessible imaging strategies, including remote monitoring and robot-guided ultrasound.

With a 5-year timeline and a budget of ~€21 million, AutoPiX is co-funded by the EU and industry partners.

Project Factsheet

Objectives

- Improve clinical utility of imaging in arthritis.
- Develop AI/ML models to generate quantitative biomarkers from images.
- Validate biomarkers in prospective clinical trials.
- Enable more accessible imaging: self-captured images, remote monitoring, robotic ultrasound.
- Establish a multi-stakeholder public-private framework for long-term biomarker validation.

Scope & Focus

- Diseases: Rheumatoid Arthritis (RA), Psoriatic Arthritis (PsA), Axial Spondyloarthritis (axSpA).
- Imaging modalities: X-ray, MRI, ultrasound; also patient-taken photos/videos.
- AI / ML focus: unstructured → quantitative biomarker; interpretability.

Duration & Budget

Start date: 1 November 2024

End date: 31 October 2029

Total budget: ~€21.17 million

EU contribution: ~€10.73 million

Consortium

Coordinated by Medical University of Vienna (MedUni Wien)

Key industry partner: Janssen Pharmaceutica NV, Johnson & Johnson.

Other partners: SMEs, universities, research organisations, patient orgs (See a list at the end).

Patient involvement: Patient Research Partners (PRPs) included.

Work Packages (WPs)

- WP1: Project coordination, governance, risk management, ethics.
- WP2: Data infrastructure, legal & GDPR framework, data curation.
- WP3: Remote patient monitoring (RPM), robotic ultrasound, dashboards.
- WP4: AI models for scoring radiography, MRI, ultrasound in RA, PsA, OA.
- WP5: AI scoring for axial arthritis (CR and MRI, spine/SIJ).
- WP6: Precision medicine: imaging to predict therapy response, reduce invasiveness.
- WP7: Build a Visual Foundation Model, clustering, web-based platform for analysis & reporting.
- WP8: Communication, stakeholder engagement, exploitation, regulatory strategy, patient engagement.

Expected Impact

- More precise and earlier diagnoses.
- Personalised treatment paths for patients.
- Improved monitoring of treatment response.
- Better access to imaging technologies via remote and point-of-care methods.
- Long-term sustainability and regulatory alignment of imaging biomarkers.

Background Information

About IHI

The Innovative Health Initiative (IHI) is a public-private partnership between the European Union and Europe's life sciences industry.

Its goal is to fund projects combining pharmaceuticals, MedTech, digital health, and other sectors to address public health challenges.

About Arthritis (Target Diseases)

Rheumatoid arthritis, psoriatic arthritis, and axial spondyloarthritis are immune-mediated inflammatory diseases, affecting around 10 million people in Europe.

These diseases often require regular imaging (X-ray, ultrasound, MRI) for diagnosis and monitoring, but interpretation can be subjective and difficult.

Why AutoPiX Matters

Despite a wealth of imaging data, many images remain "unstructured" and under-utilised.

There is a need to democratize access to advanced imaging (e.g., ultrasound) and reduce barriers for patients and non-specialist clinicians.

AI-derived biomarkers can provide objective and quantitative measures, improving care and enabling precision medicine.
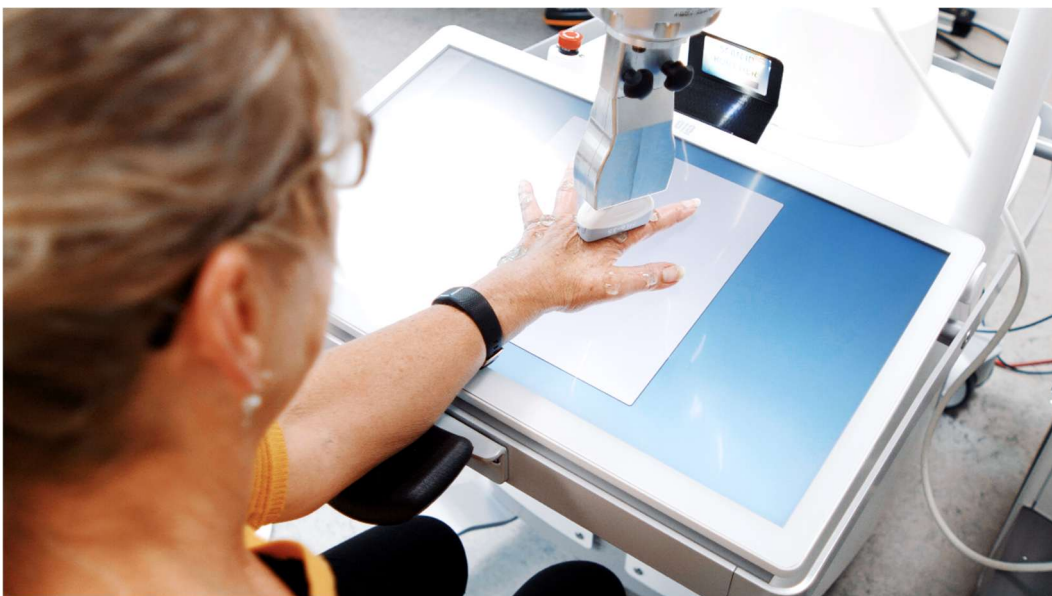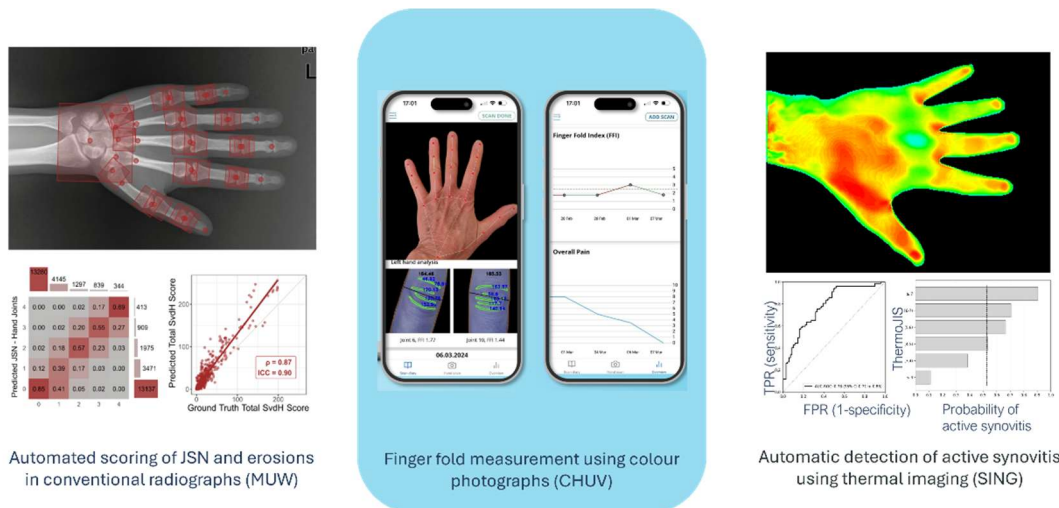
Multimedia Assets

Videos

AutoPiX has a YouTube channel with illustrative videos, like this one.

Images

Here you have some examples of what AutoPiX will be doing. If you are interested in more, let us know.
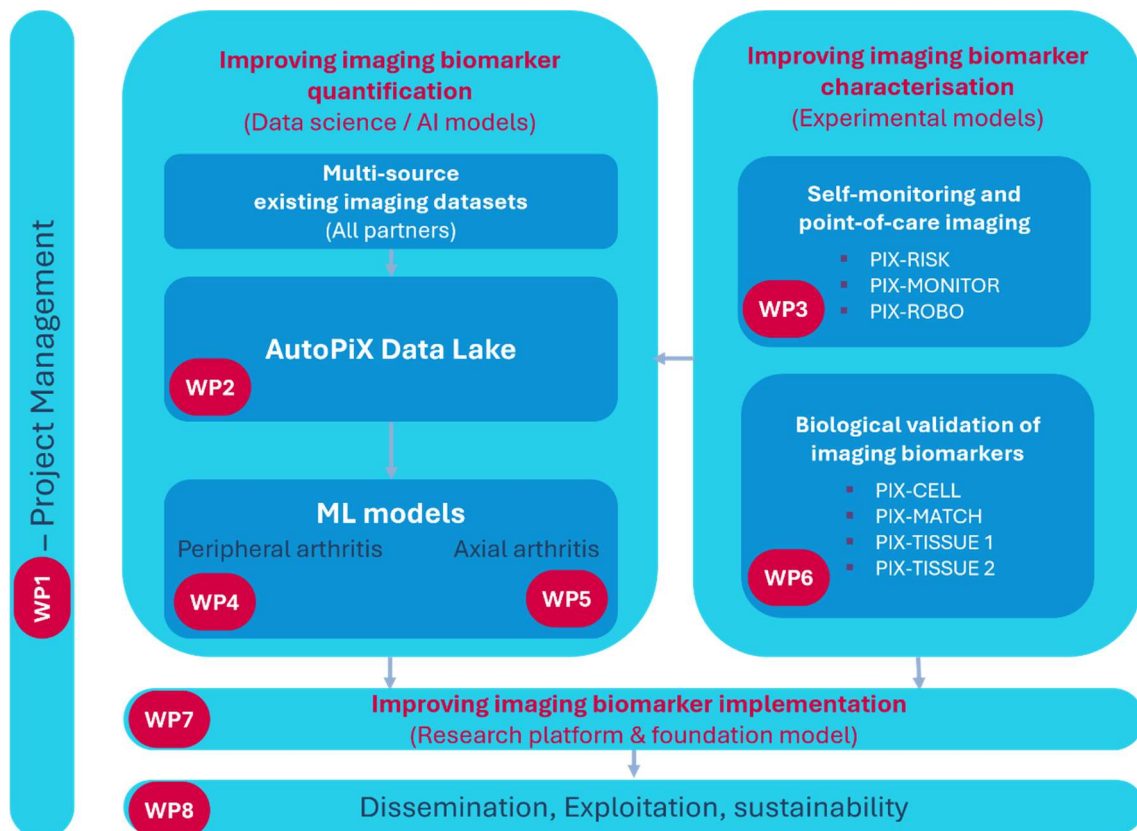

The ROPCA robot will be validated for automated ultrasound of hand joints.

Examples of automated evaluation of different types of imaging used in rheumatology that will be validated in the AutoPiX project. From left to right: hand radiograph, photo of hand, and thermography.
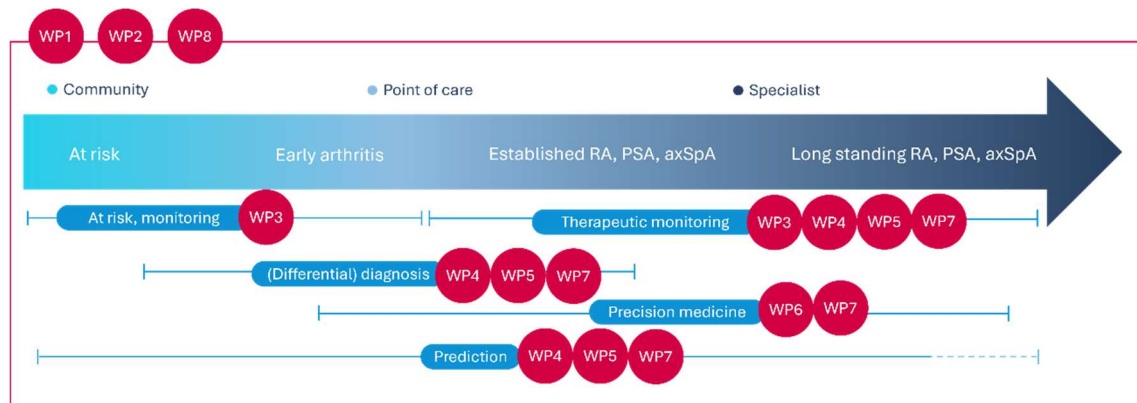
Infographics

Here you have some infographics showing the workflow.

This infographic shows the AutoPiX project in a nutshell.
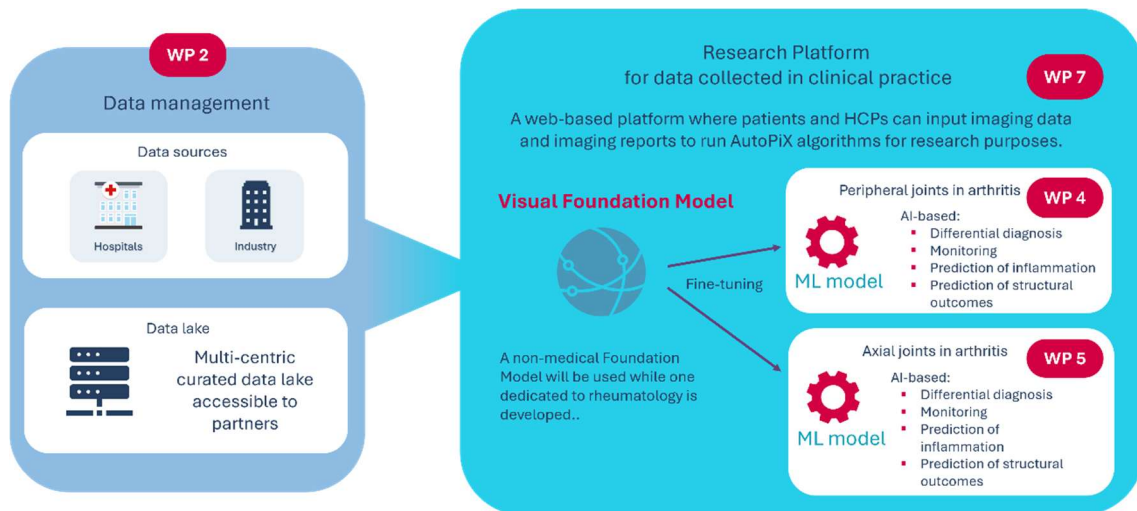
This infographic shows how the data lake and the foundation model will be used.

This infographic shows the impact on the patient journey of the different tools and work packages (WP) in AutoPiX.

This infographic shows a super synthesised flow of the unmet need, the innovations, and the impact we want to achieve with the AutoPiX.

Key Quotes

Prof. Daniel Aletaha (Coordinator, MedUni Vienna):

"We will bring imaging closer to the practising clinician and the patient, ensuring that it becomes more accessible, interpretable, and clinically relevant..."

Rob Janiczek, PhD (Project Lead, Janssen):

"We have an opportunity to minimise the burden associated with imaging and make the interpretation more efficient and objective."

Thomas Hügle (Lausanne University Hospital):

"The imaging of the future ... also by the patients themselves through photos and videos ... will sustainably improve the care of patients with arthritis..."

Consortium & Partners

Coordinator: Medical University of Vienna

Industry Lead: Janssen Pharmaceutica NV (Johnson & Johnson)

Academic & Clinical Partners:

- Ages - Osterreichische Agentur Fur Gesundheit Und Ernahrungssicherheit GMBH, Wien, Austria
- Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland
- Charite - Universitaetsmedizin Berlin, Berlin, Germany
- European Alliance Of Associations For Rheumatology, Kilchberg, Switzerland
- Medizinische Universitaet Wien, Wien, Austria
- Queen Mary University Of London, London, United Kingdom
- Region Hovedstaden, Hillerod, Denmark
- Ruhr-Universitaet Bochum, Bochum, Germany

SMEs:

- Eurice European Research And Project Office GMBH, St Ingbert, Germany
- Instituto De Salud Musculoesqueletica SL, Madrid, Spain
- Singularity Biomed, S.L., Sant Cugat Del Vallès, Spain

Patient Organisation:

- EULAR – European Alliance of Associations for Rheumatology.

Contributing partners

- Collective Minds Radiology AB, Danderyd, SwedenSME
- Moonlake Immunotherapeutics AG, Zug, Switzerland
- Scienta Lab, Gif-Sur-Yvette, France

EFPIA including Vaccines Europe

- Janssen Cilag SA, Madrid, Spain
- Janssen Pharmaceutica Nv, Beerse, Belgium
- Janssen Research & Development, LLC, Raritan, United States
- Novartis Pharma AG, Basel, Switzerland
- UCB Biopharma, Bruxelles / Brussel, Belgium

MedTech Europe

- Ropca Aps, Odense, Denmark

Contact Information

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