



Trustworthy AI Tools for the Prediction of Obesity Related Vascular Diseases

HORIZON-HLTH-2022-STAYHLTH-01-04-TWO-STAGE

DELIVERABLE D7.7

END-USERS SURVEY AND WORKSHOPS

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Dissemination level	PU
Type	Report
Delivery date	31 October 2025

AI-POD is funded by the European Union's Horizon Europe research and innovation programme under grant agreement No 101080302



**Funded by
the European Union**





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EXECUTIVE SUMMARY

1. INTRODUCTION

This report presents the outcomes of the second round of end-user engagement activities, including a webinar and a survey. These activities aimed to gather feedback, identify end-users needs, and foster collaboration among stakeholders. Key insights from the survey and workshops will inform the next phases of the project, ensuring alignment with end-user expectations and real-world applicability.”

2. STAKEHOLDER ENGAGEMENT ACTIVITIES

2.1. ORGANISATION OF THE 2ND END-USER WORKSHOP

The second end-user workshop was held on 7 October 2025 as a 1.5 CME-accredited webinar, organised by the European Institute for Biomedical Imaging Research (EIBIR) in collaboration with the European Society of Radiology (ESR). The event was broadcast live on the ESR Connect platform and was accessible to participants upon registration.

2.1.1. PROGRAMME

The second end-user workshop was held as a 90-minute CME-accredited webinar on 7 October 2025. The session explored how artificial intelligence is transforming the prediction and prevention of obesity-related vascular diseases, presenting key innovations developed within the AI-POD project. The event highlighted advances in AI-powered risk prediction, clinical decision support systems, and citizen-oriented health applications, illustrating the project’s contribution to more personalised and preventive healthcare solutions.

Overview of the agenda and topics covered

09:00 – 09:05 | Welcome

Regina Beets-Tan, The Netherlands Cancer Institute, The Netherlands

09:05 – 09:10 | Trustworthy AI for a Healthier Future: The AI-POD Project

U. Attenberger, Medical University of Vienna, Austria

09:10 – 09:25 | Behind the Score: Developing the AI-POD Risk Prediction

G. Langs, University of Vienna, Austria

09:25 – 09:40 | Building Smarter Tools: AI-POD Clinical Decision Support System (CDSS)

J. Kirchhoff, medicalvalues GmbH, Germany

09:40 – 09:50 | The AI-POD Citizen App: Features and Functionalities

F. Catarinella, Brightfish B.V., The Netherlands

09:50 – 10:05 | From Prediction to Prevention: How AI-POD Supports Better Vascular Risk Management

S. Al-Basri, BG University Hospital Bergmannsheil Bochum, Germany

10:05 – 10:15 | Human-Centred AI: A Stakeholder Perspective on AI for Imaging-Based Prediction of Obesity-Related Vascular Diseases

E. Van Steijvoort, Katholieke Universiteit Leuven, Belgium

10:15 – 10:30 | Panel Discussion: Integrating AI-POD into the Clinical Workflow – Opportunities and Challenges

R. Beets-Tan, The Netherlands Cancer Institute, The Netherlands



Summary of presentations and interactive sessions

The first presentation provided a comprehensive overview of the project's motivation and vision. It offered insights into the retrospective and proof-of-concept studies, highlighting the anticipated impact and potential contributions of the project.

The second presentation provided an overview of the project's aims and objectives, outlining its current phase of implementation. It presented the development of the joint risk score, describing how clinical, laboratory, and imaging data are integrated with information on physical activity, heart rate, and diet to enable comprehensive risk prediction. Furthermore, it introduced the project's data platform, illustrating how it connects data from mobile devices and hospital systems, and how the resulting insights are delivered back to clinicians and subsequently fed into the citizen app used by study participants. The presentation concluded by addressing the main challenges related to managing diverse data streams and developing robust machine learning models.

The third presentation described the Clinical Decision Support System (CDSS), outlining its purpose, core capabilities, and structure. It presented the AI strategy enabling operational medical AI through multimodal data fusion, integrating CT imaging, laboratory results, IoT-based vital signs, clinical history, and lifestyle data. The presentation also explained the use of Explainable AI and the design of AI-POD dashboards with embedded reasoning logic and confidence scores. The current stage of the AI-CDSS was showcased, with ongoing efforts focused on documentation and validation, and the session concluded by addressing challenges and outlining the expected clinical impact.

The fourth presentation introduced the AI-POD Citizen App, highlighting its key features such as cardiovascular health management, integration with clinical systems, AI-driven proactive support, and user empowerment. It outlined the app's purpose in supporting health monitoring and management, strengthening patient-provider communication, and delivering personalised health advice. The presentation also described the secure connection of the app with Fitbit devices and explained how users can contribute additional personal data to remain engaged and promote continuous improvement.

The fifth presentation explored how the project contributes to improving vascular risk management. It emphasised that cardiovascular disease remains the leading cause of death globally, outlining its main causes and risk factors. The presentation highlighted the limitations of current tools, noting that traditional models such as SCORE2 fail to capture dynamic changes in health status. It then explained how AI-POD aims to identify high-risk patients early, enabling proactive and timely interventions that support better outcomes through real-time monitoring.

The sixth presentation examined the stakeholder perspective on AI for imaging-based prediction of obesity-related vascular diseases. It outlined the study objectives, methods, and sample, as well as perceived benefits, concerns, and challenges in development and implementation. The presentation emphasised that AI-POD tools show promise for predicting obesity-related cardiovascular risk, but their success depends on equitable access, trust and transparency, sustained engagement, clinical integration, and context-sensitive design to avoid stigmatisation.

Key takeaways and discussion points

During the Q&A session, several insightful questions were raised by participants, leading to an engaging discussion with the panel.

One question concerned the use of MRI data and why magnetic resonance imaging was not included in the AI-POD models. The panel explained that AI-POD focuses primarily on computed tomography (CT) because CT imaging is more commonly used in clinical practice for these types of cases. Furthermore, the project is





leveraging recent advancements in high-resolution, multi-energy, photon-counting CT, which offer improved image quality and significantly reduced radiation exposure compared with traditional CT methods.

It was noted that the availability of such high-quality data is rapidly increasing, as several centres participating in AI-POD are already conducting prospective studies using photon-counting scanners. This technological shift represents an important transition—applying AI models trained on conventional CT data to newer imaging modalities. The panel highlighted the value of this evolution, as it allows for better diagnostic accuracy and enhances the predictive capabilities of the models. In addition, the project is currently testing an extended photon-counting CT protocol for cardiac imaging, aimed at obtaining richer diagnostic information when combined with advanced post-processing tools. These improvements will ultimately feed into the AI-POD risk prediction model.

Another question from the audience addressed whether AI recommendations in the context of obesity would simply lead to advice on reducing caloric intake. Stakeholders emphasised that while calorie reduction is a recognised factor, obesity is a multifaceted condition influenced by a variety of physiological, behavioural, and environmental mechanisms. They agreed that more research is needed to deepen understanding of these underlying mechanisms, as diet alone does not always lead to the desired outcomes.

A further question focused on whether there are comparable tools to the AI-POD Citizen App currently available on the market. The panel clarified that the AI-POD Citizen App is a scientifically grounded application developed as part of a formal research study, with an emphasis on strong patient engagement and evidence-based functionality.

Finally, the issue of data reliability was raised—specifically, how to ensure that lifestyle information provided by users is accurate. The panel acknowledged that while self-reported data can never be completely error-free, the quality of the data improves with scale. Within the AI-POD project, a group of “super-users” has been established to support end-users and to foster understanding that the app is not a surveillance tool, but rather a means to contribute to better healthcare outcomes. The overarching message communicated to participants was that honest data sharing benefits both current research and the advancement of future healthcare systems.

2.1.2. PARTICIPANTS

A total of 423 participants attended the event, comprising 65% from Europe, 0.5% from the Americas, 0.2% from Canada, and 34.3% from other non-European countries. The attendees represented a broad spectrum of stakeholders: 59.97% identified as clinicians or clinical management, 21.01% as “other”, and 12.16% as researchers or academics.

Of the total participants, 329 out of 423 completed the post-webinar survey required for CME accreditation, corresponding to 1.5 CME credits. The accreditation process was initiated in July 2025 in collaboration with the European Board of Radiology, S.L.

2.1.3. COMMUNICATION AND DISSEMINATION ACTIVITIES

Promotional activities commenced in early September 2025 through the European Institute for Biomedical Imaging Research (EIBIR) and the European Society of Radiology (ESR) communication channels on LinkedIn and Twitter. In addition, promotional material was disseminated through five email campaigns — three issued by the ESR and two by EIBIR.

The ESR specifically targeted its AI-focused groups, reaching approximately 12,000 recipients, with an email open rate ranging between 24.6% and 58.8%. The EIBIR distributed its mailings to its entire contact list, reaching nearly 21,000 recipients, with an open rate of 48.1%. A second EIBIR mailing, included as part of the





EIBIR Autumn Newsletter, also featured information about the webinar and was sent to 20,000 contacts, achieving an open rate of 49.6%.

To further enhance visibility and engagement, a set of four social media cards was created and disseminated across the above-mentioned channels to support the promotional campaign. The table below provides an overview of these materials:



The webinar recording is available on demand via the ESR Connect platform and on [EIBIR's YouTube channel](#), where the AI-POD project hosts a dedicated playlist featuring all related videos. Additionally, a [news article](#) summarising the main outcomes and key takeaways has been published on the project website.

2.1.4. FEEDBACK AND EVALUATION

The post-event survey indicated that 51.67% of participants found the event useful, with an additional 29.48% rating it as fairly useful. Two comments highlighted areas for improvement, suggesting the inclusion of more practical examples and demonstrations, particularly regarding new algorithms and techniques.

Regarding overall impressions, the programme was rated good by 59.88% of participants, the organisation was considered excellent by 51.08%, and the panel discussion was rated good by 58.05%. When asked about the best aspects of the event, participants most commonly cited the interdisciplinary approach, which combined clinical practice, AI development, and ethical discussion. Other positive highlights included:

- Insights into AI implementation in real healthcare settings
- Realistic demonstrations and concrete integration examples
- Exposure to validation plans and workflows beyond theoretical concepts
- Presentations by speakers from diverse professional backgrounds, including clinicians
- Access to cutting-edge research and solution development with significant clinical potential

In contrast, participants suggested areas for improvement, noting a desire for:

- More applicable real-life scenarios





- Increased hands-on examples and hard evidence
- Greater specificity in integration, governance, and pilot KPIs
- Longer webinar duration to allow deeper discussion

In terms of educational impact, 53.80% of participants reported that their learning goals were somewhat fulfilled, while 42.25% felt they were very much fulfilled. 58.36% agreed that the information presented was well balanced and consistently supported by valid scientific evidence. All sessions were considered useful, with 55–58% of participants finding them personally useful and 27–31% rating them extremely useful.

Regarding discussion and engagement, 32.83% felt that adequate time for Q&A and participant interaction was available sometimes, while 32.22% felt it was always or almost always sufficient.

Innovative Elements

Participants highlighted several innovative aspects of the event, including:

- Inclusion of both clinician and patient perspectives, particularly the citizen-facing app complementing clinical AI decision support
- Emphasis on integrating multimodal data—imaging, genomics, and wearable devices—for comprehensive cardiovascular assessment, representing a cutting-edge approach to personalised medicine
- Demonstrations of AI-assisted image interpretation and automated quantification tools, enhancing diagnostic accuracy and workflow efficiency in radiology
- Actionable explainability, live calibration, real PACS/RIS integration, and drift-aware, KPI-tied pilot studies
- Multi-stakeholder approach and focus on ethical, explainable AI, reflecting forward-thinking and responsible innovation

Implementation Potential

Nearly 49.24% of participants indicated that the knowledge gained would be implemented in their practice. Examples of intended implementation included:

- Incorporating AI-based cardiovascular risk prediction into radiology reporting workflows, particularly for patients with obesity, where subclinical vascular risk is often underestimated
- Reinforcing the importance of integrating AI tools that provide real-time, personalised patient insights
- Encouraging adoption of technologies for more precise diagnosis and proactive management
- Staying updated with evolving AI advancements to enhance patient outcomes and streamline clinical workflows, ultimately promoting a data-driven, efficient approach to decision-making.

3. END-USER SURVEY

3.1. SURVEY DESIGN AND METHODOLOGY

Purpose and Scope of the Survey

The survey was designed to evaluate the educational impact, relevance, and overall quality of the AI-POD webinar. Its objectives included assessing:

- The usefulness of the event and its content for participants





- The overall programme, organisation, and panel discussions
- The innovative elements of the project and their perceived applicability
- The potential for participants to implement knowledge gained in their clinical or research practice
- Participant satisfaction and engagement, including the effectiveness of Q&A sessions

Target Audience and Outreach Strategy

The survey targeted all webinar participants, representing a diverse stakeholder group including:

- Clinicians and clinical management (59.97%)
- Researchers/academia (12.16%)
- Other stakeholders (21.01%)

Participants were drawn from Europe (65%), the Americas (0.5%), Canada (0.2%), and other non-European countries (34.3%).

Outreach to the target audience was supported by a comprehensive promotion strategy including:

- Social media posts via ESR and EIBIR LinkedIn and Twitter/X channels
- Five email campaigns (three by ESR targeting AI-focused groups and two by EIBIR targeting their full contact lists)
- Inclusion of webinar information in the EIBIR Autumn Newsletter

These efforts ensured broad participation and high visibility of the event across multiple stakeholder groups.

Survey Format and Duration

The survey was delivered post-webinar and included both quantitative and qualitative questions covering:

- Usefulness and relevance of the event
- Overall impressions of programme, organisation, and panel discussion
- Satisfaction with Q&A and interaction opportunities
- Identification of innovative elements and implementation potential
- Open-ended comments for suggestions or improvements

The survey was conducted immediately after the webinar, coinciding with the CME accreditation process to maximise responses.

3.2 SURVEY PARTICIPATION

The post-webinar survey was conducted via SurveyMonkey and took approximately 10–15 minutes to complete. Most questions were mandatory as part of the 1.5 CME credit accreditation process, ensuring comprehensive participation. Respondents provided both quantitative ratings and qualitative feedback, offering detailed insights on the event's usefulness, innovative elements, and implementation potential. The responses reflected the diverse perspectives of clinicians, researchers, and other stakeholders, providing valuable information to evaluate the programme and guide the next phases of the project.





3.3. KEY FINDINGS

User Needs and Expectations:

Participants expressed a strong interest in practical, actionable insights that could be applied in real healthcare settings. Key expectations included:

- Demonstrations of AI tools and workflows integrated into clinical practice
- Evidence-based information supporting AI methodologies and results
- Guidance on implementation strategies, integration with hospital systems, and governance
- Insights from multi-stakeholder perspectives, combining clinician, researcher, and patient viewpoints

Challenges Identified:

Participants highlighted several areas where the event could be improved:

- Desire for more real-life case studies and hands-on examples
- Greater specificity in pilot KPIs, governance, and integration details
- Webinar duration perceived as short for in-depth discussions
- Need for additional information on novel algorithms, data integration, and validation processes

Trends and Patterns in Responses:

- Overall, participants rated the event highly, with 51.67% finding it useful and 29.48% fairly useful
- The interdisciplinary approach combining AI, clinical practice, and ethics was consistently cited as the most valuable aspect
- The majority of respondents indicated that the knowledge gained would influence their future practice, particularly in integrating AI-based cardiovascular risk prediction into workflows
- Innovative elements, such as multimodal data integration, AI-assisted image interpretation, and the citizen-facing app, were widely appreciated

Notable Differences Across Stakeholder Groups:

- Clinicians and clinical management (59.97%) emphasised practical applicability, workflow integration, and patient outcomes
- Researchers/academia (12.16%) valued methodological details, validation strategies, and insights into cutting-edge AI approaches
- Other stakeholders (21.01%) highlighted the importance of ethical considerations, explainability, and patient engagement

Overall, the survey revealed that while all stakeholder groups appreciated the scientific rigor and interdisciplinary focus, their priorities varied, reflecting differing professional perspectives and practical needs.

The survey findings were shared with the AI-POD consortium to provide guidance for refining AI-POD outputs and workflows, ensuring alignment with stakeholder needs and expectations:

They will help ensure that the AI-POD project delivers solutions that are scientifically robust, clinically relevant, and user-friendly, fostering adoption in real-world healthcare settings and guiding future project activities.

The full survey questionnaire is provided in Annex I.





4. CONCLUSION

The engagement activities provided valuable insights into end-user needs, expectations, and priorities. Feedback from the webinar, survey, and workshops will inform the next phases of the project, ensuring that outputs are user-centered, practical, and broadly applicable. Continued engagement with stakeholders will be essential to maintain alignment with their evolving requirements, support real-world implementation, and foster the adoption of AI-POD solutions in clinical practice. Overall, these activities have strengthened the project's ability to deliver impactful, evidence-based innovations in cardiovascular risk management.

ANEXXES

ANNEX I – END-USER SURVEY MATERIALS

A.1 SURVEY QUESTIONNAIRE

Section 1: AI-POD Tool Experience & Feedback

1. Did you have the opportunity to explore or view any of the AI-POD tools (e.g., the Citizen App, Clinical Decision Support System)?
 - Yes
 - No
 - Not sure
2. If yes, how would you rate the trustworthiness of these tools (e.g., transparency, fairness, evidence-based design)?
 - Very trustworthy
 - Somewhat trustworthy
 - Neutral
 - Slightly untrustworthy
 - Not trustworthy at all
3. How feasible would it be to integrate the AI-POD tools into your clinical routine or workflow?
 - Very feasible
 - Somewhat feasible
 - Not very feasible
 - Not feasible at all
 - Not applicable to my role
4. How familiar are you with the use of AI in cardiovascular risk prediction and prevention?
 - Very familiar
 - Somewhat familiar
 - Heard of it
 - Not familiar
5. Are there specific patient populations or settings where you see AI tools adding the most value?
(Open-ended)
6. What potential barriers do you see for using these tools in routine care?
(Open-ended)





7. What additional functionalities or improvements would you like to see in AI-powered cardiovascular tools?
(Open-ended)

Section 2: Value Perception & Organizational Fit

8. Value of product packages: Which offering provides the most value to your organization?
- Standalone algorithm
 - Complete bundle: risk score + CDSS + Citizen App
 - Modular selection (e.g., algorithm + CDSS without app)
 - Unsure
9. Cost-Bearer Preferences: Who should primarily pay for AI-POD tools?
- Hospital/clinical
 - Health insurer/payer
 - Patient (e.g., via app fee)
 - Public or research funding
 - Vendor/integration partner
 - Other
10. Acceptability of Pricing Models: Please evaluate how acceptable the following pricing models are for your organization:

	Very un-acceptable	Unacceptable	Neutral	Very acceptable
One-time license (algorithm only)				
One-time license (full bundle: algorithm + CDSS + app)				
Subscription (algorithm only)				
Subscription (full bundle)				
Usage-based (per patient/inference) – full bundle				
Outcome-based pricing (tied to clinical or patient outcome)				

11. Pricing-Related Adoption Barriers: Please rank the following in order of significance (1 = biggest barrier):
- Training requirements/staff time
 - Cannot deal with upfront one-time fee





- Overall pricing too high
- Payer reimbursement unclear
- Usage-based pricing complexity
- Cannot deal with subscription
- Integration complexity or IT constraints
- Unclear return on investment (ROI)

Section 3: Organizational Context & Future Engagement

12. What best describes your role?
- Clinician/Clinical Management
 - Software/IT Developer
 - Commercial Management Hospital
 - Commercial Management IT
 - Researcher/Academic
 - Policy Maker/Regulator
 - Other
13. Pilot willingness: If AI-POD was commercially available, how open would your organization be to piloting it?
- Pilot algorithm only
 - Trial full bundle only
 - Either, depending on cost
 - Unsure
14. Additional comments (optional): Is there anything else you would like to share about pricing, adoption challenges, or expectations related to AI-based clinical tools?
(Open-ended)

Section 4: Quality of the event

15. How useful for your professional activity did you find this event?

Not useful (1)	Fairly useful (2)	Useful (3)	Extremely useful (4)

16. If this activity was not useful, please explain why:
.....

17. What was your overall impression of this event?

	Very poor (1)	Poor (2)	Good (3)	Excellent (4)
Programme				
Organisation				





18. What was the best aspect of this event?

.....

19. What was the worst aspect of this event?

.....

Section 5: Relevance of the event

20. Did the event fulfil your educational goals and expected learning outcomes?

Not at all (1)	Not much (2)	Somewhat (3)	Very much (4)

21. Was the presented information well balanced and consistently supported by a valid scientific evidence base?

Not at all (1)	Not much (2)	Somewhat (3)	Very much (4)

22. How useful to you personally was each session?

	Not useful (1)	Fairly Useful (2)	Useful (3)	Extremely Useful (4)
Trustworthy AI for Healthier Future – the AI-POD Project				
Behind the Score: Developing the AI-POD Risk Prediction				
Building Smarter Tools: AI-POD Clinical Decision Support System (CDSS)				
The AI-POD Citizen App: Features and Functionalities				
From Prediction to Prevention: How AI-POD Supports Better Vascular Risk Management				
Human-Centred AI: A Stakeholder				





Perspective on AI for Imaging-Based Prediction of Obesity-Related Vascular Diseases				
Panel Discussion: Integrating AI-POD into the Clinical Workflow: Opportunities and Challenges				

Section 6: Suitability of formats used during the event

23. Was there adequate time available for discussions, questions & answers and learner engagement?

Never (1)	Only rarely (2)	Sometimes (3)	Always/Almost Always (4)

24. Can you indicate any innovative elements during the activity?

.....

Section 7: Ways the event affects clinical practice

25. Will the information you learnt be implemented in your practice?

Not at all (1)	Not much (2)	Somewhat (3)	Very much (4)

26. Can you provide ONE example how this event will influence your future practice?

.....

Section 8: Commercial bias

27. Did all the faculty members provide their potential conflict of interest declaration with the sponsor(s) as a second slide of their presentation?

No (1)	Yes, but only a small part (2)	Yes, for the majority (3)	Yes, all (4)





28. Can you provide an example of biased presentation in this activity?

.....

29. Do you agree that the information was overall free of commercial and other bias?

Strongly disagree (1)	Rather disagree (2)	Rather agree (3)	Strongly agree (4)

