Extended EHR@EU Data Space for Primary Use - Xt-EHR Mid-term Evaluation Survey Results

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Summary

EXECUTIVE SUMMARY

The mid-term evaluation survey of the Xt-EHR Joint Action engaged 54 participants from 23 Member States, representing a wide range of roles including Work Package (WP) Leaders, Co-Leaders, Task Leaders, and general WP participants. The findings reflect a comprehensive snapshot of the consortium's strengths, challenges, and opportunities for improvement at this stage of the project. The mid-term evaluation survey was conducted as an online questionnaire comprising 30 questions (including Likert-scale questions and open text fields) developed by the WP 3 Evaluation Team to address the project's four core criteria: Relevance, Effectiveness, Efficiency and Sustainability. The survey remained open for approximately three weeks (23rd December 2024 until 14th January 2025). Closed-item data were analysed descriptively in SPSS, while narrative comments underwent Mayring's qualitative content analysis.

Overall Satisfaction and Role Clarity

Most respondents (57 %) expressed satisfaction with the project's progress, and an overwhelming 94 % felt their roles were clearly defined—indicating effective onboarding and governance structures. Neutral responses from newer participants indicate a need for clearer orientation materials and regular check-ins to support role clarity.

Governance, Coordination, and Communication

The evaluation identified both strengths and weaknesses in project coordination. While 59 % of respondents were satisfied with coordination support, feedback pointed to issues including micromanagement and non-transparent decision-making. Participants recommended clearer authority for WP and Task Leaders, more responsive communication channels, and reduced administrative burdens.

Collaboration and Knowledge Sharing

Collaboration was generally viewed as constructive, especially in small groups and digital meetings. However, many noted that key discussions often occur informally or in subgroups, leaving the broader team underinformed. Improving transparency through regular project-wide updates, meeting summaries, and shared decision logs was widely recommended.

Meetings and Organizational Structure

Respondents rated meetings as mostly well organized, though issues such as last-minute changes, unclear agendas, and inconsistent follow-up were frequently cited. Respondents advocated for earlier agenda circulation, a long-term planning roadmap, and consistent availability of minutes and recordings. Greater clarity in the roles and functions of Steering Committee (SC)

and Leadership Council (LC) meetings was also recommended to avoid duplication and improve strategic value.

Work Package Performance and Risks

While 69 % of WP Leaders found deliverable timelines realistic, half identified risks tied to stakeholder engagement, regulatory overlaps, and limited expert availability. Addressing these risks will require refined planning, formal expert commitments, and alignment with evolving EHDS timelines.

Technical Strengths and Stakeholder Engagement

Participants highlighted Xt-EHR's importance in driving EU-wide interoperability and eHealth progress. Continued cross-domain collaboration and stakeholder involvement are critical to maintaining relevance and ensuring impactful results.

Key Areas for Improvement

- **Clarify Roles and Decision Authority:** Define responsibilities and empower WP/Task Leaders to manage workflows with less administrative interference.
- **Improve Communication:** Address information silos, streamline email traffic, and optimize platforms like SharePoint for better coordination.
- **Enhance Meeting Management:** Plan meetings with clear, timely distributed agendas and ensure transparent documentation and follow-up.
- **Strengthen Governance and Leadership:** Align decision-making with project goals and EU frameworks while reducing micromanagement.
- **Promote Inclusive Participation:** Ensure all members are empowered to contribute, particularly in large or cross-functional teams.
- **Anticipate and Mitigate Risks:** Proactively manage timelines, expert engagement, and stakeholder consultations to avoid bottlenecks.

The Xt-EHR Joint Action is progressing well, supported by strong technical execution, dedicated participants, and a collaborative culture. Addressing identified challenges in governance, communication, and coordination will be essential to maintaining momentum. With targeted improvements, the project is well-positioned to successfully support the development of the European Health Data Space and deliver lasting impact across the EU eHealth landscape.

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Acronyms and Abbreviations

3YPE	Dioikisi 3is Ygeionomikis Perifereias
AI	Artificial Intelligence
CA	Competent Authority
COCIR	European Coordination Committee of the Radiological, Electromedical and Healthcare IT Industry
CP	Consensus Panel
CPME	Standing Committee of European Doctors
DoI	Declaration of Interest
DSM	Digital Single Market
EC	European Commission
ECHA	European Chemicals Agency
EEHRxF	European Electronic Health Record Exchange Format
e. g.	exempli gratia ("for example")
EHDS	European Health Data Space
eHMSEG	eHealth Member State Expert Group
eHN	eHealth Network
EHR	Electronic Health Record
EHTEL	European Health Telematics Association
EIRA	European Interoperability Reference Architecture
EPF	European Patients' Forum
EU	European Union
GÖG	Gesundheit Österreich GmbH (Austrian National Public Health Institute; partner no. 7.1)
HL7	Health Level 7
iHD	European Institute for Innovation through Health Data
IHE	Integrating the Health Enterprise
JA	Joint Action
KPI	Key Performance Indicator
LC	Leadership Council
LFA	Logical Framework Approach
LFM	Logical Framework Matrix / Logframe Matrix
MoU	Memorandum of Understanding
MS	Member State
n. a.	no answer
NeHA	Ethniki Archi Ilektronikis Igeias
ReEIF	Refined eHealth European Interoperability Framework
SC	Steering Committee
SG	Subgroup
SIAMPI	Social Impact Assessment Methods for research and funding instruments through the study of Productive Interactions
SPMS	Servicos Partilhados Do Ministerio Da Saude EPE
SPSS	Statistical Package for the Social Sciences (software program)
TF	Test Framework
TL	Task Leader

VR	Vysocina Kraj
WG	Working Group
WP	Work Package
WPL	Work Package Leader
Xt-EHR	Extended EHR@EU Data Space for Primary Use

1 Introduction

In the rapidly evolving landscape of European health data governance, the Extended EHR@EU Data Space for Primary Use (Xt-EHR) Joint Action plays a pivotal role in enhancing the interoperability and utility of electronic health records (EHRs) within the framework of the emerging European Health Data Space (EHDS). By establishing common technical specifications, service frameworks, and certification pathways, Xt-EHR aims to enable seamless cross-border data exchange and foster innovative secondary data use - while maintaining a strong focus on primary care and upholding the highest standards of data protection.

A cornerstone of the project's success is Work Package 3 (WP3), which is tasked with ensuring that the initiative meets its strategic objectives. To promote transparency, accountability, and continuous learning, WP3 has developed a comprehensive Evaluation Framework based on Key Performance Indicators (KPIs). This framework enables systematic monitoring of project outcomes and supports evidence-based decision-making throughout the project lifecycle.

The evaluation process serves multiple, interconnected purposes:

- Gaining Knowledge: Evaluation helps identify what works well and what needs improvement. By systematically analysing outcomes, stakeholders can refine strategies, adapt to evolving contexts, and make informed decisions grounded in evidence and experience.
- Exercising Control: In the realm of project management, evaluation supports effective oversight by tracking progress, managing risks, and ensuring that activities remain aligned with project goals and quality standards.
- Fostering Transparency and Dialogue: Transparent evaluation processes create opportunities for open dialogue among stakeholders. This openness not only builds trust but also encourages collaborative problem-solving and drives the project's development forward.
- Legitimising Actions: Evaluation verifies that measures are implemented as intended and in accordance with ethical and procedural standards. Demonstrating legitimacy enhances stakeholder confidence and public trust, which are essential for sustained engagement and support. When interventions are perceived as fair and well-founded, acceptance increases; conversely, a lack of legitimacy can lead to resistance or scepticism.

As part of WP3's commitment to continuous improvement, a mid-term survey was developed and distributed across the project consortium. The specific objectives of this mid-term survey were to assess overall satisfaction, identify key challenges encountered during implementation, and collect suggestions for enhancing the project's effectiveness moving forward.

2 About the Mid-term Survey (Survey Design)

The mid-term survey served as an essential tool to evaluate the progress of the "Extended EHR@EU Data Space for Primary Use - Xt-EHR" project. It aimed to assess the extent to which the project's objectives are being achieved and whether the funding, planning, and governance structures remain fit-for-purpose. Using key evaluation criteria - Relevance, Effectiveness, Efficiency, and Sustainability - the survey also sought to identify implementation challenges, gather lessons learned, and recommend corrections where necessary. Conducted by the WP3 Evaluation Team, the survey posed 29 targeted questions, ensuring a comprehensive yet efficient feedback process with an estimated completion time of 15 minutes. The 30 questions were drafted iteratively by the WP 3 Evaluation Team. An initial question pool was drafted in cooperation with the project coordination and pilot rounds with project colleagues refined the wording, response scales and layout. Participants involved in multiple vertical WPs were encouraged to focus their responses on these specific areas of work.

2.1 Scope of the Survey

The mid-term survey examined a variety of aspects as outlined below. For a comprehensive evaluation, criteria labelled with (S) were assessed based on the following categories: very satisfied, satisfied, neutral, unsatisfied, very unsatisfied. Similarly, criteria labelled with (G) were rated using the divisions: very good, good, neutral, not so good, bad. Lastly, criteria labelled with (B) were evaluated using the classifications: very high benefit, rather high benefit, neutral, rather low benefit, low benefit.

- <u>Overall satisfaction</u> with the Xt-EHR project so far (S)
- <u>Project Governance</u>:
  - Satisfaction with the current quality management process around the deliverables development and submission (S)
  - Satisfaction of level of support from project coordination (S)
- <u>Collaboration and meetings</u>:
  - Level of collaboration and communication within the team (G)
  - How useful do you find the tool provided for overall project coordination (Sharepoint)? (B)
- <u>Project outputs and next steps</u>:
  - Satisfaction with the progress of your Work Package (S)
- <u>Open questions</u>:
  - What aspects of the project are working particularly well from your perspective?
  - What areas could use improvement or need more attention?
  - If you have any overall comments or suggestions on how to improve the process, please let us know

2.2 Methodology

The online-survey was conducted over a one-month period and across all work package leaders, work package co-leaders, work package participants, task leaders and members of the project coordination within the project.

A total of 54 individuals ultimately completed the survey. The following countries took part in the survey: Austria, Croatia, Cyprus, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Latvia, Luxemburg, Malta, Netherlands, Norway, Portugal, Romania, Slovenia, Slovak Republic, Spain and Sweden.

The quantitative analysis was conducted descriptively using the statistical software SPSS. The responses to the open-ended questions were analysed using Mayring's qualitative content analysis.

The selection of SPSS for descriptive statistical analysis and Mayring's qualitative content analysis was based on their widespread acceptance and reliability in survey evaluations. While SPSS allowed for efficient quantitative representation, Mayring's approach ensured a structured qualitative interpretation. However, due to the limited sample size and internal nature of the survey, results should be interpreted primarily as indicative rather than representative of all stakeholders involved.

Limitations

A "project internal survey" carries certain limitations and potential disadvantages, such as:

- Limited Perspectives: Since the survey is confined to a specific project, it might lack external viewpoints, making the results less representative.
- Bias: Respondents may provide skewed answers due to their emotional or professional connection to the project.
- Restricted Target Group: The survey may target a narrow group of participants, limiting the generalizability of its findings
- Less Critical Feedback: Participants might hesitate to give critical or negative feedback, especially if they are acquainted with the project leaders.
- Limited Applicability: The results could be highly context-specific and not easily transferable to other projects or broader contexts.

To enhance future evaluations, consider involving external evaluators, further anonymizing responses, or increasing the diversity and size of participant samples to enhance representativeness and reduce biases.

The survey was sent via internal email distribution lists whose membership overlaps and evolves over time. As a result, neither the precise number of recipients nor the exact response rate can be established from the available records.

3 Results

3.1 Sample description

The sample comprises a total of 54 participants representing 23 countries. Norway is holding the highest representation with seven individuals, followed by Spain with four. Member States such as Austria, Estonia, Finland, Germany, Hungary, Italy, Ireland, Slovenia, Sweden, and several others have two participants each. Countries including France, Latvia, Luxembourg, Malta, Portugal, and Romania are represented by one individual, illustrating focused participation. Lastly, Croatia, Cyprus, Greece, and the Netherlands each contribute three participants.

Figure 1: Which Member State do you represent? – in absolute numbers
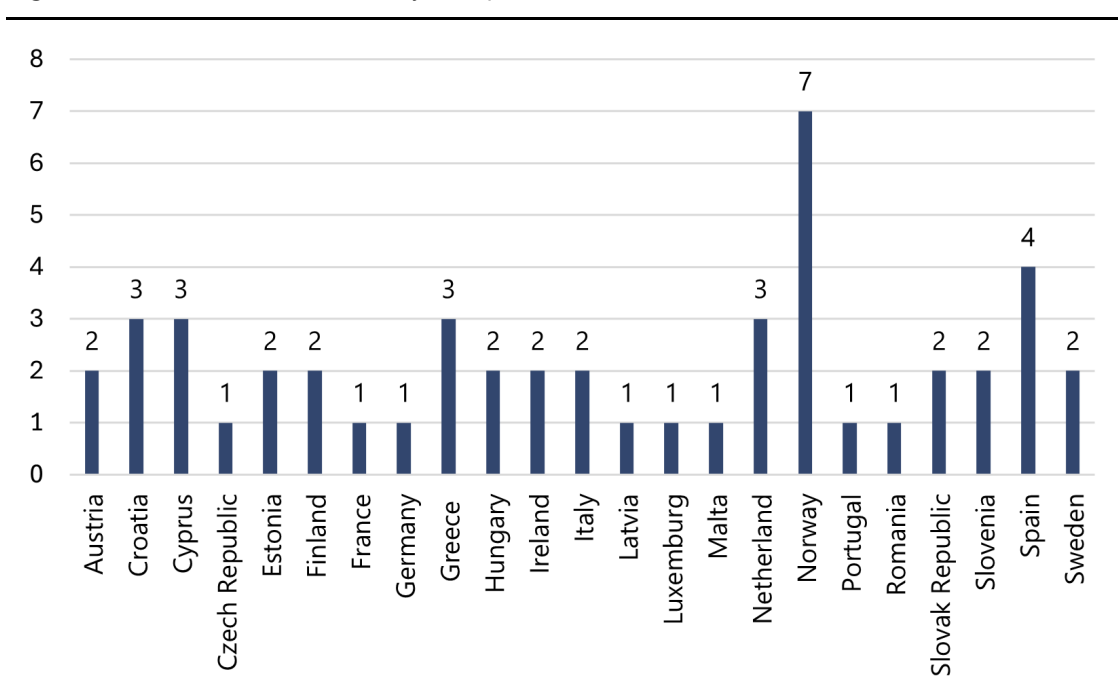
Source: Mid-term Evaluation Survey 2025

The mid-term survey participants fulfil various roles in the project. Among them, seven are responsible for Project Coordination, while seven serve as Work Package Leaders and six as Work Package Co-Leaders. A large portion, 39 participants, contribute as Work Package Participants, and 9 participants take on the role of Task Leader. This distribution demonstrates a well-organized delegation of responsibilities and collaborative engagement throughout the project.

Figure 2: What is/are your role(s) within the project? (Multiple answers possible) - in absolute numbers
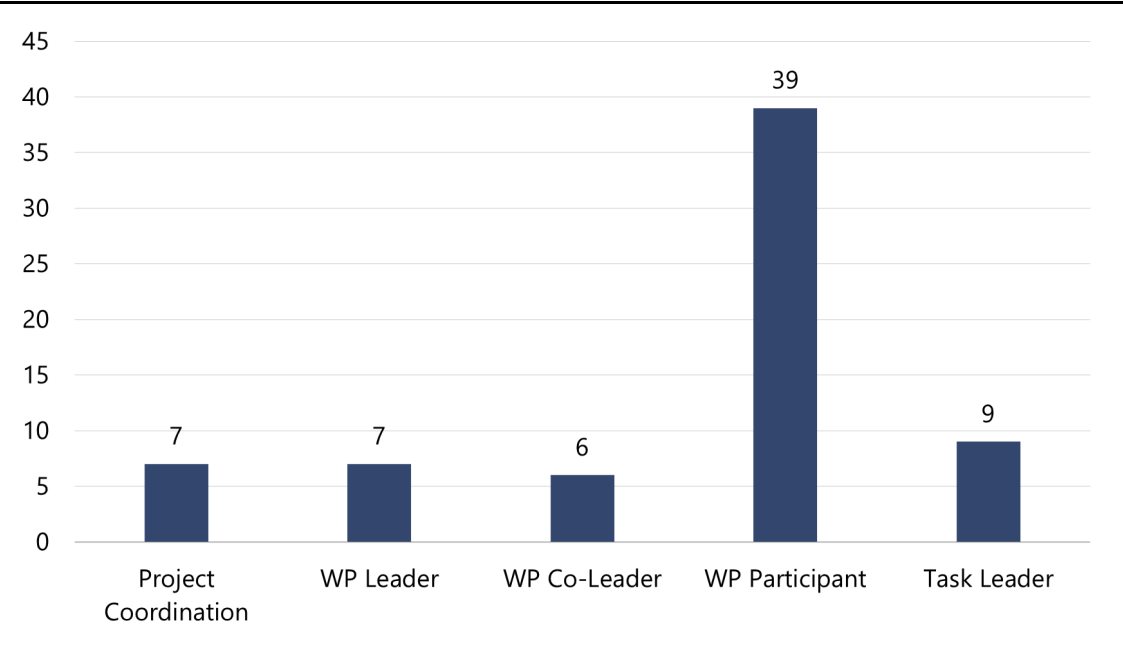
The distribution of participant involvement highlights active participant engagement across multiple work packages (WPs) within the project. WP7 and WP6 exhibit the highest levels of participation, each with 28 contributors, followed closely by WP5 with 24 participants. WP9 and WP4 each include 20 participants, indicating substantial contributions to these areas. WP8 and WP3 also show strong involvement with 18 participants each. Meanwhile, WP1 and WP2 reflect more targeted participation, with 9 and 8 contributors, respectively. This allocation demonstrates a balanced and collaborative effort, ensuring comprehensive coverage and expertise across the project's work packages.

Figure 3: In which Work Packages are you involved? (Multiple answers possible) - in absolute numbers
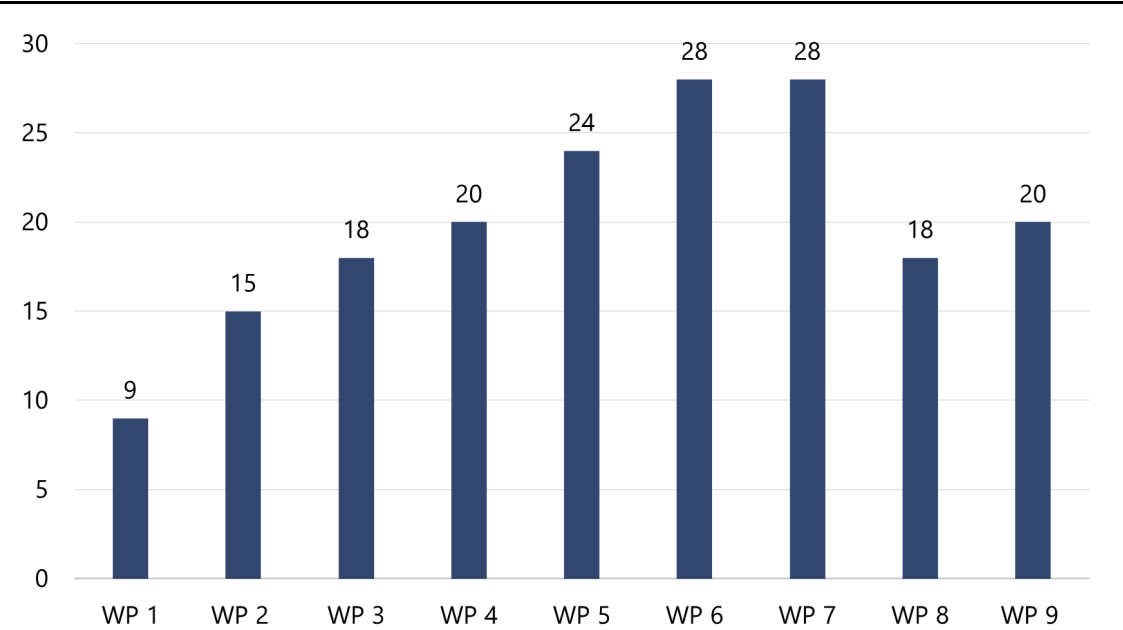
Note:

WP1: Project management and coordination

WP2: Dissemination

WP3: Evaluation

WP4: Sustainability

WP5: General requirements for Electronic Health Records (EHRs) and system interfaces

WP6: Electronic prescriptions and patient summary towards European Health Data Space (EHDS)

WP7: New services for Electronic Health Record (EHR) systems towards European Health Data Space (EHDS)

WP8: Certification and Labelling framework

WP9: Telemedicine under MyHealth@EU in alignment with European Health Data Space (EHDS) proposal

Source: Mid-term Evaluation Survey 2025

3.2 Overall satisfaction

As of February 2025, participant feedback reveals an overall positive perception of the Xt-EHR project, with 31 out of 54 respondents (57 percent) expressing satisfaction. Neutral feedback represents a notable 35 percent (19 respondents), while dissatisfaction is minimal, with only 7 percent of participants reporting dissatisfaction (2 "unsatisfied" and 2 "very unsatisfied"). These findings indicate strong satisfaction levels among participants, while underscoring opportunities to address neutral and negative feedback. Efforts to engage neutral respondents and resolve the concerns of dissatisfied participants could further enhance the project's impact and alignment with stakeholder expectations. Further, the significant neutral response (35 percent) suggests room for improvement, particularly regarding clearer role definitions and improved communication, to better engage participants.

Figure 4: How satisfied are you with the Xt-EHR project so far? - in absolute numbers
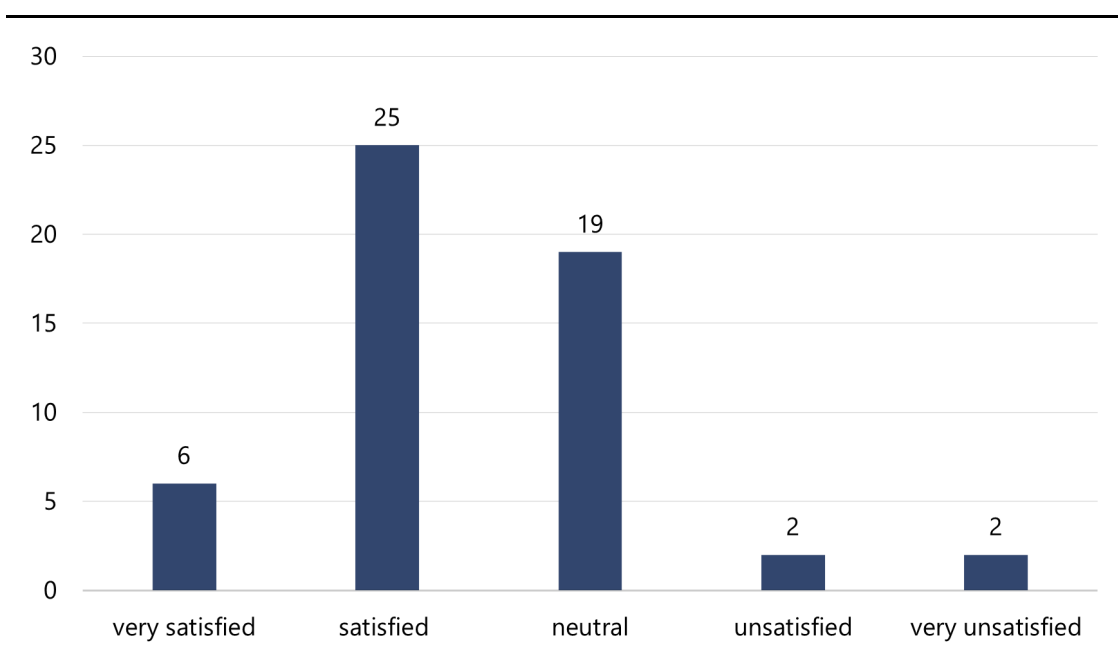
Source: Mid-term Evaluation Survey 2025

It is remarkable that 94 percent of the respondents (51 participants) indicate that they have a clear understanding of their roles, while six percent (3 participants) report ambiguity, see Figure 5. Among those who lack clarity, common challenges included uncertainty about where and how to provide input, unclear pathways for directing questions, and variability in role execution among peers (e. g., differences in how work package leaders fulfil their responsibilities). Additionally, new participants who joined the project in September 2024 note ongoing efforts to familiarize themselves with the topics.

Figure 5: Do you have a clear understanding of your role(s) within the project? - in percent

6 %

94 %

■ yes ■ no
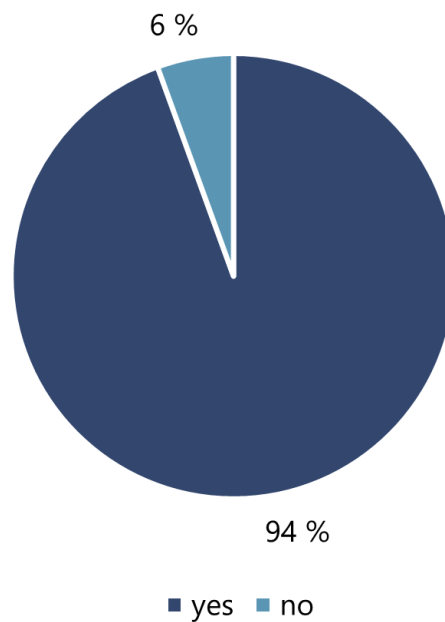
A question of the survey addressing role clarity within the Work Packages reveals that 89 percent of participants (48 participants) report a clear understanding of their roles, while 11 percent (6 participants) indicate a lack of clarity – see Figure 6. Respondents who selected "no" provided six comments highlighting key challenges: These include difficulties in understanding their responsibilities, lack of clarity regarding the distinction between roles (e. g., field expert vs. member state representative), and ambiguity in task definitions. Additionally, participants who recently joined the project echoed the same comment as for the above question, emphasizing the need for more time to familiarize themselves with the topics and clarify their roles. These findings suggest that while most participants feel confident in their understanding, further support and guidance could improve role clarity for the minority experiencing challenges.

Figure 6: Do you have a clear understanding of your role(s) within the Work Packages? – in percent

11 %

89 %

■ yes ■ no
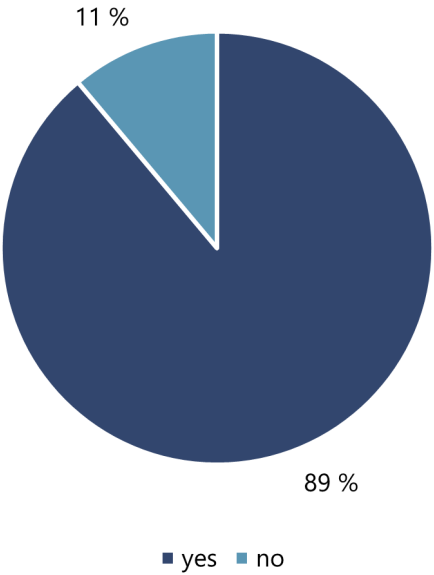
Source: Mid-term Evaluation Survey 2025

3.3 Project Governance

With regard to resource allocation in relation to task expectations, 52 % of respondents (28 out of 54 participants) view the distribution as favourable – including 6 participants (11 %) who find it very balanced and 22 participants (41 %) who consider it balanced. Meanwhile, 35 % (19 participants) remain neutral, and 13 % (7 participants) perceive imbalances. These results suggest opportunities for improvement in the distribution of resources.

Figure 7: How balanced is the resource allocation related to the tasks expected from you in the project? - in percent
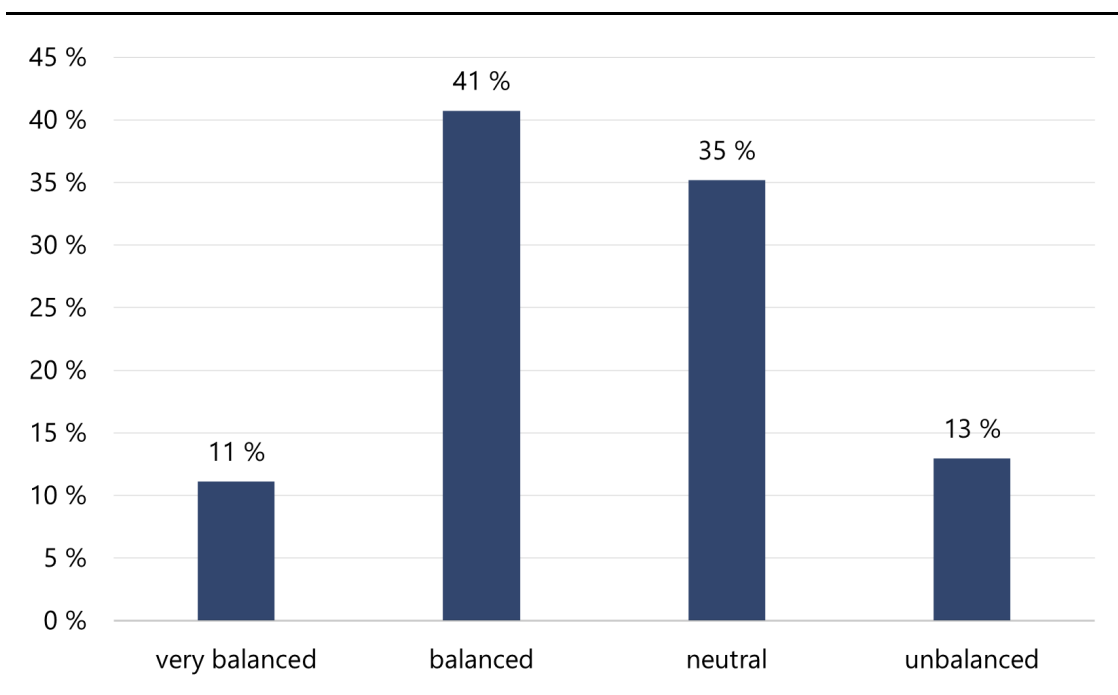
Satisfaction with the quality management process surrounding the development and submission of deliverables indicates a positive overall sentiment. Among respondents, 10 percent (5 participants) are very satisfied, 44 percent (24 participants) are satisfied, 39 percent (21 participants) remain neutral, and 7 percent (4 participants) express dissatisfaction, with no participants reporting being very unsatisfied. These findings emphasize the need to address neutral and dissatisfied feedback to enhance the process further.

Figure 8: How satisfied are you with the current quality management process around the deliverables' development and submission? – in percent
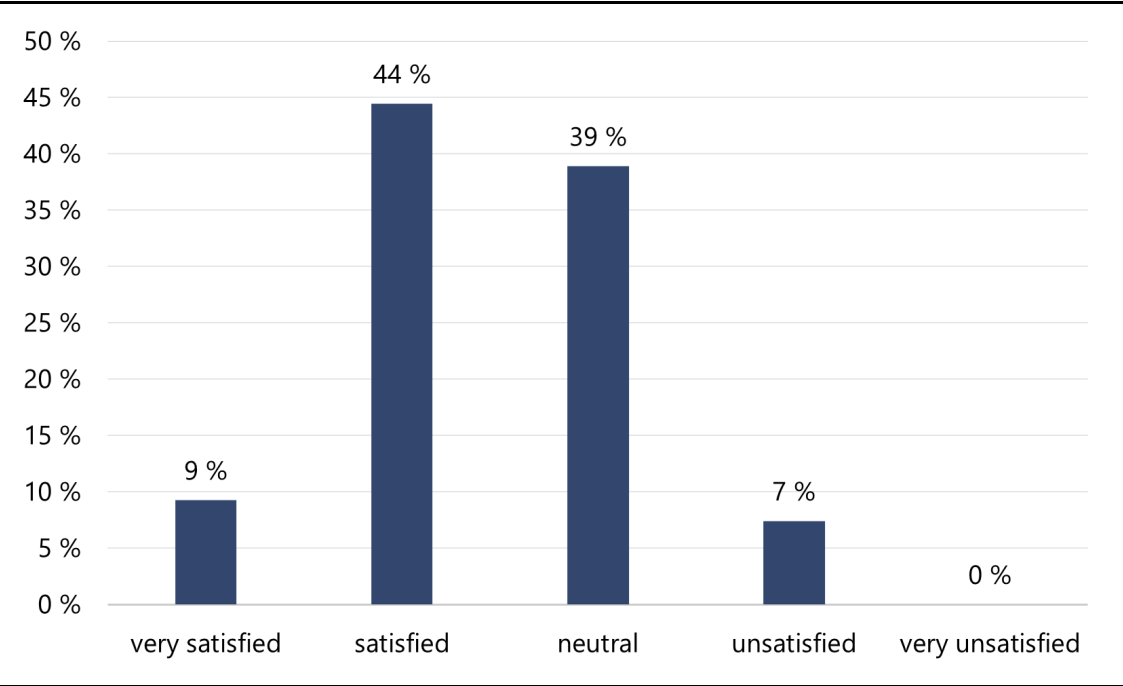
An evaluation of satisfaction with the level of support provided by project coordination (Figure 8) reveals that 59 % of respondents (32 out of 54 participants) hold favourable views – with 12 participants (22 %) reporting they are very satisfied and 20 participants (37 %) stating they are satisfied. Meanwhile, 30 % (16 participants) are neutral, and 11 % (6 participants) express dissatisfaction, including 1 participant (2 %) who is very dissatisfied. These findings highlight strengths in coordination support while also indicating potential for improvement to better address neutral and negative perceptions.

Figure 9: How satisfied are you with the level of support from project coordination? – in percent
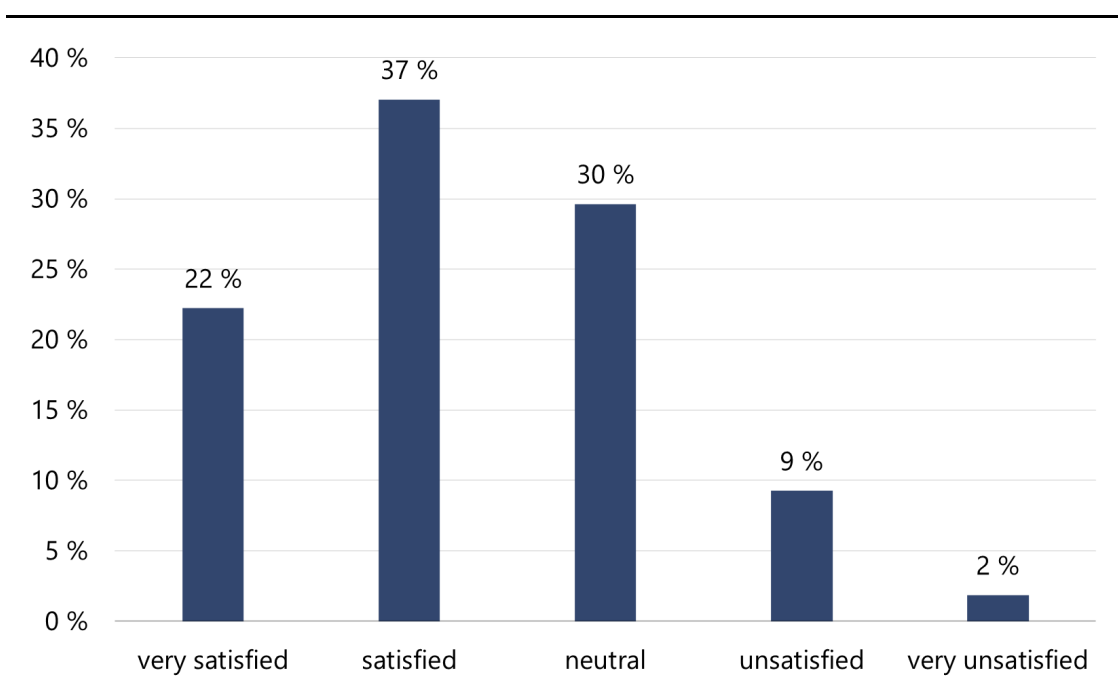
Participants who expressed dissatisfaction with the level of support from project coordination had the opportunity to provide comments, which were analysed and grouped into five thematic areas.

- **Thematic area 1: Coordinating Issues** (6 comments): Respondents highlighted concerns regarding the approach of project coordination, citing excessive micromanagement and a lack of clarity in task definitions and expected deliverables. Additional feedback emphasized insufficient support for work package (WP) leaders and challenges in collaboration between WPs. Specific issues included unclear distinctions in roles (e. g., field experts vs. member state representatives), non-transparent decision-making processes, and administrative burdens stemming from detailed tracking and reporting requirements. Moreover, delays and difficulties in achieving deliverables, such as D4.1, were attributed to insufficient adherence to the Consortium Agreement's governance framework. Suggestions for improvement included enhancing transparency in communication, formalizing meeting documentation, and reinforcing respect for the roles and authority of WP and Task leaders. Addressing these challenges could foster trust and ensure smoother project operations moving forward.
- **Thematic area 2: Appreciation for the team** (2 comments): There is significant appreciation for the coordination team's attempt to synchronize activities; however, respondents noted persistent overlaps between Xt-EHR and other frameworks, such as eHN SGs, MyHealth@EU TF, and WGs. Additionally, concerns were raised about the nature of project coordination. While the team's presence is highly visible, it is perceived by some as more focused on controlling and micromanaging rather than offering administrative support or facilitation. These insights suggest the need for enhanced clarity in roles and improved mechanisms to streamline coordination across overlapping initiatives, while adopting a more collaborative and supportive approach to project management.

- **Thematic area 3: Overlap issues** (1 comment): Overlap Issues were noted, with participants expressing appreciation for efforts to align Xt-EHR with related initiatives; however, many pointed to persistent overlaps with eHN SGs, MyHealth@EU TF, and WGs as an area requiring.
- **Thematic area 4: Understanding issues** (2 comments): In terms of Understanding Issues, some participants reported challenges in raising questions during meetings, citing a lack of response and unclear channels for inquiry. Others expressed general confusion regarding project coordination.
- **Thematic area 5: Advice and recommendations for improvement** (2 comments): Finally, in the category of Advice & Recommendations for Improvement, suggestions included the prior distribution of meeting agendas to facilitate preparation and exploring enhanced approaches for coordinating requests and efforts. Additionally, respondents emphasized the importance of greater transparency in communication, formal documentation of meetings, and reinforcing respect for the roles and responsibilities of task force and work task leaders. Addressing these issues could improve clarity, reduce redundancies, and foster a more collaborative project environment.

3.4 Collaboration and Meetings

The effectiveness of collaboration and communication within the Xt-EHR project emerged as a central theme in the mid-term evaluation survey. The overall findings reveal a high degree of variability in collaborative practices. This applies both within individual WPs and across task teams, pointing to systemic challenges that could potentially hinder project progress if left unaddressed.

The survey revealed concerns regarding the exchange of information about ongoing tasks and project activities (see Figure 10). A significant number of respondents noted that key discussions often happen outside formal meetings — in informal settings or between smaller subgroups — with the broader team receiving limited or delayed updates. This lack of transparency and structured knowledge sharing was a recurrent theme in the open-ended responses.

Several participants reported difficulties in accessing or navigating shared resources, including unclear documentation practices and missing updates on shared platforms like SharePoint. As illustrated in Figure 10, a notable proportion of respondents expressed dissatisfaction with the level of information exchange within the project.

Figure 10: How satisfied are you with the information exchange about different tasks and activities within the project? - in percent
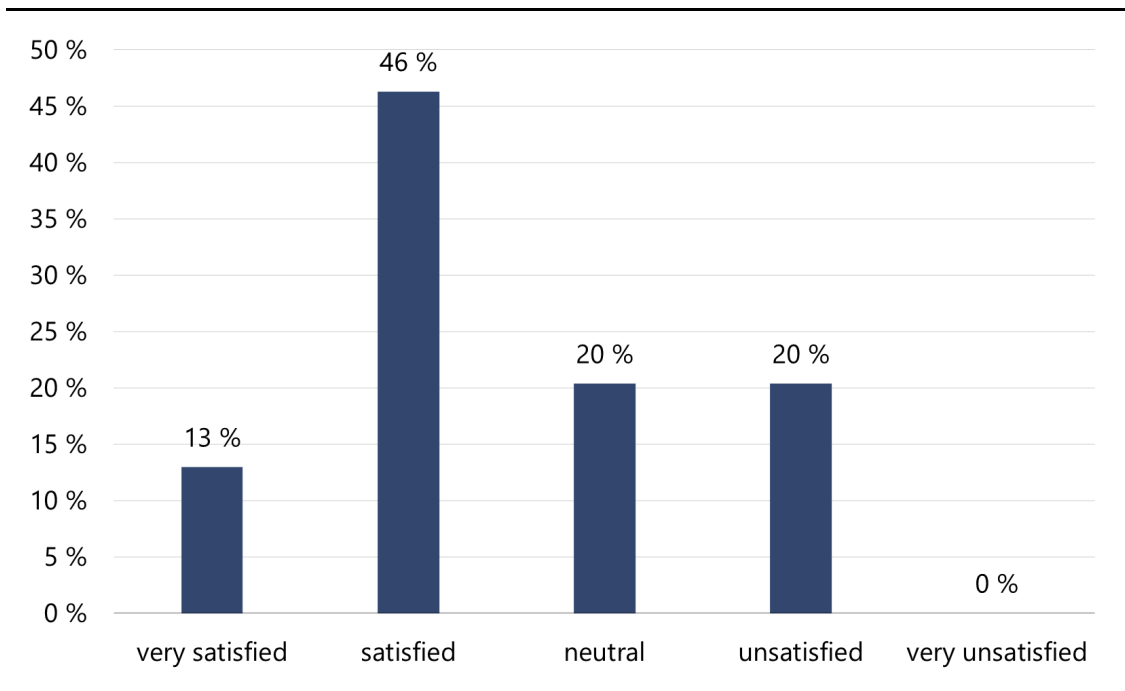
Source: Mid-term Evaluation Survey 2025

According to the responses, the majority (66 %) rates the collaboration within WP teams as very good or good (see Figure 11). However, some participants reported that clear communication structures and inclusive discussions are lacking, with many meetings described as being dominated by a small core group of active contributors, while the majority of members remain passive or uninvolved.

One of the key factors influencing collaboration quality appears to be the leadership style of the Work Package Leaders (WPLs). In WPs where leaders actively facilitate participation, maintain structured meetings, and follow up on action items, collaboration is generally rated more positively. However, in WPs where such guidance is missing, participants frequently described the meetings as lacking structure, agenda, or meaningful engagement, limiting the overall effectiveness of the collaborative process.

Figure 11: How would you rate the level of collaboration and communication within the WP-Team? – in percent
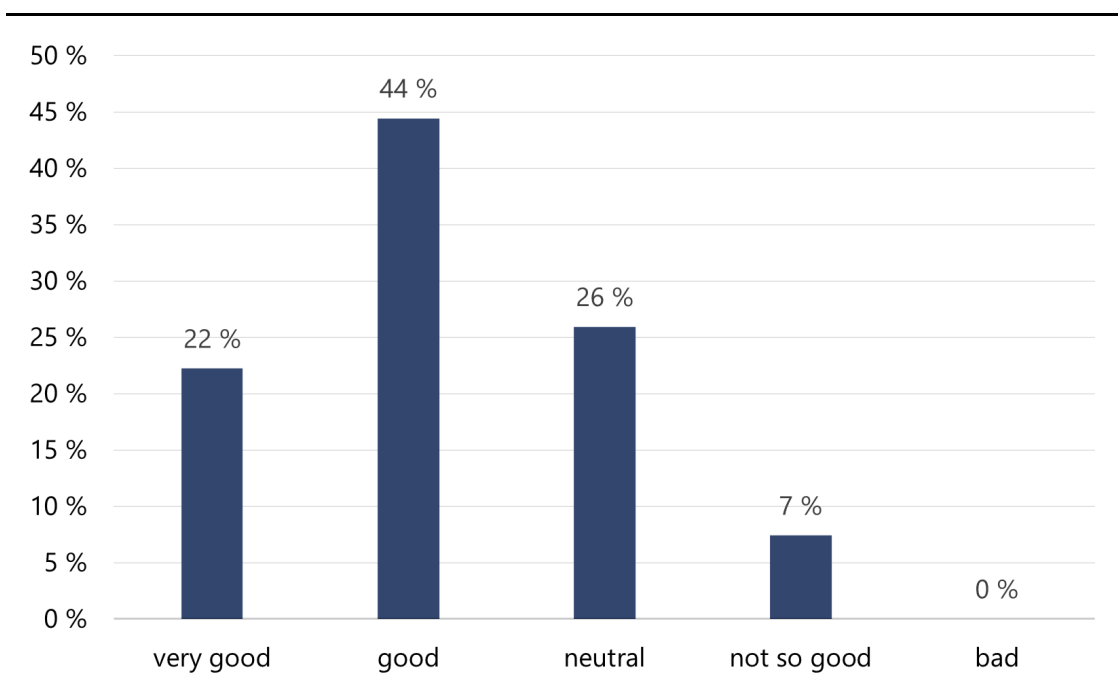
The pattern continues at the task level, where feedback suggests heterogeneous levels of interaction and cooperation. Some task teams are seen as tightly coordinated, composed of a small number of engaged members who work effectively together. Yet, in many cases, there is a clear discrepancy in knowledge and engagement between the core team and the broader group, making it difficult to ensure sustainability and continuity of work.

Respondents further highlighted that a lack of defined goals per session and insufficient long-term planning hampers the ability of teams to maintain consistent engagement across participating countries. The diversity of participant backgrounds and expectations also adds complexity to internal coordination.

While collaboration within smaller WP and task teams was generally positive, broader project-wide communication posed challenges. Participants indicated that good team-level interactions often coexisted with ineffective higher-level communication due to informal processes, information silos, or delayed meeting agendas.

The survey also assessed the perceived level of collaboration and communication within the individual WPs. Respondents were asked to rate their respective WPs on a five-point Likert scale (very good, good, neutral, not so good, bad). The aggregated results are visualized in Figure 12.

Figure 12 displays respondents' assessment of collaboration and communication within the task team. More than half of all answers fall in the "good" category (54 %), while just over one-fifth rate it "very good" (22 %). Roughly one respondent in five is neutral (19 %), a small slice finds collaboration "not so good" (6 %), and no one labels it "bad" (0 %). Taken together, the chart shows a broadly positive perception – 76 % of participants judge collaboration as good or very

good – yet it also highlights a minority whose experience ranges from neutral to slightly nega-tive.

Figure 12: How would you rate the level of collaboration and communication within your task team? – in percent
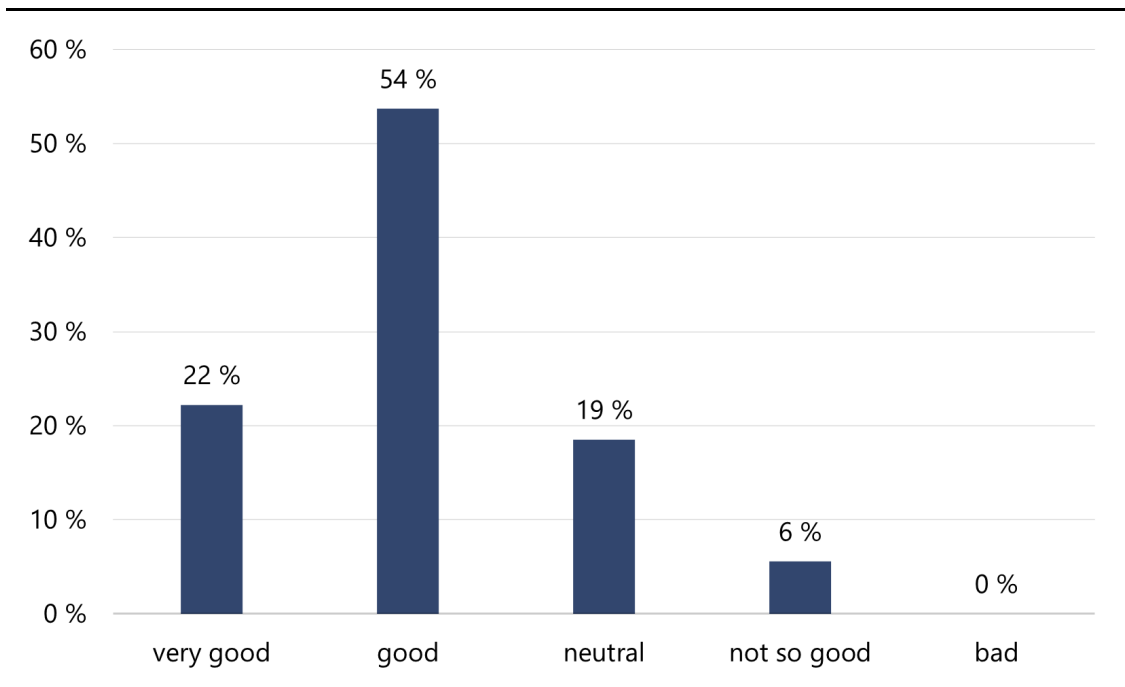
Figure 13 underscores clear disparities in how the nine work-packages (WPs) rate their internal collaboration and communication, with WP 1, WP 2 and WP 8 emerging as the least satisfied groups when results are normalised to percentages.

- WP 1 gathers only 25 % "very good" assessments and relies heavily on a "good" buffer (50 %) to reach a majority of positive responses; nevertheless, it registers the highest share of dissatisfaction in the entire chart, with 12.5 % "not so good" and another 12.5 % neutral.
- WP 2 presents an even broader mid-field: fewer than one respondent in five (20 %) rates collaboration "very good," while a dominant 47 % consider it merely "good." Notably, more than a third of its participants are ambivalent or negative, splitting into 27 % neutral and 7 % "not so good."
- WP 8 records the weakest top-tier endorsement of all: only 11 % praise collaboration as "very good." Although 44 % still label it "good," a striking 33 % remain neutral and 11 % express overt dissatisfaction, signalling a pronounced sense of inertia within that team.

In contrast, WPs 3, 4, 5, 6 and 7 all achieve two-thirds to four-fifths positive ratings, with their "very good + good" segments ranging from roughly 65 % in WP 3 to over 75 % in WP 6 and WP 7. These quantitative patterns echo the qualitative remarks in the survey's open-text fields, where respondents from WP 1, 2 and 8 repeatedly cite a "lack of clear communication, structure and agenda," describe meetings as being conducted in "stand-by mode," and call for more proactive facilitation – whereas WP 7, singled out for "very good and immediate communication" and "well-structured presentations," exemplifies the high-performing end of the spectrum.

Across all WPs, a significant proportion of responses were neutral, indicating mixed experiences or uncertainty regarding collaboration effectiveness. This might reflect uneven engagement across partner institutions or lack of clarity in leadership and task assignment.

Further qualitative feedback highlights several recurring challenges:

- Limited alignment between WPs and overlapping tasks (e. g., survey development)
- Micromanagement and excessive administrative demands
- Insufficient information exchange across subgroups
- Lack of structured meeting agendas and documentation

To address these issues, participants recommended:

- Strengthening WP and Task Team leadership
- Improving centralized communication and shared calendar tools
- Ensuring transparent and inclusive decision-making processes

The data suggests that while some WPs have established effective collaboration practices, the project overall would benefit from greater harmonisation, cross-WP knowledge sharing, and improved project-internal governance mechanisms.

Figure 13: Level of collaboration and communication within the WPs (per WP)
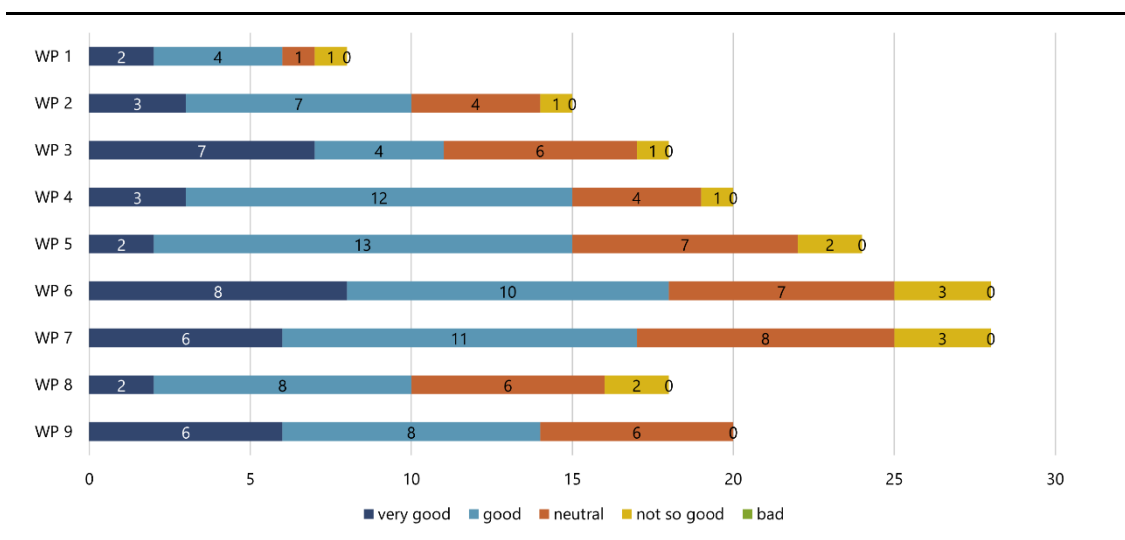
Source: Mid-term Evaluation Survey 2025

The qualitative data from open responses provides valuable context to these figures. Commonly reported barriers to effective collaboration include:

- Fragmented communication channels and overlapping responsibilities between WPs
- Micromanagement and detailed administrative requirements that detract from content-focused work
- Passive participation from many project members, with limited time or resources to contribute meaningfully
- Unclear distribution of roles, particularly in large WPs and across cross-functional task teams
- Lack of alignment in understanding objectives and project expectations

These findings suggest a need for stronger guidance on collaborative practices, particularly around setting shared goals, clarifying task expectations, and fostering open, inclusive dialogue.

To enhance collaboration across the project, the following measures were frequently recommended by participants:

- Strengthening leadership capacity at the WP and task level, with more authority delegated to WPLs and Task Leaders to organize workstreams and set expectations
- Regularly updating and centralizing project communication, including preparation and timely distribution of meeting agendas, recordings, and minutes
- Introducing a unified calendar system with embedded meeting links and task milestones to reduce confusion
- Promoting inclusive engagement mechanisms, ensuring that all participants are informed and empowered to contribute

While some positive examples stand out—especially in WPs where coordination is proactive and well-structured—the overall feedback indicates that collaborative practices across the project are uneven and require harmonization. Addressing both technical and human factors—such as trust in leadership, efficient communication tools, and participatory structures—will be key to ensuring that the Xt-EHR Joint Action can fully leverage the collective expertise of its consortium.

According to Figure 14, 78 % of respondents reported that project meetings were generally well organized, while 22 % disagreed, highlighting persistent challenges in meeting logistics and planning.

Despite the overall positive result, open-text feedback points to repeated and structural issues that hindered meeting effectiveness. Respondents cited:

- Missing or irregular Steering Committee (SC) meetings
- Late or frequently rescheduled invitations
- Agendas that were shared too late-or not at all
- A general lack of meeting management and clear follow-up

These issues were seen to particularly impact participants' ability to prepare and engage meaningfully. Several respondents emphasized that even when meetings did take place, the absence of a clear agenda or structure made active participation difficult.

To improve meeting organization, participants proposed:

- Sharing agendas earlier, ideally as part of the calendar invitation.
- Establishing a long-term planning roadmap to reduce last-minute changes.
- Making minutes and recordings reliably available after each session, especially for those unable to attend.

In summary, while most respondents rated the meeting organization as acceptable, the qualitative data points to important gaps in consistency, structure, and transparency that, if addressed, could significantly improve project coordination and engagement.

Figure 14: Were project meetings organized properly (e. g. invitation sent out early enough, agenda shared...)?

■ yes ■ no
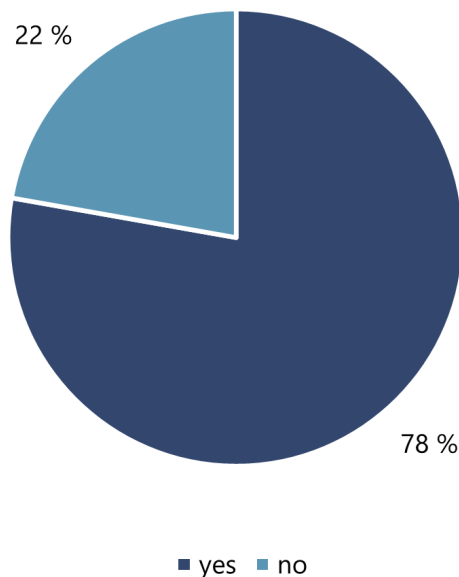
Other issues in project meeting organization

In response to the question 'What other issues did you encounter in organizing project meetings?', the following points were raised.

- Participants reported a range of issues related to the organization and management of project meetings across categories such as content scope, participation, communication, transparency, structure, tools, and broader principles.
- Scope Creep and Overload: Respondents noted a drift beyond the original Grant Agreement, with additional topics (e. g. maturity/conformity model) introduced that exceeded existing resource capacities within the WPs.
- Passive Participation: A large number of attendees were described as contributing in "listening mode," without active engagement. In response, some WPs began assigning tasks more formally to ensure accountability.
- Communication Overload and Gaps: Participants raised concerns about spam from repetitive invitations, a lack of coordination for horizontal (cross-WP) meetings, and insufficient updates on critical regulatory discussions (e. g. EHDS). There was a strong call for stronger, content-driven leadership and clearer communication pathways.
- Transparency Deficits: Several comments pointed to unclear decision-making procedures, insufficient documentation (e. g. use cases), and limited insight into how key strategic discussions were conducted.
- Organizational Complexity: The sheer number of meeting groups, combined with poor calendar integration, made it hard to navigate or prepare. Participants also reported lack of

structured agendas, and that some meetings lacked the time needed for full discussion or input preparation.

- Technical/Tool-Related Barriers: Problems with access to meeting platforms and collaborative tools (e. g. SharePoint, OneNote) were mentioned, often due to local IT restrictions or software changes.
- Principles-Based Concerns: One participant emphasized the importance of adhering to FAIR data principles-ensuring information is findable, accessible, interoperable, and reusable-especially in the context of managing shared resources.

Steering Committee and Leadership Council Meetings

As illustrated in Figure 15, only half of the survey respondents reported attending Steering Committee (SC) meetings, while the other 50 % indicated they had not participated. However, not all respondents might be formal members of the committee which is the project's central governance body.

Qualitative feedback suggests several reasons for non-attendance: some participants felt the meetings were not directly relevant to their role which confirms the assumption that a big part of respondents are not formal members of the Committee. Others cited time constraints or overlapping commitments. A few also mentioned unclear communications about the purpose or structure of SC meetings, which may have contributed to reduced involvement. Given the SC's strategic importance in overseeing project progress and aligning cross-WP activities, increasing awareness of its role and ensuring broad, consistent participation could enhance project transparency, coordination, and decision-making.

Figure 15: Did you attend Steering Committee (SC) meetings?

50 %   50 %

■ yes ■ no
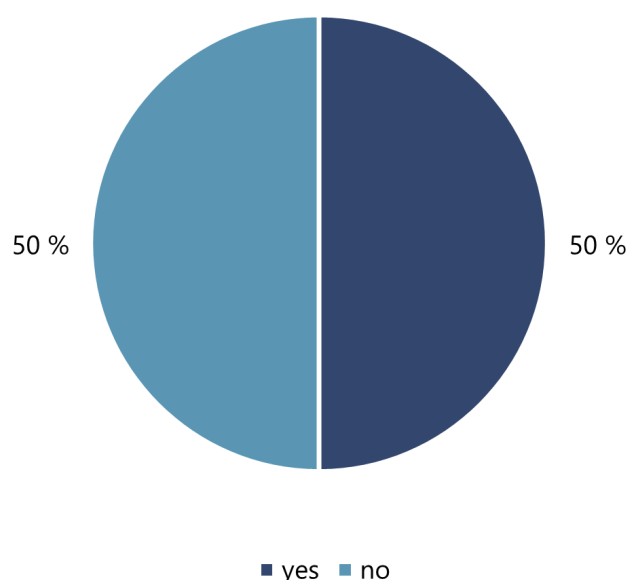
Source: Mid-term Evaluation Survey 2025

As shown in Figure 16, only 35 % of respondents indicated that participation in Steering Committee (SC) meetings positively supported their project work, while 15 % disagreed, and 50 % selected "not applicable". This high share of N.A. responses likely reflects that many respondents did not attend SC meetings at all, as also evidenced in Figure 15.

Among those who attended, qualitative comments reveal mixed views. Some participants noted that the SC meetings mostly provided general updates with limited relevance to specific tasks or lacked clear structures for decision-making. Others mentioned difficulties distinguishing the role of SC versus other governance groups like the Leadership Council (LC).

These results suggest that while SC meetings are useful for some, their impact on operational work is perceived as limited by many. Enhancing the strategic focus, clarity, and inclusivity of SC meetings could improve their value for a broader range of stakeholders.

Figure 16: Did you feel that your attendance in SC meetings helped you in progressing your work within the project?
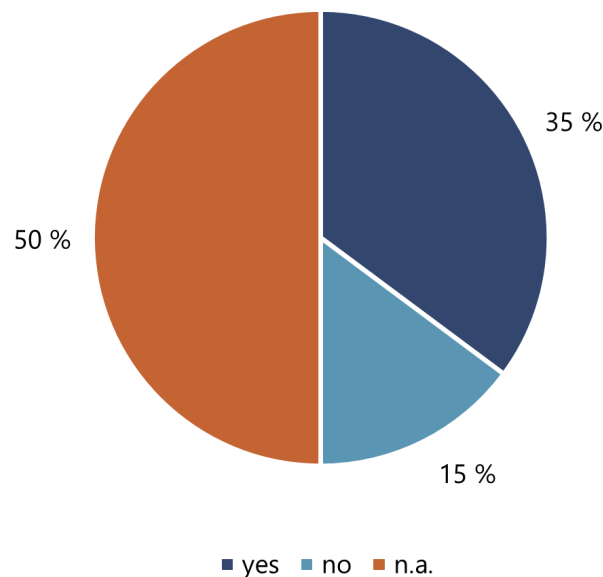
Source: Mid-term Evaluation Survey 2025

Figure 17 illustrates that only 30 % of respondents agreed that all relevant project members were present at Steering Committee (SC) meetings, while 11 % disagreed, and a notable 59 % marked the question as not applicable-likely reflecting non-attendance (with some of the respondents having a justified reason like not being a formal member of the committee) or lack of clarity regarding meeting participation and scope.

Qualitative feedback supports this interpretation, indicating that SC meetings were perceived as high-level and sometimes lacking in targeted, actionable discussion for WP-level progress.

Participants proposed several improvements to enhance the value and inclusiveness of SC meetings:

- More regular scheduling, ideally quarterly and announced early.
- Clearer agendas and better structure to enable targeted discussion.
- Transparency through consistent sharing of minutes and recordings.
- Clearer distinction between SC and LC meetings.
- Stronger presence of key decision-makers to ensure alignment and progress.

Overall, respondents wish for SC meetings to be more strategic, inclusive, and action-oriented, contributing meaningfully to project-wide coordination.

Figure 17: Do you feel that SC meetings were attended by all relevant Xt-EHR project members needed to progress work?

11 %

30 %

59 %

■ yes   ■ no   ■ n.a.
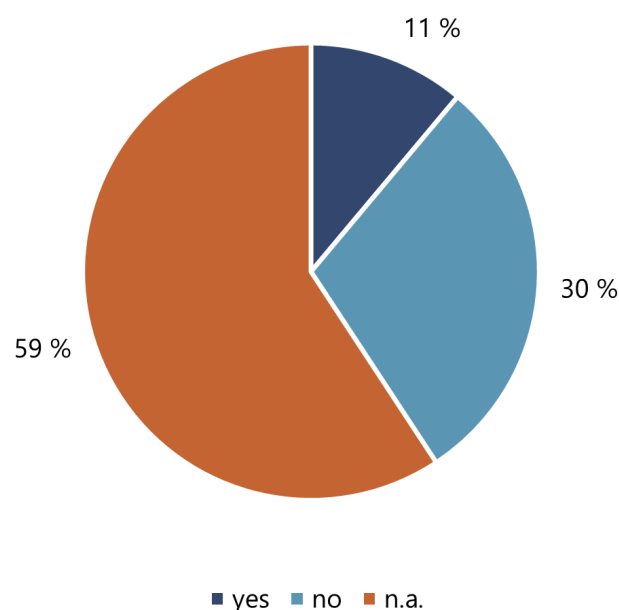
As illustrated in Figure 18, 69 % of respondents in leadership roles (WPLs, Co-WPLs, Task Leaders) reported attending Leadership Council (LC) meetings, with only 31 % indicating they had not. This reflects strong formal engagement among the project's core coordination actors.

Despite high attendance, qualitative responses suggest that participants experienced mixed levels of satisfaction with the meetings' structure and impact. Several noted that while the LC provided a useful space for strategic discussion and alignment, the limited time available often prevented meaningful exchange, particularly when agendas were overloaded. One common suggestion was to alternate which WPs provide updates per session-allowing more in-depth discussion and better time management. Others wished for clearer focus on resolving key issues rather than extended information sharing.

In addition, participants expressed a desire for a better balance between updates and dialogue, and for more clarity regarding the distinction between LC and SC meetings to avoid redundancy. These insights indicate that while the LC is functioning well in terms of participation, its

effectiveness could be strengthened by refining its scope, pacing, and interaction format to better serve the needs of WP and Task leaders.

Figure 18: Did you attend Leadership Council (LC) meetings (only WPLs, Co-WPLs, TL)?

31 %

69 %

■ yes ■ no
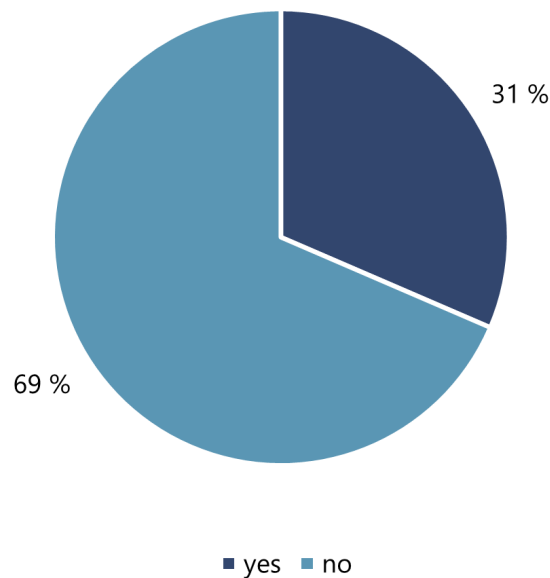
Figure 19 shows that a large majority - 89 % of respondents-felt that attending Leadership Council (LC) meetings supported the progress of their work within the Xt-EHR project. Only 11 % responded negatively, indicating that these meetings are largely perceived as useful and relevant by those in leadership roles.

Compared to Steering Committee (SC) meetings (Figure 16), which had a lower share of positive responses, LC meetings appear to have been more effective in supporting concrete work. This interpretation is further supported by qualitative feedback: participants appreciated that LC sessions offered space for alignment on open issues, the exchange of WP-level updates, and clarification of expectations.

However, respondents also noted that while the format was helpful overall, time constraints limited the depth of discussion. Some proposed structural adjustments, such as splitting WP presentations across sessions or extending the meeting duration, to allow for better coverage of all relevant topics.

Figure 19: Did you feel that your attendance in LC meetings helped you in progressing your work within the project?

11 %

89 %

■ yes ■ no
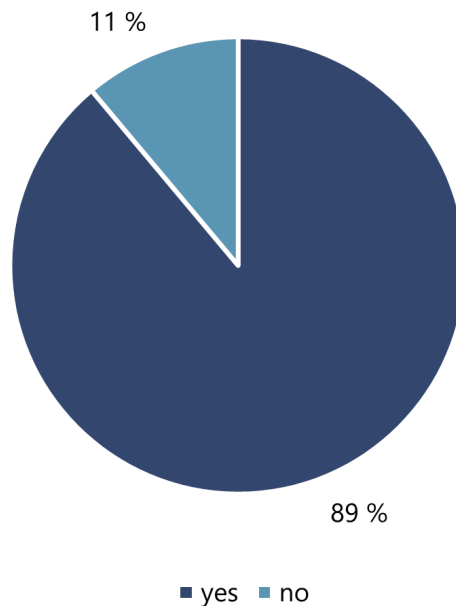
According to Figure 20, 69 % of respondents agreed that all relevant Work Package Leaders (WPLs) were present in Leadership Council (LC) meetings, while 24 % disagreed. This reflects a high perceived level of completeness and representation in LC attendance.

In comparison to SC meetings (Figure 17), where only 30 % of respondents felt that all relevant participants were present, LC meetings appear to have achieved stronger and more consistent participation of key project leaders. This aligns with the earlier finding (Figure 19) that LC meetings were also considered more helpful in advancing work, suggesting a positive link between presence of decision-makers and perceived utility. Some participants emphasized the need for stronger continuity and preparation among LC attendees to make best use of the meeting time.

The side-by-side comparison with the SC data underscores that LC meetings were perceived as more operationally relevant and better attended by the right people, reinforcing their role as a central coordination forum within the project.

Figure 20: Do you feel that LC meetings were attended by all relevant WP-leaders needed to progress work?

Figure 20: Do you feel that LC meetings were attended by all relevant WP-leaders needed to progress work?

- yes - no - n.a.

24 %

7 %

69 %
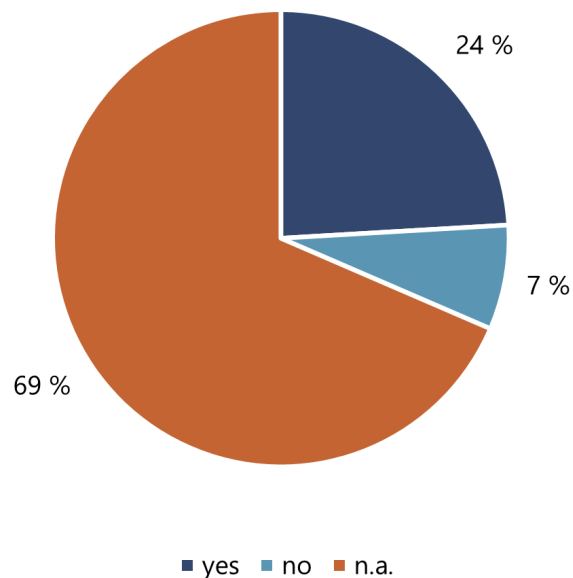
Figure 21 indicates that 60 % of respondents felt they had sufficient time to prepare for Leadership Council (LC) and Steering Committee (SC) meetings, while a substantial 40 % reported they did not. This split highlights a recurring tension in the project between expectations for meaningful participation and the actual time resources available to team members.

Qualitative feedback supports this picture: participants pointed out that agendas were often shared too late, and preparation time was constrained due to competing workloads or last-minute meeting invites. Some also noted that the dense scheduling of meetings made it difficult to contribute thoughtfully, particularly in leadership roles where input was expected across multiple WPs and cross-cutting topics.

Several respondents wished for:

- Earlier distribution of agendas and background material, ideally several days in advance.
- Clearer communication of expectations for meeting input.
- Better pacing of meetings across the calendar to avoid overload.

Overall, the responses suggest that while a majority manage to prepare adequately, the project would benefit from more systematic planning and communication to ensure inclusive and well-informed participation in both SC and LC formats.

Figure 21: Do you feel that you have enough time to prepare meeting input (for LC/SC) properly?

40 %

60 %

■ yes ■ no
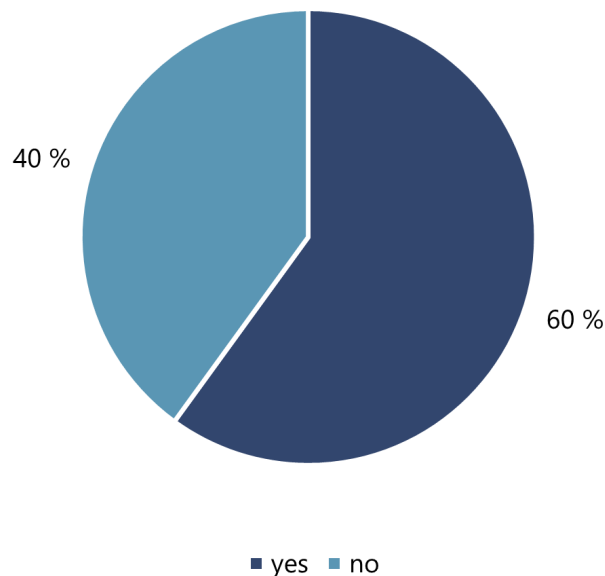
Source: Mid-term Evaluation Survey 2025

Figure 22 shows that the majority of respondents found the SharePoint platform to be a highly useful coordination tool within the Xt-EHR project. Specifically, 54 % rated it as providing a "very high benefit", and 33 % as a "rather high benefit". Only a small minority viewed it as neutral (7 %) or of low benefit (6 %), with no respondents rating it as having no benefit at all.

These responses suggest that SharePoint has been generally effective as the central digital workspace for document sharing and coordination. However, qualitative comments highlight several areas for improvement in how the tool is used:

Participants noted that:

- Folder structures across WPs are often inconsistent, making it hard to locate the latest files.
- There is confusion about where working and final materials should be stored.
- Some wished for clearer guidelines on naming conventions and file organization.

Others emphasized that while SharePoint works well technically, its potential could be maximized by training participants, standardizing usage, and improving transparency about where key content (e. g., deliverables, minutes, recordings) is located.

Overall, the tool itself is viewed very positively, but better governance, consistency, and guidance could further improve its contribution to coordination.

Figure 22: How useful do you find the SharePoint tool provided for overall project coordination?

Bar chart showing responses:
- very high benefit: 54 %
- rather high benefit: 33 %
- neutral: 7 %
- rather low benefit: 6 %
- low benefit: 0 %
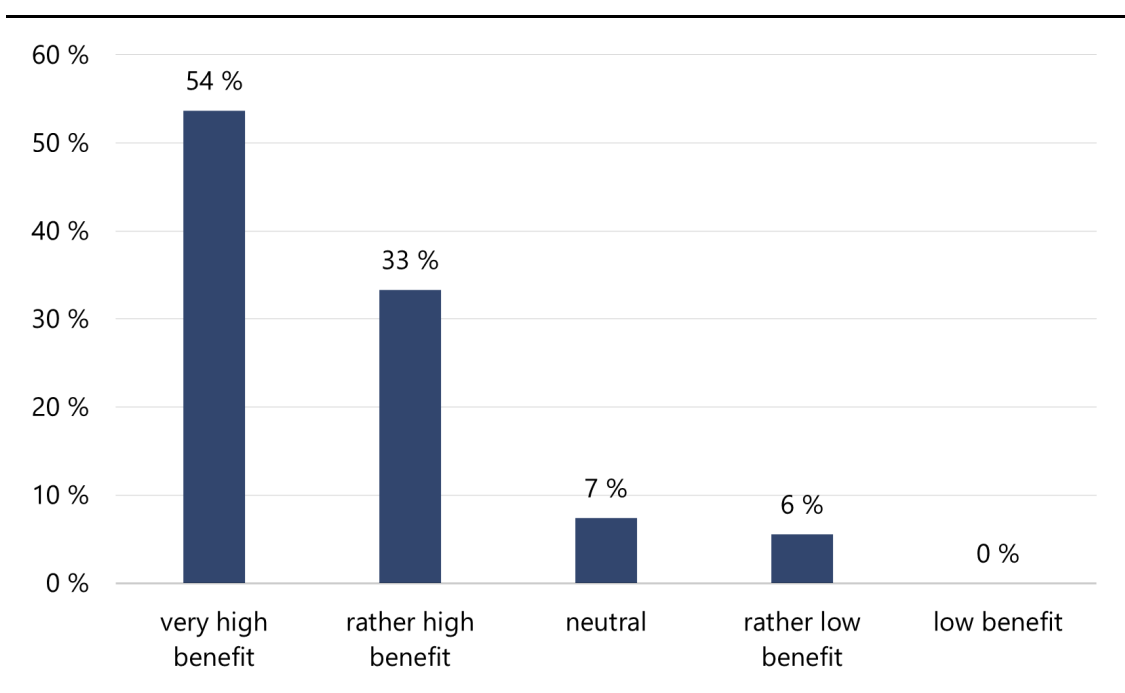
In the open comments section participants proposed several tools and measures to enhance the organization and coordination of the Xt-EHR project:

- Centralised Calendar: A unified calendar covering not only Xt-EHR but also related initiatives (eHN SGs, MyHealth@EU WGs) was recommended to improve planning and meeting visibility.
- Structured Use of SharePoint: While SharePoint was generally seen as effective, several respondents highlighted the need for clearer folder structures and usage rules across all WPs. Concerns included inconsistencies in where documents are stored and difficulty locating the most recent versions.
- Improved Participant Communication: Suggestions included establishing a clear contact list, better communication structures, and efforts to involve a broader range of member states to ensure shared understanding of goals and responsibilities.
- External Collaboration and Interoperability: One proposal was to follow the European Interoperability Reference Architecture (EIRA), potentially using the Archimate format, to support structured integration and alignment with EU-level frameworks.
- Simplified File Sharing: A tool enabling file link sharing with external stakeholders-without requiring SharePoint access-was proposed to improve collaboration beyond the core consortium.
- Use of GitHub: Some respondents noted positive experiences using GitHub to raise issues and comment on datasets. However, additional support and guidance would be needed to increase usability across the team.
- Access to Meeting Content: Participants expressed a need for meeting recordings to be consistently uploaded and made accessible.

- Real-Time Communication Tools: Suggestions included the use of Microsoft Teams chat groups or Slack for quick, focused exchanges, as well as collaborative platforms such as Miro for visual coordination.
- Platform Consolidation: Lastly, there was a suggestion to consider a central platform administered by the European Commission for coordination across EHDS-related projects.

3.5 Project outputs and next steps

The assessment of project outputs and next steps—completed solely by Work-Package Leaders (WPLs)—yielded a predominantly positive verdict on WP progress. Figure 23 shows that 88 % of leaders (14 of 16 respondents) are satisfied overall: 19 % (3) report being very satisfied and 69 % (11) satisfied, while the remaining 13 % (2) are neutral; no one answered the options unsatisfied or very unsatisfied see (Figure 23).

These results point to broad confidence in how the Work Packages are advancing, yet the neutral contingent suggests that a handful of leaders still need additional clarification or support to reach full satisfaction. Strengthening cross-WP communication on next steps and providing more detailed milestone roadmaps could convert those neutral assessments into positive ones in the next evaluation round.

Figure 23: For Work Package Leaders: How satisfied are you with the progress of your Work Package? – in percent
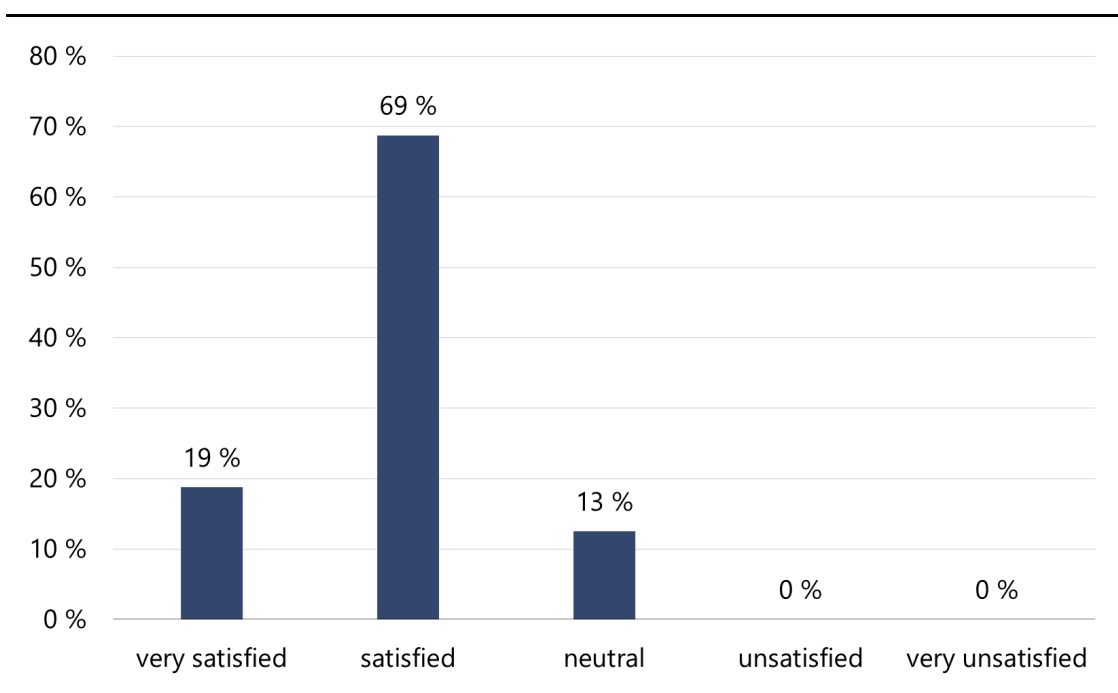
According to the results by Work Package (Figure 24), the Work Package leaders of WP 1, WP 2 and WP 9 were the most satisfied with the progress of their Work Packages, with 100 % of leaders expressing contentment. WP 8 shows a slightly more varied perspective, with 17 % of WP leaders

expressing a neutral stance, while the remaining leaders were either satisfied or very satisfied. WP 3-7 show similar results, with 13-14 % of WP leaders reporting they are very satisfied, while the remainder also expressed satisfaction with their Work Packages. These findings indicate strong alignment between expectations and progress across all WPs, ensuring continued momentum and successful execution of objectives.

Figure 24: For Work Package Leaders: Satisfaction of WP-Leaders with progress of work within the WP´s (per WP) – in percent
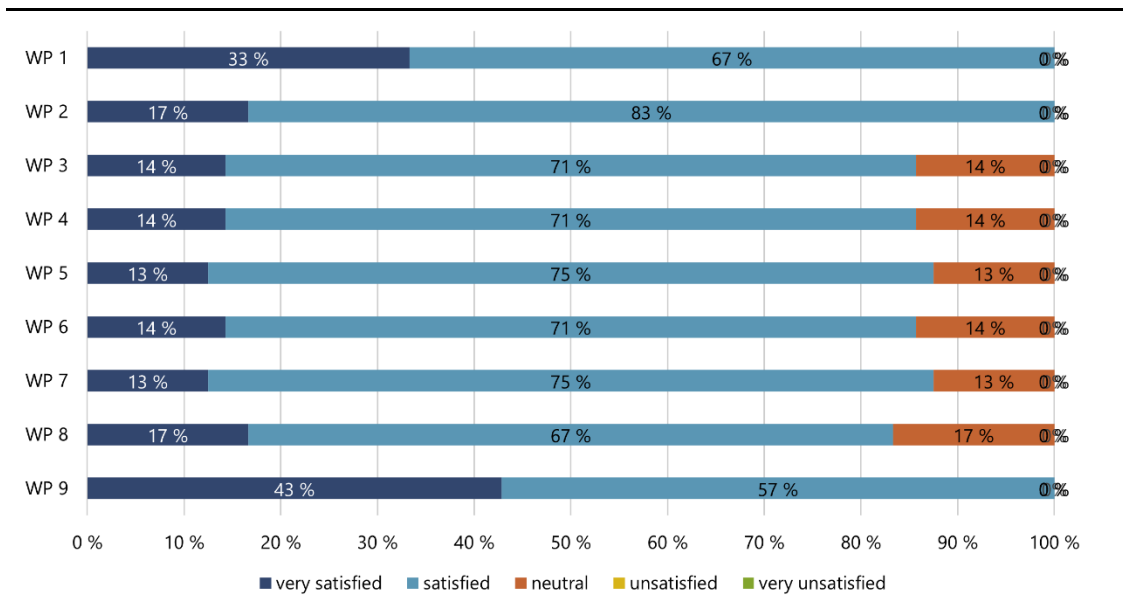
Note:
WP1: Project management and coordination
WP2: Dissemination
WP3: Evaluation
WP4: Sustainability
WP5: General requirements for Electronic Health Records (EHRs) and system interfaces
WP6: Electronic prescriptions and patient summary towards European Health Data Space (EHDS)
WP7: New services for Electronic Health Record (EHR) systems towards European Health Data Space (EHDS)
WP8: Certification and Labelling framework
WP9: Telemedicine under MyHealth@EU in alignment with European Health Data Space (EHDS) proposal

Source: Mid-term Evaluation Survey 2025

Additionally, the results in Figure 25 demonstrate optimism regarding the timely achievement of deliverables, with 69 percent of respondents (37 participants) considering timelines realistic – 13 percent (7 participants) very realistic and 56 percent (30 participants) realistic. However, 31 percent (17 participants) provided neutral feedback, suggesting some uncertainty.

Figure 25: For Work Package Leaders: How realistic is the timely achievement of your deliverable? – in percent
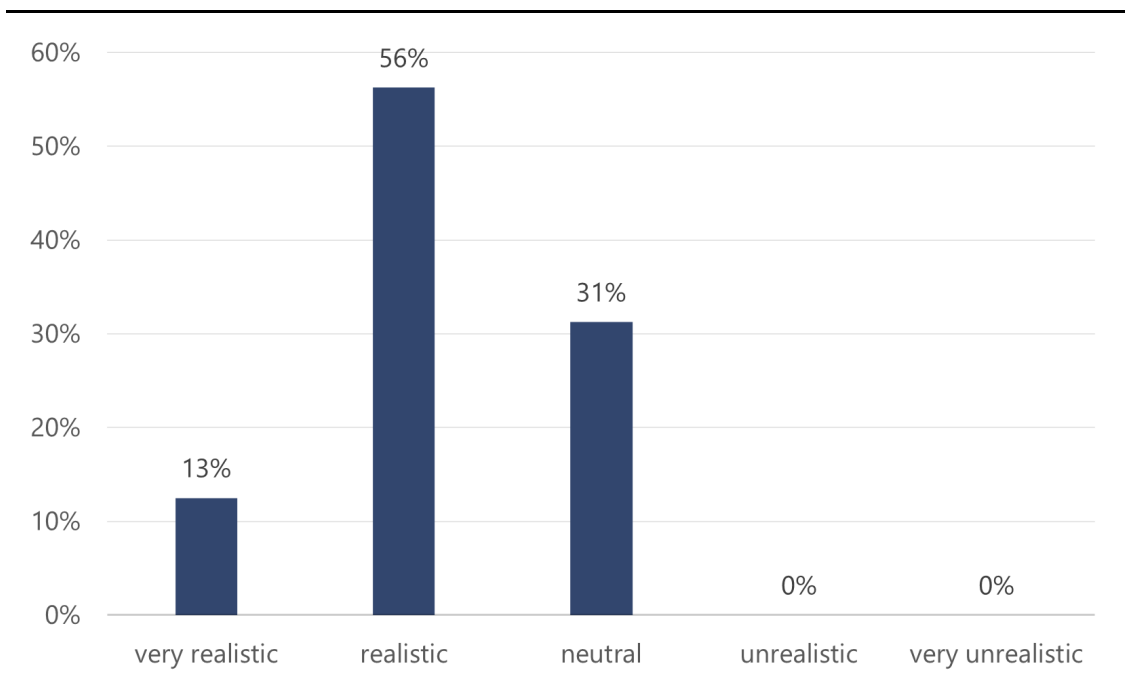
Figure 26 shows Work-Package Leaders' views on whether their deliverables can realistically be achieved, expressed as percentages within each WP. Overall, confidence is high: every package posts at least two-thirds positive expectations ("very realistic" + "realistic") and none records any "unrealistic" or "very unrealistic" votes.

- The most optimistic outlook appears in WP 4 and WP 9, where roughly 30 % of leaders deem their goals very realistic and another 57 % call them realistic, leaving only 14 % neutral.
- WP 6, WP 3 and WP 2 form the next tier of confidence. Each of them shows around 50–57 % realistic ratings, supplemented by 14–17 % very realistic, with the remaining quarter to third of answers sitting at neutral.
- WP 5 is almost perfectly balanced—25 % very realistic, 50 % realistic, 25 % neutral—indicating solid but not unanimous certainty.
- WP 7 and WP 8 display the greatest caution. In WP 7 only 13 % call the targets very realistic and 50 % realistic, while a sizable 38 % stay neutral. WP 8 is similar: 20 % very realistic, 40 % realistic, and 40 % neutral.

Taken together, the chart suggests that Work-Package Leaders believe their deliverables are most often "realistic," occasionally "very realistic." The sizeable neutral minorities in WP 7 and WP 8, however, point to pockets where timelines or resource needs may still require clarification to turn tentative confidence into firm commitment.

Figure 26: For Work Package Leaders: Realistic achievement of deliverables of WP-Leaders within the Work Packages (per WP) – in percent
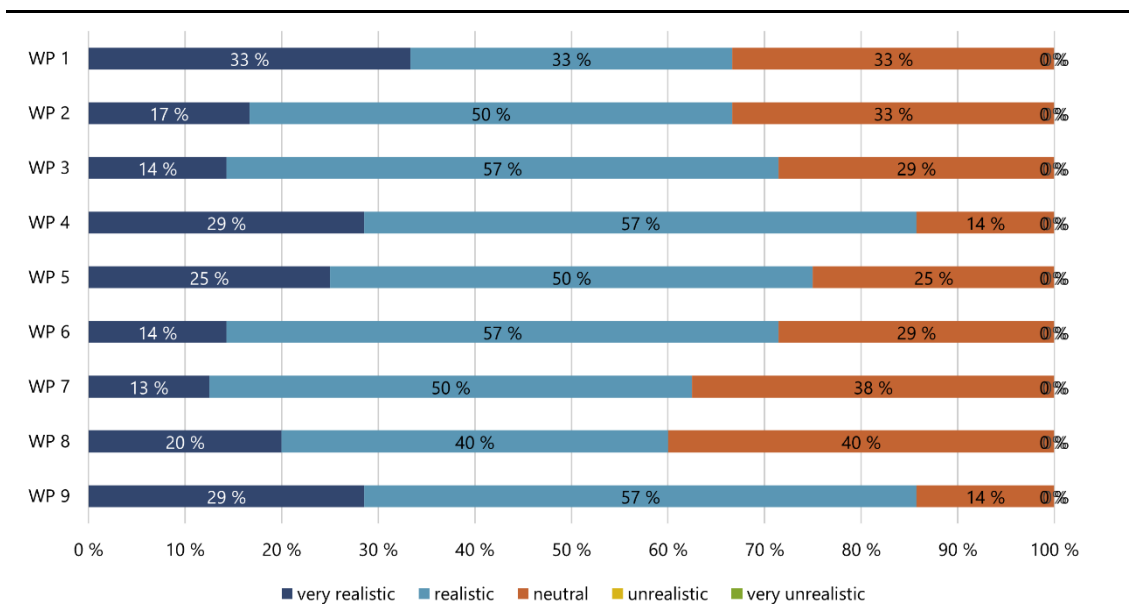
Note:
WP1: Project management and coordination
WP2: Dissemination
WP3: Evaluation
WP4: Sustainability
WP5: General requirements for Electronic Health Records (EHRs) and system interfaces
WP6: Electronic prescriptions and patient summary towards European Health Data Space (EHDS)
WP7: New services for Electronic Health Record (EHR) systems towards European Health Data Space (EHDS)
WP8: Certification and Labelling framework
WP9: Telemedicine under MyHealth@EU in alignment with European Health Data Space (EHDS) proposal

Source: Mid-term Evaluation Survey 2025

Notably, 50 percent of WPLs (27 participants) anticipate potential roadblocks in achieving project goals. These insights underscore the importance of addressing neutral and uncertain responses while proactively identifying and mitigating challenges to ensure successful project outcomes.

Figure 27: For Work Package Leaders: Do you foresee any potential roadblocks in achieving the project goals? – in percent
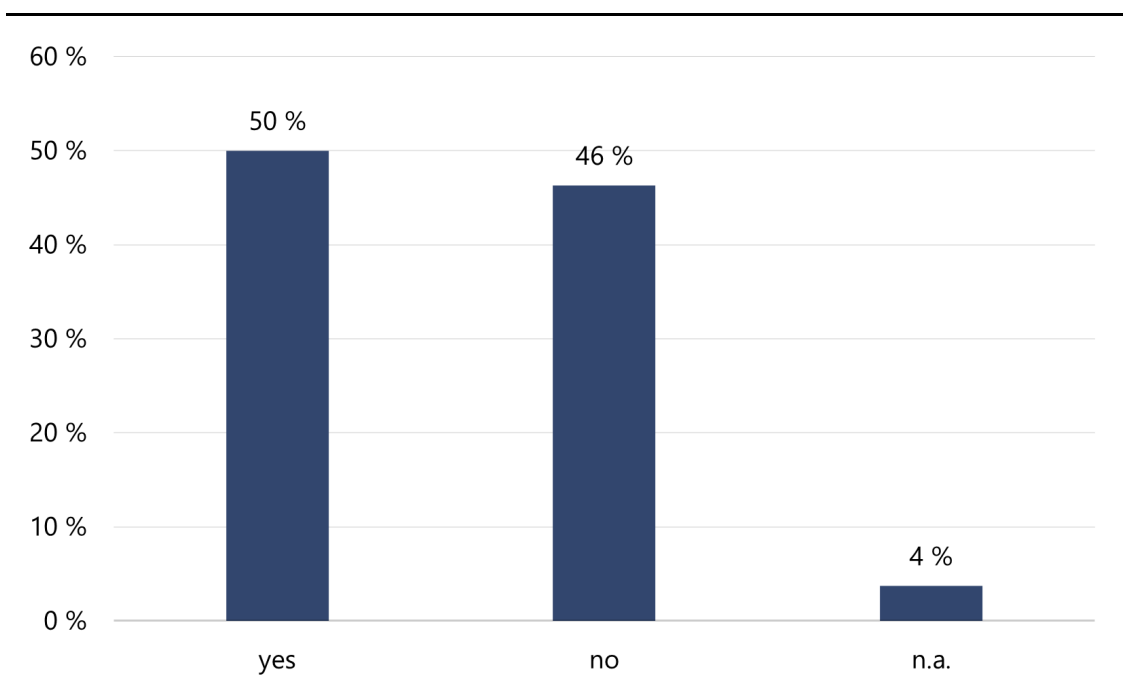
Participants have highlighted several challenges that could impact the project's progress and outcomes.

- **Thematic area 1: Quality and Usability of Deliverables** (3 comments): Key concerns were highlighted regarding the quality and usability of deliverables, emphasizing the risk that deliverables may not meet high expectations due to the complexity of the scope and the difficulty in providing concrete inputs for EHDS implementation. Respondents also raised issues related to premature stakeholder consultation, warning that sharing partial, unvalidated deliverables could hinder final achievements, and instead recommending the disclosure of high-level policies, goals, and scopes to avoid discussions on unstable or unapproved content. Additionally, concerns were voiced about the development of services, calling for greater consistency and synergy across infrastructure and metadata requirements in service domains such as patient summaries, medication, lab reports, medical imaging, and discharge summaries. Participants stressed the importance of addressing these challenges promptly to ensure alignment and quality across the project deliverables.

- **Thematic area 2: Communication and Responsibility** (4 comments): Participants also highlighted challenges in communication and responsibility within the project. Key concerns include long communication lines, excessive reliance on task group leaders for information sharing, and procedural inefficiencies due to micromanagement and administrative burdens. A lack of transparency in decision-making processes was also flagged, especially regarding major changes, which risks undermining collaboration and trust within the Consortium. Misalignment between the Coordinator's role and governance frameworks (CA and MoU) further exacerbates these issues. Recommended improvements include streamlining communication processes, delegating more responsibility to WP and task leaders, and adhering to established governance practices. Greater transparency in decision-making and

proactive engagement with feedback are essential for building trust and ensuring smooth project operations.

- **Thematic area 3: Stakeholder Consultation** (3 comments): The stakeholder consultation process presents several challenges that may hinder project efficiency. Key issues include its time-consuming and extensive nature, with suggestions to extend timelines. Participants emphasized the need for greater stakeholder ownership, advocating for deeper involvement of field experts (e. g., health practitioners, IT vendors) to ensure project outcomes align with practical needs. Concerns were raised about the lack of flexibility in the consultation framework, as member states had to conform to standardized procedures defined by the EC and WP2, limiting adaptability to country-specific practices. Lastly, the process faces challenges from excessive feedback and dependence on external organizations, such as HL7 Europe, for resources like the FHIR Implementation Guide. Refining this process and promoting active stakeholder engagement are critical to achieving project success according to the respondents.
- **Thematic area 4: Timeline Conflicts and Overlaps** (2 comments): A major risk identified is the conflict between the EHDS-dictated timeline and the contracted project timeline, which could lead to delays. Additionally, there are significant overlaps between this project's activities and those of eHN subgroups, eHMSEG and its subgroups, other EHDS-related European Commission (EC) projects, and non-EC EHDS-related projects (e. g. HL7).
- **Thematic area 5: Expert Involvement** (3 comments): Concerns were raised regarding the ability of experts to dedicate sufficient time to produce deliverables, with some noting that contributions tend to come from a select few rather than broader participation. Specific feedback from WP9 indicated the need for greater inclusion of experts in cross-border telemedicine to drive progress, highlighting dissatisfaction with the current approach.
- **Thematic area 6: Time and Resource Constraints** (3 comments): Participants cited time limitations and resource constraints as significant barriers, particularly for the stakeholder consultation process, which is seen as time-intensive and extensive. Suggestions were made to consider extending the timeline to address these challenges.
- **Thematic area 7: Other** (4 comments): Key concerns include the ambitious and complex nature of the project, given its limited timeline and high expectations from stakeholders. The evolving role of the project concerning the EHDS regulation was noted as a significant challenge, with an emphasis on achieving a shared understanding of scope and goals across all work packages. Suggestions included early planning for the use of digital formats (e. g., XML, RDF, OWL) and considering the influence of emerging technologies, such as artificial intelligence (AI) and large language models (LLMs).

Addressing these issues through improved planning, better resource allocation, and enhanced collaboration with stakeholders and experts is essential to mitigate risks and achieve project objectives effectively.

3.6 Open Questions

At the conclusion of the questionnaire, participants responded to three open-ended questions aimed at capturing qualitative feedback. The questions focused on identifying aspects of the project that were functioning particularly well, areas requiring improvement or greater attention,

and overall comments or suggestions to enhance the process. The responses provide valuable insights into participant perspectives.

Comments on the question "What aspects of the project are working particularly well from your perspective?"

• **Communication and Coordination** (9 comments): Key aspects working particularly well include the utilization of SharePoint for timely updates and notifications via email, enabling efficient dissemination of information. Work Package 2 (WP2) stands out for its exemplary performance, characterized by clear communication, active participant involvement, and meticulously planned and managed meetings. Regularly organized subgroup meetings, along with preparatory instructions, further enhance project execution. What is more: Respondents praise the project's overall coordination and organization, emphasizing the positive and open tone of communication across stakeholders. Strong cooperation among project participants and effective collaboration with eHN subgroups are identified as notable achievements. Additionally, coordination and teamwork within the Work Package teams are highlighted as significant contributors to the project's success. The provision of a regularly updated project timeline, featuring key deliverables and milestones accessible on SharePoint, was particularly valued for maintaining transparency and clarity.

• **Relevance and Engagement** (5 comments): Participants highlight the exceptional relevance of the Xt-EHR Joint Action (JA) in advancing eHealth across the EU and Member States. Stakeholder engagement and collaboration among experts are noted as strengths, enabling innovative solutions and addressing interoperability gaps. Strong commitment from partners, EC support, and dedicated project coordination contribute to its success. Overall, the project fosters European-wide cooperation, driving the implementation of the European Health Data Space (EHDS) and supporting multifaceted discussions on critical topics.

• **Work Package Performance** (5 comments): Participant feedback provides valuable insights into the project's operations and collaboration dynamics. While some concerns are raised about the efficiency of WP2 and WP3 potentially placing pressure on other Work Packages through unforeseen tasks, these challenges underscore the need for better resource planning and targeted stakeholder consultations. Nevertheless, WP2 is commended for its outstanding performance, characterized by clear communication, active participant engagement, and well-planned meetings. The technical team within T7.2 Chapter 9.3 receives positive recognition for its cohesive cooperation and weekly meetings, which have provided clarity on expectations and fostered optimism for progress moving forward. Collaboration between Work Packages and tasks has been exemplary overall, with project partners displaying strong commitment to objectives and cultivating a supportive environment for innovative problem-solving. Open communication, adaptability to evolving requirements, and collective dedication to meeting deadlines were highlighted as key strengths that enhance project alignment across diverse deliverables. Additionally, WP7.2 was noted for its effective organization and productive meetings, further supporting the project's collaborative spirit and progress toward overarching goals. These findings emphasize the importance of sustained teamwork and proactive adjustments to ensure comprehensive success.

• **Team Collaboration and Atmosphere** (7 comments): Participants express satisfaction across all aspects of teamwork, emphasizing the effectiveness of small group collaboration for specific tasks. Digital meetings have been noted as successful, fostering cooperation and maintaining enthusiasm among members. The community is characterized by mutual respect and kindness, contributing to a strong sense of camaraderie. A constructive and helpful atmosphere further supports productive interactions and teamwork. These insights underscore the importance of maintaining the current collaborative practices to sustain project momentum and strengthen team morale.

• **Technical and logical aspects** (6 comments): The evaluation of technical and logical aspects within the project highlights both strengths and areas for improvement. Discussions on logical models and modelling have been identified as particularly valuable for advancing project objectives. The establishment of separate working groups, such as the Xt-EHR T7.2 Ch.9.3 Technical Specifications Working Group, proved efficient in managing sub-tasks and enhancing productivity. However, challenges such as high turnover within certain groups were noted, emphasizing the need for greater stability in team composition. A positive milestone was achieved with the adoption of the "security by design" principle, ensuring that security risks are evaluated as an integral part of deliverable development. Additional highlights include the successful handover from the eHN and productive meetings involving experts from various fields.

Comments on the question "What areas could use improvement or need more attention?"

• **Meeting Frequency and Organization** (3 comments): Participants emphasize the need for more frequent Steering Committee (SC) meetings, with a recommendation to organize a face-to-face SC meeting in 2025. Consistency in meeting arrangements was also identified as a priority, particularly in ensuring a uniform format for uploading meeting materials, such as video recordings, participant lists, transcriptions, and PowerPoint presentations across all Work Packages (WPs). Additional feedback underscores the importance of robust meeting organization, effective communication, thorough planning, and comprehensive risk management.

• **Communication and Updates** (7 comments): The evaluation of communication and updates within the project highlights several areas requiring refinement to ensure clarity and efficiency. Participants expressed concerns about the proliferation of new groups addressing specific topics, such as the maturity model, with limited updates shared from these groups, leading to gaps in transparency. Challenges were also noted regarding mailing lists and invitation overload, with frequent "reply-all" emails seen as distracting and detracting from key project priorities. Suggestions for improvement include enhancing regular progress updates, ensuring structured review and input from Member States on deliverables, and improving communication between Work Packages (WPs) and Working Groups (WGs). The need for better coordination in sharing results and outputs across WPs was emphasized, along with a clearer interplay of deliverables across different groups. Participants also identified inefficiencies with the SharePoint site, noting its limitations in effectively storing and communicating project materials. Exploring alternative platforms or optimizing existing tools could address these challenges.

• **Coordination and Governance** (3 comments): The evaluation of coordination and governance emphasizes the importance of aligning activities within the broader eHealth EU ecosystem

to foster co-creation across diverse projects and initiatives. Key recommendations include enhancing clarity and adherence to governance processes, particularly in decision-making and communication from the coordination team. Consistently consulting Work Package (WP) and task leaders while respecting their roles is highlighted as a critical factor for building trust and improving efficiency within the Consortium. Reducing micromanagement and administrative burdens, such as overly detailed reporting requirements, would enable project partners to prioritize substantive work.

• **Project Management and Leadership** (2 comments): Strong project management, guided by substantive experts, was identified as essential for addressing challenges faced by certain Work Packages and ensuring alignment with overarching goals. Clear leadership, prioritization of deliverables, and reduced competing workloads were emphasized to maximize efficiency and resource allocation across stretched teams.

• **Cross-Domain Understanding and Cooperation** (3 comments): Cross-domain understanding and cooperation remain vital but challenging, with a focus on aligning Work Packages and tasks and intensifying collaboration among EU experts to achieve Joint Action (JA) objectives.

• **Stakeholder Involvement** (2 comments): Stakeholder involvement, particularly encouraging participation from volunteers and field experts, is necessary for fostering ownership and ensuring practical alignment of project outcomes.

• **Digital Transformation and Interoperability** (1 comment): In the realm of digital transformation, participants emphasized the importance of achieving credible digital-transformation speed and focusing on machine-to-machine interoperability capabilities. Discussions highlighted the need for "Digital first choice thinking" to drive innovation.

• **Challenges and Concerns** (5 comments): Several challenges, including meeting redundancies, gaps in country-level partnerships, and misalignments between planned efforts and actual participation, were noted. Suggestions for coordinated stakeholder involvement and emphasis on safety aspects of the work were proposed to address these hurdles.

• **Other** (3 comments): Participants also acknowledged areas of success but highlighted opportunities for refining deliverable alignment, communication practices, and collaborative approaches to overcome challenges and advance project goals.

Comments on the question "If you have any overall comments or suggestions on how to improve the process, please let us know"

The evaluation of the project's key dimensions - Project Management and Leadership, Cross-Domain Understanding and Cooperation, Stakeholder Involvement, Digital Transformation and Interoperability, Challenges and Concerns - revealed critical insights and recommendations for improvement.

Strong project management, guided by substantive experts, can be identified as essential for addressing challenges faced by certain Work Packages and ensuring alignment with overarching goals. Clear leadership, prioritization of deliverables, and reduced competing workloads are emphasized to maximize efficiency and resource allocation across stretched teams.

Cross-domain understanding and cooperation remain vital but challenging, with a focus on aligning Work Packages and tasks and intensifying collaboration among EU experts to achieve Joint Action (JA) objectives. Stakeholder involvement, particularly encouraging participation from volunteers and field experts, is necessary for fostering ownership and ensuring practical alignment of project outcomes.

In the realm of digital transformation, participants emphasize the importance of achieving credible digital-transformation speed and focusing on machine-to-machine interoperability capabilities. Discussions highlight the need for "Digital first choice thinking" to drive innovation.

Several challenges, including meeting redundancies, gaps in country-level partnerships, and misalignments between planned efforts and actual participation, are noted. Suggestions for coordinated stakeholder involvement and emphasis on safety aspects of the work are proposed to address these hurdles.

Participants also acknowledge areas of success but highlighted opportunities for refining deliverable alignment, communication practices, and collaborative approaches to overcome challenges and advance project goals.

4 Summary and recommendations

The mid-term evaluation survey engaged 54 participants drawn from 23 Member States, encompassing a balanced mix of Work Package (WP) Leaders, Co-Leaders, Task Leaders, and general WP participants. This breadth of representation provides a comprehensive view of the consortium's current state, ensuring that findings reflect the perspectives of those directly responsible for – and affected by – the ongoing activities of the Xt-EHR project.

Participant Satisfaction and Role Clarity

Overall satisfaction with the project's progress is notable: 57 % of respondents report being satisfied, while only 7 % express dissatisfaction, and the remainder remain neutral. Crucially, 94 % of participants indicate that their roles are clearly defined and understood. This high degree of role clarity underpins efficient task execution and suggests that the project's governance documents, and on boarding processes have been largely effective. However, the existence of neutral responses – particularly among newer members – points to an opportunity for targeted orientation measures and enhanced mentorship to ensure that all participants feel equally empowered. Clear, concise role profiles and regular check-ins (with team leads) can help reinforce understanding. For new or uncertain team members a document outlining project goals, team structure, individual roles, workflows, and tools used could be useful.

Governance and Quality Management

A majority of respondents (53 %) view resource allocation as adequately balanced, and 54 % are satisfied with the quality management process for developing and submitting deliverables.

Level of support from project coordination

The effectiveness of collaboration and communication within the Xt-EHR project emerged as a central theme in the mid-term evaluation survey. An evaluation of satisfaction with the level of support provided by project coordination reveals that the majority, 59 percent of respondents, holds favourable views. The results highlight strengths in coordination support while also identifying areas for improvement to better address neutral and negative perceptions.

Qualitative comments on the project coordination cited micromanagement, excessive administrative oversight unclear roles, lack of support for WP leaders, non-transparent decision-making, persistent duplication with other EU frameworks and unclear channels for inquiries and difficulty getting responses. Recommendations include establishing clear points of contact and responsive follow-up mechanisms.

Collaboration Dynamics and Meetings

Many respondents highlighted that important discussions frequently occur outside formal meetings, often in informal settings or smaller subgroups, leading to limited or delayed updates for

the broader team. This recurring issue reflects concerns about transparency and inconsistent knowledge sharing. To improve transparency formal documentation and communication (such as meeting summaries, shared decision logs, or brief team-wide updates) could help that all members remain informed and aligned.

Some work packages received mostly positive feedback, while others showed mixed or negative responses. Although several performed well quantitatively, qualitative comments highlighted coordination and participation challenges, especially in larger or more complex groups.

Commonly reported barriers to effective collaboration include fragmented communication channels and overlapping responsibilities between WPs, micromanagement and detailed administrative requirements that detract from content-focused work, passive participation from many project members, with limited time or resources to contribute meaningfully, unclear distribution of roles, particularly in large WPs and across cross-functional task teams and lack of alignment in understanding objectives and project expectations. These findings suggest a need for stronger guidance on collaborative practices, particularly around setting shared goals, clarifying task expectations, and fostering open, inclusive dialogue. To enhance collaboration across the project, the following recommendations were made:

- strengthening leadership capacity at the WP and task level, with more authority delegated to WPLs and Task Leaders to organize workstreams and set expectations
- Regularly updating and centralizing project communication, including preparation and timely distribution of meeting agendas, recordings, and minutes
- Introducing a unified calendar system with embedded meeting links and task milestones to reduce confusion
- Promoting inclusive engagement mechanisms, ensuring that all participants are informed and empowered to contribute

Organization of meetings

The majority, 78 % of respondents, reported that project meetings were generally well organized, while 22 % disagreed, highlighting persistent challenges in meeting logistics and planning.

Despite the overall positive result, open-text feedback points to repeated and structural issues that hindered meeting effectiveness. Respondents cited missing or irregular Steering Committee (SC) meetings, Late or frequently rescheduled invitations, agendas that were shared too late-or not at all, a general lack of meeting management and clear follow-up. Additionally, participants reported a range of issues related to the organization and management of project meetings across categories such as content scope, participation, communication, transparency, structure, tools, and broader principles.

To improve meeting organization, participants proposed:

- Sharing agendas earlier, ideally as part of the calendar invitation,
- Establishing a long-term planning roadmap to reduce last-minute changes,
- Making minutes and recordings reliably available after each session, especially for those unable to attend.

Overall, the responses suggest that while a majority manage to prepare adequately, the project would benefit from more systematic planning and communication to ensure inclusive and well-informed participation in both SC and LC formats.

Steering Committee and Leadership Council

Half of the respondents did not participate in SC meetings. Given the SC's strategic importance in overseeing project progress and aligning cross-WP activities, increasing awareness of its role and ensuring broad, consistent participation could enhance project transparency, coordination, and decision-making. Enhancing the strategic focus, clarity, and inclusivity of SC meetings could improve the value for a broader range of participants.

Despite high attendance in LC meetings, qualitative responses suggest that participants experienced mixed levels of satisfaction with the meetings' structure and impact. Several noted that while the LC provided a useful space for strategic discussion and alignment, the limited time available often prevented meaningful exchange, particularly when agendas were overloaded. One common suggestion was to alternate which WPs provide updates per session-allowing more in-depth discussion and better time management. Others wished for clearer focus on resolving key issues rather than extended information sharing. In addition, participants expressed a desire for a better balance between updates and dialogue, and for more clarity regarding the distinction between LC and SC meetings to avoid redundancy. These insights indicate that while the LC is functioning well in terms of participation, its effectiveness could be strengthened by refining its scope, pacing, and interaction format to better serve the needs of WP and Task leaders.

Overall, Sharepoint is viewed very positively, but better governance, consistency, and guidance could further improve its contribution to coordination.

Work Package Progress and Anticipated Risks

Work Package Leaders generally regard deliverable timelines as realistic (69 %), yet 50 % anticipate potential roadblocks. Chief among these are the extensive nature of stakeholder consultations, overlaps with parallel EHDS initiatives, and constrained expert availability. Proactive measures—such as refining the consultation framework to balance thoroughness with agility, aligning project milestones with evolving EHDS regulatory timelines, and securing formal time commitments from domain experts—will be vital to mitigate these risks and maintain project momentum.

Participants identified several key challenges that may hinder the project's progress. Concerns about the quality and usability of deliverables highlight the need for clearer scope and better coordination across service areas. Communication inefficiencies, lack of transparency, and misalignment with governance frameworks were also noted as barriers to effective collaboration.

The stakeholder consultation process was seen as time-consuming and inflexible, with calls for extended timelines and greater expert involvement to ensure practical relevance. Timeline conflicts, overlapping activities with other EHDS initiatives, and limited expert availability further threaten progress. Time and resource constraints were repeatedly mentioned, along with the

need to clarify the project's evolving role within the EHDS framework and plan for digital and emerging technologies.

Improved planning, stronger collaboration, and better resource management are seen as critical to addressing these issues and ensuring project success.

Aspects working well

Participants highlighted several strengths contributing to the project's success.

- Effective communication and coordination were frequently praised, with tools like Share-Point and well-managed meetings — especially in WP2 — ensuring timely updates and clear information flow. The project's open and collaborative tone, strong cooperation among teams, and transparent timeline tracking were also seen as key factors in its positive performance.
- The relevance of the Xt-EHR Joint Action was emphasized, particularly in promoting EU-wide eHealth progress and supporting the European Health Data Space. High levels of stakeholder engagement, expert collaboration, and partner commitment were noted as drivers of innovation and interoperability.
- Work Package performance was generally strong, with WP2 and T7.2 receiving special recognition for their clear structure, engagement, and collaborative spirit. While some concerns about resource strain from WP2 and WP3 were mentioned, the overall coordination across packages was seen as supportive and effective.
- Teamwork and the project atmosphere were described as constructive and collegial, with small group collaboration, digital meetings, and mutual respect fostering a strong sense of community and motivation.
- Technical and logical aspects also received positive feedback, particularly the use of dedicated working groups and the integration of "security by design." While team turnover posed a challenge, progress in areas like technical modelling and expert involvement was seen as a positive step toward achieving project goals.

Areas that could use improvement

Participants shared a range of insights aimed at improving project efficiency, communication, and collaboration.

- There is a strong call for more frequent and better-organized Steering Committee meetings. Consistency in sharing meeting materials across Work Packages is seen as essential.
- Communication challenges were frequently mentioned, including lack of transparency from topic-specific groups, excessive email traffic, and inefficient use of platforms like SharePoint. Suggestions included improving updates, structuring deliverable reviews, and enhancing coordination between Work Packages and Working Groups.
- Concerns about coordination and governance emphasized the need for clearer decision-making, reduced micromanagement, and better alignment with EU-wide eHealth initiatives. Effective leadership and expert-guided project management were also noted as critical for ensuring alignment and managing workloads.

- Participants stressed the importance of cross-domain collaboration and stakeholder involvement, especially from field experts and volunteers, to maintain relevance and foster ownership. Achieving effective digital transformation and interoperability was also highlighted as a key goal.
- Several challenges were identified, including meeting redundancies, weak country-level partnerships, and discrepancies between planned and actual engagement.

Despite these issues, participants acknowledged progress and highlighted opportunities to refine communication, deliverable alignment, and collaboration practices moving forward.

Short list of recommendations

- Role clarification:

  - Establish clear and concise role descriptions, supported by regular check-ins with team leads to ensure alignment and accountability.
  - Define and publicize boundaries of authority for WP and Task Leaders to reduce bottlenecks and prevent micromanagement.

- Enhance effective collaboration:

  - Strengthening leadership capacity at the WP and task level, with more authority delegated to WPLs and Task Leaders to organize workstreams and set expectations.
  - Promoting inclusive engagement mechanisms, ensuring that all participants are informed and empowered to contribute.
  - Sharing concise project-wide updates.

- Level of support from project coordination: Establish clear points of contact and responsive follow-up mechanisms.
- Meeting frequency and organization:

  - Circulate structured agendas earlier, ideally as part of the calendar invitation and clarify discussion topics.
  - Establish a long-term planning roadmap to reduce last-minute changes.
  - Provide more time for preparation of meetings.
  - Introduce consistent meeting summaries and decision logs and make minutes and recordings reliably available after each session.
  - Schedule Steering Committee meetings more frequently.
  - Introducing a unified calendar system with embedded meeting links and task milestones.

- Quality Management: Structure deliverable reviews and enhance coordination between Work Packages and Working Groups.
- Streamline Reporting: Consolidate routine status updates into concise dashboards or newsletters, minimizing redundant data requests and allowing contributors to focus on substantive work.

5 Concluding Reflections

The mid-term evaluation confirms that Xt-EHR benefits from strong individual engagement, effective technical workstreams, and a collaborative consortium culture. By systematically addressing the areas identified—enhancing governance transparency, standardizing collaborative practices, and proactively managing identified risks—the project is well positioned to achieve its objectives. Continued attention to communication clarity, participant empowerment, and adaptive planning will not only sustain current progress but also strengthen the consortium's capacity to deliver impactful outcomes within the evolving European Health Data Space.

Annex - Mid-term Evaluation Survey (Word format)

1. Which Members State do you represent?
Comment box

2. What is/are your role(s) within the project? Multiple answers possible

1☐	Project Coordination
2☐	Work Package Leader
3☐	Work Package Co-Leader
4☐	Work Package Participant
5☐	Task Leader

3. In which Work Packages are you involved? Multiple answers possible

1☐	Work Package 1: Project management and coordination
2☐	Work Package 2: Dissemination
3☐	Work Package 3: Evaluation
4☐	Work Package 4: Sustainability and cross-border interoperability
5☐	Work Package 5: General and security and logging requirements for EHR systems and System Interfaces
6☐	Work Package 6: Electronic prescriptions and patient summary towards EHDS
7☐	Work Package 7: New services for EHR systems towards EHDS
8☐	Work Package 8: Certification and Labelling framework
9☐	Work Package 9: Telemedicine under MyHealth@EU in alignment with EHDS proposal

Overall satisfaction

1. How satisfied are you with the Xt-EHR project so far?

1☐	very satisfied
2☐	satisfied
3☐	neutral
4☐	unsatisfied
5☐	very unsatisfied

2. Do you have a clear understanding of your role(s) within the project?
Roles: Project Coordination, Work Package Leader, Work Package Co-Leader, Work Package, Work Package Participants, Task Leader

1☐	yes
2☐	no

If no, comment:

3. Do you have a clear understanding of your role(s) within the Work Packages?

1☐	yes
2☐	no

If no, comment:

Project Governance

1. How balanced is the resource allocation related to the tasks expected from you in the project?

1☐	very balanced
2☐	balanced
3☐	neutral
4☐	unbalanced
5☐	very unbalanced

2. How satisfied are you with the current quality management process around the deliverables' development and submission?

1☐	very satisfied
2☐	satisfied
3☐	neutral
4☐	unsatisfied
5☐	very unsatisfied

3. How satisfied are you with the level of support from project coordination?

1☐	very satisfied
2☐	satisfied
3☐	neutral
4☐	unsatisfied
5☐	very unsatisfied

If you are unsatisfied with the level of support, please add a comment for improvement

Collaboration and meetings

1. How satisfied are you with the information exchange about different tasks and activities within the project?

1☐	very satisfied
2☐	satisfied
3☐	neutral
4☐	unsatisfied
5☐	very unsatisfied

2. How would you rate the level of collaboration and communication within the WP team? Please think about the WP you are mostly involved in

1☐	very good
2☐	good
3☐	neutral
4☐	not so good
5☐	bad

Comment box

3. How would you rate the level of collaboration and communication within your task team?

1☐	very good
2☐	good
3☐	neutral
4☐	not so good
5☐	bad

Comment box
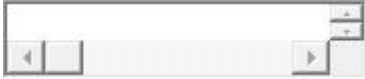
4. Which barriers did you encounter in the project collaboration?

Comment box

5. Were project meetings organized properly (e. g. invitation sent out early enough, agenda shared, ...)?

1☐	yes
2☐	no

If no, please add comments for improvement:

[comment box]

6. Which other issues did you encounter in project meeting organization?

Comment box

[comment box]

7. Did you attend Steering Committee (SC) meetings?

1☐	yes
2☐	no

8. Did you feel that your attendance in SC meetings helped you in progressing your work within the project?

1☐	yes
2☐	no

If no, please add comments for improvement:

[comment box]

9. Do you feel that SC meetings were attended by all relevant Xt-EHR project members needed to progress work?

1☐	yes
2☐	no

10. Did you attend Leadership Council (LC) meetings (for WPLs, WP Co-Leaders and Task Leaders)?

1☐	yes
2☐	no

11. Did you feel that your attendance in LC meetings helped you in progressing your work within the project?

1☐	yes
2☐	no

If no, please add comments for improvement:

[comment box]

12. Do you feel that LC meetings were attended by all relevant WP-leaders needed to progress work?

1☐	yes
2☐	no

13. Do you feel that you have enough time to prepare meeting input (for LC/SC) properly?

1☐	yes
2☐	no

14. How useful do you find the Sharepoint tool provided for overall project coordination?

1☐	very high benefit
2☐	rather high benefit
3☐	neutral
4☐	rather low benefit
5☐	low benefit

15. Which other tools would help with project organization/coordination?

Comment box

Only for Work Package Leaders, WP Co-Leaders and Task Leaders: Project outputs and next steps

1. For WPLs: How satisfied are you with the progress of your Work Package?

1☐	very satisfied
2☐	satisfied
3☐	neutral
4☐	unsatisfied
5☐	very unsatisfied

2. How realistic is the timely achievement of your deliverables?

1☐	very realistic
2☐	realistic
3☐	neutral
4☐	unrealistic
5☐	very unrealistic

Open questions

1. Do you foresee any potential roadblocks in achieving the project goals?

1☐	yes
2☐	no

If yes, comment:

[comment box]

2. What aspects of the project are working particularly well from your perspective?
Comment box

[comment box]

3. What areas could use improvement or need more attention?
Comment box

[comment box]

4. If you have any overall comments or suggestions on how to improve the process, please let us know
Comment box

[comment box]

Thank you for participating!