



AI4PPP

Artificial Intelligence for People, Planet, and Profit

Project Result 6

Implementation scenarios for selected industries

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1. Introduction

The AI4PPP (AI for People, Planet and Profit) project aims to revolutionize AI education by developing innovative and efficient learning approaches. The main objective of the AI4PPP project is to deliver an innovative and transferable training programme in AI through conducting gap and DACUM analysis, developing training syllabi and learning materials as well as piloting materials, implementing AI-empowered scenarios in selected industries and preparing for certification validation based on micro-credentials concept.

The aim of AI4PPP project is to provide to our target groups not only a basic understanding of AI, the language surrounding the technological and social aspects of AI, but also to show how it works and to show the potential of its future implementations in all professions and industries. Research shows that C-level executives are looking for support in technology in order to maintain the market positions of their companies. Many applicants of educational programs, especially executives, point out that they are willing to accept the digital transformation and emerging technologies as part of their organizations, but have a lack of understanding on how to evaluate benefits, how to make the first step and how to guide technology implementation and organization's human capacity management in order to keep up with digital age.

Building on the findings from previous Project Result 5 and piloting with students, the aim of Project result 6 is to dig deeper into importance of AI in business and unearth real-world valuable insights from the selected industries through a series of interviews with industry experts. Through a systematic exploration of AI implementation success stories, AI4PPP aims to distil actionable learnings and best practices that resonate across industries, empowering stakeholders with a nuanced understanding of AI's role in driving business transformation.



2. Project Result 6 Overview

2.1. Objectives and Aims

The primary aim of PR 6 within the AI4PPP project is to explore, document, and analyse the implementation of AI-driven solutions across various industries. This effort is focused on uncovering the practical applications of artificial intelligence, with a specific emphasis on understanding the successes and challenges faced by companies that have integrated AI into their business operations. Through structured interviews with AI implementation companies (AIMPs), PR6 seeks to gather valuable insights that can inform and empower stakeholders, particularly C-level executives, as they navigate the complexities of AI adoption.

PR6 aims to identify best practices and success stories within different industries, offering a nuanced understanding of how AI technologies can drive business transformation. By examining real-world cases, this project result intends to validate the effectiveness of AI implementation and provide actionable knowledge that can be applied to similar contexts.

Ultimately, PR6 is designed to bridge the gap between AI theory and practice, offering a comprehensive view of how AI can be strategically implemented to achieve tangible business outcomes. By doing so, the project will provide insights about the tools and knowledge needed to leverage AI for competitive advantage, ensuring that AI technologies are applied in ways that align with long-term business goals.

2.2. Institutions and Target Groups Involved

The interview process was conducted by the following institutions:

- Algebra University (Croatia),
- University of Alcalá (Spain),
- School of Advanced Social Studies (Slovenia).

Project partners actively participated in Project Result 6 by conducting interviews with AIMPs. To gather insights from AIMPs, each institution conducted interviews with experts from selected industries. Algebra University developed interview guidelines and interview questions, which all project partners used to gather valuable information from AIMPs.



PR6 is designed to benefit a wide range of stakeholders who are directly or indirectly involved in the adoption and implementation of artificial intelligence technologies. The key target groups for PR6 include:

- **AI Implementation Companies (AIMPs):**
 - **Purpose:** To offer a platform for AIMPs to share their experiences, success stories, and challenges in implementing AI solutions across different industries.
 - **Benefit:** AIMPs can gain recognition for their successful projects and learn from the collective insights gathered from other companies, which can help improve their future AI deployment strategies.
- **Industry Professionals and Business Leaders:**
 - **Purpose:** To equip professionals across various sectors with the knowledge and tools needed to effectively implement AI in their operations.
 - **Benefit:** By accessing detailed case studies and practical insights, industry professionals can better understand how AI can be applied to enhance efficiency, productivity, and innovation within their specific domains.

3. Methodology Guidelines for Conducting the Interviews

The methodology for conducting interviews was designed to ensure consistency, depth, and relevance across all interviews carried out by project partners. To help with interview planning and execution, Algebra University has created Interview Guidelines. These guidelines outlined the steps and best practices for preparing, conducting, and documenting interviews with AIMPs. The goal was to gather valuable insights into the practical aspects of AI adoption and to uncover success stories that can be shared with the broader community.

3.1. Preparation and Planning for Interviews

Project partners were supposed to identify suitable AIMPs based on their proven success in deploying AI-driven solutions across various industries. Each selected AIMP was required to have documented success stories and client feedback to ensure the relevance and credibility of the insights gathered. The partners then tailored the interview questions to align with the specific contexts and industries of the AIMPs, using the provided interview template as the foundational structure.

3.2. Execution of Interviews

The interviews were conducted either online or in-person, depending on the availability and preference of the AIMP and project partner. Each interview began with an introduction to the PR6



project, explaining the objectives and ensuring that the interviewee understood the purpose and scope of the discussion. The focus was on gathering detailed information about the AI implementation projects, including challenges, strategies, and outcomes. Partners adhered to the structured template but remained flexible to explore additional topics as they arose during the conversation.

3.3. Data Documentation and Reporting

During the interviews, partners actively listened and took comprehensive notes to capture key insights, quotes, and observations. In some cases, interviews were recorded with prior consent to ensure accurate transcription. After each interview, partners transcribed their notes and compiled the findings into a detailed report. This report included an overview of the AIMP, project specifics, implementation processes, and a summary of the key insights and success factors.

The completed reports were reviewed internally for consistency and accuracy before being finalized and submitted as part of the overall PR6 documentation needed for the creation of PR 6 report. The structured approach ensured that all relevant information was captured and presented in a coherent manner, providing valuable insights into the practical aspects of AI implementation across industries.

4. Interview Insights

4.1. Interview 1

Implementing Company

The implementing company is a local IT and strategy firm in Spain with a small-sized workforce of 10-49 employees. Its annual revenue falls in the range of 2-10 million EUR. The firm specializes in providing AI-driven solutions, showcasing its capacity to handle complex technology-driven projects.

Client Fact Company

The client is an international educational publishing company with a large workforce exceeding 250 employees and an annual revenue of over 50 million EUR. The project value is estimated to be less than 200,000 EUR. The client sought to leverage AI to enhance productivity in its editorial processes.

Description of the problem and solution

The primary challenge addressed by the AI-driven solution was to enhance the productivity of the client's editorial teams. The focus was on reusing educational materials and utilizing Generative AI for tasks such as translation, exercise suggestions, and image generation. The editorial team, which identified these needs, reached out to the consulting firm to validate the use cases and



explore technological solutions. The problem scope was defined through iterative sessions with a team including the CIO, Editorial Director, IT Technician, Front End Developer, and Editors, involving approximately 10 sessions to finalize requirements and functionalities. Negotiations included determining intellectual property rights and the model's data usage. The initial planning phase involved interviews and questionnaires to gather requirements, followed by the creation and validation of mock-ups.

Project Implementation Process

The project was structured into 6 sprints over 8 weeks, with milestones such as requirement gathering, mock-up creation, and implementation of various use cases. Deviations from the timeline occurred due to the complexity of handling large files (over 1GB and 800 pages). Resource allocation was managed in an agile manner, focusing on expert teams to address the project's complexities. Communication was maintained through weekly progress meetings and daily updates, ensuring client engagement and transparency.

Organization of the Client's engagement

The AI-driven solution focused solely on the client's editorial sector, which was most impacted by the technology. The client's involvement was high from the project kick-off, with active participation in goal setting, data migration, system configuration, and user training. The client's engagement in testing and quality assurance was robust, involving professional translators for double-blind tests. Although the client was proactive throughout the project, deeper integration with their editorial tool was deferred pending a future system migration.

Risks identified during the Project implementation

Two primary risks were identified and managed: quality expectations for handling complex editorial content and legal issues concerning intellectual property and AI output. The project faced no significant deviations from these risks, thanks to proactive risk management strategies. The focus on high-quality content handling and addressing legal uncertainties helped mitigate potential issues.

KPIs for the Project

Key Performance Indicators (KPIs) for the project included translation time/cost and translation quality. Feedback from the client highlighted the efficiency and effectiveness of the solution, underscoring its positive impact. Maintenance of the solution has been contracted to the solution provider, with future price reductions anticipated due to technological advancements. Training was integral to the final implementation phase, ensuring user adoption and effective knowledge transfer.

Future Plans



The project's success has opened opportunities for continued collaboration with the client, including exploring new use cases such as audio generation, interactive content, and activity generation. This ongoing engagement indicates a strong foundation for future projects and enhancements.

4.2. Interview 2

Implementing Company

The implementing company is a local IT and strategy firm in Spain with a small-sized workforce of 10-49 employees. Its annual revenue falls in the range of 2-10 million EUR. The firm specializes in delivering AI-driven solutions, demonstrating its ability to manage complex, technology-focused projects.

Client Fact Company

The client is a primary healthcare company with a large workforce exceeding 250 employees and an annual revenue of over 50 million EUR. The project value is estimated to be more than 500,000 EUR. The client is in public healthcare sector.

Description of the problem and solution

The central problem addressed was the inefficiency in how primary care physicians communicated diagnoses and treatment information to patients. Physicians were spending significant time searching for and accurately conveying clinical guidelines, which impacted patient care. The AI-driven solution aimed to streamline this process by integrating clinical guidelines into a generative AI system that could deliver accurate and relevant information quickly. The solution was designed to prevent AI errors and ensure accurate content delivery through the Retrieval-Augmented Generation (RAG) function.

Project Implementation Process

The implementation process spanned eight weeks and involved a structured, iterative approach. The project kicked off with extensive requirements gathering through structured interviews, workshops, surveys, and user journey mapping. This phase was followed by a detailed design and development process involving 30 primary care physicians, IT and Innovation teams, and consulting experts. Milestones were tracked using digital project management tools, with regular status meetings ensuring alignment and timely adjustments. Technical challenges and deviations from the timeline were managed through resource reallocation and phase extensions, maintaining project momentum and client satisfaction.

Organization of the Client's engagement



The project was concentrated within the healthcare sector, specifically targeting primary care improvements. The client's engagement was critical, involving active participation from the start. This included defining project goals, providing insights into daily operations, and participating in system configuration and customization. The client also played a significant role in system integration, user training, and testing, ensuring the AI solution was well-aligned with their operational needs and compliance standards. Their involvement facilitated a smooth transition and effective adoption of the new technology.

Risks identified during the Project implementation

Several potential risks were identified during the implementation, including data security breaches, integration challenges, user resistance, and AI inaccuracies. Key risks such as data security were mitigated through robust encryption and regular security audits. Integration challenges with legacy systems were addressed by creating custom middleware solutions and conducting thorough compatibility tests. Unexpected user resistance was managed by expanding training and establishing feedback loops, with significant concerns escalated for higher-level resolution to ensure effective project management and alignment with objectives.

KPIs for the Project

KPIs were established to measure the impact of the AI-driven solution, focusing on the accuracy of AI-generated diagnoses, user adoption rates, patient satisfaction scores, and reductions in administrative task time. These KPIs were tracked using system analytics and regular user feedback, providing a comprehensive view of the solution's effectiveness and operational impact. This approach ensured that the AI system not only met but exceeded expectations in enhancing patient communication and streamlining physician workflows.

Future Plans

The project, initially set as a one-time engagement, has paved the way for further collaboration opportunities. The success of the AI solution and positive client feedback have led to discussions about expanding the solution's capabilities and potentially implementing it in other areas of the client's operations. There are also plans for ongoing support and updates to adapt the solution to evolving needs and technologies, ensuring continued alignment with client objectives and enhancing the overall effectiveness of the AI system.

4.3. Interview 3

Implementing Company

The implementing company is a local IT and strategy firm in Spain with a small-sized workforce of 10-49 employees. Its annual revenue falls in the range of 2-10 million EUR. The firm specializes in delivering AI-driven solutions, demonstrating its expertise in managing complex, technology-focused projects.



Client Fact Company

The client is an international media company, classified as large, with over 250 employees. They operate globally, focusing on delivering news content through television and newspapers. The company's annual revenue exceeds 50 million EUR, reflecting its substantial market presence and financial capability. The project value was in the range of 200,000 to 500,000 EUR, highlighting a significant investment in enhancing their content personalization and targeting capabilities through AI.

Description of the problem and solution

The AI-driven solution was designed to address the challenge of personalizing and targeting news content to improve audience engagement. The problem was primarily identified in the editorial and broadcasting departments, where declining engagement rates and audience feedback highlighted a need for more tailored content. The marketing analytics team first noticed these issues, prompting the client to approach the implementing company. The solution involved using AI to refine content curation and presentation, aiming to increase engagement by delivering more relevant and personalized news content.

The problem scope was defined through a series of workshops with key stakeholders, including the Chief Marketing Officer, Head of Digital Strategy, Editorial Director, IT Manager, and Data Analysts. About 12 iterative sessions were held to understand requirements and develop functional specifications. The negotiation process involved formal meetings and written proposals, with challenges such as intellectual property rights and data privacy being addressed through compromises on shared ownership and strict data protocols. The planning phase utilized Agile methodologies and tools like JIRA and Miro to gather and refine requirements, ensuring the solution aligned with the client's needs.

Project Implementation Process

The implementation project lasted 10 weeks, from planning to delivery. Milestones included requirements gathering, prototype development, testing, and deployment. Progress was tracked using JIRA, with deviations, such as a two-week delay due to data integration issues, managed by reallocating resources and extending working hours. Regular status meetings and progress updates were conducted to ensure alignment and address challenges promptly.

Resources were allocated based on expertise, forming a multidisciplinary team with data scientists, software engineers, and project managers. The team operated with a flat structure to promote communication and agility. Daily stand-up meetings facilitated collaboration and quick issue resolution. Communication with the client was maintained through weekly updates and milestone reviews, ensuring transparency and engagement throughout the process.

Organization of the Client's engagement



The AI-driven solution was specifically focused on the editorial and content delivery sectors within the client's company. During the project kick-off phase, client engagement was high, with active participation from key stakeholders to set goals and expectations. The client played a significant role in data migration, configuration, customization, and integration phases. Their IT and editorial teams worked closely with the implementing company to ensure a smooth transition. The client's involvement in user training was comprehensive, employing strategies like hands-on workshops, detailed documentation, and a train-the-trainer approach.

The client was also heavily involved in testing and quality assurance, providing feedback and participating in user acceptance testing. They contributed significantly during the deployment phase, ensuring a smooth transition with minimal downtime. Overall, the client's involvement was deemed sufficient, although in cases of weaker input, focused workshops and additional roles, such as a client-side project coordinator, were introduced to enhance engagement.

Risks identified during the Project implementation

Potential risks included data privacy and security concerns, and integration with legacy systems. Data privacy risks were mitigated through robust encryption and regular security audits. Integration challenges were addressed by developing custom middleware and conducting thorough compatibility assessments. Deviations from expected risks, such as unexpected data formatting issues, were managed by escalating the problem to the data engineering team, who collaborated with the client's IT department to resolve the issue within a week.

A critical issue arose during data integration due to severe compatibility issues with legacy systems. A crisis meeting was convened to address this, resulting in the formation of a task force to develop custom solutions and resolve the issues, allowing the project to stay on track.

KPIs for the Project

KPIs for the project included engagement metrics, content personalization accuracy, operational efficiency, user retention, and revenue growth. These KPIs were collaboratively defined with the client to measure the AI solution's impact on audience engagement and content relevance. The solution's maintenance has been contracted to the implementing company, which includes regular updates and support. Training was a key part of the implementation, with hands-on workshops and detailed manuals provided to ensure effective use of the new system.

Future Plans

Feedback from the client was positive, with remarks on improved content targeting and viewer engagement, validating the success of the implementation. Ongoing plans include exploring additional AI-driven initiatives, such as enhancing ad targeting and automating content editing, reflecting a commitment to continuous collaboration and innovation.



4.4. Interview 4

Implementing Company

The implementing company is a tech SME and a leading provider of High-Performance Computing (HPC) services in Central and Eastern Europe (CEE). They operate with a distributed, high-redundancy HPC and Cloud Computing infrastructure, which supports their extensive experience in deploying complex IT solutions, including AI, blockchain, and HPC. The company's expertise is leveraged to advance healthcare through digitalization, Big Data processing, machine learning, and AI, particularly in diagnostics.

Client Fact Company

The clients are major companies in the healthcare sector, specifically targeting cancer diagnosis and treatment. The Classica project is being implemented across five leading cancer surgery centres in Europe, including countries like Ireland, Belgium, Austria, Italy, and the Netherlands. The QUSTom project involves clinical feasibility studies in various clinics, focusing on developing an advanced imaging system for breast cancer diagnosis. Both projects are high-value endeavours, reflecting significant investments in healthcare innovation aimed at improving diagnostic accuracy and patient outcomes.

Description of the problem and solution

The Classica project addresses the challenge of colorectal cancer diagnosis, which is a significant global health issue. The problem identified was the need for more accurate and practical tools for classifying cancer tissue to assist surgeons in making informed clinical decisions. The solution involves developing the CLASSICA platform, a tool designed to enhance cancer classification accuracy and support surgical decisions. The platform is tested in multiple clinical settings to ensure its effectiveness and refine clinical guidelines for AI in surgery.

Similarly, the QUSTom project targets the limitations of current breast cancer diagnostic methods, which rely on radiation-based imaging techniques. The innovative solution proposed is Quantitative Ultrasound Stochastic Tomography (QUS-Tom), an advanced imaging system that uses supercomputing to offer a safer, radiation-free alternative. The project aims to validate this new technology's clinical feasibility and effectiveness, improving early detection and diagnostic accuracy while reducing healthcare costs.

Project Implementation Process

The implementation of both the CLASSICA and QUSTom projects involves several critical phases, including development, testing, and clinical validation. For the CLASSICA project, the development and testing phases span across five cancer surgery centres in Europe, with a multi-country study assessing the tool's clinical outcomes. Similarly, QUSTom focuses on developing and validating a supercomputing-based imaging system, with clinical feasibility studies conducted



to ensure the system's effectiveness. Both projects emphasize robust data integration and management, with CLASSICA ensuring the tool's optimization for various clinics and QUSTom focusing on the transformation of data into high-resolution medical images.

Organization of the Client's engagement

The AI-driven solutions implemented by the company span multiple sectors within the healthcare industry. The CLASSICA project focuses on enhancing cancer surgery through AI-assisted classification, while the QUSTom project targets advancements in breast cancer imaging. The implementation of these projects requires significant collaboration with various stakeholders, including medical professionals, researchers, and technology experts. The company ensures active involvement in every phase, from development to deployment, providing necessary training, support, and validation to ensure the success of these healthcare innovations.

Risks identified during the Project implementation

Several risks were anticipated during the implementation of the AI solutions, including data integration complexities and security concerns. For CLASSICA, managing the integration of diverse data streams and ensuring the secure handling of clinical trial data were critical. The QUSTom project faced challenges related to the development and validation of new imaging technologies, with a focus on ensuring accuracy and safety. The company addressed these risks through rigorous data management practices, secure protocols, and continuous validation processes, ensuring the successful deployment of both projects.

KPIs for the Project

KPIs for the projects include diagnostic accuracy, clinical outcomes, patient safety, and operational efficiency. For CLASSICA, metrics focus on the accuracy of cancer tissue classification, surgeon satisfaction, and the impact on clinical decision-making. For QUSTom, KPIs include the effectiveness of the imaging system, safety improvements, and scalability. Maintenance and support are crucial aspects, with the implementing company providing ongoing technical support and updates to ensure optimal performance. The success of these projects is validated through clinical feedback and the achievement of predefined KPIs.

Future Plans

Future plans for the implementing company involve further advancements in healthcare through AI and supercomputing technologies. Building on the success of the CLASSICA and QUSTom projects, the company aims to continue developing innovative solutions for cancer diagnosis and treatment. This includes expanding the application of AI technologies, improving diagnostic tools, and exploring new areas of medical research. The company's commitment to advancing healthcare through technological innovation reflects a broader mission to enhance patient outcomes and drive progress in the medical field.



4.5. Interview 5

Implementing Company

The implementing company is a local firm in Croatia with a small-sized workforce of 10-49 employees. Its annual revenue falls in the range of 2-10 million EUR. The firm focuses on offering AI-powered solutions, highlighting its ability to manage intricate, technology-driven projects.

Client Fact Company

The client companies were diverse, including healthcare institutions requiring advanced transcription solutions, legal entities needing precise documentation, and businesses seeking improved productivity through enhanced transcription capabilities. The system's adaptability across these sectors demonstrates its broad applicability and the team's commitment to addressing specific needs of different industries.

Description of the Problem and Solution

In 2016, the problem identified was the inefficiency in processing media and medical data, particularly for Slavic languages. Media agencies faced challenges in handling vast amounts of public media sources without the capacity to manage them efficiently using a traditional workforce. Recognizing the lack of cost-effective speech-to-text systems for Slavic languages, the agency developed an in-house solution to address this gap. Initially, they adapted the technology used in radiology, where professionals typically transcribed and recorded medical observations. The agency identified that existing systems involved time-consuming processes, which included typing and manual transcription, and aimed to create a product that would optimize and streamline this workflow.

The solution was a speech-to-text system designed to improve transcription efficiency in various sectors, starting with radiology and later expanding to other fields. The system utilized advanced acoustic and language models to recognize speech and transcribe it accurately, including specialized medical vocabulary. Over time, the solution evolved to cater to different sectors, including the judiciary and business meetings, demonstrating versatility and ongoing adaptation.

Project Implementation Process

The implementation of the project began with extensive observation and documentation. The team spent several weeks understanding the client's existing workflow to identify essential features and optimize the system. They developed a tailored solution that minimized unnecessary steps and integrated seamlessly into the client's operations. The product was presented to clients as a completed solution, bypassing preliminary user testing and directly addressing the client's needs. This approach was designed to avoid wasting time and to ensure that the product was immediately useful to professionals, such as doctors, who had demanding schedules.



Throughout the development process, the team was meticulous about documenting every step and ensuring that the product met high standards. They focused on creating a reliable and professional system by coordinating closely with the clients and avoiding errors typical of startup ventures.

Organization of the Client's Engagement

Client engagement was organized through a structured approach. Initially, the team targeted early adopters who were most likely to benefit from and integrate the new technology into their daily routines. This method allowed for a controlled rollout and provided the opportunity to refine the system based on initial feedback. By starting with users who were already inclined towards new technology, the team could ensure a smoother adoption process and reduce risks associated with broader implementation.

The project also involved setting clear schedules and coordinating closely with clients, including their administrative staff, to ensure that the integration process was as seamless as possible. This approach allowed the team to avoid significant disruptions and to gather relevant feedback without overwhelming the clients.

Risks Identified During the Project Implementation

One of the primary risks identified was the potential lack of immediate perceived benefits or the possibility that the product might not be timely or appropriate for the market. This was particularly evident from a previous failed attempt with a similar technology in 2010. However, by 2016, the team had refined their product and established a company dedicated to this segment, which helped mitigate these risks. They focused on building a strong foundation and avoiding major pitfalls by leveraging their experiences from earlier projects.

KPIs for the Project

KPIs for the project were focused on efficiency gains and user satisfaction. The team collected data from users to measure improvements in workflow efficiency. Notably, one case study showed a 50-55% increase in efficiency for a doctor using the system without prior training, while another example highlighted an 85% increase in speed for a pathology professor after training. These benchmarks indicated significant improvements in time savings and productivity. Additionally, the system reduced waiting times for medical procedures, demonstrating tangible benefits in operational efficiency.

Future Plans

Looking ahead, the team plans to continue expanding the system's applications across various sectors and countries. They have already adapted the technology for different departments and sectors beyond radiology and have adjusted their pricing and positioning to cater to a broader



market. The future development includes further customization and adaptation to meet the evolving needs of different industries, ensuring that the system remains relevant and beneficial to its users. The team is committed to ongoing improvements and adaptations to maintain the system's effectiveness and utility across various contexts.

4.6. Interview 6

Implementing Company

The implementing company is a local tech firm in Croatia with a small-sized workforce of 10-49 employees. Its annual revenue falls in the range of 2-10 million EUR. The firm focuses on AI-driven solutions, underscoring its capability to tackle intricate, technology-oriented projects.

Client Fact Company

The client company is a private healthcare company specialised in children's diseases, with 10-49 employees. The company's annual revenue is less than 2 million EUR. The project value was more than 500.000 EUR.

Description of the Problem and Solution

The SENDD (System for Early Neurological Deviation Detection) project addresses a critical issue in early detection of neurological deviations in infants. The core problem tackled was the need to digitize and enhance the General Movement Assessment (GMA) method used to observe and analyze spontaneous movements in infants. Traditionally, this method involved in-person assessments which could be intrusive and inconvenient for families. The solution proposed by SENDD was to leverage AI to automate the analysis of video recordings of children's movements captured in a natural home environment, rather than clinical settings. This approach aimed to provide an early indication of potential neurological issues without invasive procedures, thereby facilitating early intervention and reducing the need for more intrusive diagnostic methods.

Project Implementation Process

The SENDD project commenced in 2019 with the goal of digitalizing the GMA method. The initial phase involved collaboration with the team from Sabol Clinic, who provided medical expertise and defined the project's requirements. The project, co-financed by the European Innovation and Research Fund, officially began in August 2020 and concluded in August 2023, transitioning into a commercialization phase.

The implementation involved several stages. The first challenge was gathering quality data. The project team created a web and mobile application to allow parents to record their children's movements at home, adhering to strict GDPR compliance and avoiding unauthorized data collection methods like WhatsApp. This approach aimed to capture genuine spontaneous movements while ensuring data privacy and consent.



The development process included the annotation of video data to train AI models. The implementing company's team of about 20 people worked on various aspects including web and mobile app development, AI model training, and GDPR compliance. A significant portion of the project was dedicated to annotating videos of children's movements to train AI models, which included creating custom annotation tools due to limitations with existing software. The AI models were designed to detect key points on the child's body and analyse movement patterns, with iterative testing and refinement to ensure accuracy.

Organization of the Client's Engagement

The engagement with the client, Sabol Clinic, was central to the project's success. The clinic's team, including neuropediatricians and technicians, played a crucial role in reviewing video recordings, ensuring the conditions for capturing spontaneous movements were met, and providing medical validation for the AI models. On the technical side, implementing company's team managed the integration of AI technologies, developed software solutions, and handled GDPR compliance. This collaborative approach ensured that both medical and technical perspectives were addressed, resulting in a solution that was both clinically relevant and technically robust.

Risks Identified During the Project Implementation

Several risks were identified and managed throughout the project. Data privacy and compliance with GDPR were significant concerns, particularly in ensuring that all data collection and processing adhered to legal standards. Additionally, the challenge of acquiring a sufficient amount of high-quality data was notable, as the prevalence of conditions like cerebral palsy is relatively low, making it difficult to obtain a balanced dataset. This imbalance required adjustments in the training process to avoid biases in the AI models.

Another risk involved the accuracy of the AI models. The project faced challenges in recognizing and tracking key points on smaller body parts of infants compared to adults. This issue was addressed through extensive data annotation and model training, with several iterations of model concepts being tested before arriving at the most effective solution. The risk of misclassifying healthy children as having neurological problems or vice versa was mitigated by continuously refining the models and ensuring robust validation processes.

KPIs for the Project

KPIs for the SENDD project included the accuracy and reliability of the AI models in detecting and analyzing spontaneous movements. The system aimed to achieve high precision in identifying deviations from standard development patterns. Other KPIs involved the successful integration of AI models into the web and mobile applications, ensuring ease of use for parents and adherence to medical standards. Additionally, data privacy and GDPR compliance were crucial KPIs, ensuring that all processes met legal and ethical standards.



Future Plans

Looking ahead, SENDD plans to focus on further automating the AI models and refining the system based on ongoing feedback and data. The commercialization phase will involve officially launching the platform and making it accessible to a broader audience. The team aims to enhance the system's accuracy and functionality by integrating advanced AI models and continuing to improve the user experience for both parents and medical professionals. The ultimate goal is to provide a highly reliable and user-friendly tool for early detection of neurological issues, aligning with medical standards and contributing to better health outcomes for children.



5. Conclusion

The diverse array of projects outlined across the six interviews provides a rich tapestry of how AI-driven solutions are revolutionizing various industries, each with its own unique challenges and triumphs. This collection of case studies highlights several key trends and insights relevant to the implementation of AI technologies in different sectors, including education, healthcare, media, and transcription services.

Each project demonstrates how customized AI solutions address specific problems within their respective fields. In the educational publishing sector, the focus was on enhancing editorial productivity through generative AI, which streamlined processes such as translation and content generation. Similarly, the healthcare projects showcased how AI could significantly improve diagnostic accuracy and patient outcomes. The SENDD project, for instance, applied AI to automate the analysis of infant movements, offering a non-invasive alternative for early neurological assessments. These examples underscore the importance of tailoring AI technologies to meet the unique needs of different sectors, highlighting the capacity of AI to deliver targeted, effective solutions.

The iterative development approach, commonly employed across the projects, proves essential in managing complexity and adapting to evolving requirements. The educational publishing project utilized a series of sprints to progressively refine the AI solution, accommodating challenges such as handling large files and ensuring high-quality outputs. In healthcare, especially in projects like CLASSICA and QUSTom, iterative testing and validation phases were critical in refining the technology to meet clinical standards. This approach not only ensures that the solution aligns with client needs but also helps manage risks and address unforeseen issues in a timely manner.

Active and engaged client participation was a common thread across successful projects. The educational publishing client, for example, played a pivotal role in defining use cases and validating functionalities, which contributed to a smoother implementation process. Similarly, in the healthcare sector, the involvement of medical professionals in the SENDD and QUSTom projects ensured that the AI solutions met clinical needs and adhered to regulatory standards. This close collaboration fosters a deeper understanding of client requirements and enhances the likelihood of project success by ensuring that the solutions are well-integrated into existing workflows.

The ability to identify and manage risks effectively was a recurring theme. Risks such as data privacy concerns, integration challenges, and potential inaccuracies in AI outputs were addressed through robust strategies, including encryption, custom middleware solutions, and iterative model refinement. For instance, the SENDD project tackled data privacy issues through strict GDPR compliance and rigorous data handling protocols. By proactively addressing these risks, the implementing companies were able to maintain project momentum and achieve positive outcomes.



KPIs played a vital role in assessing the effectiveness of the AI solutions. Metrics such as translation efficiency, diagnostic accuracy, and user satisfaction provided tangible benchmarks for evaluating the success of the projects. For example, the transcription system demonstrated significant improvements in workflow efficiency, while the AI-driven healthcare tools were assessed based on their accuracy and clinical outcomes. These KPIs not only help in measuring the success of the projects but also guide future improvements and refinements.

Looking ahead, the future plans for the projects reveal a strong commitment to ongoing innovation and adaptation. The educational publishing firm is exploring additional use cases such as interactive content, while the healthcare projects aim to expand their technological capabilities and refine their systems based on user feedback. The continued evolution of these AI solutions reflects a broader trend towards leveraging advanced technologies to address emerging needs and drive further advancements in their respective fields.

An often overlooked but crucial element for successful AI implementation is **the level of education and awareness on the client's side**. Projects that included comprehensive training and support for clients consistently demonstrated **higher success rates**. For example, in the educational publishing case study, the client was provided with in-depth training on how generative AI could streamline editorial processes. As a result, the client became proficient in using the AI tools to enhance productivity, such as automating translation and content generation. This knowledge empowered the client **to fully integrate the AI solution into their workflow, leading to significant improvements in efficiency and output quality**.

Similarly, in the healthcare sector, projects like SENDD and QUSTom highlighted the importance of **educating medical professionals about AI's capabilities and limitations**. Doctors and technicians who received thorough training on the AI systems **were able to more accurately interpret the results generated by the technology**. For instance, in the SENDD project, where AI was used to analyse infant movements for early neurological assessments, **clinicians who were well-versed in the AI's functionality could better trust and utilize its insights, ultimately leading to more accurate diagnoses and better patient outcomes**.

This proactive approach to client education not only facilitated smoother project execution but also **ensured that clients could leverage the full potential of the AI solutions**. Clients who were well-informed about the AI technology and its applications were better equipped to engage with the implementation process effectively, making informed decisions and providing valuable feedback that further refined the solutions. **The result was a more impactful and sustainable integration of AI into their operations**.

Moreover, projects that prioritized client education often saw **faster adoption rates and fewer integration challenges**. For example, in the transcription services case study, clients who understood the nuances of AI-driven transcription were able to quickly adapt the technology into their workflows, leading to immediate improvements in efficiency and accuracy. **Their ability to**



use the AI tools effectively from the outset minimized disruptions and allowed for a more seamless transition.

In summary, **the success of AI implementation is closely tied to the client's level of understanding and engagement with the technology.** Providing clients with the necessary education and support not only equips them to maximize the benefits of AI but also fosters a collaborative environment where both the AI providers and clients work together towards achieving **more impactful and sustainable outcomes.**



Annex I – Interview questions

1. *Implementing Company Fact Sheet*

Note: These questions pertain to the company responsible for implementing the AI solution. Please provide responses based on the implementing company's information.

Company size/number of employees:

- a) Micro: 0-9 employed,
- b) Small: 10-49 employed,
- c) Medium-sized: 50-249 employed,
- d) Large: ≥ 250 employed

Industry:

Is it local or international company?

Annual revenue:

- a) ≤ 2 million EUR
- b) 2-10 million EUR
- c) 10-50 million EUR
- d) ≥ 50 million EUR

2. *Client Fact Sheet*

Note: These questions pertain to the company where the AI solution was implemented. Please provide responses based on the client company's information.

Company size/number of employees:

- e) Micro: 0-9 employed,
- f) Small: 10-49 employed,
- g) Medium-sized: 50-249 employed,
- h) Large: ≥ 250 employed

Client industry:

Is it local or international company?

Annual revenue:

- e) ≤ 2 million EUR



- f) 2-10 million EUR
- g) 10-50 million EUR
- h) \geq 50 million EUR

Project value:

- a) \leq 200.000 EUR
- b) 200.000 – 500.000 EUR
- c) \geq 500.000 EUR

3. *Problem/Solution Fact Sheet*

1. Could you elaborate on the specific problem or challenge that your AI-driven solution aimed to solve? In which part of the client's company did it occur? Who noticed the problem?

2. How was the problem initially identified? Did the client approach your company with a direct question or pain point, or was the problem framed during mutual discussions? Please describe the process. If the client approached you, who (which position) contacted your company?

3. Please tell us more about how you defined the problem scope and arrived at functional specification for your AI-driven solution. Which positions (employees) in the client's company took part in the process? How many iterative sessions did you have in this process?

4. How was the negotiation and agreement process managed between your company and the client? Were there any notable challenges or compromises made during this phase?

5. Can you describe the initial planning phase and how requirements were gathered from the client? What methodologies or tools were utilized for this process?



6. What was the overall timeline for the implementation project, and how were milestones established and tracked throughout the process? Were there any deviations from the original timeline, and if so, how were they addressed?

7. How were resources allocated within your team for the implementation project? Can you provide insights into the team structure and dynamics during the implementation phase?

8. How did your company maintain communication and engagement with the client during the implementation process? Were there regular progress updates or milestone reviews conducted?

9. How long did the implementation process take, from the beginning of implementation until the solution was officially delivered?

10. If you could start the same project once again, with the knowledge you have now, would you do anything differently?

4. Organization:

11. Did the AI-driven solution you implemented encompass multiple sectors within the client's company, or was it focused on a specific sector (e.g. sales, marketing, HR)?

12. Can you describe the level of client engagement and collaboration during the project kick-off phase? What were the main objectives and outcomes of this phase, and how actively did the client participate in setting project goals and expectations?



13. How would you describe the client's involvement in the data migration process?

14. Can you provide insight into the level of collaboration with the client during the configuration and customization phase? What role did the client play in defining system configurations and customizations to meet their specific needs?

15. Describe the extent of client's involvement in the system integration phase. Were there any complexities in integrating the solution with the existing system, and how did the client contribute to overcoming these challenges?

16. How actively did the client participate in user training sessions? What strategies were employed to ensure effective knowledge transfer and user adoption of the new system?

17. Can you provide insights on the client's role in the testing and quality assurance phase? How closely did they collaborate with your team to identify and address any issues or bugs discovered during testing?

18. Can you elaborate on the client's involvement during the deployment and go-live phase? How did they contribute to ensuring a smooth transition to the new system?

19. Did you find overall level of client's involvement sufficient?



20. If there were areas where client's input needed to be stronger and more focused on the implementation project, how did you address this with the client, and what additional project roles were required?

5. Risks:

21. Could you list the potential risks your team anticipated during the implementation process? Can you select two of the listed risks, describe them and explain how your team addressed them?

22. Were there any deviations from the expected risks? Which actions were taken to manage them? Were they resolved internally or were they escalated for further resolution?

23. Can you recall a critical point during the implementation process, where the project faced make-it-or-break-it moment? How did you approach and resolve this issue?

24. Was there a specific method or procedure for maintaining client buy-in throughout the project, especially when fatigue or resistance was observed?

6. Metrics:

25. How were Key Performance Indicators (KPIs) defined for measuring the impact of your AI-driven solution?



26. Has the maintenance of the solution been contracted, or does the client handle it internally?

27. Was education or training part of the implementation activities for the client's team?

28. Since completing the implementation, how long did it take to receive feedback from the client? Can you share any feedback provided by the client?

29. Do you have any further plans with the client, or was the project considered a one-time engagement?