

## Case Study

# QuantPi

## Eliminating Uncertainty in AI Decisions



### TECH DUE DILIGENCE ON EXPLAINABLE AI STARTUP

AI risk management startup QuantPi has raised €2.5 million in a pre-seed funding round led by Capnamic alongside First Momentum Ventures, New Forge, and Ash Fontana.

Ahead of this round, Philipps & Byrne did a tech due diligence on QuantPi's technology and product approach. The assessment aimed at getting an overview of the company itself and of the team, its processes, architecture, and best practices across product and engineering in order to identify potential risks and opportunities.

QuantPi aims to eliminate the uncertainty that surrounds AI systems by bringing quality control to every step of the development process. Enterprises can ensure that legal, commercial, and reputational risks related to their AI solutions are identified, assessed, and mitigated.

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| Location<br><b>Saarbrücken</b>            | Engagement<br><b>Tech Due Diligence</b>      |
| Business Context<br><b>Explainable AI</b> | Technology<br><b>Artificial Intelligence</b> |

### EXPLAINABLE AI: ADDRESSING RESPONSIBILITY IN ARTIFICIAL INTELLIGENCE

Despite the wide range of industries that employ AI today, there is still a significant risk of bias and potential danger that can result from AI decisions. It is important to implement a responsible approach to Artificial Intelligence to avoid dangerous financial or even physical consequences.

Explainable AI (XAI) provides a solution to the issue of "black box" Machine Learning algorithms by allowing for transparency and accountability in AI decision-making. The concept of "explainability" involves testing AI models with various variables to gain insights into their inner workings. Many current AI applications use modeling techniques that are difficult for humans to comprehend, such as Deep Learning and Neural Networks. Therefore, there is a clear need for a solution that enables experts to understand the outcome of these models and explain them to others, rather than merely improving communication about how the system works.

*We worked very well with the team from Philipps & Byrne during the TechDD. Our eXplainable AI technology is inherently complex and they were able to truly understand our business case, our business strategy and our Deep Tech setup. The team identified potential pain points and provided us with recommendations in their report that are helping us grow our young organization.*

**Artur Suleymanov**  
**Co-Founder & Chief Technical Officer**



## QUANTPI: PROVIDING RISK MANAGEMENT FOR AI DECISIONS

PiCrystal, an XAI technology developed by QuantPi after years of research, utilizes well-calibrated algorithms to achieve high-level gains in efficiency. This way organizations are supposed to achieve transparency in their AI decisions and thereby identify, assess, and mitigate the various legal, commercial, ethical, and reputational risks associated with their AI solutions.

This is achieved by collecting and analyzing metrics in key audit dimensions, including data quality, model performance, fairness, explainability, and robustness. Subsequently, this information is translated into project summaries, technical documentation, and reports that are tailored to ensure audit readiness and risk management.

## TECH DUE DILIGENCE: ASSESSING QUANTPI'S XAI APPROACH

QuantPi addresses the very relevant topic around responsibility and explainability in AI, which is becoming even more important as AI is reaching mass adoption. Although investments in Deep Tech can provide significant opportunities and the possibility of shaping the tech industry, they also come with greater risks than established technologies. However, with regard to QuantPi's business case, the potential of AI risk management was very apparent from the start.

To assess the potential risks and opportunities of investing in QuantPi, venture capital firm Capnamic requested a product and technology due diligence from Philipps & Byrne. As we have conducted Tech DD on multiple AI and Deep Tech Startups, this was a natural fit. The scope of the assessment included evaluating the company's tech team, research, product and technical roadmap, processes and applications, as well as their architecture, backend code, infrastructure, and related systems. Our report provided the VC investors with a solid understanding for an informed decision and included a set of recommendations for QuantPi to utilize in their future growth journey.

### **About QuantPi**

QuantPi originated on top German and Swiss university campuses with the intrinsic motivation of making black box AI understandable for non-machine learners. Their research efforts to solve this problem resulted in a world-leading technology in the field of eXplainable AI. QuantPi was subsequently founded as a spin-off from the renowned CISPA - Helmholtz Center for Information Security and Saarland University. The initial problem and XAI technology quickly led to a holistic approach to making AI safer and more comprehensible for different social, research, and business stakeholders.

### **About Capnamic**

Capnamic is a venture capital firm based in Cologne and Berlin with a focus on early-stage investments in outstanding teams in the German-speaking regions. They back aspiring entrepreneurs as they embark on their journeys. No matter if it's pre-product, MVP stage or first revenues: Capnamic is the early-stage venture capital firm that provides not just financial backing but the network, experience and guidance to turn outstanding teams into category leaders.

### **About Philipps & Byrne**

Philipps & Byrne provides Technology Partnership as a Service to investors, founders, and tech companies. We are an industry leader in product and technology due diligence and health checks. With 14B+ EUR of guided funding, 20+ years of experience in 25+ countries, and 500+ tech assessments under our belt, we help the European and Global tech ecosystem thrive. We stand for honest, reliable, and applicable tech advisory with zero bullshit. We unite strong deep tech and standard tech expertise, and real startup and scaleup understanding, with a truly comprehensive 360 degree analysis driven by people. Valued as trusted sparring partners by our clients, we empower investors to make informed decisions and help companies scale their tech organization across the entire growth lifecycle.

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