

REVOLUTIONISING FINANCIAL TECHNOLOGY WITH FIRST PRINCIPLES THINKING AND DESIGN THINKING

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First Principles Thinking and its Importance in Technology Development

First Principles Thinking is a problem-solving approach that involves breaking down complex problems into their most basic elements and building up solutions from there. I contrast this with management thinking, which focuses on resource maximisation and optimisation. In the context of design thinking, which emerged in the early 1990s and emphasises understanding unmet needs to create opportunities, First Principles Thinking involves questioning fundamental assumptions on banking processes and user journeys, in view of the value Banks intend to provide to their end customers. This approach is vital for innovation, as it allows for a deeper understanding of the underlying principles governing a system, leading to more effective and novel solutions.

The evolution of financial technology which has defined banking thus far—from mainframes to cloud computing—has led to an increase in complexity. Design thinking helps simplify this complexity by focusing on the core values and needs of banking systems. By distilling these values, organising the right thinking spaces, and expanding performance frameworks, technology can more effectively impact business outcomes. This method ensures that technology development aligns with the essential functions and values that customers seek in financial services, thereby creating more intuitive and effective solutions.

Adoption of First Principles Thinking in eMACH.ai Development

The development of eMACH.ai (Event, Microservice, API, Cloud, Headless, and AI) a platform designed to simplify the transformation from a product-centric to a customer-centric ecosystem, is rooted in First Principles Thinking.

eMACH.ai as a First Principle based composable and intelligent Open Finance platform built on the fundamental question of why banks exist. He explains that banks respond to financial events in customers' lives by providing services that can be embedded into technology as microservices. These microservices, interconnected through APIs and hosted on the cloud, create a robust, intelligent system.

eMACH.ai addresses three pivotal shifts in the financial sector. Traditionally, financial institutions have operated with separate systems for different products, such as core banking, lending, wealth management, and credit cards. However, customers have integrated needs across these areas. By utilising an enterprise grade architecture comprising 329 microservices, 1,757 APIs, and 535 events, eMACH.ai can tailor solutions to specific customer segments, such as a Retail customer, an SME in agriculture, trading, or a corporate customer in manufacturing. This approach allows for more customised and responsive financial services, centered around customer needs rather than isolated products – giving way to hyper personalisation of banking solutions.

Need for Composable and Contextual Technology in Financial Services

I also emphasise the importance of listening to customers and understanding their desires to drive transformation in financial services. Composable and contextual technology, like that offered by eMACH.ai, allows financial institutions to map user journeys and connect them to the broader financial ecosystem. This connection is facilitated through open banking systems, enabling banks to deliver a more integrated and intelligent experience. By aligning technology with customer desires, banks can achieve higher profitability and lower operational costs, leading to more efficient and customer-centric financial services.

Since the launch of eMACH.ai, the platform has helped simplify complex product-centric and technological architectures for banks. By leveraging First Principles Thinking and eMACH.ai, banks can reduce technology costs by up to 30%. This reduction in costs is a testament to the efficiency and effectiveness of integrating First Principles Thinking with cutting-edge technology in the financial sector.