

Thomas Ploch

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About Me

Effective software architecture requires more than technical expertise - it demands an understanding of market forces, business strategy, competitive landscapes, and the needs of both users and builders.

Hence I am passionate about helping organizations navigate complex socio-technical systems, designing architectures that enable teams to deliver sustainable customer value.

With experience in evolving systems through multiple levels of scale, guiding cross-functional teams, and aligning technology with business goals, my focus is on creating systems that are both technically sound and strategically impactful.

Education

University of Heidelberg
B.Sc. in Computational Linguistics

Heidelberg, Germany
2001 – 2005

Experience

Domain Technology Officer (Global Business Excellence)
FlixBus Tech GmbH

Berlin, Germany
Feb 2024 – present

Provided technical leadership to four cross-functional software delivery teams, ensuring alignment with global business and technology strategy while fostering autonomy and innovation.

- Applied **Wardley Mapping** and **Value Stream Mapping** to re-align organizational and technical boundaries, reducing coordination costs and streamlining integration between teams.
- Replaced a top-down, push-based alignment process with a bottom-up, pull-based approach using **Architecture Decision Records (ADRs)** and automated notifications. This freed time for targeted, hands-on coaching with delivery teams.
- Coached teams in **Evolutionary Architecture** practices grounded in **Continuous Delivery** and **Domain-Driven Design**, using **Ensemble Programming** to instill lasting coding habits. Applied successfully to both greenfield and legacy projects.

Principal Software Engineer (Process Orchestration)
FlixBus Tech GmbH

Berlin, Germany
Oct 2021 – present

Led the design and development of a new software product to optimize the GoLive process - a critical cross-functional workflow ensuring new bus lines are launched fully equipped and on schedule.

- Introduced **Quality Storming** (based on the ISO/IEC 25010:2023 quality model), aligning technical and non-technical stakeholders on non-functional requirements and securing shared approval.

- Defined **Service-Level Objectives (SLOs)** and **Service-Level Indicators (SLIs)** rooted in **Fitness Functions**, enabling continuous validation of system architecture and early detection of degradations in key quality attributes.
- Implemented a **Kanban** delivery process combined with **Trunk-Based Development** and **Continuous Integration**, significantly improving flow efficiency - reducing lead time, cycle time, and reaction time, and enabling faster, more predictable delivery of value.
- Built software features composed into vertical slices that delivered customer value end-to-end, from the user interface through the backend to integrations with other systems.

Head of Development (Food Supply Chain Optimization)

SPRK.global

Berlin, Germany

Jan 2021 – Oct 2021

Built the development function from the ground up: grew the team from zero to a cross-functional unit of 3 developers and a product owner, managed strategic partnerships with software agencies, and prepared funding presentations to attract investors.

- **Designed a role description framework and hiring pipeline optimized for candidate experience**, aligning talent acquisition with team composition, skills gaps, and organizational needs. Measured success by throughput and conversion rates at each pipeline stage.
- **Developed an identity and access management (RBAC) system** integrating with all major software tools, enabling one-click on- and off-boarding via a public/private key architecture - improving security and reducing onboarding time significantly.
- **Migrated operational workflows from Google Docs to a tailored system** comprising warehouse management, partner management, and supply chain analytics/optimization. Reduced partner integration time by 70% while supporting rapid growth in delivery partnerships.

Principal Solutions Architect

FlixMobility Tech GmbH

Berlin, Germany

Jan 2018 – Oct 2020

Led the legacy system migration program, defining evidence-based patterns and principles to transform a monolithic system into a [Self-Contained Systems](#) architecture, guided by **strategic Domain-Driven Design**.

- Co-created the Context Map of Bounded Contexts using **Big Picture Event Storming** and **Domain Storytelling**, establishing the target socio-technical design and executing the transition via a **Reverse Conway Maneuver**.
- Introduced an iterative five-step migration process: strategic classification of bounded contexts (prioritization), boundary alignment (scope), complexity analysis (effort), migration execution (patterns), and iteration—enabling structured, evidence-driven modernization.
- Led multiple migration teams in decomposing legacy components into an **Event-Driven Architecture (EDA)** built on reactive principles, ensuring low latency, high throughput, and high availability in revenue-critical scenarios.

Talks, Presentations and Publications

[The One Question To Haunt Everyone: What is a DDD Aggregate?](#)

DDD Europe 2022

There is one question that I am getting asked at almost every conference or meetup: What is and what isn't an Aggregate? How do we design an Aggregate? To be honest, it's not an easy answer, even for experienced practitioners. In this session I am summarizing the current state of affairs regarding Aggregate design in the Domain-Driven Design community.

Many developers have been there. A beautifully crafted system that has helped the company grow slowly deteriorates into a big ball of mud. The calls for a rewrite are becoming louder and louder, but these big-bang rewrites historically have a high risk of failure. Is there a way to iteratively step out of the mud?