

TIMOTHEOS SAMARTZIDIS

Systems Thinker | Enterprise Architect

AI & technology strategy · Governance & security



I'm a systems thinker working at the intersection of Enterprise Architecture, AI and technology strategy. I connect patterns across technology, organizations, regulation and human behavior to turn complexity into better architectures and decisions. My focus is on AI for Leaders, agentic systems, governance and security — building the conditions for intelligent systems to create value without losing control. I'm passionate about behavioural psychology and see marketing as a central part of transformation.

#AIForLeaders #GovernedIntelligence #FreedomNeedsArchitecture

CONTACT

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- 📖 [Writing & essays](#)
[Research publications](#)

LANGUAGES

- 🇩🇪 German *Native*
- 🇬🇷 Greek *Native*
- 🇬🇧 English *C2 Proficient*
- 🇫🇷 French *A1 Elementary*
- 🇪🇸 Spanish *A1 Elementary*

EDUCATION

🎓 **Master of Arts**
Leadership in Creative Industries
Hochschule Darmstadt
2014 | Grade: 1.1

🎓 **Bachelor of Arts**
Digital Media
Hochschule Darmstadt
Cork Institute of Technology
2011 | Grade: 1.9

🎓 **Applied Physics**
Hochschule RheinMain, Wiesbaden
6 Semesters

CERTIFICATIONS AND COURSES

- ⚙️ **Design Control for Medical Devices**
TÜV SÜD, 2021
- ⚙️ **Regulatory Affairs for Medical Technology**
OnCampus, 2019
- 🌐 **Building Agentic AI Systems**
Rashim Mogha, 2025
- 🌐 **KI für Manager:innen**
Microsoft Learning Path, 2025
- 🌐 **RPA, AI, and Cognitive Tech for Leaders**
Ian Barkin, 2025
- ⚙️ **Medical Software Development EN 62304**
TÜV Rheinland, 2021
- 🌐 **Agentic AI Solution Design Patterns**
Thomas Ell, 2025
- 🌐 **How to Become a Thought Leader**
Jenny Foss, 2025
- 🌐 **KI für die Leitungsebene**
Microsoft Learning Path, 2025

AREAS OF FOCUS

- 🏗️ Enterprise Architecture & IT Strategy
- 🛡️ Architecture Governance & Compliance
- ☁️ Cloud & Solution Architecture
- 🤖 AI-Driven Architecture & Agentic Systems
- 🧠 Systems Thinking & Complexity
- 🚀 Technology Innovation & Transformation
- 📊 Risk Management & Technical Debt

RECOGNITION & RECOMMENDATIONS

- “ **Marcel Rosiak — embraceableAI**
"Ein fachlicher Austausch mit Timotheos ist ein absoluter Gewinn für jedes Tech- und Compliance-Team. Wir haben tiefgehend über die Auswirkungen von Regularien auf bestehende IT-Landschaften und zukünftige Automatisierungslösungen gesprochen. Timotheos liefert exzellente, weitreichende Impulse – sei es die direkte Verknüpfung konkreter Regulierungen (DORA, EU AI Act) mit einzelnen technischen Datenpunkten oder die Gestaltung intelligenter UX, die unübersichtliche (KI-)Datenströme in klare, handlungsorientierte Dashboards für Nicht-Entwickler und Prüfer übersetzt. Ein absoluter Experte, der moderne Technologie nicht nur tiefgreifend versteht, sondern genau weiß, wie man sie sicher und auditierbar für das Enterprise-Umfeld nutzbar macht."
- “ **Pascal Lindemann — LIME Medical**
CEO/Geschäftsführer
"...indispensable leader..."
- “ **Christian Stur — LIME Medical**
Team Lead DataScience
"He created an environment of trust and inquiry unmatched among managers, broke down problems into bite-sized tasks, created structure inside the company and was at the core a very pragmatically oriented Doer."

PROFESSIONAL EXPERIENCE

Principal Systems / IT-Architect Engineer

R+V Versicherung AG | Center of Excellence Enterprise Architecture | Wiesbaden

July 2026 - Present

Enterprise architecture at the intersection of technology strategy, AI and organizational systems. One of several principal architects contributing to the scale-up of an AI-enabled software engineering proof of concept towards enterprise adoption.

- **SDLC and platform foundations:** help structure a common software development lifecycle and its supporting platform, including Coder development workspaces.
- **Architecture development:** structure requirements and develop technical concepts, architecture documentation and decision inputs with peer architects and delivery teams.
- **Governance and security:** connect platform design with agent identity, access boundaries, human approvals, guardrails and evidence requirements for governed software delivery.
- **Enterprise collaboration:** work with platform engineering, IAM and Group Security on how agentic systems and modern development environments can operate safely at enterprise scale.

Business Consultant IT-Compliance

R+V Versicherung AG (R+V Re) | Wiesbaden

2024 - 2026

IT compliance and architecture governance for reinsurance, connecting business stakeholders, systems engineering, Group Security and management.

OPERATIONAL RESILIENCE & RISK

- Advised on DORA implementation with systems engineering: business continuity, resilience testing, incident reporting, service levels and third-party risk.
- Supported IT asset classification in Archer GRC, protection requirements, information risk assessments, security documentation and asset monitoring.

ACCESS & INFORMATION GOVERNANCE

- Worked on IAM/PAM authorization architecture and Nexis access governance with systems engineering; advised on security-by-design, cloud and vendor governance.
- Coordinated individual data processing (IDV) inventory processes, security concepts and records of processing activities.

AI GOVERNANCE & ENABLEMENT

- Contributed to AI use-case risk assessments and AI compliance discussions with the AI services team.
- Co-prepared and co-facilitated workshops on AI, data, information risk and security.

STAKEHOLDER ALIGNMENT & SIMPLIFICATION

- Contributed to simplifying the internal control system and harmonizing governance processes across business, systems engineering and Group Security.
- Worked with management and the works-council technology committee on IT codetermination topics and a leaner framework agreement.

Engineering & Technology Leadership

LIME Medical GmbH | Mainz

March 2019 - December 2023

Progressed from software engineering into development, technology and concepts leadership for connected rehabilitation products, bringing a holistic view across the therapy device, user experience and cloud services.

Software Engineer (2019-2020) · **Head of Development** (2020-2022)
Head of Technology (2022-2023) · **Head of Concepts & Innovation** (2023)

PEOPLE & TECHNOLOGY DIRECTION

- Led a multidisciplinary team of around 17 people covering cloud applications, hardware, firmware, mobile applications and backend infrastructure.
- Guided day-to-day technical decisions and advised the CEO on technology direction, architecture and major system choices.
- Contributed to candidate selection and direct sourcing alongside the company recruitment process; supported team development and collaboration.

CONNECTED PRODUCT ARCHITECTURE

- Connected user experience, hardware, software and backend services across AnyHand, AnyTrack / Novio Hand and Novio Rücken.
- Developed cloud and backend architecture, security concepts and Kubernetes-based infrastructure with DevOps and CI/CD practices.

PRODUCT DEVELOPMENT & USABILITY

- Achieved the agreed product and technology deliverables with the team and product owner, including development and release preparation for Novio applications in collaboration with Bauerfeind.
- Contributed creative and usability perspectives, including onboarding, engagement and behavioral design to support sustained therapy use.

SECURITY ASSESSMENT & EVIDENCE

- Coordinated grey-box application security testing with turingpoint, including technical evidence preparation and liaison with assessors.
- The assessment supported Bauerfeind's evaluation of LIME as part of its participation in the company.

</> Software Developer & Architect

🏢 m-result GmbH
📅 2018 - 2019

- Data pipeline architecture, system integration, Python, C#, .NET, SQL, MongoDB

🧑 Research Assistant

🏢 Fraunhofer IGD & Various Institutions
📅 2013 - 2018

- **Fraunhofer IGD:** Applied research in biometrics (UV/Face recognition, attack detection), CV-based defect detection, and virtual fitting system architecture.
- **Steinbeis / Hochschule RheinMain:** Lab automation systems and 3D printing technology pipelines.

🔧 SKILLS AND KNOWLEDGE

🏢 ENTERPRISE ARCHITECTURE & FRAMEWORKS

Systems Thinking, Enterprise Architecture Management, Solution Architecture, Architecture Governance, Reference Architectures, Agentic Development Platform Architecture, Agentic SDLC Design, Control-Plane Design, Technical Debt Management, Architecture KPIs, ARIS, Alfabet, Archer GRC, Systems Integration, IT Strategy Development, Technology Evaluation & Selection, Standardization

💻 TECHNOLOGY STACK

Agent Harness Design, Agent Runtimes, Skill & MCP Lifecycle Governance, Non-Human Identity, Task-Scoped Capabilities & Short-Lived Credentials, AI Security Gateways, AgentOps & Observability, Coder / Cloud Development Workspaces, Egress Control, Software Supply-Chain Governance, Codex / Cursor / Claude Code AI Development, Agentic AI Systems, Multi-Agent Orchestration, LangChain, RAG, Vector DBs, ML/AI Governance, Python, Kubernetes, Docker, AWS, Azure, GCP, DevOps, CI/CD, Terraform, Nexis, Confluence, Jira, C++, C#, .NET, MongoDB, SQL

🛡️ GOVERNANCE, COMPLIANCE & RISK

DORA, VAIT, ISO 27001, ISO 13485, IEC 62304, ISO 14971, GDPR, MDR, FDA, EU AI Act, BSI, IKS, SOC 2, Zero Trust for Agents, Agentic Threat Modelling (Prompt Injection, Tool Misuse, Exfiltration), Policy-as-Code, Machine-Readable Compliance Evidence, Risk Management, Third-Party Risk, Operational Resilience, Business Continuity

👥 LEADERSHIP & METHODS

Technology Strategy, CEO Advisory, Agile, Scrum, SAFe, Design Thinking, Change Management, Cross-functional Leadership, Stakeholder Management, Innovation Strategy, Team Development, Product Usability, Behavioral Design

📖 ACADEMIC RESEARCH

[Research overview on timosam.com](#) · Paper titles link to publisher or institutional records.

- 📖 **[The Dark Side of the Face: Exploring the Ultraviolet Spectrum for Face Biometrics](#)** (ICB 2018) — Novel biometric modality using UV imaging for melanin pigmentation analysis, evaluated on 91-subject multiethnic dataset with SURF feature extraction
- 📖 **[Fiber Defect Detection of Inhomogeneous Voluminous Textiles](#)** (MCPR 2017) — Computer vision approach for detecting defects in complex textile materials using advanced image processing
- 📖 **[Attack Detection in an Autonomous Entrance System Using Optical Flow](#)** (ICDP 2016) — Security system utilizing optical flow analysis for presentation attack detection in automated access control
- 📖 **[Personalized Face Reference from Video: Key-Face Selection and Feature-Level Fusion](#)** (FFER 2014, proceedings 2015) — Method for optimal face frame selection from video sequences with subject-specific weighting
- 📖 **[Virtual Fitting Pipeline: Body Dimension Recognition, Cloth Modeling, and On-Body Simulation](#)** (VRIPHYS 2014) — Three-stage pipeline combining anthropometric measurement, cloth physics, and avatar simulation

Institutional Affiliation: Fraunhofer Institute for Computer Graphics Research (IGD)

timosam.com/writing.html · [LinkedIn article archive](#)

AI strategy, enterprise architecture, systems thinking and philosophy. The latest essays are listed first.

[Let the graph change the next decision](#)

An open-source experiment with Jev, branching graph walks and evidence carried from one decision to the next. What worked, what failed and what remains unproven. (20 Sep 2026)

[When the Business Model Becomes the Program](#)

How explicit business knowledge can become an operational model for agents, while imagination, judgment and risk-taking remain human work. (20 Sep 2026)

[When AI can act, the company needs a shared way to act](#)

The Enterprise Agentic Mesh: shared business meaning, cross-department coordination and architecture that turns rules into working constraints. (19 Sep; updated 21 Sep 2026)

["Agent Identity Is Not the Real Problem, Authority Is."](#)

Short-lived, task-bound execution mandates, non-expanding delegation and external policy enforcement as the control plane for agent authority (August 2026)

[Agentic Enterprise Architecture: Governing Cognition, Not Describing Systems](#)

The Enterprise Agentic Mesh — semantic routing, governance sidecars, sovereign machine identity and reasoning observability — where autonomy is earned like an employee's career rather than granted like an API permission (July 2026)

[KI ist nie schneller als die Erlaubnis, die man ihr gegeben hat](#)

Data ownership, decision rights and named accountability as the real bottleneck — why "technical limitation" is often an unresolved question of who may decide, and who signs afterwards (July 2026)

[Aus dem Augenwinkel – Warum die nächste KI nicht besser antwortet, sondern endlich bemerkt, was am Rand des Raums passiert](#)

Ambient AI as organizational peripheral vision — detecting unspoken conflicts, missing ownership and weak signals while intervening with tact and governed restraint (July 2026)

[KI ist nur so schnell wie deine Organisationsarchitektur](#)

Why decision rights, trust, governance and communication architecture — not model intelligence — determine the speed of enterprise AI transformation (June 2026)

[Vom Token zur Neurosymbolischen Aktion](#)

Embedding tools, skills and deterministic computation into model cognition, connecting reasoning with execution while creating new governance challenges (March 2026)

[Rory Sutherland Is the Best Prompt Engineer Alive](#)

Why inhabiting specific minds turns LLMs from vending machines into mirrors of thought (Feb 2026)

[Everything Is an Event, Thing, or Concept](#)

COSAA-SST: Minimalist ontology for compressed, interpretable neural reasoning architecture (Feb 2026)

[The IDE Was a Trojan Horse](#)

How coding tools became the first mainstream agent management interfaces (Jan 2026)

[From Coders to Wizards: The Agentic Development Revolution](#)

The PTAO agent loop and compliance-native architecture for enterprise agents (Jan 2026)

[The Crystallization Engine](#)

Why Agentic Programming Is the Most Important Technology Since Writing (Jan 2026)

[The No-Brainer Framework](#)

Decision architecture for strategic portfolio management with enterprise-grade rigor (Dec 2025)

[New Stanford Study Reveals: Employees Want AI for Tedious Tasks, Not Complex Decisions](#)

Analysis of Stanford study on task automation and human agency (July 2025)

[Emergent Expressibility: A Theory of Everything](#)

Theoretical framework examining AI's capacity for expression and emergence (May 2025)

[The Strategic Blueprint: Leveraging Palantir's AI Model](#)

Enterprise AI orchestration architecture patterns and transformation strategy (March 2025)

[Paraidolia — A Sheep in Wolf's Pelt?](#)

AI as information transmuter — ethical governance architecture (Nov 2024)

[The Consciousness Gradient](#)

Convergence of human and machine awareness (Nov 2024)

[Alchemists and Automatons: Agent Engineers](#)

Defining multi-agent system architecture development (March 2024)

[Lithomancy: Becoming the Seer Among the Blind in Silico](#)

AI predictive capabilities in enterprise decision architecture (Feb 2024)

[Converging Minds and Machines](#)

Human-AI creative collaboration in enterprise contexts (Dec 2023)

[Beyond the Digital Veil](#)

AI censorship and authentic expression in digital systems (May 2023)