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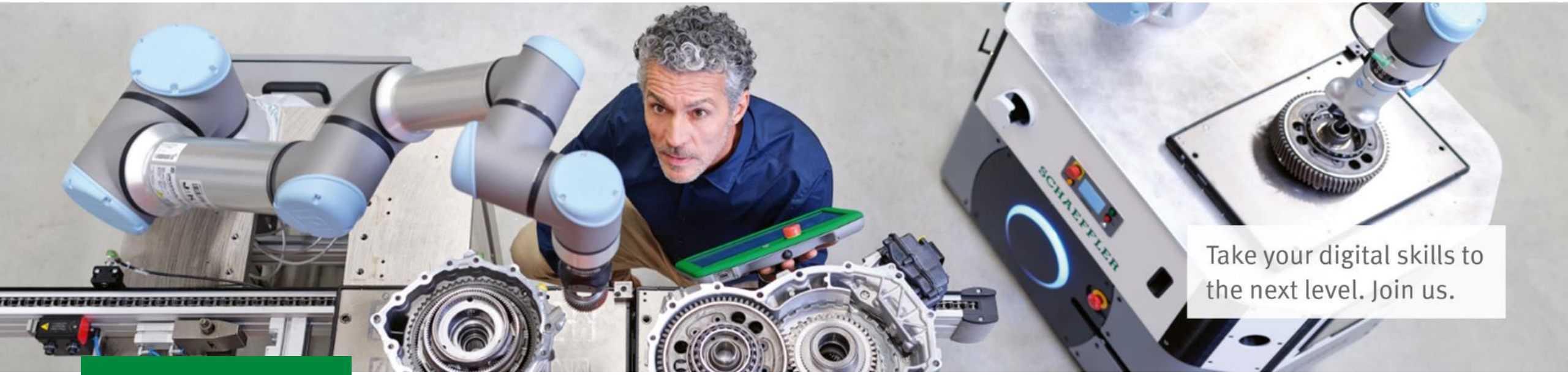


Evolution of a Collaborative Architecture Guild in a Global Enterprise

Stefan Spieker (Guild lead – Senior Expert)
Stefan Herpich (Execution team – Local Expert)

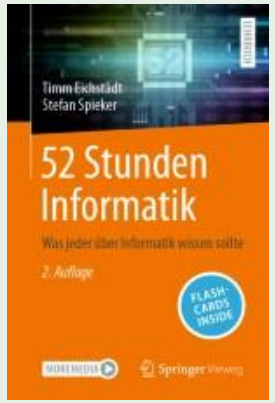
We pioneer motion

Speaker

STEFAN SPIEKER

Senior Solution Architect - DevOps Platform
Guild Lead – mission and vision
Data Science Solutions – Group IT

- Senior Expert Usercentric DevOps
- Most Valuable Contributor 2024 (Jenkins)
- Most Valuable Advocate 2025 (Jenkins)
- Book Author: 52 Stunden Informatik



STEFAN HERPICH

Lead Solution Architect - Custom Data & AI
Guild Deputy Lead - team-specific needs
Data Science Solutions – Group IT

- Local Expert Solution Architecture
- Full-Stack development
- Co-founder of Simpel Web
- Delivering websites and web applications

simpel web

1 **Theory & Schaeffler specifics**

2 Best practices

3 AI impact

4 Outlook

GUILDS

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Team topologies

Stream-aligned team

Aligns with a business domain segment to deliver specific value through a continuous flow of work

Enabling team

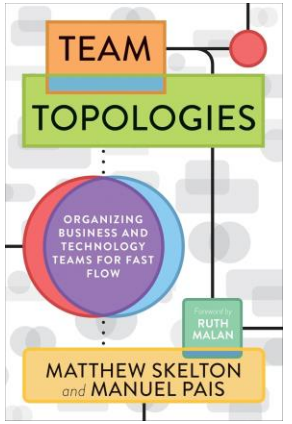
Supports stream-aligned teams by overcoming obstacles and identifying missing capabilities

Complicated subsystem team

Handles complex technical components requiring advanced expertise and specialized calculations.

Platform team

Provides internal services to accelerate and support delivery by stream-aligned teams.



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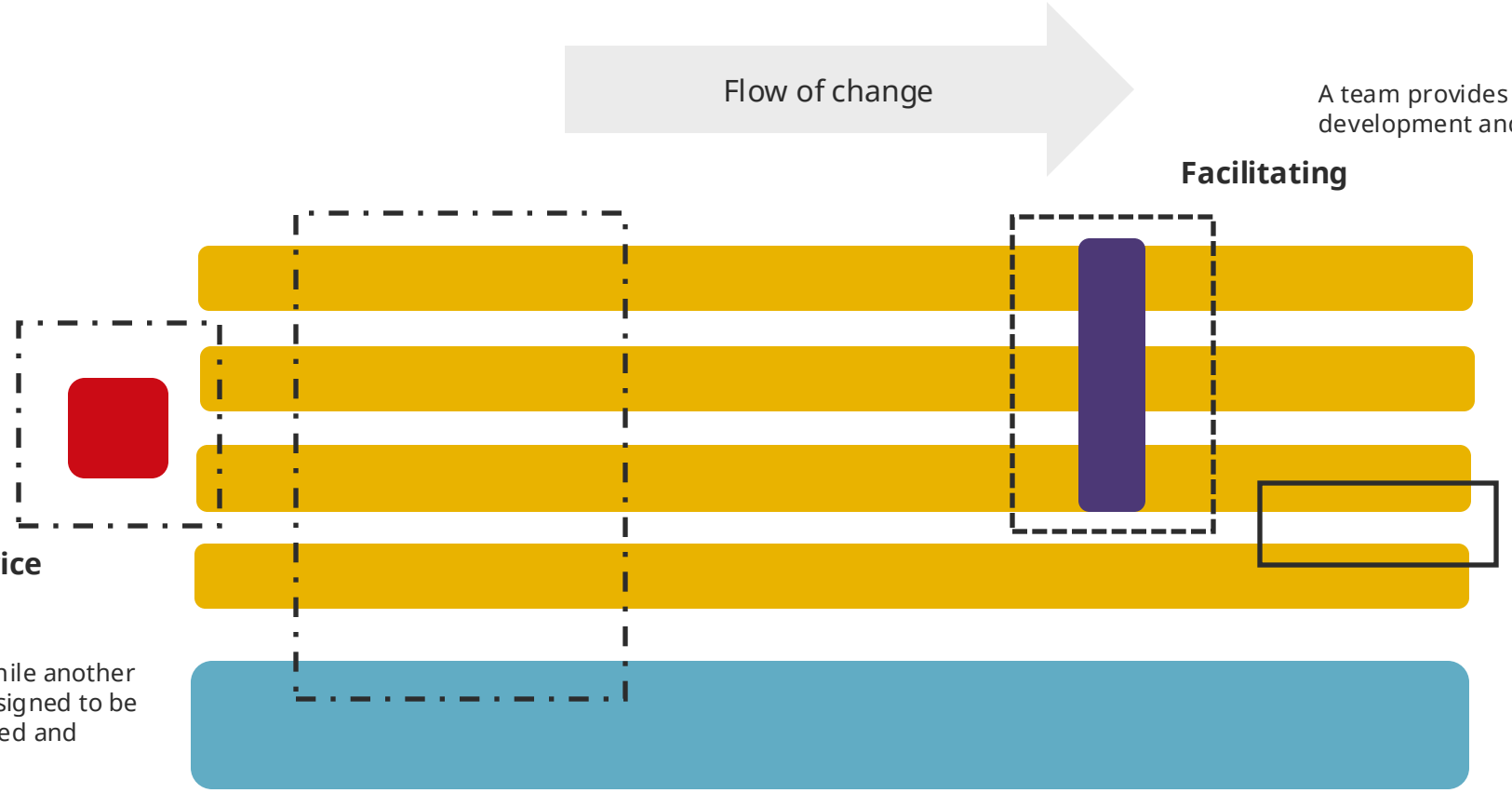
Team topologies



A team provides guidance and mentorship to support the development and success of another team.

Teams unite temporarily to explore and innovate new technologies, practices, or APIs

One team offers, while another utilizes, services designed to be seamlessly integrated and consumed.

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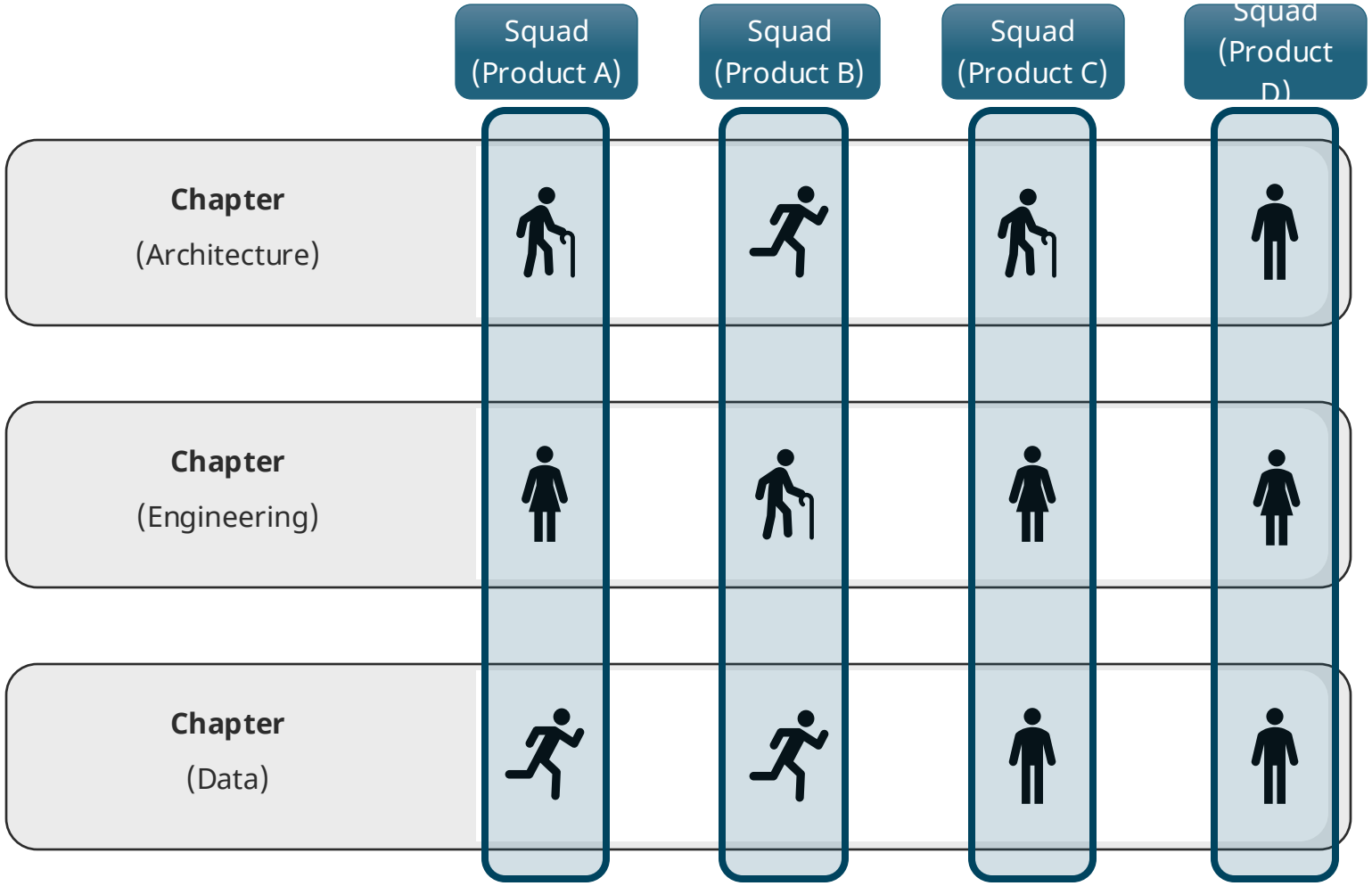
What is a guild?



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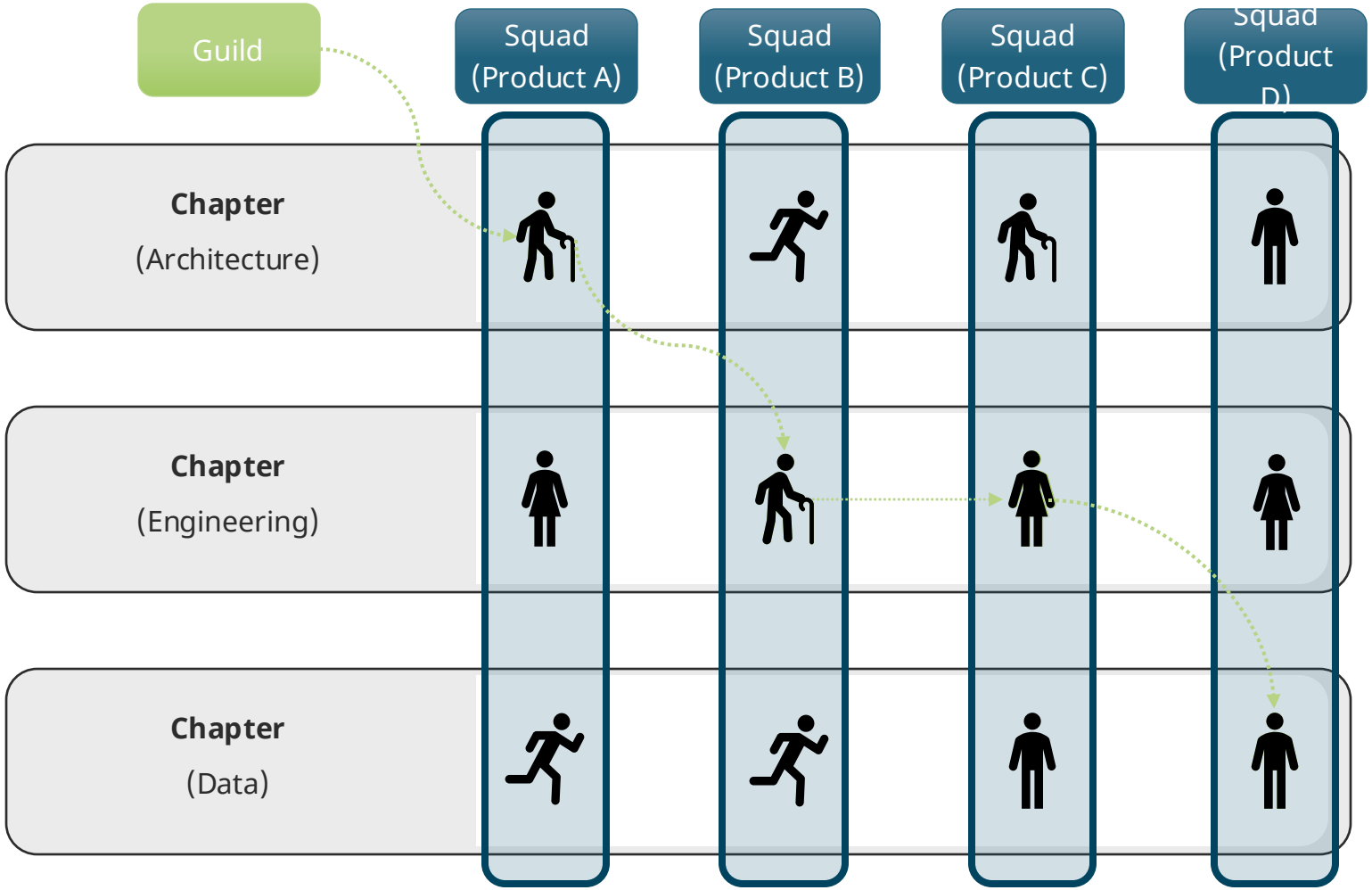
What is a guild?



Guilds

Purpose
Foster organizational initiatives like respect & inclusion and internal process innovation.

Structure
Flexible formation, operating across Chapters and Squads.

Participation
Open to interested individuals, allowing multiple memberships.

Integration
Maintain smooth work delivery within Squads and guilds

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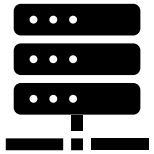
Adoption for Guilds - Embracing collaboration and innovation through specialized guild

Data Architecture & Engineering Guild

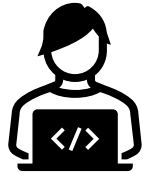


- Develop best practices and standards.
- Encourage knowledge sharing and latest tech sync.
- Promote collaboration & governance of data

AI Guild

- Deliver high-quality data science products swiftly.
- Standardize processes/tools across project lifecycle.
- Engage with Schaeffler’s DS & AI community

Software Engineering & Architecture Guild



- Implement DRY principles and minimum team standards.
- Harmonize tools and technologies.
- Establish test strategies and default infrastructures.

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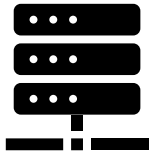
Adoption for Guilds - Embracing collaboration and innovation through specialized guild

Data Architecture & Engineering Guild



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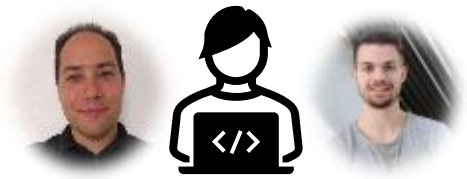

- Implement DRY principles and minimum team standards
- Harmonize tools and technologies
- Establish test strategies and default infrastructures

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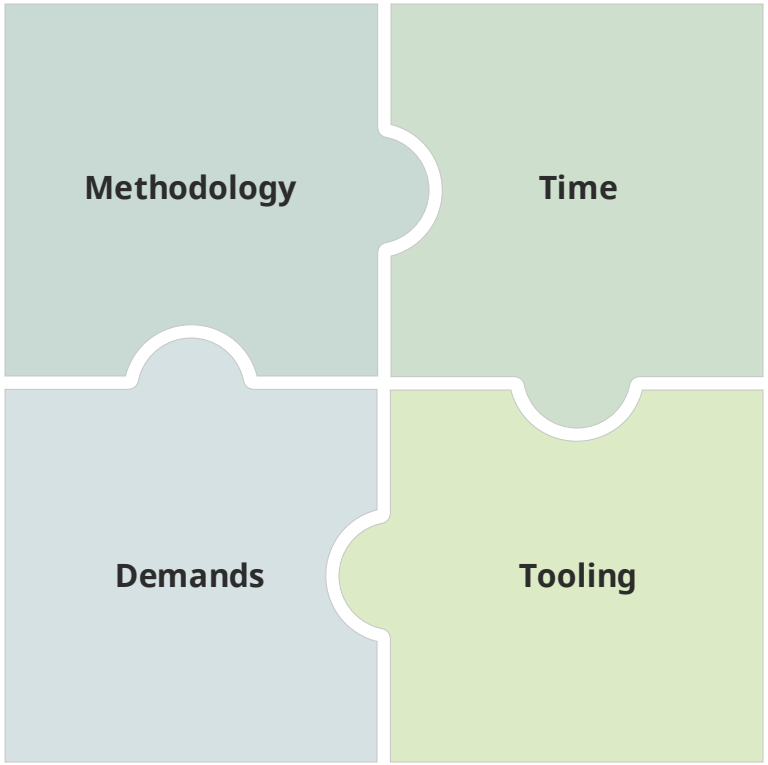
Way of working

1 Regular Meetings

- Every two weeks
- 1 1/2 Hours
- Alternating meeting times

2 Time Invest

- 2 Hours per week (in average)
- GitHub board for status tracking
- (Cross-Guild) collaboration



3 New Demands

- Research
- Extension
- New Products

4 Tooling

- Best practices
- New tools
- (Coding) agents

1 Theory & Schaeffler specifics

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GUILDS

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Evolution of the Architecture Guild

Major take away per year

(Sticky patterns)

2021/22

- **Tech radar**
- **Product reviews**

2023

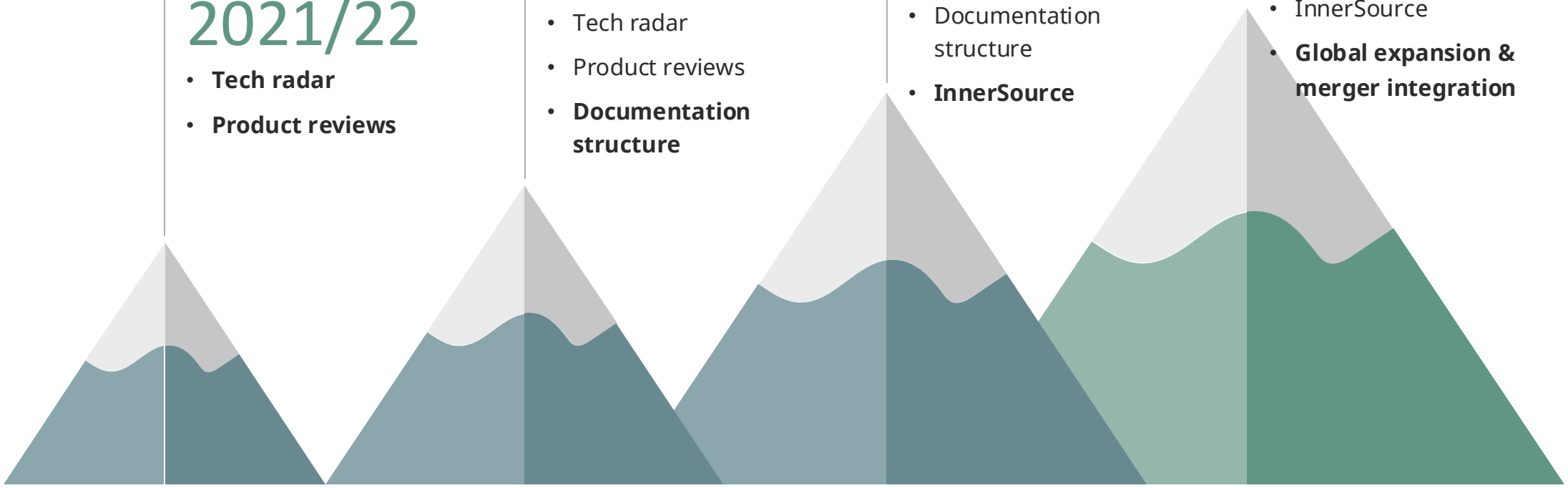
- Tech radar
- Product reviews
- **Documentation structure**

2024

- Tech radar
- Product reviews
- Documentation structure
- **InnerSource**

2025

- Tech radar
- Product reviews
- Documentation structure
- InnerSource
- **Global expansion & merger integration**



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Tech Radar

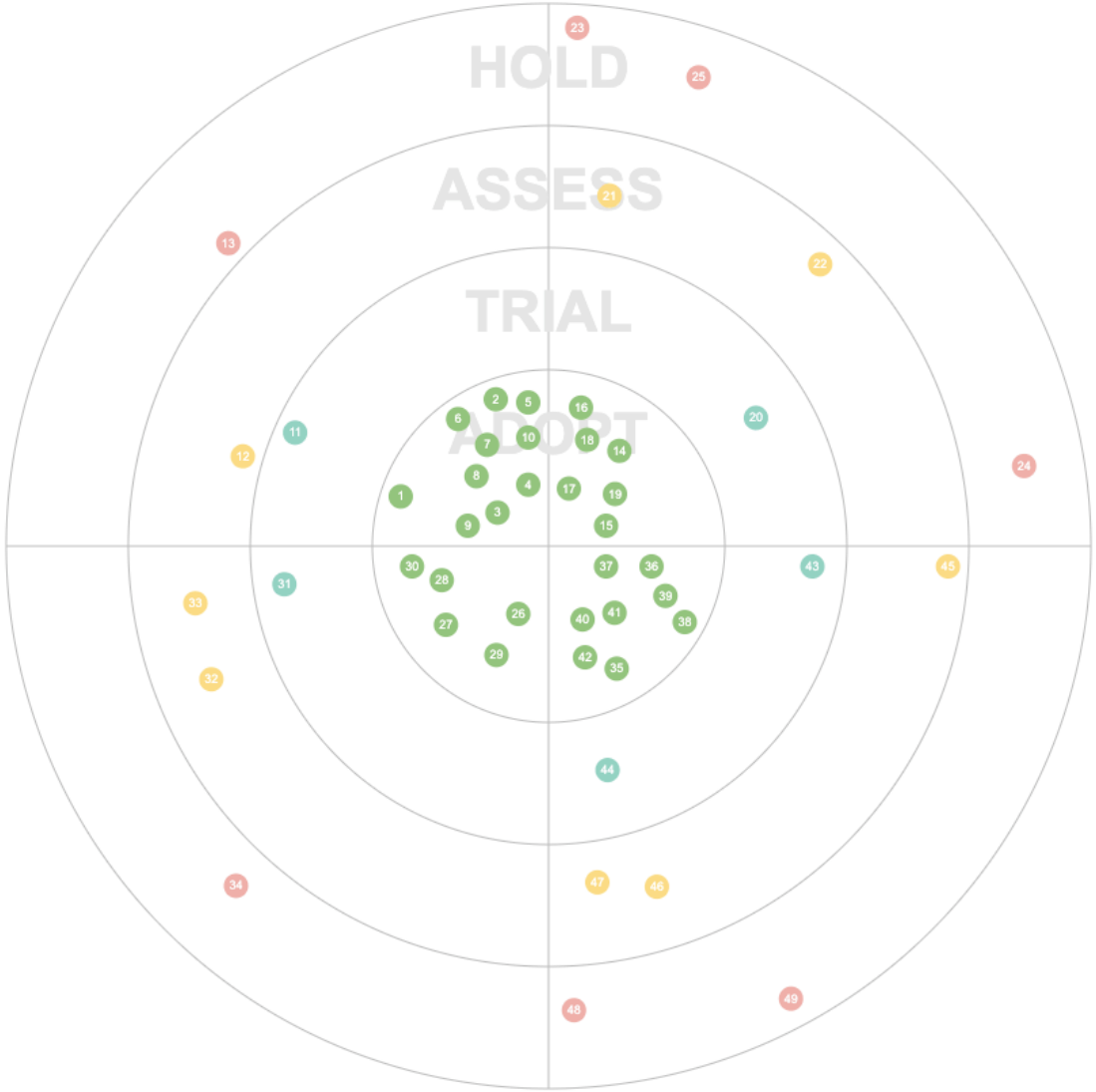
Infrastructure

ADOPT
1. Azure AD
2. Azure App. Insights
3. Azure Cont. Reg.
4. Azure KeyVault
5. Azure Monitor
6. Azure VM
7. Docker
8. Jenkins
9. Kubernetes (AKS)
10. Nginx

TRIAL
11. Azure ML

ASSESS
12. Azure Function

HOLD
13. IBM Bluemix



Datastores & Data Management

ADOPT
14. Azure Cosmos DB
15. Azure Data Factory
16. Azure SQL (Server)
17. Azure Storage
18. etcd (K8S)
19. PostgreSQL

TRIAL
20. HDFS ?

ASSESS
21. Elasticsearch
22. Redis

HOLD
23. Hadoop
24. MongoDB
25. RabbitMQ

Frameworks

ADOPT
26. .NET
27. Angular
28. EntityFramework
29. Flyway
30. Spring Boot

TRIAL
31. Flask

ASSESS
32. KEDA
33. Liquibase

HOLD
34. Nest JS

Languages

ADOPT
35. C#
36. Groovy (Jenkins)
37. Java
38. OpenAPI (Swagger)
39. Powershell
40. Swift
41. Terraform
42. TypeScript

TRIAL
43. GraphQL
44. Python

ASSESS
45. Ansible
46. Go
47. Kotlin

HOLD
48. JavaScript
49. R

▲ moved up ▼ moved down

2022

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Annual Product Review Process - From Assessment to Action

Annual kickoff

Product selection

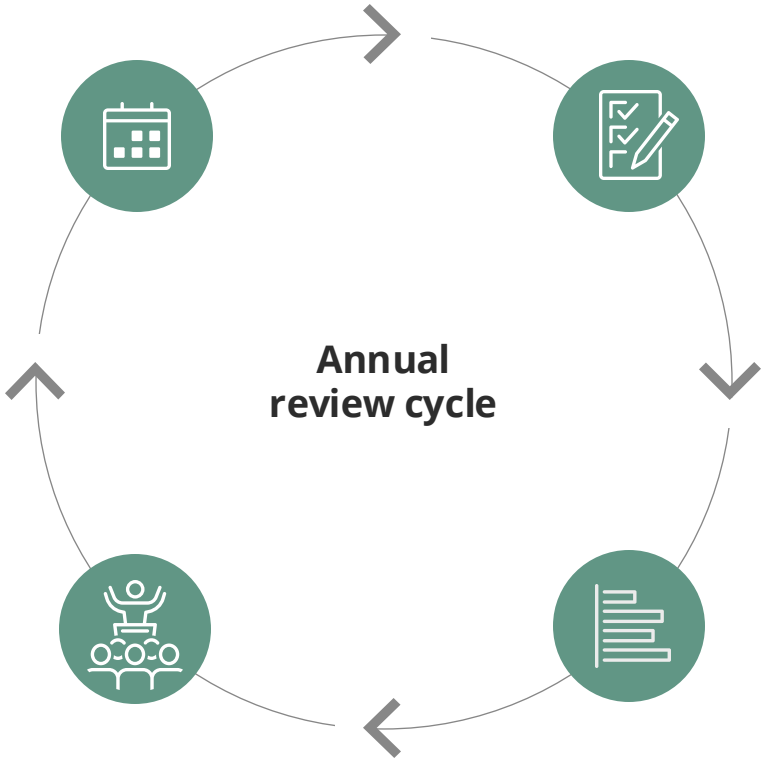
Responsible Solution Architect presents

1-2 neutral Solution Architects perform the review

Feedback to product teams

Feedback to product teams

Remediation planning



Template-based assessment

Security

Architecture & tech stack

Best practices

Testing setup

Kubernetes specifics

Aggregation & analysis

All findings are aggregated and analyzed

Results are compared across products

Why it matters

- Early risk identification
- Greater transparency
- Consistent standards
- Improved security
- Informed decision-making

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Inner Source – Reusable Hello-World Templates

Angular Hello-World template

Why it matters

- Consistent project setup
- Faster project start
- Shared best practices
- Simpler CI/CD alignment
- Easier updates and migrations

Spring Boot Hello-World template

1 Theory & Schaeffler specifics

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GUILDS

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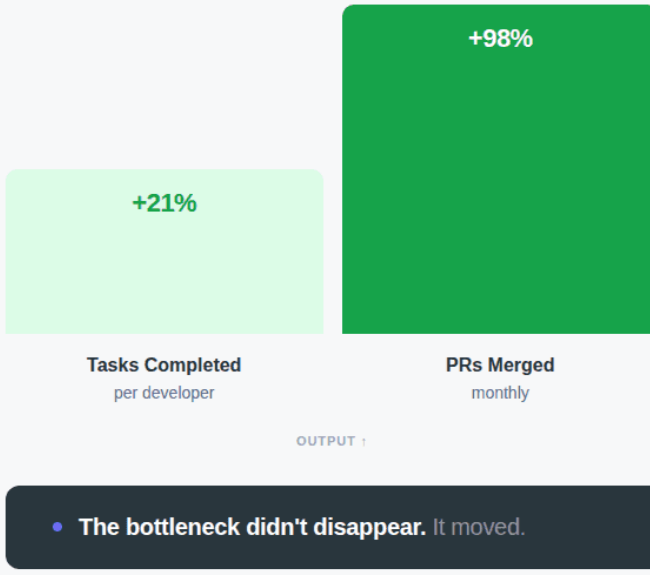
We hit the Iceberg

AI CODING TOOLS · THE DATA

More Output. Less Throughput.



• **The bottleneck didn't disappear.** It moved.

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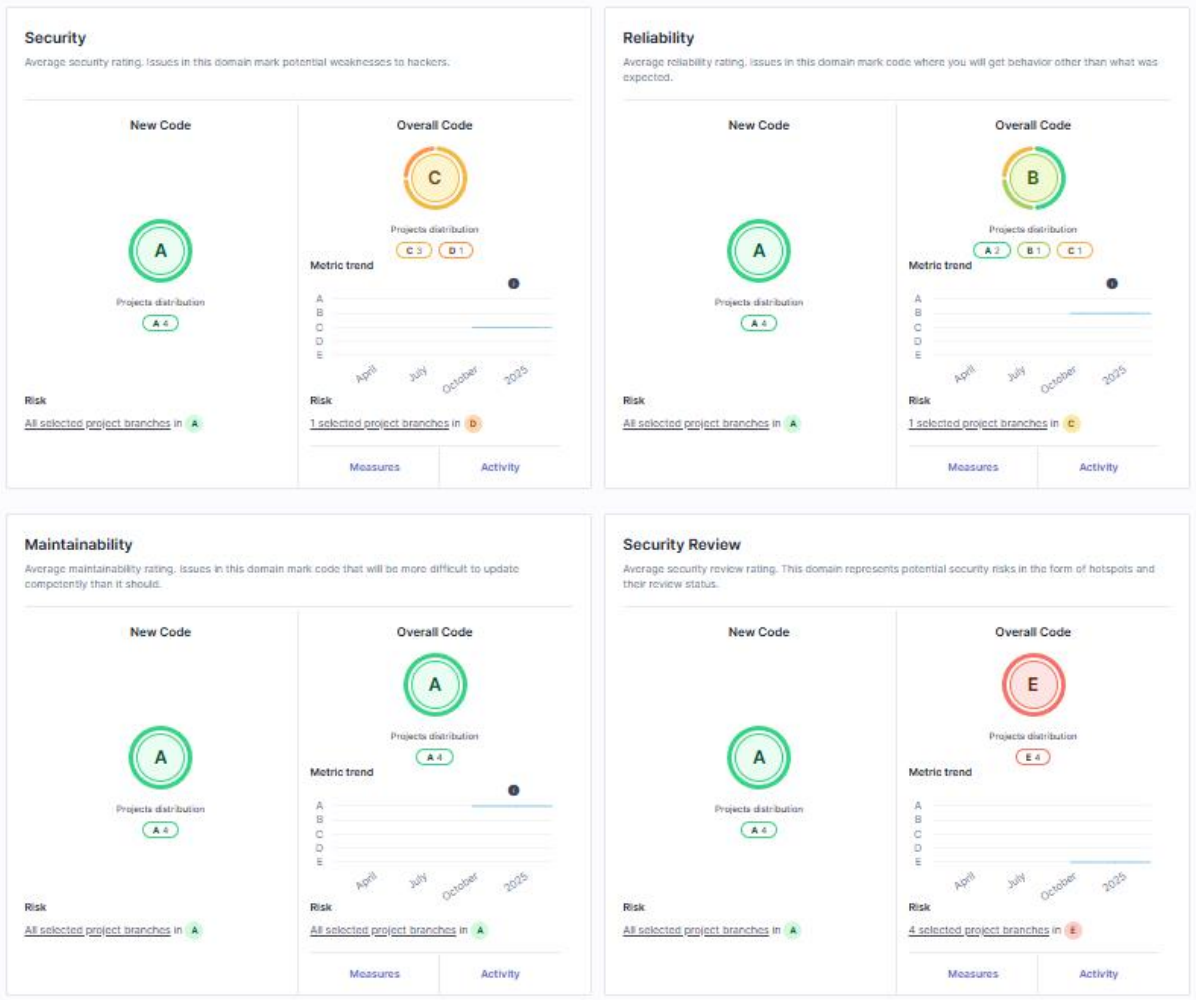
Transparency



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GUILDS

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Looking ahead: three priorities

Solution harmonization

Build once. Reuse across teams.

- Avoid solving the same problem multiple times
- Promote reusable patterns and shared components
- Reduce duplication and inconsistency

Architecture transparency

Make decisions visible and reusables

- Capture key architecture decisions transparently
- Improve consistency across teams
- Raise implementation quality through shared understanding

Global scale, local fit

Standardize globally, adapt locally where needed

- Balance global standards with regional constraints
- Enable collaboration across time zones and teams
- Allow justified local exceptions for legal or market needs

Q&A

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