

Journey to the cloud- a Re-architecting Story



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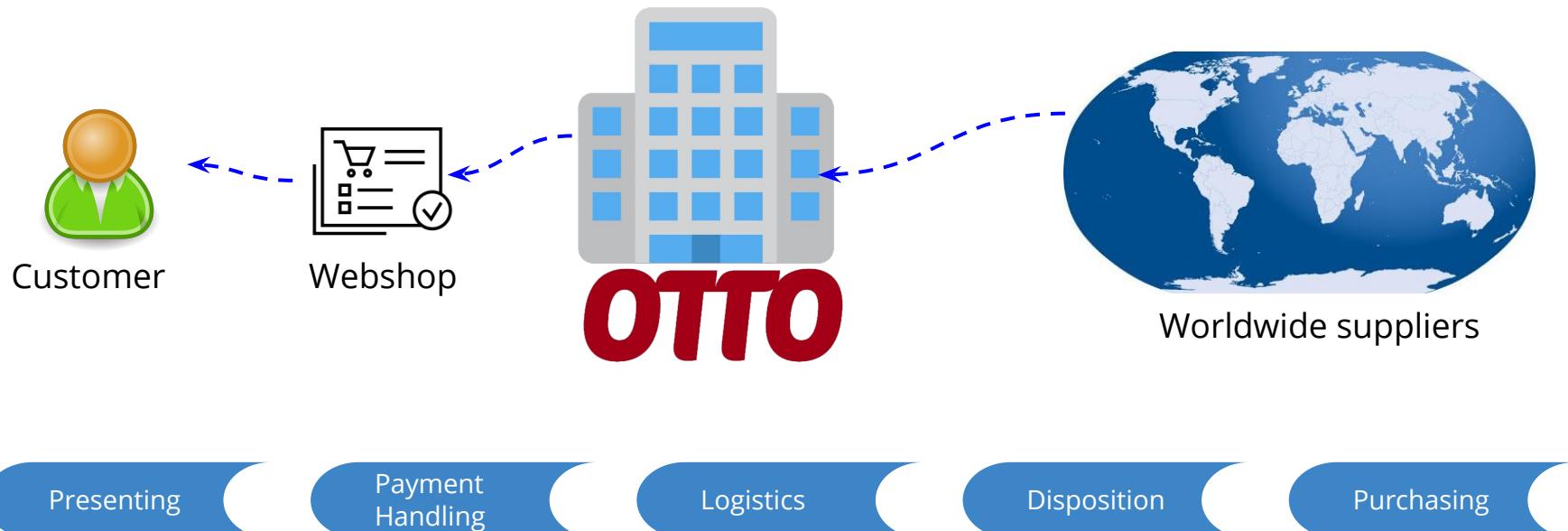
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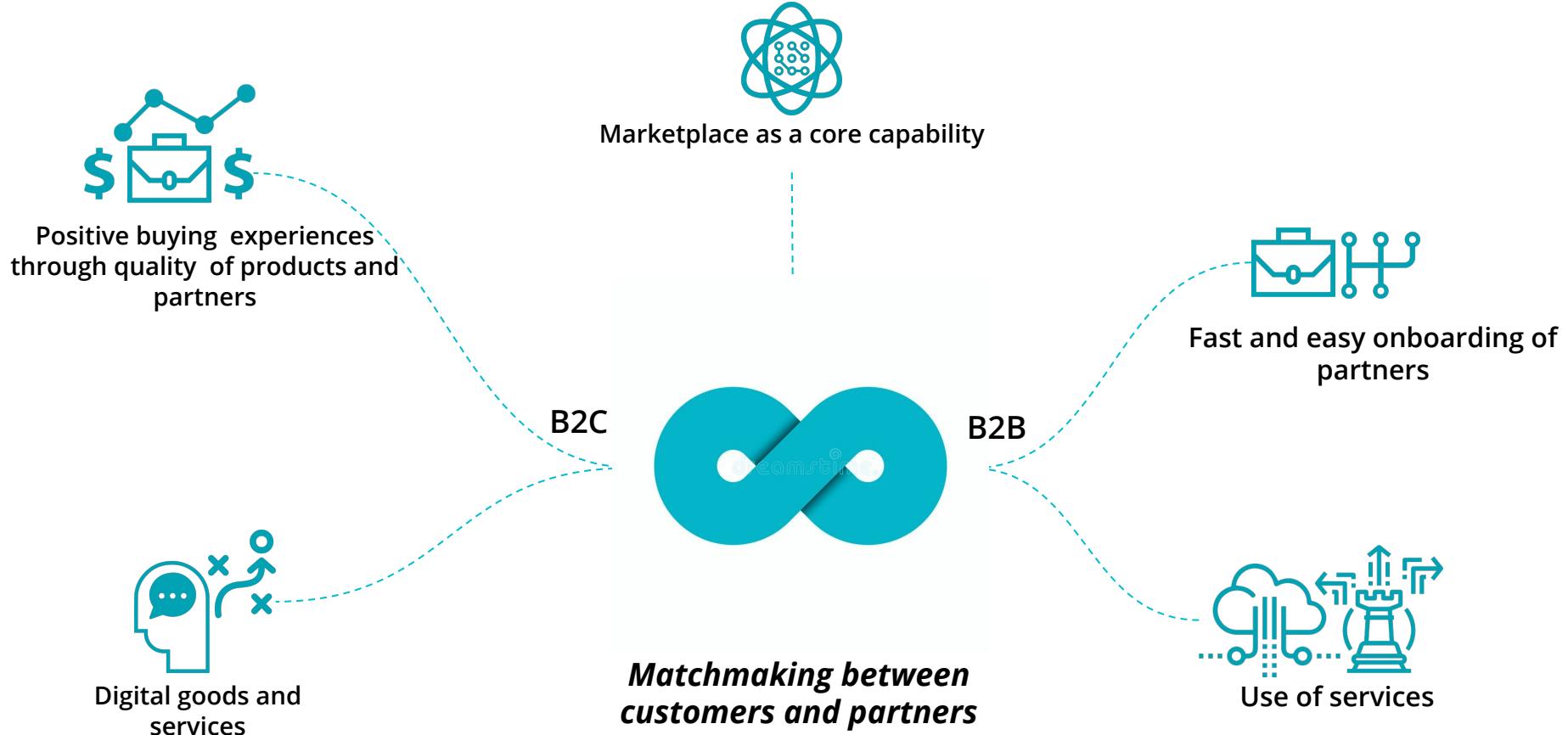
74%

Of Organizations Fail to Complete Legacy
System Modernization Projects

WHERE WE COME FROM - BUSINESS LENS

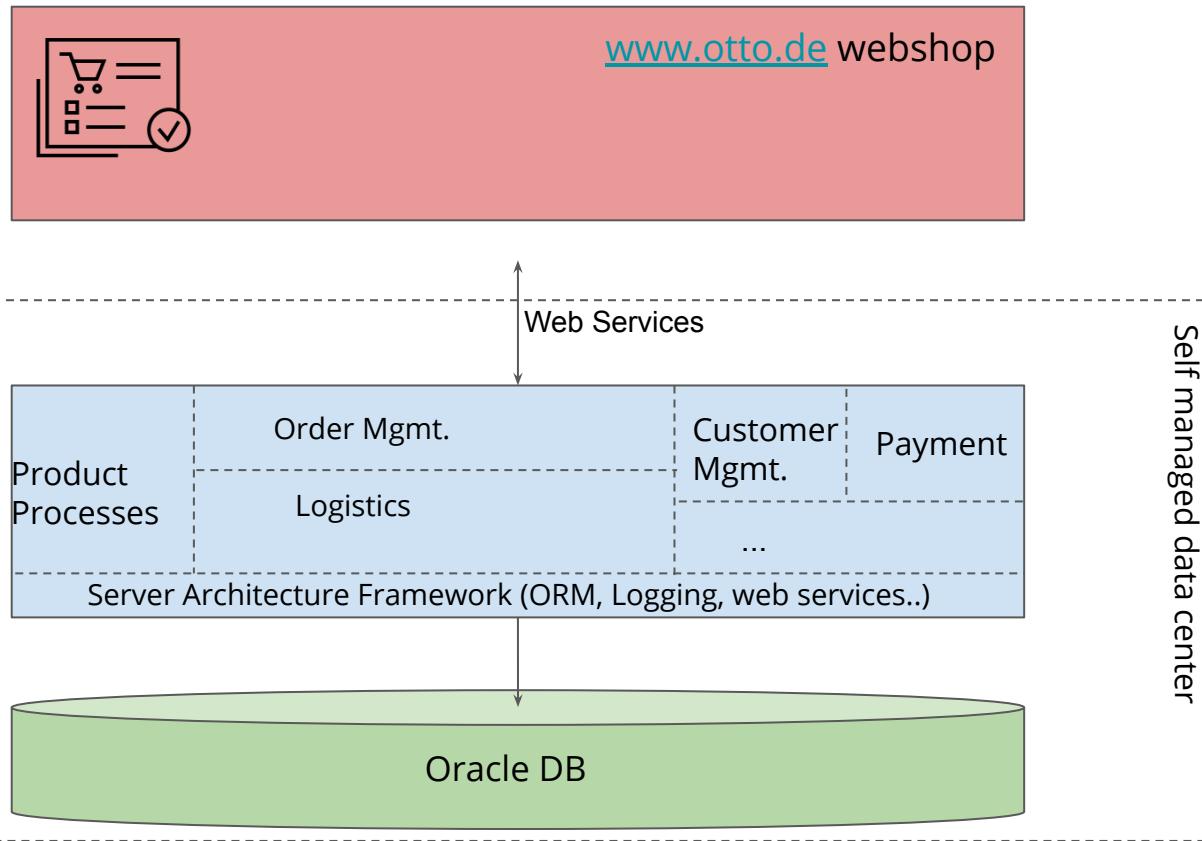


THE ASPIRATION - BUSINESS STRATEGY

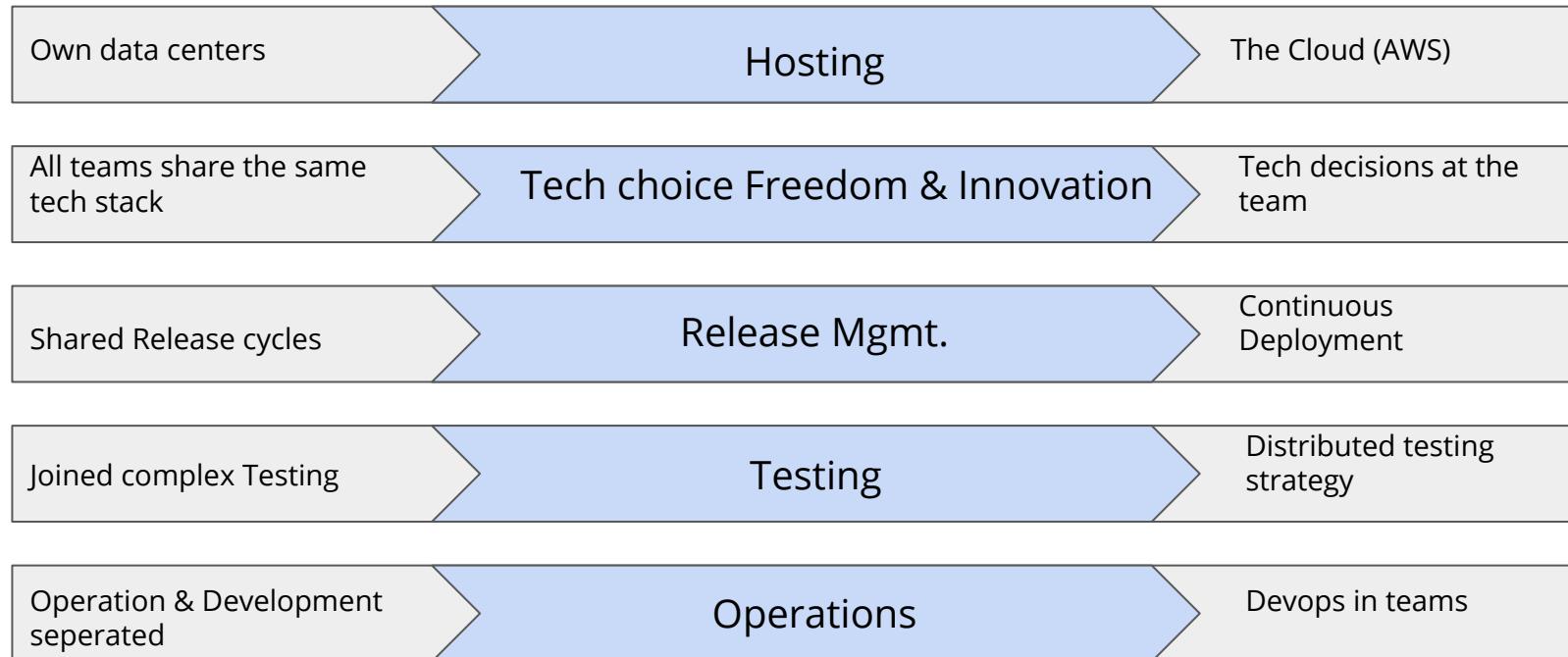


WHERE WE COME FROM -TECHNICAL LENS

Modern microservices approach in AWS



THE VISION



THE TRANSFORMATION JOURNEY



PRE PROJECT

- 🚢 Know thy business, know thy goals
- 🚢 Guard rails for “Tech Governance”
- 🚢 Cross functional team capability & ways of working blueprint
- 🚢 Transformation strategy - First Key decisions



KNOW THY BUSINESS, KNOW THY GOALS

EVENT STORMING

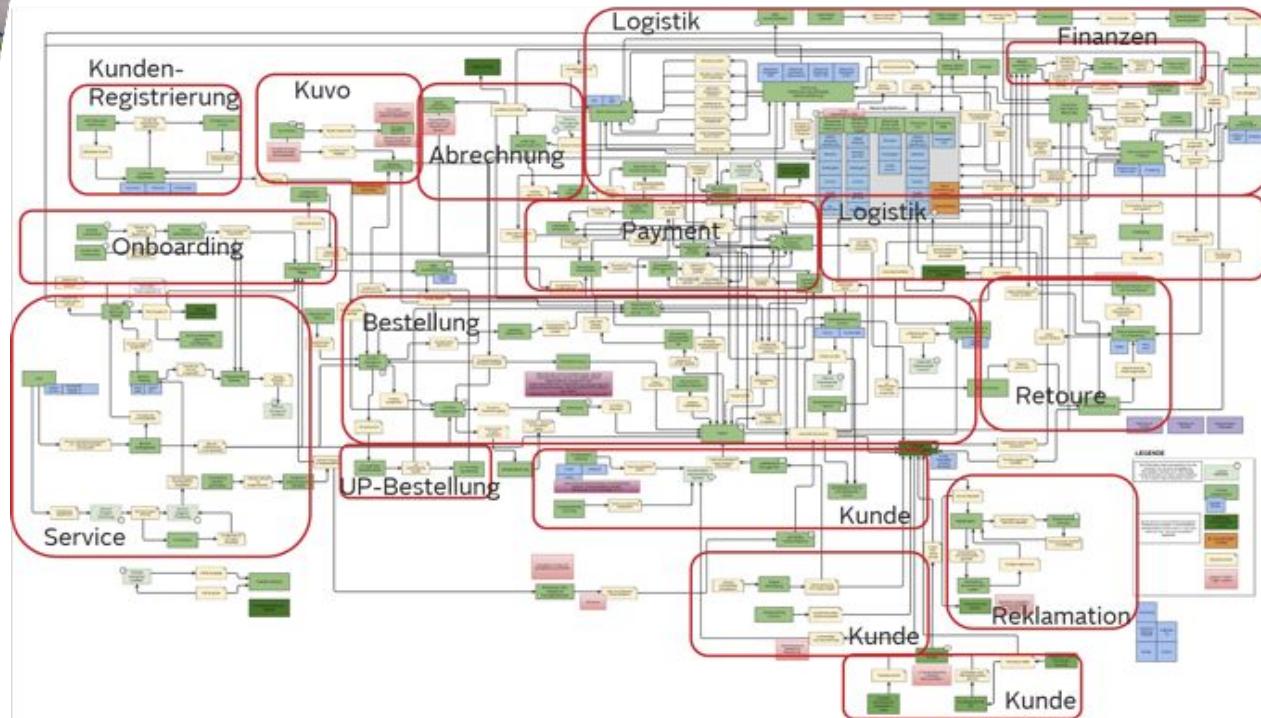


~ 30
colleagues in
three teams

3 days

1 Scenario:
Order 2 Cash

2 days
consolidation



FOUNDATION OF TECH GOVERNANCE - TECHNICAL MANIFEST

THE TECHNICAL MANIFEST

Values

Tech follows Business

Move fast, Fail fast

Low Technical Barriers

Coverage of non functional aspects

Full ownership and clear responsibility

Principles

Bounded Contexts & Vertical Systems

Non Blocking Communication

Cloud Native

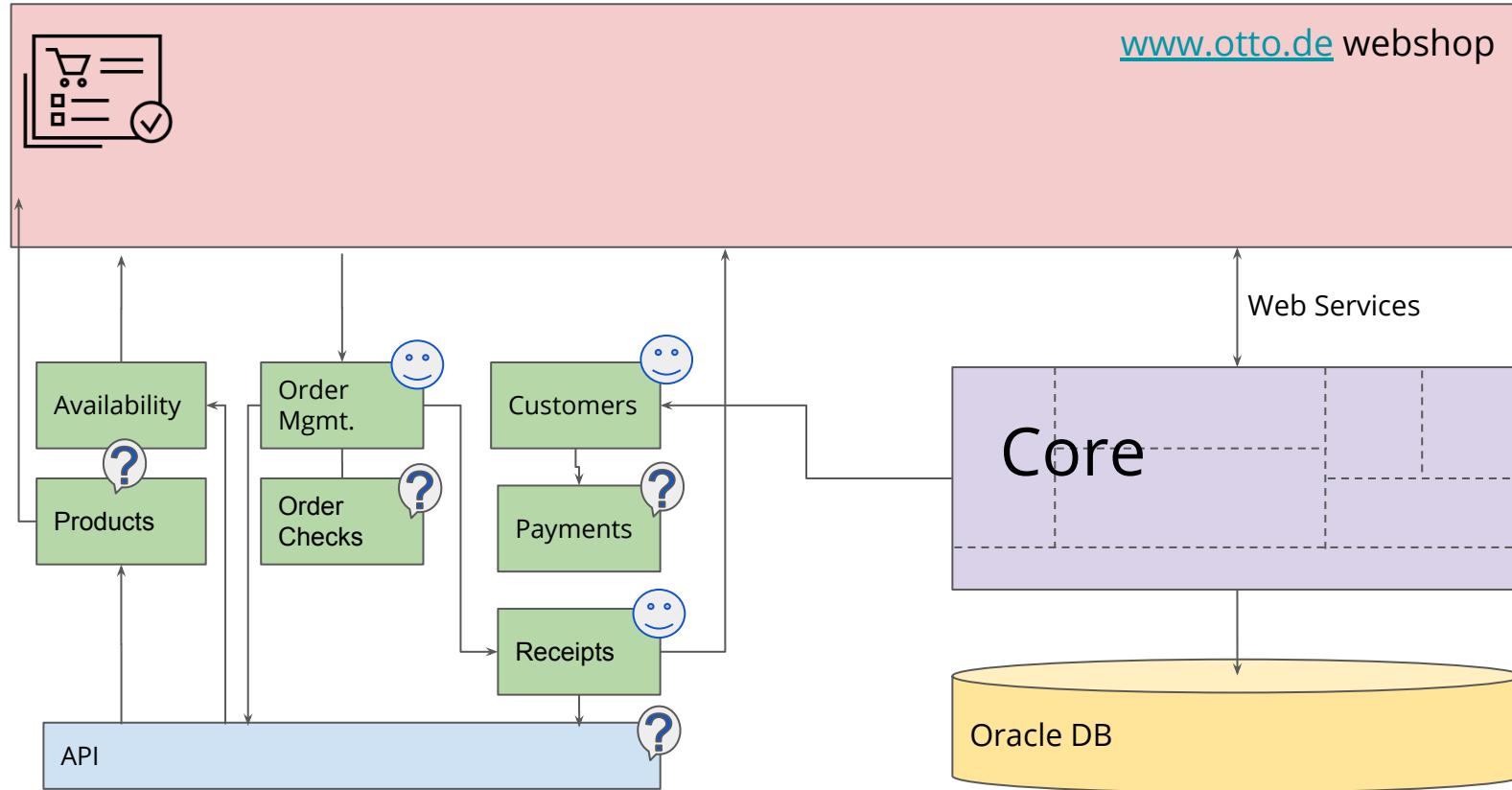
Scale Horizontally

Continuous Delivery and Deployment

Security First

BOOTSTRAPPING TRANSFORMATION STRATEGY WITH UNKNOWNNS

TRANSFORMATION STRATEGY - FIRST KEY DECISIONS

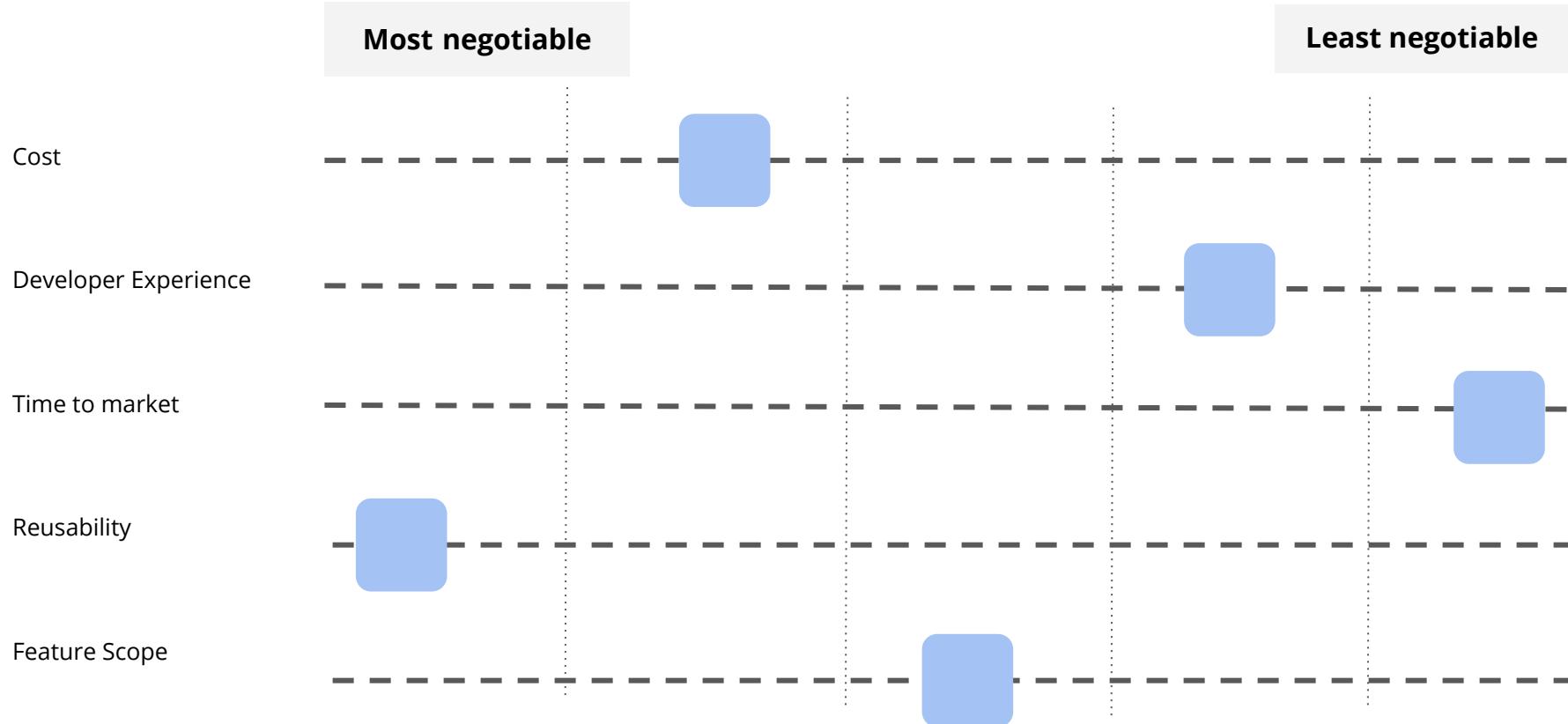


MVP

- ⛵ Thin slice of business value
- ⛵ Autonomous team composition & Aligned ways of working
- ⛵ Scaling with more teams
- ⛵ Operationalising Platform strategy
- ⛵ Bootstrap “Communities of Practice”



ALWAYS RATIONALISE THE TRADEOFFS

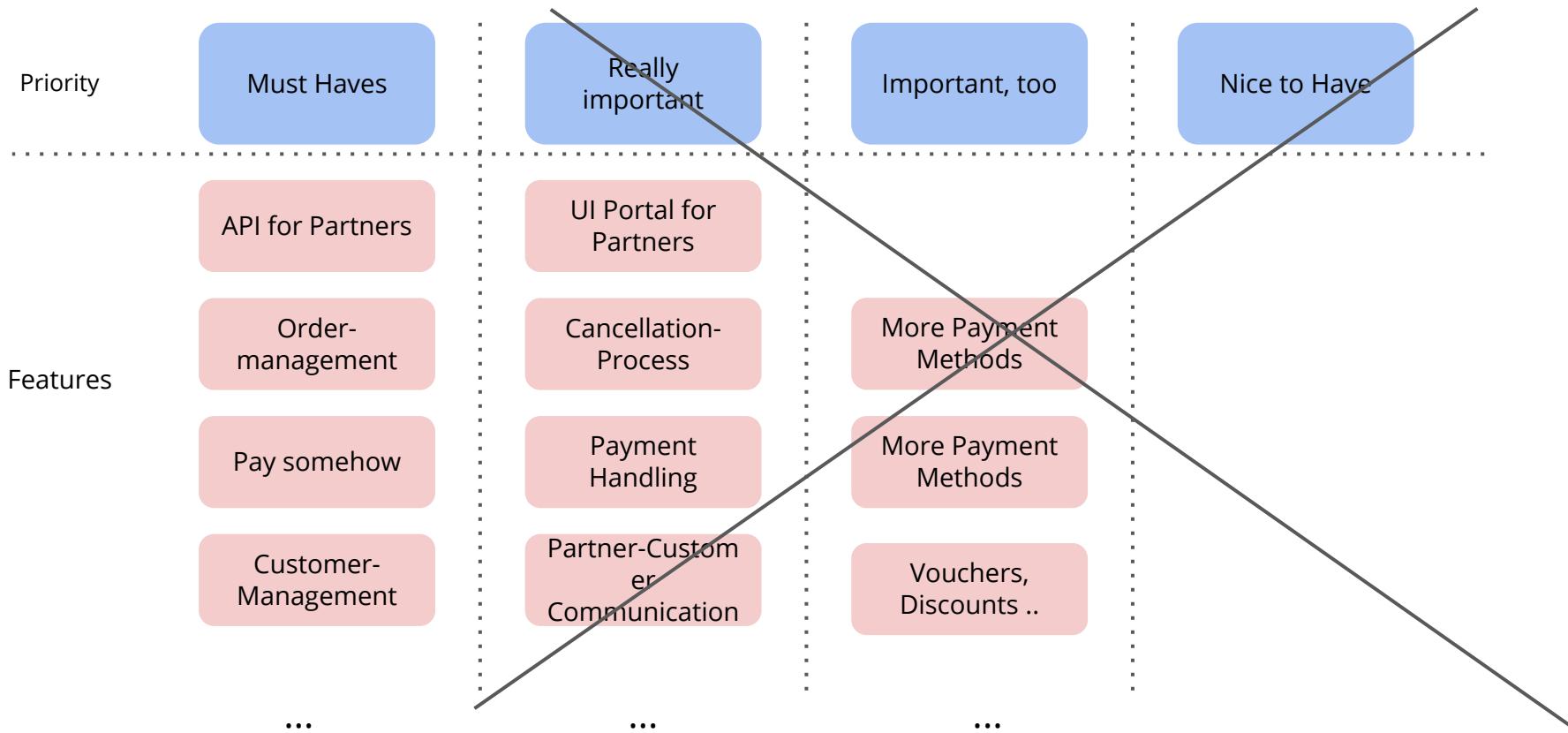


BUILD TRUST FAST WITH THIN SLICE APPROACH

HOW TO ARRIVE AT THIN SLICE ?

| Priority | Must Haves | Really important | Important, too | Nice to Have |
|----------|---------------------|--------------------------------|------------------------|--------------|
| Features | API for Partners | UI Portal for Partners | | |
| | Order-management | Cancellation-Process | More Payment Methods | |
| | Pay somehow | Payment Handling | More Payment Methods | |
| | Customer-Management | Partner-Customer Communication | Vouchers, Discounts .. | |
| | ... | ... | ... | ... |

HOW TO ARRIVE AT THIN SLICE ?



TECH TRANSFORMATION AS AN ENABLER FOR ORG TRANSFORMATION

LEGACY TRANSFORMATION

Culture



Little Self Confidence

Delegate Decisions, Encourage Innovation Times, Encourage Collaboration



Proud & Joy

Technology



Waterfallish,
Restrictive, on-prem

TDD, XP, CI/CD Pipelines, Canary Releases, Alerts and Monitoring, Radiators, API only integrations, Blue-Green Deployments, Elastic Infrastructure.



Iterative & Continuous
& innovative in the
Cloud

Business



Project based teams,
Focused on specific scope

*Agile Scrum Teams, User Journeys, Event Stormings,
Responsiveness over Cost Efficiency, Design for intrinsic motivation.*



Long Lived, Cross-Functional,
Product Based Teams

BALANCING BOTH THE WORLDS

Optimal Team setup -
domain knowledge & Tech
excellence

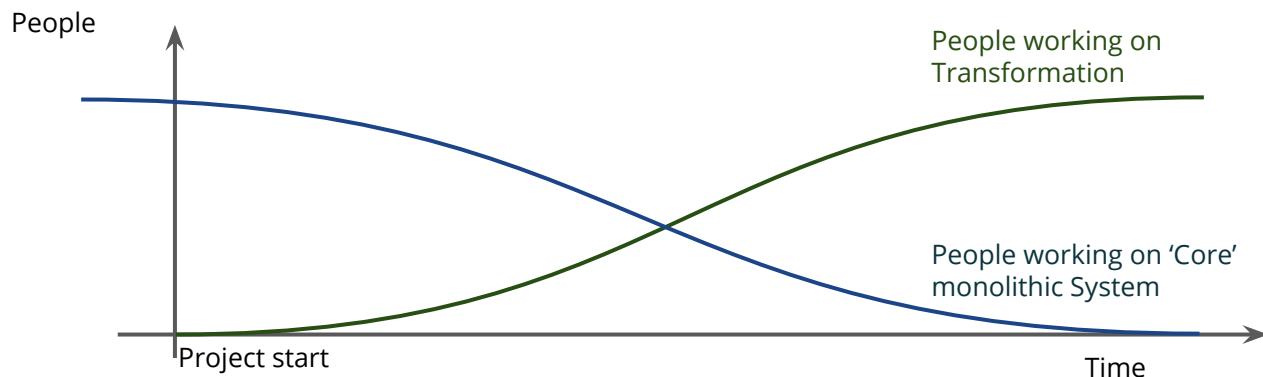
Business continuity

People Aspiration &
Motivation

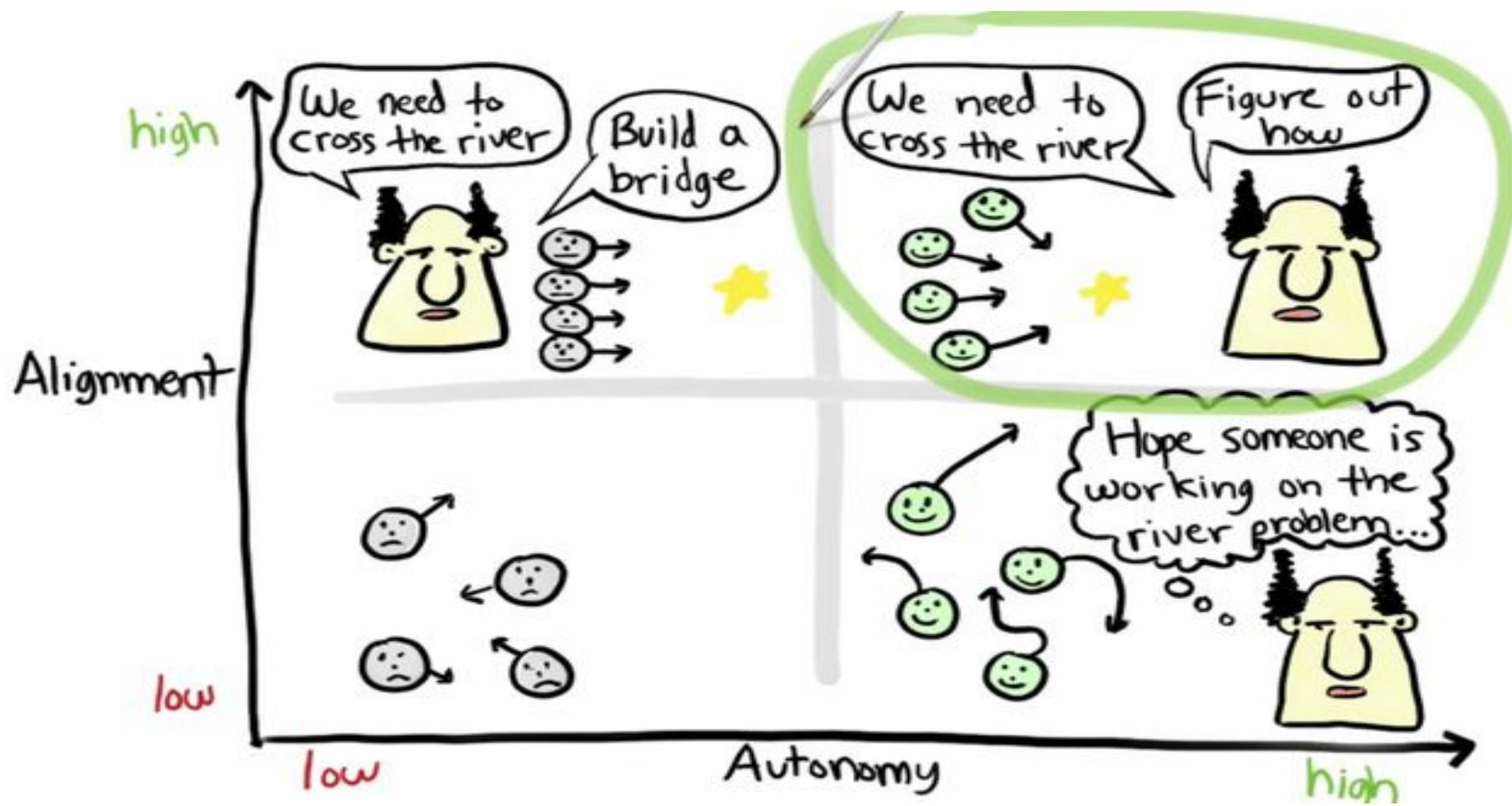
Right people for the right
job

Don't treat it as an IT
Project

Communication is key

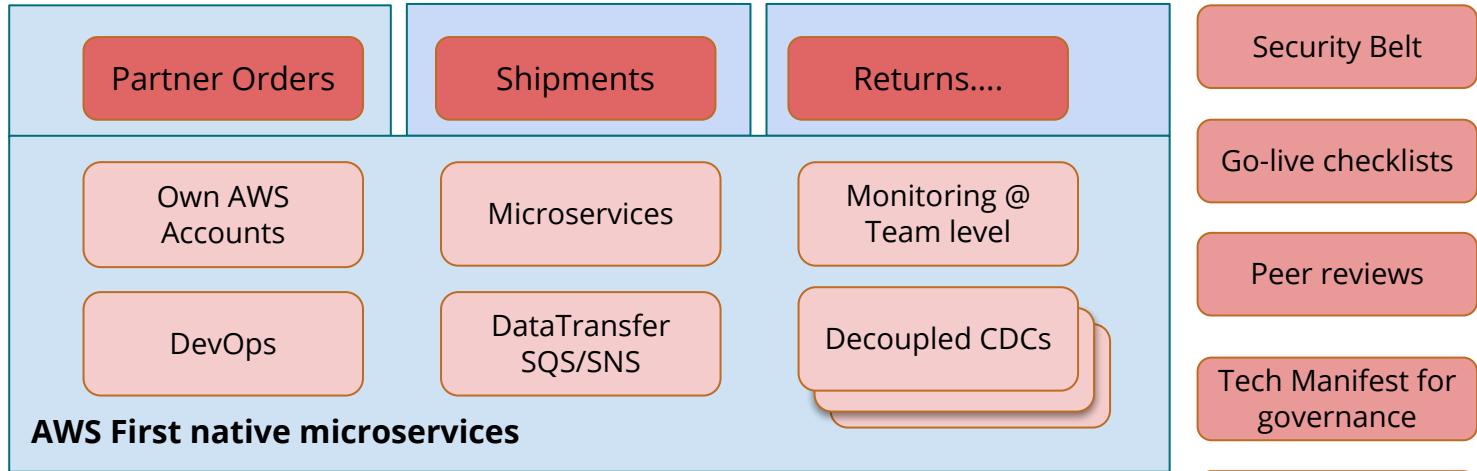


A DECENTRALIZED TECH STRATEGY!
AKA NO STRATEGY?

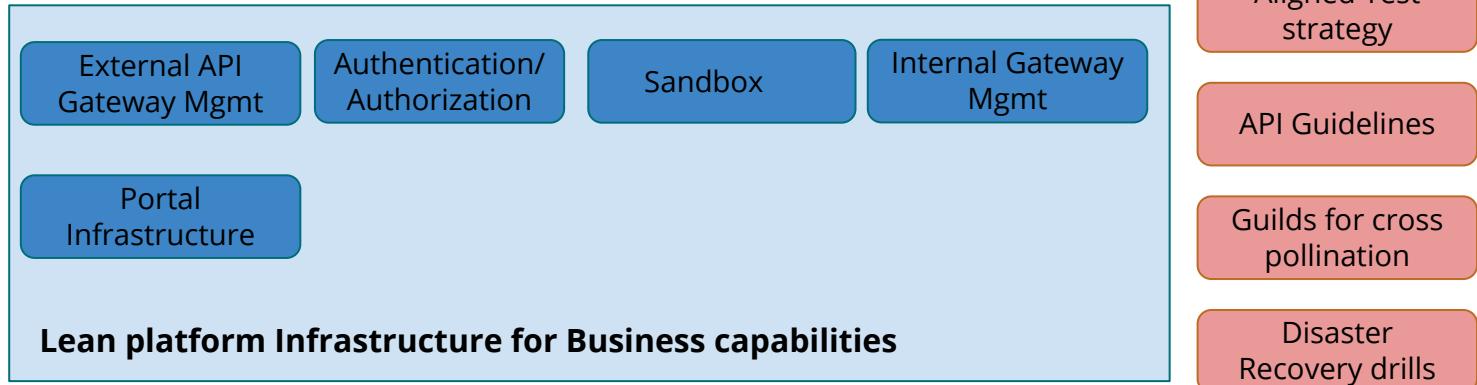


OTTO MARKETPLACE GOVERNANCE & TECH OVERVIEW

Product Team Responsibilities



Lean platform Team



READY TO SCALE

- 🧭 Evolving Domains and course correction
- 🧭 Establish DeepSea TechRadar & sensible defaults
- 🧭 Establishing Cloud governance
- 🧭 Establishing architecture governance board
- 🧭 Team view to Overarching Observability
- 🧭 Establishing overarching Non functional requirements
- 🧭 Scaling with right talent



~~ALWAYS RATIONALISE THE~~ TRADEOFFS ARE EVOLVING

Most negotiable

Least negotiable

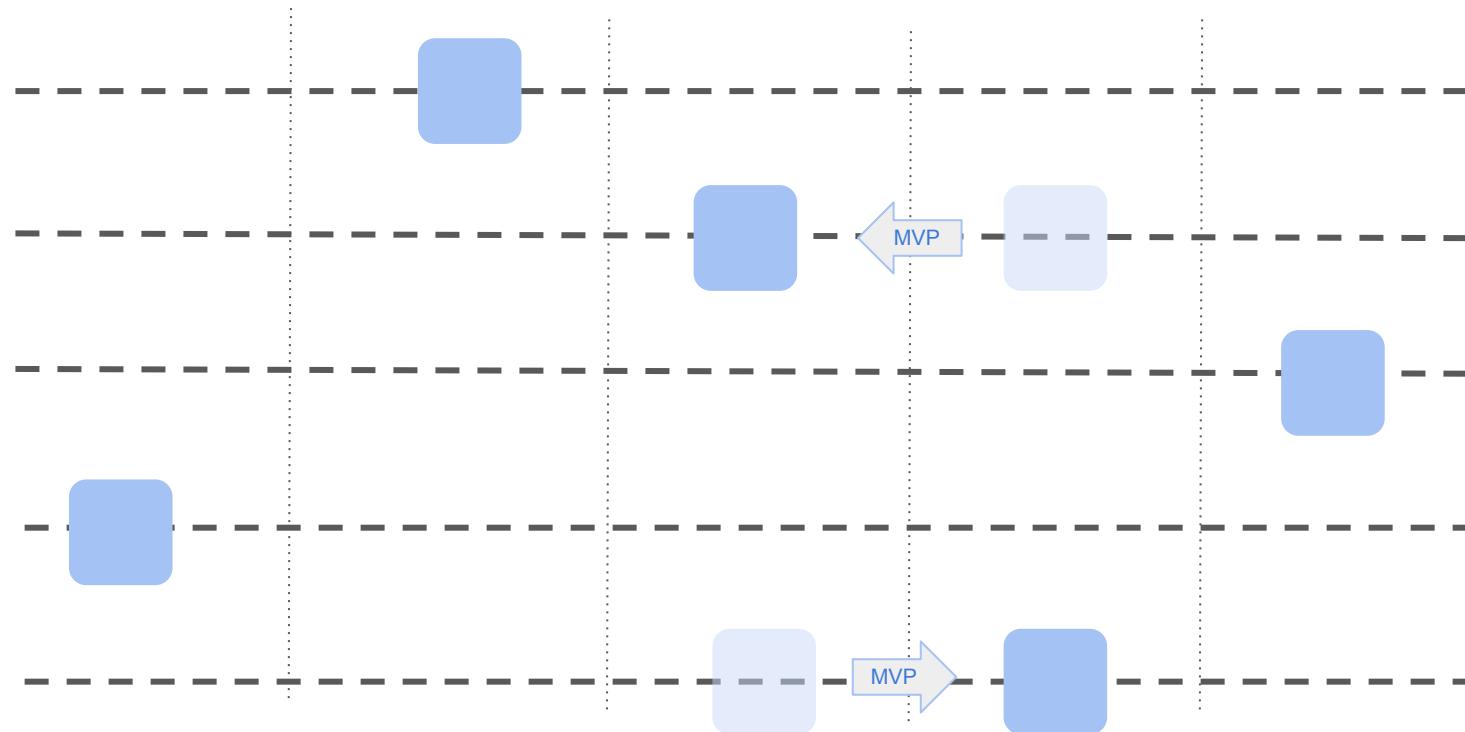
Cost

Developer Experience

Time to market

Reusability

Consistency & Maintainability



EVOLUTION OF TECH GOVERNANCE

OTTO SENSIBLE DEFAULTS & TECH RADAR

BUILD YOUR OWN RADAR

Techniques

Tools

Platforms

Languages &
Frameworks

OTTO ARCHITECTURE GOVERNANCE BOARD

| | | |
|---|---|---|
| Architecture Principles & Values | Tech Radar & sensible defaults | Decentralised Task force oriented workgroups for cross cutting issues |
| Decentralised cross department representation | Lightweight RFC based approach to decision making | A place where Tech and business stakeholders align - Monthly cadence |

MANAGE CLOUD GOVERNANCE AT SCALE



Team Monitored cost
& Consolidated Billing

Org Config Rules

Org IAM Roles +
Single Sign On

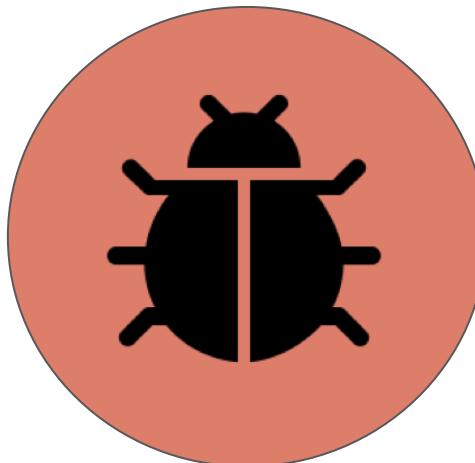
Cloudtrail

REACTIVE SYSTEMS ALSO NEED OVERARCHING
OBSERVABILITY

Network Failures

Failures are inevitable

False sense of “Eventual consistency”



AUDITABILITY

DEBUGGABILITY

Open Tracing

Business monitoring
with Splunk

DEFINE & SOCIALIZE OVERARCHING CROSS FUNCTIONAL
REQUIREMENTS

CROSS FUNCTIONAL REQS. ONE PAGER

X-Team Non-Functional-Requirements for OTTO Marketplace



Scalability

| Requirement | 12/19 | 12/20 | 12/22 |
|------------------|--------|-----------|------------|
| Partners | 100 | 2000 | 9000 |
| Partner Products | 10.000 | 5.000.000 | 15.000.000 |
| Partner Orders | 1.000 | 10.000 | 100.000 |
| Users | 7.4 M | 7.8 M | 10 M |



Performance

| Requirement | 12/19 | 12/20 | 12/22 |
|--------------------------------|-------|-------|-------|
| Event Propagation* | 5 min | 3min | 3min |
| API latency (90th percentile)* | 50ms | 40ms | 40ms |



Resilience

| Requirement | Goal |
|-------------------------|----------------------------|
| Single Service Outage | No Customer/Partner Impact |
| Data Loss | Recovery within 2 hours |
| Major Outage | Recovery within 4 hours |
| Availability* | 99.9% |
| DDoS (Partner API/Apps) | Service remains available |



Security

| Requirement | Goal |
|----------------------------------|--|
| All Services fulfil requirements | Cloud Security Badge Cloud Ready Badge (see Security Dojo) |

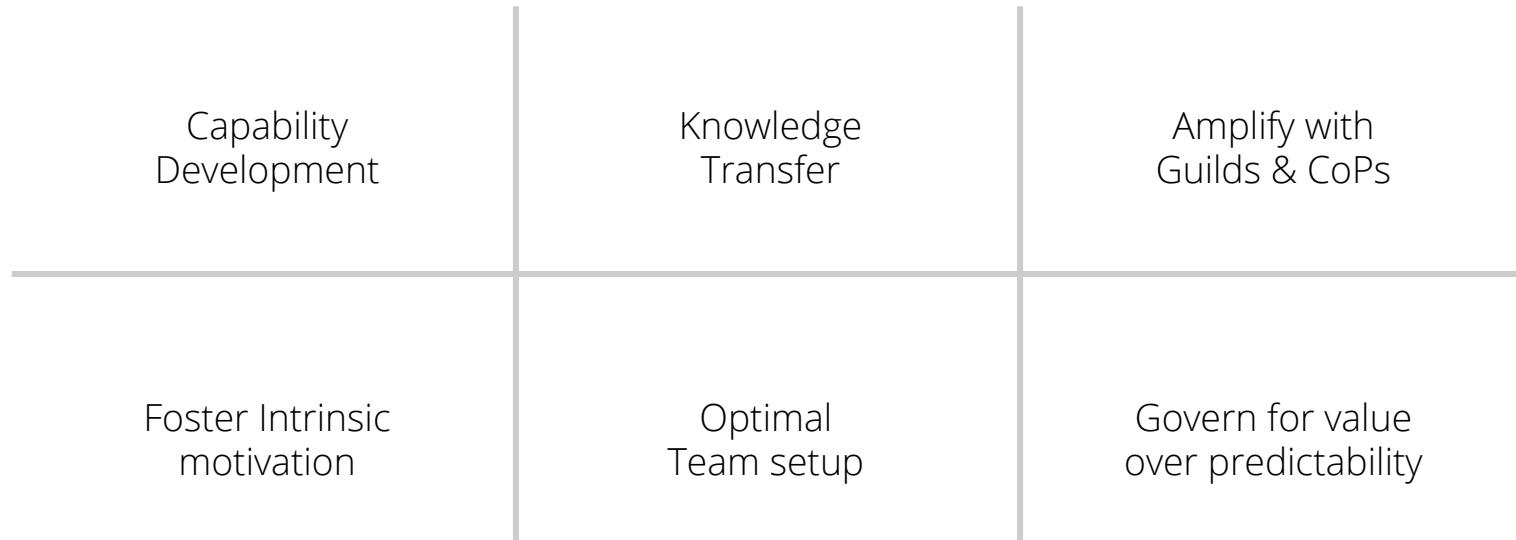
Socialize in community forums

Teams derive their own targets

Teams project metrics with dashboards

PEOPLE ENABLEMENT CAN BE A DEAL BREAKER

TOP INITIATIVES



EXPANDING BEYOND A SINGLE DEPARTMENT

- ❶ Diversifying cloud strategy (AWS + GCP)
- ❷ Aligning transformation strategy across departments
- ❸ Establishing Business goals & shooters across departments

*A Transformation Journey is a long road to walk.
More Information about that next time!*



The background of the slide is a photograph of an underwater environment. Sunlight filters down from the surface in bright, linear rays, creating a dappled light effect on the dark blue water below. The water has a textured, slightly rippled appearance.

THANKS
Q&A