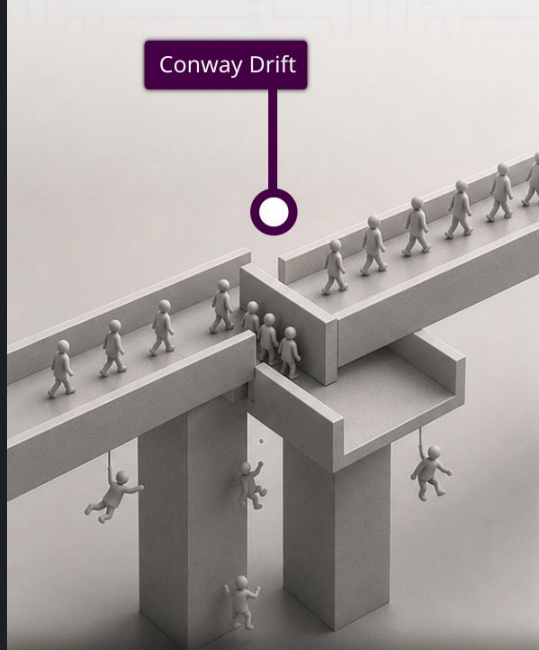


Warum Produktentwicklung trotz
guter Teams langsam bleibt:

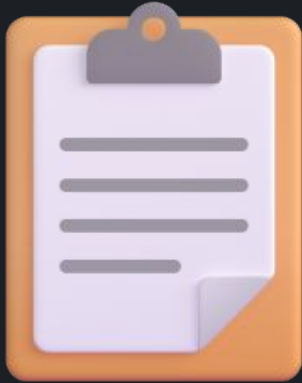
Conway Drift erkennen
und beheben

Dr. Michael Jastram

Your Reorg Is Probably Creating Conway Drift



"We need everybody in the room"
is already a warning sign.



Conway Drift erkennen und beheben

Agenda

- Product Velocity Intro
- Conway's Law
- Conway Drift
- Die richtige Diagnose
- Ursachenbekämpfung
- Diskussion & Teilnehmerfragen

Dr. Michael Jastram

Systems Engineering & Product Velocity Innovator

Open to Work
Kostenloses
Erstgespräch buchen

Product Velocity

MIT Press, 2027



productvelocity.org

Inhalte

Blog | Webinare | Vorträge

- **Systems Engineering Trends**
10 Jahre wöchentliche News zu Systems Engineering
- **20.11., Tutorial beim TdSE**
Product Velocity für Systems Engineering
- **Product Velocity Ressourcen**
Case Studies | Bilder | Posts | Anti-Pattern Finder

se-trends.de



Formal Mind GmbH

Geschäftsführer

Google  BOSCH



Mercedes-Benz



iauv



amun



CARIAD
A VOLKSWAGEN GROUP COMPANY

mobileye
an intel company



Sensata
Technologies

formalmind.com

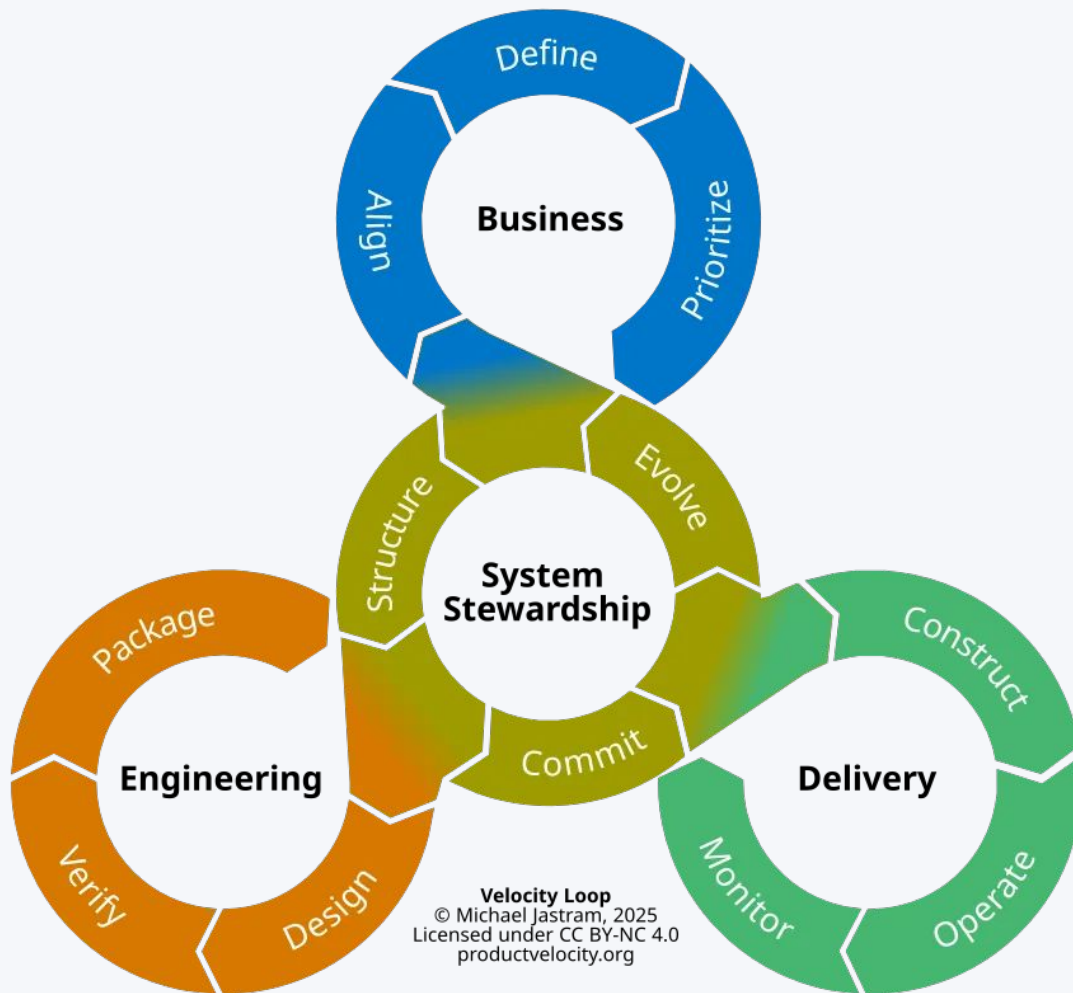


“Normalerweise benötigt die Automobilindustrie vier Jahre, um ein neues Auto zu entwickeln. Bei BYD beträgt unser Standard 18 Monate.”

Stella Li,
Executive vice president of BYD and
CEO of BYD Americas

Velocity Loop

DevOps Loop für
cyberphysikalische
Systeme

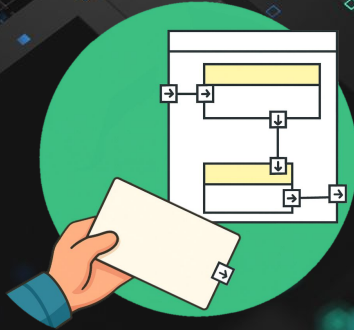


4 Prinzipien für Product Velocity

Define & Align:
**Value
Thinking**



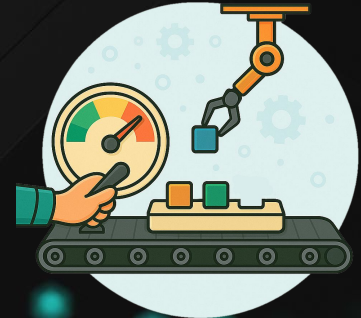
Design & Build:
**Architect
for Flow**



Integrate &
Validate:
Shift Left



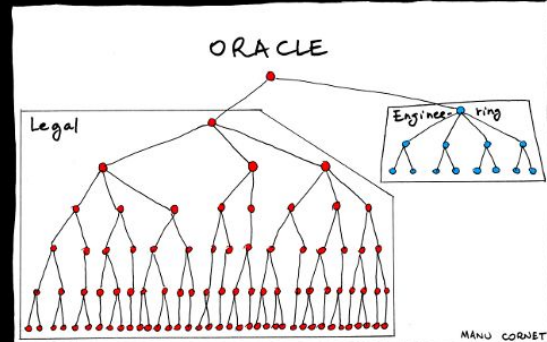
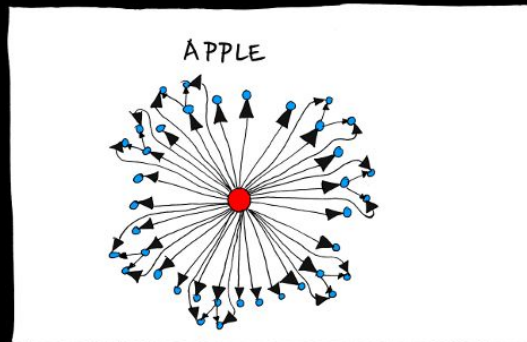
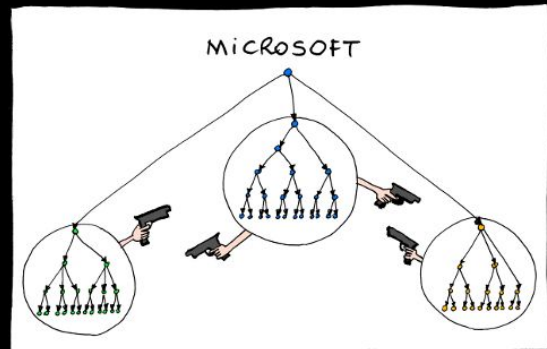
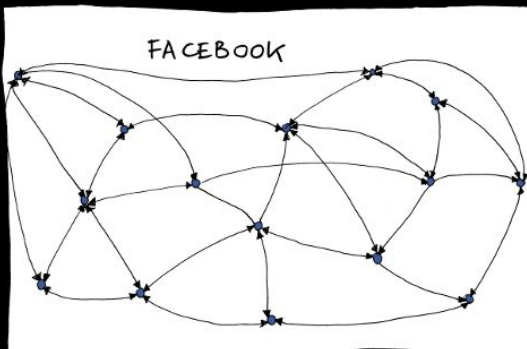
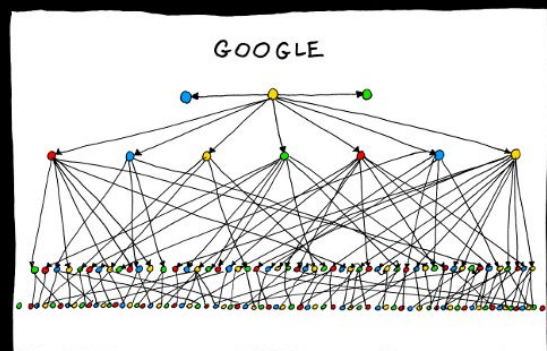
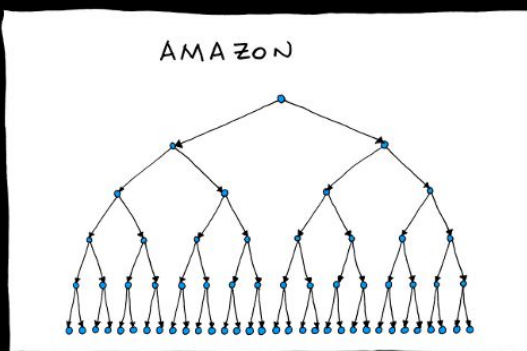
Operate and
Evolve:
Accelerate



Conway's Law

Organizations which design systems are constrained to produce designs which are copies of the communication structures of these organizations.

—Melvin E. Conway, How Do Committees Invent?

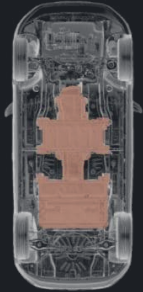


Vehicle Architectures

New Architecture required for competitiveness

Batteries of native electric vehicles require less compromise and allow for greater flexibility.

Non-native electric vehicle, battery-pack architecture example



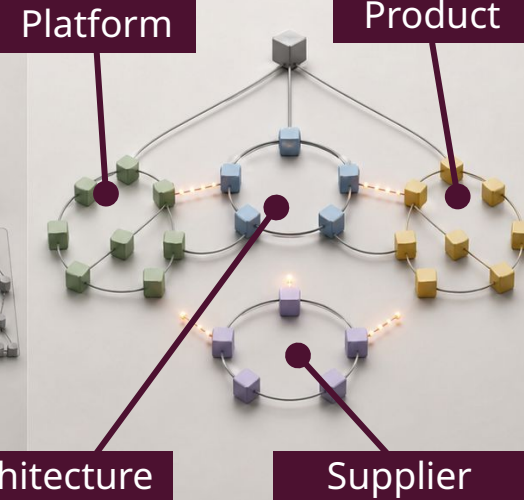
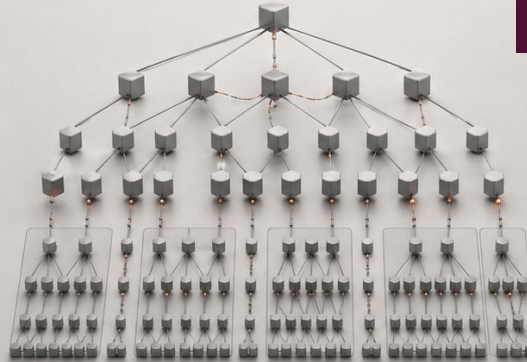
Native electric vehicle, battery-pack architecture example



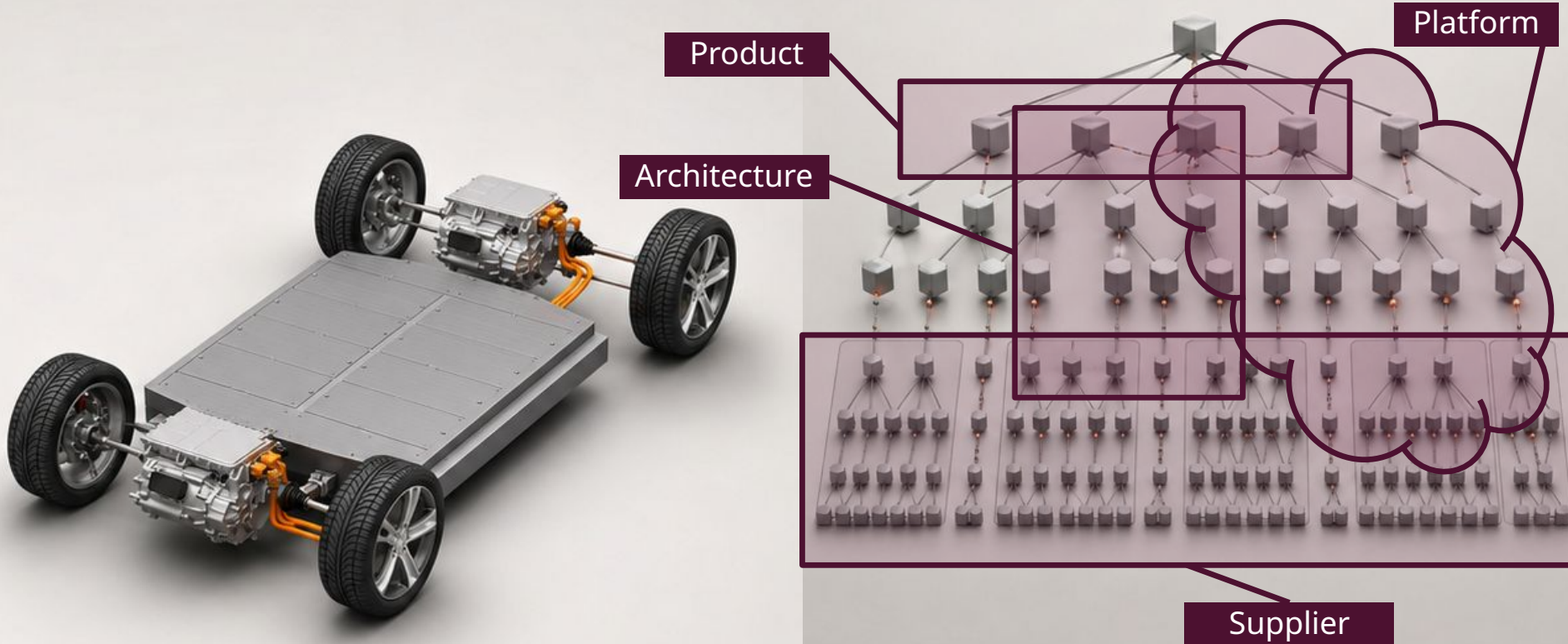
Benchmarked native electric vehicles offer **25% larger battery packs**, relative to vehicles' body-in-white volume

All **3 of 11** benchmarked electric vehicles to offer multiple range options are native electric vehicles

Source: A2Mac1; McKinsey Center for Future Mobility



Conway Drift in Automotive



How to Diagnose It

- Map team boundaries against architectural boundaries.
- Watch where coordination actually happens.

“We need everybody in the room” is a sign of Conway Drift.

- Trace your last reorg back to its trigger.

Many reorgs introduce Conway Drift, instead of removing it.

- Check whether the incentives still match the structure.

One Symptom, multiple causes

- **Conway Drift**
Architecture and organization gradually decouple after an initial alignment.
- **Frozen Structure**
The org never changes while the product does.
- **Reorganization Theater**
The org changes constantly but without architectural intent.

Demo

Anti-Pattern Finder

<https://productvelocity.org/anti-pattern-finder/>

Find the Anti-Pattern

That is Slowing You Down

Answer a few short questions and identify the pattern most likely causing delays, rework, or slow decisions in your product organization.

**Takes about
2 minutes**

Answer 11 short
questions

Instant result

Your primary anti-
pattern + 2 related
patterns

**No signup
required**

Clear next step to
improve this week

Develop **Physical Products**
at **Software Speed**



productvelocity.org/anti-pattern-finder

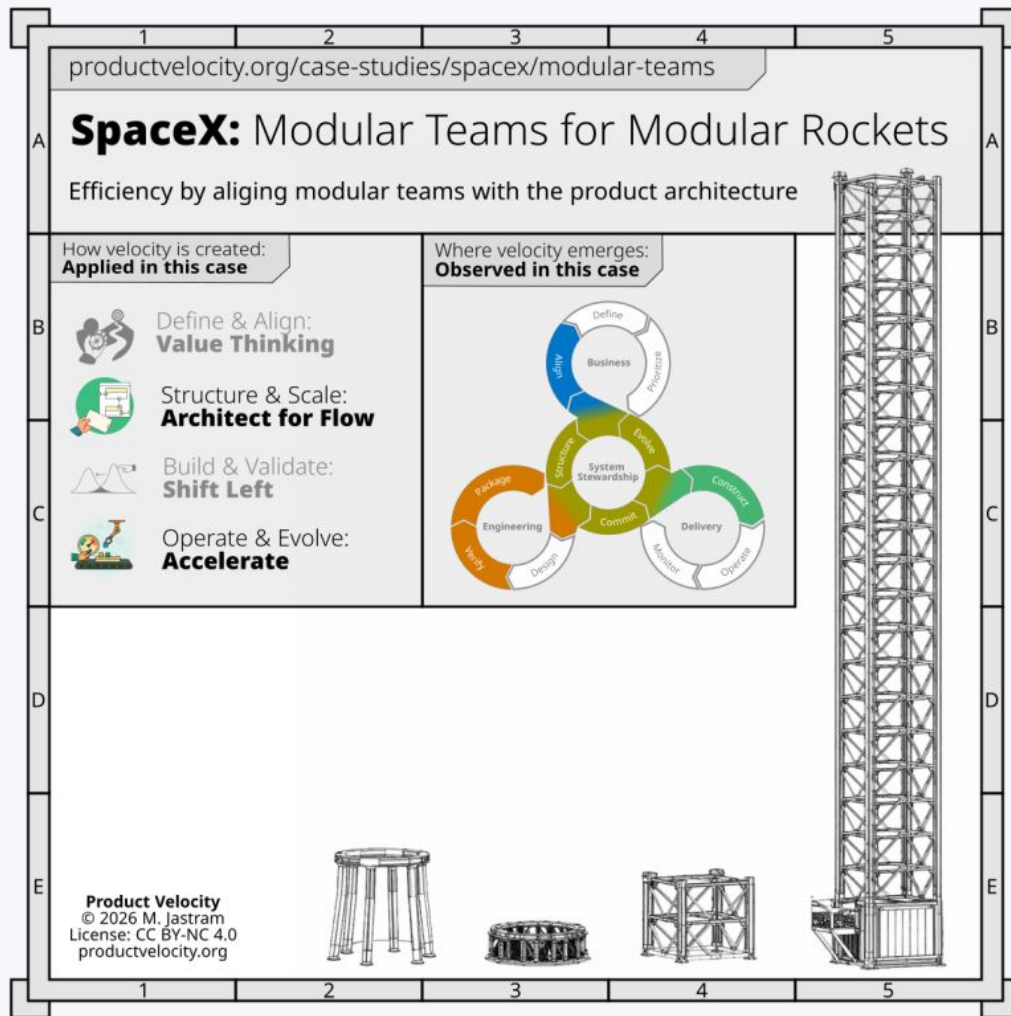
Three Possible Responses

1. Use the inverse Conway maneuver
2. Refactor the organization deliberately
3. Give stewardship the authority to hold the line

Use the Inverse Conway Maneuver

- Design the organization to match the target architecture.
- Build cross-functional teams around stable product modules.
- Minimize cross-team dependencies through clear interfaces.

<https://productvelocity.org/case-studies/spacex/modular-teams/>



Refactor the Organization Deliberately

- Reorganize only when coordination costs exceed transition costs.
- Define the target architecture before moving teams.
- Keep domain knowledge with the components and fund knowledge transfer.

<https://www.linkedin.com/pulse/conways-law-digital-transformation-organizational-andre-oxqwe/>

ING's Agile Transformation

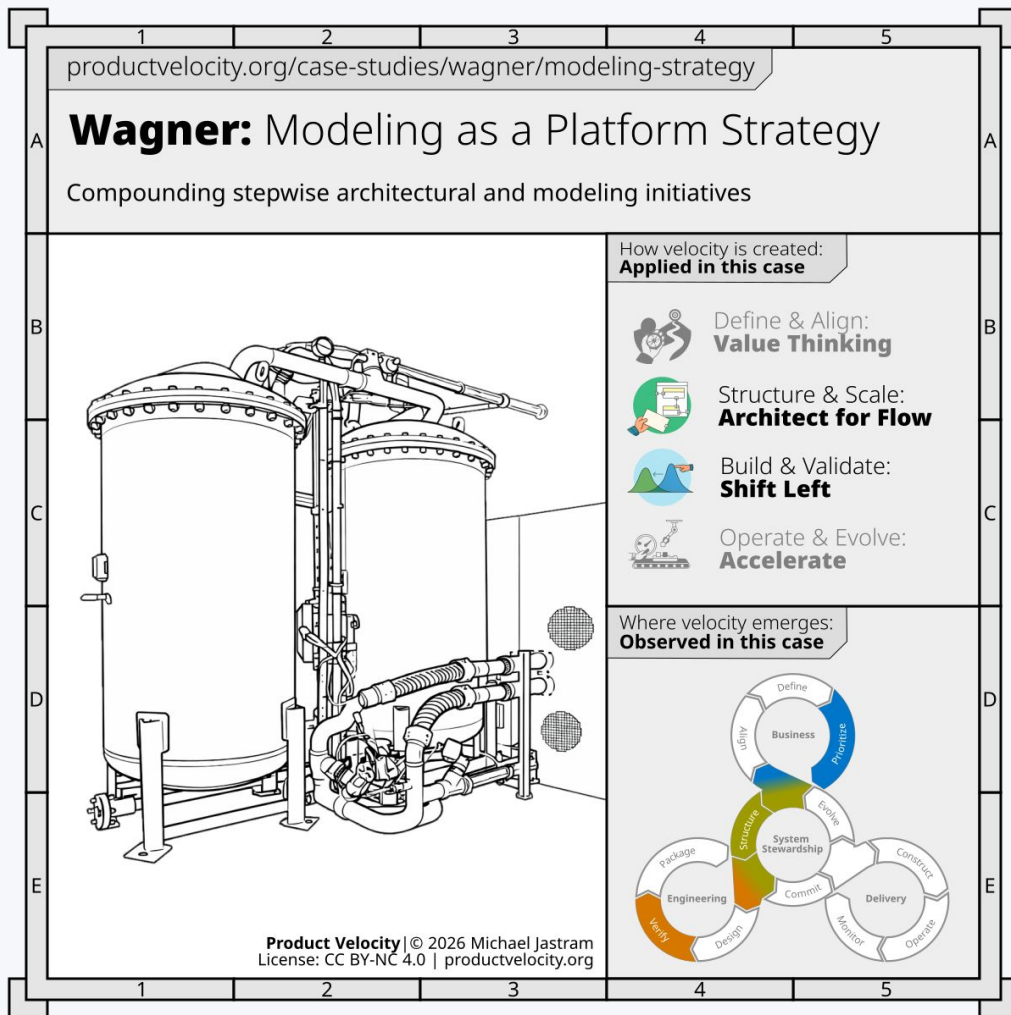
- Reorganized around **customer journeys** instead of functional departments.
- Defined the **target operating model** before changing the organization.
- Formed stable, cross-functional squads with **end-to-end ownership**.
- Reduced coordination overhead by aligning teams with **value streams**.
- Treated organizational redesign as a **strategic architectural decision**.

Takeaway: Refactor the organization only toward a clearly defined target state.

Give Stewardship the Authority to Hold the Line

- Give system stewardship authority, not just responsibility.
- Continuously align architecture with organizational structure.
- Use metrics and escalation paths to resolve structural conflicts early.

<https://productvelocity.org/case-studies/wagner/modeling-strategy/>

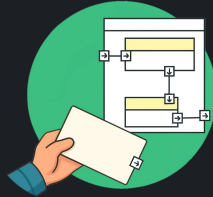


4 Prinzipien

Define & Align:
Value Thinking



Design & Build:
Architect for Flow



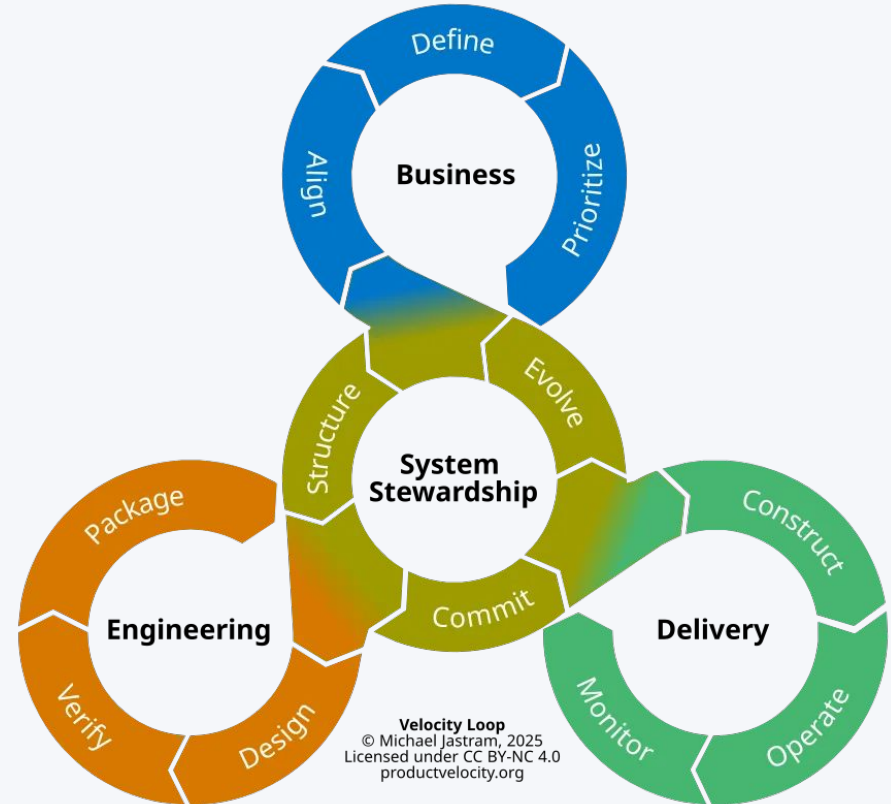
Integrate & Validate:
Shift Left



Operate and Evolve:
Accelerate



Velocity Loop



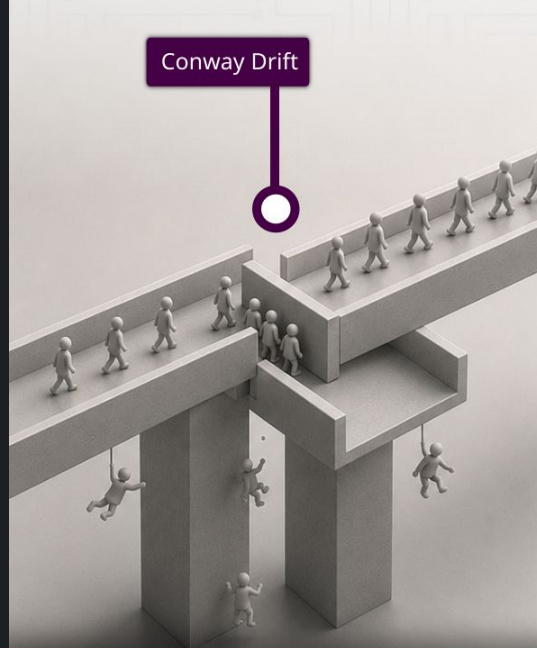
Diskussion & Fragen

Fragen über Chat stellen

Open to Work

Kostenloses Erstgespräch buchen

Your Reorg Is Probably Creating Conway Drift



Conway Drift



Inverse Conway Maneuver

"We need everybody in the room" is already a warning sign.