From Chaos to Clarity: Building Value Stream Landscapes to Steer Enterprise Performance

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Agile Point of View

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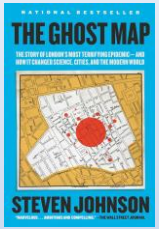
Mercedes-Benz

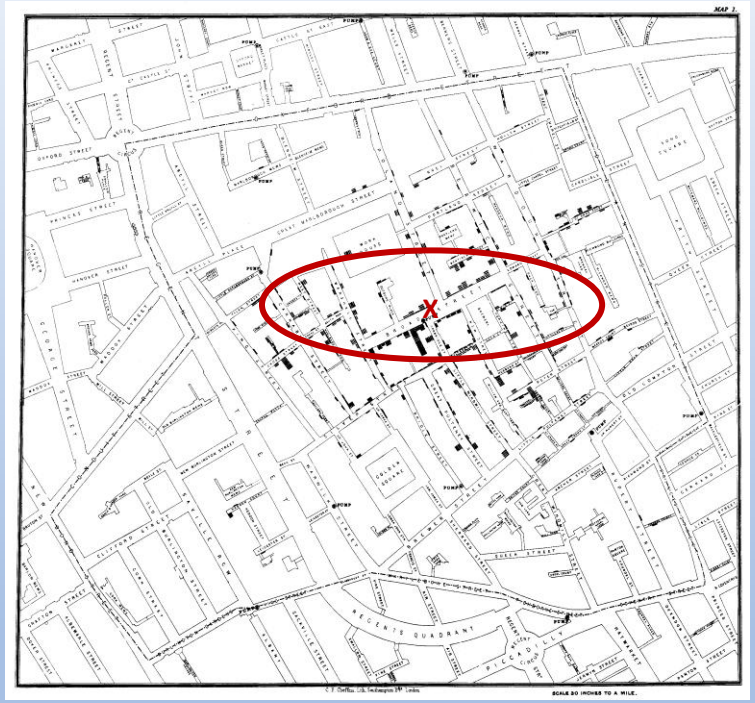
Why It Takes the Right Model to See



John Snow and the Cholera Map

- London, 1854: Cholera outbreak in Soho.
- Dominant belief: “bad air” (miasma theory)
- Snow mapped deaths → cluster around one water pump
- Same data. Different model.
- Pump handle removed. Outbreak stopped.

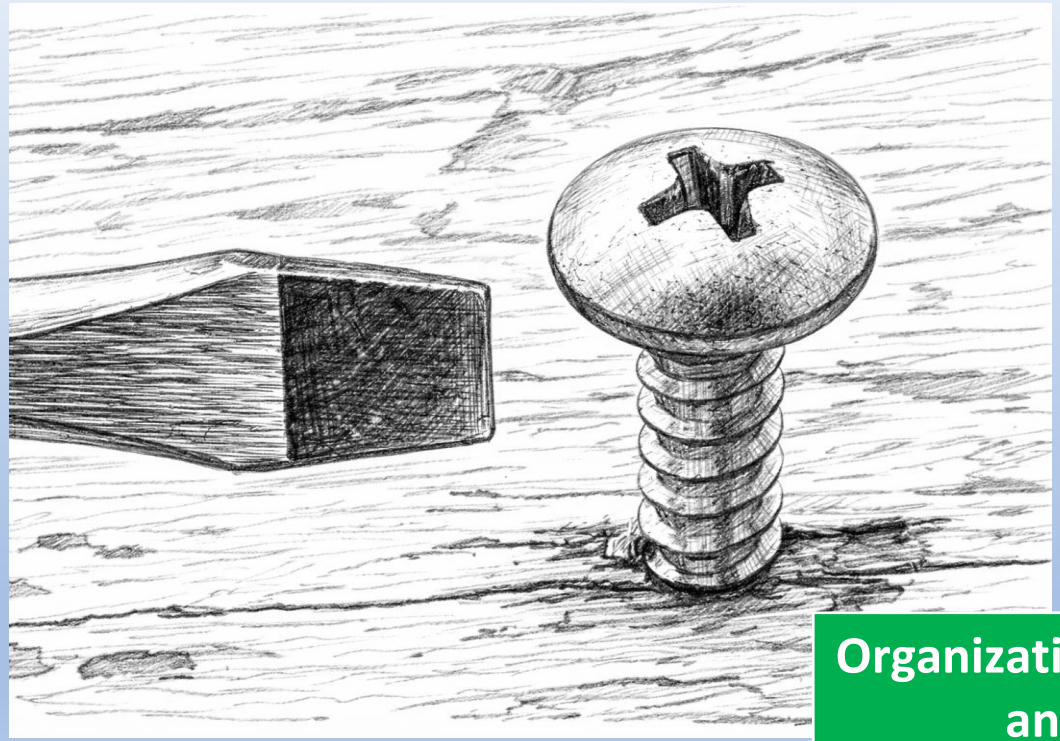
The breakthrough didn’t come from more data.
It came from a better model.



Original map made by John Snow in 1854

Seeing enables understanding.
Understanding enables steering.

Model-System Fit



Most organizations already have methods, dashboards, and data.

But if the model doesn’t match the system… even good tools produce poor results.

The real challenge is model-system fit.

Organizations need the right models to see and steer complex systems.

Different decisions require different views of the same system.

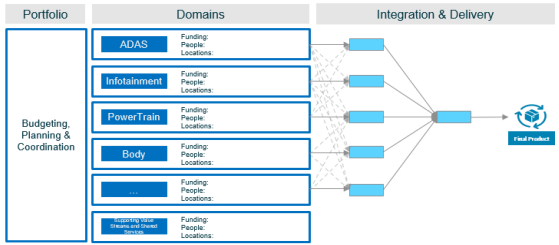
Different Landscapes to Steer Different Decisions

Structure

Enterprise Level Landscape

Enables enterprise structure and funding decisions.

- *Clarifies how value creation is structurally organized and economically governed.*
- *Reveals structural misalignments between governance & value creation.*



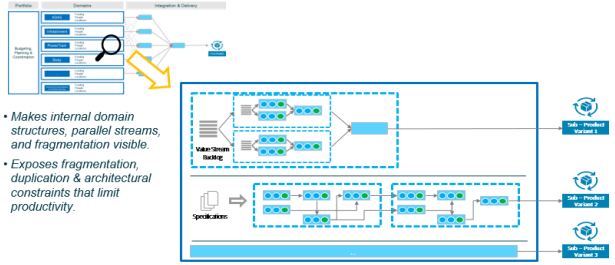
Decide how value creation is organized, funded and governed.

Design

Domain Value Stream Landscape

Enables simplification & modularization decisions.

- *Makes internal domain structures, parallel streams, and fragmentation visible.*
- *Exposes fragmentation, duplication & architectural constraints that limit productivity.*



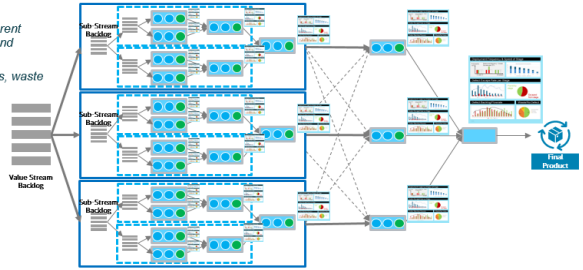
Design domains for flow, autonomy, and reuse.

Measure

Performance & Observability Landscape

Enables prioritized performance improvement decisions.

- *Makes flow on different levels observable and measurable.*
- *Reveals bottlenecks, waste & quality issues.*



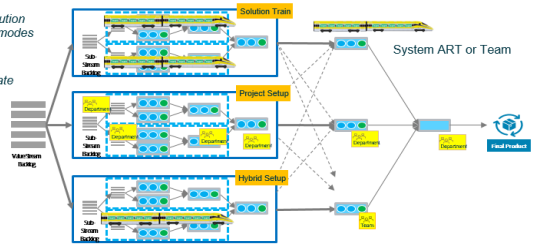
Understand current performance - see where flow breaks and act.

Evolve

Transformation Landscape

Enables focus & prioritization of structural change.

- *Makes structural evolution and mixed operating modes visible*
- *Exposes structural asymmetries that create friction during change*



Decide what to change - and in what sequence.

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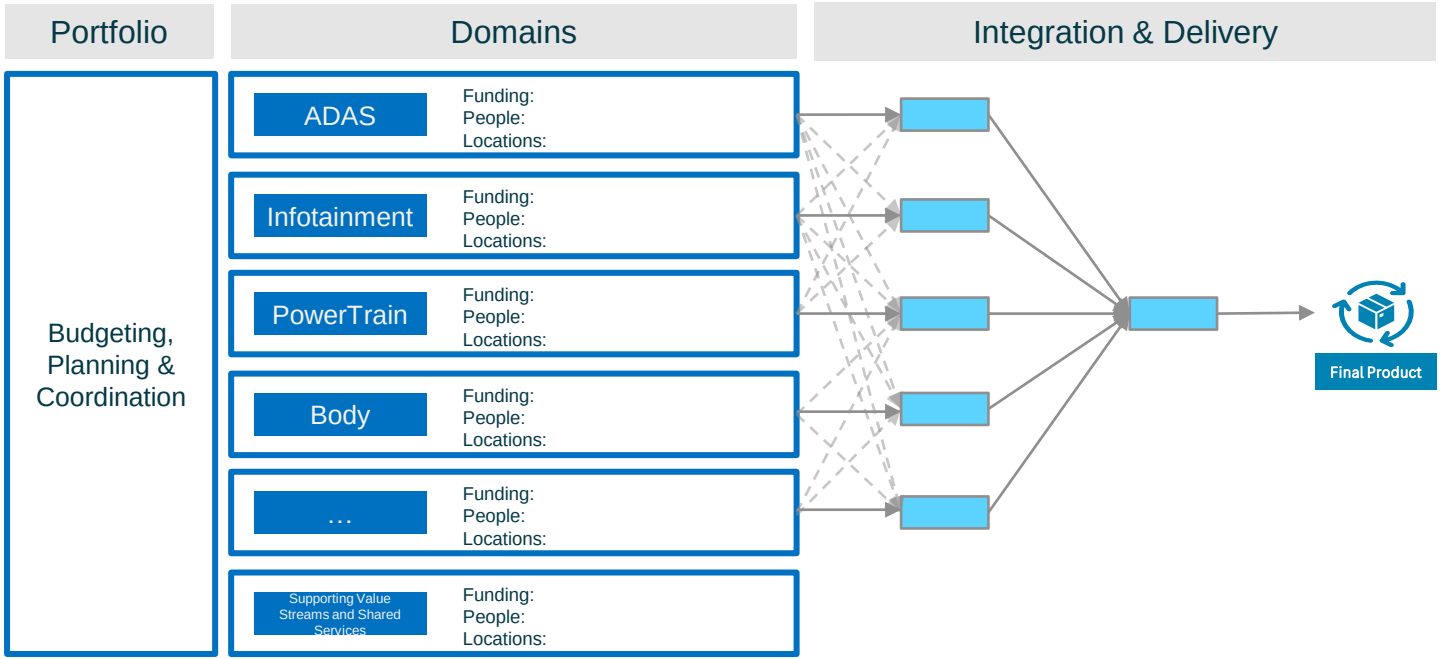

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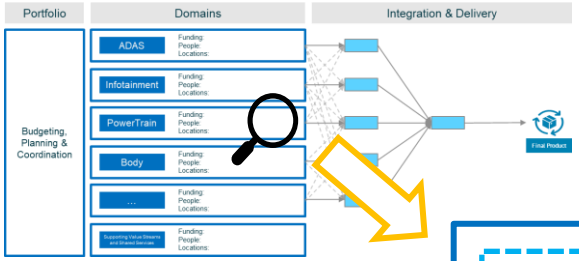

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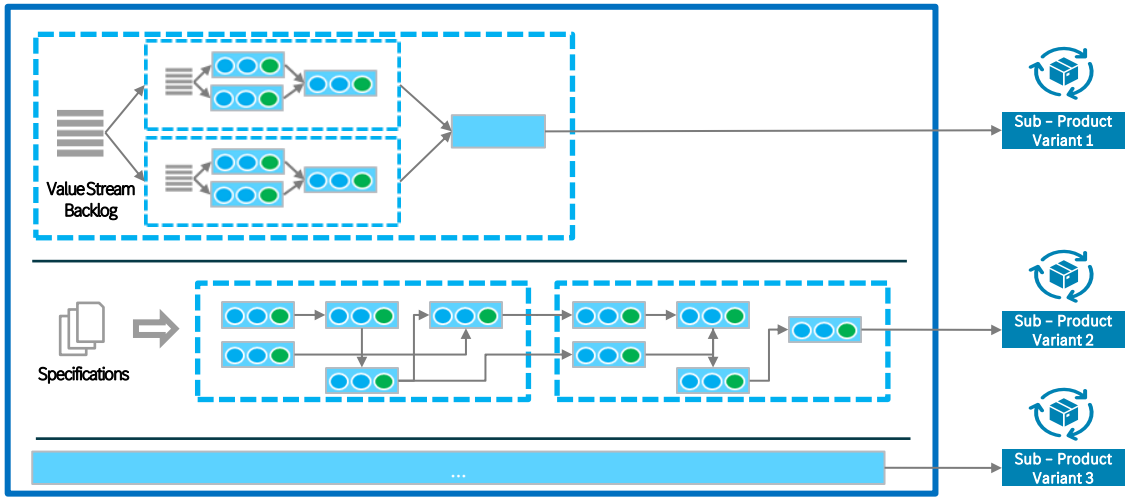

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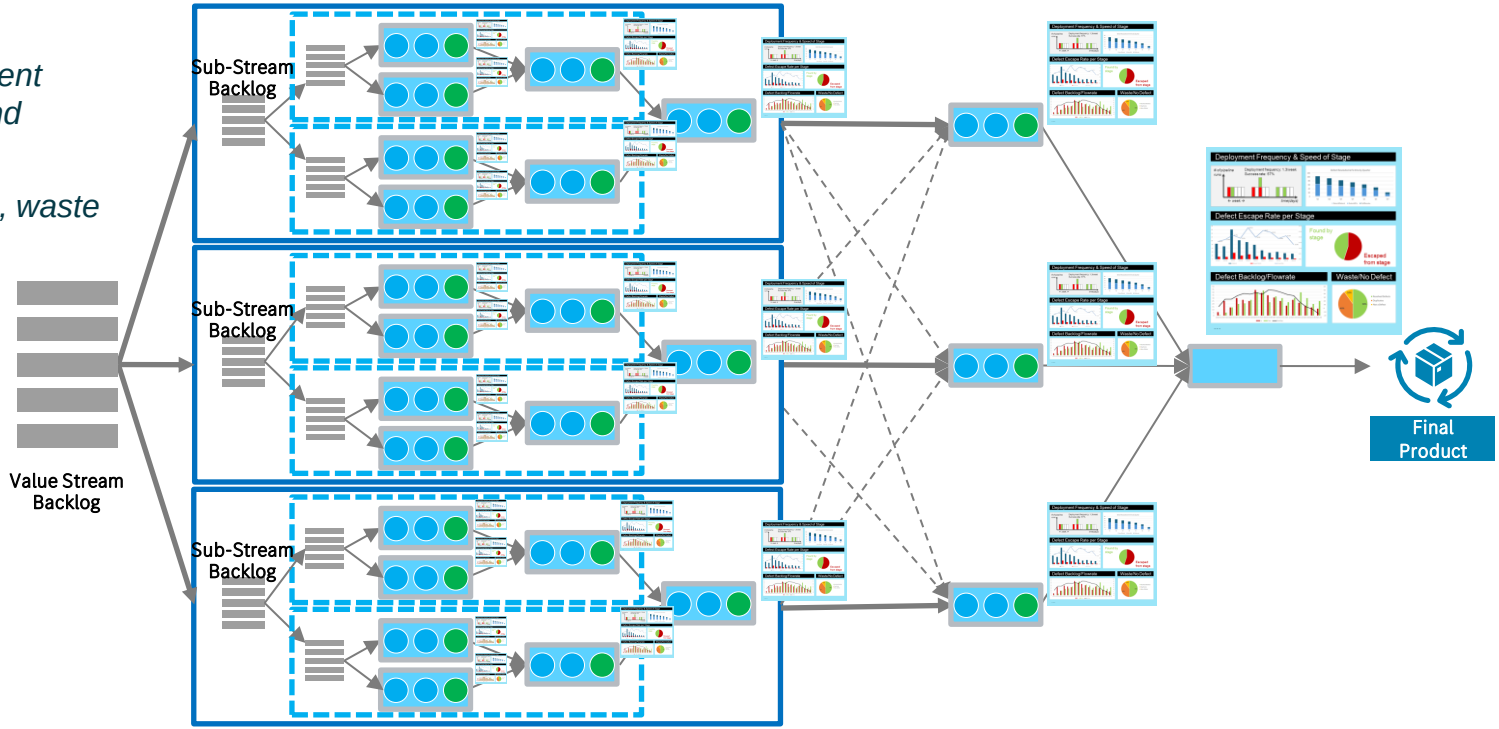

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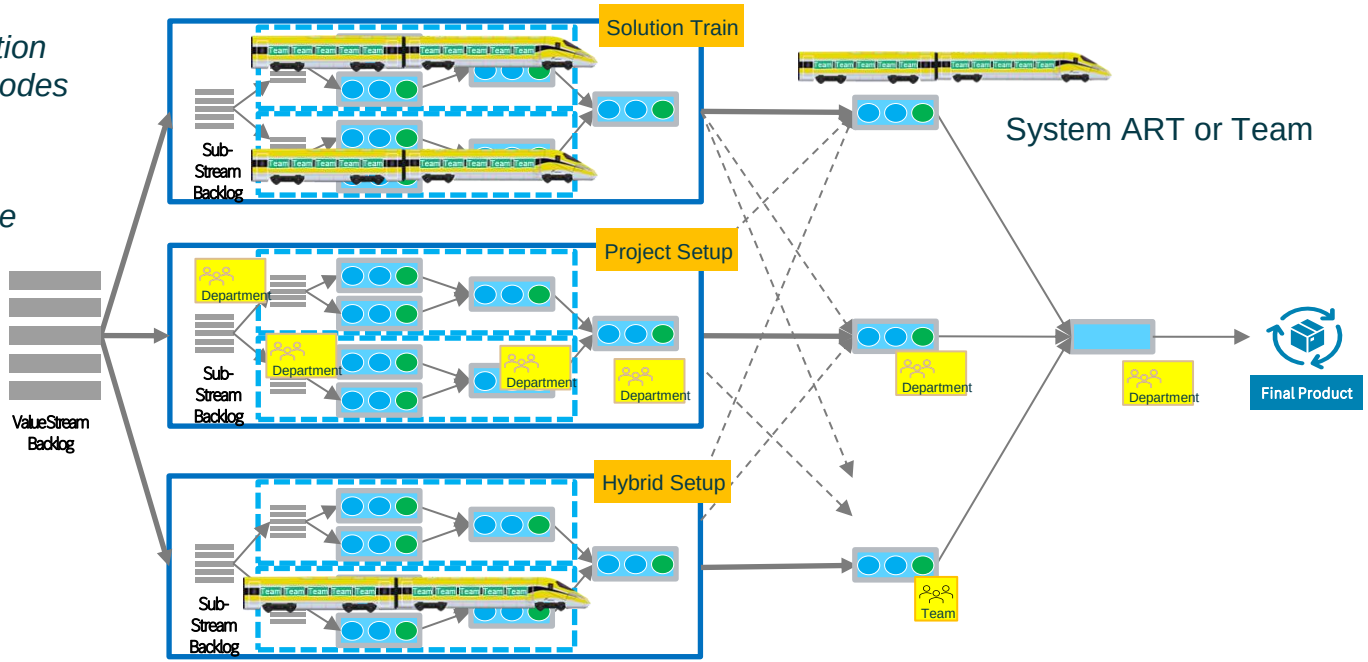


Decide what to change - and in what sequence.

€132.2 billion	€5.8 billion	164,120
Revenue	EBIT	Employees

Mercedes-Benz Operating System

Increasing **complexity**,
and **faster release cycles** ...

...changes how cyber-physical products must be built

and therefore, how we must organize

Why did we need a new structural model?

1. Software evolves fast - hardware imposes system constraints

Hardware is stable, but every software release can silently hit physical limits:
heat management, ECU/CPU capacity, storage, timing, sensors & actuators, ...

2. Functions span multiple domains

End-to-end features cut across domain boundaries. No single team owns full delivery.

3. Coordination overhead explodes

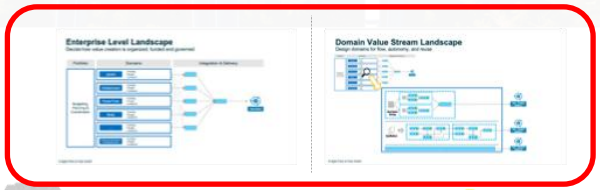
Cross-domain dependencies create internal customer–supplier dynamics, conflicting priorities, and late integration.

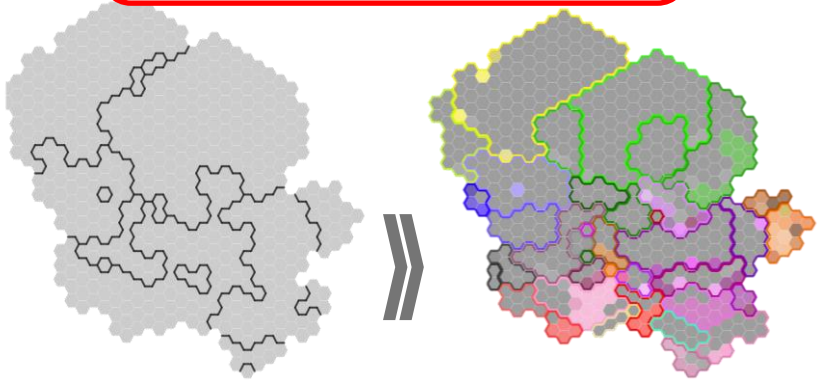
4. Can't steer end-to-end performance

Problems surface at final integration when they are most expensive and slowest to fix.

We needed a model that makes physical and organizational constraints visible early - so we can design, measure, and steer the full system.

Transformation Steering via Domain Model in MB.OS





Domains

Value Streams

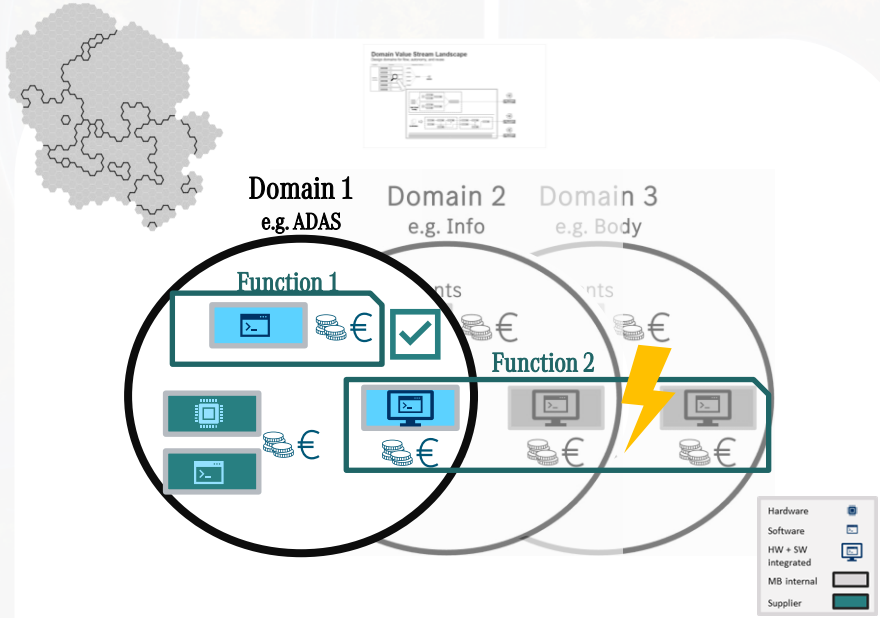
MB.OS product, defined by sum of its part products

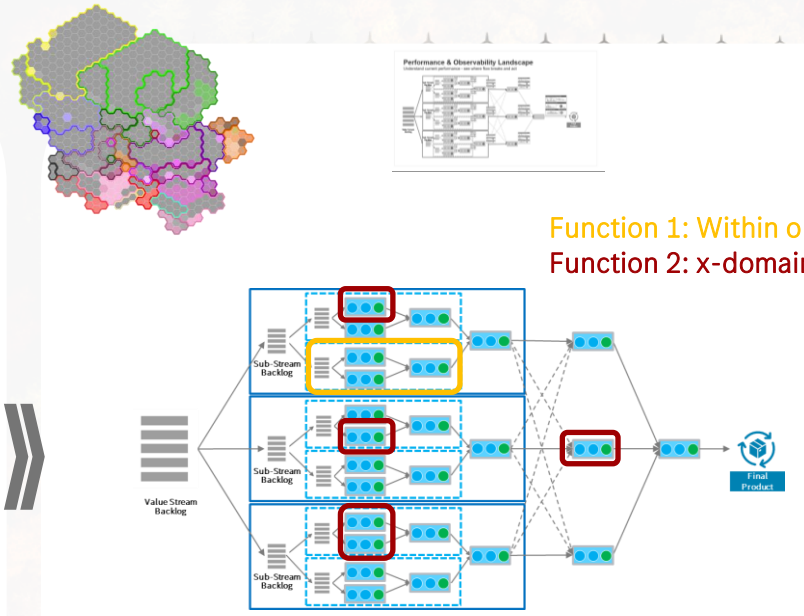
The color-bordered Domains define our Value Stream organization

A Value Stream contains classical organized development (grey items) and can contain ARTs (colored items)

The Assembly Line Model enables process-agnostic modeling of Value Streams and therefore supports steering hybrid setups → Transformation Landscape

Domains Organize Components - Value Streams Deliver Functions





- Domain (“delivery organization”) focus is component cluster
- Budgeting components, not functions
- Delivery of functions works well for functions realized in components of single domain (see: ”Function 1”)
- Leads to internal “Customer – Supplier” relation for cross-domain functions (see: “Function 2”)

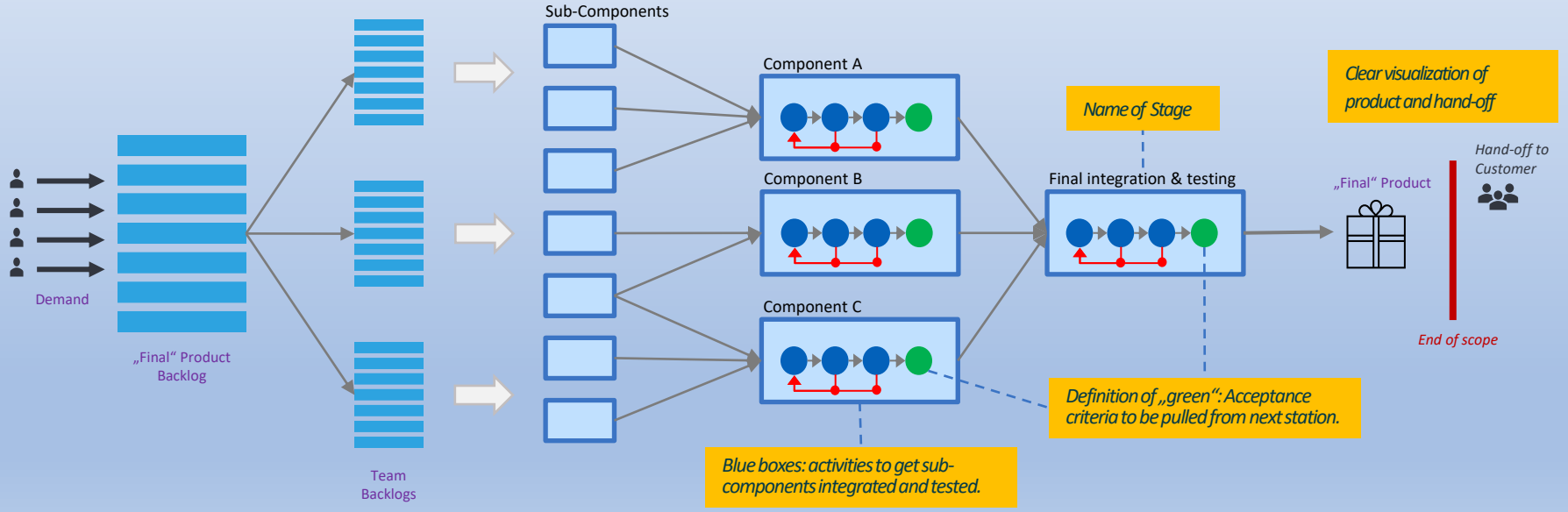
- Value Stream (“delivery organization”) focus on E2E functions
- Budgeting based on functions
- Leads to many teams touching the same components
- Strong architecture & deployment governance needed

Assembly Line Model

The structural model behind Value Streams and Landscapes

Backlogs cascade to enable aligned execution.

Product Convergence - the integration and validation of product increments.



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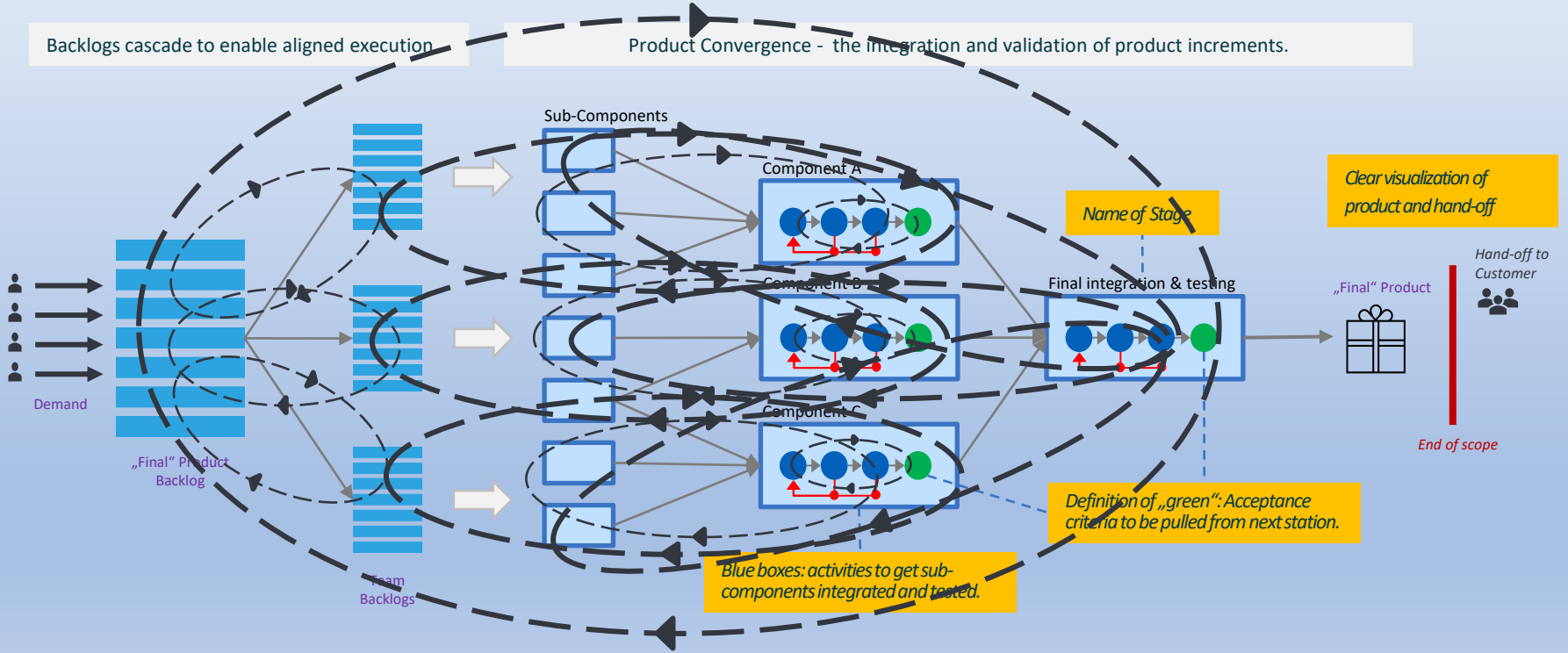
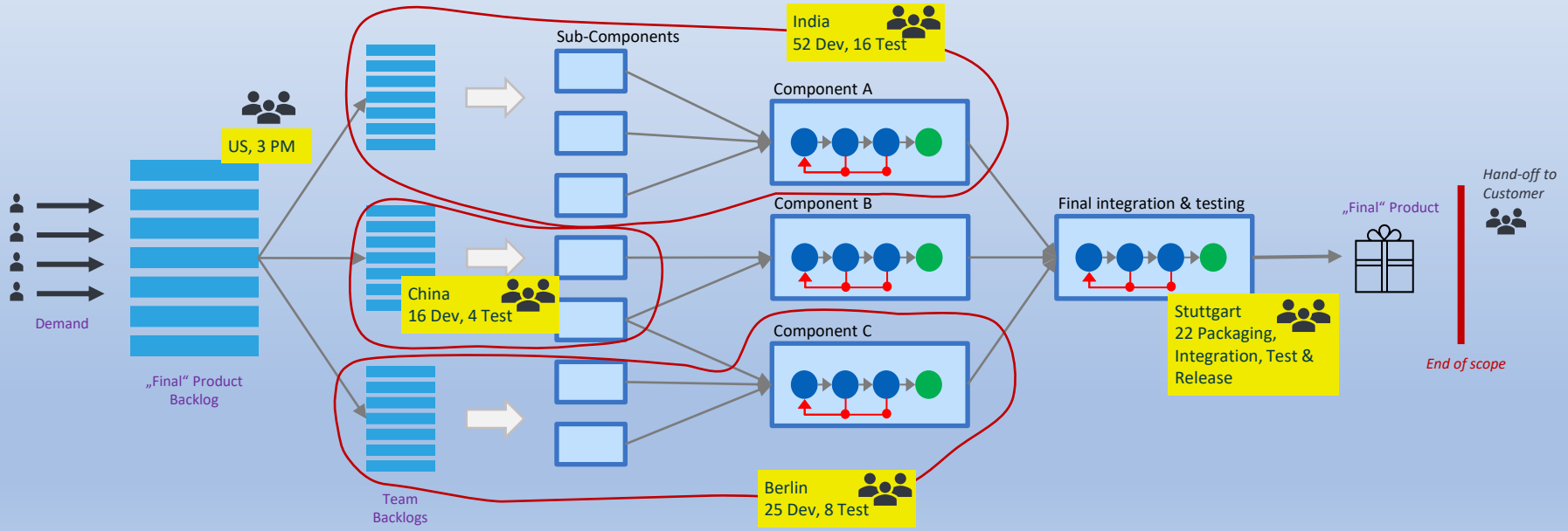


Assembly Line Model

Adding people to enable Organize Around Value discussions

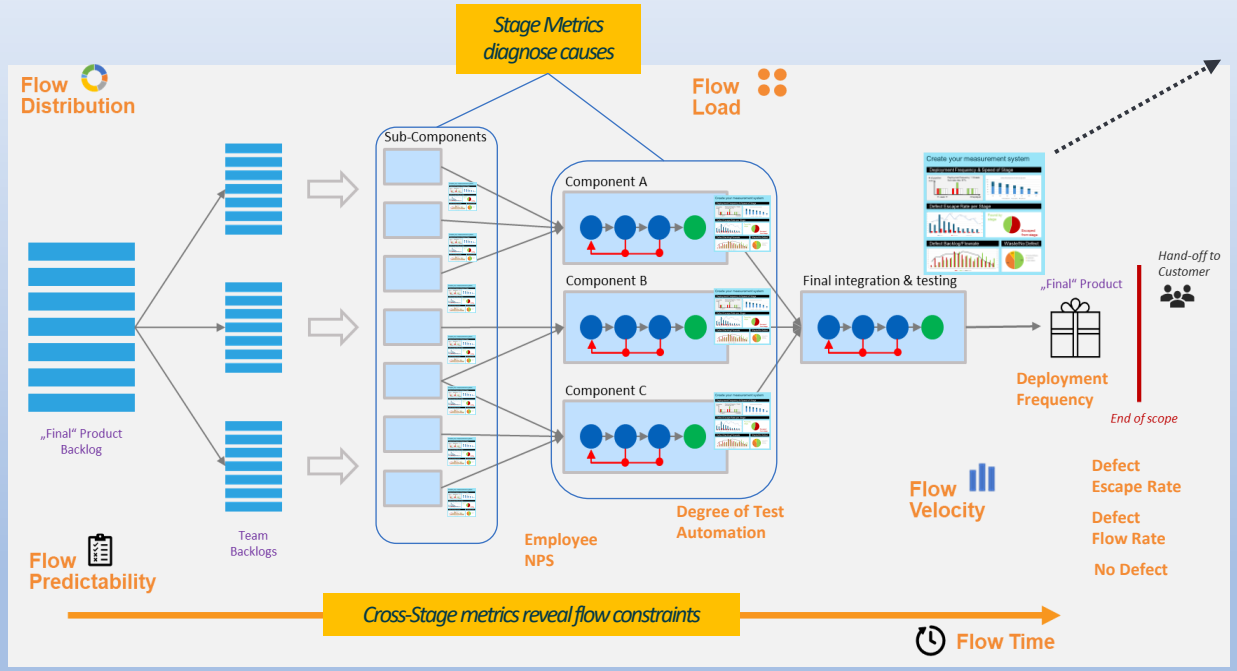
Backlogs cascade to enable aligned execution.

Product Convergence - the integration and validation of product increments.



Assembly Line Model

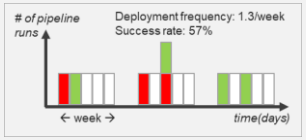
The Model Guides What to Measure - Where - and Why



System Level KPIs (Health) enable steering

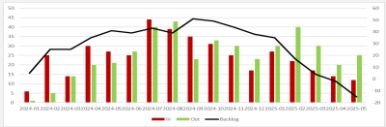
Measurement system

Deployment Frequency & Speed of Stage

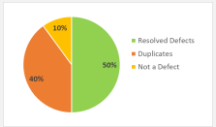


Defect Escape Rate per Stage

Defect Backlog/Flowrate



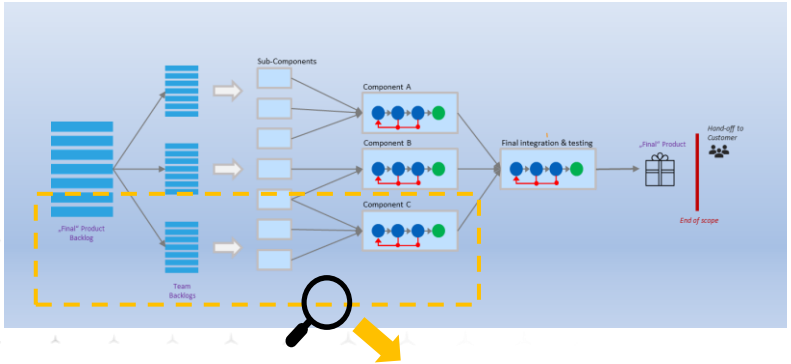
Waste/No Defect



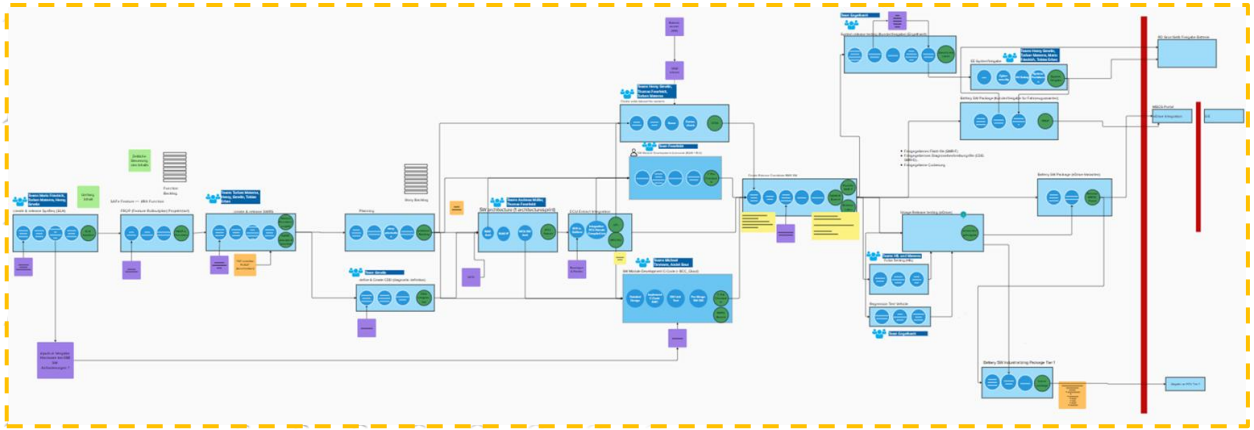
...

Metrics are not standalone signals. They are structurally placed observers.

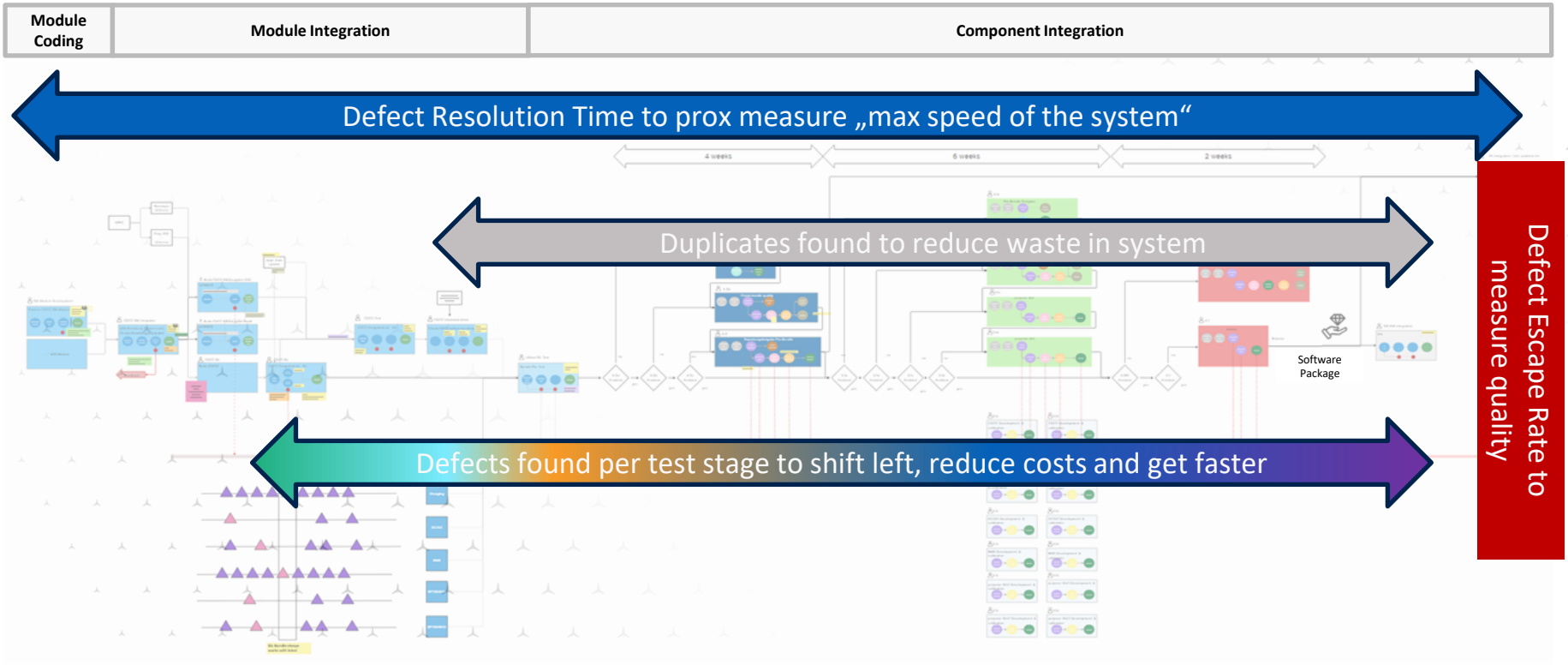
Reality often looks not as clean ...



Real-world example (MB)



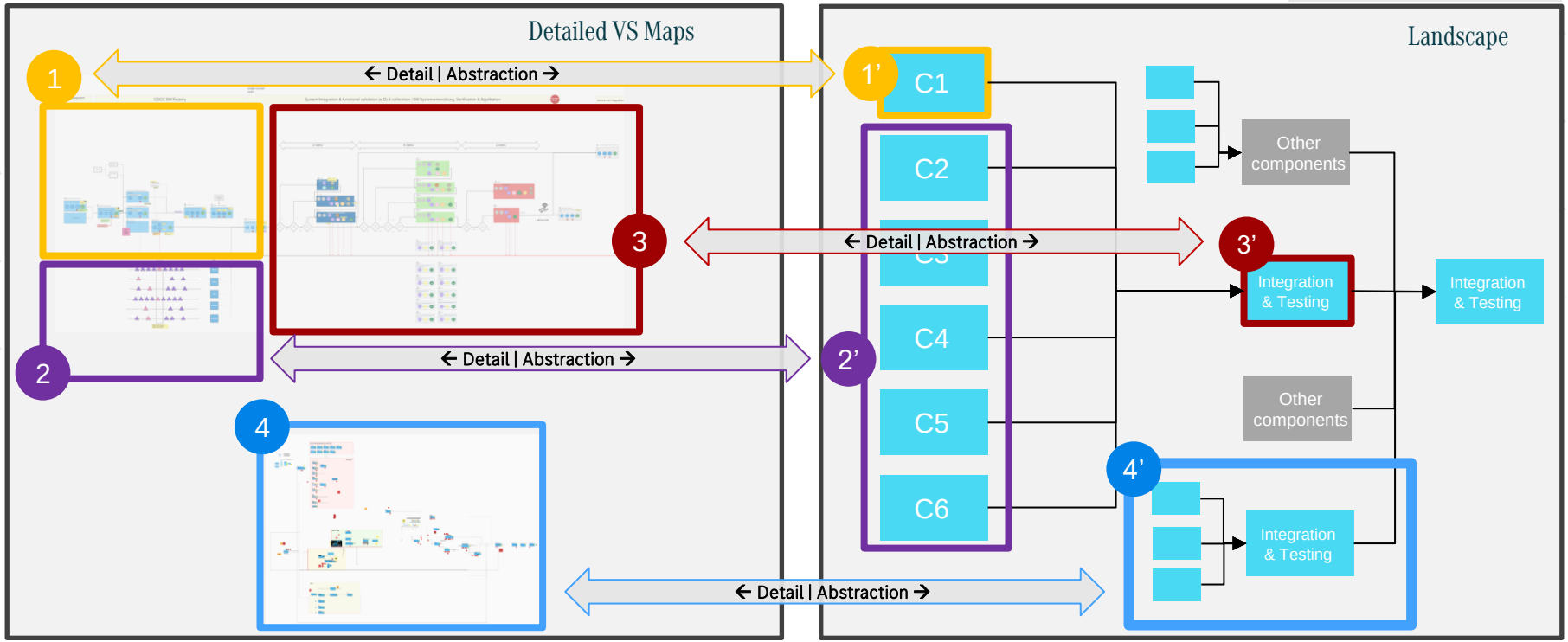
Assembly Line – Flow Performance Example



Assembly Line Model

Ability to build Landscapes

Example from MB.OS
Landscape Building



Value Stream Maps exist at different levels of detail.
The assembly-line model connects them into a zoomable Value Stream Landscape.

Managing large and complex Value Stream Landscapes

Top down: Value Stream Landscapes to document the big picture

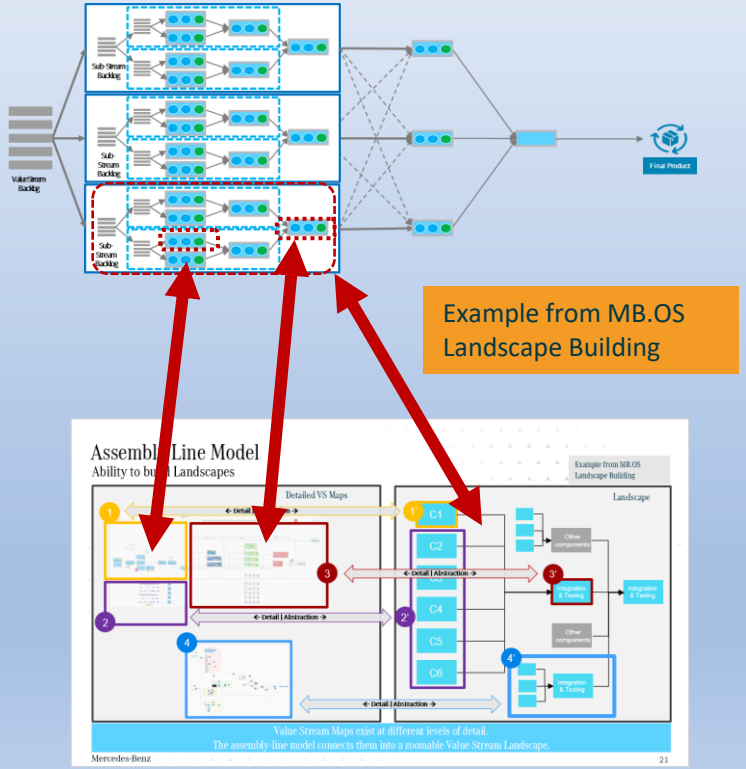
- To represent the entire organization a high-level value stream landscape provides the big picture about the existing value streams.
- Individual Value Streams can be detailed out by zooming into a certain part.

Bottom up: Value Stream maps to show the details

- As it takes too long to complete and detail out the Value Stream Landscape, organizations complement the top-down effort by starting bottom-up Value Stream identification and mapping.

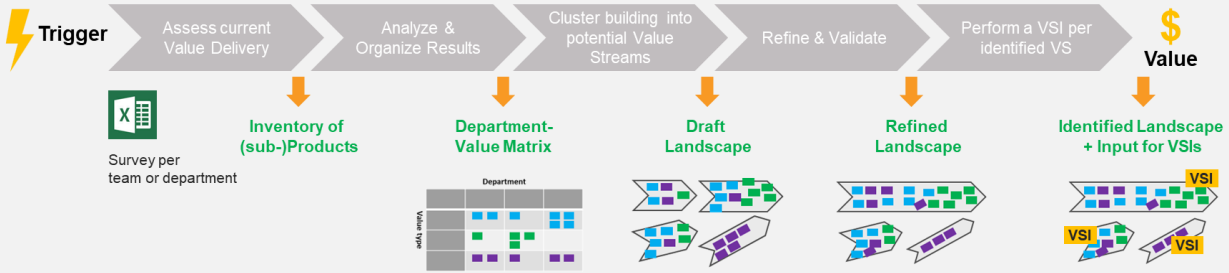
→ Meet in the middle

Over time the two approaches meet in the middle and create a holistic view of the organization.

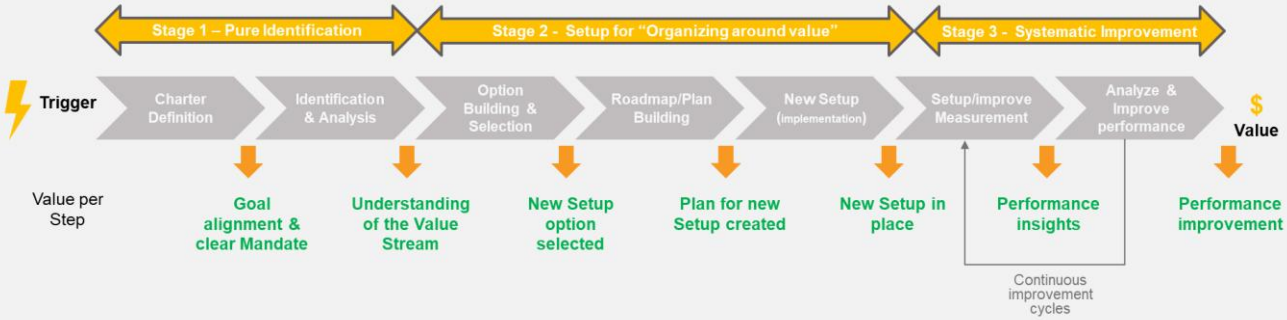


How to Build Assembly Lines & Landscapes

Guidance: Value Stream Landscape Discovery



Guidance: The Value Stream Lifecycle: From Identification to Optimization



Systematic Optimization of Value Streams

Value Stream Identification & Lifecycle

Value Stream Performance Parameters

OKRs define Intend

Why we measure
Align measurement to strategic intent.

What matters most
Identify the critical indicators of success in a VS

How the system performs
Describe how well the Value Stream operates

What we observe
Provide factual, atomic data from systems & tools.

plan vs actual

Value Stream Optimization Leads

System Design Decisions

model, analyze & improve the system

make performance & issues visible

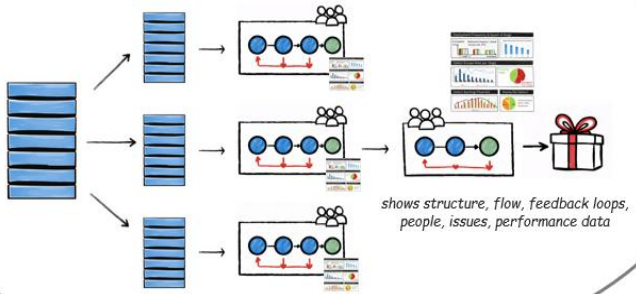
learn the system

capability building

Value Stream Thinking Experts

Value Streams & Landscapes

(Assembly Line Model)



shows structure, flow, feedback loops, people, issues, performance data

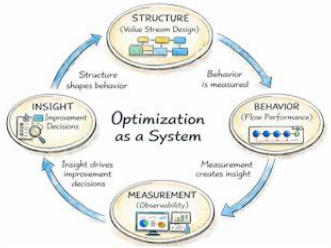
Shared mental model for alignment, "Learning to See the System", and decision making for optimization.

provides System observability

improvements to observability

Measurement System

Improve Observability

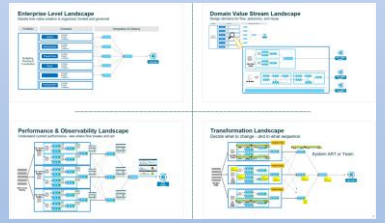


Recursiveness of the model to be applied on different levels

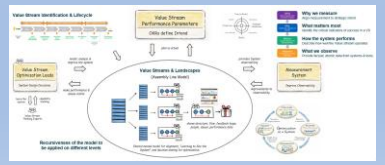
Great leaders design systems that enable people to succeed

(1) The model determines what we see.

(2) What we see plus what and where we measure shapes our understanding.



(3) Our understanding determines how we steer.



(4) Steering: designing value streams for flow and performance.

THANK YOU

Please rate this session!

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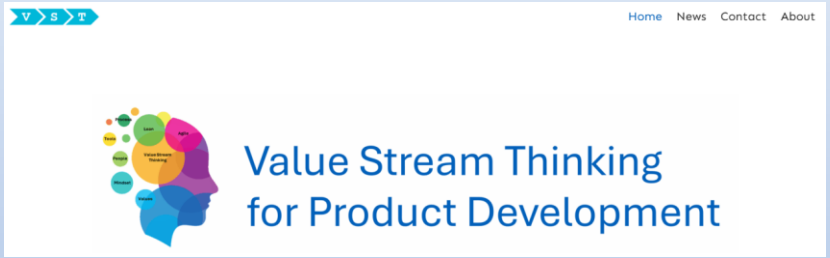
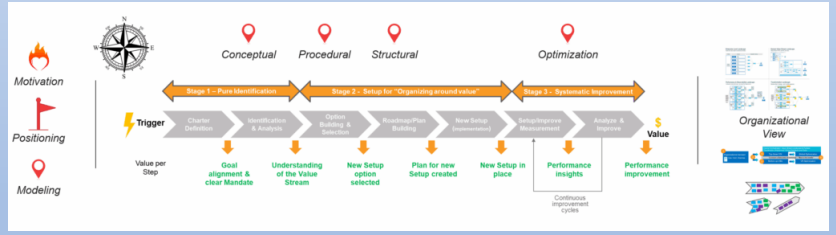
Further Information

value-stream-thinking.com





Upcoming

accenture ASG agile amped

Published soon.

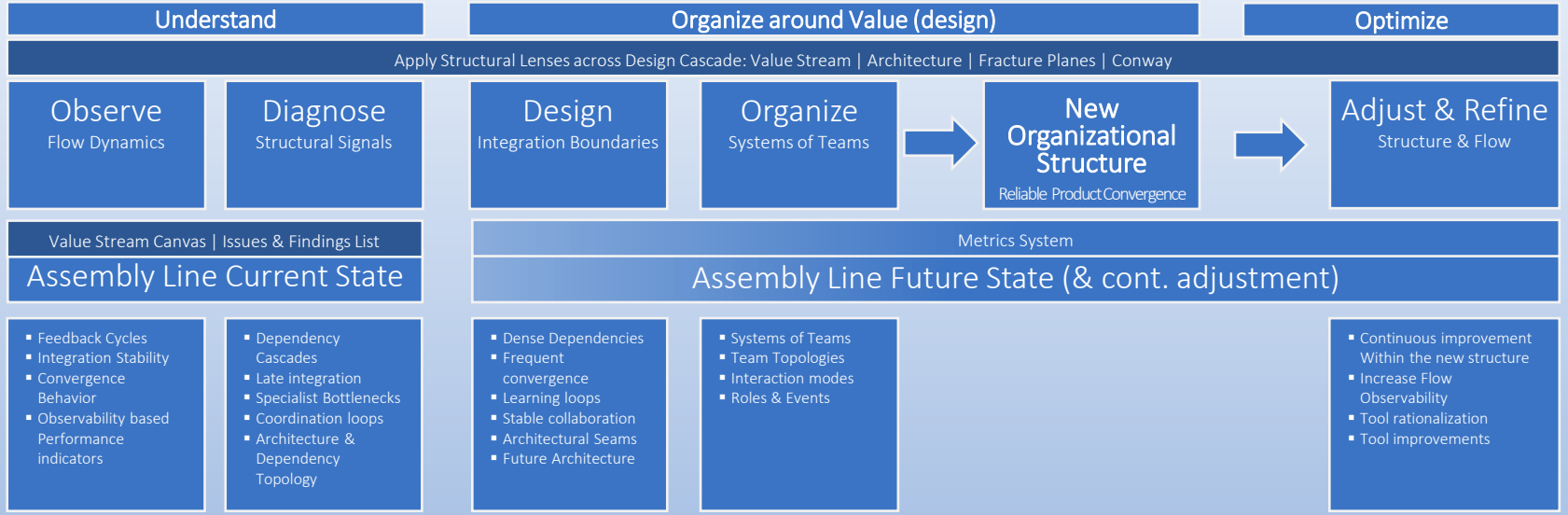
Webinar planned in April.

Backup

Designing Organizations Around Value

The Organizational Design Cascade

> Flow is not optimized first.
> It emerges from the right structure.



Value Stream Lens – Reveals flow dynamics and where work becomes unstable.
Architecture Lens – Reveals the dependency topology behind structural signals.
Fracture Plane Lens – Reveals natural segmentation points for integration boundaries.
Conway Lens – Reveals how communication structures shape systems of teams.

What do we optimize for?

Improve time to market by accelerating the flow of value - shortening lead times across the overall Value Stream and its Sub-Streams.

Increase productivity by improving end-to-end flow - eliminating waste, reducing hand-offs and rework, and automating repetitive work.

Increase employee satisfaction by strengthening intrinsic motivation - enabling autonomy, mastery, and purpose through clear goals, fast feedback, and reduced frustration.

Improve product quality by building quality in - detecting and preventing defects early, integrating feedback continuously, and fostering shared ownership of system integrity.

Assembly Line Model – System of Feedback Cycles