

Product Mindsets & Resilience

With Software Development

@cote – March 2022

To discuss, re: software development

(1) A “product mindset” is more resilient than a “project mindset.”

(2) Product teams, scaling the product approach

(3) If there's time: achieving what seems simple is never easy, that is, blockers & problems.

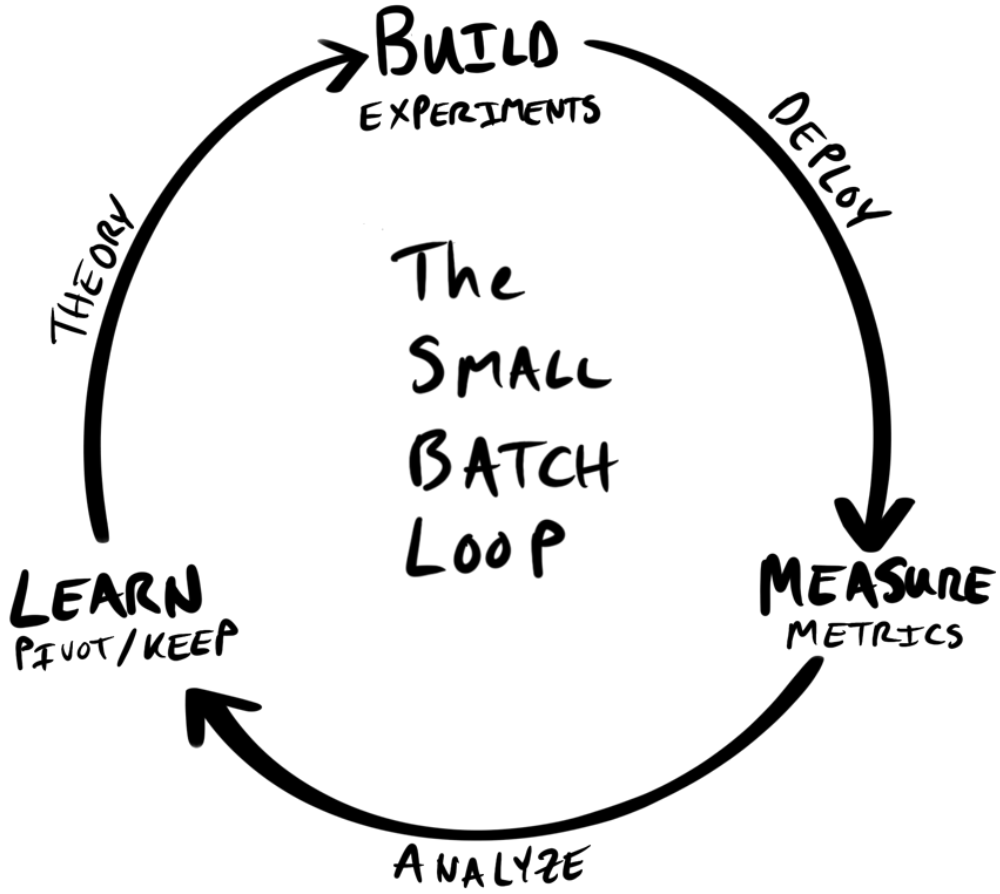


“As a result, we’ve seen spend with this customer more than triple to over \$300,000 annually [from \$100,000].”

Ted Decker, CEO, The Home Depot



A product mind-set meets the organization's goals by learning & adapting frequently



All descriptions of project vs product are characterizations, but mostly accurate

Project (“waterfall”)

- You know *what* you want
- Maximum up-front requirements
- Manage dependencies
- Allows for planning
- 6 to 12 month cycles

Product (“agile”)

- You know the *outcome* you want
- Learn requirements as you go
- Avoid dependencies
- Adapt planning
- 1 day, 1 week, 1 month cycles

A product organization shifts trust down

People Are

- Innovative
- Risk takers/learners
- People-centric

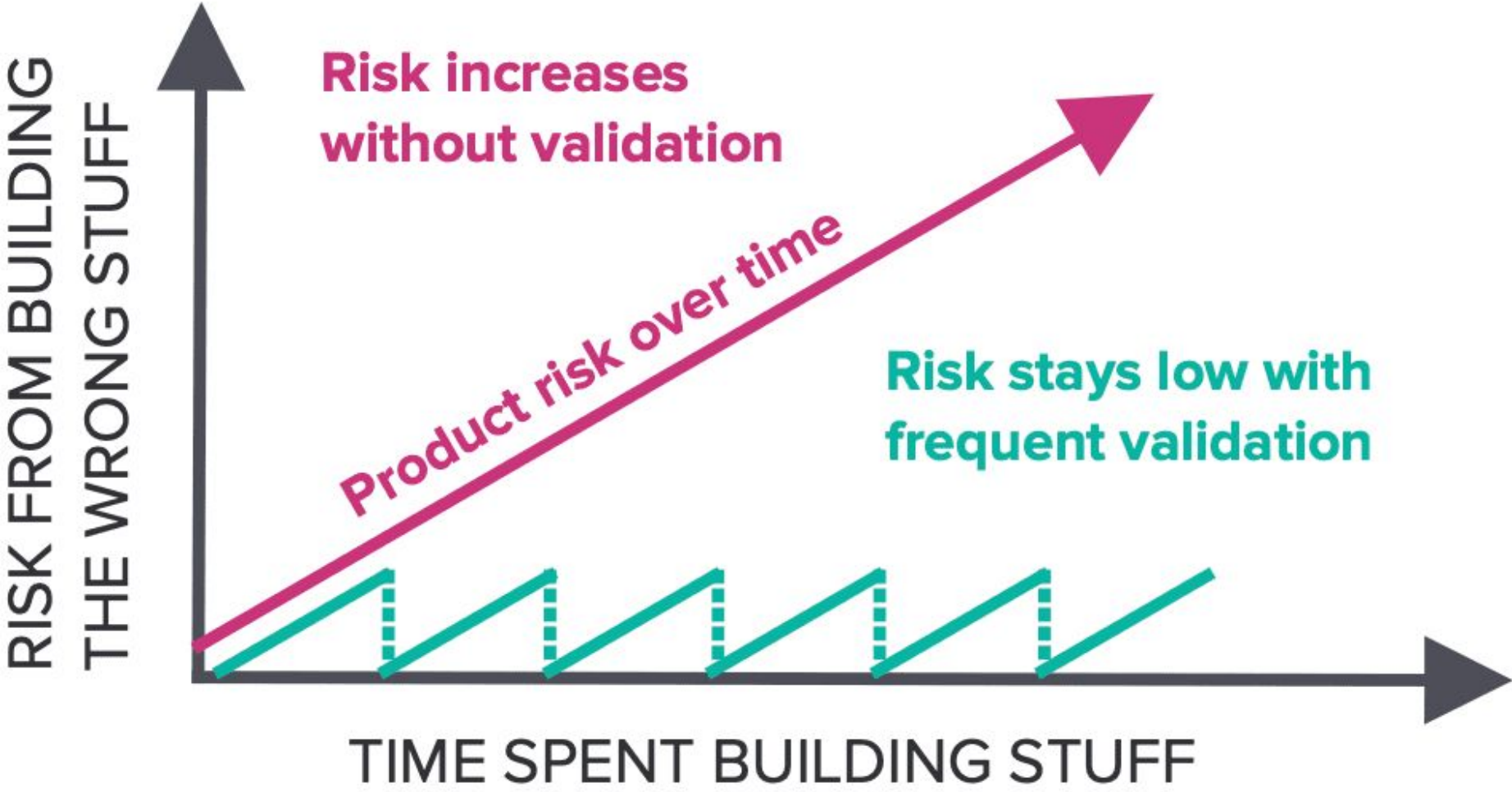
Leaders Empower

- Autonomy
- Trust
- Voice

Development learns the best problems to solve, how to solve them, and then keeps doing it



Address risk with frequent learning, adapting, and replanning



Scaling is the problem



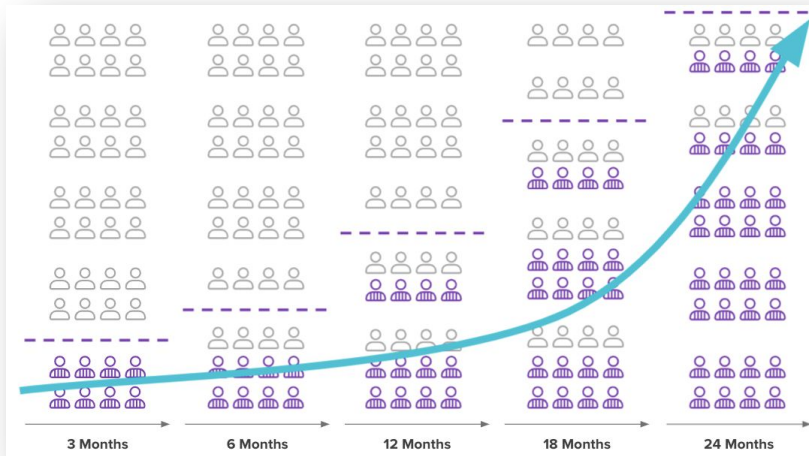
Baking a Cake at Home



International Pastry Corp.

Starting small, seeding & winning trust

Home Depot Timeline

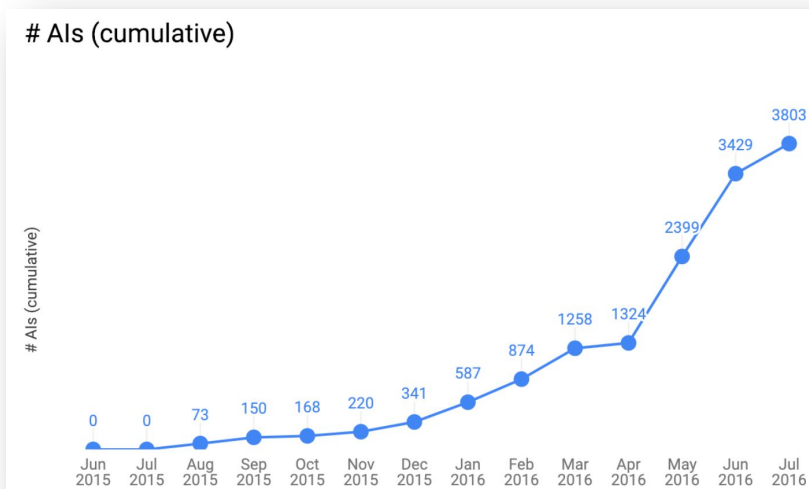


2015: Handful of apps, e.g., paint desk, tool rental

2016: ~130 apps in production

2018: “Every week, my product and design teams are in people’s homes or [at] customer job sites, where we are bringing in a lot of real-time insights from the customers.”

2021: one customer’s spend from \$100k to \$300k.



Sources: “From 0 to 1000 Apps: The First Year of Cloud Foundry at The Home Depot,” Anthony McCulley, The Home Depot, Aug 2016; “Cloud Native at The Home Depot, with Tony McCulley,” Pivotal Conversations #45; USAF presentations and write-ups; “Driving Business Agility Without Large-Scale Transformation Programs,” Venkatesh Arunachalam, Sep 2021; *The Business Bottleneck*, Coté.

All too common challenges & blockers

People, Culture, etc.

- Skills, hiring
- Reluctance to change
- Scaling new roles
- Org. structure
- “We already do agile.”
- Durability through people & org. change

Planning & Alignment

- Budgeting
- Misaligned executives
- IT is still in the basement
- Compliance
- Weak connection to business value

Technical Execution

- ITSM instead of Platforms
- Overwhelming legacy portfolio
- Dependencies between teams
- Local optimization, no CI/CD

If the US Army* can do it, so can you

* Also IRS, USAF, etc.

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SOFTWARE FACTORY
BY SOLDIERS, FOR SOLDIERS

PROOF OF CONCEPT PROJECT: ARMY SUPPLY SUPPORT ACTIVITY OPTIMIZATION

Problem Statement
Automate manual logistics processes to increase throughput velocity and optimize SSA performance

Supply Support Automation Process

Before: Orders Received (G-Army) → Print → Sort → Organize → Pick → Pack → Distribute

After: Orders Received (G-Army) → Organize → Print → Pick → Pack → Distribute → **~35% Less Time**

Analogous to an Amazon fulfillment center, the SSA Warehouse fulfills orders as quickly as possible. The fulfillment speed directly affects the readiness of equipment in operational units. Unlike an Amazon fulfillment center, the SSA Warehouses rely on manual processes. This pilot automated the sorting and organizing of orders from G-Army, resulting in **minimum of 35% time savings** in fulfillment processes.

▶ = Automated steps in the fulfillment process

RESULTS & LESSONS LEARNED**

- 65% Cost Savings**
Optimized cloud development processes to achieve savings with recurring cloud infrastructure costs
- 3,479 Soldier Hours Saved Per Day**
Across all Army SSAs during Order Fulfillment which allows for greater inventory velocity, enhanced lethality, and time back to units for other priorities
- Keys to Success**
Bottom-Up Adoption
Loosely-Scoped Requirements
Operationalization of Software
Direct Senior Leader involvement

TEAM
4 Soldiers & 2 Civilians
Learned agile software development, user-centered design and DevSecOps through 1:1 pairing with industry experts

99 Days Into the Field
To install and accredit a cloud-based platform and build, deploy, and continuously operate a cloud native app

7 Day Cycle Time
Soldier (end-user) feedback to capability delivery thru application production/build

"It's the software, it's the quick turn...that make[s] such a critical difference in our capability set"
—DEP. SECRETARY OF DEFENSE
KATHLEEN HICKS

Accomplished in a COVID-19 restricted environment

UNCLASSIFIED

"BY SOLDIERS, FOR SOLDIERS"

SRCCer: GETTING SOFTWARE INTO SOLDIERS' HANDS

The SRCCer Process

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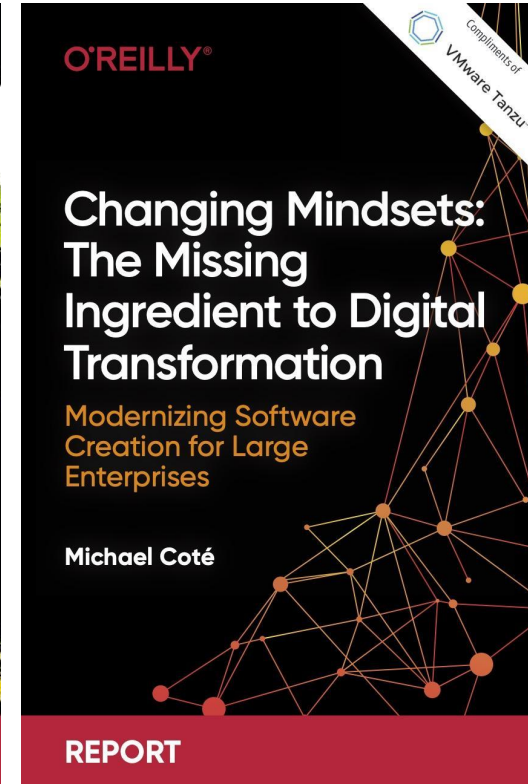
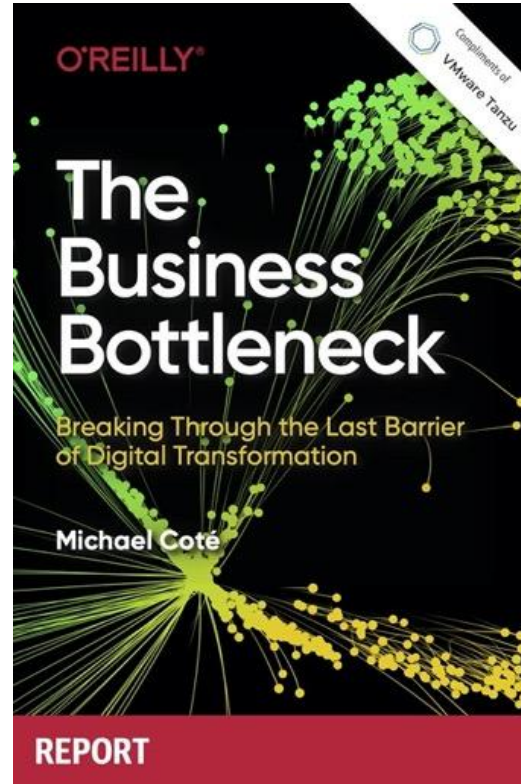
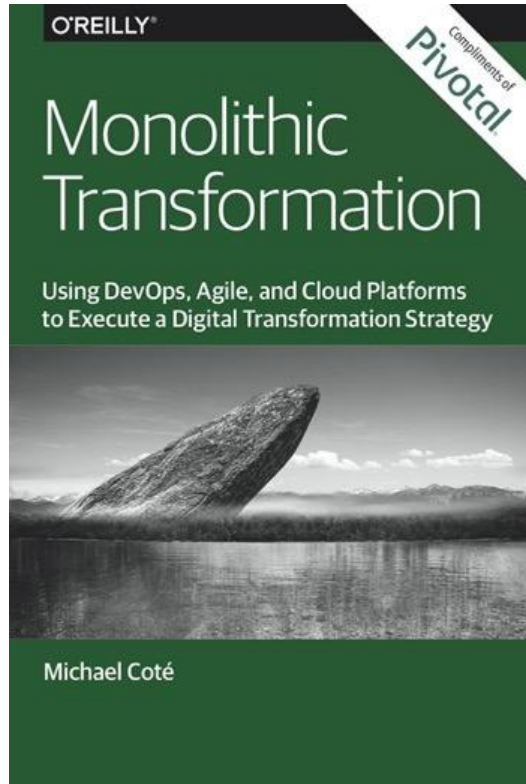
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      A[Dev / Acceptance  
Software Factory App] --> B[Security Checks]
      B --> C[Staging  
Functions Check]
      C --> D[Production  
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Product Team Responsibilities

Without SRCCer	With SRCCer
DISA Security Controls (100%)	DISA Security Controls (26%)
OS Hardening/Patching	
Services (Database/Storage)	
Build Process	
Authentication/Authorization	
Network Traffic Policies	
Access Policies	
Routing/Load Balancing	
Infrastructure/Hardware	
Time to Soldiers: 2 Years	Time to Soldiers: 3-6 Months

Coté

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Additional Material

Scaling



Skills

Become a learning organisation broadening knowledge and know-how across all teams.



Execution

Boost productivity with automation and remove friction as the scope of work widens.



Teams

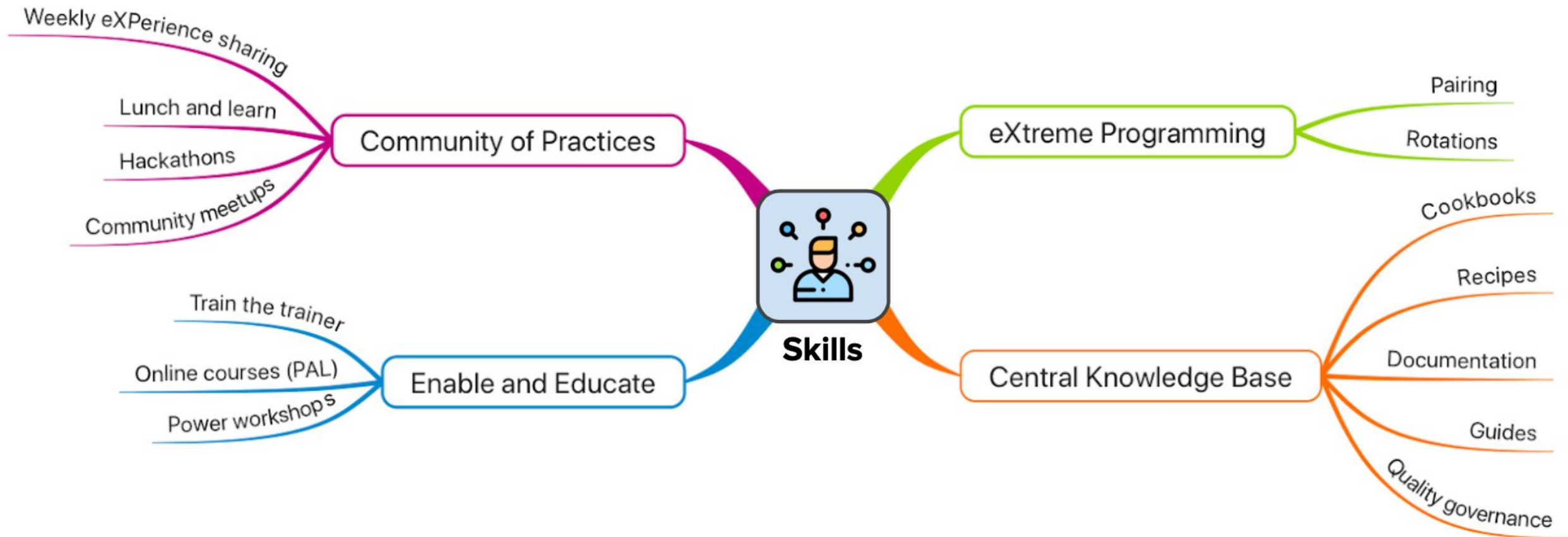
Nurture a healthy team growth spreading culture, methods, and skills.



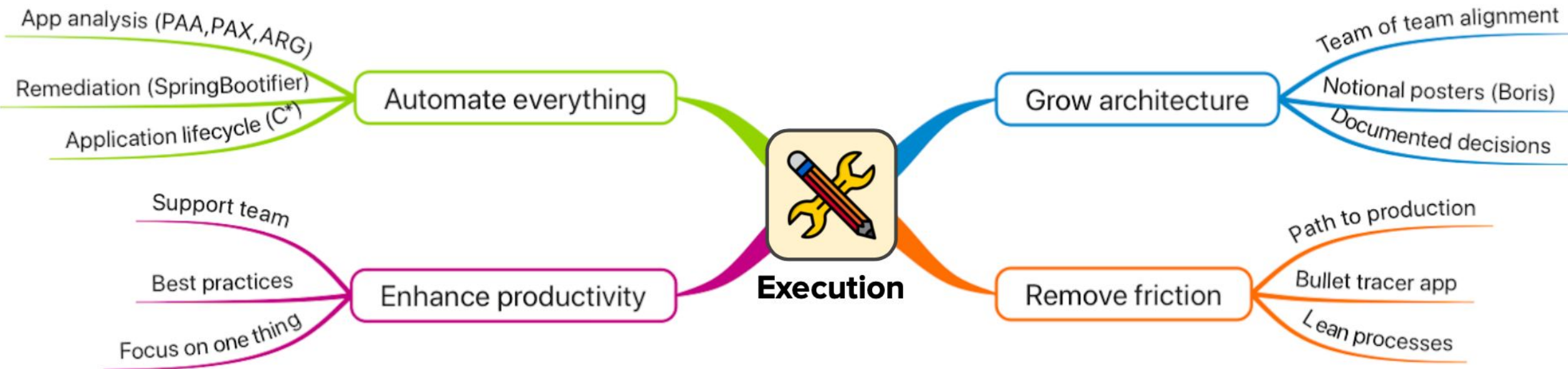
Governance

Align team goals, strategies, and communications by fostering lean and agile practices.

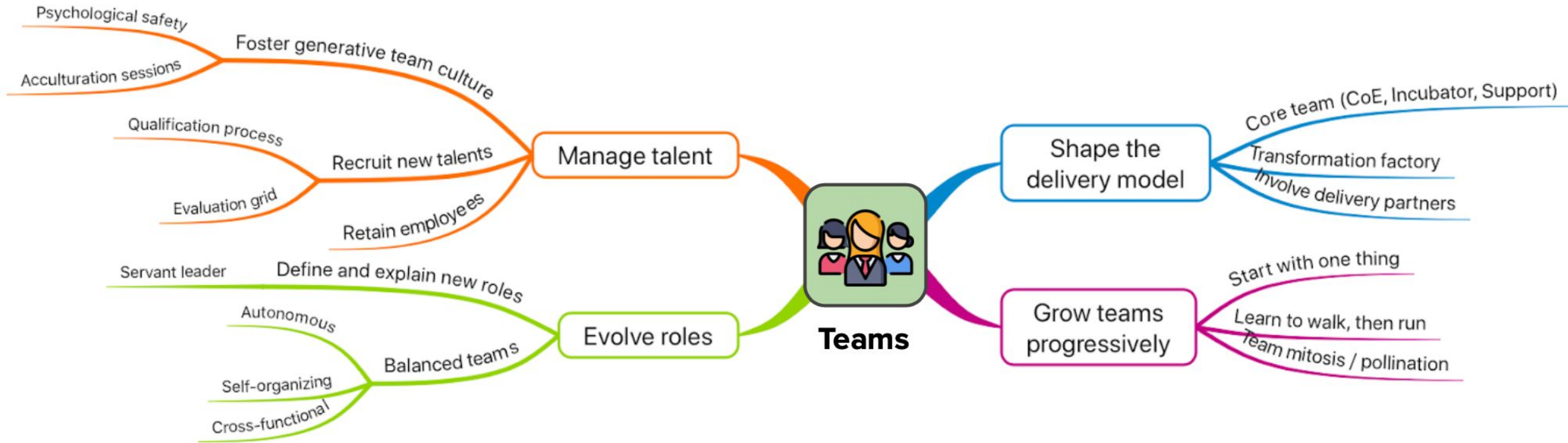
How to become a learning organization (skills)



How to build a scalable “factory”



How to create and nurture product teams



How to govern a product organization

