Example of Software Engineering Team Efficiency Audit - Time to Value Boost - Iteration One

Version: 1.0.9., July 18th, 2024

Objective

Goal 1

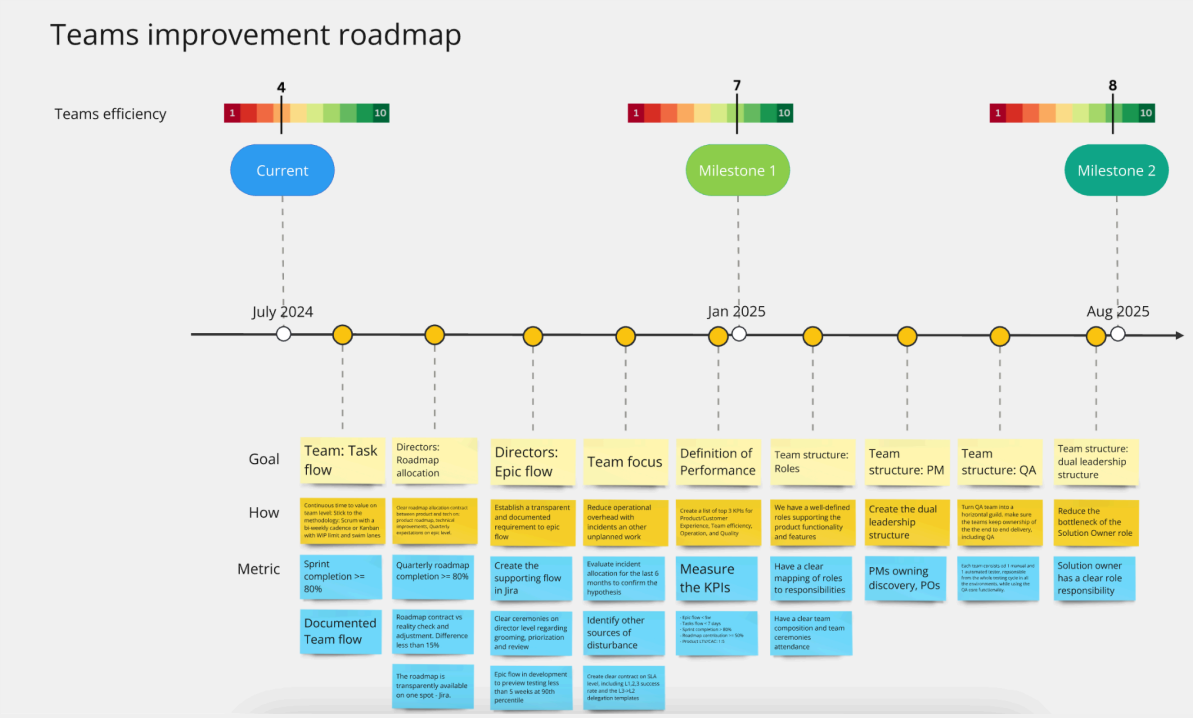
Time to value: Boost the team delivery productivity and delivery by ~ 20% in the scope of the new functionality.

Goal 2

Org structure: Improve the current organizational team structure to support the current business.

🎯The goal is to move the team's productivity from the **4/10** rating

- 🎯 to **7/10** rating in 6 months and
- 🎯 to **8/10** in 12 months in total, respectively.



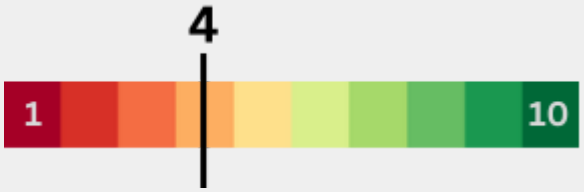
Toll teams improvement roadmap

Inputs

- Time allocation: 12 MDs
- Interview talks
- Jira data analytics
- current confluence

Findings

Final rating



The final rating is composed of 12 investigated areas below.

Findings form

Rating: 0..10 [top]
Situation: current status quo
Owner: Action owner
Action description, priority an effort

Action priority	Action effort
P1 top P2 critical P3 normal P4 low P5 ignore	XS 1 week S 2 weeks M month L quarter XL 6+ months

We aim to create an improvement roadmap on actionable improvements with the highest priority and the lowest effort.

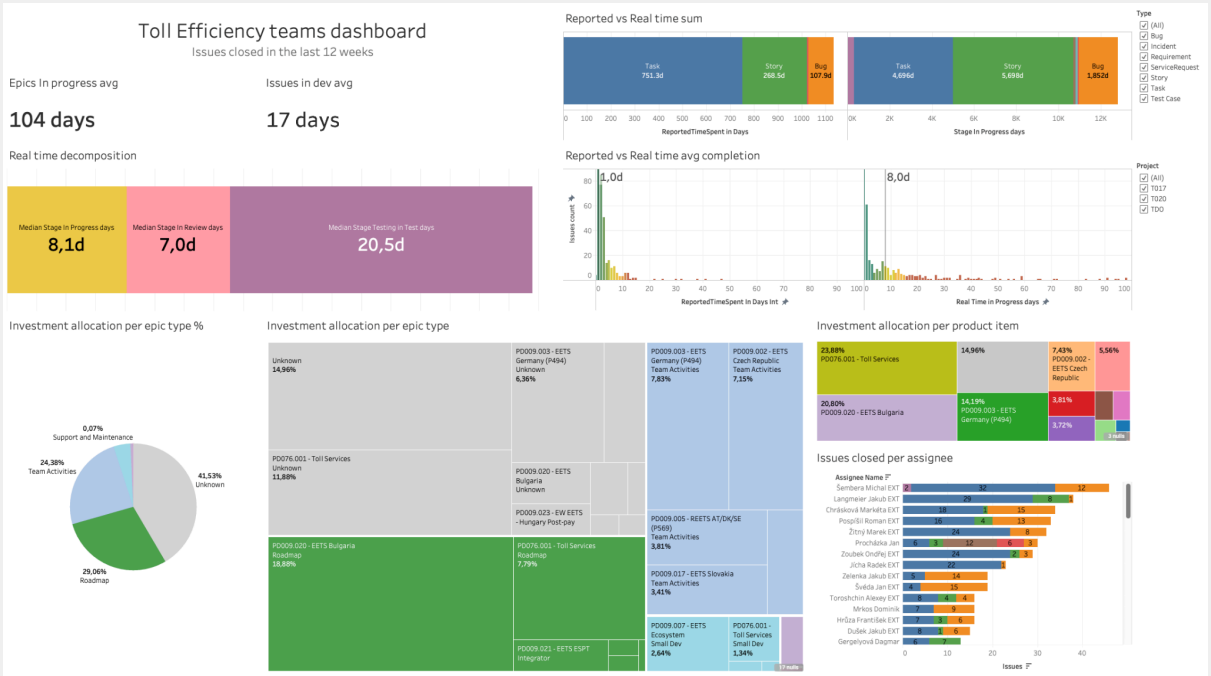
1. Value delivery: Efficiency

Rating

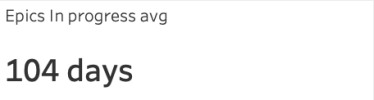
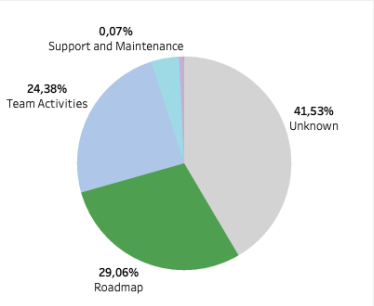
Status

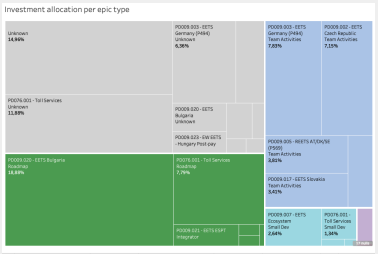
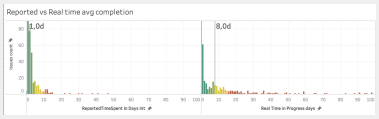
To focus on Goal 1 of Time to Value Delivery, we've analyzed current Jira data on issues completed in the last 12 weeks by this JQL query.
The results are represented in a Tableau dashboard.

We are supposed to follow Scrum, but we rather moved to Kanban with no WIP limits due to the load of unexpected interruptions and external dependencies.



Metric	Measured vs Expected value	Action
Epics cycle time	104 days -> 30 days on avg	A tangible value is supposed to be delivered

Metric	Measured vs Expected value	Action
		continuously from planned to SIT tests passed. • Start estimating epics, allowing only 10% of epics going over more than 1 month of cycle time. • Apply the vertical slicing guideline and a workshop
Issues cycle time	17 -> 6 days on average 	Development time takes 8 days on average, review 7 days, testing 20 days. We have to shorten the overall cycle time. • Build a notification mechanism for task that are in development for longer than 4 days, Review for more then 24h, and Testing for more than 3 days.
Roadmap contribution	29% -> 60% 	• Create quarterly contracts between prod and tech for Epic types: roadmap, tech debt, off-roadmap, incidents, etc. • Measure the contract vs reality in real time and adjust the direction continuously.
Unknown work	15% -> 3%	• Do not allow unknown work for more than 5%: create a notification or check

Metric	Measured vs Expected value	Action
		
Logged vs real time work	1:10 -> 1:2	• Explore the root cause: The team members have a huge context switching issue due to unplanned work, incidents or malfunctional prioritization.
Logged vs real time issue completion ratio	1:8 -> 1:2 	• dtto
Quality testing time SIT	20d -> 3d 	• The testing time in SIT environment is supposed to go fast. Investigate: the environment stability, workforce, waiting root causes, external dependencies or handovers.
Production release	1/month -> 2/month	• Why do we release monthly? If so, we should release bi-weekly in pre-prod.

Action

- Create a transparent efficiency metrics dashboard P2 S

2. Value delivery: Focus

Rating

Status

The team members are declaring there is a high amount of unplanned work interrupting their focus: incidents, priority switches, and unblocked external dependencies.

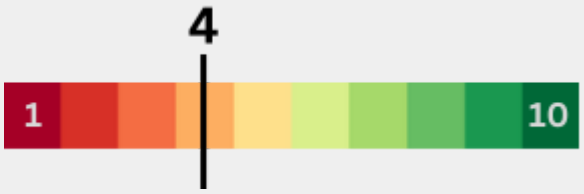
Ensure the team members dedicated to a new domain have no interruptions caused by unplanned work.

Action

- Interruptions P2 M
  - Investigate interruption overhead in real: unplanned incidents
  - Investigate whether incidents are taking that much time in Jira.
  - Investigate L1 and L2 success rate. L3 support should resolve mx 15% of incidents. Define a clear L1/L2 contract with the support.
- Focus P2 S
  - Apply WIP limits to Kanban and the swim lanes
  - OR set clear Spring goals

3. Value delivery: Predictability

Rating



Status

Currently, we don't correctly estimate on epic nor on issue level.
The new domain delivery takes 9 months on average which is a number we take into account.
A resemblance estimated the new domain to be an existing domain/territory.

We have no quarterly balance contracts.

Action

- Dependencies: Close workforce allocation contracts with external departments, or internalize the dependencies P1 S
- Create a clear roadmap balance and capacity allocation process.

4. Value delivery: Quality

Rating

Status

We live in a regulated environment, where we pass multiple testing environments.
The non SIT test are automated.

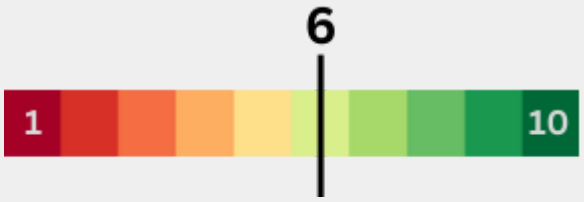
However, the SIT testing is fully manual.
We hand over the testing to QA team, thus loosing ownership.
The quality of the work is low and the number of retrurned features is high.

Action

- Axiom: Stay closest to the testing.
- Testing structure P1 M
    - Add more QA testers directly to the team: 1 manual + 1 automated tester. The team testers should be responsible for running all the test environments, using the tooling of the QA core team
    - Create a strong QA guild supporting the QA core.
- QA has no KPIs regarding product quality, bugs ratio, returned tests ratio, or automated reporting quality. P2 M
- Create a solid QA strategy tactic: processes per testing env.
- Introduce internal testing environment monitoring.

5. Value delivery: Communication and Processes

Rating



Status

Confluence is large and full of outdated processes.
We spend majority of our time communicating with no single source of truth. The amount of communication noise is high, causing people to attend larger meetings.

Meetings

- Team
    - Daily standups are okay

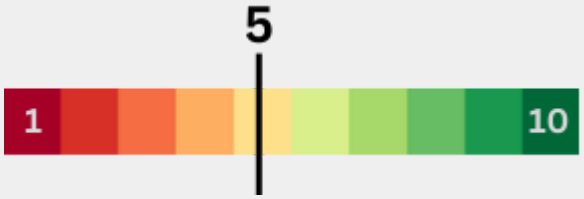
    - Groomings are happening with no estimates.
    - Team prioritization is okay
- Directors
    - No groomings on epic/req level: preparation for the Scrum of Scrums
    - Prioritization on epic/req level is ineffective

Action

- Improve the director grooming and prioritization (see below).
- Continue improving the documentation of the knowledge base

6. Value delivery: Product and Tech

Rating



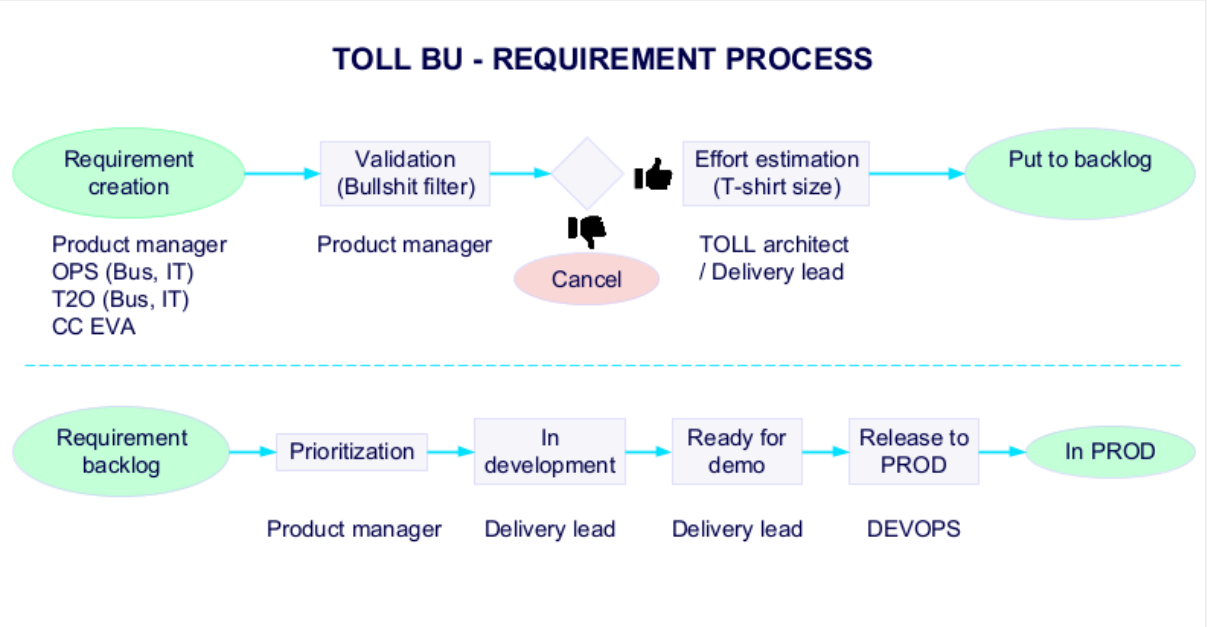
Situation

- The director-level meetings are poorly organized
- We are missing transparency in terms of priorities and the roadmap. Therefore, we communicate in deadlines, which is project-oriented thinking.
- The new tickets create chaos as the planning process is not solid.
- PM is project-based and sales-driven.

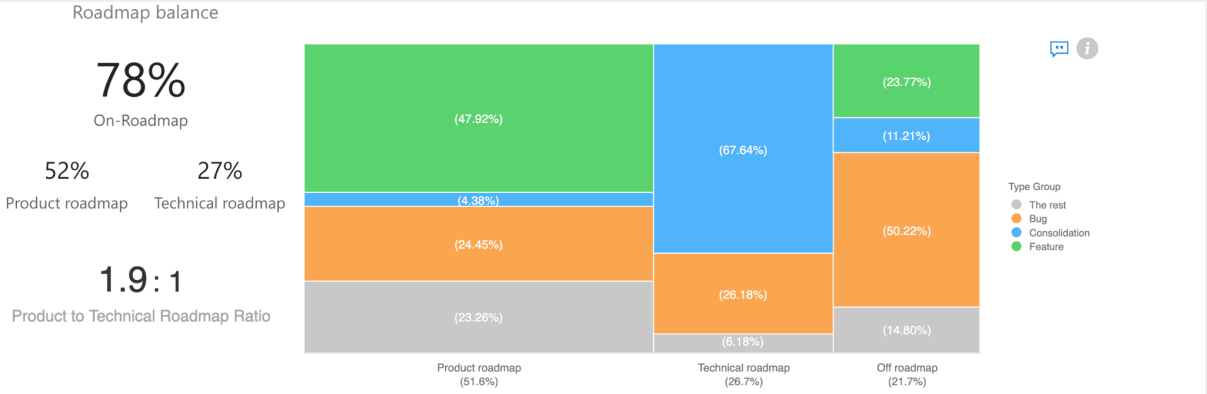
Action

- TOP: Introduce Epic pre-prioritization grooming P1 XS

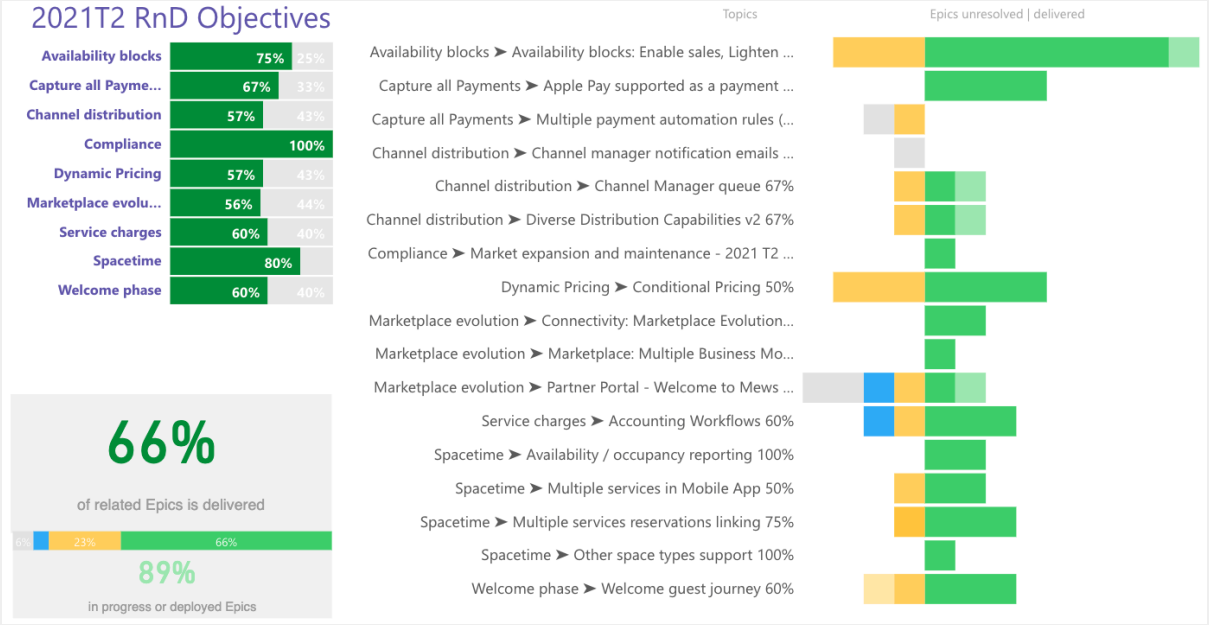
- TOP: Introduce a robust Epic/Requirements flow process P1 S



- TOP: Introduce transparent roadmaps in Jira P2 S
- TOP: have a clear Q investment allocation contract and measurement in real time. Example: P2 M

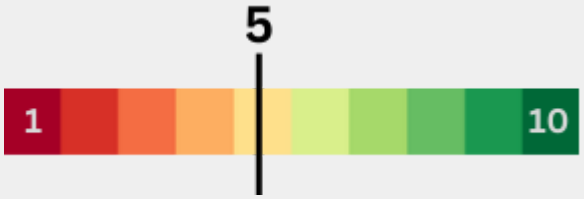


- Have a transparent Quarterly roadmap completion overview P3 M



7. Value delivery: Structure and Roles

Rating



Situation

We have an unclear role definition of PM and the Solution Owner and BA:

- PM is out of the team
- SO is a team leader and an internal product manager.
- PO
- BA is not part of PM

As the result, there are too many meeting participants, slowing the delivery.

Recently, we moved from functional team structure to 2 larger vertical teams that own the domains. Reasn being small functional teams have caused a large waiting overhead on the new domains.

We have no adequate headcount to build a more suitable structure of platform teams supporting product delivery teams, where product delivery teams have a clear SLA to deliver 3 new domains per year. This way, the current can scale by adding more product delivery teams.

Reorg QA and the management.

Action

Roles P2 M

- We need a solid ownership structure who's responsible for what business domain and the decision.
- We need a clear role responsibility list.
- Initiate a stronger community of practice/horizontals to improve technical expertise and knowledge sharing.

Structure P2 M

- Solution owners are highly overwhelmed by the amount of work, becoming eventual bottlenecks.
- PMs closer to the team with clear decision responsibilities
- Solution owners responsible for the technical decisions
- QA: Have 1 manual and 1 automated tester per team so that we don't loose delivery ownership.
- Move business analysts to PM.

8. Team stability: Improvements

Rating

Situation

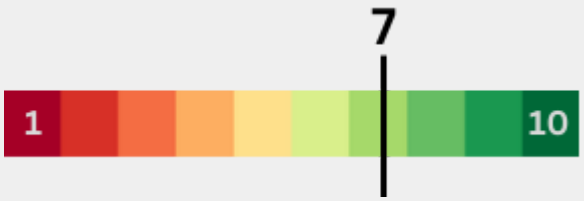
We start having clear contracts to decrease the technical debt and improve the way we work. However, we are not sure how much we invest in improvements, or whether we fully use the pre-agreed allocation.

Action

- Create a solid improvement roadmap composed from technical debt and process improvements P3 S
- Missing adoption of existing initiatives P2 S

9. Team stability: Teamwork

Rating



Situation

The teamwork is highly valued. External contractors are well internalised which is a huge win. The overall team spirit is high.

Due to missing or unclear contracts with external dependencies (operations, incident management, COM team), we are not handling dependencies well.

Action

- Inernalize the dependencies or create contracts with existing external dependencies.

10. Team stability: Success definition

Rating

Situation

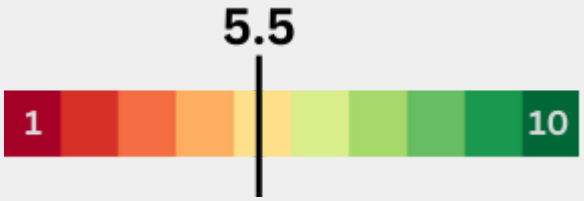
We are missing most of the KPI contracts defining how well we deliver value.

Action

- Introduce development efficiency contract P2 S
    - Time to Value: Epic cycle time up to 5 weeks
    - Time to Value: Sprint completion up to 80%
    - Time to Value: Sprint goal delivered up to 80%
    - Focus: Roadmap contribution up to 70%
    - Amount of unplanned work below 15%
- Introduce incident management contract P2 M
    - What type of incidents L3 level will handle
    - What L1 and L2 incidents have to have a described fix guideline to move away from L3 support.
    - KPI: how many incidents are successfully resolved on L1, L2 and L3 levels.
    - L3 level incidents should have a clear postmortem process
- Customer experience/PM SLAs P3 M
    - Customer NPS
    - Incidents per customer
    - LTV/CAC ratio per customer

11. Team stability: Leadership

Rating



Situation

The current leadership cooperation on the director level is subpar. There are no clear balance contracts, no clear roadmap, and no transparency. One does not support the other one: transparent team capacity and transparent opportunities.

There is not enough solid trust between PM and Tech.

The decision-making process is weak, decisions are not persistent. Teams witness the decision-making process is long and takes too many meetings.

Leadership is not used to taking bets and making decisions.

The tech leadership needs to be deeper in operational work, having more time for a more systematic approach.

We are not interested in growing the team and people skills, there is no time for that.

Action

- Close the gap between PM and tech on the director level P1 S
- Leadership should be able to carve out dedicated time focused on improvements
- Have a clear decision model shema

12. Team stability: Learning and personal growth

Rating

Situation

QA and PM lives in y 1990. Tech lives in 2000.

People have no interest in improving their skills, no learning, no conferences attended.

We have no solid knowledge base for the newcomers.

current teams - Efficiency boost tactic

Summary

In current teams, we moved from a single to multiple domain coverage. In parallel, we're moving from a project-oriented to a product-oriented mindset, with sales-led incentives.

Due to a high amount of dependencies across the functional teams, we moved the structure to 2 larger value-delivery teams. Although we planned to embrace the full end-to-end value flow, we have a lot of dependencies on external teams and partners. That is why the teams have moved from scrum to kanban, reducing the need for estimates.

At the same time, the operational overhead is high due to technical dependencies and operational L3 support.

The current tech leadership is delayed: The expectation is to move to strategic improvements in 3-6 months.

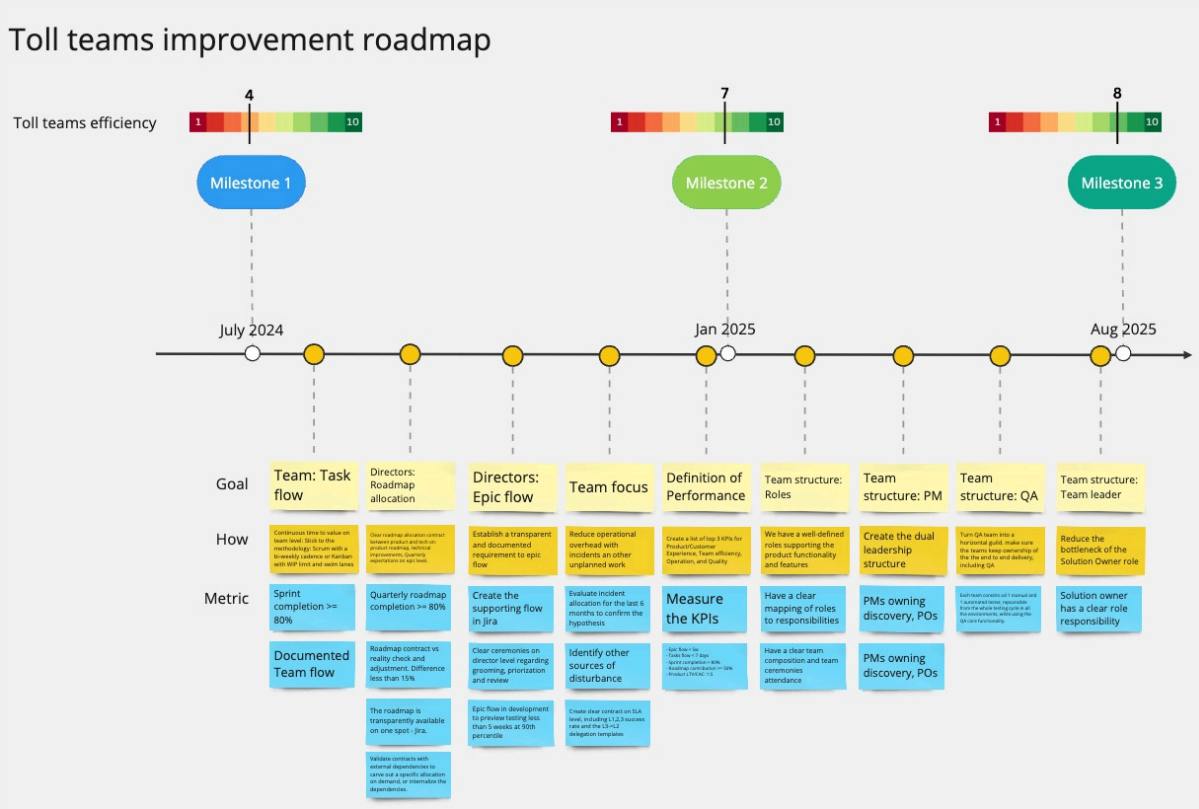
Tactic

🎯The goal is to move from the **4/10** rating

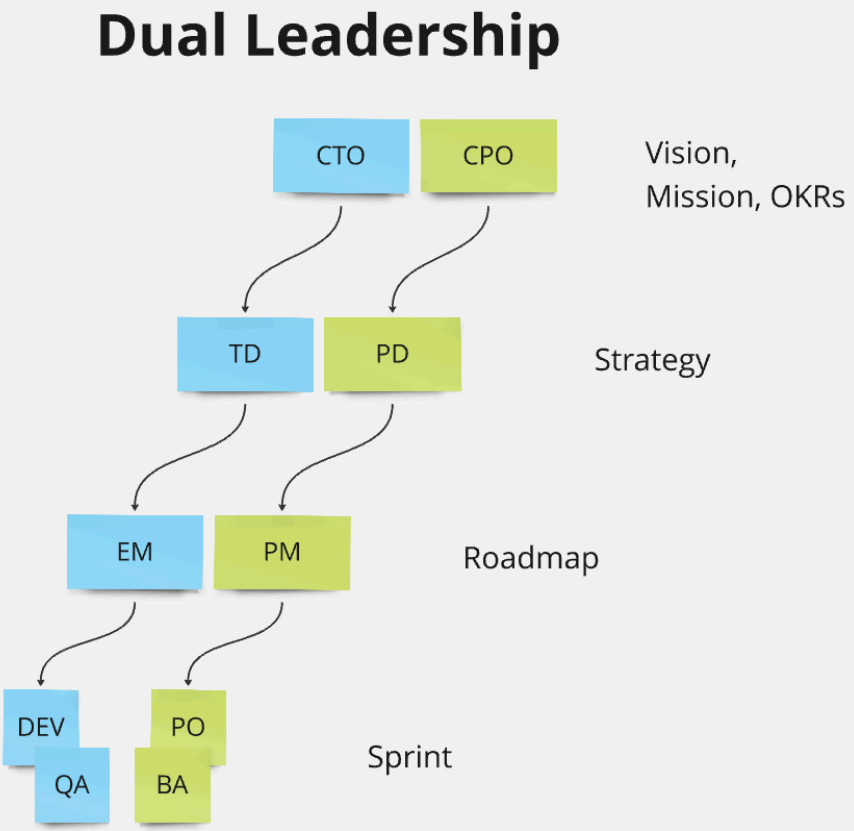
- 🎯 to **7/10** rating in 6 months and
- 🎯 to **8/10** in 12 months in total, respectively.

To improve the team delivery, we suggest taking action on the following improvements:

Toll teams improvement roadmap



Structure to Dual Leadership Model



Next steps: Iteration Two

- Iteration One review: July 19th, 2024
- Review with the Director level
- Workshop: Iteration One review with the team members and improvement roadmap feedback gathering
- Build a detailed improvement roadmap execution tactic
- Radek's proposal: Rating across the company