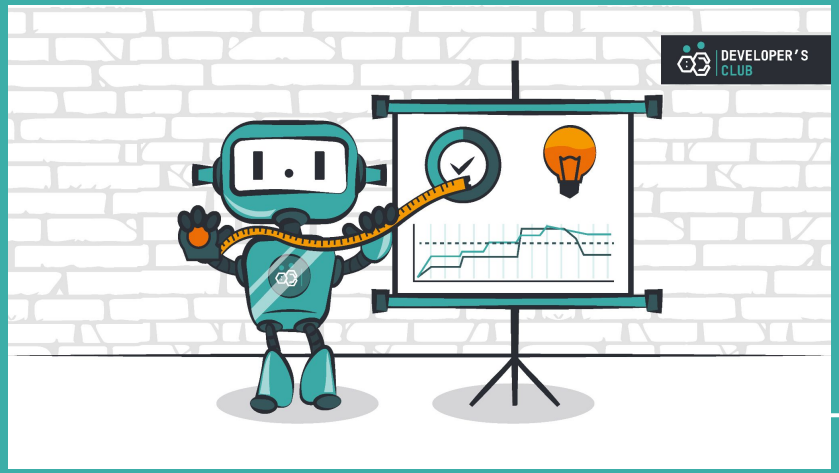
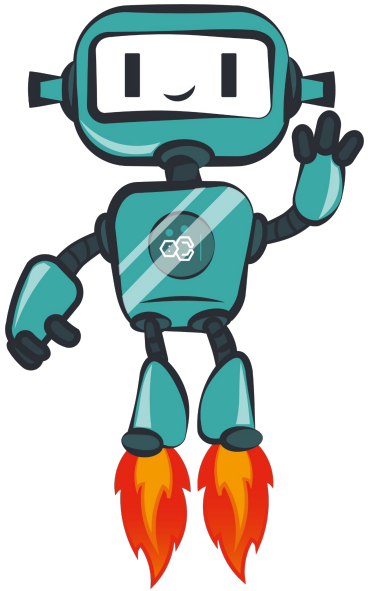
DEVELOPER'S CLUB

BDD#11
MEASURING DEVELOPER PRODUCTIVITY





McKinsey

DEVELOPER'S CLUB

"Measuring, tracking, and benchmarking developer productivity has long been considered a black box. It doesn't have to be that way."

Tri kategorije metrika

DEVELOPER'S CLUB

- ➔ System level
- ➔ Team level
- ➔ Individual level

Tri kategorije metrika

DEVELOPER'S CLUB

Focus areas by level

● DORA[1] metrics ● SPACE[2] metrics ● Opportunity-focused metrics

	Outcomes focus *Are you delivering products satisfactorily?*	**Optimization focus**[3] *Are you delivering products in an optimized way?*	**Opportunities focus** *Are there specific opportunities to improve how you deliver products, and what are they worth?*
System level	● Deployment frequency ● Customer satisfaction ● Reliability (uptime)	● Code-review timing ● Velocity/flow through the system	● Satisfaction with engineering system ● Inner/outer loop time spent
Team level	● Lead time for changes ● Change failure rate ● Time to restore service ● Code-review velocity	● Story points completed ● Handoffs	● Quality of documentation ● Developer Velocity Index benchmark[4] ● Contribution analysis
Individual level	● Developer satisfaction ● Retention	● Interruptions	● Contribution analysis ● Talent capability score

DORA (ref)

DEVELOPER'S CLUB

01 —— Deployment frequency

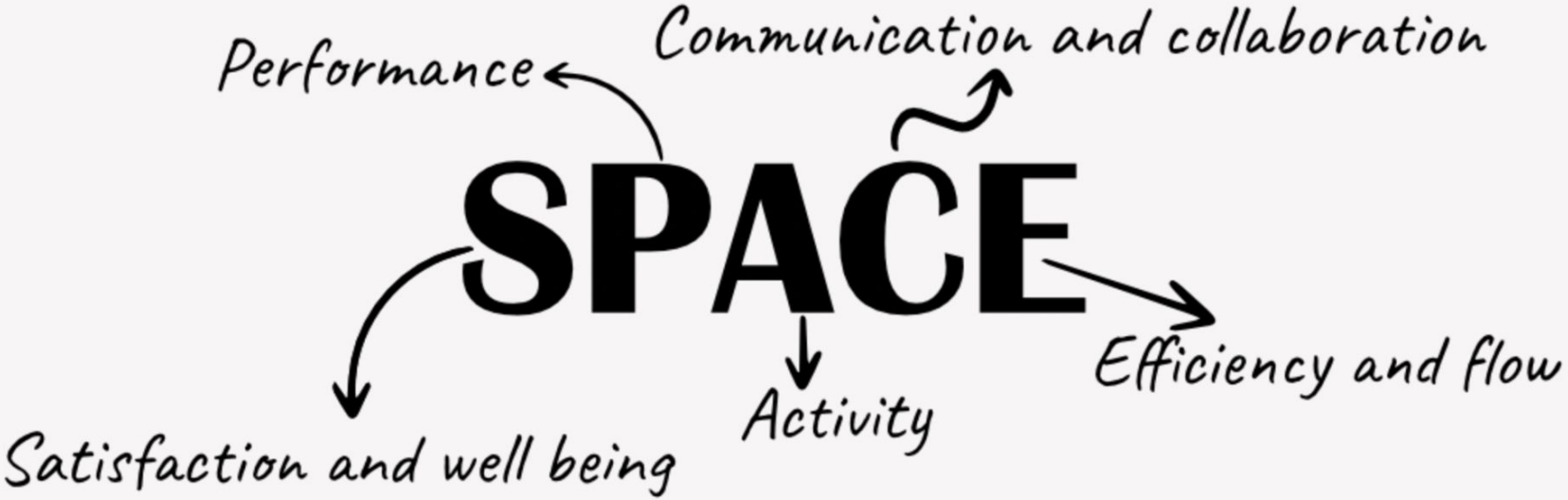
02 —— Lead time for changes

03 —— Change Failure Rate

04 —— Mean Time to Restore Service

SPACE (ref)

DEVELOPER'S CLUB



SPACE (1) (ref)

DEVELOPER'S CLUB

/01. Satisfaction and well-being

The biggest source of fulfillment for developers is by doing development that makes a difference. And to ensure a healthy working environment for your team it's important to be mindful of the stress caused by the workload and have measures in place to mitigate it before it's too late. It's absolutely crucial to include this dimension of SPACE metrics when tracking developer productivity.

#1 Developer burnout

#2 Developer satisfaction

#3 Retention and referrals

SPACE (2) (ref)

DEVELOPER'S CLUB

/02. Performance

SPACE framework suggests the best way to track performance is by measuring outcomes rather than output. Often the outcome of individual contribution is dependent on the type of work that is assigned to the individual. Thus measuring outcomes at a system level can help you understand the performance of your team.

#1 Development bugs

#2 Stability of your system

#3 Customer satisfaction and adoption

SPACE (3) (ref)

DEVELOPER'S CLUB

/03. Activity

Developer activity when tracked across different phases of the SDLC, can help you with limited insights into the developer productivity and efficiency of your team and engineering processes. However, individually the activity dimension of SPACE metrics will not help you understand true developer productivity.

#1 Developer activities

#2 Design and documentation

#3 Deployments and incident activities

The number of deployments done by the team, and the number of production incidents/failures encountered are good examples of metrics that help in understanding the activity dimension.

SPACE (4) (ref)

DEVELOPER'S CLUB

/04. Communication and collaboration

This dimension of SPACE metrics is crucial to capture the aspect of how well the team can collaborate and whether there is an optimal flow of information amongst the team members. A team that communicates better and has a culture of transparency is bound to be more productive as team members know about the priorities and what others are working on which makes it much easier to coordinate dependencies.

#1 Cycle time by stages

#2 Knowledge silos

#3 Onboarding time for new joiners

SPACE (5) (ref)

DEVELOPER'S CLUB

/05. Efficiency and flow

This dimension of SPACE metrics attempts to capture how well work is done across the team and whether development activities continue without interruptions. Flow tries to capture how many hours can developers dedicate to uninterrupted work and also how swiftly can a piece of work, flow through different processes. DORA metrics do a great job of capturing the flow metrics at a team level.

#1 DORA metrics

#2 PR idle time

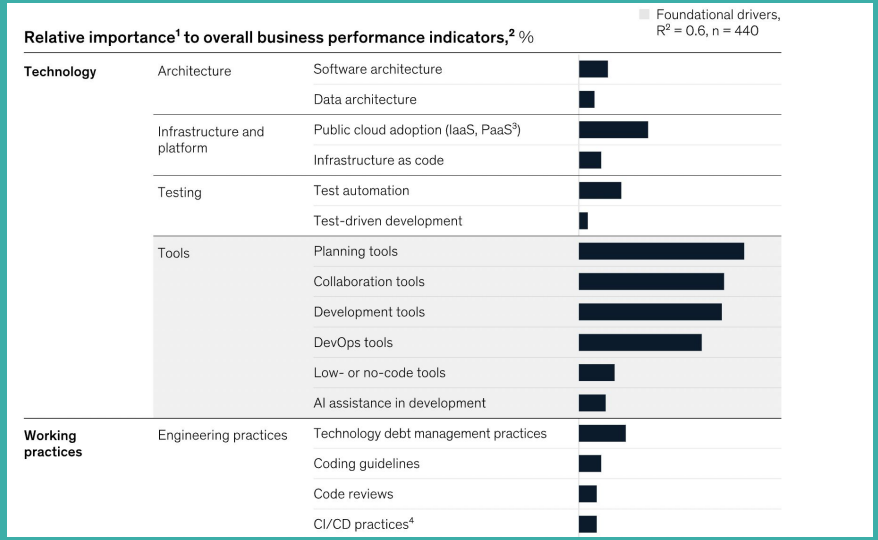
#3 Uninterrupted Development time

McKinsey (70% vs 30%)

DEVELOPER'S CLUB

Developer Velocity Index benchmark. **Velocity Inde**
(DVI) System Level

- ➔ DVI - System
- ➔ Contribution analysis - Team
- ➔ Talent capability score - Individual

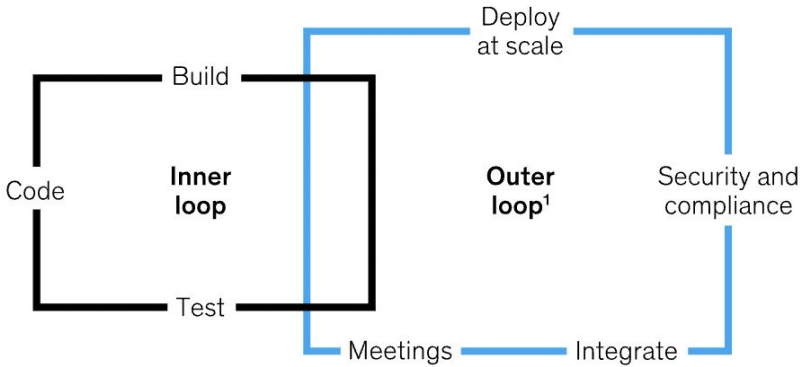


McKinsey (70% vs 30%)

DEVELOPER'S CLUB

Software development can be broadly divided into two sets, or loops, of tasks; the less time spent on less fulfilling, outer-loop activities, the better.

Software development activities



[1]Activities listed are nonexhaustive.

McKinsey & Company

Netflix Perf Eval

DEVELOPER'S CLUB

When Reed started Netflix, he had this question: Would it be possible to create an organization that was made up entirely of top performers?

https://jobs.netflix.com/culture

Netflix Perf Eval

DEVELOPER'S CLUB

- ➔ Who is hired
- ➔ Who is nurtured
- ➔ Who is let go

The Keeper Test is a true litmus test to differentiate the high-value contributing employees from those that drain.

No B-level players

DEVELOPER'S CLUB

Hard Work – Not Relevant

- We don't measure people by how many hours they work or how much they are in the office
- We do care about accomplishing great work
- Sustained B-level performance, despite "A for effort", generates a generous severance package, with respect
- Sustained A-level performance, despite minimal effort, is rewarded with more responsibility and great pay

NETFLIX

Local/Novi Sad?

DEVELOPER'S CLUB

- ➔ 360 feedback?
- ➔ Goal based metrics?

- ➔ S.M.A.R.T
- ➔ O.K.R

Reading materials

DEVELOPER'S CLUB

- McKinsey papers:
  - [1] Measuring
  - [2] DVI
  - [3] Generative AI productivity boost
- Netflix culture overview
- ACM paper - The SPACE of Developer Productivity
-

Hvala!
Postani Član:
developersclub.rs