



Global and distributed development

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How we work

4





Integrating Agile with an Offshore Strategy

A practical kit for adopting agile methods in distributed projects and teams



[Darja Šmite](#), [Nils Brede Moe](#), and [Viktoria Stray](#).

Agile projects put teamwork, close cooperation and continuous communication among the project members in the spotlight. Offshore projects, on the contrary, are infamous for unwillingness to cooperate, communication gaps, cultural misunderstandings and injured trust among the remote parties. So, is there any way to blend the two strategies?

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[Table Of Contents](#) 



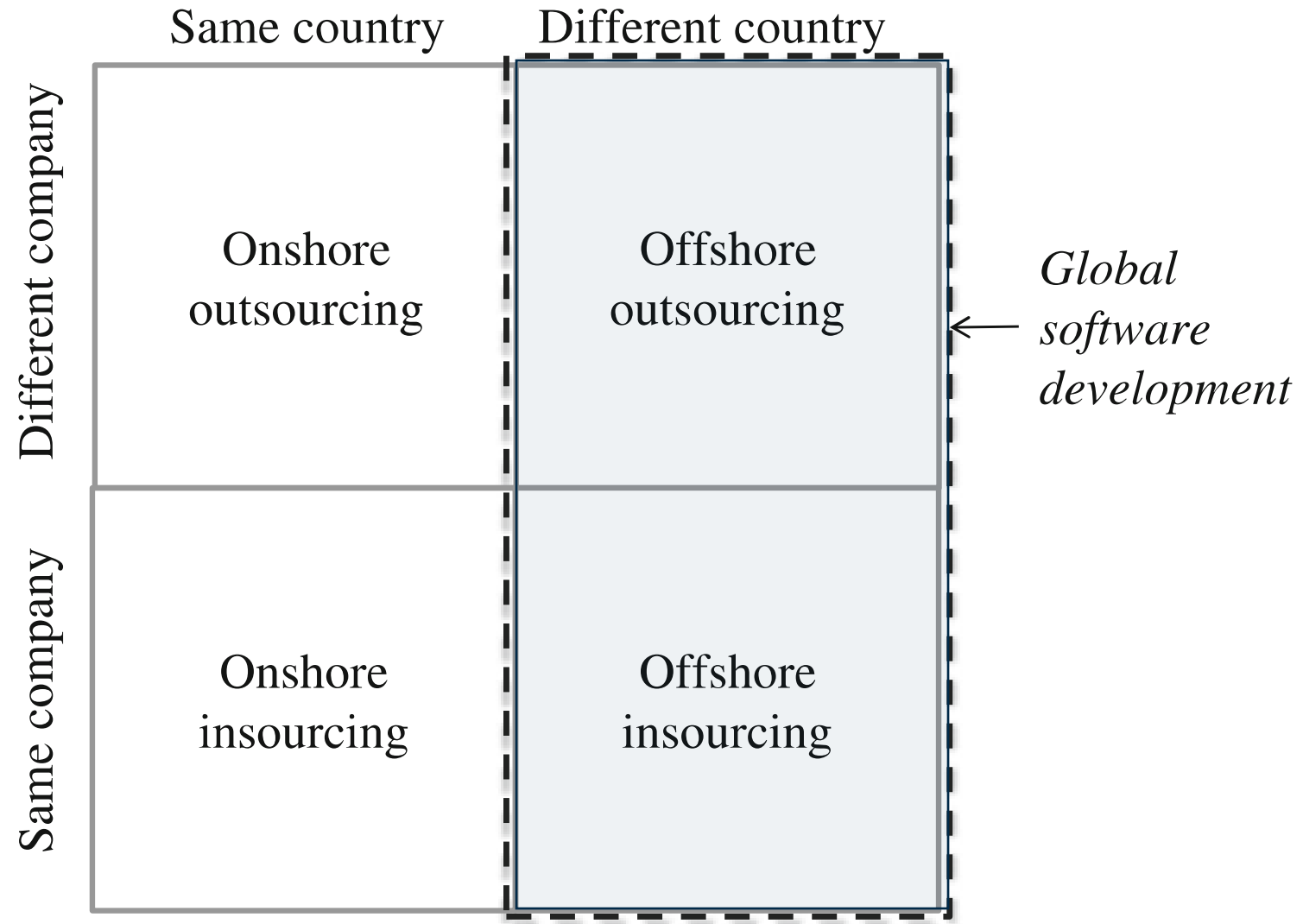
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The following chapters are curriculum:

- Chapter 1.2
- Chapter 2.1-2.4
- Chapter 3.2-3.4
- Chapter 4.5

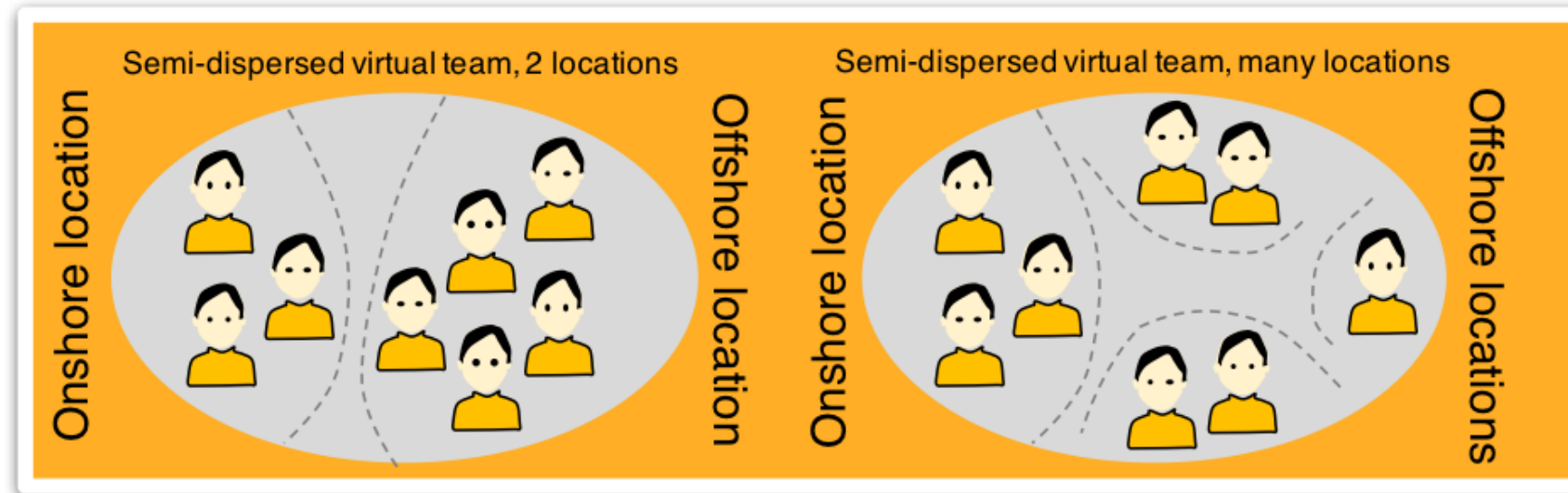
- https://leanpub.com/integratingagilewithanoffshorestrategy/c/5140_2024

Terminology





Virtual team within one country with team members teleworking from their homes



Semi-dispersed teams from two and from many locations 

Distributed development requires coordination

- Balancing the need for coordination with the need for focused, uninterrupted work time is a significant challenge in agile software development, but coordination is critical for success, especially in global distributed software development ¹.
- Many developers spend half their day in meetings ²
- Distributed teams face challenges such as:
 - time zone differences
 - cultural gaps
 - a need for enhanced communication

¹Stray, Viktoria and Nils Brede Moe. 2020. "Understanding coordination in global software engineering: A mixed-methods study on the use of meetings and Slack". In: Journal of Systems and Software 170, p. 110717.

Stray, Viktoria, Nils Brede Moe, Gunnar Bergersen, and Jeanette Kirkerud. 2024. "Behavioral Aspects of Agile Software Development: A Case Study on Meeting

²Practices in a FinTech Organization". In: Proceeding of the 57th Hawaii International Conference on System Sciences (HICSS 2024) (In press). AIS Electronic Library.

Chapter 3.2 Adjusting the daily stand-up meetings



Awareness

- Social software – Enterprise Social Networking Tools (ESN Tools)
- Norms
- Pull requests



150
years

400
offices

100
countries

16,000
employees

Teams in Norway & Poland

- Team in Stavanger - Norway
 - 15 people
 - Development since 1992
- Team in Gdynia - Poland
 - 15 people
 - Development since 2012



Enterprise Social Networking



Four attributes:

1. send and receive messages to individual members as well as the whole or a group of members,
2. choose and show particular coworkers as their communication partners,
3. share files with other users,
4. view all the conversations that are done publicly, consisting of text messages and files shared.

Slack

2018 User Momentum

8+ MILLION
Daily Active Users



In more than
100
countries

3+ MILLION
Paid users

70,000+ Paid teams

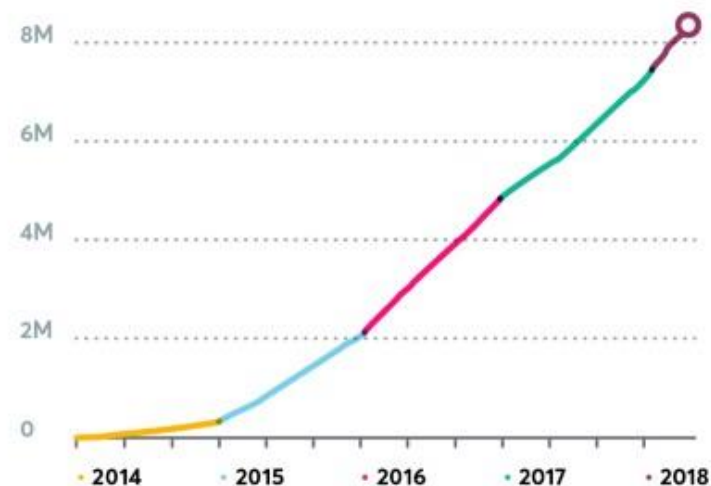


500,000+
organizations
use Slack

Slack's Growth

Daily Active Users

In May, we reached
8 million DAUs

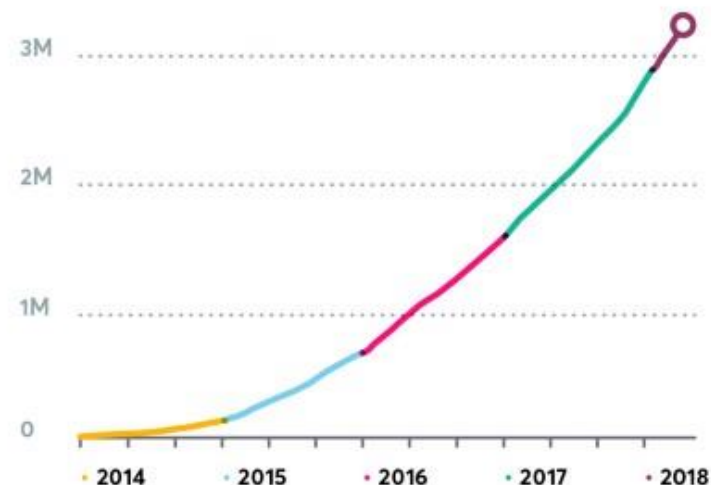


May 2018

8+ Million

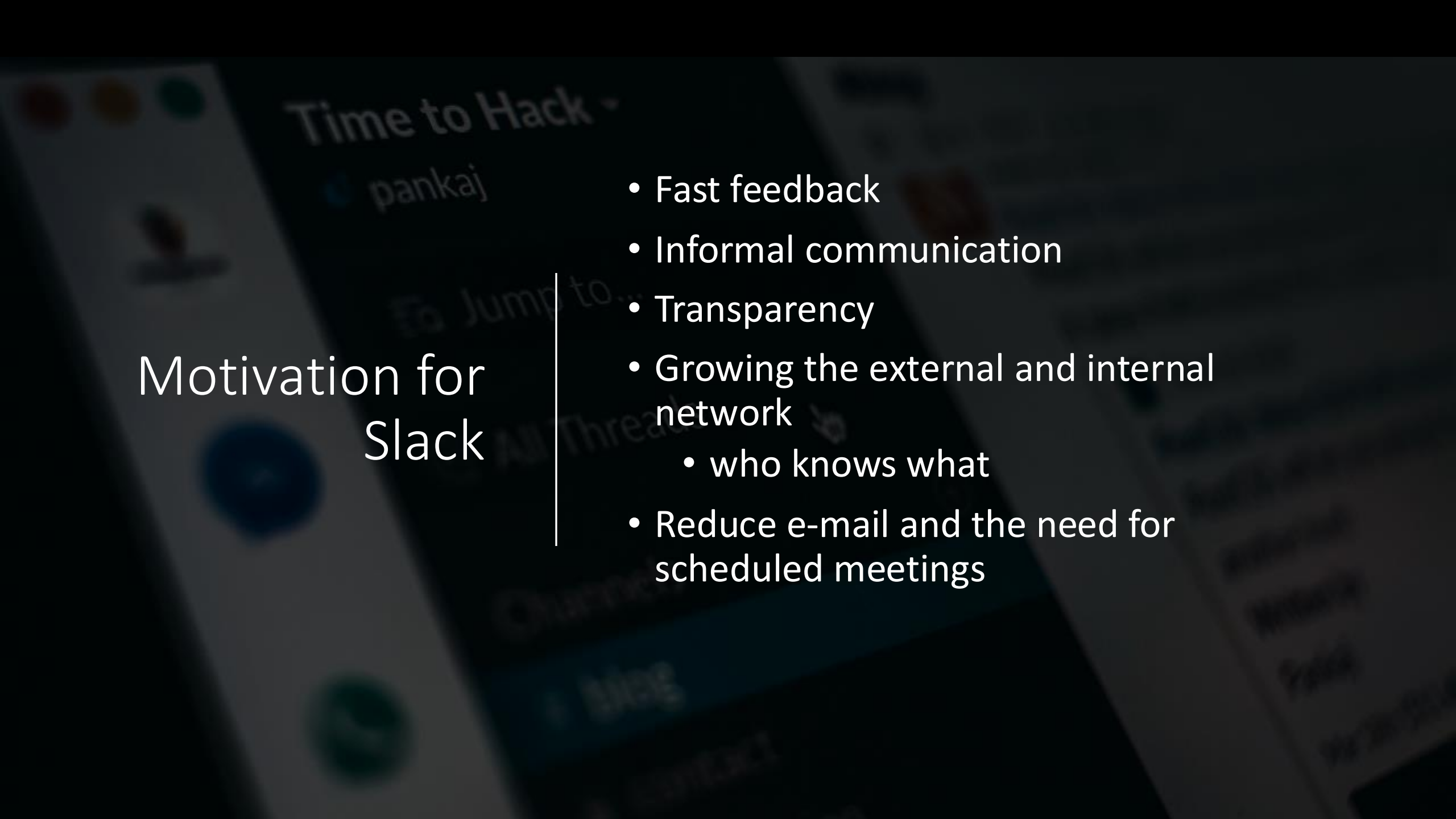
Paid Users

In May, we reached
3 million paid users



May 2018

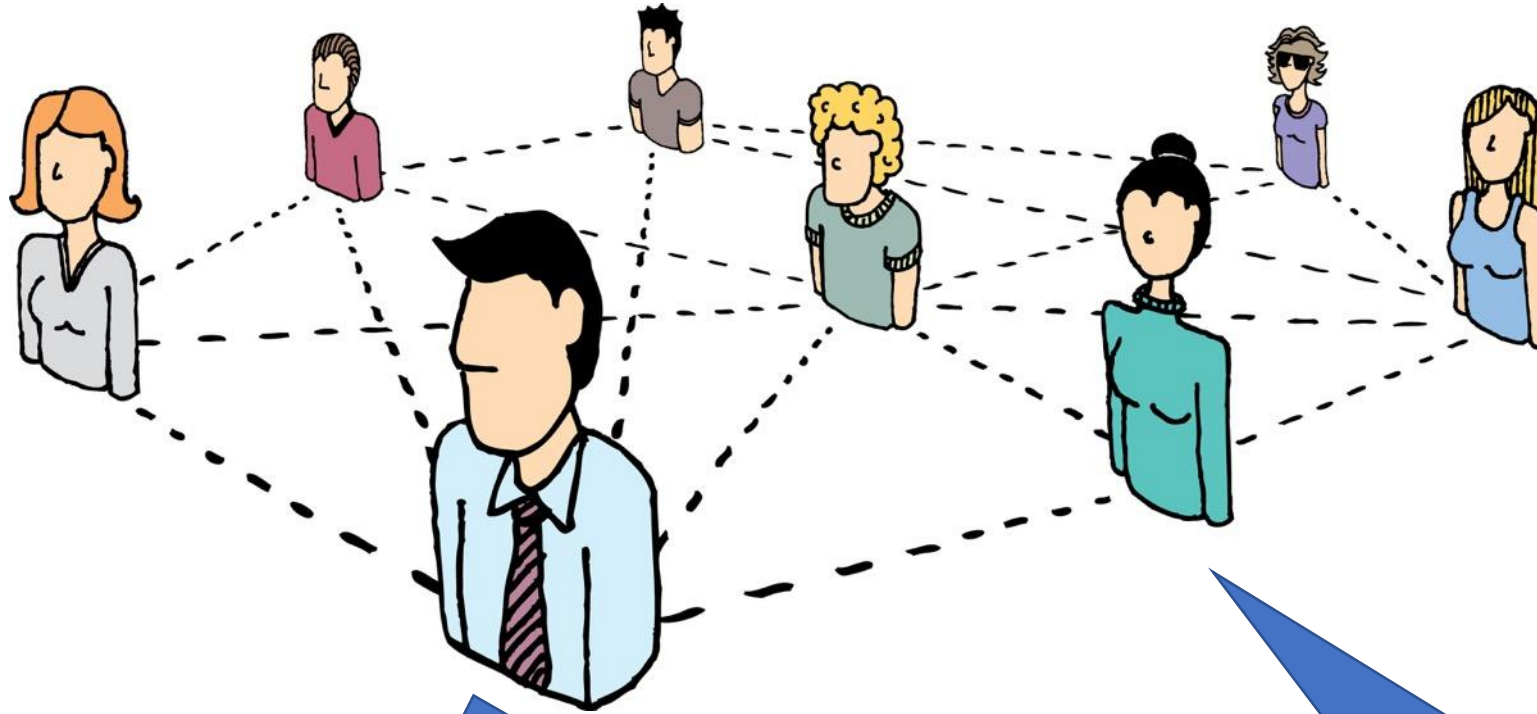
3+ Million



Motivation for Slack

- Fast feedback
- Informal communication
- Transparency
- Growing the external and internal network
 - who knows what
- Reduce e-mail and the need for scheduled meetings

Team communication and coordination - Slack



Many people were negative to introduce “another system” because we were already using Yammer, Wikis, Skype, and others. But, we wanted to see if we could benefit from it in our distributed work.

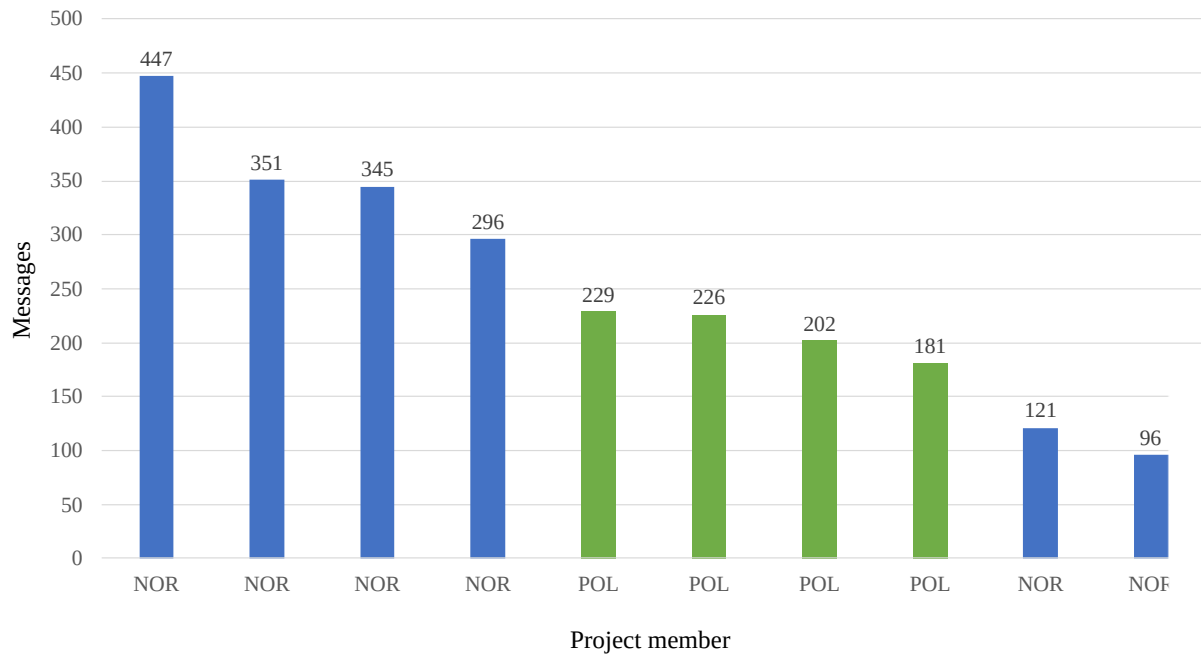
No, I got answers on Slack yesterday.

[UX developer], do you have anything to add?

Stray and Moe, *Understanding coordination in global software engineering: A mixed-methods study on the use of meetings and Slack*, Journal of Systems and Software, Volume 170, 2020

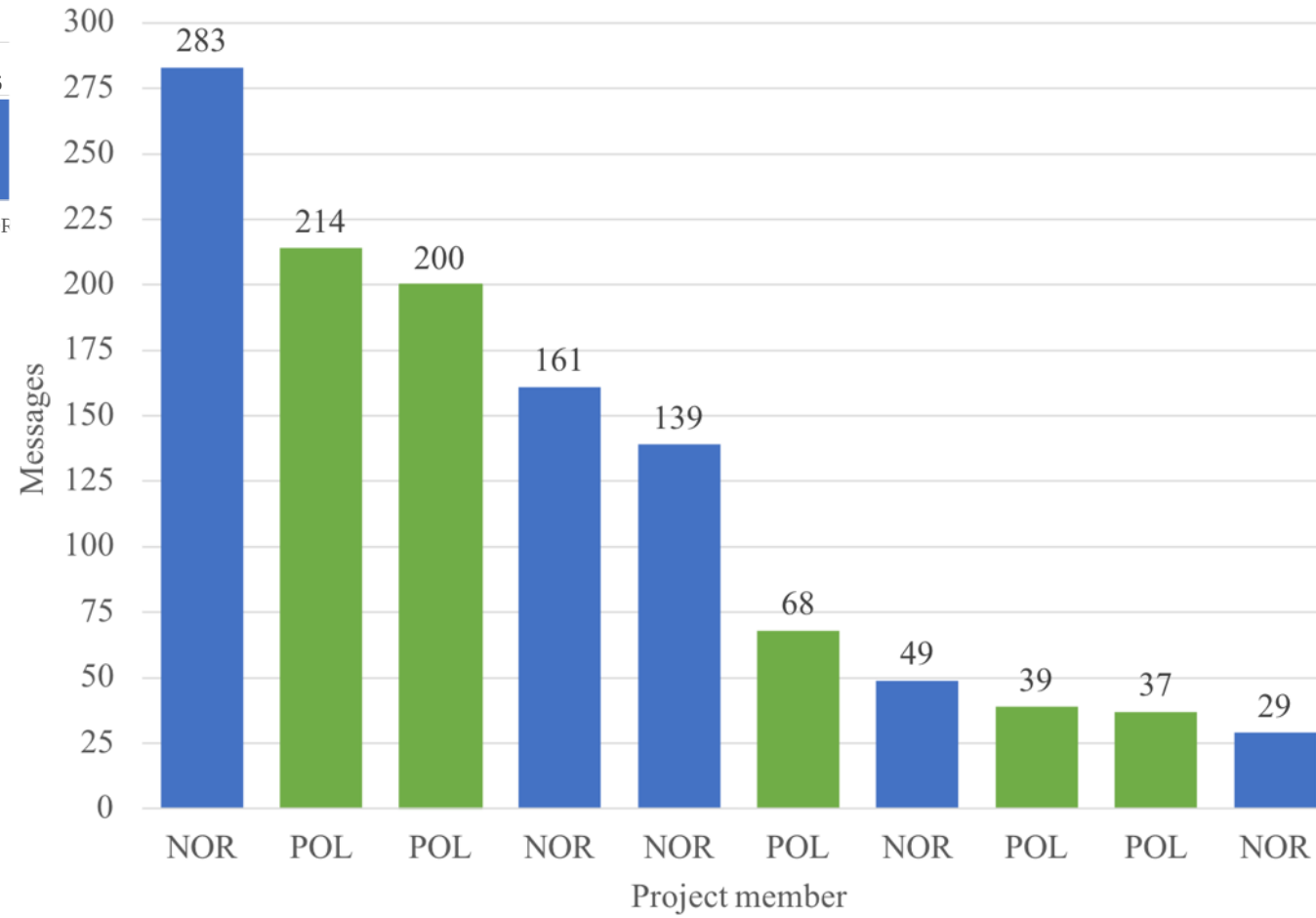
<https://doi.org/10.1016/j.jss.2020.110717>





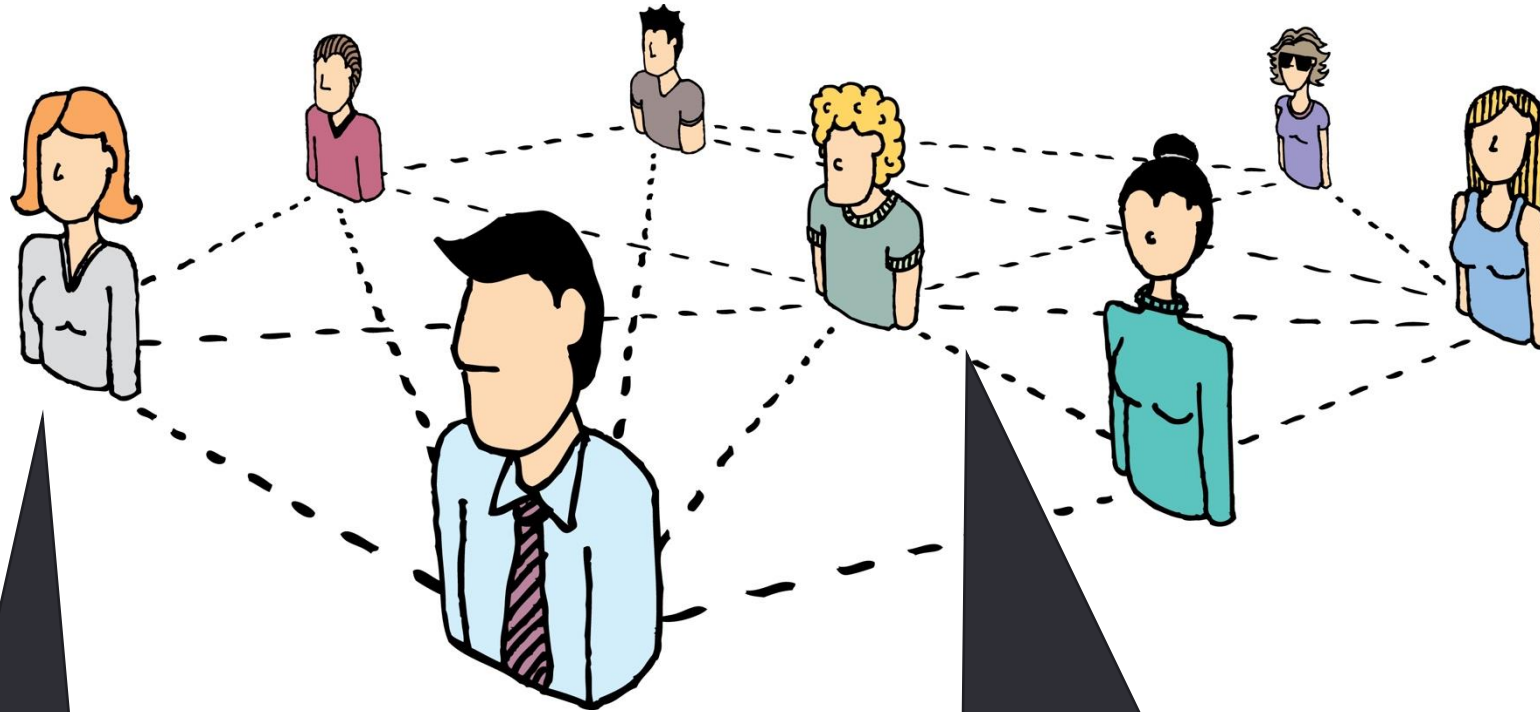
User activity across three channels

NOR = Norwegian
POL = Polish



User activity in the Back-end channel

Use of Slack



How personal we talk in open channels is kept within certain limits.

We have struggled somewhat because of language issues. Domain knowledge in combination with low language skills has made it difficult. It was a real problem that especially one person was really bad in English writing.

Some developers and testers are lacking the technical skills, so you need to help and support them.

GUIDELINES



**MORE OPEN
COMMUNICATION**



**EACH TEAM
SHOULD HAVE
A MAIN
CHANNEL**



**MORE
SEPARATE
CHANNELS**

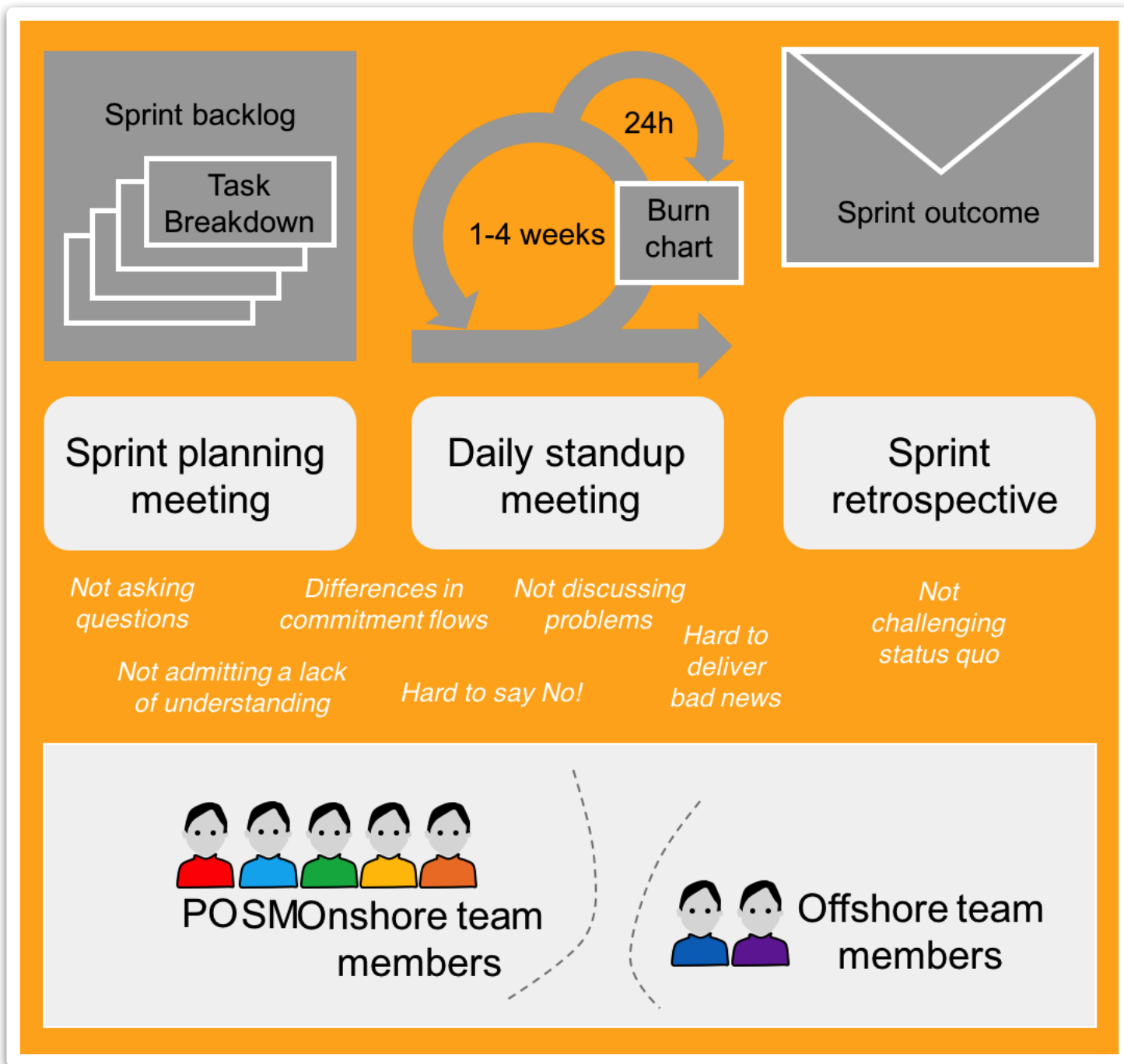


**LESS COMMUNICATION OF
FEATURES AND BUGS IN
OTHER TOOLS**

What are norms?

- Standards of proper or acceptable behavior
- Something (such as a behavior or way of doing something) that is usual or expected







Indian team members

It is confusing for us to say "No" to a Product owner or a Team lead

It is confusing for us when someone says "Yes" without implying an agreement



Swedish team members



Session mediator

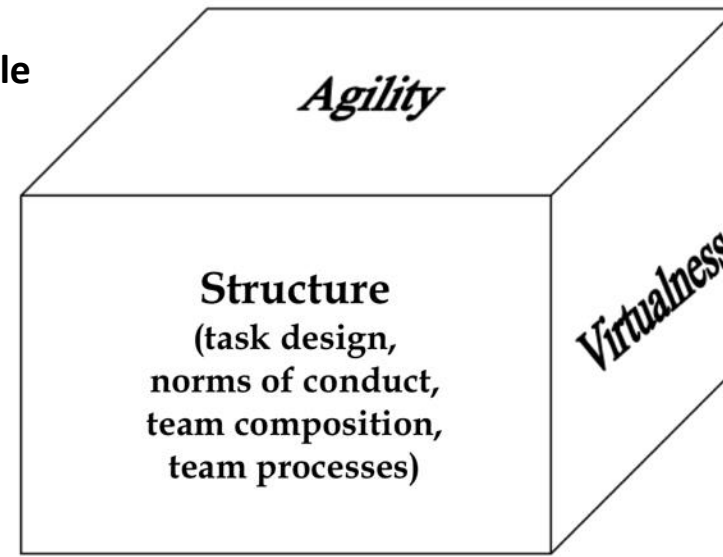
For Indians the word "Yes" by itself is more equivalent of "Hmm" or "I'm listening", while for Swedes it means "I understand", "I agree", "I accept", "I approve", and similarly for "Sure", "Fine", "OK", "I see", "No problem". Indians almost never say "No" or other negative messages, while Swedes have a direct way of communicating and are listening to what is exactly said. They rely mainly on words. No value is put on what is not said.

Virtual teams

- An important element of virtual team design is the establishment of a shared set of norms (Sharp and Ryan, 2008)

Conceptual Model of Global Agile Teams
(Sharp and Ryan, 2008)

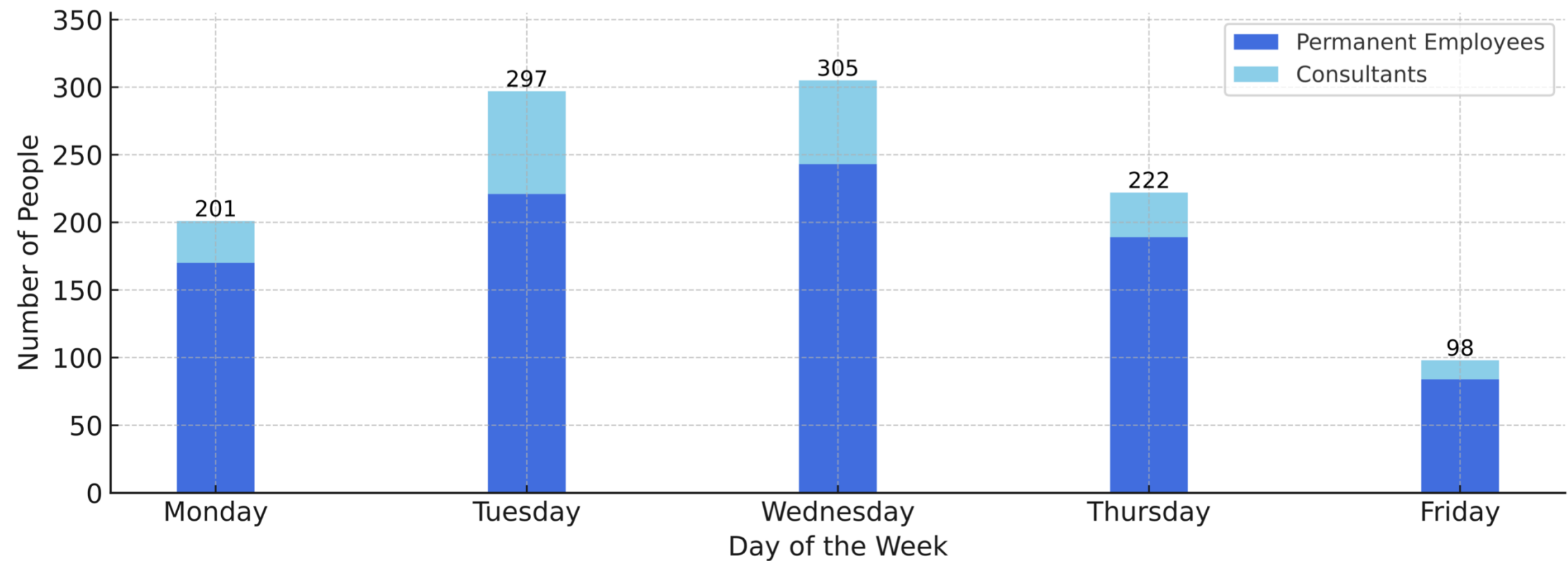
More about norms and virtual teams in Townsend et al., 1998; Sarker et al., 2000; Oshri et al., 2007 and Glikson and Erez, 2013)



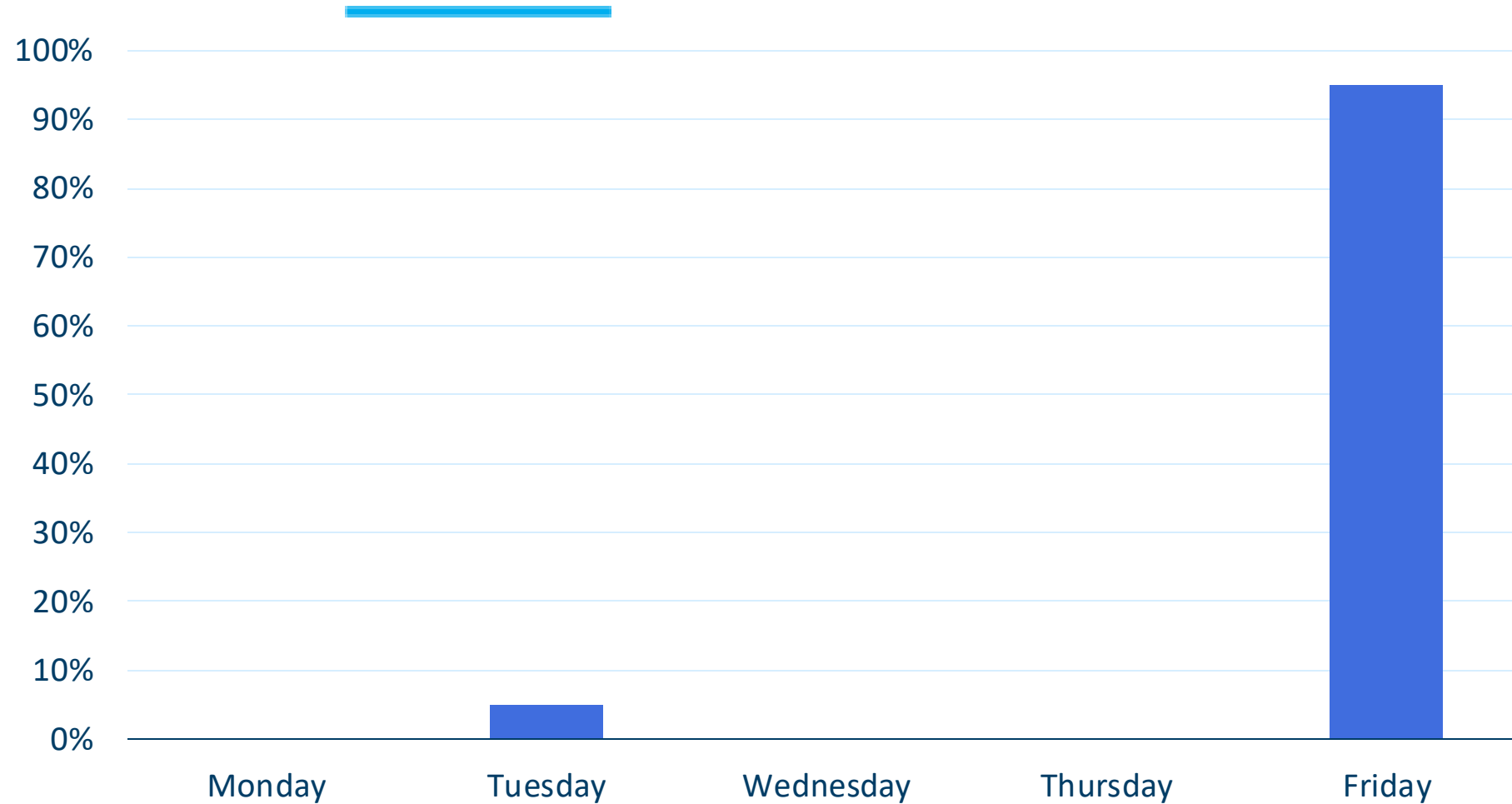
Example of team norms in software development teams



Office presence for a typical week in BankDev (March 2022)



Portugal



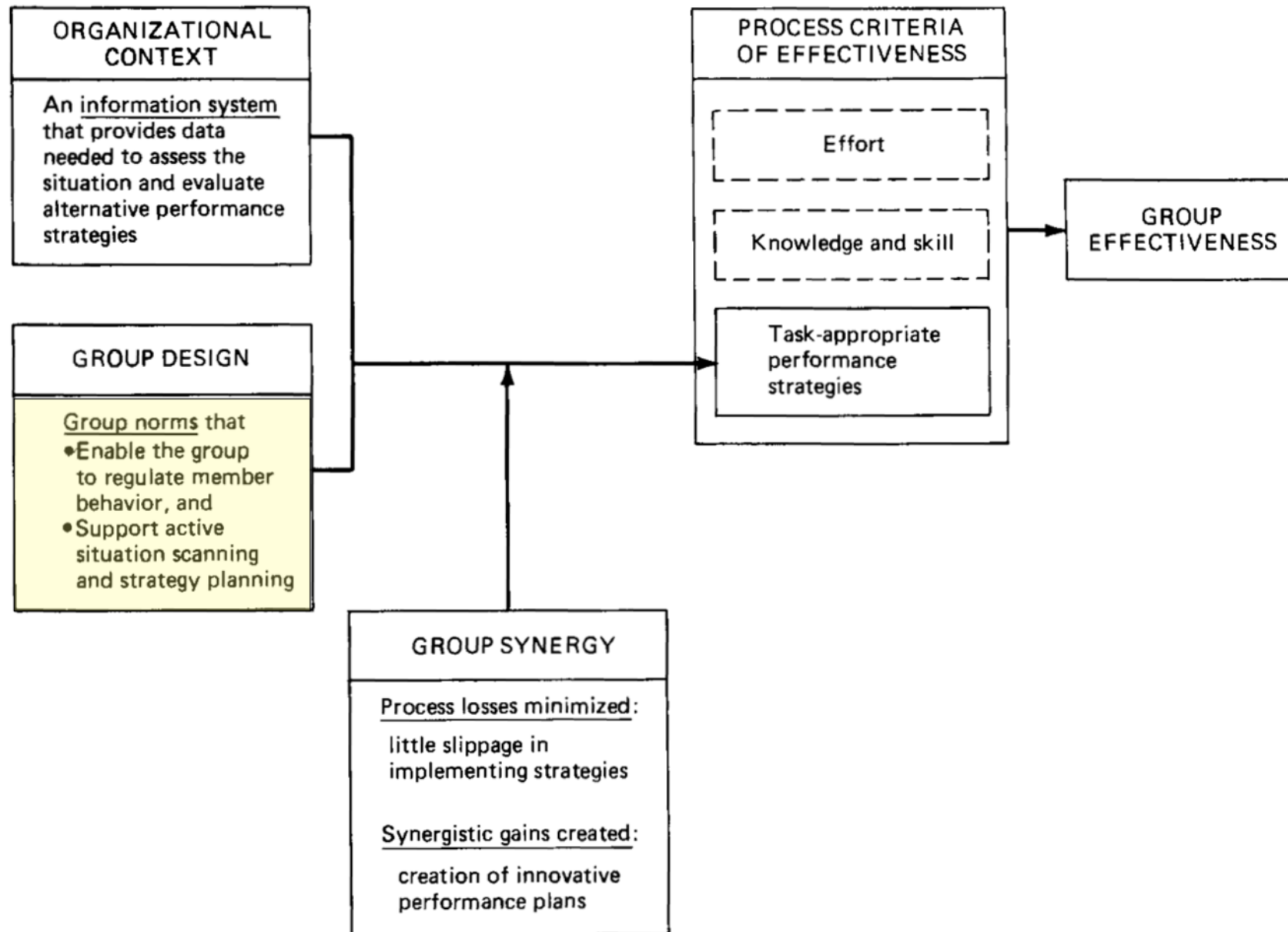
Norms are shared expectations of how to behave



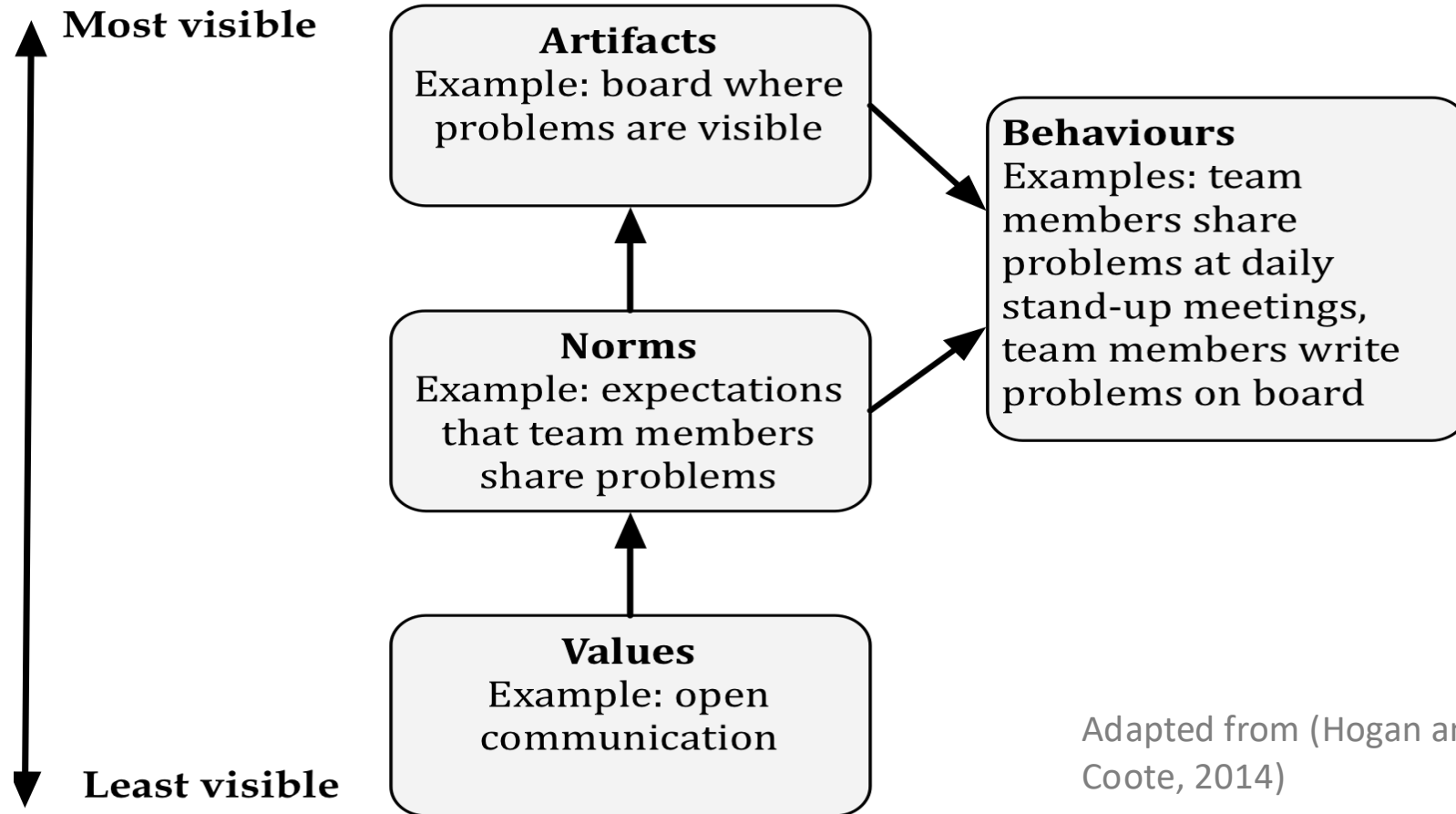
Norms do not exist if they are not shared with others.

(Cialdini and Trost, 1998)

Group effectiveness (Hackman, 1987)



Visibility of values and norms



Adapted from (Hogan and Coote, 2014)

TEAM 1 WORKING AGREEMENT

1. Daily SCRUM at 9.45 am, maximum duration 15 mins. @ Team Room.
2. Length of SPRINT → 3 weeks.
3. Backlog grooming on every Monday at 10 am, max 45 mins.
4. Update SPRINT backlog before daily SCRUM.
5. Effective hours → 5 hours.
6. Team members take turns for SPRINT demo.
7. Assign Jira ticket to yourself & update status when you start a task.
8. Include Jira ticket ID during code check in.
9. No taking in of new story after mid-sprint
10. Swap unstarted story with ad-hoc story which has about the same story hours.
(Points not comparable)

1. Daily SCRUM at 9:45 AM, maximum duration 15 mins. In the team room
2. Length of SPRING – 3 weeks
3. Backlog grooming on every Monday at 10 AM, max 45 min
4. Update SPRINT backlog before daily SCRUM
5. Effective hours – 5 hours
6. Team members take turns for SPRINT demo
7. Assign Jira ticket to yourself and update status when you start a task
8. Include Jira ticket ID during code check in
9. No taking in of new story after mid-SPRINT
10. Swap unstarted story with ad-hoc story, which has about the same story hours (Points not comparable)



Tech-driven asymmetries in hybrid meetings

- Technical issues
- Connectivity problems cause delays and disruptions
- Poor sound quality affects virtual participants
- Background noises interfere with virtual engagement
- Co-located participants often unaware of issues

Conversations where there are many on the same microphone. . . it doesn't work that well. [...] For example, if there are discussions and many people are talking over each other, then it becomes impossible to separate what is said and by whom. [...] But when you are in the meeting room, your ears are kind of able to do it.



Social-Driven Asymmetries in Hybrid Meetings

- Reduced engagement from virtual participants
- Virtual attendees contribute less consistently
- Delays in virtual participants speaking up
- Casual comments and body language in-person create barriers
- High threshold for virtual participation
- On average, it took about eight minutes for a virtual attendee to speak in the meetings we observed.





I think if there is a critical mass in the office, and you are sitting at home, then it kind of feels like stepping onto a stage when you want to say something. Because they have such a good flow in the conversation, and suddenly you interrupt them from [Microsoft] Teams. You get scared that you might ruin that flow.

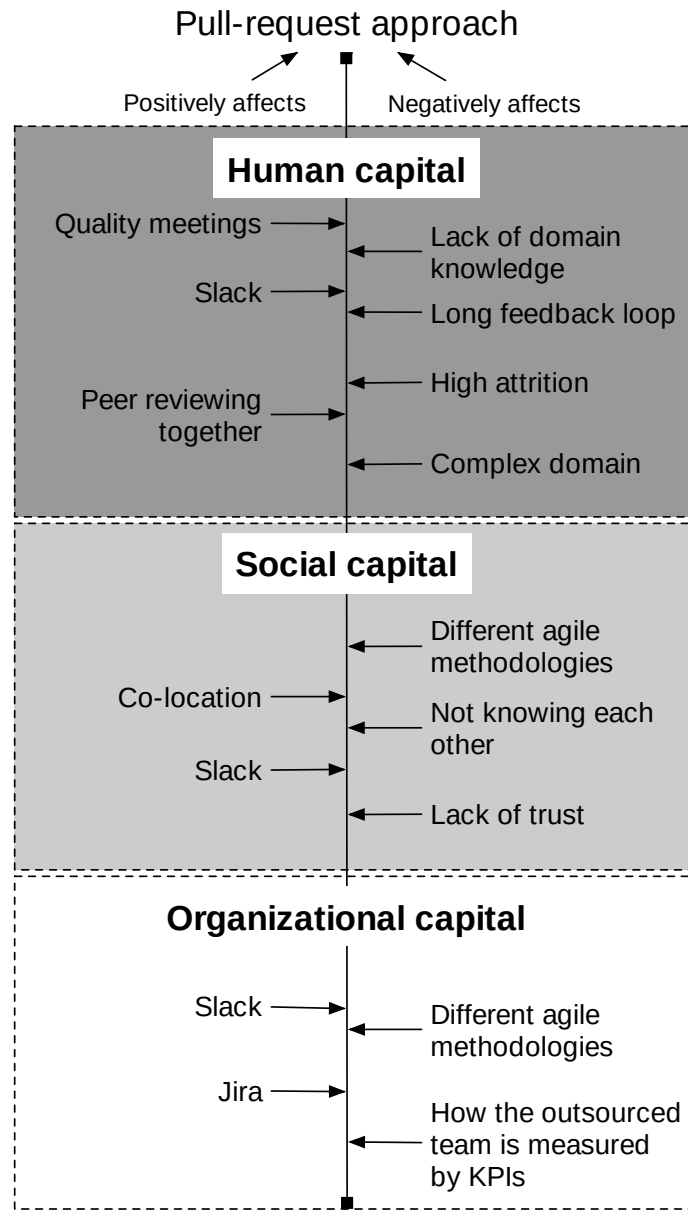
Open the meeting room early





PULL REQUESTS

- lightweight, modern QA mechanism
- standard mechanism for reviewing distributed code
- facilitates knowledge sharing
- is highly collaborative



FACTORS AFFECTING THE PULL REQUEST APPROACH

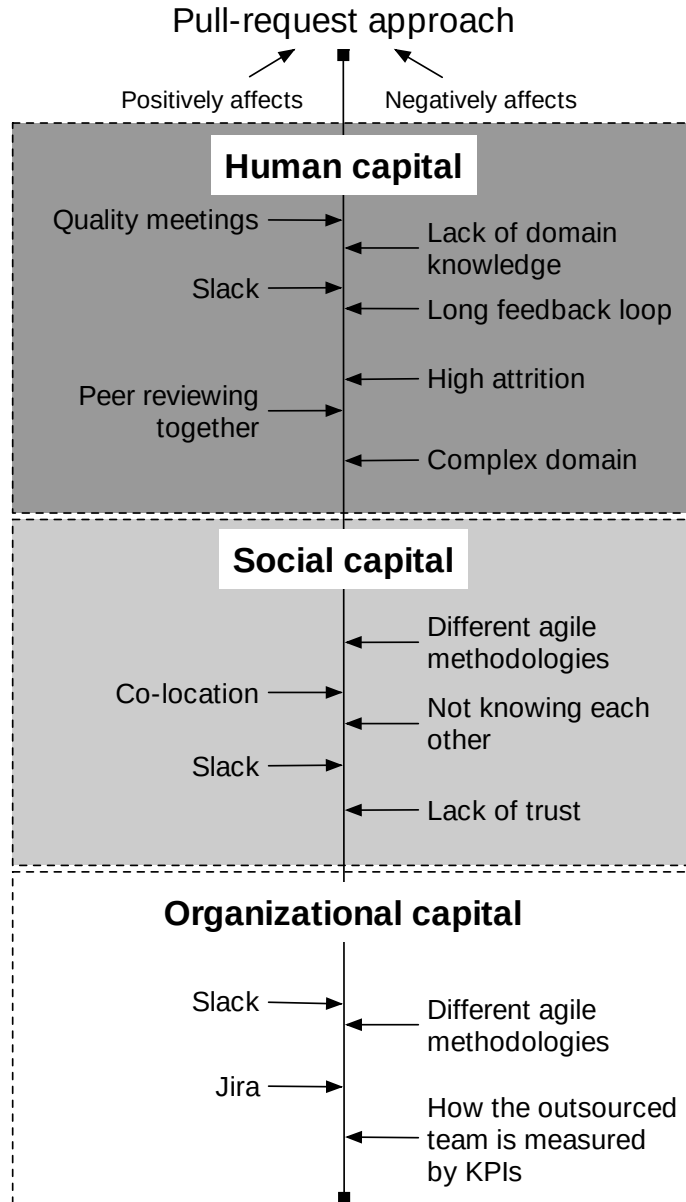


“I feel there are too often new names appearing in the pull requests, names I have never seen before.... When you know the person, you know his strengths and weaknesses, and then it becomes much easier to press ‘approve’ because I know what he knows. Now, it’s more like I have to analyze the code much more carefully, because I do not know who wrote it and how good an understanding that person has of our complex domain.”

AGILE METHODOLOGY AND WORK HABITS



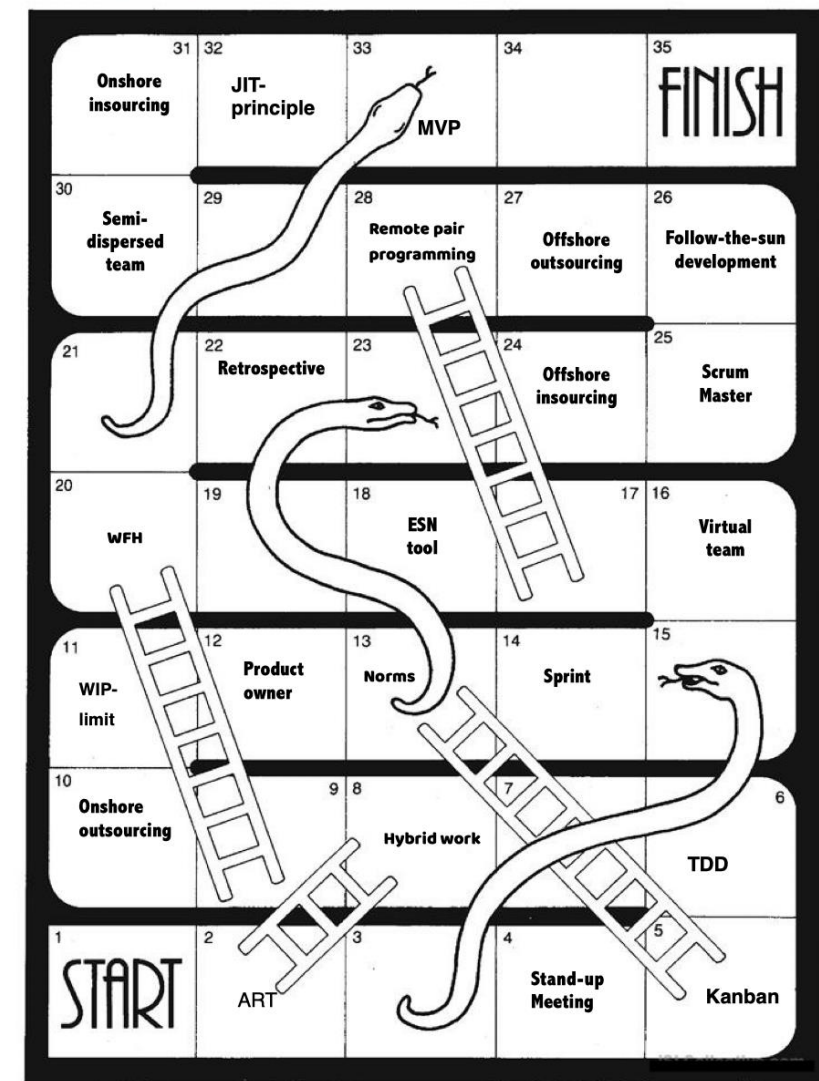
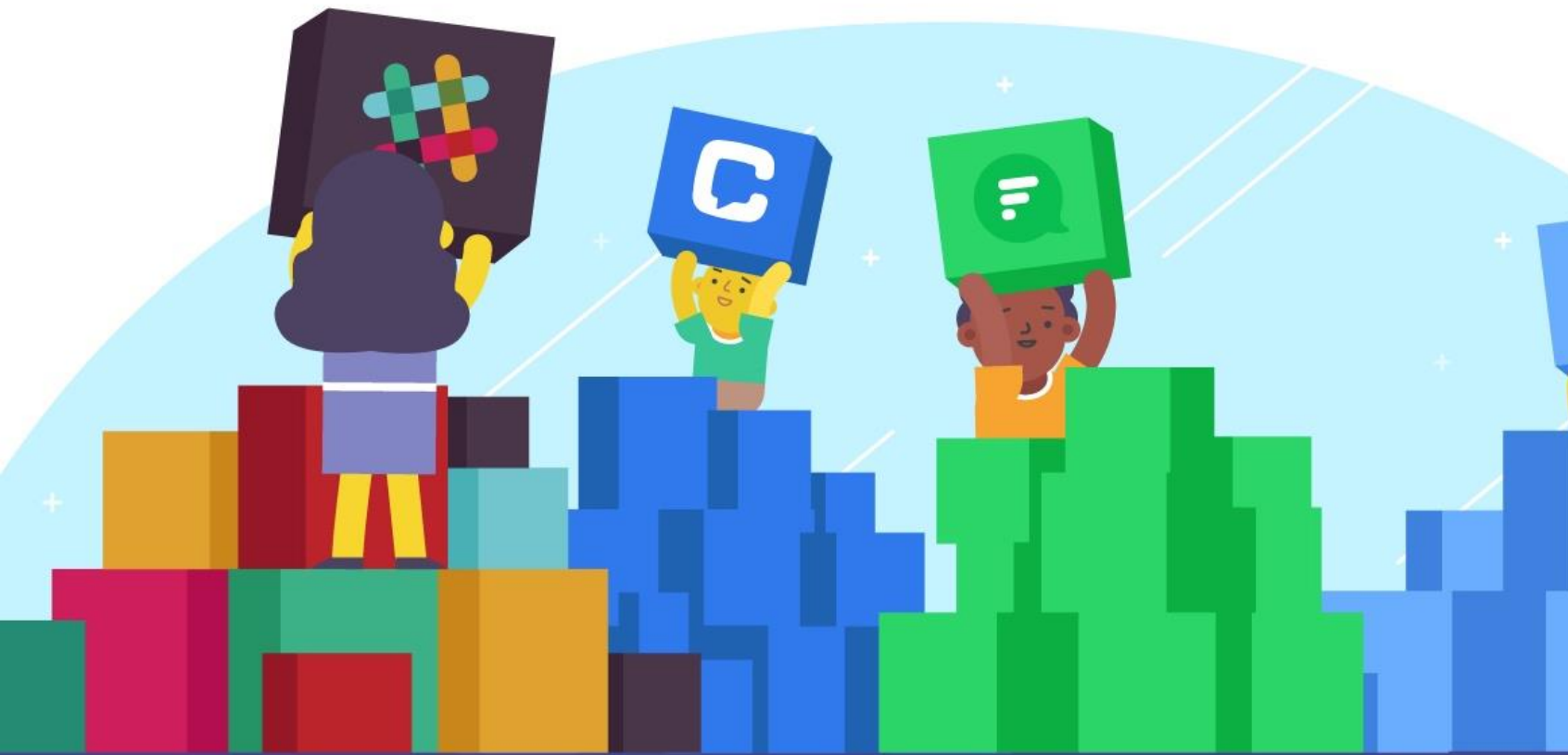
- “With KappaTech, we need more control and to be more rigid, so there we run three-week cycles (week zero, one and two). That is, we have two-week sprints with preparations before, and also demos and retrospectives. So, with them we have a quite well-defined set of ceremonies that we run.”



FACTORS AFFECTING THE PULL REQUEST APPROACH



“When I get QA from KappaTech, then it is maybe 64 [pull requests], so then it’s like, ‘Wow! Where should I begin?’ That is cumbersome, not very motivating. Reviewing pull requests is never particularly fun regardless of who sent them, and now it has been quite a lot. Then it gets really boring.”

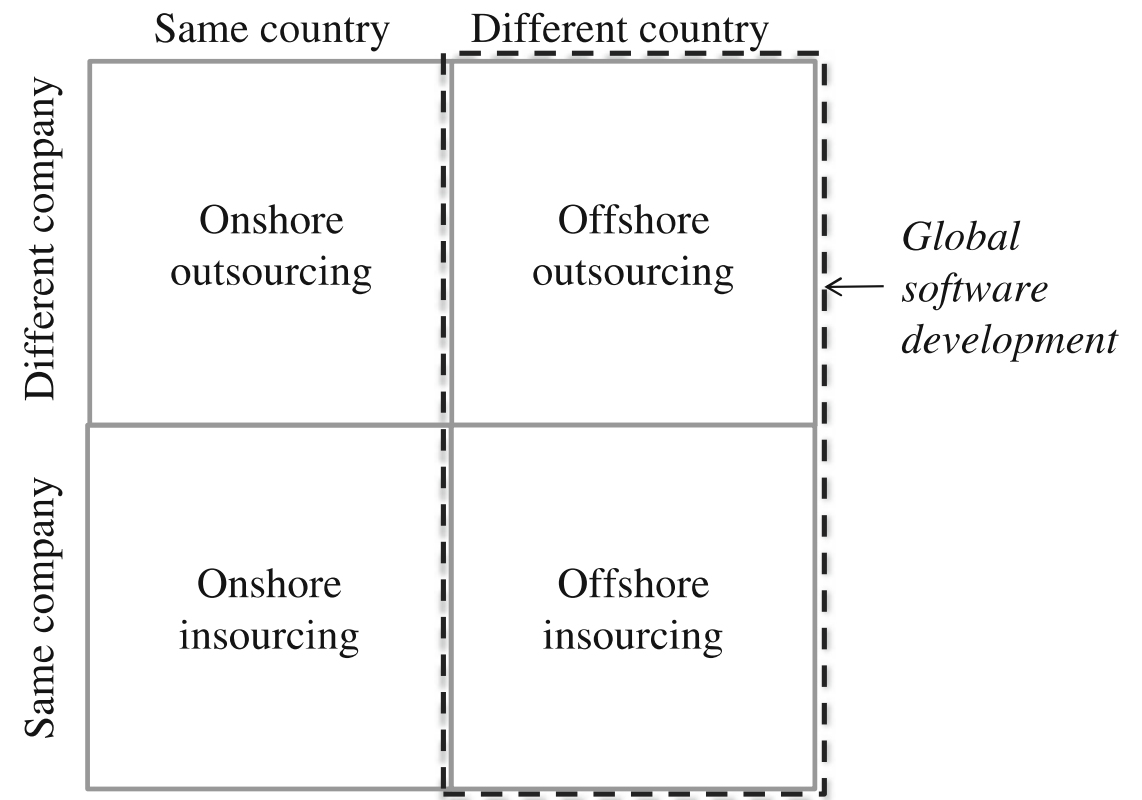
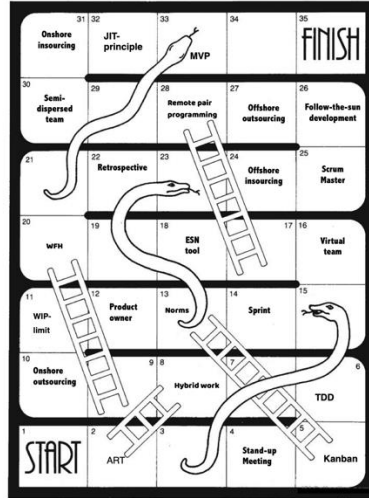


A game

Form groups: Go in groups of **three** or **four** people.

Collect materials: Come here to collect the following items for your group:

- **1 dice**
- **1 game piece** per person
- **1 game board** (sheet of paper)



How to Play:

- 1.Starting Point:** Place your game pieces at “START”.
- 2.Turn by Turn:** Each player rolls the dice on their turn and moves forward the number of spaces shown on the dice. If you land on a word, describe that word to your group members.
- 3.Ladders:** If you land at the bottom of a ladder, you can climb up to the top. When you reach the top, describe the word written there.
- 4.Snakes:** If you land on a snake's head, you must slide down to the tail. When you reach the tail, describe the word found at the tail's starting point.
- 5.Winning:** The first player to reach the end of the board wins the game.