Reunamäki, Riku; Fey, Carl

Remote agile: Problems, solutions, and pitfalls to avoid

Remote agile: Problems, solutions, and pitfalls to avoid

Riku Reunamäki [a],*, Carl F. Fey [b]

[a] Aalto University School of Business, Ekonominaukio 1, FI-02150 Espoo, Finland
[b] BI Norwegian Business School, Nydalsveien 37, NO-0484 Oslo, Norway

Abstract   In response to increasing uncertainty and rapid change, firms are looking to implement new management methods to become more flexible and less hierarchical. One of the most popular of these methods is to be agile, which aims for reactiveness, collaboration, decentralized decision-making, and increased autonomy. However, agile was designed to work best with teams in which members are colocated, whereas during the COVID-19 pandemic—and likely in the post-COVID world—many employees are working remotely at least part of the time. We explore how to adapt agile to remote work, drawing from an in-depth case study of OP Financial Group, the largest bank in Finland. We highlight five problems and solutions to implementing agile in a remote setting and discuss the situations and types of teams in which remote agile will likely work and not work. Our findings provide guidance for companies looking to become agile in today's new normal.
© 2022 Kelley School of Business, Indiana University. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

1. Agile remote work: Combining two trends

Agile has become increasingly popular in recent years as companies are trying to become more responsive to the dynamic and fast-paced business environments they face. By embracing agile, organizations aim for faster and less hierarchical decision-making, increased team autonomy and flexibility, and more innovative solutions amid volatility and uncertainty. Agile employs multidisciplinary teams that break projects into bite-sized chunks, develop solutions together via tight feedback loops, and adapt to changes along the way (Rigby et al., 2018). Essentially, it delegates more decision-making power to small teams and provides employees with more autonomy over how, when, and where they work—including remotely.

Remote work was already possible in some organizations before COVID-19, but the pandemic forced most businesses to rapidly convert to working remotely at a greater scale. Even more organizations will likely support employees'

* Corresponding author.
E-mail addresses: riku.reunamaki@aalto.fi (R. Reunamäki), carl.fey@bi.no (C.F. Fey)

continued desire to work remotely—at least part of the time—postpandemic (Foss, 2021). Thus, remote work seems poised to be important to the future of work, and it is especially important to understand how agile can be adapted to remote work given agile's growing popularity. However, while many aspects of remote work have been studied in the past two decades (e.g., Makarius & Larson, 2017; Raghuram et al., 2019), and some recent articles have provided lessons for improving remote work during COVID-19 (e.g., Howard-Grenville, 2020; Nyberg et al., 2021), studies and best practice reports that specifically investigate how to use agile in a remote setting (i.e., the focus of this article) are still rare.

To help address this knowledge gap and provide practical tools for managers who may struggle with remote agile, we elaborate on the problems a leading Finnish bank faced when adapting agile to a remote setting. We first give a brief review of agile, introduce our case company OP Financial Group, and detail the teams whose work we observed there. Then, we present the five problems of remote agile the teams encountered, solutions to each problem, and pitfalls to avoid. Finally, we discuss the situations and types of teams in which the different aspects of remote agile are likely to work and not work.

2. Agile: Collaboration, autonomy, and responsiveness to change

Agile has been described as "a set of recommendations for a more adaptive and efficient approach" to project management (Annosi et al., 2020, p. 62). Originating in software development (Beck et al., 2001; Rigby et al., 2016), the values behind agile are that project planning should occur continuously rather than only at the beginning, plans should change as needed rather than remain fixed throughout projects, and development should be iterative and incremental (Highsmith & Cockburn, 2001; Williams & Cockburn, 2003). In addition, emphasis should be on interaction and collaboration between people operating in small, autonomous, and colocated teams rather than on extensive, hierarchical processes and documentation across large and distributed networks (Cockburn & Highsmith, 2001).

The formal structures of agile are built upon a few core meetings—or *ceremonies*, in agile terminology—that are adopted in teams throughout the company. In a typical Scrum framework (by far the most popular agile method), the main ceremonies of an agile team are the sprint planning session that kicks off the two-week sprint work cycle, the daily 15-minute, stand-up meetings for quick updates and knowledge sharing among peers, the demonstration meeting that shows accomplishments, and the retrospective meeting for improvement suggestions toward the end of the sprint (Sutherland, 2014). In addition, the influential "Spotify model" of agile, which aims to make knowledge sharing easier in Scrum, includes chapters (i.e., employees within the same competency area) and guilds (i.e., communities of interest), which have meetings at regular intervals. The main purpose of the teams' ceremonies is to facilitate information flow and idea generation, and the chapters and guilds aim to achieve company-wide information and best practice sharing without sacrificing team autonomy (Kniberg & Ivarsson, 2012; Šmite et al., 2019).

Recently, and partly as a response to some ongoing changes in business (e.g., increasing digitalization, the rise of knowledge work), the adoption of agile values and practices has extended from information and communication technology (ICT) to different functions and even entire firms (Birkinshaw, 2018; Cappelli & Tavis, 2018; Rigby et al., 2020). Agile was designed to work best with small and autonomous teams, meaning organizations must tackle issues such as heightened bureaucracy and interdependencies between teams as scale increases (Rigby et al., 2018; Vaara et al., 2021). Researchers agree that implementing agile throughout large companies is more complex and difficult (Boehm & Turner, 2005; Conboy & Carroll, 2019; Dikert et al., 2016) and is especially demanding in traditional, established businesses (Annosi et al., 2020; Chen et al., 2016). Only a handful of large companies outside the ICT industry have undertaken the difficult task of applying agile to their entire organization (Birkinshaw, 2018; Doz & Guadalupe, 2021), which requires significant changes in the culture and organizational structure of the firm.

3. The case company: OP Financial Group

One of the first examples of implementing agile in a large, nonICT firm is OP Financial Group, the largest bank in Finland, which implemented agile throughout. Established in 1902, OP is the third-largest private-sector employer in Finland with about 13,000 employees. Its business is divided into three segments: (1) retail banking for private and SME customers, (2) corporate banking, and (3) insurance. OP holds a 40% market share in Finland

in both mortgage and corporate loans and a 33% market share in nonlife insurance. It also serves 3.1 million private customers—over half of the Finnish population (OP Financial Group, 2022).

To survive technological disruption in the financial industry, traditional banks like OP have had to find ways to compete against both small and agile *fintech* startups as well as *big tech* giants like Apple and Google that are looking to expand into banking. In January 2019, OP began one of its most ambitious transformations: "OP Agile," a cultural and structural reorganization into a more agile company in which employees work in self-managed teams. The new operational model and way of organizing work at OP were partly inspired by the Dutch bank ING, which adopted agile in its retail operations in 2015 (Barton et al., 2018; Birkinshaw, 2018; Mahadevan, 2017). However, soon after OP extended agile from the retail banking segment to the whole organization at the beginning of 2020, the COVID-19 pandemic forced most of the company into remote work.

Our in-depth case study of OP was conducted over 17 months between November 2019 and March 2021 in four rounds: (1) before the pandemic (November 2019—February 2020), (2) in the middle of the transition to remote work (May 2020—June 2020), (3) after the COVID-19 situation had been prolonged (October 2020—November 2020), and (4) after it continued into 2021 (January 2021—March 2021). We thus began our research before COVID-19 and continued it throughout the pandemic, witnessing firsthand not only OP's transformation to agile and the adaptation of agile to remote work but also the learnings and subsequent changes that occurred to make remote agile better. This case illustrates that agile can be successfully applied throughout large organizations outside the ICT industry and also used, with some adaptation, when employees work remotely. However, relevant for both ICT and nonICT companies, the case of OP also highlights that depending on the tasks employees in different functions need to do, agile is helpful to different degrees and may be more advantageous when adapted at different levels.

The first author closely followed, compared, and contrasted two different teams inside OP's headquarters for a total of 140 days. He spent 80 days conducting on-site observations and 60 days conducting "remote observations" of online team meetings in Microsoft Teams. The first OP team was an *expert team* that essentially worked as a team of internal consultants with distinct areas of expertise. Their work was complex, ambiguous, collaborative, and often hard to measure

concretely, but it was still relatively easy to plan its big picture. This team was also one of the first of its kind to adopt agile in early 2019 and thus had a year's worth of experience in agile before being forced into remote work. Before the pandemic, the team colocated in the free seating areas of the headquarters with individual members sometimes on the road at the bank's branch offices, but after March 2020, all employees almost exclusively worked remotely from home.

The second team, in contrast, was an *operations team*, which handled back-office work with a customer service orientation. Although it was more difficult to predict and plan their workload far in advance as it depended on customer needs, the tasks themselves were more straightforward, repetitive, concrete, and easier to measure. The team adopted agile at the beginning of 2020 and had not adjusted to it before the pandemic hit. Before COVID, half of the team worked at the headquarters and the other half worked in another city at fixed desks, with team meetings held online. At the onset of the pandemic, employees had few possibilities to work remotely from home (due to many tasks requiring monetary transactions), so they dispersed to more OP locations to socially distance themselves, and some were given private rooms. Contrasting the two teams (of 12—17 members) provided insights into the pros and cons of agile in different types of work.

To personally experience the problems and solutions of remote agile, the first author spent much time in the two teams to "live with and live like those who are studied" (Van Maanen, 2010, p. 242). Utilizing both in-person observations and videoconferencing tools provided a more authentic description of modern organizational life (Akemu & Abdelnour, 2020) and reflected the lived experiences of the employees suddenly forced into remote work. The first author also conducted 73 interviews: 66 with the employees (18—35 minutes) and seven with senior managers such as the CEO and the CHRO (45—62 minutes). Expert team members were interviewed three times, and operations team members were interviewed twice throughout the study. In addition, the first author maintained a monthly informal meeting with a senior HR director to stay updated on organizational transformation and gain feedback on ideas. During data analysis, we developed broad categories such as "team size issues" and "online meeting issues" to organize our data. In the end, we grouped our findings into five distinct problems and their respective solutions. Both employees from the two teams and OP's leaders validated our findings, which we discuss sequentially below.

4. Problems and solutions to remote agile

After a few setbacks caused by the pandemic, the agile transformation at OP started to pick up steam again in the fall of 2020—only this time in a remote setting. In Section 4, we present five problems that emerged when implementing remote agile, propose a solution we observed for each, and elaborate on pitfalls to avoid. Our discussion also highlights important differences between how agile works in person and remotely in the two teams we followed. Table 1 summarizes the five problems, solutions to them, and related pitfalls.

4.1. Problem 1: Fewer organic interaction opportunities in remote agile

The serendipitous emergence of ideas via informal chat was more difficult at OP when working remotely, as videoconferencing greatly restricted the teams' interaction compared to in-person interaction. In other words, meeting remotely simply could not substitute for team colocation. Recent research has suggested less informal interaction happens during remote work (Viererbl et al., 2022), but less has been written about good solutions to this problem. Crucially, the problem at OP was exacerbated by teams having a larger number of members, as the idea of agile is partly based on small teams that are physically colocated and therefore able to tackle complex problems and develop novel solutions by brainstorming together. Agile entails both planned problem-solving (e.g., iterative and incremental idea refinement) via discussions and alternating peer feedback, and serendipity (e.g., spontaneous conversations) that can occur at the proverbial "water cooler" or during lunch breaks. Thus, fewer spontaneous interactions are problematic for agile to work remotely.

4.1.1. Solution: Create smaller subteams within existing teams

At OP, the expert team realized the difficulty of creating an online environment that enables the free flow of ideas and spontaneous interactions within a team of more than 12 people. To solve this problem, they self-organized into subteams of 2—4 members to facilitate the agile values of close interaction and collaboration. While still maintaining the larger original team to share key information, the experts grouped those most likely to benefit from frequent interaction with each other (see also Kreamer & Rogelberg, 2020). Working as a small subteam enabled a few employees to keep their line of communication open for extended periods—or even the whole day—providing a sounding board for ideas, rapid feedback, and help as needed. As Tim,[1] an expert team employee, told us: "I think it is evidence of good teamwork that we do not have many planned or scheduled meetings with [my subteam] but we still discuss something every hour."

The operations team being a larger size was not as problematic since its members did not need to work as closely as those in the expert team, but it still caused challenges (e.g., complicating agile task rotation). Training and knowledge sharing were organized in pairs or small groups via Microsoft Teams calls, screen sharing, and the group chat function. One member, Kristiina, described how teaching a new task remotely allows multiple colleagues to learn it effectively and simultaneously:

> I will first show them how it is done, and then they will all take turns trying it out, sharing their screens while practicing so everyone else can follow and comment. It is actually quite handy, the way we do it in Teams.
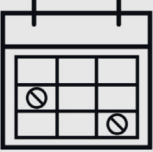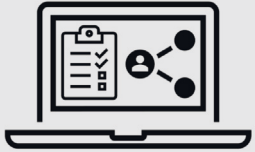
Hanna, another operations team employee, established a support group chat for quick questions about the specific task her subteam was responsible for. This effectively created an opportunity for the kind of instantaneous and informal peer support that existed in a colocated, open office environment.

4.1.2. Pitfall to avoid: Subteams run the risk of creating informal hierarchies

Creating subteams within existing teams helped to mitigate the downsides of remote agile at OP, but subteams also tended to produce informal and invisible hierarchies. Even in teams of three or four people, one member often assumed the responsibility for arranging subteam meetings, effectively becoming the subteam "leader." These employees started acting as "spokespersons" of their subteam in the ceremonies of the larger team, speaking on behalf of others. This resulted in only a few members being active and contributing whenever the larger team gathered, which created a new level of hierarchy and more structured meetings rather than a flat organization with a free-flowing discussion—which is the goal of agile.

---

[1] We use pseudonyms in this article to protect the identities of individual employees.

Table 1.   Key problems, solutions, and pitfalls in remote agile

Problem	Solution	Pitfall to avoid	Remedy
1. Fewer organic interaction opportunities in remote agile • No colocation, which is important in agile • Spontaneous and informal discussions are missing • Large team sizes result in restricted interaction due to videoconferencing	Create smaller subteams within the existing teams • Groups of 2–4 employees can stay in close contact throughout the day • Rapid feedback and help available • Meetings can be organized ad-hoc • Less waiting for turn to speak when videoconferencing	Subteams run the risk of creating informal hierarchies • Employees become "subteam leaders" and "spokespersons" in the larger team's meetings • Subteams themselves might be given different priority within the larger team (e.g., given more time)	Avoid internal hierarchy developing by rotating who reports on behalf of a subteam. Allow equal time for subteams to present and rotate order at larger team's meetings.
2. Engagement is lower in a remote agile setting • "Listening with half an ear"—more multitasking • "The fear of the mic"—higher threshold for contributing	Set the stage to promote engagement in digitally mediated agile meetings • Always have cameras on to foster the sense of togetherness • Start meetings with free small talk to engage everyone and lower the contribution threshold • Take walks outside to improve concentration • Organize votes on major issues	Team members might prioritize other meetings • Some team members might not participate at all, perhaps in part due to not being able to multitask • Team spirit can be affected	Stress at the company level that the number one priority for all employees is taking part in their own team's meetings.
3. Remote agile causes meeting overload • All interactions are scheduled • Online meetings can be scheduled back-to-back • Large meetings are easily organized by inviting all	Proactively protect nonmeeting time within the organization • Block time in the calendar for individual work, especially to prepare for an important meeting • Rotate team members who participate in larger meetings and report back to the team • Establish a rule that meetings end 5–10 minutes before the hour	Lack of respect for calendar bookings • Collaboration between teams is sometimes difficult to manage • Others book meetings based on their urgent need for help	Emphasize that although agile highlights collaboration, focused time is necessary to get work done. Critically examine who should attend what meetings.
4. Leaders may take more control and not provide enough support in remote agile • Old habits of hierarchical leadership die hard—especially in a crisis • Employees are lonelier, but reaching out to them is harder • More difficult for employees to contact leaders	Be truly present and build opportunities to interact with employees • Reach out more frequently, discuss with each team member regularly, and express empathy • Defend your team's interests in disputes • Help employees set reasonable workloads	More micromanaging and less delegation • More frequent contact risks giving advice that is too task-specific • Empathy might result in doing employees' work for them	Build shared leadership within the team instead of stating goals. Support employees by coaching them to work independently.
5. Less interaction within the organization impedes knowledge sharing in remote agile • Fewer chances for organization-wide networking and forging new connections • Teams become more isolated and inward-looking, might develop their own norms • Best practices stay at team level	Adopt software solutions and new roles that promote information sharing • Utilize agile online software to make planning easier and the work transparent to the entire firm • Make cross-team knowledge sharing explicit by scheduling visits to other teams' online meetings • Appoint "knowledge owners" responsible for broadcasting each team's best practices to the firm	Additional burden and varying activeness • The usefulness of online tools depends on task type and takes away time from "actual work" • Additional meetings and roles create greater burden in calendars • Ability and motivation to navigate agile software solutions varies	Emphasize the importance of data for organizational planning, assess which tools are most helpful for different teams, and provide ample training and support to ensure that employees know how to use the tools.

A related pitfall at OP was that the subteams formed invisible hierarchies within the larger teams. In the expert team, for example, the sales subteams became more central to the larger team than other subteams. Salespeople had more time to talk about their work in the larger team's ceremonies than others, their problems were discussed more extensively and always at the beginning, and their issues were prioritized over the issues of other subteams—who sometimes only had a turn if there was enough time at the end of a meeting. The (unintentional) priority given to some subteams over others resulted in members of the "less important" subteams feeling reluctant to share what they were doing, preferring instead to yield their time in the interest of ending meetings on schedule.

4.1.3. Remedy
To manage the spokesperson pitfall, team members were encouraged to take turns organizing both subteam meetings and the larger team's ceremonies. To avoid the pitfall of subteam hierarchies, teams allocated equal time to all subteams in joint ceremonies and rotated the order in which subteams shared their thoughts.

4.2. Problem 2: Engagement is lower in a remote agile setting

When working remotely, it was more difficult for OP's employees to stay up to date on what was happening elsewhere in the team. As such, the agile ceremonies became even more essential because employees could not spontaneously bump into each other in office hallways. In addition, it was much easier to multitask or completely drift off during online team meetings unless it was your turn to speak, or a colleague was discussing a topic that particularly interested you. In a remote setting, it was easier to be a passive participant and avoid contributing—even when truly focused (i.e., "fear of the microphone," according to some OP employees).

Interviewees also described participating in some online meetings "with only half an ear" while continuing to work on their own tasks, especially if the meeting did not explicitly relate to their work. Maria, an expert team member, said:

> I have a feeling that, on the other side of the screens, people are focusing on something totally different than what we are discussing about. And I will admit, I sometimes slip as well in meetings that are not so relevant for

me. But, I think, especially in our own team's ceremonies, it is frustrating when others will not really comment on things.

In line with other research on remote meetings (e.g., Kreamer & Rogelberg, 2020), engagement and contribution were lower remotely than in in-person meetings also at OP. Therefore, the benefits of an agile team solving problems together were often not fully realized.

4.2.1. Solution: Promote engagement in digitally mediated agile meetings
The two OP teams tackled lower engagement in several ways. First, they encouraged everyone to always have cameras on during team meetings, which increased engagement and fostered a sense of togetherness. "It is not about having a ton of makeup on or being dressed to impress; nobody cares about that. It is about everyone being more present and getting more genuine interaction going, and it is refreshing," Maria explained. Second, starting all ceremonies with a few minutes of small talk (with cameras on) made it natural to leave them on during the actual meeting and loosened up participants. Dedicating a few minutes for nonwork chitchat might have made ceremonies a bit longer, but teams were allowed to adapt their length and frequency to individual needs (see also Stray et al., 2020). When the teams had cameras on, members generally focused more on what others were saying and benefited from their joint ceremonies. Third, to improve concentration, some expert team members took walks outside during the team's ceremonies. Walking has been found to improve creative thinking and talkativeness, which, in turn, facilitate problem-solving and ideation (Oppezzo & Schwartz, 2014). Fourth, the operations team sometimes voted on major team issues, which was another way of engaging everyone and providing a low-threshold channel to participate in decision-making.

4.2.2. Pitfall to avoid: Team members might prioritize other meetings
Although having cameras on increased engagement in team meetings, there was also a danger of the ceremonies not being a priority for some team members and them not participating at all. They booked other (personal) meetings at the same time, which made knowledge sharing difficult and negatively affected the team spirit. In one of the expert team's meetings, around half of its members left to join other meetings after about 30 minutes (two hours were reserved altogether). The rest of the

team continued the team ceremony, but instead of discussing the planned topics, the discussion shifted toward criticizing the members who left.

4.2.3. Remedy

To decrease the potential for low engagement, our analysis suggests that top management should stress the importance for all employees to actively take part in their team's ceremonies, as they embody the core agile values of iterative development and frequent internal feedback. If this message is repeatedly communicated throughout the company, it will become an accepted part of the organizational DNA that all employees have some hours in a week during which they do not focus on anything other than their team meeting.

4.3. Problem 3: Remote agile causes meeting overload

When employees are working remotely, the number of online meetings naturally increases, regardless of whether a company has adopted agile. However, agile ways of working are ultimately based on frequent social interaction and collaboration, which is why a combination of remote work and agile caused even more of a meeting overload at OP than "traditional" remote or agile work. We saw meetings multiply in both teams, but especially in the expert team. As Tim explained:

> What is missing when you do not see other people around are the quick questions in the hallway. They have now been turned into meetings, and meetings always last longer, and meetings have to have agendas and be at least somewhat structured.

Similarly, using data from Microsoft, Layne and Cozzi (2020) noticed that the number of short meetings (i.e., 30 minutes or less) quickly grew by 22% when the pandemic started.

Anna, another expert team member, indicated she typically had 12—13 Teams meetings each day. A root cause of the meeting overload problem was the ease of organizing large meetings remotely. One senior executive told us:

> I receive calendar invites for meetings of 70+ people that are not relevant for me. They are not even related to what our tribe [department] does, but when I look at the list of invited people, I find many are nevertheless from our tribe. I suspect it is because the organizers think it is better to invite than to not invite, as agile encourages openness and

knowledge sharing…These mass meetings could not be organized if we were not remote.

4.3.1. Solution: Protect nonmeeting time within the organization

The expert team employees found it useful to block time in their calendars for individual work to fight the online meeting overload. They began to block 30 or 60 minutes before an important meeting to prepare for it and adjust their mind to it. As Johanna from the expert team put it:

> I reserve the previous hour for finalizing my presentation. I immerse myself in the materials and think about what to highlight. Before, I always had some other meeting right before, and I was jumping from that to one where I had to present, and I was not prepared. It was difficult to suddenly turn my brain on.

Interestingly, only some of the operations team members participated in the tribe-level meetings, later summarizing relevant information for the rest of the team. At the organizational level, OP established a rule that meetings can last for a maximum of 50 minutes, which left at least 10 minutes in-between consecutive meetings—although this rule was frequently violated. However, in general, sending a signal that burnout is taken seriously in the company somewhat strengthened OP's employer image.

4.3.2. Pitfall to avoid: Lack of respect for calendar bookings

Although agile teams should, in principle, be independent, they still require substantial collaboration and dependence between teams—and they are sometimes difficult to manage in large organizations (Dikert et al., 2016; Lindvall et al., 2004). One curious problem that OP's expert team members encountered when they started marking time from their calendars as focused work was that if members from other teams urgently needed something from the expert team, they promptly scheduled meetings on top of the experts' focused work time. This resulted in the experts fabricating imaginative titles to their calendar bookings, as Emma explained: "When I try to book some time for myself, I have to name it as something like 'collaboration meeting' because somebody immediately books a meeting on top of it if I only write 'working time.'" Her colleague,

Joel, echoed a similar sentiment: "I have noticed that I then get questions such as 'You have that 3-hour meeting in the afternoon, is it a real one?'"

4.3.3. Remedy

To minimize the number of double bookings, top leadership should stress that despite agile being a collaborative approach to work, workers also need individual time to get tasks done, and this time should be in blocks long enough to be productive. As such, people at OP were encouraged to book the individual work time they needed with respect from others. We also encourage meeting organizers to always reflect critically on who really needs to attend a meeting.

4.4. Problem 4: Leaders may take more control and not provide enough support in remote agile

The case of OP demonstrates that old habits of hierarchical management die hard. As one agile coach described to us in June 2020:

> In a normal situation, leaders here have adopted a coaching leadership style and are able to delegate responsibilities. But when there is a crisis, suddenly the old habits are there again—especially if you have been a leader for a long time and your role has previously included a lot of independent decision-making and even micromanagement. I was in a meeting where someone said, 'Let's put this OP Agile on hold for now since we have this COVID crisis.' It sounds weird. What exactly are you putting on hold? Do you mean we should stop having meetings, or are you trying to forget everything you have learned about agile leadership? I have seen an increase in micromanagement.

From a leader's point of view, agile is based on trusting employees, providing them with autonomy over their work, removing obstacles they might face, establishing a learning culture, and creating a shared sense of purpose within the team (Hill, 2020). Leaders must exhibit even greater trust when employees are working remotely, which—especially in times of crisis—sometimes causes leaders who are not fully comfortable with agile to slip back into a more traditional leadership role (Birkinshaw et al., 2021).

Reaching out to employees can also prove more difficult when working remotely. Although members of the expert team were self-directed and autonomous, they still needed support from their superior, as the team's leader described to us:

> I cannot really get a grip on people remotely, so I do not really know how they are doing…It is depressing when you talk with someone who is having a difficult time, even crying, and all you can do is try to show empathy through a laptop screen.

The operations team leader, who her team often turned to for help and advice (even with minor issues), had similar experiences: "Somehow it feels like I am out of ideas regarding how to stay in touch of how everyone is doing."

Moreover, it might be difficult for employees to reach out to leaders as well. As large-scale agile frequently requires interteam collaboration, and as this need for coordination increases in a remote setting, team leaders often spend a lot of time in meetings planning and coordinating with tribe leaders and agile coaches. When no one is in the office (i.e., everyone working remotely), being aware of when the leader is available for a quick Q&A between meetings is not easy for employees. Overall, employees are now lonelier than ever due to the pandemic and remote work (Hadley, 2021)—but agile requires all team members to contribute, so leadership must adjust.

4.4.1. Solution: Be truly present and build opportunities to interact with employees

Essentially, great leadership when working remotely is about being there for the team. The leaders of the two teams at OP successfully managed this task by adjusting in several ways. First, both made themselves more available for their employees and reached out to them more frequently. For example, the leader of the expert team established a routine of having a 30-minute discussion with each team member every two weeks without exception. In addition, the leader of the operations team constantly reminded employees that she is always unofficially available via the Teams chat function and that no issue is too small for her to assess if needed.

Second, leaders defended their team's interests. Disputes inevitably occurred in OP's large-scale agile because it was difficult to manage the dependencies between teams that had asynchronous sprint schedules and different priorities—especially when remote. A key task of an agile leader is to remove obstacles that hinder the team. In addition, agile leaders must take their team's side when issues arise to create a psychologically safe

environment within the team and build interpersonal trust and a sense of team spirit.

Third, the leaders were active in helping set reasonable employee workloads. They tried to make sure that their team members did not overwork themselves by taking on too many tasks and responsibilities. We see this as a risk related to agile with self-managed workloads and deadlines—especially in remote work, which further highlights self-management skills. The expert team leader said:

> I have talked about well-being and brought forward ideas that really help us to manage our workloads to make the point that it is okay to not attend meeting on top of meeting from 8 a.m. to 7 p.m. every day.

The operations team leader emphasized that the work should not be taken personally: "I try to handle people with silk gloves, reminding them that 'What you do is enough!'"

4.4.2. Pitfall to avoid: More micromanaging and less delegation

The risk of leaders reaching out to their subordinates more frequently is that they will end up giving detailed, task-specific advice or solving problems that their team members could solve on their own. We saw this happen at OP in the operations team, where employees occasionally let the team leader micromanage instead of taking initiative on issues they were empowered to make decisions on. On the other hand, the team leader expressed empathy by performing tasks and making decisions that were meant for team members, trying to ease the workload and stress of employees during the pandemic. However, this goes against the agile values of autonomy and self-management.

4.4.3. Remedy

We find that leaders in agile organizations should try to build shared leadership within the team. It is a dynamic, interactive process that involves team members working together—rather than under the leader's direction—to lead one another and achieve goals (Pearce & Conger, 2003). Leaders should try to guide team members to develop goals instead of stating them for the team. This approach takes more time, but it results in better buy-in and quicker implementation. Shared leadership also places substantial effort on the role of leaders as coaches who develop the team to work

more independently instead of establishing a belief that the leader knows best. Coaching can also help fill the gap left by having fewer leaders in self-managed organizations (Fey et al., 2022), and we believe this is especially the case in organizations with employees who can work remotely.

4.5. Problem 5: Less interaction within the organization impedes knowledge sharing in remote agile

At OP, the informal, one-on-one conversations—which often occurred after larger, in-person meetings—were less likely to happen when meeting online. As Tim from the expert team explained to us:

> There is a lot going on in the firm, but it is more challenging to get a comprehensive overview. We need the big events in the auditorium where we meet each other face-to-face and have the 'light-bulb moments.' They are especially helpful when you are developing something new.

Agile requires this efficient knowledge sharing. Chance encounters are important for keeping people updated on new developments, facilitating innovation, and forging new connections in the workplace (Dahlander et al., 2021; Lane et al., 2021). However, when people work remotely, it is more difficult for them to maintain and expand their knowledge-sharing networks, even in an agile organization.

Remote work runs the risk of teams focusing on their existing networks and becoming more "siloed" and inward-looking, as everyday interactions with colleagues more often stay within the team rather than extend beyond team boundaries (Yang et al., 2022). The isolation of teams working remotely may also result in them developing their own norms over time, which could even dominate company norms. Before COVID-19, members of the expert team sometimes attended the ceremonies of other teams and were engaged in a dialogue about how to best fit their agile work practices together, but this often did not happen remotely. The "Spotify model" of agile proposes chapters (i.e., groups that bring together people with similar skills) and guilds (i.e., larger communities of interest that cut across the whole company) as solutions for knowledge sharing (Kniberg & Ivarsson, 2012), but OP somewhat struggled

with implementation. Some expert team employees participated in "risk management roundtables, process owner syncs, and compliance meetings, which all feel like the same discussion," according to Leena, a team member. In the operations team, employees felt that the chapters and guilds often lacked a clear purpose.

4.5.1. Solution: Adopt software solutions and new roles that promote information sharing

To help share knowledge more efficiently, OP encouraged the use of various online tools for agile. When working remotely, there is a greater need to use online communication tools, but remote agile also benefits from online project management software specifically developed to support agile work. These tools are important not only for teams and individuals but also for the organization. At OP, they helped agile sprint planning, brought structure and coherence to the often ambiguous expert work, and supported knowledge sharing inside teams. The tools also gave the organization transparency into what teams achieved or struggled with, what business goals each team contributed to, and helped conduct (strategic) planning with more data.

Cross-team knowledge sharing can be improved by making it more explicit (e.g., scheduling systematic regular visits to the neighboring teams' ceremonies, broadening task rotation from intrateam to interteam levels where possible). We also find it useful to develop a new rotating agile role, "knowledge owner," which is responsible for broadcasting the best practices of each team to the entire organization to facilitate widespread adoption. Employees appointed to this role should be particularly active in visiting other teams' ceremonies.

4.5.2. Pitfall to avoid: Additional burden and varying activeness

Before the pandemic, the use of online project management tools at OP was not very frequent because employees did not see a particular need. Remote work changed this, but activeness and skill varied. Some employees were frequently updating their sprint plans while, for others, it was an additional burden on top of their existing duties. Joel from the expert team told us: "It is technically easy to update my sprint plan, but I am bad at cutting up my tasks into small enough chunks…Somehow the effort of updating my plan is almost physically unpleasant for me!" Moreover, the usefulness of online tools heavily depended on the type of task. In the operations team, sprint planning tools were not used, as

employees had limited possibilities to plan their work. Their tasks primarily related to responding to nascent customer issues in as little time as possible.

4.5.3. Remedy

Our findings suggest emphasizing the importance of data for organizational planning while also assessing which tools are most helpful for different teams. The OP case also illustrates that providing ample training and support to ensure that employees know how to use the tools increases their adoption and effective use. Enough time should be allowed for this training instead of expecting employees to find time between work tasks.

5. When is remote agile likely to work and not work?

In reflecting on the above problems and solutions, it is useful to consider if agile will work equally well under different conditions. The two OP teams that we followed throughout the COVID-19 pandemic had very different tasks and thus varied in how their work was affected by the problems of remote agile. The expert team—who required a lot of teamwork and interaction with others inside OP—was most affected by meeting overload and difficulties in knowledge sharing. Their work was often collaborative and creative, which are ideal characteristics for colocation and agile but less ideal for working from home. In contrast, the operations team, whose work was more individual and routine, benefited less from agile meetings beyond their daily service queue updates. They thus did not experience as much of a meeting overload. Still, knowledge sharing was somewhat more difficult remotely for them as well, as tacit, task-specific knowledge could not easily be shared or taught when they were not colocated. While having multiple online meetings in a row was tiresome for all, we did not see evidence of "Zoom fatigue" tied to having cameras on (Bailenson, 2021; Shockley et al., 2021). On the contrary, members of both teams indicated that seeing each other, even if only online, was reinvigorating.

Members of the expert team were used to taking initiative and working in a self-managed way, and the team leader empowered team members and provided guidance instead of micromanaging, although she experienced some difficulties in reaching out to employees and providing emotional support for them. Conversely, the operations team was most affected by difficulties in

leading the team remotely, as members frequently turned to their leader for advice, micromanagement, and final decision-making. In both teams, leaders and employees viewed showing empathy as the most important task of the team leader.

Finally, there is a debate in the agile literature about how large agile teams can be while working effectively. For example, the Scrum framework is designed to work best in small teams with around "seven people, plus or minus two" (Sutherland, 2014, p. 58). We find that it is possible to have reasonably large agile teams in remote agile so they all get key information and share knowledge. However, smaller subteams of two to four employees—who can have frequent efficient and informal interaction—can better simulate in-person colocation.

6. Agile in the new normal

Agile work and the increase of remote and hybrid work are two prominent, ongoing trends in the workplace that are expected to continue for the foreseeable future. Organizations are aiming to become less hierarchical and more responsive by embracing agile and empowering self-managed teams on a large scale—as an increasing number of employees want to work remotely at least part of the time. As such, organizations must adapt their business models to allow for the continuation of remote work as they emerge from the pandemic.

In this article, we examined how the above two trends fit together by uncovering the problems, solutions, and pitfalls of remote agile experienced by two teams in our case company OP Financial Group, the largest bank in Finland. We identified five problems that OP faced using remote agile compared to in-person agile and analyzed and reflected on them to determine best practices for agile in a remote setting. While our article focused on identifying problems and management solutions using the existing technology, further research may be necessary to explore technological advances that could make remote agile even more effective.

Organizations well-acquainted with agile and remote work (e.g., small ICT startups) might have already solved some of the problems we identified in this article before the COVID-19 pandemic, but our solutions can potentially ease the agile and remote work transformations of diverse large companies, not just those in the financial industry. The comparison of the two teams we studied, however, does highlight how agile is more useful when tasks are less routine and that, depending on the type of task, different degrees of adaptation may be beneficial. Although the problems arose specifically in the context of remote agile, our solutions might also apply to remote work and hybrid work in general. However, agile is strongly based on intensive teamwork and extensive autonomy, so we would expect at least some degree of these two elements for our solutions to work best.

The pandemic has subsided, but the popularity of remote and hybrid work will have a lasting effect on how work is organized in the future, as seen in recent arrangements such as Apple's "three days a week" solution (Lee, 2022). We hope our article—which guides organizational agile in "the new normal"—can help firms deal more effectively with this new challenge.

References

Akemu, O., & Abdelnour, S. (2020). Confronting the digital: Doing ethnography in modern organizational settings. *Organizational Research Methods, 23*(2), 296—321.

Annosi, M. C., Foss, N., & Martini, A. (2020). When agile harms learning and innovation: (And what can be done about it). *California Management Review, 63*(1), 61—80.

Bailenson, J. N. (2021). Nonverbal overload: A theoretical argument for the causes of Zoom fatigue. *Technology, Mind, and Behavior, 2*(1), 1—6.

Barton, D., Carey, D., & Charan, R. (2018). One bank's agile team experiment: How ING revamped its retail operation. *Harvard Business Review, 96*(2), 59—61.

Beck, K., Beedle, M., van Bennekum, A., Cockburn, A., Cunningham, W., Fowler, M., Grenning, J., Highsmith, J., Hunt, A., Jeffries, R., Kern, J., Marick, B., Martin, R. C., Mellor, S., Schwaber, K., Sutherland, J., & Thomas, D. (2001, February). *Manifesto for agile software development*. Available at https://agilemanifesto.org

Birkinshaw, J. (2018). What to expect from agile. *MIT Sloan Management Review, 59*(2), 39—42.

Birkinshaw, J., Gudka, M., & D'Amato, V. (2021). The blinkered boss: How has managerial behavior changed with the shift to virtual working? *California Management Review, 63*(4), 5—26.

Boehm, B., & Turner, R. (2005). Management challenges to implementing agile processes in traditional development organizations. *IEEE Software, 22*(5), 30—39.

Cappelli, P., & Tavis, A. (2018). HR goes agile. *Harvard Business Review, 96*(2), 46—52.

Chen, R., Ravichandar, R., & Proctor, D. (2016). Managing the transition to the new agile business and product development model: Lessons from Cisco Systems. *Business Horizons, 59*(6), 635—644.

Cockburn, A., & Highsmith, J. (2001). Agile software development: The people factor. *Computer, 34*(11), 131—133.

Conboy, K., & Carroll, N. (2019). Implementing large-scale agile frameworks: Challenges and recommendations. *IEEE Software, 36*(2), 44—50.

Dahlander, L., Wallin, M., Carnabuci, G., & Quintane, E. (2021, April 29). Forming new collaborations in remote work. *California Management Review*. Available at https://cmr.berkeley.edu/2021/04/forming-new-collaborations-in-remote-work

Dikert, K., Paasivaara, M., & Lassenius, C. (2016). Challenges and success factors for large-scale agile transformations: A systematic literature review. *Journal of Systems and Software, 119*, 87—108.

Doz, Y., & Guadalupe, M. (2021, February 16). Not everyone can be agile. *INSEAD Knowledge*. Available at https://knowledge.insead.edu/strategy/not-everyone-can-be-agile-16091

Fey, N., Nordbäck, E., Ehrnrooth, M., & Mikkonen, K. (2022). How peer coaching fosters employee proactivity and well-being within a self-managing Finnish digital engineering company. *Organizational Dynamics, 51*(3), 1—13.

Foss, N. J. (2021). The impact of the Covid-19 pandemic on firms' organizational designs. *Journal of Management Studies, 58*(1), 270—274.

Hadley, C. N. (2021, June 9). Employees are lonelier than ever. Here's how employers can help. *Harvard Business Review*. Available at https://hbr.org/2021/06/employees-are-lonelier-than-ever-heres-how-employers-can-help

Highsmith, J., & Cockburn, A. (2001). Agile software development: The business of innovation. *Computer, 34*(9), 120—122.

Hill, L. A. (2020). Being the agile boss. *MIT Sloan Management Review, 62*(1), 7—10.

Howard-Grenville, J. (2020). How to sustain your organization's culture when everyone is remote. *MIT Sloan Management Review, 62*(1), 19—21.

Kniberg, H., & Ivarsson, A. (2012, October). *Scaling agile @ Spotify with tribes, squads, chapters, and guilds*. Available at https://blog.crisp.se/wpcontent/uploads/2012/11/SpotifyScaling.pdf

Kreamer, L., & Rogelberg, S. G. (2020, April 29). Break up your big virtual meetings. *Harvard Business Review*. Available at https://hbr.org/2020/04/break-up-your-big-virtual-meetings

Lane, J. N., Ganguli, I., Gaule, P., Guinan, E., & Lakhani, K. R. (2021). Engineering serendipity: When does knowledge sharing lead to knowledge production? *Strategic Management Journal, 42*(6), 1215—1244.

Layne, H., & Cozzi, G. (2020, April 15). The rise of 30-minute meetings and other ways collaboration is changing. *Microsoft Workplace Insights*. Available at https://workplaceinsights.microsoft.com/workplace-analytics/the-rise-of-shorter-meetings-and-other-ways-collaboration-is-changing-with-remote-work

Lee, D. (2022, August 16). Apple tells employees to return to office 3 days a week from September. *Financial Times*. Available at https://www.ft.com/content/b8080070-4c41-4193-8382-4f5c8e9c5097

Lindvall, M., Muthig, D., Dagnino, A., Wallin, C., Stupperich, M., Kiefer, D., May, J., & Kähkönen, T. (2004). Agile software development in large organizations. *Computer, 37*(12), 26—34.

Mahadevan, D. (2017, January 10). ING's agile transformation. *McKinsey*. Available at https://www.mckinsey.com/industries/financial-services/our-insights/ings-agile-transformation

Makarius, E. E., & Larson, B. Z. (2017). Changing the perspective of virtual work: Building virtual intelligence at the individual level. *Academy of Management Perspectives, 31*(2), 159—178.

Nyberg, A. J., Shaw, J. D., & Zhu, J. (2021). The people still make the (remote work-) place: Lessons from a pandemic. *Journal of Management, 47*(8), 1967—1976.

OP Financial Group. (2022, March 10). *OP Financial Group's year 2021: Together through time*. Available at https://vuosi.op.fi/en/2021

Oppezzo, M., & Schwartz, D. L. (2014). Give your ideas some legs: The positive effect of walking on creative thinking. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 40*(4), 1142—1152.

Pearce, C. L., & Conger, J. A. (2003). *Shared leadership: Reframing the hows and whys of leadership*. Thousand Oaks, CA: Sage.

Raghuram, S., Hill, N. S., Gibbs, J. L., & Maruping, L. M. (2019). Virtual work: Bridging research clusters. *Academy of Management Annals, 13*(1), 308—341.

Rigby, D., Elk, S., & Berez, S. (2020). The agile C-suite: A new approach to leadership for the team at the top. *Harvard Business Review, 98*(3), 64—73.

Rigby, D. K., Sutherland, J., & Noble, A. (2018). Agile at scale: How to go from a few teams to hundreds. *Harvard Business Review, 96*(3), 88—96.

Rigby, D. K., Sutherland, J., & Takeuchi, H. (2016, April 16). The secret history of agile innovation. *Harvard Business Review*. Available at https://hbr.org/2016/04/the-secret-history-of-agile-innovation

Shockley, K. M., Gabriel, A. S., Robertson, D., Rosen, C. C., Chawla, N., Ganster, M. L., & Ezerins, M. E. (2021). The fatiguing effects of camera use in virtual meetings: A within-person field experiment. *Journal of Applied Psychology, 106*(8), 1137—1155.

Šmite, D., Moe, N. B., Levinta, G., & Floryan, M. (2019). Spotify guilds: How to succeed with knowledge sharing in large-scale agile organizations. *IEEE Software, 36*(2), 51—57.

Stray, V., Moe, N. B., & Sjøberg, D. I. K. (2020). Daily stand-up meetings: Start breaking the rules! *IEEE Software, 37*(3), 70—77.

Sutherland, J. (2014). *Scrum: The art of doing twice the work in half the time*. New York, NY: Crown Business.

Vaara, E., Harju, A., Leppälä, M., & Buffart, M. (2021, June 7). How to successfully scale a flat organization. *Harvard Business Review*. Available at https://hbr.org/2021/06/how-to-successfully-scale-a-flat-organization

Van Maanen, J. (2010). A song for my supper: More tales of the field. *Organizational Research Methods, 13*(2), 240—255.

Viererbl, B., Denner, N., & Koch, T. (2022). "You don't meet anybody when walking from the living room to the kitchen": Informal communication during remote work. *Journal of Communication Management, 26*(3), 331—348.

Williams, L., & Cockburn, A. (2003). Agile software development: It's about feedback and change. *Computer, 36*(6), 39—43.

Yang, L., Holtz, D., Jaffe, S., Suri, S., Sinha, S., Weston, J., Joyce, C., Shah, N., Sherman, K., Hecht, B., & Teevan, J. (2022). The effects of remote work on collaboration among information workers. *Nature Human Behaviour, 6*(1), 43—54.