

HYBRID AGILE METHODOLOGIES TO FACILITATE  
INTERACTION AMONG TEAM MEMBERS FROM DIFFERENT  
ORGANIZATIONS FOR THE DEVELOPMENT AND  
MANAGEMENT OF COLLABORATIVE PROJECTS

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01 Introduction

# Agile communication in Start-Ups

Self-management does not mean a lack of organization, but rather that the work is not organized from the top down. Unlike in hierarchically organized companies, people in self-managed environments have to communicate how they are going to do things. They must have a mutual understanding of the processes and division of the workload. Although there may be roles, people tend to be on the same level hierarchically speaking. They have an agile mindset, which includes things like working iteratively, reflecting on results and processes, as well as teamwork, and continuous improvement. It seems logical that they not only work in an agile way but also communicate in an agile way.

In direct contact we get immediate feedback on whether someone understands what we are saying and roughly agree with us through facial expression and preverbal cues such as modulation. When misunderstandings happen, it is easier to ask more questions. That is why, when we implement digital communication it is important to take care of the channels and dynamics.

Despite digitization, people who work in agile contexts often use highly analog media. They often use group dynamics on whiteboards, where they write, draw, and use sticky notes to collect ideas. They understand the power of face-to-face communication and direct

interaction. It is not that they do not take it seriously when drawing or even going out to have a group discussion, they use new ways to be more efficient and effective in their communicative interactions.

There are many “old communication tools” that can be used for agile communication. Many of the “old dynamics and tools” can be transferred to the virtual world, an example can be whiteboards with sticky notes.

We don't have to reinvent communication for the agile era. We just have to remember some of the existing techniques and methods and be aware of the values they bring to become agile. As easy as that, we can bring agility to communication and collaboration. It is not about reinvention, but about selection and prioritization, adapting “old tools” to a new world of a different complexity and rhythm.



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# Common communication flows

The usual communication flows in an organization are described on the right:

## Downward communication

Most decisions in an organization flow through the organizational structure level by level. The flow of communication from people higher up to people in lower levels in the organizational hierarchy is called downward communication. Generally, the flow of communication in organizations with authoritarian leadership is predominantly downward.

The descending oral communication can take place through instructions, meetings or the telephone among other ways. Written downward communication involves the use of papers, letters, manuals, brochures, statements, procedures, and news presentations. Obviously, the downward flow of information through the levels of the organization is a time-consuming process.

The flow of information in this type of communication can frustrate people to the point that they may insist on sending the information directly to the person or group in question rather than allowing the information to flow slowly down the hierarchy.

## Upward communication

Upward communication originates from the lower levels of the hierarchy and continues up to the higher layers. In other words, it is an upward flow of information from employees at the operational level to the top executive along the chain of command. This flow of communication is sometimes hampered by managers in the communication chain, who distort messages while communicating them to their bosses.

Upward communication can also take place through suggestion systems, appeal procedures, complaint systems, counseling sessions, joint goal setting, group meetings, questionnaires, and interviews.

## Communication management

The responsibility of creating a free flow of upward communication rests largely with superiors. To facilitate effective upward communication, the upper level of management must create an environment in which lower levels of the hierarchy feel free and safe to communicate..

## Cross communication

Transversal communication consists of two types of information flows, horizontal flow and diagonal flow. Horizontal flow refers to the flow of information between people at the same organizational level or similar levels, while diagonal flow refers to the flow of information between people at different levels, who do not have direct hierarchical relationships.

Cross-communication helps improve understanding among employees and improves coordination to achieve organizational goals.

It can take place orally during informal team meetings. It can also take place during formal conferences, meetings and work sessions.

Since cross communication does not follow the chain of command, special care must be provided to prevent potential problems from arising between staff at various levels and between various departments in the organization.

Despite the possible problems that may arise due to cross communication, this form of communication is necessary for the organization to respond to the needs of the organization.



# The agents of the **communication** flows in the AT Virtual program

In addition to the conventional communication flows that we have mentioned above, we would like to present the possible senders and receivers of communication that we identify in the framework of AT Virtual. Depending on each occasion, they may correspond to a different type of communication.

## Team

The first area where communication is important is at the team level. The Start-Up teams need to coordinate, to manage and organize all the information they are working with.

## Teaming up with Maritime and Safety Training Centers

It is understood that the information between the Start-Up and the Maritime Training Center is important for the

development of the project. We understand that this information responds to different needs, sometimes it will have to be very agile and will wait for answers and at other times it will be merely informative.

## External

As the project shapes up, the information must be created towards third parties. In this case, the objective can be multiple, from presenting the project to potential collaborators or clients, to carrying out dissemination and promotion in the media. This is a sensitive area, all information has to be truthful and published at the correct times.

The following section will explain the needs and solutions identified in each area.





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## Need → Solution

Once the key agents and the communication flows related to the project have been defined, this section frames the different needs identified in order to ensure a smooth communication and coordination between the Start-up and the recipient of the technological solution, in this case, the maritime training center.

Along with this, the practical solutions that are proposed for each of the communication and coordination needs identified are also detailed. These solutions are based on different tools and methodologies that become the backbone of this guide:

### Instant communication → Group chat

#### Need

Instant communication is an inherent need of any Start-Up or work team, because in many cases daily activity demands quick contrasting of ideas to make quick decisions. That is why, in the last two decades with the emergence of the internet and mobile devices, different tools have been developed to provide solutions to this need.

#### Solution

Chat refers to a very everyday tool to solve the need for instant communication. Nowadays any company, public entity or other organization has a chat to solve doubts or minor problems and make all kinds of urgent queries that can be answered by another member of the work team. Group chats are usually available for use on any electronic device, be it mobile, computer, tablet, etc.

#### Indications of use

- An important point is that professional and leisure conversation should be differentiated, that is, use channels that are not used frequently at the personal level (Telegram or WhatsApp are normally the most extended).
- It is recommended to filter which queries should be made through this channel, avoiding attaching long documents, queries that are difficult to resolve or require a tedious answer or a longer responding time. For these more complex interactions it is better to use other channels that do not imply as much urgency.
- The fact that it is an instant messaging channel does not mean that it has to be answered immediately, so it is important to rationalize its use and be patient in the response of the team members.



## Storage of documentation and developments

### —→ Asynchronous space in the cloud

#### Need

The monitoring and evaluation of the different developments (products, processes, services, plans, etc.) carried out in a Start-Up and its product or service, is key to shorten “Time to market”. The time it takes for the Start-Up to launch the product or service in the market, is a very important aspect in the survival capacity of any Start-UP. In this case too, internet based solutions that work in a multi device universe have made it easier in recent decades for this process to be more agile as well as participatory.

#### Solution

A potential solution to respond to the need for storage of documentation and developments, is to use asynchronous cloud spaces. This type of tool, unlike chats, offers all organizations the option of storing documentation so that it can be (re)viewed, analyzed, downloaded and edited by anyone on the team and collaborators at all times. As far as use is concerned, it is usually preferable to be used on computers or medium-size screen devices, since the average viewing or editing time is much longer than that of chat. Despite this, these spaces in the cloud are fully compatible with mobile devices as well.

#### Indications of use

- It is recommended to sort the information by subject folders, that is, by business lines, areas or departments, projects...
- It is very important to manage document access and editing permissions, since some of them may be of great relevance or confidentiality and it is not convenient for them to be accessible to the entire organization.
- If a file is invalid or does not generate value, delete it. The space on the cloud is limited.
- It is important for the relevant files of the daily activity of any organization to also be available in the cloud and not only on personal devices. If kept in personal devices, in the event of a breakdown or loss, the organization would lose major pieces of intel (such as relevant files, contracts, offers, product and service developments for clients, legal and accounting information, etc.).

## Meet remotely → Videoconference

### Need

Distance meetings are increasingly common and necessary in all types of organizations, due to globalization and multi-location. Even more so now with the restrictions imposed for mobility and physical contact in the Covid19 global pandemic. Once again the internet has led to solutions for remote communication and the preferred device are computers. Comfort is an important factor in online meetings, since the connection with the group is direct and both physical and verbal communication come into play.

### Solution

Videocalls are the ideal solution to keep contact or meet. They allow teams, client or supplier meetings almost as if it were a physical space. Presentations can be made (sharing screen if needed) as well as sharing links and other insightful documents through the chat.

### Indications of use

- Meeting agendas should be made for online meetings as they are made for offline ones. This will enable a better working environment, more efficiency and focus, and prevent loss of attention.
- Pre-work is more essential than ever in online calls to improve contribution and assure fruitfulness. This is the only way to reach the goals previously established.
- The points to be discussed in the meeting should be ready well in advance. An invitation with the meeting agenda should be sent long in advance to enable preparation.
- It is recommended to control and measure well the duration of telematic meetings, taking a short break is highly advised every 2 hours. This will help to maintain the level of energy and participation and prevent burn out.
- Ensuring that the connection is good is a key aspect to online meetings; cuts or technical issues distract and lower the energy level of the team.





## Definition and monitoring of objectives and tasks

### → Dashboards / Scrum

#### Need

The definition and monitoring of objectives and tasks is another important and inherent aspect of any type of organization. In this way, the exhaustive fulfillment of the objectives makes the organizations competitive and sets the path to excellence. In this sense, digitization has also revolutionized the very traditional field of management. The number of agile planning tools rise to allow teams to reach a high-performance and highly efficient stadium.

#### Solution

Dashboards are tools that make it easy to monitor the daily activity of an organization. These allow the generation of objectives and actions, and the assignation of deadlines and responsibilities per person. Once this is defined, the tasks are monitored in meetings with the necessary periodicity, be it daily, weekly or even monthly, depending on the nature of the project. The purpose of the follow-up meetings is to check that everything is going as planned, to propose adjustments and alternatives if necessary, and to incorporate new objectives and actions to the scorecard.

#### Indications of use

- It is important to break down the actions and go into detail regarding the appointment of people responsible and dates. If not, the responsibilities and deadlines remain in the air and finally the tasks stay undone or are carried out after the deadline. If responsibility is not clearly assigned to one person, the “accomplishment pressure” dilutes.
- Recommendation is that the scorecard is created collaboratively, that is, involving the people who will then execute the defined actions. In this way, there is no possibility of avoiding responsibilities or of claiming to not understand the tasks assigned since everyone is present.
- The scorecard must be an agile and dynamic tool, so it is recommended for it to stay visible and accessible at all times to all the people participating in the project, so that it can be edited or modified depending on the advances and unforeseen events that arise.

## Co-create remotely → Spaces to work in the cloud

### Need

The need to work and co-create remotely represents an increasingly frequent reality both in Start-ups and in more traditional organizations. In this sense, it should be emphasized that organizations that have the capacity to overcome this challenge with solvency, develop a great competitive advantage over other players in this globalized and liquid reality, better adapting to new realities and being able to reconfigure their value proposition.

### Solution

Working in the cloud is an increasingly frequent practice that gives today's organizations a lot of agility and flexibility. This format saves the complex interaction between people and the constant exchange of information, which make it difficult to create shared content. By working in the cloud, the members of the team work on the same version of the documents, and have the latest version of it at all times.

### Indications of use

- When using cloud storage, it is important to properly manage the viewing and editing permissions of the documents the organization is working on.
- It is also advisable to organize the information by folders, so that access to documents is easy and intuitive. In this way, the waste of time in searching for documents is minimized or completely eradicated.
- Although the latest version of the work is always available, it is recommended to hold a short follow-up internal feedback meeting to review the work so far.
- As an alternative to the feedback meeting, it is also recommended to make use of the comments or notes that can be assigned to the different work carried out.



# Development of tools



## Instant messaging

[Mattermost](#) is a collaborative tool to work with a team in an agile and effective way. The platform is open source, which means that users can access its code and modify it according to their needs.

This software is multi-device and suitable for organizing team talks through personalized channels. The moment one user posts a message, other members are instantly notified.

It is necessary to clarify that the groups within Mattermost can be public or private and that extra elements such as icons or images can be added to the messages in question. But with this characteristic of public and private channels, the team will be able to tackle the public and private communication duality appointed in this document.

By creating a space in Mattermost, in this case, the Maritime Training Center, could see the overall progress of the teams; in parallel, development teams worked and communicated internal matters through private channels.



## Meet remotely → Videoconference

When a video call is necessary, the tool of choice will be [Jitsi](#). The use is simple, go to the web and generate a room by naming it or join an already existing room. The service promises a lot of privacy; not so much because of its default configuration, but for the options it enables for a team member to act as a server to make the experience easier.

## Definition and monitoring of objectives and tasks → Dashboards / Scrum

As a task manager the use of [Taiga](#) is proposed, a tool similar to Trello but open source. The usability of the tool has been the main focus for the developers, and this makes Taiga a very easy to use tool. Creating projects is very simple: choose the template (Kanban or Agile), enter the name and description, and that's it. When choosing Agile, the option of creating sprints and adding user stories appears. Later, user stories can be moved to a sprint and assigned tasks. The other template option is Kanban: projects created on Kanban allow for post-it task windows, with an easy-to-use drag-and-drop interface.

## Storage of documentation and developments + Remote co-creation → Spaces to work in the cloud

To store the documentation and be able to share it, the tool proposed is [NextCloud](#). Nextcloud offers a messaging service (one could use everything from this tool and remove Mattermost) and also a shared calendar for the teams.

For the storage of important and sensitive documentation that needs to be shared, a NAS is proposed. A [NAS](#) system is a network-attached storage device that allows data to be stored and retrieved in a centralized point for authorized network users and multiple clients. NAS devices are flexible and expandable; this means that as the organization needs more storage capacity, the existing space can be increased. A NAS device is like having a private cloud in the office. It's faster, less expensive, and offers all the benefits of an onsite public cloud, allowing complete control.

For those in need of an ERP, [Odoo](#) is a great tool.

Odoo merges business management software tools including but not limited to CRM, e-commerce, billing, accounting, production, warehouse, project management, and inventory management. The Community version is free software. There is also a proprietary "Enterprise" version, which has additional features and services.



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# Interaction and flow among tools

This section details the interactions that are expected to exist between the different solutions and tools.

The ways of interacting can be diverse, so the flows will occur in different ways. Emphasis on the fact that the interaction processes will be circular and non-linear since given agile reality of the projects where communication must flow through all work areas.





In this sense, two types of interaction are distinguished, taking into account the speed, synchronicity and how active its agents must be:

## Static interaction

On the contrary, static interaction is characterized by having a very low level of synchronicity, losing immediacy and closeness in communication. In this way, it can be said that it is a type of interaction that does not generate stress or demand a rapid response.

### Storage space in the cloud

The storage space in the cloud is considered a static tool that provides documentary support to the ecosystem of dynamic interactions. Being a totally asynchronous tool, this tool is excluded from the flow of dynamic interactions.

## Dynamic interaction

Dynamic interaction is characterized by the speed of the actors who communicate, in addition to implying an active stance in it so that communication is effective. Furthermore, the level of synchronicity of the actors is quite high in most cases.

### Chat

Its interaction with other tools is constant and is considered a bridge tool that facilitates communication and prior coordination for the use of others.

### Dashboards

Dashboards facilitate planning and coordination of the main activities and tasks of organizations, inviting the use of tools such as videoconferencing or work in the cloud in order to meet the established objectives.

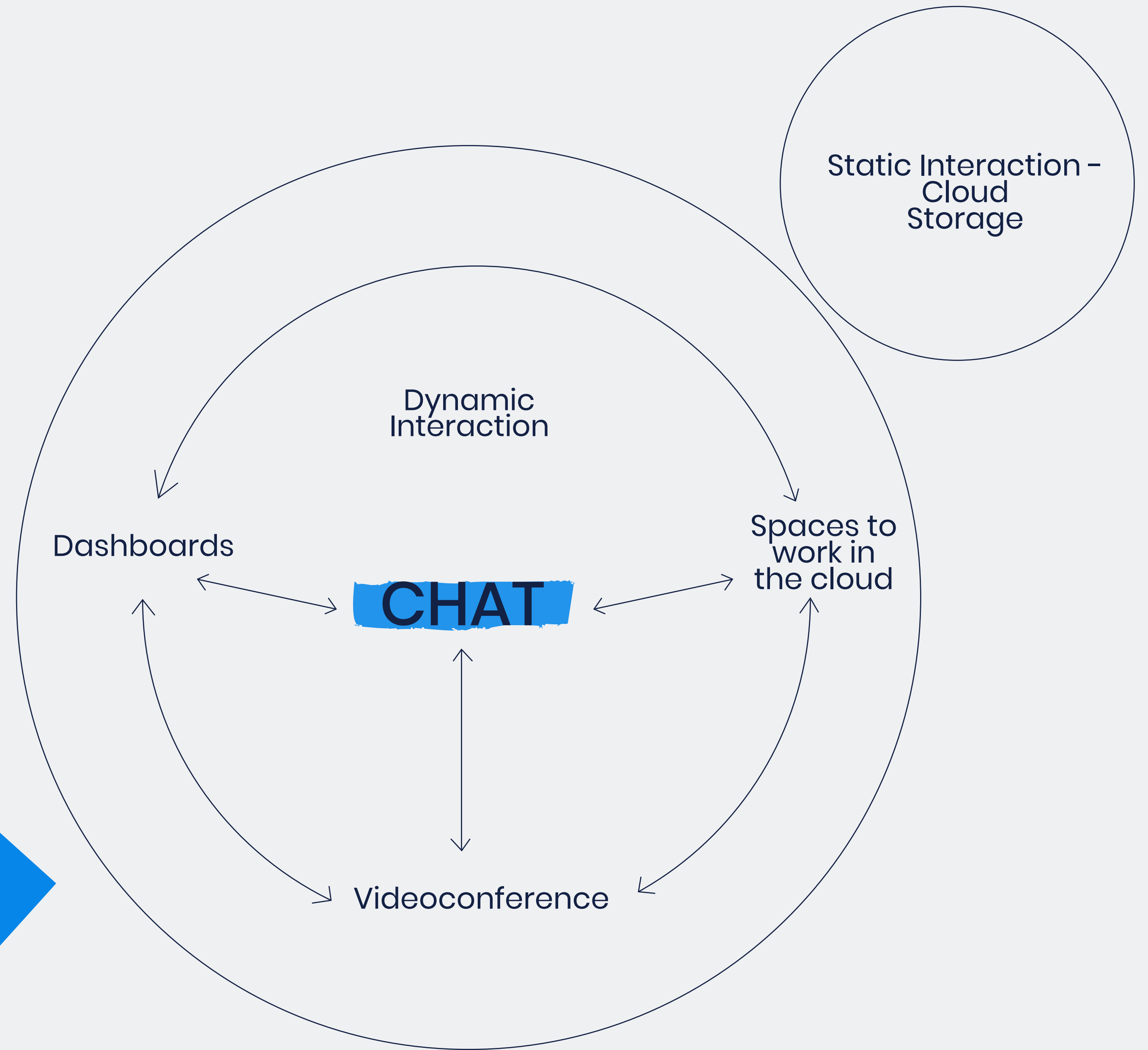
### Workspace in the cloud

The workspace in the cloud, at the same time triggers the use of tools such as the dashboard, in order to update the work and progress made and videoconferencing. If necessary, hold a meeting for contrast and follow-up.

### Videoconferencing

Videoconferencing creates a space for alignment between the members of the team that calls for action, subsequently making adjustments to the scorecard as agreed in the meeting, or getting down to work through the use of working documents.

The following infographic details the interaction between the different communication tools identified and the type of interaction they represent:







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# Data protection

The General Data Protection Regulation (RGPD) is the European regulation on the protection of natural persons with regard to the processing of their personal data and the way of using this data. Any company from the European Union, or those companies that, being from outside, operate in the European Union, must comply with the regulations, as long as they make use of data.

The communication tools that are proposed in this guide all comply with the General Data Protection Regulation, however it is important that the treatment of information and data that the different parties exchange is evaluated. The fact that the tools comply with the regulation does not ensure that it is always complied with, it will also depend on the content.

On the other hand, it is important that before exchanging any information the confidentiality, authorship, use and intellectual property of the contents that are shared are agreed upon.



# Hybridization process. Work schedule

The different actions to be carried out in a one-month work plan are detailed below. This is an example, however this work plan can be adapted to the needs of each project. For this reason, there are seven actions proposed:

## 1.- Start-up meeting

### Objective

Establish the general and specific objectives of the project, distribution of roles, agree on a schedule, define communication channels and work dynamics.

### When

At the beginning of the project.

### Participants

All members of the Start-Up and those responsible for the Maritime Training Center.

### Channel

[Jitsi](#)

## 2.- Update weekly objectives

### Objective

At the beginning of each week there will be an update in Taiga of the objectives to work on during the week.

### When

The first day of the week.

### Participants

All team members.

### Channel

[Taiga](#)

## 3.- Active communication

### Objective

Inform or exchange information between the Start-Up and the Maritime Training Center when queries arise. The channel used will have specific conversation threads for each topic, in this way the information will be orderly and easily available.

### When

Whenever necessary.

### Participants

All members of the Start-Up and those responsible for the Maritime Training Center.

### Channel

[Mattermost.](#)

## 4.- Collaborative document

### Objective

Draft the process of the project using a shared document.

### When

Whenever necessary.

### Participants

All members of the Start-Up and those responsible for the Maritime Training Center.

### Channel

[NextCloud.](#)



## 5.- Progress review

### Objective

At the end of the week there will be a review in the Taiga tool of the progress made regarding the objectives established at the beginning of the week.

### When

At the end of the week.

### Participants

All team members.

### Channel

[Taiga](#)

## 6.- Follow-up meeting

### Objective

Every so often all the agents will meet to check how the project is progressing regarding the objectives established in the start-up meeting.

### When

Every two weeks.

### Participants

All members of the Start-Up and those responsible for the Maritime Training Center.

### Channel

[Jitsi](#).

## 7.- Closing meeting

### Objective

Present the final project with the progress made so that the agents involved can assess the development achieved since its launch.

### When

At the end of the project.

### Participants

All members of the Start-Up and those responsible for the Maritime Training Center.

### Channel

[Jitsi](#).

## 8.- File documents

### Objective

To have all of the reports, documented and archived as well as the presentations, and final and editable documents, so that the project can be resumed in the future.

### When

Once the project is finished.

### Participants

All members of the Start-Up and those responsible for the Maritime Training Center.

### Channel

[NAS](#)

The following table shows when each action should be performed, and is organized chronologically:

	<b>M</b>	<b>T</b>	<b>W</b>	<b>T</b>	<b>F</b>
<b>WEEK 1</b>	<ul style="list-style-type: none"> <li>▪Start-up meeting</li> <li>▪Update weekly objectives</li> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> <li>▪Progress review</li> </ul>
<b>WEEK 2</b>	<ul style="list-style-type: none"> <li>▪Update weekly objectives</li> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> <li>▪Progress review</li> </ul>
<b>WEEK 3</b>	<ul style="list-style-type: none"> <li>▪Follow-up meeting</li> <li>▪Update weekly objectives</li> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> <li>▪Progress review</li> </ul>



	<b>M</b>	<b>T</b>	<b>W</b>	<b>T</b>	<b>F</b>
<b>WEEK 4</b>	<ul style="list-style-type: none"> <li>▪Update weekly objectives</li> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> <li>▪Progress review</li> </ul>
<b>WEEK 5</b>	<ul style="list-style-type: none"> <li>▪Follow-up meeting</li> <li>▪Update weekly objectives</li> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Collaborative document</li> </ul>	<ul style="list-style-type: none"> <li>▪Active communication</li> <li>▪Closing meeting</li> <li>▪File documents</li> </ul>

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# Demos

In the folder attached to the manual 6 videos are included. You can easily understand how to use each tool through these demos.

1. Instant messaging demo: [Mattermost](#)
2. Videoconference demo: [Jitsi](#)
3. Dashboard demo: [Taiga](#)
4. Spaces to work in the cloud demo: [NextCloud](#)
5. Spaces to storage demo: [NAS](#)
6. ERP demo: [Odoo](#)



