Wallonia case study report - the case of PoWalCo

This case study report examines the PoWalCo (Plateform Wallonne de Coordination des chantiers) online platform. This digital tool aims at facilitating collaboration among actors such as utility companies and public authorities who work on roads and waterways in the Walloon Region in Belgium. Belgium has three regions: Brussels, Flanders, and Wallonia. This latter is the second largest region of Belgium after Flanders with a population of approximately 3.650.000 inhabitants. Through the online platform, actors can exchange information about the planning, coordination, and authorization of the worksites on the Walloon roads and waterways. In this way, repeated public works on the same stretch of road by different utility companies and public authorities within a short time span can be avoided. This case study report examines the PoWalCo case as a collaborative practice and is divided into four sections. In the first section, we describe the PoWalCo online platform by highlighting its origin, its functioning, its composition, and its funding. The second section describes the influence of ICT on the collaboration amongst the actors. The third section examines the extent to which the collaboration, through the online platform, had an influence on efficiency. The final section analyses the extent to which the collaboration, via the online platform, influences the level of red tape.

The case study is based on public documents and interviews. The latter consisted of a combination of written responses to questions, and an oral interview. However, the interviewees were not able to provide informed consent for the oral interview because they claimed this had to be agreed by the board. Nevertheless, they agreed to the interview. Unfortunately, no informed consent could eventually be obtained for the oral interviews which meant that this material could not be used in the report. This is a very peculiar situation, especially since the interviews did not deal with matters than can in any way be regarded as controversial and PoWalCo performs a public role.
Description of the collaboration

In 2004, a pipeline explosion caused the death of 24 people and injured more than 100 persons in Ghislenghien, a small town in the Western part of Wallonia in Belgium. This tragedy, known as the ‘catastrophe de Ghislenghien’, has brought to light serious problems with regards to worksite management by the public sector in Wallonia (WP9_WAL_doc1). More particularly, this catastrophe showed that the public sector in the Walloon Region had a very poor knowledge of its underground infrastructures, and that the tragedy could have been prevented by enhancing the collaboration between the different actors involved in worksites on roads and waterways (WP9_WAL_doc1).

Following the catastrophe, the Walloon Region enacted a decree that aimed at coordinating worksites on public roads and waterways in Wallonia (WP9_WAL_doc1; WP9_WAL_doc2). The decree came into force in 2009 and had three main objectives (WP9_WAL_doc1). The first objective was to strengthen the security of the worksites in the Walloon Region by aiming at promoting the exchange of information among the different actors, improving collaboration between the actors as well as the provision of detailed information on the infrastructures of the roads and waterways. The second objective was to avoid the perpetual openings of the worksites by fostering coordination among the different actors. For instance, when a road has been opened by a coordinated team to carry out some work, other actors cannot open the same road for a period of two years except for special circumstances. The final objective of the decree was to better inform the authorities and the citizens about the works carried out on their roads and waterways (WP9_WAL_doc1).

To realize these objectives, the Walloon Region decided to create an online platform that would facilitate the exchange of information among the different actors with regards to the planning, coordination, and authorization of the worksites on the roads and waterways in the Walloon Region (WP9_WAL_doc1). In order to choose the actor responsible for managing the online platform, they organized a public tender. In 2016, the non-profit organization, PoWalCo, was designated as responsible for the day-to-day management of the online platform as well as for awarding the contract to the actors who will take care of the technical aspects of the platform such as its development and maintenance (WP9_WAL_itw1; WP9_WAL_itw2). PoWalCo awarded the contract for the development and maintenance of the online platform to a consortium of two companies including TenForce BVBA (in charge of the alphanumeric part) and GIM Wallonie SPRL (in charge of the cartographic part). While the consortium manages
the development and maintenance of the online platform, PoWalCo is responsible for supporting the users, for training its members, and for releasing the content of the online platform (WP9_WAL_itw1; WP9_WAL_itw2).

With regards to its composition and its funding, PoWalCo has six founding members: Ores (the gas and electricity distribution network manager), Elia (the operator of high voltage electricity transmission network), Aquawal (the professional union of public operators of the water cycle in Wallonia), Nethys (energy and telecommunications), Proximus (mobile telecommunications operator), and the Walloon Region (WP9_WAL_doc1). While the initial investments linked to the development of the online platform were borne by these six founding members, the operating costs are covered by the users of the online platform who pay a yearly fee of approximately 450 euros (WP9_WAL_doc1).

The online platform went live on the 1st of January 2017, manages an average of 100,000 worksites per year, and has around 4,000 users (WP9_WAL_itw1; WP9_WAL_itw2). Different types of users are using the online platform: (1) telecommunications network operators; (2) radio-cable operators; (3) energy transmission and distribution network operators; (4) transporters, distributors and collectors of fluids; (5) network managers who have the right to use the road or waterways to carry out construction sites; and (6) all the other actors who also have the right to use the road or waterways to carry out construction sites such as municipalities (WP9_WAL_doc1; WP9_WAL_doc2). These different users are forced by the 2009 decree to become members of the online platform (WP9_WAL_doc1; WP9_WAL_doc2).

Users can employ the online platform for different purposes: (1) to plan worksites, (2) to coordinate worksites with other actors, (3) to elaborate an authorization request for a construction site, (4) to submit an authorization file for a construction site, (5) to inform citizens about the planned worksites, (6) to have a better knowledge of the infrastructure of the roads and the waterways before starting the worksites, and (7) to let the network manager know about the worksites on the roads and waterways (WP9_WAL_doc1).

**Impact of ICT on collaboration**

This section focuses on the impact the online platform had on the collaboration between the different actors with regards to the management of worksites on the roads and waterways in the Walloon Region. Interviewees argued that ICT is at the core of the collaboration between
the actors as a multitude of ICT tools have been used to facilitate collaboration including document transfer management tools, online collaboration tools, data management tools, data analysis tools, and data visualisation tools (WP9_WAL_itw1; WP9_WAL_itw2). Interviewees mentioned that the online platform facilitates the exchange of information between the different actors. Once a new worksite has been registered in the online platform, it is no longer necessary for an actor to find out who to contact when a new worksite has been registered because the online platform automatically identifies the actors who are present or who wish to be notified of future works. The interviewees argued that this substantially facilitates collaborations among the different actors who would like to perform some works on the roads and waterways in the Walloon Region (WP9_WAL_itw1; WP9_WAL_itw2). For instance, the online platform sends notifications about future worksites to its users. These notifications have replaced the burdensome exchange of written letters between the different actors. Thanks to the online platform, paper documents are therefore almost inexistent nowadays as everything is now managed by the online platform (WP9_WAL_itw1; WP9_WAL_itw2).

Interviewees also stressed that, by fostering collaborations among the actors, the online platform has helped considerably in avoiding some repetitive openings of the roads (WP9_WAL_itw1; WP9_WAL_itw2). Indeed, worksites have to be coordinated among the different actors who would like to intervene on the roads or waterways. Collaborations between the actors, via the online platform, have therefore considerably helped to avoid the inconvenience of opening the same road several times in short time periods. It is worth noting that the interviewees considered that the ICT tool did not negatively impact the collaboration among the actors (WP9_WAL_itw1; WP9_WAL_itw2).

The interviewees mentioned that PoWalCo staff are regularly consulted before adapting some of the ICT arrangements in order to ensure that the best solution is put forward (WP9_WAL_itw1; WP9_WAL_itw2). For instance, before an amendment is made to the arrangements linked with the online platform, discussions are organized with the technical representatives of each founding member of PoWalCo to select the best amendments to implement in the online platform. Once the amendments have been agreed, they are proposed to the consortium. If accepted, PoWalCo board of directors decide whether to approve the budget required for the implementation of the amendment(s) into the online platform (WP9_WAL_itw1; WP9_WAL_itw2).
Overall, the interviewees stressed that ICT played a major role in fostering collaboration among the different actors by facilitating the exchange of information with regards to the planning, coordination, and authorization of the worksites in the Walloon Region. Without the online platform, collaboration among the actors would have been more problematic and sometimes even impossible. Moreover, PoWalCo regularly consults its members and users to improve the online platform with regards to the implementation of some amendments.

**Efficiency of the collaboration**

In this section, we analyse the extent to which collaboration has had an influence on efficiency. The interviewees argue that the online platform has increased efficiency in two main ways (WP9_WAL_itw1; WP9_WAL_itw2). First, collaboration among the actors, through the online platform, has substantially decreased the number of worksites on the same road or waterway in the Walloon Region, improving the lives of the citizens who sometimes had their roads opened several times within short periods. Thanks to the online platform, the actors have to coordinate their actions before the start of a worksite on a road or waterway. In order to participate to a worksite, actors are informed of others who wish to take part to the worksite. The collaboration between the actors who wish to work on the same worksite has therefore substantially improved the lives of the residents as a road is only opened once to carry out the necessary work. Second, the online platform has led to some important efficiency gains with regards to worksite management. It has also substantially reduced the amount of paper-based documents used by the actors (WP9_WAL_itw1; WP9_WAL_itw2). Indeed, while in the past actors had to draft and to mail the letters, everything is now managed by the online platform that sends notifications to all the actors involved in the collaboration. The interviews also highlighted that the efficiency gained through the enhanced collaboration among the actors could already be noticed one year after the actors were formally obliged to employ the online platform in 2018 (WP9_WAL_itw1; WP9_WAL_itw2).

While the efficiency of the collaboration among the actors is not formally assessed, the efficiency of the online platform, through which collaboration is happening, is regularly assessed through a business intelligence tool (WP9_WAL_itw1; WP9_WAL_itw2). Thanks to this tool, the PoWalCo team is able to visualize the efficiency of the online platform and can assess it based on a series of service-level agreements with the consortium of actors responsible for the development and maintenance of the online platform. Interviewees argued that the online platform has evolved throughout the years. For instance, the response time for cases has
been reduced with the implementation of the online platform and the monitoring of the progress of a case can be viewed by the actors who have access to the content of the various cases. Moreover, the quality of the online platform has improved thanks to the implementation of some amendments. Although the interviewees stated that the costs associated with the set-up of the online platform were not substantial, they mentioned that the set-up and maintenance costs as well as the costs linked with the implementation of the online platform amounts to two millions euros for the first four years of utilization of the online platform (WP9_WAL_itw1; WP9_WAL_itw2).

**Red tape**

This final section examines the extent to which the collaboration, through the online platform, had an influence on red tape. Before the implementation of the online platform, when an actor had to carry out some work on roads or waterways, the actors previously had to send letters to the other actors to inform them about the planned worksite (WP9_WAL_itw1; WP9_WAL_itw2). The other actors could then decide to participate to the worksite or not, leading to an inefficient way of working as the same road could be opened several times by different actors to perform some work. This led to many inconveniences for the residents who have sometimes seen the same roads being opened several times a year. Since the implementation of the online platform, the users of the online platform are given a delay to participate to the worksite. Once the specified period has expired, the actors, who did not respond to the call, cannot work on the roads or waterways for a period of two years except for special circumstances (WP9_WAL_doc1). The implementation of the online platform has therefore considerably facilitated collaboration among the actors and reduced the unintentional opening of roads and waterways (WP9_WAL_itw1; WP9_WAL_itw2).

With regards to red tape, it is important to highlight how the interviewees interpret red tape within the current collaboration practice. Interviewees mentioned that red tape can still be found in the current collaboration practice in the form of repetitive tasks to be performed for the encodings on the different platforms as well as in the form of paper documents that still have to be used with some companies (WP9_WAL_itw1; WP9_WAL_itw2). Yet, they stated that the online platform has substantially reduced red tape by diminishing the paper-based documents employed by the users and the sending of mails. Indeed, the users of the online platform now receive all the necessary notifications through the online platform. For instance, before the implementation the online platform, users had to write letters in order to coordinate
the worksite and were wasting a considerable amount of time in drafting and mailing the letters. Now, thanks to the online platform, notifications are sent directly by emails to the different actors involved in the worksite. According to the interviewees, this was the major change brought about by the implementation of the online platform. Moreover, the interviewees argued that the online platform has succeeded in diminishing, and sometimes completely eliminating, red tape as it manages all the notifications linked with the worksite. The online platform also avoids the redundancy of postal mails by sending notifications, and has considerably reduced the workload of users without adding administrative burdens (WP9_WAL_itw1; WP9_WAL_itw2).

Yet, the interviewees mentioned that red tape has not been fully eliminated by the implementation of the online platform (WP9_WAL_itw1; WP9_WAL_itw2). Among other reasons, the interviewees mentioned that there is still a lack automation, and consequently digitization, in some private companies. They also mentioned that there is still a tendency to reject any change. Some users also want to maintain a universe identical to the one that existed before. For example, some users of the online platform still work in parallel with paper documents, increasing red tape as they work simultaneously with the online platform and with paper documents (WP9_WAL_itw1; WP9_WAL_itw2).

The interviewees mentioned that red tape could be further reduced within the online platform by including additional authorizations such as police authorization or other applications within the online platform, allowing users to have a single online platform (WP9_WAL_itw1; WP9_WAL_itw2). They also argued that it becomes necessary to broaden the legal framework of the missions entrusted to PoWalCo by enacting an amendment to the 2009 decree. They mentioned that electronic signatures could also improve the filing of the authorization document, which still has to go through the municipal council with a paper version that still needs to be signed. These changes would further reduce red tape within the collaboration among the actors. Moreover, they stated that the introduction of ICT resources in some companies often face the reluctance of their employees as they are used to work in a way and want to continue on that path instead of implementing new tools. They further highlighted that the advantages of ICT are often advocated, but their implementation is sometimes laborious (WP9_WAL_itw1; WP9_WAL_itw2).