

# **MAPPING AND ANALYSIS OF COURT CLERK'S OFFICE PROCESSES OF THE COURT OF CREMONA**

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## **1) PROCESS IDENTIFICATION**

After the interviews and collected all the information necessary for Business Process Management, the material available was essential for the second phase of BPM, the identification of processes. In this phase the use of the BPMN 2.0 notation has been chosen to best represent the processes that take place within the court clerk's offices. This choice immediately appeared to us as the most appropriate for its effectiveness and power in clearly visualizing activities and their timing.

### **1.1) AS-IS MAPPING OF THE COURT CLERK'S OFFICE OF ORDINARY AND SPECIAL LITIGATION**

The first court clerk's office that is described is that of ordinary and special litigation for the civil section. The process begins with the receipt of the provision by the judge, at this point if the sentence is made on record immediately then it is published on the same day via PEC, otherwise it will be published within a week of time always via PEC as soon as it will be recorded. At this point the court clerk's office must wait for the file to be paid the tax due to the revenue agency, then the clerk of the court clerk's office will check over time through the ministerial program SICID (District Civil Cognition Information

System, is a system that allows court clerk's offices to manage court clerk's office registers in the field of ordinary cognition (Ministero della Giustizia, 2011)) if the files he manages on his desk have become final, this phase can last from 30 days to 6 months; if the file has not become final, it may happen that the Court of Appeal of Brescia may request it for appeal, if this happens the requested material will be sent to Brescia through a driver and the process ends, otherwise the file remains in the court clerk's office waiting for it to become final. When the file becomes final, a transcription note can be created through the UniMod ministerial program (the UniMod software allows the compilation of the Single Computer Model for the execution of registration, transcription, registration, annotation and transfer obligations (Ministero dell'Economia e delle finanze, 2016)), this phase can take place over a long time, even more than a year. Subsequently, the file is transferred to a physical medium (CD/USB). The computer support created is delivered manually to the Conservatory, which then receives it and deposits it in the archive and its process is concluded. Returning to the court clerk's office after delivering the CD or stick will communicate to the parties interested in the judgment of the request for payment for the transcription note; Upon receipt of the request for payment, as soon as they have made it, they will end their process, at which point the court clerk's office will receive notification of the payment made and in turn will conclude its process (Verbal of 20/01/2023).

**NEXT GENERATION UPP: NUOVI SCHEMI COLLABORATIVI TRA UNIVERSITÀ E UFFICI GIUDIZIARI PER IL MIGLIORAMENTO DELL'EFFICIENZA E DELLE PRESTAZIONI DELLA GIUSTIZIA NELL'ITALIA NORD-OVEST**  
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Codice progetto: CUP D19J22000240006.

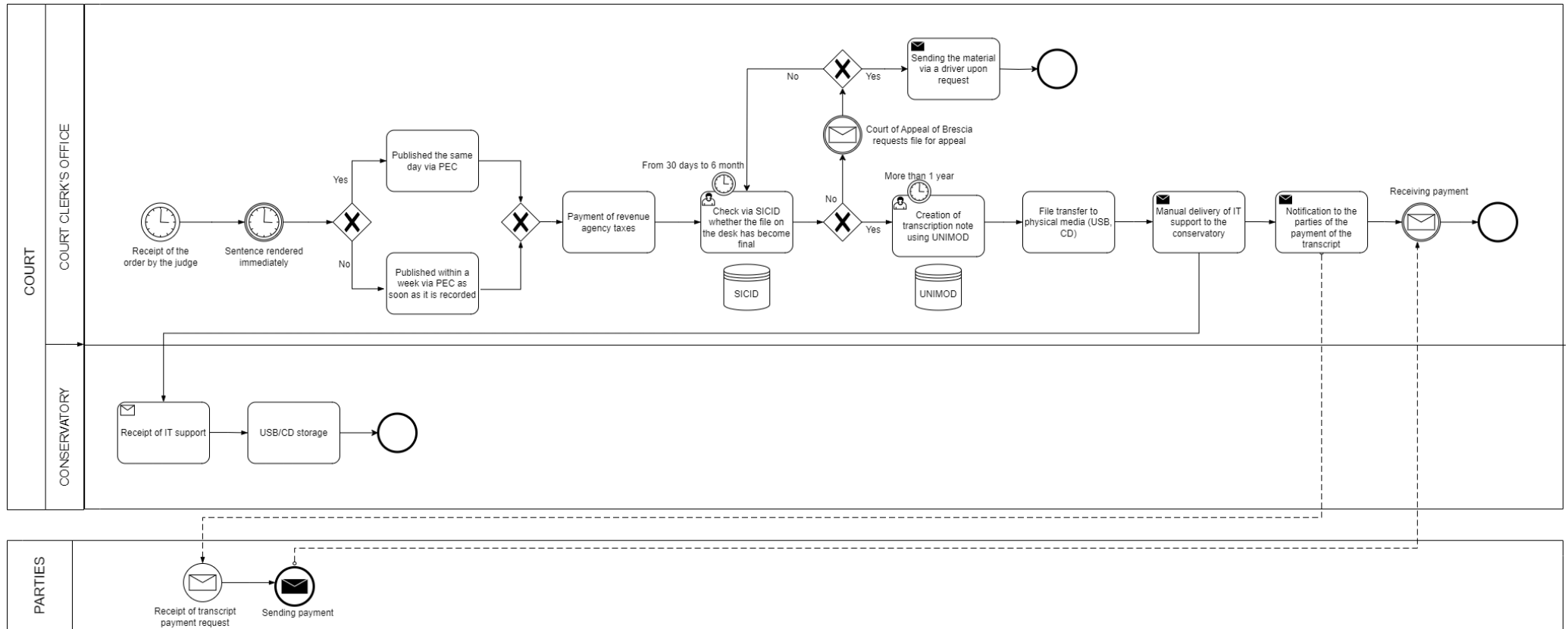


Figure 1 Court clerk's office of ordinary and special litigation BPMN 2.0 as-is. Source: Our elaboration.

## **1.2) MAPPING AS-IS OF THE COURT CLERK'S OFFICE OF THE VOLUNTARY JURISDICTION**

The second court clerk's office that is mapped is that of the voluntary jurisdiction always of the civil section. The process begins with the deposition of the reports at the court clerk's office by January 31 of each year, these can be delivered by lawyers electronically through SICID, otherwise if they are private individuals they are sent via PEC or as for most times they are physically delivered in paper form to the court clerk's office. The reports, if papers are scanned by the clerks, this activity lasts on average fifteen / twenty minutes each; at this point, having all those delivered by private individuals in digital form, they can all be uploaded to SICID. Then all the reports, both lawyers and individuals, are printed or collected in special folders, prepared according to the years; then the staff creates on an Excel sheet a card for each folder, in which to mark the date and person to whom it is delivered, in order to keep track of it. Finally, both the folder and the updated Excel sheet are delivered to a magistrate, who at that point when he has received it, will take from a month to a year to approve it; Once the approval has been made, the process for both the magistrate and the court clerk's office is concluded (Verbal of 20/01/2023).

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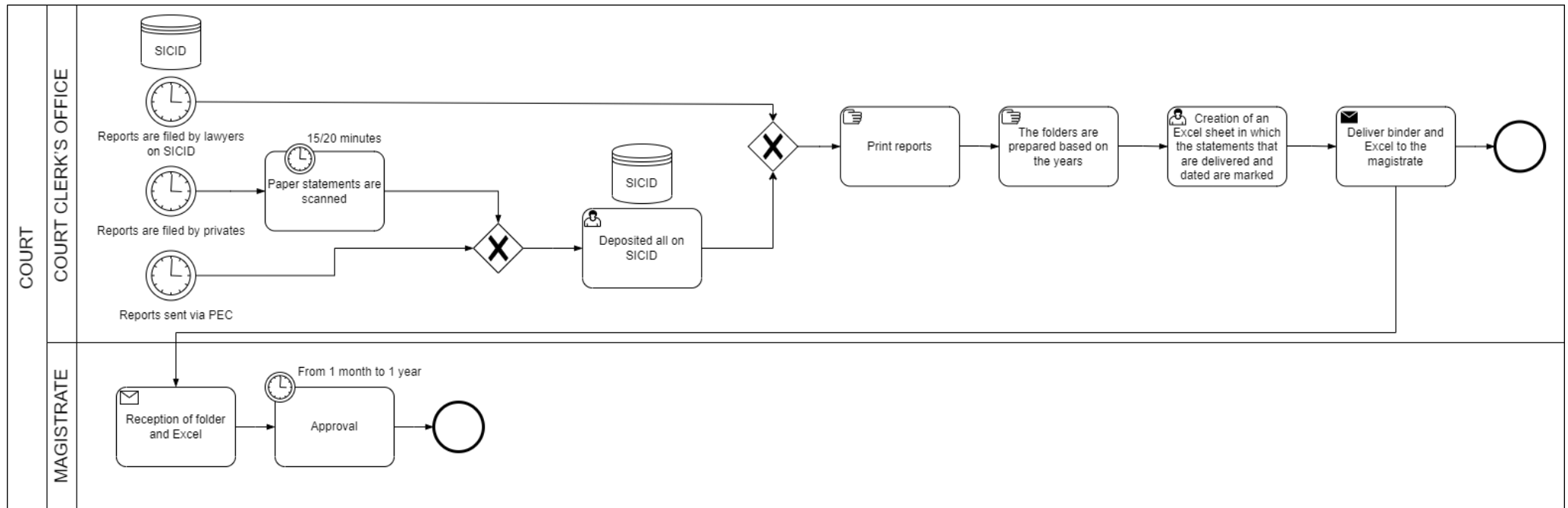


Figure 2 Court clerk's office of the voluntary jurisdiction BPMN 2.0 as-is. Source: Our elaboration

### **1.3) AS-IS MAPPING OF THE COURT CLERK'S OFFICE OF MOBILE AND IMMOVABLE EXECUTIONS**

The last court clerk's office of the civil section that is modelled is that of mobile and immovable executions. The activities begin with the arrival of the execution on SIECIC (Civil and Consortium Execution Information System, System that allows court clerk's offices to manage proceedings in the field of individual and insolvency executions (movable executions, real estate, bankruptcy and bankruptcy proceedings) (Ministero della Giustizia, 2011)), at this point if it is on the furniture the process stops (only at the BPMN level, since on the choice of the staff it was decided to focus only on the activities of the buildings since that are more critical), if instead and on the properties you wait for the receipt of the appointment by the judge. Moving on to the judicial side, its activities begin with the appointment of an expert and / or a custodian who at this point can communicate to the court clerk's office; The office, having received the appointment, communicates it to the nominee and subsequently takes an electronic oath by the nominee. Now the judge appoints a sales delegate and then communicates it to the court clerk's office; The clerks of the court clerk's office upon receipt of this notification shall notify the delegate of the appointment. After that the sale phase takes place, if the property is not sold the process stops, otherwise the buyer will have 120 days to pay the agreed amount; When the payment is made, the court clerk's office will send both the judge and the parties involved the communication and finish its trial. At this point both the judge and the parties receive the communication for the hearing and the whole process of activity ends (Verbal of 20/01/2023).

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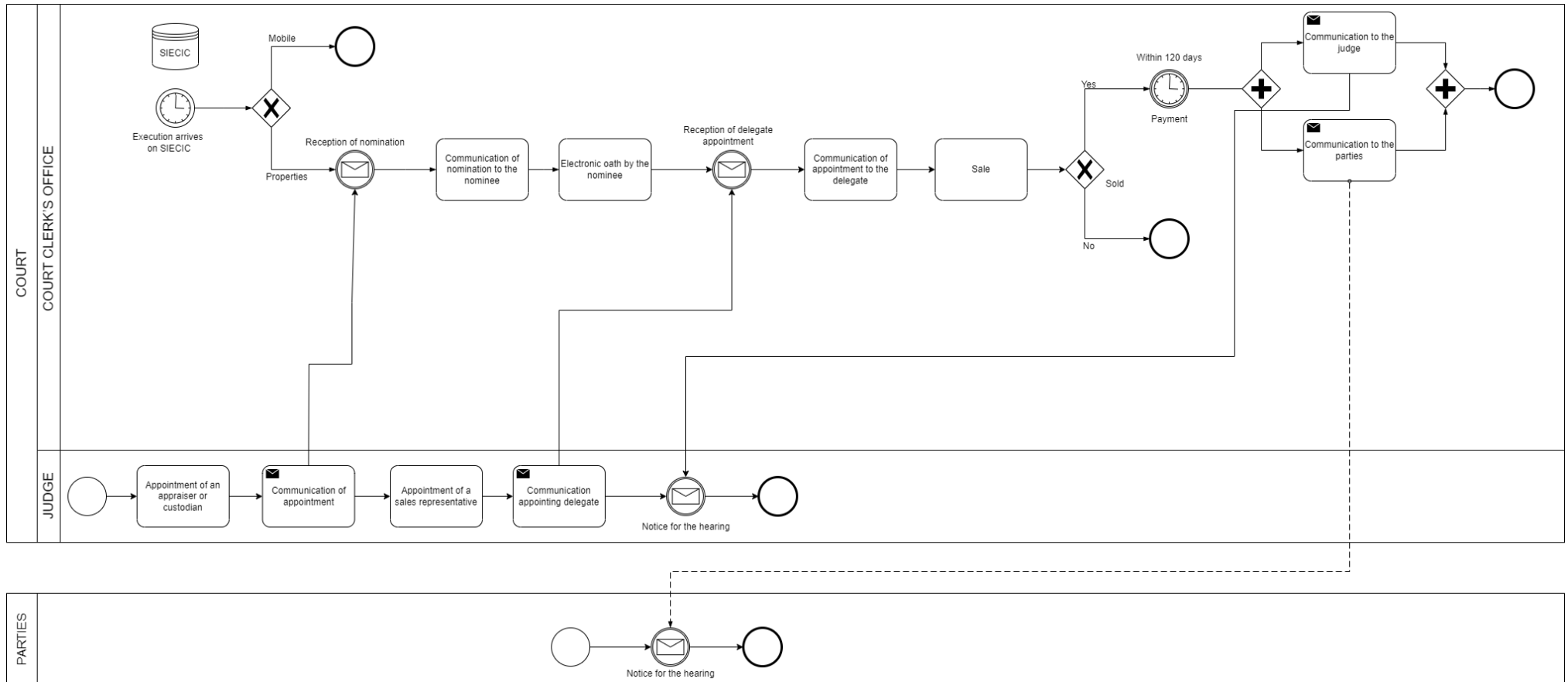


Figure 3 Court clerk's office of mobile and immovable executions BPMN 2.0 as-is. Source: Our elaboration

## **1.4) AS-IS MAPPING OF THE COURT CLERK'S OFFICE OF THE CRIMINAL SECTION**

The last mapping that is represented is that of the court clerk's office of the criminal section, which unlike the civil, is unified. For the sake of creating a model as realistic as possible, "UPP Offices" are defined as the main places where the activities will take place and the lower court clerk's office the office on the lower floor where the filing takes place, overall, these entities create the court clerk's office of the penal office. The process begins with the arrival in the UPP offices of the file by the prosecutor, the investigating judge or by direct; the file is registered on SICP (SICP is the Information System of Criminal Recognition and is composed of the Re.Ge Web (General Register of Crime News) and BDMC (Database of Precautionary Measures) systems (Ministero della Giustizia, 2013)), these systems will constitute the Information Banks of all the fundamental data of the cognition phase of the criminal process and is entered in the calendar in the role. After this phase, the hearings take place, from which the court clerk's office will then create a report, then a calendar is created in Excel and then the post-hearing fulfilment takes place. At this point the folder is transferred to the court clerk's office on the lower floor, this action can last up to thirty minutes due to the logistical difficulties of the building; The lower court clerk's office receives the folder and then deposits it in the archive and finishes its trial. Meanwhile, in the UPP offices, the role calendar is updated, after which the sentence will take place and then the immediately enforceable obligations. The judgment is headed and then can be appealed, if this takes place the transmission of the file to the court of appeal or the court of cassation, otherwise post-hearing communications take place. Following the appeal or not, the judgment is filed and subsequently the declaration of irrevocability takes place; At this point the post-irrevocability communications and post-irrevocability obligations follow, finally the process ends with the final archiving (Verbal of 09/02/2023).



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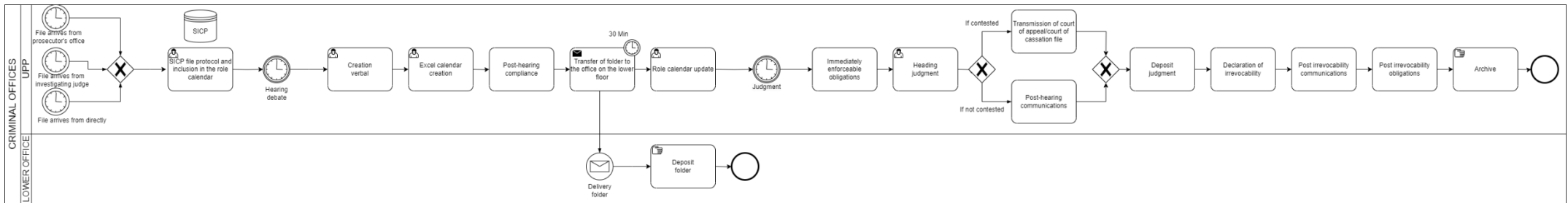


Figure 4 Court clerk's office of the criminal section BPMN 2.0 as-is. Source: Our elaboration

## **2) PROCESS ANALYSIS**

The third phase of the BPM life cycle is the process analysis, in this step it is important to identify all the inefficiencies detected and the causes that arise from them. Issues regarding process efficiency within judicial domain have been increasing day by day (Sharma, Haque, & Prasad, 2014). It is most important to overcome those issues so that better service can be delivered in the organization. The differentiated case management can be implemented within the judicial system (William, 2014).

### **2.1) ANALYSIS OF THE COURT CLERK'S OFFICE OF ORDINARY AND SPECIAL LITIGATION**

The first court clerk's office analyzed is that of ordinary and special litigation of the civil section. In it, the inefficiency that emerged from the interviews, and from the respective BPMN 2.0 model, is the length of time in processing the file. From his fishbone analysis (Figure 19) several aspects emerge, of which, however, many will see have cases already known to judges and clerks. The first is the lack of staff, to which it's possible to get to the cause, as has been repeatedly reported to us by the judges there are no funds, and few competitions are created and for few places for the court of Bergamo. Old computers, but even this cause is easily explained by the limited funds and the difficulty in receiving new equipment from the ministry. The use for the most part of paper and non-electronic files, this problem creates major inefficiencies in terms of speed and ease of recovery of the necessary documents, on this factor, however, the court clerk's offices are slowly digitizing following the Cartabbia reform. Another cause highlighted is the disorder inside the offices in terms of files, this problem is due to the fact that the building, being an ancient historic building, does not facilitate the storage of folders, but in the coming months thanks to digitization this problem should be solved. The last cause that has emerged through the analysis, in the dimension of the method, is that during the process

the deadlines and the priority order are lost according to this factor of the dossiers to be processed.

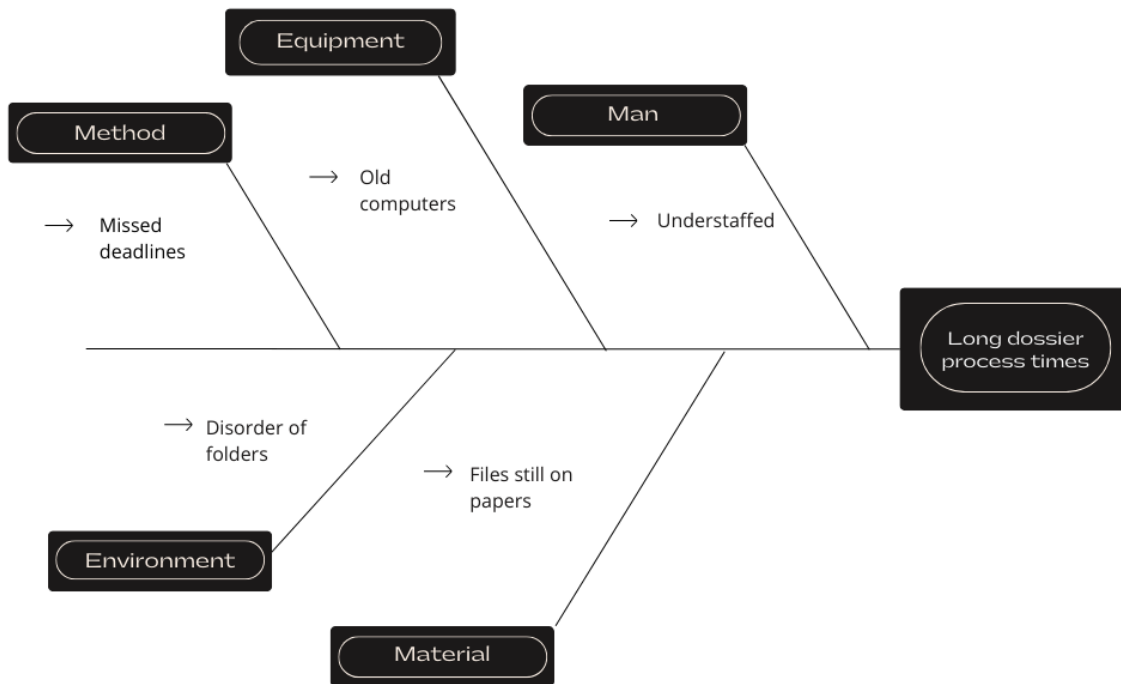


Figure 5 Fishbone diagram of the court clerk's office of ordinary and special litigation.  
Source: Our elaboration

During the interviews this topic emerged as a potential cause several times and from several people, so has been decided to delve deeper into it and understand what is at the root of the problem. Why are deadlines missed? They are not checked on all files. Why? Too laborious and long. Why? It is necessary to search for all the files that have not been judged. Why? You should look at the date on each file every time. Why? They are not registered anywhere else.

Through the 5 Whys has been arrived at the cause that arises from the loss of the order of the deadlines: the lack of a database with all the deadlines, in which to keep track of the various files and sort by processing priority according to deadlines. This would greatly reduce the time lost for clerks by speeding up the whole process.

## 2.2) ANALYSIS OF THE COURT CLERK'S OFFICE OF VOLUNTARY JURISDICTION

In the court clerk's office of voluntary jurisdiction, the greatest inefficiency that has appeared is the loss of folders, which involves large amounts of time spent searching for these objects within the walls of the court, taking away precious time for the performance of activities to the clerks. From the fishbone analysis (Figure 20) carried out on this problem, several possible causes emerged. From the point of view of the people involved in the process, one cause could be their lack of knowledge of the Excel program that is used to keep track of the files. Cause to be discarded since it has little effect on the problem. On the equipment it could be the obsolescence of the devices used, but as was seen in the previous analysis it is an aspect that is difficult to deepen. The same goes for the materials, even in this case, if not even more, all the files are entirely sheets. From the point of view of the work environment a possible cause is the large number of customers present at all times in the office, this creates great organizational inconvenience that could lead to the loss of folders in the confusion that is created, but it is not very decisive. An aspect that is very impactful on the loss of folders is on the working method, since the cause found is the lack of updates of the Excel file to trace the folders.

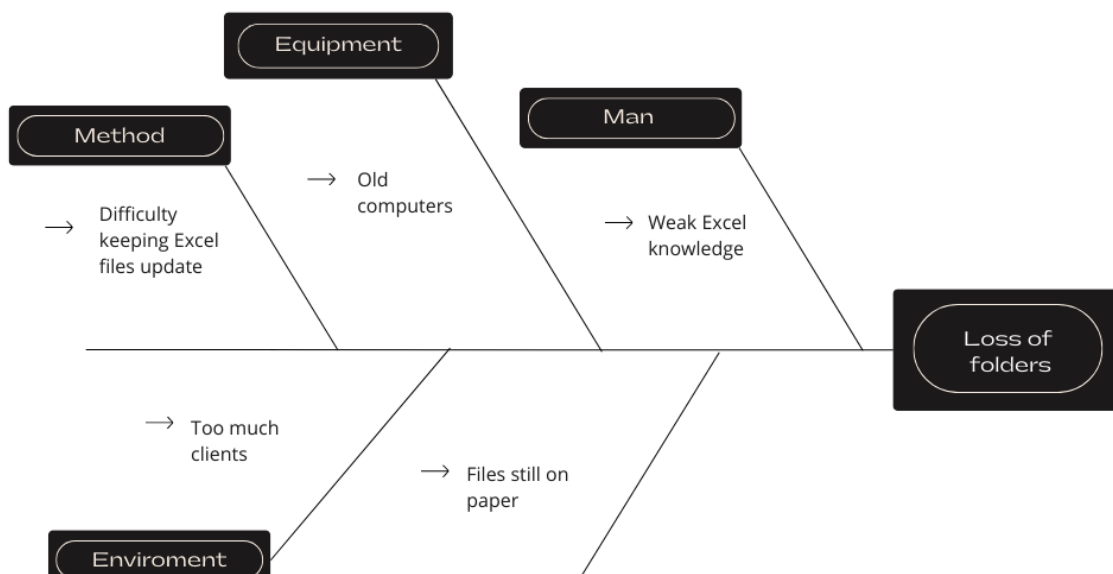


Figure 6 Fishbone diagram of the court clerk's office of voluntary jurisdiction. Source: Our elaboration

First, why the chancellors do not update the file, and, at first glance, it occurs to me that it is for the few skills of using the software that had emerged from the fishbone. But, rereading the interviews all the informations are present to deepen the causes with the 5Whys; Why isn't it updated? It creates difficulties. Why? Overall, it takes up a lot of time. Why? Very slow process to do. Why? You must scroll through the entire file to be able to find the box of a folder. Why? They do not have directly related identification codes.

So, the downstream cause of the loss of folders is their poor traceability, which fluidly prevents you from being able to search for them in the Excel database and update their positioning. Therefore, by being able to create a folder coding system it would be possible to make updating much easier, eliminating the loss of time in the search for the same between the offices of the court.

### **2.3) ANALYSIS OF THE COURT CLERK'S OFFICE OF MOBILE AND IMMOVABLE EXECUTIONS**

The third court clerk's office analysed is that of mobile and immovable executions of the civil section. In it there are two major problems: the loss of folders and the slowness of the process. For the former, the same analysis applies as for the previous court clerk's office which had the same problem (Figure 20) and also the same causes and solutions. For the second inefficiency it's possible to deepen through the fishbone analysis (Figure 21) the possible causes are identified that could arise from this procedural slowness. On three aspects, man, material and environment, the same analyzes made in the previous paragraphs in which the same were presented; Thus, it's possible to eliminate as possible causes on which to work the lack of staff, the disorder of folders and files in sheets of paper. Instead, on the other two causes identified, an in-depth analysis may be necessary and profitable, or on slow payments in the method and the use of old computers and slow

software, which unlike the other court clerk's offices, where this cause had been discarded, in this the speech is different, especially with regard to slow software.

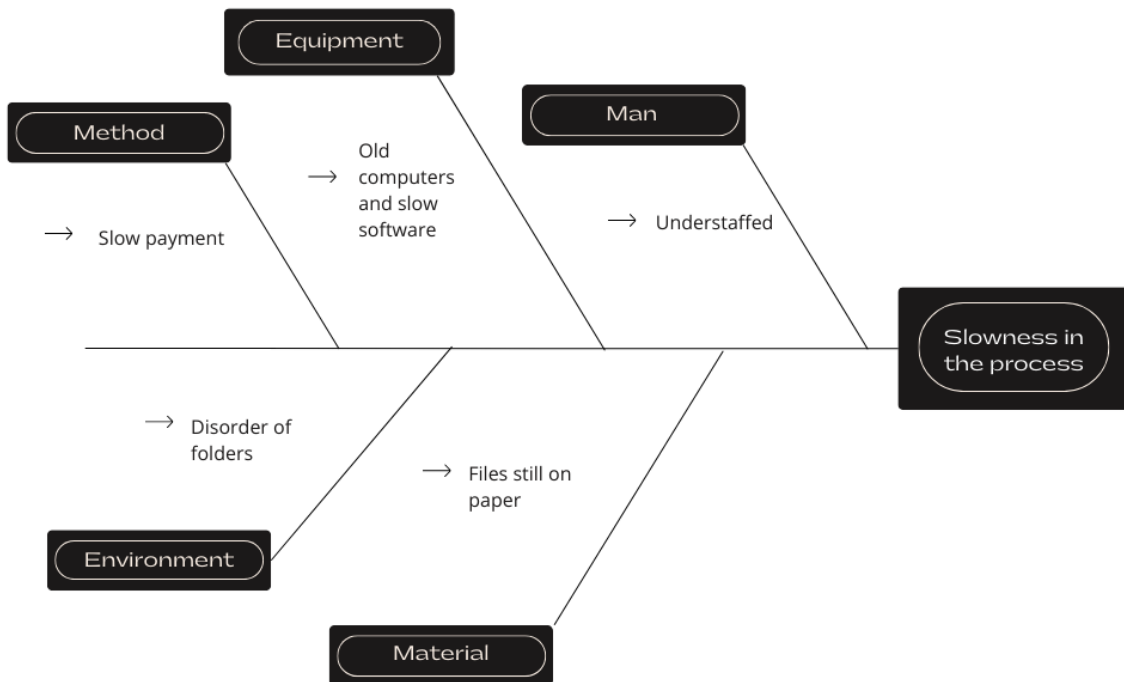


Figure 7 Fishbone diagram of the court clerk's office of mobile and immovable executions. Source: Our elaboration

Let's start by analyzing slow payments, why does this happen? Customers are slow to pay. Why? They are slow to fill out PagoPa. Why? They are not able to use it. Why? They have not read the explanation. Why? It is not clearly evident and done adequately. A first cause of the slowness of the process have been identified, the slow payments due to the lack of clarity of PagoPa's explanation.

Let's now analyze how it causes the use of slow software, asking ourselves what is the cause of this slowness? Excel is slow. Why? It takes a long time to process. Why? There

is a lot of data. Why? Data has been collected for more than twenty years in the same file.  
Why? The system with Excel is not optimized and divided by years.

Therefore, following the 5Whys analysis there are two downstream causes of the problem of slowness of the process: the lack of clarity on PagoPa payments and Excel programs that are not efficient.

## **2.4) ANALYSIS OF THE COURT CLERK'S OFFICE OF THE CRIMINAL SECTION**

The last analysis of the efficiencies performed is for the court clerk's office of the criminal section. The great inefficiency, which had emerged during the interviews, is that evident even in the BPMN model, is that the work processes of the folder are very long. On the aspect of employees, the cause identified is the lack of staff, a factor on which has been already debated previously and on which no action can be taken. Same disagreement on the materials where the files are mostly paper. As seen in the other court clerk's offices, the fact that the court is located inside an old and historic building entails problems, in this case there is little space to work; Unfortunately, even on this factor, it is impossible to intervene. On the equipment the discourse is the same as the court clerk's office of

executions; So, the possible cause of slow software will be delved into. The possible cause of slow activity in the method may also be interesting, so will be analysed it.

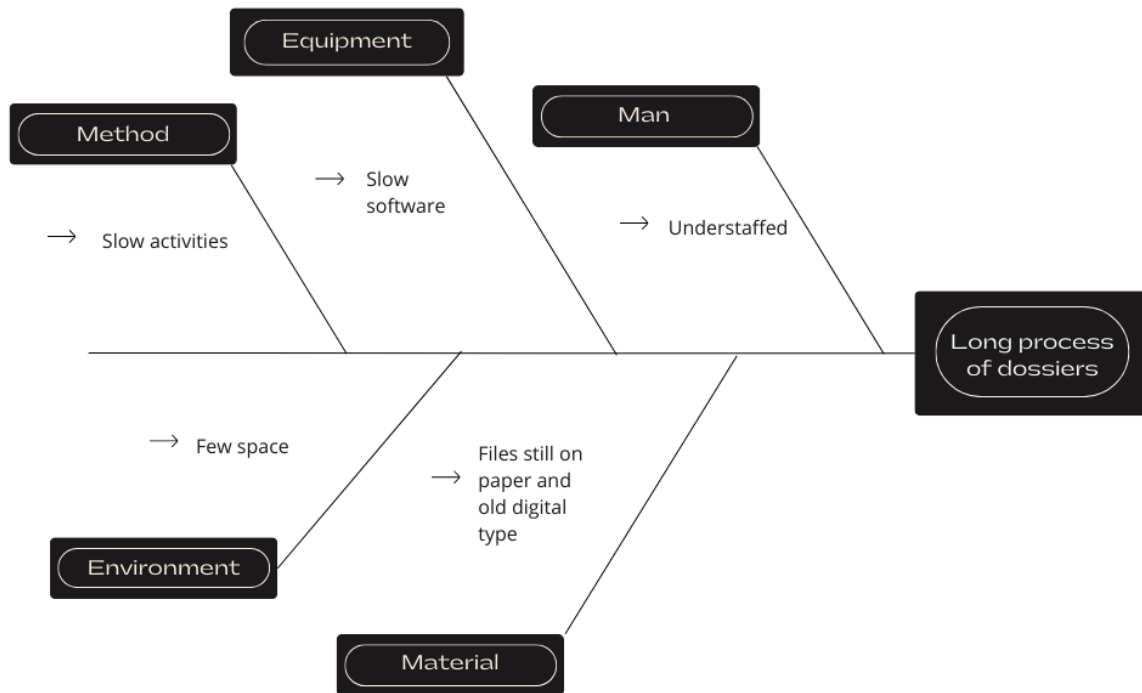


Figure 8 Fishbone diagram of the court clerk's office of the criminal section. Source: Our elaboration

Let's now analyze how it causes the use of slow software, asking ourselves what is the cause of this slowness? Excel calendar is slow. Why? It takes a long time to process. Why? Hard to find what you need. Why? There is a lot of data. Why? The calendar with Excel is not optimized.

The analysis is very similar to that done previously, with the solution of making the Excel file of the calendar of hearings more efficient.

As for slow activities, why does this happen? Some actions of the process are long. Why? They are laborious and difficult. Why? Each piece must be transcribed by hand on the



file. Why? The only way to do the preparation and drafting of a report. Why? There is no autofill.

Therefore, as a result of the 5Whys analysis there are two downstream causes of the problem of length of the process: a slow method of drafting minutes and the calendars of the hearings not efficient.

### **3) IMPROVEMENT SOLUTIONS**

In this paragraph will be address a second phase of process analysis, the identification of possible improvements. In the research this phase is embodied by the search and proposal of solutions and changes in order to eliminate unnecessary activities, simplify too laborious actions, solve serious inefficiencies and problems that have emerged in the previous paragraph.

Through the fishbone and 5whys analyses the sources have been arrived of the major problems that have been encountered within the various court clerk's office offices, at this point through internal meetings with the Cremona research team and with other meetings together with the various clerks and judges, have been put forward proposals for improvement and necessary actions to facilitate the work of the clerks in the court clerk's offices and to try to solve the inefficiencies that had been founded.

#### **3.1) SOLUTIONS FOR THE COURT CLERK'S OFFICE OF ORDINARY AND SPECIAL LITIGATION**

In the court clerk's office of ordinary and special litigation for the Civil Sections, the main problem that had arisen was the excessive length in processing a file. Downstream of this, as a cause on which to work is the loss of deadlines and in ordering them in a priority way, since they are not recorded anywhere.

To solve this problem, the best solution that it's possible to be applied, based on the IT and ministerial availability present in the court clerk's office, the impossibility to install new programs and also considering the few skills of the personal with software, is to create an Excel file in which to place all the deadlines of the files, so as to be able to keep track of them continuously and to be able to update it every time. This Excel file could arrange the deadlines in order of date in such a way that the registrar who will look for which file should be done first, can find it immediately and you will not lose the priority order of these. In addition, it is planned to further implement the file with a dynamic system that colours the deadlines of the day or week are coloured according to the date, so that they are even more prominent and can facilitate and above all speed up the work in the offices.

A possible solution to make the work of consulting deadlines even more efficient and faster would be ideal to create four different Excel files with different dates: one for written notes for the family section, one for written notes on litigation, another on registration in the role of the family section and the last for registrations to the register for the civil. The idea would be to make both versions (single file or multiple files) available to the ordinary and special litigation court clerk's office, after which, based on their experience and experimentation of these, understand which one makes the dossier process leaner and faster. In the Table 1 are resumed all the phases of the analysis of the ordinary and special litigation.

PROBLEM	FISHBONE CAUSE	5WHY CAUSE	SOLUTION
Long dossier process time	Deadlines missed	Lack of a data-base	Create one or more Excel files with deadlines

*Table 1 Problem and solution for the court clerk's office of ordinary and special litigation. Source: Our elaboration*

## 3.2) SOLUTIONS FOR THE COURT CLERK'S OFFICE OF VOLUNTARY JURISDICTION

In the court clerk's office of voluntary jurisdiction, the greatest inefficiency is the time that is lost in searching for folders within the various courtrooms and offices. This happens because the folders are not adequately traced, in fact today there is an Excel file as a traceability tool in which the name of the file is placed and from time to time it is written when and to whom it is given. Unfortunately, this is not done regularly, given the amount of work that the court clerk's offices cover, it is difficult for the employees to find the time to access the file and find the right line and update it, it is too slow an action.

From the analyzes carried out it was possible to understand that to solve this problem it was possible to insert a codification for the folders, the judges in the interviews had explained to us that, the folders, already had a unique but numerical code. So, the solution that have been designed to simplify traceability is to create barcodes in relation to the numerical code of the folders, in this way through a barcode reader it is possible to directly open a façade with the information of a given folder.

So, the idea would be that through this system and with the help of a program whenever a chancellor has to update the position of a folder, he scans its code, and the computer automatically opens the Excel box that is used to update the trace of this. In this way with this solution, you would delete the time that is lost in looking for the line relating to the folder and would greatly simplify the work of the employees in the offices of the court clerk's offices. In the Table 2 are resumed all the phases of the analysis of the voluntary jurisdiction.

PROBLEM	FISHBONE CAUSE	5WHY CAUSE	SOLUTION
Loss of folder	Difficulty keeping Excell files update	Few traceability	Add barcode system on the folders

*Table 2 Problem and solution for the court clerk's office of voluntary jurisdiction.  
Source: Our elaboration*

### **3.3) SOLUTIONS FOR THE COURT CLERK'S OFFICE OF THE MOBILE AND IMMOVABLE EXECUTION**

In the court clerk's office of mobile and immovable executions there were two problems that emerged: the loss of folders within the walls of the court and the slowness of the court clerk's office process. For the first, the solution developed is the same as the court clerk's office of the voluntary jurisdiction, then the barcode system to more easily trace the folders.

Due to the slowness of the process, however, through the analysis, two causes have been founded, the loss of time that is created during the payment of payslips through PagoPa and the use of Excel files very slow to process.

For the first problem it had come to the point of understanding that customers, being mostly elderly or otherwise not accustomed to the use of technology, is in difficulty when paying through the PagoPa application because it does not understand how it works. In the office, the employees have created a tutorial sheet in which the various phases of payment are explained, an explanation that has been poorly created, difficult to understand and readable and placed in an inadequate position. Therefore, customers do not read the tutorial or fail to go directly to the employees to ask how to do it, thus taking away precious time that would be useful to continue with their work.

For this problem the solution that founded immediately, is very simple and intuitive, create a new tutorial, much more evident, written and explained more understandably and made more attractive, so that customers dwell on it and can learn independently what - àhave to do to pay their payslips through PagoPa.

For the very slow Excel file, through interviews and analysis, it was understood that the underlying problem is that it is full of data and information collected over many years, without ever having performed a backup or cleaning of the file. Therefore, it is very slow

and struggles to process the actions required by the employees forcing them to wait and taking away time.

The most suitable solution to this problem is to make the Excel file already present on the computers of the mobile and immobile execution office more efficient. To make it more efficient, it will be necessary first of all a careful cleaning of the data present, so as not to eliminate what may be useful then remove the recursive or incorrect notions. Secondly, to store all those information that today are distant in time (there are data from more than twenty years ago) and that only create slowness and no added value. In the Table 3 are resumed all the phases of the analysis of the mobile and immovable executions.

PROBLEMS	FISHBONE CAUSES	5WHY CAUSES	SOLUTIONS
Loss of folder	Difficulty keeping Excell files update	Few traceability	Add barcode system on the folders
Slowness in the process	Slow payments	Lack of clarity of PagoPa	Create a new tutorial
	Slow software	Inefficient Excel files	Clean and optimize Excel files

*Table 3 Problems and solutions for mobile and immovable execution court clerk's offices. Source: Our elaboration*

### **3.4) SOLUTIONS FOR THE COURT CLERK'S OFFICE OF THE CRIMINAL SECTION**

Turning to the univocal court clerk's office of the criminal section, the problem that had been observed was the excessive length of the process of the files which involved long times and great waits. In the previous chapter had been seen that possible causes of this problem are very slow software, due to the inefficient calendar of hearings, and very

complex and verbose court clerk's offices activities, due to the manual compilation of each report.

The first activity carried out was to find a solution for the calendar of hearings. At present it is a large Excel file in which there are reported for each judge the dates of their hearings, but this file is not ordered and contains a lot of information some even very past. So, the will is to find a system of scheduling hearings that allows officials to intervene and modify and the judges and the prosecutor to be able to view, moreover, it would be very useful if this system were also able to print the "statino", an instrument that would further help the clerks.

The most suitable solution the team has found is to support scheduling with a database in Access. In this way, clerks can use their computers to query for the information they need and display it through an interface. In this way, officials will no longer have to waste time searching for roles and dates of hearings but will automatically receive this information and can update or modify it according to their needs. In addition, the judges, in the same way, will be able to view the dates, classrooms, times, etc. of their hearings and will be able to remain constantly updated in case of changes.

The second problem, the manual compilation of minutes with the computer, leads the employees to waste a lot of time behind this activity, since they are very long and verbose. Such as, for example, having to enter codes in the header of the minutes, such as register number, names of the parties, etc.; information to be copied entirely by the appointed registrar from SICP one by one. Another case is the compilation of the boxes of the minutes in which articles, definitions and other must be inserted, notations that are in most cases the same for each report.

The solution has been identified, to assist the clerks in drawing up the minutes, is two proposals to support both cases described above. First of all, create a system that automatically extrapolates from the SICP file the necessary information in the report (codes, names, etc.) so as to avoid that the employees have to transcribe them one by one. As for the filling in of the boxes, since the information required is almost always the same for each report, the idea is to create drop-down menus, for each box, so that the official only has to select the item necessary to complete each section, also leaving the option of being able to complete manually in case of a circumstance outside the compilation

routine. In the Table 4 are resumed all the phases of the analysis of the court clerk's office of the criminal section.

PROBLEMS	FISHBONE CAUSES	5WHY CAUSES	SOLUTIONS
Long process of dossiers	Slow activities	Slow drafting of minutes	Create drop-down menus
			Create minutes auto filling
	Slow software	Calendar of hearings not efficient	Create and use a database in Access

Table 4 Problem and solutions for the court clerk's office of the criminal section. Source: Our elaboration

## 4) PROCESS REDESIGN

Since the changes proposed will be evaluated and implemented in the long term, and are therefore not already operational, it is not possible to create current and instantaneous models of the new processes within the court clerk's offices. For this reason, in this paragraph, will be tried to predict how the processes will change over time, and it's possible to hypothesize how the timing and fluidity of the development of the activities carried out in the chancery offices will change. The tool used to create the models, as in as-is, is the BPMN 2.0 notation in such a way as to represent in a to-be version the court clerk's offices with the solutions applied.

### 4.1) TO-BE MAPPING OF THE COURT CLERK'S OFFICE OF ORDINARY AND SPECIAL LITIGATION



In the ordinary and special litigation court clerk's office, the improvement action elaborated is to create an Excel file (or four different as explained above) to give officials a tool for checking deadlines and create a priority order in processing files. The consultation of the Excel file would be of fundamental importance following when a file becomes final, since subsequently the employees will create the transcription notes concerning the file on UNIMOD, at this stage, knowing the deadlines of the pending files and the order in which to carry them out, will allow to optimize the time and not to lose any fixed deadline. Therefore, while the registrar has this facts, the dealing with of the files, following the chose's ruling, will be a good deal better than in the past; Therefore, will be count on a drastic decrease within the timing of the advent of the transcription be aware, which formerly become over a 12 months of ready and time, now it will likely be beneath a year, attaining as much as approximately 20% discount in length. These forecasts don't forget the truth that it isn't always feasible to lessen this time even more, on account that it's far specially composed of the time that the employees use to bring together the notes and the wait this is created between one draft and some other, an c programming language that at gift it isn't always feasible for us to change. The assumptions recommend, specifically regarding timing, were made on the basis of interviews and interviews with officers approximately the adjustments and created thru their experience and private understanding of the sports and their drift within the daily and during the months.



**NEXT GENERATION UPP: NUOVI SCHEMI COLLABORATIVI TRA UNIVERSITÀ E UFFICI GIUDIZIARI PER IL MIGLIORAMENTO DELL'EFFICIENZA E DELLE PRESTAZIONI DELLA GIUSTIZIA NELL'ITALIA NORD-OVEST**  
Progetto finanziato con il contributo dell'Unione europea, Programma Operativo Nazionale Governance e Capacità Istituzionale 2014-2020, Fondo Sociale europeo e Fondo europeo di sviluppo regionale  
Codice progetto: CUP D19J22000240006.

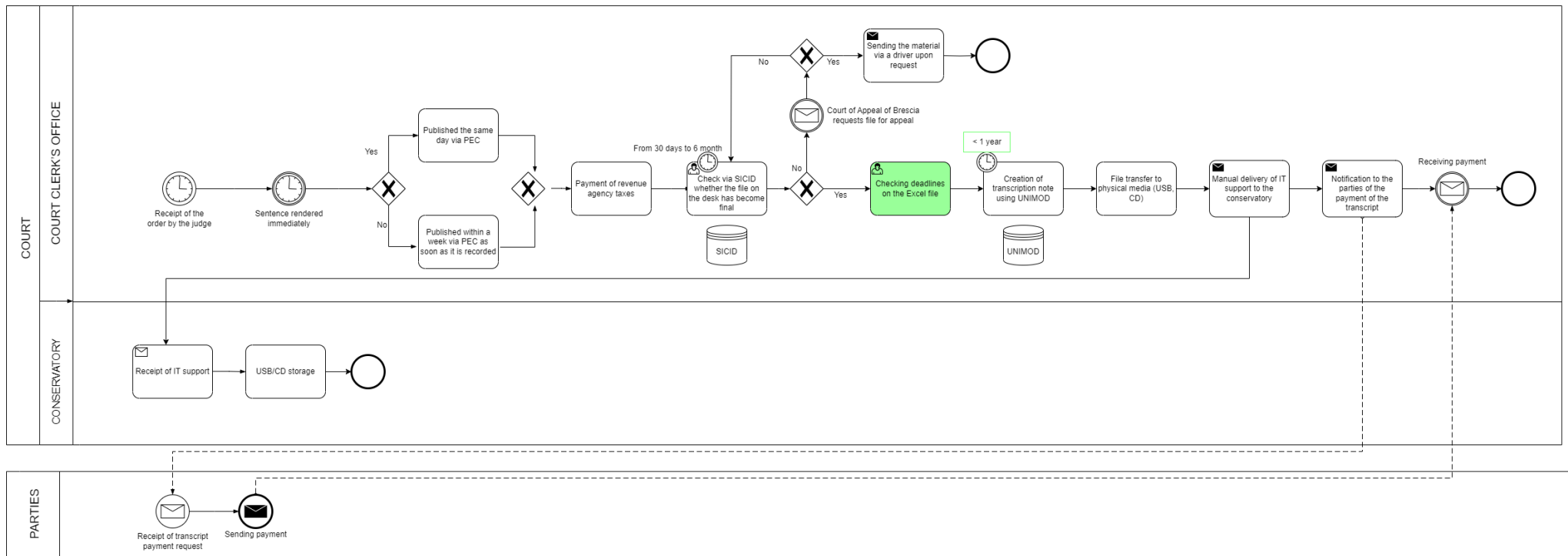


Figure 9 Court clerk's office of ordinary and special litigation BPMN 2.0 to-be. Source: Our elaboration

## **4.2) TO-BE MAPPING OF THE COURT CLERK'S OFFICE OF THE VOLUNTARY JURISDICTION**

In the court clerk's office of voluntary jurisdiction, the idealized improvement to overcome the difficulty in tracing the folders, is to create barcodes that can be scanned and immediately view the status of the dossier. In the to-be model created it is assumed that this new function supports the phase prior to the delivery of the folder to a magistrate, so the employee can scan the code, and through a direct interface update who the folder is delivered to and when. This system will allow you not to have to open the Excel file and look for the correct line to update but that this action is done directly from the computer through scanning, at which point the official will only have to update the status allowing him to save a lot of time that can be used in processing other pending folders. In this case it is not possible for us to hypothesize from the quantitative point of view the time saved, since a starting figure has never been recorded, but given the large turnout in this court clerk's office it would be of fundamental support to lighten the workload of officials.

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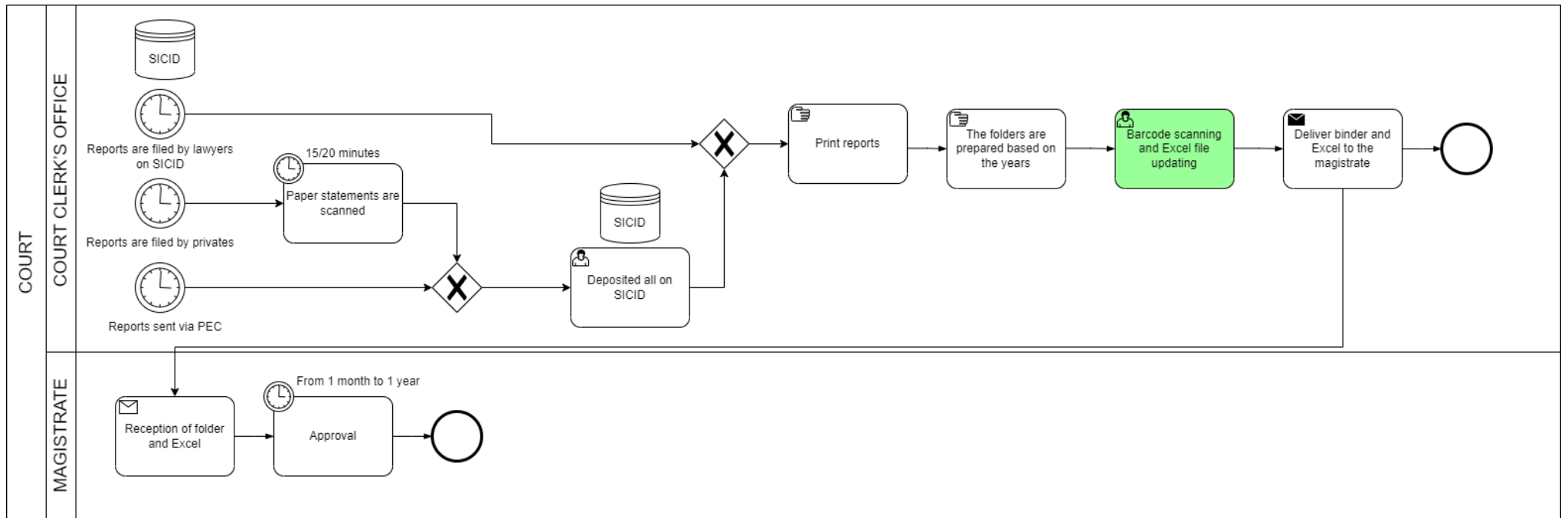


Figure 10 Court clerk's office of the voluntary jurisdiction BPMN 2.0 to-be. Source: Our elaboration

### **4.3) TO-BE MAPPING OF THE COURT CLERK'S OFFICE OF THE MOBILE AND IMMOVABLE EXECUTION**

In the court clerk's office of mobile and immovable executions there are three innovations presented: the insertion of an identification barcode for the folders; an improvement in PagoPa payment instructions; finally, the optimization of the Excel reporting file used. As can be seen from the BPMN model with reference to the future status of this court clerk's offices, following the appointments and before the sale, the scanning of the folder reference code takes place, so that the respective interface opens directly, immediately after the court clerk's offices can update the new improved Excel file, placing the information necessary for the traceability of the folder. This new system can halve the time of this phase, since thanks to the barcode it will no longer be necessary to search the Excel list for the necessary row but will open automatically. Factor that in turn will limit the risk of loss of folders within the walls of the court, given the greater ease in updating the positioning, so as to eliminate the time lost in the search for dossiers. In addition, the optimized Excel file, i.e., made "lighter" by eliminating recursive and dated elements and no longer useful, will be much faster to process and easy to use, creating more time gained in favour of officials.

As for the instructions for PagoPa, they will be of crucial importance following the sale of a property when the buyer will have to make the payment in person at the court clerk's offices. Through this measure, customers will be able to make the payment through the PagoPa portal much more easily, allowing court clerk's offices staff more freedom and the possibility to continue with their work, no longer having to pay attention to them in helping in the payment phases on PagoPa.

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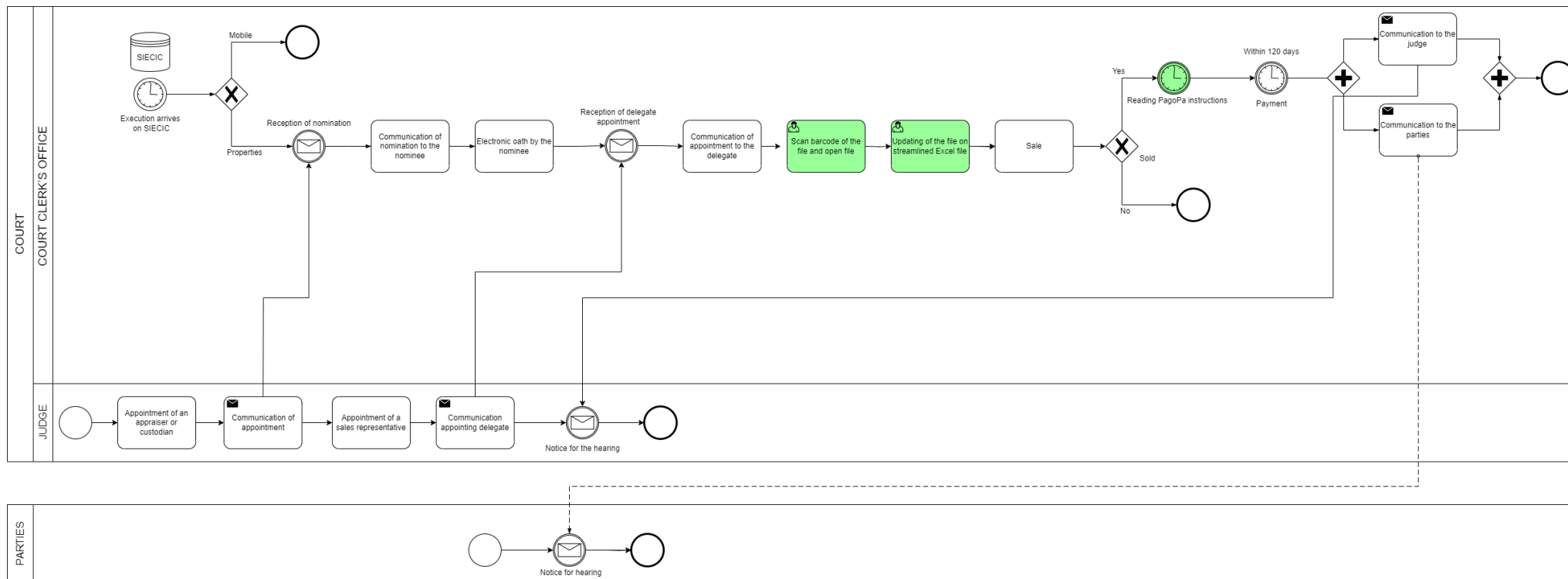


Figure 11 Court clerk's office of the mobile and immovable execution BPMN 2.0 to-be. Source: Our elaboration

## **4.4) TO-BE MAPPING OF THE COURT CLERK'S OFFICE OF THE CRIMINAL SECTION**

In the univocal court clerk's office of the criminal section there are two actions for improvement, the semi-automatic compilation of the minutes and the creation of an Access database for the calendar of hearings. From the representation of the to-be status of the court clerk's office, can be observe that semi-automatic compilation will be used in two phases of the process of activities within the court clerk's office. First of all, it will be useful following the hearings where during the compilation phase of the minutes the function of the drop-down menus from which to select the items necessary to fill the empty spaces, will be fundamental in speeding up this work. The other section of activities that will be helped by this technology is after the judgment, a phase in which the clerk of the court clerk's office had to fill in the headers, but now the computer would be able to automatically extrapolate the necessary information from SICP to fill them in, allowing the official to save a large amount of work and time that can be allocated to other activities.

The new calendar of hearings supported by the database in Access will be used and updated whenever there is a change in the dates of appeals or when a judge or an employee wants to view the commitments of a given trial. In the BPMN to-be model this phase takes place before the sentence where precisely the cases defined above can take place, now the person who accesses the calendar will be able to view in a few seconds, through precise queries, the information he needs. This function will certainly benefit the officials of the court clerk's office, saving them from the obligation of having to scroll through the whole file in search of the desired information and it will be much easier to edit the file; thus, saving them a lot of time; In addition, it will also be very useful for judges who in a few steps will be able to view on their computer their next commitments in the courtrooms.

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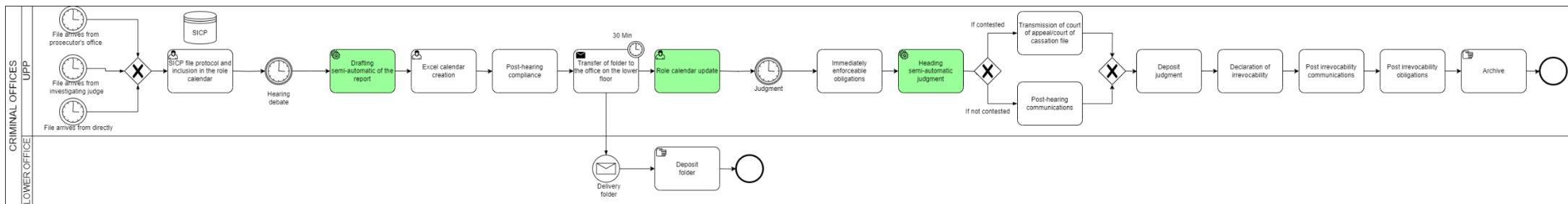


Figure 12 Court clerk's office of the criminal section BPMN 2.0 to-be. Source: Our elaboration

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