

When service design meets social impact: Process and mindset used to contribute to the public policy to reduce the overpopulation in Brazil's Prison

Renata Martinez¹, Jessika Lima¹, Leandro Celes¹

renata.martinez@gmail.com, jessikapetrilio@gmail.com, leandroceles@gmail.com

¹ PNUD United Nations Development Programme, Brazil

Abstract

Brazil has the third largest prison population in the world, 682,100 people, and this number is growing faster than the global average (Programa Fazendo Justiça, 2022). In this scenario, the *Fazendo Justiça Program* has its relevance compromised with the United Nations Agenda 2030 to promote peaceful and inclusive societies for sustainable development, providing access to justice for all and building effective, accountable and inclusive institutions at all levels.

The program has 28 actions that unfold into various initiatives. The focus will be on one of the projects: *The implementation of the new module of Alternative sentences and Measures to imprisonment in the Unified Electronic Execution System (SEEU)*.

Through service design lens and people-centered approach, the new module gains more human perspective, a product roadmap based on real needs and contributes to systematised data production on how these measures are being executed, promoting value and guidance to public policy.

This paper describes the steps undertaken during the design process to support the launch of the module's first version.

Keywords: user-centered design, design and public sector, design and public policy, design and prison system

Introduction

Brazil is ranked 26th in the list of countries that have the highest imprisonment rate in the world (Silva et al., 2021). In terms of absolute number of people deprived of their liberty (commonly called prisoners, but in this article, the adopted term will be "people deprived of liberty") it ranks 3rd, with 682,100 persons, behind only the United States and China. The number is alarming if we consider that the capacity of the prison system is 440,500 (Silva et al., 2021). The number of provisional persons deprived of liberty, which means those awaiting judgement, is equivalent to 31.9% of the total number of persons deprived of liberty, corresponding to 217,687 persons.

The growing number of people deprived of liberty represents a high social cost and public expense. Furthermore, increasing incarceration has shown limited effects in ensuring a safer and more inclusive society (Programa Fazendo Justiça, 2022).

This scenario has a negative impact on Brazil's commitment to the United Nations 2030 Agenda for Sustainable Development, in particular the Sustainable Development Objective (SDG) 16 - Peace, Justice and effective institutions. The Agenda is an action plan agreed with world leaders in 2015 to eradicate poverty, protect the planet and ensure people achieve peace and prosperity, and the 2030 Agenda has a total of 17 Sustainable Development Goals (SDGs).



Figure 1. All Sustainable Development Objectives (SDG): Image by https://pt.wikipedia.org/wiki/Objetivos_de_Developimento_Sustent%C3%A1vel

The *Fazendo Justiça* [Doing Justice in a free translation] program is part of this context, and it aims to address the structural challenges of the penal system and socio-educational system in dialogue with SDG 16 - Peace, Justice, and Effective Institutions. The program unites different actors from the public, private, and civil society sectors to implement 28 actions for each phase of the penal and socio-educational cycle.



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According to the *Programa Fazendo Justiça Relatório de Gestão* (Fazendo Justiça Program Management Report, 2022), the program's target audience includes initial-level beneficiaries, such as judiciary and criminal justice system actors, and final-level beneficiaries, which comprise around 800,000 people deprived of liberty in the prison system and 140,000 adolescents in the socio-educational system, in open or closed regimes.

The focus of this article will be one of the projects that operates in the Penal System and permeates the phases: Front Door and Execution. It is about the development of the new module of *Alternative sentences (penalties) and Measures to imprisonment*, to be included in the current Unified Electronic Execution System (SEEU), a digital system in which criminal enforcement proceedings are processed in Brazil.

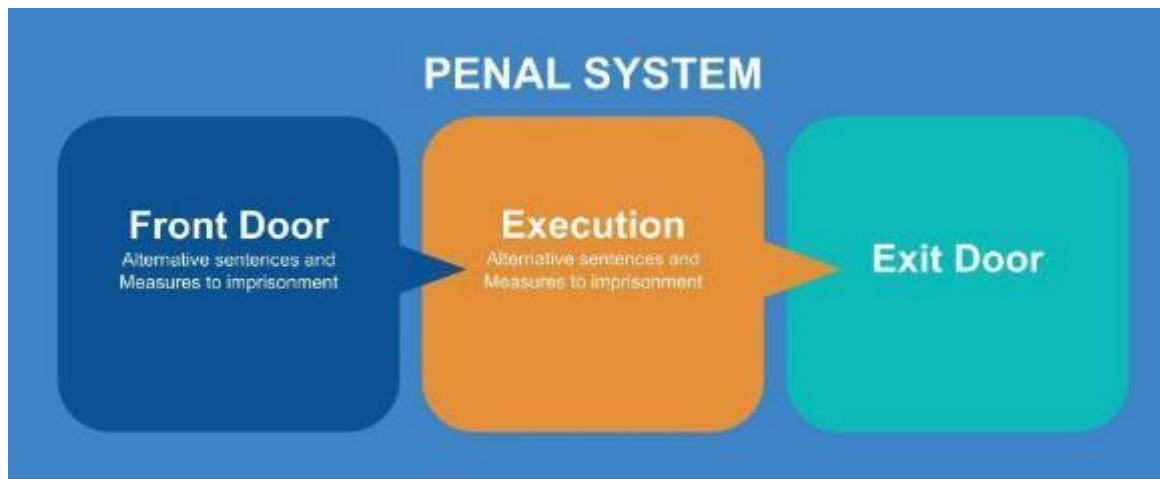


Figure 2. Penal System phases in a high level overview. Front Door, Execution and Exit Door: Image created by author based on [Comunicação Fazendo Justiça](#)

SEEU, like any other digital system, is made of people and their relationship. There are at least 9 different actors who act either directly by processing information and making decisions based on data, or indirectly by simply consuming information from the system.

By working with a people-centered approach from service design's lens, the SEEU system gains a more human perspective by bringing the people who use the system closer to the development team and the business team, and brings out the most latent pains and needs that were strategically incorporated into the product roadmap.



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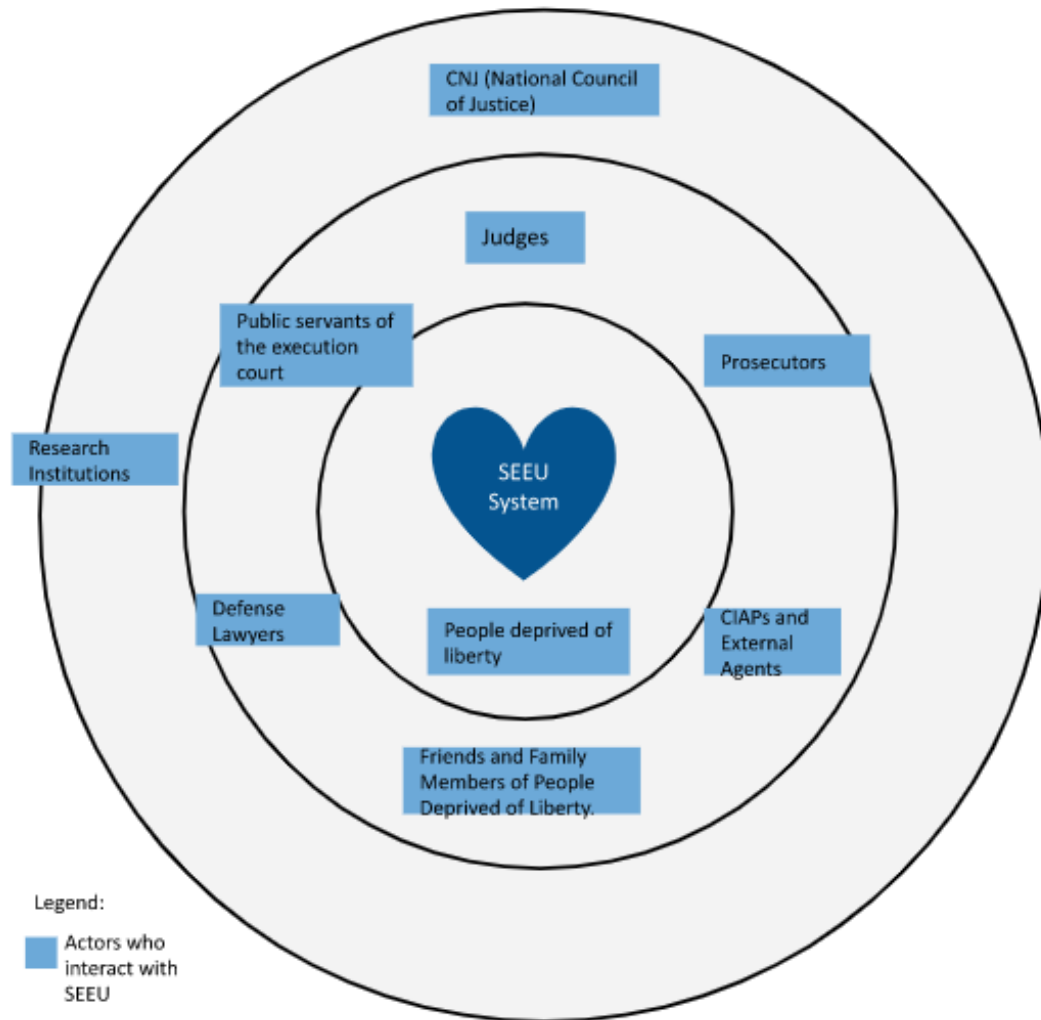


Figure 3. SEEU is the heart of the Brazilian criminal justice system, and it is part of a larger ecosystem that involves different actors who relate to it either directly or indirectly: Image created by author

1. Brief overview: Alternative penalties and measures to imprisonment

Before discussing the Design Process and how service design contributes to strengthening public policy by strategically and tactically informing decisions, and meeting the emotional expectations and needs of different actors, it is important to step back and clarify what are the *Alternative sentences (penalties) and Measures to imprisonment*.



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In Brazil there are 31% of provisional prisoners, according to (Silva et al, 2021). Data also helps us to understand the selectivity of the system regarding provisional prisoners, formed mainly by young people up to 29 years old, black and male, according to report *Manual de gestão e alternativas penais eletrônico*, published by Programa Fazendo Justiça (2020).

This report highlights "Structural violence related to cultural and ideological factors that each year further sediment the genocide and exclusion of the black population in Brazil, via criminalization." (Programa Fazendo Justiça, 2020, p. 20).

Also according to the report the Alternative sentences (penalties) and Measures could break this selective and homogenic system "From a scathing critique of the penal model that has incarceration as its hegemonic method, alternative penalties to imprisonment arise adopted from the Tokyo Rules [...]" (Programa Fazendo Justiça, 2020, p. 21).

These rules were adopted in 1990, at the United Nations Congress, and are the result of a historical process of criticism, studies and discussions, which began in Genoa in 1955.

The report explains that:

The rules recommend the use of deprivation of liberty as a last resort and only in cases of serious crimes and highly dangerous convicts; for other crimes and criminals of lesser offensive potential, propose alternative measures and penalties (Programa Fazendo Justiça, 2020, p. 21).

There are several penalties and alternative measures that can be applied in the case of crimes with less offensive potential, they vary from case to case, from process to process. Some examples of the best known are *Providing service to the community* (eg.: painting a school) and *Home retreat at night and on days off* (that is, the person cannot circulate during the night and on weekends).

2. SEEU System and the new module of Alternative sentences (penalties) and Measures to imprisonment

The investigation of a crime has several stages until the judge's sentence, which will conclude by the acquittal or conviction of the accused (Faria et al, 2021).



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When convicted, the accused will receive a penalty (sentence), which can be either deprivation of liberty (reduction of the right to come and go) as Alternative sentences and Measures to imprisonment, such as the provision of services to the community."(Faria et al, 2021).

Phase	Pre-procedural phase		Procedural phase		Execution phase	
Moment	Investigation	Hearing	Indictment	Pronouncement of sentence	Execution of judicial acts	Routine to complete the measure

Figure 4. Holistic view of how a person on alternative sentencing experiences completing their sentence. In black the main procedural phases, and light grey the moments over time: Image created by the author.

Regardless of the penalty (sentence) assigned, it will need to be executed. When the execution of the sentence begins (in the execution phase), an important tool of the Judiciary for the registration of the sentence or measure applied and its monitoring is the Unified Electronic Execution System (SEEU), which centralises the management of penal enforcement proceedings in Brazil, which provides great agility in the processing of processes.



Figure 5. SEEU Initial page (log on): Image by <https://seeu.pje.jus.br/seeu/>

To keep in mind, before SEEU, there were many paper processes, and there was no integrated management of the penal execution in Brazil, there were at least 7 different systems throughout the territory.



The systems did not communicate and did not connect the Criminal Justice actors, causing delays in procedures. With SEEU, the management of national data in real time facilitates evidence-based decision making, in addition to enabling the creation of new strategic actions focused on improving penal execution. (Programa Fazendo Justiça, 2022, p. 46).

The new module of the system should incorporate *Alternative penalties and measures and Electronic Monitoring* as well, and everything should be thought out considering the law, business aspects and the needs of the people who use the system. SEEU is a digital system with a national impact, each Brazilian penal execution court has a different routine and dynamic to work with, it was necessary to know and map their specificities and generalisations so that the business areas could make the best decisions to positively impact the users.

SEEU and its new module should facilitate the management of alternative measures by civil servants and judges in the daily life of the courts, promote the exchange of information, the application and execution of Alternative penalties and measures. All this to ensure that the rights and benefits of people deprived of their liberty (end-users) are respected, and that the process proceeds within the time prescribed by law, without delay. In this article, we will refer to those who comply with Alternative Penalties and Measures as *Person in Penalty or Alternative measure to imprisonment*.

3. Design Process: How we approach to the challenge

SEEU is based on the law (in many of them) and it is an important system of the Brazilian Judiciary.

The new module would operate within the structure of the Superior Court of Justice (highlighted in blue in the scope of SEEU in Figure 6), more specifically, within the state courts, in the **Execution Courts**.



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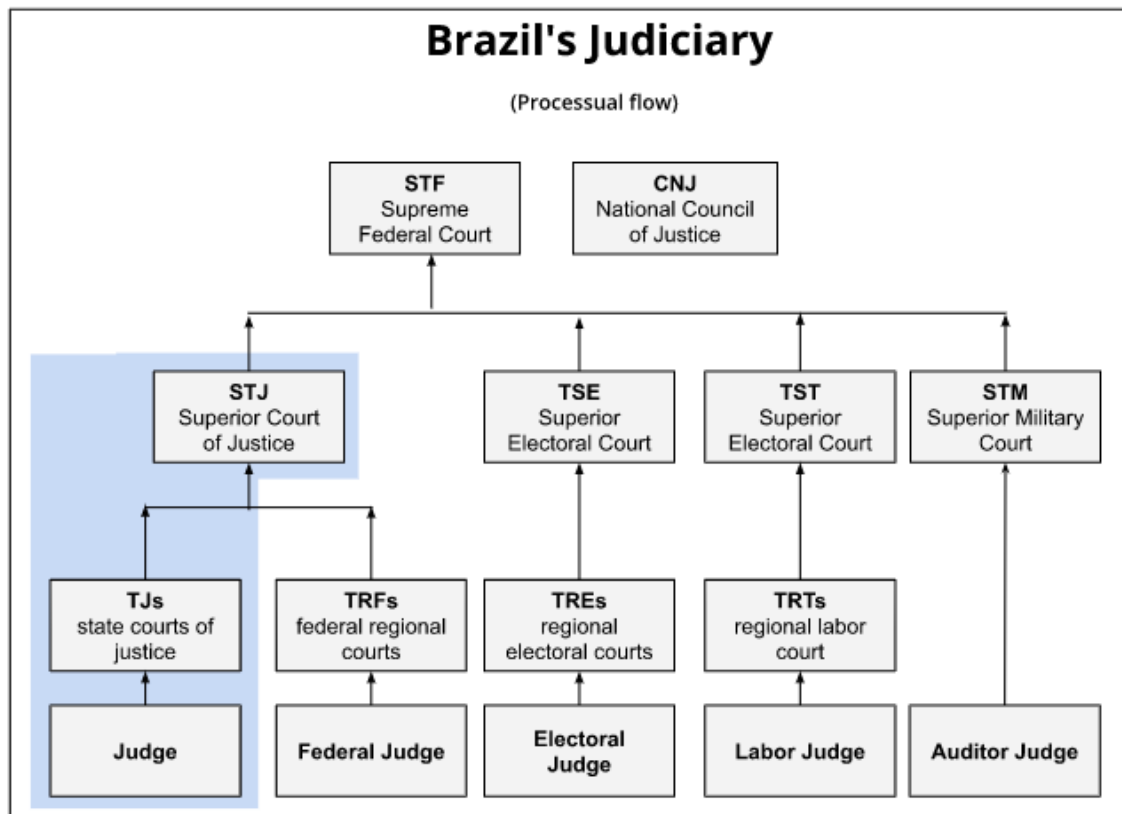


Figure 6. Processual flow of the Brazilian Judiciary. Highlight in blue of the judges and courts we had access to interview and get to know better all: Image by https://www.stf.jus.br/arquivo/cms/sobreStfCooperacaoInternacional/anexo/STF_Brasil_Estrutura_e_Atribuicoes.pdf

The Execution Court is a judicial unit responsible for overseeing and monitoring the enforcement of sentences imposed on convicts. The Execution Court is responsible for managing the enforcement of custodial sentences (imprisonment), security measures, alternative sentences, and other penalties imposed by the Judiciary. Additionally, it is responsible for evaluating the behavior of the convict during the enforcement of the sentence and deciding on the granting of benefits provided for by the legislation, such as regime progression and conditional release.

The Execution Court is composed of a judge responsible for supervising and monitoring the enforcement of sentences imposed on convicts. Also included in the Execution Court are prosecutors, public defenders, lawyers, court staff, and other legal professionals who work in monitoring and supervising the enforcement of sentences imposed on convicts.



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The legal bases for Alternative Sentences must also be respected and incorporated into the SEEU system:

- Article 28A of the Criminal Procedure Code - Law No. 13964/2019 - Agreement for Non-Prosecution;
- Article 5 of the Federal Constitution when it deals with alternative social service;
- Articles 77 to 82 of the Penal Code - Conditional Suspension of Sentence;
- Code of Criminal Procedure, with amendments from Law No. 13.403/2011 and Law 13.964/2019;
- Law No. 10.259/2011 - Special Courts Law within the scope of the Federal Justice;
- Law No. 11.340/2006 - Maria da Penha Law;
- Law No. 12.403/2011 - Precautionary Measures;
- Law No. 7.210/1984 - Penitentiary Execution Law;
- Law No. 9.099/1995 - Law of Criminal Special Courts;
- Law No. 9.605/1998 - Environmental Crime Law;
- Law No. 9.714/1998 - Alternative Penalties;
- Management Manual for Alternative Penalties - 2017 and 2020 editions;
- Ministry of Justice and Public Security Ordinance No. 195/2016;
- National Council of Justice Resolution No. 213/2015;
- National Council of Justice Resolution No. 288/2019.

Figure 7. The legal bases for Alternative Sentences: Image by author

The design team did not have knowledge of law or any regulations that supported Alternative Sentences and Measures. Learning about the subject was a constant process through engagement with stakeholders, expert individuals who generously shared their in-depth knowledge of the law, as well as its objective and subjective aspects.

The biggest challenge for the design team, without a doubt, was to understand the law (as shown in Figure 7). Through the understanding of the law, its paragraphs, articles (as the example in Figure 8), limiting aspects, and possibilities, along with stakeholders, the design team would think and design the system, its flows and interactions, balancing mandatory requirements based on legal instruments and requirements necessary for a more positive experience for the users of the SEEU system.



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Figure 8. Example of a real Brazilian Resolution used to create the new module of Penas e Medidas Alternativas. The resolution is about The CNJ's President, acknowledging the critical state of the national prison system, has taken into account the ruling of the Federal Supreme Court in the case of the Action of Non-compliance with Fundamental Precept no. 347. The Court recognized that the system is currently facing an "unconstitutional situation" characterized by a massive and persistent violation of fundamental rights. This violation is a direct result of structural failures and the failure of public policies. The President understands that addressing this issue requires comprehensive measures of a normative, administrative, and budgetary nature: Image by

https://atos.cnj.jus.br/files/resolucao_288_25062019_02092019174344.pdf

Service Design was the lens through which the team chose to view the project. To this end, People-centered design approaches helped the team to visualise the service by zooming in the details of the system, and zooming out the relation among



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the actors, helping the team to make sense of the complex situation by creating a shared understanding of the system through some artefacts and frameworks created along the way to reveal core moments, activities, interaction points, gaps and barriers.

4. Getting to know the actors who interact with SEEU

In a complex system like the Brazilian judiciary there are many connections between people. In the case of this project, the interactions are mediated by the digital tool SEEU.

The project was initiated with an extensive workshop involving stakeholders, conducted by the design team. The stakeholders in the context of this project are experts in law, alternative penalties, and electronic monitoring in Brazil. The main goal of the workshop was to understand the project's objectives, the laws governing penalties and alternative measures, and the main actors involved (that is, the people who interact with SEEU on a daily basis) and how they might relate to each other.

Through the perspective of stakeholders, the team gained understanding of 9 actors directly involved with SEEU and the management of alternative sentences and Measures, some hypothetical expectations, pains and needs. It was interesting to note during the workshop that even the experts in the field had a vague notion of who would use the system to apply and manage the Penalties and Alternative Measures.

The mapped actors were: Court's Staff members, Multidisciplinary Team, CIAP and external agents, Prosecutor, Judge, Lawyer, Public Defender, CNJ(National Council of Justice) and Research Institutions.

At that moment, the design team had not yet had direct contact with any of these actors, so the design team raised with stakeholders the main hypotheses of needs, pains, and opportunities.

The main outputs of the workshop were the Team's Alignment about the goals of the new module of Alternative sentences and Measures to imprisonment and electronic monitoring, and the creation of 6 proto-personas. An exercise was carried out to deepen the understanding of 6 out of the 9 initial actors revealed by the stakeholders. The 6 chosen proto-personas were: Judges, Psychologist working at CIAP, Researcher working at a Research Institution, Defender, Court's Staff members, People in Penalty or Alternative measure



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According to Neves & Hobi, protopersona can be described as:

"It consists of a persona idea, with groupings of empirical and subjective information, usually created in a co-creation session or in the initial phase of the project. It is something that needs more immersion and understanding to, in fact, consider that it is representing a specific group in the face of a behavior that we intend to translate." (Neves, Hobi, 2022)

<p>JULIANO, 35 years old Public servant in Santa Catarina - Brazil</p>	<p>Pains</p> <ul style="list-style-type: none"> • Lack of information and monitoring of measures to oversee judicial activities • Lack of information to identify discriminatory patterns • Not receiving updates to provide constant and permanent monitoring • Distance between the involved parties • Disconnect from the social reality of the accused and the information regarding the case. 	<p>Motivations</p> <ul style="list-style-type: none"> • Empirical evidence to support the implementation of criminal policies and norms • Improved management of criminal policies • Ability to conduct a social assessment of the accused • Positively influence the application of best practices in judicial decisions • Overcoming historical challenges that characterize deprivation of liberty in Brazil.
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Figure 9. Example of Protopersona created during the workshop. It contains: Pains and motivations: Image by Author's documentation

The 6 proto-personas were selected based on the greatest positive impact for the largest groups of system users. The communication variable between the actors was also considered, including who initiates the initial flow, to whom it goes, and what is communicated. We mapped the entire flow of relationships between the actors to arrive at the selection of these 6 proto-personas.

The design team was aware that the proto-persona carried biases from the stakeholders, but it was an important artifact to create a first approach with the actors, help plan the research stage, and raise questions and validate assumptions about them.



5. Start visualising the complexity of the service

After the workshop and defining who we would focus on to design the first version of the Alternative Penalties and Measures Module, the team started searching for content related to alternative penalties and measures in internal documents (to leverage the knowledge already generated within the program). But to have a better perspective of the functioning of penalties and alternative measures in a big picture, it was necessary to deepen and also better understand the functioning of the Brazilian judiciary.

To help the team make sense of all the information gathered through Desk Research and Workshop with Stakeholders, a Process Map was created to uncover the interdependencies of 9 actors during some important moments in a penal execution.

The Process Map The process map provides a holistic view of how individuals experience compliance with alternative penalties, what interactions exist over time, and the context. The mapping also helps visualize the actors involved in this process, their needs and interdependencies, revealing possible areas of opportunity and guiding the prioritization of new and existing functionalities based on different contexts.

Process Map was structured as follows (see Figure 4), with the mapped moments placed on the top row, namely: Compliance with alternative measures, Non-compliance with alternative measures, Analysis of documents to reassess the penalty. The moments were selected from the perspective of the person in alternative measures.

The 9 actors were arranged in 9 rows with different colours, thus it was possible to simultaneously map the main actions, touchpoints, interaction points, and key pain points of the actors according to the timeline of a process.



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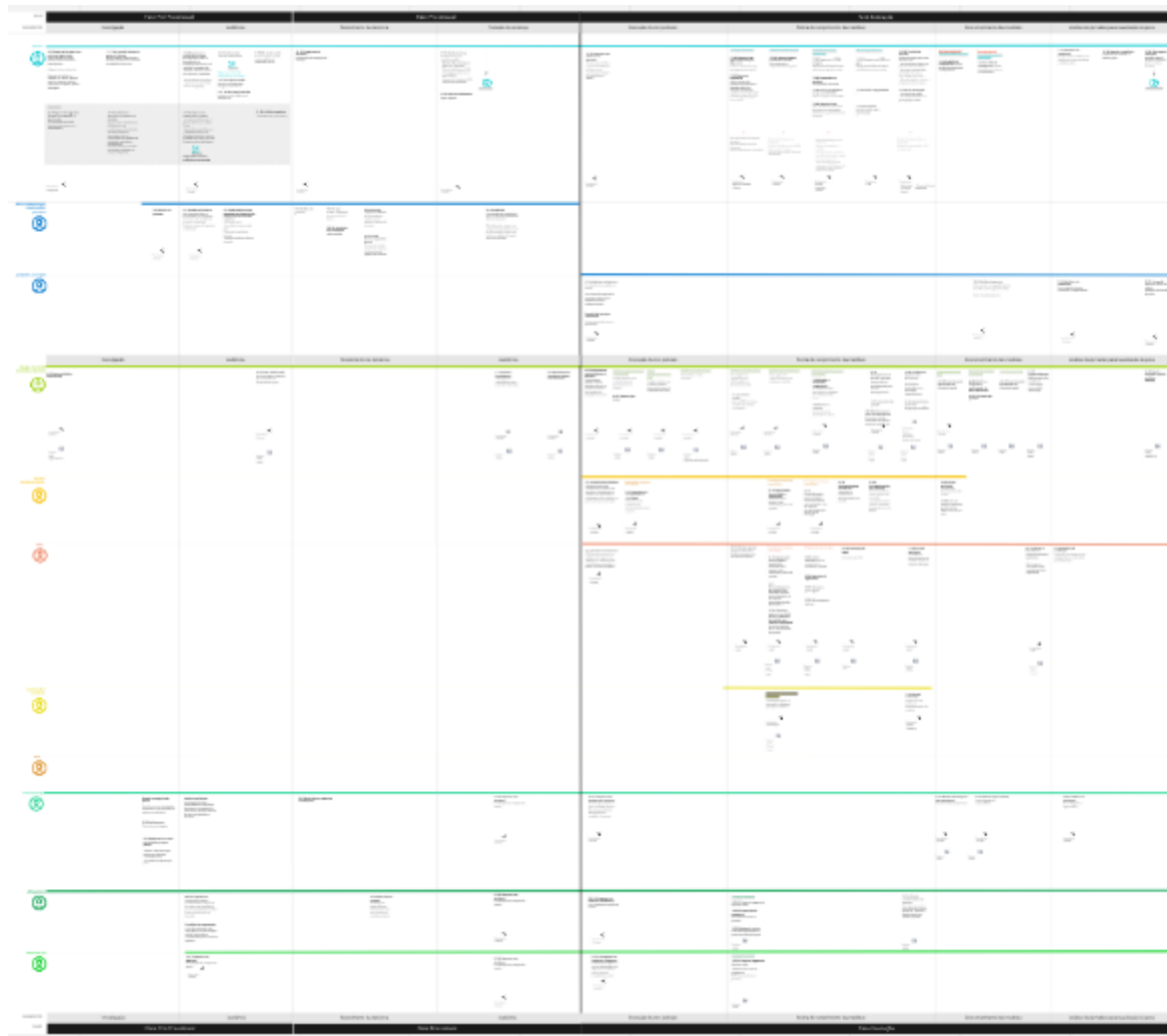


Figure 10. Zoom out of the Process Map created by the Design team. It is a huge map, each color represents a different actor: Image by Author's documentation

Execution Phase			
Execution of judicial acts	Routine for complying sentences/alternative measures	Non-compliance measures alternative penalties/measures	Analysis of the attachments for reassessment of the sentence

Figure 11. Zoom in the core moments of the Process Map (at the top of Figure 10): Image by Author's documentation: Image by Author's documentation



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Figure 12. Zoom in the activities performed by some actors in the Process Map (please check Figure 10 to see the zoom out), each one with a different colour. Circle on the right represents the actor, there is a line in the same colour as the actor that indicates the activities over the time, according the moments in a execution phase: Image by Author's documentation

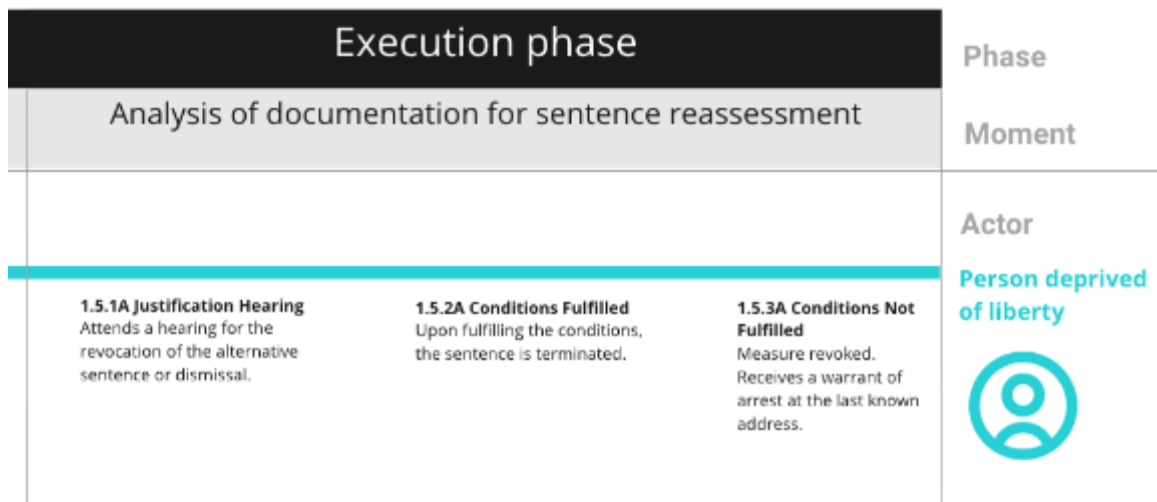


Figure 13. Zoom in some activities performed by Person in Alternative Penalty in the final stage of serving their sentence/measure (please check Figure 10 to see the zoom out): Image by Author's documentation

The process map made it possible to have a holistic view of the service experience, the relationship between the actors. Also, it helped to define a common language within the team, revealed some gaps, barriers, and overlapping tasks, which would be further explored in the research phase with SEEU users.



The idea was to evolve the map over time, alongside the design team's understanding of the system and people who use the SEEU system.

It is worth noting that at this stage, due to time limitations and the size of the design team, it was necessary to reduce the scope of the project and the number of actors we were considering in the service. The more actors that were added to the service, the greater the complexity added, and this was evident through the Process Map. Therefore, based on the relationship between the actors and the need to have quantitative data on Alternative Sentences and Measures, the business team chose to focus on 4 actors to design the new module of alternative penalties and measures: Judges, Court's Staff members, Integrated Criminal Alternative Center Employees (CIAP), Court multidisciplinary team (sometimes they are part of CIAP, sometimes part of the Court).

5.1. Zoom in: Delving into the interconnected needs of the actors

Building empathy is a way to understand the people within the system, how the system operates, and how it impacts individuals. To bridge the gap between designers and stakeholders (who, despite their expertise, had a vague understanding of the individuals who would apply and monitor Alternative Penalties and Measures in SEEU), the design team used tools from Design Research that helped them generate foundational knowledge and a human perspective to guide their thinking towards solutions for real problems, with a focus on Judges, Court's Staff members, Integrated Criminal Alternative Center Employees (CIAP), and Court multidisciplinary team.

It would only be possible to move forward with the project based on the knowledge generated *with and from* these people. However, the team did not know the basics about these individuals, so they sought to answer the key question related to who uses the system: What are the tasks, needs and motivations that people who work directly with Penal Alternatives have?

To answer that question, in-depth interview (a design research tool) helped the design team to know the usage circumstances, tasks, needs and motivations of the 4 selected profiles with respect to Penalties and Alternative Measures and the use of the SEEU System. The team asked questions related to how they experience and perceive the system SEEU and Alternative sentences and Measures to imprisonment.



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There were about 44 hours of remote interviews, carried out during the pandemic and at a time when execution of various measures had been suspended by the judiciary and civil servants worked from their homes.

After compiling the interviews, the design team revisited the proto-persona, reviewed its content, and updated the document based on the information collected from the actors, giving greater depth to the profile, and including information about the Pains, Needs, Tasks, feelings, and expectations related to alternative penalties.

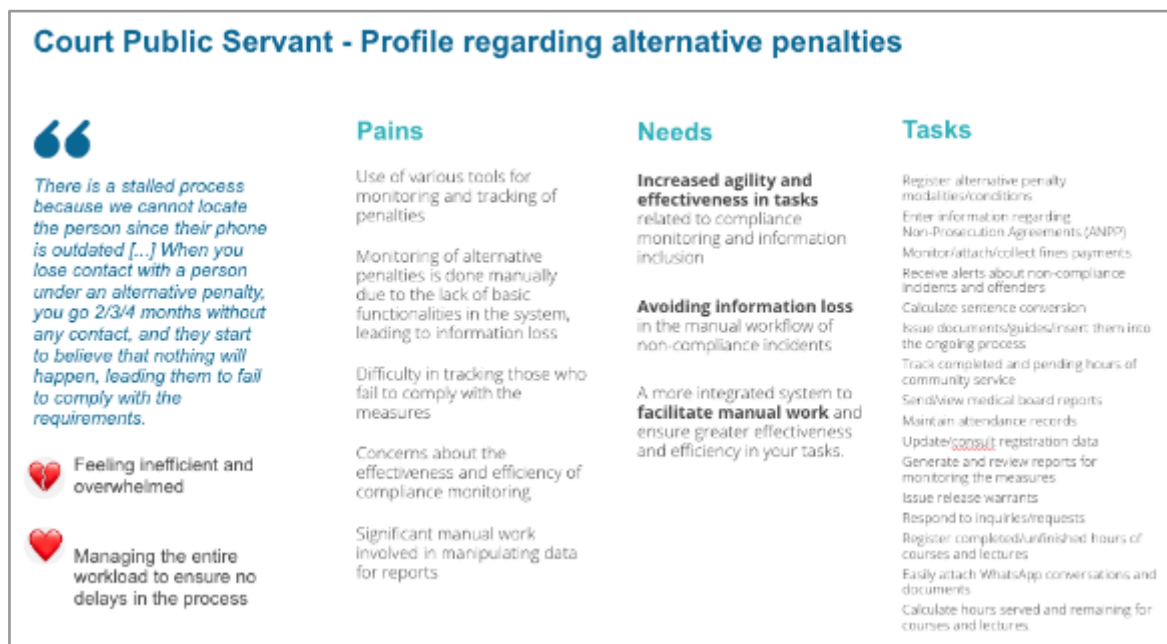


Figure 14. The proto-persona was updated based on the information collected during the in-depth interviews: Image by Author's documentation

The biggest challenge at this stage was to be able to speak directly with those who use the system to collect quality information that made sense for the study. As the judicial system is very hierarchical, it was not always possible to talk to users, at times the access was restricted to their bosses, or else the boss together with the employee.

In general, it is possible to bring the following needs of the 4 profiles:

- Judges: they need all information recorded, have access and agility to consult the information and make decisions



- Public servants of the penal execution court: needs to reduce manual work and the amount of systems used to record information, so that information is not lost in the workflow. This is a team that performs many tasks at different times in Penal Alternatives.
- Integrated Penal Alternatives Center (CIAP): There are many parallel systems to follow up on those serving alternative sentences.
- Multidisciplinary Team: Today it is closer to operational control, and less to active listening, which makes it a little difficult to monitor those serving alternative sentences.

The mentioned needs are related, and if systematised, it is possible to think of an Iceberg and visualize the full picture, underlying root causes that impacts on the system.

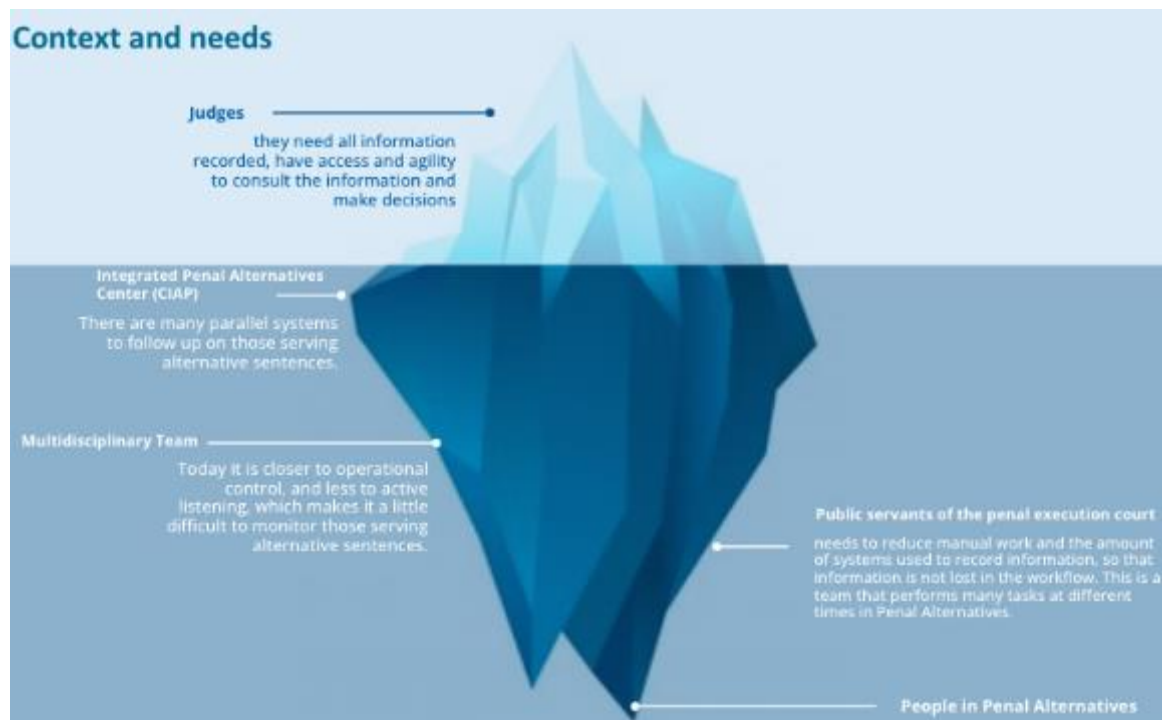


Figure 15. Systematisation of needs interrelated to each other: Image by Author's documentation: Image by Author's documentation

What you can see at the top of the iceberg are the most latent and visible problems: such as the lack of some data to think about public policies, and the lack of some information for decision making in a process.



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But if you go deeper on the iceberg, it is possible to see a system that is basically interconnected by other actors, and they are the ones that somehow contribute to the scenario that we see at the top of the iceberg: the lack of information.

The lack of information has its cause when the public servants register the process information. This is the initial moment of the Alternative sentences and Measures to imprisonment long journey.

And the most worrying thing is what is not in the visible layer of the iceberg, it is the person in alternative penalty who runs the risk of a regression (for example, go back to the deprived of liberty) if the sentence is not served as specified in the process.

5.2 Zoom out: Bringing human perspective and system perspective closer

When the team zoomed in, it was possible to listen to stories and understand motivations. And when the team zoomed out, it was possible to see patterns and understand connections. By shifting perspective through zoom in and zoom the system and people interaction, it is possible to identify customer benefits.

The team mapped the main activities (macro action and tasks), problems, and needs.

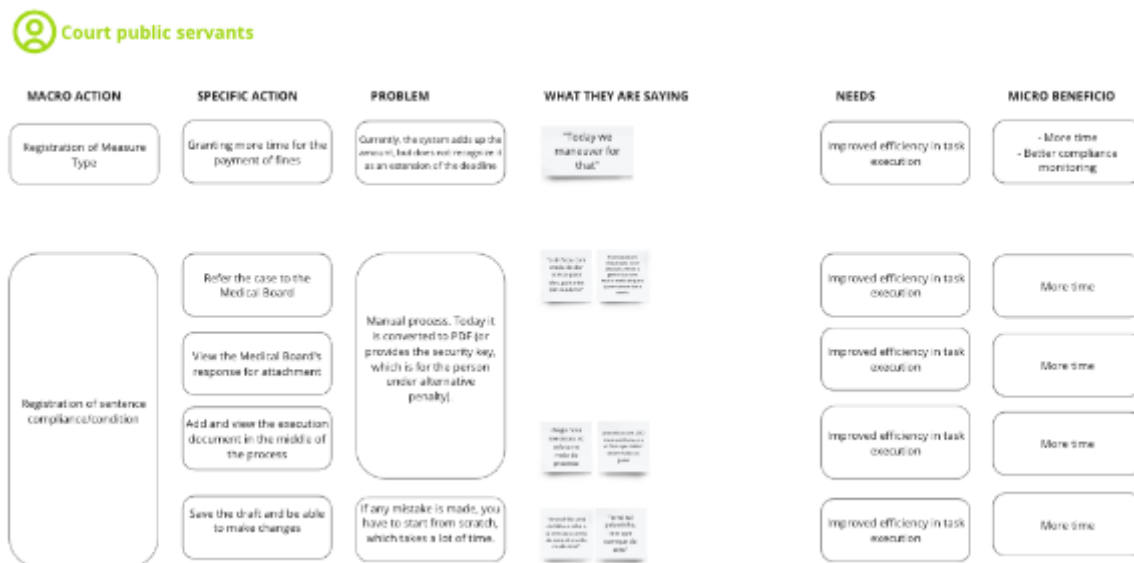


Figure 16. Systematising pains, needs, tasks and micro benefits related to Penalties and Alternative Measures: Image by Author's documentation





Figure 17. Zoom in in Figure 16, focusing in one specific action: Image by Author's documentation

From this mapping, the team raised the customer benefits, that is, benefits delivered to users if the pain is resolved or minimised. Some examples of customer benefit for the project are More time and Less typing errors. These indicators help to evolve the new module within a human perspective. Understanding the benefit helps the team to understand the impact that will be created and whether the team is moving in the right direction.

The customer benefit "More Time" is actually a way to measure how much time the user of the system has saved in a particular operational task, while "Less Typing Errors" ensures a process with higher quality information to be accessed by judges to make a decision about a certain case.

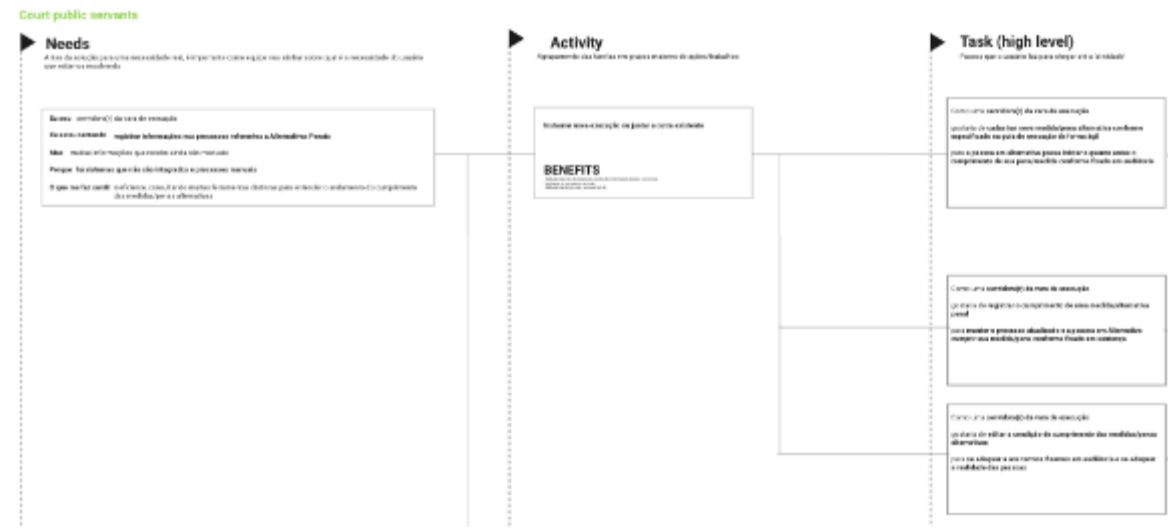


Figure 18. Synthesis process to identify customer benefits. In bold text Needs, Activities and Tasks: Image by Author's documentation

The way the team communicated the customer benefits with the stakeholders was through a spreadsheet, since they are more familiar with this type of document.



The first line at the top contains the following content: Actor, Macro Action, Task, Problem, Quote, How they currently do, Needs, Pain, Micro Benefit.

Actor	Macro Action	Task	Problem	Quote	How they currently do	Needs	Pain	Micro Benefit
Servidoras(es) da vara	Monitoramento do cumprimento	Julgar	acompanhamento do cumprimento	estipulado o calculadora vai indicar o suposto término de pena"		execução de tarefas	G	Mais controle do cumprimento
EQUIPE CARITORAL - Servidoras(es) da vara	Cadastro/Acompanhamento do cumprimento	Juntar comprovantes na tabela	Erro de sistema - Ele finaliza e junda, mas o SEU não existe os documentos	"Se for na próxima linha da tabela e juntar com outro comprovante, o sistema junta na mesma movimentação e aparece duplicado na linha anterior"		Maior eficiência na execução de tarefas	G	Mais tempo Mais controle do cumprimento
EQUIPE CARITORAL - Servidoras(es) da vara	Movimentação do processo	Adicionar documento que não está no processo	A interação para incluir documento que não está no processo demanda muitos passos	"As vezes estou inserindo o documento agora, ele não está no processo, e o botão fica aparecendo lá embaixo, se pudesse inserir a interface e colocar ele em cima (para a interação ficar mais rápida) se não tem que passar por todas as movimentações para chegar no botão novo"	Moje bases o relatório em pdf e junta na movimentação	Mais eficiência na execução de tarefas	F	Mais controle do cumprimento
EQUIPE CARITORAL - Servidoras(es) da vara	Cadastro/Acompanhamento do cumprimento	Atualizar telefone e endereço	Difícil contato com a pessoa em alternativa pois o telefone muda muito. Quem tem contato mais atualizado é o executor	"comunicação com apenados tem sido feita por telefone sem sucesso"	servidor do judiciário tem acesso ao sistema de monitoração eletrônica SINCECOM	Maior eficiência na execução de tarefas	G	Mais controle do cumprimento

Figure 19. Spreadsheet to communicate the customer benefits: Image by Author's documentation

Through a systematisation of activities and pains by actors, it was possible to group them to reach the prioritisation of what the team would do in the short, medium and long term, as well as define development effort X impact for the users of the system.

The main challenge after systematization was that once again, the design team with the support of stakeholders needed to narrow down the project scope due to time constraints. It would not be possible to work on the module predicting the needs of all actors. It was important to choose which actor to focus on but keeping in mind how they related to and influenced the others in the service.

The design team alongside the Business team, chose the Public servants of the penal execution court to initially focus on, since the journey to register a process starts with them and there is a large number of these users in the system. We believe that the impact would be significant on these individuals, as well as on the people who subsequently depend on their actions.

After choosing who we would focus on, the team separated all actions and tasks related only to the Public Servant working in the Court, and subsequently, the design



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team created a matrix with 2 axes: 1) X axis is the Impact to the user (based on the customer benefits and pains) 2) Y axis is the Development Effort.

The matrix was used in a prioritization workshop with project stakeholders. This prioritization helped build the roadmap for the new future module of Alternative Sentences and Measures to Imprisonment.

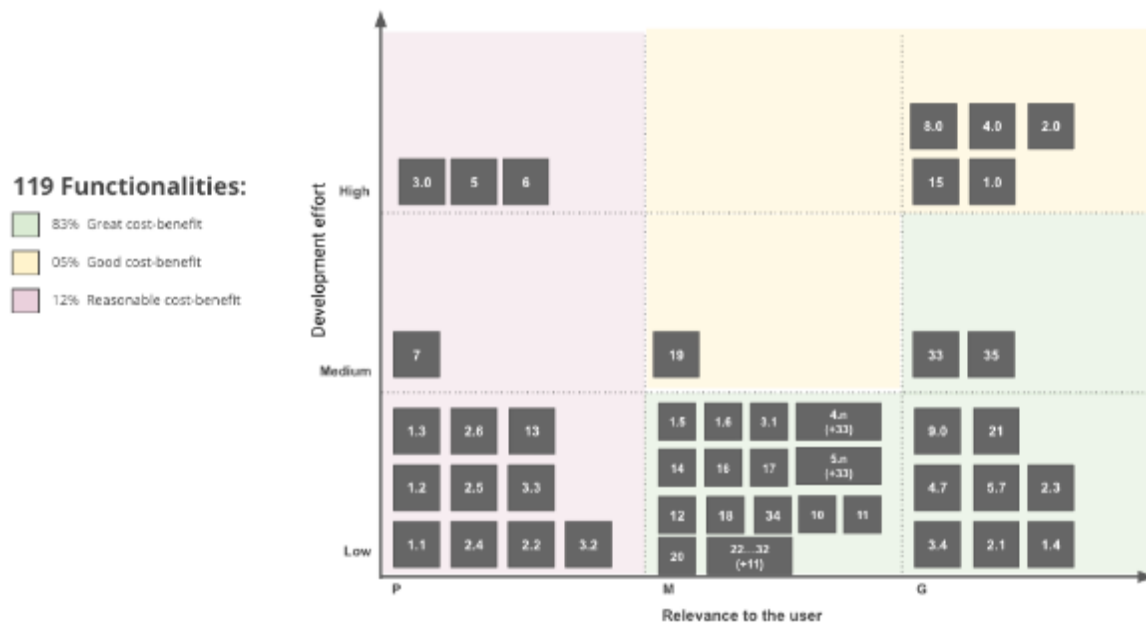


Figure 20. Example of prioritisation Matrix of functionalities focused on one actor: Image by Author's documentation

6. Results and reflection

Although the Person Deprived of Liberty (also called sentenced or defendant, but the team prefers to avoid these terms) is not the end user of the new module of alternative measures and penalties in SEEU, they are undoubtedly the most important person in the service (see figure 3), and they were considered throughout the entire process, as any changes related to the application and management of Alternative Penalties and Measures directly impact their process and life.

Alternative sentences and Measures to imprisonment itself is an extensive and complex subject, involving Brazilian law, human rights and a digital system called SEEU, an important tool of the Brazilian Judiciary to record the criminal execution process and also follow it up.



The SEEU, like every system, is made of people and with all its complexity too, whether in behavioral, relational and context aspects.

By incorporating Alternative Sentences and Measures to Imprisonment as a new module in SEEU, it was possible to map the different actors involved in People in Penalty or Alternative Measures. Through the relationship between the actors, the most latent problem of the service emerged at the tip of the iceberg: the lack of information for judges to make faster and more assertive decisions. The project's result points to information that was entered into the SEEU system with typing errors or incomplete, hindering the total time management of the process with applied alternative sentences and measures.

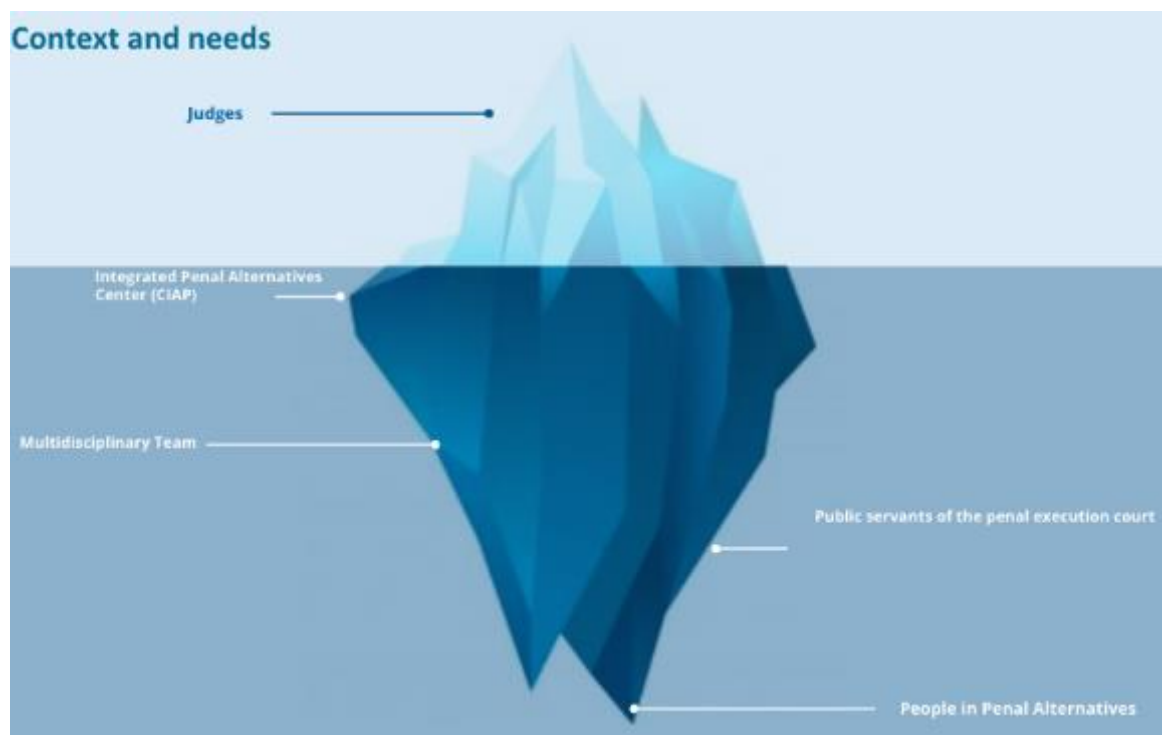


Figure 21. Judge's lack of information is at the top of iceberg: Image by Author's documentation

To get to the root of the problem of the lack of information, the team alternated the look: sometimes it looked from the human perspective, sometimes it looked from the perspective of the system. Sometimes the team zoom in on people, their relationships and interactions, sometimes the team zoom out, to have a holistic view of the service, and better understand the context. When we switch focus between



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small details or momentary exchange, we are using and applying Service Design to find the right problem to come up with the proper solution.

Zoom in brought the team, the business area and the development team closer to those who use the SEEU system and work on a daily basis with Penalties and Alternative Measures. It was possible to know macro and micro activities that they carry out throughout an execution process of Alternative sentences and Measures to imprisonment.

If the end user is the Person in Penalty or Alternative measure, in order to reach them, it is important to know who is at the beginning of the process, the Public servants of the penal execution court. They are important to ensure that all information necessary for a judge's decision-making is recorded, with the least chance of typos or missing information.

Therefore, with the importance of the Court's Public servants, the business team, together with the design team, understood the importance of narrowing down the scope of work on this user.

By better understanding the tasks performed by the Court's Public servants, their pains and motivations, it was possible to observe that the lack of information mapped as a latent problem has its root cause in the amount of manual work and various tools of the Court's Public servants.

With a clarity of the problems, in a people-centered approach, the team seeks to identify what benefit would be delivered to Court's Public servants if the identified pains were minimised or completely resolved. The team identified the customer benefits: More Time and Reduction of Errors, to make sense of the value being delivered to this actor. Understanding that the customer benefit is a qualitative indicator, and that it can be monitored and compared over time to measure the impact of the users of the system. Also, an important customer benefit mapped was Total time of the process with penalties and measures applied, this metric can even contribute to the evolution of public policy to reduce prison overcrowding, giving visibility to the number, for subsequent actions.

All this information, along with the ideas that emerged throughout the process, were important for the team to create groupings of functionalities focused on Court's Public servants. The next step would be to prioritize the features, at this point in the design process, the key was zooming out to consider the broader implications over time.



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To make sense of all the data collected, the team systematised the information by creating different frameworks that were used to document and communicate lessons learned, barriers and opportunities (at times, the documents were different) to stakeholders.

Personally, one of the great learnings for the design team was how to systematize (through various frameworks shared throughout this article) and curate the content that would be presented to communicate the main opportunities and insights. Providing too much information would not help with the decision-making for the launch strategy of the module, so knowing the measure of what to inform and how to inform was quite challenging and required a great capacity for synthesis and collaborative work within the team.

During the project, there were many scope changes, as the number of project stakeholders was large. Therefore, involving the design team from the beginning of the process avoided rework during development, as the team could quickly grasp tactical and operational decisions. Being a flexible design team and constantly showing the user's point of view and pain helped guide the business team's decisions.

The final result of this work is a strategic contribution to guide development of the new module through influence on the product roadmap, and the approximation of people who use the system closer to other stakeholders, who heard new stories directly from the users.



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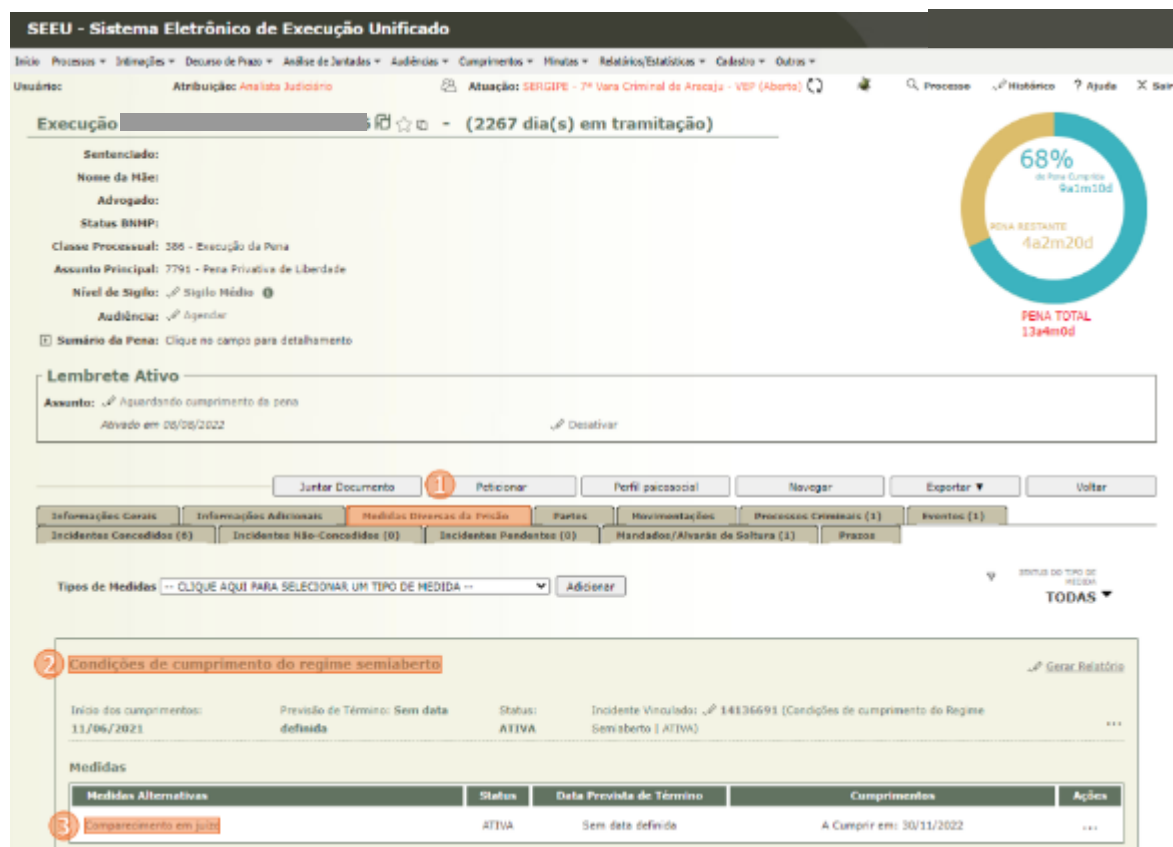


Figure 22. Number 1 in the image indicates how public servants access the new module, from the SEEU system. Number 2 indicates the compliance status of an alternative penalty/measure, and number 3 refers to the applied measure, such as Community Service. Image by <https://seeu.pje.jus.br/seeu/>

As for public policy, an important contribution was to initiate the systematization of quantitative data production regarding the application and management of alternative sentences and measures, which can be used by research institutions, the CNJ, experts, and scientists in the field to help evolve and amplify the reach of public policies aimed at reducing the prison overcrowding in Brazil.

The primary motivation behind sharing this design process, which heavily relies on Service Design tools and methods to overcome the numerous obstacles in the public sector, is not to present a successful model or a step-by-step guide. Rather, the design team aims to demonstrate that a people-centric approach and service design that aligns with public policies can assist in creating more human-centered systems within the judiciary. Such systems can help solve real problems and provide hope for



generating a positive impact on the lives of millions of people, potentially changing the meaning of our society.

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