

# Experiment Canvas: A data-driven framework for evidence-based innovation in the Judiciary

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**Abstract.** This paper presents the Canvas of the Experiment, an innovative tool developed by the Innovation Laboratory of the Court of Justice of the State of Ceará (LabLuz) to structure, implement, and evaluate innovation within the Brazilian judiciary. By employing a data-driven approach, the Canvas aims to enhance efficiency, accessibility, and inclusion in judicial processes. The study describes the methodology, structure, and impact of the Canvas through various case studies, demonstrating its effectiveness in generating measurable results and promoting evidence-based decision-making. The results reveal the potential of the Canvas to transform innovative ideas into practical solutions, offering a valuable model for other public institutions.

**Keywords.** Data-driven Innovation, Evidence-based policy, Impact measurement, Legal Innovation Framework, Experiment Canvas.

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## 1. Introduction

The Brazilian judiciary faces persistent challenges in improving efficiency, ensuring accessibility, and fostering social inclusion. Traditional approaches often struggle to integrate data into decision-making, leading to inefficiencies and limited impact (Lunardi & Clementino, 2021). To address this vulnerability in public sector innovation, the Innovation Laboratory of the Judiciary of Ceará (LabLuz) developed the Canvas of the Experiment to tackle these issues. This tool provides a framework for designing, implementing, and evaluating innovative practices within the judicial system. It facilitates the creation of evidence-based solutions, ensuring that new initiatives are rigorously tested and validated before broader implementation. This article explores the Canvas's structure, methodological foundations, and the impact of its application.

## 2. The Experiment Canvas methodology and structure

The Brazilian judicial system requires a shift toward evidence-based approaches to overcome obstacles such as high rates of criminal recidivism, complex legal language, and operational inefficiencies. These challenges are further exacerbated by the low educational level of those interacting with the judicial system. The Canvas of the Experiment was designed to help overcome these barriers. It serves as a practical guide for innovation professionals to formulate clear objectives, develop actionable plans, and systematically test innovative solutions. By integrating data collection and analysis into the innovation process, the Canvas enables effective measurement and validation of new practices before their large-scale implementation.

All LabLuz initiatives are conducted experimentally, with well-defined planning and outcome indicators. Only after data collection and verification of the initiative's success is the knowledge generated in the laboratory transferred to operational teams, and the practice is scaled as an institutional project.

Thus, completing the Canvas is the initial and essential step in structuring the development of an experiment, ensuring that all participants understand their roles and project objectives.

**CANVAS DO EXPERIMENTO**

PARCEIRO: \_\_\_\_\_  
DATA: \_\_\_\_\_

<p>A que objetivo(s) estratégico(s) se alinha esta empreitada?</p>	<p>Qual é nosso objetivo tático?</p>	<p>Qual é nosso objetivo operacional?</p>
<p>Alfeteremos algum ODS? Qual?</p>	<p>Quais dados são necessários para respondê-las?</p>	<p>Quem coleta esses dados?</p>
<p>Que perguntas devem ser feitas para atingi-los?</p>	<p>Quando ocorre a entrega?</p>	<p>Quando ocorre a coleta?</p>
<p>Em que formato esses dados serão entregues?</p>	<p>Suposições/Descobertas</p>	<p>Declaração de hipótese</p> <p>Acreditamos que... «fazendo isso/construindo aquilo» para... «nosso público alvo» perceberemos... «o efeito desejado como saída» Saberemos que acertamos quando... «tal indicador cair/tal feedback chegar»</p>

Criado por Wesley Costa do Carmo 12/01/2024

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Figure 1 – Experiment Canvas

The Canvas integrates principles of action research, Design Thinking, and strategic management to offer a pragmatic, data-oriented approach to innovation. Its methodology is rooted in the works of Kurt Lewin and William Foote Whyte, emphasizing the iterative and collaborative nature of the innovation process (Elden, 1992).

The framework is structured around the following key components:

- 1) **Strategic alignment:** ensures that innovative projects align with the judiciary's overall strategic objectives. This includes alignment with the judiciary's strategic map and international frameworks such as the UN's 2030 Agenda and the Sustainable Development Goals (SDGs).
- 2) **Objectives:** clearly defines tactical and operational goals, establishing measurable targets for the project. This step ensures that all parties share a unified vision of the project.
- 3) **Data-driven approach:** emphasizes the use of data to track innovation progress and evaluate its effectiveness. This includes identifying necessary data, defining collection methods, and assigning responsibilities for data collection.
- 4) **Hypothesis testing:** formulates a central hypothesis about the expected impact of the experiment, which is then rigorously tested using selected data.
- 5) **Iterative process:** Designed to be used iteratively, allowing continuous adjustments, refinements, and improvements.

The Canvas helps structure experiments by guiding teams through essential steps, including defining strategic alignment to ensure the experiment contributes to broader institutional objectives. Its use also promotes contextualization within larger frameworks such as the UN's 2030 Agenda. Additionally, the Canvas assists teams in defining data collection methods and specifying responsibilities.

Formulating a testable hypothesis, which the experiment seeks to validate or refute, is a guiding step throughout the innovation cycle. The Canvas aids in establishing methods for tracking progress and analyzing results to enable informed decision-making. Ultimately, it ensures the use of structured data collection methods and assignment of responsibilities, guaranteeing that data is collected reliably and ethically. This process fosters a culture of experimentation and evidence-based decision-making.

### 3. Case studies and impact

The effectiveness of the Canvas of the Experiment is demonstrated through several case studies conducted by LabLuz, such as reducing penal regressions.

A fundamental study focused on simplifying legal language used in communications with prisoners transitioning to a more lenient regime. Carmo & Sá (2024) show that using clear and accessible language alongside visual resources led to a **31.54% reduction in penal regressions due to negligence**, demonstrating how language

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simplification directly impacts compliance and reintegration. The Canvas proves its value when, at the end of an experiment, the team can measure the prototype's impact in reality and compare it with the initial projection.

Another successful application of the Canvas was in Family Courts, where the use of plain language in summonses led to an increase in attendance at conciliation hearings. This initiative highlighted the importance of clear communication in increasing public engagement with the judiciary. Once again, at the end of the efforts, the impact was traceable.

Additionally, a chatbot is being used to provide information and support to victims of domestic violence, improving decision-making security regarding protective measures and reducing the demand for court officers (Vieira, 2020). Data already support the hypothesis of this experiment, highlighting the Canvas's versatility across various contexts.

LabLuz is also testing simplified communication strategies to facilitate understanding and compliance with protective orders by aggressors, aiming to reduce violations of urgent protective measures.

Another ongoing experiment seeks to test whether a language-based approach improves the effectiveness of search and seizure warrants in the jurisdiction of Boa Viagem, Ceará.

These cases illustrate how the Canvas facilitates the transition from innovative ideas to measurable and impactful results. The emphasis on data collection ensures that decisions are based on evidence rather than assumptions.

## 4. Conclusion

The Canvas of the Experiment represents a significant advancement in how the Brazilian judiciary approaches innovation. By providing a framework for developing, implementing, and evaluating new practices, it promotes a culture of evidence-based decision-making and continuous improvement. The Canvas facilitates the translation of innovative ideas into tangible results, leading to increased efficiency, accessibility, and inclusion within the judicial system. It offers a valuable model for public institutions seeking to adopt data-driven approaches to enhance their services and promote social impact.

The application of the Canvas of the Experiment has generated several significant findings:

- 1) Simplified legal language significantly improves comprehension among individuals interacting with the legal system, particularly those with lower educational levels (Mayer, 2021).
- 2) Visual resources enhance clarity and information retention, complementing simplified language and aiding in overcoming information absorption barriers.
- 3) A data-driven approach enables evidence-based decision-making, leading to more effective improvements in judicial policies and processes (Monte, 2023).
- 4) Structured experimentation provides a replicable methodology for other institutions, promoting systematic innovation in the public sector.
- 5) The use of the Canvas ensures that each solution is validated before wider application, promoting efficiency, accountability, and measurable impact.

These findings highlight the importance of integrating data and user-centered design into the public sector innovation process.

Ultimately, the Experiment Canvas serves as a replicable model for governments seeking to develop innovation strategies that are not just exploratory but empirically validated, results-driven, and deeply aligned with societal needs. By embedding data and evidence at the core of policy experimentation, public institutions can enhance trust, legitimacy, and effectiveness, paving the way for a more transparent, accountable, and responsive governance ecosystem.

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