

# Use of digital technologies in judicial reform and access to justice cooperation



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# Summary

The demand for justice is vast. Each year, more than 1 billion people face a serious justice problem. Up to 70% of these problems remain unresolved or are resolved in a way that is felt as unfair. Existing justice institutions find it difficult to cope with the demands for justice. The need to bring fundamental shifts in the way institutions deliver justice has been acknowledged for some time now. There is an increasing awareness that the justice institutions have to be more responsive to the needs of people. The Covid-19 pandemic has exacerbated the demand for protection against domestic violence and employment justice. Courts and other justice institutions have adapted to online service delivery.

Innovative approaches to deliver justice in a more people-centred way have emerged. Private-sector initiatives and public institutions are creating solutions that prevent and resolve most pressing justice issues of people. We see a variety of delivery models taking shape, with technology starting to play a prominent role in the way institutions perform their functions.

How successful are these initiatives in resolving and preventing the most pressing justice problems? To explore this, we analyse 150 innovations - 75 private and 75 government-led. For each innovation we collected data on 15 parameters in order to inform our analysis. These include the kind of justice problems that the innovations prevent or resolve, the technology that innovations deploy, the target groups they address, their capacity to resolve people's justice problems as well as their financial models. We also examine the risks that innovations pose to the well-being of ordinary people, in terms of breach of data, digital exclusion and perpetuation of inequality of access to justice. Along with risks, we analyse the barriers to the growth of these innovations, such as lack of financial resources, lack of skills to use technology, and low internet penetration.

Concretely, the main questions this report aims to answer are:

- What is the potential of current (technological) innovations to resolve or prevent each of the most urgent justice problems?
- What is the potential of current (technological) innovations to support effective and sustainable delivery models in the informal and formal systems?
- What is the medium term potential of innovative approaches to improve prevention/resolution and delivery models?
- What are the systemic and practical barriers and risks these innovations face?

To select these 150 innovations, we reached out to 50 international experts and asked them to share their recommended justice initiatives from their own geographies. In addition to this, we took into account high impact innovations mentioned in reputed online repositories, donor reports, members of legaltech communities as well as from the cohorts of the HiIL Justice Accelerator.

We outlined a list of 15 parameters to evaluate these innovations. We turned the main research questions into sub questions and answered them based on publicly available information about these innovations. Information was not always available. In some cases, the available information was outdated. In such instances, we tried to fill gaps with targeted interviews. We also used general literature to assess risks and barriers of the innovations and their use of digital tools.

During the selection process, we discovered that experts found it hard to mention successful innovations. A small number of initiatives were mentioned repeatedly. These were Do Not Pay, Kleros, Barefootlaw, Justfix.nyc, Civil Resolution Tribunal, to name the most frequently repeated innovations. These examples were mainly from high-income countries. We received many examples of legal information and advice portals, which are not always scalable. This suggests a lack of sufficient innovations that reach the scale and thus fail to get noticed by experts. That said, the selection interviews revealed some interesting examples that are probably not widely known. We highlight a few notable innovations in the [Annex I](#) of this report.

The selection process also revealed that country income level impacts the type of justice services offered. We found more examples of community justice services across low and lower middle income countries. Virtual trials, electronic case management systems and court digitisation are found across countries regardless of the income level.

We also observed ideas from low income countries proposing ambitious use of technology to provide justice services. These ideas include legislation making virtual trials compulsory, use of tools such as artificial intelligence and blockchain in public registration and crime forecasting systems. The public sector is investing mostly in court digitisation projects, virtual trials and case management systems. Startups in this space specifically gravitate towards offering services such as user-friendly contracts and claiming platforms.

It is unclear whether the use of high-end technology might help in preventing and resolving most pressing justice problems, including family problems, land disputes, conflicts at work, everyday crime or issues with local government about public services. Simpler technologies, such as websites, messaging and telephone helplines are easily accessible digital tools.

We found it difficult to collect data about usage and reach of services. The justice sector is unaccustomed to reporting outputs and outcomes in a consistent way. Different innovations use different standards of impact measurement. Some do not measure their impact or outcomes at all.

From the data, we also see that private sector innovations do not find it easy to scale. To prevent and resolve justice issues at scale most of them need the government's support. This could be through having the right conditions - financial, legal and regulatory frameworks that can enable the innovations to reach higher impact. Or through integration into services provided by the courts, police or government agencies.

Through interviews with innovators and those working within the justice institutions, we observe a growing awareness that technology presents risks. The benefits that digital tools

bring, however, far outweigh the risks - especially in providing access to justice in low and lower middle income countries.

Based on our findings, we see the following strategies becoming effective to mobilise digital tools for access to justice:



Stakeholders such as government agencies, investors and donors should focus on justice services that **bring clear impact** (resolution and prevention of disputes) and those that have a **scalable model** (eg: private/public partnership).



These services need to **reach scale** in order to become sustainable, possibly across jurisdictions. Technological assistance is important but even more important is **strategic, financial and regulatory support**.



Use of digital tools in many countries is similar and they are utilised for similar justice problems. They all face the same risks of data privacy. There is a need to make the implementation of **digital tools in justice delivery safe**. International cooperation in sharing best practices of policy interventions can be a way forward. Scaling across jurisdictions might offer a solution because then more can be invested in privacy protection.



Uniform **impact matrices** are urgently needed for the justice sector. Frequency of measuring the impact also has to be determined. This is all the more needed for public sector innovations.

# Chapter 1. Introduction



Every year, millions of people are unable to prevent or resolve their most pressing justice problems. The formal justice institutions do not adequately address their demands for justice. The Justice Needs and Satisfaction Surveys (JNS)<sup>1</sup> conducted by HiiL in over 16 countries show on average that only 33% of people are able to completely resolve their justice problems. 11% are able to partially resolve them, while 31% have an ongoing justice problem. 22% find no resolution.<sup>2</sup>

A typical dispute resolution journey includes both formal and informal dispute resolution mechanisms. Data from JNS studies shows that nearly 80% of the people resolve their justice issue through informal justice services<sup>3</sup>. These include local elders, family members, neighbours, friends or religious authorities. However, the connection between formal and informal justice institutions remains a challenge. With lack of data available on the outcome of the informal justice mechanisms, it is difficult to understand their effectiveness.

With the Covid-19 pandemic, cracks within justice systems have widened and intensified the need for newer approaches in addressing justice challenges. Interventions through the use of technology present an opportunity in overcoming some of these barriers.

People prefer justice services that are user-friendly: those that are easy to understand, effective and affordable. Newer solutions to prevent and resolve people's pressing justice issues are emerging. It is important for these innovations to scale to meet the demands for justice. Insights are needed to measure the success of these innovations. Further analysis is needed on what it takes to scale them and what roles different stakeholders have to play.

Digital tools provide a great promise in addressing access to justice. Further analysis is needed on which digital tools create opportunities for local security and justice delivery and what the accompanying risks are.

In this report, we develop an international and comparative overview of justice innovations with a focus on government-centred technology innovations in improving rule of law and access to justice. We understand which new technologies are most effective in resolving or preventing people's justice problems. Through interviews and literature review, we identify barriers, opportunities and risks that justice innovations present to improving rule of law and access to justice.

We study justice innovations from a variety of perspectives. This not only includes analysis of different digital tools but also evaluating them from the lens of business models and governance structures. The highlighted examples in the Annexure provide an overview.

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<sup>1</sup> More about methodology of Justice Needs and Satisfaction Surveys (JNS) can be found on the Justice Dashboard.

<sup>2</sup> Data from HiiL's Justice Needs and Satisfaction Surveys as displayed on the [Justice Dashboard](#). Last accessed on 12.09.2021.

<sup>3</sup> See [Employment Justice](#), [Land Justice](#) and [Family Justice](#) page on the Justice Dashboard. Last accessed on 12.09.2021.

## Key research questions

The key research questions for this report are:

- What is the potential of current (technological) innovations to resolve or prevent each of the most urgent justice problems?
- What is the potential of current (technological) innovations to support effective and sustainable delivery models in the informal and formal systems?
- What is the medium term potential of innovative approaches to improve prevention/resolution and delivery models?
- What are the systemic and practical barriers and risks these innovations face?

We use the following methodology to select and analyse the innovations for this research.

## Methodology

### 1. Methodology for selection

For the purpose of this research, we consider a justice innovation as any service or service delivery model that presents a unique way of providing solutions aimed at preventing or resolving justice problems. The unique features of these innovations are characterised by a particular value proposition, activities and cost structure.

We developed five different tracks to select innovations for this research. First, we developed a list of 50 experts from across the world who work on people-centred justice. The experts came from the following countries:

- Australia
- Bangladesh
- Belgium
- Brazil
- Bulgaria
- Colombia
- Dominican Republic
- Egypt
- France
- Germany
- India
- Indonesia
- Iran
- Italy
- Kenya
- Poland
- Nigeria
- Singapore
- Sierra Leone
- Lebanon
- Spain
- South Korea
- South Africa
- Syria
- The Netherlands
- Tunisia
- Uganda
- Ukraine
- United States



## 50 EXPERTS



10 experts were from within HiiL

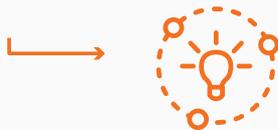
40 experts were from the extended HiiL network and beyond



The experts represent **diverse geographical areas and voices** within the justice innovation ecosystem.



They include academics, investors, policy and legal professionals who are commended for their work in this sector nationally and internationally. Our list also includes justice innovators, academic researchers, impact investors and representatives from non-profits.



We asked each expert to nominate a total of three justice innovations/gamechangers they consider most promising towards this research. (See the section below on more information about the Gamechangers)

Second, we designed a survey to solicit feedback from the extended network of HiiL and the wider public. The survey was shared across HiiL social media: Facebook, LinkedIn and Twitter, as well as via email to a broad network and Slack (internal messaging platform at HiiL). The survey called for nominations of justice innovations from people towards 'crowd-sourcing a people-centred justice innovation inventory'.

After completing this step, we analysed 131 innovations from HiiL's Justice Accelerator portfolio - the innovations that have been financially and programmatically supported by the Justice Accelerator at HiiL. We also scrutinised 472 innovations previously shortlisted for different regional events of the Justice Accelerator.

From this list, we selected innovations aligned with the gamechanger categories, as well as those innovations with demonstrable impact: number of cases resolved or number of people reached.

We then scrutinised the websites of existing Legaltech and Justice-tech communities. These included communities such as [LegalHackers](#), [ALITA](#), Stanford Lawtech Lab as well as a portfolio of innovations funded by accelerators established by law firms, such as Clifford Chance ([Reynen Court](#)), Allen & Overy ([Fuse](#)), Mishcon de Raya ([MDR Lab](#)), Dentons ([Next Law Labs](#)) and Baker McKenzie ([ReInvent Law](#)), among others.

Thereafter, we looked at donor reports, online repositories (eg: [Namati](#)), as well as innovations supported by international organisations such as the United Kingdom’s Foreign, Commonwealth & Development Office (FCDO), Department for International Development (DFID), the German Development Cooperation, the United States Agency for International Development (USAID) and World Justice Project (WJP).

Lastly, we focused on the technology infusion, resulting from the Covid-19 crisis in the judiciaries across 85 countries. The information was obtained from the available resources on the website of [Remote Courts](#).

The final selection has been made on the basis of the following criteria:

- Whether innovation addresses the most pressing justice problems
- Impact numbers (justice problems prevented/resolved)
- Income level of the country where the innovation is based

## 2. Methodology for research

In order to analyse the performance of justice innovations selected, we developed 15 parameters. We substantiated them by creating further sub-categories and then tested them by collecting data across innovations.

### The 15 parameters

Each justice innovation can be analysed from multiple angles. The 15 parameters that follow were developed, along with subcategories, to analyse the selected innovations.

#### 1. Country where the innovation undertakes most of its activity

The country where innovation undertakes most activities was easy to establish, because most innovations still operate only in one jurisdiction. We used the World Bank Atlas Method to classify the countries as per their income levels.<sup>4</sup> This meant that we had four categories: high income countries, upper middle income countries, lower middle income countries and low income countries. As we reached out to the experts and scout the relevant innovation from other repositories, we kept these categories in mind to balance representation of innovations across country income levels.

#### 2. Justice Problems addressed by the innovation

There is no international standard for classifying justice problems. At HiiL, we have developed a standard methodology for understanding the justice needs of people, which we call the Justice Needs and Satisfaction (JNS) surveys. This integrates categories from legal needs surveys completed over the past 30 years.<sup>5</sup> We classified the innovations based on the broad categories from this survey methodology, such as land, housing, neighbour, family, and employment.

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<sup>4</sup> Hamadeh, N., Rompaey, C., and Metreau, C. (2021). [New World Bank country classification by income levels](#). World Bank blogs. Last accessed on 12.09.2021.

<sup>5</sup> OECD (2019). Legal needs surveys and access to justice.

### 3. Target groups addressed by the innovation

We made a list of target groups based on our experience of working with private sector innovations at the [Accelerator](#). The list includes farmers, marginalised populations, women to SMEs and lawyers/law firms. We also distinguished between urban and rural populations.

### 4. Gamechanger categories

There are no clearly defined categories of justice services. Different repositories use different categorisations<sup>678</sup>. For example, we find more focus on legal-tech innovations. However, based on our experience of working closely with justice innovations, we developed a list of the most promising justice services that we have seen scale. Mentioned in our Trend Report, “Delivering Justice Rigorously”<sup>9</sup> and on our Justice Dashboard, these categories are known as ‘the Gamechangers’.

From our experience and expertise, we look for the following characteristics in justice innovations with scale potential:

- High impact numbers (number of disputes prevented/resolved)
- Focus on solving most pressing justice issues
- Proven/high scale potential
- Sustainable business/revenue model
- Strong team (multidisciplinary approach)

The seven gamechanger categories potentially represent the effective interventions necessary for solving and preventing urgent justice issues at scale.

These seven categories are:



Community justice services



Claiming platforms



User-friendly contracts



Prevention programmes



One-stop-shop dispute resolution



Online legal information/advice



Problem-solving courts

<sup>6</sup> Walker, T and Verhaert, P (2018), [Technology for Legal Empowerment, Global Review, The Engine Room](#). Last accessed on 12.09.2021.

<sup>7</sup> [LegalTech Observatory](#) (2020), ALITA. Last accessed on 12.09.2021.

<sup>8</sup> [Startup Map](#). (2021). Legal Geek. Last accessed on 12.09.2021.

<sup>9</sup> Barendrecht, M et al. (2021). [Delivering Justice, Rigorously. SDG 16.3 Trend Report 2021](#). HiiL. Last accessed on 12.09.2021.

## 5. Government-led technology innovations

We have not found a categorisation of government-led technology innovations. Boundaries between different regulatory, administrative and technological interventions are oftentimes not intelligible. To develop a concise understanding of this space, we scanned the list of government led innovations mentioned on the [Remote Courts](#) website, an initiative of Richard Susskind and created additional subcategories to group them. We developed the following six subcategories:



Virtual trials



Registration systems



Electronic court management software



E-kiosks



Court digitalisation



Surveillance and Forecasting Tools

While the One-stop-shop dispute resolution is an overlapping category between both the gamechangers and government-led technology innovation, for the purpose of this report, we have considered it as a gamechanger. Definitions of each of the gamechangers as well as government-led technology innovations are mentioned after the description of the categories.

## 6. Type of tools and technologies used by the innovations

There is no generally accepted or validated list of technologies available that we could use to categorise the innovations. For the purpose of this research, we developed a comprehensive list of technologies that find most relevance and use in the access to justice space. This list is based on our research and work with justice innovations for over 15 years:

- Artificial Intelligence/Machine Learning
- IVR Technology (Bulk SMS)
- Multilingual Chat Platforms
- Do-it-yourself Online Tools for Self-Represented Litigants
- Telephone Helplines
- Advanced Technology (Blockchain, Cybersecurity, Biometrics, Cloud computing, Virtual Reality, Internet of Things)
- Electronic Case Management
- Webportal/Social Media
- Mapping Technology/Location Tracking
- Hardware Solution
- No Tech
- Other

While we are confident of the list, this research also provides an opportunity to test the inclusiveness and validity of these categories.

## **7. How significantly does this innovation exclude people without technology from accessing it?**

To analyse this question, we created three basic categories. Whether people without technology can access the innovation, not access the innovation or can moderately access it. If an innovation provides all its services through technology, then it can be understood as providing no access to those without technology. Similarly, if those without technology are provided with avenues to access the service in the form of physical legal aid centers such as telephone helplines, then this can be understood as a moderately accessible service.

## **8. Which risks does this innovation expose itself to by use of technology?**

For the purpose of this research, we focus on the risks that are most widely perceived with the use of technology. These include the risk of data privacy, digital exclusion and perpetuating power imbalances. To collect data for answering this question, we relied mainly on interviews and literature reviews.

## **9. What is the Business Model of this justice innovation?**

There is a standard practice to categorise business models (mainly for electronic businesses)<sup>10</sup> as: Business to business (B2B), business to customer (B2C), consumer to consumer (C2C), consumer to business (C2B), business to administration or government (B2A/G). Considering the scope of this research, we included two additional categories: Business to government (to accommodate justice innovations that provide services to government agencies) and government to citizen (to account for public services).

## **10. Investment Model**

We took into consideration the most prevalent practices whereby any innovation generates investments. These include the following sub categories:

- Impact Investment
- Equity Investment
- Loan
- Subsidy/Grant from the Government
- Subsidy/Grant from donor organisation
- Grow from revenue
- Taxpayers

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<sup>10</sup> See [Morph](#) for categorisations of business models. Last accessed on 12.09.2021.

## 11. Impact numbers

From our earlier research, especially our Trend Report “Delivering Justice Rigorously”,<sup>11</sup> we have identified the gap of the initiatives within the justice sector needing a standard impact matrix. As we look at preventing and resolving most pressing justice problems, we examined the following sub-categories to understand the impact of an innovation:

- Number of people/organisations whose justice issues the innovation has prevented/resolved, OR
- Number of cases resolved.

We also keep the option to record other impact measurements used by the innovation in this research design.

## 12. Relationship with the government

Justice innovations can take a variety of implementation designs. Government-led innovations are funded by taxpayers or external donors in some countries. Privately-led people-centred innovations work in a variety of ways with the government. This includes being a service-provider and working with the government as a client, having the government as a donor or being in a public-private partnership for execution of a project. Sometimes the privately-led justice innovation works independently of the government.

## 13. Total team members

The number of people involved in the innovation can indicate how innovations provide employment. We classified the number of team members per innovation: 1-50, 51-200, 201 to 500 and 501-more.

## 14. Barriers to growth for the organisation, and

## 15. Potential opportunities for growth

Barriers to growth of a justice innovation can be in the form of financial, regulatory, motivational, those related to the lack of skill set among others. Similarly, the potential opportunities for growth of a justice innovation can depend upon the size, geography or the nature of justice service offered by the innovation. For these two categories, we found it difficult to make specific sub categories. We also wanted to keep the understanding of these categories open and more flexible. To accommodate for different views and perspectives, we kept the scope open by collecting qualitative results.

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<sup>11</sup> Barendrecht, M et al. (2021). [Delivering Justice, Rigorously. SDG 16.3 Trend Report 2021](#). HiIL. Last accessed on 12.09.2021.

## Limitations

We have tried to ensure a strong research design that includes collecting quantitative data and conducting qualitative interviews with innovators. When we had established the list of innovations, this proved difficult. We learned that the information often had to come from small (private) organisations or from government agencies. Private sector innovations do not always have a website with relevant information to answer our research questions. Within government agencies or courts, it is difficult to find individuals both authorised as well as willing and able to answer questions about organisational models and impact or target groups.

Data on innovations has been mainly obtained through information provided on their respective websites along with secondary sources such as newspaper articles, policy papers and academic journals. In some instances, the data was not updated. In cases where the information was not available, we filled missing gaps with targeted interviews but with limited success for the reasons explained above.

The answers to research questions on barriers and challenges faced by innovations have been derived from a small number of interviews. We have substantiated and validated these findings through literature review but in some cases, this does not fully depict the challenges present in this sector. This is particularly true for barriers faced by government-led innovations.

Generally speaking, our research presents initial insights on each of the research questions. We hope to continue our research in the future to develop a more nuanced understanding of progress and challenges in this sector, including the barriers to innovation. In itself, the scarcity of data suggests early stages of development for the sector.

## Definitions

The categories of the Gamechangers and government-led justice innovations form an important part of this research. They provide the basis for evaluating innovations across other parameters. Collectively, these 13 categories have been defined as part of our previous work<sup>12</sup>, as described above or have been mentioned in secondary literature. While the gamechangers are a mix of private and public initiatives, government-led justice innovations for the purpose of this report refer to technology initiatives being implemented by the public sector in different countries.

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<sup>12</sup> The definitions of gamechanging justice innovations can be found on the [Gamechangers](#) page of the Justice Dashboard. Last accessed on 12.09.2021.

For the purpose of this research, we use the following definitions for these categories:



## 1. Community Justice Services

Justice services where the local community is involved in the definition or the delivery of the service available to all members of the community. These services are provided by community authorities, trusted members of the community, or public officials elected or endorsed by the community. Community justice services are all about delivering justice close to people's homes.

*Examples studied for this report:*

[Local Council Court Uganda](#), [Bashingantahe Burundi](#), [Abundi Rwanda](#), [Gram Nyayalaya India](#), [Justices of Peace Russia](#), [Casas de Justicia Colombia](#), [BarefootLaw Uganda](#), [Bataka Court Model Uganda](#), [Judicial Facilitators Latin America](#), [Village Mediation Committee China](#), [Sierra Leone Legal Aid Board](#), [Schlichtungsbehörde Switzerland](#), [Conciliation Boards Norway](#), [Community Self-Reliance Centre Nepal](#), [Abunzi Rwanda](#), [Accountability Lab Multi-country Initiative](#)



## 2. User-Friendly Contracts

Services that provide safe, verified and user-friendly contracts or other legal documents to the masses, ensuring fairness in families, at work, among neighbours and between small businesses and their partners. This includes services that provide easy access to contracting documents through online platforms.

*Examples studied for this report:*

[Creative Contracts South Africa](#), [Visual Contracts The Netherlands](#), [Avodocs/Axdraft Ukraine](#), [DIY Law Nigeria](#), [LegalZoom USA](#), [VakilSearch India](#), [DIYLaw Nigeria](#), [KontrakHukum Indonesia](#), [Lenoma Docs South Africa](#), [Afterpattern, USA](#), [Ligo The Netherlands](#), [Legit Uganda](#)



## 3. One-Stop-Shop Dispute Resolution

Platforms and procedures that integrate information, negotiation, mediation and adjudication aspects of a dispute and also the follow up support services. Supported by a user-centred design, cases flow through the different stages of dispute resolution without interruption.

*Examples studied for this report:*

[WeVorce USA](#), [SAMA India](#), [Resolve Disputes Online India/UK](#), [Jur.io Switzerland](#), [Civil Resolution Tribunal Canada](#), [Immediation Australia](#), [Modron](#), [Uitelkaar The Netherlands](#), [Kleros France](#), [Utazi Center Kenya](#), [Presolve360 India](#), [Adieu Legal Australia](#), [Talk DD Thailand](#), [Consumidor Brazil](#), [Money Claim Online](#), [European Online Dispute Resolution](#), [Concilianet Mexico](#), [e-consumer.gov multicountry](#)



#### 4. Claiming Platforms

Platforms that make vital government services, including social security, health care and personal identity, accessible to the citizens.

*Examples studied for this report:*

[Haqdarshak](#) India, [JustFix.nyc](#) USA, [Upsolve](#) USA, [Approve](#) Nigeria, [DoNotPay](#) UK, [Appjection](#) The Netherlands, [Tykn](#) The Netherlands, [Curacel](#) Nigeria



#### 5. Problem Solving Courts

Specialised courts addressing problems that underlie and contribute to certain kinds of crime. Although a number of different types of problem-solving courts exist, they are generally organised around three common principles: problem-solving, collaboration and accountability.

*Examples studied for this report:*

[LokAdalat](#) India, [Mental Health Court](#) USA, [Drug Court](#) USA, [Trial Monitoring](#) Cambodia, [Center for Court Innovation](#) USA, [Problem Solving Court](#) USA



#### 6. Prevention Programmes

Interventions that ensure safety and security focusing on violence, theft and fraud. These can take the form of apps, online platforms or a combination of online and offline interventions.

*Examples studied for this report:*

[Ushahidi](#) Kenya, [Yunga](#) Uganda, [Justice2People](#) Uganda, [Somalia Security and Justice Programme](#), [Circle of 6](#) USA, [Recidiviz](#) USA, [Sisbot](#) Thailand, [B Safe Never Walk Alone](#), [SafeYou](#) Armenia, [My Safetipin](#) India



#### 7. Online Information/Advice with Follow-up Services

Platforms offering legal information and advice with follow up services supported by technology. People-centred online information/advice services assist people to solve their problems step by step and in a fair, effective way, and consistent with their legal entitlements.

*Examples studied for this report:*

[SEMA](#) Uganda, [A2I Author](#) USA, [PLP 2.0](#), [Sheria Kiganjani](#) Kenya, [Patentbot](#) Ukraine, [LawRato](#) India, [yAgo](#) Moldova, [Mero Adhikar](#) Nepal, [Africa Legal Factory](#), [Accountability Lab](#) multicountry, [Lawyered](#) Ukraine, [WageIndicator](#) the Netherlands, [pop.law](#), [FIDA](#) Uganda, [e-Portal](#) Vietnam, [Argentina Justice Data Portal](#), [Singapore Academy of Law](#), [Mobile Court on WeChat](#) China, [Whatsapp Helpline](#) India, [Multilingual Helpline](#) Germany



## 8. Court Digitalisation

Digitising the court system to achieve improved data management, accessibility, visibility and control. These include:

- making information and documents accessible online to different parties simultaneously and remotely.
- creating and analysing case information and tracking cases as they proceed through the system.
- facilitating communication and collaboration between different parties and stakeholders.<sup>13</sup>

*Examples studied for this report:*

[e-Seva Kendra India](#), [RWANDA IECMS](#), [UYAP Turkey](#), [E-Sud Uzbekistan](#), [Digitising Lahore High Court Pakistan](#), [Criminal Proceedings Information System Cape Verde](#), [Criminal Case Management Information System Haiti](#), [ICT infrastructure Azerbaijan](#), [E-Court Malaysia](#), [Internet Courts China](#), [Unified Information System for Counteracting Crime Bulgaria](#), [e-Justice Ghana](#), [e-Court East African Court of Justice](#)



## 9. e-Kiosk

e-Kiosk is a small structure or device offering legal information or services by means of a computer screen.<sup>14</sup>

*Examples studied for this report:*

[Steps to Justice Canada](#), [Victoria Legal Aid Australia](#), [Flood Proof: post-disaster relief legal help UAE](#), [Self Help Portal- Sierra Leone Legal Aid Board](#), [Virtual Justice Access Centre Argentina](#)



## 10. Virtual Trials

A virtual court trial is when relevant parties to a legal case appear over one or more phone lines or via video conferencing instead of appearing in-person.<sup>15</sup>

*Examples studied for this report:*

[Virtual Courts Gambia](#), [Virtual Courts Bangladesh](#), [Remote Trials Morocco](#), [Video screening Uganda](#), [Telelaw India](#), [E-commerce mediation centre Republic of Korea](#), [Remote Hearing New Zealand](#), [Virtual Trial Spain](#), [Virtual Hearing System Sri Lanka](#), [Audio Recording \(part of Judiciary Reform Project\) Romania](#), [e-litigation Bhutan](#), [Virtual Courts Colombia](#), [Remote System Japan](#), [Virtual Hearing Kenya](#)

<sup>13</sup> Thomson Reuters Management Solutions, (2015). [Lessons learned in court digitisation](#). Last accessed on 12.09.2021.

<sup>14</sup> Definition obtained from wiktionary.

<sup>15</sup> Walkter, B. (2021). [Virtual Courts Hearings: How they Work](#). Transcription Outsourcing. Last accessed on 08.09.2021.



## 11. Electronic Case Management System

Electronic Case Management Systems automate and support the management of court cases electronically. They are administrative, managerial or regulatory interventions that enable handling of cases in an efficient manner.<sup>16</sup> We use the word 'regulatory' cautiously since the question remains whether legislative interventions can be understood as justice innovations. For the purpose of this study, we have included promising examples of legislative intervention on electronic case management systems.

*Examples studied for this report:*

[CrimeSync Sierra Leone](#), [Electronic Case Management Kenya](#), [E-Court Indonesia](#), [E-Court Philippines](#), [Malawi Judiciary Case Management System](#), [E-filing and Case Tracker Ethiopia](#), [Electronic Case Management Ghana](#), [Courts Online South Africa](#)



## 12. Registration System

Registration Systems computerise paper-based registry records and manage registry information electronically.<sup>17</sup>

*Examples studied for this report:*

[Madania Tunisia](#), [E-Lawyer UAE](#), [Access to Information Bangladesh](#), [Land Registration System Georgia](#), [Blockchain Land Registration Sweden / Ghana / Ukraine / Brazil / UAE / UK](#), [Ubutuka Rwanda](#), [goLandRegistry Afghanistan](#), [e-Land Registration Sri Lanka](#)



## 13. Surveillance Tools

A system that monitors and identifies people. It may use past behaviours and large datasets and use technologies such as machine learning, predictive modeling and intelligent algorithms to predict the likelihood of criminal behavior.

*Examples studied for this report:*

[AI tool to predict ISIS Propaganda UK](#), [Anti-terrorism and crime investigation Japan](#), [Wearable cameras with artificial intelligence-powered facial-recognition technology Malaysia](#), [Extremist blocking tool UK](#), [Crime Anticipation System the Netherlands](#), [Reducing Domestic Violence Uruguay](#), [Facial Recognition Software India](#), [NYPD's Domain Awareness System USA](#), [Court Analytics Canada](#)

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<sup>16</sup> Rooze, E. (2010). Differentiated Use of Electronic Case Management Systems, International Journal For Court Management, ISSN 2156-7964.

<sup>17</sup> Definition drawn from the website of the [Supreme Court of Korea](#). Last accessed on 12.09.2021.

## Chapter 2. Potential of Innovations

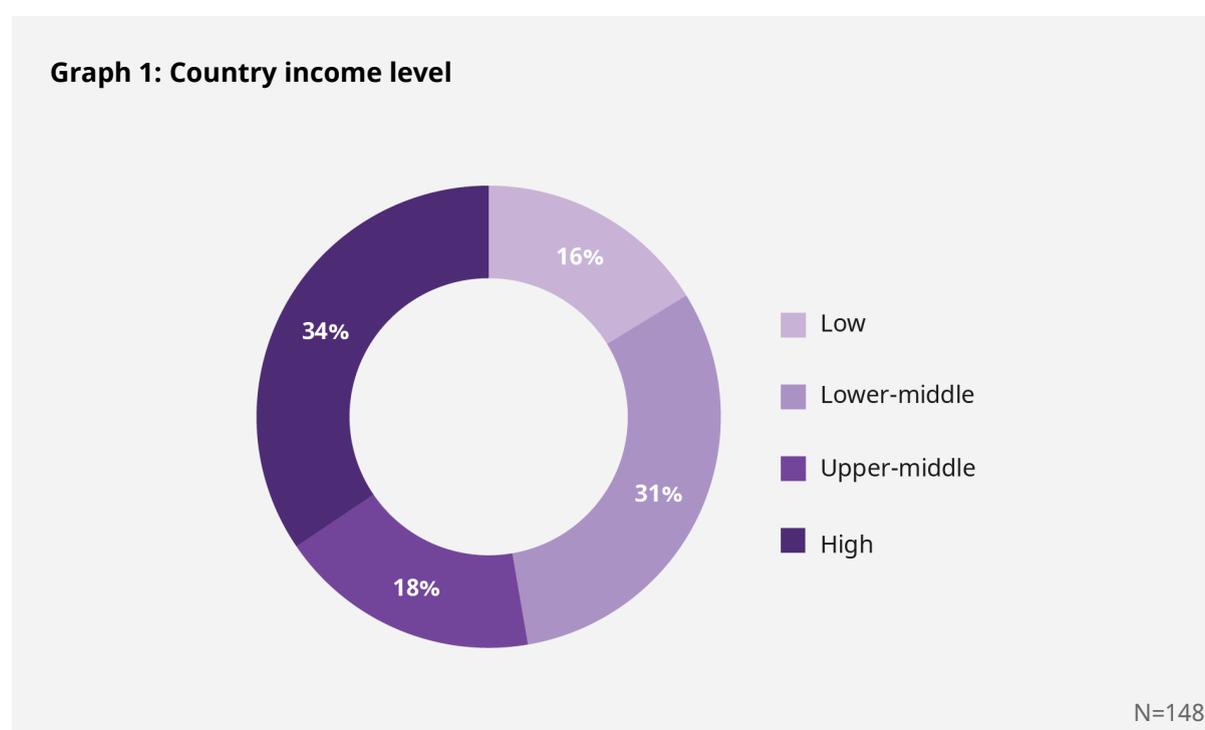


In this chapter, we provide an overview of the innovations studied. First, we explore the distribution of the innovations per country income level and between tech and non-tech innovations. We also explore the gamechangers and government-led justice innovations variations in our sample. We then zoom-in on the justice problems addressed by each innovation and their target groups.

The data gathered and summarised below can also be accessed through the [HiIL Justice Dashboard](#), where the reader can interact with the data.

## Distribution of innovations selected

We first looked into the distribution of innovations across country income levels.

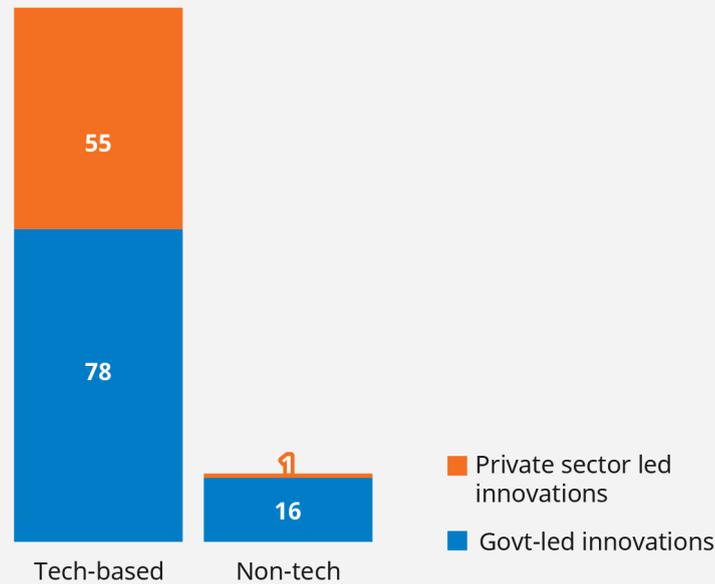


Of the 150 innovations examined in this study, two (2) innovations are multi-country initiatives. This sets the sample size of the data for this question at 148.

34% of the innovations in this study are from high-income countries and 18% are from upper-middle income countries. Altogether, 47% of the innovations are from low and lower middle income countries.

Data presented in this graph has been influenced by the selection process and does not reflect the actual distribution of innovations in the geographies mentioned.

**Graph 2: Tech-based and non-tech innovations led by government and private sector**

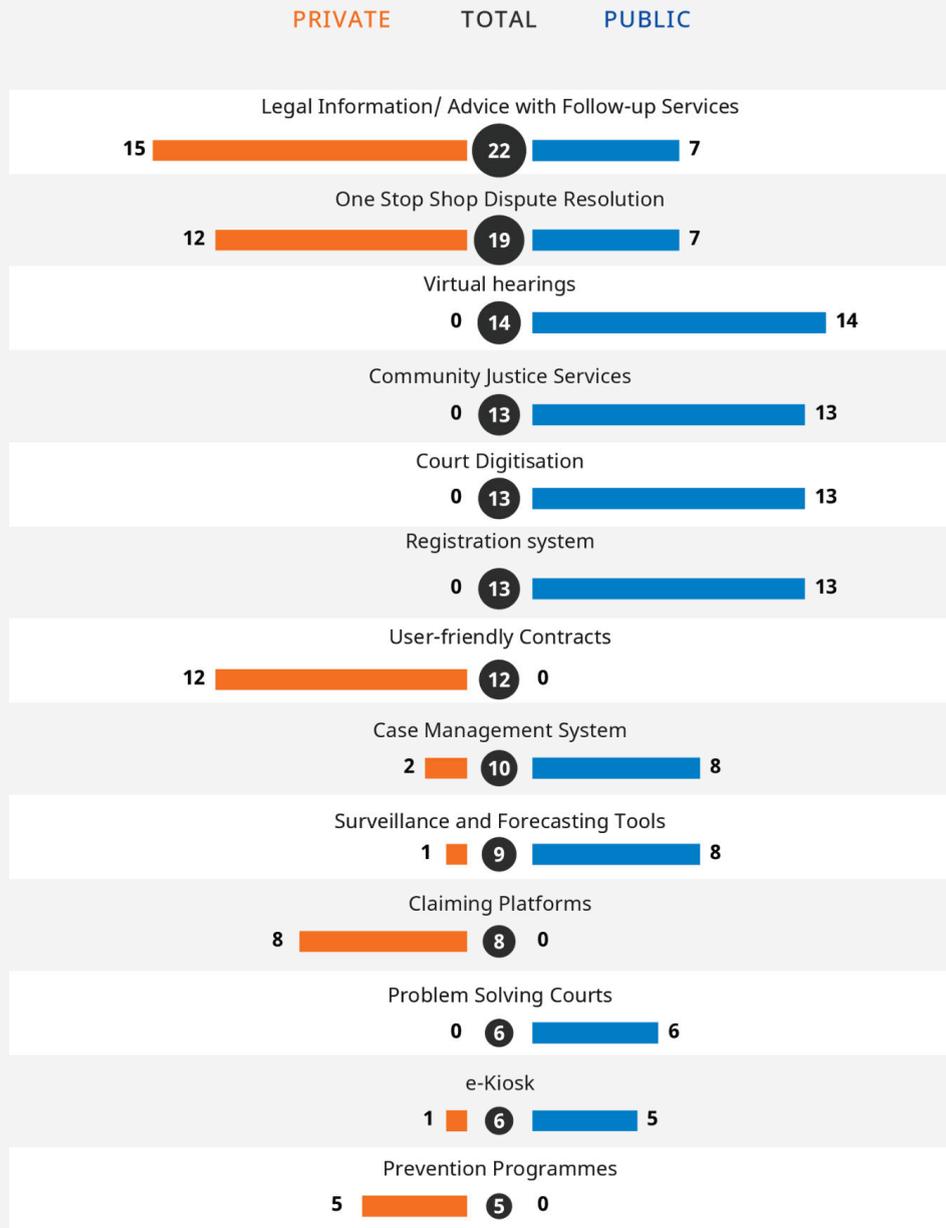


N=150

Of the 150 innovations we studied, 56 are private innovations (generally owned by NGOs or private companies) and 94 are public or government-led innovations. In the case of private innovations, all except for one rely on technology to deliver their services. Of the 94 public or government-led innovations studied in this research, 78 are technology based and 16 are not dependent on technology. Overall, we have studied 133 tech-based and 17 non-tech-based innovations. 16 out of 17 non-tech based innovations come from the public domain. These are mostly community justice services and problem solving courts.

Again, the reader has to keep in mind that the data presented in this graph has been influenced by the selection process and does not reflect the actual distribution of innovations in the geographies mentioned. Nonetheless, the data suggests that government led innovations more often resort to non-tech solutions, whereas private innovations rely on technology as the core component of their product.

**Graph 3: Gamechangers and government-led innovations (in absolute numbers)**



N=150

Community justice services, court digitisation, problem solving courts and virtual trials are mostly public sector innovations. User-friendly contracts, prevention programmes and claiming platforms are mostly privately-led.

Case management systems, legal information/advice with follow-up services, one-stop-shop dispute resolution systems, surveillance and forecasting tools and e-kiosk are innovations found in both public and private sectors. Some of these categories, particularly surveillance and forecasting tools tend to be public-private partnerships as well.

**Table 4: Innovations as per income level of the country (in absolute numbers)**

	LOW	LOWER MIDDLE	UPPER MIDDLE	HIGH
Legal Information/ Advice with Follow-up Services	1	11	4	5
One Stop Shop Dispute Resolution	1	4	3	10
Virtual hearings	2	6	1	5
Registration system	2	5	2	4
Court Digitisation	3	5	5	0
Community Justice Services	6	1	4	2
User-friendly Contracts	1	3	4	4
Case Management System	3	4	2	1
Surveillance and Forecasting Tools	0	1	1	7
Claiming Platforms	0	3	0	5
Problem Solving Courts	0	2	0	4
e-Kiosk	2	0	1	3
Prevention Programmes	3	1	0	1

N=148

Table 4 looks at the geographical distribution of the innovations selected for this study. In low income countries, we find a predominance of community justice services. Here, we also find a high number of innovations involving court digitisation. In lower-middle income countries, we find a high number of legal information/advice with follow-up services. Virtual trials also are penetrating lower middle income countries.

Court digitisation, legal information/advice with follow-up services and community justice services are most frequently observed in upper-middle income countries.

One-stop-shop dispute resolution procedures, surveillance and forecasting tools, claiming platforms, legal information/advice with follow-up services and virtual trials are most frequent in high income countries.

Please note that the distribution of innovations across different income levels of countries again has been influenced by the selection process (see above).

## Justice problems and target groups

In this section, we delve into the justice problems addressed by the gamechangers and those addressed by government-led innovations.

**Graph 5: Which pressing justice problems do the innovations address?<sup>18</sup> (% of responses)**



N=150

The majority of the innovations tackle more than one justice problem. In the table above, we identified the % of innovations that cover each type of justice problem.

18% of the innovations address problems related to crime with 14% of innovations focused on business problems. Land problems are addressed by 8% of the innovations, just after family and civil problems with 8% each.

Although the category of 'civil' justice problems includes problems related to land, housing, neighbours, employment, family, children and consumer, we created a separate category since we found innovations mentioning 'civil' justice problems in their description, and not referring to other more specific justice problems.

<sup>18</sup> Percentages here and in other multiple response questions (Graphs 5, 8, 11) represent the proportion of the specific category out of all responses. For instance, in Graph 5, 150 respondents selected 357 categories of problems. 63 of them selected crime, which is 17.65% of 357. The sum of all the percentages of all categories amounts to 100.

**Table 6: Which justice problems are addressed by the gamechangers? (in absolute numbers)**

Gamechangers	Business	Crime	Employment	Family	Domestic violence	Housing	Land	Money	Consumer problem	Social welfare	Public services	Neighbours	Children	Obtaining ID	Corruption	Civil	Accidents	Police
Claiming Platforms	2	1	1	0	0	1	0	2	4	1	4	0	0	3	0	0	2	0
Community Justice Services	3	9	4	9	6	8	9	3	2	2	1	8	4	1	0	2	0	0
Online Legal Information/ Advice	8	4	4	6	6	2	3	2	1	4	2	0	1	1	2	1	1	1
One-Stop-Shop Dispute Resolution	9	0	4	4	0	2	1	5	4	0	0	1	2	0	0	1	0	0
Prevention Programmes	0	5	0	0	2	0	0	0	0	1	1	0	0	0	1	0	0	0
Problem Solving Courts	0	5	2	1	2	1	1	1	1	3	1	1	0	0	0	0	0	1
User-friendly Contracts	11	0	6	1	0	3	0	0	0	1	1	0	0	2	0	0	0	0
Others	1	3	0	0	2	0	0	0	0	0	1	0	0	0	2	0	0	1

N=75

In the table above, we look at justice problems addressed by different types of innovations. We see community justice services addressing a variety of justice problems related to land, family, crime, neighbours and housing. One-stop-shop dispute resolution platforms address problems of businesses followed by money related disputes. User-friendly contracts are mostly offered for business problems and employment issues. The problems least addressed by game-changing innovations include those related to accidents, corruption, obtaining ID documents and issues pertaining to police and children.

**Table 7: Which justice problems are addressed by the government-led innovations? (in absolute numbers)**

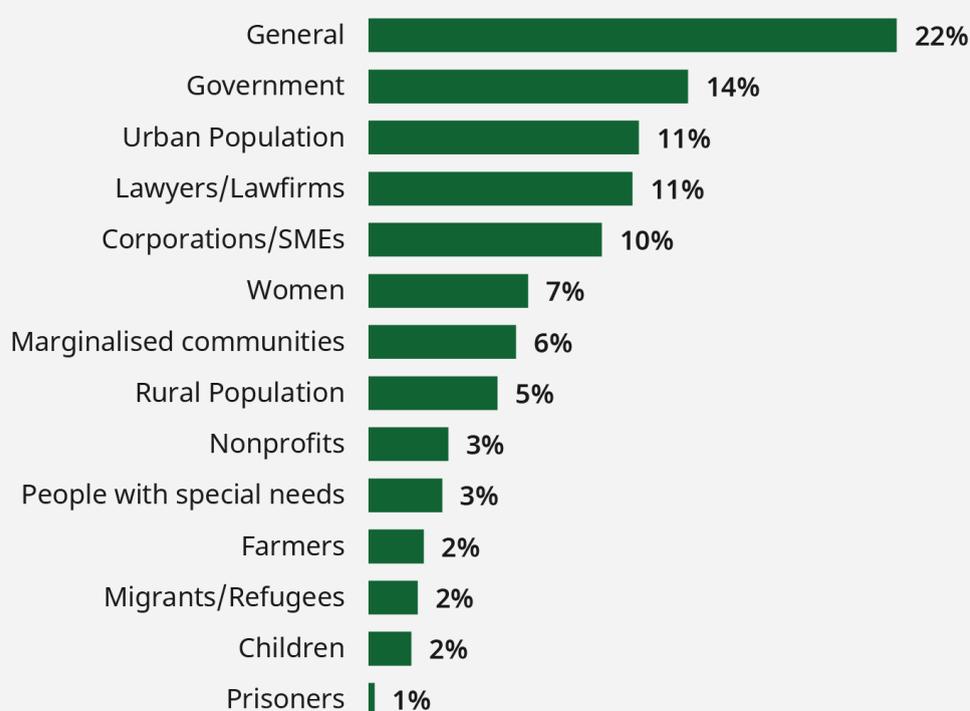
Government-led justice innovations	Crime	Civil	Business	Land	Family	Consumer problem	Administrative	Housing	Information not available	Domestic violence	Employment	Children	Public services	Social welfare	Corruption
Case Management System	4	5	3	0	1	0	0	0	1	0	0	0	0	0	0
Court Digitisation	8	7	3	1	0	0	1	0	1	0	0	0	0	0	0
Legal Information/Advice with Follow-up Services	3	4	1	0	3	0	0	0	0	1	0	0	0	0	0
One-Stop-Shop Dispute Resolution	1	0	4	0	0	5	0	0	0	0	0	0	0	0	0
Surveillance and Forecasting Tools	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Registration System	0	0	1	11	0	0	0	0	0	0	0	0	1	0	0
Virtual trials	9	6	3	0	0	0	2	0	1	0	0	1	0	0	0
e-Kiosk	4	1	2	1	2	0	1	3	0	1	2	0	0	1	0

N=75

When we turn to government led innovations, we note that registration systems mainly address land related justice problems. Court digitisation programmes address the general categories of criminal, civil and business disputes. Virtual trials and case management systems have a similar, general purpose.

e-Kiosks provide legal information on several specific justice problems such as crime, housing, employment and money issues. One-stop-shop dispute resolution systems run by the government focus on consumer problems and business problems. We observe that few government-led innovations are focused on specific problem categories such as employment, housing, domestic violence, social welfare or public services.

**Graph 8: Which target groups do the innovations serve? (% of responses)**



N=150

Most of the innovations serve more than one target group. 22% provide services to the general population. Government agents - including functionaries of the formal justice system - are the primary target group for 14% of the innovations.

11% of innovations serve the urban population and lawyers/law firms as a target group and 10% corporations/SMEs.

Specific groups of individual citizens, including women (7%), children (2%), migrants/refugees (2%) and prisoners (1%) are served by very few innovations.

**Table 9: Which target groups are served by government-led innovations?  
(in absolute numbers)**

Government-led justice tech	General	Government	Lawyers/ Law firms	Corporations/ SMEs	Marginalised communities	Women
Case Management System	5	8	8	0	0	0
Court Digitisation	7	11	8	2	1	0
Online Legal Information/ Advice	5	2	1	0	0	2
One-Stop-Shop Dispute Resolution	6	1	0	4	0	0
Surveillance and Forecasting Tools	5	3	0	0	0	1
Registration System	13	1	1	0	0	0
Virtual trials	10	11	11	1	2	0
e-Kiosk	3	0	0	0	2	0

N=75

Here we present the target groups predominantly served by government-led innovations. We see that electronic case management systems, virtual trials and court digitisation projects largely address the needs of the government, lawyers/law firms and the general population. Registration systems focus on justice problems of the general population and surveillance tools serve the needs of the general population and the government.

Virtual trials, court digitisation projects, case management systems and registration systems address justice problems of the general population, the government (various functionaries of the formal justice system), and lawyers/firms. We find a small number of government-led tech innovations that specifically address justice problems of marginalised communities, women and people with special needs.

**Table 10: Which are the target groups addressed by gamechangers? (in absolute numbers)**

Gamechangers	Urban	General population	Corporations/ SMEs	Women	Rural population	Marginalised communities	Government	Lawyers/ Law firms	Nonprofits	People with special needs	Farmers	Migrants/ Refugees	Children
Claiming Platforms	5	4	3	1	1	1	1	0	0	1	1	2	0
Community Justice Services	4	6	0	8	9	8	0	0	0	2	6	4	2
Online Legal Information/ Advice	9	7	7	8	5	2	2	3	4	2	1	1	2
One-Stop-Shop Dispute Resolution	9	5	7	1	0	1	1	3	1	1	0	0	0
Prevention Programmes	3	2	1	2	1	2	4	0	3	1	0	0	0
Problem Solving Courts	3	3	1	2	3	3	2	0	1	3	0	1	1
User-friendly Contracts	8	5	11	0	1	1	2	7	3	0	1	0	0
Others	3	0	1	1	1	1	3	1	1	2	0	0	1

N=75

Gamechangers tend to be more specific in defining the target groups they serve. While a significant number of them address the general population, we also see them addressing justice needs of women, rural population and marginalised communities.

One-stop-shop dispute resolution systems and user-friendly contracts mostly cater to corporations/SMEs. Online legal information/advice provide services to the government, women and urban populations. Community justice services primarily deal with justice problems of rural population, women and marginalised communities. User friendly contracts address needs of the general population, urban population, corporations/SMEs and lawyers/law firms.

### **Which resolution/preventing processes work and are needed by people?**

To what extent are innovations providing the interventions that people need to prevent or resolve a justice problem? This is hard to assess. Generally, justice services are not being evaluated on the outcomes they provide for people. When are such services actually effective? Is a court decision bringing an end to a land dispute? Does a lawyer addressed online reach a fair and effective settlement?

In order to provide some impression of the potential effectiveness of the most promising categories of innovations, we listed the interventions that can be provided by the seven gamechanger categories. Based on earlier research, we identified 15 core classes of interventions. For all 15 classes there is substantial evidence in research indicating their effectiveness to resolve or prevent certain disputes or crimes.

What this Table reveals, is that community justice services can be involved in prevention as well as resolution of disputes. User-friendly contracts are mostly useful in preventing conflicts and in convening parties. One-stop-shop dispute resolution services, except for preventing and punishment, can potentially offer all classes of interventions that are required in resolving disputes, moving forward and aftercare. Problem-solving courts offer all interventions except for preventing, moving forward and aftercare. Claiming platforms and online information and advice can offer interventions in resolving disputes. Preventing programmes as the name suggests, are more likely to offer interventions to prevent disputes.

**Table 11: Stages of Dispute Resolution**

<b>BUILDING BLOCKS</b>	<b>STAGES OF DISPUTE RESOLUTION</b>	<b>Community Justice Services</b>	<b>User Friendly Contracts</b>	<b>One-Stop-Shop Dispute Resolution</b>	<b>Problem Solving Courts</b>	<b>Claiming Services</b>	<b>Preventing Programme</b>	<b>Online Information and Advice</b>
<b>Norming</b> Setting rules of behavior and communicating about them	<b>Preventing</b>							
<b>Containing</b> Stopping violence and preventing escalation								
<b>Documenting</b> Recording rights and agreements so they can be verified								
<b>Fact-finding</b> Figuring out what actually led to a crime or conflict	<b>Mapping Facts</b>							
<b>Meeting</b> Opening a channel of communication between parties	<b>Convening</b>							
<b>Respecting</b> Taking one another seriously as a human beings	<b>Communicating</b>							
<b>Understanding</b> Uncovering and recognising emotions, needs and interests								
<b>Shaping solutions</b> Exploring possible solutions that meet needs and interests	<b>Resolving</b>							
<b>Sharing</b> Distributing money, assets, tasks and risks in a fair way								
<b>Deciding</b> Helping parties to make a decision or adjudicating for them								
<b>Accepting</b> Committing to the agreement or resolution and taking ownership								
<b>Restoring</b> Repairing harm and preventing future harm	<b>Moving Forward</b>							
<b>Punishing</b> Sanctioning in order to achieve prevention or retribution								
<b>Stabilising</b> Ensuring compliance with decisions and achieving closure	<b>Aftercare</b>							
<b>Improving</b> Monitoring outcomes of a resolution process and ensuring sustainability								

## Tools and technologies used

We observe that most innovations use a combination of different tools and technologies.

**Graph 12: Which tools and technology are used by the innovations? (% of responses)**



N=150

Among the 150 gamechangers and government-led justice innovations, the most frequently used tools and technology are web portals with 22% innovations using them as their primary tech platform. 15% innovations use electronic case management systems joined by some form of artificial intelligence or machine learning at 15%.

We see 6% of the innovations use advanced technology such as blockchain. Low-tech solutions such as bulk SMS and telephone phone helplines are prevalent with 3% and 4% of innovations using them respectively.

7% of innovations we studied for this research do not use technology in furthering their core activities.

In the table below, we break down the use of different tools and technologies by the gamechangers/government-led innovation categories.

**Table 13: Types of tools and technology**

Types of tools and technology											
	Web portal/ Social Media	AI/Machine Learning	Do-it-yourself Online Tools for Self- Represented Litigants	Advanced Technology (Blockchain/ Biometric/ Virtual reality/ Internet of things )	Multilingual Chat Platforms	Electronic Case Management	Telephone Helplines	Mapping Technology	IVR Technology (bulk SMS)	Chatbot	Video Conferencing
<b>GAMECHANGERS</b>											
User friendly Contracts	■	■	■	-	■	■	-	-	-	-	-
One-Stop-Shop Dispute Resolution Procedures	■	■	■	■	-	■	-	-	-	-	-
Claiming Platforms	■	■	■	-	■	-	■	-	-	-	-
Online Legal Information/ Advice	■	-	■	-	■	-	■	■	■	■	-
Prevention Programmes	■	-	■	-	■	-	■	■	■	■	-
<b>GOVERNMENT-LED JUSTICE INNOVATIONS</b>											
Case Management System	-	-	-	-	-	■	-	-	-	-	-
Registration system	■	-	-	■	■	-	-	-	-	-	-
Surveillance and Forecasting Tools	-	■	-	-	-	-	-	-	-	-	-
Virtual trials	-	-	-	-	■	■	-	-	-	-	■
Court digitisation projects	■	■	-	■	-	■	-	-	■	-	■
One-Stop-Shop Dispute Resolution Procedures	■	-	■	-	-	■	-	-	-	-	-
Online Legal Information/ Advice	■	■	-	-	■	-	-	-	-	■	-
e-kiosk	■	-	-	-	■	-	■	-	-	-	-

We see from the data that privately-led legal information and advice services use chatbot, web portals and telephone helplines, DIY tools for the litigants as well as mapping technologies. Prevention programmes use the same range of digital tools. Community justice services and problem-solving courts are not listed in the table above as technology is not a core component of their services.

Among the government-led justice innovations, court digitisation projects are using a variety of technologies including web portals, AI/machine learning, electronic case management, video conferencing and even advanced technology such as blockchain or internet of things. Surveillance and forecasting tools and electronic case management use AI/machine learning technology and case management systems respectively.

# Chapter 3. The Barriers and Risks Associated with Innovations



In this chapter, we first assess the key challenges faced by the government led technology innovations.<sup>19</sup> We then use the data to answer how private innovations integrate and scale in the justice and security system. Thereafter, we look at how innovations address risks arising from the use of technology, specifically:

- How do innovations address power imbalances?
- How do innovations manage their data?
- How do innovations cause and manage risks of (digital) exclusion?

## Key advantages and risks faced by government-led technology innovations

The use of technology in the justice system presents significant opportunities to make access to justice possible but also creates newer risks, barriers and vulnerabilities. Generally, court systems and other government justice institutions use technology for reasons such as the following:

Technology can provide economies of scale. Processes can be standardised and be delivered at lower costs and at higher quality. The costs of communication can be limited, thus saving travel costs and waiting times. Online files can be stored with backups and ensure paper files cannot be lost, manipulated, or ruined without a trace.

Through literature review, we have identified the advantages and risks faced by each category of government-led technology innovations. Below is a brief summary of what we found.

### 1. Virtual Trials

**Advantages:** Virtual trials make it possible for the parties, which participate in the online trial, to schedule a dedicated moment for the hearing. This means that there would be less waiting for other cases to finish. The need to travel is reduced, as both parties can participate in the hearing from a remote location. Delays are reduced because lawyers and judges can conduct hearings and trials do not have to be physically present in one location<sup>20</sup>. This saves time and costs, including reducing court and legal fees for most hourly clients. Virtual trials enable those with special needs to participate in the justice system in an easier way.<sup>21</sup> Litigants with an internet connection and a cell phone can also manage their court hearings without having to sacrifice time for commuting and waiting in front of the

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<sup>19</sup> Conversations with Achim Johannsen and Laura-Theresa Krüger from BMZ (19.05.2021); Lothar Jahn from German Development Cooperation (26.05.2021) and Tillman Johannes Röder from Free University Berlin (04.08.2021) contributed towards writing of this chapter.

<sup>20</sup> Espinosa, D. (2021). [The Pros And Cons Of Virtual Court Proceeding](#). Almazan Law, P.A. Last accessed on 15.09.2021.

<sup>21</sup> Sadler Bailey, R. (2021). [Advantages and Disadvantages of Virtual Court Hearings](#). Bailey & Greer PLLC. Last accessed on 15.09.2021.

courtroom. Instead, they can attend from the convenience of their own home, without spending too much time away from their work.<sup>22</sup>

**Risks:** Virtual trials make it possible for the parties to convene online and for the judge to carry out the proceedings electronically. Sometimes this gives rise to communication gaps between attorneys and clients as well as challenges to prove the identity of the parties<sup>23</sup>. Experiences from the first Zoom-only criminal jury trial held in Texas in 2020 showed that limited access and familiarity with technology also prevented certain sections of the population from participating.<sup>24</sup> Vulnerable populations such as women, low income communities, and those with special needs may find it challenging to use these technologies. Virtual hearings lack empathetic environments that face-to-face hearings can create.<sup>25</sup> Questions of identity theft may arise.<sup>26</sup> Disruptions due to poor internet connection and lack of necessary equipment also occur frequently.<sup>27</sup>

## 2. Case Management Systems

**Advantages:** A case management system makes working within teams seamless and collaborative. All parties to a case can be involved in the resolution and can easily access information, when assisted by a case management system. The system facilitates a single interface. In a case management system, the workflow is automated and streamlined to ensure prompt resolution of cases. All data can be securely accessed and easily shared by authorised persons wherever they may be located in the world, by using a dedicated cloud database. Updates are reflected in real-time so cases can be properly assessed at any given point in time - before, after and during the trial.<sup>28</sup>

**Risks:** Low penetration of the internet can result in digital exclusion as well as inability of courts to access the IT system. Given that half of the world's population does not have access to the internet (as indicated by the UN Global SDG database), the adoption of digital tools like case management systems can result in the exclusion of a significant proportion of the population. The quality of the communication network of the informatics system will determine the responsiveness of the functionaries of the justice system. Litigants, lawyers, judges and other users of the court exchange a large volume of data in the form of previous judgements, decrees, acts, pictures of crime scene, and case papers related to every case. If the communication network is slow, however, or cannot handle a large volume of data, then it weakens the responsiveness of the justice system towards people.<sup>29</sup> In low-income countries such as Ghana, converting paper-based files and archived

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<sup>22</sup> *ibid.*

<sup>23</sup> Bellone, E. (2013). Private Attorney- Client Communications and the Effect of Videoconferencing in the Courtroom, *Journal of International Commercial Law and Technology* 8: 44-45.

<sup>24</sup> Online Courtroom Project (2020). Online jury trials: Summary and recommendations; Bannon, A., and Adelstein, J. (2020). The impact of video proceedings on fairness and access to justice in court. Brennan Center for Justice. Last accessed on 08.09.2021.

<sup>25</sup> Nuffield Family Justice Observatory, 2020. Remote hearings in the family justice system: a rapid consultation.

<sup>26</sup> Menasche, D. (2018). A critical analysis of the online court. Legal Scholarship Repository, Penn Law. Last accessed on 08.09.2021.

<sup>27</sup> See Online Courtroom Project (2020). Online jury trials: Summary and recommendations; Bannon, A., and Adelstein, J. (2020). The impact of video proceedings on fairness and access to justice in court. Brennan Center for Justice. Last accessed on 08.09.2021.

<sup>28</sup> Workflow. (2019). The Usual Benefits of a Case Management System. Workflow. Last accessed on 12.09.2021.

<sup>29</sup> Rosa, J. Teixeira, C., & Pinto, J. S. (2013). Risk factors in e-justice information systems. *Government information quarterly*, 30(3), 241-256.

documents into electronic files requires tremendous amounts of time and labour. Installing case management systems is resource intensive and not always feasible for low-income countries.<sup>30</sup>

### 3. One-Stop-Shop Dispute Resolution Procedures

**Advantages:** There is a strong consensus that most of one-stop-shop dispute resolution's disadvantages will be overcome as technology advances.<sup>31</sup> A one-stop-shop dispute resolution mechanism ensures consistent application, provides legal certainty and reduces the administrative burden.<sup>32</sup> By offering arbitration, mediation, and negotiation online, one-stop-shop dispute resolution procedures advance these benefits even further. These services minimise cost and save time through simplified procedures, common absence of discovery, and lower attorney fees. Though costs vary by type of technology used and the timeframe required, these services tend to be cheaper than traditional litigation and notably less expensive than in-person alternative dispute resolution processes like mediation and arbitration.<sup>33</sup> Asynchronous communication – parties not immediately reacting to what the other party said or expressed – is seen as an advantage, because it may prevent escalation.

**Risks:** Dispute resolution processes are impersonal. Because one-stop-shop dispute resolution processes may lack face to face interaction if they do not provide for a back up by other means, the communication between the two parties is constrained. Both parties are unable to take advantage of non-verbal communication signals that often convey an individual's feelings. The uptake of one-stop-shop dispute resolution will increase if mediators, negotiators, lawyers, judges, and counsellors have the relevant training. These processes can result in digital exclusion of those who do not have access to the internet, computers or lack knowledge about legal technology. Those living in remote areas or rural areas will be susceptible to poor networks and cannot take advantage of services under one-stop-shop dispute resolution.<sup>34</sup> The behavior of parties may differ in a text-only interaction in relation to their behaviour in face-to-face meetings. For example, a study of online negotiation reveals that parties were not as cooperative and were likely to escalate the conflict in online negotiation as they were in telephone or in-person settings.<sup>35</sup>

### 4. Court Digitisation Projects

**Advantages:** Cases of all types and sizes benefit from court digitisation.<sup>36</sup> Greater legal certainty, combined with simple, efficient and digitalised procedures, encourages individuals and businesses to engage in cross-border transactions, thereby boosting trade.

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<sup>30</sup> Addadzi-Koom, M., & Bediako, E. (2019). Implementing an E-Justice System in Ghana: Prospects, Risks, Challenges and Lessons from Best Practices. *KNUST Law Journal*, 8, 108-142.

<sup>31</sup> Pinsof, J. (2019). [The Future of ODR: The Promise of Advancing Technology](#). *Michigan Technology Law Review*. Last accessed on 12.09.2021.

<sup>32</sup> Data Project 170. [Institutional File \(2012/0011 COD\)](#), Council of the European Union, Brussels, 28 November 2014

<sup>33</sup> Pinsof, J. (2019). [The Future of ODR: The Promise of Advancing Technology](#). *Michigan Technology Law Review*. Last accessed on 12.09.2021.

<sup>34</sup> Petrauskas, F., & Kybartienė, E. (2011). Online dispute resolution in consumer disputes. *Jurisprudencija*, 18(3).

<sup>35</sup> Austin, C. (2017). Online dispute resolution: An introduction to online dispute resolution, and its benefits and drawbacks. Government Centre for Dispute Resolution.

<sup>36</sup> Capita. (2020). [The future of justice: judging the benefits of a digital justice system](#). Capita. Last accessed on 12.09.2021.

<sup>37</sup> Court digitisation brings all users and stakeholders the practical benefits of digitising any system in terms of improved data management, accessibility, visibility and control. With online information replacing paper, everyone involved in a case has simultaneous access to documents as soon as they are filed. This enhanced accessibility enables all parties to arrive at the court fully prepared. Court digitisation also makes it possible for judges and officials to access the court lists online so they will be informed of any changes as soon as changes are made. This minimises the possibility of adjournments due to missing documents, information or people as well as increases effectiveness of the system in general. Online access also allows for the integration with internal and external bodies and systems such as the police and the prison service.

**Risks:** Judges, lawyers, court officers and other functionaries of the justice system may be reluctant to use the new technology or may perceive the new technology as a threat to their job. Unless they are informed of the benefits of the new technology and are trained in using it, the digitisation process will find it difficult to scale in most places.<sup>38</sup> Design and maintenance of the informatics system will determine its user-friendliness. For an informatics system intended to be operational 24/7, it has to be designed and maintained accurately. It also has to be cost effective. If new information systems are developed but not integrated with previous information systems, it can result in information systems that work in silos and pose a greater challenge to data exchange. Consequently, collating data and coordination between different agencies of the justice system becomes an issue. At the same time, however, interlinked information systems require the government to establish strong protection systems to ensure data from citizens does not fall into the wrong hands. Otherwise, cracks in protection systems can lead to harmful data leaks and breach of data security, integrity and confidentiality.<sup>39</sup>

## 5. Registration Systems

**Advantages:** Unregistered land tends to be at a higher risk of fraudulent activities. Such fraud can be prevented with the use of Registration systems. These systems can prevent and resist any third party applications for adverse possession. Registration makes it easier to buy and sell property as all the title information necessary for conveyancing is available in the Land Register, which is virtually accessible for everyone. Registration makes it possible to establish property ownership and thus eases ascertaining of rights and responsibilities associated with it.<sup>40</sup>

**Risks:** Since most developing countries use paper-based cadastres, shifting to a digital system will require investment in terms of time and funds in relation to accurate updating of records. Administrative bodies need to be trained in using advanced technology for them to be able to operate the land registration system as well as the public needs to be made aware of these systems. In developing countries, where internet penetration especially in the rural areas is low, small holder farmers will benefit from the technology

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<sup>37</sup> Yakimova, Y. (2020). [Deal on digitalisation of access to justice will benefit citizens](#). European Parliament. Last accessed on 12.09.2021.

<sup>38</sup> Addadzi-Koom, M., & Bediako, E. (2019). Implementing an E-Justice System in Ghana: Prospects, Risks, Challenges and Lessons from Best Practices. *KNUST Law Journal*, 8, 108-142.

<sup>39</sup> Rosa, J., Teixeira, C., & Pinto, J. S. (2013). Risk factors in e-justice information systems. *Government information quarterly*, 30(3), 241-256.

<sup>40</sup> Connor, Ph. (2019). [Registering Unregistered Land – 5 Benefits of Land Registration](#). Business Cornwall Magazine. Last accessed on 08.09.2021.

only if they have access to the internet. Institutional reforms that eradicate corruption, discrepancies and inconsistencies in land records play an important role in the success of this innovation.<sup>41</sup>

## 6. Surveillance Tools and Forecasting Systems

**Advantages:** Crime forecasting systems help law enforcers provide better security to a community by marking the areas with higher crime rates. Predictive policing focuses on data analysis to help identify patterns in the behaviour of the criminals or the area where more criminal activities take place. Such data analysis helps draw out more strategic predictions of where and when crimes are more likely to occur. This leads to enhancement of crime prevention, better decision-making and ultimately - progress in the justice system.

<sup>42</sup> Through electronic coordination and surveillance, governments can provide faster crime diagnosis and response and provide more targeted information to citizens.<sup>43</sup>

**Risks:** The main risk associated with surveillance tools and forecasting systems is the reliance on data. The collation of data should be correct, up-to-date, representative of the population and not biased against any community. If one of these factors is not taken care of, the analysis will be incorrect or biased. Oftentimes, the surveillance and forecasting tools map areas or neighbourhoods that are susceptible to crime. If data indicates that crimes are more likely to occur in a certain neighbourhood, then it can result in stigmatisation of the neighbourhood or its residents. Law enforcement agencies often buy or develop surveillance and forecasting tools along with private companies. Here, ensuring that data remains with the lawful owners of the data and is not passed on to private companies becomes important. Moreover, in the court of law, the evidence based on which the offender is assessed needs to be accessible to both parties, the offender, and the judge. Scholars and practitioners alike must consider such technology to be a black box—the workings of which are unknown. Consequently, the right of the offender to equality of arms and access to evidence is violated.<sup>44</sup>

## 7. e-Kiosk

**Advantages:** The ability to adapt to different requirements and serve many people in a timely fashion means that self-service kiosks are becoming integral to maintaining a satisfied citizenry. Because self-service kiosks are networked, they can be accessed and controlled remotely from anywhere in the world. This makes rolling out new software and content much easier, and allows for timely problem solving and addressing of issues.<sup>45</sup>

**Risks:** Electronic information kiosks are being increasingly used in courts. The key challenge faced by e-kiosk in low-income countries is that the lawyers and parties of the dispute lack digital literacy. This affects their uptake of the technology. Secondly,

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<sup>41</sup> Daniel, D. and Speranza, C.I. (2020). [The role of blockchain in documenting land user rights: The canonical case of farmers in the vernacular land market](#). *Frontiers in Blockchain*, 3: 19. Last accessed on 08.09.2021.

<sup>42</sup> InneFu Labs. (2021). [Benefits of Predictive Policing](#). InnefuLabs. Last accessed on 08.09.2021.

<sup>43</sup> House of Lords. (2009). [Constitution Committee - Second Report. Surveillance: Citizens and the State](#), Chapter 3. UK Parliament. Last accessed on 08.09.2021.

<sup>44</sup> For risks associated with surveillance tools and forecasting systems, see Gstrein, O. J., Bunnik, A., & Zwitter, A. (2019). Ethical, legal and social challenges of Predictive Policing. *Católica Law Review, Direito Penal*, 3(3), 77-98.

<sup>45</sup> LamasaTech. [7 Incredible Benefits of Self-Service Kiosks](#). LamasaTech. Last accessed on 08.09.2021.

governments need to organise training programmes for lawyers and court staff so that the majority of them are trained in the use of e-kiosks. However, such training programmes are costly and investing resources is not always possible<sup>46</sup>.

## Private innovations in the justice and security system

As we will see in the next chapter, most private innovations are small scale. They reach a limited proportion of the target group and very few scale across the borders of one jurisdiction (often a state or a province). We have not been able to collect data from individual innovators about the barriers to scaling they face.

Generally, innovations need the right regulatory environment to succeed. Risk taking and investing in new ways of working requires an environment where innovators can have access to markets for their services. Once they provide consistent good quality and security, their products can be marketed to the target audience and they are allowed to sell their products to any consumer. In many markets, innovators are even rewarded by patents or other forms of intellectual property.

This is different in the market for “justice services”. And this is widely seen as a barrier to creation and adoption of innovations. Complicated rules of procedure exist for courts in many countries. The legal services regulations are strict where only lawyers can give legal advice. These rules are difficult to change. Challenges by providers of new services are unlikely to succeed.

When we look at the seven game-changing models, it is clear that rules need to be changed in order for them to scale.<sup>47</sup> Community justice services are likely to be provided by local judges or paralegals, which requires regulation. New service delivery models for courts such as one-stop-shop procedures or problem-solving courts require a change in rules of civil procedure. A platform providing legal information and referral to a lawyer may run into trouble with an association of lawyers, where members have taken expensive exams in order to be admitted to the bar. User-friendly contracts may have to be combined with legal advice that can only be obtained from a law firm, instead of it being integrated in the service delivery model. Claiming platforms are another example of services that would benefit from seamless integration with court procedures and lawyer services that are heavily regulated.

The challenge is to develop models of regulation that both serve the need for independent third parties (the primary reason for regulation of legal services and court procedures) and the need to innovate<sup>48</sup>. Many countries are working on their models for regulation of legal services.<sup>49</sup>

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<sup>46</sup> Source: Interview with a judge based in India, dated 07.09.2021.

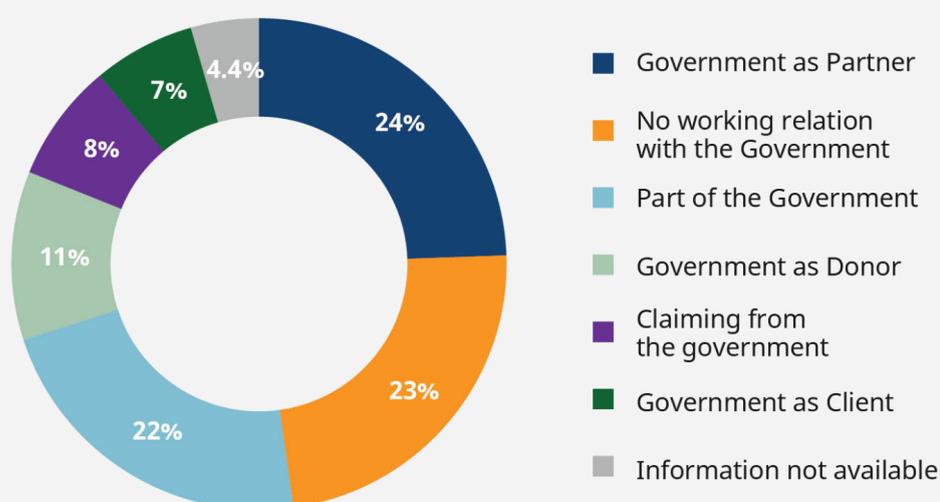
<sup>47</sup> Barendrecht, M et al. (2021). [Delivering Justice, Rigorously. SDG 16.3 Trend Report 2021](#). HiIL. Last accessed on 12.09.2021.

<sup>48</sup> Report of the Innovation Working Group (2019): [Innovating Justice: Needed and possible](#)

<sup>49</sup> Arruda, A. (2021). [Let's stop cutting off our noses: How reregulation benefits lawyers](#). GP Solo: Reregulation of the law. Last accessed on 08.09.2021.

At the same time, some kind of regulation is needed. Courts and providers of legal services intervene in people’s lives and in their relationships. The fairness and quality of these interventions needs to be assured. Moreover, both parties need to cooperate. People’s justice needs should be respected, but also reconciled. The parties need to be stimulated to work together and to comply with decisions about appropriate interventions. Addressing this regulatory challenge is perhaps the biggest contribution that governments and their donors can make in order to enhance the responsible use of technologies in justice.

**Graph 14: Working relationship of private innovations with governments**



N=75

In this section, we examine the relationship of the government with 75 innovations that fall under our seven gamechanger categories. As the data indicates, 22% of the innovations are part of the government or government-led, 24% of the innovations have the government as partners and 11% of the innovations are funded by the government. In addition, 7% of the innovations provide services to the government or have the government as a client and 8% of the innovations help people in claiming services from the government. Only a quarter of the innovations have no working relationship with the government.

The table below shows the most likely relationship with the government of each of the categories of gamechangers and government-led justice innovations. The latter are the initiatives of the government and the private sector in most cases works as a service provider in its affiliation with the government. In case of user-friendly contracts and claiming platforms, the private sector may work with the government as a client. For online legal information/advice and one-stop-shop dispute resolution, in some cases the private sector provides services without any direct working relationship with the government.

**Table 15: Government participation across innovation categories**

Gamechanger Category/Government-led Innovations	Government Participation
Community Justice Services	<ul style="list-style-type: none"> <li>• Mostly Government-led</li> <li>• Privately-led in some cases, often donor funded</li> </ul>
User-friendly Contracts	<ul style="list-style-type: none"> <li>• Privately-led justice service</li> <li>• Government mainly as a Client</li> </ul>
One-stop-shop Dispute Resolution	<ul style="list-style-type: none"> <li>• Initiated by the Government</li> <li>• Initiated by the private sector</li> </ul>
Claiming Platforms	<ul style="list-style-type: none"> <li>• Privately-led justice service, government is often a client</li> <li>• Government acting as donor</li> </ul>
Problem Solving Courts	<ul style="list-style-type: none"> <li>• Government-led</li> </ul>
Prevention programmes	<ul style="list-style-type: none"> <li>• Initiated by the government and private sector</li> </ul>
Online Legal Information/Advice	<ul style="list-style-type: none"> <li>• Led by government and private sector, both</li> </ul>
Virtual Trials	<ul style="list-style-type: none"> <li>• Government-led</li> </ul>
Case Management System	<ul style="list-style-type: none"> <li>• Government-led: private sector involvement in tech development</li> </ul>
Registration System	<ul style="list-style-type: none"> <li>• Government-led</li> </ul>
Surveillance and forecasting tools	<ul style="list-style-type: none"> <li>• Government-led: private sector involvement in tech development</li> </ul>
Court Digitisation	<ul style="list-style-type: none"> <li>• Government-led</li> </ul>
e-Kiosk	<ul style="list-style-type: none"> <li>• Government and private sector led, both</li> </ul>

## Power imbalances addressed by justice innovations

When answering this research topic, we zoom in on the target groups of women, farmers, people with special needs and marginalised communities as those who are excluded from mainstream social, economic, educational and/or cultural life. Those from the marginalised communities often have fewer resources to meet their justice needs.<sup>50</sup> This creates further vulnerabilities and robs them of power when they become victims of violent crime, fraud, theft, land grabbing or unfair dismissal in employment.

To understand how innovations address power imbalances in society, we look at the percentage and categories of innovations that directly address the needs of women and marginalised communities. Of the 150 innovations in this study, 7% of the innovations directly address justice problems of women and 6% of the innovations address justice problems of marginalised communities, as per the graph number 8.

We note that more game-changing innovations provide targeted services to the justice needs of women and marginalised communities as compared to government-led justice innovations. Community justice services, online legal information/advice with follow-up service, prevention programmes, claiming platforms and e-kiosks can be particularly effective in reaching out to these target groups.

- Claiming platforms enable low-income communities to access social welfare benefits, obtaining identification (ID) documents and affordable housing (claiming platforms). For example, Haqdarshaq in India is a mobile application via which eligible people can apply for welfare schemes in India.
- Community justice services provide low-cost, accessible legal services to communities in rural and remote areas. For instance, Local Council Courts in Uganda provide services to 80% of Uganda's population, especially in rural areas.
- Innovations that provide legal information/advice provide services to people at an affordable price to people who cannot afford to consult a lawyer for justice problems related to business, domestic violence, family disputes, land, employment, social welfare and crime. For example, MySis in Thailand is a chatbot that connects victims of gender based violence to the police, courts, NGOs that rehabilitate victims and provides them the necessary legal information.
- Prevention programmes use low-tech devices and work with law enforcement agencies and neighbours to prevent theft, fraud and violence. A few prevention programmes also work on preventing crimes committed against women by equipping them with apps via which they can connect to law enforcement agencies and friends in the face of threat of physical violence. For example, Circle of 6 in the USA is a mobile app for female university students who feel threatened in an environment and want to immediately report their situation or location to their friends and ask for help.

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<sup>50</sup> Sevelius, Jae M et al. (202). Research with Marginalized Communities: Challenges to Continuity During the COVID-19 Pandemic. AIDS and behavior vol. 24, 7.

- E-kiosks can provide information on rules and procedures of the court as well as hearing dates, courtroom details of a case to those who do not have access to a computer. In doing so, they meet the legal information needs of women and marginalised communities who are most likely to not have access to technology-enabled devices.

This list suggests that there is a considerable potential for innovative justice services to reach marginalised populations, if the barriers to scaling and financing of such services can be overcome.

## Data management in justice innovations

Data management or data protection, is the process of safeguarding important information from corruption, compromise or loss.<sup>51</sup> Data protection practices vary across organisations and national legislation is a determining factor for these practices. Strong data protection legislation such as the General Data Protection and Privacy Regulation in the European Union, exists in high income countries. In countries such as India and those in Africa and South America, the data protection regime is still in nascent stages.<sup>52,53</sup>

Data privacy laws are essential to boost innovation while protecting privacy rights and minimising threats of cyber security for citizens. More robust data protection policies are needed, especially in judicial matters and management.<sup>54</sup> The growing case laws around increasingly sophisticated technologies such as facial recognition, complex algorithms predicting likelihood of crimes, newer tools of monitoring communication, suggests that procedural safeguards and framework to uphold rights are more crucial than ever<sup>55</sup>.

To find how the justice innovations we surveyed protect their data, we looked at secondary sources but found very little publicly available information. Literature on the topic is also scant. We then conducted interviews with some of the innovators and providers of government-led innovations to understand how they protect data and privacy of users.<sup>56</sup>

From our interviews, we observed that there is a growing awareness about data protection. Providers of innovations anonymise data, use standard data protection tools and methods such as encryption and store data in a cloud. Below is an overview of our conversations with innovators and a selection of measures they took (often among a broad range of data management precautions):

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<sup>51</sup> Crochetti, C. [What is data protection and why is it important?](#) TechTarget. Last accessed on 08.09.2021.

<sup>52</sup> T Reddy, P. (2018). [Should there be a developing country template for data protection legislation?](#) The Wire. Last accessed on 12.09.2021.

<sup>53</sup> BakerMckenzie (2021). [Africa: Implementation of Cybersecurity and Data Protection Urgent Across Continent](#). Last accessed on 08.09.2021.

<sup>54</sup> European Data Protection Supervisor. (2013). [Data Protection in Judiciary: The challenges for modern management](#). Last accessed on 08.09.2021.

<sup>55</sup> European Court of Human Rights.2020. [Guide to case laws of the European Court of Human Rights](#). Last accessed on 08.09.2021.

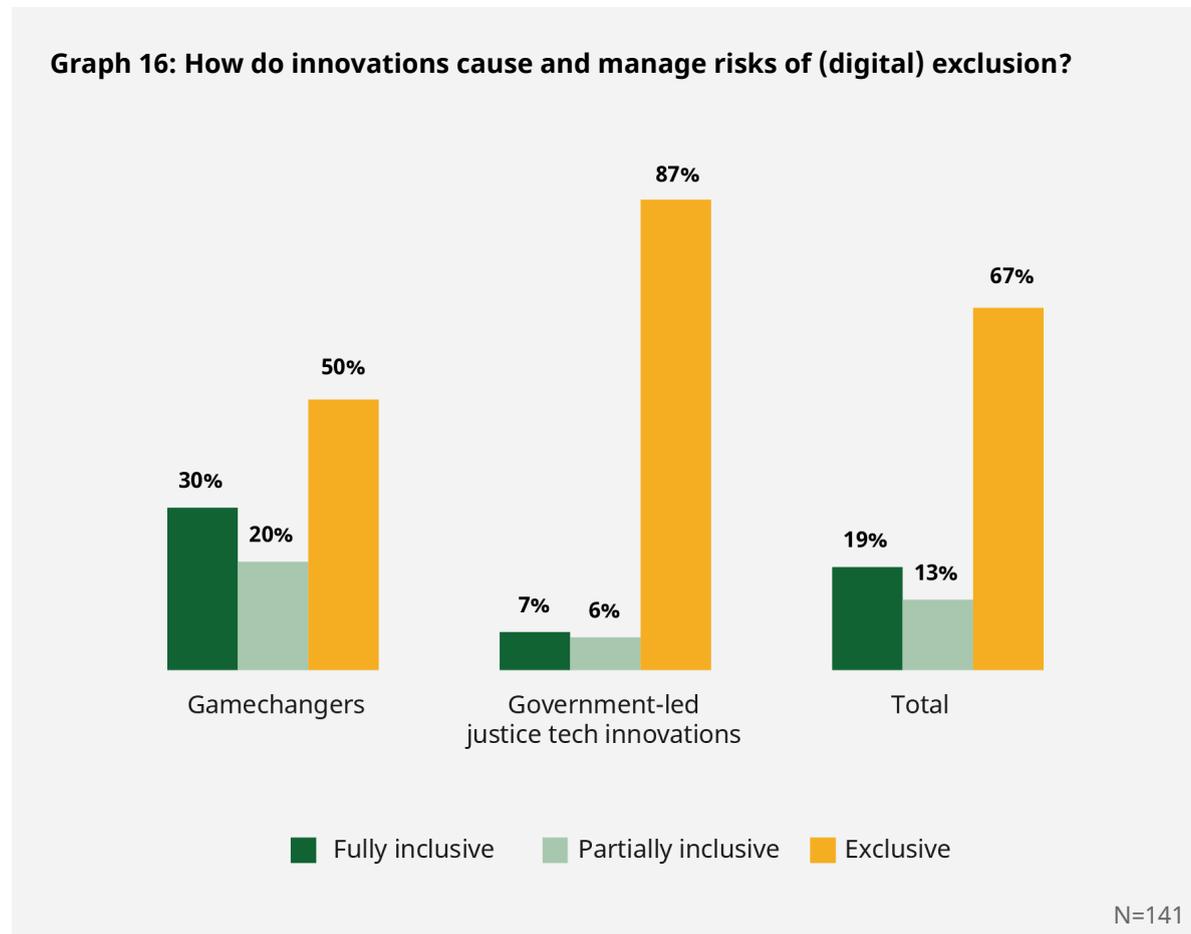
<sup>56</sup> Interview with representatives of JustFix.NYC dated 06.08.2021; email interview with representatives of [Haqdarshak](#) dated 19.08.2021; email interview with representatives of Resolve Disputes Online, dated 19.08.2021.

- JustFix, a claiming platform providing legal help to tenants who are vulnerable to eviction in New York City, keeps their user data anonymous while doing analysis. Information that is not already publicly available, is not shared publicly but is used for insights to continuously improve their services. As a general data protection measure, data is stored in secure cloud services.
- Resolve Disputes Online, a one-stop-shop dispute resolution operating in India, stores its data using end to end encryption. It provides state of the art security for the parties accessing the service. Data is not stored on their server. Clients, who are public sector institutions or businesses, are encouraged to host data within their existing systems in the cloud. The company currently has its cloud network across 15 countries around the world with three of the best cloud providers in terms of security and uptime of their servers.
- Haqdarshak, a claiming platform from India, mentioned having a cloud-based data management system to store its data safely. The data collected on the Haqdarshak app by community agents is saved on Dashboards. When the personal data is collected, consent of the citizens is explicitly taken. All the data is owned by Haqdarshak and strict data privacy agreements are signed by all partners.
- A conversation with Judge Ginger Wren, founder of America's first problem-solving court on mental health, revealed that on everyday court level, any private information about the individual is not disclosed publicly. Data on social security numbers, diagnosis, and medical history is not shared. The court administration has data security checks in place for compliance and privacy protection.
- Cape Verde's case management system anonymises data to protect the information of citizens in the event of a cyber attack. It uses local identifiers that are interlinked to the original information. To trace the original identity of the citizen, authorities can use the local identifier. Because the local and remote identifiers are distinct, the attackers will not have a direct, easy to link path among databases.
- The Civil Resolution Tribunal in Canada stores information of clients on Canadian data servers that are protected by leading-edge security protocols.

The interviews reveal that data protection in justice innovations is an area of growing awareness. Public institutions and private innovations are developing systems and processes that can ensure guarding of user data better. Further research is needed to develop a holistic understanding of needs and practices around data privacy and protection across justice innovations.

## Approach towards digital exclusion

We collected data on how different innovations address digital exclusion.



For this, we defined innovations to which people have full access as innovations that are low-tech, such as telephone helplines or those that also provide their services offline. Community justice services are fully accessible to those who do not have any technology (fully inclusive). Innovations that people can partially access include innovations that bring technology to the people by employing personnel that help people in accessing and navigating the innovation or by providing digital devices to people (partially inclusive). For other innovations, we assumed that a substantial proportion of the populations would be excluded from use and technology is a central component of their service delivery. People do not tend to have access to technologies such as fully virtual document automation systems or artificial intelligence enabled chatbots.

We did not include surveillance and forecasting tools (n=9) while examining digital exclusion caused by government-led justice tech innovations because they are meant to be used by law enforcement agencies who have access to the required technology. Digital exclusion is more relevant for innovations that provide services that are meant to be used by common people.

Using this categorisation, we find that 50% of the game-changing innovations provide services that can be accessed by those who have access to technology. 30% of the game-changing innovations have offline access integrated in their service model, while 20% of them provide hybrid access.

On the other hand, 87% of government-led technology innovations that we studied cannot be accessed by those without technology. This can be explained given that the majority of these innovations are targeted at lawyers or government agents. Moreover, they require access to the internet, smartphone and literacy to use digital tools. People have full access to 7% of the government-led technology innovations and partial access to 6% of the innovations.

## Managing Digital Exclusion

Innovations manage the challenge of digital exclusion in a number of ways. Haqdarshak, for example, operates with a clear understanding that their end beneficiaries are almost completely disconnected from any access to technology. Their product is taken to the end user by a community agent who has access to a smartphone. The mobile app also works in an offline mode considering poor connectivity in the most interior parts of India.<sup>57</sup> The risk of being digitally excluded is oftentimes man-made. It stems from the fact that the decision makers require a lot of convincing before onboarding themselves and then their clients and appreciate that legal technology will go the long mile to serve and solve the issue plaguing the access to justice ecosystem. thereby directly benefiting their clients.<sup>58</sup> JustFix's websites are available in multiple languages and they provide referrals to partner telephone helplines in order to make their services accessible to as many vulnerable renters as possible.<sup>59</sup>

Judge Ginger Wren from Broward County Mental Health Court in Florida, USA mentioned that hopes of reducing virtual trials (via Zoom) and returning to courtroom is not occurring due to the pandemic. The good news and the benefit is that a majority of court customers are relying on technology, and thankfully have access to cell phones or other technological devices. Judge Wren has been holding both emergency hearings for persons-in custody live in the courtroom, and hybrid hearings from the courtroom. This has been most efficient and expands accessibility to court processes and justice. In addition to this, public libraries provide access to those who do not have required technology to avail different social services.<sup>60</sup>

In the case of Brazil's Consumidor, smart phones are cheap and accessible but access to the internet is an issue. Judicial bodies in remote areas offer their computers for the people or else people have to go to the city. Government is trying to get 5G technology to remote areas to make justice services more accessible to people.<sup>61</sup>

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<sup>57</sup> Interview with Madhura Karnik, Haqdarshak, 20.08.2021.

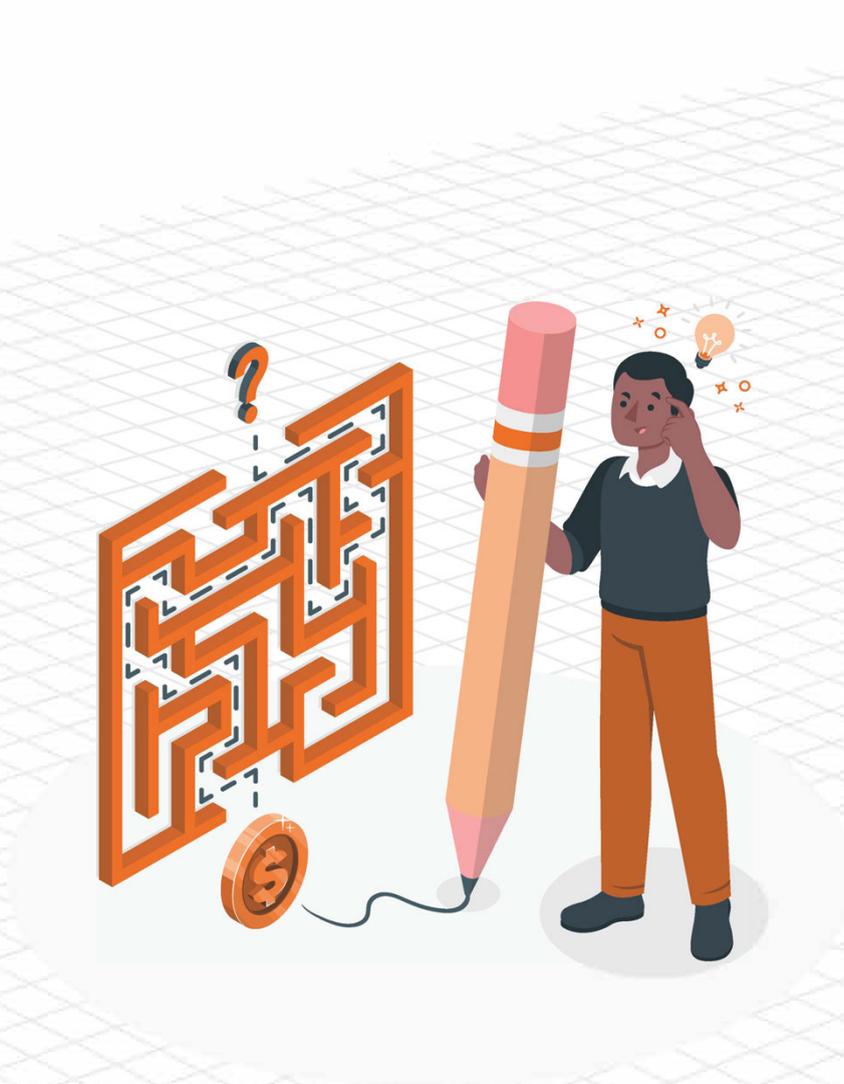
<sup>58</sup> Interview with Aditya Shiivkumar, 19.08.2021.

<sup>59</sup> Interview with Georges Clement, 18.08.2021.

<sup>60</sup> Interview with Judge Ginger Wren, 17.08.2021.

<sup>61</sup> Interview with Aditya Shivkumar, 19.08.2021.

## Chapter 4. Financing Innovations in the Justice Domain



In this chapter, we provide an overview on financing access to justice. We look at the questions on business and investment models used by the justice innovations, as well as their scaling strategies.

We take an overview of the main donors and funders in this space and the tools and technology they fund. We conclude the chapter with outlining the barriers and challenges that innovations face in financing and scaling their solutions.

## International donors and funders in this space

As of 2021, the majority of the projects on access to justice are funded by the governments. The amounts invested in the justice systems from the national budgets remain very low. Statistics show that countries in the European Union spend 0.33% of the total GDP on law and justice.<sup>62</sup>

In low and lower middle income countries, many government initiatives are supported by external international donors and intergovernmental financing agencies.

The funding ecosystem around investors (including impact investors) and private funders in the space of access to justice remains nascent, but is growing.

In our data, we see international and intergovernmental organisations, governments, impact investors, private equity as well as public private partnerships as funders in this space. Many innovations have more than one source of funds.

The visual below lists the major donors and investors we observe through our research. The total number is limited. The efforts by private investors, including private equity players and venture capitalists are still in early stages but we have listed the investors that have funded the innovations we have studied for this report. Most of the private investors listed below have supported innovations in high income countries.

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<sup>62</sup> European Union for the Efficiency of Justice (2020). [European judicial systems CEPEJ evaluation report](#). Last accessed on 08.09.2021.

**Visual 17: Governments, Donors and Investors active in the Access to Justice Space**

**DONORS**

USAID  
UNDP  
World Bank  
European Union  
IDLO  
Charles Stewart Mott Foundation  
UNICEF  
University of Aveiro  
University of Cape Verde  
Danish Development Aid Agency  
International Criminal Court  
The Law Foundation of Ontario  
Legal Aid Ontario  
American Bar Association's Centre of Innovation  
German Development Cooperation  
United Nations Office of Information and Communications Technology  
United Nations Office on Drugs and Crime  
UH Habitat  
Inter-American Development Bank  
HiIL Justice Accelerator

**PRIVATE INVESTORS**

Chicago Crime Lab  
Globant  
Cleo  
ASI data science  
Yitu Technology  
ICT Center for Innovation and Entrepreneurship Excellence  
Tetra Tech  
Ycombinator  
TechStars Ventures  
SI2 ventures  
Francisco Partners  
GPI Capital  
Permira  
Polaris Partners  
Coatue  
Felicis Ventures  
Andreessen Horowitz  
Startup WISE Guys  
Kaskus  
Indian Angel Network  
BVC Ventures  
Chivas Ventures  
Atlantica Ventures  
Consonance Investment Managers

## Extent of investment/donor amount received by innovations

In Table 18, we present a closer look at sources of funding, revenues, legal entities as well as latest impact numbers of 17 prominent examples of innovations across gamechanger categories and government-led innovations. We have chosen one to two prominent innovations per category based on their revenue models and impact number, i.e. number of justice problems prevented or resolved.

The table shows that many of these prominent innovations do not have uniform impact numbers. Some do not measure them or share the data altogether.

The data in this table show how the impact numbers are low compared to the number of justice problems in the jurisdiction. The indications of funding suggest small scale operations, without a capability to attract large scale investments. One exception in the table is LegalZoom, which has a yearly revenue of \$200 million and is valued at 7.5 billion dollars, indicating a huge potential for a justice tech company with a sound revenue model and a well defined target group that can be served across jurisdictions (the US states).

The variations across revenue numbers/ amount invested is also significant. In the case of government-led innovations, we could not find the data for these parameters. For privately led innovations, the amounts were more easily available. Barring the innovations from high income countries such as LegalZoom and JustiFix.nyc, we don't see innovations making high revenues or attracting large investments. Donor funding remains their primary source of support.

Most private innovations operate with a non-profit structure. We see successful innovations such as Haqdarshak operating on a hybrid model, which opens up the possibility of working with both private investors and donors. This allows them the flexibility to attract a diversified source of funding, including partnerships with government agencies as and when required.

The three most impressive innovations (in terms of number of users) are Haqdarshak, Barefoot Law and Legal Zoom:

- Haqdarshak, a claiming platform in India provides access to public services and continues to operate as a public-private, online-offline hybrid model.
- Barefoot Law, a community justice service from Uganda trains paralegals who travel door-to-door to provide legal information and has become a non-profit organisation supported by donor-funding.
- Legal Zoom, a document automation platform from the USA, has been successful in getting investors and public-funding. The innovation, however, has narrowed its focus to providing legal services to small and medium size businesses, as this ensures a sustainable business model.

**Table 18: Overview of prominent innovations across revenue models and impact numbers**

Innovation	Gamechanger/ Government-led justice innovations category	Legal entity	Source	Revenues/Amount invested	Impact numbers
<b>Barefootlaw, Uganda</b>	Community Justice Services	Non profit	 <b>Donor funding</b>	€225,320 (in 2020)	<ul style="list-style-type: none"> <li>People served: 813406</li> <li>Proportion of Female users: 40%</li> <li>Number of legal problems resolved: 22791</li> </ul>
<b>Blockchain Registry, Ghana</b>	Registration System	Government-led innovation	 <b>Taxpayers</b>	Data not available	Data not available
<b>Haqdarshak, India</b>	Claiming Services	Hybrid model: Non profit and private limited company	 <b>Donor funding</b>  <b>Impact Investing</b>	€546,202 (in 2021)	<ul style="list-style-type: none"> <li>1051295 Citizens Impacted</li> <li>10921 Haqdarshaks Trained</li> <li>772,567 Application Support Services Delivered</li> <li>633,492 Successful Conversion of Applications to Benefits</li> </ul>
<b>Ushahidi, Kenya</b>	Prevention Programmes	Non profit	 <b>Donor funding</b>	€1,432,864 (in 2020)	25 million people reached in critical situations
<b>Remote Trials, Morocco</b>	Virtual Trials	Government-led innovation	 <b>Taxpayers</b>	Data not available	<ul style="list-style-type: none"> <li>4400 remote trials conducted in Morocco from April 27 to July 24, 2020</li> <li>87893 detainees benefited from the trials</li> </ul>
<b>LegalZoom, USA</b>	User-friendly Contracts	For Profit	 <b>Grow from revenue</b>  <b>Public funding</b>	\$200mn (revenue), Total Funding \$811 mn (2018). Went public in 2021 and listed on NASDAQ.	3.5million Estate Planning documents provided 2 million+ businesses helped
<b>JustFix.nyc, USA</b>	Claiming Platform	Non profit	 <b>Donor funding</b>  <b>Grow from revenue</b>	€500,000 (in 2021)	220,000 users
<b>Utatuzi Center, Kenya</b>	One-Stop-Shop Dispute Resolution	Non profit	 <b>Donor funding</b>  <b>Grow from revenue</b>	€3,955 (in 2021)	552 people/SMEs resolved their justice problems

<b><u>Internet Courts, China</u></b>	Court Digitisation	Government-led Innovation	 <b>Taxpayers</b>	Data not available	Average of over 40,000 cases per year
<b><u>Bataka Court Model, Uganda</u></b>	Community Justice Services	Non Profit	 <b>Donor funding</b>	€142,857 (in 2021)	6093 disputes resolved
<b><u>Sheria Kiganjani, Kenya</u></b>	Legal Information and Services	Non Profit	 <b>Donor funding</b>	€13,000 (in 2020)	494 people/SMEs resolved their problems 4212 disputes prevented
<b><u>Victoria Legal Aid, Australia</u></b>	e-Kiosk	Government-led Innovation	 <b>Taxpayers</b>	Data not available	Reached out to 123,153 people by phone, chat and in person.
<b><u>Yunga, Uganda</u></b>	Prevention Programmes	Company (for profit)	 <b>Donor funding</b>  <b>Grow from revenue</b>	€3,930 (in 2021)	500,000 People Reached 2500 Lives Protected 40 Crimes Prevented
<b><u>Mental Health Courts, USA</u></b>	Problem Solving Courts	Government-led Innovation	 <b>Taxpayers</b>	Data not available	Data not available
<b><u>SAMA, India</u></b>	One-Stop-Shop Dispute Resolution	Company (for profit)	 <b>Donor funding</b>  <b>Grow from revenue</b>	Data not available	Cities covered 85+ Case Managers 1500+ Languages 21+ Cases Resolved 60,000+ (Category Civil Cases- 68%, Criminal Cases-32%) Cases Handled 1,60,000+ Mediators/Arbitrators 2000+, Total Settlement Amount 250 million dollars
<b><u>Creative Contracts, South Africa</u></b>	User-friendly Contracts	For Profit company	 <b>Donor funding</b>  <b>Grow from revenue</b>	Data not available	17,000 users
<b><u>Consumidor, Brazil</u></b>	One-Stop-Shop Dispute Resolution	Government-led Innovation	 <b>Taxpayers</b>	Data not available	548 registered companies nearly 2 million complaints resolved 99.3% of the complaints were answered.

## Barriers to financing innovation and solutions

Funding remains a significant challenge for innovations, across public and private sectors. Here we analyse some of the key findings on financing from interviews with innovators as well as from the literature review.

**Delivering justice is mostly a matter of resources:** Knowledge, human resources and money are needed more than ever before for the justice sector. The donor base in the justice sector is limited. New options for funding delivery and investments are needed, while increasing the available resources for lower-cost models to respond to unmet justice needs at scale.<sup>63</sup>

As a private limited company, working in the development sector in India is a challenge for fundraising for Haqdarshak. Finding capital for building a solution is difficult. Funds are available for service delivery but different funding partners require different funding structures. For example, in India, the recent compliance charges for leveraging CSR funds don't permit private limited companies to directly engage with corporates unless there is also a non profit partner in the mix.

**Reluctance to fund the justice sector:** Donor support for justice systems is low in most countries and has fallen by 40% globally between 2014 and 2017.<sup>64</sup> Provision for the justice sector in national budgets remains low.<sup>65</sup> Private innovations such as LegalZoom, which came out with an IPO recently,<sup>66</sup> showed how the innovation changed the course of its work from people-centred justice to servicing mainly corporations with their legal need to stay profitable.

**Multiple agencies compete for limited resources:** Like the task of delivering justice, the budget for justice is divided among many agencies. Police, prisons, prosecution, courts, legal aid lawyers and all other justice services compete for a slice of this budget. Uganda, for instance, has a \$520 million justice, law and order budget for a population of 43 million, that has to be divided between 16 Justice Law and Order Sector institutions.<sup>67</sup> Justice sector development plans of other low and middle-income countries often have similar allocations. Increased budgets are not always correlated with higher performance.

**Difficult to get different stakeholders on one table:** Delivery models that succeed are likely to be a combination of private, public, hybrid and volunteer services. An effective justice budget requires involvement from various stakeholders. However, little effort has been put in bringing these stakeholders to one table. Driving a common consensus isn't very easy either.

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<sup>63</sup> HiiL, (2020). Charging for Justice Report. Last accessed on 08.09.2021.

<sup>64</sup> Manuel, M. and Manuel, C. (2018). Achieving equal access to justice for all by 2030: Lessons from global funds, Overseas Development Institute.

<sup>65</sup> European Union for the Efficiency of Justice (2020). European judicial systems CEPEJ evaluation report. Last accessed on 08.09.2021.

<sup>66</sup> Linnance, C. (2021). Legal Zoom IPO at \$28 a share, above proposed price range of \$24 to \$27. MarketWatch. Last accessed on 08.09.2021.

<sup>67</sup> As cited in HiiL, (2020). Charging for Justice Report. Last accessed on 08.09.2021.

**Ad hoc impact measurement dissuades big investors:** Irregular and unstandardised measuring and evaluating of impact dissuades impact investors who are interested in investing in innovations. Government and international donors are unlikely to provide extra funding for the justice sector unless the financial models are sustainable, and services become more efficient in delivering outcomes for neighbours and others needing justice.

Attention to one problem and one solution is essential to scale. Innovations have to be focused with precision and be solution driven. The problem a service solves should be a mandatory pain point for the end user. Sometimes other initiatives from the same space failing also become a barrier to financing similar solutions.<sup>68</sup>

**Lack of coordination prevents scale:** In case of government-led innovations, a lack of mechanisms to communicate, coordinate, and share resources – including a common technology platform – across different wings of government makes it difficult to align justice services.<sup>69</sup> This impacts the scale at which services can be provided.

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<sup>68</sup> Interview with Aditya Shivkumar, 19.08.2021.

<sup>69</sup> Interview with Dmitry Foremnyi, 07.06.2021

# Chapter 5.

## Main Findings & Implications



Data was collected from a large spectrum of justice innovations across geographies for this research. We selected 150 innovations from 68 countries across private and public sectors to develop a comparative overview of public and private sector justice innovations. We analysed them across 15 parameters to understand the potential of innovations to prevent and resolve the most pressing justice problems. We looked at the digital technologies used by the innovations, zooming-in on the risks as well as barriers of use of technology in formal and informal systems. Patterns to financing innovations and the barriers to financing were also observed. In order to collect data, we looked at publicly available information about the 150 innovations, we conducted interviews with innovators and reviewed relevant secondary literature.

Our research design had limitations. Most data was obtained through information provided on the websites of the innovations and secondary sources. In some instances, the data was not updated or the information was not available. In such cases, we tried to fill gaps with targeted interviews. The answers to research questions on barriers and challenges faced by innovations have been derived from a small number of interviews.

With this said, we present the following findings and possible implications for policymakers and funders of the innovations we studied.

## **1. Trends from the selection process: few innovations scale**

We reached out to a group of experts to select the innovations for this report. As we explained in the methodology section, we used different ways to arrive at a list of 150 innovations. During the selection process, we found that few innovations scale to serve the entire target group or across jurisdictions. More specifically:

We asked the experts to suggest justice innovations from either the public or the private sector and from their own countries. Oftentimes, however, the experts suggested innovations generally recognised and profiled internationally. In some low and lower-middle income countries, experts tended to criticise the justice systems especially the delays, corruption and inefficiencies, rather than suggest effective solutions. We also observed that many experts struggled with the concept of ‘justice innovation’ and failed to provide clear examples that fit the scope of our research.

We received many examples of legal information and advice portals. Our research suggests these do not have scalable models that are financially sustainable, unless they provide follow up services. Many times these websites explain and refer to existing legal information and simplify systemic concepts which are difficult to navigate but do not really provide solutions (Chapter 1).

A number of justice innovations were mentioned several times by different experts. These were Do Not Pay, Kleros, Barefoot Law, Justfix.nyc, Civil Resolution Tribunal, to name the most frequently repeated innovations. This suggests that a small number of interesting innovations are taking place in the ecosystem but also points to a dearth of more proven cases.

It was difficult for us to gather examples of preventative services as defined under the scope of this research. Overall, we struggled to find scaled-up examples of people-centred justice innovations. In the case of low and lower-middle income countries, examples that use technology were difficult to discover.

## 2. Country income level impacts justice services

The selection process also revealed that country income level impacts the type of justice services. We found more examples of community justice services across low and lower middle income countries. Electronic case management systems are more prevalent across countries of all income levels (Chapter 2). Virtual trials and court digitisation initiatives are found across countries regardless of the income level (Chapter 2).

## 3. Public and private services complement each other

The public sector is investing mostly in court digitisation projects, virtual trials and case management systems (Chapter 2). Private sector innovations, on the other hand, tend to have clearer market propositions: focusing on specific target audiences and revenue models. Startups gravitate towards offering services such as user-friendly contracts and claiming platforms. Such innovations find it easier to attract investor funding (eg: Haqdarshak in India) or being bought by a competitor (eg: Avodocs/Axdraft in Ukraine).

In some areas we see that private and public initiatives compete, perhaps presenting interesting opportunities for public-private partnerships. Examples of these are One-stop-shop dispute resolution mechanisms, Online legal information/advice and surveillance and forecasting tools.

## 4. People-centred justice needs current tech first

The major target groups of innovations include the general public, governments, law firms and corporations/SMEs. Fewer innovations aim at directly serving the justice needs of specific target groups of individuals. This finding is in conformity with expert opinions expressing that there is a need for access to justice tech instead of more legal tech<sup>70</sup> (Chapter 3).

The tools and technologies used by the innovations are mostly websites, social media, chatbots, telephone, video and other commonly used technologies (Chapter 2). Artificial intelligence and advanced technologies such as blockchain are used by a few. This suggests the same tools and platforms that are used for any other sector should be made available for justice services first. Efforts are now needed to make them work at quality and scale in solving the most pressing justice problems.

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<sup>70</sup> HiiL, (2020). Charging for Justice Report. Last accessed on 08.09.2021.

## 5. Virtual trials have worked, gamechangers have a long way to go

Since the pandemic, judicial branches of governments have initiated the use of digital tools, mostly videoconferencing to support so called virtual trials.<sup>71</sup> Administrators and court functionaries remain primary users of technology introduced in the justice system (Chapter 2).

In high income countries, we find new initiatives remain at the pilot stage (Chapter 1). In upper middle income countries such as China and Brazil, experts are impressed by a push by the governments to scale internet courts. Large scale implementation efforts of justice services such as the Consumidor in Brazil, UYAP in Turkey or blockchain-enabled land registration systems in Georgia are noteworthy (Chapter 2). Online courts and online dispute resolution (ODR) systems recommended by experts have not yet scaled (beyond a few prominent exceptions such as the CRT in British Columbia).

When investigating prominent innovations, we found low impact numbers compared to the number of justice problems in the jurisdiction (Chapter 4). The indications of funding suggest small scale operations, without a capability to attract large scale investments.

In low and lower middle income countries, legislative and regulatory changes are seen to aid judicial digitisation efforts (Chapter 1). E-Kiosks, registration systems, one-stop-shop dispute resolution as well as surveillance and forecasting tools use more sophisticated technology such as blockchain, artificial intelligence and machine learning technologies. Technology such as telephone helpline, SMS (IVR systems) and WhatsApp messaging have shown more use and reach across low income countries (Chapter 2).

## 6. Risks are known and are being managed, new vulnerabilities need to be addressed

Through literature reviews and interviews with innovators and experts, we found that risks of digital exclusion or data privacy are known by different stakeholders, including innovators and public functionaries of justice (Chapter 3).

Steps are being taken to prevent data misuse and to make justice services more inclusive. Encryption systems, firewalls and cloud technology can help ensure more protection for users of the justice services but they are not sufficient. Understanding the needs and practices around data privacy and protection for justice innovations requires more effort and research.

Use of digital tools in many countries is similar and they are utilised for similar justice problems (Chapter 3). Innovations face the same risks of data privacy. There is a need to make the implementation of digital tools in justice delivery safe. International cooperation in sharing best practices of policy interventions can be a way forward.

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<sup>71</sup> As per the data collected from [Remote Courts Worldwide](#). Last accessed on 08.09.2021.

Low and middle income countries tend to adopt sophisticated technology without strong regulatory mechanisms (Chapter 3). Is this because users in low and lower-middle income countries prefer taking those risks than to be excluded from technology adoption? Or do risks outweigh the benefits and does this need further attention? More research is needed on this.

## **7. Privately led people-centred justice services do not tend to reach scale and depend on donor funding**

Private innovators find it difficult to navigate through the complex and traditional justice systems. Developing a business-model that works is a big challenge. Reliance on donor-funding is prevalent with USAID and the European Union serving as major donors in this space. Impact investing, equity-based funding and loans are less widely adopted. (Chapter 4)

## **8. Standard measuring and evaluation matrices have to be developed**

The justice sector lacks standard criteria for measuring prevention and resolution of impact. Impact data remains scattered and haphazard, making the analysis difficult. Different initiatives follow their own standards and frequency in measuring outcomes. Impact data for only a few innovations is publicly available. Government data is often kept behind closed doors. For people-centred justice to scale, measuring and evaluating outcomes need to be prioritised.

Some government-led justice innovations have more robust impact matrices. Examples are E-Sud from Uzbekistan, Haqdarshak from India, Ushahidi from Kenya, Consumidor from Brazil, e-Registration system from Georgia, and UJYP from Turkey. (Chapter 4). These innovations are frequently supported by the donors and investors, suggesting a preference for sound impact measurement at the side of funders.

## **9. Justice innovation should focus on scale rather than high tech solutions**

Justice innovations are making efforts. We see a potential for them to address most pressing justice problems. But these efforts remain in silos. The movement has to be much faster and the scale needs to be at least a hundred times. We need scalable revenue models and funding structures with economies of scale across jurisdictions. The relevant technologies are already available. Stakeholders such as government agencies, investors and donors should focus on justice services that bring clear impact, those that have high resolution and prevention of disputes.

# Annex I: Highlighted Innovations

This annexure highlights some of the prominent innovations included in this research. The selection was made on the basis of the impact numbers and the potential of the innovation. We have chosen examples across different geographical regions with a mix of gamechangers and government-led justice innovations.

## Highlighted Innovation 1: Consumidor

**Country:** Brazil

**Gamechanger Category/Type of Innovation:** One-Stop-Shop Dispute Resolution

**Justice Problems Addressed:** Consumer issues

**Technology Used:** Do-it-yourself Online Tools for Self-Represented Litigants

**Impact Numbers:** The platform has 548 companies registered and has resolved nearly 2 million complaints. The percentage of complaints resolved was 81% (2018). Consumers graded the platform 3.3 on a scale between one to five and 99.3% of the complaints were answered.

**Relationship with the Government and Scope:** Part of the government

**Description:** Consumidor is an One-Stop-Shop Dispute Resolution platform established by the government of Brazil in 2014 to resolve consumer disputes. The platform is subsidised by the government, which acts as an incentive for suppliers to use the platform.

**More information about this innovation is available [here](#).**



## Highlighted Innovation 2: Virtual Justice Access Center

**Country:** Argentina

**Gamechanger Category/Type of Innovation:** e-Kiosk

**Justice Problems Addressed:** Criminal, Civil and Administrative Cases

**Technology Used:** Webportal/ Social Media

**Impact Numbers:** 1.5 million consultations by more than 40,000 people who came to the center between 2015-2020

**Relationship with the Government:** Part of the government

**Description:** The Access to Justice Centers in Argentina are a nation-wide network of justice services that have been evolving, growing, and innovating for more than a decade. They have proven to be sustainable, effective, and empowering policy in a middle-income country.

**More information about this innovation is available [here](#).**



Photo: Mariano Alonso | [Putting People at the Center, A case study on access to justice centers in Argentina](#)

### Highlighted Innovation 3: UYAP

**Country:** Turkey

**Gamechanger Category/Type of Innovation:** Court Digitisation

**Justice Problems Addressed:** Consumer issues

**Technology Used:** IVR Technology (bulk SMS), Electronic case management, Webportal/ Social Media

**Impact Numbers:** UYAP currently has 34,250 users and 24,714,923 files stored. Nearly 50,000 new files are being entered into the system daily.

**Relationship with the Government and Scope:** Part of the government

**Description:** UYAP is an ejustice platform developed in order to ensure a fast, reliable and accurate judicial system in Turkey. As a central information system it covers all the judicial institutions and other governmental departments, which have been equipped with computers and given access to all legislation, jurisprudence and judicial records. All judiciary processes and transactions are now transmitted into an electronic environment

**More information about this innovation is available [here](#).**



### Highlighted Innovation 4: Internet Courts

**Country:** China

**Gamechanger Category/Type of Innovation:** Court Digitisation

**Justice Problems Addressed:** Civil issues

**Technology Used:** Artificial intelligence, Blockchain

**Impact Numbers:** Average of over 40,000 cases per year

**Relationship with the Government and Scope:** Part of the Government

**Description:** China's Internet Court facilitates the entire trial - from filing to adjudication virtually. Court hearings are open to the public via livestream - as this model has brought judicial openness and public participation.

**More information about this innovation is available [here](#).**



## Highlighted Innovation 5: Sisbot, Thailand

**Country:** Thailand

**Gamechanger Category/Type of Innovation:** Online Legal Information and Advice with Follow-up Services

**Justice Problems Addressed:** Gender-based Violence

**Technology Used:** Artificial Intelligence and Machine Learning, Web Portal, Chatbot, Social Media

**Impact Numbers:** Not available

**Relationship with the Government and Scope:** Funded by Government in partnership with International Development Agencies

**Description:** The Sis Bot is a chat bot that provides 24/7 information services for survivors of violence, accessible through their mobile device or a computer. A woman facing domestic violence can message the Sis Bot via Facebook Messenger and it will immediately respond with information about how to report to the police, how to preserve evidence, and what support services or compensation they are entitled to by law.

**More information about this innovation is available [here](#).**

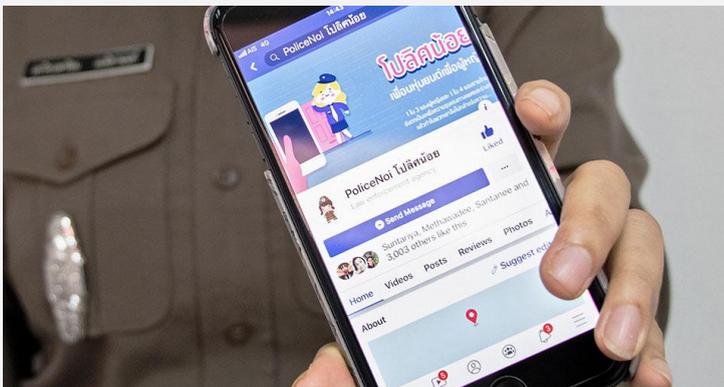


Photo: UN Women/Montira Narkvichien

## Highlighted Innovation 6: e-Sewa Kendra

**Country:** India

**Gamechanger Category/Type of Innovation:** Court Digitisation

**Justice Problems Addressed:** Civil, Criminal

**Technology Used:** Electronic case management, Webportal/Social Media

**Impact Numbers:** Records more than 1 million hits (2018)

**Relationship with the Government and Scope:** Part of the Government

**Description:** e-Seva Kendras (Centers) enable litigants to obtain information with respect to their case status and obtain copies of judgement and orders. These centers also extend the services of e-filing of cases. These centers are plotted to be set up across all districts of India in partnership between the State and the Central government.

**More information about this innovation is available [here](#).**



Photo: ecommitteesci.gov.in

## Highlighted Innovation 7: Bataka Court Model

**Country:** Uganda

**Gamechanger Category/Type of Innovation:** Community Justice Services

**Justice Problems Addressed:** Land, family, neighbour, children, domestic violence, money

**Technology Used:** No Tech

**Impact Numbers:** Over 4000 disputes resolved across 4 districts

**Relationship with the Government and Scope:** Funded by the government

**Description:** “Bataka Courts” literally means Ordinary Citizens Courts. Bataka Courts act as Community Justice Inception Centres and the first line of intervention for provision of justice to the ordinary citizens and by the ordinary citizens themselves. The Courts operate under a panel of elders selected by the community members to facilitate the dispensing of justice and resolving conflicts.

**More information about this innovation is available [here](#).**



### Highlighted Innovation 8: Mental Health Courts

**Country:** United States

**Gamechanger Category/Type of Innovation:** Problem-Solving Courts

**Justice Problems Addressed:** Crime

**Technology Used:** Electronic Case Management

**Target Population:** People with special needs

**Impact Numbers:** Not available

**Relationship with the Government and Scope:** Government as the provider of the service

**Description:** Mental Health Courts are intended to address the needs of people with mental health illness in the criminal justice system. Most of the Mental Health Courts share a number of characteristics: a specialised court docket, community-based treatment plans supervised by the judge and validated by mental health professionals, regular checks on follow-ups of the treatment plans, criteria defining participant’s completion of the programme.

**More information about this innovation is available [here](#).**



## Highlighted Innovation 9: Haqdarshak

**Country:** India

**Gamechanger Category/Type of Innovation:** Claiming Platform

**Justice Problems Addressed:** Public Services, Obtaining ID Documents

**Technology Used:** Artificial Intelligence and Machine Learning, Webportal/Social Media, Hardware Solution

**Target Population:** Marginalised communities, Women, Migrants/Refugees, Farmers, People with special needs, Urban and Rural populations

**Impact Numbers:** 10,51,295 citizens impacted; 10,921 Haqdarshak trained (as of Q2, 2021)

**Relationship with the Government and Scope:** Government as a donor and as a client

**Description:** Haqdarshak provides government welfare delivery-schemes to the people at the last mile. The organisation does this by leveraging technology (a friendly artificial intelligence-powered software with a large repository of welfare schemes) by a trained Haqdarshak (woman support agent) that provides door to door assistance across rural and urban areas of India to bridge the information gap.

**More information about this innovation is available [here](#).**



## Highlighted Innovation 10: Comic (Creative) Contracts

**Country:** South Africa

**Gamechanger Category/Type of Innovation:** User-friendly Contracts

**Justice Problems Addressed:** Employment, Social Welfare, Public Services

**Technology Used:** No Tech

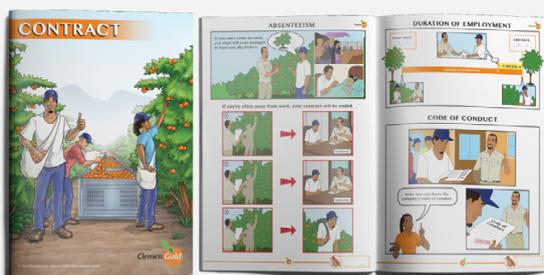
**Target Groups:** Farmers, Corporations/SMEs, Government, Lawyers/Lawfirms: Both Urban and Rural Populations

**Impact Numbers:** Reached 17000 users

**Relationship with the Government and Scope:** Government as donor, client and sometimes as partner for projects

**Description:** Comic Contracts are contracts written in pictures. They are legally binding documents in which parties sign the comic as their contract.

**More information about this innovation is available [here](#).**



## Highlighted Innovation 11: BenBen, Blockchain Registry

**Country:** Ghana

**Gamechanger Category/Type of Innovation:** Registration Systems

**Justice Problems Addressed:** Land

**Technology Used:** Blockchain

**Target Groups:** General Population

**Impact Numbers:** Deployment of blockchain-enabled land registries in Ghana has the potential to free trillions of dollars of taxpayers money.

**Relationship with the Government and Scope:** Part of the government

**Description:** A Memorandum of Understanding was signed between the Ministry of Lands and Natural Resources of the Ghanaian Government and IBM to adopt blockchain-based land registration system. Little has been seen to support the implementation of this programme and further results have not been published.

**More information about this innovation is available [here](#).**



## Highlighted Innovation 12: Predictive Policing, NYPD

**Country:** USA

**Gamechanger Category/Type of Innovation:** Surveillance and forecasting tools

**Justice Problems Addressed:** Crime

**Technology Used:** Artificial Intelligence

**Target Groups:** Police Departments

**Impact Numbers:** Not available

**Relationship with the Government and Scope:** Part of the government

**Description:** Predictive Policing uses computer systems to analyse large sets of data, including historical crime data to predict trends, make decisions on resource-allocation as well as devise other preventative strategies to predict and curb crime. NYPD created predictive algorithms for several crime categories, including shootings, burglaries, felony assaults, grand larcenies. The algorithms are used to deploy police officers to monitor specific areas.

**More information about this innovation is available [here](#).**



## ABOUT HiiL

HiiL (The Hague Institute for Innovation of Law) is a social enterprise devoted to user-friendly justice. That means justice that is easy to access, easy to understand, and effective. We will ensure that by 2030, 150 million people will be able to prevent or resolve their most pressing justice problems. We do this by stimulating innovation and scaling what works best. We are friendly rebels focused on concrete improvements in the lives of people. Data and evidence are central in all that we do. HiiL is an equal opportunity, international employer. We are based in The Hague, City of Peace and Justice.



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