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# E-Procurement Lessons from Georgia, Ukraine, and Moldova

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## Summary

Corruption is one of the major challenges for post-Soviet countries such as Georgia, Moldova, and Ukraine. While attempting to build democracy and a free-market economy, they had no experience in transparent governance through the rule of law. Until recently, state procurement was one of the biggest problem areas for them as it was one of the most corrupt areas in governance. Due to a lack of transparent procedures, the state would procure goods and services at much higher prices than those of the market. As a result, over the last three decades these states wasted huge financial resources through procurement— millions of euros in the case of Moldova and Georgia, and billions of euros in the case of Ukraine.

However, states in transition can also become a source of inspiration when they are able to put in place quick and effective reforms, especially if those are empowered by the digital technology. This paper looks at how Georgia, Moldova, and Ukraine have worked to build transparent procedures in state procurement with the help of digital tools. Their e-procurement reforms saved these states millions of euros within a few months. They have also boosted overall business competitiveness, resulting in a better quality of goods and services for citizens. There is no “one size fits all” reform and reform is never an easy process. Nevertheless, having a strong digital component in reforms offers a shortcut by bringing transparency and scrutiny over the process. Moreover, the experience of these three countries shows that that

the e-component serves as a stabilizing element where there is weak rule of law and a constantly changing political landscape.

Even though political will remains a key component behind reforms, the digitalization of the procedures of state procurement makes it easier for different stakeholders to monitor the process and to intervene in case of misconduct by one of them or due to corrupt activity of an official. Consequently, illegal conduct becomes less frequent while the interest of the business community to participate in such tenders increases due to fair play and open competition.

What was not obvious at the planning stage of the reform process was the spillover that digitalization would have into other sectors and areas. To the surprise of many, state e-procurement has triggered the introduction of digitalization into other sectors, such as banking and healthcare, which are also areas full of corrupt practices. It has also led to experimenting with new technologies such as big data and artificial intelligence to detect potential risks of corrupt practice.

However, the main achievement of state e-procurement reforms in Georgia, Moldova, and Ukraine was to break up corrupt practices. It demonstrated to different stakeholders that it is possible to have a well-functioning transparent process that is almost free of corruption. Setting the question of political will aside, on a technical level this success was possible mainly due to transparency brought by the use of digital tools.

## Introduction

Corruption is a major problem in the Eastern Partnership (EaP) countries. For example, in Moldova it reportedly costs its citizens \$183 million each year.<sup>1</sup> In Ukraine, this sum annually amounts \$8.6 billion.<sup>2</sup> Fighting corruption is aggravated by the remnants of the post-Soviet institutional architecture and by a culture of low social responsibility. Therefore, any major reform is met by strong opposition and mistrust.

Democratic transformation in the EaP countries is a nonlinear process. Nevertheless, the era of digitalization offers new opportunities. When expertise in IT combines with a determined civil society, one small change can produce a tremendous impact on the reform process. Therefore, this paper focuses on one of the opportunities that e-governance can bring to strengthen democratization.

Electronic public procurement (e-procurement) is one of the positive developments in anti-corruption efforts. According to one analysis, the introduction of an e-procurement system could save at least 10 percent of the state's procurement budget due to higher efficiency and transparency.<sup>3</sup> Georgia, Ukraine and Moldova have achieved remarkable success with their e-procurement in a relatively short time. Georgia generated savings of more than GEL 1 billion (around €300 million) from 2011 to 2016.<sup>4</sup> Moldova's MTender program helped to save €25 million in the first year after it was launched in late 2018.<sup>5</sup> Ukraine's ProZorro saved nearly \$3 billion for the state budget in four years.<sup>6</sup> This shows that a well-designed e-pro-

curement instrument that ensures transparency and accountability in the decision-making process can be an effective remedy for corruption. With digitalization, a quantum leap in the reform process is possible.

In order to better understand the processes each of these three countries went through in establishing e-procurement, the following elements are analyzed in this paper:

- The political context within which the reform was made (whether the government was favorable to the reform process or not).
- The role of civil society.
- The role of the business community.
- The role of the international community.
- The innovative components put in place while developing e-procurement.
- The obstacles and mistakes during the implementation of e-procurement.

Organizing effective e-procurement has several positive aspects. If properly implemented, it would increase the level of competition among businesses, which is always stimulated by fair play. More competitive tendering would trigger innovation in the private sector and would eventually result in lower prices. Consequently, the state would save public money that could be invested in other areas. The citizens would get a better quality of goods, services, or work.

As in every other policy area, the key to successful reform is in implementation. As demonstrated in the next sections, Georgia, Ukraine, and Moldova shared a philosophy and principles for building an efficient state e-procurement system. At the same time, each state had its unique path in implementation due to the unpredictable spillover of digital tools into other areas.

## Georgia: A Brave Pioneer

The reform to introduce e-procurement in Georgia was conducted under President Mikheil Saakashvili in the 2000s. The process was strongly top-down and there was a strong political will to make the country more transparent and open. Saakashvili's first term in office was an outstanding success in introducing major reforms. He introduced a free-market and open-com-

1 OECD, [MTender digital procurement system – Moldova](#), 12 April, 2019.

2 Oleksiy Hamaniuk and others, How much does the budget lose due to the lack of good governance?, Center for Economic Studies, 05 December, 2018.

3 Tato Urjumelashvili, David Marghania, [Open Contracting in Ukraine: a collaborative effort for procurement reform](#), Open Contracting Partnership, 2 June, 2015.

4 IDFI, Implementation Assessment of the Georgian Public Procurement Legislation, 15 May, 2017.

5 Olga Rosca, [EBRD-backed e-procurement tool MTender saves Moldova €25 million](#), EBRD, 5 December, 2019.

6 Kyiv Post, "E-procurement system ProZorro saves \$2.76 billion for Ukraine's budget", 23 February, 2019.

petition policy, and he reduced red tape. This led to impressive economic growth, especially given that a significant amount of government spending went into defense, against the background that 20 percent of Georgian territory is occupied by Russia.

By 2008, the reformist government had introduced a zero-tolerance policy toward corruption. Corrupting any official would lead to immediate criminal prosecution. Under the newly reformed system, the area in which officials were often imprisoned was public procurement. Consequently, the question that arose was which procedural element incentivized corrupt practices.

Georgian experts were tasked to find a quick and effective solution to the issue. The technical problem was immediately identified—the budgets allocated by state entities to procure specific products or services were not disclosed. The unknown price that the state was willing to pay was incentivizing corruption. The problem was aggravated by the fact that all the documentation was on paper and not in electronic form.

***The reformers understood that for the reform process to be successful, the legislation should address the interests of every stakeholder group.***

Suppliers did not know the price that the state entity would like to pay, the procedure was not clear, and there was no real understanding of who was behind the process and who were the competitors. The easiest way for suppliers to obtain this information was to bribe officials. Given that the salaries of state officials were still relatively low, bribes were welcomed by some.

This small corrupt practice had a big impact. The fact that only a few companies had access to this information resulted in two major problems. First, there was no competition among suppliers and consequently no incentive for them to modernize or innovate. Second, much higher prices for contracts resulted in higher state spending. If the state could have saved

this money, it could have been spent on such benefits as better education or healthcare.

### Steps

Georgia's public-procurement reform introduced the practice of the reverse auction, which was conducted on the e-platform, a specifically designed website on a state server. Bidders competed for contracts by participating in a three-round online process in which with every round they decreased the price of their offer. Every step of the procurement procedure was put online and therefore it could be monitored as well as scrutinized by stakeholders. Additionally, a unique mathematic formula was developed by scientists to help make this process impartial. In just in five years from 2011 this reverse-auction process saved GEL 1 billion (around €300 million).<sup>7</sup>

The reformers understood that for the reform process to be successful, the legislation should address the interests of every stakeholder group. If any one of them was not involved, it would start sabotaging the process. There were five main groups of stakeholders involved in procurement whose (sometimes conflicting) interests needed to be considered:

- State officials, who, in an ideal scenario, should be interested in procuring goods and services at the lowest price and saving money for the state.
- Businesses, which want to sell their services to the state at the highest price possible, but are also interested in a level playing field.
- Law-enforcement agencies, which should punish any illicit behavior.
- Civil society organizations, which are crucial as watchdogs of the public good and also represent other interests such as a green economy, public wellbeing, the rule of law, and the sustainability of the state system as a whole.
- Citizens, who are the end users of the products and service procured and for the benefit of whom the whole process is organized.

<sup>7</sup> IDFI, [Implementation Assessment of the Georgian Public Procurement Legislation](#), 2018

Georgia's solution to involve everyone was to open up the system online and make the full process transparent via an online platform that would be easily accessed by anyone. Bringing together the interests of those different groups under one e-procurement umbrella, through a website instead of a burdensome paperwork, was one of the biggest challenges. This was done by building trust and by bringing all stakeholders into the process. On a technical level, the e-procurement procedure had to be accessible and user-friendly for each group.

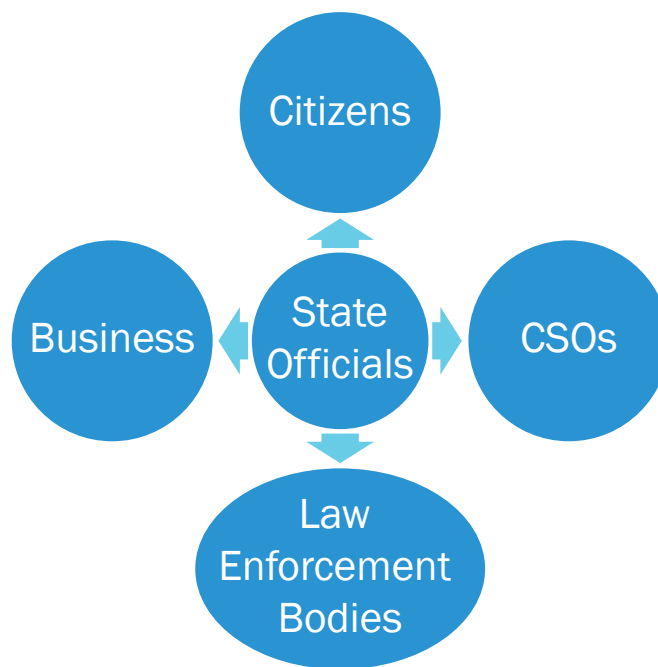
In order to ensure the involvement of every group of stakeholders, cooperation was built on the principle that "everyone sees everything." Every document related to procurement and every step of the process was seen and could be monitored and analyzed by every stakeholder. This was an important innovation that led to greater scrutiny.

The next step was to entrench this vision in law. The experts prepared the necessary legislation, which covered even very small but eventually important changes. The idea behind the legislation was to simplify e-procurement as much as possible and to introduce the least number of public-procurement procedures as possible, which eventually were limited to three: open tender–default procedure, direct contracts, and contests for architectural solutions. The following changes to the law were introduced in 2010:

- Mandatory disclosure of the price of procured products, services, and works.
- The official e-procurement website publishes everything online so the procedure is open and transparent.
- The e-procurement procedure is mandatory for all state entities so everything bought with public money has to be officially announced online.

Disclosing the information meant its corruption value disappeared: when all the information is online and easily accessible, an official has no restricted information to "sell" and businesses have no incentive to corrupt any official. And there is a level playing field for every participant in the process.

**Figure 1. Georgia's State-Centred Model**



Another rule introduced was that all information uploaded to the e-procurement website stays there permanently. This helped to destroy a well-established post-Soviet practice in which official documents and even laws could be changed overnight due to a political decision or pressure by big businesses. As the result of this technical solution that blocks any change to the system, no one can manipulate the documents related to an ongoing tender and thereby potentially disqualify other participants or advance their own cause. Thus, the information that is online can be cross-checked and cross-referenced in future by either civil society or law-enforcement bodies.

The other challenge was how to protect the e-procurement system from the weak rule-of-law system. To add an element of scrutiny, the reformers introduced self-regulation by the participants in a tender. Contrary to when decision-making was made behind closed doors, the new process allows participants in a tender procedure to scrutinize it. This kind of monitoring is a new component in post-communist society and in Georgia it has proven to be effective.

Those who were used to the old corrupt system immediately came up with ways to try to circumvent e-procurement when it was introduced. For example, tenders were written for a specific company so other companies could not comply with every requirement. Another example was that several stronger companies would collude to create an environment that would lead to one of them winning. Small and medium enterprises with less experience in e-procurement would be left aside. The solution to this problem was that any of the stakeholders could block the process by clicking a button if they saw a suspicious activity. This would lead to an automatic freezing of the tender procedure for 10 days before a final decision could be made.<sup>8</sup>

### ***The transparency in e-procurement has also produced unexpected results.***

Another innovative component was introduced in the form of a committee that was tasked with examining complaints of alleged irregularity or procedural misconduct during the e-tendering. It is composed of six members, half nominated by civil society and whom the State Procurement Agency has no power to reject. This allows civil society to oversee the dispute-resolution process and to ensure that complaints are reviewed fairly.<sup>9</sup>

Additionally, to support the democratic oversight of the system, Transparency International Georgia launched another online platform ([tendermonitor.ge](http://tendermonitor.ge)) that allows anyone inside or outside of the country to search, analyze, and monitor public procurement. While Transparency International was not involved during the reform process, it joined the efforts at the monitoring phase and its platform means one of the main objectives of the reform was achieved: citizens can actually monitor how their taxes are spent and

eventually challenge the decision-making of state officials.

The transparency in e-procurement has also produced unexpected results: e-component, meaning the innovative component of making the procedure electronic as opposed to exclusively on a paper, has spread to the banking system. Banks played an important role in the final step of the e-procurement process by disbursing the state funds to the tender winners. Commercial ones have started signing off guarantees (bid bonds) electronically at the final stage of the tendering process. Similarly, an electronic guarantee registry was successfully used during the enforcement of court decisions and the privatization of state property. These areas traditionally were full of corrupt practices.

Another unexpected spillover was that there was an immediate growth in interest in, and a need to increase, e-literacy among citizens. It became apparent that local municipalities could not even put tender notices online because local officials had difficulty in using the internet. And in most cases the internet was not even available in remote towns and villages. Therefore, this provided an incentive to the government to conduct the necessary training throughout the country as well as to bring the internet to all schools, kindergartens and other budget-spending entities.

### ***The International Community's Role***

Given the strong political will and the dramatic reform process, the international community had no reason to be involved in the development of Georgia's e-procurement system. This system was much more progressive than the requirements and standards in the EU's first directive on the subject. This was a rare case in which Georgian legislation and practices were much more advanced than those of the EU.

The international community stepped in at a later stage when there was a need to tackle challenges in capacity building and analyzing big data. In the beginning, the quick analysis of tenders was not possible as there was not enough data. What was missing was a two-way exchange of information between the state

8 Christian Timm, [Economic Regulation and State Interventions. Georgia's Move from Neoliberalism to State Managed Capitalism](#), PFH Private Hochschule Göttingen, 2013.

9 Transparency International, [Georgia's Public Procurement System](#), June 2013.

and tender participants that would have allowed an understanding of what influenced the procurement decisions. At the initial stage, the information was not useful as it needed to be processed and analyzed, and the conclusions implemented in further decision-making steps.

Consequently, in 2016 the World Bank and the U.K. government partnered with the State Procurement Agency to convert procurement data into a machine-readable format. As the result, in 2018 a new platform was launched that generates tender information for all public-procurement contracts for the years 2011–2018, which has brought transparency to the previous tenders. It also provided data to research the activity patterns of the bidders as well as to identify the weak and strong points of the overall process with an aim to further improve it.

Another challenge was the low number of businesses participating in tender procedures. Due to the fact that for years only monopolies had access to specific spheres of business, they initially faced no competitors when the tenders became open and transparent. Consequently, during the 2013–2016 period there was low competition in e-tendered contracts, which resulted in the failure of 29.1 percent of all tenders.<sup>10</sup> Given that arranging a tender procurement is expensive, the failure of nearly a third of projects led to additional costs for the state.

The key ingredient for the success of the e-procurement reform in Georgia was strongly articulated political will promoted by a small but very professional and dedicated team. Having strong political backing helped those developing the reforms to push through the most difficult decisions and legislative acts, and to put in place an electronic system that killed systemic corruption practices.

The initial skepticism of the international donor community was unsurprising when faced with something radical and quick like the e-procurement

reform in Georgia. But eventually this skepticism grew into full support and recognition—in 2012 the State Procurement Agency received a United Nations Public Service Award for fighting corruption in the public sector. Georgia was also acknowledged as an example of good practice, followed by other countries within a couple of years.

### **Ukraine: Georgia's Creative Follower**

The initial work on Ukraine's e-procurement was started by civil society during the Euromaidan protests in 2014. The discussions took place at an opportune but also difficult political moment. The war with Russia had stimulated the mobilization of citizens at different levels. Having learnt from the lost moment of the 2004 Orange Revolution, many understood that there would be no change without their personal involvement. The creation of the e-procurement system later named ProZorro, which in Ukrainian means "transparent," was part of this social mobilization.

Unlike in Georgia's top-down approach, the life-cycle of Ukraine's e-procurement resembles that of an IT startup or a business organization. The idea was born at the Free University of Maidan, which was a self-organized gathering of enthusiasts, academics, and ordinary citizens exchanging views on the reform process while protesting in the main square of Kyiv in winter of 2013–2014. Within a few months, the idea was developed into a concept that was then also discussed with the Georgian experts who shared their experience and expertise with the activists who were determined to reform the system.

The first instinct of the Ukrainian reformers was simply to copy the Georgian model, which would be expected to work in their country too. The initial model developed by civil society and the expert community was therefore based on the e-procurement principles developed in Georgia: everyone sees everything, no one can delete anything, scrutiny of the process by civil society, and reverse auction. However, they also understood that the Georgian blueprint needed to be adapted to Ukraine's political reality.

<sup>10</sup> Joel Turkewitz and others, *Improving Efficiency in Public Procurement in Georgia*, World Bank Working Paper, 15 August, 2018.

Unlike Georgia's experience during Saakashvili's leadership, even after the Euromaidan revolution in 2014, there was no strong political push for a zero-corruption policy throughout Ukraine's institutions. Therefore, the institutions followed their usual non-transparent procedures in most of areas, including in state procurement. This meant that the doors to corrupt practices remained open. At the same time the eventual deterioration of e-procurement standards in Georgia taught Ukrainians not to rely on political will too heavily as it can change. Therefore, the expert community started brainstorming on how to build a state procurement system that would not be fully dependent on the will of the political leadership.

### Steps

The first pilot project was financed by civil society organizations, volunteers, and businesses that had initiated commercial platforms. There was initially limited understanding among international donors of the importance of open e-procurement. When it was launched in February 2015 the e-procurement platform was hosted by Transparency International Ukraine.

The e-procurement pilot project dealt with contracts worth less than UAH 100,000 (and UAH 1 million for state-owned enterprises) and not regulated by procurement legislation—as a result, there was no need to obtain a government license to carry out the project.<sup>11</sup> This type of tender covered around half of Ukraine's entire state procurement budget. Many smaller businesses now had an incentive to compete for tenders, as they knew that the new platform was transparent and was not linked to a corrupt state system. Consequently, the pilot was immediately a success, although with some minor faults.

It became clear that civic activism was having an impact, but not enough to cause structural change. People who were involved in developing the idea of

e-procurement had to join the state system in official positions to start driving reform from within. The co-founder of the pilot project, Oleksandr Starodubtsev, was appointed to head the state procurement department at the Ministry of Economic Development and Trade and therefore he was responsible for developing e-procurement at the national level. Max Nefyodov, who was already involved in developing e-procurement and came from the banking sector, was appointed a deputy minister of economic development. Both started working together in the government, while remaining strongly connected with civil society.

### *Interaction between civil society experts and government officials led to legislation to implement what civil society had been doing for months.*

This interaction between civil society experts and government officials led to legislation to implement what civil society had been doing for months. In December 2015, the Law on State Procurement was passed in a package with the state budget. Hosting the e-procurement system was passed from Transparency International Ukraine to the state. This shows that legislation and political reality had to adjust to the progressive reform process initiated by civil society and prominent reformers who were already in the system. The same year Ukraine's leading experts had offered a solid vision of e-procurement and eventually they obtained support from President Petro Poroshenko and the head of the Presidential Administration, Dmytro Shymkiv. The latter had explained the need to use ProZorro to the National Reform Council, an advisory body composed of the country's key stakeholders, which recommended that all state procurement should go through ProZorro. The platform started with 27 users and six months later it had more than 1,500.

The support from Ukraine's leadership came as a surprise to many. According to some involved in the process, the top decision-makers did not fully under-

11 Yuriy Bugay, ProZorro: How a volunteer project led to nation-wide procurement reform in Ukraine, Open Contracting Partnership, 28 July, 2016.



stand that e-procurement would shake up the corrupt procurement system and the spillovers it would have in other areas. That is why the reformers understood that simply presenting an effective innovative solution or copying Georgia's system would not work in the long term in Ukraine's unstable political environment. The question was how to incorporate e-procurement into the state system while making it independent or controllable from the outside at the technical level.

It became clear immediately that the corrupt state system would fight back. Unlike Georgia in 2009–2010 when there was top-down enforcement of a zero-corruption culture, in Ukraine it would take years to clean up the system. As an alternative, there was a need to decentralize entry points and shared ownership in order to avoid the concentration of power in a single center hosted exclusively on state-owned servers. What was needed was not only reformers inside the government, but also to introduce to the process some technical solution that would ensure the independence of e-procurement. Furthermore, there was a need to create competition between businesses for the tenders, which would result in a higher number of participations by the private companies. So, in 2015, the reformers decided to recreate e-procurement in the semi-official form on service-oriented commercial platforms.

These commercial platforms, which now number about 20 and are increasing every year, represent the interface of the tender procedure. All of them are obliged to follow the principles of “everyone sees everything” as well as equal and non-discriminatory participation in all steps of the procedure. These principles and their obligation to offer free service were enshrined in a 2015 law regulating e-procurement. The law also included provisions setting up online bidding, setting deadlines, providing answers upon request, publishing results, and concluding agreements.

In order to attract more clients using their interface to access state tendering procedures, the commercial platforms need to be creative in offering unique services to the companies. Some provide legal support on the tendering procedures, while others follow

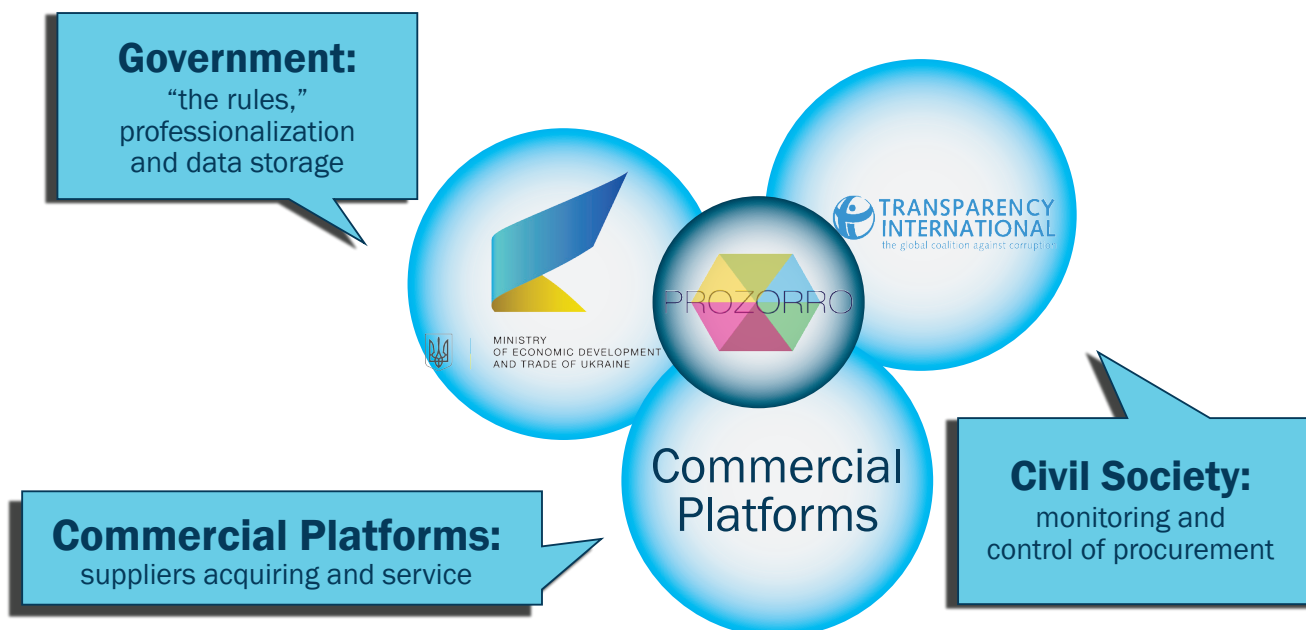
the reform of legislation in specific areas and many provide consulting throughout the tendering process on training and webinars. They also regularly improve the interface for the tender website so companies find it user-friendly. For these services, the companies pay fees. The platforms also compete for businesses. The platforms are interested in more companies applying for e-tendering through them and therefore regularly try to improve their services. This has resulted in an ongoing competition between them.

***The question was how to incorporate e-procurement into the state system while making it independent or controllable from the outside at the technical level.***

These changes have created more competition among businesses that see that the process is transparent, competitive, and fair. Consequently, the process has stimulated more business participation. Since there was an equal opportunity to participate, businesses became more interested in investing into their products, and in most cases citizens ended up receiving a better quality of goods or services and the state saved money.

To market ProZorro, as a first step, its leadership stepped up outreach work while in parallel also focusing on full branding. The Ministry of Culture and Information has also started promoting ProZorro's cartoon character, Mr Bribeman, depicted as a white-collar criminal with a mouse pointer. He became a part of the brand and was put on bracelets, mugs, and t-shirts. The cartoon was also placed widely throughout social media, sparking interest among the younger generation.

Even though the first step started with the commercial platforms, the state had an important role in the process. It was responsible for setting rules and for protecting the information. All the commercial platforms had to obtain a license from the state. At the same time, the state regulated the process of e-pro-

**Figure 2. The “Golden Triangle” Scheme**

Source: Ministry of Economic Development, Ukraine

curement. All the information from the commercial platforms came to one common service point owned by the government. The state was also responsible for synchronizing the information in one central database. This enabled verifying the information and preventing any manipulation.

When the legal system was established, using ProZorro became mandatory for all state entities and civil society stopped being in control. However, civil society retained an important place in the system. From 2016 civil society went back to its traditional role of being responsible for monitoring the process as well starting to work on managing business-intelligence modules and on risk-management methodologies.

This hybrid system, unlike Georgia's, has led to mixed ownership following the Private Public Partnership (PPP) model, and everyone is equally interested in the success of the tender and has part ownership of the process. This has been described as the “golden triangle,” (Figure 2.) in which the state sets rules and protects the information, businesses have a choice of

different platforms which they used for tenders, and civil society acts as watchdog.

In November 2016 DoZorro was launched as an innovative monitoring mechanism. At first it was a platform through which citizens could submit feedback and report irregularities or violations in the procurement procedure. According to official reports, within two years more than 700,000 users had visited the website, flagging nearly 74,000 concerns, 20,000 of which were found to be actual violations.<sup>12</sup>

From 2018, DoZorro started using artificial intelligence (AI). Twenty experts received 3,500 tenders to check without knowing either the sums or the names of the companies involved. They had to identify if there were any risks. Their findings were then used to feed AI algorithms. At the current stage, the algorithm makes an automatic assessment of the potential corruption risk and, if there is any, it sends the suspicious cases to the CSOs who belong to the DoZorro

<sup>12</sup> Open Contracting, [Open Government Partnership Global Report](#), 1st Edition, 2019.

community. If the system is correct, it remembers; if it is wrong, it forgets. This system saves time and with machine-learning it becomes more and more accurate and reduces the human factor in the system.<sup>13</sup>

### *The International Community's Role*

When ProZorro started producing its first positive results, the international community rushed to help to sustain the pressure. Given the scale of the challenge as well as the size of Ukraine, its involvement was important. Aside from its financial contribution, the attention of the international community was important for monitoring and oversight of the process. According to some, the e-procurement legislation was voted because the International Monetary Fund had warned that the absence of one would lead to no financial support on its part. This would have also meant the same from the European Union, whose financial assistance to Ukraine is conditional on the fund's approval.

After ProZorro was launched and given that Ukraine procures goods and services worth approximately €20 billion a year, the team was engaged in a major battle against many who for decades had been draining the state budget. To be up to the task, the project needed its IT system scaled up, more investors, and international attention. As a result, for example, the marketing of ProZorro was financed by the U.S. embassy.

ProZorro was also linked to the international community in other ways. For example, it has committed to the criteria of open contracting. In 2016 at the Open Government Partnership Global Summit, Ukraine together with Colombia, France, Mexico, and the United Kingdom founded the Contracting 5 to advance open contracting.<sup>14</sup> ProZorro also received international recognition. For example, in 2016 the European Bank for Reconstruction and Development recognized it as an exceptional example of public

e-procurement, and in the same year it won a World Procurement Award and the Third Annual Open Government Award.<sup>15</sup> It aims to use such recognition to focus more international attention on its success and to send a signal to the country's political leadership.

It seems that Ukraine's ruling elites misjudged two factors: the scope of ProZorro and its spillover process. The uniqueness of this project is that it did not target corrupt practices directly, but it has left no space for manipulation due to increased transparency and scrutiny over the process by a number of stakeholders and including by the international community. Luckily, the government needed a success story, so it was open to the innovative idea.

### **Moldova: A Leap Forward**

From 2010 to 2013, under the leadership of Prime Minister Vlad Filat, Moldova started major e-governance reforms. To give even more importance to the process, an E-Government Center was set up and placed in the same building and on the same floor as the Prime Minister's Office. This center has become a high-capacity institution tasked with implementing digital governance and e-procurement was one of the elements covered by the reforms. This initiative was supported financially by the World Bank. The idea was to develop and implement a legal and regulatory framework supporting an e-governance infrastructure. The ultimate goal was to establish e-governance procedures that would give citizens access to government documents and to data for effective public use.

It was therefore decided to simplify things by creating e-practices in state institutions. In 2011, with the introduction of the Governmental Decree on Government E-Transformation Strategy, state entities were instructed to introduce modern information technologies into public administration, which foremost included the establishment of the e-signatures. It was expected that the e-signatures would eliminate all the paperwork. Even though, the system with e-signa-

13 Transparency International, [DoZorro Artificial Intelligence to Find Violations in Prozorro: How It Works](#), 2 November, 2018.

14 Open Contracting, Open Government Partnership Global Report.

15 Prozorro, [Achievements & Awards](#), 1 December 2020.

tures was created, the problem was that those were not connected into one state system. By 2013, the government started reconnecting all e-signatures of the state agencies and entities into one state system. By 2016 it had digitalized 128 services, which became accessible for citizens through a single electronic platform.<sup>16</sup>

***Moldova became a leader in the region and also globally with regard to open data.***

Moldova became a leader in the region and also globally with regard to open data, and it was one of the pioneers in moving government to an e-cloud. Eventually journalists could produce well-informed and factual media reports. Businesses gained access to state documents, which enabled them to make better decisions based on official information. In just a few years, the government established e-contracts, e-signatures, e-invoices, and many other e-services—something that Ukraine, for example, is still partially working on.

This major leap in digitalization was not put to effective use by the state administrations, however. In its 2017 report, the World Bank indicated that:

Moldovan agencies continue to use manual, paper-based processes to receive and process applications for administrative services. These manual systems are sometimes inaccurate, slow, and opaque and provide gatekeeping bureaucrats with opportunities for corruption.<sup>17</sup>

The report explained how administrative fees and charges were set in an ad hoc manner by state entities, how the process lacked transparency, and how the state bodies had a conflict of interest. During the process of developing the e-governance system, there was no consultation with different stakeholders as

to what the system should be. The end product was simply presented to the state institutions and the wider public—and it has never been widely used.

E-governance also did not prove very popular among citizens. According to a 2016 survey, over a 12-month period only 24 percent of service users reported that they accessed digital services, and only 6 percent of the bottom-40-percent income group had accessed digital services.<sup>18</sup> Two likely reasons for this were that the website interfaces were not user-friendly and the end users were not comfortable with the system.

Stakeholders continued using the old system of public procurement. The procedures continued to be on paper, the winner would fill in the requested information, and it would appear in the annual report on state procurement. But an understanding of the urgent need to replace the old paper system with a new electronic one was growing.

The major leap toward e-procurement started in 2016 when the reformist Minister of Finance Octavian Armașu gave carte blanche to his deputy, Iuri Cicibaba, to make in e-procurement reforms. Under their leadership some major steps were taken, which triggered positive changes.

One external incentive came in June 2016 when Moldova has ratified the World Trade Organization's revised Agreement on Government Procurement. Joining the agreement granted the country access to the state procurement in other countries as well as brought interest of foreign companies to the domestic one. The organization would also guarantee non-discrimination concerning the products, services, and supplies to any party to this agreement. On Moldova's side, it would also mean that its state institutions would be committed to good governance.

A second important factor was the Association Agreement with the EU, which came into force in July 2016. The government committed itself to a Service Modernization Plan 2017–2021, which became part

<sup>16</sup> World Bank, [Project Information Document on Modernization of Government Services in the Republic of Moldova](#), 23 March, 2017.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

of the roadmap for the reform process based on the Association Agreement. This sought to develop and implement a framework to modernize public services according to EU and international standards as well as to improve their quality and accessibility.

### *The International Community's Role*

The European Bank for Reconstruction and Development (EBRD) and the EU have been strong advocates of the anti-corruption agenda in Moldova, especially in light of the 2014 bank fraud when about \$1 billion disappeared from three of the country's banks, with a loss equivalent to 12 percent of GDP. Against this background, Moldova's leadership declared a political commitment to a stronger fight against corruption and to bring more transparency into the state system. In 2016, inspired by the success of ProZorro, the EBRD proposed to Moldova Ukraine's blueprint for a pilot project. In January 2017 the MTender pilot was launched with an EBRD investment of around €1 million.

In 2019 the EU contributed €1.2 million for hiring the firm European Dynamics to finish the development of Moldova's e-procurement system. The latter was asked to analyze and develop electronic procurement further. At the time of writing, it is not known if the eventual system will be a new one or build on MTender. Political monitoring of Moldova's progress is provided in the Association Agreement, which institutionalized bilateral association council meetings at the executive level as well as parliamentary oversight through cooperation with the European Parliament.

To sum up, the EBRD was the largest financial investor in Moldova from 2016 to 2018 and EU has stepped up with the financial support a bit later. Having seen Ukraine succeed with its hybrid system encouraged these institutions to support the process in Moldova, there was a significant motivation to help the latter achieve even more. The EBRD and the EU steered the process, while trying to bring government officials and civil society on board.

### *Steps*

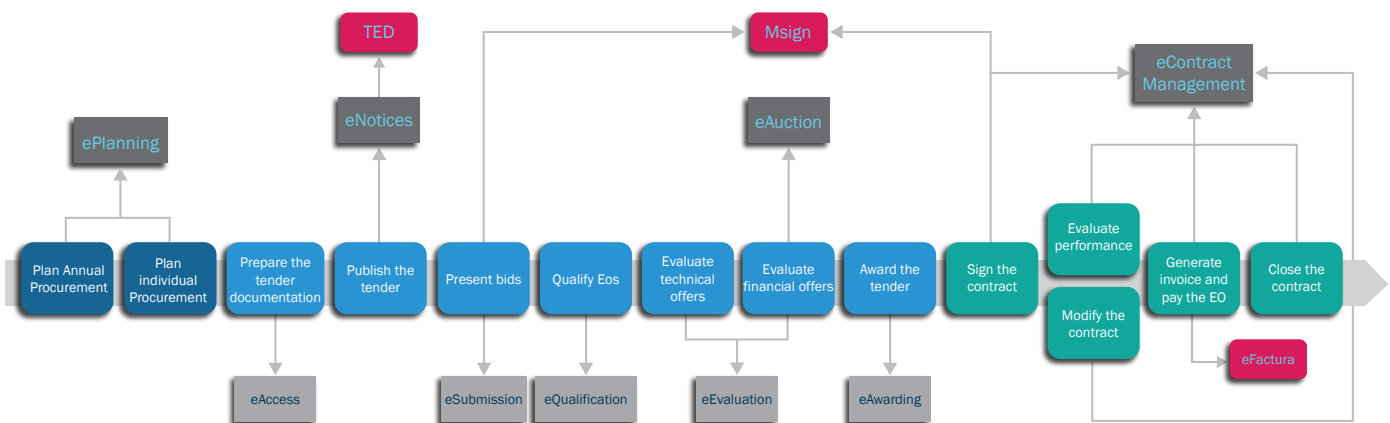
The MTender e-procurement pilot system was launched in two steps. In November 2016, the Ministry of Finance, the Public Procurement Agency, and the E-Government Center signed an agreement with civil society organizations, the business community, and IT companies to launch it. In 2017 Moldova adopted the hybrid system, with an open central database placed in the government cloud (MCloud) and three commercial electronic platforms. All three were connected with the central database and several previously existing e-government services.

Following the EBRD's idea, MTender was launched for small-value public contracts that were not covered by the public-procurement law. This model was inspired by Ukraine's experience. The small-scale contracts were used to launch the system with the pre-threshold tender procedures, which were not covered by legislation and were under MDL 80,000 (about €4,000), for works which would be under MDL 200,000.

Moldova's leadership decided to take Ukraine's system and to improve it with their country's more progressive e-instruments. Given the fact that Moldova already had a major achievement in e-governance, there was an agreement to test these instruments, such as e-signature (Msign and MPass), e-invoice (e-factura), and MConnect, within the pilot project. The goals were to:

- Test if the hybrid architecture would function in a much smaller country (Ukraine has a population of 40 million while Moldova's is 2.5 million);
- Test whether the e-instruments Moldova had for years but had not effectively used could function together; and
- Prepare a team for the Public Procurement Agency that would work further on e-procurement.

The second major step came in 2018 after an amendment to the Law on State Procurement was passed and the updated e-procurement system was launched. This system covered state tenders with few exceptions. In October 2018, the new system was

**Figure 3. The Procurement Life Cycle in Moldova**

Source: Open Contracting Moldova

introduced in all the ministries as well as in 2,500 state institutions (100 percent coverage).

Since its launch, MTender has enable Moldova to save 14 percent on competitive tenders, or about \$27.5 million.<sup>19</sup> In the first year after the system became mandatory for all public procurement, it saw the number of suppliers increase by 30 percent and 70 percent of users said they found the new system useful.<sup>20</sup>

Moldova's leadership has also agreed to the private e-platforms through which the process of e-procurement could be started. Following Ukraine's example, there was a general understanding that state institutions would not be as effective in preparing user-friendly interfaces as businesses that have a commercial interest in regular improvements. Additionally, commercial platforms could provide training and services to businesses, which the government could not do.

In 2018, three commercial e-platforms were launched by three different companies, which makes it harder to use political pressure to influence the process. The modalities of their operations have

yet to be regulated. These companies have invested jointly around €300,000 into developing, launching, and operating the e-platforms and have not yet started making a profit. Under the current system, the platforms are effectively operating on voluntary bases.

***Once fully launched, e-procurement will put into effective practice the reform process of e-governance started 10 years ago.***

Moldova's move to e-governance has started with the e-procurement system, which includes most of the country's e-instruments, such as Mpass, Msign, and Mconnect. Once fully launched, e-procurement will put into effective practice the reform process of e-governance started 10 years ago.

One of the major innovations is that all procedures in the procurement cycle are seen in real time. It means that everything which is uploaded online is immediately seen by other stakeholders. Businesses can see every step as their offers advance through the system. Citizens can follow how and on what their tax money is spent, and civil society can use the data for further monitoring.

<sup>19</sup> Viktor Nestulia, Opening Up Moldova's Contracts: Progress and Challenges, Open Contracting, 11 December, 2019.

<sup>20</sup> Ibid.

### *The Coronavirus Crisis as Opportunity*

Civil society had a classic role in the process of establishing e-procurement, reform of e-procurement, including monitoring, proposing expertise, and suggesting changes. This was rather paradoxical because the ProZorro blueprint for MTender was developed and launched by the expert community in Ukraine. However, unlike in Ukraine, CSOs' access to the tool was restricted. Only the representatives of the Public Procurement Agency, the Ministry of Finance and the EBRD were up to date on the reform process.<sup>21</sup> Before MTender was launched, civil society received the documents in PDF form after the fact and after all the decisions had already been made. CSO representatives would like to have a bigger role in the process.

The CSOs saw a window of opportunity with the coronavirus crisis. Procurement of medicines and medical equipment was excluded from e-procurement. Instead they were procured under the old system in which offers were submitted on paper and the report was published later on the website along with the contract. However, with the beginning of the pandemic, given the extraordinary situation, the state started concluding contacts without even publishing any offers or reports. One supplier even proposed making offers by email. This meant no transparency in procurement.

Civil society immediately reacted to this development. A group of 30 organizations signed an open letter demanding transparency in state procurement in this area. They demanded that reports on the contracts should be published, and that the procurement of medicines should be done through the electronic system. To support their demands, they asked citizens to support them by signing a petition. As the consequence of this societal pressure, the Ministry of Health opened up the information and cooperated with civil society.

The result of this cooperation was a new website, [www.tender.health](http://www.tender.health), which emanated from a coalition

of CSOs. It was developed by the CSO Positive Initiative in cooperation with the Ministry of Health, the state agency responsible for health-related tenders, and with strong support from the Open Contracting Partnership. The platform became an open source of information specifically for coronavirus-related medicine. It contains such information as offers, prices, contacts, and who is procuring. The platform also provides different analyses of the information in the form of charts and tables.

After MTender is fully embedded in the state system, [www.tender.health](http://www.tender.health) can be synchronized with the state e-procurement system in time as well as in points of connection. Consequently, it will be yet another point of monitoring, scrutiny, and verification of the data, especially in such a sensitive area as medicines and medical equipment.

Until recently MTender was in a pilot version situated in Mcloud and was hosted by the EBRD. The final step, which was about the full state ownership, was missing. Recently the EBRD and the government have agreed on the handover protocol. Now MTender has moved to the government.

For now, the system is close to perfect. Obviously, as also with Georgia and Ukraine, there will need to be constant improvement. However, there is a consensus that when the system is part of the state system, it will bring more transparency and openness and save more money from Moldova's budget.

### **Conclusions**

A domino effect in introducing e-procurement started in Georgia, at an opportune moment the knowhow was passed to Ukraine, and Ukraine's blueprint has been used in Moldova. Nevertheless, each country had to adopt the e-procurement blueprint to its unique situation.

Georgia was a brave pioneer, where the reformers capitalized on a strong political will and worked to establish zero-corruption culture. They built and introduced a new culture for a post-Soviet country that was known for being not transparent, full of corrupt practices, and having a state remote from the

<sup>21</sup> Viktor Nestulia, Opening Up Moldova's Contracts.

citizens. Georgians reversed the paradigm by putting into practice the principle of “everyone sees everything,” by introducing reverse auctions, by involving different stakeholders in the process, and involving them in the scrutiny of the process. The participants in e-procurement could follow all steps of the process online and, in case of suspicious activity, they could also freeze the process and by this trigger further investigation.

Ukraine has adopted Georgia’s overall approach and has taken it to a different level. The uniqueness of Ukraine’s procurement is that it was started and launched by civil society. After almost a year, the pilot was finally passed on to the state. It was also launched due to significant pressure by civil society as well as of the international community. Another unique trait is that Ukraine’s e-procurement has involved business as an equally important partner. Business is responsible for the interface of e-procurement and supports it on a commercial basis, while the state is responsible for safeguarding and protecting the information. Consequently, Ukraine’s e-procurement is equally dependent on the state, commercial platforms, and the civil society. CSOs constantly modernize the system of monitoring and regularly introduce novelties based on AI. Finally, the international community has played an important role in pushing the elites and scrutinizing the process once the old system started fighting back.

Moldova has adopted Ukraine’s blueprint, which until recently functioned at the level of a pilot project hosted by the EBRD. As a comparative advantage, it did not have to create all the e-instruments; it has capitalized on the previous e-governance reform, which started a decade ago and was not implemented in full. Nevertheless, Moldova’s e-procurement was started because of external pressure, from the EBRD and EU, and was put on the shoulders of a small team of reformers who had to deliver in difficult political environment. At first, civil society had a classic role in advising and monitoring; it was not closely involved in the process of e-procurement development. However, civil society has come in extensively with the coronavirus pandemic by forcing the government to open up

procurement of drugs and medical equipment and by launching a new monitoring platform.

If one looks into the evolution of this reform in Georgia, Ukraine, and Moldova, one can also note a strong impact of the digital progress on the policy. In Georgia, the biggest achievement was putting online open and transparent interactions with all stakeholders. Ukrainian reformers have stepped up to the challenge by digitalizing the process of the procurement procedures. This technological progress has enabled the quick analysis and transformation of the digital data for the benefit of better procurement performance. MTender has gone even further by making the procurement cycle fully digital. What Moldova has achieved is automation of a big part of the process: from the moment of programing the procurement spending in the state budget, through the procurement process until the final accountability linked back to the state budget expenditure. Therefore, Moldova has capitalized on the digital progress to its fullest potential.

***A domino effect in introducing e-procurement started in Georgia, at an opportune moment the knowhow was passed to Ukraine, and Ukraine’s blueprint has been used in Moldova.***

The experience of these three countries leads to the following conclusions.

Ideally, the perfect constellation of stakeholders creates a balanced reform process. However, experience shows that there is always one stakeholder that drives the process. In Georgia, it was mainly state-driven; in Ukraine, it was driven by civil society; in Moldova, it was pushed by the international community and a small team of reformers at the ministerial level.

Political will is an important element in launching and sustaining the e-procurement, regardless of how perfect the system is. The case of Georgia shows that, even there is a top-down approach and regardless of



	E-procurement initiated	Who initiated	Ownership	Involvement of CSOs	Involvement of commercial platforms
<b>Georgia</b>	2008	Senior officials initiated, as a result of top-down reform under Saakashvili.	Fully state-owned.	Monitoring and dispute resolution.	Not involved.
<b>Ukraine</b>	2014	CSO as a result of discussion during the Euromaidan protests.	The state owns the information, but e-platforms guide the open e-procurement process and CSOs monitor it.	Initiator of the reform. Monitoring, including developing new platforms with AI components for this.	Part of e-procurement process.
<b>Moldova</b>	2016	EBRD and EU pushed. The government followed.	So far EBRD as a pilot project. Follows Ukraine's blueprint with some major technical improvement.	Consultation and monitoring.	In a part of the process, on voluntary basis.

the success of the e-procurement, the system could not be sustained after political will was gone. The experience of Ukraine shows that civil society and business can be the driver of the reform, pushing the political system, but political will was still needed to finalize the process. In Moldova, an almost perfect e-procurement system has been stuck for almost three years at the level of a pilot project.

In the absence of strong political will to reform the state, the pressure of civil society and the international community can deliver the anticipated results. However, they should work together. A good example of such cooperation was in Ukraine, where the reform

agenda was successful because of the simultaneous pressure from both sides.

Legislation is important but is not a key element in successful reform. Georgia was in a unique position due to strong political will and its laws were in synchronization with the reform implementation. Ukraine launched a pilot procurement and, following pressure on legislators, the necessary laws were adopted. While Moldova started its e-procurement reform by first adjusting its legislation in line with its international obligations then adopted further necessary legislation.

In a weak rule-of-law situation, where there is low trust in law-enforcement bodies, it is possible

to introduce a self-regulating instrument. Georgia has done so by allowing the participants of a tender to freeze the process and by involving civil society into dispute resolution. Ukraine has adopted Georgia's know-how and also brought in business into the process. A vibrant civil society further develops monitoring instruments for e-procurement by applying AI. Moldova has made its system even more transparent by putting everything into real time and by introducing different e-instruments.

***Political will is an important element in launching and sustaining the e-procurement, regardless of how perfect the system is.***

The role of the international community remains crucial. In Ukraine and Moldova, it has played an important role in financing the reform process, in monitoring its implementation, and in putting pressure on governments to comply with their commitments. The most important contribution of the Georgian reforms was in creating the e-procurement philosophy, that was first implemented in Georgia and later spread to Ukraine and Moldova, and around the world. As a result of Georgia's success, the World Bank has decided to assess whether they could adapt and apply the Georgian e-procurement system to its own projects. Its success also contributed to a positive learning process in which a country which usually sought advice from the World Bank had something to share with this institution.

Up to now, the reform process of state e-procurement has been remarkable in the three countries. However, it is an ongoing process. The development of the digital technology has led to the spillover of the reform into other areas and on other state institutions, and it will continue to do so. For example, Georgia's State Procurement Agency has started looking into big data, which could help to manage the data analysis and audits gathered during the e-procurement procedures. The use of big data has spilled over into

the State Audit Office to identify corruption risks, not only regarding the State Procurement Agency but also other state bodies.

For their part, Ukraine's innovators have looked into the possible impact of AI in further developing scrutiny of e-procurement via the new tool DoZorro. AI helps to detect possible corrupt practices in e-procurement. The innovative component of AI is that it learns the changing behavior of the corrupt officials. Unlike with verification by a person, this system does not rely on a stable set of pre-programmed risks and can quickly process large amounts of information. Consequently, the scrutiny and monitoring is automated, impartial, and on a much bigger scale.

Moldova has taken a huge step forward with its reform, which was also empowered by the innovative e-signatures introduced in all state bodies. Unfortunately, the process was temporarily undermined by lack of political will. Nevertheless, the coronavirus pandemic and the worrisome situation of the health system in the country has created a strong argument for civil society to push for open data on sector-specific products. With the introduction of the monitoring platform on tender.health, stakeholders can analyze how the state budget is spent in this sector. Obviously, Moldovans expect more. Therefore, the recent presidential election won by the pro-transparency reformer Maia Sandu gives hope that state e-procurement will become fully functional and therefore will show its full potential, including in health-related products.

The success of these three countries can serve as an inspiration to others. If e-procurement was successfully implemented there, there is no reason why their blueprint cannot be adjusted to other post-Soviet states as well as to the Western Balkans. As this paper demonstrates, regardless of the impressive progress, political remains an important factor influencing the course of the reform process. However, if these countries decide to establish state e-procurement systems, they will embark into unique experience that will inevitably lead to digital discoveries with a spillover effect on other areas of e-governance, as it was in case of Georgia, Ukraine, and Moldova.

This work represents solely the opinion of the author and any opinion expressed herein should not be taken to represent an official position of the institution to which the author is affiliated.

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