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R2019-0079/1

April 5, 2019

Closing Date: Wednesday, April 24, 2019 at 6:00 p.m.

FROM: Vice President and Corporate Secretary

Serbia - Enabling Digital Governance Project

Project Appraisal Document

Attached is the Project Appraisal Document regarding a proposed loan to Serbia for an Enabling Digital Governance Project (R2019-0079), which is being processed on an absence-of-objection basis.

Distribution:
Executive Directors and Alternates
President
Bank Group Senior Management
Vice Presidents, Bank, IFC and MIGA
Directors and Department Heads, Bank, IFC, and MIGA

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Report No: PAD3046

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF EUR 43.80 MILLION
(US$50 MILLION EQUIVALENT)

TO THE

REPUBLIC OF SERBIA

FOR AN

ENABLING DIGITAL GOVERNANCE PROJECT

April 3, 2019

Governance Global Practice
Europe and Central Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective February 28, 2019)

Currency Unit =	Euros (EUR)
EUR 0.88 =	US$1
US$1.142 =	EUR 1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

API	Application Programming Interface
BPR	Business Process Re-engineering
CERT	Computer Emergency Response Team
CFU	Central Fiduciary Unit
CPF	Country Partnership Framework
DDMS	Data and Document Management System
DRDC	Disaster Recovery Data Center
DFID	U.K. Department for International Development
EDGe	Enabling Digital Governance
EMP	Environmental Management Plan
ESMF	Environmental and Social Management Framework
EU	European Union
G2B	Government-to-Business
G2C	Government-to-Citizens
G2G	Government-to-Government
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GOS	Government of Serbia
GRS	Grievance Redress Service
GSB	Government Service Bus
HR	Human Resources
ICT	Information and Communication Technology
IDF	Institutional Development Fund
IFC	International Finance Corporation
IFI	International Financial Institution
IFR	Interim Financial Report
IMF	International Monetary Fund
IoP	Interoperability Platform
M&E	Monitoring and Evaluation
MOF	Ministry of Finance
MPALSG	Ministry of Public Administration and Local Self-Government
MTTT	Ministry of Trade, Tourism, and Telecommunications
NBS	National Bank of Serbia
NOC	Network Operations Center
ODRA	Open Data Readiness Assessment
OITeG	Office for Information Technologies and e-Government
O&M	Operations and Maintenance
PIU	Project Implementation Unit
PDO	Project Development Objective
POM	Project Operations Manual
REMP	Real Estate Management Project
RPF	Resettlement Policy Framework
SCD	Systematic Country Diagnostic
SOC	Security Operations Center
TA	Technical Assistance

TAMP	Tax Administration Modernization Project
ToR	Terms of Reference
UNDP	United Nations Development Programme
WB	World Bank

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BASIC INFORMATION

Country(ies)	Project Name	
Serbia	Enabling Digital Governance Project	
Project ID	**Financing Instrument**	**Environmental Assessment Category**
P164824	Investment Project Financing	B-Partial Assessment

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Disbursement-linked Indicators (DLIs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
24-Apr-2019	30-Jun-2024

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To improve access, quality, and efficiency of selected administrative e-Government services.

Components

Component Name	Cost (US$, millions)

Foundations for Digital Service Delivery	26.70
Transforming Services for Citizens, Businesses, and Government	22.60
Digital Skills Development, Institutional Strengthening and Change Management	5.70

Organizations

Borrower:	Republic of Serbia
Implementing Agency:	Office for Information Technologies and Electronic Goverment

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	55.00
Total Financing	55.00
of which IBRD/IDA	50.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	50.00

Non-World Bank Group Financing

Counterpart Funding	5.00
Borrower/Recipient	5.00

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2019	2020	2021	2022	2023	2024
Annual	0.00	3.64	5.25	8.88	13.73	18.50
Cumulative	0.00	3.64	8.89	17.76	31.50	50.00

INSTITUTIONAL DATA

Practice Area (Lead)

Governance

Contributing Practice Areas

Digital Development, Transport

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?	
a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	No
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Substantial
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Low
8. Stakeholders	Moderate
9. Other	
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04		✓
Forests OP/BP 4.36		✓
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11		✓
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description

Loan Agreement. Article 4.01. The Additional Event of Suspension consists of the following, namely that the Project Implementing Entity's Legislation has been amended, suspended, abrogated, repealed or waived so as to affect materially and adversely the ability of the Project Implementing Entity (OITeG) to perform any of its obligations under the Project.

Sections and Description

Schedule 2 of the Loan Agreement. Section I. Part C. Safeguards. Borrower through OITeG to ensure project implementation in accordance with the Project's Safeguard Instruments.

Sections and Description

Schedule 2 of the Loan Agreement. Section I. Part A.2. Unless otherwise agreed with the Bank, not later than one (1) month after the Effective Date, the Borrower shall establish and thereafter maintain throughout Project implementation a Project Steering Committee with responsibilities, composition and functions as set forth in the Project Operations Manual.

Conditions

Type	Description
Disbursement	Retroactive Financing. Schedule 2. Section III. Part B. No withdrawal shall be made for payments made prior to the Signature Date, except that withdrawals up to an aggregate amount not to exceed Euro 4,000,000 may be made for payments made on or after March 11, 2019 for Eligible Expenditures.

I. STRATEGIC CONTEXT

A. Country Context

1. **Following years of recession and slow growth, the Serbian economy expanded by 1.8 percent, on average, over the previous three years (2015–2017), while a stronger growth of 3.5 percent was estimated for 2018.** Over the previous three years, growth started to recover on the back of higher investment (average annual growth of 8.3 percent) and strong growth of exports (up 10.7 percent annually in real terms). Consumption recovered as well, but at a slower pace (at 1 percent annually in real terms). Growth of the industry and services sectors contributed most to the overall growth of the economy over the previous three years, while agriculture had a negative contribution to growth in 2015 and 2017. For 2018, growth was broad-based with all three major sectors growing faster than last year. As a result, the growth in 2018 reached 4.2 percent. The medium-term growth projections depend crucially on deeper and timelier structural reforms and progress with European Union (EU) accession.

2. **The Government of Serbia (GOS) has implemented a successful fiscal adjustment but economic vulnerabilities remain. In 2014, the GOS adopted an ambitious fiscal consolidation and structural reform program supported by the International Monetary Fund (IMF) and the World Bank.** In the short term, the program focused on the control of aggregate wage and pension expenditures, improvements in tax administration, and reductions in subsidies to state owned enterprises. The implementation of these measures led to the reduction of budget deficits in 2015–2016 and budget surplus of 1.2 percent of gross domestic product (GDP) in 2017 and 0.5 percent of GDP in 2018, underpinned by strong revenue collection and lower than planned public spending ensuing, among others, from the interest payment savings and under-execution of public investment. As a result of prudent fiscal policies, public debt continues to decline and stood at 54.3 percent of GDP (at the end of December 2018), and is expected to continue declining during 2019, albeit at a slower pace. However, the country remains vulnerable to spillovers from regional developments and market volatility, thus ensuring fiscal sustainability and supporting private sector development, growth, and formal employment are important for Serbia's economic performance in the long term.

3. **Over this same period, the prospects for accession to the EU provided an impetus for a broad spectrum of reforms.** In November 2007, Serbia initiated a Stabilization and Association Agreement with the EU. In 2012, it was granted an EU candidate status. Since the formal start of the accession negotiations in 2014, progress has evolved largely following its predicted trajectory. As of December 2018, Serbia opened 16 out of 35 chapters of the EU's *Acquis Communautaire,* of which two are provisionally closed.

4. **Major climate risks and natural hazards are likely to affect Serbia's sustainable development**. Extreme temperature rises may lead to severe water shortages and increased instances of heat waves. Serbia has already experienced an increased frequency of droughts; according to government estimates these have caused damages of over EUR3.5 billion since 2000. An increase in the frequency of flooding poses significant additional risks. In 2014, massive floods across Southeast Europe left over 50 people dead (in Serbia alone) and resulted in damages of over EUR1.5 billion. As a signatory to the Paris

Agreement Serbia is fully committed to international efforts to avoid dangerous climate change.[1] In its Intended Nationally Determined Contribution to the United Nations Framework Convention on Climate Change, the country pledged to reduce greenhouse gas emissions by 9.8% by 2030, compared to base-year 1990 emissions.

B. Sectoral and Institutional Context

5. **The EU accession path has provided strong motivation to advance the transformation of the Serbian public sector.** The GOS has prioritized the use of electronic government (e-Government) tools to improve public service delivery. As part of transforming the Serbian public sector into a more modern, efficient, and citizen-centric administration, the GOS has introduced performance-oriented measures and is promoting the use of information technologies in public service delivery. The most recent EU assessment on Serbia recognizes that creating a more user-oriented administration remains a key government priority.[2]

6. **International and regional experience shows the benefits of simplifying processes, increasing efficiency, and lowering cost for infrastructure and maintenance of information and communication technology (ICT) systems for improved public service delivery.** Governments such as Denmark, Estonia, Finland, the Netherlands, Singapore, India, and Uruguay are moving to ICT solutions with tangible results including reductions in ICT costs (through automatized data exchange), increased productivity, improved accountability and transparency, and improvements in service delivery. The benefits of such reforms are significant from both the governance and economic perspectives. For example, over the last decade, many countries have reduced the time and cost for accessing services between 25 percent and 50 percent, resulting in improved Doing Business rankings, along with increased private investment and job creation.[3]

7. **In 2015, Serbia approved Strategy on Development of Electronic Government in Serbia for 2015-2018 (e-Government Strategy), and a follow-up strategy is being developed for the next three years.** In 2014, an assessment conducted by the EU on the status of e-Government concluded that Serbia is among the countries that have placed stronger emphasis on advancing e-Government. Serbia has implemented several activities for the development of telecommunications, expansion of broadband connectivity, the enhancement of e-Government and the development of an Agency for Information Society. Unfortunately, most of these efforts have been fragmented, uncoordinated and only partially funded. To steer the reform process and to oversee the implementation of all the government strategies, the GOS created the Office of Information Technologies and e-Government (OITeG) under the Prime Minister's Office in 2017.

[1] Adopted on December 12, 2015 at the twenty-first session of the Conference of Parties to the United Nations Framework Convention on Climate Change and ratified by Serbia on July 25, 2017.
[2] Serbia 2018 Report, European Commission – April 17, 2018 (https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20180417-serbia-report.pdf).
[3] Mckinsey Global Institute, Digital Finance for All, Powering Inclusive Growth in Emerging Economies — September 2016 (https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Employment%20and%20Growth/How%20digital%20finance%20could%20boost%20growth%20in%20emerging%20economies/MGI-Digital-Finance-For-All-Executive-summary-September-2016.ashx)

8. **The OITeG's mandate is to expand the use of ICT in Serbia and to foster the digitalization of public sector services to improve quality, efficiency, innovation, competitiveness, and growth.** The OITeG is the main agency tasked with the implementation of the e-Government Strategy and its Action Plan. However, the policy and regulatory functions in matters of digitalization and e-Government are shared between the Ministry of Public Administration and Local Self-Government (MPALSG) and the Ministry of Trade, Tourism and Telecommunications (MTTT). The OITeG requires strengthening to implement and advance the GOS e-Government agenda.

9. **Under the leadership of the OITeG and MPALSG, a new three-year strategy for advancement of the e-Government agenda for the period 2019–2021 is expected to be adopted by mid-2019.**[4] The strategy will build on lessons learned and assess the impact of the implementation of the previous strategy while articulating new priorities for advancing e-Government. Through the technical leadership provided by the OITeG, the GOS is better equipped to implement and monitor the new strategy. The OITeG will address key challenges affecting the rollout of e-Government including by simplifying complex institutional arrangements, overlapping mandates, uncoordinated initiatives and fragmentation in the implementation of priorities as well as limitations in terms of infrastructure, capacity and coverage. Government-wide strategic coordination has advanced through the creation of the Coordination Council for e-Government where priority projects to improve digital infrastructure and advance e-services are discussed. Stronger leadership of the agenda is emerging with the establishment of the OITeG, which is mandated to operationalize activities and projects that correspond to strategic plans for e-Government. Moreover, the development of the new strategy has been informed by preparatory activities for the proposed project; as such, the strategy anticipates the Project as a key instrument for its implementation.

10. **Serbia could benefit from improved access to better quality and more efficient e-services.** Access to e-Government services is limited. Moreover, e-services, when provided, are poor in terms of quality, reliability, and attention to service standards. Many registries and information data bases are fragmented, making e-services inefficient and imposing additional burden in terms of time and cost to citizens and businesses when engaging with the Government. For example, access to services barriers include requiring a different mode of identification in each portal; quality of service barriers include limited degrees of security in transactions; and effectiveness barriers include officials requiring physical evidence (paper slip with a stamp from the corresponding institution) from citizens using e-payment as systems are not yet interconnected.

Foundational Challenges

11. **Serbia faces several challenges in advancing its e-Governance agenda.** Foundational infrastructure is not in place, regulatory frameworks are weak and online services that are currently available are the result of sectoral initiatives and not part of a coherent and coordinated reform strategy. Furthermore, the institutional arrangements and public sector capabilities are not conducive to coordinated action for digitalization of services.

12. **The primary legislation for e-Government has been adopted, however the operationalization of these laws is lagging.** The Law on e-Government was adopted in April 2018 and the Law on Electronic Document, Electronic Identification, and Trusted Services in E-Commerce, was adopted in October 2017.

[4] The process is supported by the EU Delegation in Serbia.

Some of the important bylaws, necessary for full operationalization of the primary legislation, are yet to be enacted (for example, regulations on data storage and management) or harmonized to new EU standards. Although the existing secondary legislation is sufficient to anchor the first phase of the Project, the Project will provide technical assistance (TA) for the development of the missing regulation that will enable the implementation of the following phases. A detailed regulatory gap analysis was conducted as part of the Project design to identify vacuums in primary and secondary legislation as well as to provide a roadmap for required TA under the Project and is presented in Annex 3. The GOS acknowledges that the lack of an appropriate regulatory framework hinders further development of e-services and digitalization limiting economic development and growth. Having a clearer regulatory framework will also contribute to unleashing the potential of the private sector.

13. **The necessary cross-cutting foundations to support the digitalization of services are missing.** A Government e-portal, a Government Service Bus (GSB) digital signatures, and e-payment of administrative fees all exist as stand-alone efforts.[5] However, there is a need for establishing interoperability standards, procedures, and other enabling foundations for the expansion of digital services. While online services exist for both businesses (such as construction e-licensing services) and citizens (such as the open data portal, e-birth certificate, and the e-enrollment for preschool), the selection of these e-services has often been done without consideration of service demands by users. Likewise, digitalization was done without a common methodology limiting the opportunity for scalability and replicability to other services. Furthermore, since reforms have been designed and conducted in isolation, though citizens can access some e-services through the service portal, the back end of the service processing and delivery is not interconnected to all necessary registries, and therefore still conducted manually, through paper-based and outdated processes. For instance, users of the e-birth certificate registration reported that they must wait 12 days to receive the birth certificate compared to receiving the certificate immediately, if they provide hard-copy documents required for the registration.

14. **Efforts to introduce the use of electronic services in Serbia are currently under way, including digital signatures, e-payment of administrative fees, e-Government Portal, Government Interoperability Platform (Government Services Bus), government data center, and open data portal.[6]** However, the expansion of e-service delivery to citizens, businesses, and government requires much greater investment in the interoperability of existing systems and implementation of cybersecurity protocols and infrastructure.[7] Currently there are over 180 registries in use by various government departments and ministries that operate in silos and hinder data exchange. Information and data collected electronically is not used to improve service delivery but as a backup to the paper files or reference. Lack of clarity in mandates to collect data results in inefficiencies and inconsistencies and undermines effective service delivery. Although efforts have been made to try to address these issues through, for example, the creation of a Central Registry for Mandatory Social Insurance (CROSO is the acronym in Serbian) to ease data exchange between the Tax Office, Pension Insurance Fund, Health Insurance Fund, and the Social Contributions Fund, actual improvements have been modest.

[5] This is the core of the interoperability platform (IoP). For an explanation of the government/enterprise service bus concept see: https://www.gartner.com/doc/1405237/enterprise-service-bus-definition.
[6] https://www.euprava.gov.rs/en
[7] The Parliament has adopted a new Law on Protection of Personal Data which is fully compliant with the General Data Protection Regulation (GDPR).

Service Transformation Challenges

15. **The GOS aims to use e-Government tools to improve administrative service delivery and build trust in citizens and businesses.** Existing processes for accessing administrative services are slow, outdated, and prone to corruption. While citizens can access some e-services through the GOS e-Portal, the back end of service processing and delivery continues to be conducted manually, business processes remain paper-based, and are based on procedures in place for decades. The GOS spends significant financial resources on paper, printing, and the storage of physical documents, including the construction and maintenance of registries and warehouses. Furthermore, outdated regulations, limited flow of information, and a bureaucratic 'paper-based culture', result in public officials unnecessarily requesting physical copies of documents for various administrative purposes. This results in the inability to cross-reference and use and reuse information already in the hands of the Public Administration. Almost no institution manages and stores files according to appropriate e-Government legislation. The GOS needs to implement tools to handle and manage documentation through a Data and Document Management System (DDMS), which includes an office administration management system and an e-archiving solution.

16. **The modernization of service delivery and the provision of on-line services can increase trust and transparency between citizens and the Government, as well as improve the efficiency, effectiveness, quality, and accessibility of government services.** This would require simplifying procedures and eliminating redundancies. Several e-services portals already exist, offering various services to citizens and businesses. These portals are at present not interconnected and provide different levels of service to users. As the portals are managed by different entities, each may require a different mode of identification and offer different degrees of security in their transactions. A consolidated e-Government Portal has the potential to lower transaction costs significantly for all users (Government, citizens, and businesses). The integration of registries and the improvement of an interoperability platform can also provide efficiency to critical government-to-government (G2G) transactions such as human resource (HR) management, financial management, and other administrative back-office functions.

17. **Piloted e-services have yielded modest results.** Citizen-focused e-services initiatives such as the issuing of e-birth certificate and the establishment of an e-licensing platform for construction permits have had limited outcomes but are popular and seem to have increased demand for more e-Government services. For citizens and businesses, an increase in the provision of e-services results in increased transparency and reduced time and cost of obtaining information and accessing administrative services. Initial services under consideration by the GOS for digitalization include: for citizens (a) registration for social benefits, (b) property transfer tax, and (c) registration with the National Employment Service; and, for businesses (i) value added tax return, (ii) amendments to company registration, and (iii) document submission for import and export.

Service and User Capacity Challenges

18. **Citizens and public sector workers lack necessary digital skills to access, use, and benefit from e-services and part of the population is currently digitally excluded.** Without adequate training and capacity building, the digital divide will only deepen. It is estimated that within 20 years, 90 percent of all

public sector jobs will require a certain degree of digital skills.[8] Provision of effective digital skills is essential to ensure that the public workforce is prepared for future technological change, and training for newly required skills should have an equal focus on women and men.

19. **Government employees need to be trained to be able to incorporate the use of ICT into their work.** Given limited digital skills in the public sector, the Project will implement change management and institutional capacity building activities, taking into consideration the equal opportunity provided for men and women. The training program for newly required skills will include employees in local self-government (where targeted services are delivered at the sub-national level). In addition, digital literacy engagement activities will be implemented to enable the uptake of e-Government services.

20. **Building on the Government's commitment to advance the e-Government agenda, the proposed operation supports activities designed to strengthen public sector institutions and establish the foundations for sustained improvements in the access to and quality of e-Government services to enhance productivity, competitiveness, and job creation.** For the GOS, e-Government is one of the main facilitators driving improvements in the quality, efficiency, and cost effectiveness of services provided to its citizens and businesses and to other branches of the Government. The GOS acknowledges that previous strategies were short on implementation. The potential for success for Enabling Digital Governance (EDGe) is significantly increased with strong political and technical leadership provided by the Prime Minister and with establishment of the OITeG, mandated to set up the foundations, to address the implementation gap, and to materialize *Digital Serbia*.

C. Relevance to Higher Level Objectives

21. **The proposed World Bank support is aligned with the key themes of the Country Partnership Framework (CPF) for the period FY16–FY20.[9]** The proposed operation is designed to contribute to the country's top cross-sector priority of supporting job creation and growth by making services more efficient. Likewise, this proposed project is linked to the first of the CPF's two focus areas, namely Economic Governance and the Role of the State, specifically Objective 1b, More Effective Public Administration & Service Delivery. The Project also advances the World Bank's twin goals by focusing on strengthening the management and delivery of services to citizens, including the ones living in lagging regions in Serbia. The Project is also linked to the CPF's second priority area: Private Sector Growth and Economic Inclusion, particularly to the Objective 2a, Contribute to priority business climate improvements.

22. **EDGe complements broader World Bank Group engagement in public sector governance as well as in strengthening the private sector and enabling growth and job creation in Serbia.** Existing World Bank support includes a Program for Results on Modernization and Optimization of the Public Administration (P155172, closing in February 2020); and a forthcoming project supporting Tax Administration Modernization (TAMP, P163673), as well as a range of trust-funded TA. The latter includes efforts at strengthening public investment management, corporate financial reporting, as well as judicial sector improvements. Improvements in the business environment are furthermore supported through

[8] Digital Skills and Inclusion (2017) See https://www.gov.uk/government/publications/uk-digital-strategy/2-digital-skills-and-inclusion-giving-everyone-access-to-the-digital-skills-they-need.
[9] Report No. 94687-YF and discussed by the Board of Executive Directors in June 2015.

lending operations, such as Competitiveness and Jobs Project (P152104) and an expected Public Sector Efficiency and Growth Development Policy Operation (P164575), which is at an early stage of preparation. As noted earlier, the GOS has identified e-Government as a strategic development priority for the country. Working on different aspects of public sector and private sector interfaces, these programs, projects, and TA activities are aimed at enabling stronger growth and at helping Serbia develop a more efficient, effective, and service-oriented public sector. EDGe is also aligned with an ongoing International Finance Corporation (IFC) advisory project that focuses on digitalization of the process of issuing business services and permits.

Box 1. - IFC Collaboration on e-Permitting for Serbia

The IFC is working in cooperation with the OITeG, the Public Policy Secretariat, and the MTTT, to identify key permits that need to be streamlined and simplified to improve the business environment in Serbia. Through the e-Permitting Project, the IFC will implement a horizontal system which enables the integration and digitalization of permitting processes; from the online notification or application for a permit, to tracking of the application status. The e-Permitting Project will only cover government-to-business (G2B) permits.

Out of approximately 2,500 permits identified, 100 will be selected to be digitalized in 2019 and 2020. The prioritization of permits to be digitalized will take place in April 2019, an initial 30 permits will be digitalized in 2019 and the remaining 70 will be digitalized in 2020. Lessons from this project will be utilized in the EDGe and likewise, EDGe will contribute to the sustainability of the IFC initiative.

23. **The proposed project design reflects experience and benefits from other digital governance projects financed by the World Bank.** The Project benefited from lessons learned from previous projects implemented in Serbia and in Europe and Central Asia; (ECA), including the Serbia Institutional Development Fund (IDF) e-Government Project from 2010 and Open Data Grant from 2017, Moldova Governance e-Transformation and Modernizing Government Services Projects, and the Albania Citizen Centered Service Delivery Project. In addition, the project is fully aligned with the World Bank-financed TAMP and will build on the TAMP initiative to improve document management and the e-archive in Tax Administration. The Project will work closely with TAMP to ensure synergies in the areas of record management modernization and consolidation of registries owned by the Serbian Tax Administration.

24. **The Project therefore supports broader World Bank Group engagement in public sector governance.** The Government has declared digitalization and expansion of e-Governance as one of the key priorities which would enhance transparency and the ease of doing business, reduce costs for citizens and businesses, and therefore contribute to stronger economic development and growth. The GOS has highlighted that ICT infrastructure is as important as road or railway infrastructure, and that digitalization is the most important tool for increased access, quality, and efficiency of services resulting in reduction of bureaucracy and a shift to a citizen-focused Government.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

25. **To improve access, quality, and efficiency of selected administrative e-Government services.**

PDO Level Indicators

26. **Successful achievement of the PDO above will be measured with the following outcome level indicators:**

(a) **Access to e-services.** (i) Number of citizens and businesses accessing e-services, disaggregated by gender and size of business and (ii) Number of services digitalized and available online targeted at businesses and citizens.

(b) **Quality of e-services.** Average increase in user satisfaction with the selected e-services provided, disaggregated by gender and size of businesses.

(c) **Efficiency of e-services.** Amount of time (days/hours) it takes for citizens and businesses to obtain selected digitalized e-services.

B. Project Components

27. **The proposed EDGe Project is designed as an institutional reform project to support the GOS and OITeG in improving access, quality, and efficiency of selected e-Government administrative services.** The Project is designed using an Investment Project Financing (IPF) approach organized around three separate but interlinked components. Some activities require phasing while others can be implemented in parallel.

- **Foundations for Digital Service Delivery -** Ensuring the foundations for e-Government advancement are in place, including the regulatory environment, implementation of the interoperability platform, cybersecurity, and resilience.

- **Transforming Services for Citizens, Businesses, and Government -** Comprising the stocktaking of public services followed by data and document management, business process reengineering (BPR), and digitalization of selected services based on objective criteria including citizens/business demand, time/money savings, improvements in transparency and accountability, reductions in gender gap, tackling the digital divide (urban vs. rural, gender, education, access, cost, etc.), and volume and level of complexity.

- **Digital Skills Development, Institutional Strengthening and Change Management -** Supporting change management activities in the public administration to implement the e-Government agenda, strengthen the OITeG's convening and advocacy capacities to lead e-Government reforms, and tackling resistance. This component will also support project management.

28. **Project sequencing and early results.** The Project has been designed to provide a logical sequencing between components, from creating the digital foundations to transforming digital services and to enhancing digital skills. Given the mutual interdependencies between the various subcomponents, activities have been sequenced in an incremental and modular way that will enable the three components to proceed largely in parallel, as per Figure 2.1 in Annex 2. The administrative service inventory will serve as the blueprint for classifying services into categories based on their readiness for digitalization and underlying infrastructure needs. For example, those that are in high demand but are simpler to digitalize will constitute a set of 'quick wins,' which will be prioritized during the Project implementation. On the

infrastructure foundations side, the improvement of the interoperability platform and establishment of the meta-registers will proceed on a modular basis, focusing in the first year on the immediate needs of the 'quick wins', while activities to operationalize the Disaster Recovery Data Center (DRDC) can proceed independently from the rest of activities. The infrastructure will be expanded incrementally so that it can accommodate newly digitalized services in subsequent years. Support for digital skills, change management, and capacity building, as well as regulatory framework development, will be implemented from the start and will be supported throughout the life of the Project.

29. **Component 1 - Foundations for Digital Service Delivery:** The objective of this component is to establish the necessary cross-cutting foundations to support the use of ICT in the provision of public services to citizens and businesses, including standards, procedures, and digital infrastructure. This component is structured around four subcomponents:

- **Subcomponent 1.1 – Implementation of the Interoperability Platform.** The Project will finance the implementation of the Interoperability Platform (IoP) as an integrated tool for the safe and secure exchange of data between government entities. Under the IoP, different government entities will be able to request the necessary data and electronic documents from others for the delivery of services to citizens and businesses. This subcomponent will finance, *inter alia*: (i) the conceptualization and design of the interoperability framework; (ii) the development and implementation of the IoP; (iii) the design and development of e-Trusted services; and (iv) the development of a platform for enabling mobile access to government services. It is expected that with the advancement of IoP, the Project will enable the creation of additional e-services to citizens and business. Inputs required under the Subcomponent 1.1, Implementation of the Interoperability Platform, are TA and ICT investments (software and hardware).

- **Subcomponent 1.2 – Establishment of the Government Meta-Register.** The Project will support the consolidation and interoperability of the most important public registries into one Meta-Register, including the Tax, Customs, Citizens, Addresses, Cadaster, and Business registries as agreed with the GOS. This will be done through: (i) the consolidation of key registries, and (ii) the carrying out of activities required to support the interoperability of the most important public registries into one Meta-Register. The main criteria for prioritization of interventions related to registers will include frequency of reuse by other registers, frequency of use by users, and security and vulnerability. The expected result from this subcomponent is the establishment of the Meta-Register aligned with the central IoP. Inputs required under the Subcomponent 1.2, Establishment of the Government Meta-Register, are TA and ICT investments (software and hardware).

- **Subcomponent 1.3 – Implementation of the Disaster Recovery Data Center.** The Project will support the establishment of the Disaster Recovery Data Center (DRDC), through the provision of critical equipment to ensure the safety of all information stored and maintained in the Government's registries to ensure resilience of government business operations. The DRDC will enhance Serbia's disaster risk preparedness and address existing climate vulnerabilities as there is currently limited back-up service and thus the existing data infrastructure is vulnerable to extreme events and natural disaster. This subcomponent will support a redundancy system and will finance, *inter alia*: (i) the acquisition of equipment for

the DRDC; and (ii) the carrying out of feasibility studies, cost estimations and technical specifications, and the acquisition of connectivity equipment and systems. Inputs required under the Subcomponent 1.3, Implementation of the Disaster Recovery Data Center, will primarily be ICT investments (software and hardware) and TA.

- **Subcomponent 1.4 – Strengthening Cybersecurity, Data protection, and Regulatory Environment.** The Project will support activities aimed at ensuring compliance with the General Data Protection Regulation (GDPR) and Data Protection Law and the drafting and implementation of required e-government bylaws and secondary regulations (cybersecurity, meta-register, and data management, among others). This subcomponent will finance activities, including, *inter alia*: (i) elaboration of e-government bylaws and secondary regulations; (ii) the drafting of a cybersecurity rulebook;[10] (iii) establishment of a cybersecurity and data protection department (Computer Emergency Response Team (CERT); and (iv) the establishment of a cybersecurity laboratory and training center, including the Security Operations Center (SOC) and the Network Operations Center (NOC). Implementation of the subcomponent should fully institutionalize cybersecurity and data protection mechanisms within the overall e-Government framework and, as such, increase safety and security of operation and users. Inputs required under the Subcomponent 1.4, Strengthening Cybersecurity, Data protection, and Regulatory Environment, are TA and ICT investments (software and hardware).

30. **Component 2 - Transforming Services for Citizens, Businesses, and Government:** The objective of this component is to improve back-office processes to reduce administrative burdens and increase efficiency of service delivery. This will be done through reengineering, digitalization, and piloting of selected administrative e-services. While the GOS is committed to take forward reforms in all administrative services, the Project itself will finance "as-is" maps for a minimum of 150 services, a minimum of 50 "to-be" maps, and the digitalization of a minimum of 30 services that have considerable impact on citizens trust, transparency, and accountability. The digitalization of these services is meant to have a demonstration effect. In addition, activities under this component will generate know-how (through learning-by-doing) for the GOS to be able to digitalize further administrative services outside the scope of this project. This component is structured around four subcomponents:

- **Subcomponent 2.1 - Data and Document Management.** The Project will finance the establishment of methodologies, procedures, and guidelines for the collection, storage, management, and use of data and electronic documents, including, *inter alia*: the implementation of the Data and Document Management System (DDMS) to enable the GOS to make more informed decisions by increasing its data analytics capabilities. Inputs required under the Subcomponent 2.1, Data and Document Management, are TA and ICT investments.

- **Subcomponent 2.2 - Administrative Service Inventory.** The Project will support the development of a comprehensive administrative service catalogue for services to citizens and businesses, including, *inter alia*, the preparation of the administrative service inventory.

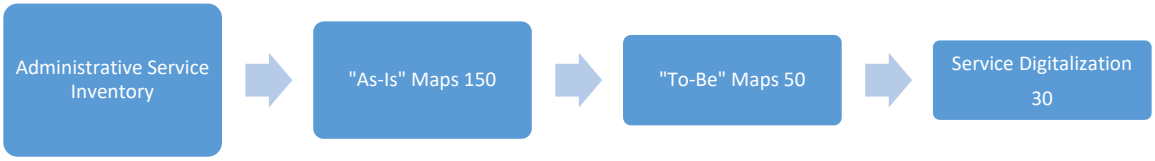
[10] At the minimum, the Rulebook should define mandatory measures, procedures, and standards compliant to the GDPR and cybersecurity which will constitute an obligatory requirement to access and interact with the e-Government system.

The inventory will be the base to select key services to be reengineered and digitalized under the Project. This will include listing of all existing services currently provided to citizens and businesses. From the inventory and based on the agreed prioritization criteria, the Project will identify which of the services are eligible for business process reengineering and digitalization. Inputs under this subcomponent will consist of TA.

- **Subcomponent 2.3 - Business Process Reengineering.** The Project will finance the preparation of a minimum of 150 "as-is" process maps from the administrative service inventory, including, *inter alia*, the development of a methodology for their prioritization, and the elaboration of "to-be" process maps for a minimum of 50 prioritized services. The criteria for selecting these is provided in Box 2 and includes consideration for addressing the gender gap and digital divide. These maps will serve as a base for BPR, automatization, and the elimination of redundant procedures. These 'to be' process maps will serve as a base for digitalization of selected administrative services. Inputs under the subcomponent will consist of TA.

- **Subcomponent 2.4 - Digitalization of Pilot Services.** The Project will finance the digitalization and piloting of a minimum of 30 selected online services to be offered to citizens, businesses, and government through the GOS e-Portal (euprava.gov.rs) and the mobile applications based on specifications and requirements established in an e-Portal rulebook and by using predefined application programming interfaces (APIs). Box 2 presents the prioritization criteria for digitalization of selected services. This subcomponent will also finance TA for the Help Desk to provide support to users and collect feedback on digitalized services. Inputs required under the subcomponent are TA and ICT investments.

Box 2 - Process of Digitalization and Prioritization Criteria



Prioritization criteria for the selection of the 50 "to-be" maps:

(a) The existence of necessary back-end infrastructure as well as defined and functioning business processes (back-office readiness)

(b) Existence of the legal and regulatory framework

(c) Existence of the sectoral leadership and political will

Prioritization criteria for the digitalization of the 30 selected administrative services:

(a) Citizen and business demand–preference will be given to government-to-citizens (G2C) and G2B, over G2G services (other than those provided by the IoP)

(b) Time and/or money savings

(c) Improvements in accountability and transparency

(d) Volume and level of complexity

(e) Services which contribute to reducing the gender gap and digital divide

(f) Other factors such as EU compliance and support of other donors

The remaining "to-be" maps will be the starting point for further digitalization of administrative services by the GOS.

31. **Component 3 – Digital Skills Development, Institutional Strengthening and Change Management:** The objective of this component is to strengthen the capacities of citizens, businesses, and the government to achieve project results. This will be done through three subcomponents:

- **Subcomponent 3.1 - Strengthening Digital Skills and Knowledge Sharing.** The Project will finance carrying out of training for public servants to improve ICT skills and carry out outreach campaigns to promote the uptake of digital services, including, *inter alia*, the elaboration of an ICT and HR strategy and its associated action plan. The strategy and action plan expected to be carried out in the first year of Project implementation will include a training plan and criteria for minimum digital competences. Inputs required under the subcomponent are TA and training.

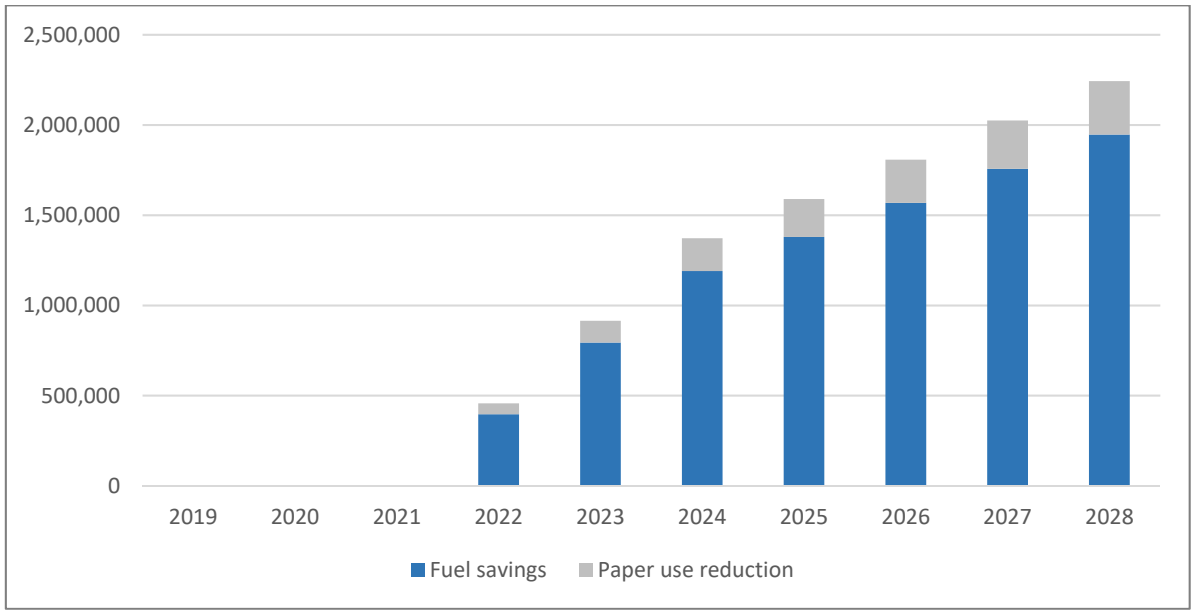
- **Subcomponent 3.2 - Change Management, Communication, and Citizen Feedback.** The Project will finance the design of a change management strategy, action plan and communication strategy and the development and deployment of citizen engagement tools to collect and respond to citizen feedback and measure citizen satisfaction. A change management strategy and action plan will be developed during the first year of Project implementation, thereafter the Project will support implementation to facilitate stakeholder buy-in. Citizen engagement will be utilized through passive and active measures. Passive measures will be implemented directly at the e-Portal where users will be encouraged to provide their feedback on the e-services provided, while the active measures will be implemented through targeted workshops, specially designed surveys, the e-Portal Help Desk, and a feedback loop on improvements. Given the multisectoral nature of e-Government and the proposed project activities, special attention will be given to inter-institutional communication and coordination. Inputs required under the subcomponent will include TA and training and investments in ICT (citizen engagement tools).

- **Subcomponent 3.3 - Project Management.** The Project will finance the establishment and operation of a Project Implementation Unit (PIU) at the OITeG and provision of technical assistance to support implementation of Project related activities. These TA activities refer to activities identified during the life of the Project that are consistent with the PDO and those required to ensure compliance with World Bank safeguards requirements. Inputs required for the implementation of this subcomponent include TA, training, operating costs, and equipment for the PIU.

32. **Climate co-benefits.** EDGe is expected to have positive climate change co-benefits that will materialize through the following: (i) reduced consumption of fossil fuel related to citizens and businesses commuting to the administrative service points and/or receiving the services through traditional channels; and (ii) reduced consumption of paper, which is a result of digitalization of public services. The estimates are based on the assumed trajectory of reduction in the share of public services delivered through traditional channels (such as phone and paper mail) versus those delivered on-line. Fuel consumption savings were calculated assuming that each transaction behind public service delivery will take on average 0.25 visits, that average distance for each visit is 1.5 km, and that average fuel consumption per visit is 0.07 liter/km. Finally, taking the current price of fuel in Serbia of US$1.4 per liter, the aggregate savings from the reduction in fuel consumption is estimated at US$9.03 million over the 10-year period. In addition, savings from reduced consumption in paper is estimated at US$1.3 million, based on the

assumption that each transaction would take 1 sheet of paper and that each paper ream, which currently costs US$2.85 contains 500 sheets of paper. Figure 1 below shows the aggregate climate co-benefits distributed across the entire investment horizon of the 10-year period.

Figure 1 - Climate Co-Benefits, in US$, 2019-2028



Source: The WB team calculation

33. **Additional significant co-benefits can be attributed to the reduction and elimination of unnecessary steps in many government services.** The IoP, which supports internal G2G transactions, will eliminate the need for citizens/businesses to personally obtain a specific document from a government agency which simply serves as an input for services delivered by another government agency. Furthermore, the project will also finance DRDC, which will lead to additional climate co-benefits in the form of: (i) reduced energy consumption through the consolidation of multiple data centers into the government's main data center and the DRDC, and (ii) resilience of government operations to natural disasters by ensuring business continuity thanks to the DRDC.

34. **Consolidation of many existing outdated and energy-inefficient data centers into two primary data centers that operate in tandem (the government's already existing main data center and the DRDC financed under the project) will result in a significant reduction in energy consumption**. The DRDC will follow modern standard guidelines for green data center design and will significantly reduce the total number of government data centers in operation, thus overall leading to a reduction in the energy requirements for power and cooling of the data center equipment, and overall reduce the aggregate greenhouse gas emissions of all the government data centers.

35. **The creation of the DRDC will enable the uninterrupted operation of government services even in the face of an emergency or disaster that would render the main data center inoperable and would help the government more rapidly respond to and recover from the emergency.** The DRDC will therefore make the whole government data infrastructure more climate resilient in addition to being generally more

resilient to all forms of disasters, both natural and man-made, and will also facilitate the continued provision of services to citizens in times of disasters, particularly those living in high risk areas prone to climate-related disasters.

36. **Citizen engagement.** Citizen engagement will be facilitated through questionnaires directly launched from the e-Portal and available during the entire Project lifecycle, through the Help Desk that will be established within the Project, and through targeted workshops and surveys that are part of comprehensive Change Management efforts embedded in the Project design. The questionnaire in the portal is seen as a passive measure where response will depend on citizens' willingness to participate and provide data. This feedback channel will be complemented by periodic targeted surveys and workshops to obtain in-depth understanding of citizen, business, and employee satisfaction with e-services. This will facilitate citizen engagement by enabling independent and wide-reaching feedback. All these inputs will feed into annual citizen engagement reports. These results will be used to assess both the efficiency and quality of provided e-services and will help to gauge overall performance of the administrative services and establish course correction. The survey's results will be disaggregated by gender, age, location of the person, and size and location of the business, which will allow for better understanding of differences between the different groups. The results from the annual survey will be publicly available at the OITeG website and will incorporate information on level of satisfaction taken since the previous survey. Citizens will also be able to post questions and suggestions on the website or through the Help Desk and will receive answers to their queries through a variety of means. Piloting of e-services will allow for the collection of citizen and business feedback to facilitate uptake.

37. **Gender.** The Project is gender informed. Gender considerations have been discussed during project preparation and design, in terms of (a) the local circumstances that may affect the different participation of men and women in the Project; (b) the contribution that men and women each could make to achieving the Project's objectives; (c) the ways in which the Project might be disadvantageous to one gender relative to the other; (d) the ways in which selection of services for digitalization will support reductions in the gender gap; and (e) the Project's proposed mechanisms for monitoring the different impacts of the Project on men and women. The Project will also work to ensure appropriate representation of women in various working groups and committees established under the Project such as in developing the "to-be" maps. During the implementation, the Project will analyze project-relevant gaps between men and women, especially considering country gaps identified through the Systematic Country Diagnostic (SCD) and CPF which relate to activities that are seen to have scope to affect gender differences. The following issues are considered relevant and every effort will be made to incorporate adequate gender focus when implementing these activities:

(a) Training of Government personnel on the use of the new digital technology: that a concerted effort is made to include women employees and provide them with opportunities to lead in the new digital technologies where possible

(b) Outreach campaigns to end users will have elements to specifically target different end users: women, youth, and senior citizens

(c) The use of examples, testing of technologies, and similar activities will be given due consideration to ensure that women can relate equally to these technologies and that

adequate representation of women, youth, and senior citizens is in the sample and pilot groups when used to test new technologies

(d) Establishing facilitation services in the form of a call center at the Help Desk and government branch offices where potential users without remote access or adequate skills will be trained and assisted in requesting digital services.

C. Project Beneficiaries

38. **Direct beneficiaries of the Project will be the citizens and business enterprises of Serbia.** Users of public services including women and small and medium business firms will benefit from increased access to services, better information, and the possibility of providing feedback which in turn, will result in more responsive policy making and service delivery.

39. **Other beneficiaries include public officials, line Ministries, and other State entities.** They will benefit from improved tools and platforms as well as from capacity building activities necessary to operate them. This will empower them to carry out their functions in a more effective and transparent manner.

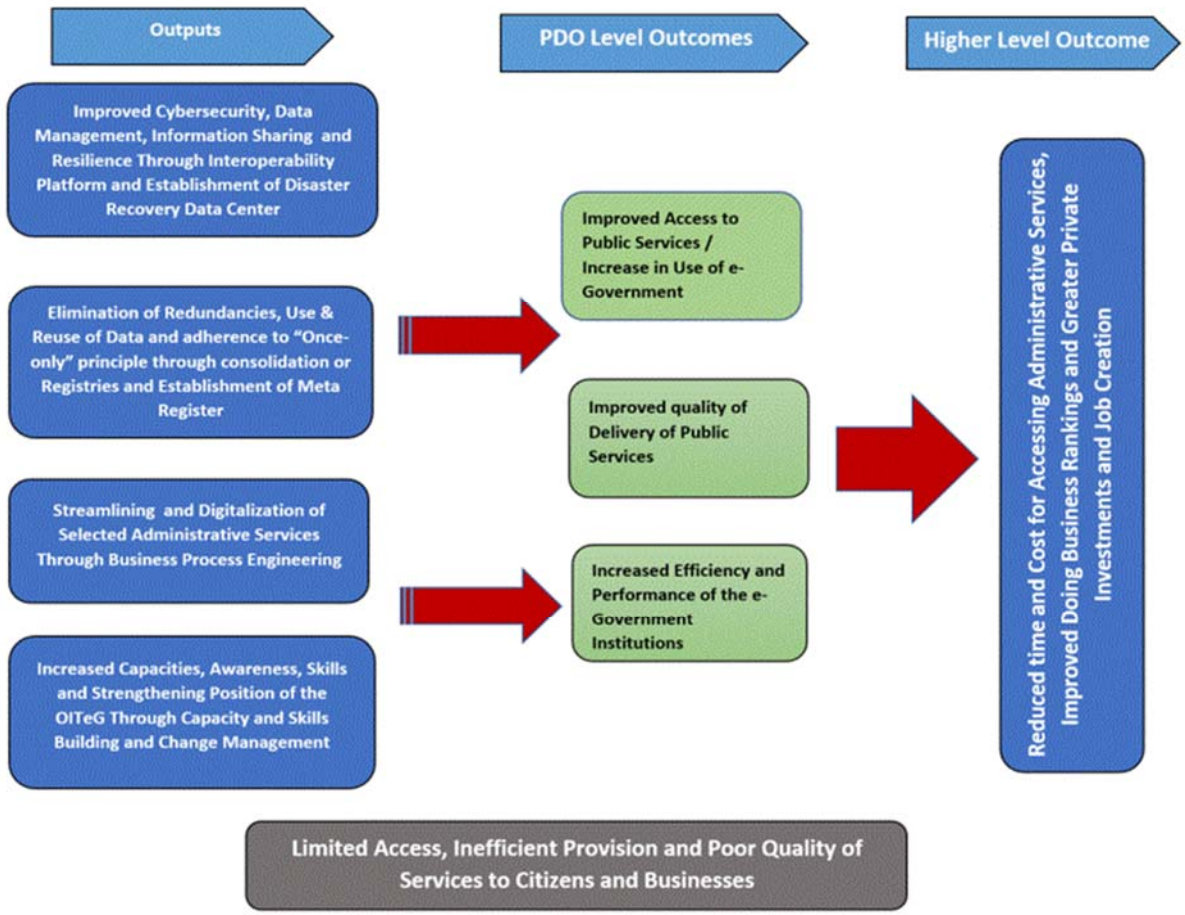
40. **At the center of reform, the OITeG will be the direct beneficiary of the Project.** It will benefit in terms of enhanced technical and institutional capacity supported by an effective change management strategy.

D. Results Chain

41. **The expected results and impact of the Project range from the short to long term.** The Project Results Chain is presented in Figure 2 below. The first phase of the Project focuses on key e-Government enablers which will unlock the potential gains for citizens and businesses as well as the Government. The establishment of an IoP and meta-register would allow the Government to integrate its databases, allowing data exchange, use, and reuse. This will in turn, benefit citizens and businesses because they will not be repeatedly asked to provide information or key documents if these are already stored in another public sector entity (the so-called 'once only principle').[11] This can deliver significant savings to both the users and service providers: time savings (no need to visit multiple agencies) and cost savings (the administrative cost of delivering an e-service is lower than the same service delivered on paper/in person). By reengineering services, time and cost to obtain services will decrease through (i) reduction of necessary documentation (data can be immediately transferred from the relevant registry); (ii) reduction of approvals and streamlining of back-office processes (using IT, automation of some processes, and building external connections to e-payment services, among others); and (iii) limiting the number of visits to service providers, and thus reducing the time and cost of travel. This ultimately enhances government accountability and anti-corruption efforts by reducing face-to-face interactions and discretion.

[11] The project will support the application of good international practice e-Government principles, such as those of the EU e-Government Action Plan: Digital by default, Cross-border by default, Once only principle, Interoperability by default, Openness and transparency, Inclusiveness and accessibility, and Trustworthiness and security.

Figure 2 - Project Results Chain



42. **Expected long term results include the overall improvement in government effectiveness and the investment climate.** Digitalization of selected administrative services will increase efficiency of the public sector and has the potential to greatly reduce the time to process and obtain administrative services, increasing efficiency and transparency. This would reduce the overall burden of doing business for investors and therefore encourage expansion of business activities. Thus, the Project will potentially contribute to more investment and the creation of new jobs in the country. Further, e-services can eliminate person-to-person interaction which can reduce petty corruption and informal payments.

E. Rationale for Bank Involvement and Role of Partners

43. **Successful digital governance in Serbia requires delivering on a mix of foundational and frontier technologies.** The World Bank has considerable experience in leveraging digital technology for improving service delivery in both middle-income and low-income countries. The World Bank also can convene regional and worldwide expertise to advance Serbia's e-Government and digital agenda. The World Bank has demonstrable experience in similar projects globally (Argentina, Uruguay, India [Madhya Pradesh], and Kazakhstan) and in the region, including Albania and Moldova, which can be used for peer-to-peer

learning. In Serbia, the World Bank is active in supporting digital transformation through a series of projects. Through the Open Data Action Plan in Serbia Project (P162123, a small Recipient-Executed Grant), the World Bank is supporting implementation of recommendations from the Open Data Readiness Assessment (ODRA) aiming to facilitate growth of an open data ecosystem that would catalyze a broader digital transformation of the country. The main finding from 2015 ODRA, produced by United Nations Development Programme (UNDP) and funded by the World Bank, is that Serbia is ready and is moving towards establishing its national open data initiative. Serbia is a member of the global Open Government Partnership and is currently executing its first National Action Plan, with a focus on transparency and civic engagement.

44. **The World Bank has also supported a series of ICT-related projects in Serbia.** The Serbia - Real Estate Management Project (REMP, P147050, closing in December 2020), is a US$44 million lending operation approved in 2015 which aims to improve efficiency, transparency, accessibility, and reliability of Serbia's real property management systems. The key results of this project include electronic submission of a request to complete the record of sale/purchase of property and electronic access by citizens and business to the land registry. This resulted in a reduction of time needed to complete the record of sale/purchase of property from 48 to 13 days. The REMP supported establishment of an electronic exchange of information which was one of the major inputs for the e-licensing platform for construction permits. Further, the Strengthening Institutional Capacity for e-Government Project (P120273, an IDF grant closed in 2013) from 2010, provided strategic guidance on institutional strengthening and capacity building support to the Ministry of Telecommunications and Information Society for implementation of, at that time, the recently adopted e-Government Strategy. Lastly, the TAMP (P163673) aims to improve document management and e-archiving in Tax Administration. The Project will work closely with TAMP to ensure synergies in the areas of record management modernization and consolidation of registries owned by the Serbian Tax Administration.

45. **Donor engagement continues to be important and the World Bank has designed its support in close collaboration with UNDP, the EU, and with the U.K. Department for International Development (DFID).** UNDP and DFID are supporting a Digital Transformation Project whose aims are closely aligned with the World Bank's funding. The World Bank's TA, through the Open Data Action Plan Project, is being coordinated with UNDP's technical support. The EU is supporting the development of a new e-Government Strategy for the period 2019–2021 and planned results under the Project are adequately reflected in the design of the strategy. An institutional arrangement, proposed by the EU and MPALSG as part of the new strategy, has been designed to bring together the donor partners and Government to periodically monitor progress against the objectives of the e-Government Strategy.

F. Lessons Learned and Reflected in the Project Design

46. **The design of the EDGe Project was informed by previous World Bank experiences globally as well as in working with the GOS in support of the digital agenda.** The following lessons learned have been specifically considered as critical:

- **Need for strong top-level Government commitment.** There is strong political support and commitment for advancement of the e-Government agenda. The Prime Minister of the GOS has been a vocal supporter of digitalization of the Government both in her former role as Minister of Public Administration and currently as Prime Minister. In her inauguration

speech (June 2017) and since, the Prime Minister has stressed the importance of further digitalization as a means for economic development and job creation. In August 2017, the Government established the OITeG signaling its serious commitment to advance the e-Government agenda. In February 2018 the Government established a Coordination Council for e-Government chaired by the Prime Minister and with membership from across and outside the Government to ensure strong and continuing support for the agenda.

- **Need for collaboration among Government stakeholders and donors.** The World Bank team has engaged with key stakeholders, both national and international, in project preparation and design. This has resulted in avoiding duplication and redundancies and ensured that project proceeds would be used for critical improvements needed to support digitalization of services and implementation of e-Government priorities. Given that the e-Government agenda is a governmentwide policy reform that will affect functioning and service delivery across various sectors, and to ensure that all bottlenecks in implementation are identified on time and addressed properly, the Project will establish a Steering Committee. The Steering Committee will be chaired by the Prime Minister with participation of the Minister of Finance and Director of the OITeG and representatives of the following ministries: MTTT, Ministry of Justice, MPALSG, and Ministry of Interior. This high-level committee will ensure support from the most relevant line ministries with the main objective of unblocking bottlenecks to enable Project implementation.

- **Strong cooperation with international partners is also critical.** The Project design benefited from important diagnostic work provided by international partners. In collaboration with UNDP, the OITeG has commissioned a series of analytical reports which were used to inform project design. Given that the OITeG has had limited exposure to working with international donors, UNDP, through the Digital Transformation Project, has provided support for the early establishment of the PIU.

- **Change Management needs to be part of the core design and facilitate the successful implementation of a new way of doing business.** Change management, which will support reform processes and a major shift in service delivery through e-services, will require significant investments, in terms of both money and time. The OITeG as the principal client and implementer of the Project, understands that they must manage this process but that expertise for change management is best found from outside the public sector.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

47. **Project implementation will build on already established institutional arrangements for e-Government reform.** Implementation arrangements reflect the importance and engagement of various agencies and stakeholder engagement, critical for project success. The relationship between the various levels of implementation and coordination mechanisms is schematically illustrated in Figure 1.1 in Annex 1, where a detailed description of the roles of each governance body is presented.

48. **The Coordination Council for e-Government, established by the GOS in February 2018, is the Government's highest coordination body for the e-Government agenda.** While it will not officially be part of the project, it serves as the national body providing strategic direction and ensuring cross-government coordination of the broader e-Government agenda. The Project will therefore benefit from the strategic directions set by this national body. The Coordination Council will not be responsible for any operational decisions related to the Project implementation and is limited to an advisory role at a very high level.

49. **The Project will establish an interagency Steering Committee and an OITeG-led Management Committee, two bodies which will be tasked to oversee and support implementation of the Project activities.** The Steering Committee's primary function is to help overcome administrative hurdles and bottlenecks in the Project implementation. It will meet quarterly or as needed to assess progress, achievement of results, to provide necessary guidance, and high-level traction as needed. It will be chaired by the Prime Minister with participation of the Minister of Finance and the Director of the OITeG and representatives of the following ministries that are central to the rollout of e-Government: MTTT, Ministry of Justice, MPALSG, Ministry of Interior, and other relevant line ministries, as required.

50. **The Management Committee established in the OITeG will oversee the working groups that may be required for facilitating the digitalization of services.** It will be chaired by the Director of the OITeG and will convene monthly to discuss progress with Project activities, identify necessary actions leading to the digitalization of services and approve operating plans. The OITeG and Ministry of Finance (MoF) are core members of the Management Committee which will later be expanded to include line ministries and other agencies whose services are going to be digitalized. The Management Committee will pay special attention to the implementation and results from the change management activities. The Management Committee will also identify project bottlenecks which have an impact on implementation of activities and report to the Steering Committee for intervention, as necessary.

51. **The PIU in the OITeG will be responsible for the day-to-day implementation of project activities.** The Director of the OITeG will serve as the Project Director. The Project Director will oversee work of the PIU that will be led by a Project Manager. The Project Director will serve as a focal point for the communication with the World Bank on Project related issues. He will be supported by a PIU, responsible for the day-to-day implementation, fiduciary management in collaboration with the Central Fiduciary Unit (CFU) placed in the MOF, project monitoring and evaluation (M&E), supporting compliance with the World Bank Safeguard Policies as well as implementing the Project specific Grievance Redress Mechanism. The Project Director will approve project related reports that will be submitted to the World Bank.

B. Results Monitoring and Evaluation Arrangements

52. **A Results Framework with project-specific indicators and actionable monitoring arrangements has been agreed with key counterparts.** This will support progress monitoring and result-oriented project implementation. The OITeG, with support of the M&E expert who will be part of the PIU, will develop a system for M&E of the target outcomes and outputs. The M&E system will support the successful implementation of the Project by maintaining records on implementation and generating the following performance reports: mid-year progress reports will be furnished to the World Bank not later than one month after the end of each semester, focusing on results-based accountability and accomplishments against performance expectations. Progress reports will be prepared by the PIU, presented to the

Management Committee for comments and approved by the Project Director and thereafter forwarded to the World Bank and the MoF before implementation support missions to guide the discussion of key issues affecting project implementation.

53. **The Project will be subject to regular implementation support missions conducted by the World Bank.** The progress assessed during these missions will be reported by the World Bank team to its management through Implementation Status and Results Reports which will include a review of key implementation issues and performance indicators. In the third year of project implementation, a detailed midterm review will be conducted. Given the comprehensive nature of these reforms, there are many areas that the Project will likely tackle but which cannot be predicted in advance. The Results Framework may need to be revisited and updated during the midterm review. At completion of the Project, an Implementation Completion and Results Report will be prepared.

C. Sustainability

54. **Key relevant stakeholders under the general direction of the Prime Minister of Serbia are aligned in their support to the e-Government reform agenda.** Relevant legislation has been adopted and credible strategies are being developed, and an appropriate institutional framework is already in place to support the implementation of a digital governance program. In addition, the follow up e-Government Strategy (under elaboration and forthcoming in mid-2019) incorporates the Project as one of its key instruments for implementation.

55. **The GOS has demonstrated commitment to taking e-Government reforms forward by making a financial contribution from the state budget to the Project.** The GOS is providing co-financing of US$5 million in support of all activities under the Project. This is a positive sign of the Government's commitment to implementing e-Government reforms and EDGe Project activities. The OITeG is responsible for leading reforms, and its capabilities to do so have been strengthened with core staff already in place.

56. **Change management strategies supported by the Project are expected to deepen ownership of reforms within and across institutions and among citizens and business.** Change management approaches, including communications, consultations, and stakeholders' workshops will seek to build commitment among all those involved in the change process.

57. **The GOS, through the OITeG, has also shown commitment to this project by actively participating in its preparation.** Project preparation missions benefited significantly from informative discussions with the OITeG, MOF, MTTT, MPALSG, and other stakeholders. Key development partners on this agenda (that is, UNDP, EU, and DFID) are fully onboard with the proposed project and are actively supporting the OITeG by building their capacity to design and implement the e-transformation agenda and the Project. The institutional arrangements proposed under the Project have been agreed with all key stakeholders with the objective to support the implementation of the Project and coordinate what can often be difficult reforms. All of these are strong indications of the GOS commitment to achieving sustainable project impact.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic, and Financial Analysis (if applicable)

58. **On supporting digital government in Serbia, the proposed project moves beyond digitization[12] to digitalization[13] to improve public sector service delivery and therefore increase efficiency, transparency, accountability, and government responsiveness**. This in turn, will reduce the cost of doing business for both investors and citizens thus stimulating economic activity. Evidence shows that e-Government has a decidedly positive impact on development indicators, including economic measures, innovation, and governance. In addition, governments can unlock significant value by better interconnecting and transforming their digital data into openly accessible digital assets that can help improve government operations and stimulate the economy.

59. **An economic analysis of the Project considers direct benefits and costs associated with the changes in economic welfare arising from the Project.** The reforms proposed under the Project are expected to generate significant economic benefits, mainly in the form of additional efficiency gains. However, quantifying many of these benefits depends on the availability and reliability of data. This analysis provides estimates of benefits and costs using data obtained from the OITeG as well as from the Statistical Office of the Republic of Serbia and the IMF World Economic Outlook database.

60. **The Project will generate significant development benefits to both citizens and the Government.** Citizens are expected to benefit from improved efficiency of public services delivery achieved through their optimization and modernization. The Project is intended to lay the foundations for improved service delivery by reengineering of a wide range of public services to simplify their delivery, as a first step. In the next phase, these services will be digitalized (that is, their service delivery will shift from traditional delivery through paper and in-person interactions to an online platform) which will bring additional efficiency gains. Benefits accruing to Serbian citizens from completion of these processes will include reduced costs through significant cutback in terms of time required to be served by different administrative bodies.

61. **Benefits to the Government include sizeable reduction of operating costs achieved through various project interventions.** The Project will enable a safer, more secure, and standardized data exchange between public institutions through establishment of an IoP which will be integrated with the GOS e-Portal. In addition, the Project will create a Meta-Register which will compile various databases held across various public institutions and provide for their consistency and reliability to enable better service delivery. Also, a DDMS will be introduced providing for substantial printing and storage cost reduction and facilitating more efficient, paperless operations that will avoid accumulation of excessive document backlogs in the future.

[12] Digitization is defined as the 'technical process of converting analog information into digital form' – Gartner IT Glossary.
[13] Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities – Gartner IT Glossary.

62. **The detailed rationale for estimation of all categories of economic benefits is outlined below:**

- **Improved operational efficiency of public sector institutions**. Improvement in operational efficiency of the public sector will be achieved through reduction of costs associated with back-office operations of public institutions involved in the Project. Total benefits realized within this category include gradual reduction of IT costs (as a result from utilization of the IoP) and reduction of operating costs (mostly printing, purchase of paper, and archiving). The assumed trajectory of cost reduction will follow the implementation plan of related project activities and is such that a 2 percent overall decrease will accrue in Year 3 of project implementation, 5 percent in Year 4, 7.5 percent in Year 5, and 10 percent from Year 6 until the last year of the project horizon (that is, 2028). The sum of generated savings (that is, benefits) is expected to be at the level of US$11.6 million over the 10-year period.

- **Service delivery optimization of G2C services.** Digitalization of G2C services will bring significant cost reduction to both the Government and citizens. These benefits are calculated based on the change of mix in the delivery mechanism within this service category. The current number of transactions assumed based on similar studies,[14] and adjusted for differences in scope amounts to approximately 28 service-related transactions per citizen [15], while the government cost of service delivery is considered as a Purchasing Power Parity (PPP)-adjusted figure from examples in other countries. The cost of face-to-face delivery of G2C service is now estimated to be US$0.57 per transaction for the Government and US$0.93 per transaction for the citizens based on an assumed 0.5 hours of time required for the transaction and US$540 average net monthly wage. The cost of service delivery per transaction for other traditional channels (for example, phone and mail) is assumed to be US$0.45 for both the Government and the citizens. Finally, the cost of online services is estimated based on the proportion to the traditional channels seen in other countries—US$0.23 per transaction for the Government and US$0.15 for the citizens. The share of transactions done online is expected to move from the current estimated level of 5 percent to 25 percent over the course of project implementation. This change of service delivery mix considers both the: (i) envisaged broadening of the number of services delivered on-line (that is, up to additional 36 services), and (ii) projected increase in the number of users of online services (that is, from 1.27 million to 2 million people). No changes to the costs incurred or the total number of transactions are assumed. Total estimated economic benefits that will accrue as a result of project implementation are US$258 million over a 10-year period life.

- **Service delivery optimization for G2B services**. The benefits from digitalization of G2B services will also be realized by investing in technological developments which will enable transfer of a portion of transactions related to these services from the traditional to the online delivery mechanism. The current assumed cost of service delivery per transaction

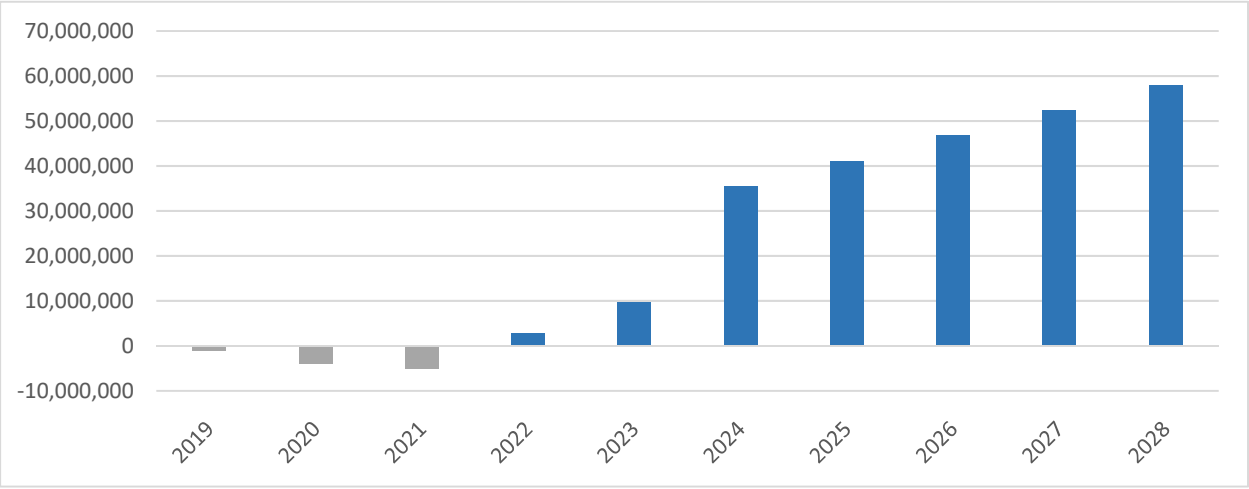
[14] Deloitte. 2017. "Australia's Digital Pulse: Policy Priorities to Fuel Australia's Digital Workforce Boom" available at : *https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-australias-digital-pulse-2017-010617.pdf.*

[15] By referring to transactions rather than services, various parts of a service to be performed online are accounted for, which brings benefits to the involved parties (that is, the Government on one side and citizens and businesses on the other) for example, through cost reduction realized by more efficient use of time.

accruing to both the Government and businesses is the same as for the G2C services. The total estimated number of transactions related to G2B services is estimated through the number of businesses in Serbia and average of 40 transactions per business to be approximately 10 million per year. Current assumed service mix of 70 percent face-to-face delivery, 15 percent of 'other traditional channels' delivery, and 15 percent of online transactions is assumed to shift to the benefit of online transactions. The assumed increase will be gradually achieved, and it is expected to be at 20 percent in Year 4, 25 percent in Year 5, and finally 30 percent in Year 6. Again, the number of transactions and associated costs are assumed to remain stationary. Total estimated benefits through digitalization of G2B services over project duration are US$9 million. It is important to note that this amount captures only direct cost savings from time reduction in obtaining service. However, due to quantification issues, the estimate does not entail indirect benefits realized through increased productivity and overall performance boost due to digitalization of G2B services.

63. **As a result of the above quantifiable elements, the economic net present value of the project amounts to US$157.6 million at a 5 percent discount rate with an economic internal rate of return of 89.5 percent.** Benefits and costs are estimated for the period from year 1 of project implementation until 2028 (that is, from 2019 until 2028), spanning a 10-year investment horizon including five years of project implementation. The horizon of 10 years is usually seen in similar projects in the sector. In this case, increasing the number of years to include in the analysis would add to the efficiency of the Project given introduction of additional e-Government services and enabling additional services to be added in the future will bring more benefits, although including certain reinvestment costs. Estimated economic costs include cost of investment (the amount of the loan, counterpart financing, and associated fees), staff time expense for project implementation and incremental operations and maintenance (O&M) cost accruing as a result of project implementation (that is, hardware and software maintenance due to expansion of IoP and introduction of DDMS and DRDC). Figure 3 below shows net economic benefits over the 10-year period.

Figure 3 - Net Economic Benefits from the EDGe Project, in US$



Source: The WB team calculation

B. Fiduciary

(i) Financial Management

64. **The Project will follow traditional financial management arrangements.** The CFU, within the MOF, will oversee fiduciary responsibilities for the Project, while a PIU within the OITeG will remain responsible for technical and operational aspects of implementation. The Project Operations Manual (POM) will detail implementation arrangements, including the division of responsibilities between the OITeG and the CFU. The CFU is intended to act as the Procurement and Financial Management Unit under the overall implementation arrangements and provide such support and service to the OITeG as the primary implementing entity.

65. **The borrower will provide annual audited project financial statements to the World Bank within six months of the end of each fiscal year and at the closing of the Project.** The audit will be conducted by a private audit firm acceptable to the World Bank and in line with agreed terms of reference (ToR). The ToR was agreed between the GOS and the World Bank and attached to the Minutes of Negotiation and the POM.

66. **The borrower will submit a full set of unaudited interim financial reports (IFRs) consolidated for all components for each calendar quarter throughout the life of the Project which will be due 45 days after the end of each quarter.** The format of the IFRs was agreed between the GOS and World Bank and attached to the Minutes of Negotiations and the POM. Acceptable accounting software will be used for project accounting and reporting, including principal financial reports being quarterly IFRs and annual project financial statements.

67. **Internal controls and procedures to be used by the Project are described in the POM.** The POM should, from a financial management aspect, detail procedures and processes with regard to planning and budgeting, accounting, financial reporting, internal controls, flow of funds and external audit for the Project. It should also describe roles and responsibilities and communication channels and modes between the OITeG and the CFU. This will minimize risk of an error, safeguard project assets, and ensure use of funds for intended purposes. Application of the controls and procedures will be verified by the World Bank's supervision.

68. **The Designated Account in foreign currency for administering the Project funds will be opened in the National Bank of Serbia (NBS) and will be managed by the OITeG, while the CFU will process the payments in scope of their fiduciary role.** The control environment in the NBS is considered acceptable. Disbursement based on the Statement of Expenditure will be applied, with Advances being the primary disbursement method; however, Direct Payments and Reimbursement are also allowed.

69. **Retroactive financing of up to EUR4 million for eligible expenditures incurred on or after March 11, 2019 will be provided under the Project.**

(ii) Procurement

70. **Procurement under the Project will be subject to the World Bank's Procurement Framework.** All procurement will be conducted through the procedures as specified in the World Bank's Procurement Regulations for IPF Borrowers - Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services, July 2016 (revised November 2017 and August 2018) (Procurement Regulations). The Project will also be subject to the World Bank's Anti-Corruption Guidelines, dated July 1, 2016.

71. **The Project will use the services of the CFU within the MOF for procurement and financial management and will be complemented by technical staff in the OITeG, who will assist in the technical aspects of the Project implementation.** The CFU comprises the following staff: CFU Director, Head of Operations, Financial Management Specialist, and Procurement Specialist. The cost of CFU consultants will be paid against operating costs as it is shared by projects supported by the CFU by rotation on a quarterly basis.

72. **Currently, the CFU is responsible for financial management and procurement for two investment projects.** These include Inclusive Early Childhood Education and Care Project and State-Owned Financial Institutions Reform Project and a donor-funded project: Serbia Technical Assistance for Reform of Corporate Financial Reporting. Meanwhile, there are four projects under preparation which are planned to be supported by the CFU: Tax Administration Modernization Project (TAMP), the Western Balkans Trade and Transport Facilitation Project, the EDGe Project), and the Competitive Agriculture Project. This situation warrants selection of additional staff, that is, Procurement Specialist and Financial Management Specialist to avoid bottlenecks during project implementation. Due to this potential capacity constraint at the CFU, the limited experience and exposure of the OITeG in implementing World Bank-financed projects, and the potential coordination challenges between the CFU and the OITeG bring the procurement risk rating to 'Substantial.' The Project Procurement Strategy for Development and the initial Procurement Plan of the project were prepared by the CFU and OITeG.

C. Safeguards

(i) Environmental Safeguards

73. **The Project is rated environmental Category B according to Operational Policy OP/BP 4.01.** Although most of the activities to be funded under the Project are environmentally neutral, the Project will fund the activities related to ICT equipment installation in the DRDC, which is to be constructed in parallel with the Project but using the government budget. Therefore, the DRDC is considered as an associated facility according to World Bank Operational Policies. No category A-type subprojects nor Category A-type activities are planned to be implemented within the Project.

74. **The environmental risks and issues related to the Project-funded activities are low.** They may include material management and management of small quantities of construction waste during ICT equipment installation, which could be successfully managed and mitigated by application of good engineering practice.

75. **The OITeG has no previous experience in implementing World Bank-funded projects and needs to be supplemented to carry out implementation of the Project.** To successfully implement and monitor the Project related activities which may pose environmental risks, and to manage their impacts, the OITeG will during the Project implementation, engage a part-time environmental expert. The environmental expert will be responsible for the following: (i) completion of an Environmental Checklists and preparation of generic and site-specific Environmental Management Plans (EMPs), as relevant; (ii) incorporation of Final EMPs, after the World Bank's approval, into respective tender documents; (iii) monitoring and reporting on compliance with Environmental Checklists and site-specific EMPs; and (iv) semi-annual reporting to the World Bank on compliance with EMPs and an Environmental and Social Management Framework (ESMF).

76. **The ESMF, including a generic EMP and sample Environmental Checklist, was prepared by the Borrower, and disclosed in-country on February 1, 2019.**[16] It stipulates that site-specific EMPs and Environmental Checklist will be prepared during project implementation for each specific facility where civil works are to be undertaken by the Project and will become part of the bidding documents and resulting civil works contracts. The final ESMF was submitted to the World Bank, approved on February 14, 2019, and disclosed on the World Bank website on February 22, 2019.

(ii) Social Safeguards

77. **Due diligence on social aspects in addition to environmental aspects will need to comply with the World Bank safeguards policies.** The Project will finance activities related to installation of ICT equipment in the new DRDC building to be constructed using the state budget, and this building will therefore be considered as an associated facility.

78. **Social risks are low and can be mitigated.** This project has the scope to make positive social impacts as the digitalization of governance procedures has the potential to significantly ease burden on a wide range of project beneficiaries, both men and women. The primary activity that has safeguard implications is the provision of ICT equipment to the DRDC. While the center itself is not financed directly by the World Bank, it is considered an associated facility, as the land acquisition and the construction of the center will be done in parallel with the Project but using government funds. Apart from land acquisition, the ESMF provides for social screening to identify and address both positive and negative potential social impacts for all project activities.

79. **Involuntary resettlement.** The acquisition of land for the DRDC will need to apply the standards of OP 4.12. The Project has hence developed a Resettlement Policy Framework (RPF) and the detailed location and design of this Center is in the city of Kragujevac. Once the details are known, there will be a screening done in accordance with the RPF, and if private assets/resources are affected then a Resettlement Plan will be developed and implemented according to OP 4.12. The RPF was approved by the World Bank on January 7, 2019 and disclosed in-country on February 1, 2019 and on the World Bank website on February 22, 2019.

[16] The ESMF report was published at the OITeG website on February 1 (*https://www.ite.gov.rs/vest/3066/javne-konsultacije-.php*) and call for consultation was published in the newspaper with national coverage 'Vecernje Novosti'.

(iii) Other Safeguards

80. No other safeguards policies have been triggered.

81. **Grievance Redress Mechanisms Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS).** The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit *http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service*. For information on how to submit complaints to the World Bank Inspection Panel, please visit *www.inspectionpanel.org*.

V. KEY RISKS

82. **The overall risk rating for the proposed project is Substantial due to political economy and governance, sector strategies and policies, technical design, institutional capacity and sustainability, and fiduciary risks which require significant attention during the preparation and implementation stages.** Technical risks to project implementation are related to low capacities of the OITeG to manage complex and multi-year projects, which is being mitigated with the creation of the PIU which will provide the necessary expertise. Given that the OITeG has been functioning for less than two years, the OITeG requires a strong PIU which will support project implementation.

83. **Political and governance risks are Substantial given that possible changes in the composition of the GOS could have an impact on the pace of implementation.** The Project is a high priority for the current Prime Minister and the GOS. However, changes in government composition could result in shifts in these priorities and affect the pace of implementation. The fact that many of these reforms are motivated by the goal of EU accession, indicate ownership across the board for these reforms which mitigates this risk. The Project also includes a specific focus on change management and communication strategies to continuously build ownership for change processes.

84. **Sector strategies, policies and technical design risks related to policy and implementation are Substantial.** While the MPALSG is responsible for preparation and adoption of the strategy and its Action Plan, the implementation rests with the OITeG. These overlapping mandates could have a negative impact. The project will foster the position of the OITeG as the main implementer of the e-Government Strategy and centralized policy integrator, responsible for management of all implementation aspects.

85. **Implementation capacity risks to project implementation are related to the OITeG being a new agency and the need for coordinating a wide set of actors in Government.** Given that the OITeG has been functioning for less than two years, it has yet to establish required capacities to manage complex and multiyear projects and to effectively coordinate across the Government. This was mitigated with the creation of the PIU which will provide the necessary expertise to support project implementation and by the establishment of Steering and Management Committees to support project implementation.

86. **With respect to sustainability, reforms supported by the Project, particularly change in business processes, could face pushback from the employees in public sector.** While the senior management of the OITeG and the GOS in general, understands the necessity to change business processes it is not evident that the same understanding exists among other layers of public sector. The digitalization of services is a major shift in business culture. Effective and timely internal communication is key to preventing and overcoming pushback to reforms among public servants. As such, the Project will support significant change management interventions. This will include consultations and stakeholder workshops that are expected to contribute to building commitment and understanding of all staff involved in the change process.

87. **Procurement of ICT for the DRDC may pose a significant fiduciary risk to the Project.** With respect to procurement process, this risk is largely mitigated by the fact that the Project will follow World Bank principles, rules, and procedures to ensure competitive procurement. On the other hand, there is a timing risk. The Serbian budget operates in annual cycles without options to move unutilized funds from

one fiscal year to another, and even though funds for the DRDC have been committed by the GOS, only an initial EUR 12 million have been included in the FY19 State Budget. This will need close monitoring during implementation to ensure that the DRDC is ready for the installation of the equipment that will be purchased under the Project.

VI. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Serbia
Enabling Digital Governance Project

Project Development Objectives(s)

To improve access, quality, and efficiency of selected administrative e-Government services.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	End Target
Access to e-Services			
Number of citizens and businesss accessing e-services disagreggated by gender and size of businesses (Number)		1,270,000.00	2,000,000.00
Access to e-Services			
Number of services digitalized and available online targetted at businesses and citizens (Number)		4.00	30.00
Quality of e-Services			
Average increase in user satisfaction with selected e-services provided disagregated by gender and size of businesses (Citizens Engagement) (Percentage)		0.00	50.00
Efficiency of e-Services			
Amount of time it takes for citizens and businesses to obtain selected digitalized services (Text)		To be determined in the first year of implementation	Depending on the administrative service selected.

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	End Target
1. Foundations for Digital Service Delivery			
Number of entities connnected to the Interoperability Platform (Number)		8.00	18.00
Establishment of GOS Meta Register (Yes/No)		No	Yes
2.Transforming Services for Citizens, Business and Government			
Development of an Administrative Service Inventory (Yes/No)		No	Yes
Number of "to be" process maps generated for selected services (Number)		5.00	50.00
Number of services available online through the e-Gov Portal (Number)		0.00	30.00
3. Digital Skills Development, Change Management and Institutional Strengthening			
Number of Citizen Satisfaction Surveys completed (Number)		0.00	3.00
Number of Government Officials trained in digital literacy (Number (Thousand))		0.00	10.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Number of citizens and businesss accessing e-services disagreggated by	This indicator will measure the number of citizens and	Annual	Government e-Portal and	Data will be collected by the OITeG and	OITeG

gender and size of businesses	businesss that are able to access online services. The indicator will be disagreggated by gender and size of businesses		National Statistical Office	National Statistical Office	
Number of services digitalized and available online targetted at businesses and citizens	This indicator will measure the number of services digitilized and available through the Government e-Portal	Annual	Government e-Portal	Data will be obtained through the Government e-Portal	OITeG
Average increase in user satisfaction with selected e-services provided disagregated by gender and size of businesses (Citizens Engagement)	This indicator measures the increase in level of satisfaction with the provision selected e-services and available through the Government e-Portal	Annual	Survey results .	An initial survey will be conducted during Y1 of the project to determine the baseline Annual surveys will be conducted following Y1	OITeG
Amount of time it takes for citizens and businesses to obtain selected digitalized services	This indicator measures the efficiency of delivery of services, measured by savings in time experienced by citizens and businesses in obtaining selected digitilized services	Annual	Government e-Portal and surveys	Surveys, process maps and monitoring and evaluation framework of the Project	OITeG

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Number of entities connnected to the Interoperability Platform	This indicator refers to the number of Government	Annual	IoP and Project	Information collected by IoP	OITeG

	agencies connected to the Interoperability Platform (IoP)		progress reports		
Establishment of GOS Meta Register	This indicator measures the consolidation of the most important registries into a Meta Register.	Bi-annual	Progress reports	Data provided by biannual progress reports	OITeG
Development of an Administrative Service Inventory	This indicator measures the development of an inventory of administrative services that will form the basis for decisions on business process reengineering	Annual	Progress Report	Progress reports	OITeG
Number of "to be" process maps generated for selected services	This indicator measures the amount of "to-be" maps elaborated to serve as a basis for BPR and future digitalization.	Annual starting on Y2	Progress Report	Progress reports and supervision mission	OITeG
Number of services available online through the e-Gov Portal	This indicator will measure the number of services that can be accessed online through the Government e-Portal by citizens and businesses.	Biannual staring in Y3	Progress Reports and supervision missions	Progress reports.	OITeG
Number of Citizen Satisfaction Surveys completed	This indicator will measure citizen satisfaction with reengineered and digitilized services	Annual starting Y3	Progress Reports and supervision missions	Information available through citizen feedback	OITeG
Number of Government Officials trained in digital literacy	This indicator measures the capacity building	Annual	Progress Reports	Progress reports and supervision missions	OITeG

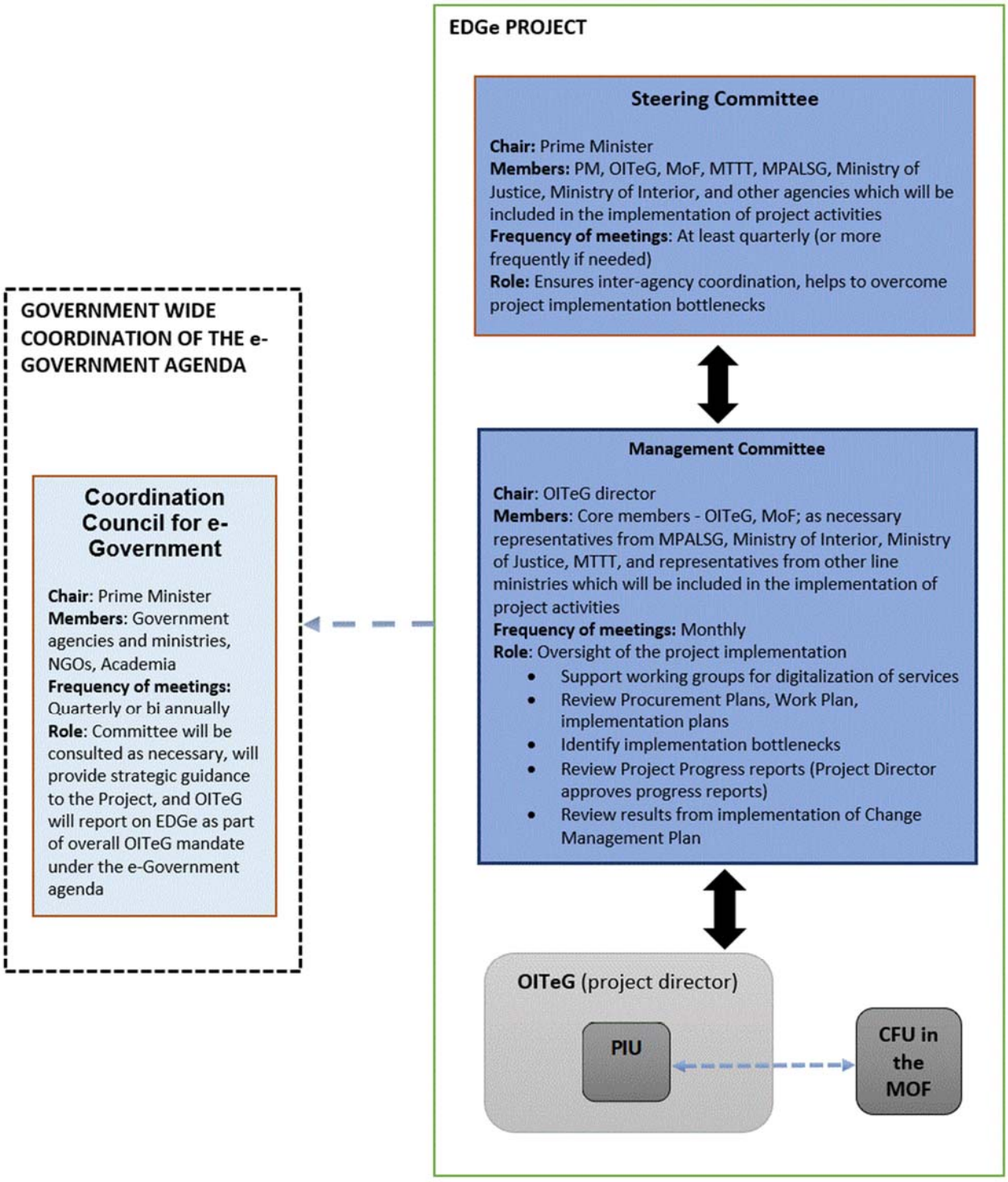
	component of the project				

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Serbia
Enabling Digital Governance Project

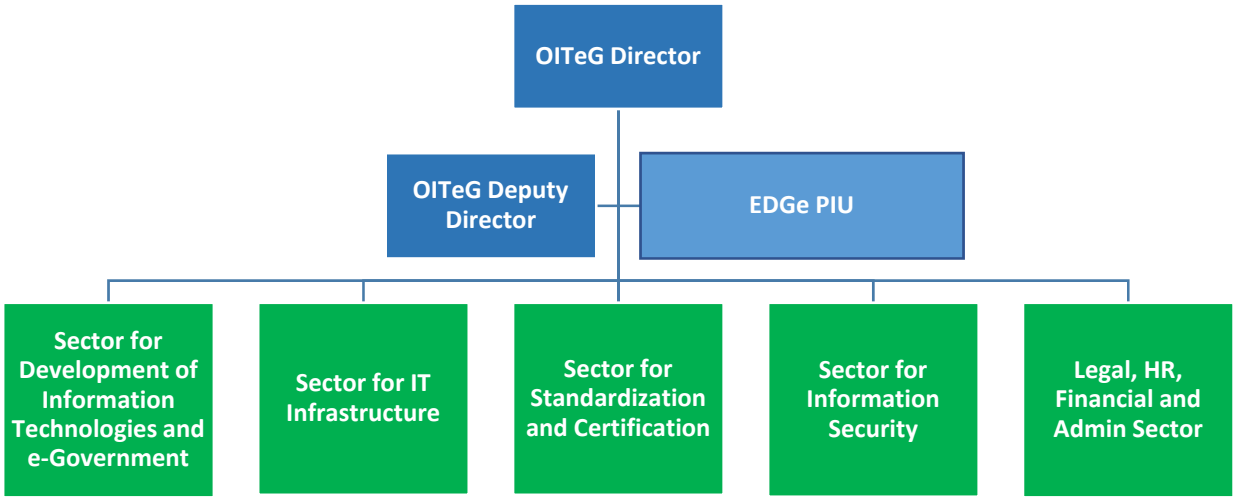
1. **Project implementation arrangements are designed to ensure the highest level of ownership and political commitment and to facilitate the successful implementation of the Project.** The implementation arrangements capitalize on already established GOS coordination mechanisms for the strategic advancement of the e-Government agenda, and they reflect the coordination engagement of various agencies and stakeholders involved in the implementation of project activities. The Coordination Council for e-Government, established by the GOS in February 2018, will serve as a strategic adviser to the Project to support the integration to the broader e-Government agenda and will be consulted as needed. The Project will establish Steering and Management Committees to oversee the Project, support the smooth implementation of activities and ensure the appropriate participation of line ministries required for the implementation of project activities. The Steering Committee's primary function is to help overcome administrative hurdles and bottlenecks in the Project implementation. It will meet quarterly or as needed to assess progress, achievement of results, to provide necessary guidance, and high-level traction as needed. It will be chaired by the Prime Minister with participation of the Minister of Finance and Director of the OITeG and representatives of the following ministries: MTTT; Justice; MPALSG, and other relevant line ministries as required. The Management Committee established in the OITeG will oversee the Technical Working Groups that may be required for the digitalization of services. It will be chaired by the Director of the OITeG and will convene monthly to discuss progress with project activities, identify necessary steps leading to the digitalization of services, and approve operating plans. Representatives from the MoF and relevant line ministries and other government agencies which are affected by the Project will participate at the Management Committee meetings. Figure 1.1 (below) provides an overview and responsibilities in line with the Project Implementation Arrangements.

Figure 1.1 - Institutional and Implementation Arrangements



2. **The PIU and OITeG will be responsible for the day-to-day implementation of project activities and the CFU will provide fiduciary support.** The OITeG will also be responsible for project coordination and management. The OITeG organizational structure ensures the institution possesses the required structures and capacities to manage the Project. The organizational structure of the OITeG is presented in Figure 1.2 below.

Figure 1.2 - Organizational structure of the OITeG



3. **The OITeG Director will serve as Project Director**. The Project Director will oversee the work of the PIU. The Project Director will serve as a focal point for communication with the World Bank on the Project related issues. The Project Director will approve project reports that will be submitted to the World Bank.

4. **The Steering Committee will meet quarterly to assess progress, achievement of project results, and to provide necessary guidance and high-level traction as needed**. The Steering Committee will be chaired by the Prime Minister with participation of the Minister of Finance and Director of the OITeG and representatives of the following ministries: MTTT, Ministry of Justice, MPALSG, Ministry of Interior, and other relevant line ministries as required. The Steering Committee's primary function is to help overcome administrative hurdles and bottlenecks in the Project implementation. The Prime Minister can convene the Steering Committee meeting at any time based or on a request from the Management Committee.

5. **The Management Committee established in the OITeG will oversee the Technical Working Groups that may be established to support the digitalization of services.** The Management Committee will be chaired by the Director of the OITeG and will convene monthly to discuss progress with project activities, identify necessary steps leading to the digitalization of services and approve operating plans. Representatives from the MoF and relevant line ministries and other government agencies, which are affected by the Project will participate at the Management Committee meetings. The Management Committee will pay special attention to the implementation and results from the change management activities. The Management Committee will also identify project bottlenecks which have an impact implementation of project activities and report to the Steering Committee for intervention as necessary.

6. **The Coordination Council for e-Government, established by the GOS in February 2018, will serve as a strategic adviser to the Project and will support integration to the broader e-Government agenda and will be consulted as needed.** The Coordination Council will not be responsible for any operational decision related to the Project implementation and is limited to an advisory role.

7. **To support implementation of project activities, Technical Working Groups can be established by the Director of the OITeG and at the request of the PIU.** The role of these working groups is to provide hands-on support to the Project implementation and assist in preparation of ToRs, functional specifications, and other technical documents required for procurement of goods and services under the Project. Working groups will be established on a needs basis with limited duration and will include representatives from other line ministries or government institutions included in the Project implementation. Each working group will have a Chair who will be responsible for reporting on the progress to the Project Director.

8. **The Project will finance hiring of designated staff that will serve as the PIU for the Project as well as staff needed to strengthen the CFU within the MoF.** The CFU will be responsible for procurement and financial management under the Project, while the PIU will assume a technical role. The PIU will be based in the OITeG and will report directly to the OITeG Director. The PIU staff will be responsible for preparing budgets, Procurement Plans, ToRs, and technical specifications for bidding documents and bid evaluation reports, supervision and contracts management under the Project, and preparation of disbursement and regular financial progress reports. The PIU will also be responsible for supporting compliance with the World Bank Safeguard Policies and requirements, including the GRM. The PIU will also ensure coordination with the CFU, relevant ministries, donors, international financial institutions (IFIs), and other beneficiaries of the project's support. The PIU will also be responsible for ensuring coordination between all project stakeholders, development of training programs and workshops and mentoring-designated OITeG employees, regular communication with other donors and IFIs, ensuring that World Bank procedures are followed according to the World Bank policies and the Project Loan Agreement and Disbursement Letter, and day-to-day communication with the CFU related to fiduciary issues on the Project. The Project will finance hiring of consultants for the PIU and will also cover incremental operating costs, including office supplies, reasonable commercial banking charges and fees, vehicle O&M, communication and insurance costs, O&M of office equipment, administration costs, utilities, travel, per diem, and remuneration of locally contracted employees (but excluding the salaries of the Borrower's civil service's officials), and other related expenditures as may be agreed upon by the World Bank, none of which would have been incurred in the absence of the Project.

9. **The PIU will have the following staff: (a) the PIU Head/Project Manager — who will manage the PIU and report to the OITeG Director; (b) ICT experts that will act as Technical Program Coordinators— each associate will be in charge of managing specific project activities; (c) M&E expert; (d) Project Management Assistant who will be in charge of internal communications and coordination with the CFU; (d) GDPR expert; (e) cybersecurity expert; and (f) other consultants (for example, change management, communication, HR, and so on).** The PIU is already established and currently consists of the Project Manager and one ICT expert. In addition, safeguard specialists will be hired to oversee the implementation of the RPF and ESMF and support the implementation of the GRM. Several experts have been already hired by UNDP through the Digital Transformation Project, to ensure they are fully familiar with the Project design and are up to speed once the Project is effective. These professionals will coordinate implementation of various ICT and e-Government programs with ministries and State

Enterprises and will eventually become the drivers of a broader e-Transformation agenda. They will also have a role in preparing workshops and training as well as in mentoring the OITeG's permanent employees.

Implementation Support Plans

10. **An Implementation Support Plan has been designed to mitigate specific Project implementation risks, taking into account the political economy context, as well as the risks and challenges identified under lessons learned.** The key features of the implementation strategy are addressed below.

11. **Technical and Change Management Support:** The World Bank team has provided the OITeG with technical advice on specific design elements and the overall approach to change management. The World Bank team will provide regular support on change management, including advice on strategic communication, stakeholder engagement, and sequencing of reforms. The World Bank team will liaise closely with the Project's PIU to ensure that change management is mainstreamed in all project activities. The above will be done in close collaboration with other donors, including DFID, EU, and UNDP.

12. **Results Monitoring:** Regular implementation support missions, and on-the-ground World Bank team support, will assist the OITeG in tracking progress toward the achievement of the intended project results. This regular mission and continuous monitoring on the ground will allow for periodic adjustments in project design and reform strategies required to support the achievement of project objectives. This will ensure that outputs translate into real impact and improved access and efficiency in the delivery of e-services to businesses and citizens.

13. **Procurement:** During project implementation, the World Bank's Procurement Specialist will provide regular supervision, in line with the Procurement Guidelines. Procurement implementation support by the World Bank will include providing training to the CFU and the PIU staff, providing detailed guidance on the World Bank's Procurement Regulations, reviewing procurement documents and providing timely feedback, and monitoring procurement progress against the Procurement Plan. In addition, post reviews will be conducted for selected contracts. Contract deliverables will be physically inspected, as appropriate and feasible.

14. **Financial Management:** The World Bank will conduct financial management implementation support missions within a year of project effectiveness and at appropriate intervals. In addition, the regular IFRs and annual project audit reports will be reviewed and approved by the World Bank. As required, a World Bank-accredited Financial Management Specialist will assist in the implementation support and supervision process.

15. **Project leadership and supervision arrangements.** There is strong leadership in the OITeG with whom the World Bank has developed a strong partnership. The World Bank will maintain continuity and a regular dialogue with Government counterparts on all relevant operational, technical, and policy issues through a strong regional-based team including two task team leaders based in Belgrade and one based in the region. This will allow for continued supervision and monitoring of project progress. In addition, there will be at least two formal implementation support missions per year.

ANNEX 2: Detailed Project Description

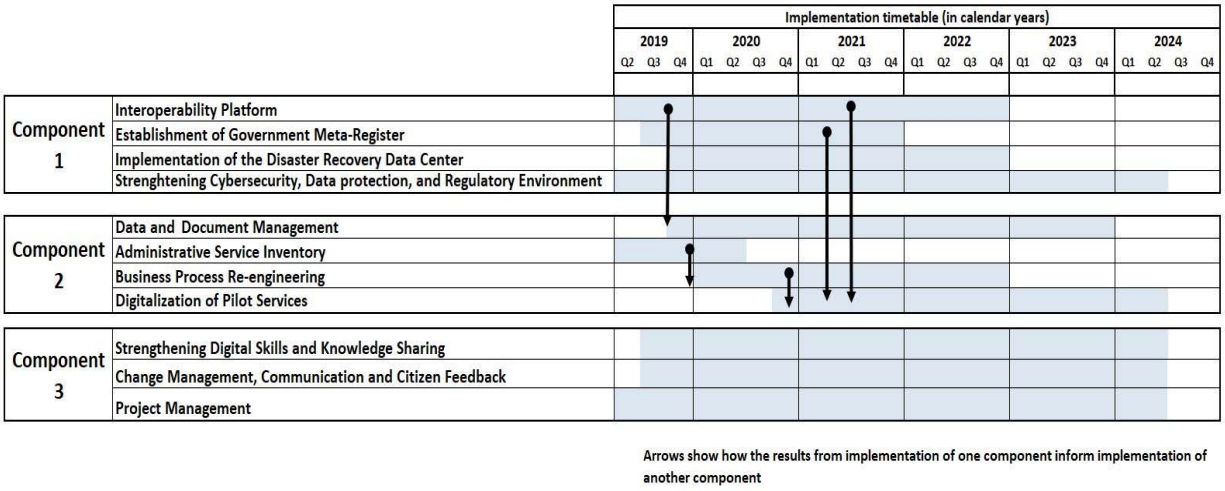
1. **The proposed EDGe Project is designed as an institutional reform project to support the GOS and OITeG in improving access, quality, and efficiency of selected e-Government services.** Sequencing of project activities is presented in Figure 2.1.

(a) **Foundations for Digital Service Delivery** – ensuring the foundations for e-Government advancement are in place, including the regulatory framework, implementation of the IoP, cybersecurity, and resilience.

(b) **Transforming Services for Citizens, Businesses, and Government** – comprising the stocktaking of public services followed by data and document management, BPR, and digitalization of selected services based on objective criteria including (a) citizen and business demand; (b) time/money savings, (c) improvements in transparency and accountability, (d) reduction in gender gap, (e) tackling the digital divide (urban vs. rural, gender, education, access, costs, among others), and (f) volume and level of complexity.

(c) **Digital Skills Development, Institutional Strengthening and Change Management** – supporting change management activities in the Public Administration to implement the e-Government agenda, strengthening the OITeG's convening and advocacy capacities to lead e-Government reforms, and tackling resistance to the adoption of e-Government. This component will also support overall project management.

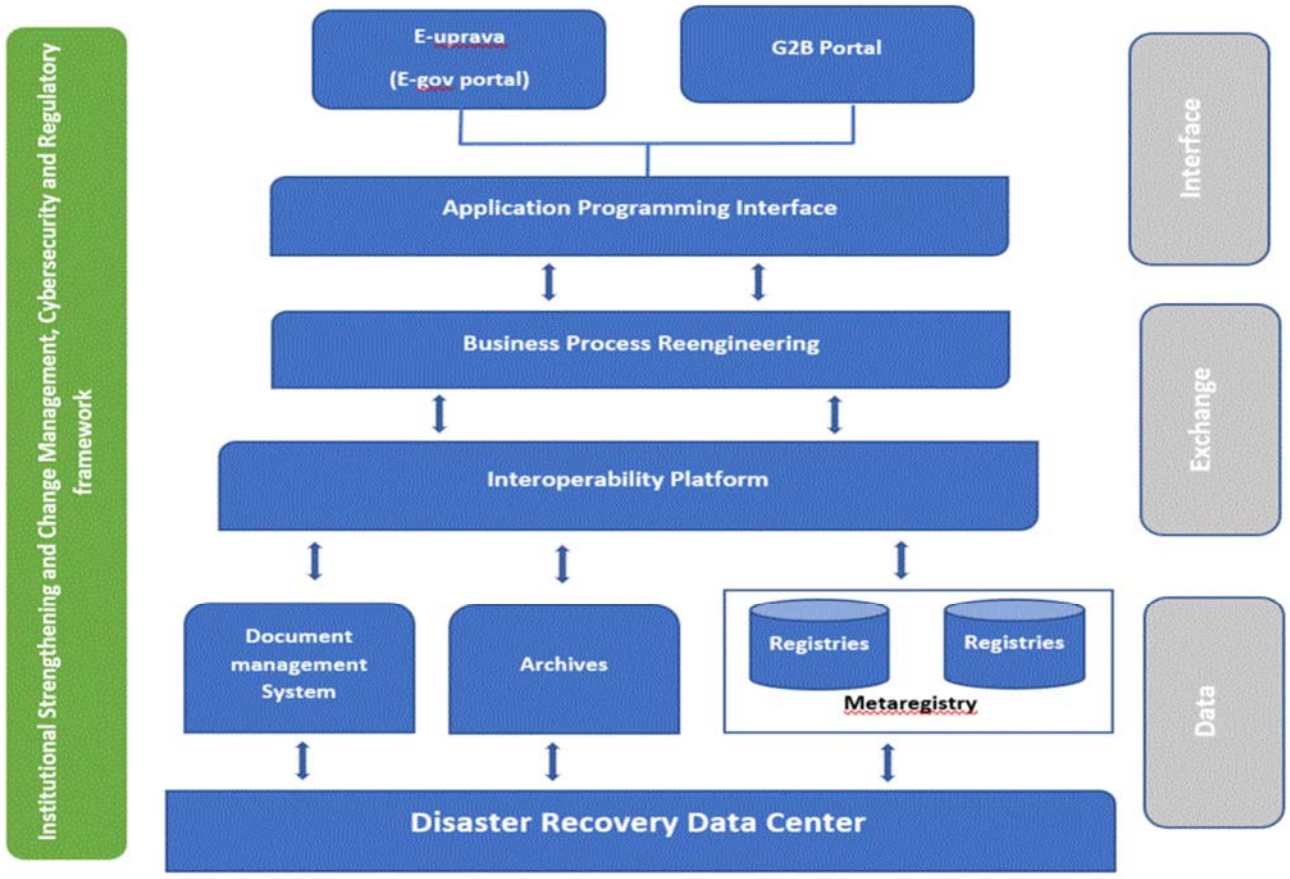
Figure 2.1 - Sequencing of Project Activities



2. **The Project focuses on ensuring the implementation of enabling foundations as the precursor to improve data management and support reengineering and digitalization of selected administrative services.** The transformation of selected administrative services will go alongside the implementation of change management and institutional strengthening activities to adopt new work processes and procedures. Awareness campaigns and communications strategies to advocate the benefits of the reforms, overcome resistance, and build capabilities to implement change will also be taken forward. In

terms of sequencing of activities, the Project has been designed to provide a logical sequencing between components, from creating the digital foundations to transforming digital services, to enhancing digital skills. Given the mutual interdependencies between the various subcomponents, activities have been sequenced in an incremental and modular way that will enable the three components to proceed largely in parallel as per Figure 2.1 above. The relationship between the components and subcomponents is presented in the Figure 2.2.

Figure 2.2 - Schematic Presentation of the Project



3. **Component 1: Foundations for Digital Service Delivery (US$26.7 million).** The objective of this component is to establish the necessary cross-cutting foundations to support the use of ICT in the provision of public services to citizens and business, including standards, procedures, and digital infrastructure. This component is structured around four subcomponents.

(a) **Subcomponent 1.1 – Implementation of the Interoperability Platform. (US$7.5 million).** Article 9 of the Law on e-Government defines the IoP as the Government Service Bus (GSB) and stipulates that the law needs to be implemented within 12 months. The IoP platform, which will be integrated with the Government e-Portal, will provide for safe, secure, and standardized electronic exchange of information and documents between public institutions

through the implementation of e-Trusted services solution. e-Trusted services is a concept used to describe a set of solutions that should ensure the performance, reliability, and security of using government services by all users—citizens, business, or government. The activities under this subcomponent will enable the OITeG to become a provider of common value-added services. Under the IoP, different government entities will be able to access and use data and electronic documents from across the Government in support of better service delivery. This subcomponent will finance (i) the conceptualization and design of the interoperability framework, (ii) the development and implementation of the IoP, (iii) the design and development of e-Trusted services; and (iv) the development of a platform for enabling mobile access to government services. It is expected that, with the advancement of the IoP, the Project will enable the creation of additional e-services to citizens and business.

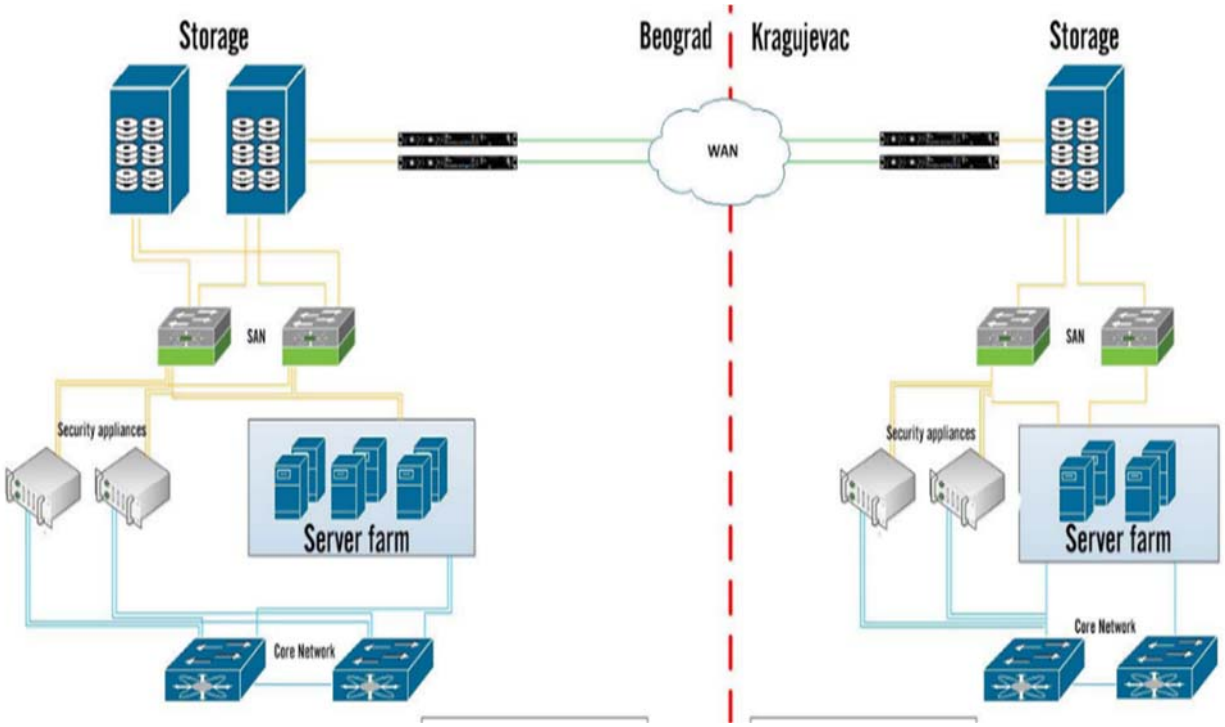
(b) **Subcomponent 1.2 – Establishment of the Government Meta-Register (US$1.7 million).** The collection of data and creation of registries in Serbia is supported by multiple regulations. There is no single act that regulates the electronic format for data collection, lays out minimum technical requirement for an electronic platform, and identifies the protocols and infrastructure needed for exchange. While most of the existing registries are available in electronic form they are not adjusted to allow for automatic exchange and therefore cannot serve as a base for the provision of e-services. This problem will largely be resolved by the creation of a Meta-Register, a database which will pull data from a range of existing registries and which ensures that data is of good quality, easily comparable, and with highest levels of data protection. Article 13 of the Law on e-Government (Official Gazette, No. 27/2018) introduces the Meta-Register as the primary registry with metadata on all official registries and other data. The deadline for establishment of the Meta-Register is August 5, 2019. Following the adoption of the Law, the GOS adopted a decree regulating all aspects related to establishment of Meta-Register on December 28, 2018.

The activities under this subcomponent will support the consolidation and interoperability of the most important public registries into one Meta-Register (including the Tax, Customs, Citizens, Addresses, Cadaster, and Business registries among others). This will be done through the following activities: (i) consolidation of key registries and (ii) activities required to support the interoperability of the most important public registries into one Meta-Register. The main criteria for prioritization of interventions related to registers will be guided by the following: (i) frequency of reuse by other registers, (ii) frequency of usage by users, and (iii) security and vulnerability, among others.

(c) **Subcomponent 1.3 – Implementation of the Disaster Recovery Data Center (US$13.65 million).** Currently there is insufficient backup services, data storage, nor multilayer security controls to ensure safety of all the data and information the Government stores and maintains in its registries. Recognizing the need for backup systems, the GOS declared the establishment of a DRDC as a project of national importance in its decision of July 6, 2018. The DRDC will be established in the city of Kragujevac and the building and facilities will be financed and implemented by the GOS with technical support from UNDP during 2019 and

2020.[17] The establishment of the DRDC should enable the OITeG to provide business continuity in case of unexpected circumstances, even in a case of total loss of the Primary Data Center. The DRDC will enhance Serbia's disaster risk preparedness and address existing climate vulnerabilities as there is currently limited back-up service and thus the existing data infrastructure is vulnerable to extreme events and natural disaster. The main purpose of the DRDC is to: (i) safeguard data according to defined data retention policies, (ii) manage data retention policies, (iii) have 'restore' capabilities, and (iv) ensure minimal recovery time. Moreover, the DRDC should have the backup of critical services hosted in the Primary Data Center (please see Figure 2.3 below). To ensure an appropriate level of security, a cybersecurity system (described under Subcomponent 1.4) must be comprehensive and must continuously monitor all communication links and activities around data centers. This subcomponent will finance the equipment necessary for enabling real-time communication between the Primary Data Center and the DRDC. To ensure this, the equipment in the DRDC site needs to comply with the same capacity standards as the equipment at the Primary Data Center location.

Figure 2.3 - Schematic Relationship Between Data Center and Disaster Recovery Data Center



This subcomponent will support the DRDC and finance the provision of critical equipment to ensure the safety of all information the GOS stores and maintains in its registries and ensure resilience of government business operations. Hence, this subcomponent will support the establishment of a redundancy system consisting of: (i) equipment for the DRDC and (ii)

[17] UNDP—Serbia Digital Transformation Project—financed by DFID.

elaboration of feasibility studies, cost estimations, and technical specifications, and the procurement of connectivity equipment and systems.

(d) **Subcomponent 1.4 – Strengthening Cybersecurity, Data Protection, and Regulatory Environment (US$3.85 million).** As part of the Project preparation, a gap analysis of the regulatory and legislative framework for e-Government was conducted.[18] Over the past few years, the GOS has adopted several important laws related to the advancement of e-Government.[19] However, bylaws and regulations required for full implementation of the laws, need to be further enacted, updated, and harmonized to reflect current priorities and fill legal vacuums, adopt missing strategies, and elaborate rulebooks. Among others, strategies that need to be updated include the Strategy for Development of e-Government in the Republic of Serbia for period 2019–2021 and the Strategy for Development of the Information Society in the Republic of Serbia until 2020. Strengthening security and privacy is key to ensuring the development of e-Government services and increasing their adoption, uptake, and continuity. The concepts of cybersecurity and data protection are embedded in the IoP and DRDC as well as within regulations regarding data access, use and reuse, management, and storage. Furthermore, to support continuous strengthening of cybersecurity, a Cybersecurity Lab and training center will be established. Within the lab, a variety of cyber-attacks will be simulated, enabling the users to identify threats and respond to a wide range of attack scenarios. The training center shall also conduct security awareness trainings for employees of public institutions.

4. This subcomponent will finance activities to ensure the (i) elaboration of required e-Government bylaws and secondary regulations; (ii) compliance with the EU and national GDPR regulations, including the GDPR and cybersecurity rulebook;[20] (iii) establishing a Cybersecurity and Data Protection Department (CERT); and (iv) establishment of a Cybersecurity Lab and training center, including the SOC and the NOC. Implementation of the subcomponent should fully institutionalize cybersecurity and data protection mechanisms within the overall e-Government framework and as such, increase safety and security of operation and users.

[18] The Digital Transformation Project, financed by the DFID and GOS and implemented by UNDP, a consultant has been hired to perform detailed gap analysis of the laws and bylaws related to the advancement of e-Government agenda. Annex 3 provides a list of missing legislation.

[19] (a) Law on e-Government (Official Gazette of the Republic of Serbia, No 27/18); (b) Law on Cybersecurity (Official Gazette of the Republic of Serbia, No 6/16 and 94/17) which is in accordance with EU GDPR and Directive 2016/1148 of the EU Parliament; (c) Law on Electronic Document, Electronic Identification and Trust Services in the e-Commerce (Official Gazette of the Republic of Serbia, No 94/17); (d) Law on Personal Data Protection (Official Gazette of the Republic of Serbia, No 97/08, 104/09 – other law, 68/12 – CC decision and 107/12); (e) Law on e-Commerce (Official Gazette of the Republic of Serbia, No 41/09 and 95/13); and (f) Law on Electronic Communications (Official Gazette of the Republic of Serbia, No 44/10, 60/13 –CC decision and 62/14).

[20] At the minimum, the Rulebook should define mandatory measures, procedures, and standards compliant with the GDPR and cybersecurity which will constitute an obligatory requirement to access and interact with the e-Government system.

Box 2.1. - Computer Emergency Response Team (CERT)

The CERT, within the OITeG will be established during 2019. The CERT should have the capacity to monitor, manage, and audit the information security management system (cybersecurity) and data protection (GDPR). The CERT will oversee the monitoring of all activities and follow all events to differentiate normal behavior from malicious behavior, where all malicious activities must be prevented and treated according to IT security best practices.

To this end, at least the following units within the CERT should be established (a) SOC responsible for monitoring, assessing, and defending government information systems (websites, applications, databases, data centers, and network). The SOC will provide tools for handling any threatening IT incident (identification, analysis, investigation, and reporting). The SOC will also provide tools for security monitoring of applications to identify a possible cyber-attack or intrusion (event) and to determine if it is a genuine malicious threat (incident) and if it could affect business or lead to data leakage and (b) the NOC shall monitor communications in terms of network quality to indicate anomalies caused by malfunction or by malicious activities. The NOC is a central location from which the OITeG network administrators will manage, control, and monitor networking activities connected to data centers. The NOC will serve as the first step in providing cybersecurity on a networking level.

5. **Component 2: Transforming Services for Citizens, Businesses, and Government (US$22.6 million).** The objective of this component is to improve back-office processes to reduce administrative burdens and increase efficiency of service delivery. This will be done through reengineering, digitalization, and piloting of selected administrative e-services. While the GOS is committed to take forward reforms in all administrative services, the Project itself will finance “as-is” maps for a minimum of 150 services, a minimum of 50 “to-be” maps and the digitalization of a minimum of 30 services that have considerable impact on citizens trust, transparency, and accountability. The digitalization of these services is meant to have a demonstration effect. In addition, activities under this component will generate know-how (through learning-by-doing) for the GOS to be able to digitalize further administrative services outside the scope of this project. This component is structured around four subcomponents:

6. **Subcomponent 2.1 – Data and Document Management. (US$ 9.35 million).** The GOS spends significant financial resources on paper, printing, and the storage of physical documents, including the construction and maintenance of registries and warehouses. Furthermore, outdated regulations, weak IoPs, and a bureaucratic ‘paper-based culture’, result in public officials unnecessarily requesting physical copies of documents for various administrative processes. This results in the inability to cross-reference and use and reuse information already in the hands of the Public Administration. There are document management systems implemented in public institutions as support for office operations, and Article 4 of the Law on e-Government describes the possibility to transition to electronic office registries. However, almost no institution manages and stores official files according to appropriate e-Government legislation and most official files still exist exclusively in paper form. Furthermore, almost every administrative service performed in the Public Administration includes the production of documentation and/or paperwork, making it critical for the GOS to transition from a paper-based administration to an e-document, e-filing, and e-sharing culture. The GOS needs to implement tools to handle and manage documentation through a DDMS, office administration management system, and e-archiving solution. Activities under this subcomponent will support: (i) the establishment of methodologies, procedures, and guidelines for the collection, storage, management, and use of data and (ii) the implementation of an integrated DDMS to enable more efficient decision making by the GOS.

7. **Subcomponent 2.2 - Administrative Service Inventory (US$0.75 million).** One of the OITeG's main priorities is to provide more reliable e-Government services for citizens and business. The first step in this process is through simplification—by decreasing the number of procedures, transactions, and rules governing administrative services. A prerequisite for simplifying procedures is to develop an Administrative Service Inventory, that is a catalogue of administrative services for citizens and businesses.[21] The activities under this subcomponent will support: (i) the development of a comprehensive administrative service catalogue for services to citizens and businesses, the Administrative Service Inventory, and (ii) the development of prioritization criteria to identify which of the services are eligible for business process reengineering and digitalization.

8. **Subcomponent 2.3 - Business Process Reengineering (US$7.5 million).** Simplification of services can be accomplished in two complementary ways: (i) simplifying procedures using an integrated ICT system and/or decreasing the number of procedures and rules governing administrative services and, (ii) eliminating the redundant procedures. Implementation of these measures will reduce transaction costs, decreasing the overall cost of obtaining services, and doing business, and will consequently strengthen the private sector. The activities under this subcomponent will support preparation of process maps through a prioritization exercise, which will serve as a base for digitalization of selected administrative services. This will include comprehensive analysis and process mapping which will result in development of a minimum of 150 "as-is" process maps from the Administrative Service Inventory and a minimum of 50 'to-be maps. These maps will serve as a base for business process reengineering, automatization, and elimination of redundant procedures as well as for digitalization of services.

9. **Subcomponent 2.4 - Digitalization of Pilot Services (US$5 million).** Based on the "to-be" maps created under Subcomponent 2.3, this subcomponent will support digitalization and piloting of a minimum of 30 selected administrative e-services and mobile apps through the GOS e-Government portal. These will be based on specifications and requirements established in the Government e-Portal rulebook and by using predefined APIs. Under this subcomponent the Project will support the implementation of digital services using the "to-be" process maps and utilizing the IoP supported under Component 1. This subcomponent will also finance TA for the Help Desk to provide support to users and collect feedback on digitalized services. In addition, this subcomponent will support preparation of the rulebook for the GOS e-Government portal.[22]

10. **Component 3: Digital Skills Development, Institutional Strengthening, and Change Management (US$5.7 million).** The objective of this component is to strengthen the capabilities of citizens, businesses, and the Government to reap the benefits of digitalization, through the following three subcomponents:

- **Subcomponent 3.1 - Strengthening Digital Skills and Knowledge Sharing (US$1.8 million).** Promoting digital skills is critical in addressing the current digital divide in Serbia and for ensuring full participation in a digital society. It is necessary to strengthen skills to ensure citizens become 'digital citizens' defined as those that can access, use, and benefit from e-

[21] Administrative Service Inventory will also serve as an input to the information system that will establish a Point of Single Contact (Directive 126/2006/123/EC).

[22] Which will define, inter alia, requirements for the establishment and the manner of work of the e-Portal, requirements related to the determination of domain, accuracy, and completeness of the web presentation content, visual identity of the services of online services, functionality, accessibility, language and letter, graphical solution, design, usefulness, availability, security, maintenance, updating, and other issues related to the e-service development.

services and job opportunities that accrue from using ICT. Serbia, like many other countries has significant human capacity challenges when it comes to government digitalization. Key challenges include: (i) a shortage of ICT skills in government entities; (ii) limited capacity to attract and retain qualified ICT staff in the public sector; and (iii) mistrust and limited understanding of the potential benefits of e-Government to improve service delivery. This subcomponent will support the identification of specific skills that need to be developed for advancing the e-Government agenda, including through building core skills within the Government as well as through outsourcing. An HR strategy[23] and curriculum for building these skills will be developed during the first year of project implementation and will be targeted at key stakeholders. Among other initiatives, training programs for government officials and citizens, online courses, media campaigns, and a cascade model of training will be developed. The MTTT and OITeG have an overall responsibility for defining the ICT and HR strategy and the ICT curriculum which will be implemented by the National Academy for Public Service.

- **Subcomponent 3.2 - Change Management, Communication, and Citizen Feedback (US$1.4 million).** Implementing public sector management reforms can be complex and difficult. Lessons learned from the implementation of such reforms indicate that addressing change management is a key success factor. Adaptive challenges should be considered alongside technical challenges when identifying obstacles to the implementation of a reform program. Using a problem-solving approach, this subcomponent will support: (i) change management, which would include development of a change management strategy and action plan; (ii) awareness campaigns, targeted training programs, and citizen engagement activities; and (iii) deployment of passive and active citizen engagement tools to collect and respond to citizen feedback and measure citizen satisfaction.

  The change management strategy and action plan will be centrally managed by the PIU and OITeG and will include the preparation of a risk assessment to identify potential areas of resistance and reform champions in order to prioritize interventions and develop a targeted change management plan. The subcomponent will also support: (a) development and implementation of a comprehensive stakeholder communication strategy, including internal and external communication with citizens, local governmental authorities, as well as TV campaigns, development of educational applications, etc.; (b) development and implementation of targeted workshops and training programs for stakeholders at various levels from leadership to end users and feedback collection; and (c) development and deployment of citizen engagement tools, such as survey at the e-Portal (passive) and targeted surveys and workshops (active), within the OITeG to collect feedback and measure citizen satisfaction with e-services and the e-Portal. These tools will provide for users to suggest recommendations for further improvements.

- **Subcomponent 3.3 - Project Management (US$2.5 million).** Recognizing that the proposed institutional changes will occur in an environment of constrained capacity, the Project will

dedicate resources to strengthen coordination and reform management. Project management mechanisms will include but not be limited to:

(a) Coordination Council for e-Government;

(b) Steering Committee;

(c) Management Committee;

(d) Technical Working Groups comprising of relevant stakeholders and to be established as necessary;

(e) Leadership by OITeG to manage and implement advancement of e-Government reforms;

(f) PIU within the OITeG, to be financed by the Project to manage the implementation of activities and build capacities within the OITeG, and

(g) CFU, to be partially financed by the Project on a rolling basis.

This subcomponent will also finance the provision of specialized TA for strengthening interinstitutional coordination and the implementation of project-related activities identified during the life of the Project that are consistent with the PDOs and those required to ensure compliance with Safeguards requirements.

ANNEX 3: List of Pending Secondary Legislation

1. To support preparation of the EDGe Project, UNDP has in partnership with the World Bank and OITeG, commissioned a gap analysis of the regulatory framework related to the advancement of the e-Government agenda in Serbia. The table below present a list of currently missing bylaws, required for full implementation of the following three (3) laws: 1) Law on e-Government, 2) Law on e-Document, e-Identification and Trusted Services in e-Commerce, and 3) Law on Cyber Security. The Project intends to support the completion of the bylaws listed in the below table, which are currently delayed and/or pending adoption.

Table 3.1. - List of Bylaws

	Description of the Bylaw	Legal Ground	Responsible institution	Deadline
1	Manner of the insight in the registers/databases, manner of the acquiring, processing, and submitting/delivering the data that could be found in the electronic registers/databases that are needed for the purposes of administrative procedure	Article 11, Paragraph 9 of the Law on e-Government	MPALSG	October 14, 2018
2	Detailed conditions, measures and manner of the authorization for transfer of the data and electronic documents outside the Republic of Serbia	Article 12 Paragraph 4 of the Law on e-Government	Ministry of Justice and Office of the Council for National Security and Secret Document Protection	October 14, 2018
3	Manner of providing the payment services (acceptance of the payment instruments, money transfer and other payment services) pursuant to the law that regulates payment services in relation to the paying the taxes and for the e-Government services through the e-Government Portal	Article 22 Paragraph 6 of the Law on e-Government	GOS	October 14, 2018
4	Conditions concerning the maintenance and development of the state center for management and storage of the data	Article 29 Paragraph 5 of Law on e-Government	GOS	October 14, 2018

	Description of the Bylaw	Legal Ground	Responsible institution	Deadline
5	Type of e-trusted services that state body could provide, manner of providing of such service, and detailed determination of the procedure for providing of such trust services	Article 37 Paragraph 2 of the Law on e-Document, e-Identification and Trust Services in e-Commerce	GOS	Not determined
6	Conditions concerning the procedure related to the validation of the qualified e-signature and qualified e-seal	Article 48 Paragraph 4 of the Law on e-Document, e-Identification and Trust Services in e-Commerce	MTTT	October 27, 2018 (12 months from the day of the law entering in force)
7	Detailed conditions related the provision of the service of qualified validation of e-signatures and e-seals	Article 49, Paragraph 2 of the Law on e-Document, e-Identification and Trust Services in e-Commerce	MTTT	October 27, 2018 (12 months from the day of the law entering in force)
8	Detailed conditions related to the qualified electronic time stamps	Article 52 Paragraph 2 Law on e-Document, e-Identification and Trust Services in e-Commerce	MTTT	October 27, 2018 (12 months from the day of the law entering in force)
9	Detailed conditions concerning the qualified electronic delivery and the content of the certificate of reception of the electronic message by provider of service and certificate on delivery of electronic message to the recipient	Article 55 Paragraph 7 of the Law on e-Document, e-Identification and Trust Services in e-Commerce	MTTT	April 27, 2019
10	Detailed conditions concerning the check of compromising electromagnetic radiation and manner of the risk assessment from the leaking of the data through compromising electromagnetic radiation	Article 22 Paragraph 6 of the Law on Cyber Security	GOS upon proposal of the Ministry of Defense	August 5, 2016
11	Technical conditions for cryptographical algorithms, parameters, protocols, and information goods in the field of	Article 23 Paragraph 3 of the Law on Cyber Security	GOS upon proposal of the Ministry of Defense	August 5, 2016

	Description of the Bylaw	Legal Ground	Responsible institution	Deadline
	crypto protection that are used in Republic of Serbia in cryptographic products for the purposes of protection of secrecy, integrity, authenticity, that is, data integrity			
12	Conditions concerning the cryptographical products which are used for transfer and keeping of the data which are determined as secret	Article 24, Paragraph 2 of the Law on Cyber Security	GOS upon proposal of the Ministry of Defense	August 5, 2016
13	Content of the request for issuing of the authorization for cryptographic product, manner of issuing of the authorization and content of the register of issued cryptographic products	Article 25 Paragraph 10 of the Law on Cyber Security	GOS upon proposal of the Ministry of Defense	August 5, 2016
14	Manner of running of the register of crypto products, crypto material, rules and regulations, and entities that performs the crypto protection activities	Article 27 Paragraph 4 of the Law on Cyber Security	GOS upon proposal of the Ministry of Defense	August 5, 2016
15	Criteria concerning the identification of the critical infrastructure and manner of reporting	Article 5 Paragraph 3 of the Law on Critical Infrastructure	GOS	May 21, 2019
16	Methodology, manner of drafting, and content of the Critical Infrastructure Operators Security Plan for risk management	Article 8 Paragraph 3 of the Law on Critical Infrastructure	Ministry of Interior	May 21, 2019
17	Manner and program for the exam related to the focal point officer	Article 9 Paragraph 7 of the Law on Critical Infrastructure	Ministry of Interior	May 21,2019
18	Determination of the information that could be presented in standardized icons in electronic form and procedure related to the determination of such icons	Article 21 Paragraph 9 of the Law on Personal Data Protection	Data Protection Commissioner	August 21, 2019
19	Form and manner of notification of the personal data breach notification	Article 52 Paragraph 9	Data Protection Commissioner	August 21, 2019
20	Form and manner of the running of the register of data protection officers	Article 56 Paragraph 12	Data Protection Commissioner	August 21, 2019

	Description of the Bylaw	Legal Ground	Responsible institution	Deadline
21	Criteria for accreditation of the certification body for issuance of the data protection requirements compliance certificate	Article 78 Paragraph 1 Point 18 and Article 62 Paragraph 3	Data Protection Commissioner	August 21, 2019
22	Criteria for certification (issuance of the data protection requirements compliance certificate)	Article 78 Paragraph 1 Point 16	Data Protection Commissioner	August 21, 2019
23	Form and manner of the register related to the data controllers/data processors that breached the provisions of the law	Article 78 Paragraph 4	Data Protection Commissioner	August 21, 2019
24	Form on the complaint related to the personal data breach	Article 78 Paragraph 5	Data Protection Commissioner	August 21, 2019