Legal Issues in the Digital Age. 2022. Vol. 3. No. 4.
Вопросы права в цифровую эпоху. 2022. Т. 3. № 4.

Research article
УДК: 340
DOI:10.17323/2713-2749.2022.4.106.129

Digitalisation in Russia: In Search of a Legal Model

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Abstract

The article considers issues faced by legal regulation of digitalisation in Russia. The aim of the analysis was to formulate theoretical approaches to the current state of legal regulation of digitalisation in Russia and directions for its improvement. To this end, the authors set the objectives to assess the sufficiency and adequacy of legal regulation in Russia and then compare it with the experience of the UK, Germany, Sweden, and Switzerland. Russia has formulated a national goal for building a digital economy. A national programme of the same name and other policy documents have been adopted in accordance with this goal. However, even before this goal was set, a number of strategic planning documents (a strategy and a doctrine) had been adopted in this area in Russia. Our analysis demonstrates that their provisions have only partly been taken into consideration in drafting the new regulation. Actually, in the year 2017 there was one set of goals, and the year 2018 saw a different set of goals. The survey found shortcomings in the legal regulation of long-term digitalisation goals, such as poorly defined contents of the measures, a lack of measurable and concrete actions to develop legal regulations, and a failure to elaborate the structure of the documents. The foreign countries under review have developed approaches to drafting clear and understandable digitalisation strategies. They typically analyse existing entry points, make an inventory of activities in all areas, and identify measurable regulatory initiatives. It would be advisable to apply such approaches in Russia. Of further note are gaps in regulation of government information systems ('GIS') in strategic planning documents related to establishing the cost of GIS development, information availability, and assessment of GIS efficiency. Based on the survey outcomes, the authors suggest that there is a need for a unified digitalisation strategy and better legal regulation in Russia. Due to the shortcomings mentioned in digitalisation, Russia can fail to attain the digitalisation aims and objectives, and begin to lag behind the rest of the world.

Keywords

digitalisation, GIS, information systems, digital economy, legal regulation, digitalisation strategy, expense type.

For citation: Shevelko D.A. (2022) Digitalisation in Russia: In Search of a Legal Model. *Legal Issues in the Digital Age,* vol. 3., no. 4, pp. 106–129. DOI:10.17323/2713-2749.2022.4.106.129

Introduction

Russian public administration and economy have been quickly digitalising in the past five years. Currently, legal matters of preparing federal budget and fulfilling strategic planning documents are under transformation. Most budget processes are in essence performed by means of government information systems ('GIS').

It is possible to identify a number of GIS types used to digitalise budgetary arrangements: integrated government information system for public finance management 'Electronic Budget' ('Electronic Budget'), unified procurement information system for public procurement ('UIS'), Automated Federal Treasury System ('AFTS') for treasury budget compliance, and national project management subsystem for national projects.

There are just a few largest GISs that have enabled transforming budgetary arrangements in the public sector. As this process is now complete, legal GIS regulation has to be analysed and ways to improve it considered.

According to the Audit Chamber of Russia, 67 federal government authorities and public non-budgetary funds control 1143 information systems[1] with an estimated total cost of ownership amounting to RUB 296 billion[2]. Furthermore, there is a large number of information systems at the ministry level, not to mention the regional and municipal levels.

[1] As at 04 December 2022. Report on the results of the conference 'Assessment of the Current Status of Federal State Information Systems in Terms of the Outlooks of Digitalization of Public Administration'. Approved by the Collegium of the Accounts Chamber of the Russian Federation on 28 June 2022. Available at: URL: https://ach.gov.ru/statements/bulletin-sp-8-2022 (accessed: 20.11. 2022)

[2] Ibid.

It is clear from the above figures that the GIS sphere plays a vital role in Russia's development, hence the legislator has to establish an effective legal regulation system. Otherwise, such a multitude of GISs can result in a chaos and gaps in legal regulation.

As at 21 November, 2022, over 175 legal regulations of various levels, including 17 federal laws (10), and over 160 statutory instruments regulate the sphere of GIS and digitalisation at the moment.

The amount of the instruments has grown by 15% over the past two years[3]. They can be grouped into the instruments that directly regulate digitalisation and information management (ca. 50 instruments, or 30%), and instruments indirectly regulating certain individual areas of IT-based management (i.e., they are related on the basis of definitions and particular legal aspects).

Several types of regulatory instruments concerning digitalisation can be distinguished. One of them is instruments determining the target-setting principles for development of that sphere. Two, are instruments related to the funding of the respective measures. Three, are instruments describing requirements to the GIS.

While the GIS sector is only one of digitalisation areas, it is the most important one as it underlies the functioning of the government, certain public sectors (education, health care etc.) and interaction with the people and the private sector. Other spheres include implementation of private projects, where the government has been working to ensure the best legal environment and favourable economic conditions.

The large numbers of information systems and legal acts also calls for a proper setting of top-level goals: Where digitalisation is going, and what the state, business and the public should get.

Digital Transformation is one of the national goals that the President of the Russian Federation has set forth in the programme for long-term development until 2030[4]. The four target indicators to control progress towards this goal are: achieving digital maturity; increase in the share of services provided in the public interest; broadband internet access; increase in investments in Russian-made solutions.

[3] From 20 December 2021 to 21 November 2022.

[4] Sub-paragraph "д", Para 1 of Presidential Decree No. 474 of 21 July 2020 'On National Development Goals of the Russian Federation for the period until 2030' // SPS Consultant Plus.

The Digital Economy national programme, Russian state-run programmes and federal projects have been adopted to ensure this national goal is achieved. The main focus in these documents is on measures to develop public administration and economy, but planning and implementation of the optimum legal model for supporting the digitalisation of Russia also play an important role.

We believe that the current state of affairs in digitalisation, including digitalisation in the government sector, calls for expert analysis and rethinking, including a comparison[5] between legal methods applied in various countries to develop the legal environment and ensure the best result.

The aim of research is to formulate theoretical approaches to the current state of legal regulation of digitalisation in Russia and directions for its improvement. S

The author set the following tasks:

Analyse international experience in digitalisation, including approaches to target-setting and systems of legal regulation;

Determine whether the long-term goals of Russia's digitalisation are adequate;

Analyse the measures for establishment of an optimal legal model for digitalisation;

Review the current legal framework and the challenges of digitalisation of the public sector.

The author methods are: comparative legal one, dialectical, legal interpretation and formal legal method. The subject of the study is the legal norms regulating social relations in the field of public sector digitalisation.

1. A Sketch of International Experience of Approaches to Legal Regulation of Digitalisation[6]

It has a sense to preface our study of international experience with a note that adopting a corresponding strategy is the most common legal ap-

[5] As a priority for digitalization.

[6] The section on foreign experience was intended to follow the study of legal regulation in Russia. At the same time, after the drafting of the article, it became evident that the problems of Russia can be better exposed through the analysis of documents from foreign countries.

proach to implementing digitalisation. Such a strategy usually determines a set of key points to be achieved, links goals and objectives, and defines the country's positioning on the international market.

It should be noted that digitalisation of a state leads to competition between countries for digital assets, investments, and for creation of a favourable climate for generating digital products. This competition stems from identical technologies of building IT infrastructure in various countries, which enables choosing between a number of proposals in such countries, while the company will provide its services globally. Of further note is competition for human resources: easy electronic interaction with the government is an advantage that helps attract valuable talents into the economy.

But competition exists not only in the technology aspect. Legal models of regulation also compete against each other, and investors (companies, individuals) prefer the most effective, clear and easy to understand norms and regulations.

At the same time, digitalisation of the public sector remains in the public limelight: It is becoming clear that by digitalising respective processes and services the government grows more effective. Hence, the more automated components there are, the quicker a service is provided, the lower is the risk of an error, and more budgetary funds are saved and can be spent on other projects.

It is impossible to create a digitalisation model without the tools for enforcing this process. In particular, gaps in law, and failed rules must be eliminated, and flexible regulations for a breakthrough in the respective areas created.

As an OECD analysis of 38 countries [Gierten D., Lesher M., 2022: 3] notes, the available legislative framework (e.g., laws on personal data protection or on digital security) should ensure coordination between the digitalisation strategy and specific regulations.

In view of the above, it is still a highly relevant task to study international experience despite the sanctions and challenges in international politics. Situations can change, but, ultimately, countries will continue to compete, and sanctions should not stop the legal development of digitalisation.

This study analysis the current experience of digitalisation in the UK, Federal Republic of Germany, Sweden, and Switzerland. These countries were selected due to the high digitalisation level and quality of legal regulation.

The analysis focused on the existing strategies of digitalisation, measures to enforce its implementation, process descriptions, and measurable and specific end results.

1.1. Germany's Experience in Digitalisation

In June 2021 Germany has adopted the Digitalisation Strategy[7], a long document that offers a concrete solution for every task. While Germany did not set any large-scale digitalisation goals, the document notes that strategic planning implies regular analysis and tracking of progress towards the goals.

The Strategy outlines five tasks: digital literacy, infrastructure and equipment, innovations and digital transformation, society in digital transformation, and the modern state. The Strategy not only develops new activities and directions, but has also structured the extensive work on going since 2016 [Hermann P., 2022: 3].

E.g., steps to create apps for the sick in the health-care sector included analysing the implementation stages since 2019 and assessment of the changes made in law. The results were used to adjust the Strategy's implementation stages.

The Strategy provides for ca. 110 legislative measures to support its implementation. These measures are very clear and easy to understand: e.g., make changes in the Law on Telecommunications to encourage investment in fibre-glass networks and promote joint initiatives of the public and private sector[8]. The measure 'Make Solutions Based on Verifiable Algorithms'[9] provides for continuous monitoring current legal regulation of this issue in Germany, in the European Union and worldwide. The subject of the analysis is regulation of specific risks pertaining to algorithm-based systems.

Documenting the current progress of implementation measures is another important direction of the Strategy.

Digitalisation of the public sphere in Germany implies not only adopting or adjusting regulations but also enforcement, namely: creating digital tools to enforce the provisions of law.

[7] Available at: https://www.bundesregierung.de/breg-de/service/publikationen/digitalisierung-gestalten-1605002 (accessed: 25.06.2022)

[8] Ibid. P. 42.

[9] Ibid. P. 164.

E.g., the Law on Online Access[10] has obliged the authorities to be able to provide administrative government services online by the end of 2022. In pursuance of the Law, the federal digitalisation programme[11] was adopted in 2018 that listed 575 services, which were then 'digitalised' from 2018 till 2022.

In conclusion it should be noted that Germany Digitalisation Strategy includes measures for all the digitalisation spheres: the state (e.g., electronic adoption of laws and regulations), health care, education, housing and utilities (online utility calculator), and many other areas.

Therefore, the approach to building the Digitalisation Strategy in Germany involves not only mid-term planning but also documenting the existing achievements and tracks, which generates a comprehensive picture of the digitalisation process. The goals and measures of digitalisation are analysed in terms of their enforceability.

1.2. UK Experience in Digitalisation

The UK Digital Strategy[12], adopted in June 2022, is the current high-level document; the previous version was adopted in 2017. The goal state to be achieved upon its implementation in 2025 is 'a transformed, more effective digital government that delivers better outcomes for all'[13]. Six mission challenges have been set forth for the government:

Civil service transformation that achieves the right results.
One System (One Login) for Government.
Digital improvement for decision making.
Efficient, secure and sustainable technologies.
Developing digital skills.
Unlocking the opportunities of digital transformation.

To implement the Digital Strategy, the UK government has adopted a road map with concrete steps until 2025. It should be noted that the

[10] Available at: https://www.gesetze-im-internet.de/ozg/ (accessed: 16.08.2022)

[11] Available at: https://www.onlinezugangsgesetz.de/Webs/OZG/DE/themen/digitalisierungsprogramm-foederal/foederal-node.html (accessed: 16.08.2022)

[12] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1089103/UK_Digital_Strategy_web_accessible.pdf (accessed: 16.08.2022)

[13] Ibid. P. 4.

authors of the road map took into account the recommendations that the National Audit Office[14] made the based on the audit findings in the previous years.

One of the measures to be carried out as part of legal regulation is reforms of the data protection law including raising the data protection standard. In particular, the UK has been improving the Online Safety Bill since 2018[15], which will lay a foundation for a cross-border data flows [Tranos E., Kitsos T., Ortega-Argilés R., 2020: 1929]. As at November 2022, the draft has passed on second reading in the UK House of Commons.

In June 2022 the Queen also announced a legal reform aimed at changing the Data Protection Act and adopting the Competition and Consumer Bills, and the Digital Market Bill[16].

According to the plan, in order to complete the public service mission, uniform standards for service provision will be created and approved. As the regards the single entry point for the government, administration departments will coordinate an overall strategy and roadmap until 2023.

Thus, the analysis suggests that the legal model for digitalisation in the UK includes a limited range of acts (projects). The analysis of the projects shows that they tackle (intend to tackle) the majority of social relations in the sphere of digitalisation.

1.3. Sweden's Experience in Digitalisation

Sweden adopted the Digitalisation Strategy[17] on 20 December 2016 for a period until 2025. The Strategy sets forth the mission to create a sustainable and digital Sweden. The overall strategic goal is 'Sweden will be the world's best country in terms of digital opportunity utilisation'.

The overall goal is broken down into five subgoals: Competence, Security, Innovations, Infrastructure and Governance. E.g., with respect to

[14] The highest audit authority in the UK.

[15] Online Safety Bill. Available at: https://bills.parliament.uk/bills/3137 (accessed: 16.08.2022)

[16] Available at: https://lordslibrary.parliament.uk/digital-regulation/ (accessed: 31.10.2022)

[17] Available at: https://www.regeringen.se/49adea/contentassets/5429e024be6847fc907b786ab954228f/digitaliseringsstrategin_slutlig_170518-2.pdf (accessed: 31.10.2022)

Competence, " In Sweden, everyone should be able to develop and use their digital skills."[18]

Unlike the UK and Germany, Sweden's digitalisation strategy does not include direct measures to develop a legal framework. It sets forth certain simple and straightforward requirements to the regulatory system [Borg, 2018: 40]. Sweden has decided that a modern digital society needs a long-term sustainable legislation that supports development and its potential to improve efficiency.

To achieve the goals of the Strategy, Sweden needs to reform its legislative capacity to create better conditions, and to adjust the laws that unnecessarily complicate digitalisation.

Enforcement measures are set forth in other documents adopted in pursuance of the Digitalisation Strategy. It is worth stressing that, as far as Sweden and Germany are concerned, digitalisation legislation is also developed on the basis of common European Union legislation and directives.

Sweden is an example of non-specific approach to shaping regulatory measures in a strategy. That said, Sweden holds a leading position in the world in terms of legal regulation.

1.4. Switzerland's Experience in Digitalisation

In 2020 the Digital Switzerland Strategy was adopted[19]. According to OECD estimates based on continuous monitoring in 28 countries, Switzerland took the leading position in digitalisation in 2021[20].

The Strategy outlines the principles of digitalisation based on the need for the state, business and citizens to work together to achieve five digitalisation goals. It then lists legal regulation measures required to implement the principles and goals. The list notes which of the provisions should be revised based on the digitalisation goals.

The Digital Switzerland Action Plan, which is part and parcel of the Strategy, defines actors and deadlines.[21] The Action Plan lists 111 activities in all

[18] Ibid. P. 12.

[19] Available at: https://www.digitaldialog.swiss/fr/ (accessed: 24.10.2022)

[20] Available at: https://www.oecd.org/digital/digital-government/ (accessed: 24.10.2022)

[21] Available at: https://www.digitaldialog.swiss/de/aktionsplan-digitale-schweiz-12-2019 (accessed: 11.07.2020)

areas of governance and economy. Based on the analysis results, each activity is detailed, responsible actors assigned, and implementation deadlines set.

Before the list of activities was prepared, the current state of affairs in each respective area had been analysed. E.g., a survey of 5G telecommunications was carried out in 2019 for the target state 'Switzerland has a nationwide, competitive, reliable, efficient and sustainable communications infrastructure.'[22] Thus, the Swiss experience can be used as a best practice in developing digitalisation activities.

Some distinctive features of legal regulation in these countries are clear

One, the set of goals (sub-goals) in the countries analysed are identical. The governments prioritise the areas of human capital, infrastructure, security and the public sector. All the government's position themselves as 'the best' at creating digital tools.

Two, the government's digitalisation strategies have a set of clear and explicit measures for legal regulation, or requirements for such regulation. Legislative initiatives are seen as a precondition for achieving the goals.

Three, the governments perform a mandatory entry point study to commence the implementation of activities and their final evaluation. The results are necessarily reflected in the digitalisation strategy. The final results are subject to internal and external evaluation.

2. Defining Strategic Goals for Digitalisation in Russia

In Russia a solid number of documents define the goals and objectives of digitalisation. We do not have a single digitalisation strategy; the following strategic planning documents contain individual elements. As S.M. Zubarev points out, there are "serious risks of destabilisation of the digitalisation process due to the lack of unity of normative goals, objectives, as well as measures to achieve them." [Zubarev S.M., 2020: 27].

In 2017, the Strategy for the Development of the Information Society in the Russian Federation for 2017–2030[23] (hereinafter–Strategy') was adopt-

[22] Available at: https://www.bafu.admin.ch/bafu/de/home/themen/elektrosmog/dossiers/bericht-arbeitsgruppe-mobilfunk-und-strahlung.html (accessed: 11.07.2020)

[23] Presidential Decree No. 203 of 09 May 2017 on the Strategy for the Development of the Information Society in the Russian Federation for 2017-2030 // Corpus of Legislation of the Russian Federation of 15 May 2017. No. 20, p. 2901.

ed, which defines the goal "Create conditions for the formation of a knowledge society in the Russian Federation". Digital economy is defined as a 'national priority.' Initially, the Digital Economy programme was adopted in pursuance of the Strategy. In particular, it is emphasised that the programme "aims to create the conditions for the development of a knowledge society in the Russian Federation."

In 2018, a national objective was adopted: digital transformation. As we will see below, it is not aligned with existing strategic planning documents. Let us have a closer look at them.

The analysis and decomposition of the building blocks of the Strategy have revealed the following:

The Strategy identifies five priorities in the development of the information society. It has a special section for four of the five priorities where it sets a separate priority objective and defines indicative directions for its implementation.

For the priority 'Creating a new technology basis for economic and social development', only 20 main tasks have been identified, without areas for implementation.

Thus, the Strategy is deficient from a legal point of view because it lacks structural coherence and comparability of the objectives, directions, and tasks in its sections. Furthermore, the Strategy lacks the table of contents which complicates understanding of the document for citizens without a legal background.

An analysis of the directions shows that they are not clearly formulated, and the progress towards them cannot be evaluated because there is no timeframe for their implementation and no defined outcome. Let us look at some cases.

The direction outlined for the information space creation priority is "To carry out activities in the field of spiritual and moral education of citizens."[24] It is not clear from the contents of this direction how to implement it.

In respect of stable functioning of the IT infrastructure, the Strategy provides for "centralised monitoring and management of the Russian Fed-

[24] Subparagraph 26(a) of the Strategy.

eration's information infrastructure."[25] As at 21 November 2022, no legal regulation on monitoring was adopted. Also, there were unresolved problems in the management direction. E.g., there is no united approach to assessing the cost of digitalisation at all levels of the public sector system. Evaluation and data collection can be recorded under expenditure type code 242, but there are also borderline codes used to document procurement of equipment and activities related to digitalisation.

A total of 96 implementation directions were defined for four priorities. Only tasks, and not directions, were outlined for one of the priorities. This means that in essence there is no single approach to describing the priorities. The section in question was drafted by different authors without coordination of theirs work. This impairs the quality of legal regulation.

The Strategy provides for only six priority directions for legal regulation. Their analysis shows that, like other activities, they are generic and non-specific. It is not clear from their content what legal regulations can be adopted and what these should contain. As a result, actors may interpret approaches to activity implementation at their own discretion.

The following examples can demonstrate this: "Improve the mechanisms of legislative regulation of the mass media"[26], "Amend the laws of the Russian Federation to ensure that the legal and regulatory framework corresponds to the pace of development of the digital economy."[27]

It is clear: to be able to follow a result, its measurability and quality, it would be useful to include specific measures for the development of digitalisation in strategic planning documents. Otherwise, it appears that when the document was adopted, there was only one task, i.e., to approve it, and that all the directions were to be developed during the implementation period.

Para 53 to 54 of the Strategy state that the timeframe for implementation is defined in the implementation plan. That is, there was an intention to clarify the directions and activities. But, as at 21 November 2022, there was no information on the adoption of such a plan on the Internet or in the legal databases.

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[25] Subparagraph 29(a) of the Strategy.

[26] Subparagraph 26 'p' of the Strategy.

[27] Subparagraph 42 'ж' of the Strategy.

The implementation plan, as stipulated, was to set forth the legislative support measures for the implementation of the Strategy, namely which legal regulations would be adopted for its implementation.

Therefore, the Strategy is formal: There are legal gaps in defining specific activities and there are no indicators to monitor it. If to compare it with the approaches taken by foreign countries, it would be advisable to consider developing a new unified digitalisation strategy.

Another strategic planning document that can be highlighted as regards digitalisation is the Information Security Doctrine of the Russian Federation, approved by Presidential Decree No. 646[28] (hereinafter — the Doctrine). International experience shows that ensuring information and personal data security is a priority for digitalisation in most of the countries analysed.

In terms of the quality of legal regulation and the decomposition of objectives and activities, one could note the following.

The Doctrine consists of five sections that are not interconnected with each other.

Section 1 lists the terms and definitions used.

Section 2 of the Doctrine formulates the five national priorities in the information sphere. However, they are only listed, and no links are made between the areas of implementation and other elements of the Doctrine. In our opinion, a formal enumeration of certain provisions overburdens a strategic planning document. Such a document defines the areas that the state wants to achieve, so it would be advisable to show directions and activities to achieve specific outcomes for the development of national interests.

Section 3 lists the main information threats and the state of information security. However, the associated risks are only stated, and there are no measures to mitigate them at least to an acceptable level.

The Doctrine does not have a separate objective for the entire document, but Section 4 highlights three strategic objectives for information security in the fields of defence, science and strategic stability.

Section 5 of the Doctrine 'Organisational foundations for ensuring information security' defines the principles and tasks of state security agencies.

[28] Presidential Decree No. 646 of 5 December 2016 'On Approval of the Information Security Doctrine of the Russian Federation' // SPS Consultant Plus.

In addition, there are several more strategic planning documents that make a reference to digitalisation[29]. These are however indirectly related to the documents reviewed, only to the extent that they indicate some aspects of digitalisation.

The National Strategy for the Development of Artificial Intelligence until 2030[30] states the need to create and enforce legal conditions for accessing data and testing solutions based on artificial intelligence.

Clearly, the Doctrine foresees non-public implementation and accountability. However, the two documents reviewed share similar problems and shortcomings with regard to the quality of the legal regulation.

3. Two Digital Economy Programmes

A Digital Economy programme was adopted in 2017 in order to implement the analysed strategic planning documents.[31] And after the approval of the national objective, the national programme 'Digital Economy' ('the national programme') was adopted.

To investigate further, let s examine the two Digital Economy programmes with regard to the quality of legal regulation, and the differences between the two programmes over the two years of their implementation.

There are three major objectives in the Digital Economy programme[32]:

to create an ecosystem for the digital economy of the Russian Federation;

to create the necessary and sufficient institutional and infrastructural conditions;

to increase Russia's competitiveness in this area.

Section 3, 'The Russian Federation in the Global Digital Market', notes that there is a significant lag from the world leaders in the development of the digital economy. One of the reasons appeared to be gaps in the norms

[29] Para 20(a) of the Strategy for Scientific and Technological Development of the Russian Federation, approved by Presidential Decree No. 642 of 01 December 2016: 'The transition to advanced digital technologies, robotic systems, new materials and construction methods, development of big data systems, machine learning and artificial intelligence'

[30] Approved by Presidential Decree No. 490 of 10 October 2019.

[31] Decree of the Government of the Russian Federation No. 1632-p of 28 July 2017.

[32] A high-level summary.

and regulations on digital economy. To overcome it, the Digital Economy programme sets out regulation as a basic direction of the digital economy development.

It is understood as "the creation of a new regulatory environment that ensures a favourable legal regime for the emergence and development of modern technologies, and for economic activities related to their use (the digital economy)".[33].

Six 'indicative' areas of implementation have been identified under this direction. These include, for example, "removal of key legal barriers", "development of comprehensive legislative regulation of relations", and "adoption of measures aimed at encouraging economic activity."

In our opinion, yet another case of unclearly stated implementation directions in the preamble of the Programme may indicate poor project planning. It appears that at the time the Programme was developed and adopted, the responsible authorities had not carried out an inventory of regulation, nor had they identified the risks of legal gaps and shortcomings.

The Digital Economy programme outlines a roadmap with 21 tasks and 56 milestones for the six areas of regulatory implementation. An analysis of the tasks and milestones has shown that different approaches were developed for them: Some do contain specific measurable activities (e.g., "A draft concept of priority measures to improve legal regulation has been prepared"[34]). But most contain very vague actions (e.g., "Regulations have been adopted to create the legal conditions for the creation of a single digital environment of trust"[35]). It is not clear what changes in regulations are required, and what legal mechanisms and instruments will be stipulated in the new rules of law.

The Programme did not immediately identify the responsible actors because the intention was to develop the entire package of areas for legal regulation improvement after the Programme commencement. This raises questions about the ability to monitor the current state of the Programme and the lack of understanding of the final outcome of digitalisation.

[33] Page 10, Section Four 'Digital Economy of the Russian Federation' Programme // SPS Consultant Plus.

[34] Para1.2.1 of the Roadmap

[35] Para 1.7.2 of the Roadmap.

So, there are all the same mistakes in the Programme identified in the Strategy and the Doctrine, despite the fact that a separate drafting and adoption methodology has been selected for the Programme, and strategic planning documents are prepared on the basis of legal requirements[36].

According to the plan, main part of legal regulation was to be carried out in 2018-2020. The adoption of national goals and national projects (programmes) has, however, led to adjustments in objectives and milestones within the new system of strategic planning documents. As a result, the Digital Economy programme was deemed invalid in 2019[37].

The Passport of the National Programme was developed[38] according to methodology[39] different from the previous one. This resulted in structural differences between the two documents: the National Programme has no section on general baseline data, targeting and analysis of entry points. The structure of the Digital Economy National Programme distinguishes federal projects designed for the programme implementation.

The justification documents for the adoption of the Passport may have justified the activities and calculated the risks, but no information about them is available in the public domain.

The Passport of the National Programme distinguishes a separate federal project 'Regulatory framework for the digital environment' as part of the legal regulation[40]. It gives a detail description of the task[41] to ensure enforcement of digitalisation 35[42] of results for achieving it.

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[36] In accordance with the Federal Law of 28 June 2014 No. 172-FZ 'On Strategic Planning in the Russian Federation' // Corpus of Legislation of the Russian Federation 30 June 2014, No. 26 (Part I), Art. 3378.

[37] Decree of the Government of RF 12 February 2019, No. 195-r // SPS Consultant Plus.

[38] Passport of the National Project 'National Programme 'Digital Economy of the Russian Federation'. Approved by Presidium of Presidential Council for Strategic Development and National Projects, Minutes No. 7 of 4 June 2019.

[39] In accordance with Guidelines for Development of National Projects (Programmes) approved by the Government on 6 June 2018.

[40] Passport of the Federal Project 'Legal Regulation of the Digital Environment' (approved by the Presidium of the Government Commission on Digital Development and the Use of Information Technology to Improve Quality of Life and the Business Environment, Minutes No. 9 of 28.05.2019)

[41] A system of digital economy's legal regulation based on a flexible approach in each area has been established, and civil transactions on the basis of digital technology has been introduced.

[42] As at 21 November 2022.

As at 21 November 2022, half of the results had already been achieved, which is not a bad outcome since research papers note that a comprehensive modernisation is required to regulate digitalisation [Tikhomirov Yu.A. et al., 2021: 8].

It is worth noting that the set of legal tools and results has been partly revised vs. the initial legal objectives set out in the 2017 programme.

Hence, the aims and objectives of digitalisation have been revised in two years. The new paradigm of national objectives does not take into account the provisions of existing strategic planning documents. Therefore, either the documents need to be revised or the planning process needs to be clarified by leaving only the national objectives because the said objectives have not been implemented in the budget legislation nor in the laws on strategic planning documents.

4. Present Day Challenges

There are several long-standing problems in jurisprudence with respect to digitalisation of the state and public sector that have not been resolved to date; some were studied by scholars as far back as 2016 [Amelin R.V., 2016: 10–12].

4.1. GIS Regulation

In the government sector, there are no uniform approaches to the functioning of GISs, software and other products. As indicated, the authorities possess a large array of GISs. The legal grounds for their creation varied: some were created on the basis of mandates, some by the bylaws, and so on.

Basic GIS regulation is moving to the sub-legislative level, which leads to "an expansion of legal regulation not envisaged at the state level" [Zaloilo M.V., 2019: 23]. There is no 'inventory' of the justifications, cost of ownership, or expediency of GIS creation at present. Strategic planning documents do not envisage a solution to this problem.

At the same time, the growth of GIS leads to an 'unmanageable' chaos in legal regulation, because at the legislative level the main regulation of GIS is found in Article 14, Federal Law No. 149-FZ of 27 July 2006 'On Information, Information Technology and Information Protec-

tion'[43]. The legal regulation then descends to the sub-legislative level, where there is no uniform hierarchy of regulations. As part of the Digital Economy national programme, super-services are being created that integrate the existing GIS capabilities of the authorities.

Hence, a question also arises about data integration in the GIS and data input-output. There are no uniform requirements on the respective parameters in the law. The state has to pay a lot of money for adaptation of inputs and outputs.

4.2. Estimating Costs of GIS

If we consider that more sanctions were imposed on Russia in 2022, the task of substituting foreign software is now even more relevant. One of the issues in the legal regulation of GIS is regulating the calculation of the cost of establishing and maintaining a GIS, and treatment of the digitalisation cost within the country. Experts note gaps in law pose a high risk for digitalisation.[44]

By Procedure for the Formation and Application of Codes of the Budget Classification of the Russian Federation, their Structure and Purpose Principles approved by Order of the Ministry of Finance No. 85n[45] of 6 June 2019, budget expenses in the field of information and communication technologies are displayed under Expense Type 242.[46]

Despite the fact that there is only one type of expenditure, there is no open information on the total expenditure for that type of expenditure (e.g., in the Federal Treasury's Automated System). The government may possess this information, but ordinary researchers cannot estimate the costs.

Then there is the borderline type of expenditure, Type 244, that can be used to estimate costs, e.g. for maintenance, or costs close to digitalisation. In view of this, it is probably advisable to clarify the procedure for applying

[43] Federal Law No. 149-FZ of 27 July 2006 'On Information, Information Technologies and Information Protection' // Corpus of Legislation of the Russian Federation 31 July 2006, No. 31 (Part 1), Art. 3448.

[44] Digital Transformation of Industries. Moscow, 2021. P. 173.

[45] Order of the Ministry of Finance 'On the Procedure for the Formation and Application of Codes of the Budget Classification of the Russian Federation, their Structure and Purpose Principles'. Available at: http://pravo.gov.ru (accessed: 12.05.2020)

[46] Starting from 2023, also reflected under this Expense Type due to the new procedure for Budgetary Classification Code application.

Expense Type 244 and establish requirements on transparency of information on government spending on digitalisation.

Regarding Russia as a federal state, regional and municipal budgets are important in estimating the overall costs of digitalisation of the public sector. However, these budgets reflect Expense Type 242 expenses separately in their IT systems. Hence, there is no single reliable statistics on digitalisation expenses all the way down to the municipal level.

4.3. Costs of GIS Creation and Open Source Code

Establishing the cost of GIS creation is the most challenging task in digitalising state-funded activities. At present, most of the costs are reflected in accordance with the rules for determining the initial (maximum) price ('Maximum Starting Price of Contract/MSPC') based on the laws on government procurement.

The key challenge here is to find similar GISs to estimate the costs. To calculate the price, government authorities can receive three commercial offers from any market participant. Since technical data and requirements to GIS are incomparable (including OKVED Russian Classification of Economic Activities Codes and OKPD Russian Classification of Products by Economic Activities Codes for procurement specified in the Unified Information System), analogues cannot be used to estimate the MSPC.

It would be advisable in this respect to develop an open source software code that can be used by several government authorities. E.g., such a direction occurs in the UK Digital Strategy: you pay once, and everyone benefits. However, using a single code calls for the definition of regulatory legal requirements.

At this stage, it would be appropriate to analyse the available GISs, identify their features and functions so as to improve them. Such an exercise could reduce GIS maintenance costs because updating and upgrading the GIS is becoming a pressing issue. Oftentimes, government authorities cite changes in legal regulations to justify the need for more procurement, which calls into question the flexibility of the original GIS functionality.

In our opinion, Russia's digitalisation strategy may include a direction for optimisation of GIS development and maintenance costs, including legal regulation.

4.4. How to Estimate Digitalisation and GIS Efficiency

One more key question in analysing whether the digitalisation aims and objectives have been attained is how to estimate the cost-effectiveness of digitalisation (GIS creation and maintenance). Now the approaches involve assessing the implementation of a national programme or a federal project. They provide for a methodology and a set of indicators. Their analysis shows that they are based on attaining indicators and outcomes. The Russian Audit Chamber also carries out an on going assessment [Savina N.V., Buryakova A.O., 2022: 19], but only as part of the evaluation of federal expenditures.

However, such approaches fail to satisfy the need for long-term assessment of GISs, including questions such as whether a GIS allows services to be provided without changes, how many failures a GIS has had, and whether there were alternative ways to achieve the objectives. Studies at the municipal level also support introduction of a long-term GIS performance assessment [Ulyanov A. Yu., 2022: 45].

There is no GIS project solution assessment centre now directly related to the aforementioned problem of estimating the GIS cost. To get an approval for budget allocations, it is in most cases enough for government authorities to upload a completed plan to the Federal Government Information System for Coordination of Informatisation. We believe that this problem can be solved by creating a national register of digitalisation tasks in Russia that would include data on existing GISs at all levels and on tasks that must be digitalised.

To evaluate the GIS effectiveness, an appropriate methodology must be developed and a detailed analysis on available GISs performed.

4.5. Digitalisation Reporting Data

In course of this survey, it was encountered a trivial issue: difficulty in finding information on the Digital Economy programme, the federal project, and reporting about them. There is a specialised web-site[47], but it does not contain either the original or the latest versions of the programmes. Similarly, passports of strategic planning documents could not be found on

[47] Available at: https:/ national projects.rf/ (accessed: 12.11.2022)

the world-wide web. Overall information in understandable format can be found, but without reference to the respective legal regulation.

E.g., a search for data on the implementation of the Federal Project 'Regulation of the Digital Environment' returns a passport with 17 results on the web-site of the Federal Government. However, current version on web-site of the Ministry of Economic Development[48] contains 35 results.

One more example: web-site of the Federal Government Information System for Coordination of Informatisation[49] contains plans, features public information about them for the latest available years 2019–2021. Clearly, some data in the FGIS for CI may be confidential, but Russian citizens are in their capacity of taxpayers entitled to know about the government's total digitalisation expenses.

There are also problems with reporting on the implementation of the Digital Economy National Programme. Only one report for 2020 may be found on the Internet. This raises debates about providing information for potential users: why it is impossible to use a single source would contain all available information on projects and programmes.

At first, you did not even anticipate unavailability of information on the implementation of strategic planning documents. But, as it is possible to see, digitalisation in Russia faces 'childish' issues of posting information on its progress.

Conclusion

Foreign countries implement single approaches to developing digitalisation strategies. These include the mandatory examination and publication of the target state for the development of measures, formation of a matrix of legal measures for the implementation of the strategy, use of clear and concise language, and use of comparable criteria for the evaluation of the final outcome.

Russia's strategic planning documents in the area of digitalisation have common shortcomings in legal regulation: there are no specific measurable

[48] Available at: URL:https://www.economy.gov.ru/material/directions/gosudarstvennoe_upravlenie/normativnoe_regulirovanie_cifrovoy_sredy/?ysclid=larpv09rfv357701744 (accessed: 31.10.2022)

[49] Available at: URL: https://portal.eskigov.ru (accessed:12.11.2022)

activities, no unified structure, and they contain formal elements. We believe that, in view of the above, questions arise on the need for such documents.

Due to outdated digitalisation directions, priorities and goals in strategic planning documents mentioned, Russia needs a separate strategy for digitalisation. The new strategy should link all digitalisation activities and define clear goals and objectives over time.

An analysis of the Russian digitalisation objectives and legal model shows that we are losing out to competition from foreign countries at the current stage. This is not even related to technology solutions that are more difficult to implement due to the sanctions. The reason is lack of harmonisation of the legal framework, and of clear and concise legal norms. At the moment you cannot get a clear answer as to what the government, the public and business would receive from digitalisation.

Legal monitoring strategic planning documents construction, legal decomposition of goals, objectives and measures would be useful. It is critically important to build a system with a uninform approach, from strategies to concrete projects and programmes.

Strategic planning documents now do not contain measures to address digitalisation challenges in the public sector, namely approaches to determining the GIS creation cost and assessing the efficiency of spending on GISs.

Digitalisation in Russia, despite lofty goals, has been facing simple problems of posting information on the latest versions of strategic planning documents and reports on their implementation.

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The article was submitted to the editorial office 07.11.2022; approved after reviewing 30.11.2022; accepted for publication 30.11.2022.