



## Digitalization Of The Management System Of Administrative-Territorial Units Of Ukraine

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### ABSTRACT

The article is devoted to the theoretical and methodological aspects of the digitalization of the management system of the administrative-territorial units of Ukraine. The authors studied the main problems of the modern administrative-territorial structure of Ukraine and their consequences, the definition and criteria for assigning settlements to the corresponding categories of administrative-territorial units and clearly presented their classification. Analyzed the administrative-territorial reform in Ukraine and assessed its practical implementation. Based on the study, they proposed a mechanism for the digitalization of the management system of administrative-territorial units of Ukraine. They showed, using an example, an assessment of the current state of readiness for digitalization of the system of administrative-territorial units of Ukraine. Further aspects of improvement, the authors highlighted the creation of a roadmap for the digitalization of the management system of administrative-territorial units of Ukraine.

**Keywords:** Administrative and territorial reform of Ukraine; Administrative-territorial unit; Digitalization; Digital transformation; Management.

**JEL Classification:** P25, M12, M15

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Recibido: 22 de Octubre de 2020

Aceptado: 27 de Noviembre de 2020

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## 1. Introduction

Making individual management decisions regarding the development of the financial potential of the administrative-territorial unit requires an information base. The latter should help identify alternative ways to achieve such progress.

The dictionary of modern Ukrainian language and slang "Myslovo" chose the word 2019 "digitalization" (Word of the year 2019). The neologism, which entered the Ukrainian language only a few years ago, is a transliteration of English digitalization and means changes in all spheres of public life related to the use of digital technologies.

The word is a simplified form of the more precise term "digital transformation" and is a manifestation of the global digital revolution. Digital transformation is often confused by contemporaries with automation or even data digitization. However, these are only parts of the process of digitalization – that is, digital transformation (Babenko et al., 2019; Bican et al., 2020; Savić, 2019). With the increase of technological capacities and volumes of information, it became clear that the collected data and automation systems do not give a positive effect, on the contrary, they require resources, attention, service and then began to pay attention to building effective processes of using all technological capabilities for the development of business and society (Kuzior et al., 2019; Kwilinski et al., 2019; Tkachenko et al., 2019), and also training of relevant personnel (Dzwigol et al. 2020).

Analysis of the works of Ukrainian scientists (Balan et al., 2020; Havriushyn, 2018; Panasyuk et al., 2020; Prokopenko et al., 2014; Trusova et al., 2017) revealed the main problems of the modern administrative-territorial system of Ukraine and their consequences (See **Figure No.1**).

It is to avoid the above shortcomings that administrative-territorial reform has been introduced. Still, it is the use of modern digitalization tools that will help to improve the management system of administrative-territorial units of Ukraine.

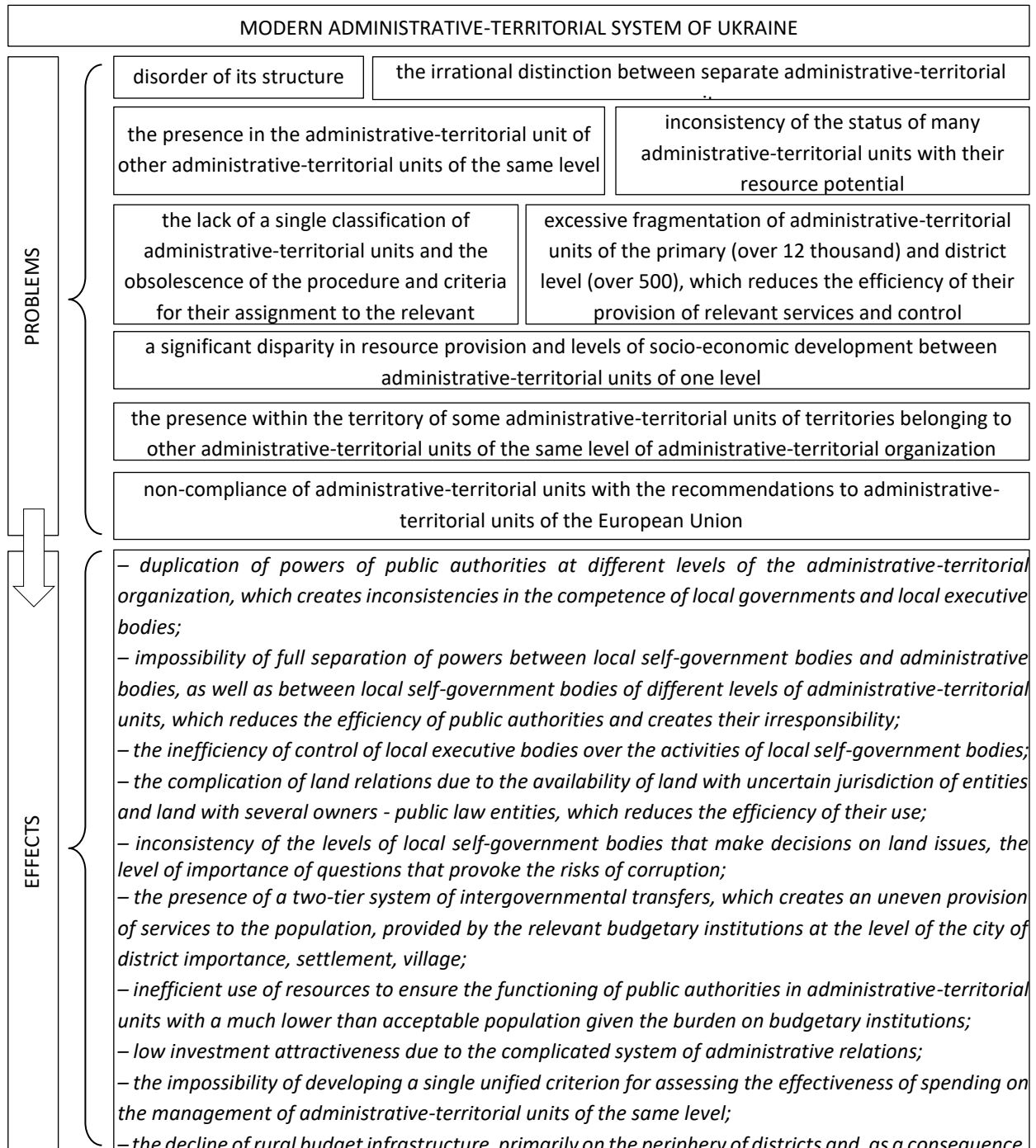
## 2. Management of administrative-territorial units of Ukraine

### 2.1. Definition

Administrative-territorial unit – part of the administrative division of the country, which provides for the implementation of territorial administration. As a category, the administrative-territorial unit is widely studied and applied in the constitutional and legal sphere, as well as presented in scientific works on public administration and local self-government, socio-economic geography, regional economy, etc. According to the Law of Ukraine "On Local Self-Government in Ukraine" establishes the following definition: "Administrative-territorial unit – region, district, city, district in the city, town, village" (Law of Ukraine). At the same time, administrative-territorial units can be considered in terms of systemic and institutional approaches.

Ukraine inherited the system of administrative-territorial organization from the former USSR and is characterized by a high degree of vertical centralization of power, representative bodies on the ground have not become the leaders of effective policies in the interests of man and protection of urgent needs of territorial communities. The low efficiency of local self-government bodies in Ukraine is mainly due to the insufficient level of budget funding and the lack of a mechanism for transferring financial resources to the level of territorial communities. Complicating this situation is also the variant of the proportional electoral system introduced in Ukraine based on party lists, which distorts the constitutional nature of councils, as a society can in no way influence the electoral lists of political

forces, the composition of which depends on one party or another. Soviets are not so many territorial communities as political parties.



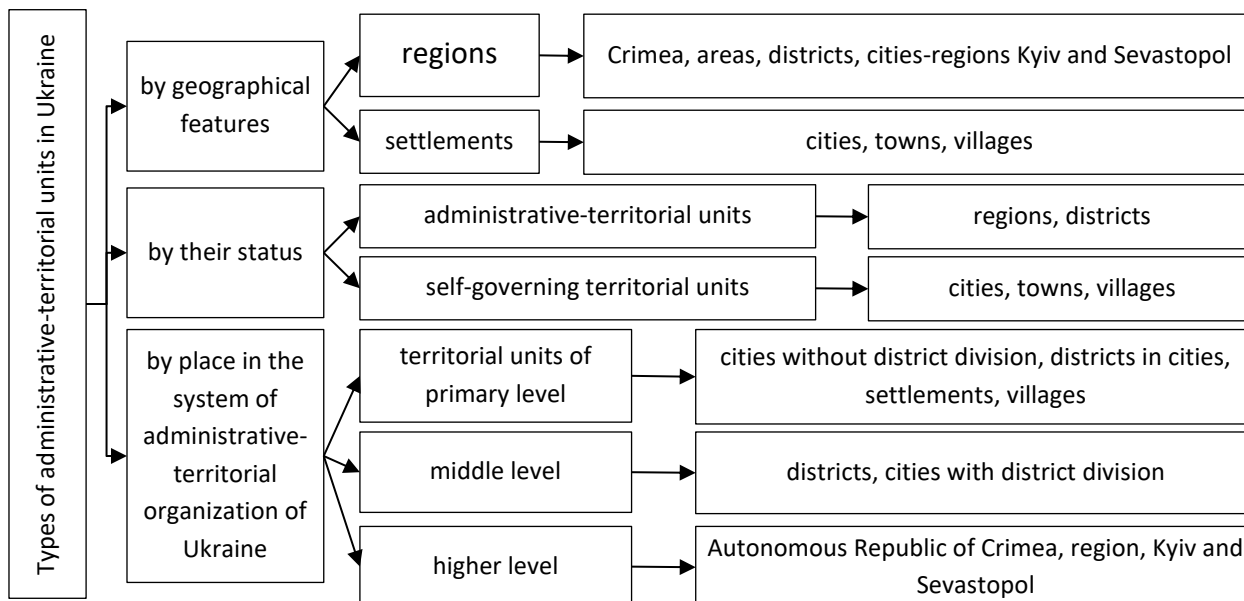
**Figure No. 1.** The main problems of the modern administrative-territorial system of Ukraine and their consequences

The procedure regulates the issue of assigning settlements to the relevant categories of administrative-territorial units for Resolving Issues of Administrative-Territorial Organization of the Ukrainian SSR, approved by the Decree of the Presidium of the Verkhovna Rada of the Ukrainian SSR of March 12, 1981. This procedure establishes the requirements, in particular regarding the population, when assigning settlements to the category of cities of regional and district subordination, as well as urban-type settlements, namely:

- for cities of regional subordination the population should be more than 50 thousand inhabitants;

- for cities of district subordination – more than 10 thousand inhabitants;
- for urban settlements – more than 2 thousand inhabitants.

Administrative-territorial units in Ukraine differ on three grounds (See **Figure No.2**).



**Figure No. 2.** The distinction of administrative-territorial units

## 2.2. Administrative and territorial reform in Ukraine

Administrative-territorial reform in Ukraine is an administrative reform that consists of giving higher powers to local governments (decentralization) and changing the administrative-territorial division. Held in Ukraine since 2015. Instead of more than 11 thousand local councils, 1470 affluent territorial communities will be created. And instead of 490 districts - 136 new districts with less authority, because the leading powers of districts will pass to the lower (community) and higher (regions) levels.

Administrative-territorial reform is the most critical reform of decentralization in Ukraine - a set of changes to the legislation, the primary purpose of which is the transfer of significant powers and budgets from state bodies to local governments.

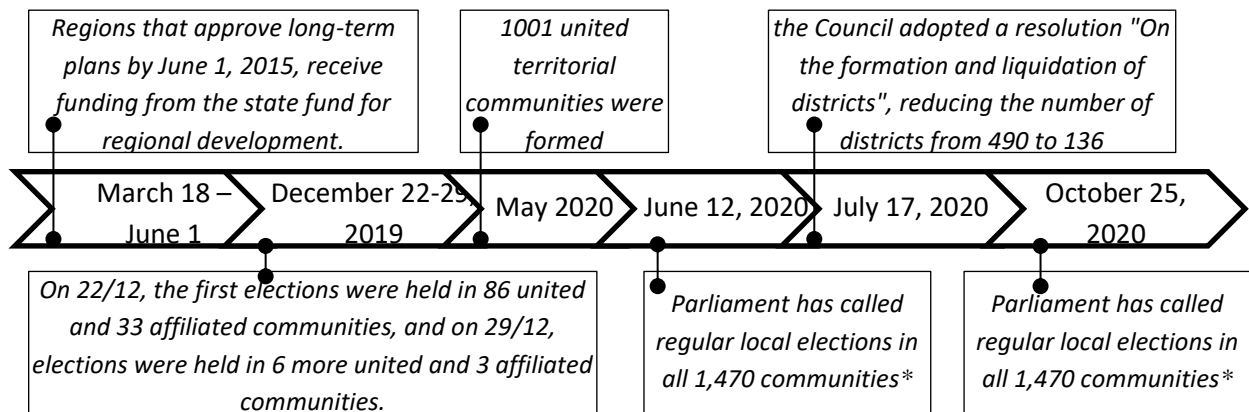
On April 8, 2015, the Cabinet of Ministers of Ukraine approved the Methodology for the formation of affluent territorial communities. This methodology introduces the term capable territorial community – territorial communities of villages (settlements, cities), which as a result of the voluntary association can independently or through relevant local governments to ensure the appropriate level of services, including education, culture, health, social protection, housing and communal services, taking into account human resources, financial support and infrastructure development of the relevant administrative-territorial unit.

The formation of capable territorial communities is carried out by:

- development by the Council of Ministers of the Autonomous Republic of Crimea, the regional state administration of a draft long-term plan;
- approval of the draft long-range plan by the Verkhovna Rada of the Autonomous Republic of Crimea, the regional council;
- approval by the Cabinet of Ministers of Ukraine of long-term plans;
- a voluntary association of territorial communities;
- formation of local self-government bodies of affluent territorial communities.

The practical implementation is clearly shown in **Figure No.3**.

**Figure No. 3.** The main obstacles to effective communications



\*are not held in the temporarily occupied territories of Crimea and Donetsk and Luhansk regions

The authorities began implementing the decentralization reform in 2015. For five years, people voluntarily created more than 1,000 united territorial communities, in which more than 11 million Ukrainians live. Some of the communities did not decide to unite for various reasons. In particular, some communities did not see this as an economic benefit.

The next stage of the decentralization reform required changes in legislation that would complete the process of uniting communities, regulate the powers of local authorities at the district level, and the like.

Law 562-IX of 16.04.2020 was adopted to solve these problems, which is an essential stage of the reform.

### 3. Digitalization of the management system of administrative-territorial units in Ukraine

The automation of essential public services should assume that a person should be at the head of everything, and all the main processes will need to be built based on his needs.

Having studied the theoretical and methodological basis, we propose a digitalization mechanism that includes principles, underlying conditions and tools (See **Figure No.4**).

Attention should be paid to such a component of the mechanism as evaluation - before and after digitalization. The preliminary assessment can be less formalized and accurate; it is enough to assess specific indicators expertly (See **Figure No.5**).

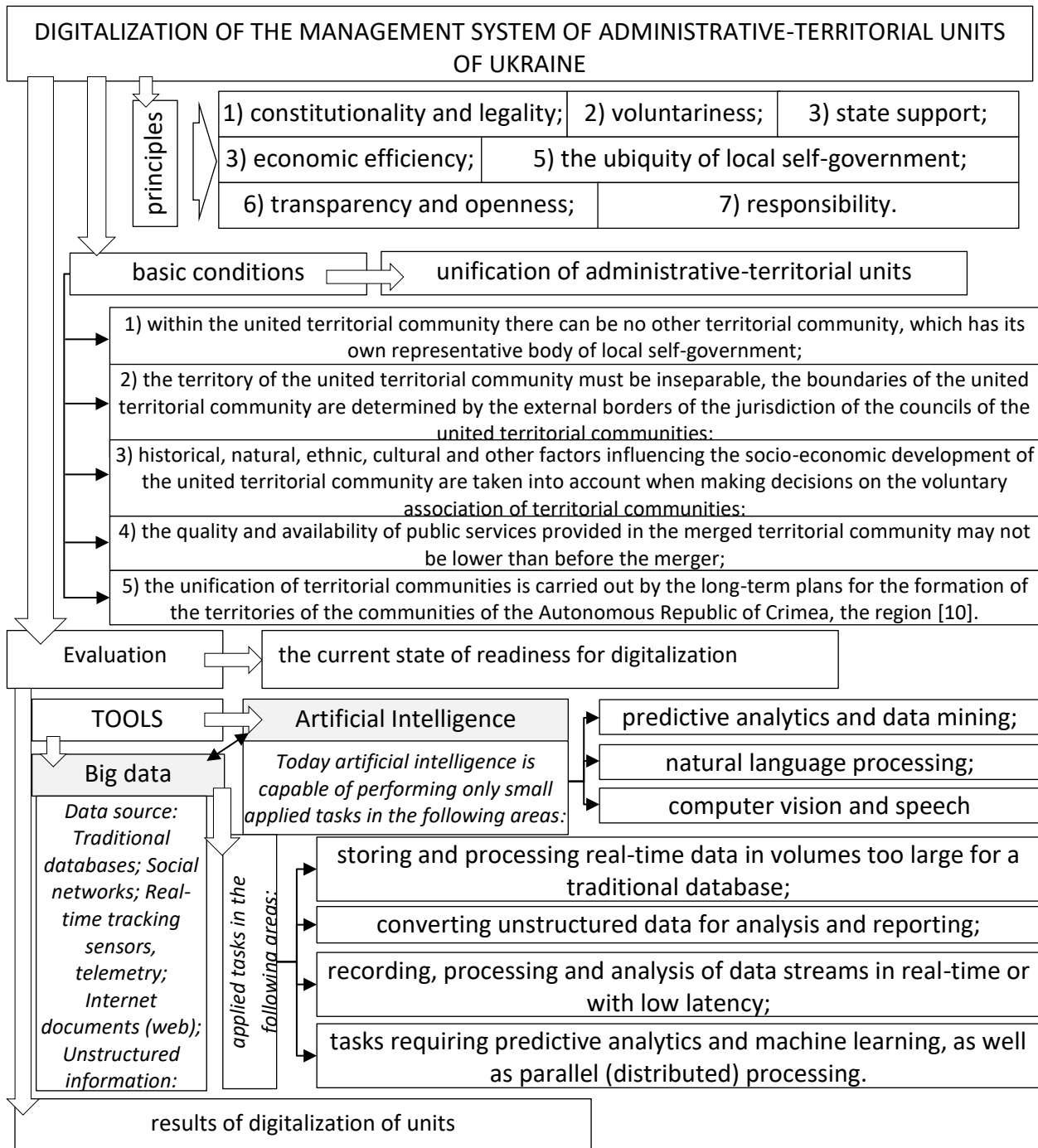
The analysis of the current state of readiness for digitalization of the system of administrative-territorial units of Ukraine showed that, in general, the system is ready for a transformation. It is worth highlighting the high indicators: human capital, the digital sector of the economy, digital platforms and digital transformation of the population. And the aspects that require the most attention – the digital transformation of the public sector - which proves the relevance of research and development.

We proposed artificial intelligence and big data as the primary technologies for the digitalization of the system of administrative-territorial units. These technologies are the most suitable for starting the transformation. The next stage of development is the creation of a digitalization roadmap, which should include six big data sub-technologies:

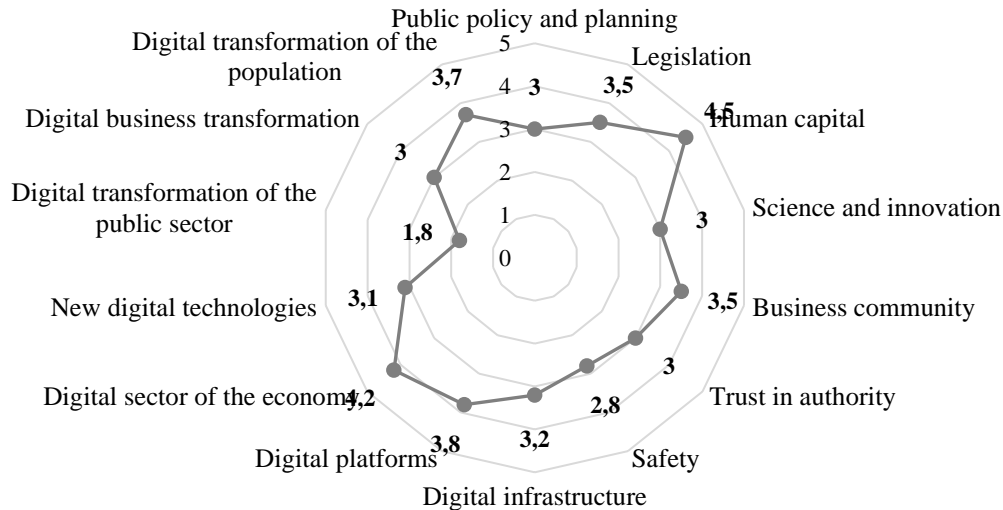
- traceability and interoperability of data;
- software-defined (distributed) data storage;
- processing technologies using AI, machine learning;
- data enrichment technologies;
- techniques that ensure the use of data quality;
- predictive analytics.

Artificial intelligence, although not yet very developed in Ukraine, is a promising technology for the public sector that needs to be developed and improved.

To assess the results of digitalization, we recommend using a more formalized technology, namely the assessment of KPIs for all digitalization processes.



**Figure No. 4.** Mechanism of digitalization of the management system of administrative-territorial units in Ukraine



**Figure No. 5.** Assessment of the current state of readiness for digitalization of the system of administrative-territorial units of Ukraine

#### 4. Conclusion

According to the modern vision, an administrative-territorial unit can be represented as a part of the state territory, which as a result of transformational changes is a form of socio-territorial organization of historically formed economic, socio-cultural communities, rationalization of financial resources and created for public authorities and effective territorial management.

It is also worth taking into account the positive experience of foreign countries, namely the use of measures to mitigate the implementation of the reform. In their capacity can be provided:

1. Temporal adaptation. Transformations take a relatively long period. Thus, the Reformation in Poland was originally intended for 20-30 years, in Lithuania, Latvia, Finland it took 15-16 years.

2. Gradualness. Requires careful preparation, the study of the state of administrative territories.

3. A broad consideration of public opinion. It is necessary to hold local referendums, opinion polls not only during the transformation but also when working out the concept of reform, involving the public, representatives of local governments in individual bodies for the development and implementation of change. For example, in Denmark, the Commission for Territorial Reform of Local Self-Government was formed of 5 representatives of parliament, 5 representatives of local self-government associations and 3 representatives of the Ministry of the Interior. As a guarantee of the democratic nature of administrative-territorial transformations, the constitutional level enshrines the requirement to hold referendums on these issues in the Basic Law of Germany, the Constitution of the Italian Republic; The Bulgarian Constitution provides for mandatory public

4. Establishing criteria for the creation of new administrative-territorial units without specifying quantitative and qualitative characteristics, the possibility of applying an individual approach to each region;

5. Possibility to choose the method of consolidation: unification of municipalities or establishment of inter-municipal cooperation.

On the one hand, these mechanisms slow down the reform process but often slow it down, so this should be monitored.

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