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THE IMPACT OF RESEARCH AND DEVELOPMENT POLICY ON THE DEVELOPMENT OF AN INNOVATIVE COASTAL METROPOLIS¹

Abstract: Research and development policy is the main factor for continuous scientific and technological progress. Modern technologies, headed by artificial intelligence, are digitalising and autonomising public life. In the face of these globalising challenges, metropolises are not indifferent, making their internal transformations by adapting to the change process and becoming “smart” All these issues are essential for the development of the coastal metropolis and are worth considering in terms of the projected Pomeranian metropolis.

Keywords: metropolis, artificial intelligence, smart metropolis, coastal metropolis, research, development, R&D policy, public administration.

CASE STUDY

GREATER COPENHAGEN²

Greater Copenhagen is a cooperative organisation promoting growth and development in Scandinavia’s largest metropolitan region of 4.4 million in southern Sweden and eastern Denmark. The organisation builds a foundation for future growth and prosperity through agreements and pilot projects. The

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² Greater Copenhagen's facts match the organisation's official website description, <https://www.greatercph.com/about> [accessed on: 20.04.2022].

organisation's goal is clear: Greater Copenhagen is to become a global centre for growth, sustainable solutions and innovation. Activities to achieve this goal are based on partnerships, crucial to growth and innovation in 85 municipalities (46 Danish and 39 Swedish) and four regions of Greater Copenhagen. Cooperation is promoted among the organisation's members, and partnerships are being formed regionally and internationally to integrate knowledge centres, businesses and public institutions.

Climate change, pandemics and global economic crises pose severe threats to the development and prosperity of any metropolis. Greater Copenhagen also sees these challenges as opportunities, as the region has great potential for growth and development through sustainable and green solutions. The organisation solves some challenges through pilot projects that aim to pave the way for innovation and new development opportunities. Other tasks are carried out through partnerships and collaborations with external entities from the business (private) and public sectors.

Greater Copenhagen's efforts aim at five key areas essential to the framework for future growth and prosperity: green transformation, the labour market, infrastructure, digitisation and life sciences. Cross-border cooperation is managed by the Greater Copenhagen Committee, which includes 18 representatives from 89 member organisations (local government units).

LEGAL CONSIDERATION

What do local governments look like, and what emotions do they evoke at the new level of consciousness of societies resulting from the development of artificial intelligence? This question is highly topical at the turn of civilisation. It is reflected in the slogan "Think globally, act locally". The lofty-sounding formula of consideration has underpinned empirical research that addresses, among other things, management and governance at the local level. At the centre of this research today is the idea of metropolitan self-government. The focus on the ratio legis of metropolitan self-government is the starting point for reconstructing the legal (international, EU, constitutional and statutory) aspects of the Gdańsk-Gdynia-Sopot Metropolitan Area.

Globalisation strengthens interconnectedness in technology, economy and administration, resulting in transnational and interregional flows of activities and interactions. The modern world of global interconnectedness is creating new opportunities that accompany new social structures and vast metropolises. At the same time, new dangers are emerging, symbolised by the attack on the twin towers of the World Trade Center in New York City on September 11, 2001. Globalisation is transforming not only institutions and organisations but also the very fabric of identity and personal life. A "new individualism" is being born before our eyes. Prominent sociologists analyse how individuals

cope with the new environment at the level of their identity³. The idea of metropolitan self-government is at the centre of the present analysis.

The profound and dynamic change in economic and social paradigms requires new methods of both thinking and acting. Just as a caterpillar becomes a butterfly and a tadpole becomes a frog, humanity evolves in stages. At the beginning of the 21st century, one can see many symptoms of the breakthrough of civilisation, which heralded “the dawn of a new era”⁴. We owe the new level of consciousness to the “synergistic mind” (among other things, the brain-computer interface). Under its influence, everything is changing: the international community, organisations integrating continents (like the European Union), and states (including their national and local government power structures). Synergy is becoming a mark not only of civilisation (synergic civilisation) and society (synergic society) but also of the use of all areas of cognition (synergic inquiry).

The idea of metropolitan self-government should consider the transformations resulting from the turn of civilisation, of which all socio-economic processes are a part. Digitisation and autonomous modes of public life also change the governance paradigms in metropolises. The modern metropolis is an active actor in global challenges and ongoing changes associated with the development of artificial intelligence. It is at the forefront of the concept of New Public Management based on the assumptions of managerial management, called urban managerialism at the level of cities⁵, which, through the prism of metropolises, could be referred to as metropolitan managerialism.

Research on metropolises focuses on the theory of metropolitan governance and the theory of administrative law. The monograph *on the normative model of metropolitan government*⁶ results from several research methods, including the classical methods of comparative law (comparison of history and legislation and description of systems). The paper is enriched with the achievements of modern art de comparison (analysis of the system’s structure and content of legal relations, as well as the vision of the development of law). Thanks to these qualities, the dissertation contributes to the dogmatics and theory of administrative law and reflects on local self-government.

³ A. Elliott, Ch. Lemert, *The New Individualism. The Emotional Costs of Globalization*, Routledge, London 2006, *passim*.

⁴ See among others: Z. Brodecki, A. Nawrot, *Świątynia w cyberkulturze. Technologie i prawo w społeczeństwie wiedzy*, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2007, *passim*; M. Tegmark, *Życie 3.0. Człowiek w erze sztucznej inteligencji*, Prószyński i S-ka, Warszawa 2019, *passim*.

⁵ See: J. Hausner, *Zarządzanie publiczne*, Scholar, Warszawa 2008, *passim*; *Nowe zarządzanie publiczne w polskim samorządzie terytorialnym*, A. Zalewski (ed.), Szkoła Główna Handlowa, Warszawa 2005, p. 27; See also D. Stawasz, D. Sikora-Fernandez, *Koncepcja smart city w teorii i praktyce zarządzania rozwojem miast [in:] Zarządzanie w polskich miastach zgodnie z koncepcją smart city*, D. Stawasz, D. Sikora-Fernandez (eds.), Placet, Warszawa 2015, p. 25.

⁶ **Tak, tu jest pusty przypis**

The multiplicity of possible systemic solutions to be adopted regarding the functioning of metropolises is indicated to us by an exciting exemplification of models of metropolitan self-government.

Model samorządu metropolitalnego	Forma prawna	Cechy dodatkowe	Przykłady
Organizacyjny model samorządu metropolitalnego	jednostka samorządu terytorialnego	krajowa jednostka podziału terytorialnego	Waszyngton, Berlin, Hamburg, Brema
	terytoryjalnego	regionalna jednostka samorządu terytorialnego	Londyn, Madryt, Hanower, Kopenhaga
		metropolitalna jednostka samorządu terytorialnego	Paryż, Lyon
	przymusowy związek komunalny		Lizbona, Porto, Związek Regionalny Ruhry, Stuttgart, Helsinki, Górnośląsko-Zagłębiowska Metropolia
Funkcyjnalny model samorządu metropolitalnego	dobrowolny związek komunalny		Barcelona, Manchester, Birmingham
	stowarzyszenie jednostek samorządu terytorialnego		Monachium, Obszar Metropolitalny Gdańsk-Gdynia-Sopot

Fig. 1. Exemplification of metropolitan government models.

Source: J. H. Szlachetko, *Normatywny model samorządu metropolitalnego*, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2020, p. 167.

Establishing a metropolitan area in the Tri-City required combining tradition (the rich history of Gdansk) with modernity (characterising the cultural identity of Gdynia). This was a challenging task, as each of these cities had its local government association, aspiring to be the winner in the fight for investment capital.⁷ Competition between these cities held back the integration process in the Gdansk-Gdynia-Sopot Metropolitan Area. European Union structural funds contributed to the success, which forced the authorities to make a historic decision⁸.

The distinguishing feature of the Gdańsk-Gdynia-Sopot Metropolitan Area (OMGGS) is planning and spatial development, closely related to the legal regulation of Polish maritime areas⁹. The authorities of the area, being at the same

⁷ I. Sagan, Z. Canowiecki, *Między integracją a konkurencją. Gdańsko-Gdyński Obszar Metropolitalny*, Scholar, Warszawa 2011, p. 47.

⁸ J. H. Szlachetko, *Normatywny model...*, s. 183.

⁹ T. Bąkowski, *Planowanie i gospodarowanie przestrzenne polskich obszarów morskich. Problematyka administracyjnoprawna*, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2018, *passim*.

time an association of local government units and an association of integrated territorial investments, are functionally condemned to cooperate with the government administration, which, under Directive 2014/89¹⁰, is obliged to establish and implement spatial planning in maritime areas. The decision to locate the provisions on maritime spatial planning in the Law on Maritime Areas rather than in the Planning Law determined the legislative separation of the legal regulation of the principles, conditions and procedures for the preparation and implementation of spatial planning acts relating to land and sea.

The separation of legal regulations on land and sea planning and development has a significant impact on the implementation of the tasks of the tri-city metropolitan area. The traditional division of administration into authorities having jurisdiction within the country's territorial boundaries and authorities exercising authority at sea is no longer justified, especially in seaports located at the interface of land and sea. The legal determinants of the law-making powers of maritime administrations show far-reaching specificity¹¹. This applies, among other things, to maritime offices as sui generis field organs of government administration. As such, they are repositories of the government. Their system and distribution of tasks and competencies have been based on the principle of deconcentration rather than decentralisation. This should be considered when working on the Gdańsk-Gdynia-Sopot Metropolitan Area Act.

The Senate bill on the metropolitan association in Pomeranian Voivodeship concerns the determination of principles and procedures for creating and functioning the metropolitan association in Pomeranian Voivodeship¹². The bill includes the following public tasks to be carried out within the Pomeranian metropolis:

1. shaping spatial order;
2. conducting development policy of the union area;
3. organising and managing public mass transport;
4. metropolitan passenger transport;
5. organising and coordinating the development of differentiated mobility;

¹⁰ Dz. Urz. UE z dnia 28 sierpnia 2014 r. L 257/135.

¹¹ E. Bojanowski, *Usytuowanie aktów normatywnych organów administracji morskiej w systemie polskiego prawa miejscowego* [in:] *450 lat polskiej administracji morskiej*, D. Nawrot (ed.), Bernardinum, Pelplin-Gdynia 2019, p. 264–278.

¹² Sejm of the Republic of Poland, print no. 646, Warsaw, September 14, 2020. In the Senate of the Republic of Poland, the bill on a metropolitan association in the Pomeranian Voivodeship was brought on February 7, 2020, and referred to the relevant committees. The Senate procedure ended on September 14, 2020, when the bill was forwarded to the Sejm, following a prior resolution of the Senate to bring the bill to the Sejm, passed at the 15th session of the Polish Senate of the 10th term on September 10, 2020. In the Sejm, on September 30, 2020, the bill was referred to the first reading at the Sejm session, and from then on, it awaits the continuation of the legislative process.

6. developing the network of national and provincial roads in the union area;
7. promoting the Union and its area;
8. adaptation to climate change and environmental protection.

The global perspective provides information on the decisive challenges, phenomena and ongoing transformations in the structures of already functioning metropolises worldwide. The global experience sets the development trends of metropolitan areas for the 21st century. Currently, more than half of the world's population lives in urbanised areas, from medium-sized cities to metropolises (compared to only 30% in 1950)¹³ It is estimated that 2050 it will be as high as 70%. Today's significant challenges, such as the digitisation and autonomous model of public life and climate change, can safely be called universal, as they affect the entire globe. Creative and, at the same time, rational, the development of artificial intelligence will help adapt cities and metropolises to the challenges of modern times so that they become centres of sustainable prosperity and growth with benefits for all of humanity. It is imperative to understand the global perspective ("think globally"), to create a Pomeranian metropolis and to carry out tasks at the local level ("act locally"), taking into account the unique characteristics of the area. General development opportunities and threats should be juxtaposed and linked to each other with local conditions and the local community's needs. Above all, however, the coastal specificity of the projected metropolis must be kept in mind. Indeed, the coastal character of the idea of a Pomeranian metropolis is a fundamental issue for the sense and effectiveness of its existence.

I. ONTOLOGY

1. QUESTIONS

1.1. WHAT THE LAW IS?

"What is the law?" is the starting question for research and the search for answers by representatives of analytical jurisprudence. Its ontological dimension of philosophical exploration conceals the problem of being and modes of existence. In the aspect of analytical jurisprudence, in particular, it inquires what the law is and inquires into the manner of its existence¹⁴. Concerning the digitisation and autonomous modes of public life through the prism of the metropolis,

¹³ According to official United Nations (UN) data in 2018, 55% of the world's population lived in urban areas. United Nations Department of Economic and Social Affairs, Population Facts, 1/2018, December 2018, https://population.un.org/wup/Publications/Files/WUP2018-Pop-Facts_2018-1.pdf [accessed on: 20.04.2022].

¹⁴ J. Zajadło (ed.), Introduction: *Ontologia a prawo* [in:] *Leksykon współczesnej teorii i filozofii prawa. 100 podstawowych pojęć*, publ. C.H. Beck, Warszawa 2017, p. 202–206.

finding the right direction to answer this question is more fluid and obvious. On the one hand, it is worth reflecting on European research and development policies in the framework of regional integration of countries. In the era of artificial intelligence, as a determinant to achieve the goals of sustainable development of metropolitan areas, it will fundamentally affect the processes of socio-economic growth in metropolitan areas. On the other hand, it would be appropriate to take to the legal workshop the constitutional law – the general principles of interaction between administrative bodies and the administrative-legal issues of the functioning of the metropolitan government, relating to the practical dimension of administration by local government bodies. These are just two aspects, selected from many important ones, which have a significant share in the context of modern technologies' impact on the coastal metropolis's development.

Particularly noteworthy is the hope placed by the younger generation of Europeans in the importance of scientific development for the future of Europe. 2017 saw civic dialogues on the future of the European community initiated by the European Commission (EC). National governments and parliaments attended open debates in European cities and regions, local and regional authorities and civil society¹⁵. It is precisely the voice of this civil society that policymakers and strategists designing both in scenarios and realistically in the political everyday life of Europe's future should consider most important. An example from the life of this hope in science is the idea of a young European citizen expressed at one such dialogue held in Brussels, in which the words were that "Europe should find a major research project that would unite Europeans and generate enthusiasm, hope and pride, just as happened with the moon landing during the Kennedy presidency in the United States. It would be something like a cure for cancer or Alzheimer's disease - a large joint project funded by the EU and carried out with the participation and coordination of scientists across the continent"¹⁶. It is also an excellent example of a Europe without borders, not only physical but also mental, and of identifying with a European identity. The young European's proposal should emphasise the idea of community of the project through the cooperation of scientists from across the continent. Such a voice instils optimism in the young. The voice of students from the Netherlands proposed: "All children should have an electronic correspondence friend from another EU country"¹⁷. Such contrasting examples invented by children are the best because they present a particular picture of

¹⁵ One hundred twenty-nine dialogues were organised in more than 80 cities, attended by more than 21,000 citizens, and 144,000 Internet users followed them live on Facebook. It is estimated that the message reached 34 million Europeans, considering all the communication tools used and any side events. *Dialogi z obywatelami na temat przyszłości Europy*, Komisja Europejska, Urząd Publikacji Unii Europejskiej, Luksemburg 2017, p. 8.

¹⁶ *Ibidem*, p. 24.

¹⁷ *Ibidem*.

transformation at a new stage of consciousness. We are witnessing and participating in an era that has just been born and is already growing fast.

The European Union (EU) is aware of the vital importance of research and technological development policy for European integration and the development of innovative solutions to the complex challenges of modern times. These challenges consist of many factors (opportunities and threats) resulting from the breakthrough of civilisation, i.e. entering the era of artificial intelligence. The EU's research and development policy (R&D policy) aims to set direction in the Union's quest to become the world's most entrepreneurial and competitive economic region. The essential EU legal act that normalises the issue of R&D policy and defines its framework is the Treaty on the Functioning of the European Union (TFEU)¹⁸. The TFEU, together with the Treaty on European Union (TEU)¹⁹, are the principal acts of EU primary law and form part of the *acquis communautaire*. Regulations on research, technological development, and space are contained in Title XIX of the TFEU in Articles 179–190. Crucial in terms of R&D policy is Article 179 of the TFEU. This provision consists of three paragraphs and provides the treaty legal basis for the EU's conduct of R&D policy, establishing²⁰:

1. the objectives of the R&D policy (para. 1);
2. rules for implementing activities to achieve the policy objectives (para. 2);
3. definition of the scope of activities that may be undertaken to achieve these goals (para. 3).

The formulated provision of Article 179 of the TFEU is complementary to the activities initiated under Article 173 of the TFEU; it obliges the EU and the Member States to take care to ensure the conditions necessary for the competitiveness of EU industry²¹. To this end, all activities should strive, among other things, to create favourable conditions for better use of the industrial potential of innovation policies, research and technological development.

The interaction of public administration bodies unites entities in a specific type of bond similar to coordination²², and can only occur in a decentralised arrangement²³. The essence of cooperation is the cooperation of the combined decentralised entities directed at least to realise shared goals defined by law or the interacting entities. It is also worth noting that the concept of cooperation has an established position in the doctrine. It refers to the directive of

¹⁸ Wersja skonsolidowana, Dz. Urz. UE z dnia 7 czerwca 2016 r. C 202/47.

¹⁹ Wersja skonsolidowana, Dz. Urz. UE z dnia 7 czerwca 2016 r. C 202/13.

²⁰ M. Nowacki, *Tytuł XIX. Badania i rozwój technologiczny oraz przestrzeń kosmiczna* [in:] *Traktat o funkcjonowaniu Unii Europejskiej. Komentarz. Tom II*, K. Kowalik-Bańczyk, M. Szwarc-Kuczer, A. Wróbel (eds.), Wolters Kluwer, Warszawa 2012, p. 1203.

²¹ *Ibidem*, p. 1209.

²² Interaction is one of the forms that define the interaction of administrative entities, along with direction, supervision, control, authority and combination, and coordination. See: J. Zimmermann, *Prawo administracyjne*, Wolters Kluwer, Warszawa 2016, p. 227–233.

²³ *Ibidem*, p. 231.

cooperation of public authorities contained in the preamble to the Constitution of the Republic of Poland²⁴. The forms of cooperation can be varied and introduced by the constitutional law (such as the implementation of public administration tasks by, for example, several local government units) and by the substantive law (using various names and concepts, such as “consent” “agreement” “understanding” “opinion” or “expression of position”)²⁵.

The 2017 amendments to the Code of Administrative Procedure Act (CPA.)²⁶ elevated to the status of a general principle of administrative procedure, the cooperation of public administration bodies²⁷ By introducing Article 7b to the CPA²⁸. The provision’s content defines the interaction of public administration bodies and establishes the course of such interaction on procedural grounds²⁹. In addition, the primary instrument for the transfer of administrative competence (defined as an internal form of action of public administration), and therefore also administrative cooperation (although not exclusively)³⁰ Is an administrative agreement³¹. An administrative agreement is a form through which public administration entities (administrative bodies and other organisational units) initiate cooperation in performing public administration tasks and jointly implement part or all of their competencies³². The proposed

²⁴ See: J. Człowiekowska, *Zasada współdziałania organów administracji publicznej jako nowa zasada ogólna Kodeksu postępowania administracyjnego* [in:] *Cywilizacja administracji publicznej. Księga jubileuszowa z okazji 80-lecia urodzin prof. nadzw. UW r. dra hab. Jana Jeżewskiego*, J. Korczak (ed.), Uniwersytet Wrocławski, Wrocław 2018, p. 98; W. Brzozowski, *Współdziałanie władz publicznych*, “Państwo i Prawo” 2010, no. 2, p. 3–16; See also zasada współdziałania jako zasada ogólna prawa administracyjnego – S. Biernat, *Działania wspólne w administracji państwowej*, Ossolineum, Wrocław-Warszawa-Kraków-Gdańsk 1979, p. 76–78; Cf. J. Jeżewski, *Zasada prawna współdziałania organów administracji publicznej w departamencie we Francji* [in:] *Misja publiczna. Wspólnota. Państwo. Studia z prawa i administracji. Księga dedykowana pamięci Profesora Michała Kuleszy*, A. Mednis (ed.), Presscom, Wrocław 2016, p. 365–374.

²⁵ J. Zimmermann, *Prawo...*, p. 231.

²⁶ Ustawa z dnia 7 kwietnia 2017 r. o zmianie ustawy – Kodeks postępowania administracyjnego oraz niektórych innych ustaw, Dz. U. z 2017 r., poz. 935.

²⁷ See among others: M. Błachucki, *Współdziałanie organów administracji publicznej na szczeblu krajowym i europejskim w świetle nowelizacji KPA*, “Radca prawny. Zeszyty Naukowe” 2017, no. 2(11), p. 33–55; J. Człowiekowska, *Zasada...*, p. 97–104.

²⁸ Article 7b of the Code of Administrative Procedure states: In the course of proceedings, public administration bodies shall cooperate to the extent necessary to clarify accurately the factual and legal state of the case, taking into account the public interest and the legitimate interest of citizens and the efficiency of the proceedings, by means appropriate to the nature, circumstances and complexity of the case.

²⁹ M. Błachucki, *Współdziałanie...*, p. 41.

³⁰ An administrative agreement may be considered as part of the management, coordination or interaction of administrative bodies. J. Zimmermann, *Prawo...*, p. 184.

³¹ *Ibidem*, p. 183. See also: M. Błachucki, *Współdziałanie...*, p. 36; B. Majchrzak, *Istota administracji publicznej* [in:] *Nauka administracji*, Z. Cieślak (ed.), LexisNexis, Warszawa 2012, p. 26.

³² *Ibidem*, p. (184).

law's provisions on the Pomeranian metropolis explicitly include the possibility of concluding administrative agreements. This includes extending the tasks of the metropolitan Union to other tasks of local government units or government administration.

Noteworthy, moreover, are the growing tendencies to establish cooperation as a method of constituting relations within the European administrative space and even global governance as a result of the intensifying processes of globalisation³³. This is a good prognosis for the future despite increasingly intense national egocentrism. Of particular importance for interaction at the international level is the concept of networks of public administrations³⁴, because at this level, it is the basic form of the interaction. Transnational networks have a varied form³⁵, but they are a structure for organising cooperation beyond the national framework and involving foreign and transnational public administration bodies. International cooperation of bodies in the sphere of management of administrative affairs can be an effective activity depending on the intensification of activities and the will of the interacting entities.

Regarding considerations at the national and regional level: currently, legislative work is underway on a draft law on a metropolitan association in the Pomeranian Voivodeship³⁶. So far, it needs solutions considering the specifics of the Pomeranian metropolis. Even more so, it cannot be considered the subject of analytical jurisprudence since the law on the Pomeranian metropolis is only at the draft stage.

1. 2. WHAT THE LAW OUGHT TO BE?

The question “What the law ought to be?” is fundamental to the philosophical considerations of representatives of normative jurisprudence. It is closely related to the politics of law, particularly the engineering of law. Theoretically, the answer to this question should determine the direction of the development of law, although this is only sometimes the case in the practice of law policy. It is essential that the engineering of law in the era of artificial intelligence has mechanics, electronics and software in mind.

In thinking about the shape of the Pomeranian metropolis, it is worth considering how to achieve synergies between global metropolises and the Pomerania-

³³ M. Błachucki, *Współdziałanie...*, p. 38.

³⁴ J. Supernat, *Koncepcja sieci organów administracji publicznej* [in:] *Koncepcja systemu prawa administracyjnego. Zjazd Katedr Prawa Administracyjnego i Postępowania Administracyjnego Zakopane 24–27 września 2006 r.*, J. Zimmermann (ed.), Wolters Kluwer, Warszawa 2007, p. 207 and next.

³⁵ See: J. Supernat, *Administracyjne zarządzanie informacjami a sieci informacyjne* [in:] *Jawność i jej ograniczenia. Postępowanie administracyjne. Tom 7*, Cz. Martysz (ed.), C.H. Beck, Warszawa 2015, p. 145–152.

³⁶ Status as of 4.07.2022.

nian metropolis, between opportunities and threats, between artificial intelligence and more broadly modern technologies and the development of the metropolis, which should take into account its coastal character. In such a case, having a benchmark that can become a source of good inspiration is helpful.

Greater Copenhagen is an excellent example of metropolitan managerialism and deserves special attention because of its cross-border nature. Two Danish regions (Capital Region, Zealand Region) and two Swedish regions (Skåne Region, Halland Region) have created a loose coordination structure between municipalities, regions, research centres and companies, taking care mainly that foreign companies and investors benefit from the advantages of the entire area³⁷. The Scandinavian model of cooperation between regions complements integration within national metropolises. As such, it can serve as a model for other metropolises along the Baltic Sea.

Within the framework of cross-border cooperation, the Greater Copenhagen project is undertaking joint ventures in various areas of public life, such as the lighting metropolis, food ventures, international branding, labour market integration and the elimination of border barriers, a one-stop shop for foreign delegations, the operation of an investor portal, joint tourism, and infrastructure³⁸. A coherent spatial policy is significant for the strategic and integrated development of Greater Copenhagen. The starting point for land-use planning is the Finger Plan, which originated in 1947 in the plans designed for Copenhagen and later developed. Today is the basic set of guidelines for the municipalities covered³⁹. It is one of the decisive factors influencing the sustainable development of the metropolitan area.

The local conditions, characteristics and many years of metropolitan experience of Greater Copenhagen make it a valuable source of inspiration for the designed Pomeranian metropolis. In turn, thinking about the engineering of law in the era of artificial intelligence, one can imagine an efficiently operating metropolis as an artificial neural network⁴⁰. Within the metropolis, numerous entities are actively operating (e.g., local government bodies, government bodies, universities, entrepreneurs, NGOs, citizens-residents, etc.), interacting with each other in the daily practice of socio-economic life and sending numerous different types of “data” between them. In a standard multilayer neural network scheme, the input layer of neurons receives the tasks to be performed, the hidden layer 1. processes the output, the hidden layer 2. prepares the solu-

³⁷ J. Danielewicz, *Zintegrowane podejście do zarządzania obszarami metropolitalnymi w krajach skandynawskich*, “Studia Miejskie” 2018, vol. 29, p. 18.

³⁸ *Ibidem*.

³⁹ See: *Ibidem*, p. 19; *Idem*, *Zarządzanie zrównoważonym rozwojem dwóch obszarów metropolitalnych – doświadczenia krajów Europy Zachodniej*, “Studia Komitetu Przestrzennego Zagospodarowania Kraju PAN” 2013, no. CLII, p. (144)–145.

⁴⁰ See: R. Tadeusiewicz, *Archipelag sztucznej inteligencji*, Exit, Warszawa 2021, p. 22–56.

tion, and the output layer calculates the solution⁴¹. Thus, the general scheme of the neural network consists of three elements: the data representing the task to be performed, the knowledge acquired during the learning of the neural network (interactions) and the result representing the solution to the task⁴².

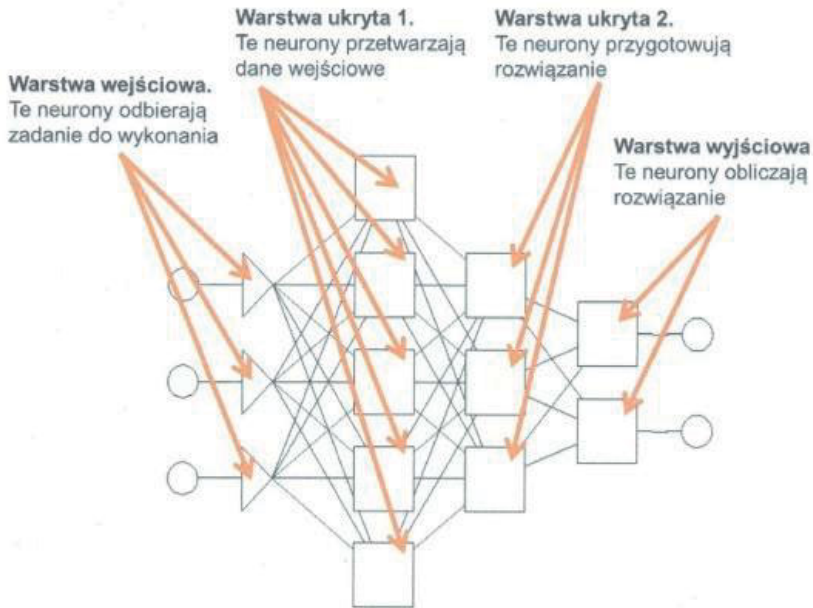


Fig. 2. Structure of a standard multilayer neural network.

Source: R. Tadeusiewicz, *Archipelag sztucznej inteligencji*, Exit, Warszawa 202, p. 33.

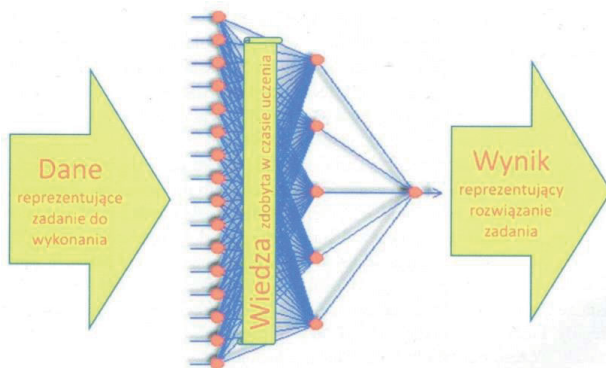


Fig. 3. General scheme of neural network operation.

Source: R. Tadeusiewicz, *Archipelag...*, p. 33.

⁴¹ *Ibidem*, p. 33.

⁴² *Ibidem*.

Necessary for the provision of high-quality public services in the metropolis, innovative management has become necessary to synergistically bind together all other tasks carried out in the metropolis, affecting the comfort and quality of life of residents. Intelligent solutions are critical for, among other things, better spatial coordination of metropolitan functions, sharing of best practices, and leadership in designing and implementing change. The key to success in the era of digitisation and automation of public life is data and, more specifically, data management. This makes imagining a metropolis's functioning easier than a neural network's operation. Data representing the task to be performed is sent by the entities occurring in the metropolis. Then, the processing of output data (interactions) is carried out between the relevant entities depending on the type and category of the case. The result should be a binding administrative decision issued by the competent body of the metropolitan association. This comparison can only be seen as a metaphorical reference to the pattern of the metropolitan cooperation structure model in the era of artificial intelligence. These are also symbols for representatives of normative jurisprudence testifying to a new stage of consciousness.

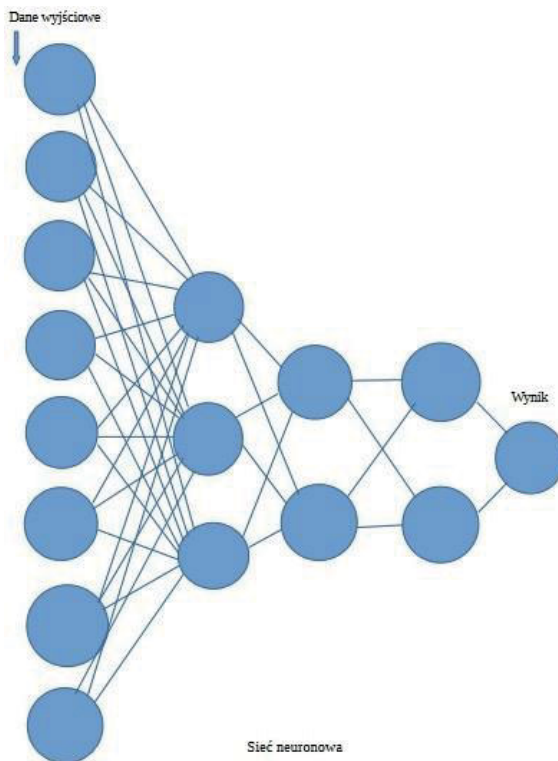


Fig. 4. Neural network.

Source: Z. Brodecki, *Słowo końcowe* [in:] *Prawo w erze sztucznej inteligencji. Cyfryzacja i autonomizacja życia publicznego*, Z. Brodecki, M. Nowicka (eds), Bernardinum, Gdynia-Pelplin 2022, p. 369.

As a result of making such a synthetic analysis, and based on the recent tragic experience of the war taking place in Ukraine⁴³, the orientation of the engineers of normative jurisprudence should follow the direction of integration of the Baltic metropolises. Suppose one takes into account the specifics of the Gdańsk-Gdynia-Sopot Metropolitan Area (including, in particular, the desire to merge land and sea spatial planning, which impinges on the location of normative acts of maritime administration bodies in the system of Polish local law, subject to the supervision of the relevant minister and governor) and the role that maritime law plays in supranational and international relations. In that case, the Tricity metropolitan area should not be constructed with the reconstruction of Baltic Europe in mind.

The Hanseatic League – a great empire with little politics- left the stigma on our region’s history⁴⁴. In the new reality, we are witnessing a process of globalisation (key factors: technology and communication; organisational mindset: “standardise/centralise everything possible”; organisational structure: global/centralised/filial) and the process of regionalisation (key factors: cultural and institutional identity; organisational mindset: “adapt to local conditions/decentralise everything you can”; organisational structure: transnational/integrated network). In Baltic Europe, we are witnessing an attempt to combine “fire and water”, as our region is a struggle between EU member states and Russia. The current geopolitical set-up could be more conducive to cooperation between the Baltic states in the Baltic, a telling example of which is the dispute over the Northern Gas Pipeline. In this situation, it is worth considering an attempt to equip the coastal metropolises with foreign policy powers.

The law designing a metropolitan association in the Pomeranian Voivodeship should serve not only the interaction of the metropolis with other local government units but also international cooperation in the Baltic Sea region. At the current level of awareness of the breakthrough of civilisation in the national legislator, this proposal is “ahead of its time”. However, it is worth exposing it to shape the consciousness of young regional policy experts and inspire representatives of normative jurisprudence.

⁴³ February 24, 2022. The Russian Federation launched an armed invasion of Ukraine that escalated the war that had been going on since 2014. In the face of war crimes, it became clear how vital cooperation is not only between states but also partnerships between cities (e.g., locating and supporting war refugees from Ukraine to adapt to new conditions, transferring resources and medical aid equipment between cities, organising transportation for refugees from across the border, etc.). The bloody conflict continues (status as of 21.08.2022).

⁴⁴ Z. Brodecki, *Europa Bałtycka?* [in:] *450 lat polskiej administracji morskiej*, D. Nawrot (ed.), Bernardinum, Pelplin–Gdynia 2019, p. 232–243.

2. EVOLUTION

2.1. PROCESS OF TECHNOLOGISATION OF LAW

Mathematics is the beginning and the end. In the era of digitisation and the automation of public life (encoded in algorithms), it is advisable to consider the code of the metropolis. The secret of modern life is algorithms⁴⁵. They show us the way in the digital age, but only some people realise that they belong to the essence of mathematics. Patterns, being the work of mathematics, become beautiful, just like patterns derived from a work of art. They make ideas, like colours or words, fit together harmoniously. The cooperation between man and machine opens up new horizons for art and science. Today, most creative thoughts occur at the intersection of disciplines. That is why seeing law interacting with technology and management has become essential. It is necessary to program systems so that they operate rationally and efficiently.

The “brain-computer” interface will undoubtedly allude to the concept of time and space, which the Book of Changes associates with the numbers of the lo-sh diagram – used in medicine, construction, military or even technology⁴⁶.

If you add up all the numbers vertically, horizontally and diagonally, you get 15. “In unity transformation and transformation unity” - that and an intricate picture of the Chinese philosophy of life.

In his sketches on the philosophy of law, Zdzisław Brodecki repeatedly drew on the Chinese vision of the “nine palaces” taking as his starting point

4	9	2
3	5	7
8	1	6

Fig. 5. Legal culture code inspired by the Chinese vision of "nine palaces".

Source: Zdzisław Brodecki concepts of legal culture codes. See among others: Z. Brodecki, A. M. Nawrot, *Świątynia w cyberkulturze. Technologie i prawo w społeczeństwie wiedzy*, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2007, p. 100; Z. Brodecki, *Bliżej nieba. Filozofia nauk kosmicznych*, “Krytyka Prawa. Niezależne studia nad prawem” 2017, vol. 9, no. 3, p. 15–16; Z. Brodecki, *Świątynia w kosmicznej wiosce. Bezpieczeństwo przyszłych pokoleń w erze sztucznej inteligencji*, EuroPrawo, Warszawa 2021, p. 162–163.

⁴⁵ M. du Sautoy, *Kod kreatywności. Sztuka innowacji w epoce sztucznej inteligencji*, Copernicus Center Press, Kraków 2020, *passim*.

⁴⁶ Z. Chuncai, *Księga przemian*, Wydawnictwo Dialog, Warszawa 2006, *passim*.

the Confucian triad of ideas: humanity (*ren*), transformation (*li*) and justice (*yi*). Each time, he adapted these ideas to the context⁴⁷. An attempt can also be made to present a normative model of metropolitan government through the lens of technology, governance and law.

Humanitarianism	Transition	Justice	
Man, in the era of artificial intelligence	the dawn of the artificial intelligence era	judgment in the age of artificial intelligence	Technology
organisational culture	paradoxes	wealth distribution	Management
procedural dignity	procedural rationality	procedural justice	Law

Fig. 6. Metropolitan code.

Source: Based on Zdzisław Brodecki's concept of legal culture codes. See among others: Z. Brodecki, A. M. Nawrot, *Świątynia w cyberkulturze...*, p. 100; Z. Brodecki, *Bliżej nieba. Filozofia...*, p. 15–16; Z. Brodecki, *Świątynia w kosmicznej wiosce...*, p. 162–163.

At the centre of the projected code of the metropolis is “transformation”. This is a praxeological category/value, which in the normative model of local government manifests itself simultaneously in the form of lawfulness and rationality. During the eve of the era of artificial intelligence (digitisation and autonomy of public life), one must ensure that the legislator is rational and the government is efficient. One can agree with the *de lege ferenda* postulates of Jakub H. Szlachetko, stating that⁴⁸:

- A coherent and uniform set of identification and delimitation criteria and indicators for metropolises should be adopted, and at the same time, the “metropolitan association” (the constituting and controlling body) should be given the authority to coordinate the activities of the various organisational units within the association;
- The metropolises should be obliged to carry out supra-municipal public tasks defined by law, including in the areas of metropolitan development, spatial order formation, climate protection, environment and nature

⁴⁷ Z. Brodecki, *Świątynia w kosmicznej wiosce. Bezpieczeństwo przyszłych pokoleń w erze sztucznej inteligencji*, EuroPrawo, Warszawa 2021, p. 163.

⁴⁸ J. H. Szlachetko, *Normatywny model...*, p. 387–391.

protection, transport infrastructure, higher education and science, and health care;

- The decision-making model should be based on principles concretising the idea of rationality.

2. 2. THE PROCESS OF LAW INTEGRATION

The principles are at the top of the integrated legal order's legal sources⁴⁹. They contain the most excellent synergy to integrate international, regional and national relations. It is worth recalling that the principles represent the depth and essence of what the Romans referred to as *ius*, not *lex*. For Title XIX of the TFEU, first and foremost significant are the principles of subsidiarity and proportionality.

The principle of subsidiarity exists in a functional relationship with the shared competencies of the Union and the Member States. Such is the treaty nature of the shared competencies between the EU and the member states that the R&D policy has. Moreover, an additional proviso is included in the R&D policy, establishing that the EU's exercise of its competencies under the policy must not have the effect of preventing member states from exercising their competencies under their national R&D policies⁵⁰. Thus, the exercise of relevant activities by the EU continues the possibility of activity at the national level. This prejudices the unique nature of R&D policy that differentiates it from other EU policies with shared competencies. The principle of subsidiarity is the starting point for decentralising power and transferring competencies as close to the citizens as possible, leaving them at the regional and local level. According to the principle of subsidiarity, the EU institutions take action only if and to the extent that the objectives of the intended action cannot be achieved by the Member States, and due to the size or impact of the proposed action, it becomes possible to achieve the said objectives more efficiently at the Union level⁵¹.

It remains vital to interpret this principle through the essence of its duality correctly⁵². In the negative aspect, this principle means that public authorities should not interfere in the solution by citizens and other entities of regional and local communities of their problems. In contrast, in the positive aspect, any authority should create friendly activating conditions for action and, only when necessary, support the actions of dependent entities. This framing of the problem touches the heart of civil society.

⁴⁹ See: Z. Brodecki, *O nieświadomości przełomu cywilizacji* [in:] *Prawo w erze sztucznej inteligencji...*, p. 36–39.

⁵⁰ M. Nowacki, *Tytuł XIX. Badania...*, p. 1209.

⁵¹ Z. Brodecki, *Prawo integracji. Konstytucja dla Europy*, LexisNexis, Warszawa 2011, p. 56.

⁵² *Ibidem*.

The principle of proportionality is also related to the competencies shared by the Union and the Member States⁵³. The practical implementation of the principle is to find an appropriate balance between the measures taken and the stated objective. The principle of proportionality determines the intensity of the exercise of competence by the institutions of the Union, provides a basis for administrative and judicial control of Union acts, and protects individuals from excessive interference by any public authority⁵⁴.

In the hierarchy of sources of law of an integrated legal order, rules rank lower than principles⁵⁵. The generally understood directions of development of law seen through the prism of digitisation and the automation of public life are increasingly unimportant. In addition, due to national egoisms, they often conflict with the processes of regional integration of states and globalisation and do not synchronise with scientific and technological progress resulting from the explosion of creativity of the era of artificial intelligence. From a local perspective, we are dealing with rules in the provisions of the aforementioned law on the metropolitan association in the Pomeranian Voivodeship.

Policies closely related to and direct the policy of law include strategies for implementing specific actions and achieving goals. Unfortunately, lawyers call policies “soft law”, often underestimating their importance and proper rank. However, it should be emphasised that what lawyers disregard, economists and sociologists take exceptionally seriously. In the context of the EU and the issues under consideration, the component policies are specific EU programs on research and development and regional policy.

Research and innovation are essential to economic growth and improving quality of life. That is why they are at the centre of EU policies to create jobs stimulate growth, and investment. Moreover, they provide the knowledge and solutions to address both immediate problems and long-term global challenges of the 21st century, such as health, climate change and energy. They are the starting point for a considerable number of new products and services related to the development of artificial intelligence. Of the many programs supporting R&D at the EU level, “Horizon 2020”⁵⁶ (implemented in 2014–2020) deserves special mention, currently replaced by “Horizon Europe”⁵⁷ (implementation perspective 2021–2027). “Horizon 2020” is the largest ever implemented EU

⁵³ In addition, the principle of proportionality also applies to the Union's excluded competencies.

⁵⁴ Z. Brodecki, *Prawo integracji...*, p. 57.

⁵⁵ See: Z. Brodecki, *O nieświadomości przełomu...*, p. 36–39.

⁵⁶ <https://wayback.archiveit.org/12090/20220124080448/https://ec.europa.eu/programmes/horizon2020/en/what-horizon-2020> [accessed on: 4.07.2022].

⁵⁷ https://ec.europa.eu/info/funding-tenders/find-funding/eu-funding-programmes/horizon-europe_pl [accessed on: 4.07.2022].

research and innovation program, with nearly 80 billion euros invested over seven years. Among its main objectives were:⁵⁸

- promoting activities in the field of science, including through the European Research Council, and the training and career development of scientists through “Maria Skłodowska-Curie” activities;
- promoting industrial leadership in fields such as nanotechnology and biotechnology and supporting businesses and entrepreneurs;
- addressing society’s biggest problems, including health, transportation, energy, climate action, and protection of freedom and security.

The European Commission is constantly directing efforts towards developing policies (strategies) to incentivise excellence in R&D and create a friendly space for innovation (the idea of the European Research Area as the “fifth freedom of the EU”⁵⁹ – free movement of knowledge). The current Horizon Europe program, as the successor to the previous program, is the crucial EU program for funding R&D policy. More than 95 billion euros are earmarked for this program, and as much as 35% of the contribution set as a target is to be for climate action⁶⁰. The program is expected to contribute to adapting Europe to climate change, help achieve the UN Sustainable Development Goals, and stimulate EU competitiveness and economic growth.

Regional policy is aimed at all EU regions and cities. Its objectives include promoting employment, business competitiveness, economic growth and sustainable development, as well as enhancing the quality of life of citizens from a local perspective⁶¹. It seems reasonable to make the lofty and, at the same time, perverse-sounding statement in the face of national egoisms that the EU is only as strong as its regions (and not, according to traditional concepts derived from the 19th century, nation-states). At the same time, it is worth emphasising that in a rational understanding and sensible setting of specific political horizons, a strong state does not have to contradict a strong EU and vital regions.

Each EU regional policy program is developed through a participatory process involving all stakeholders at the European, national, regional and local levels, as well as social partners and civil society. This cooperation applies to all stages of programming, starting with development, through management and implementation, and ending with monitoring and evaluation⁶². On the grounds of legal engineering, a metaphorical comparison could be made that

⁵⁸ <https://wayback.archiveit.org/12090/20220124080448/https://ec.europa.eu/programmes/horizon2020/en/what-horizon-2020> [accessed on: 4.07.2022].

⁵⁹ See: M. Nowacki, *Tytuł XIX. Badania...*, p. 1215–1218.

⁶⁰ https://ec.europa.eu/info/funding-tenders/find-funding/eu-funding-programmes/horizon-europe_pl [accessed on: 4.07.2022].

⁶¹ https://ec.europa.eu/info/topics/regional-policy_pl [accessed on: 4.07.2022].

⁶² https://ec.europa.eu/info/topics/regional-policy_pl [accessed on: 4.07.2022].

this is a cooperation scheme that incorporates mechanics, electronics and software when we look at the processes taking place through the prism of the development of artificial intelligence. A regional policy program that should also be singled out for our national perspective is the INTERREG⁶³. Program that focuses on the needs and potential of border regions. Between 2014 and 2020, nearly 260 billion euros were spent on EU regional policy. The program will also continue in the 2021–2027 financial perspective, will cover 29 countries, and has a budget of 379 million euros⁶⁴. This is admirable on the one hand and only confirms how crucial regional policy is for the EU.

Precedents perform a stabilising function for constructing the legal order, which is permanent and rational; however, in socio-economic practice, including legal turnover occurs in dynamic and not always conflict-free relations.

We can, at best, only expect local metropolitan precedents since the Pomeranian metropolis and its socio-economic practice do not yet exist.

3. CHARACTER

3.1. SYSTEM OPERABILITY

The binding force of international law is not yet at the forefront of research and development in the context of the current traditional structure of thought about the legal order and international law as an expression of the will of state parties entering into particular international agreements and shaping their content. However, it is essential to remember the evolution of reasoning resulting from the creativity of the synergistic mind, which will soon take place and change the classical paradigms of legal thinking. In the era of artificial intelligence, the international legal norms of a universal nature will be of the utmost importance, especially regarding the principles of artificial intelligence development. These principles will be closely related to the field of research and development and will result from a global consensus of scientists⁶⁵. The impending necessity of changes in the legal mentality is perfectly reflected in the statement, “Whatever you think, think the opposite”, which is a departure from the

⁶³ <https://www.interregeurope.eu/> [accessed on: 4.07.2022].

⁶⁴ <https://www.interregeurope.eu/facts-and-figures> [accessed on: 4.07.2022].

⁶⁵ See Institute for the Future of Life, Declaration of Asilomar, <https://futureoflife.org/ai-principles/> [accessed on: 4.07.2022]. Asilomar Declaration - a document that deals with the principles of developing artificial intelligence. These principles were developed at the Asilomar (USA) conference in 2017. The conference was attended by prominent artificial intelligence researchers worldwide, entrepreneurs, and leading figures in economics, philosophy, ethics and law. The declaration, although not currently a law in any way, can become the basis for further development of artificial intelligence in the long term. In the future, the principles for developing artificial intelligence formulated in Asilomar could become binding international law, e.g. in the form of rules or guidelines (policies).

conventional point of view and an encouragement to look at the existing law differently⁶⁶. In the transformation process, exposing this simple yet highly apt slogan is worthwhile.

The binding force of EU law is essential for the considerations made, which are considered based on the nature of Title XIX TFEU. The provisions of the analysed Title XIX TFEU do not have a direct effect⁶⁷. Some momentous legal consequences for the binding force of EU law arise from the principle of direct effect. However, they do not apply to the legal norms of European R&D policy established in Title XIX TFEU. Such momentous legal consequences arising from the force of the principle of direct effect include the automatic incorporation of directly practical legal norms into the legal order of EU member states. Here, there is no need for incorporation (direct effect). Instead, there arises the possibility of their direct application by the authorities of EU member states (direct application). They can become an independent source of individual rights and obligations (direct effect)⁶⁸. Article 179 TFEU, singled out for consideration, is a purely programmatic norm. The provisions contained in this treaty legal norm emphasise the subsidiarity of EU R&D policy to the national orders of EU member states, which exposes the EU's obligation to take into account the activities undertaken by the EU in the field of research and technological development, the essential directions and choices determined in the research policies of EU member states⁶⁹. In addition, they also articulate the subsidiarity of the EU's actions in achieving the goals of the Member States set in the R&D policies within each EU Member State⁷⁰.

Cooperation in R&D policy between the EU and member states is carried out using the coordination method. The EU coordination competence in no way limits states' competence in individual areas (including in R&D policy) but only provides coordination support for member states' actions⁷¹. The EU coordination method can be described as a form of soft law, as an intergovernmental policy in specific areas, which results in no binding EU legislative measures and does not oblige member states to introduce new or amend existing law⁷². It should be emphasised that the coordination method, which is an intergovernmental method of governance in the EU, is entirely dependent on the voluntary cooperation (will) of the Member States, which has a significant im-

⁶⁶ See: Z. Brodecki, *Cokolwiek myślisz, pomyśl odwrotnie. Punkt widzenia prawa kosmicznego*, „Krytyka Prawa. Niezależne studia nad prawem” 2018, vol. 10, no. 1, p. 33–58.

⁶⁷ M. Nowacki, *Tytuł XIX. Badania...*, p. 1203–1258.

⁶⁸ Z. Brodecki, *Prawo integracji...*, p. 114.

⁶⁹ M. Nowacki, *Tytuł XIX. Badania...*, p. 1209.

⁷⁰ *Ibidem*.

⁷¹ Z. Brodecki, *Prawo integracji...*, p. 52–53.

⁷² https://eur-lex.europa.eu/legal-content/PL/TXT/?uri=LEGISSUM:open_method_coordination [accessed on: 4.07.2022].

pact on its effectiveness, which currently in many areas must be assessed as low effectiveness of this political-regulatory instrument⁷³.

The specificity of the law of member states *en bloc* is significant. This perspective, still underestimated, has important implications for the regional integration of states within the EU and the development of regions and cities. First and foremost, the essence of the law of *en bloc* member states is found in the conflict-of-law rules for cross-border matters. Against this background, it is necessary to distinguish Greater Copenhagen (the cross-border metropolis of Sweden/Denmark), which several decades ago was able to recognise and effectively use the potential arising from “common interests” and “common patterns”⁷⁴. From this example, one can understand the benefits of adopting the common interests of member states’ perspectives.

The point of view of the national law will be analysed after the completion of legislative work and the law’s entry into force on the metropolitan association in the Pomeranian Voivodeship. The existing law on the metropolitan association in the Silesian Voivodeship is not an appropriate point of reference for the considerations undertaken since the Silesian metropolitan area is characterised by decidedly different specifics and land conditions far from the nature of a coastal metropolis.

3. 2. SYSTEM CONTEXT

Economic integration, social integration, and political integration are vital for the development of the metropolis. From the EU perspective, economic integration is the most advanced, followed by social integration and political integration the least. The same is accurate at the metropolitan level. The factors of a thriving economy and its needs affect the multidimensional intensification of economic integration, including that between businesses and the integration between businesses and society. Economic development and increased prosperity contribute to increasing attention to social integration issues, including those related to corporate social responsibility (CSR), which interest socio-economic participants⁷⁵. The most difficult, both at the European and local level, to achieve is advanced political integration, which depends on the imagination and will of politicians.

The Gdansk-Gdynia-Sopot Metropolitan Area has been trying for years to consider all the plans mentioned above of integration to solve local challenges

⁷³ <https://www.nck.pl/szkolenia-i-rozwoj/aktualnosci/otwarta-metoda-koordynacji> [accessed on: 4.07.2022].

⁷⁴ See: Z. Brodecki, *O nieświadomości przelotmu...*, p. 39–45.

⁷⁵ Corporate social responsibility positively contributes, among other things, to the protection of fundamental values, the protection of individual rights, the protection of the environment, respect for the proper principles of regional development and the proper formation of business-individual-society-land relations in the age of technological innovation.

at the metropolitan level⁷⁶. Although the effect so far has been mixed, even the efforts should be appreciated. Regarding economic integration, OMGGs can be distinguished by ongoing projects such as “TriPOLIS - an integrated program of cooperation between business incubators and science and technology parks in OMG-G-S” or “Innovative employment support system in OMG-G-S”⁷⁷. On the other hand, within the framework of social integration, OMGGs programs are being implemented, such as “Metropolitan Health Policy Program on Prevention of Type B Diabetes”, “Metropolitan System of Social and Professional Activation”, “Geriatrics Center”, or “Integrated revitalisation projects of the cities of Gdańsk, Gdynia, Wejherowo, Tczew, Rumia, Kartuzy, Puck, Żukowo”⁷⁸. However, local political integration is proving to be the most difficult. This phenomenon will strongly occur as long as there is no entity established by constitutional law within the Pomeranian metropolis and will be able to autonomously make binding administrative decisions on the performance of public administration tasks.

It is worthwhile for decision-makers shaping awareness and policy of the law at various levels to bear in mind that only full synergy between economic integration, social integration and political integration can be a path of development (and existence at all) for both the EU and regions and cities, including the Pomeranian metropolis in the era of digitisation and automation of public life, i.e. in the era of artificial intelligence.

II EPISTEMOLOGY

1. QUESTIONS

1. 1. WHAT IS THE *RATIO LEGIS* OF THE LEGISLATOR?

As is clear from the principle of subsidiarity, municipalities and their unions cannot perform tasks beyond their borders and competencies. Counties and provinces also need the competence to carry out tasks specific to the metropolis. Therefore, the legislator decided to introduce the institution of a metropolitan association⁷⁹.

⁷⁶ This is evidenced, among other things, by the functioning of such thematic committees at OMGGs as the committee on administration and finance and the committee on socio-economic affairs. <https://www.metropoliagdansk.pl/kim-jestesmy/komisje-tematyczne/> [accessed on: 4.07.2022].

⁷⁷ <https://www.metropoliagdansk.pl/zit/projekty-zit/rozwoj-gospodarczy/> [accessed on: 4.07.2022].

⁷⁸ <https://www.metropoliagdansk.pl/zit/projekty-zit/rozwoj-spoleczny/> [accessed on: 4.07.2022].

⁷⁹ The first piece of legislation in this area was the Ustawa z dnia 9 października 2015 r. o związkach metropolitalnych, Dz. U. 2015, poz. 1890. It has been repealed Ustawą z dnia 9 marca 2017 r. o związku metropolitalnym w województwie śląskim, Dz. U. 2017, poz. 730.

In the justification for the draft law on the metropolitan Union in the Pomeranian Voivodeship, among the arguments supporting the creation of the Union were listed. “The law on a metropolitan union in Pomorskie Voivodeship is a response to the need for institutional support for the performance of tasks of a nature exceeding the competence of individual local governments located in the Gdańsk-Gdynia-Sopot Metropolitan Area and as the experience to date in the field of metropolitan integration (both domestic and foreign) shows, it is difficult to effectively perform tasks in the field of public transport and spatial planning (key primarily from the point of view of a resident of the metropolis) solely based on grassroots cooperation of local governments. The problem is not the lack of willingness to cooperate between local governments and socio-economic partners, but the lack of sufficient resources to carry out these tasks”⁸⁰.

However, the legislature’s failure to at least attempt to synchronise the legal regulation of land, maritime planning, and zoning within the Pomeranian metropolis should be viewed in a decidedly negative light. The symbol of the Pomeranian metropolis is its seaside, and from the seaside arises many essential factors that affect socio-economic life every day, including spatial planning tasks. Sea-ports, maritime economy, beaches, coastal protection, etc., are permanently inscribed in the landscape and functioning of the Pomeranian metropolis. The legal separateness of the regulation of land and sea planning and development will lead to conflicts and disruptions in developing what inherently interacts and is closely interconnected. The legislator has so far⁸¹, in the work on the draft of the law in question, forgotten about this aspect or, what would be much worse, ignored it.

1. 2. WHAT IS THE *RATIO LEGIS* OF THE COURTS?

The R&D policy, through its treaty regulations determining its lack of direct effectiveness, is not subject per se to the jurisprudence of the courts. The will or lack thereof among EU member states to cooperate in the field of R&D policy is not subject to the court’s judgment. The basis for this cooperation is goodwill and intergovernmental relations, which are not subject to the jurisdiction of the courts in the field in question.

2. ETHICAL VALUES

2. 1 DIGNITY AS THE FOUNDATION OF ETHICS IN TECHNOLOGICAL LIFE

The dangers associated with the development of digitisation and automation of public life justify the initiation of a debate on humanitarianism. This idea is concretised by the principles defining the status of the “self-governing community” (residents of a particular territory who are united by settlement,

⁸⁰ Sejm Rzeczypospolitej Polskiej, druk nr 646, Warszawa 14 września 2020 r.

⁸¹ Status as of 4.07.2022.

social and cultural ties), human rights of all generations (personal and political rights, economic, social and cultural rights and solidarity rights) and procedural protection mechanisms (the right to good administration, the right to an effective remedy and access to an impartial court).

Human beings should be at the centre of the relationship between artificial intelligence, governance and law. This will allow the formation and balance of the human position in the processes of digitisation and autonomation of public life. This will become possible when dignity becomes the essential, albeit coded, core of all these relationships.

2. 2. HUMAN AND QUASI-HUMAN RIGHTS

Judicial justice should not be forgotten. Any metropolitan law should guarantee the right to good administration and the right to an effective remedy and access to an impartial court, as they belong to human rights. This is because they are the guarantors of enforcing the authorities' duty to act rationally and efficiently. Disputes fought by citizens before administrative courts emphatically testify to how the normative model of metropolitan self-government functions.

3. PRAXEOLOGICAL VALUES

3. 1. RATIONAL LEGISLATOR

The digitisation and automation of public life are forcing lawmakers to formulate answers to fundamental questions and to reflect in depth on the directions of law in the context of research and development and administration in terms of the development of metropolitan areas. In his book *“Law as Symbolic Form”*, Deniz Coskun posed the following question: “How did the Technological Age Contribute to the Cultural Crises?”⁸². The ability to regulate the digital and autonomous world of public (and private) space will determine the future. Max Tegmark creates a positive vision of legislation (the rational legislator), claiming that humans have created laws to encourage and facilitate cooperation and that artificial intelligence can improve legal and governance systems, which is expected to result in the most effective human cooperation in history, bringing out the best in people⁸³. The vision of a rational legislator can be fulfilled if paradox, understood as an infinite number of innovative reconciliation solutions, is taken as the synthesis of the strategy for the development of law in the era of digitisation and the autonomation of public life⁸⁴. In the era of artifi-

⁸² D. Coskun, *Law as Symbolic Form – Ernst Cassirer and the Antropocentric View of Law*, Springer, Dodrecht 2007, p. 157.

⁸³ M. Tegmark, *Życie...*, p. 140.

⁸⁴ B. De Wit, R. Meyer, *Synteza Strategii*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2007, p. 36.

cial intelligence, the seemingly contradictory poles of paradox become simultaneously true, replacing “either-or” with “and-and” one seeks the proper synthesis between the extremes, being an aspiration to integrate and to think⁸⁵. The skilful realisation of this vision offers a chance to positively contribute to both R&D policy and the development of European metropolises.

3 2. EFFICIENT GOVERNMENT

Technological and security standards will give practical direction to development and determine government efficiency in digital, atomised public life. For example, technical standards have long been among the specific sources of administrative law. The essence of technical standards is the legal regulation of orders, patterns or prohibitions used in technology in the broadest sense⁸⁶. This gives legal sanction to these standards, which is supposed to result in appropriate technical standards or uniformity of applied solutions⁸⁷. Identical is the case with security standards. It is worthwhile for any government to give importance to technological and security standards. Understanding the importance of these standards in a digital and atomised world will be a factor in the efficiency of governments.

III AXIOLOGY

1. QUESTIONS

1. 1. WHAT ARE THE GOALS OF THE STANDARD POLICY?

One of the main goals of the EU, as well as other countries and organisations in a globalised world, is scientific and technological progress. The EU R&D policy will become the most critical instrument for achieving this goal. Article 179(1) of the TFEU indicates the objective of this policy, emphasising the need for the EU to strengthen its scientific and technological base through the establishment of the European Research Area and to foster the development of its competitiveness, including in industry, as well as to promote research activities deemed necessary under other chapters of the TFEU⁸⁸. These objectives are closely linked, and the implementation of the EU R&D policy guidelines is expected to achieve the most critical objective of the EU as a whole in this regard, namely scientific and technological progress⁸⁹.

⁸⁵ Z. Brodecki, *Kierunki rozwoju nauki prawa i administracji*, “Przegląd Naukowy Disputatio” 2013, vol. XVI, no. 2, p. 179.

⁸⁶ J. Zimmermann, *Prawo...*, p. 155.

⁸⁷ *Ibidem*.

⁸⁸ Wersja skonsolidowana, Dz. Urz. UE z dnia 7 czerwca 2016 r. C 202/47.

⁸⁹ M. Nowacki, *Tytuł XIX. Badania...*, p. 1214–1215.

1. 2. WHAT ARE THE INSTRUMENTS TO HELP ACHIEVE THE SET GOALS?

The main instruments for implementing R&D policies include coordination and funding. As mentioned in the framework of previous considerations, the coordination of R&D policies of EU member states is voluntary. It depends on the adoption of research and comparison results by member states and their implementation⁹⁰. Coordination has also become possible in connection with the implementation of R&D programs, thanks to which the division of labour between research institutions is shaped or duplication of work is eliminated⁹¹. In turn, the instrument of financing is used with three primary variants of action: financing own research and development work, financing work based on contracts and subsidising research and development work⁹². These are the primary instruments for achieving the goals of EU R&D policy.

2. CREATIVITY

2. 1. TECHNOLOGICAL INNOVATION

Current and future metropolises will be filled with technological innovations – artificial intelligence in various forms will be a permanent part of socio-economic practice. This inevitable process of digitisation and automation of public life should be used to the even more significant benefit of all entities operating within the metropolis than before. Currently, regions and cities (thanks to EU funds, among other things) are implementing many innovative economic projects, transportation, infrastructure, e-government, environmental protection, health care and many others. Green growth, social cohesion, mobility and transportation, a new understanding of work (labour market transformations resulting from modern technologies), or education will be necessary for the future increase in residents' comfort and quality of life. All these technological innovations should be synergistically tied together by smart governance in the metropolis.

2. 2. LAWYER OF THE FUTURE

Lawyers' services will morph into digital or autonomous realms shortly in public administration⁹³. The service of stakeholders (public office petitioners), from the acceptance of an application to the issuance of a decision in adminis-

⁹⁰ *Ibidem*, p. (1218).

⁹¹ P. Kalka, *Polityka badawczo-rozwojowa Wspólnot Europejskich*, Instytut Zachodni, Poznań 1997, p. 155–156.

⁹² *Ibidem*, p. 154.

⁹³ For example, various selected concepts of artificial intelligence participation in the administration of justice and administration. See among others: M. Załucki, *Wykorzystanie sztucznej inteligencji do rozstrzygania spraw spadkowych* [in:] *Prawo sztucznej inteligencji*, L. Lai, M. Świerczyński (eds.), C.H. Beck, Warszawa 2020, p. 145–155; M. Kaczorowska, *Możliwość*

trative proceedings before the authority in many categories of cases, will be able to be performed by artificial intelligence systems. Human participation will be limited to the necessary minimum, where human control will be required. Even the very supervision of such proceedings will be able to be performed by artificial intelligence systems since, according to statistics, they are wrong less often than humans. E-lawyer of e-government – ahead.

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