

THE FIFTH FREEDOM FOR THE EUROPEAN UNION: UNCOVERING ITS HIDDEN MEANING*

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This article explores the concept of the EU's fifth freedom. It begins by tracing the development of this concept from its initial proposal to the present day, before delving into its current content. By analysing the meaning of the four freedoms in the EU internal market, the article demonstrates that the fifth freedom pertains to the free movement of data. Furthermore, it examines data, information, and knowledge, establishing their interrelationships within the context of the fifth freedom. The author outlines the range of problems that could be resolved by introducing the free movement of data and explains why this is the most efficient approach. Finally, the article defines the broad scope of the data concept within the framework of free movement.

Keywords

Fifth freedom, data, free movement of data, four freedoms, knowledge, capital, the EU

Introduction

Times change, and legislation evolves with them. Legal regulation reflects a specific historical era, yet it must also be fit for purpose in the present.

The European Union (hereinafter "the EU" or "the Union") emerged from the European Communities based on the provisions of the Treaty of Rome (1957), which initiated the development of the four freedoms: goods, services, capital and people. The global community is progressing rapidly, moving from one breakthrough to another. Such rapid development compels "the mighty of the world" within the EU's borders to consider the further evolution of the four freedom concept. In 2007, Janez Potočnik proposed the concept of the fifth freedom – freedom of knowledge (Smith 2007). Twenty-four years later, the concept of the fifth freedom has acquired a content which differs from that described by its creators in the Green Paper of the European Commission "The European Research Area: New Perspectives" (hereinafter "Green Paper 2007") (Council of the European Union 2007). However, the approach to regulating the fifth freedom remains unclear, with a lack of certainty regarding the consequences of introducing a new freedom for the EU itself and its international relationships.

The relevance of this research paper is defined by several reasons.

Firstly, there is no consensus among researchers or practitioners regarding the content of the fifth freedom. Some associate it exclusively with the freedom of data (Groenewolt 2025; Klafkowska-Waśniowska 2024), while others argue that it encompasses not only data but also the freedom of research and knowledge (Sturm 2024). The development of an approach to the legal regulation of the fifth freedom will

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depend precisely on the content ascribed to this concept. Secondly, granted freedoms are always accompanied by new “challenges”. One of these challenges in the context of the fifth freedom is whether the introduction of this freedom will lead to the desired result, i.e. the development of science, innovation, increased competition within the EU, and enhanced competitiveness of the EU in international scientific and innovation markets.

Thirdly, what approach should be chosen to regulate the fifth freedom? The EU is not a single state, but an “association” of 27 states. Freedom of research and freedom of knowledge are not areas that can be subject to strict control and regulation; otherwise, more harm than good will result, as it could slow the development of research and innovation. In addition, it is necessary to take into account the cultural and historical peculiarities of different countries, including their approaches to scientific research, dissemination of knowledge, and transmission of information.

Fourthly, the question arises as to the order in which this freedom should be introduced. The introduction of the four freedoms after their consolidation in the Treaty of Rome took more than 36 years, and even today, representatives of European science and politics recognise the existence of certain obstacles in the functioning of existing freedoms (Letta 2024).

Finally, in most cases, innovations in legal regulation, especially those entailing fundamental changes in the functioning of a state or “clusters” of states, entail new costs. This raises the question of whether EU member states are willing to bear the additional costs associated with the obligations imposed by the fifth freedom, and to what extent. Is the EU budget ready for new expenditures, given that the costs associated with innovation policy and research are substantial? Ultimately, is it timely to implement the fifth freedom now, taking into account the geopolitical situation?

In this paper, the author pursues two objectives. The first is to propose the author's point of view on the content of the concept of the fifth freedom, and the second is to identify the need for the fifth freedom in the EU.

To achieve these goals, the author first analyses approaches to the content of the fifth freedom. After this analysis, the content of the fifth freedom will be correlated with that of the other EU freedoms, and conclusions about the concept of the fifth freedom will be drawn. To define the content of the fifth freedom, the author will study the relationship between information, data and knowledge, and determine which of these should be subject to free movement within the framework of the fifth freedom. Finally, the author will determine whether the fifth freedom is needed or whether the problems for which this concept is being developed can be solved using other methods, and the breadth of the fifth freedom's content will be defined.

The study contributes to the development of the theory of the fifth freedom by conducting a point-by-point analysis of EU strategic documents which describe the approach to regulating the 5th freedom. It also presents a new approach to its content, and provides arguments confirming the need for the fifth freedom in the EU. The practical significance of this research lies in the fact that the developed approach may contribute to the establishment of an effective legal framework this freedom.

The scientific methods employed include legal and policy analysis, induction and comparison. The first one is used to examine opinions of politicians regarding the content of the fifth freedom, as well as its relationship to other freedoms provided for by

the EU treaty. Induction is used to correlate the concepts of research and innovation funds with the content of freedom of capital, and to explore the concepts of information, data, and knowledge. Finally, the author uses the comparative method to relate policymakers' positions on the content of the fifth freedom.

1. The concept of the fifth freedom: the deeper the better?

1.1. The origin and current state of the fifth freedom concept

The origin of the fifth freedom concept is associated with Janez Potočnik, EU Commissioner for Research. In the Green Paper 2007 he outlined the rationale for developing an "internal market" for research. The Commissioner based his argumentation on several points. Firstly, he clarified that without expanded cooperation among states in the field of research and innovation, Europe would be unable to compete with developing economies (e.g., China, India) in these areas. Furthermore, he stated that an "internal market" for research would guarantee Europe's future prosperity. Finally, the Commissioner explained that existing fragmentation in the field of research prevented Europe from realising its potential and attracting business and investment into the European economy (Council of the European Union 2007).

Analysing Janez Potočnik's proposals suggests that by an "internal market" for research, he meant the following:

Firstly, the creation of an area of freedom for researchers, which implies:

1. The abolition of financial, legal, and administrative obstacles.
2. The full opening of academic research positions and national research programmes across Europe.
3. Easy movement between disciplines and between the public and private sectors.
4. The availability of research infrastructure to research teams around Europe.
5. Deeper cooperation among social security institutions.

Secondly, the creation of a web of research and innovation clusters to enhance cooperation among different parts of Europe. This means deepening cooperation among businesses, public or private entities, and research institutions. Such cooperation would, consequently, lead to greater inclusion of research institutions in the social and economic life of their localities.

Thirdly, the creation of freedom of knowledge presupposes open and easy access to knowledge bases, not only for researchers but also for the general public, along with harmonised rules for intellectual property rights.

Finally, the Green Paper 2007 mentions the "internal market" of funds for research activities. This implies comparable rules for funding research programmes and the free movement of funds between member states.

The latest reference to the fifth freedom is expressed in Enrico Letta's report (Letta 2024). Analysis of this document indicates that the approach to the fifth freedom has broadened since the Green Paper 2007. Currently, the scope of the fifth freedom encompasses research, innovation, data, competences, knowledge, and education. So, what does Enrico Letta propose to understand as the fifth freedom? (Letta 2024)

To begin with, he emphasises the free movement of data, specifically defining it as access to knowledge, datasets, and educational resources.

He then discusses the concept of free movement of researchers. Broadening this concept, he writes not only about the free movement of researchers but also the free movement of innovators, which was not mentioned in the previously analysed Green Paper 2007.

Another point Enrico Letta makes for the development of the fifth freedom is his proposal to enhance cooperation in both university and school education. This would involve certifying joint educational programmes offered by groups of higher education institutions in different European countries and mobilising learning and labour movement, including the movement of school teachers and high school students.

Therefore, it is evident that the scope of the fifth freedom, from the perspective of pro-European politicians, has both preserved its main features and undergone several significant changes simultaneously.

However, there is an opinion that the development of the fifth freedom is, in fact, the development of the free movement of data, and this is the primary area on which regulators should focus (Groenewolt 2025; Kłafkowska-Waśniowska 2024). Consequently, the concept of the fifth freedom is unclear, and there is a need to define its exact scope. This would assist regulators in approaching the legislative work on this emerging freedom in a clearer and more systematic way.

1.2. Free movement of people: outside the scope of the fifth freedom

Based on the Green Paper 2007 and Letta's report, it appears that the concept of the fifth freedom now includes the free movement of teachers, high school students, university students, innovators and researchers. However, is the free movement of these categories of people not currently permitted under Articles 20 and 21 of the Treaty on the Functioning of the European Union (hereinafter "TFEU", "Treaty")? Articles 20 and 21 of the TFEU establish that EU citizens, among other rights are entitled to move and reside freely within the Union. The implementation of these rights is supported by fundamental documents such as Directive 2004/38/EC on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States (European Parliament and the Council of the European Union 2004), and Regulation (EU) No 492/2011 on freedom of movement for workers within the Union (European Parliament and the Council of the European Union 2011). In addition, there are acts regulating the movement of students and researchers who are third-country nationals within the EU such as Directive (EU) 2016/801 on the conditions of entry and residence of third-country nationals for the purposes of research, studies, training, voluntary service, pupil exchange schemes or educational projects and au pairing (European Parliament and the Council of the European Union 2016b).

It is evident, therefore, that teachers, high school students, university students, innovators and researchers can move freely within the EU, exercising right established in the Treaty and subsequent EU regulations. The pertinent question is the ease with which these rights can be exercised.

The case-law of the Court of Justice of the EU (hereinafter "CJEU" or "the Court") provides corresponding conclusions, repeatedly affirming that the right to move freely within the EU is an inherent right of a researcher or a student. In case C-94/07, the CJEU maintained that researchers should be considered as workers if they perform their

duties under the control of an institute for a specified period and receive remuneration, even if such remuneration is a grant. Consequently, they are subject to Article 45 of the TFEU (CJEU 2008).

Case C-224/01 addressed researchers' right to move freely within the EU. The Court held that universities cannot implement regimes that place researchers who also teach abroad in less favorable conditions, as such regimes impede the right to free movement (CJEU 2003). The CJEU further maintained that Member States cannot introduce discriminatory measures to hinder students' exercise of freedom of movement. In case C-147/03, the Court held that denying students the opportunity to access higher or university education in a Member State on conditions equal to those afforded to nationals of that Member State violates the freedom of movement for students and therefore the TFEU (CJEU 2005). In joined cases C-523/11 and C-585/11, the Court concluded that a Member State cannot impose overly burdensome requirements regarding the duration of permanent residence without proper justification for an applicant to receive an education grant from that Member State. Such requirements could preclude the exercise of rights that Union citizens have under Articles 20 and 21 of the TFEU (CJEU 2013).

The Treaty, specifically Titles 12 and 19, provides the foundation for establishing a common policy in education and research. Therefore, the author contends that there is no necessity to establish a separate freedom for the movement of researchers, students, and teachers, nor to incorporate their free movement into the scope of the developing 'fifth freedom'. This argument also extends to innovators. Consequently, if the EU aims to stimulate research and innovation, it could introduce new rules, such as the removal of burdensome administrative or bureaucratic barriers, to facilitate smoother movement for these groups through secondary legislation or common programmes.

This conclusion aligns with the EU's policy within the European Research Area (hereinafter: "ERA"). From the inception of this programme, as outlined in the 2000 Communication "Towards a European research area", the mobility of researchers was intended to be "developed and encouraged", rather than newly introduced. The European Commission continues to state that, despite significant progress since the introduction of the ERA, Member States must enhance cooperation to streamline the movement of people in innovation, research and education (European Commission 2026b).

A similar approach can be seen in the support for mobility in higher education within the Bologna Process. This process aims to facilitate the free movement of students, which remains a priority for the European Higher Education Area (European Higher Education Area 2026).

Therefore, the EU should identify and dismantle obstacles to the free movement of teachers, high school students, university students, innovators and researchers, such as discrimination in the social sphere. This approach is preferable to creating a new 'freedom' within the existing framework of free movement of people, which could potentially lead to legal confusion (Poretti 2017).

1.3. Free movement of funds: discovering the essence

We will now examine the free movement of funds. What do policymakers understand by 'funds' in the context of the 'fifth freedom'? Janez Potočnik (Green Paper 2007) highlighted that funds originate from both public sources (national, regional, European) and private sources (philanthropy, business, civil society organisations). Enrico Letta's report does not clarify what the author considers to be 'funds' within the sphere of the 'fifth freedom'.

To determine whether the free movement of funds can be included within the scope of the 'fifth freedom', we need to address two questions:

- What is the definition of funds for research and innovation?
- Is the concept of free movement of funds encompassed by the meaning of free movement of capital?

To address the first question, we will investigate the main features of research and innovation funds and, based on this, propose definitions for research funds and innovation funds. How can we define the inherent features of research and innovation funds? Given the limited scientific research on this specific topic, we propose using empirical evidence to deduce the characteristics of research and innovation funds.

Features of research and innovation funds are considered using examples from European Research Council (hereinafter: "ERC"), Max Planck Society, CERN, European Innovation Council (hereinafter: "EIC"), TechEU, and Y Combinator.

The ERC is an EU-established research funding organisation that provides grant support to early-career and professional researchers from around the world, subject to specific conditions. The organisation finances any research project without requiring a specific research outcome (European Research Council 2026).

The Max Planck Society is a state-funded research organisation which provides researchers who meet its requirements with a place to conduct research in defined fields. Compared to the ERC, there is less freedom because the Max Planck Society does not simply provide a researcher with a grant to conduct research in any field of study. To participate in the Max Planck Society, a researcher must conduct research in one of the Society's research fields and be accepted into an open position within the Society (Max-Planck-Gesellschaft 2026).

CERN is a laboratory which provides researchers with the conditions to conduct research in the field of physics. The laboratory does not offer grants or other financial support. Instead, CERN provides researchers with facilities to conduct scientific activities and allows them to combine their knowledge and research achievements to deepen human understanding in physics (CERN 2026).

The EIC is a programme that enables innovations to grow from research into start-ups. To receive financial support from the EIC, a business entity or start-up must comply with special requirements and demonstrate that its proposal is genuinely innovative and transformative (European Innovation Council 2026).

TechEU is a platform created by the European Investment Bank which facilitates funding and expert assistance for innovators if an entity meets the requirements for support (European Investment Bank 2026).

Y Combinator is a programme which assists start-ups in growing from early stages of development (or even just ideas) into strong projects with finalised products and

opportunities to raise further funding. Essentially, the programme is designed to help young start-ups mature to the point where they attract the attention of major investors (Y Combinator 2026).

Based on the above analysis of research and innovation funds, we can identify five key features. Firstly, these types of funds are allocated conditionally, meaning they are used solely for pre-agreed research and innovation activities. Secondly, while the use of funds for research and innovation activities may aim for a planned outcome, those who finance these activities can never guarantee that the desired result will be achieved. Thirdly, research and innovation funds encompass not only money but also other material resources such as equipment, buildings. Fourthly, innovation funds are dedicated to innovative development, consequently, the outcome of innovation funds is less uncertain compared to research funds. Finally, funds are allocated to specific recipients: researchers, students, and research or innovation organisations.

Therefore, a research and innovation fund comprises a set of material resources, allocated under predefined conditions to entities conducting research and innovation activities, with the aim of achieving predetermined research or innovation results.

Now we can proceed to the second question: "Is there actually a need to consider the free movement of research and innovation funds as part of the fifth freedom, or should it be considered part of the freedom of capital?" To answer this question, the characteristics of the free movement of capital will be addressed.

The CJEU has repeatedly stressed that the free movement of capital should be defined by means of Council Directive 88/361/EEC of 24.06.1988 for the implementation of Article 67 of the Treaty (Council of the European Union 1988), particularly Annex I to the Directive. An analysis of the content of the annex and the Court's case law allows us to outline the following list of characteristics of the free movement of capital (European Commission 2026a).

Firstly, any operation that constitutes capital movement falls under the scope of the free movement of capital. As the CJEU has repeatedly stated, when there is a need to define the essence of a particular transaction, Council Directive 88/361/EEC, which does not provide an exhaustive list of transactions that fall under the concept of free movement of capital, should be consulted (CJEU 2020). This finding of the Court means that the concept of movement of capital must be interpreted broadly (CJEU 1999). Secondly, the movement of capital can take place among several natural and legal entities but can also be performed by a single natural or legal entity, as set out in Council Directive 88/361/EEC of 24.06.1988 and the case law of the CJEU (CJEU 1995b). Thirdly, capital movement must be inherently cross-border; that is, it must take place between Member States or between Member States and third countries (Article 63 TFEU).

The previous characteristic points to another feature of the movement of capital: it takes place not only internally, across the EU, but also involves the movement of capital from and into third countries, which makes the scope of the freedom of capital even broader (Article 63 TFEU).

Finally, the movement of capital does not necessarily pursue the purpose of profit-making. Such a conclusion is based on several reasons.

To begin, Council Directive 88/361/EEC contains a list of capital transactions that do not assume the subsequent acquisition of profit. For example, capital movement

includes such transactions as the movement of gifts, means of payment of every kind, and damages, whose legal and economic meaning does not presuppose profit-making.

Another reason to suggest that profit-making is not always the sole purpose of capital movement is the practice of the CJEU. The Court's case law indicates that the CJEU does not consider profit-making a necessary attribute of capital movement. For instance, in Case C-318/07, *Hein Persche v. Finanzamt Lüdenscheid*, the CJEU acknowledged that the view of the German, Spanish, Irish, and French Governments, which stressed that the capital movement provisions of the TFEU covered only economic and consequently profit-making, not altruistic activities, was incorrect. The Court initially noted that the cross-border movement of gifts is included in Council Directive 88/361/EEC. Secondly, it does not matter whether gifts are monetary or in kind. Consequently, the Court concluded that the movement of goods in kind is included within the scope of the free movement of capital (CJEU 2009). Cases C-358/93 and C-416/93 provide similar examples (CJEU 1995a).

Based on the analysis of the characteristics of the free movement of capital, it can be stated that the movement of research and innovation funds falls under this concept because it shares the same characteristics. Firstly, the movement of research and innovation funds involves the movement of material resources, such as financial means. Secondly, the movement of research and innovation funds is performed among several entities or by a single entity, as in the cases C-523/11 and C-585/11 analysed above. Thirdly, if we consider the liberalisation of policy towards the movement of research and innovation funds across the EU, then the movement of these funds acquires a cross-border effect, as contemporary policymakers envisage these funds moving from one Member State to another, to researchers or with researchers. Finally, the movement of research and innovation funds does not primarily pursue the purpose of profit-making, as its main goal is to enable researchers and innovators to conduct effective research and technological development.

Therefore, when discussing the free movement of research and innovation funds, we are referring to a more liberalised policy for the movement of material, primarily financial means, across the EU to enhance the efficiency of research and innovation activity; in other words, we are not advocating for the creation of a new freedom. Consequently, the movement of research and innovation funds must be considered within the scope of the free movement of capital.

1.4. Data, knowledge and information: separation and inclusion

Another point to address within the context of the fifth freedom is the free movement of knowledge and data. There are some misunderstandings regarding these components of the fifth freedom: should the free movement of knowledge and the free movement of data be considered separately? Or is the free movement of knowledge a part of the free movement of data and vice versa?

In addressing this question, we first turn to Enrico Letta's report, which makes three important points about the free movement of knowledge and data. Initially, the report states that the fifth freedom encompasses the spheres of data and knowledge. Letta later clarifies that the free movement of knowledge implies the exchange of knowledge

(research, educational, etc.), and that the free movement of data presupposes the free cross-border flow of personal and non-personal data.

Based on Letta's analysis of the meaning of data and knowledge within the concept of their free movement, there is a lack of clarity as to whether the free movement of knowledge and data are separate movements or parts of a single movement, and what the correlation between them is. At first glance, we might conclude that knowledge and data represent different movements, as the report states that the fifth freedom includes the free movement of both. However, a deeper examination of the report reveals that the distinction between knowledge and data is not so obvious, based on four statements within the report. Firstly, Letta proposes the creation of a Europe Knowledge Commons, which would provide access to data sets. Secondly, the report states that to allow the free flow of knowledge, Europe needs to harmonise cross-border data flow mechanisms. The author also concludes that the knowledge economy is highly dependent on data. Finally, the potential of data accessibility and shareability enables knowledge sharing, which in turn fosters innovation.

In light of these statements, we should address the question: how do the concepts of knowledge, data, and information relate to each other? Scientists offer varying definitions, yet express a similar essence.

Max Boisot and Agustí Canals define data as “stimuli originating in discernible differences in physical states-of-the-world – that is, states describable in terms of space, time, and energy”. The authors describe information as “significant regularities residing in the data that agents attempt to extract from it”. Finally, knowledge is “a set of expectations held by agents and modified by the arrival of information”. The authors conclude by establishing the following relationship among the three concepts: “...information is an extraction from data that, by modifying the relevant probability distributions, has a capacity to perform useful work on an agent's knowledge base” (Boisot & Canals 2004).

Palitsyn Vasily supports Norbert Wiener's position, who characterises information as the designation of content obtained from the world through the process of adapting oneself and our senses to it. Knowledge is defined by Palitsyn as the system of concepts in the form of images, methods, ideas, theories, hypotheses, concepts, etc., acquired by a person through thinking and fixed in memory during life, activity, and learning, and implemented when solving theoretical issues and practical tasks. However, data is considered by Palitsyn to be synonymous with the concept of information (Palitsyn 2018).

Chaim Zins analysed three concepts in both a subjective and a universal sense. Subjectively, data refers to sensory stimuli perceived through our senses. Information is the meaning derived from these sensory stimuli. Knowledge, in this context, is a thought in an individual's mind, characterised by their justifiable belief in its true. Universally, Zins states, “data are sets of signs that represent empirical stimuli or perceptions, information is a set of signs, which represent empirical knowledge, and knowledge is a set of signs that represent the meaning (or the content) of thoughts that the individual justifiably believes that they are true” (Zins 2007).

Based on these definitions, a relationship between the three concepts can be established: Data reflects phenomena of reality in various perceptible categories, such as alphabet or sound. Information comprises the concepts people extract from data. Thus,

data and information relate as form and content. Knowledge, conversely, consists of individual facts derived from information. Given that data inherently contains knowledge, the free movement of data across the EU is a prerequisite for the development of science and innovation, ultimately fostering knowledge.

Drawing upon Enrico Letta's report and the relationship between information, data and knowledge, several conclusions can be made. Firstly, there is a strong connection between the concepts of data and knowledge. Secondly, policymakers view knowledge as a component of data. Thirdly, the concept of data is broader than that of knowledge. Consequently, the concept of the 5th freedom must be centred on the freedom of data, from which knowledge is derived. This conclusion is supported by Enrico Letta's report, where he writes: "... the essence of the fifth freedom lies in its ability to unlock the potential of data by ensuring accessibility and shareability across borders and sectors within the EU".

2. The free movement of data: necessity or speculation?

The introduction of the freedom of data, as a specific dimension of the fifth freedom, raises several questions. What problems would be resolved by its implementation? Can the issues that necessitate the freedom of data be addressed through alternative means or methods, or is the 5th freedom the most efficient and logical solution? Furthermore, will the 5th freedom have a broad scope, similar to the freedom of capital, or will it be restricted to specific types of data?

There are several problems mentioned by Enrico Letta in his report to explain the need for the fifth freedom, particularly the free movement of data. Firstly, Europe has not developed its own innovations, leading to the current situation where the EU is highly reliant on the technological development of non-member states. Secondly, the EU does not fully utilise its data potential, consequently losing resources that benefit other countries or economic entities. Researchers also suggest that the introduction of free movement of data can help to solve these problems (Groenewolt 2025; Klafkowska-Waśniowska 2024).

These problems are indeed relevant for the EU. Studies from 2025 show that in 2019, the EU had fewer radical novelties than the USA and roughly the same number as China. However, when it comes to patented novelties, the EU ranks third, after China and the USA. Furthermore, the EU trails the USA and China in several shaping areas such as natural language processing, robotics, image processing, data analytics, semiconductor manufacturing, memory technology, and advanced medical technologies. Another advantage that the USA and China possess is their data flow. In the USA, the internet sphere is not extensively regulated, allowing for freer data usage. In China, data is generated through the use of national technologies. This data is then sold by local authorities to private investors who use it to create innovations. Moreover, it takes longer for the EU to replicate novelties compared to the USA and China. In addition, the EU is slow in disseminating technologies created within its own market throughout the EU territory. Researchers attribute this outcome to several reasons (García-Herrero, Krystianczuk & Schindowski 2025):

1. barriers across the European market;
2. weak capacity of firms to absorb technological developments;

3. the burden of administrative obligations in the research and development sector.

Of course, there are other problems that could be solved with the introduction of data freedom. For instance, as Europeans move around the Union, there is the problem of transferring their personal data between different systems of member states. This process is both slow, due to the absence of a system for instant access to personal information and conditions, and inconvenient for individuals, who face extensive paperwork and bureaucracy to notify various agencies about their circumstances. This problem arises when families move from one member state to another and children need to change schools or other educational organisations, or when families must report their social conditions, among other situations.

Moreover, the rapid exchange of data in different policy spheres is highly important for the development of political agendas. For example, if a member state discovers a new method of committing an offence that harms the internal market, other member states must be notified as quickly as possible so they can take necessary measures to prevent adverse outcomes.

Consequently, the freedom of data can help to resolve problems in different spheres of European policy. The research area is another highly important sphere where member states and research institutions should have the opportunity to exchange data without incurring bureaucratic responsibilities. However, the next question in this regard is the efficiency of introducing the freedom of data, as this freedom must be derived from the "constitution" of the EU: the Treaty on European Union, the Treaty on the Functioning of the European Union, and the Charter of Fundamental Rights of the European Union.

To answer the second question, we should first mention that the economy has now entered a new phase of development – the data economy. "Data is the new oil", as Kiran Bhageshpur stated in his article for Forbes magazine (Bhageshpur 2022). From 2010 to 2020, 822.2 zettabytes of information were created, 84.1% of which was generated between 2016 and 2020 (Gracheva, Polishchuk & Bulgakova 2025). Countries are actively developing their data economies by investing in research and development. The share of spending on science as a percentage of GDP is growing around the globe (Gracheva, Polishchuk & Bulgakova 2025). The number of European data suppliers grew from 1.8% in 2021 to 2.1% in 2023 of the total volume of ICT and professional services companies (European Commission 2021). As Ajay S. Banga, President of the World Bank Group, noted in his article for the World Economic Forum, "GDP growth increases between \$250 billion and \$450 billion annually when data flows freely, and countries supporting cross-border data flows are 40% economically more successful than countries that do not support the free flow of data" (Banga 2016; БКК ЭКСПЕСС 2024).

Secondly, businesses strive to accumulate personal and non-personal data and use it to enhance their performance (Kazaryan 2025). A 2022 survey conducted by NewVantage Partners indicates that 97% of 94 respondents (94 Fortune 1000 or leading organisations) invest in data initiatives (Business Wire 2022). The KPMG Global Tech Report 2023 states that 29% of respondents (2100 executives from 16 countries) noted that business was 11% more successful with data investment (KPMG 2023).

Finally, policymakers believe that the EU still has much to do to achieve a single market (Letta 2024). The introduction of the free movement of data is another step that must be taken to develop the single market and further integrate European countries.

Therefore, we can see that the free flow of data is a necessary means to strengthen the economy in the modern world, where countries invest heavily in technological development to be economically strong, and businesses accumulate as much data as possible to be profitable. Consequently, to boost economic activity, research and innovation throughout the Union, it is important to speed up the exchange of data among member states (and perhaps even between member states and third countries), economic entities, and research institutions.

To answer the final question, we should first address the free flow of data already permitted under the EU legal framework. Two acts regulate data flow within the EU:

- Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (hereinafter GDPR) (European Parliament and Council of the European Union 2016).
- Regulation (EU) 2018/1807 on a framework for the free flow of non-personal data in the European Union (European Parliament and the Council of the European Union 2018).

These acts primarily define two different kinds of data rather than extensively regulating their movement. Personal data is defined as any information relating to an identified or identifiable natural person. This type of data is further divided into three groups: genetic data, biometric data, and data concerning health. Non-personal data refers to any data excluding personal data, as defined in the GDPR. While the scope of personal data is generally understood, there is less clarity regarding non-personal data.

We believe that the meaning of the fifth freedom can only be established through the fundamental acts of the EU. As stated in the Treaty on European Union, the creation of the Union aims to establish an area of freedom for citizens, an internal market, and an economic and monetary union (Art. 3 TFEU). Based on this, it can be deduced that since the Union was established to benefit citizens with freedom and countries with economic prosperity, the fifth freedom must be connected with these two main purposes. Consequently, the content of data in relation to the fifth freedom can carry personal meaning, but when addressing the free movement of non-personal data, it should be limited to data that has a direct relation to the maintenance and development of the internal market, economic, and monetary union.

Conclusion

Several conclusions can be drawn from the research conducted.

Firstly, the fifth freedom should concern the free movement of data, and there are several prerequisites for this conclusion.

Despite the fact that several policymakers include the free movement of researchers, teachers, innovators, high school students, and students within the scope of the fifth freedom, we believe this is an erroneous position. The free movement of these individuals is already part of another freedom – the free movement of people.

Secondly, the free movement of funds, which policymakers also include in the content of the fifth freedom, is part of another freedom – the free movement of capital.

Both the free movement of funds and capital imply the cross-border movement of material resources among or by a single entity, which does not necessarily presume the recipient of profit.

Thirdly, the fifth freedom must primarily be built around the concept of data. As stipulated, data reflect real-world phenomena across various categories perceivable by people; and knowledge, extracted from information derived from specific data, is part of this. Consequently, the free movement of data is a prerequisite for the development of knowledge, and by extension, research and innovation.

Currently, the EU faces several issues that impact its international standing, including underdevelopment in technology and innovation, underutilisation of data, and administrative and bureaucratic barriers for its citizens. All these problems are supported by empirical and statistical data. The free flow of data can efficiently resolve these issues, requiring only a coherent legal framework.

Finally, the scope of the fifth freedom should be limited to personal and non-personal data concerning the functioning of the internal market, and the economic and monetary union. This aligns with the two main purposes of the EU: establishing an area of freedom for its citizens, and fostering an internal market plus economic and monetary unions to preserve the position of the EU's global position.

References

- Banga, A. S. (2016). A global economy powered by data. *World Economic Forum*, January 27, 2016, <https://www.weforum.org/stories/2016/01/a-global-economy-powered-by-data/> [accessed March 1, 2026]
- Bhageshpur, K. (2022). Data Is the New Oil – And That's a Good Thing. *Forbes*, April 14, 2022, <https://www.forbes.com/councils/forbestechcouncil/2019/11/15/data-is-the-new-oil-and-thats-a-good-thing/> [accessed February 19, 2026]
- Boisot M. & Canals A. (2004). Data, information and knowledge: have we got it right? *Journal of Evolutionary Economics* 14(1): 43–67. <https://doi.org/10.1007/s00191-003-0181-9>
- Business Wire (2022). NewVantage Partners Releases 2022 Data And AI Executive Survey. January 3, 2022, <https://www.businesswire.com/news/home/20220103005036/en/NewVantage-Partners-Releases-2022-Data-And-AI-Executive-Survey> [accessed March 1, 2026]
- CERN (2026). Funding for CERN personnel. <https://knowledge-transfer.web.cern.ch/activities-services/funding-cern-personnel> [accessed January 20, 2026]
- CJEU (1995a). C-358/93 and C-416/93 *Criminal proceedings against Aldo Bordessa, Vicente Mari Mellado and Concepción Barbero Maestre*, ECLI:EU:C:1995:54
- CJEU (1995b). C-163/95, C-165/95 and C-250/95 *Criminal proceedings against Lucas Emilio Sanz de Lera, Raimundo Díaz Jiménez and Figen Kapanoglu*, ECLI:EU:C:1995:451
- CJEU (1999). C-222/97 *Manfred Trummer and Peter Mayer*, ECLI:EU:C:1999:143

- CJEU (2003). C-224/01 *Gerhard Köbler v Republik Österreich*, ECLI:EU:C:2003:513
- CJEU (2005). C-147/03 *Commission of the European Communities v Republic of Austria*, ECLI:EU:C:2005:427
- CJEU (2008). C-94/07 *Andrea Raccanelli v Max-Planck-Gesellschaft zur Förderung der Wissenschaften eV.*, ECLI:EU:C:2008:425
- CJEU (2009). C-318/07 *Hein Persche v Finanzamt Lüdenscheid*, ECLI:EU:C:2009:33
- CJEU (2013). C-523/11 and C-585/11 *Laurence Prinz v Region Hannover and Philipp Seeberger v Studentenwerk Heidelberg*, ECLI:EU:C:2013:524
- CJEU (2020). C-78/18 *European Commission v Hungary*, ECLI:EU:C:2020:476
- Council of the European Union (1988). Council Directive 88/361/EEC of 24 June 1988 for the implementation of Article 67 of the Treaty, OJ L 178, 8.7.1988, pp. 5–18
- Council of the European Union (2007). The European Research Area: New Perspectives. <https://european-research-area.ec.europa.eu/sites/default/files/2023-11/COM%202007%20161%20-%20ERA%20-%20New%20Perspectives-Green%20paper.pdf> [accessed November 15, 2025]
- European Commission (2007). Green Paper – The European Research Area: New Perspectives, COM (2007) 161 final
- European Commission (2021). Results of the European Data Market study 2021-2023. May 9, 2009, <https://digital-strategy.ec.europa.eu/en/library/results-european-data-market-study-2021-2023> [accessed March 1, 2026]
- European Commission (2026a). Free movement of capital. https://finance.ec.europa.eu/regulation-and-supervision/free-movement-capital_en [accessed January 30, 2026]
- European Commission (2026b). Policy Narrative. *European Research Area Platform*, <https://european-research-area.ec.europa.eu/policy-narrative> [accessed April 24, 2026]
- European Higher Education Area (2026). Ministerial Conferences and Communiqués. <https://eha.info/ministerial-conferences-and-communiques/> [accessed April 24, 2026]
- European Innovation Council (2026). EIC Funding opportunities. <https://eha.info/ministerial-conferences-and-communiques/> [accessed January 20, 2026]
- European Investment Bank (2026). What we offer: TechEU platform – a one-stop shop to finance Europe's innovative companies and projects. <https://www.eib.org/en/projects/topics/innovation-digital-and-human-capital/techeu/platform> [accessed January 20, 2026]
- European Parliament and Council of the European Union (2004). Directive 2004/38/EC of the European Parliament and of the Council of 29 April 2004 on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States amending Regulation (EEC) № 1612/68 and repealing Directives 64/221/EEC, 68/360/EEC, 72/194/EEC,

- 73/148/EEC, 75/34/EEC, 75/35/EEC, 90/364/EEC, 90/365/EEC and 93/96/EEC, OJ L 158, 30.4.2004, pp. 77–123
- European Parliament and Council of the European Union (2011). Regulation (EU) № 492/2011 of the European Parliament and of the Council of 5 April 2011 on freedom of movement for workers within the Union, OJ L 141, 27.5.2011, 1–12
 - European Parliament and Council of the European Union (2016a). Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, OJ L 119, 4.5.2016, 1–88
 - European Parliament and Council of the European Union (2016b). Directive (EU) 2016/801 of the European Parliament and of the Council of 11 May 2016 on the conditions of entry and residence of third-country nationals for the purposes of research, studies, training, voluntary service, pupil exchange schemes or educational projects and au pairing (recast), OJ L 132, 21.5.2016, 21–57
 - European Parliament and Council of the European Union (2018). Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union, OJ L 303, 28.11.2018, 59–68
 - European Research Council (2026). Apply for a grant. <https://erc.europa.eu/apply-grant> [accessed January 20, 2026]
 - García-Herrero, A., Krystianczuk M. & Schindowski, R. (2025). Radical novelties in critical technologies and spillovers: how do China, the US and the EU fare? *Bruegel*, May 20, 2025, <https://www.bruegel.org/working-paper/radical-novelties-critical-technologies-and-spillovers-how-do-china-us-and-eu-fare> [accessed February 15, 2026]
 - Gracheva, N. A., Polishchuk, O. A. & Bulgakova, A. A. (2025). Data Economy in Russia and Abroad. *Регион: системы, экономика, управление* 68(1): 44–53, <https://doi.org/10.22394/1997-4469-2025-1-44-53>
 - Groenewolt, P. (2025). Flowing Data: The Paradox of Data as a Fifth Freedom in the European Union. *SSRN Electronic Journal*, February 2, 2025, <https://doi.org/10.2139/ssrn.5261649>
 - Kazaryan, K. (2025). Управляешь данными – управляешь миром: как развивается Big Data в России. *Forbes*, March 17, 2025, <https://www.forbes.ru/tekhnologii/532569-upravlaes-dannymi-upravlaes-mirom-kak-razvivaetsa-big-data-v-rossii> [accessed March 1, 2026]
 - Klafkowska-Waśniowska, K. (2024). The Quest for the Fifth Freedom: Access to Data and Information in Conflict with the Protection of Intellectual Property. *Yearbook of Antitrust and Regulatory Studies (YARS)* 17(29): 147–173.
 - KPMG (2023). KPMG global tech report 2023. <https://kpmg.com/xx/en/our-insights/ai-and-technology/kpmg-global-tech-report-2023.html> [accessed March 1, 2026]

- Letta, E. (2024). Much more than a market: Speed, security, solidarity – Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens. <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf> [accessed November 15, 2025]
- Max-Planck-Gesellschaft (2026). Come and join us! <https://www.mpg.de/career> [accessed January 20, 2026]
- Palytsin, V. (2018). On the Issue of the Related Notions of «Knowledge»«Information», «Data». *Наука и Инновации* 180(2): 44–49.
- Poretti, P. (2017). Fundamental rights of researchers in European Union. *Academia.edu*, 2017, https://www.academia.edu/91791280/Fundamental_rights_of_researchers_in_European_Union [accessed April 24, 2026]
- Smith, E. (2007). Potocnik pushes for ‘freedom of knowledge’. *Politico*, April 3, 2007, <https://www.politico.eu/article/potocnik-pushes-for-freedom-of-knowledge/> [accessed November 15, 2025]
- Sturm, T. (2024). The EU’s Fifth Freedom: Why and How to Develop the ‘Freedom of Knowledge’. *European Review* 33(1): 19–37.
- Treaty establishing the European Economic Community (Treaty of Rome), 1957.
- Treaty on European Union, 2007
- Treaty on the Functioning of the European Union, 2007
- Y Combinator (2026). Apply to Y Combinator. <https://www.ycombinator.com/apply> [accessed January 20, 2026]
- Zins, C. (2007). Conceptual Approaches for Defining Data, Information, and Knowledge. *Journal of the American Society for Information Science and Technology* 58(4): 479–493. <https://doi.org/10.1002/asi.20508>
- БКС ЭКСПРЕСС (2024). Научный мир: сколько страны тратят на исследования и как изменится наука в будущем. Май 28, 2024, <https://bcs-express.ru/novosti-i-analitika/nauchnyi-mir-skol-ko-strany-tratiat-na-issledovaniia-i-kak-izmenitsia-nauka-v-budushchem> [accessed February 19, 2026]