ARTICLE

OPEN

Check for updates

Strategic partner election: proposal for a Binary Logistic Model for the European Union

Pablo Podadera Rivera[1 ✉] & Anna Garashchuk [1]

The European Union awarded the special status of strategic partner to ten states. Its key partners are dissimilar in political philosophies and structure, power status, ethical values, economic development, unequal in size and mineral reserves. Some of them are traditional Post-Second World War partners while the others have established recent partnerships in a new multipolar world order. However, from the very beginning the EU Conception of Strategic Partnership was just an assemblage of political statements without any official definition and clear established criteria for being chosen as a strategic partner. In this regard, this paper aims to analyze the strategic partnership phenomenon in EU Foreign Policy and provide our own definition of the term with a view to underpin it subsequently by common criteria. Based upon obtained main components the Binary Logistic Model was applied, which not only did allow to make the election of EU strategic partners more science-based but also propose the potential EU partners.

[1] Economics and Business Faculty, Universidad de Málaga, Málaga, Spain. ✉email: ppodadera@uma.es

Introduction

The European Union represents a unique supranational regional organization where the member-states make decisions about foreign policy affairs together. During its existence, the EU has undergone several enlargements and the UK's withdrawal from the EU, known as Brexit, until completing the current EU27. In all the years of its formation and existence, the EU has faced numerous internal and external challenges such as Euroscepticism, financial crises, poverty, inequality, illegal emigration, organized crime, civil conflicts, weakness of government-neighbors and international institutions, international terrorism, and finally among the latter it should be noted the Covid-2019 and the full-scale invasion of Ukraine by Russia, eight years after the annexation of Crimea, warmongering in Donbas and incitement of the humanitarian crisis in Ukraine. In light of recent developments, the current High Representative of the Union for Foreign and Security Policy Josep Borrell high-lighted in the European Commission's Press release (2021) the necessity of building stronger, more diverse, and inclusive part-nerships to lead its modernization and shape global responses to the challenges of the 21st century, some of which threaten the very existence of humanity. Subsequently, on March 21, 2022, the Council of the European Union approved the new reference for European security titled "A Strategic Compass for Security and Defense for a European Union that protects its citizens, values and interests and that contributes to international peace and security" with the idea of establishing the necessary parallelism between security policies at a national and European level. Following the European Union Council (2022), Borrell (2021), European External Action Service, EEAS (2021), and Lazarou and Wilson (2020) the Strategic Compass provides a shared assessment of the European strategic environment, identifies security threats and challenges, sets clear objectives and milestones to measure security progress.

Going further back into the EU history, it is worth mentioning that the adoption of the European Security Strategy in 2003 was a significant step in the Common Foreign and Security Policy given that it was the first time when the EU officially defined the threats to its security. In this document the perceived necessity of turning into the 'global actor' of world security was reflected, along with the need for collaboration with other core actors, inasmuch as there was no country that would be able to solve global problems alone. It mandates that "The threats which we share with our closest partners are common. International cooperation is imperative. There is a need for our objectives to be pursued by means of multilateral cooperation in the international organizations and partnerships with key agents" (Consejo Europeo, 2003:13). Thus, the strategic partnership was considered as an important tool for accomplishing effective multilateralism and, subsequently, the status of strategic partner was granted to ten countries: USA, Canada, Japan, Brazil, Russia[1], India, China, South Korea, Mexico, and South Africa. Nevertheless, these partners are unequal in size, political perspective and practice, and resource endowments. Some of them are traditional partners from the Post-Second World War bilateral system such as Canada, Japan and the USA, while the others are emerging countries, labeled as BRICS (Brazil, Russia, India, China, and South Africa). Some of them are the world's major powers such as the USA, China and Russia[2], while the others are regional powers. However, despite these differences, the EU was applying a common strategy toward them all by launching common action plans, establishing multidimensional cooperation at every level, developing the institutional and juridical bases, and coordinating frequent summits.

At the European Council held on June 28 and 29, 2016, Federica Mogherini, then the High Representative of the European Union for Foreign and Security Affairs, presented the Global Strategy for the European Union's Foreign and Security Policy, which came to replace the European Security Strategy. It was supposed to develop partnerships with international and regional organizations such as NATO, UN, and ASEAN, official strategic partners such as USA, Japan, China, India, Republic of Korea and with other like-minded and strategic partners in Africa, the Americas and Asia.

Speaking about new Foreign Policy Instruments (FPI) it should be mentioned the European External Action Service (EEAS), which is responsible for operational expenditures in the crucial area of EU external action. The Service for Foreign Policy Instruments is reporting directly to the High Representative/Vice-President of the European Commission. Other instruments that accompany the FPI in its tasks are the following: the Partnership Instrument (PI), The European Peace Facility, The Instrument contributing to Stability and Peace (IcSP), which in 2021 was integrated into the rapid response pillar of the Neighborhood, Development, International Cooperation Instrument (NDICI), among others. On 22 March 2021, the Council adopted a decision establishing the European Peace Facility (EPF)[3].

However, at the moment, there is neither an official definition of strategic partnership nor any common criteria for being chosen as a strategic partner. The European Strategic Partnerships Observatory (ESPO) has provided the basic indicators for the EU's strategic partners. The main objective of this paper is to elaborate the Binary Logic Model of Strategic Partners Election for the EU on the basis of these indicators using CATPCA and PCA respectively. This model allows us, first, to find out if the 'Special Ten' are really at the top of all countries according to the model or if perhaps there might be some other countries that also should be taken under consideration as potential strategic partners; and, if so, then, secondly, to identify them and state their case.

In accordance with the specific objectives set out in the first heading, we investigate the origin, scholars' definitions and interpretation of different countries in terms of the phenomenon of strategic partnership, given our own operative definition of the term; under the second heading, we analyze the particularity of the EU's concept of Strategic Partnership; in the third section, we describe the methodological basis of our research; under the fourth heading we describe the analysis; and, finally, we present our results. We truly believe that the election of the EU´s strategic partners based on the economic, political, geographical and socio-cultural indicators proposed in this paper can make the position of the EU more science based and more understandable for other global argents.

The originality of this paper consists in the fact that until now there have been neither specific criteria nor any models for the election of the EU's strategic partners. Furthermore, it is worth mentioning that we have carried out research in 143 viable countries and, thus, our research is not limited just to the EU's 'Special Ten'.

Literature review and definition of strategic partnership

This section aims to present a literature review on some of the main contributions to the emergence, understanding and definition of the concept of Strategic Partnership, mainly attending to the criterion of chronological order (where it was possible), with the purpose of making a description of the historical trajectory, which this concept has followed and finally, based on the previous research, provide our own definition of the term.

Strategic Partnership occupies a special position in terms of international documents, negotiations, and scientific literature

and in the media; it has not been researched completely in the social sciences. Many researchers tried to explain the emergence of the strategic partnership on the example and in the context of foreign policy of certain countries. Thus, Lessa (1998: 119) while discussing the use of this expression in the context of Brazilian foreign policy, argues that 'Strategic Partnerships' are "priority political and economic relations, reciprocally compensatory, established on the basis of an accumulation of bilateral relations of a universal nature". But the main problem with Lessa's (op. cit.) argument is the fact that he assumes that the old cooperation agreements of the past were the same as the strategic partnerships, which we observe today. Hubbell (1999), points out that former 1990s Secretary of State Madeine Allbright, used the term 'Strategic Cooperation' and 'Strategic Partnership' to address the USA-China relationship and that her choice of words supposedly caused some concern to other Asian partners of the USA. Ismael and Kreutz (2001) stress that the Soviet-Iraqi cooperation in the 1980s was officially called 'Strategic Partnership'. There is no denying, however, that strategic partnership is for all intents and purposes, post-Cold War phenomenon. In this regard, Kay (2000) summarizes the experience of different countries pointing out that the term first appeared in the continents of Europe and Asia, which had been forced to react to the end of the 'bipolar order' (brought on by the collapse of the USSR), developing new strategies for communicating with the 'unique superpower', the USA. Speaking about the earliest attempts to define the term Emerson (2001:45) understands strategic partnership as a kind of relationship, which "involves two actors that are powerful and capable of taking strategic action together", but does not discuss what strategic action means. Encyclopedia of Political Economy (2001) defines a strategic partnership between states as a political instrument to facilitate the intensification of the economic relationship between the parts involved. Regarding the initial goal Sangtu (2006:208) stresses that "While the United States uses strategic partnerships to widen its influence and strengthen its unipolar primacy, China and Russia exploit them to aggregate their respective influence and pursue a multi-polarity, as they share an interest in enhancing their political role in the international arena".

It is worth mentioning that in practice the interpretation of the term 'strategic partnership' can vary from country to country. For example, Chinese Prime Minister at that time Wen Jiabao in 2004 tried to bring more clarity into the definition: the collaboration in a strategic partnership should be solid, deep-rooted and long-term, transcending both differences in ideology and social systems and the impact of individual events, based on an equal footing, and, finally, should be mutually beneficial[4]. Thus, according to his opinion, "partnership" is defined as cooperation "on an equal footing, mutually beneficial and win-win", "Comprehensive" means "all-dimensional, wide-ranging and multi-layered cooperation" and "Strategic" implies a "long-term and stable" (Men, 2007:6)). Following Medvedev (2008), the ex-President of Russia, the basis of Russia's strategic partnership with the EU should be "equality, pragmatism, respect towards the partner's interests and a common approach to key security problems" while for European leaders this is "stability and commons values". In this regard, it should be recognized that Chinese and Russian interpretations of the term concur about its pragmatic approach towards the conception of strategic partnerships. Any diverse usage of the term may cause misunderstanding between the parties and complicate the process of future collaboration.

However, Jain (2008) argued that despite the fact that the label had been frequently used in the past there was not any official definition of strategic partnership. His observation was echoed by Renard (2010:18), "There is not any official definition of what is meant by strategic partners". Peña (2010) draws attention to some of the confusion that exists between what is meant by an agreement on strategic partnership and what an agreement on commercial preferences consists of. Nevertheless, some scholars who have studied this phenomenon have tried to formulate their own definitions regarding Strategic Partnership.

Maihold (2010), for example, studies the significance of the two words of the term by analyzing them separately. So, following his logic, the 'Partnership' is a cultural ideal for the collective form of the relationship, and the Strategy is based on cooperation between (economic) agents that have decided to produce something together in order to achieve common objectives. Ultimately, such cooperation means arriving at common benefits and success for both parties. Nevertheless, Grevi (2010) considers that all definitions of 'Strategic Partnership', based on the division of its significance in terms of 'Partnership' and 'Strategic', still fail to encompass completely the political reality. Following Grevi's line of logic, Strategic Partnerships are those wherein both parties regard it as essential to achieve their basic goals, because a lack of total cooperation between strategic partners can lead to a 'win-win game', spawning an atmosphere of distrust in which disillusioned or disgruntled partners can become those capable of inflicting the most harm to one another when relations turn sour. Strategic partnerships are therefore an essential bilateral means to pursue core goals. As such, they may concern pivotal global but also regional actors.

Gupta and Azad (2011) define a strategic partnership as a long-term interaction between two countries based on political, economic, social and historical factors. Quevedo (2012) argues that the concept of Strategic Partnership in general terms can be defined as an alliance between two or more States, aimed at mutual benefits based on identification of cooperating synergies between both parties. They also stress that Strategic Partnerships are comprehensive and do not fragment into specialized endeavors involving just one economic, political or security theme, and this is vital given that the crucial interests of the parties are immersed in all of these different fields combined. Thus, Quevedo (op. cit.) highlights the necessity of a multidimensional approach toward Strategic Partnership. Furthermore, it is argued that Strategic Partnership requires a high level of cooperation where the relations of dependency and subordination transform into associations of a higher level and in this regard, it becomes necessary to have a certain degree of affinity between complementary partners. This is the happy situation that evolves by virtue of the belief that the desired aim is to have partnerships with those countries which share common values and with whom there is mutually-shared confidence. However, usually the term just signifies the establishment of long-term friendly relations in the commercial field and economic contacts between governments, and is used to refer to "the most favored nation treatment" (Kim, 2012: 40).

Vasiliev (2014) defines Strategic Partnership as the destination toward which the agent intends to concentrate its main resources for achieving the primary strategic objective. And, in this regard, it is impossible to maintain a relationship with many agents in the frame of Strategic Partnership. Authors such as Gupta and Azad (2011), and Vasiliev (2014), distinguish economic, political, demographic, historical, social, and cultural factors, among others, which influence the choice of strategic partners and, which is particularly important, its multidimensional character of impact. Vasiliev (2014), accordingly highlights the special role of geographic proximity and as an example he gives the relation of Strategic Partnership between the USA and Mexico with their 2000 miles of common border.

Blanco (2016) called strategic partnership "the new joker" in the policymakers´ language and highlighted the necessity of understanding how other international argents besides the EU

conceptualize and employ this term. In this context, he argues that not only empirical evidence is required but also the further conceptualization and operationalization of approaches that take into consideration the diverse interpretations of 'strategic partnership' as it appears in varying usage.

Cihelková et al. (2020) argue that strategic partnership is a sort of parallel process to develop an all-encompassing, comprehensive and multi-level cooperation. The authors also introduce their definition of the comprehensive strategic partnerships stressing that it is not simply the next stage of cooperation, which has become all-inclusive comprehensive and multi-level but it has evolved from such cooperation only in strategic issues, bearing in mind security and defensive areas and global governance.

Summarizing the above-mentioned definitions, we attempt to give our own operative definition of Strategic Partnership as per below, with a view to flush it out subsequently with indicators. Thus, the Strategic Partnership is understood to mean the long-term bilateral cooperation for mutual benefits and equality of rights and mutual respect between states, international organizations, political blocks and unions. All these have a relevant economic and geopolitical weight at regional and/or international levels, based on the common economical and/or geopolitical interests and preferably (even though not compulsory) on the common values and historical-cultural roots, which aim at achieving common strategic objectives.

European Union's Conception of Strategic Partnership

Speaking about the EU' Conception of Strategic Partnership, Podadera and Garashchuk (2016) stress that the first reference to strategic partnership appeared in the official documents of the EU in 1998, when the EU confirmed the necessity of considering Russia as a strategic partner. Therefore, according to them it was during negotiations with Moscow when the EU used this term for the first time. The term was not even mentioned in the highest priority transatlantic relations.

Subsequently the term was described in the European Security Strategy (ESS) of 2003, and it was the first official document where the EU expressed its pursuit for developing strategic partnerships with those countries, which would be convergent in terms of shared values -- also to achieve its objectives by dint of both international cooperation in international organizations and through the Strategic Partnership with the core actors. Thus, the Strategic Partnership was characterized as a new instrument of the European Union's Foreign Policy towards key countries at the international level. The Strategy primarily proposed the development of strategic relationships with the USA and Russia, where the discovery of common values would presumably lead to a Strategic Partnership. Also, the necessity of developing Strategic Partnerships with Canada, Japan, China and India was mentioned. With respect to the neighboring countries of the Near East and partners of Latin America and Africa (although relationships with them were considered as an important component of Foreign Policy, and the necessity of developing such relationships was admitted) - the ESS did not in any way mention plans for the development of a Strategic Partnerships with those nations. Nevertheless, it can be concluded that the document is more political then strategic and quite imprecise given that it does not explain which values and objectives exactly the EU would be obliged to share with its partners.

The report of EU's Foreign Policy of 2008 describes in general terms the status of its relations with strategic partners. Thus, the EU highlighted the high status of the USA as a key partner, stated that relations with Canada and Japan had a close and long-term mutual affinity and reported that relations with China had been significantly augmented. Russia continued to be considered as an important partner in international questions, whereas its relationship with India still had space for development. It is worth mentioning that in the report of 2008, as compared with 2003, the importance of relationships with such partners as Brazil, South Africa, Switzerland and Norway had significantly increased.

If it is still a moot point whether the 2003 ESS was truly a 'strategy' (European Union Institute for Security Studies, 2015) in EU Global Strategy 2016 drawn up by Federica Mogherini to replace the ESS, the High Representative of the Union for Foreign Affairs and Security Policy at that time clearly highlighted the necessity of Strategy for the Union. She also pointed out that the EU foreign and security policy had to cope with super-powers as well as with increasingly fractured identities and to work to strengthen the EU's partners. It was supposed to keep deepening the transatlantic bond and the EU partnership with NATO, while also connecting to new players and exploring new formats. At the same time, the importance of strategic autonomy for Europe's ability to promote peace and security was reflected in the document. It was assumed that the EU would step up its contribution to Europe's collective security, working closely with its partners, beginning with NATO; deepen trade and investment with China; work towards ambitious free trade agreements with strategic partners such as Japan and India, as well as ASEAN member states, with the goal of an eventual EU-ASEAN agreement; work with the UN as the framework of the multilateral system and a core partner for the Union, with other core partners such as the USA, with regional organizations, and with like-minded and strategic partners in Africa, the Americas and Asia,: and expand its partnerships, including on security, with Japan, the Republic of Korea, Indonesia and others (European Union Council, 2016). Regarding the EU-Russia relationships, the document clearly stressed that the EU would not recognize Russia's illegal annexation of Crimea nor accept the destabilization of eastern Ukraine and would enhance the resilience of its eastern neighbors and support their right to choose a future freely. Nevertheless, the possibility to discuss disagreements and cooperate with Russia if and when EU interests would overlap was still reflected in the document. Although it was highlighted that managing the relationship with Russia represented a key strategic challenge, and, in this regard, a consistent and united approach was supposed to remain the cornerstone of EU policy towards Russia due to their interdependence no specific detailed instructions on how to deal with the EU ex-strategic partner under various scenarios were provided.

By analyzing different opinions among politicians and scholars it can be concluded that they do not concur with regard to EU's conception of Strategic Partnership and EU's Foreign Strategy. Thus, the ex-EU Foreign Policy Chief Javier Solana proposes to focus on the common strategic approach where it is expected to develop the capacities of security in an efficient manner beyond the traditional economic and social relations. Franco (2010) stresses that the EU considers that a bilateral Strategic Partnership by means of political dialog with third countries facilitates the projection of matching interests and common values for the rest of the world. Quevedo (2012) also points out the EU's interests and values as a basis for strategic partnership and the general framework of all such partnerships is the global government. He highlights three solid pillars of strategic partnership: reciprocity, which produces real mutual benefits; coherence between the EU and Members States; and cohesion within the EU itself. Vahl (2001), besides acknowledging common interests and a common understanding as core factors of Strategic Partnership, also stresses the important role of the element 'equality of size'.

Grevi (2010) recommends the EU to define exactly what its primary interests and main objectives are, as well as which strategic partnerships would help to achieve them. He also proposes

Table 1 Research methodology.

Techniques	CATPCA (Categorical Principal Component Analysis), PCA (Principal Component Analysis), Binary Logistic Model
Sample	143 countries, Including EU official strategic partners
Research period	2010–2019
Software	SPSS
Database	World bank, ESPO, Eurostat, Economical Forums and Official Information

Sources: Own elaboration.

to identify some kind of specific evaluative criteria instead of having just a rigid list of strategic partners; while Biscop and Renard (2010) confirm that there is at present very little established criteria in the choice of partners. For one thing, according to them, strategic partners must have the capacity to exert a significant influence on global or regional issues.

Grevi (2010) forecasts that the transatlantic relationship will remain the highest priority partnership in the near future, but also points out that indicators on the development of the so-called BRICs (Brazil, Russia, India, and China) have demonstrated the increased relevance with regard to the EU's strategic partnerships with them as a precondition for global governance of common challenges. The competition between emerging powers and the EU may also be due to the lack of formats and limited options the EU can offer in terms of co-leadership. Biscop and Renard (2010) speak about the lack of substantial clarity in the concept, which risks provoking confusion within the EU and abroad. They worry that the concept can be used in a frivolous or misleading way and consider such situation as a very real danger. Khandekar (2011) points out that the EU has not yet managed to unravel why a group of 'ten lucky countries' were clustered together under the 'strategic banner'. Gratius (2011a) argues that diversity of strategic partners′ 'classes' and 'levels' should be taken into consideration, and, in this regard, the measures and strategies also must be different according to the necessities of each country. Thus, she stresses that in the EU's conception of strategic partnership partners should consider the best individual approach towards each partner. According to the degree of coordination and cooperation at the multilateral level Cirlig (2012: 4) points out that the EU has distinguished the following groups of strategic partners: "irreplaceable partners with all-inclusive cooperation, aimed at promoting global peace and stability, development and multilateralism to address global challenges" referring to the USA; "like-minded partners with all-inclusive cooperation" with Canada; "like-minded partners with high degree of coordination and cooperation" with Japan, South Korea and Mexico; "countries with pursued WTO, interest-driven and limited cooperation" with Russia and China; "countries with values and interest-based, limited cooperation" with Brazil and India and "partners with limited cooperation" referring to South Africa.

It should be mentioned that in the EU's conception of Strategic Partnership 'common values', such as essential criteria for choosing strategic partners, despite the frequent rhetoric of its political leaders, have a problematic nature, when one considers the ambiguities or downright neglect with respect to Human Rights and other democratic principles in such countries as China and Russia, which were officially declared by the EU as its strategic partners. In this regard, Rocha-Pino (2013) states that the different interpretations that each international agent gives to the concepts of sovereignty, global security, and Human Rights have not been an obstruction to establishing collaboration nexuses between the EU and China.

However, in light of recent developments, a special focus on the case of a failed strategic partnership with Russia should be given. Thus, from the very beginning, Smith and Timmins (2003) absolutely denied the existence of a real strategic partnership

between Russia and the EU and define their relations as a pragmatic partnership whereas De Wilde and Pellon (2006) recognized that the strategic partnership between the EU and Russia represented a real challenge from the point of view of common values. Nevertheless, Podadera and Garashchuk (2016) acknowledged that despite differences the parties over the history of their cooperation have progressed considerably highlighting the following significant achievements: the development of a wide legal and institutional framework, the establishment of "Road Maps" in four common spaces; elaboration of the "Partnership for Modernization" program; simplification of the visa regime for Russian and European citizens, etc. In this respect, the Russian Minister for Foreign Affairs, Lavrov (2013), called the EU-Russian strategic partnership a 'Partnership for Necessity,' which should be understood to mean that partners collaborate just in those spheres where they need each other while ignoring serious disagreements in other areas. However, after the annexation of Crimea Russia was excluded from Group of Eight, the negotiations on its accession to the Organization for Economic Co-operation and Development were suspended and Mogherini announced that Russia was not EU′s strategic partner any more[5]. Consequently, the majority of EU-Russian projects and events such as annual summit meetings, Road Maps on Four Common Spaces, negotiations on abolishing the visa regime and New Basic Agreement among others, were suspended (Garashchuk et al. 2022a). Having said all that, Voynikov (2015: 21) argues that at that time the freezing of relations did not mean the cancellation of common projects. He went on to define the current EU-Russia 'cooperation' as a 'forced strategic partnership', concluding that the partnership between them continued to exist – "but in a frozen state".

After the full-scale invasion of Ukraine, the EU has imposed massive and unprecedented sanctions against Russia in response[6]. Since the war began, the EU have approved ten packages of sanctions[7]. In this regard, Garashchuk et al. (2022b) stress that a shred of hope that sooner or later the parties would be able to reach an agreement on the gradual lifting of sanctions appears to be completely lost after Russia's military intervention to Ukraine despite significant mutual economic losses. Walshe (2022), in turn, highlights that Russia's first invasion in 2014 didn't get the European powers and its Western partners to abandon the post-Cold War daydreams, however, now Putin's aggression is forcing all these powers to confront their post-Cold War naivety.

It is also interesting to point out that after Russia's full-scale invasion of Ukraine, the EU leaders' rhetoric about the establishment of strategic partnership seems to shift effortlessly to other countries in the post-Soviet space, especially to those rich in natural resources, probably with a view to reducing the dependence on Russia's raw materials by diversifying the suppliers. Thus, for instance, in March of 2022, Josep Borrell, within the framework of participation in the Diplomatic Forum in Antalya discussed the prospects for cooperation and the strategic energy partnership with Azerbaijan[8]. On the other hand, in November of 2022, the Memorandum of Understanding between the EU and Kazakhstan on a strategic partnership in the field of raw

Table 2 Dimensions Obtained by CATPCA Model resume: total Cronbach's alpha based on total eigenvalues.

Dimension	Cronbach's alpha	Explained variance		Description of dimension	Indicators (variables) which have significant weight according to every category
		Total (eigenvalues)	% of Variance		
Economic category					
1	0.824	3.733	41.48%	DE1. Partner´s Economic weight	Log of GDP (billion $), Global Competitiveness Index, Foreign Direct flowin (million $), Foreign Direct flowout (million $), Gold and Money Reserves (million $)
2	0.441	1.644	18.27%	DE2. Partner´s Economic Freedom	WTO Membership, Economic Freedom Index
Total	0.916[a]	5.377	59.75%		
Comercial category					
1	0.913	4.185	69.745%	DC1.Common commercial interests	Import and Export with EU (thousand $) EU´s Commercial partner (Ranking), Investment flows with EU (billion S), G27 export to the EU (thousand S)
Total	0.913	4.185	69.745%		
Political category					
1	0.929	6.426	58.42%	DP1. Partner´s Political weight	UN Budget (% of GDP), Membership in Security Council (times), Level of participation in clubs of interests, World Bank Vote (% of all votes), IMF Vote (% of all votes), Global Presence Ranking, Government Effectiveness
2	0.732	2.990	27.18%	DP2. Partner´s sustainable government	Political Stability and Absence of Violence, Transparency / No Corruption, Level of Governability
Total	0.983[a]	9.416	85.60%		
Social category					
1	0.911	4.157	69.29%	DS1. Partner´s social development	Human Development Index (HDI), GDP per capita ($), Prosperity Index, Number of published articles, Shanghai University Ranking
2	0.490	1.690	28.17%	DS2. Science-Education Collaboration	Number of Erasmus students of all levels, Number of published articles
Total	0.995[a]	5.847	97.46%		
Geographical-cultural					
1	0.779	2.655	53.09%	DGC1. Partner´s geographical closeness with EU	Common Border with EU (km), Common Continent, European Roots (% of population)
2	0.403	1.477	29.53%	DGC2. Partner´s common historical-cultural roots	Coincidence of Religion, Common Language
Total	0.947[a]	4.131	82.63%		
Common values					
1	0.860	2.343	78.10	DCV1. Partner´s common Values with EU	Human Rights and Participation Index, Coincidence of Political Regime, Membership in NATO
Total	0.860	2.343	78.10		
Common jurisdictional basis					
1	0.811	2.177	72.56	DJ1. Partner´s Common jurisdictional basis with EU	Treaty of Common Trade with the EU, Ranking according to the type of Treaty of Association, Number of treaties with EU.

Table 2 (continued)

Dimension	Cronbach's alpha	Explained variance		Description of dimension	Indicators (variables) which have significant weight according to every category
		Total (eigenvalues)	% of Variance		
Total	0.811	2.177	72.56		
Common institutional basis					
1	0.700	2.008	50.21%	DI1.Common institutional basis with EU	Number of Embassies of the EU in country, EU's Missions on other country, Representation of country in Brussels, Number of EU's Persons working in embassy
Total	0.700	2.008	50.21%		
Discriminative					
1	0.187	1.143	38.09%	Dis.1Absence of minor discriminative actions.	Absence of Discriminative Actions: WTO pretensions
2	0.153	1.114	37.13%	Dis.2 Absence of major discriminative actions.	Absence of Discriminative Actions: Visas with EU, Absence of Sanction
Total	0.835a	2.256	75.22%		

Sources: Own calculations on the basis of SPSS.

Table 3 KMO and Bartlett´s test.

Kaiser–Meyer–Olkin measure of sampling adequacy		0.796
Bartlett´s test of sphericity	Aprox. Chi-square	1330.597
	df	91
	Sig.	0.000

Sources: Own calculations on the basis of SPSS.

materials, batteries and renewable hydrogen in the margins of COP-27 was signed in Egypt[9].

Speaking about the EU-US partnership it is worth mentioning that although the scholars, such as Burghardt (2006) and Grevi (2010), among others, have no doubts that it is still the most powerful, comprehensive, important and strategic one, the parties, when defining their 'transatlantic relationship', do not use the expression 'strategic partnership', but do stick to the idea of a 'partnership'. However, the EU-US relationships have also recently come through a serious crisis related to the coming to power of the Trump administration in 2016. In this regard, Demertzis et al. (2017) stress that even the USA´s military commitment to NATO was questioned at that time while the US was drawing back from globalization and liberal values. Not only did the Trump administration consider China and Mexico but also Europe as rivals rather than allies.

In general terms, Czechowska (2022) points out that after a decade of under-institutionalized and situational interaction the EU's strategic partnerships framework has recently undergone a new wave of institutionalization shift towards a contract-based model of bilateral relations and the proliferation of both framework and sectoral co-operation agreements, including the establishment of joint institutional frame works (JIFs) and joint bodies (JBs). In this regard, while comparing the European Union's Strategic Partnerships with Japan and India she concludes that the EU–India strategic partnership involves a greater quantity of both weaker JBs and irregular standardized meetings, whereas the EU–Japan strategic partnership relies on a more modest set of stronger JBs and more regular standardized meetings.

Finally, it is noteworthy that High Representative of the Union for Foreign and Security Policy Josep Borrell highlighted the necessity of a new generation of partnership with a view to change the multilateral landscape. He pointed out that the EU will build new alliances with third countries, reinforce cooperation with multilateral and regional organizations, as well as other stakeholders, especially those with whom it shares democratic values (European Commission - Press release, 2021). Thus, for instance, the Council of the EU has recently approved conclusions endorsing the new priorities for the 2022–2024 period under the UN-EU strategic partnership on peace operations and crisis management in order to confirm the commitment made by the EU and its member states to uphold the multilateral rules-based global order with the United Nations[10].

In conclusion, we cannot but agree with Gratius's (2011b) words that while there is neither any standard definition nor any criteria or indicators declared by the EU that would allow one to determine if a partner is strategic or not, when speaking about the EU's Conception of Strategic Partnership it would be better to mean the special status which the EU confers to other countries or multilateral and regional organizations on the basis of political consideration.

Data and methods
Although the phenomenon of strategic partnership has been frequently used among the politicians, economic and business

Table 4 Extraction method: principal component analysis.

Total variance explained

Component	Initial eigenvalues			Extraction sums of squared loading		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	5.397	36.046	36.046	5.397	36.046	36.046
2	3.061	20.447	56.493	3.061	20.447	56.493
3	1.573	10.504	66.997	1.573	10.504	66.997
4	1.134	7.577	74.574	Fig. 1		
5	0.926	6.182	80.756			
6	0.621	4.145	84.901			
7	0.516	3.447	88.333			
8	0.451	3.013	91.361			
9	0.366	2.444	93.805			
10	0.320	2.141	95.946			
11	0.260	1.736	97.682			
12	0.168	1.124	98.805			
13	0.121	0.805	99.611			
14	0.058	0.389	100.000			

Sources: Own calculations on the basis of SPSS.
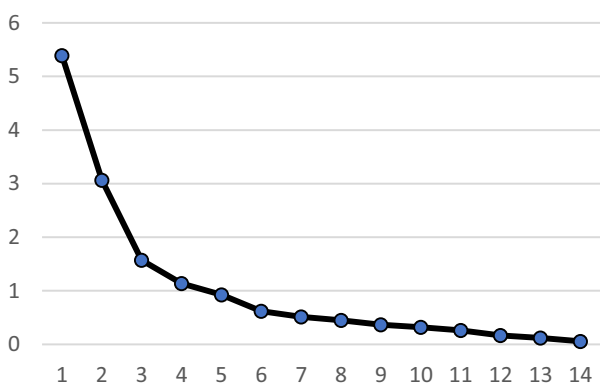
Fig. 1 Extraction of principal components. The abrupt change of the slope begins after the third component.

circles a small number of works related to this term with strong empirical evidence has been provided. In this regard, Gupta and Azad (2011). For instance, applied the Hierarchy Model for the selection of India's strategic partnership based on Analytic Hierarchy Process. However, in order to avoid the subjectivity of experts' assessments, Podadera and Garashchuk (2019a) proposed an innovative methodology for the election of the EU´s strategic partners based on a geo-economic approach, which embrace political, economic and geographical indicators. Thus, drew on this approach in this research we have selected the indicators suggested by a policy-oriented, web-based and networked platform European Strategic Partnerships Observatory (ESPO) launched in 2012 and those offered in the debate on strategic partnership described by Gratius (2011b), and we have added some other variables associated with the EU shared values (referring to the 2003 European Security Strategy, where the EU emphasizes the strategic partnerships with countries which share EU's norms and values), common historical-cultural roots (relying on the Declaration of RIO of (1999) about the strategic partnership between the EU and LAC (Latin America and Caribbean), which is based on deep cultural inheritance and common interests and values), absence of discriminating actions between partners (alluding to negative European-Russian strategic partnership experience), the partner's jurisdictional and institutional frameworks (taking into consideration the neo-institutional

approach) and the common border factor (Vasiliev, 2014). The detailed methodology of this research is shown in Table 1.

For our model we investigated 143 countries. Nations which according to the Pareto Rule of 80–20, revealed less than the required 80% of information were excluded, as well as indicators which brought to light less than 80% of information about the countries in question.

The main hypotheses of our research are the following:

- Despite the EU´s rhetoric about common shared values with its strategic partners, the dimensions of the political and economic weight of the partner together with common commercial interests remains the primary indicator for being chosen as one of the EU's strategic partners.
- Not all EU´s 'special ten' are really strategic (Podadera and Garashchuk, 2019b).
- There are countries outside the EU's special list to whom this status should have been awarded.

Results

First, we divided all selected variables (indicators) into the following categories: economic, commercial, political, social, geographical-cultural, common values, judicial basis, and institutional base and discriminative. For every category we applied CATPCA. CATPCA was developed for the purpose of analyzing data which can render a mixed measurement level such as nominal, ordinal or numeric which may not have a linear relationship with each other (Kemalbay and Korkmazoğlu, 2014). Thus, offering different types of variables, this type of analysis was chosen for our research. As the result of CATPCA we obtained 14 dimensions (see Table 2).

George and Mallery (2003) give the following rules of thumb: "_ > .9 Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and_ < .5 – Unacceptable" (p. 231). All our categories have no less than acceptable Total Cronbach´s Alpha.

Then for obtained 14 Dimensioned we applied traditional Principal Components Analysis. The KMO and Barlett´s Test is presented in Table 3.

Observing Table 3 we can see that our Kaiser–Olkin measure is almost 0.8, which, following Kaiser, is meritorious. Total variance explained is presented in Table 4.

Table 5 Variables in the equation.

		B	S.E	Wald	df	Sig.	Exp(B)
Step1[a]	COMP1	3.014	1.013	8.860	1	0.003	20.372
	COMP2	−3.020	1.267	5.681	1	0.017	0.049
	COMP3	−0.195	0.973	0.040	1	0.841	0.823
	Constant	−5.974	1.758	11.543	1	0.001	0.003
Step2[a]	COMP1	3.010	1.009	8.898	1	0.003	20.296
	COMP2	−3.104	1.231	6.354	1	0.012	0.045
	Constant	-6.079	1.737	12.252	1	0.000	0.002

Sources: Own calculations on the basis of SPSS.

Table 6 Rotated component matrix.

Dimension	Component		
	COMP1	COMP2	COMP3
DE1. Partner´s economic weight	0.937	0.122	0.123
DE2. Partner´s economic freedom	−0.136	0.647	0.208
DC1.Common commercial interests	0.885	−0.085	0.177
DP1. Partner´s political weight	0.943	0.116	0.039
DP2. Partner´s sustainable governance	−0.042	0.852	−0.034
DS1. Partner´s social development	0.785	0.381	0.154
DS2. Science-education collaboration	0.134	−0.642	0.497
DGC1. Partner´s geographical closeness	0.148	0.108	0.784
DGC2. Partner´s common historical-cultural roots	0.052	0.440	0.021
DCV1. Partner´s common values with EU	0.556	0.523	0.171
DJ1. Common jurisdictional basis	0.183	0.166	0.860
DI1.Common institutional basis	0.597	−0.263	0.556
Dis1. Absence of minor discriminative actions	−0.673	0.222	−0.190
Dis.2 Absence of major discriminative actions	0.301	0.661	0.056

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 5 iterations.
Sources: Own calculations on the basis of SPSS.

We decided to extract the first three components, which explain about 67% of total variance due to an abrupt change of the slope beginning after the third component (see Fig. 1, Table 4).

After the PCA on the basis of three obtained principal components (COMP1, COMP2, COMP3) we applied the Binary Logistic Model.

Logistic regression was proposed in the late 1960s and early 1970s (Cabrera, 1994) and since that time, the use of logistic regression has increased in the social sciences (e.g., Janik and Kravitz, 1994; Tolman and Weisz, 1995; Chuang, 1997). Despite the fact that today there are several sophisticated alternatives to the logistic regression techniques that were available then, such as decision trees and neural networks (Reed and Wu, 2013), this statistical tool has been increasingly exploited, especially over the last two decades (Oommen et al. 2011). Moreover, it should also be noted that the Binary Logistic Model has been frequently used to predict events in economics (Karp, 2009; Boyacioglu et al. 2009) and the political sciences (King et al. 2000).

Generally, the logistic function can be written as:

$$F(x) = \frac{1}{1 + e^{-(\beta_0 + \beta_1)}} \quad (1)$$

Where F(x) is interpreted as the probability of the dependent variable equaling a 'success' or 'case' rather than 'non-case'.

In our case the dependent variable of logistic regression is binary and contains data coded 0 or 1 (i.e. the dependent variable obtains 1 if the country is to become UE´s strategic partner and 0 if not).

For our model just the first and second principal components (COMP1 and COMP2) added significantly to the model (Sig. ≤ 0.05). The results of the Binary Logistic Model are shown in the Table 5.

Consequently, the logistic function for our case can be written as:

$$F(x) = \frac{1}{1 + e^{-(6.079 + 3.010*COMP1 - 3.104*COMP2)}} \quad (2)$$

Where F(x) is interpreted as the probability of the dependent variable equaling a 'country will become EU´s strategic partner' rather than 'country will not become EU´s strategic partner'.

The results of PC analysis are presented in Table 6.

Observing the Table 6 it can be noted that the first component (COMP1) explains the amount of total variance and provides the highest weights in variables; and also describes the country´s economic and political position in the world, its partner´s social development and its common commercial interest with the EU. Moreover, it should be mentioned that the EU develops a common institutional understanding with these countries, although, unfortunately, both sides retain certain mutually exclusive claims in the commercial sphere. Regarding the common values, it can be concluded that although this dimension has a certain weight but it is not that significant as partner's economic and political position together with the common commercial interests.

Analyzing the second component (COMP2), we can say that it describes the country´s sustainable governance, economic freedom and common values. We can therefore conclude that this component embraces the countries with whom the EU shares common values and with whom it has a common point of view regarding the direction and development of the international system toward political freedom and globalizations of economies and established world order. Here the absence of discriminative actions between partners is also important. We have called this component the Partnership in Spirit Component.

The third component (COMP3) describes in general terms the country´s geographical proximity with the EU. It is worth mentioning that with these countries in particular, the EU actively develops a jurisdictional-institutional basis. We have called this component the Good Neighbor Component.

The results by the first twelve countries are presented in Table 7.

Observing Table 7 we can say that the EU's official strategic partners have high positions and are situated very close to each other only in the first component (except South Africa, is quite far away from the rest of EU´s strategic partners), which proves our theory and the fact that the indicators for our research were chosen correctly. Moreover, when we applied the Binary Logistic Regression (see above Table 5) the first principal component added significantly to the model and has a positive sign. Therefore, we have called this component the Strategic Partnership Component.

Table 7 Ranking by countries in COMP1, COMP2 and COMP3.

Ranking	Country	Component 1 (COMP1)	Country	Component 2 (COMP2)	Country	Component 3 (COMP3)
1	United States	5.489	Iceland	3.769	Ukraine	3.071
2	China	4.513	New Zealand	2.779	Macedonia	2.996
3	Canada	3.56	Norway	2.643	Albania	2.935
4	Japan	3.282	Australia	2.105	Bosnia and Herzegovina	2.877
5	Russian Federation	3.262	Switzerland	2.031	Turkey	2.577
6	Switzerland	2.838	Hong Kong SAR China	1.887	Norway	2.565
7	Brazil	2.037	Barbados	1.875	Moldova	2.51
8	Australia	1.814	Singapore	1.689	Serbia	2.43
9	Norway	1.801	Brunei Darussalam	1.604	Montenegro	2.236
10	Hong Kong SAR China	1.75	Costa Rica	1.495	Georgia	2.115
11	India	1.486	Bahamas, The	1.452	Morocco	2.114
12	South Korea	1.46	Canada	1.441	Israel	1.848
13	Argentina	1.315	Chile	1.21	Egypt	1.639
14	Singapore	1.247	Dominica	1.208	Russian Federation	1.52
15	New Zealand	0.972	Qatar	1.189	Armenia	1.475
16	Mexico	0.845	Uruguay	1.167	Switzerland	1.406
17	Iceland	0.76	Israel	1.115	Tunisia	1.396
18	Saudi Arabia	0.732	Mauritius	1.113	Jordan	1.37
19	Indonesia	0.722	United Arab Emirates	1.075	South Africa	1.355
20	Qatar	0.654	Montenegro	1.065	Iceland	1.291
				–EU´s Official Strategic Partner		

Sources: Own calculations on the basis of SPSS.

Regarding the second component, Canada attained a high position in the ranking while Russia and China occupy the worst position in the ranking. Although the second component added significantly to the model it has a negative sign. In this regard, we can say that despite the rhetoric of EU's leaders about human rights and common values, the EU also tended to establish the strategic partnership with those countries, which did not share EU´s norms and values, practice discriminative actions against each other and don't converge on global issues, such as Russia and China. Thus, we it can be concluded that the most important criteria for choosing strategic partners for the EU was the partner's economic and political weight together with mutual commercial interests. So, we can affirm our first hypothesis.

The close neighbors and potential EU members are situated in the third component. From all EU´s declared strategic partners Russia has the highest position in the ranking. Regarding South Africa, it can be concluded that the EU develops actively jurisdictional-institutional basis with this country and shares historical-cultural roots, that explains partner's high position in this component despite the geographical distance between them. Although this component does not make the country strategic, it adds a special value to a country with a high strategic component, considering that, being close neighbors, two powerful agents have to consider each other's respective positions, given that it is impossible to resolve separately such common problems as regional conflicts, terrorism, international crime, illegal emigration, and ecological problems, among others.

The results of the Binary Logistic Model country by country on the basis of the first and second principal components are presented in Fig. 2.

Observing Fig. 2, it can be concluded that although a new list of the EU´s strategic partners obtained by applying the Binary Logistic Model resembles the official list of 'Special Ten' from the first sight, some significant differences can be noted. Thus, according to the model, Argentina should be awarded the status

of being EU's strategic partner with a probability of almost 63%. South Africa is not strategic enough even for being potential partner according to the Model and probably obtained its special status due to another personal EU's motive. In this way, we can prove our second and third hypotheses. So, our new list of 'Special Ten' with the probability of more than 50% comprises the following: USA, China, Russia, Japan, India, Brazil, Canada and Mexico. Indonesia and Switzerland are situated in the group of 'EU's Potential Strategic Partners' together with the EU's official strategic partner South Korea (the probability for the potential strategic partners is in the range of about 25–30%).

Finally, it is worth mentioning that the USA, China, Russia, Japan, India and Brazil represent a particular group with a probability of more than 99%, which we have called the most important EU's Strategic Partners with whom the EU should develop the preferential strategic partnerships. Thus, although Russia was excluded from the EU 'Special Ten' after the annexation of Crimea it continues being very strategical and together with the USA and China these countries have been holding leadership with the probability of one hundred percent.

Conclusions

In this contribution, first, we have investigated the term of strategic partnership together with the EU's conception of strategic partnership, and we have given our own definition of this term. Second, we have divided the indicators into specific categories and the CATPCA analysis was utilized. Third, we have obtained various dimensions and have applied the traditional PC analysis, which has led us to three components. The first component has been called the Strategic Component, the second one – Partnership in Spirit Component and the last one -- the Good Neighbor Component. Finally, on the basis of these three components, the Binary Logic Model was applied.

For our model just the first and second principal components proved to be a significant addition. However, the second one –

Fig. 2 Probability of becoming EU´s strategic partner by country. The dependent variable equaling a 'country will become EU´s strategic partner' rather than 'country will not become EU´s strategic partner'. The independent significant variables are the first principal component 'Strategic Component' and the second one 'Partnership in Spirit Component'. The results are obtained by applying the Binary Logistic Model performed in SPSS.

Partnership in Spirit Component – has a negative sign. Thus, we can conclude that the EU's choice is contrary to the rhetoric of EU's leaders about the importance of human rights and common values for choosing its strategic partners. In this regard, we can prove that the political and economic weights of the partner together with common commercial interests were the main indicators for being chosen as one of the EU's strategic partners. Thus, our research proves empirically the imperfection of the EU's concept of strategic partnership, highlighted in the literature review and shows some kind of mismatch with its norms and common values.

According to the results obtained by the Logistic Binary Model eight partners from the list of *'Special Ten'* are really strategic for the EU. Argentina should be awarded this status while South Korea and South Africa are not strategic enough for being chosen as EU's strategic partners.

Finally, it is worth mentioning that this paper only proposes the methodology for the election of the strategic partners for the EU, however, it is necessary to monitor constantly the strategic partners considering today's political and economic perspective. After the full-scale invasion of Ukraine by Russia a sound approach to the choice of strategic partners is especially important in order to confront the crisis and survive in an ever-changing, fragmented, and divided world. Recent developments have demonstrated that the leaders of the EU should pay much more attention to selecting their partners. In this regard, first, the list of strategic partners should be more diversified with a view to ensure the autonomy of the EU both in the economic field and in security and defense; and second, Partnership in Spirit Component related to human rights and common values should play a central role in choosing a partner and prevail over short-term economic benefits.

Data availability
Data are available in the supplementary files. In this research the data were extracted from official database such as World Bank, Eurostat, etc. and other official sources. The datasets analyzed during the current study are available from the corresponding author on reasonable request.

Notes
1 Russia was excluded from the EU's 'Special Ten' in 2014 after the annexation of Crimea (see Mogherini F.: "Russia is no longer the EU's strategic partner'", available at http://www.euractiv.com/sections/global-europe/mogherini-russia-no-longer-eus-strategic-partner-308152.

2 See Ranking the World's Major Powers. A Graphic Comparison of the United States, Russia, China and Other Selected Countries by Cordesman A.H, Emeritus Chair In Strategy, 2022. However, the author concludes that Russia now a relatively minor power in economic terms, in terms of its national research and development efforts in terms of the resources it can spend on military forces. Available at file:///C:/Users/naldo/Downloads/220427_Ranking_Major_Powers%20(1).pdf.

3 The EPF is an off-budget instrument aimed at enhancing the EU's ability to prevent conflicts, build peace and strengthen international security.

4 Wen stresses importance of developing EU-China comprehensive strategic partnership. People's Daily Online, May 2004. http://english.people.com.cn/200405/07/eng20040507_142556.html.

5 See "Russia is no longer the EU's strategic partner'", available at http://www.euractiv.com/sections/global-europe/mogherini-russia-no-longer-eus-strategic-partner-308152.

6 See European Council, Council of the EU: EU sanctions against Russia explained - Consilium (europa.eu).

7 See European Council, Council of the EU: Timeline - EU restrictive measures against Russia over Ukraine - Consilium (europa.eu).

8 See at Azerbaijani FM talks strategic partnership with EU High Representative (azernews.az).

9 See at Strategic Partnership between the European Union and Kazakhstan on sustainable raw materials, batteries and renewable hydrogen value chains (europa.eu) or Kazakhstan, EU sign strategic partnership document: 8 November 2022, 09:22 - news on inform.kz.

10 See European Council, Council of the EU: UN-EU strategic partnership on peace operations and crisis management: Council conclusions on priorities for 2022–2024 - Consilium (europa.eu).

References
Biscop S, Renard T (2010) A need for strategy in a multipolar world: recommendations to the EU after Lisbon. Security Policy Brief 5, EGMONT Royal Institute for International Relations, Brussels

Blanco LF (2016) The functions of 'strategic partnership' in European Union foreign policy discourse. Camb Rev Int Aff 29(1):36–54. https://doi.org/10.1080/09557571.2015.1126055

Borrell J (2021) Time to move forward with the strategic compass 18 November 2021. EEAS. Available at: https://eeas.europa.eu/regions/middle-east-north-africa-mena/107464/time-move-forward-strategic-compass_en. Accessed 15 April 2023

Boyacioglu MA, Kara Y, Baykan OK (2009) Predicting bank financial failures using neural networks, support vector machines and multivariate statistical methods: a comparative analysis in the sample of savings deposit insurance fund (SDIF) transferred banks in Turkey. Expert Syst Appl 36:3355–3366

Burghardt G (2006) The European Union's Transatlantic Relationship, EU Diplomacy Paper 2/2006, College of Europe, Bruselas

Cabrera AF (1994) Logistic regression analysis in higher education: unapplied perspective. Higher Educ Handb Theory Res 10:225–256

Chuang HL (1997) High school youth's dropout and re-enrollment behavior. Econ Educ Rev 16(2):171–186

Cihelková E, Nguyen HP, Fabuš M (2020) The EU concept of the "Strategic Partnership": Identifying the "unifying" criteria for the differentiation of Strategic Partners. Entrepreneurship Sustain Issues 7(3):1723–1739. https://doi.org/10.9770/jesi.2020.7.3(19)

Cirlig C-C (2012) EU Strategic Partnerships with third countries. Library of the European Parliament. Library Briefing, Luxembourg

Consejo Europeo, Estrategia Europea de Seguridad (2003) Available at http://www.consilium.europa.eu/uedocs/cmsUpload/78367.pdf Accessed 5 February 2021

Czechowska L (2022) Joint bodies and the regularization of strategic interaction: a comparison of the European Union's Strategic Partnerships with Japan and India. JCMS J Common Market Stud 60(4):1144–1164. https://doi.org/10.1111/jcms.13325

Declaration of RIO (1999) Available at https://eulacfoundation.org/en/documents/1999-rio-declaration Accessed 5 February 2017

De Wilde T, Pellon G (2006) The implications of the European Neighbourhood Policy (ENP) on the EU-Russian Strategic Partnership. Helsinki Monitor 2. Available at http://www.eisanet.org/benbruga/eisa/files/events/stockholm/Blanco%20Pan. Accessed 5 February 2021

Demertzis M, Sapir M and Wolff G (2017) Europe in a New World Order Policy brief, Issue 2. Bruegel, Brussels

European Commission - Press release (2021) A renewed multilateralism fit for the 21st century: the EU's agenda. European Commission, Brussels, 17 February

European External Action Service, EEAS (2021) Towards a strategic compass for the EU. EEAS. Available at: https://eeas.europa.eu/sites/default/files/towards_a_strategic_compass-2021-11.pdf Accessed 15 April 2023

European Union Council (2016) A Global Strategy for the European Union's Foreign and Security Policy, 14392/16, Bruselas

European Union Council (2022) A strategic compass for security and defense – for a European Union that protects its citizens, defends its values and interests and contributes to international peace and security, 7371/22. European Union Council, Brussels

European Union Institute for Security Studies (2015) Towards an EU global strategy – Background, process, references. Edited by Missiroli, A. https://doi.org/10.2815/953786

Franco Hijuelos C (2010) La Asociación Estratégica México-Unión Europea: origen y perspectivas. Revista Mexicana de política Exterior 89

Garashchuk A, Isla F, Podadera P (2022b) The empirical evidence of EU–Russia bilateral trade under sanctions and oil price shocks. Sustainability 14:7528. https://doi.org/10.3390/su14137528

Garashchuk A, Isla F, Podadera P (2022a) The empirical evidence of the EU–Russia failed strategic partnership: did it have a positive impact on bilateral trade? Eur Rev 30(5):657–685. https://doi.org/10.1017/S1062798721000090

George D, Mallery P (2003) SPSS for windows step by step: a simple guide and reference. Allyn & Bacon, Boston, (4.ª ed.)

Gratius S (2011a) ¿Profundizar el multilateralismo a través de las asociaciones estratégicas de la Unión Europea? Documento de Trabajo FRIDE, Madrid, septiembre

Gratius S (2011b) The EU and the 'special ten': deepening or widening Startegic Partnerships? Policy Brief. Frida, a European think tank for global action 76:1–5

Grevi G (2010) Making EU strategic partnerships effective. Documentos de Trabajo FRIDE, 105, Madrid

Gupta A, Azad S (2011) Evaluating India's strategic partnerships using analytic hierarchy process. IDSA Institute for Defence Studies and Analyses. Available at: http://www.idsa.in/idsacomments/EvaluatingIndiasStrategicPartnershipsusingAnalyticHierarchyProcess_agupta_170911

Hubbell L (1999) A Sino-American cultural exchange during the bombing crisis: a personal experience. Asian Aff Am Rev 26(3):159–172. https://doi.org/10.1080/00927679909598824

Ismael TY, Kreutz A (2001) Russian-Iraqi relations: a historical and political analysis. Arab Stud Q 23(4):87–115

Jain RK (2008) India-EU strategic partnership. In: Seidelmann R, Vasilache A (eds) European Union and Asia: a dialogue on regionalism and interregional cooperation. Baden-Baden, Nomos, pp. 277–298

Janik J, Kravitz HM (1994) Linking work and domestic problems with police suicide. Suicide Life Threatening Behav. 24(3):267–274

Karp AH (2009) Using logistic regression to predict customer retention. Sierra Information Services, Inc, New York

Kay S (2000) What is a strategic partnership? Probl Post Commun 47:15–24

Kemalbay G, Korkmazoğlu ÖB (2014) Categorical principal component logistic regression: a case study for Housing Loan approval. Proc Soc Behav Sci 109(2):730–736. https://doi.org/10.1016/j.sbspro.2013.12.537

Khandekar G (2011) Mapping EU strategic partnerships, Grevi, G. (ed) FRIDE, Madrid, España

Khandekar G (2011) Mapping EU Strategic Partnerships, with Grevi, Giovanni (ed) FRIDE, November. Madrid. España

Kim G (2012) Kazajstan-Ugnaya Corea: po puti strategicheskogo partnerstva. KISI, Kazakhstan, Almaty

King G, Tomz M, Wittenberg J (2000) Making the most of statistical analyses: improving interpretation and presentation. Am J Polit Sci 44:341–355

Lavrov S (2013) State of the Union Russia-EU: prospects for partnership in the changing world. J Common Market Stud 51:6–12

Lazarou A, Wilson S (2020) On the path to 'Strategic Autonomy': the EU in an evolving geopolitical environment. EPRS. Available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2020/652096/EPRS_STU(2020)652096_EN.pdf Accessed 15 April 2023

Lessa AC (1998) A diplomacia universalista do Brasil: a construção do sistema contemporâneo de relações bilaterais. Revista Brasileira de Política Internacional (Impresso) Brasília 41:29–41

Maihold G (2010) Europe and New Leading Powers 'Towards Partnership in Strategic Policy Areas, in Stefan (eds) Nomos, 149–156, Buenos Aires. Argentina

Maihold G (2010) Stefan (eds.) Europe and New Leading Powers 'Towards Partnership in Strategic Policy Areas, Nomos, 149–156, Buenos Aires, Argentina

Medvedev D (2008) Speech at the conference about the results of Euro-Russian summit, available at http://kremlin.ru/multimedia/video/section/speeches Accessed 5 July 2020

Men J (2007) The EU-China strategic partnership: achievements and challenges. Policy Paper No 12, November 2007. Available at: http://aei.pitt.edu/7527/1/2007-EU-China_Partnership.pdf Accessed 17 April 2023

Oommen T, Baise LG, Vogel RM (2011) Sampling bias and class imbalance in Maximum-likelihood Logistic Regression. Math Geosci 43:99–120

Peña F (2010) Capacidades en el caso del G20 y del grupo BRICS. Mercosurabc, March 17

Podadera P, Garashchuk A (2019b) Heterogeneity of the European Union's strategic partners: can they still be compatible? Eur Rev 28(2):202–224

Podadera P, Garashchuk A (2016) The conception of EU-Russia strategic partnership: reasons of its failure. Atlantic Rev Econ 1: 1–19

Podadera P, Garashchuk A (2019a) Strategic partner´s attractiveness Index for the European Union. Can the Eurasian Economic Union headed by Russia become strategic partner for the EU? Revista de Economia Mundial 51:207–228

Quevedo JA (2012) La Paradoja del Multilateralosmo Eficaz a Traves de las Asociociones Estratégicas en la Acción Exterior de la Unión Europea. Eur Sci J 8(24). https://doi.org/10.19044/esj.2012.v8n24p%25p

Reed P, Wu Y (2013) Logistic regression for risk factor modelling and stuttering research. J Fluen Disord 38:88–101

Renard T (2010) EU strategic partnertships: evolution of a concept, from Amsterdam to Lisbon. Bev-Baillet Latour Chair of EU-China Relations, College of Europe, Bruges, issue 5, p. 18

Rocha-Pino M (2013) The Chino-European Union strategic partnership and the Shangai Cooperation Organization. Himalayan & Central Asian Studies, India 17 (3-4)

Sangtu K (2006) Strategic partnership in a unipolar system: the Sino-Russian relationship. Issues Stud 42(3):203–225

Smith M, Timmins G (2003) The European Union, NATO & Russia. Routledge, London

Tolman RM, Weisz A (1995) Coordinated community intervention for domestic violence: The effects of arrest and prosecution on recidivism of woman abuse perpetrators. Crime Delinq 41(4):481–495

Vahl M (2001) Just Good Friends? The EU-Russian 'Strategic Partnership and the Northern Dimension. Working Paper Series, 166, Centre for European Policy Studies (CEPS), 1–55. Brussels, Belgium

Vasiliev S (2014) Strategicheskoe Partnerstvo SCHA y Mexici kak factor regionalnoy bezopasnosti Mezoameriki. Globalnaya y Regionalnaya Bezapasnost v XXI veke: materiali naychnix konferenciy. Ekaterinburg, Izdatelstvo Yralskogo Yniversiteta, 46–52

Voynikov V (2015) The EU-Russia strategic partnership: its nature and perspectives, Centre for European Studies and European Union Centre of Excellence. Strategic Partnership as an Instrument of EU Foreign Policy – Workshop Report, November. Pp. 19-23

Walshe G (2022) Europe must shed its illusions about Russia. Foreign Policy. Available at: https://foreignpolicy.com/2022/01/31/europe-russia-putin-ukraine-germany-france-nato-uk-illusions/ Accessed 17 April 2023

Author contributions

Competing interests

The authors declare no competing interests.

Ethical approval

This article does not contain any studies with human participants performed by any of the authors.

Informed consent

This article does not contain any studies with human participants performed by any of the authors.

Additional information

Supplementary information The online version contains supplementary material available at https://doi.org/10.1057/s41599-023-02121-y.

Correspondence and requests for materials should be addressed to Pablo Podadera Rivera.