Support to REPowerEU Cyprus

Annex I: PESTLE Analysis

This project is funded by the EU via the Technical Support Instrument and implemented by Trinomics and its partner organisations, in collaboration with the European Commission. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

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Date
11 November 2022

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Trinomics

Support to REPowerEU – Cyprus

Annex I: PESTLE Analysis

In association with:

The Cyprus Institute
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Executive Summary

As PESTLE stands for "Political, Economic, Social, Technological, Legal and Environmental" factors, the questionnaire created by the team (CyI, ideopsis Ltd) was divided into these sections including questions related to each one of them. Yet, to obtain more information to the related topic as possible, there were 3 more sections (Parts C, D and E) added to the questionnaire other than the PESTLE factors, which were related to the already existing policies and instruments of Cyprus (referred to them by name in the questionnaire) and the ways these can be improved to assist the Hydrogen Roadmap in Cyprus but also to assist Cyprus in achieving all priorities of REPowerEU (see Chapter 2).

The questionnaire encompassing the PESTLE analysis for the development of the Hydrogen Roadmap in Cyprus and the necessary investments and reforms to accelerate the energy transition, was answered by **30 participants out of 41**. The questionnaire was open for the period of August-September 2022 and the stakeholders (Table 1) were informed through email and contacted by phone.

The participants encompassed stakeholders working in different sectors: representatives of governmental/semi-governmental organisations, the potential hydrogen distributors, businesses with potential to produce hydrogen, potential hydrogen users, business associations and people from the academic community.

After the collection of **30 PESTLE questionnaires** filled by participants, the analysis was separated into different sections. Firstly, analysis of questionnaires for each stakeholder group, identifying the weighted score for the importance of each factor. This way results were obtained for each of the group of stakeholders individually to identify the most important factors for them. After the first analysis, a second analysis occurred to identify the most and least important factors identified by all of the participants for each of the PESTLE factors. As each stakeholder group have identified different factors as the most and least important, the summed average weighted score for the PESTLE factors can differ from what has been chosen by the groups individually.

The results for **Political factors** from all the stakeholders' groups for this section showed that the factor "Understanding by the government and government policy on the necessity of promoting Hydrogen" is the most important sub-factor within the political factors and the "Ease of decision-making and facilities for the development of Hydrogen infrastructure" factors is the least important. The governmental organisations have voted the "Freedom of the press" as the most important factor within the political factor category. However, the academic community has voted that the factor "Levels of bureaucracy and corruption" as the most important factor within the political category and contrarily hydrogen distributors have voted this factor as the least important.

The stakeholder groups that have voted for a different least important factors are the hydrogen distributors and the academic community, deciding that the factor "Participation of the country in interstate trade agreements" is the least important within the political category. Contrarily, the business associations group believe that this is one of the most important factors within this category.

According to the results obtained from the second step of the analysis about the **Economic factors**, the most important economic factors identified by the average weighted score from all the stakeholder

groups is the "Availability of financial instruments and lending facilities". In the economic factors category, the "Freedom of the press" has been selected as the least important.

However, the results differ for some of the stakeholders' groups. The academic community has ranked the factor "Possible impact of technological developments" as the most important one. The potential users and producers of hydrogen and the business associations believe that "lending rates" are also highly important as the factor "availability of financial instruments and lending facilities". Additionally, the hydrogen distributors believe that a "Clear fiscal policy, e.g., taxation" is one of the most important factors.

It is also controversial the fact that potential hydrogen users have also voted the factor "Current and projected economic growth of the country" as one of the most important factors and the potential hydrogen distributors have voted the same factor as one of the least important factors within the economic factors category. Moreover, the hydrogen distributors believe that the least important factor in this category is the "Impact of globalisation" and they agree with the potential hydrogen users. The potential hydrogen producers believe that the factor "hidden costs for investors (e.g. fees for obtaining licenses)" is the least important factor.

For the **Social Factors**, the "Acceptance of Hydrogen technologies by local government and central government" was voted the most important, whereas the least important factor has been scored as the "Attitude towards the labour market or Market potential in the development of new skilled jobs".

Similarly, the stakeholder groups have voted that the "Acceptance of Hydrogen technologies by local government and central government" is one of the most important factors of these factor category. Yet, the potential hydrogen users and producers as well as the business associations have voted that the factor "Public acceptance of Hydrogen technologies" is also one of the most important factors, whereas, only the governmental services have voted "Education, training, human resources skills in new technologies" as one of the most important.

Potential hydrogen users and producers and business associations agree that the least important factor of this category, is the "Attitude towards the labour market or Market potential in the development of new skilled jobs" whereas the government services, the potential hydrogen distributors and the academic community believe that the least important is "Understanding health issues that may come from the burning of conventional fuels by a large portion of the population".

For the **Technological factors**, the most important factor has been calculated to be the "Existence of energy storage systems" which from the 6 stakeholder groups, only the potential hydrogen users, the business associations and the academic community groups agree that this is the most important factor. The governmental services believe that the most important technological factor is the "Maturity of technology versus other competing technologies", and the potential users agree with this as well. The potential hydrogen distributors have voted the factor "Ease of infrastructure development" as one of the most important and the business associations agree with this. Potential hydrogen users and producers have decided that the factor "Energy / sources / fuels related to / dependent on technologies" is one of the most important in the technological category. Potential users also think that the factor "Duration of construction of substations or other infrastructure" is one of the most important as well.

However, most of the stakeholder groups agreed to the least important factor being the "Patents/ intellectual property issues". However, the potential hydrogen distributors and the business associations have agreed that the factor "Innovation potential of businesses in Cyprus" is the least important.

As regards **Legal Factors**, these seems to be among the most important for the questionnaire participants as most of the factors included within the category have been rated as important. Calculating the average weighted score of the factors, the most important factors is shown to be the "The absence of urban planning or other regulations".

The academic community has voted "System complexity for siting and environmental permitting" as one of the most important factors by governmental services, potential producers and the academic community.

"Elaboration & adoption of a National Plan for the promotion of Hydrogen" has also been ranked as one of the most important by the governmental services, the potential hydrogen users and the business associations.

The governmental services, the potential hydrogen users and distributors as well as the business associations have agreed that the factor "Sponsorship schemes to assist Hydrogen technologies" as one of the most important in this category.

The factor "Duration of licensing" has been voted as one of the most important by the potential hydrogen distributors only. In addition, potential hydrogen users is the only stakeholder group that has voted for the factor "Single hydrogen market rules" as one of the most important.

The factor "Funds available for research and development" has been voted as one of the most important by the potential users and producers as well as the business associations.

Moreover, the sum of the average weight score has shown that the least important factor is the "Full implementation of the National Energy & Climate Plan" which has been voted by the potential hydrogen producers and distributors and the academic community as the least important factor and given low score by the potential hydrogen users and the business associations. However, the governmental services have ranked this factor as one of the most important in this Legal category which again shows that the opinions of the governmental services are in contrast with the rest of the groups.

5 out of the 6 stakeholder groups have identified the "Implementation of stricter European energy and climate legislation" as the most important **Environmental Factor.** Yet, the potential hydrogen distributors do not agree that this is the most important factor. Moreover, the factor "The existence of strict environmental regulations" has been voted as one of the most important by 4 out of the 6 categories with potential hydrogen producers and the academic community to disagree.

Business associations group has also voted the "Environmental values of customers" as one of the most important, yet no other group has voted for this factor.

The calculated sum of the average weighted score of the factors has shown that the least important factor for the Environmental Category is the "Designation of sensitive marine and coastal areas". The potential distributors have voted as the least important factor the "Availability of water resources".

Other than the PESTLE factors, the questionnaire included further questions (**Parts C, D & E**) to identify the important investments and actions to be included during the development of the Hydrogen Strategy of Cyprus.

In **Part C**, factors related to additional investments and priority reforms for Cyprus government to promote Hydrogen were weighed to identify the most important ones. 5 out of 6 stakeholder groups have voted the "Additional resources in the Recovery and Resilience Plan to promote energy storage" as one of the most important factors in this category, with the business associations voting for other factors as more important.

"Additional resources in the Recovery and Resilience Plan to promote hydrogen production" has also been voted as one of the most important by 5 out of 6 groups, yet the governmental services group has voted the factor as the least important within the category.

The factor "Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport" has been voted as one of the most important by the potential hydrogen users and producers and the business associations, yet it has been voted as the least important by the potential hydrogen distributors and the academic community.

Hydrogen producers have voted the factor "The revision of the National Energy and Climate Action Plan with more ambitious hydrogen targets" as one of the most important. Yet, the potential hydrogen users have voted this factor as one of the least important in this category along with the factor "Review of the Long-Term Strategy for Reducing Emissions including hydrogen" which was voted by the business associations as the least important factor as well.

The sum of the weighted average score has ranked the factor "Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in industry" as the least important factor. However, only the potential hydrogen producers have voted for the specific factor as the least important one. The potential users and the business associations have voted the specific factor as one of the most important.

Part D of the questionnaire focused on factors related to the utilization of the Revised Recovery and Resilience Plan of Cyprus to accelerate the green energy transition in Cyprus and minimise the use of fossil fuels in the country.

"Additional resources to the Recovery and Resilience Plan to promote energy storage" has been voted by 5 out of 6 stakeholder groups as one of the most important factors, with only the potential hydrogen producers group disagreeing.

On the other hand, "Additional resources to the Recovery and Resilience Plan for energy modernisation and reduction of greenhouse gas emissions in industry" has been voted as one of the most important

factors by potential hydrogen users whereas it was considered as the least important one by government services and potential hydrogen producers.

The potential hydrogen distributors have voted the factor "Additional resources to the Recovery and Resilience Plan to promote sustainable mobility (public transport, cycle paths, pedestrian streets)" as one of the most important factors whereas the business associations have voted it as one of the least important within the Part D category.

The factor "Additional resources in the Recovery and Resilience Plan for the faster installation of smart meters and / or the upgrade of electrical networks" has been voted as one of the least important by the potential users and the academic community, yet it has been voted as one of the most important by the potential producers. It is important to mention that the potential producers have voted only this factor as the most important in this factor category.

The factor "Additional resources in the Recovery and Resilience Plan for the further promotion of RES in the private and public sector and in industry" has been voted as the most important by the business associations and the least important by the potential distributors. This factor is the only factor within this category that has been voted as the least important by the potential distributors.

The factor "Additional resources to the Recovery and Resilience Plan for the sustainable management of agriculture and water resources" has been voted as one of the most important by the business associations but as one of the least important by the potential hydrogen producers.

The potential hydrogen users have voted "Additional resources to the Recovery and Resilience Plan to promote electromobility" as one of the most important factors, whereas contrarily the business associations and the academic community have voted this factor as one of the least important.

The potential distributors have voted the factor "Additional resources to the Recovery and Resilience Plan for energy upgrades of buildings" as one of the most important whereas the potential hydrogen producers as one of the least important factors.

Lastly, the sum of the weighted average score for each of the factors in Part D have led to the identification of the least important factor being "Additional resources to the Recovery and Resilience Plan for the development of energy communities (e.g. creation of a regulatory framework)".

Part E included factors related to the obstacles that pose risk for the implementation of the Recovery and Resilience Plan measures related to the green energy transition of Cyprus.

By calculating the sum of the weighted average score for each of the factors within the category, the factor "Lack of an appropriate regulatory framework to facilitate faster RES penetration" was identified as the most important factor of the category. However, only half of the stakeholders have voted for this as the most important, the government services, the business associations, and the academic community. "Lack of a simplified procedure (fast track) for the licensing of RES projects" is ranked as the second most important factor within this category and the potential hydrogen users, producers and distributors.

The least important factor identified for Part E is the "Lack of staff in the construction sector for energy renovations and installation of RES", which is voted as one of the least important by 5 out of the 6 stakeholder groups, with only the potential hydrogen producers not voting for this factor.
It is interesting to mention that the factor "Implementation of the Euroasia interconnector" was voted as the most important by the academic community yet as the least important by the potential hydrogen distributors.

In summary, responses from Parts C, D and E of the online questionnaire show that most stakeholders:

- *Recommend including additional resources in the RRP for energy storage, building renovations, and promotion of renewable energy sources and sustainable mobility in order to accelerate the green energy transition of the Cypriot economy.*
- *Find it important to foresee additional resources for hydrogen production, hydrogen use in transport, and broader energy storage support schemes in order to facilitate the deployment of hydrogen in the Cypriot energy system.*
- *Consider as the main obstacle to the green transition the lack of an appropriate regulatory framework to facilitate faster RES penetration and the lack of a simplified procedure (fast track) for the licensing of RES projects.*

1 Introduction/Respondents profile

As PESTLE stands for **"Political, Economic, Social, Technological, Legal and Environmental"** factors, its analysis is used as a tool to evaluate the impacts of external factors on these PESTLE factors, to assist in the development of **strategic plans**, product developments and projects. The aim of this analysis is to assess how stakeholders will be impacted and they will impact PESTLE factors for the development of the Hydrogen Roadmap in Cyprus.

The questionnaire encompassing the PESTLE analysis for the development of the Hydrogen Roadmap in Cyprus and the necessary investments and reforms to accelerate the energy transition, was answered by **30 participants**. The questionnaire was open for the period of August-September 2022 and the stakeholders (Table 1) were informed through email and contacted by phone.

The participants encompassed stakeholders working in different sectors with most of them being representatives of **governmental/semi-governmental organisations** (46%), the potential hydrogen distributors (10%), businesses with potential to produce hydrogen (10%), potential hydrogen users (7%), business associations (10%) and people from the academic community (17%).

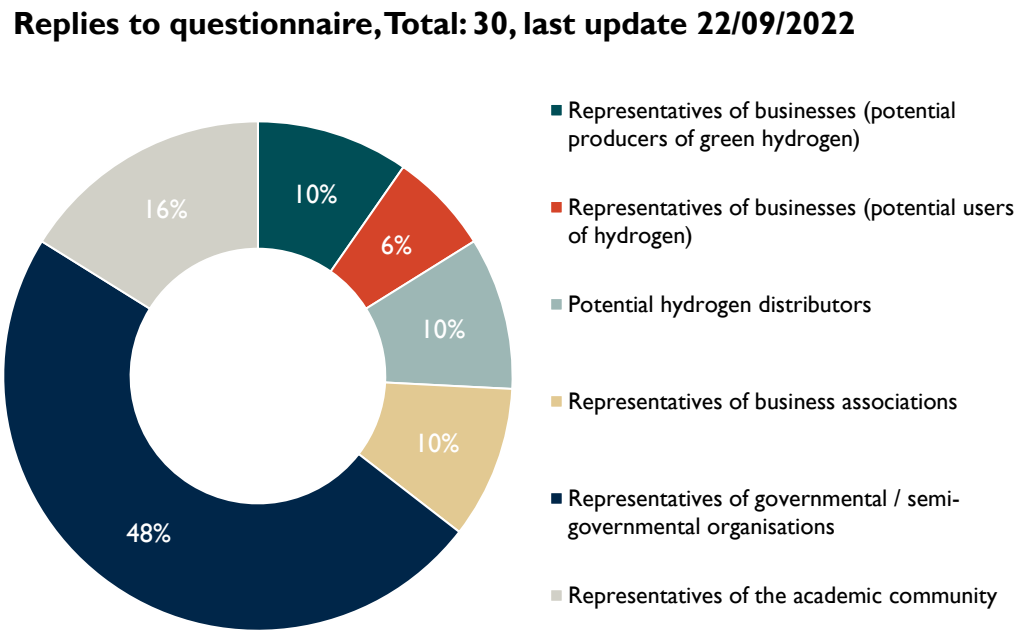

Figure 1: Replies to questionnaires per stakeholder group

The results from the analysis of the PESTLE will be part of the Country Report for the development of the Hydrogen Strategy of Cyprus.

Table 1: List of Participants in the PESTLE questionnaire

	Name & Surname	Position	Email	Responses for PESTLE questionnaire
Representatives of businesses (potential producers of green hydrogen)				3
1.	Makis Ketonis	President of the Cyprus Hydrogen Association; Future Fuels Ltd	ketonis@wincono.com	1
2.	Michalis Philippou	Member of MB Cyprus Hydrogen Association; Green Energy Group	m.filippou@geg.com.cy	0
3.	Fanos Karantonis	Member of MB Cyprus Hydrogen Association; Karantonis energy	f.karantonis@karantonis.com.cy	1
4.	Hamed Mansouri & Thomas Orphanides	Member of MB Cyprus Hydrogen Association; Solek holding S.A.	mansouri@solek.com Orphanides@solek.com	0
5.	Roberto Sciffo	ISA energy (both potential producer and user of hydrogen)	2roberto@isa-energy.com	1
6.	Stalo Georgiou, Nikos Yiambides	International Stakeholder (EIB and EBRD have local offices in Cyprus)	stalo.georgiou@ebrd.com; n.yiambides@eib.org	0
Representatives of businesses (potential users of hydrogen)				2
7.	Savvas Hadjiyiangou	Member of MB Cyprus Hydrogen Association; C.A. Papaellinas group	savvas.h@cap.com.cy	1
8.	Marina Tsangaridou	Vassiliko Cement Works	m.tsaggaridou@vassiliko.com	1
9.	Michalis Michael	Zorbas Group of Companies	mmichael@zorbas.com.cy	0
Potential hydrogen distributors				3
10.	Michalis Eraclides	Member of MB Cyprus Hydrogen Association – Hellenic Petroleum Cyprus Ltd (potential distributor of hydrogen)	mheraclides@helpe.gr	1
11.	Dinos Lefkarites, Thomas Sepos	Petrolina Holdings Potential hydrogen distributor	dinos@petrolina.com.cy; thomas.sepos@petrolina.com.cy	1
12.	Antonis Mouzouros - Louisa Papageorgiou	ExxonMobil Cyprus	antonis.mouzouros@exxonmobil.com; louiza.t.papageorgiou@exxonmobil.com	1
13.	Tasos Karlatiras, Costas Tsigaras	Coral energy products Cyprus	tkarlatiras@coralenergy.com.cy ktsigaras@coralenergy.com.cy	0
14.	Pavlos Michaelas	P. Michaelas Holdings Ltd	ekomichaela@cytanet.com.cy	0
Representatives of business associations				3

	Name & Surname	Position	Email	Responses for PESTLE questionnaire
15.	George Petrou	Chairman of Energy Committee at Cyprus Industry Federation (OEB) (and Staroil GM, potential hydrogen distributor)	georgep@staroilcyprus.com	1
16.	Andri Demetriadou (TC)	Cyprus Employers and Industrialists Federation (OEB)	ademetriadou@oeb.org.cy	1
17.	Kypros Antoniou (TC)	Cyprus Chamber of Commerce and Industry (KEBE)	k.antoniou@ccci.org.cy	0
18.	Thomas Kazakos/ Chrysostomos Efthymiou	Chairman of the Cyprus Shipping Chamber – hydrogen users	csc@csc-cy.org	1
Representatives of governmental / semi-governmental organisations				14
19.	Sotia Hajispyrou (TC)	Ministry of Finance	shajispyrou@mof.gov.cy	1
20.	Evi Anayiotou (TC)	Department of Public Works, Ministry of Transport, Communications & Works	eanayiotou@pwd.mcw.gov.cy	1
21.	Michael Fountoulis (TC)	Department of Electrical and Mechanical Services	mfountoulis@ems.mcw.gov.cy	1
22.	Charalambos Evagelou (TC)	Road Transport Department	cevagelou@rtd.mcw.gov.cy	1
23.	Tasoula Kyprianidou (TC) Christos Kokkofitis (TC)	Department of Labour Inspection (SEVEZO, Ministry of Labour)	tkyprianidou@dli.mlsi.gov.cy ckokkofitis@dli.mlsi.gov.cy	1
24.	Savvas Aspris (TC) Irene Constantinou (TC)	Department of Environment, Ministry of Agriculture, Rural Development and Environment	saspris@environment.moa.gov.cy iconstantinou@environment.moa.gov.cy	1
25.	Eleftherios Eleftheriou (TC)	Directorate General of Growth	eeleftheriou@mof.gov.cy	1
26.	Evgenios Epaminondou (TC) Christos Aspris (TC)	Deputy Ministry of Research, Innovation & Digital Policy	eepaminondou@mof.gov.cy caspris@mof.gov.cy	1
27.	Christiana Fryda (TC)	General Secretariat of European Affairs – Ministry of Foreign Affairs	cfryda@mfa.gov.cy	0
28.	Andreas Poullikkas	Chairman of the Cyprus Regulatory Authority for Energy	apoullikkas@cera.org.cy	0
29.	Stavros Stavrinos	Director of the Transmission System Operator of Cyprus	sstavrinos@dsm.org.cy	1
30.	Tasos Gregoriou	Director of the Distribution System Operator of Cyprus	tgregori@eac.com.cy	1
31.	Petros Andreou	Assistant Manager, Electricity Authority of Cyprus Member of the MB Cyprus Hydrogen Association	pandreou@eac.com.cy	1
32.	Andreas Pentaliotis	Natural Gas Public Company (DEFA), Member of MB Cyprus Hydrogen Association	apentaliotis@defa.com.cy	1
33.	Athena Panayiotou/ Marios Mavrogiannos	Cyprus Organisation for Standardisation (CYS)	apanayiotou@cycert.org.cy	1

	Name & Surname	Position	Email	Responses for PESTLE questionnaire
34.	Irene Hadjisavva	Department of Town Planning and Housing	ihadjisavva@tph.moi.gov.cy	0
35.	Neophytos Neophytou	Ministry of Transport Communications & Works	neneophytou@papd.mof.gov.cy	0
36.	Demetris Fessas (TC)	Cyprus Hydrocarbons Company	d.fessas@chc.com.cy	1
Representatives of the academic community				5
37.	Alexis Onoufriou	Frederick University & Member of MB Cyprus Hydrogen Association	res.oa@frederick.ac.cy	1
38.	Christodoulos Christodoulou	Frederick University	eng.cc@frederick.ac.cy	1
39.	George Georgiou	University of Cyprus	geg@ucy.ac.cy	1
40.	Alexandros Charalambides	Cyprus University of Technology	a.charalambides@cut.ac.cy	1
41.	Zacharias Siokouros/ Eias Yfantis	Cyprus Marine and Maritime Institute	zacharias.siokouros@cmmi.blue	1
Total				**30**

In blue the respondents that replied to the survey, in red the respondents that did not reply.

2 PESTLE ANALYSIS

2.1 Methodology

As PESTLE stands for "Political, Economic, Social, Technological, Legal and Environmental" factors, the questionnaire created by the team (CyI, ideopsis) was divided into these sections including questions related to each one of them. Yet, to obtain more information to the related topic as possible, there were 3 more sections (Parts C, D and E) added to the questionnaire other than the PESTLE factors, which were related to the already existing policies and instruments of Cyprus (referred to them by name in the questionnaire) and the ways these can be improved to assist the Hydrogen promotion Roadmap in Cyprus but also to assist the Repower for Cyprus. The questionnaire was in Greek language as the stakeholders were mainly Greek speaking, however when needed, the questionnaire's language could be translated to English. For the purposes of this report analysis, the questionnaire can be found in the Appendix.

The questionnaire was written and structured through the online survey management tool called EUSurvey, by the experts' team. For the finalisation of the questionnaire, a lot of input has been given by the experts' team as well as by the experts of the relevant ministry. Upon the finalisation of the questionnaire, a link was used to share it with the stakeholders and was sent by an email to them. The email sent included a text informing the stakeholders the reason needed to complete the questionnaire. The email was sent in Greek, yet it can be found in the Appendix in English language.

The list with the important stakeholders for the Hydrogen promotion Roadmap in Cyprus was identified by the experts' team. The list was then given to the team of the Ministry of Energy, Commerce, and Industry (MECI) to identify, according to their knowledge and experience, the most important stakeholders from the list. By the end of this process, an email was sent to the most important stakeholders identified.

It was difficult to reach some of the important stakeholders due to the limited time frame of the conducted analysis. Additionally, even if some of the selected people had the time to answer the questionnaire, they refused to participate as they felt like not having the expertise to complete it. However, two weeks after the first email was sent to the stakeholders a reminder email was sent to those who did not answer yet and after that telephone calls were made to discuss the importance of their participation with the stakeholders who did not answer to the questionnaire even after the reminders.

After the collection of **30 PESTLE questionnaires** filled by participants, the analysis was separated into different sections. Firstly, analysis of questionnaires for each stakeholder group, identifying the **weighted score for the importance of each factor**. This way results were obtained for each of the group of stakeholders individually to identify the most important factors for them. After the first analysis, a second analysis occurred to identify the most and least important factors identified by all of the participants for each of the PESTLE factors. As each stakeholder group have identified different factors as the most and least important, the summed average weighted score for the PESTLE factors can differ from what has been chosen by the groups individually.

For the analysis of the questionnaires a scale (see Table 2) from 0-4 was used for the factors included within the PESTLE factors. The participants were also given the choice to say "I don't know" when they did not know any information about the sub-factors and their importance related to the category, and the weight of this answer was considered to be 0 as well.

Table 2: Evaluating Scale

Not important	Slightly important	Moderately Important	Important	Very Important
0	1	2	3	4

The weight given to each of the words describing the importance of the factors in the questionnaire is described in Table 2. For each of the sub-factors, participants have voted differently, their choice of word was multiplied by the assigned weight and then all the results for the questions were added together to obtain the corresponding value for each of the factors and consequently to identify the most and least important sub-factors for each PESTLE factor category. For the analysis methodology, the answers from each of the stakeholders' group were reviewed and analysed to identify the most and least important factors for each PESTLE factor.

The next step was to combine the most and least important factors by each of the stakeholders' groups and obtain combined results with the contributions of all the stakeholders. This way, the contributions from all the stakeholders' groups were combined creating contributions by one group and analysed holistically as one to obtain the best answers which can cover all the groups of stakeholders. This was done with the use of the sum of the **weighted score** calculated from the first step, separately for each stakeholder group and the value for each sub-factor of PESTLE was divided by the number of responses given from the participants of each stakeholder group. Then, the resulting **weighted average score** obtained for each sub-factor of PESTLE for each of the stakeholder group was added to obtain an overall value with the contributions of all the stakeholders for each of the sub-factor. This way a more holistic process was followed, which included the contribution of all of the stakeholders for each of the PESTLE factors and the results are used in this analysis to identify the most and the least important sub-factors identified by all of the stakeholders.

It is important to mention that some of the stakeholder groups have scored more than one factors as the most or least important as the same score for more than one factors might be calculated. Thus, during the analysis below, there might be mentioned of more than one most or least important factor chosen by each stakeholder group. Moreover, the figures representing the ranking of importance, shows the most important starting from the bar on the base of the figure with greater value, and going up is the least important.

2.2 Political Factors (Part B1)

As discussed above, for the PESTLE analysis, a separate analysis for each of the stakeholders' group has been followed, for each of the factors and it is found in Chapter 3. However, in this section the analysis of the political factors from all the stakeholders' groups is analysed. By following the above methodology, the results for this section showed that the factor **"Understanding by the government and government policy on the necessity of promoting Hydrogen" is the most important** sub-factor

within the political factors and the **"Ease of decision-making and facilities for the development of Hydrogen infrastructure" factors is the least important**.

Figure 2 below shows the **political factors rank** from the least important above to the most important on the bottom of the figure. Each colour bar represents a stakeholder group. Thus, even if the most important and least important factors for each of the below groups have been identified, each group might have voted differently for the importance of each of the factors.

For example, the governmental organisations have voted the **"Freedom of the press"** as the most important factor within the political factor category. However, the **academic community** has voted that the factor **"Levels of bureaucracy and corruption"** as the most important factor within the political category and **contrarily hydrogen distributors** have voted this factor as the **least important**.

The stakeholder groups that have voted for a different least important factors are the hydrogen distributors and the academic community, deciding that the factor "Participation of the country in interstate trade agreements" is the least important within the political category. Contrarily, the business associations group believe that this is one of the most important factors within this category.

Some factors are important for some groups whereas the same factors are not as important for others. The factor "Tax policy and excise duties" has been identified as one of the most important factors from the category for the business associations stakeholder group yet, for the potential producers is one of the least important factors.

Thus, the results of Figure 2, represent an average of the results obtained by the votes of each stakeholder group. however, looking at their votes individually, the results can be different (see Chapter 3).

Table 3: Most important factors in the Political category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	Freedom of the press
Potential hydrogen distributors	Freedom of the press
	Type of government and political stability
Potential hydrogen producers	Understanding by the government and government policy on the necessity of promoting Hydrogen
Potential hydrogen users	Understanding by the government and government policy on the necessity of promoting Hydrogen
	Freedom of the press
	Type of government and political stability
	Levels of bureaucracy and corruption
Business associations	Understanding by the government and government policy on the necessity of promoting Hydrogen
	Type of government and political stability
	Tax policy and excise duties
	Participation of the country in interstate trade agreements
Academic community	Levels of bureaucracy and corruption

Table 4: Least important factors in the Political category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Ease of decision-making and facilities for the development of Hydrogen infrastructure
Potential hydrogen distributors	Levels of bureaucracy and corruption
	Participation of the country in interstate trade agreements
Potential hydrogen producers	Tax policy and excise duties
	Participation of the country in interstate trade agreements
	Ease of decision-making and facilities for the development of Hydrogen infrastructure
Potential hydrogen users	Ease of decision-making and facilities for the development of Hydrogen infrastructure
Business associations	Ease of decision-making and facilities for the development of Hydrogen infrastructure
Academic community	Participation of the country in interstate trade agreements

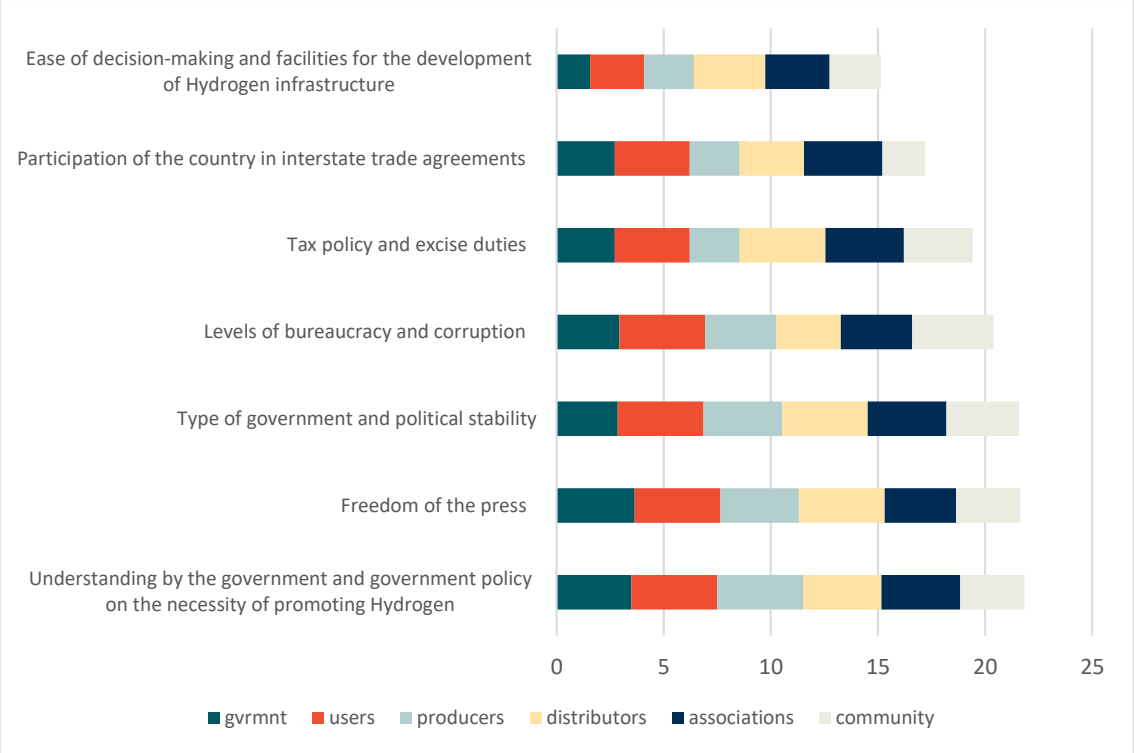

Figure 2: Political factors ranking of importance

2.3 Economic Factors (Part B2)

According to the results obtained from the second step of the analysis, **the most important factors** identified by the average weighted score from all the stakeholder groups is the **"Availability of financial instruments and lending facilities"**. In the economic factors category, the **"Freedom of the press"** has been selected as the **least important**.

However, the results differ for some of the stakeholders' groups. The academic community has ranked the factor "Possible impact of technological developments" as the most important one. Moreover, for the rest of the groups, even if the resulting score have led to the most important factor unanimously, as discussed above, the highest weighted score for some categories, is also indicating some of the other factors as the most important, other than the one represented in the below figure.

The potential users and producers of hydrogen and the business associations believe that "lending rates" are also highly important as the factor "availability of financial instruments and lending facilities". Additionally, the hydrogen distributors believe that a "Clear fee policy, e.g. taxation" is one of the most important factors.

It is also **controversial the fact that potential hydrogen users have also voted the factor "Current and projected economic growth of the country" as one of the most important factors** and the **potential hydrogen distributors have voted the same factor as one of the least important factors** within the economic factors category. Moreover, the hydrogen distributors believe that the least important factor in this category is the "Impact of globalisation" and they agree with the potential hydrogen users. **The potential hydrogen producers believe that the factor "hidden costs for investors (e.g. fees for obtaining licenses)" is the least important factor.**

Table 5: Most important factors in the Economic category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	Availability of financial instruments and lending facilities
Potential hydrogen distributors	Availability of financial instruments and lending facilities
	Clear fee policy, e.g. taxation
Potential hydrogen producers	Availability of financial instruments and lending facilities
	Lending rates
Potential hydrogen users	Availability of financial instruments and lending facilities
	Lending rates
	Current and projected economic growth of the country
Business associations	Availability of financial instruments and lending facilities
	Lending rates
Academic community	Possible impact of technological developments

Table 6: Least important factors in the Economic category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Freedom of the press
Potential hydrogen distributors	Impact of globalisation
	Current and projected economic growth of the country
Potential hydrogen producers	Hidden costs for investors (e.g. fees for obtaining licenses)
Potential hydrogen users	Freedom of the press
	Impact of globalisation
Business associations	Freedom of the press
Academic community	Freedom of the press

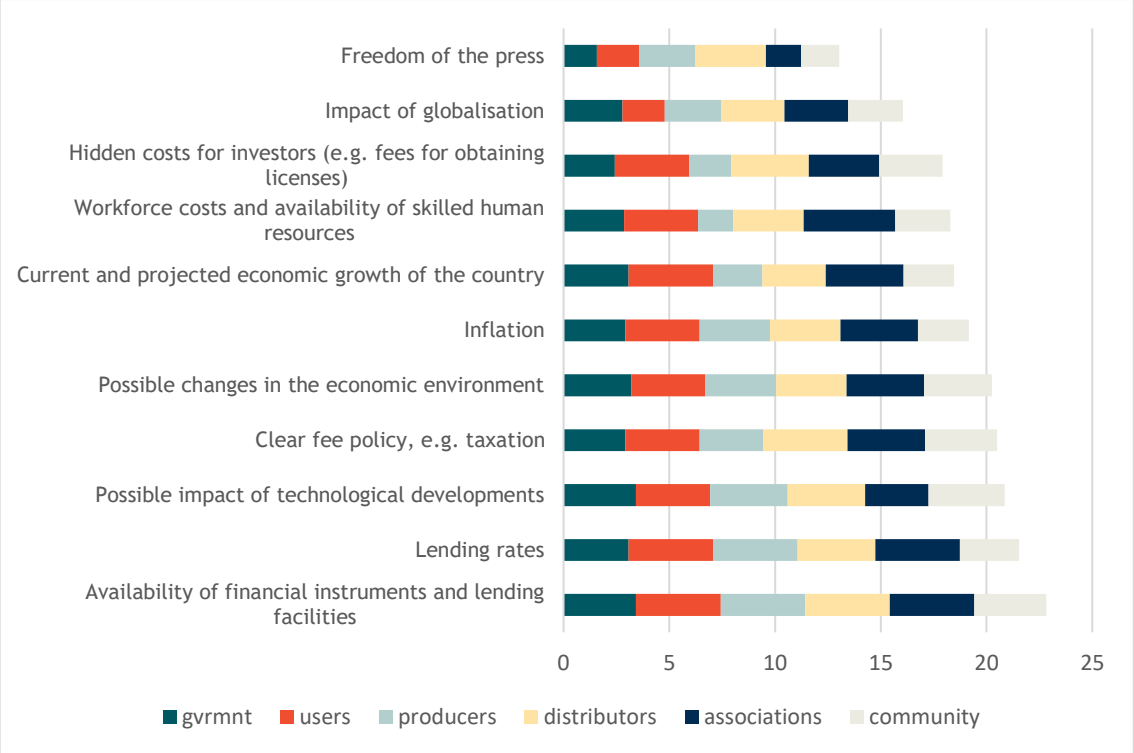

Figure 3: Economic factors category ranking of importance

2.4 Social Factors (Part B3)

According to the below Figure 4, the most important factor for the **Social Category has been scored to be the "Acceptance of Hydrogen technologies by local government and central government"** whereas the **least** important factor has been scored as the **"Attitude towards the labour market or Market potential in the development of new skilled jobs".**

Similarly, the stakeholder groups have voted that the "Acceptance of Hydrogen technologies by local government and central government" is one of the most important factors of these factor category. Yet, the **potential hydrogen users and producers as well as the business associations have voted that the factor "Public acceptance of Hydrogen technologies" is also one of the most important factors, whereas, only the governmental services have voted "Education, training, human resources skills in new technologies" as one of the most important.**

Potential hydrogen users and producers and business associations agree that the least important factor of this category, is the "Attitude towards the labour market or Market potential in the development of new skilled jobs" whereas the government services, the potential hydrogen distributors and the academic community believe that the least important is "Understanding health issues that may come from the burning of conventional fuels by a large portion of the population".

Table 7: Most important factors in the Social category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	Acceptance of Hydrogen technologies by local government and central government

Stakeholders' Group	Most important
	Education, training, human resources skills in new technologies
Potential hydrogen distributors	Acceptance of Hydrogen technologies by local government and central government
Potential hydrogen producers	Acceptance of Hydrogen technologies by local government and central government
	Public acceptance of Hydrogen technologies
Potential hydrogen users	Acceptance of Hydrogen technologies by local government and central government
	Public acceptance of Hydrogen technologies
Business associations	Acceptance of Hydrogen technologies by local government and central government
	Public acceptance of Hydrogen technologies
Academic community	Acceptance of Hydrogen technologies by local government and central government

Table 8: Least important factors in the Social category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Understanding health issues that may come from the burning of conventional fuels by a large portion of the population
Potential hydrogen distributors	Understanding health issues that may come from the burning of conventional fuels by a large portion of the population
Potential hydrogen producers	Attitude towards the labour market or Market potential in the development of new skilled jobs
Potential hydrogen users	Attitude towards the labour market or Market potential in the development of new skilled jobs
Business associations	Attitude towards the labour market or Market potential in the development of new skilled jobs
Academic community	Understanding health issues that may come from the burning of conventional fuels by a large portion of the population

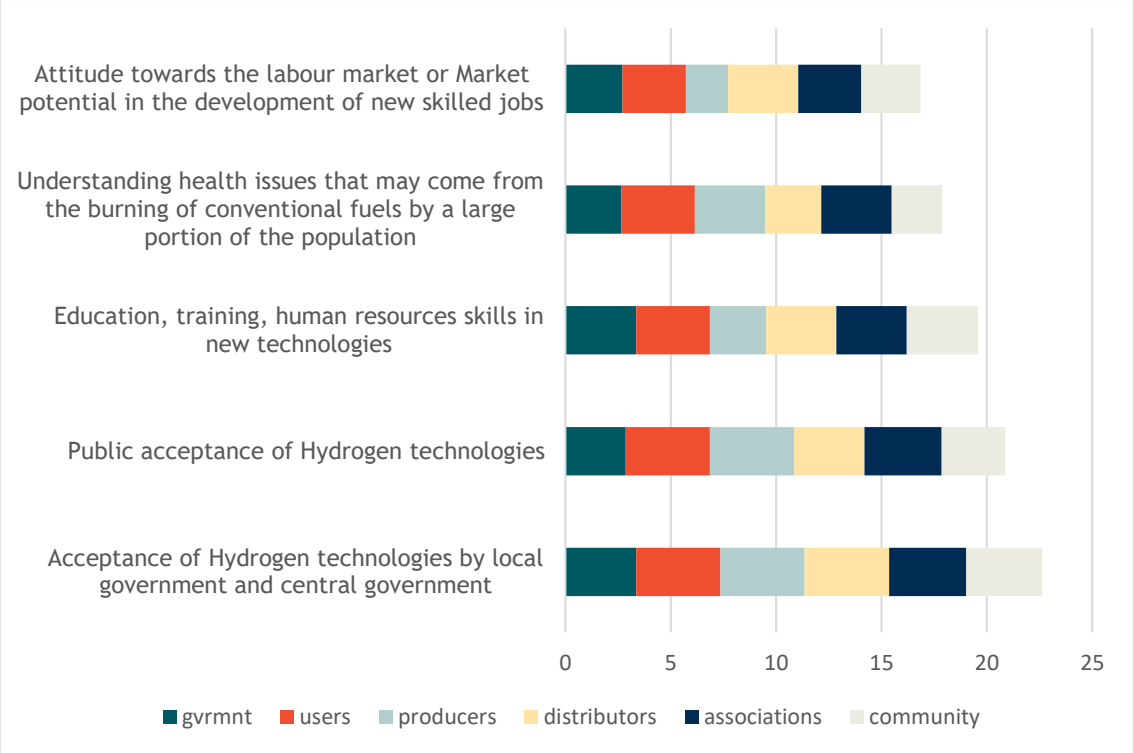

Figure 4: Social Factors ranking of importance

2.5 Technological Factors (Part B4)

As seen by Figure 5, **the most important factor has been calculated to be the "Existence of energy storage systems" which from the 6 stakeholder groups, only the potential hydrogen users, the business associations and the academic community groups agree that this is the most important factor.** The **governmental services** believe that the **most important technological factor is the "Maturity of technology versus other competing technologies", yet the potential users agree with this as well.** The potential **hydrogen distributors have voted the factor "Ease of infrastructure development" as one of the most important and the business associations agree with this. Potential hydrogen users and producers have decided that the factor "Energy / sources / fuels related to / dependent on technologies" is one of the most important in the technological category. Potential users also think that the factor "Duration of construction of substations or other infrastructure" is one of the most important as well.**

As it can be seen, when choosing the most important factors in this category the potential hydrogen users and the business associations resulted in choosing 3 and 4 factors respectively. This however might be showing that there are various factors affecting those groups within this category and the participants find this category very important and consequently these factors need to be considered carefully under the National Hydrogen Strategy.

However, most of the stakeholder groups agreed to the least important factor being the "Patents/ intellectual property issues". However, the potential hydrogen distributors and the business associations have agreed that the factor "Innovation potential of businesses in Cyprus" is the least important.

Table 9: Most important factors in the Technology category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	Maturity of technology versus other competing technologies
Potential hydrogen distributors	Ease of infrastructure development
Potential hydrogen producers	Energy / sources / fuels related to / dependent on technologies
Potential hydrogen users	Maturity of technology versus other competing technologies
	Existence of energy storage systems
	Energy / sources / fuels related to / dependent on technologies
	Duration of construction of substations or other infrastructure
Business associations	Technology availability
	Existence of energy storage systems
	Ease of infrastructure development
Academic community	Existence of energy storage systems

Table 10: Least important factors in the Technology category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Patents/ intellectual property issues
Potential hydrogen distributors	Innovation potential of businesses in Cyprus
Potential hydrogen producers	Patents/ intellectual property issues
Potential hydrogen users	Patents/ intellectual property issues
Business associations	Innovation potential of businesses in Cyprus
Academic community	Patents/ intellectual property issues

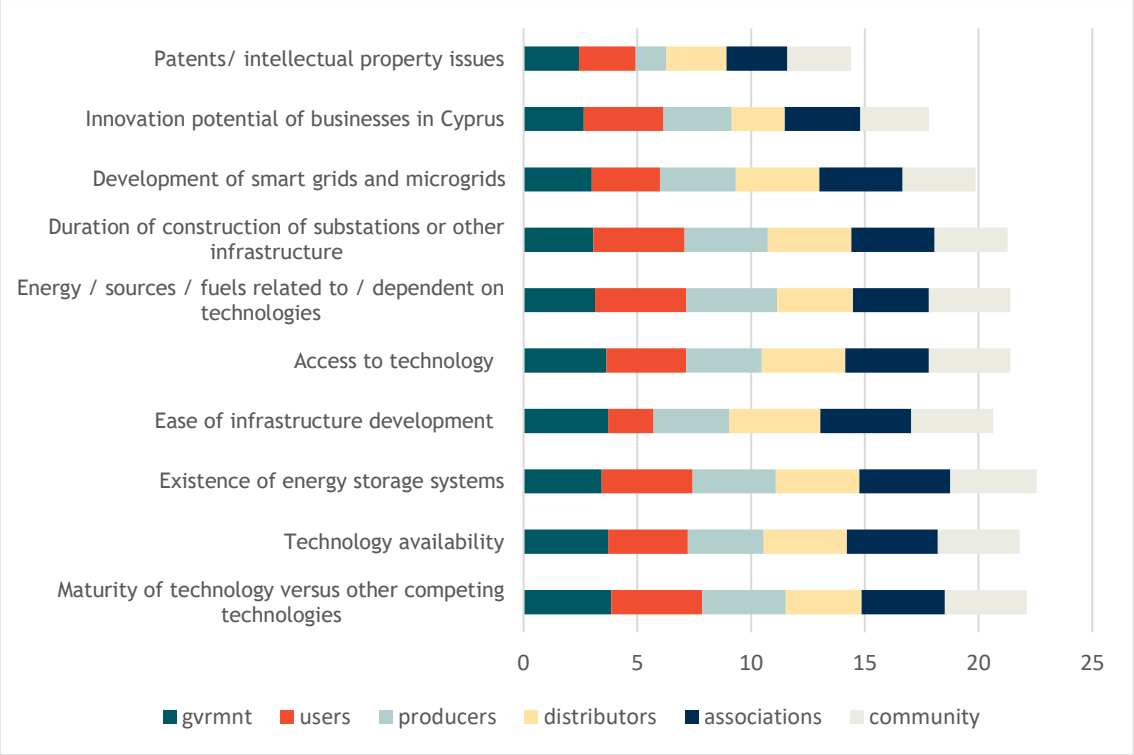

Figure 5: Technological Factors ranking of importance

2.6 Legal Factors (Part B5)

This factor category **seems to be one of the most important** for the questionnaire participants as most of the **factors included within the category have been rated as important**. Calculating the average weighted score of the factors, the most important factors is shown to be the **"The absence of urban planning or other regulations".** However, this factor was not rated in the most important by the government and potential users stakeholders' groups.

The **academic community** has voted the factor **"System complexity for siting and environmental permitting"** as one of the most important as well, followed by the governmental services and the potential hydrogen distributors groups.

The factor "Existence of clear laws and regulations for the operation of hydrogen-related enterprises (production, use, distribution)" was rated as one of the most important with a score of 4 for a weighted average, by the potential hydrogen producers and distributors and the business associations. The sum of the weighted average of this factor shows that this is the second most important factor.

The factor **"System complexity for siting and environmental permitting" has been voted as one of the most important by Governmental services, potential producers and the academic community. The factor "Elaboration & adoption of a National Plan for the promotion of Hydrogen" has been ranked as one of the most important by the governmental services, the potential hydrogen users and the business associations.**
The governmental services, the potential hydrogen users and distributors as well as the business associations have agreed that the factor **"Sponsorship schemes to assist Hydrogen technologies" is one of the most important in this category.**

The factor **"Duration of licensing" has been voted as one of the most important by the potential hydrogen distributors only.** In addition the potential hydrogen users is the only stakeholder group that has voted for the factor **"Single hydrogen market rules" as one of the most important.**

The factor **"Funds available for research and development"** has been voted as one of the most important by the **potential users and producers** as well as the **business associations**, yet it has been voted as the least important by the governmental services which are contrarily with each other.

Moreover, the sum of the average weight score has shown that the least important factor is the "Full implementation of the National Energy & Climate Plan" which has been voted by the potential hydrogen producers and distributors and the academic community as the least important factor and given low score by the potential hydrogen users and the business associations. However, the governmental services have ranked this factor as one of the most important in this category which again shows that the opinions of the governmental services are in contrast with the rest of the groups.

In conclusion, this factors category has been highly rated by the participants, as it seems to be the most important to them, as the calculated average weight for some of the sub-factors had greater values than all the other sub-factors from the other PESTLE categories, and accordingly, those factors need to be considered mindfully in the National Hydrogen Strategy.

Table 11: Most important factors in the Legal category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	System complexity for siting and environmental permitting
	Elaboration & adoption of a National Plan for the promotion of Hydrogen
	Sponsorship schemes to assist Hydrogen technologies
	Full implementation of the National Energy & Climate Plan
Potential hydrogen distributors	The absence of urban planning or other regulations
	Existence of clear laws and regulations for the operation of hydrogen-related enterprises (production, use, distribution)
	System complexity for siting and environmental permitting
	Duration of licensing
Potential hydrogen producers	The absence of urban planning or other regulations
	Existence of clear laws and regulations for the operation of hydrogen-related enterprises (production, use, distribution)

Stakeholders' Group	Most important
	Sponsorship schemes to assist Hydrogen technologies
	Funds available for research and development
Potential hydrogen users	Elaboration & adoption of a National Plan for the promotion of Hydrogen
	Sponsorship schemes to assist Hydrogen technologies
	Funds available for research and development
	Single hydrogen market rules
Business associations	The absence of urban planning or other regulations
	Existence of clear laws and regulations for the operation of hydrogen-related enterprises (production, use, distribution)
	Elaboration & adoption of a National Plan for the promotion of Hydrogen
	Sponsorship schemes to assist Hydrogen technologies
	Funds available for research and development
Academic community	The absence of urban planning or other regulations
	System complexity for siting and environmental permitting

Table 12: Least important factors in the Legal category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Funds available for research and development
Potential hydrogen distributors	Full implementation of the National Energy & Climate Plan
Potential hydrogen producers	Full implementation of the National Energy & Climate Plan
Potential hydrogen users	The absence of urban planning or other regulations
	Existence of clear laws and regulations for the operation of hydrogen-related enterprises (production, use, distribution)
	System complexity for siting and environmental permitting
	Duration of licensing
	Full implementation of the National Energy & Climate Plan
Business associations	System complexity for siting and environmental permitting

Stakeholders' Group	Least important
	Duration of licensing
	Single hydrogen market rules
	Full implementation of the National Energy & Climate Plan
Academic community	Full implementation of the National Energy & Climate Plan

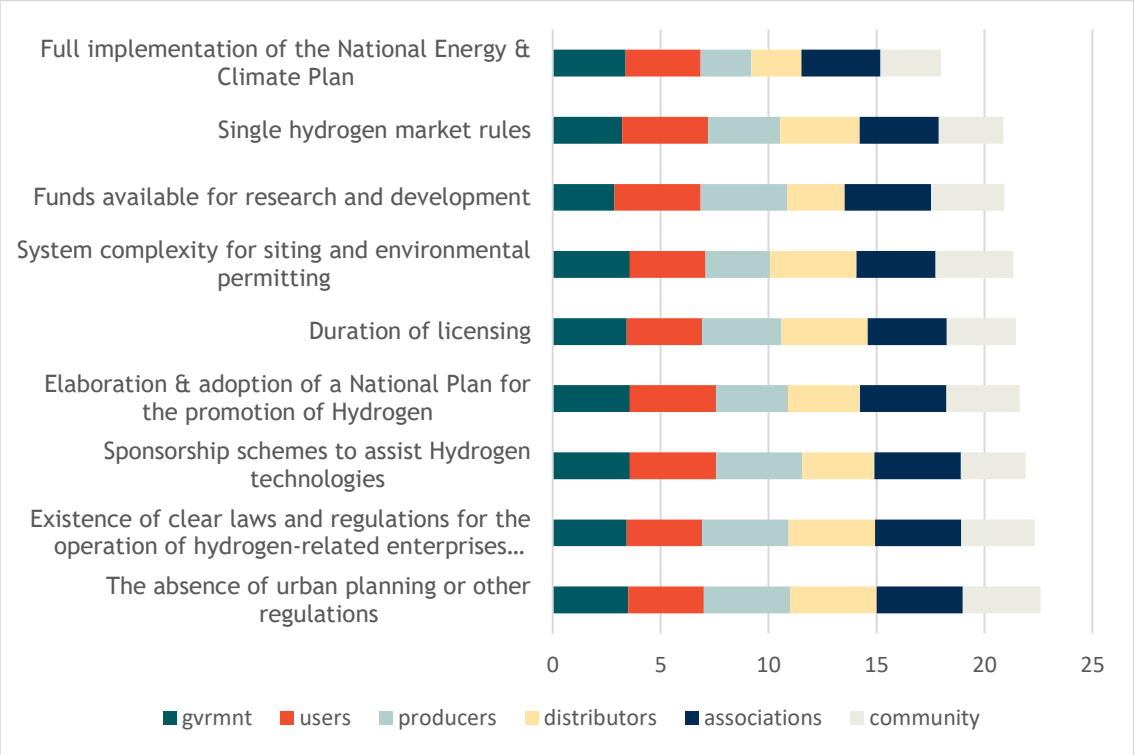

Figure 6: Legal Factors ranking of importance

2.7 Environmental Factors (Part B6)

The sum of the average weighted score for the factor **"Implementation of stricter European energy and climate legislation", identifies it as the most important factor where 5 out of the 6 groups have voted for it.** Yet, the potential hydrogen distributors do not agree that this is the most important factor.

Moreover, the factor **"The existence of strict environmental regulations" has been voted as one of the most important by the 4 out of the 6 categories with potential hydrogen producers and the academic community to disagree.**

Business associations group has also voted the **"Environmental values of customers" as one of the most important, yet no other group has voted for this factor.**

The calculated sum of the average weighted score of the factors has shown that the least important factor is the "Designation of sensitive marine and coastal areas". However, this factor was weighted as the least important by the potential hydrogen producers and the academic community. The potential

distributors have voted as the least important factor the "Availability of water resources". The factor "Existence of insurance companies that understand environmental issues" was voted as the least important by the potential hydrogen users and the business associations. The governmental services and the academic community have voted the factor "Physical size measurements available (e.g. air velocity, waves, etc.)" as the least important.

Table 13: Most important factors in the Environmental category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	Implementation of stricter European energy and climate legislation
	The existence of strict environmental regulations
Potential hydrogen distributors	The existence of strict environmental regulations
	The absence of environmental regulations
Potential hydrogen producers	Implementation of stricter European energy and climate legislation
	The absence of environmental regulations
Potential hydrogen users	Implementation of stricter European energy and climate legislation
	The existence of strict environmental regulations
Business associations	Implementation of stricter European energy and climate legislation
	The existence of strict environmental regulations
	The absence of environmental regulations
	Environmental values of customers
Academic community	Implementation of stricter European energy and climate legislation

Table 14: Least important factors in the Environmental category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Physical size measurements available (e.g. air velocity, waves, etc.)
Potential hydrogen distributors	Availability of water resources
Potential hydrogen producers	Designation of sensitive marine and coastal areas
Potential hydrogen users	Existence of insurance companies that understand environmental issues
Business associations	Existence of insurance companies that understand environmental issues
Academic community	Designation of sensitive marine and coastal areas

	Physical size measurements available (e.g. air velocity, waves, etc.)

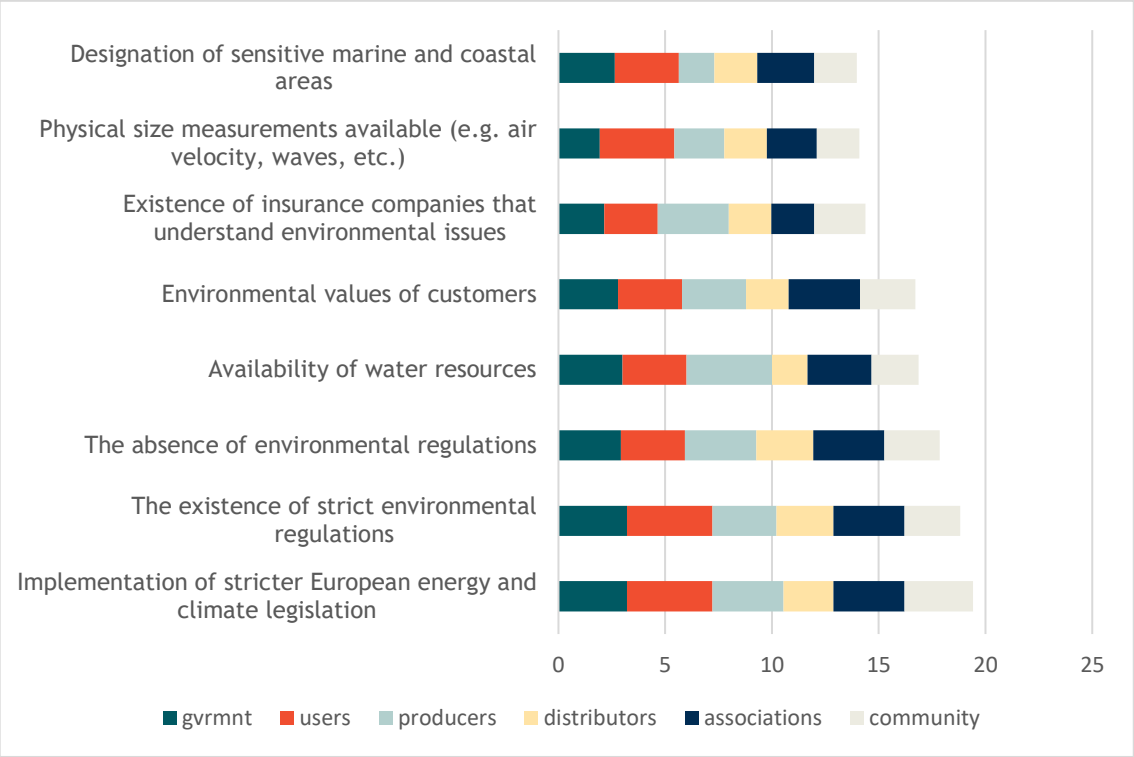

Figure 7: Environmental Factors Ranking of importance

2.8 Part C

Other than the PESTLE factors, the questionnaire included **further questions to identify the important investments and actions to be included during the development of the Hydrogen Strategy of Cyprus.**

In Part C, factors related to additional investments and priority reforms for Cyprus government to promote Hydrogen were weighed to identify the most important ones. 5 out of the 6 stakeholder groups have voted the **"Additional resources in the Recovery and Resilience Plan to promote energy storage" as one of the most important factors from this factors category, with the business associations voting for other factors as the most important ones.**

The factor **"Additional resources in the Recovery and Resilience Plan to promote hydrogen production" has also been voted as one of the most important by 5 out of the 6 groups,** yet the governmental services group has voted the factor as the least important within the category.

The factor **"Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport" has been voted as one of the most important by potential hydrogen users and producers and the business associations,** yet it has been voted as the least important by the potential hydrogen distributors and the academic community.

The **hydrogen producers** have voted the factor **"The revision of the National Energy and Climate Action Plan with more ambitious hydrogen targets"** as one of the most important. Yet, the potential hydrogen users have voted this factor as one of the least important in this category along with the factor **"Review of the Long-Term Strategy for Reducing Emissions including hydrogen" which was voted by the business associations as the least important factor as well.**

The sum of the weighted average score has ranked the factor **"Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in industry" as the least important factor.** However, only the potential hydrogen producers have voted for the specific factor as the least important one. The potential users and the business associations have voted the specific factor as one of the most important.

Table 15: Most important factors in the Part C category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	Additional resources in the Recovery and Resilience Plan to promote energy storage
Potential hydrogen distributors	Additional resources in the Recovery and Resilience Plan to promote energy storage
	Additional resources in the Recovery and Resilience Plan to promote hydrogen production
Potential hydrogen producers	Additional resources in the Recovery and Resilience Plan to promote energy storage
	Additional resources in the Recovery and Resilience Plan to promote hydrogen production
	Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport
	The revision of the National Energy and Climate Action Plan with more ambitious hydrogen targets
Potential hydrogen users	Additional resources in the Recovery and Resilience Plan to promote energy storage
	Additional resources in the Recovery and Resilience Plan to promote hydrogen production
	Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport
	Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in industry
Business associations	Additional resources in the Recovery and Resilience Plan to promote hydrogen production
	Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport

Stakeholders' Group	Most important
	Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in industry
Academic community	Additional resources in the Recovery and Resilience Plan to promote energy storage
	Additional resources in the Recovery and Resilience Plan to promote hydrogen production

Table 16: Least important factors in the Part C category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Additional resources in the Recovery and Resilience Plan to promote hydrogen production
Potential hydrogen distributors	Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport
Potential hydrogen producers	Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in industry
Potential hydrogen users	The revision of the National Energy and Climate Action Plan with more ambitious hydrogen targets
	Review of the Long-Term Strategy for Reducing Emissions including hydrogen
Business associations	Review of the Long-Term Strategy for Reducing Emissions including hydrogen
Academic community	Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport

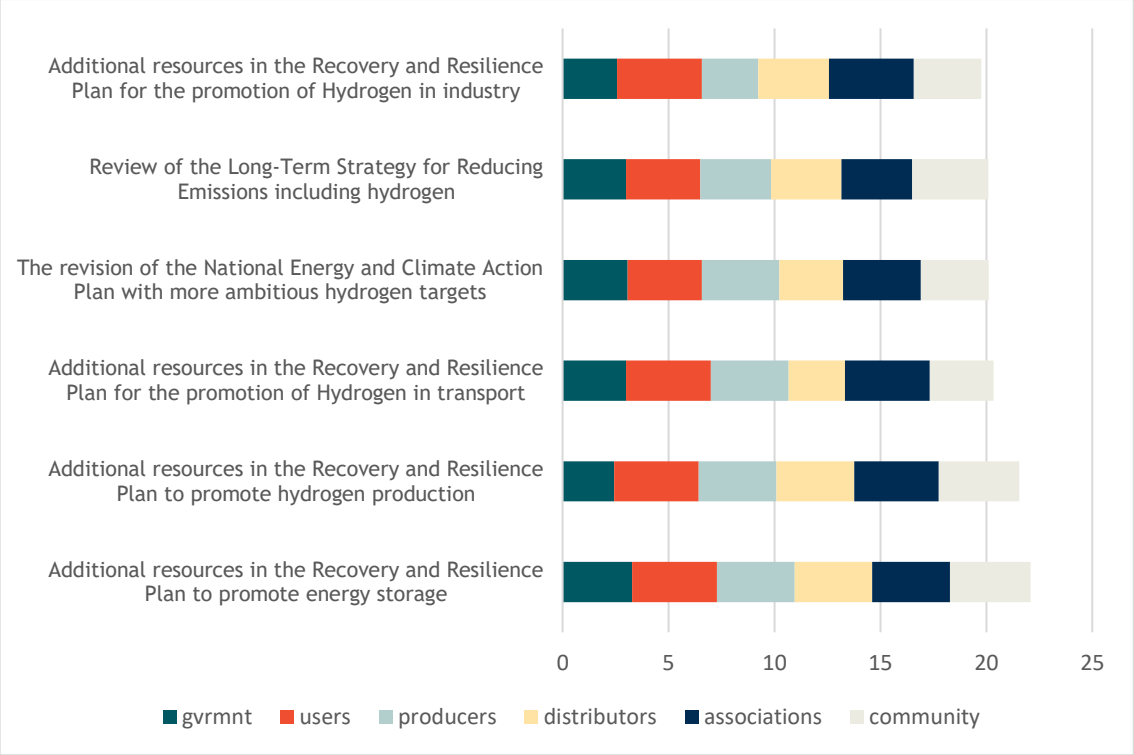

Figure 8: Part C Factors ranked according to their importance

2.9 PART D

In this part, the factors related to the utilization of the **Revised Recovery and Resilience Plan of Cyprus** to accelerate the green energy transition in Cyprus and minimise the use of fossil fuels in the country.

The factor **"Additional resources to the Recovery and Resilience Plan to promote energy storage" has been voted by 5 out of 6 stakeholder groups as one of the most important factors with the potential hydrogen producers group disagreeing.**

The factor **"Additional resources to the Recovery and Resilience Plan for energy modernisation and reduction of greenhouse gas emissions in industry" has been voted as one of the most important factors by the potential hydrogen users whereas it has been voted the least important by the government services and the potential hydrogen producers.**

The potential **hydrogen distributors** have voted the factor **"Additional resources to the Recovery and Resilience Plan to promote sustainable mobility (public transport, cycle paths, pedestrian streets)" as one of the most important factors whereas the business associations have voted is as one of the least important within the part D category of factors.**

The factor **"Additional resources in the Recovery and Resilience Plan for the faster installation of smart meters and / or the upgrade of electrical networks" has been voted as one of the least important by the potential users and the academic community, yet it has been voted as one of the most important by the potential producers.** It is important to mention that the potential producers have voted only this factor as the most important in this factor category.

The factor **"Additional resources in the Recovery and Resilience Plan for the further promotion of RES in the private and public sector and in industry" has been voted as the most important by the business associations and the least important by the potential distributors.** This factor is the only factor within this category that has been voted as the least important by the potential distributors.

The factor **"Additional resources to the Recovery and Resilience Plan for the sustainable management of agriculture and water resources" has been voted as one of the most important by the business associations but as one of the least important by the potential hydrogen producers.**

The **potential hydrogen users** have voted **"Additional resources to the Recovery and Resilience Plan to promote electromobility" as one of the most important factors**, whereas contrarily the business associations and the academic community have voted this factor as one of the least important.

The **potential distributors** have voted the factor **"Additional resources to the Recovery and Resilience Plan for energy upgrades of buildings" as one of the most important** whereas the potential hydrogen producers as one of the least important factors.

Lastly, the sum of the weighted average score for each of the factors in this category have left to the identification of the least important factor being "Additional resources to the Recovery and Resilience Plan for the development of energy communities (e.g. creation of a regulatory framework)". However, this has been voted as the least important by the potential hydrogen users and the business associations.

Table 17: Most important factors in the Part D category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	Additional resources to the Recovery and Resilience Plan to promote **energy storage**
Potential hydrogen distributors	Additional resources to the Recovery and Resilience Plan to promote **energy storage**
	Additional resources to the Recovery and Resilience Plan to promote **sustainable mobility** (public transport, cycle paths, pedestrian streets)
	Additional resources to the Recovery and Resilience Plan for **energy upgrades of buildings**
Potential hydrogen producers	Additional resources in the Recovery and Resilience Plan for the faster installation of **smart meters and / or the upgrade of electrical networks**
Potential hydrogen users	Additional resources to the Recovery and Resilience Plan to promote **energy storage**
	Additional resources to the Recovery and Resilience Plan for energy modernisation and **reduction of greenhouse gas emissions in industry**

	Additional resources to the Recovery and Resilience Plan to promote **electromobility**
Business associations	Additional resources to the Recovery and Resilience Plan to promote energy storage
	Additional resources in the Recovery and Resilience Plan for the further promotion of **RES in the private and public sector and in industry**
	Additional resources to the Recovery and Resilience Plan for the **sustainable management of agriculture and water resources**
Academic community	Additional resources to the Recovery and Resilience Plan to promote **energy storage**

Table 18: Least important factors in the Part D category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Additional resources to the Recovery and Resilience Plan for energy modernisation and reduction of greenhouse gas emissions in industry
Potential hydrogen distributors	Additional resources in the Recovery and Resilience Plan for the further promotion of RES in the private and public sector and in industry
Potential hydrogen producers	Additional resources to the Recovery and Resilience Plan for energy modernisation and reduction of greenhouse gas emissions in industry
	Additional resources to the Recovery and Resilience Plan for the sustainable management of agriculture and water resources
	Additional resources to the Recovery and Resilience Plan for energy upgrades of buildings
	Additional resources in the Recovery and Resilience Plan to strengthen Cyprus' energy interconnections with neighboring states
Potential hydrogen users	Additional resources in the Recovery and Resilience Plan for the faster installation of smart meters and / or the upgrade of electrical networks
	Additional resources in the Recovery and Resilience Plan to strengthen Cyprus' energy interconnections with neighboring states
	Additional resources to the Recovery and Resilience Plan for the development of energy communities (e.g. creation of a regulatory framework)
Business associations	Additional resources to the Recovery and Resilience Plan to promote sustainable mobility (public transport, cycle paths, pedestrian streets)
	Additional resources to the Recovery and Resilience Plan to promote electromobility
	Additional resources to the Recovery and Resilience Plan for the development of energy communities (e.g. creation of a regulatory framework)
Academic community	Additional resources in the Recovery and Resilience Plan for the faster installation of smart meters and / or the upgrade of electrical networks

Stakeholders' Group	Least important
	Additional resources to the Recovery and Resilience Plan to promote electromobility

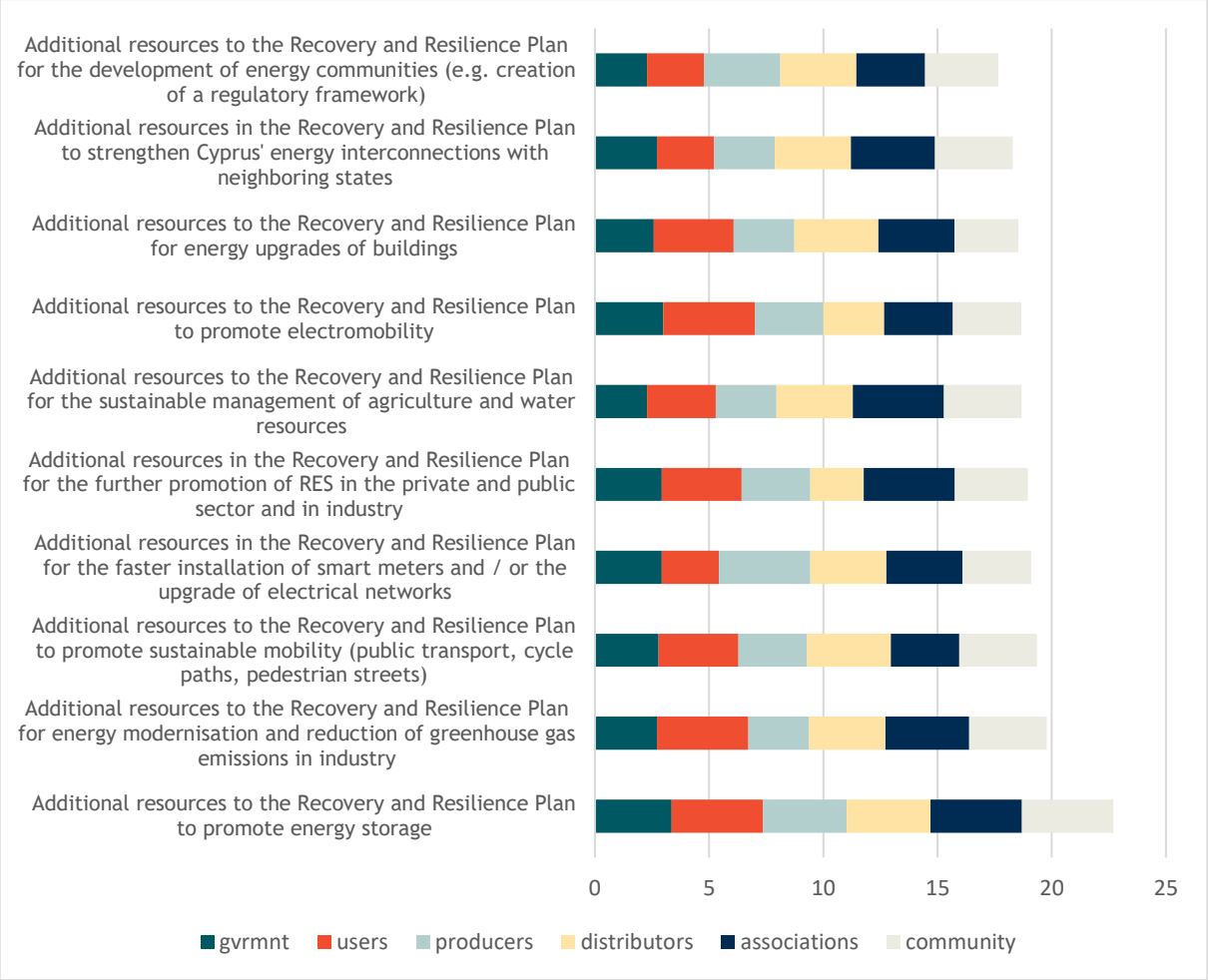

Figure 9: Part D Factors ranked according to their importance

2.10 Part E

Part E factors category included **factors related to the obstacles that pose risk for the implementation of the Recovery and Resilience Plan measures related to the green energy transition of Cyprus.**

By calculating the sum of the weighted average score for each of the factors within the category, the factor **"Lack of an appropriate regulatory framework to facilitate faster RES penetration" was identified as the most important factor of the category.** However, only half of the stakeholders have voted for this as the most important, the government services, the business associations, and the academic community. The factor **"Lack of a simplified procedure (fast track) for the licensing of RES projects" is ranked as the second most important factor** within this category and the potential hydrogen users, producers and distributors have voted.

The least important factor identified by the calculations is the **"Lack of staff in the construction sector for energy renovations and installation of RES", which is voted as one of the least important**

by 5 out of the 6 stakeholder groups, with only the potential hydrogen producers not voting for this factor.

It is interesting to mention that the factor **"Implementation of the Euroasia interconnector" was voted as the most important by the academic community yet as the least important by the potential hydrogen distributors.**

Table 19: Most important factors in the Part E category of factors for each stakeholder group

Stakeholders' Group	Most important
Governmental/semi-governmental organisations	Lack of an appropriate regulatory framework to facilitate faster RES penetration
	Increase in construction costs
	Established habits of using a private and commercial vehicle
Potential hydrogen distributors	Lack of a simplified procedure (fast track) for the licensing of RES projects
Potential hydrogen producers	Lack of a simplified procedure (fast track) for the licensing of RES projects
Potential hydrogen users	Lack of a simplified procedure (fast track) for the licensing of RES projects
	Increase in construction costs
Business associations	Lack of an appropriate regulatory framework to facilitate faster RES penetration
Academic community	Lack of an appropriate regulatory framework to facilitate faster RES penetration
	Implementation of the Euroasia interconnector
	Indifference to energy saving issues

Table 20: Least important factors in the Part E category of factors for each stakeholder group

Stakeholders' Group	Least important
Governmental/semi-governmental organisations	Lack of staff in the construction sector for energy renovations and installation of RES
Potential hydrogen distributors	Implementation of the Euroasia interconnector
	Lack of staff in the construction sector for energy renovations and installation of RES
Potential hydrogen producers	Difficulties in finding funding for private individuals for energy upgrades of buildings
	Difficulties in finding funding for individuals for investments in RES
Potential hydrogen users	Difficulties in finding funding for individuals for investments in RES
	Lack of staff in the construction sector for energy renovations and installation of RES
Business associations	Lack of staff in the construction sector for energy renovations and installation of RES

Stakeholders' Group	Least important
Academic community	Lack of staff in the construction sector for energy renovations and installation of RES

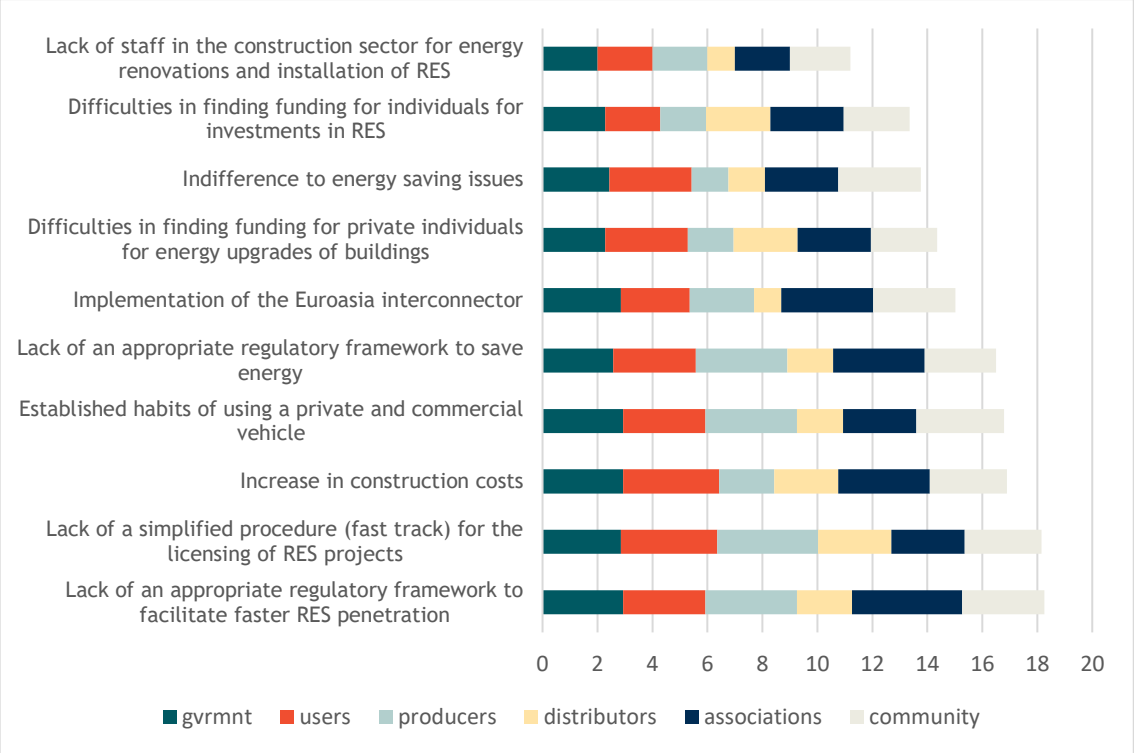

Figure 10: Part E Factors ranked according to their importance

3 Detailed Results Analysis by stakeholder group

3.1 Representatives of governmental/semi-governmental organisations

3.1.1 Political Factors

For the political Factors, the governmental organisation participants have voted the factor “Freedom of press” as the most important and the factor “Ease of decision-making and facilities for the development of Hydrogen infrastructure” as the least important.

As seen in Figure 12, the participants have **mainly voted for the factor “Freedom of Press”** with important and very important. The factor “Ease of decision-making and facilities for the development of Hydrogen infrastructure” have a range of answers starting from “not important” with zero weight to “very important” with weight 4. And the factor “Tax policy and excise duties” start from “Slightly important” with weight 1 to “very important” with eight 4. This shows the differentiation within the governmental and semi-governmental organisations and the level of difficulty to manage them and bring them all together to work towards the same goals.

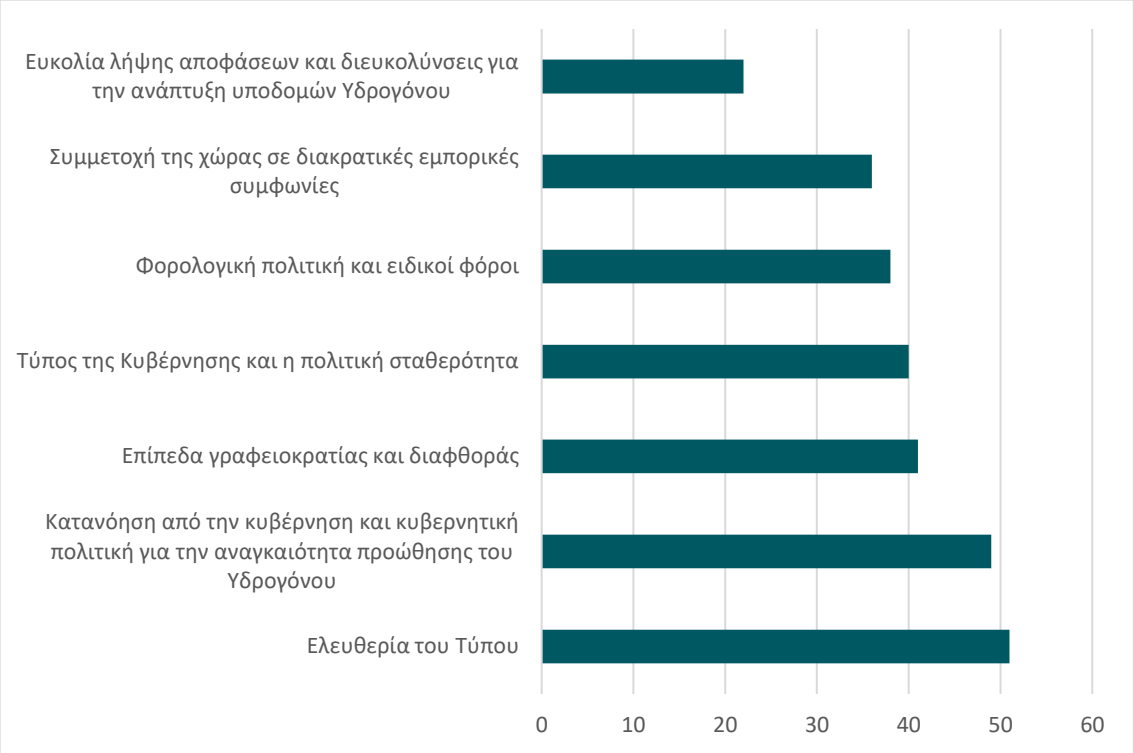

Figure 11: Political factors ranking of importance

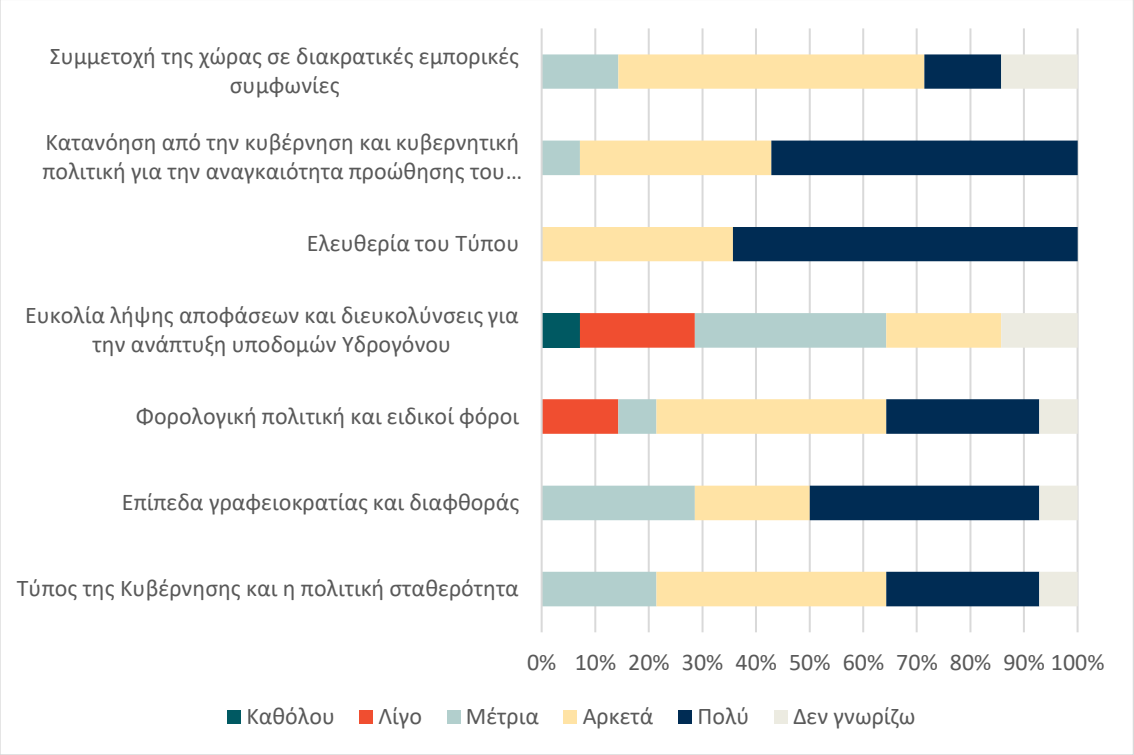

Figure 12: Representation of the diferentiation of the participants voting for each political factor

3.1.2 Economic Factors

With the same score, the most important factors of this category have been identified the following **"Possible impact of technological developments" and the "Availability of financial instruments and lending facilities".** In this category, the least important factor was voted to be the "freedom of press". With participants mainly voting for it as "not important".

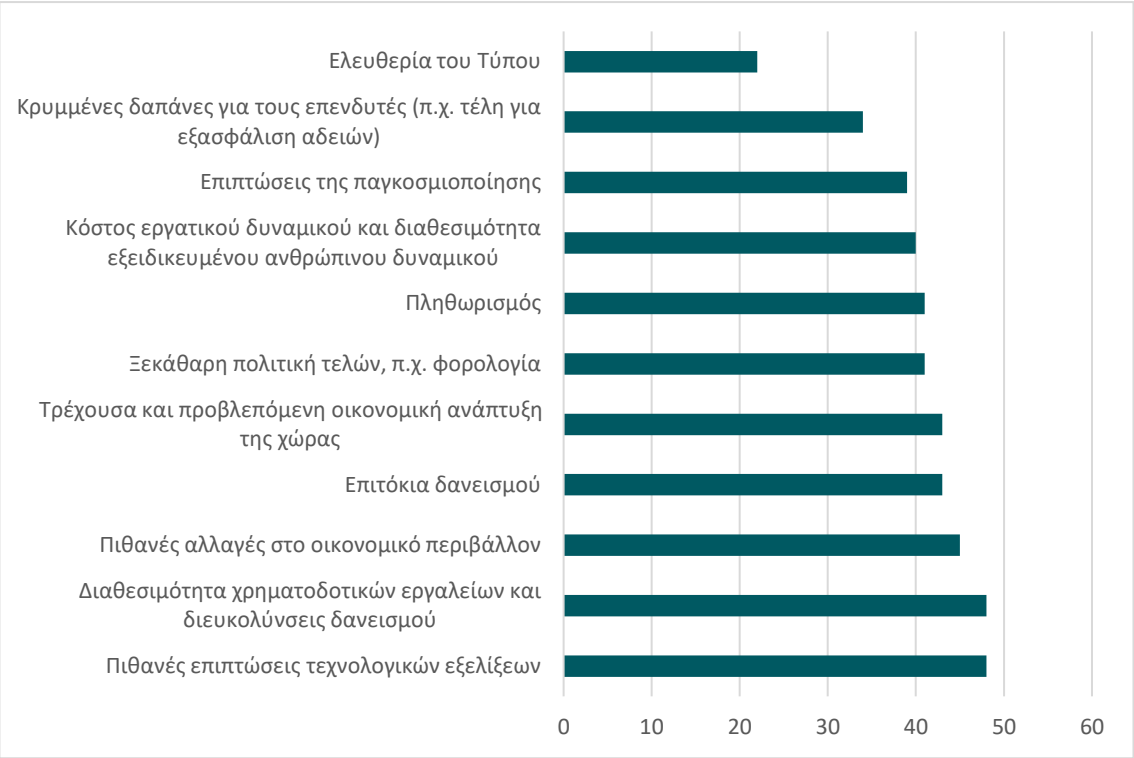

Figure 13: Economic factors category ranking of importance

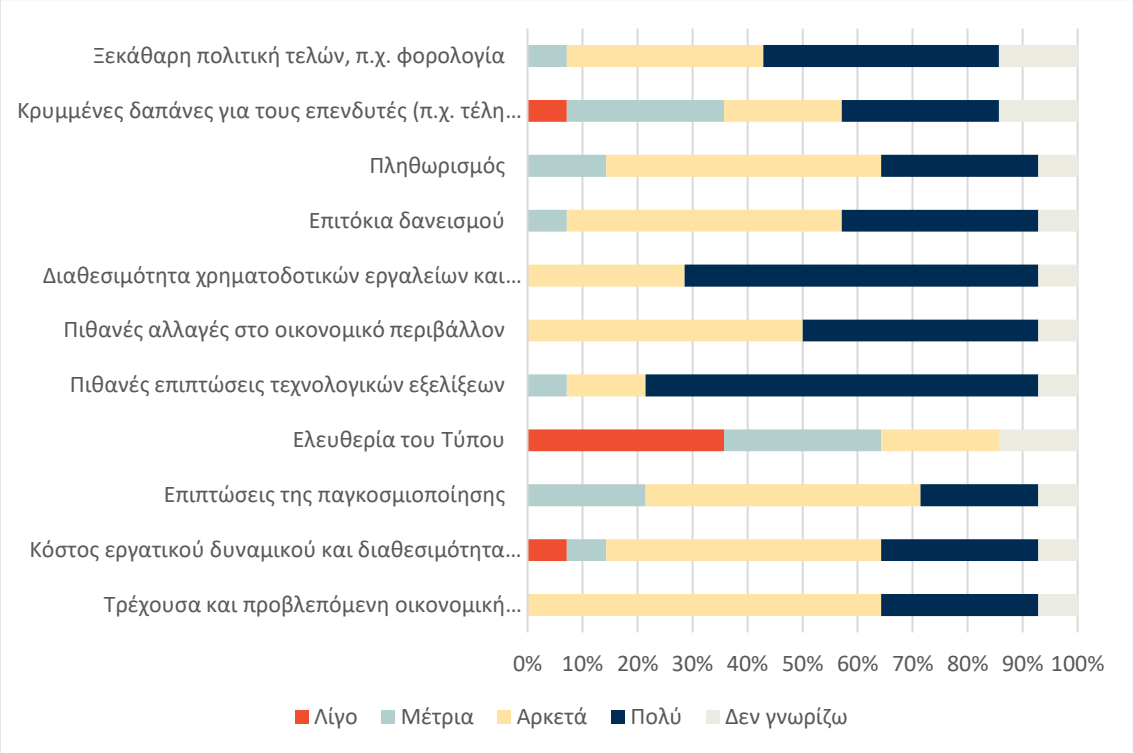

Figure 14: Representation of the diferentiation of the participants voting for each economic factor

3.1.3 Social Factors

With the same score, the most important factors of this category have been identified to be the following:

- **"Acceptance of Hydrogen technologies by local government and central government" where most of the participants have voted for important and, some for very important and a few slightly important.**
- **The factor "Education, training, human resources skills in new technologies" where most participants have voted for very important, yet few of the participants have voted for slightly important and some said they did not know the answer.**

The least important factor was distinguished to be the "Understanding health issues that may come from the burning of conventional fuels by a large portion of the population", which its voting differs within the participants as some voted this as slightly important some as moderate, important and very important and some did not know the answer. Moreover, the factor "Public acceptance of Hydrogen technologies" had votes indicating high importance for some of the participants, however, the votes for "slightly important" and "moderately important" have decreased the importance of the factor.
The difference between the participants votes again shows the difference in the needs of each participant from different sector.

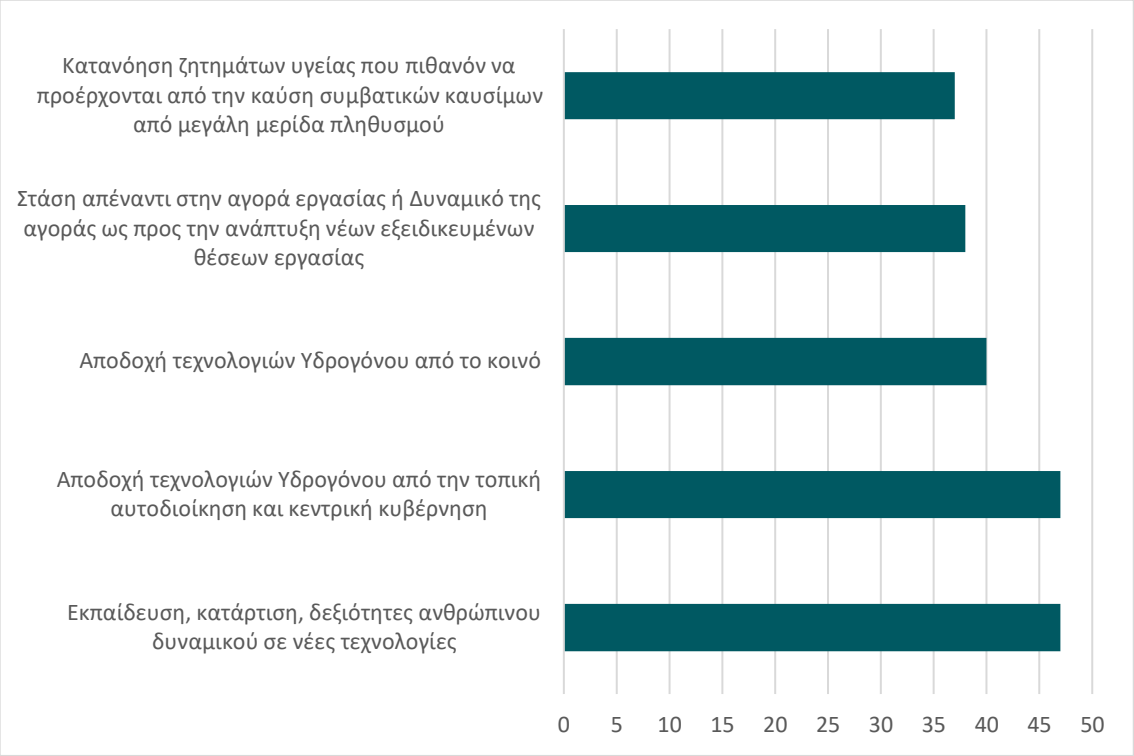

Figure 15: Social Factors ranking of importance

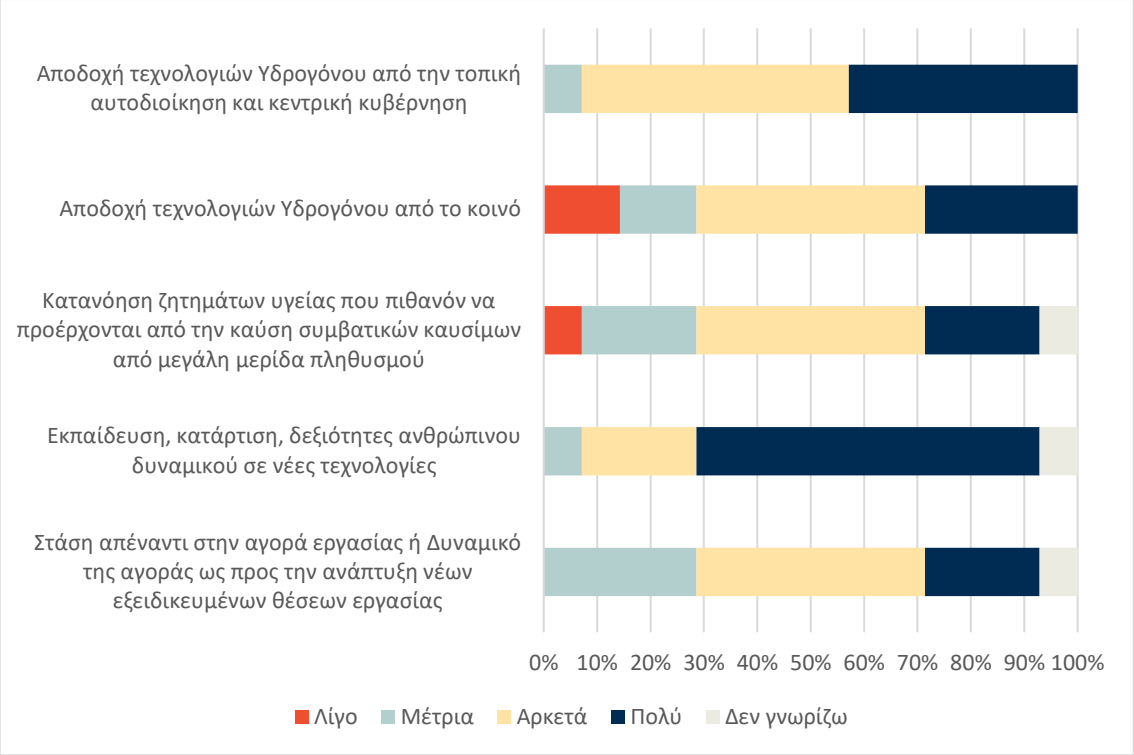

Figure 16: Representation of the diferentiation of the participants voting for each Social factor

3.1.4 Technological Factors

The factor "Maturity of technology versus other competing technologies" has been identified to be the most important factor within this category as it was mainly voted as really important, and a few voted it to be important. Whereas the least important has been scored the "Patents/ intellectual property issues". The least important factor has been mainly voted to be slightly important by the participants, some voted for moderately important, a few for very important and some voted that they don't know the answer.

Figure 17: Technological Factors ranking of importance

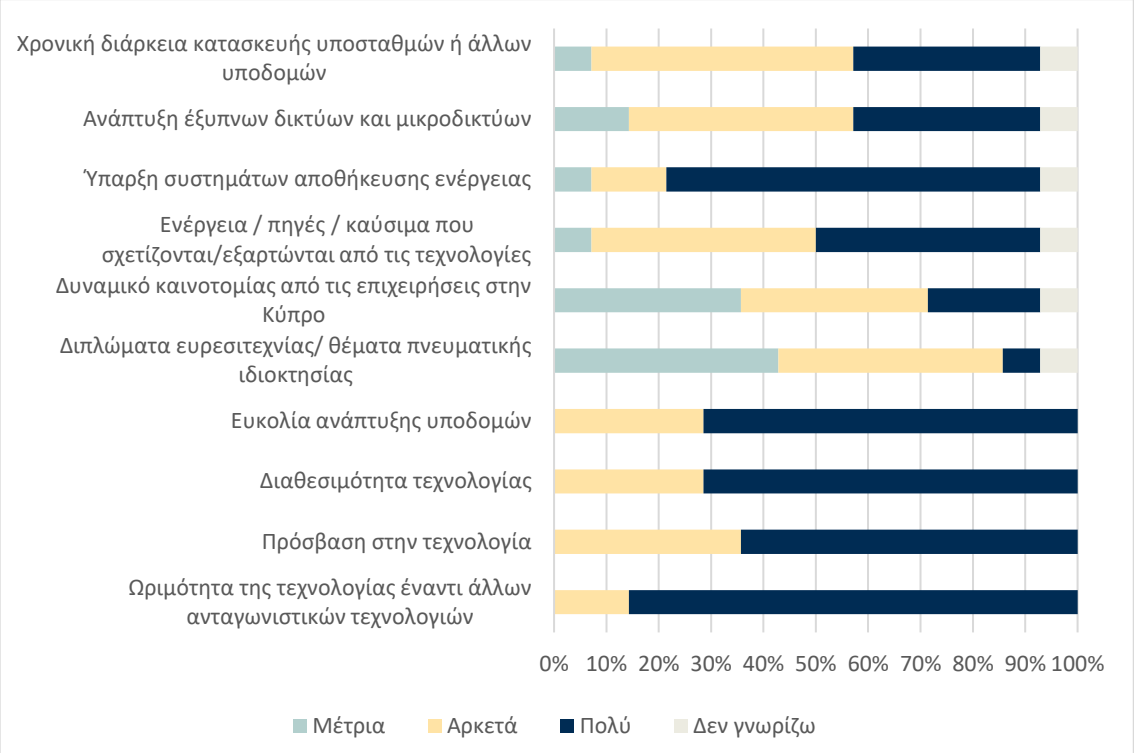

Figure 18: Representation of the diferentiation of the participants voting for each technological factor

3.1.5 Legal Factors

The least important factor has been identified the “Funds available for research and development”, where participants have voted for moderately important, important and very important and at the same time some have voted that they do not know the answer.

With the same score, the most important factors for this category have been identified to be the

- **Elaboration & adoption of a National Plan for the promotion of Hydrogen**
- **Sponsorship schemes to assist Hydrogen technologies**
- **System complexity for siting and environmental permitting**

It is interesting to mention that for all of the above three important factors, the voting was the same from the participants. This means that the same amount of people voted for important and the same amount of people voted for very important for each one of these factors.

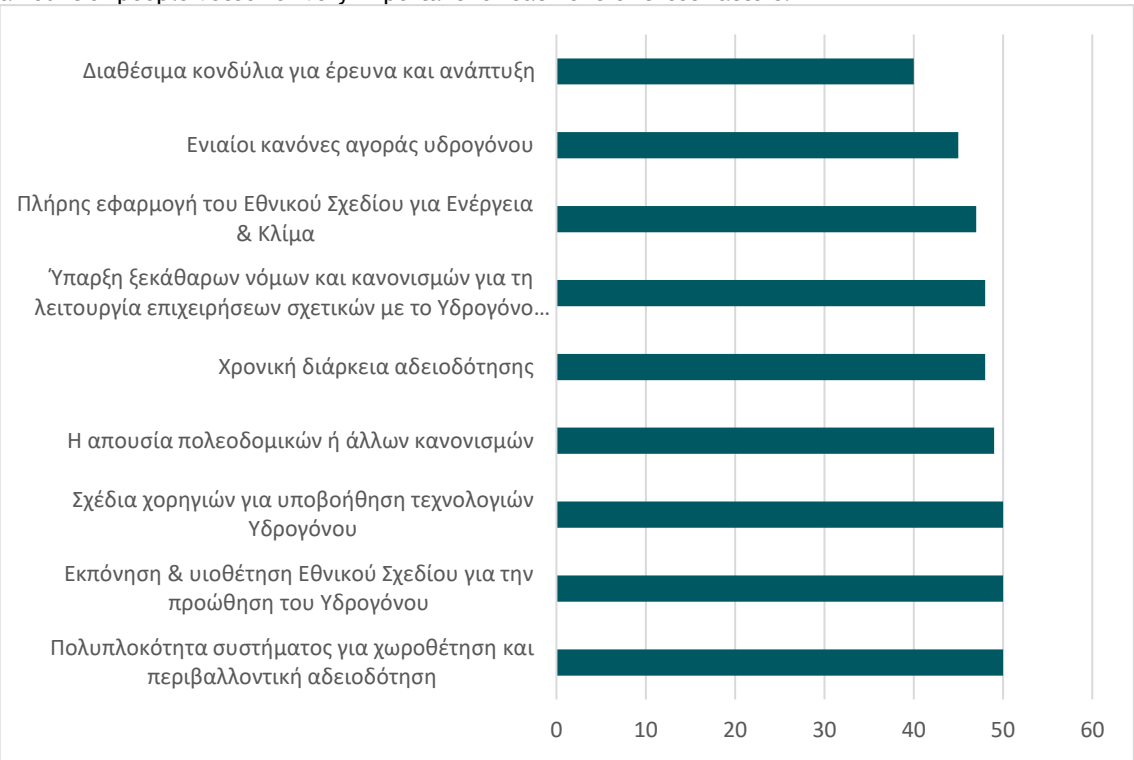

Figure 19: Legal Factors ranking of importance

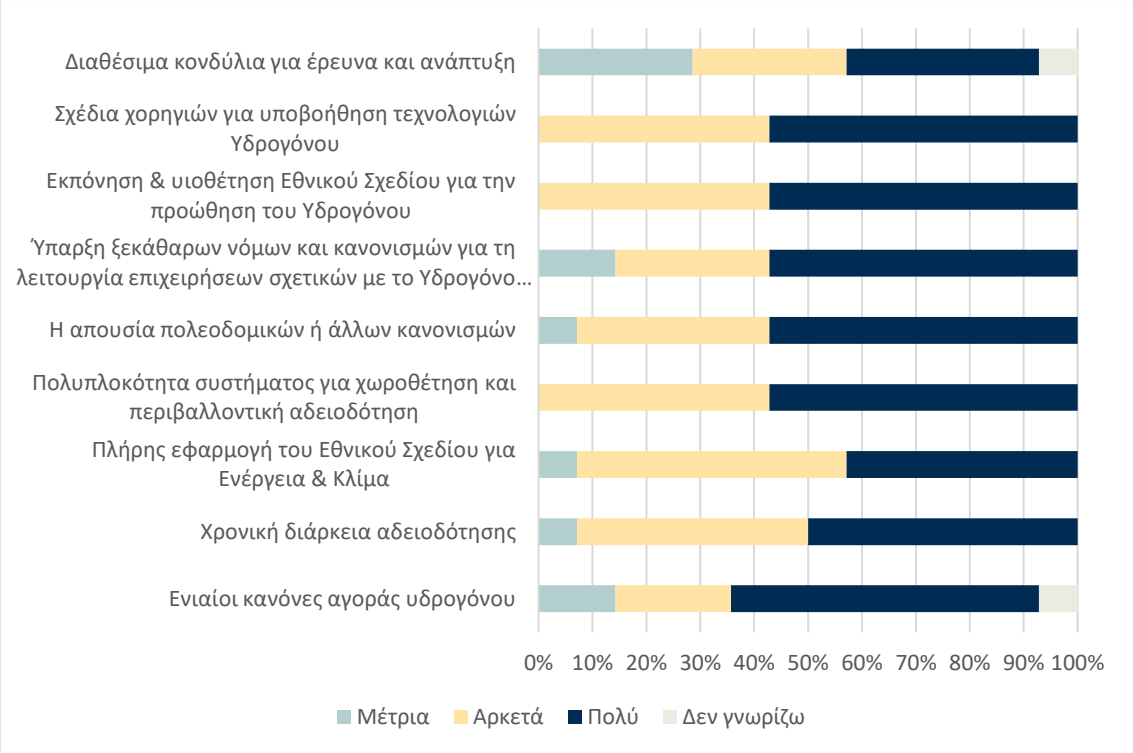

Figure 20: Representation of the diferentiation of the participants voting for each legal factor

3.1.6 Environmental Factors

Ranking the same score, the most important factors has been identified to be the following:

- **The existence of strict environmental regulations**
- **Implementation of stricter European energy and climate legislation**

These factors have been voted similarly, a few voted for moderately important, whereas the rest have voted for important and very important, and a few have said that they do not know the answer. Least important has been scored to be the physical size measurements available (e.g. air velocity, waves, etc.) as the number who voted for it as being very important is really small, and almost half of the participants have voted for slightly important and don't know how to answer.

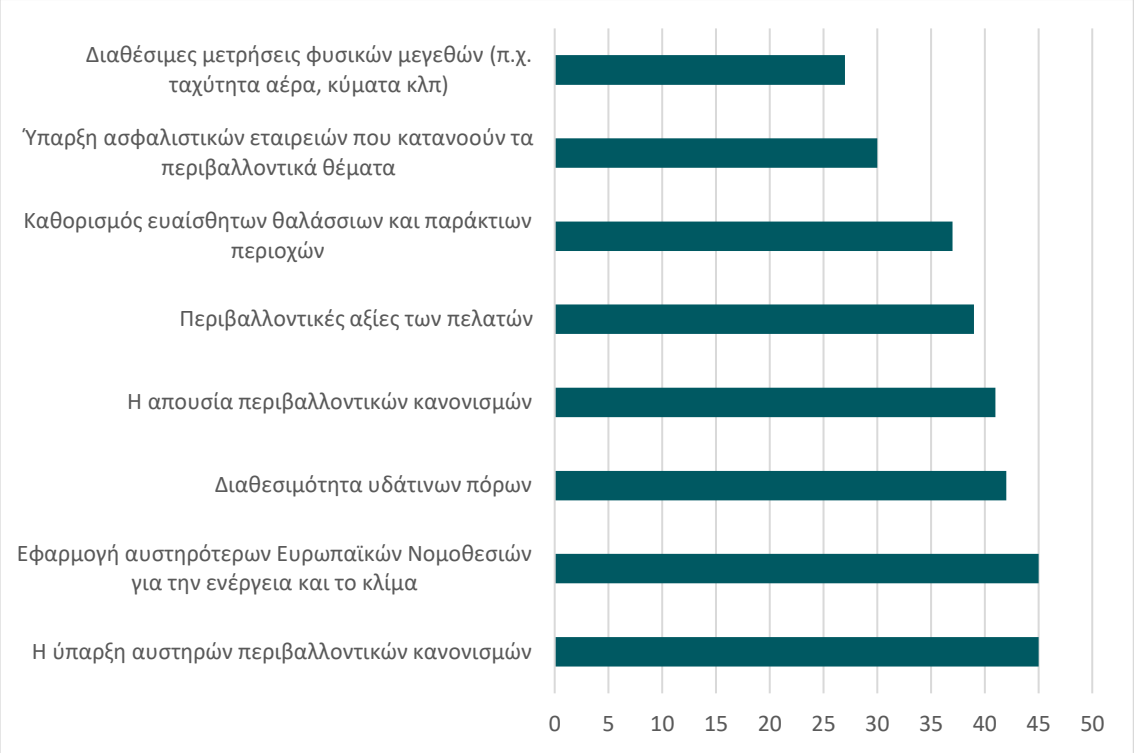

Figure 21: Environmental Factors Ranking of importance

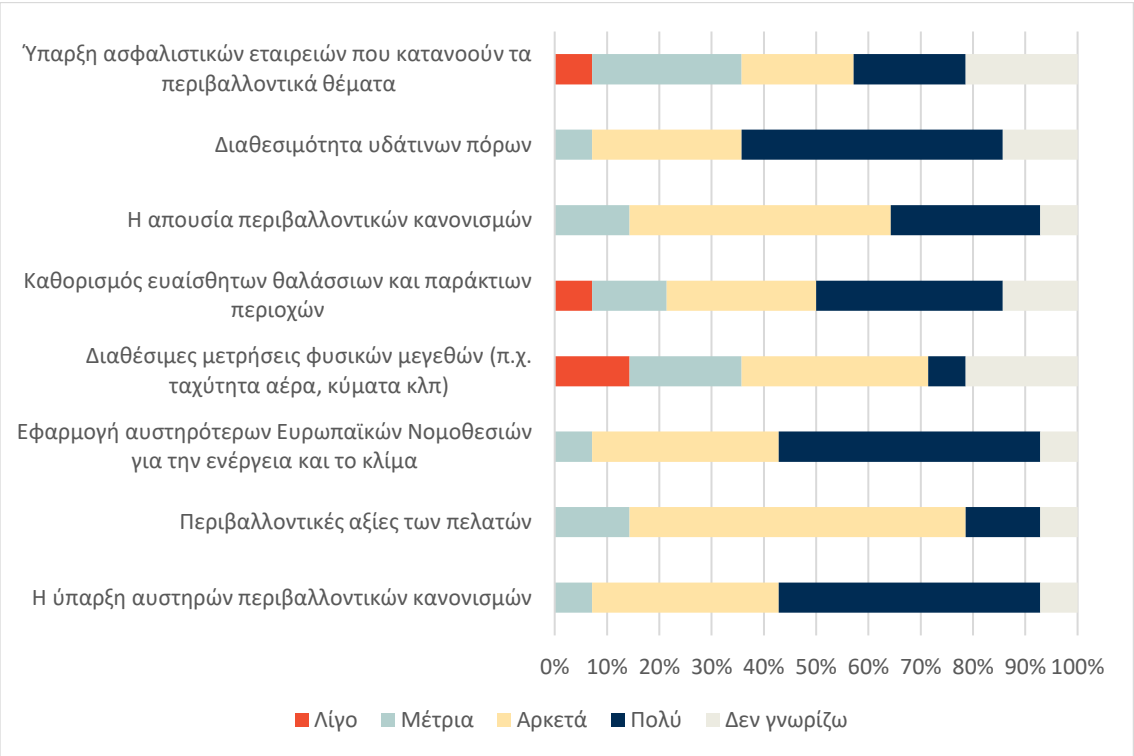

Figure 22: Representation of the diferentiation of the participants voting for each environmental factor

3.1.7 Part C

He most important factor has been identified to be the "Additional resources in the Recovery and Resilience Plan to promote energy storage". However, it can be seen from the figure 23 that this factor has also been voted as not important by a few of the participants and some of them also voted that

they don't know how to important is this factor. Yet, a lot of participants have voted for it as being very important.

The least important factor has been identified to be "Additional resources in the Recovery and Resilience Plan to promote hydrogen production". However, some of the participants have voted for this sector to be the most important but others have voted for it as not being important or being slightly important or that they don't know the importance of this factor.

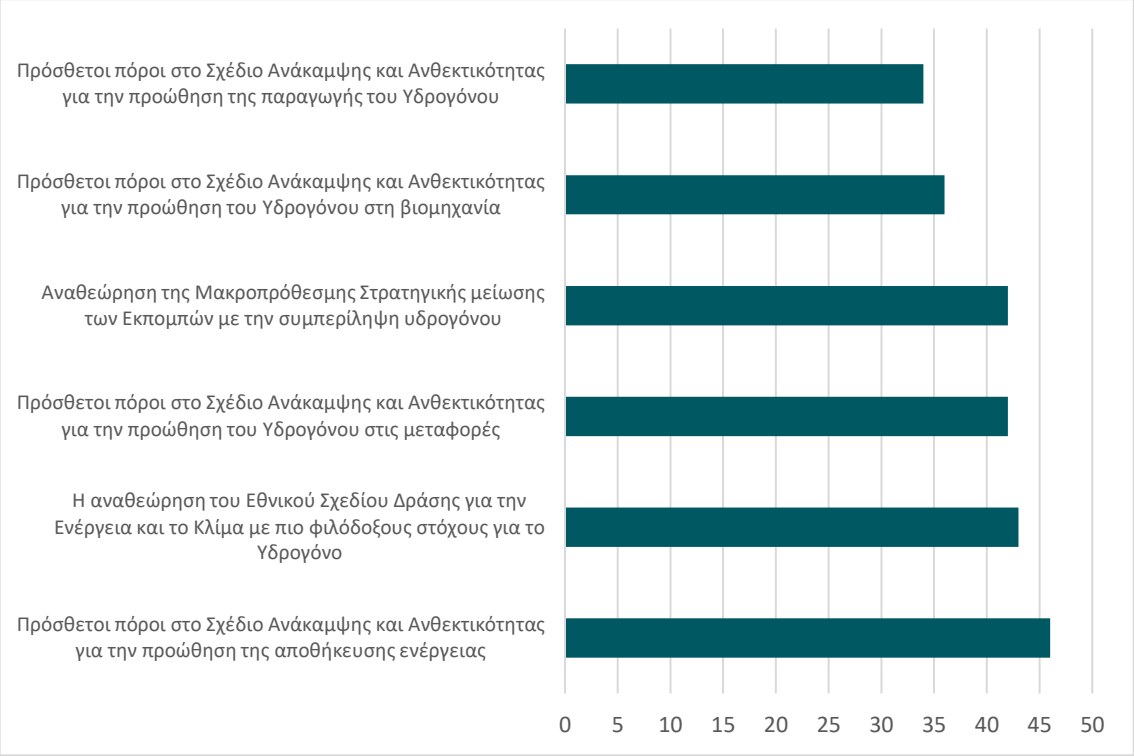

Figure 23: Part C Factors ranked according to their importance

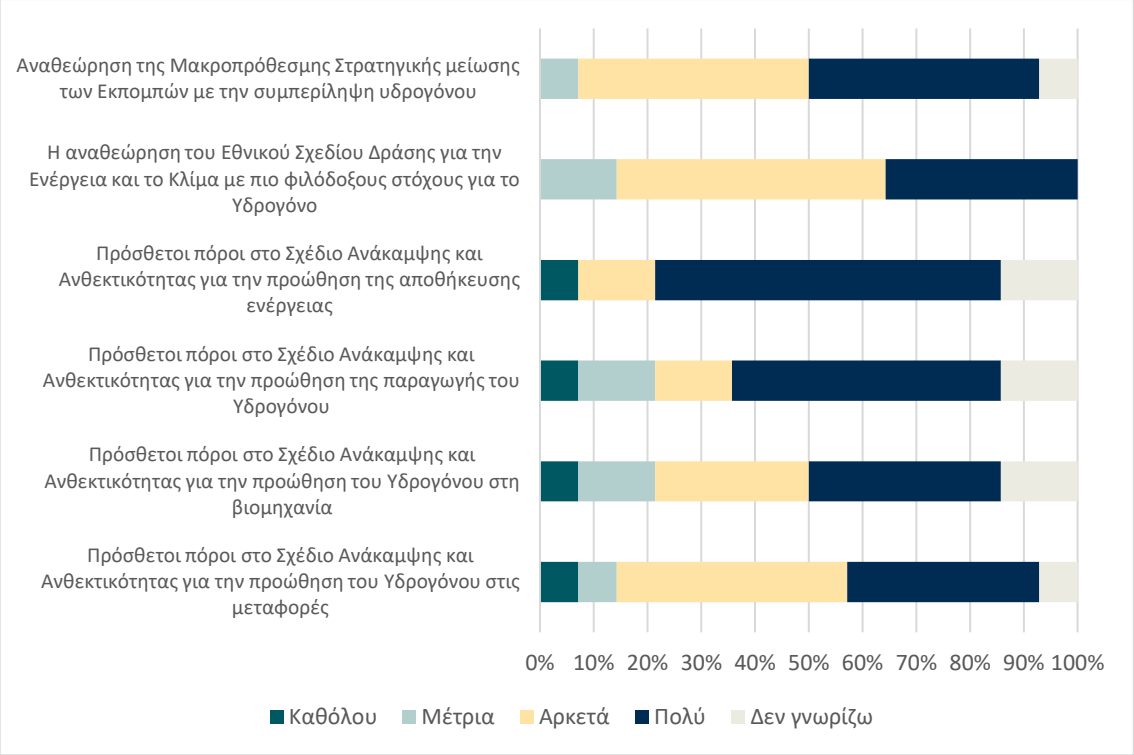

Figure 24: Representation of the diferentiation of the participants voting for each factor in Part C category

3.1.8 Part D

The most important factor has been identified to be the "Additional resources to the Recovery and Resilience Plan to promote energy storage". Which the participants have mainly voted for it to be very important.

There is a same score for the least important factors which are the following:

- **"Additional resources to the Recovery and Resilience Plan for the sustainable management of agriculture and water resources"**
    - A big proportion of the participants have voted that they do not know the importance of this particular factor, yet some of them have voted for it as being important and very important.
- **"Additional resources to the Recovery and Resilience Plan for the development of energy communities (e.g. creation of a regulatory framework) same weight"**
    - For this factor, some of the participants have voted for it as being slightly important or just important, some voted for very important and some have voted that they do not know the importance of this factor.

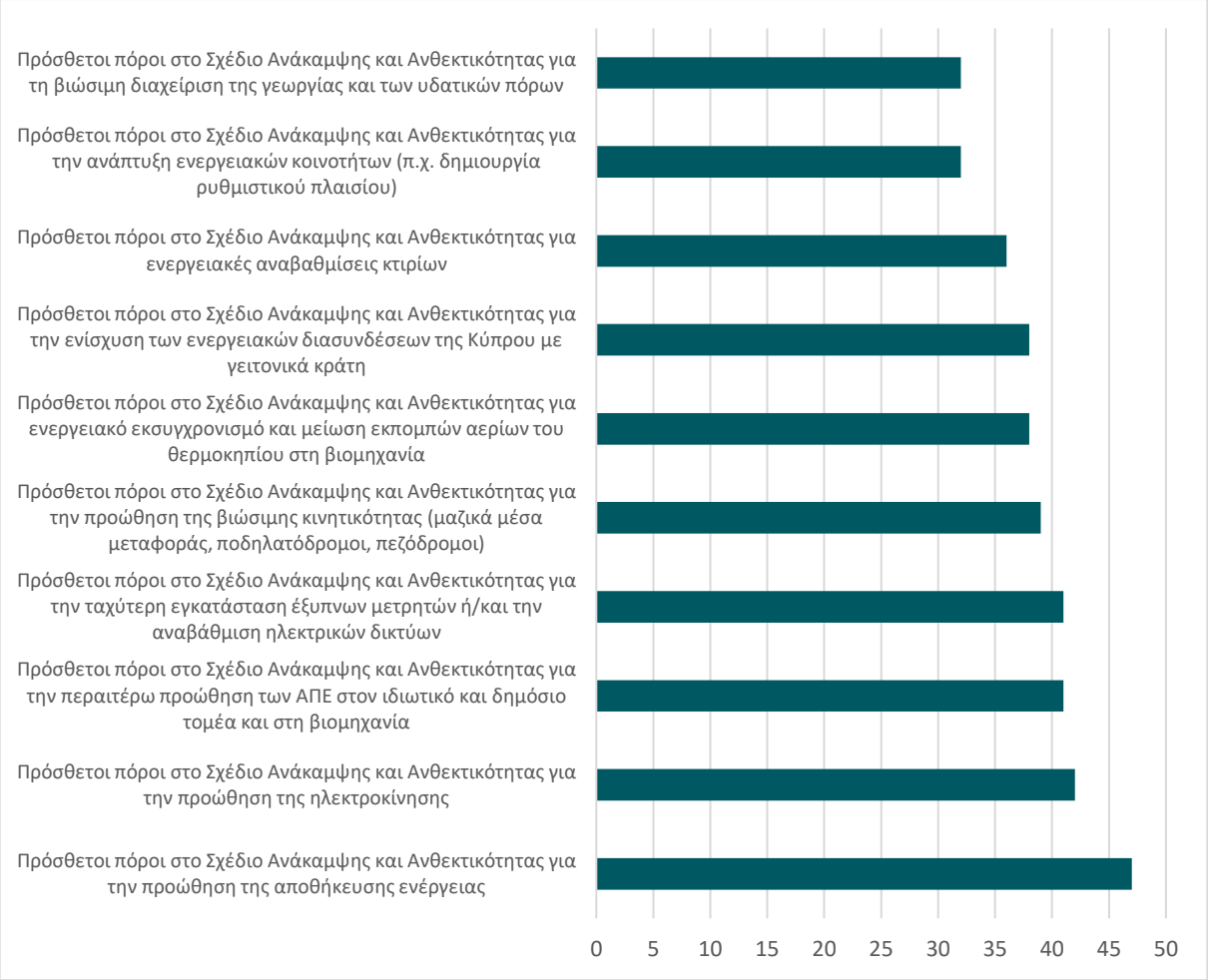

Figure 25: Part D Factors ranked according to their importance

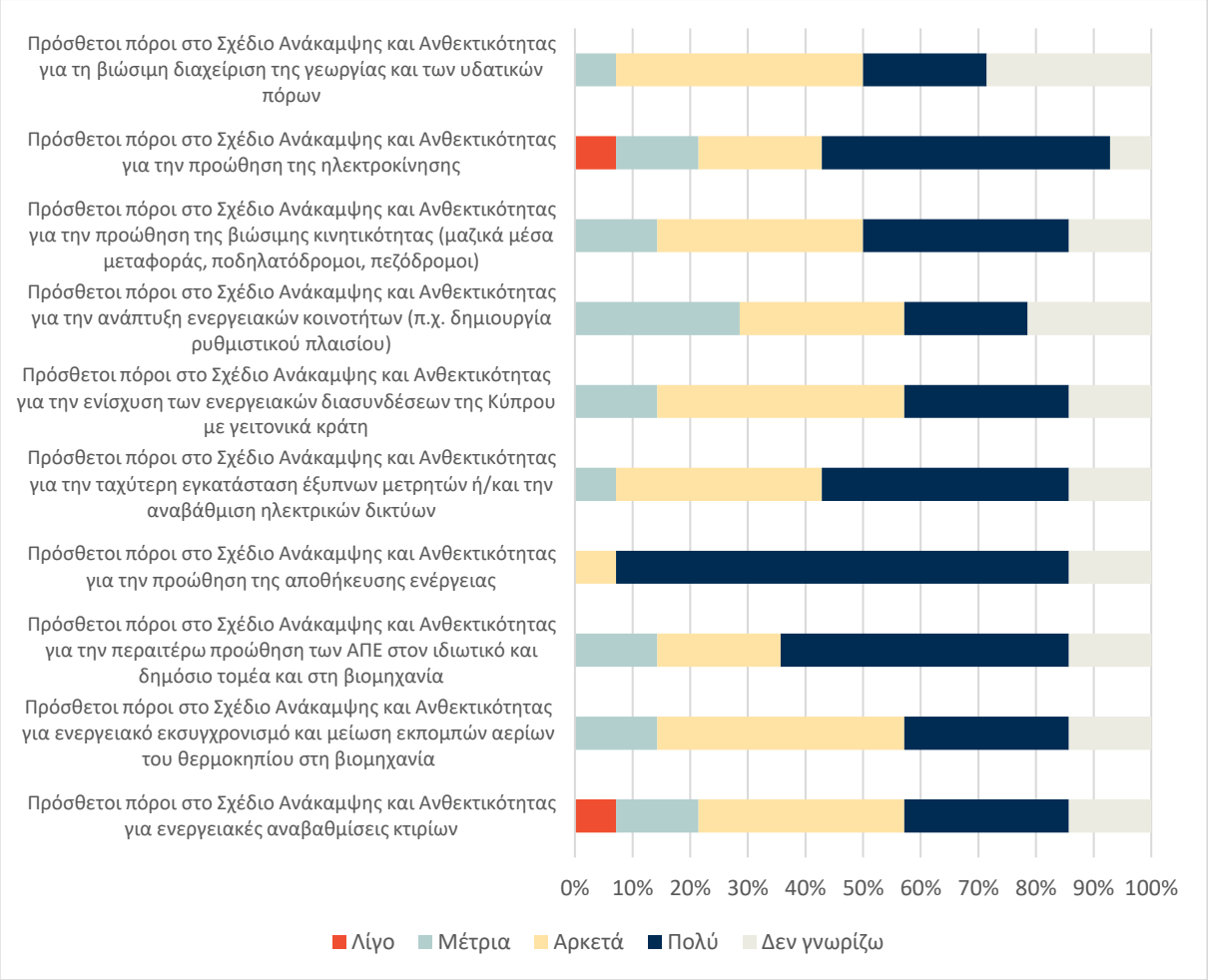

Figure 26: Representation of the diferentiation of the participants voting for each factor in Part D category

3.1.9 Part E

In this category, there are two factors that have scored the same value as the most important and they are the following:

- "Established habits of using a private and commercial vehicle"
    - Some have voted for this as being slightly important whereas some do not know the importance of the factor. However, the rest have voted as being very important and important which lead to it being one of the most important factors.
- "Lack of an appropriate regulatory framework to facilitate faster RES penetration"
    - Moderately important, important, and very important are the main votes for this factor, a few have voted that they do not know the importance of this factor.

The least important factor has been identified the "Lack of staff in the construction sector for energy renovations and installation of RES" where some voted for it being slightly important and some of them voted that they do not know the importance of this.

Figure 27: Part E Factors ranked according to their importance

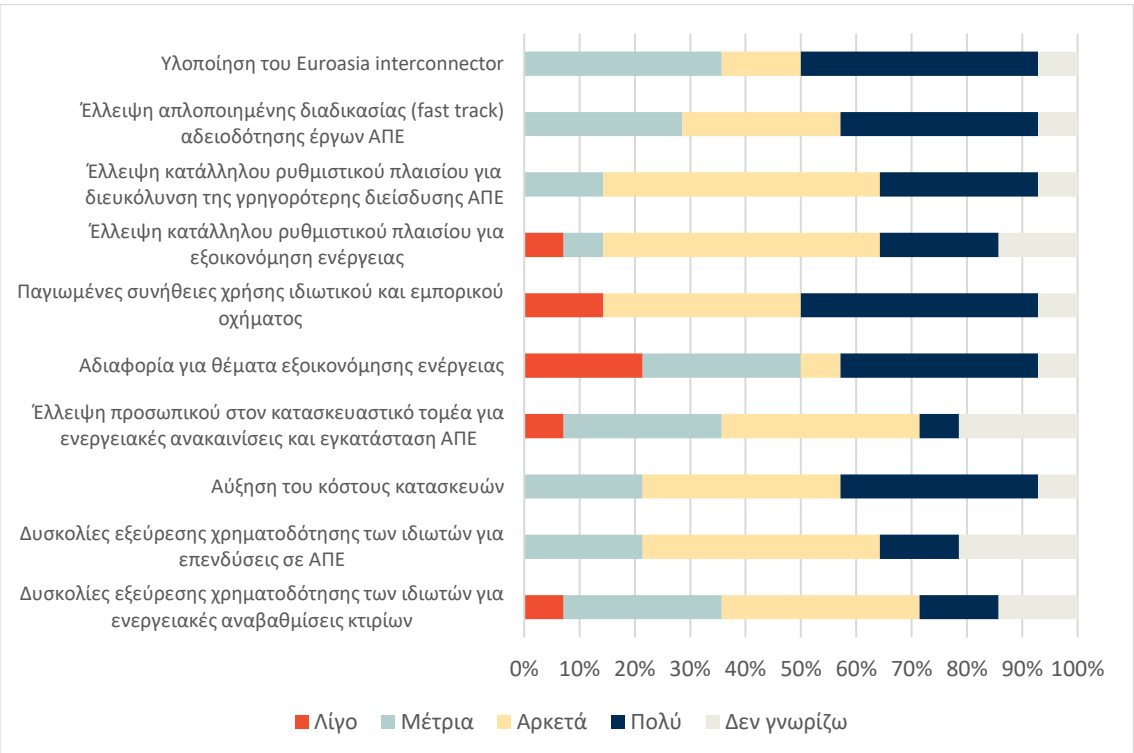

Figure 28: Representation of the diferentiation of the participants voting for each factor in Part E category

3.2 Potential hydrogen distributors

3.2.1 Political Factors

This section has identified three different factors as being the most important, with the participants voting for them as being very important and nothing else.

- The potential hydrogen distributors have weighted the governmental type and its political stability as one of the most important factors from the political factor
- Freedom of the press
- tax policy and excise duties same

The least important factor has been voted to be the "Participation of the country in interstate trade agreements and the levels of bureaucracy and corruption the least important factors" voting from moderately important to very important.

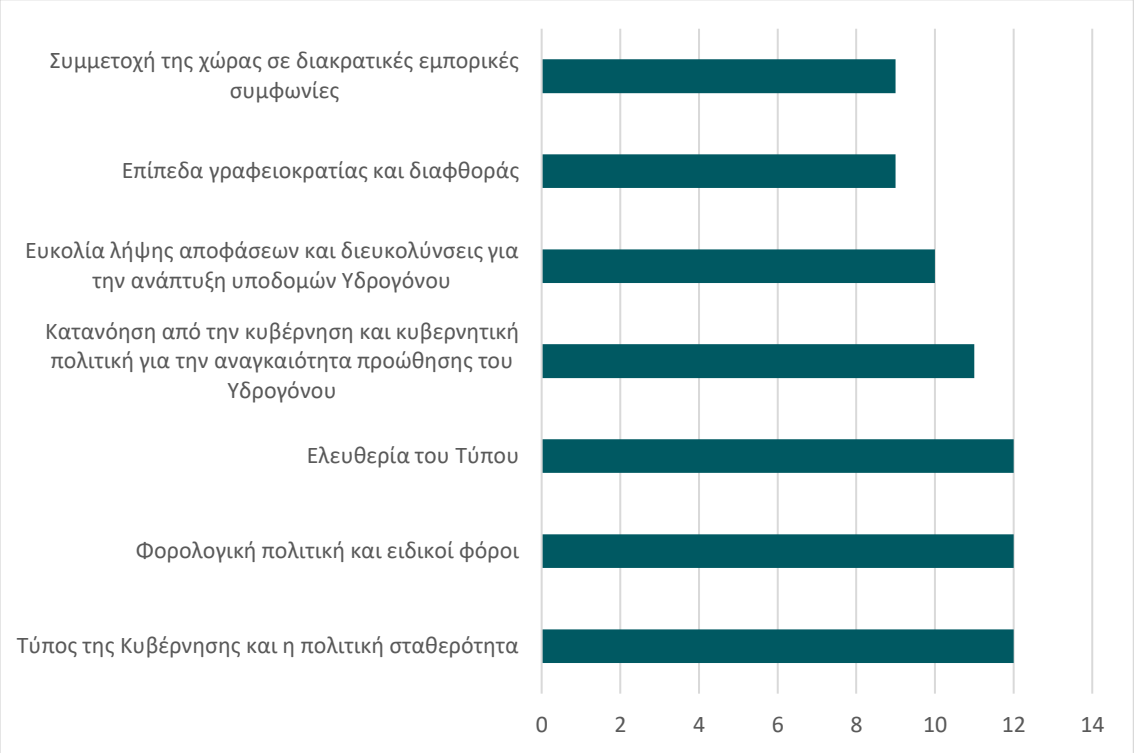

Figure 29: Political factors ranking of importance

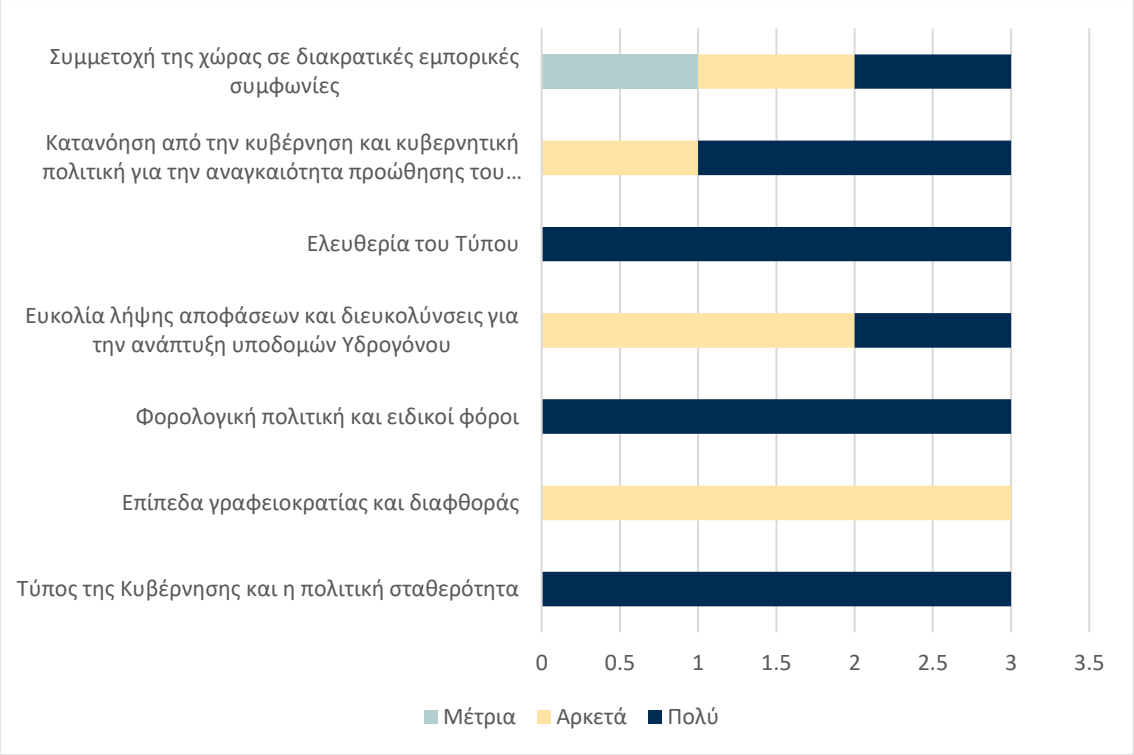

Figure 30: Representation of the diferentiation of the participants voting for each political factor

3.2.2 Economic Factors

Two factors have been scored to be the most important with the participants voting for them as being very important only:

- **Clear fee policy e.g. taxation**
- **Availability of financial instruments and lending facilities**

The factor "Impact of globalisation the least important and inflation" has been identified as the least important factor with voting range from moderately important to very important.

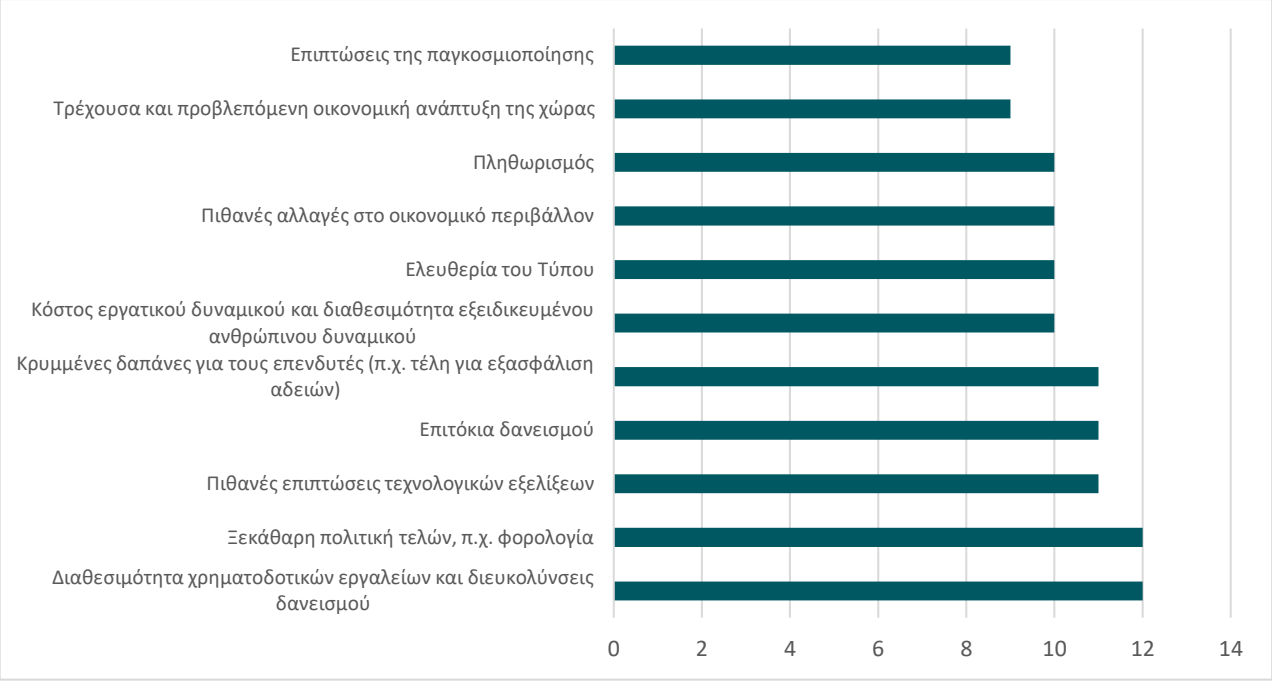

Figure 31: Economic factors category ranking of importance

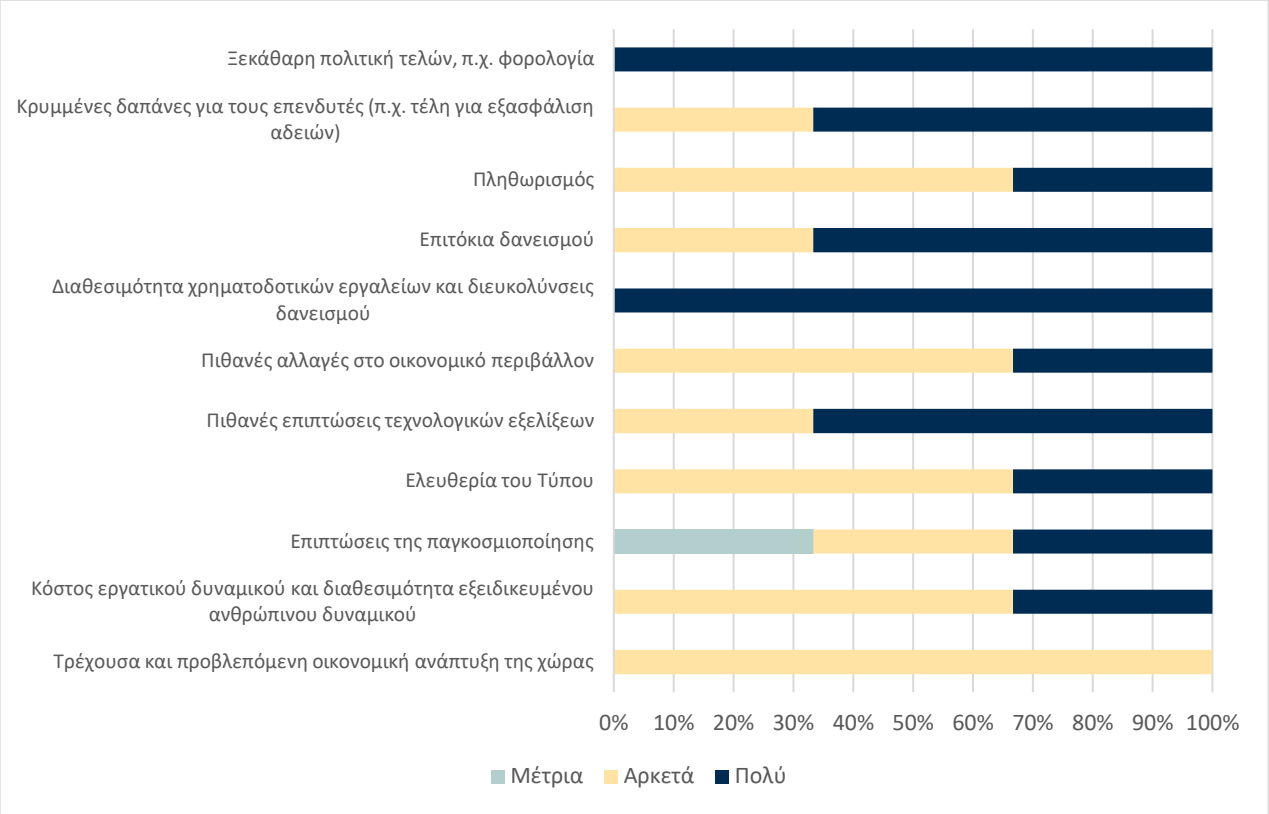

Figure 32: Representation of the diferentiation of the participants voting for each economic factor

3.2.3 *Social Factors*

The factor “acceptance of hydrogen technologies by local government and central government” has been identified as the most important factor with all the participants voting it as very important. The factor “Understanding health issues that may come from the burning of conventional fuels by a large portion of the population” has been voted as the least important with votes being moderately important and just important.

Figure 33: Social Factors ranking of importance

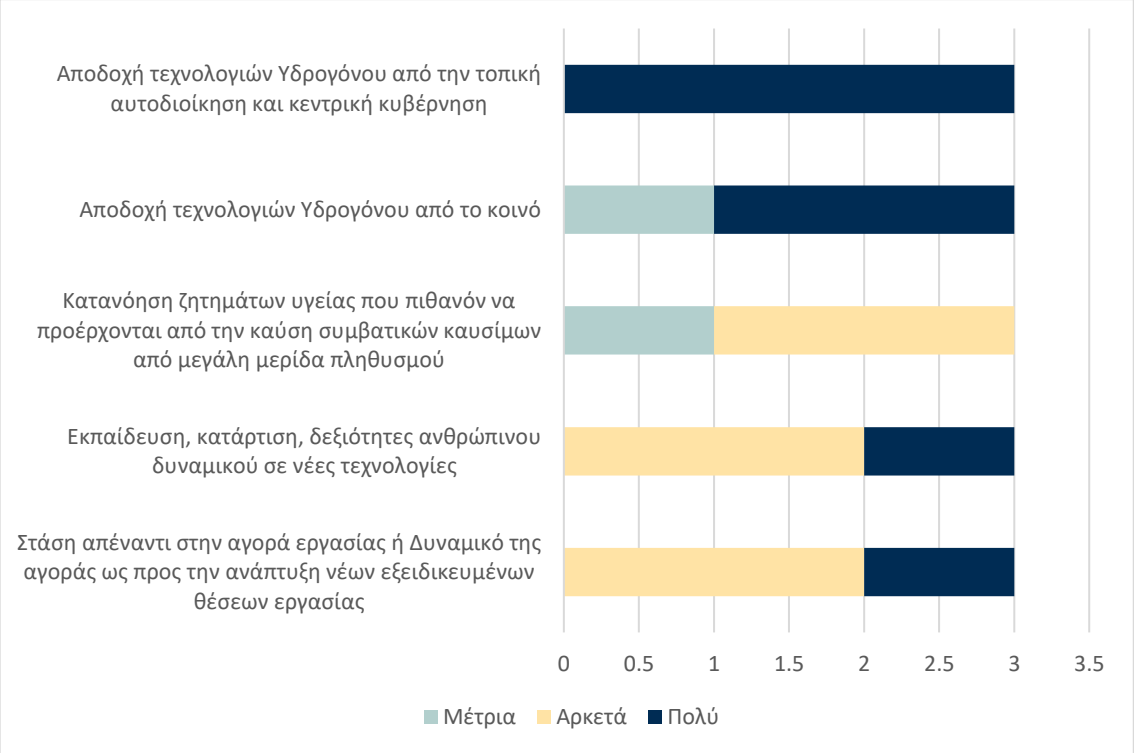

Figure 34: Representation of the diferentiation of the participants voting for each social factor

3.2.4 Technological Factors

The most important factor has been identified to be the “Ease of infrastructure development” where all of the participants have voted for it as being very important.

The factor "Innovation potential of businesses in Cyprus" has been identified as the least important with most of the participants voting for it as being moderately important.

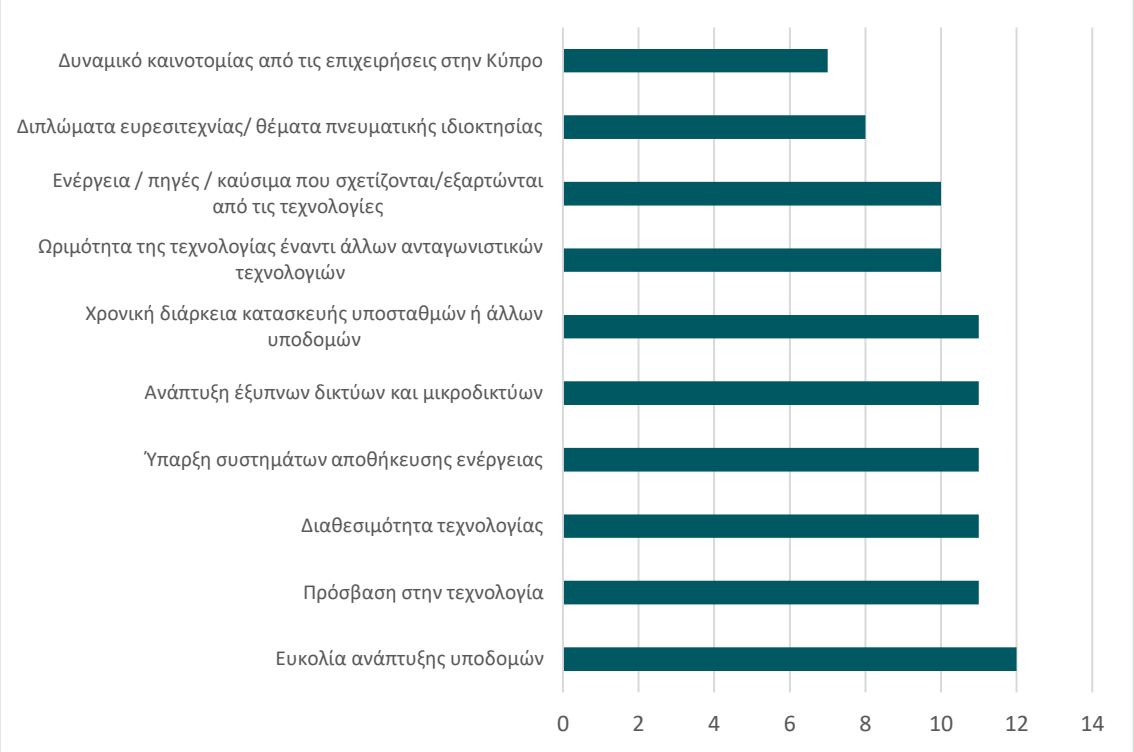

Figure 35: Technological Factors ranking of importance

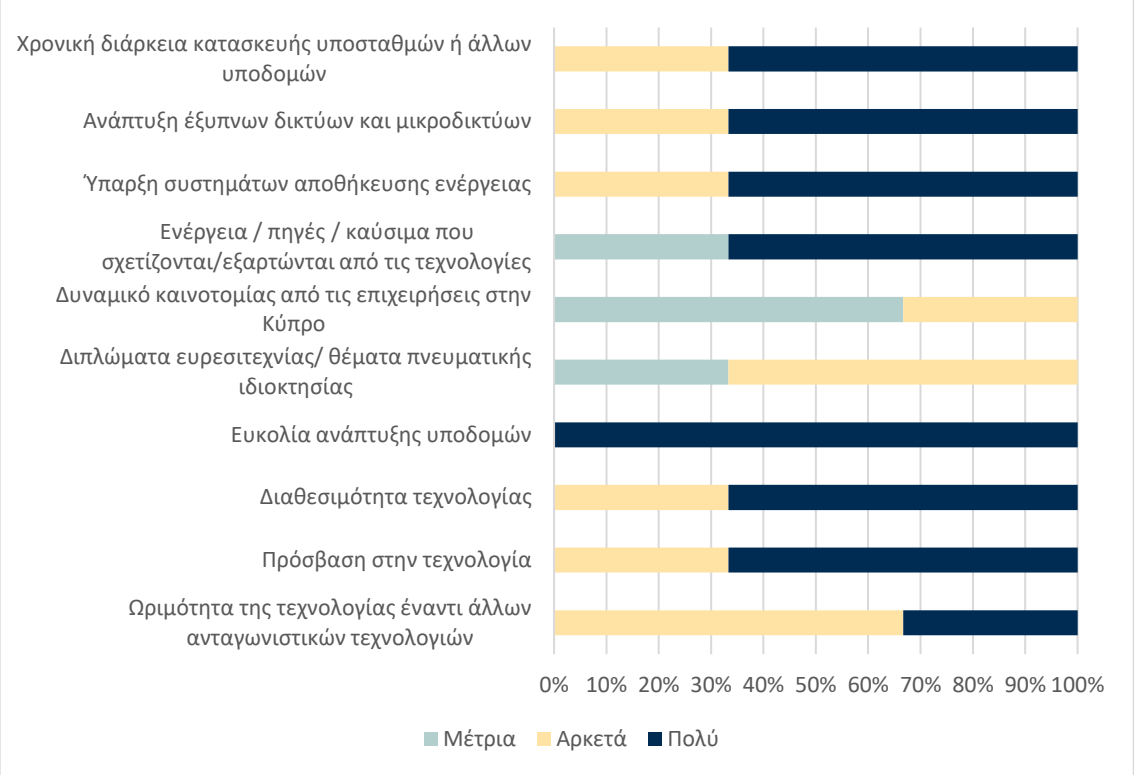

Figure 36: Representation of the diferentiation of the participants voting for each technological factor

3.2.5 Legal Factors

Four factors have been given the same weight, identifying four of them as the most important factors in this category. All of the below factors have been given the same vote by the participants, that they are very important.

- Duration of licensing
- system complexity for siting and environmental permitting
- the absence of urban planning or other regulations
- the existence of clear laws and regulations for the operation of hydrogen related enterprises (production, use, distribution) the most important.

The least important factor has been identified to be the "Full implementation of the National Energy & Climate Plan" with a few of the participants voting that they do not know the level of importance of this factor.

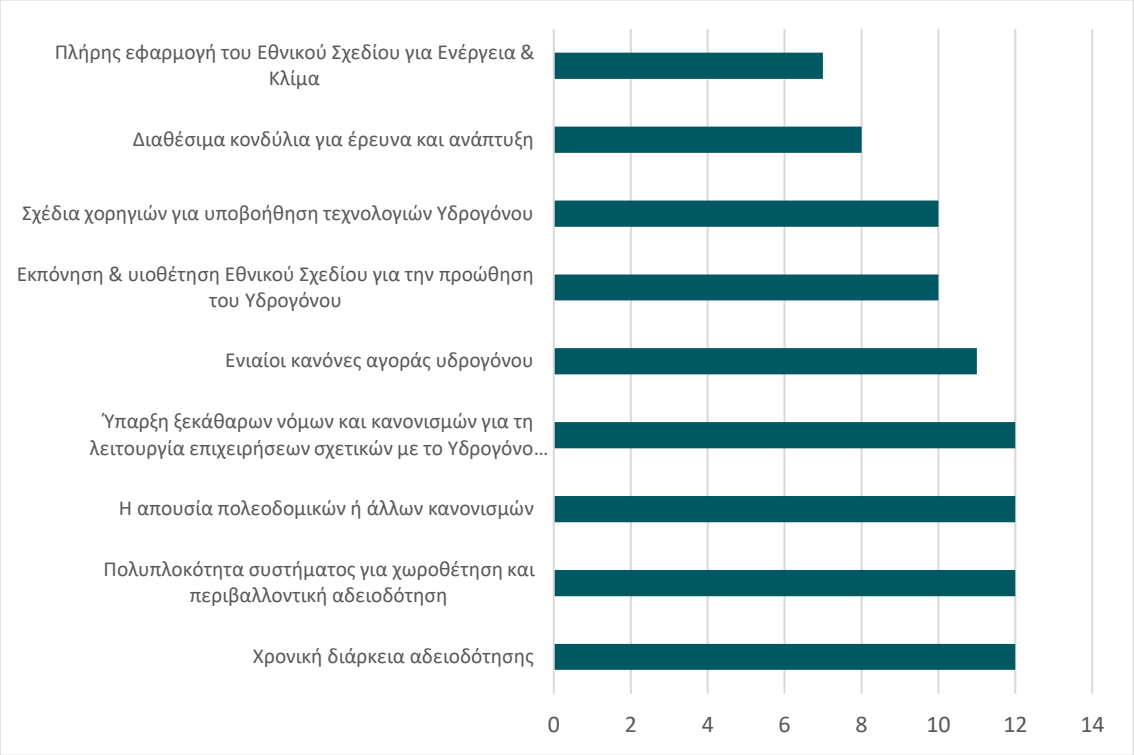

Figure 37: Legal Factors ranking of importance

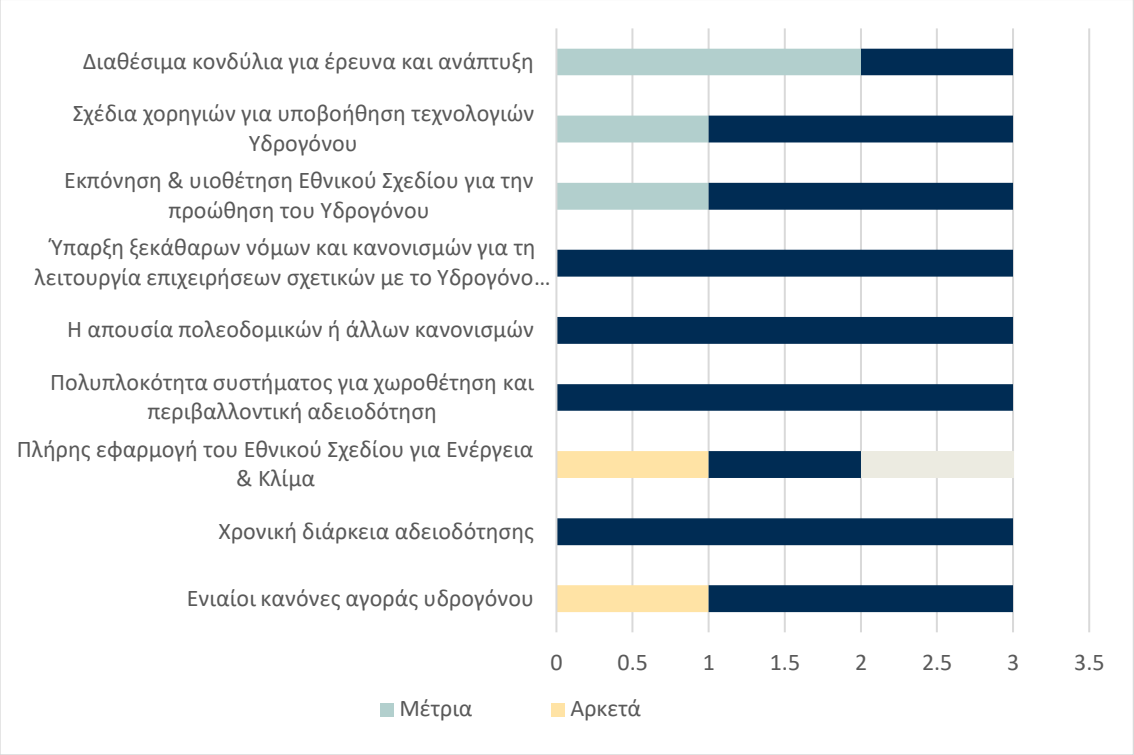

Figure 38: Representation of the diferentiation of the participants voting for each legal factor

3.2.6 Environmental Factors

The following two factors have been identified as the most important:

- The existence of strict environmental regulations
    - Some voted it to be moderately important but most of them voted for just important
- The absence of environmental regulations the most important
    - Some voted for it as moderately important yet others as very important

The least important factors has been voted to be “the availability of water resources is the least important according to this group of stakeholders” with some voting that they do not know the importance of this factor.

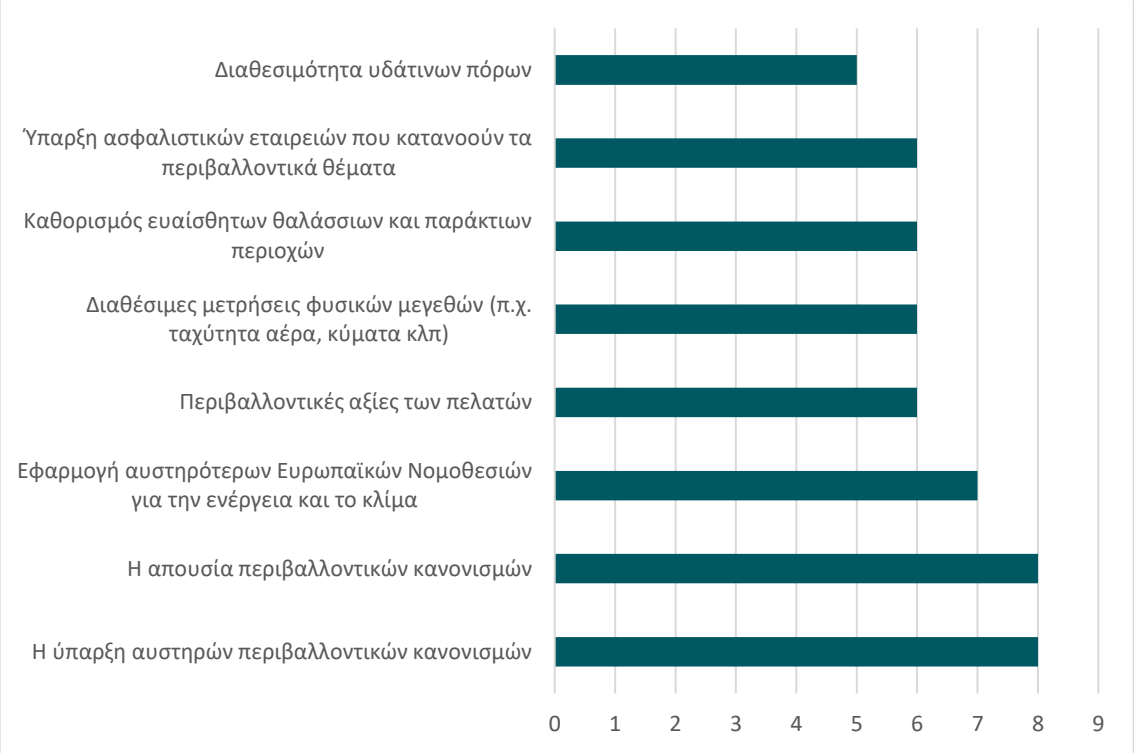

Figure 39: Environmental Factors Ranking of importance

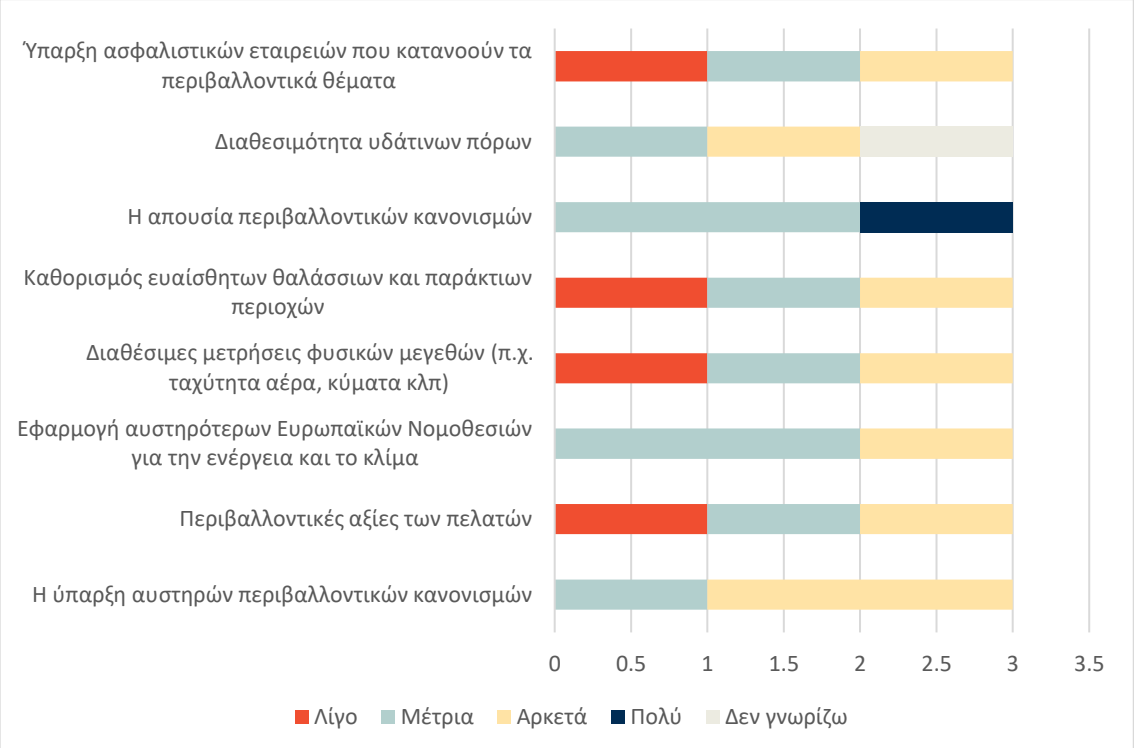

Figure 40: Representation of the diferentiation of the participants voting for each environmental factor

3.2.7 PART C

Two factors have been identified as the most important factors the “Additional resources in the RRF to promote hydrogen production” and the “Additional resources in the Recovery and Resilience Plan to

promote energy storage". Both of them have given the same weight of importance with the participants mainly voting for those factors as being very important.

The factor "additional resources in RRF for the promotion of hydrogen in transport" has been identified as the least important with a few voting for it as slightly important.

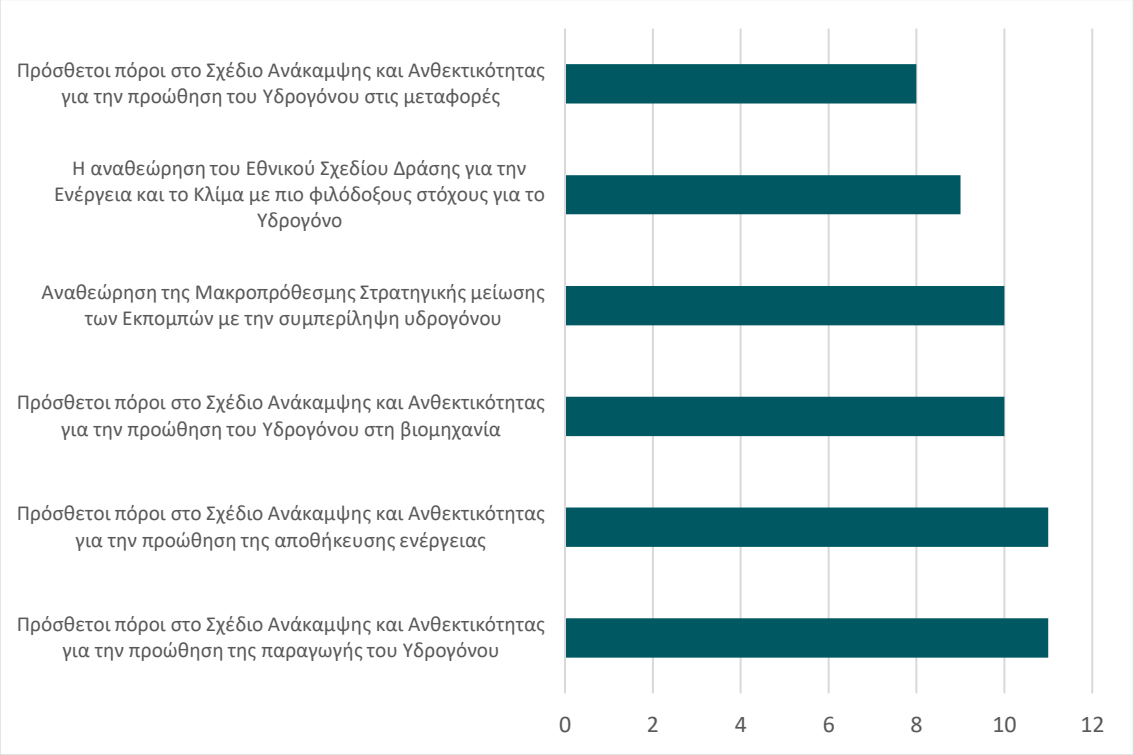

Figure 41: Part C Factors ranked according to their importance

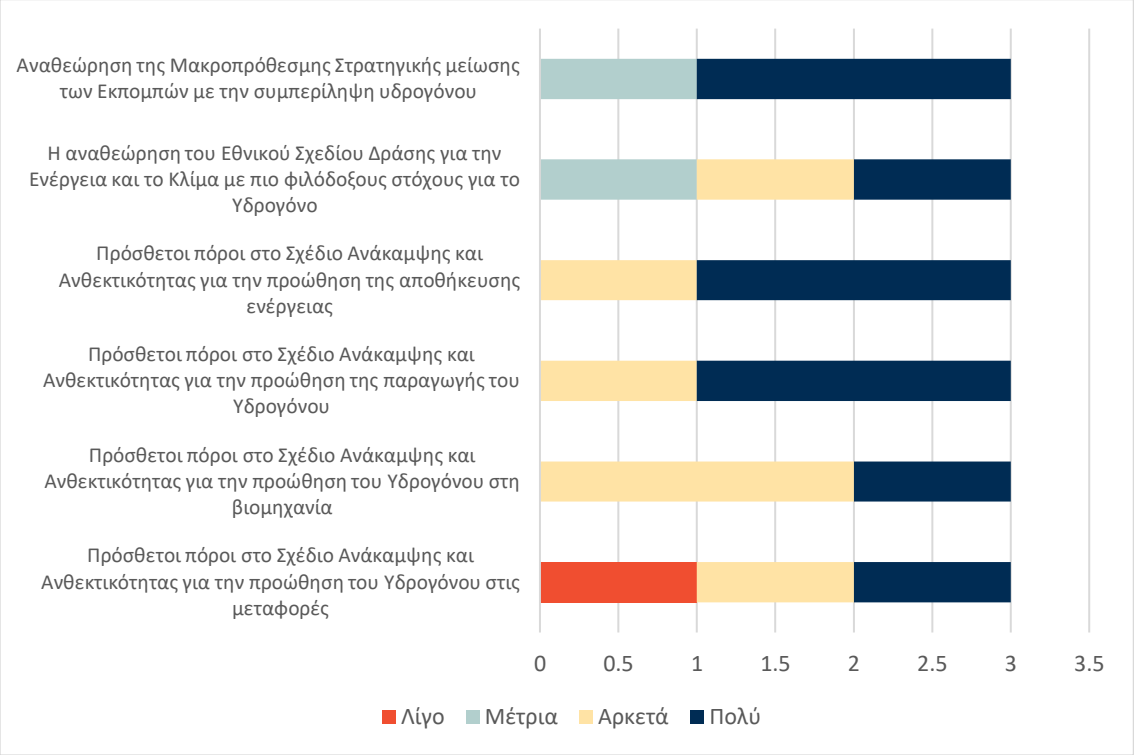

Figure 42: Representation of the diferentiation of the participants voting for each factor in Part C category

3.2.8 Part D

Three factors have been scored the same weight and have been identified as the most important with the same weight of importance, and participants equally voting for them as being very important:

- Additional resources to the RRP for energy upgrades in buildings,
- Additional resources to the RRP to promote energy storage
- Additional resources to the RRP to promote sustainable mobility (public transport, cycle paths, pedestrian streets)

The least important factor has been identified to be "Additional resources in the Recovery and Resilience Plan for the further promotion of RES in the private and public sector and in industry" where a few of the participants have voted that they do not know the importance of the factor.

Figure 43: Part D Factors ranked according to their importance

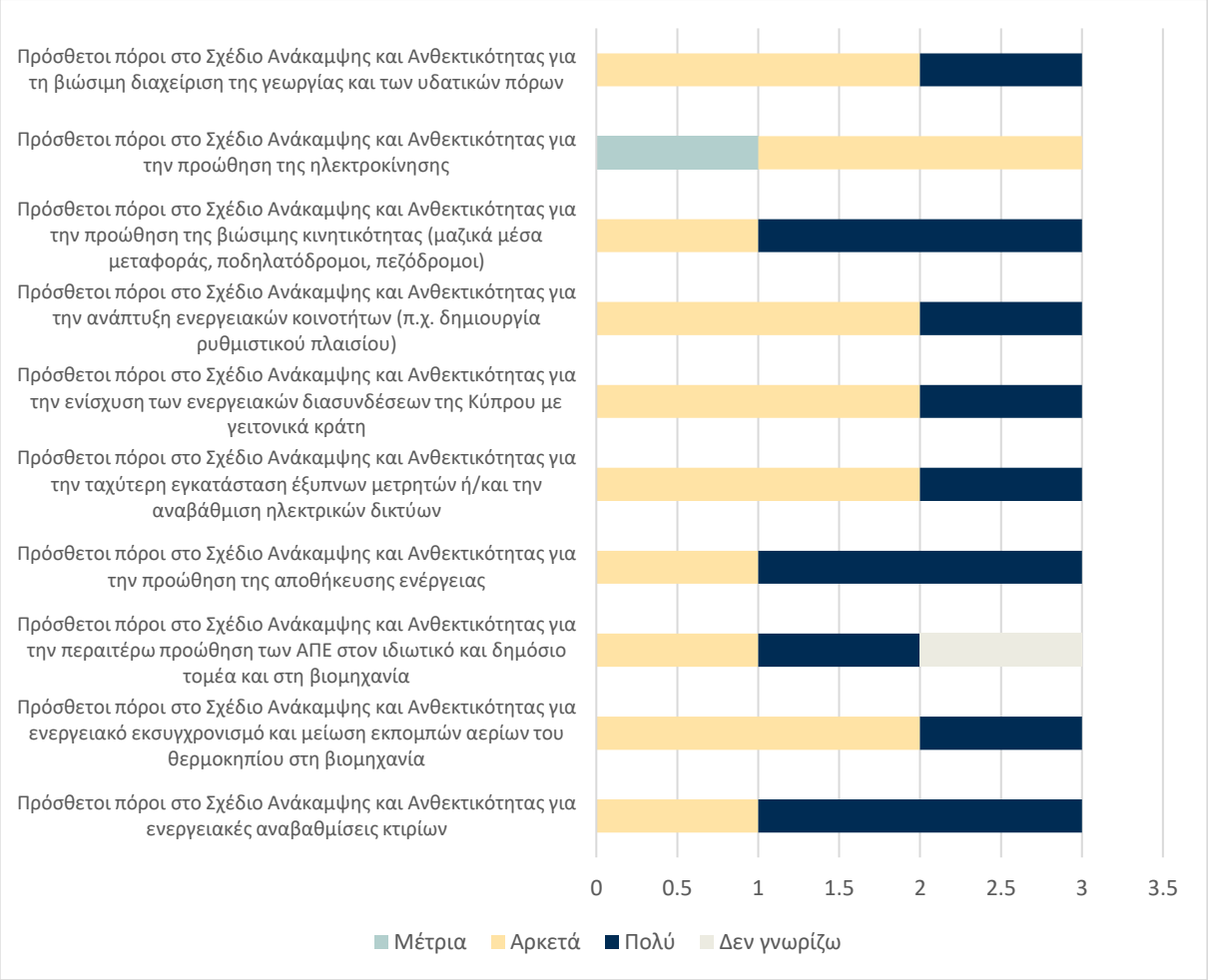

Figure 44: Representation of the diferentiation of the participants voting for each factor in Part D category

3.2.9 Part E

The most important factor has been identified to be the "Lack of a simplified procedure (fast track) for the licensing of RES projects" with the participants voting for it as being very important yet some voted that they do not know the importance of the factor.

Two factors have been identified as the least important

- "Implementation of the Euroasia interconnector"
    - Mainly participants voted that they do not know the importance of the factor and some that this factor is important.
- "Lack of an appropriate regulatory framework to save energy"
    - Mainly they do not know its importance but some of them voted for it as moderately important. 6

Figure 45: Part E Factors ranked according to their importance

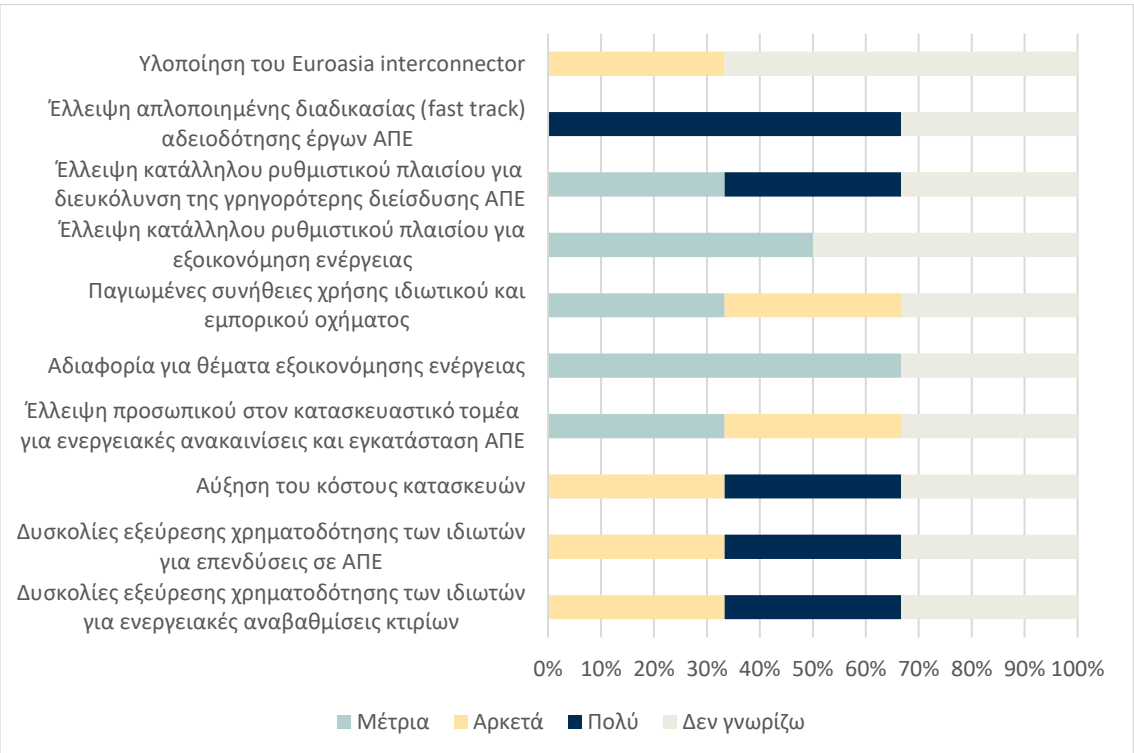

Figure 46: Representation of the diferentiation of the participants voting for each factor in Part E category

3.3 Businesses with potential to produce hydrogen

3.3.1 Political Factors

The most important factor has been identified to be the "Understanding by the government and government policy on the necessity of promoting Hydrogen" which the participants have voted unanimously that it is very important.
The least important factors have been identified to be the "Participation of the country in interstate trade agreements" which participants have voted as slightly important and just important.

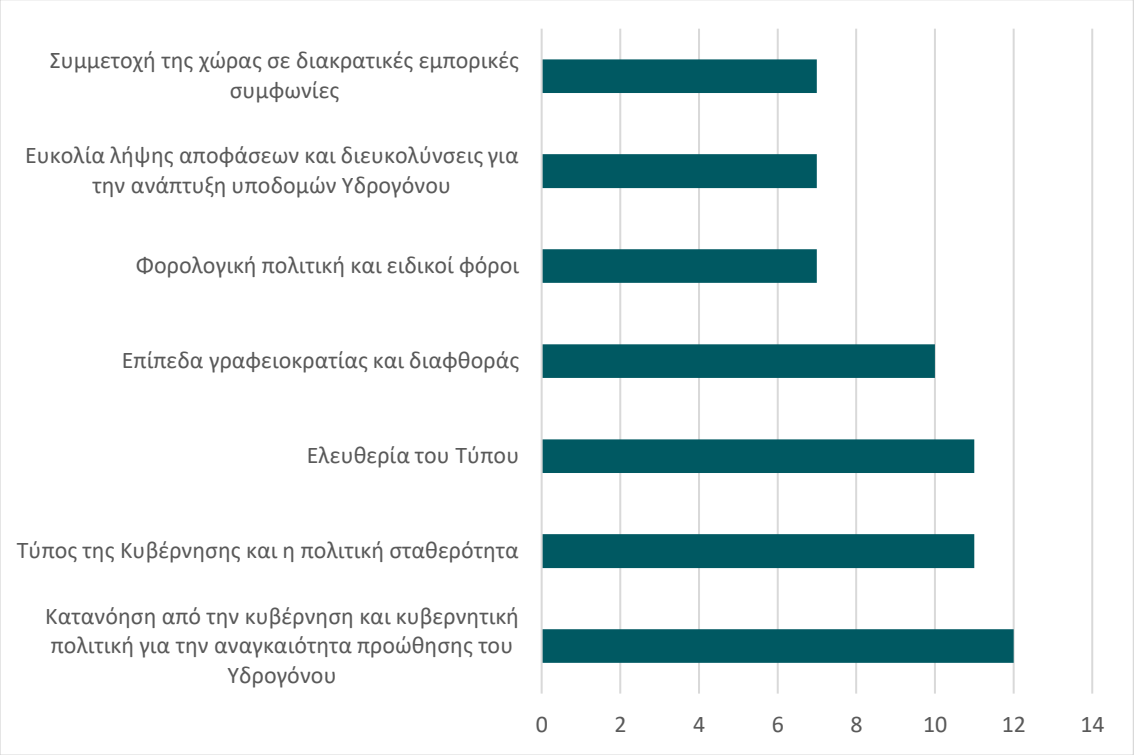

Figure 47: Political factors ranking of importance

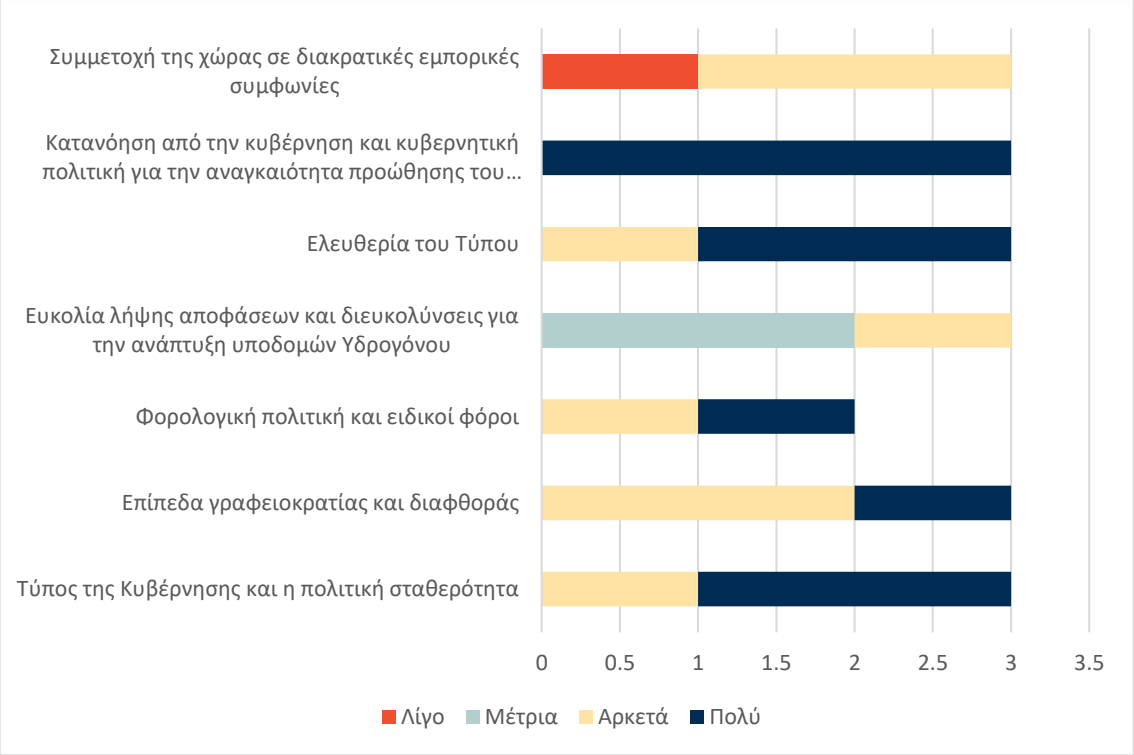

Figure 48: Representation of the diferentiation of the participants voting for each political factor

3.3.2 Economic Factors

Two factors have been identified as the most important ones with the participants voting unanimously that those factors are very important:

- Availability of financial instruments
- lending facilities

The least important factor has been voted to be the “Workforce costs and availability of skilled human resources” which participants voted for it as slightly important or moderately important.

Figure 49: Economic factors category ranking of importance

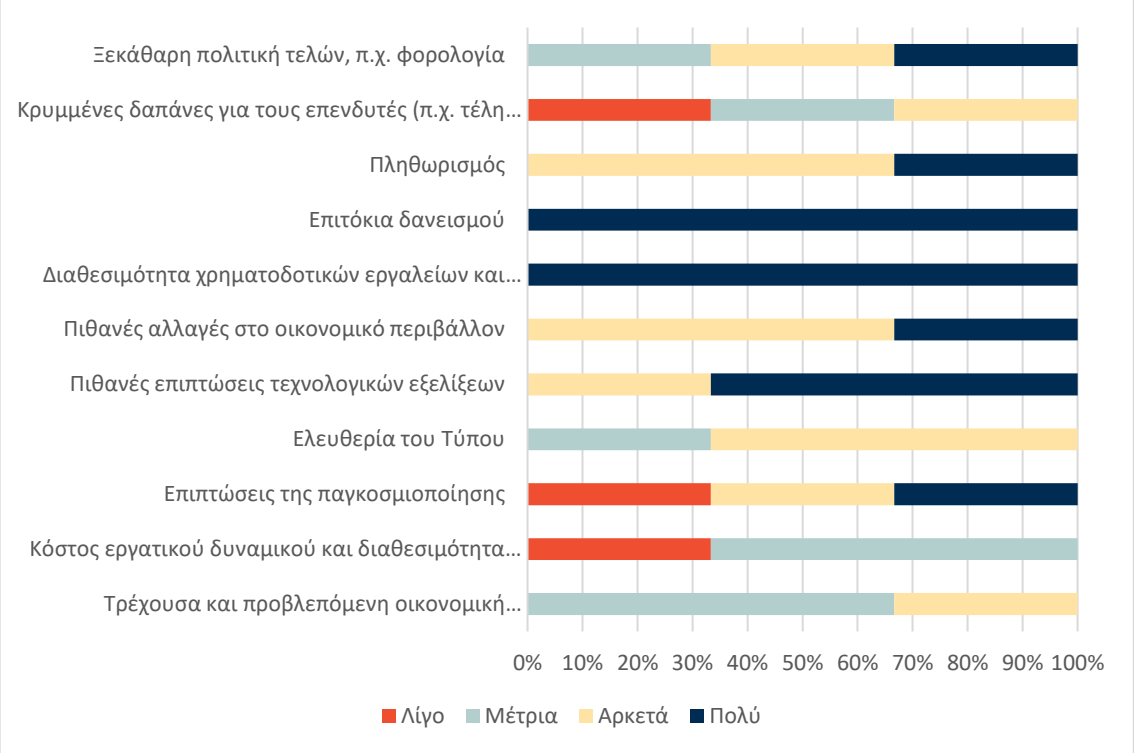

Figure 50: Representation of the diferentiation of the participants voting for each economic factor

3.3.3 Social Factors

The two factors that have been identified as the most important and voted by the participants unanimously as being very important, the factors are the following:

- Public acceptance of hydrogen technologies

- Acceptance of hydrogen technologies by local government and central government

The least important factor has been identified to be “Attitude towards the labour market or market potential in the development of new skilled jobs”.

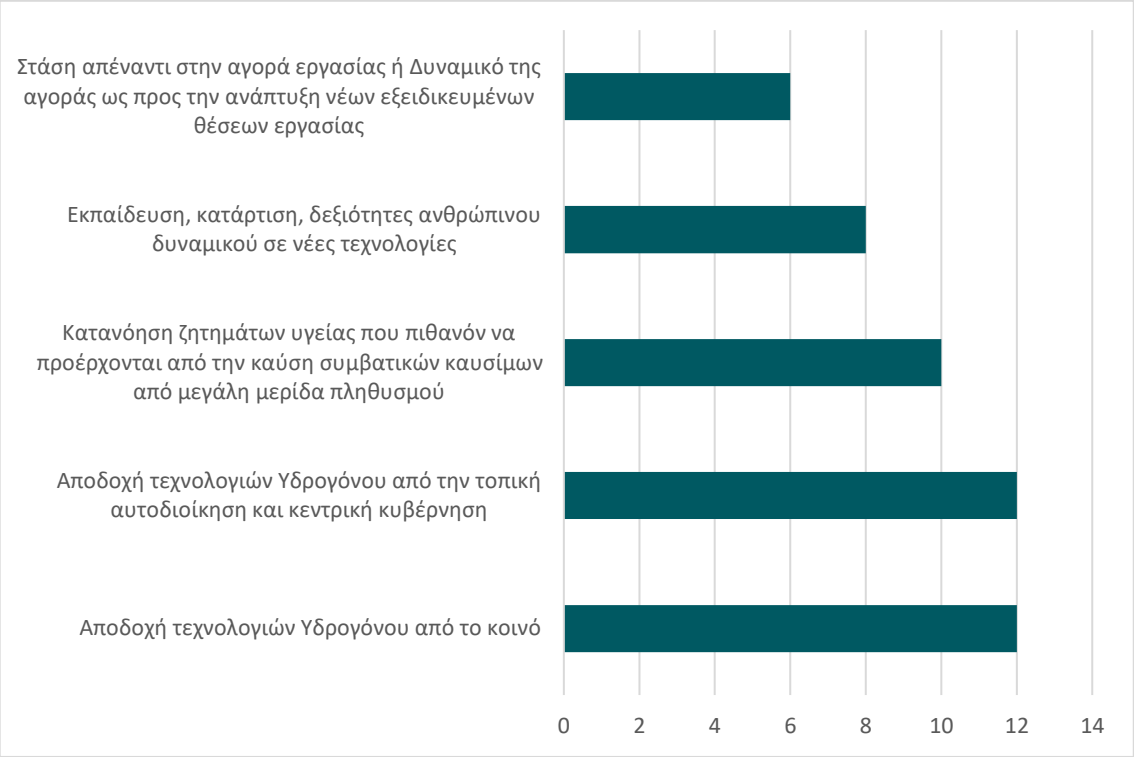

Figure 51: Social Factors ranking of importance

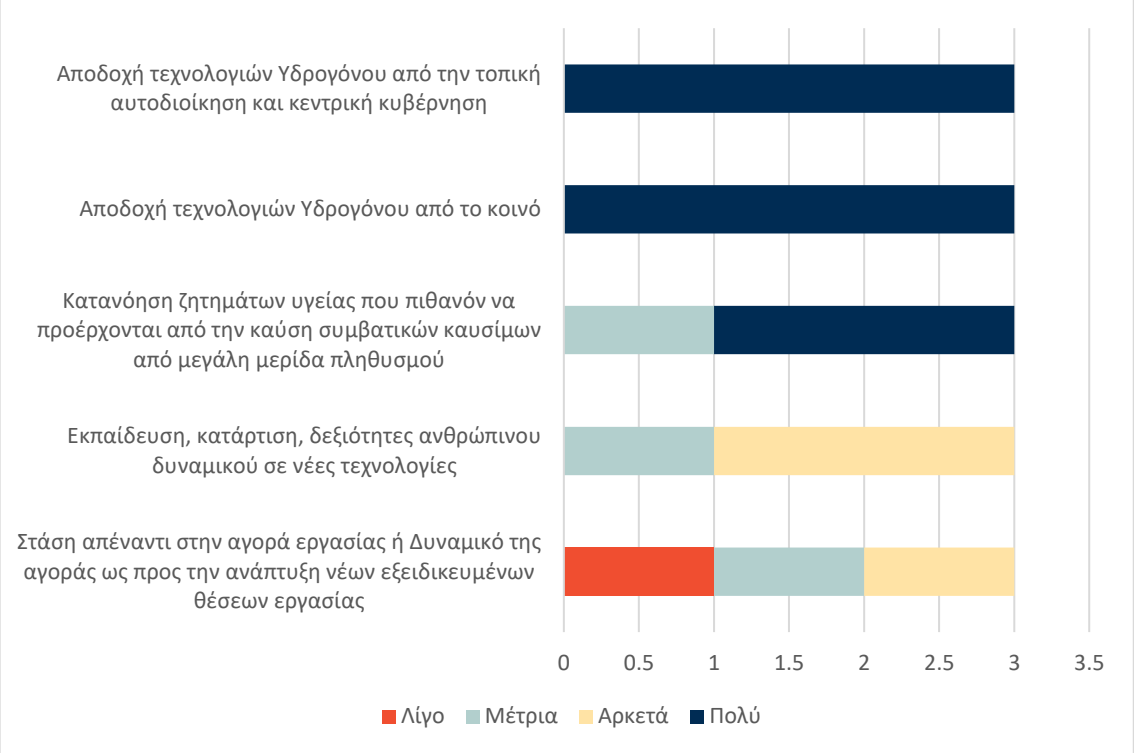

Figure 52: Representation of the diferentiation of the participants voting for each social factor

3.3.4 Technological Factors

The important factor that identified is the "Energy /sources/fuels related to/dependent on technologies" where participants voted for it unanimously as being very important.
The least important factor identified with big value difference from the rest of the factors is "Patents/intellectual property issues", where mainly participants have voted for it as slightly important or don't know its importance.

Figure 53: Technological Factors ranking of importance

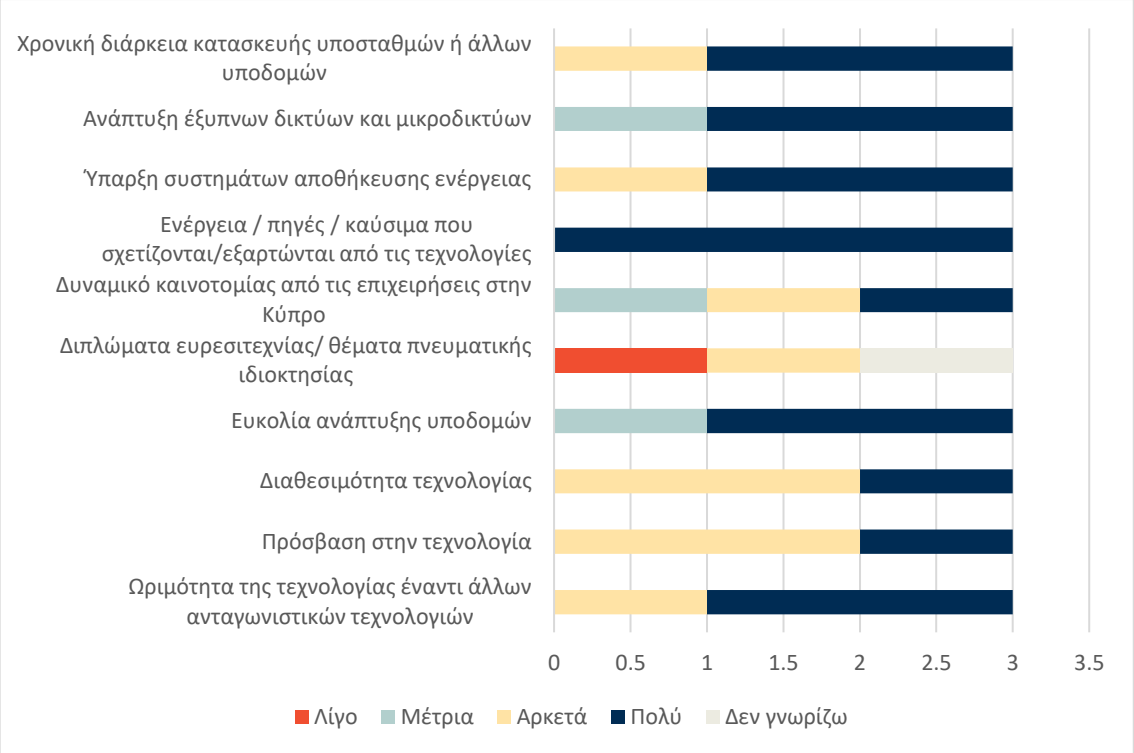

Figure 54: Representation of the diferentiation of the participants voting for each technological factor

3.3.5 Legal Factors

For this category, 4 factors have scored the same weight and have been voted as very important by all the participants unanimously, which indicates that they are identified by the participants as the most important in this category:

- the absence of urban planning or other regulations
- Existence of clear laws and regulations for the operation of hydrogen-related enterprises (production, use, distribution)
- Sponsorship schemes to assist Hydrogen technologies
- Funds available for research and development.

The least important factor is “full implementation of the national energy & climate plan

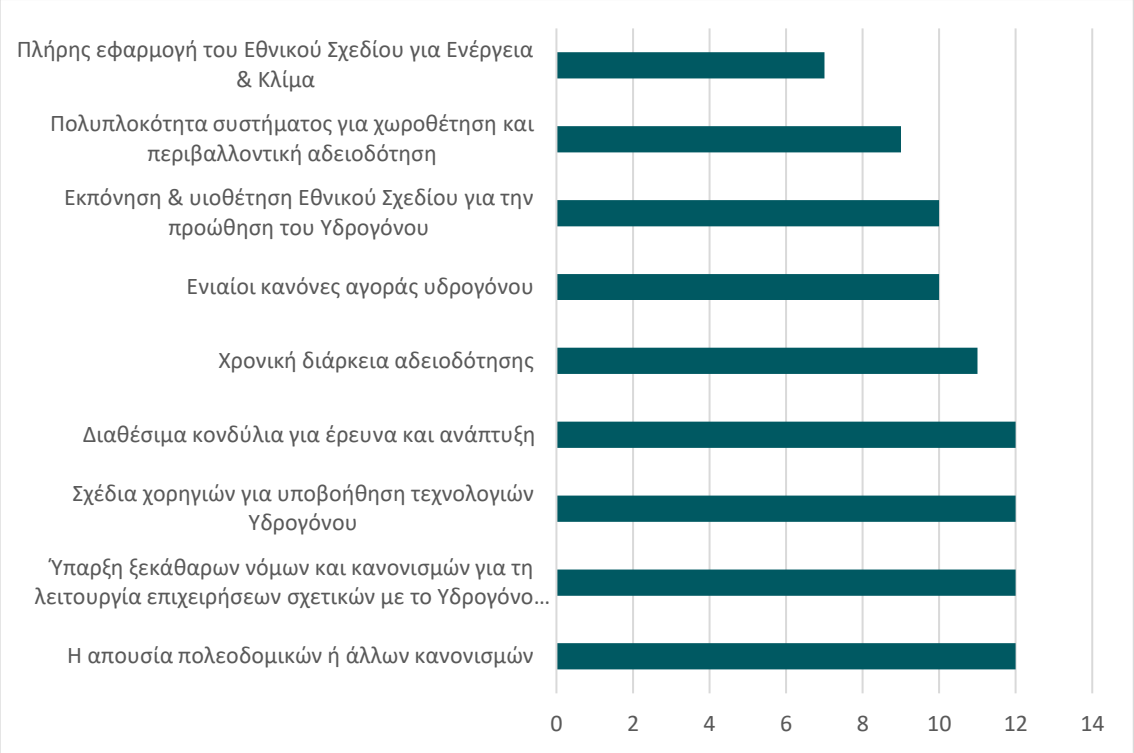

Figure 55: Legal Factors ranking of importance

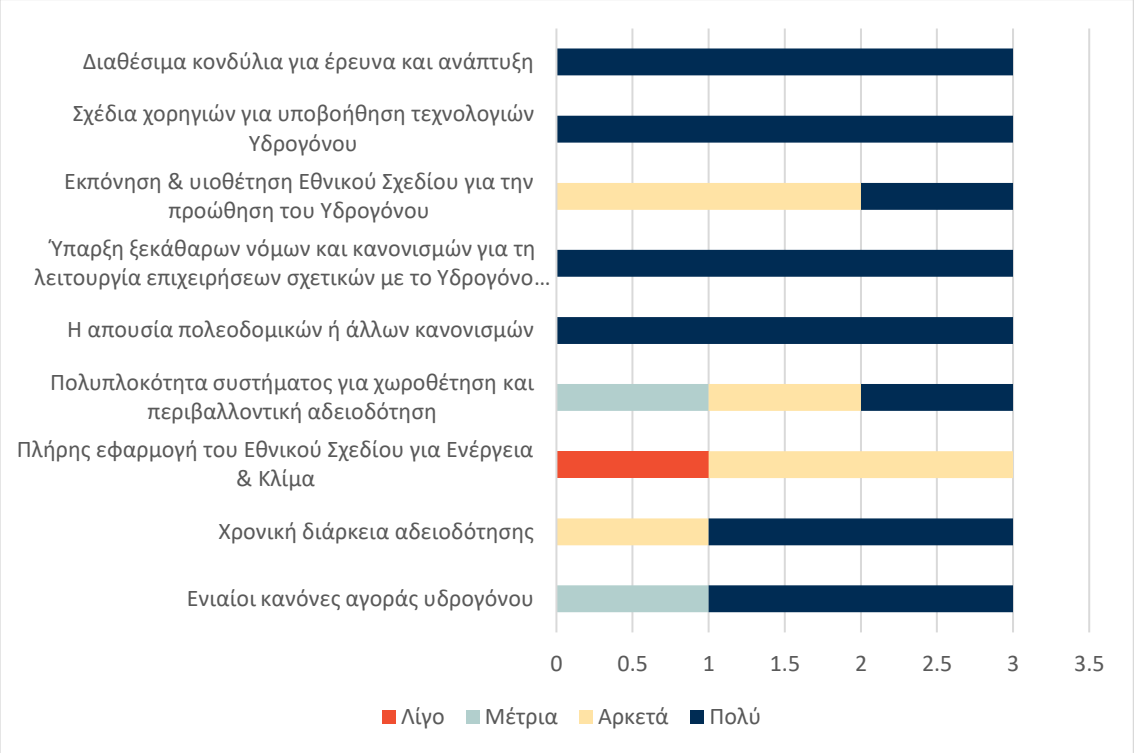

Figure 56: Representation of the diferentiation of the participants voting for each legal factor

3.3.6 Environmental Factors

In this sector, the factor "Availability of water resources" is identified as the most important showing the knowledge of the people within this sector, as participants have voted for it as being very important unanimously.

The least important factor has been identified the “Designation of sensitive marine and coastal areas”.

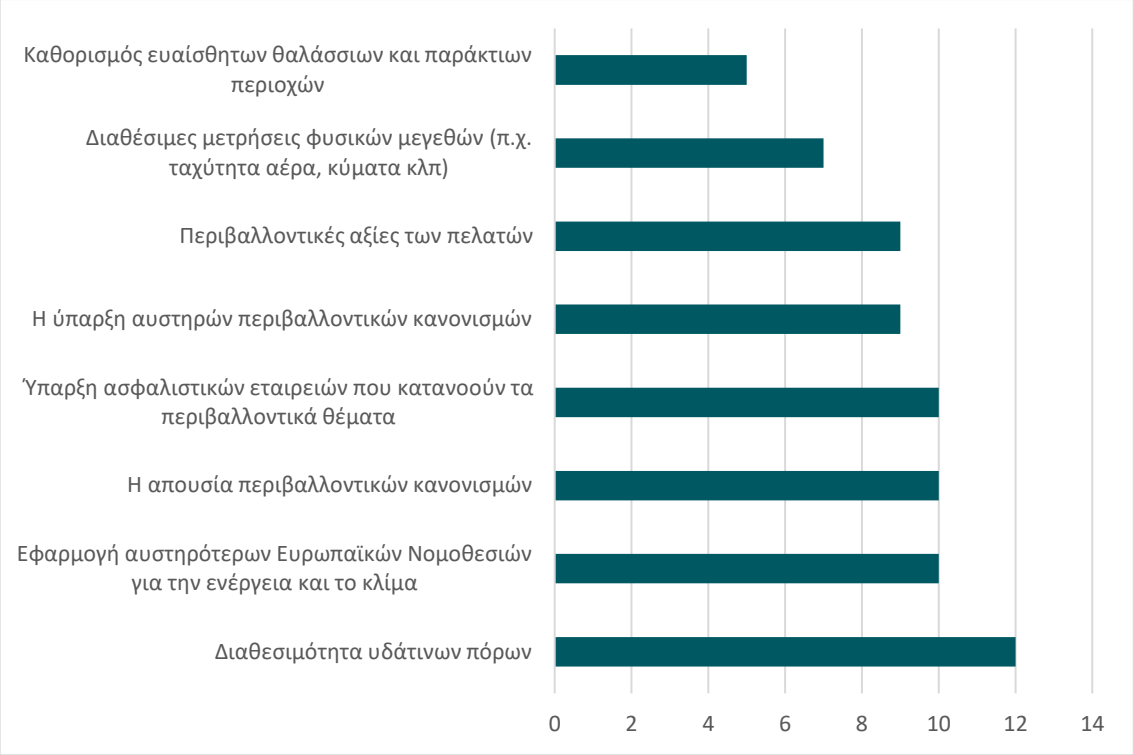

Figure 57: Environmental Factors Ranking of importance

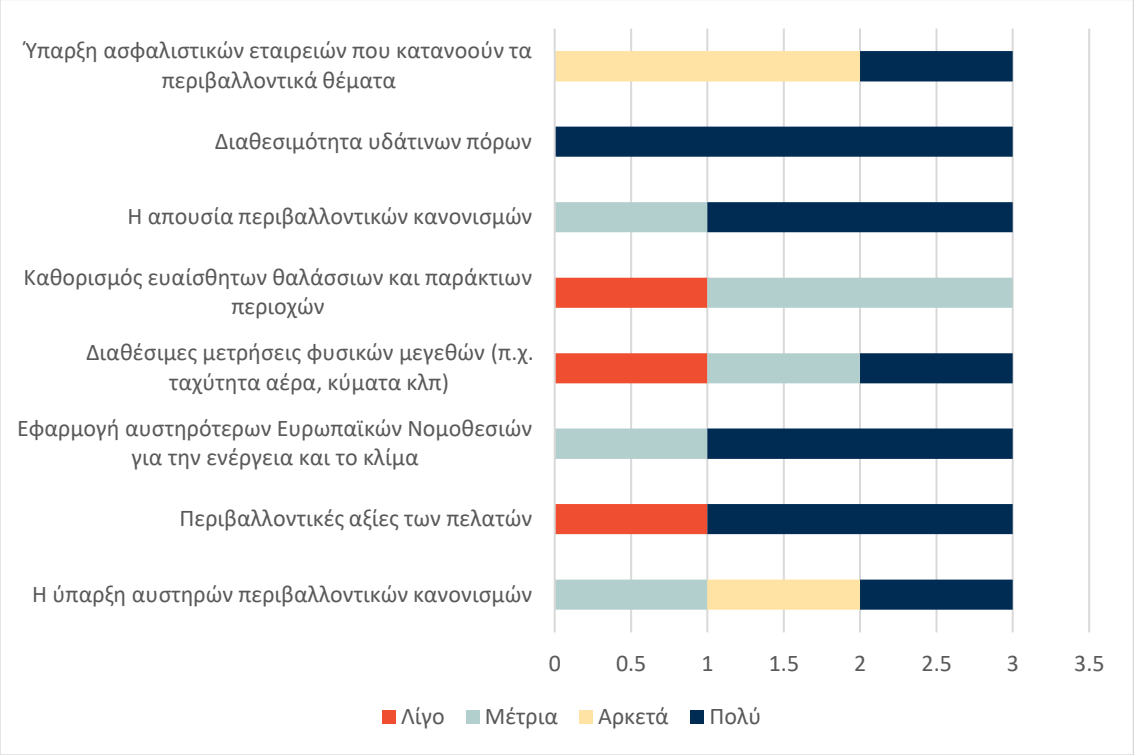

Figure 58: Representation of the diferentiation of the participants voting for each environmental factor

3.3.7 Part C

This section encompasses 6 factors, where the 4 of them have ranked the same score. The 4 most important factors of this category are:

- Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport

- Additional resources in the Recovery and Resilience Plan to promote hydrogen production
- Additional resources in the Recovery and Resilience Plan to promote energy storage
- The revision of the National Energy and Climate Action Plan with more ambitious hydrogen targets

The least important factor is “Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in industry”.

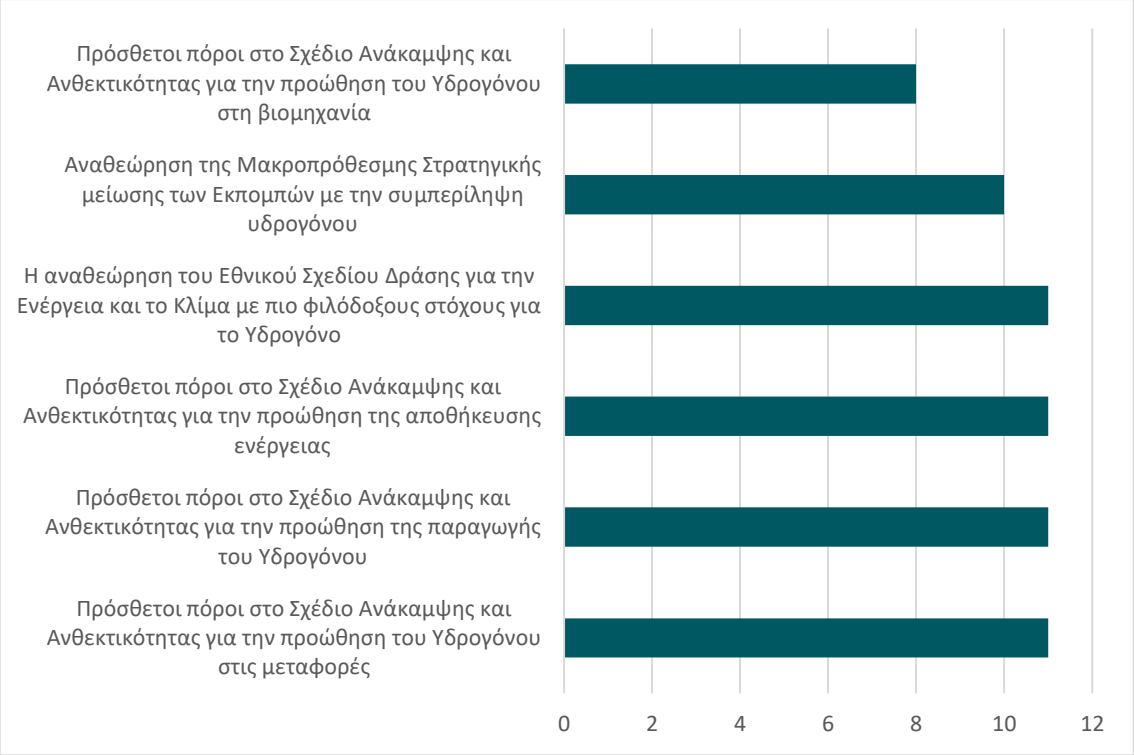

Figure 59: Part C Factors ranked according to their importance

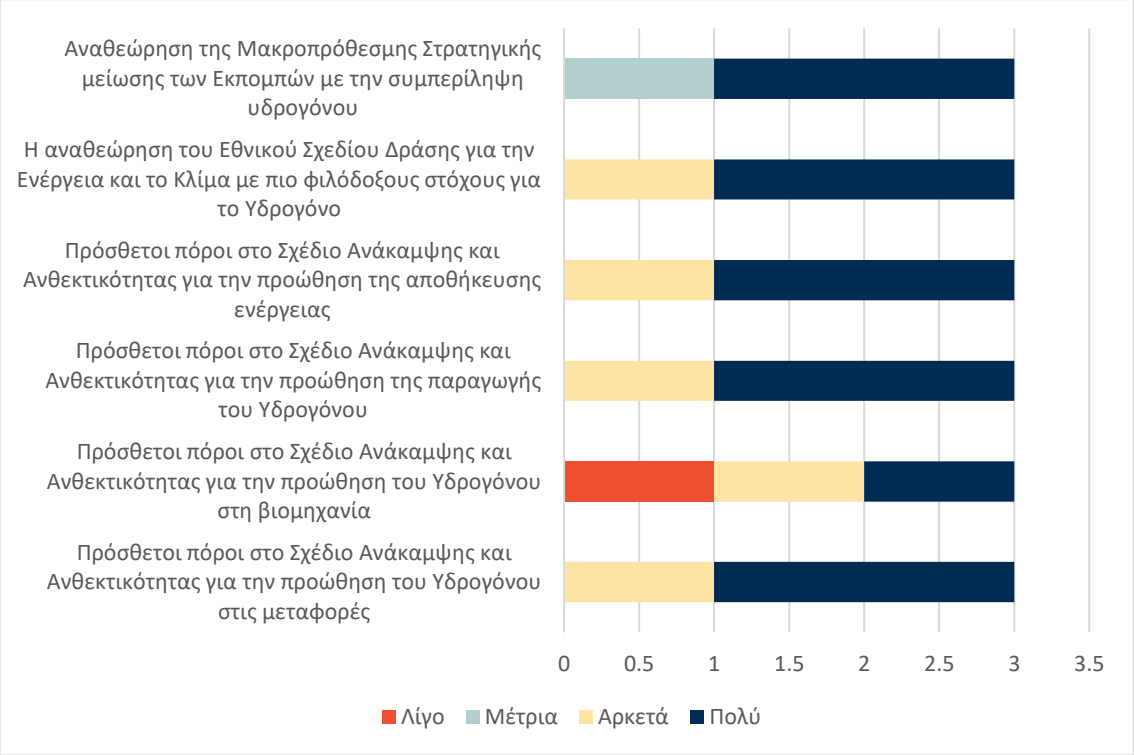

Figure 60: Representation of the diferentiation of the participants voting for each factor in Part C category

3.3.8 Part D

The most important factor has been voted unanimously by the participants as being very important and is the "Additional resources in the Recovery and Resilience Plan for the faster installation of smart meters and / or the upgrade of electrical networks".

Four factors have been identified as the least important due to their average weighted score, however the votes for each one of the factors differ.

- Additional resources to the Recovery and Resilience Plan for the sustainable management of agriculture and water resources
    - Mainly have voted for it to be moderately important
- Additional resources in the Recovery and Resilience Plan to strengthen Cyprus' energy interconnections with neighbouring states
    - A few have voted that the factor is slightly important.
- Additional resources to the Recovery and Resilience Plan for energy modernisation and reduction of greenhouse gas emissions in industry
    - Mainly have voted for it to be moderately important
- Additional resources to the Recovery and Resilience Plan for energy upgrades of buildings
    - Mainly voted for this as important

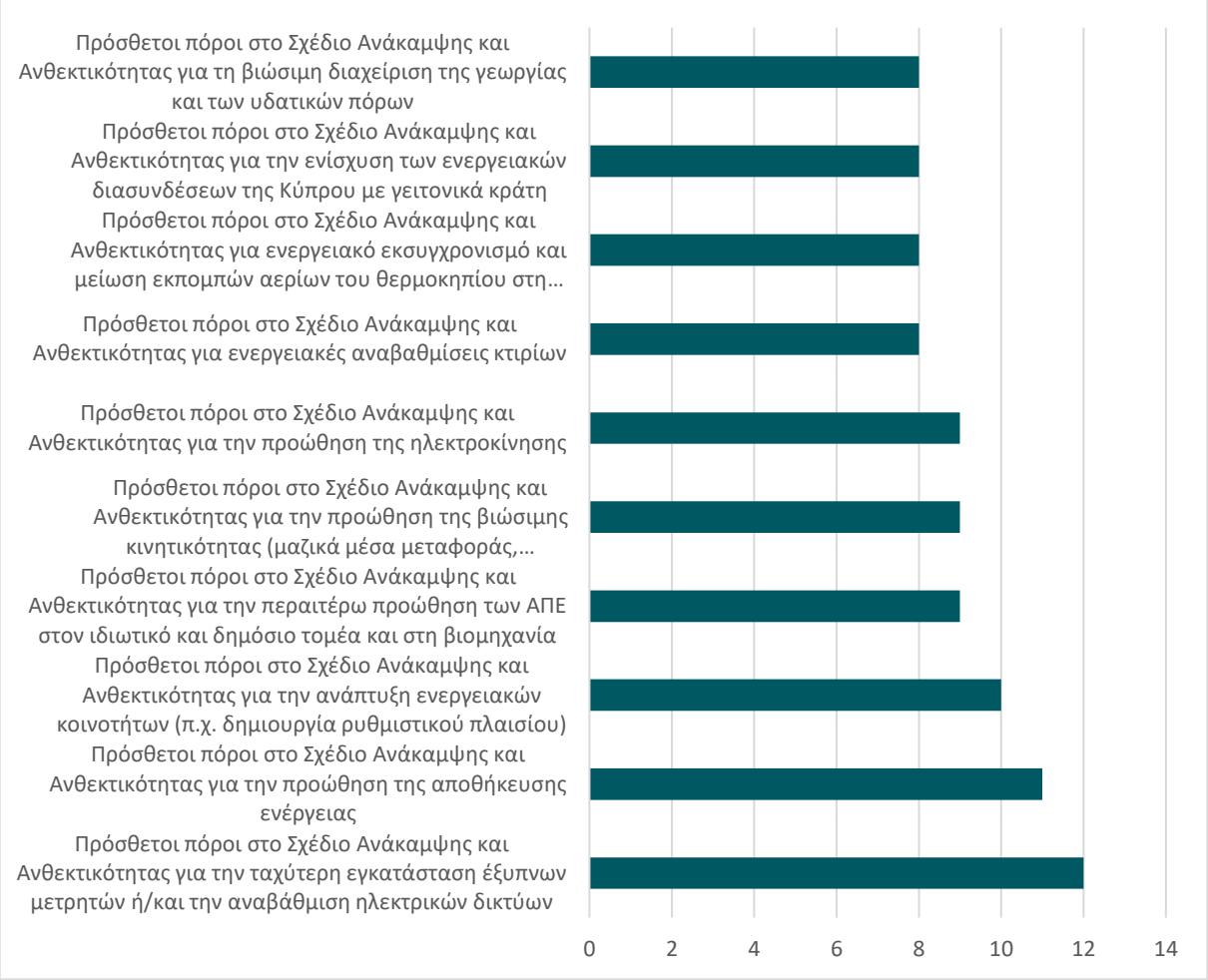

Figure 61: Part D Factors ranked according to their importance

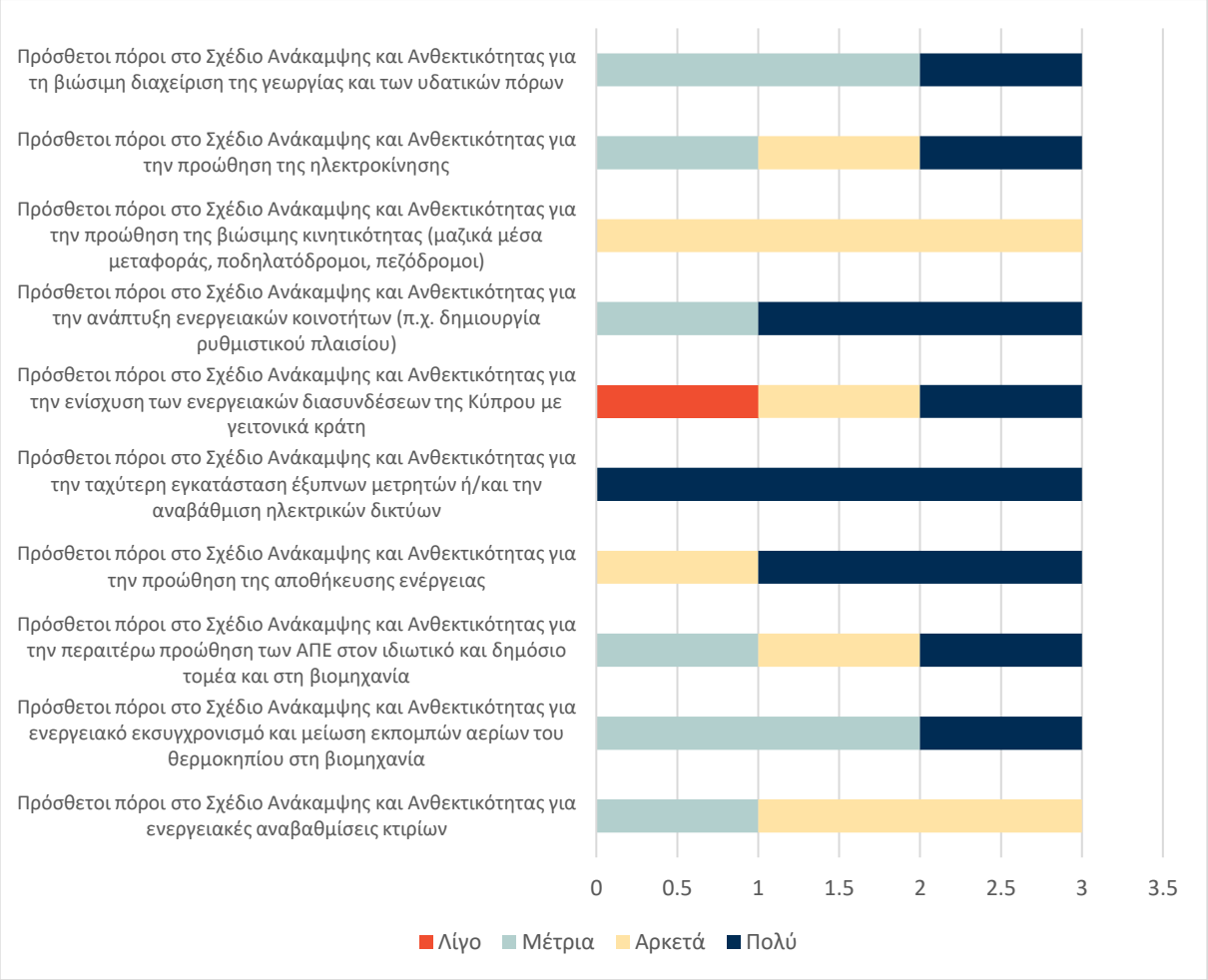

Figure 62: Representation of the diferentiation of the participants voting for each factor in Part D category

3.3.9 PART E

"Lack of a simplified procedure (fast track) for the licensing of RES projects", participants have voted for this factor to be important and very important leading to its score identifying it as the most important.

The least important factor has been voted to be the "Indifference to energy saving issues" with participants mainly voting for it to be slightly important.

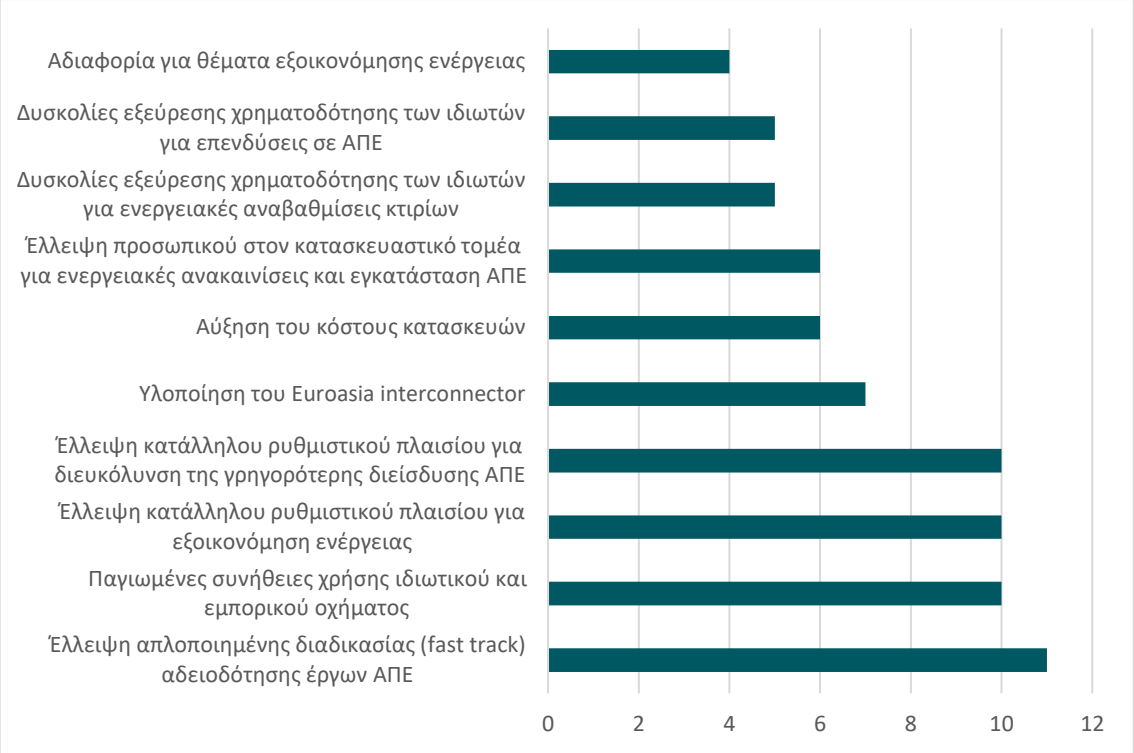

Figure 63: Part E Factors ranked according to their importance

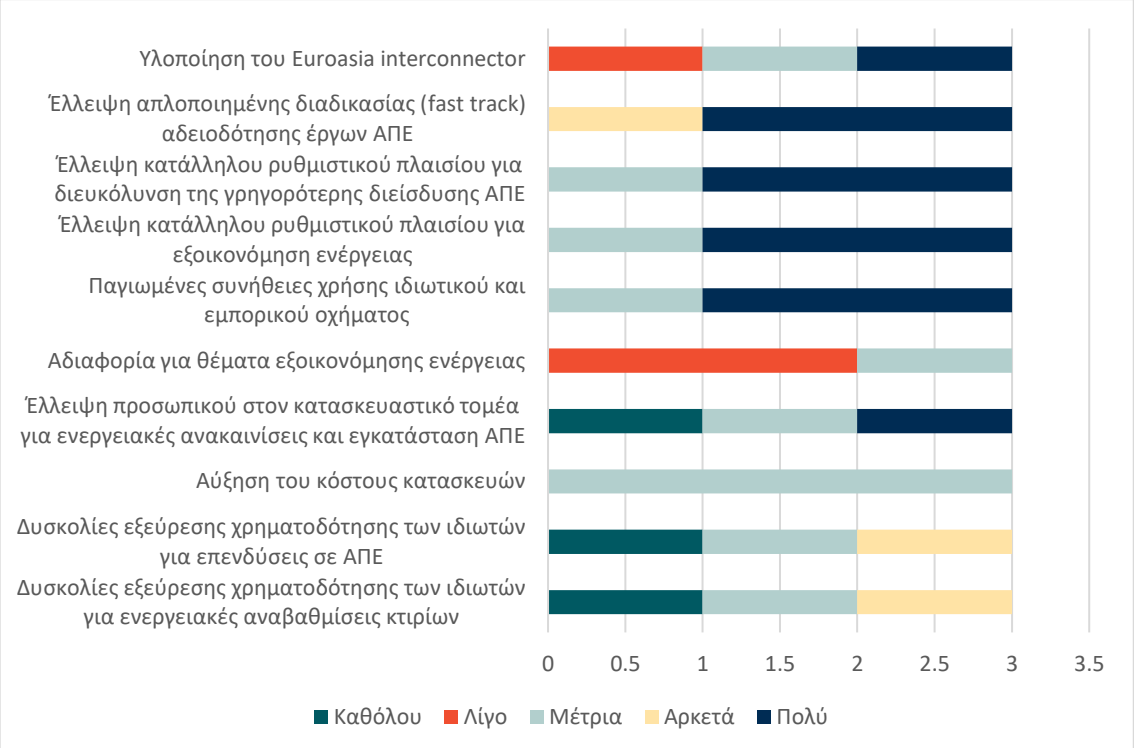

Figure 64: Representation of the diferentiation of the participants voting for each factor in Part E category

3.4 Potential hydrogen users

3.4.1 Political Factors

For this category, the participants have voted for 4 factors, unanimously, as very important which have been identified as the most important.

- Type of government and political stability
- Freedom of the press
- Levels of bureaucracy and corruption
- Understanding by the government and government policy on the necessity of promoting hydrogen most important

The least important factor is “the ease of decision-making and facilities for the development of hydrogen infrastructure”.

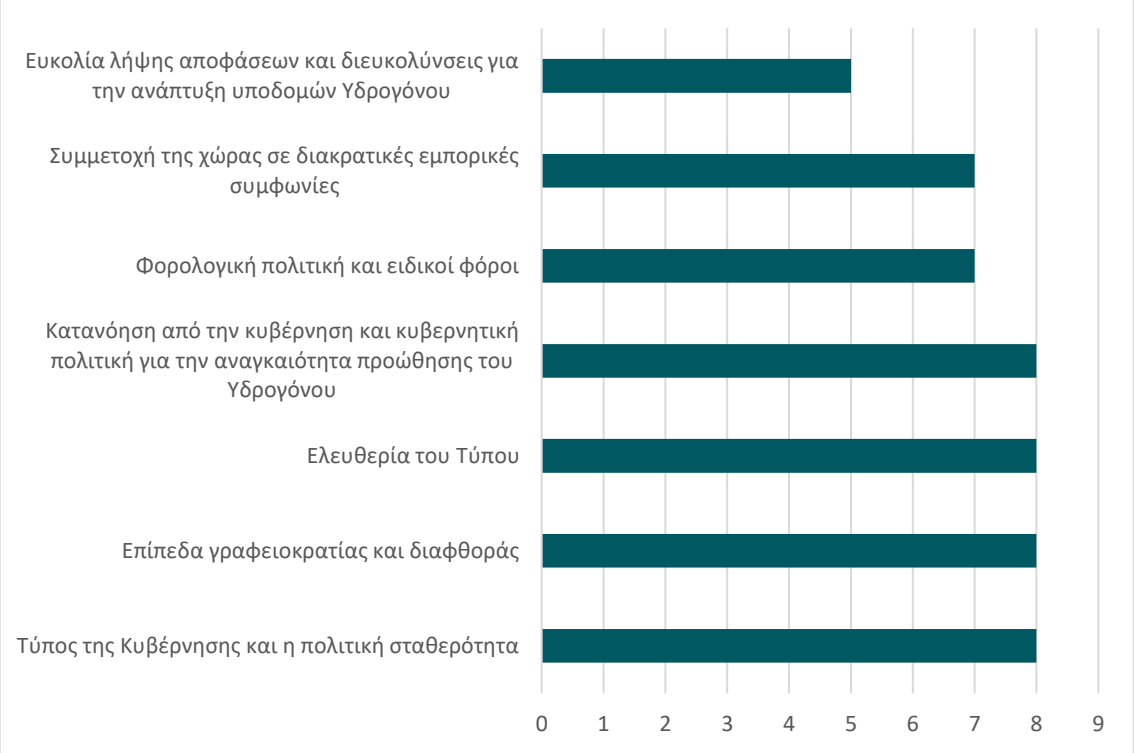

Figure 65: Political factors ranking of importance

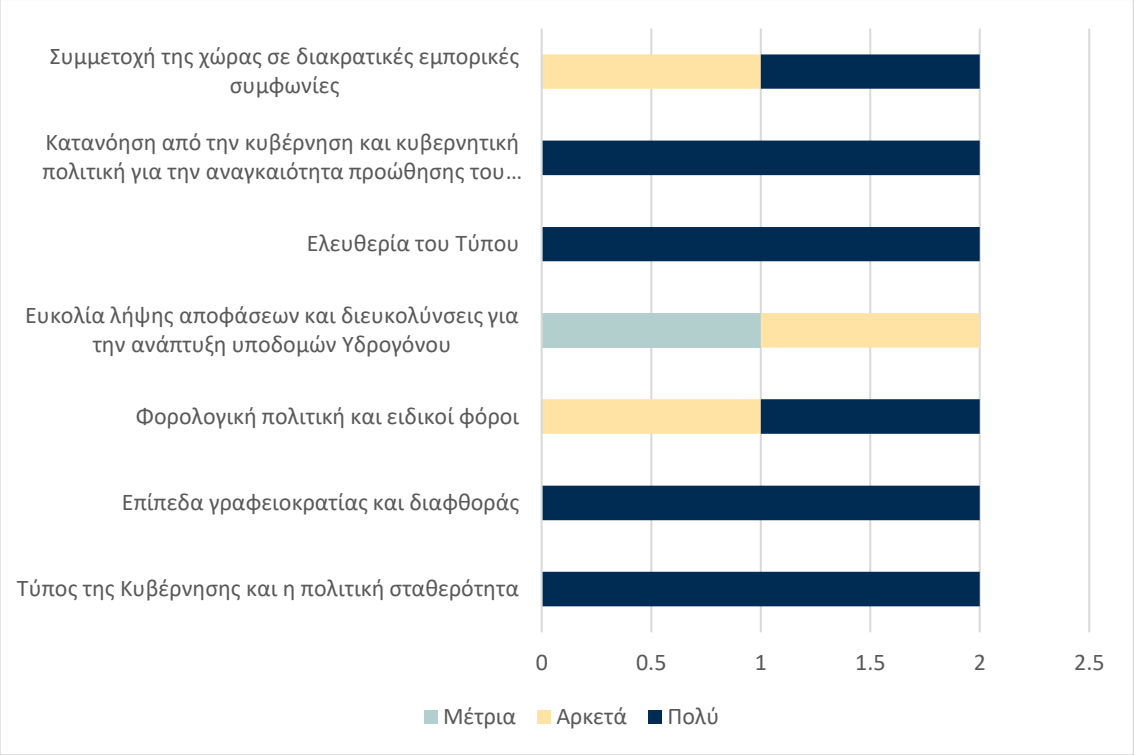

Figure 66: Representation of the diferentiation of the participants voting for each political factor

3.4.2 Economic Factors

In this category, three factors have been weighted equally and identified as the most important factors as they have been unanimously voted as very important by the participants.

- Current and projected economic growth of the country
- Availability of financial instruments and lending facilities
- Lending rates

The least important has been voted to be the “Freedom of the press is the least important here along with the impact of globalisation”.

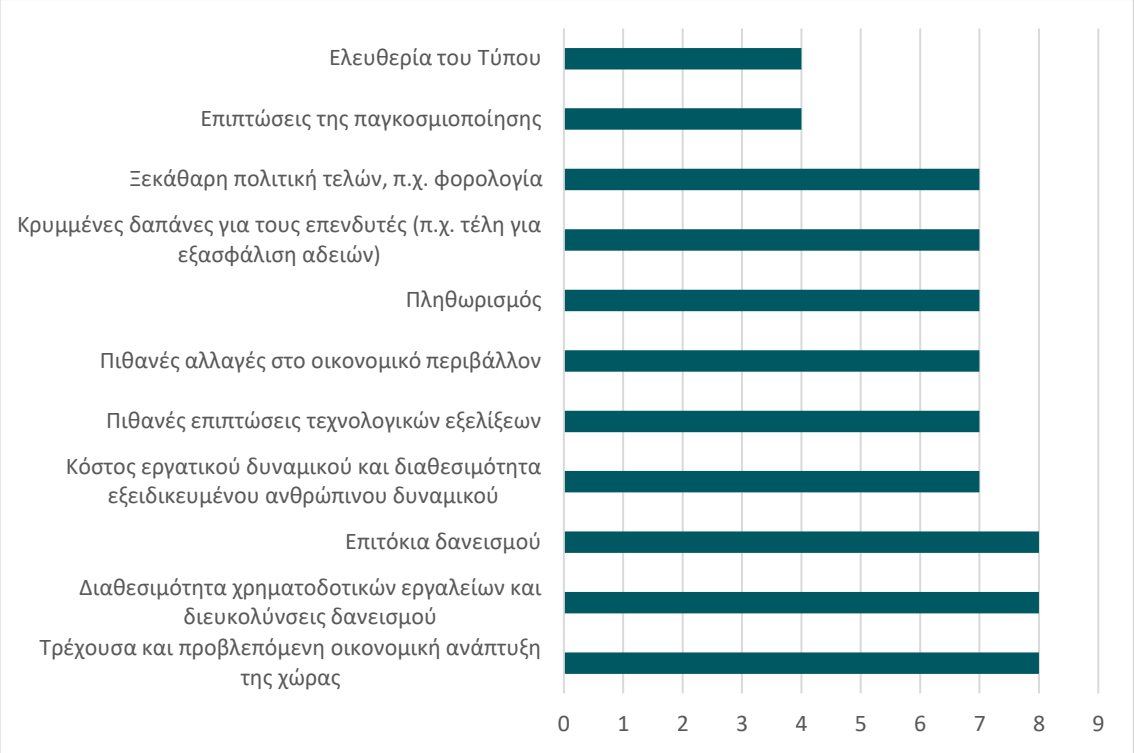

Figure 67: Economic factors category ranking of importance

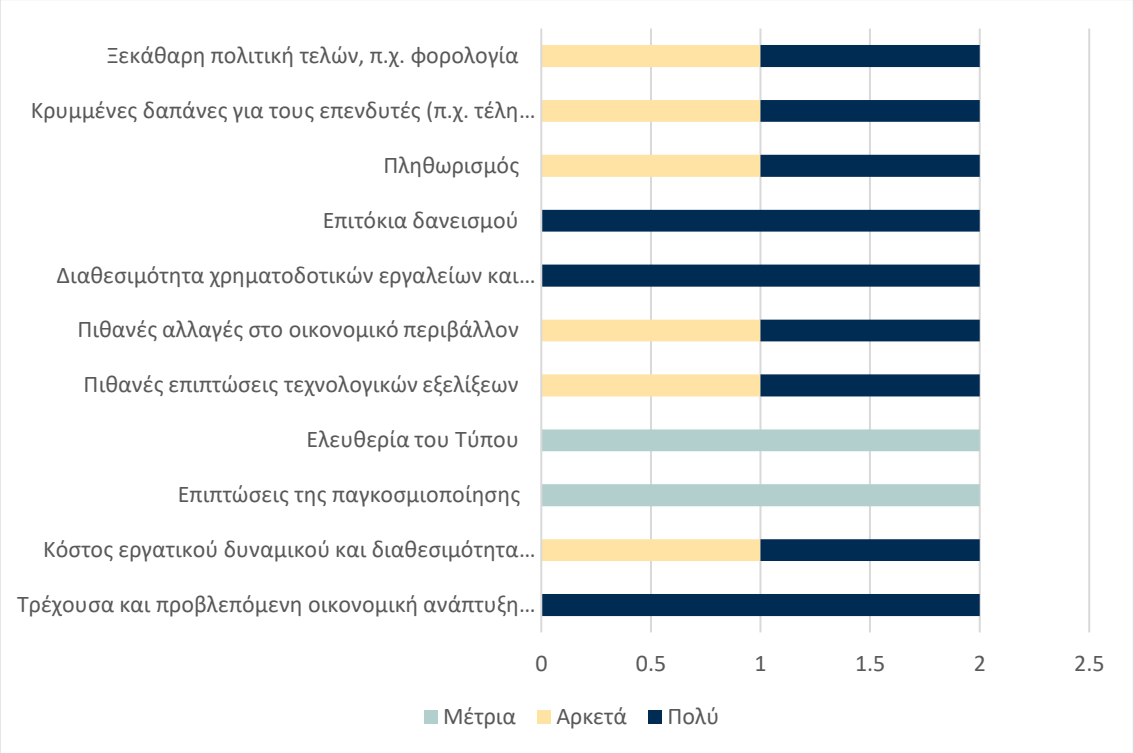

Figure 68: Representation of the diferentiation of the participants voting for each economic factor

3.4.3 Social Factors

The participants have voted two factors as the most important with the same weight which are the following:

- Public acceptance of Hydrogen technologies

- Acceptance of Hydrogen technologies by local government and central government

The least important factor has been identified to be the "Attitude towards the labour market or Market potential in the development of new skilled jobs".

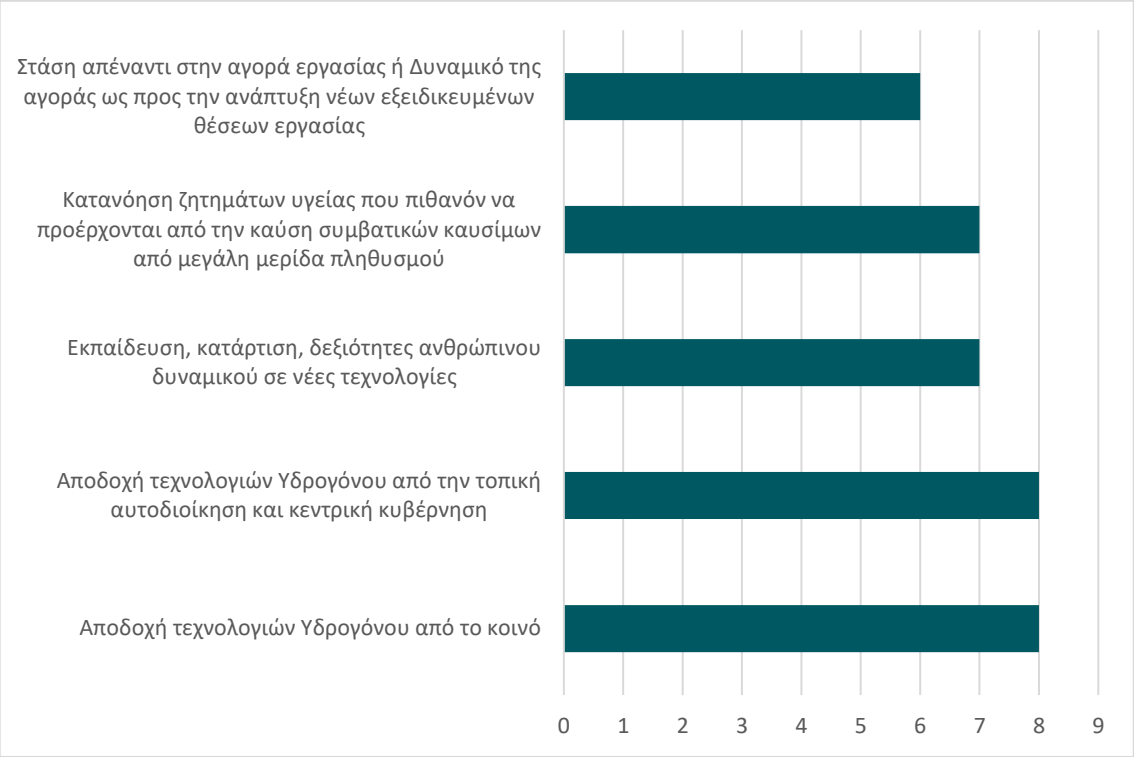

Figure 69: Social Factors ranking of importance

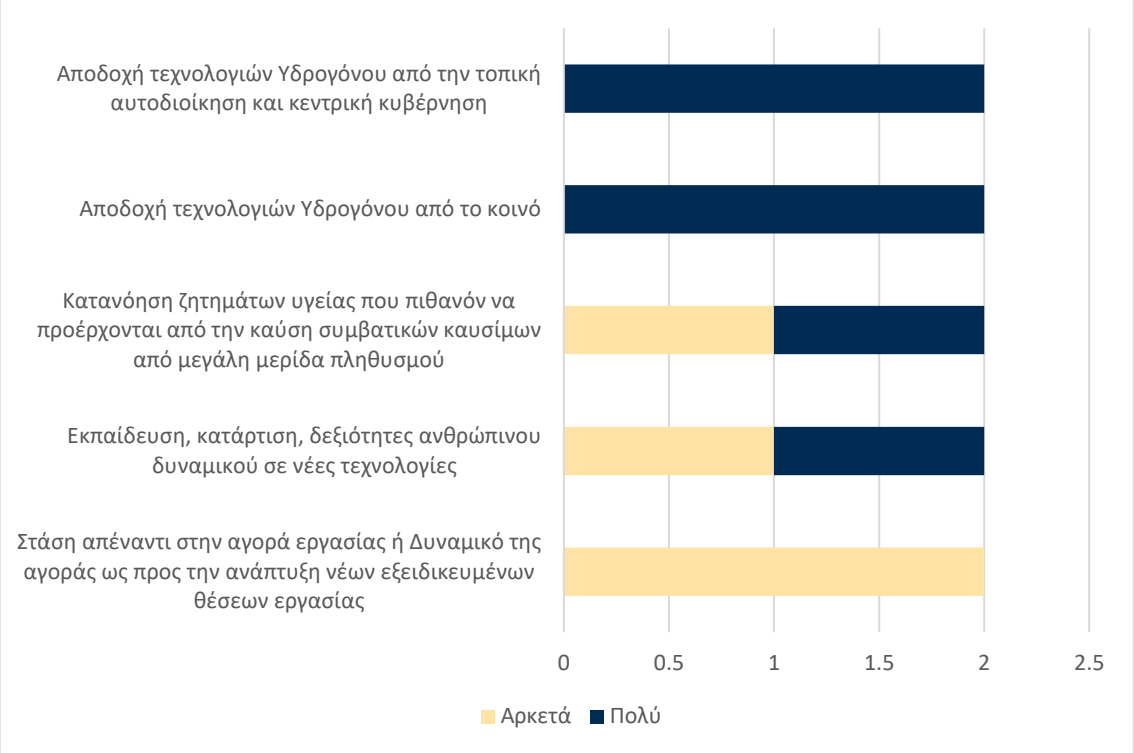

Figure 70: Representation of the diferentiation of the participants voting for each social factor

3.4.4 Technological Factors

In this category, the participants have voted unanimously for four of the factors to be very important and identified them as the most important, the factors are as followed:

- Energy / sources / fuels related to / dependent on technologies
- Maturity of technology versus other competing technologies
- Development of smart grids and microgrids
- Duration of construction of substations or other infrastructure

The least important factor has been identified to be the “Ease of infrastructure development”.

Figure 71: Technological Factors ranking of importance

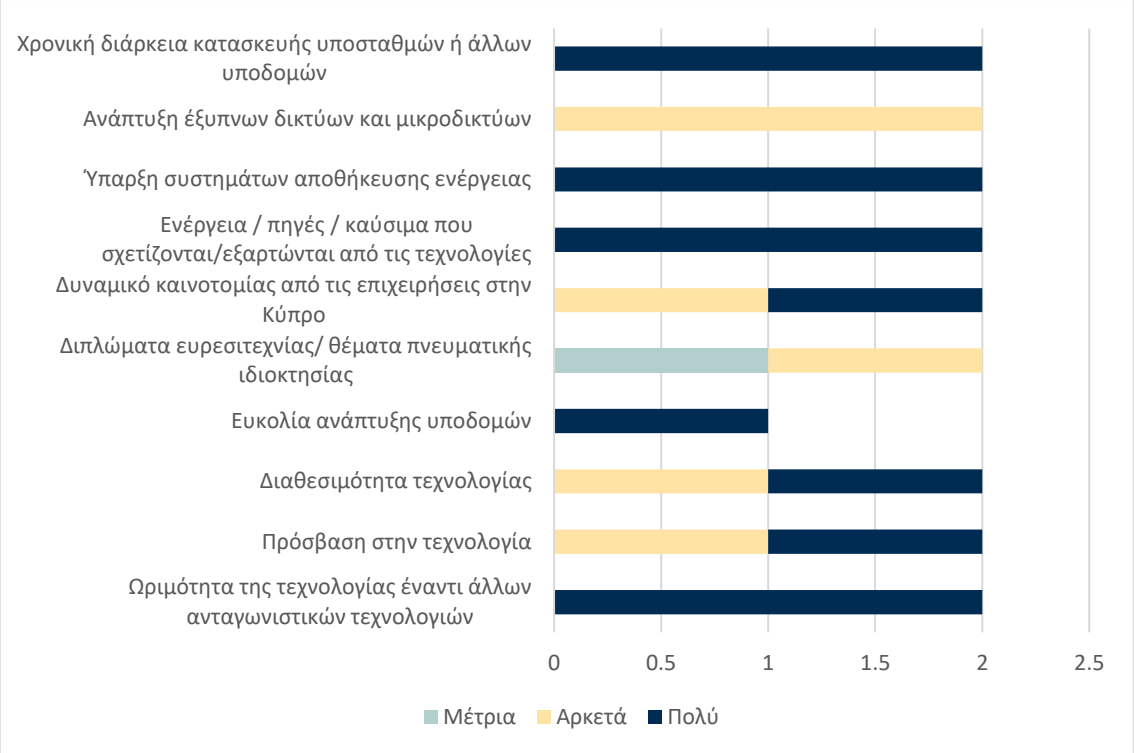

Figure 72: Representation of the diferentiation of the participants voting for each technological factor

3.4.5 Legal Factors

The potential hydrogen users have voted the following factors as the most important, voting unanimously that they are very important, giving them the weight of 4

- Elaboration & adoption of a National Plan for the promotion of Hydrogen
- Sponsorship schemes to assist Hydrogen technologies
- Single hydrogen market rules
- Funds available for research and development

The ranking given by the potential users stakeholder group shows that for this group the particular factor is really important to be considered for development of the Hydrogen Strategy of Cyprus, according to this group.
The rest of the factors have been equally weighted as the least important.

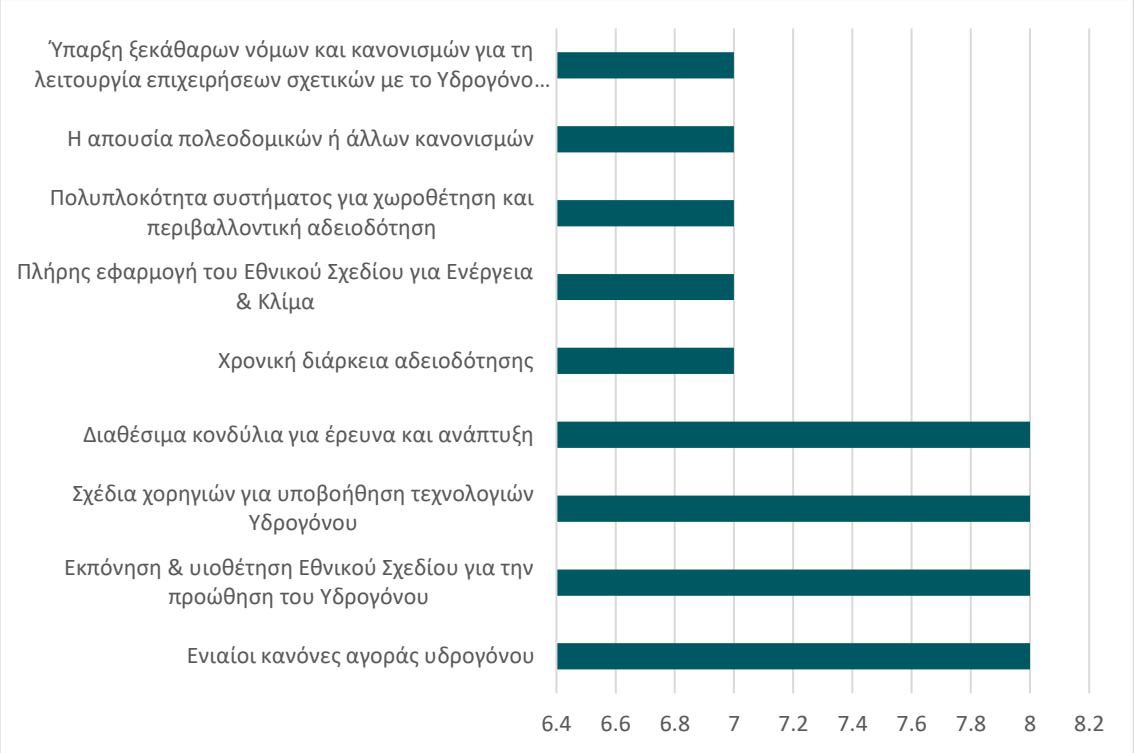

Figure 73: Legal Factors ranking of importance

Figure 74: Representation of the diferentiation of the participants voting for each legal factor

3.4.6 Environmental Factors

There are two factors that have been voted equally as the most important by the participants voting for them as being very important within this category and they are the following:

- The existence of strict environmental regulations

- Implementation of stricter European energy and climate legislation

The least important factor has been voted the "Existence of insurance companies that understand environmental issues".

Figure 75: Environmental Factors Ranking of importance

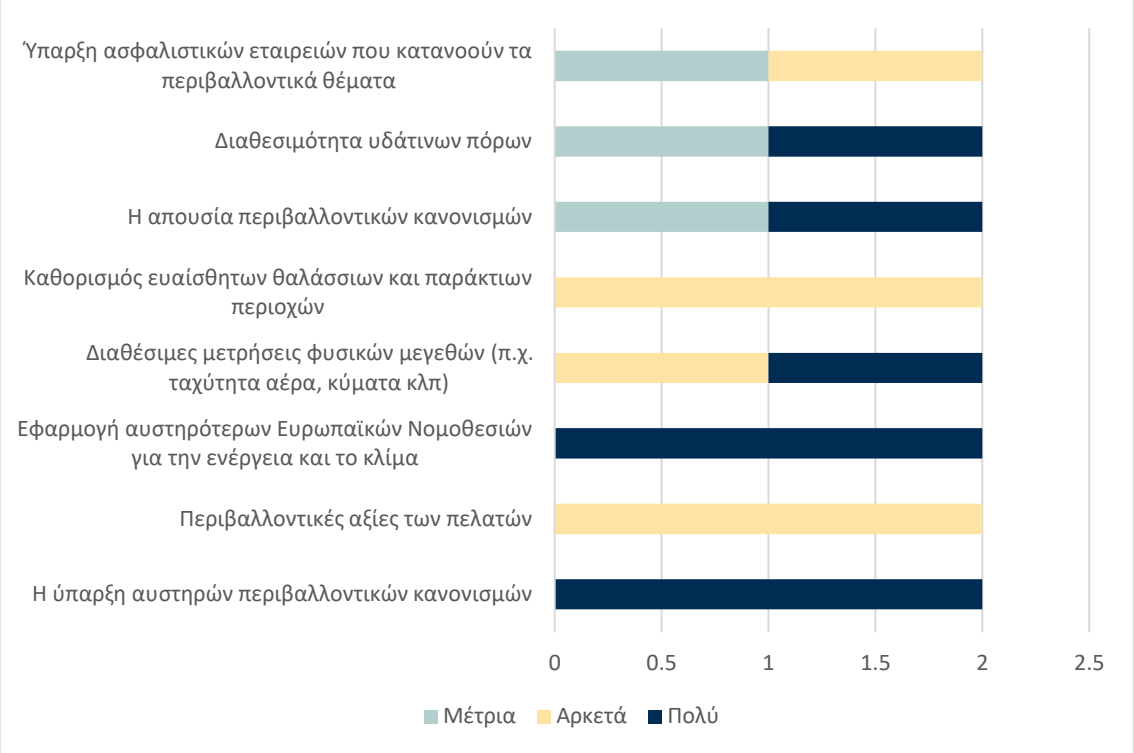

Figure 76: Representation of the diferentiation of the participants voting for each environmental factor

3.4.7 Part C

The most important have been voted to be the following, and have also ben voted to be very important unanimously by the participants in this sector:

- Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport
- Additional resources in the Recovery and Resilience Plan to promote hydrogen production
- Additional resources in the Recovery and Resilience Plan to promote energy storage
- Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in industry

Least important factors have gotten the same weight and are the following:

- Review of the Long-Term Strategy for Reducing Emissions including hydrogen
- The revision of the National Energy and Climate Action Plan with more ambitious hydrogen targets

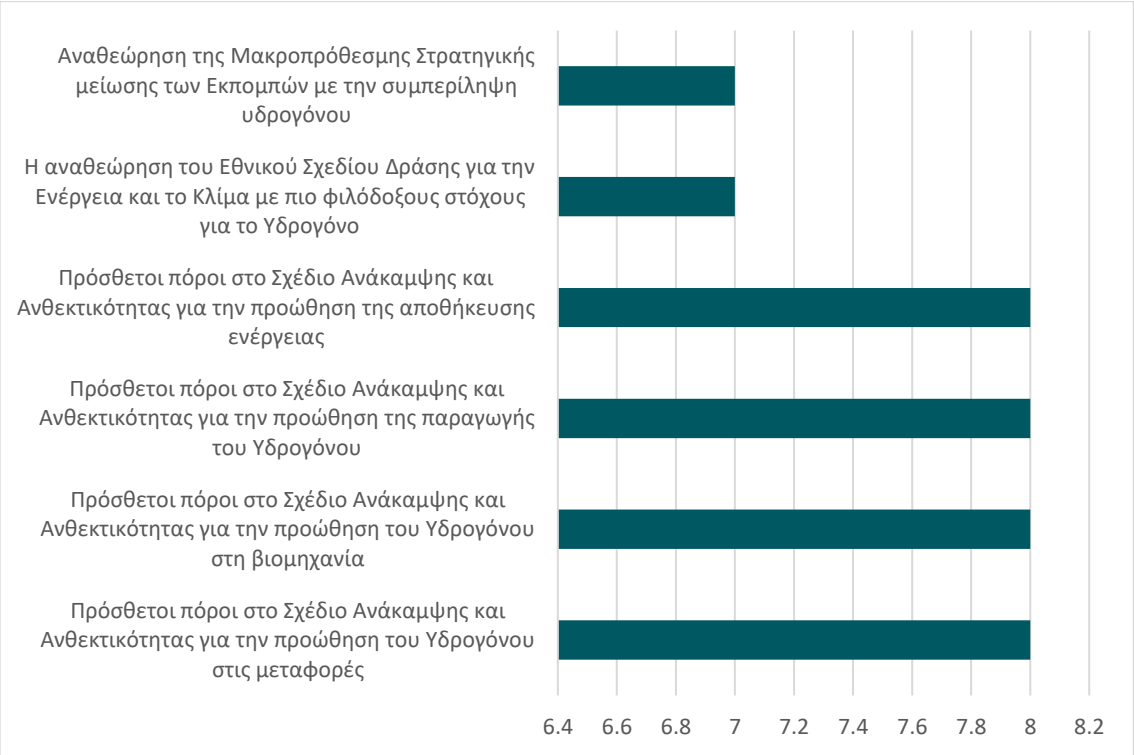

Figure 77: Part C Factors ranked according to their importance

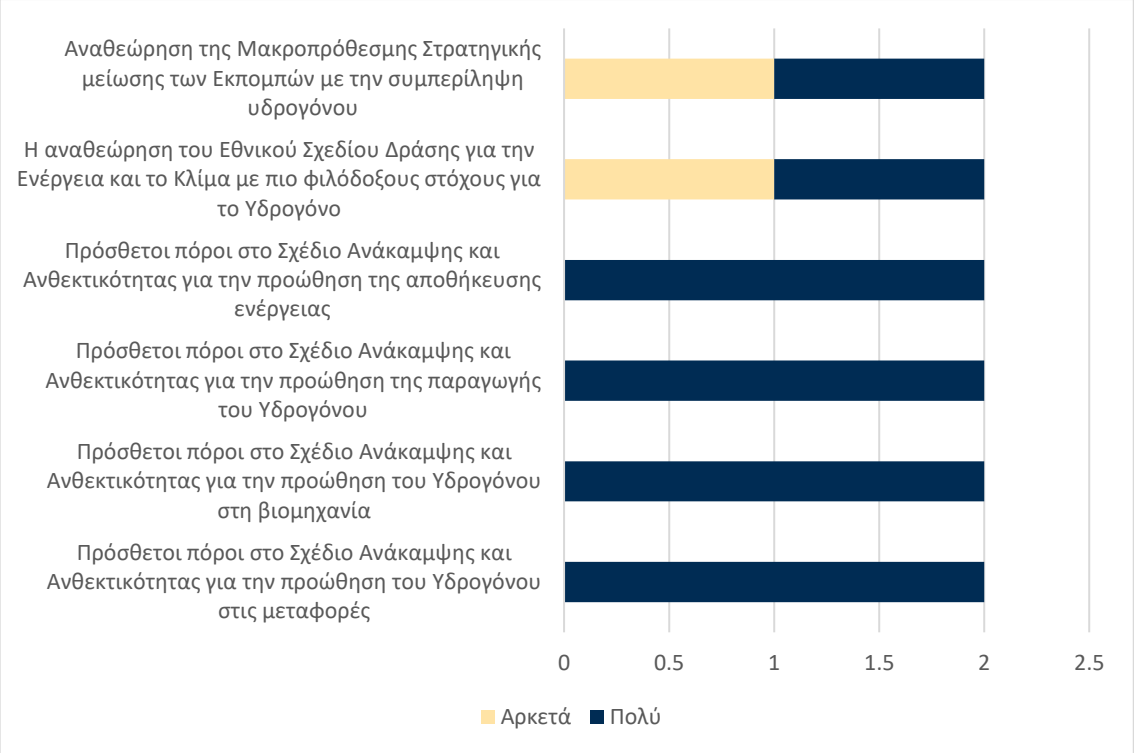

Figure 78: Representation of the diferentiation of the participants voting for each factor in Part C category

3.4.8 Part D

Three factors have been voted as the most important, by the participants voting for them as very important:

- Additional resources to the Recovery and Resilience Plan for energy modernisation and reduction of greenhouse gas emissions in industry
- Additional resources to the Recovery and Resilience Plan to promote energy storage
- Additional resources to the Recovery and Resilience Plan to promote electromobility

Three factors have been voted as the least important and have been voted the same by the participants

- Additional resources to the Recovery and Resilience Plan for the development of energy communities (e.g. creation of a regulatory framework)
- Additional resources in the Recovery and Resilience Plan to strengthen Cyprus' energy interconnections with neighbouring states
- Additional resources in the Recovery and Resilience Plan for the faster installation of smart meters and / or the upgrade of electrical networks

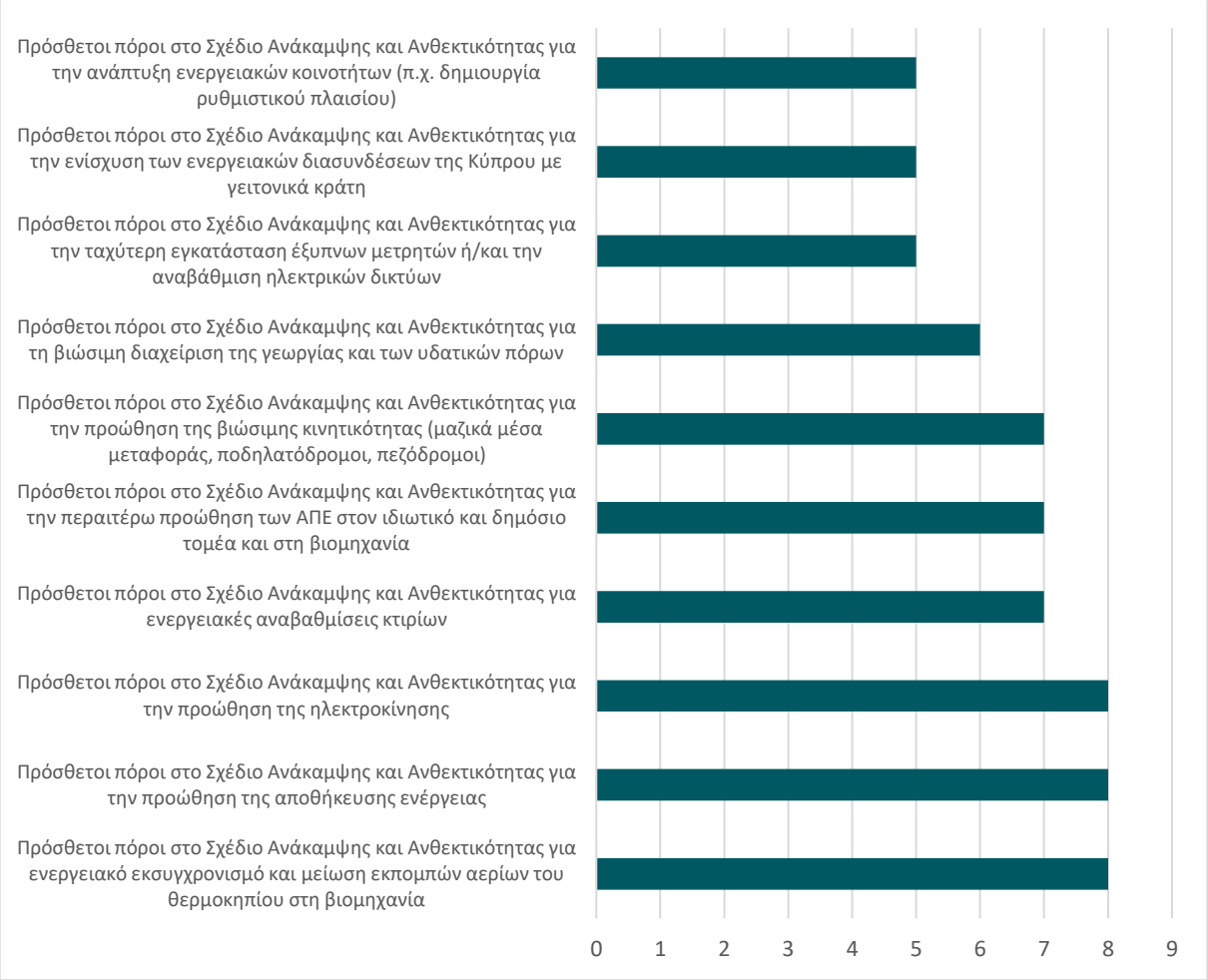

Figure 79: Part D Factors ranked according to their importance

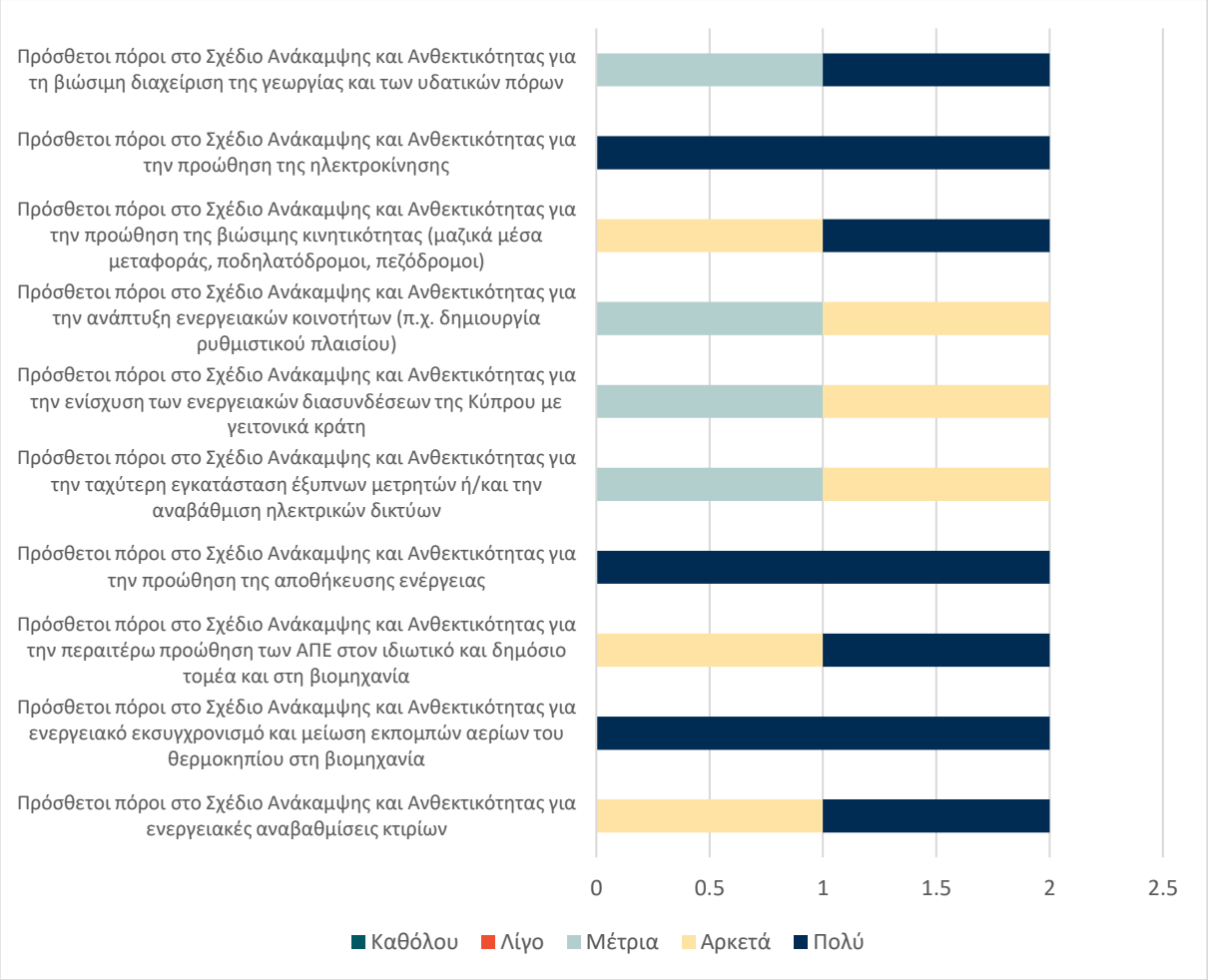

Figure 80: Representation of the diferentiation of the participants voting for each factor in Part D category

3.4.9 Part E

Two factors have been voted as the most important and have given the same weighted score, as the participants have voted for them as being important and very important:

- Increase in construction costs
- Lack of a simplified procedure (fast track) for the licensing of RES projects

Two factors have also been weighed the same as the least important

- Lack of staff in the construction sector for energy renovations and installation of RES
- Difficulties in finding funding for individuals for investments in RES

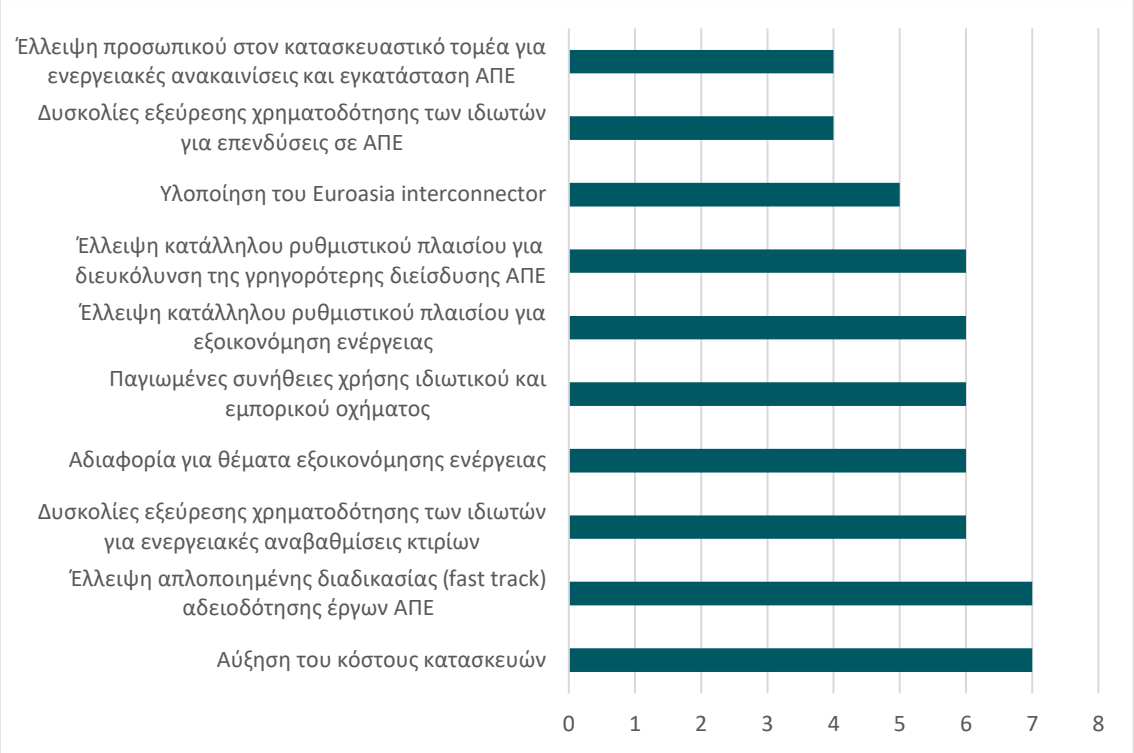

Figure 81: Part E Factors ranked according to their importance

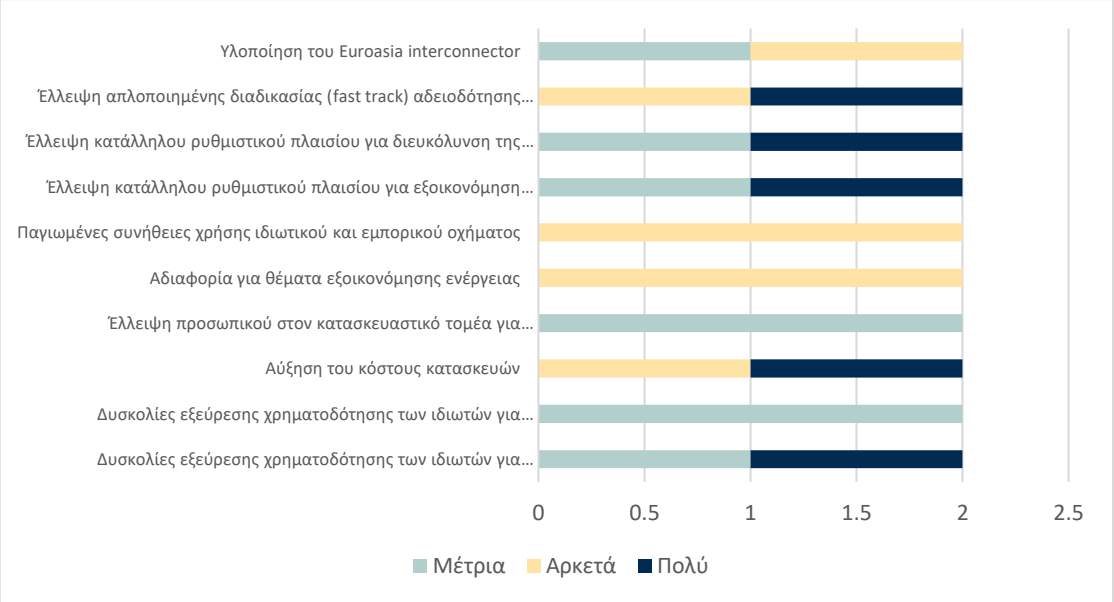

Figure 82: Representation of the diferentiation of the participants voting for each factor in Part E category

3.5 Business Associations

3.5.1 Political Factors

Four factors have been voted similarly by the participants and have been given the same weighted score which is identified as being the most important factor. The factors are shown below:

- Press of government and political stability
- Understanding by the government and government policy on the necessity of promoting Hydrogen
- Tax policy and excise duties

- Participation of the country in interstate trade agreements

The least important factor has been identified the "Ease of decision-making and facilities for the development of Hydrogen infrastructure".

Figure 83: Political factors ranking of importance

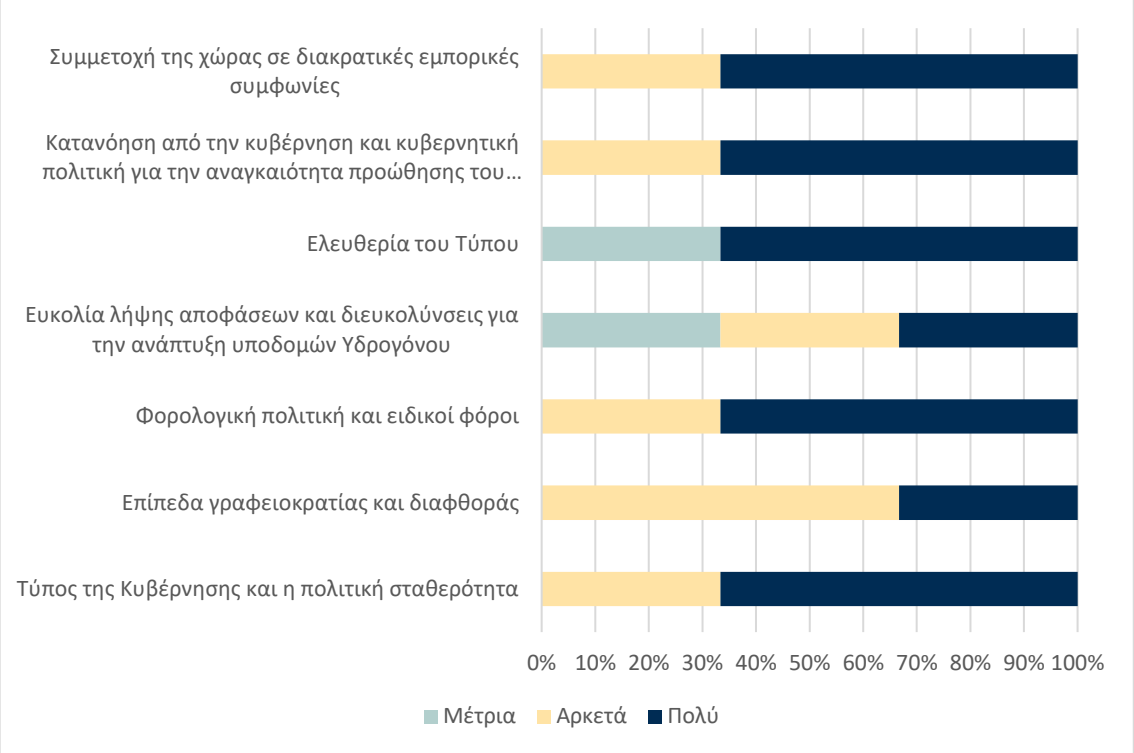

Figure 84: Representation of the diferentiation of the participants voting for each political factor

3.5.2 Economic Factors

The most important factors have been voted unanimously as very important, the two factors are:

- Availability of financial instruments and lending facilities
- Lending rates

The least important factor has been voted the "freedom of the press" with some of the participants voting it as slightly and some as moderately important.

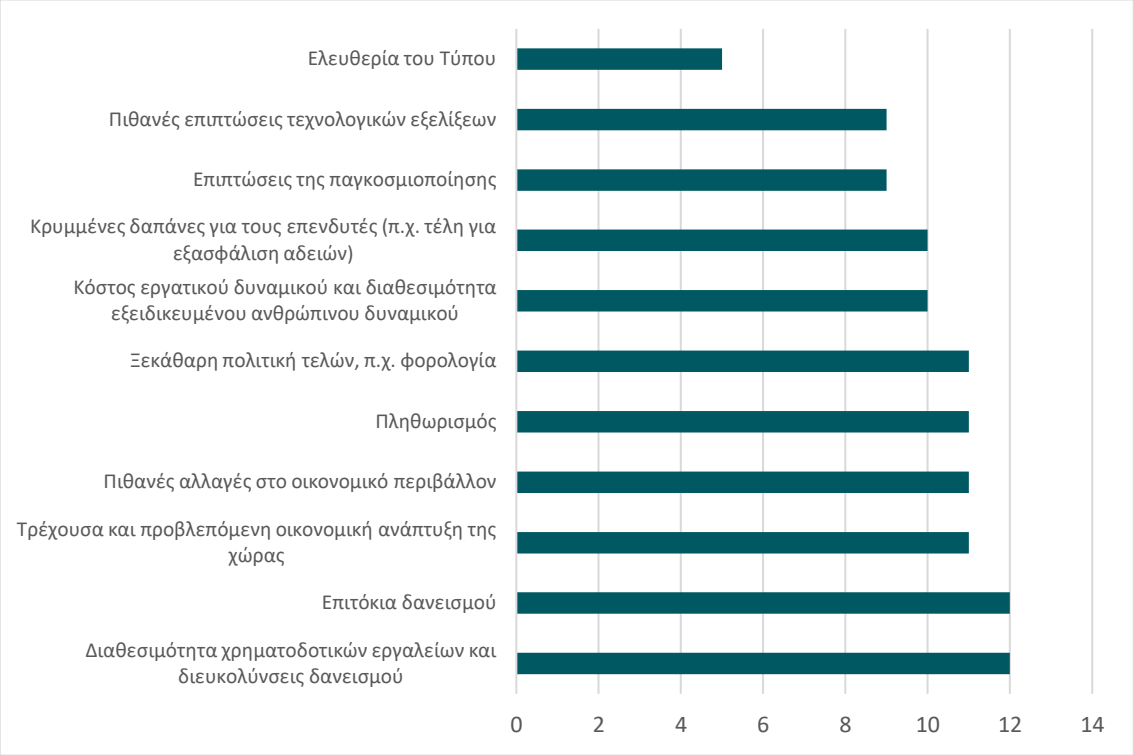

Figure 85: Economic factors category ranking of importance

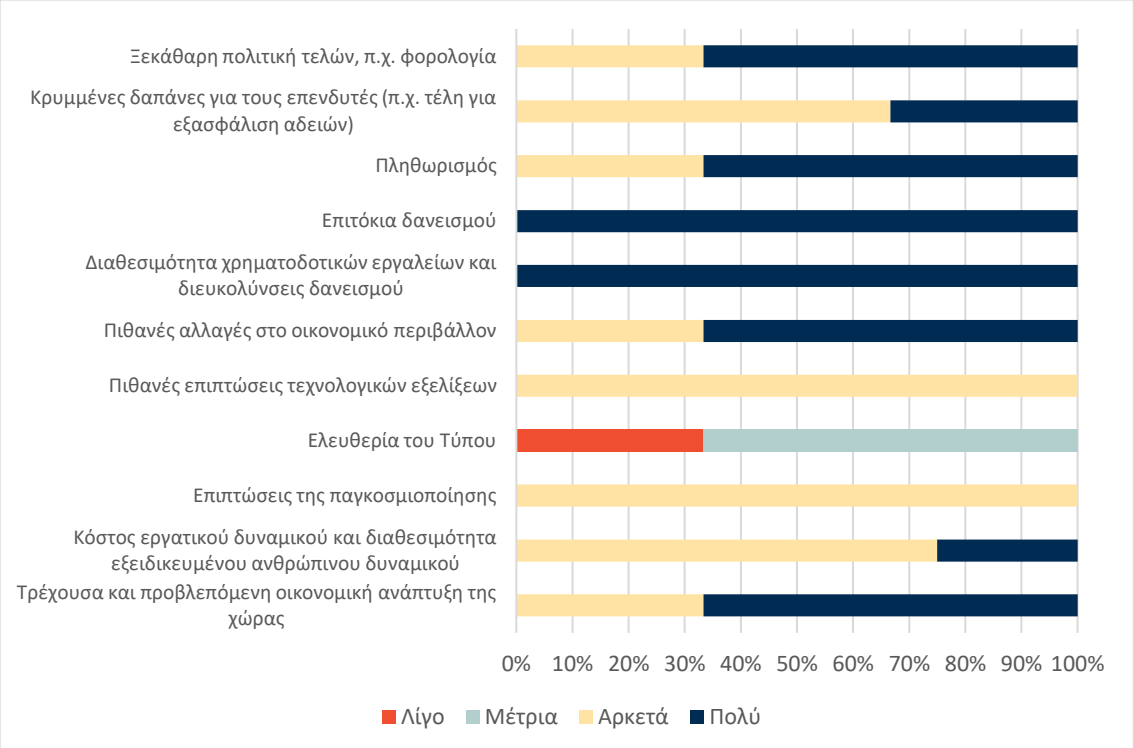

Figure 86: Representation of the diferentiation of the participants voting for each economic factor

3.5.3 Social Factors

With equal weight, as they are voted similarly, there are two factors that have been identified as the most important

- Public acceptance of Hydrogen technologies
- Acceptance of Hydrogen technologies by local government and central government

Least important - Attitude towards the labour market or Market potential in the development of new skilled jobs

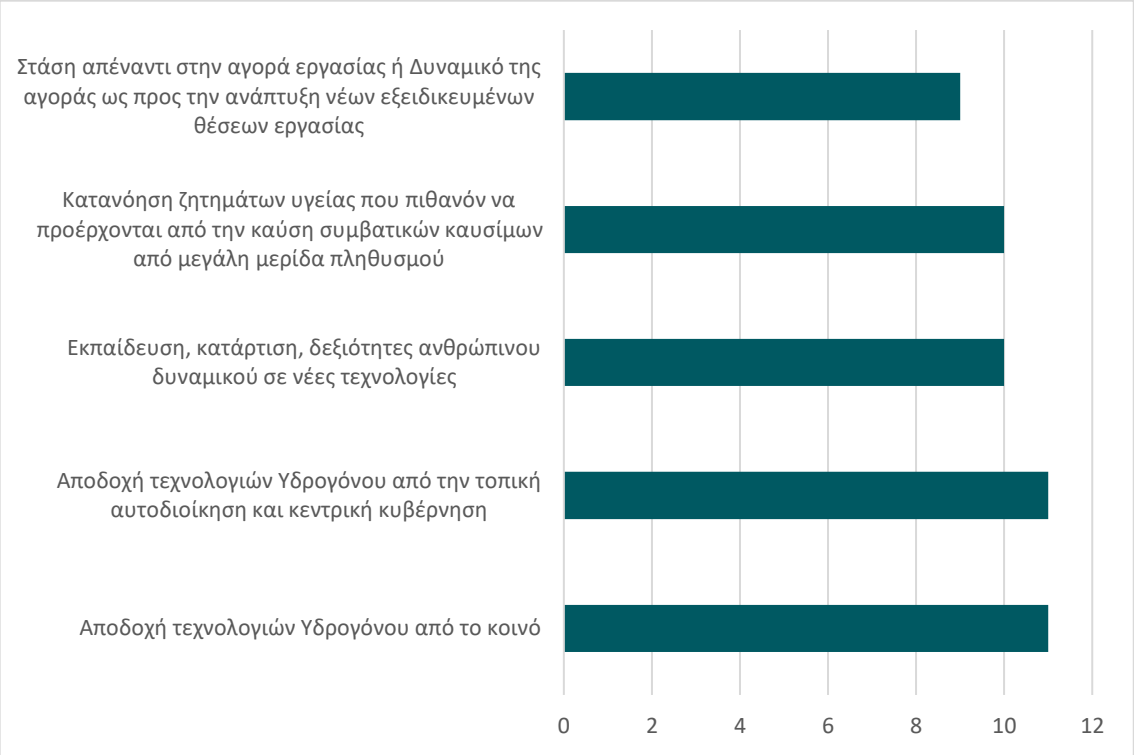

Figure 87: Social Factors ranking of importance

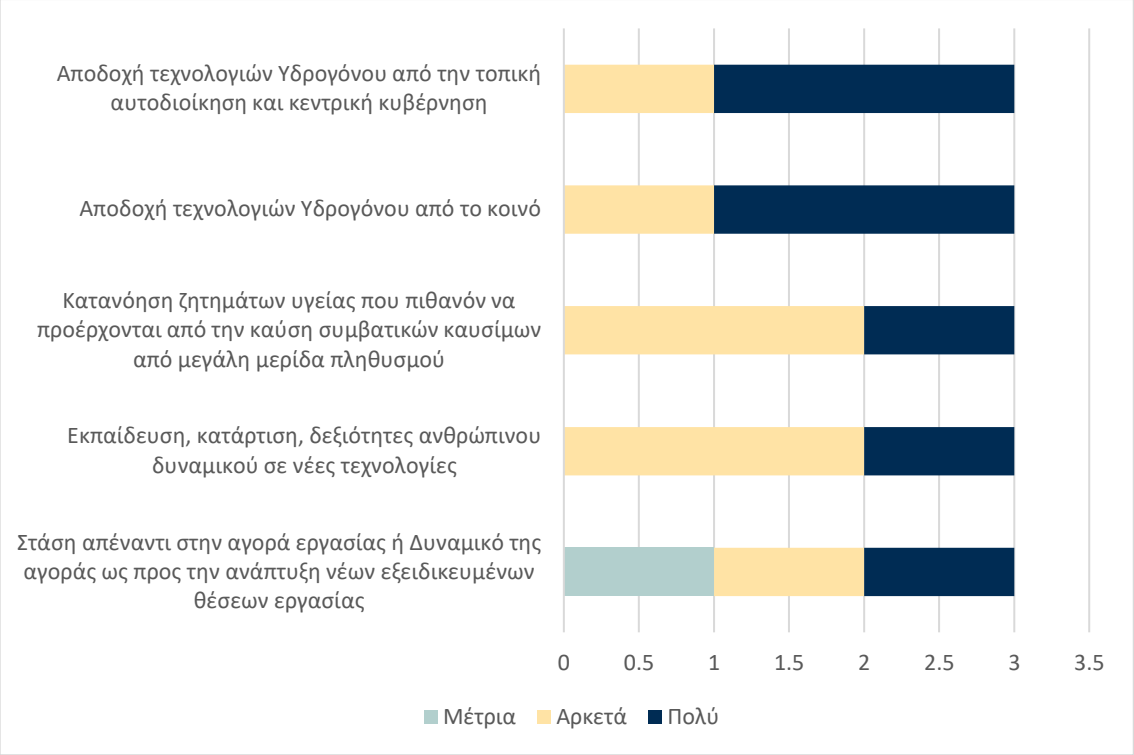

Figure 88: Representation of the diferentiation of the participants voting for each social factor

3.5.4 Technological Factors

Three factors have been identified as the most important as their calculated weight is the same. The factors are the following:

- Existence of energy storage systems
- Technology availability
- Ease of infrastructure development

The factor “Patents/ intellectual property issues” has been identified as the least important.

Figure 89: Technological Factors ranking of importance

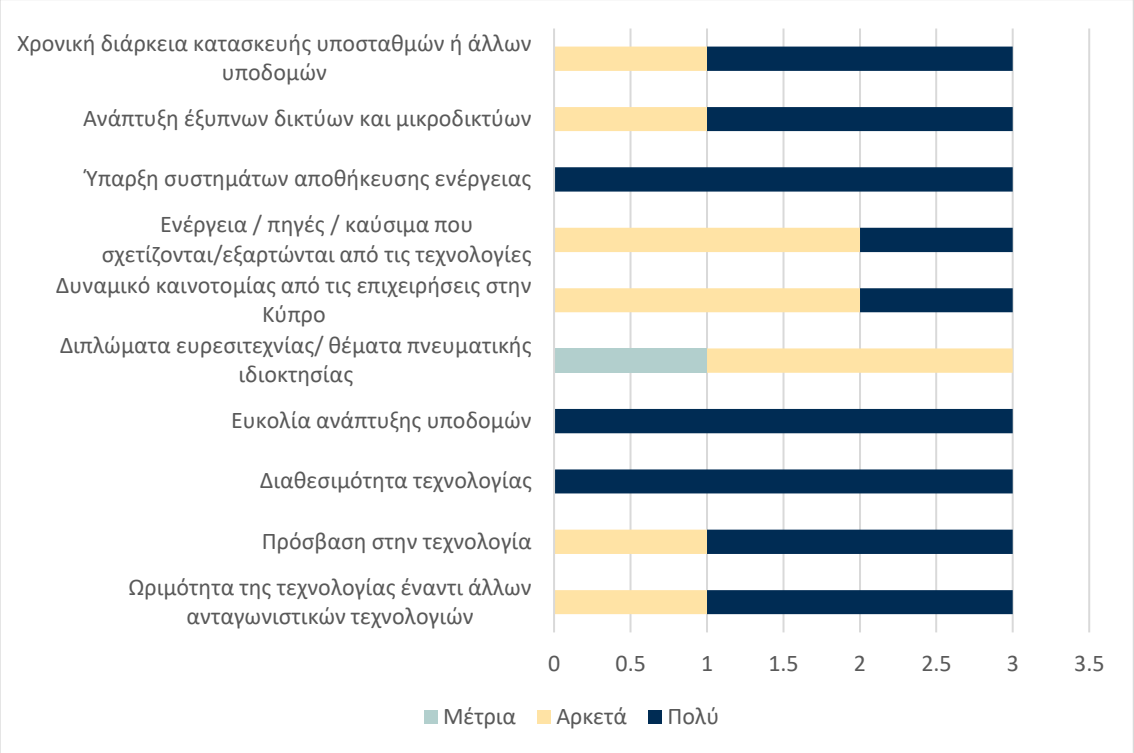

Figure 90: Representation of the diferentiation of the participants voting for each technological factor

3.5.5 Legal Factors

In this category, five factors have been weighed the same and have been voted as very important by all of the participants, identifying them as the most important. These factors are the following:

- The absence of urban planning or other regulations

- Existence of clear laws and regulations for the operation of hydrogen-related enterprises (production, use, distribution)
- Elaboration & adoption of a National Plan for the promotion of Hydrogen
- Sponsorship schemes to assist Hydrogen technologies
- Funds available for research and development

As the least important factors, the participants have identified four factors which are the following and have given them the same weight as they have voted for these factors the same.

- Single hydrogen market rules
- Duration of licensing
- Full implementation of the National Energy & Climate Plan
- System complexity for siting and environmental permitting

It can be seen that in this category the participants have split the factors into the most important and the least important as only 2 weights exist.

Figure 91: Legal Factors ranking of importance

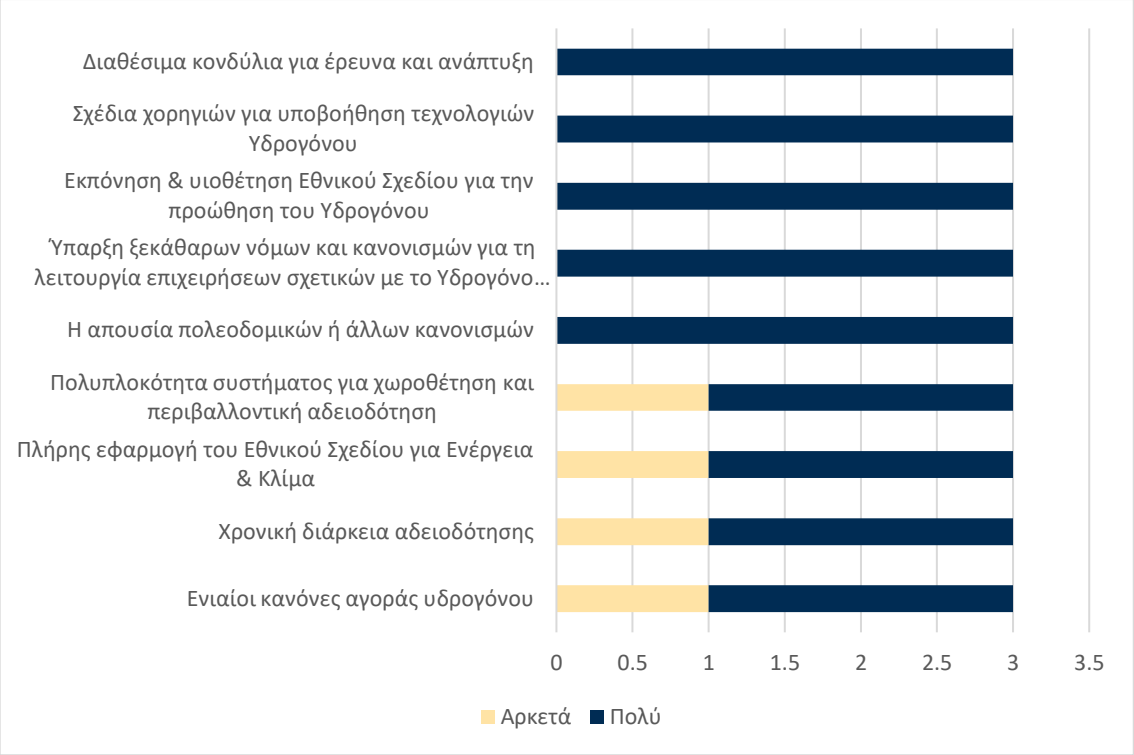

Figure 92: Representation of the diferentiation of the participants voting for each legal factor

3.5.6 Environmental Factors

Four factors have been identified as the most important in this category and have been given the same weight as they have been voted the similarly by the participants. Those factors are:

- The existence of strict environmental regulations
- Implementation of stricter European energy and climate legislation
- Environmental values of customers
- The absence of environmental regulations

The factor "Existence of insurance companies that understand environmental issues" has been voted as the least important.

Figure 93: Environmental Factors Ranking of importance

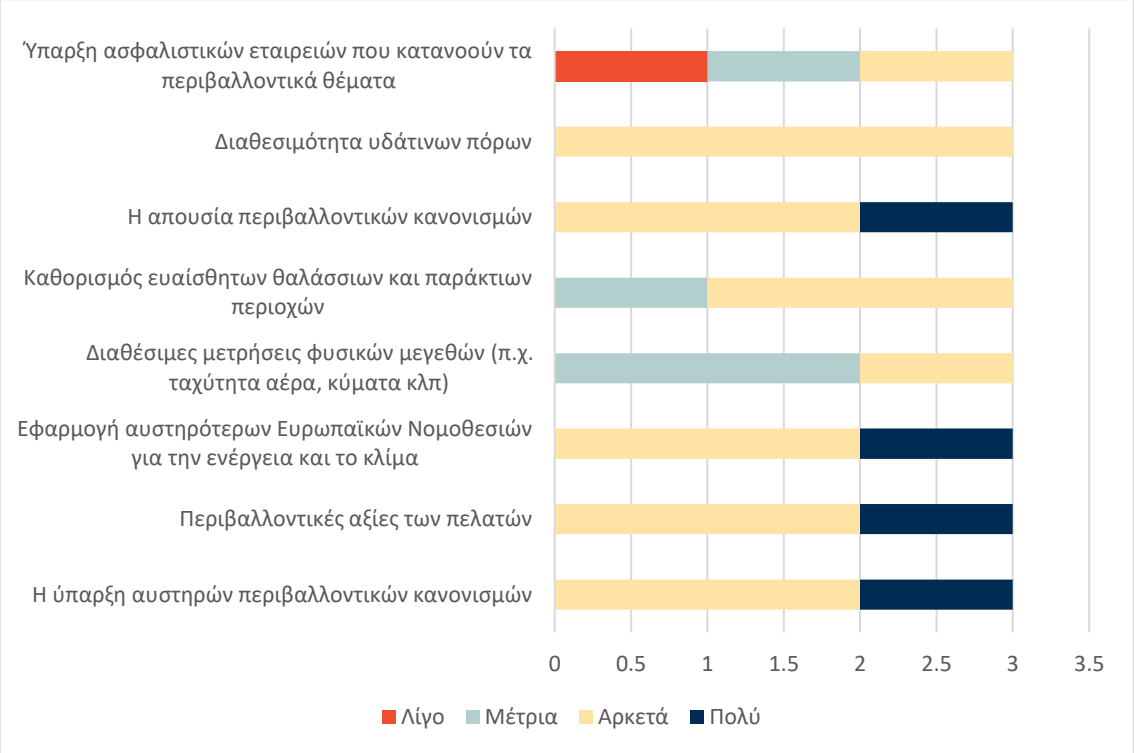

Figure 94: Representation of the diferentiation of the participants voting for each environmental factor

3.5.7 Part C

In this category, three factors have been identified as the most important, and have been voted as very important by the participants. The factors are the following:

- Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport

- Additional resources in the Recovery and Resilience Plan to promote hydrogen production
- Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in industry

The least important factor has been identified the "Review of the Long-Term Strategy for Reducing Emissions including hydrogen".

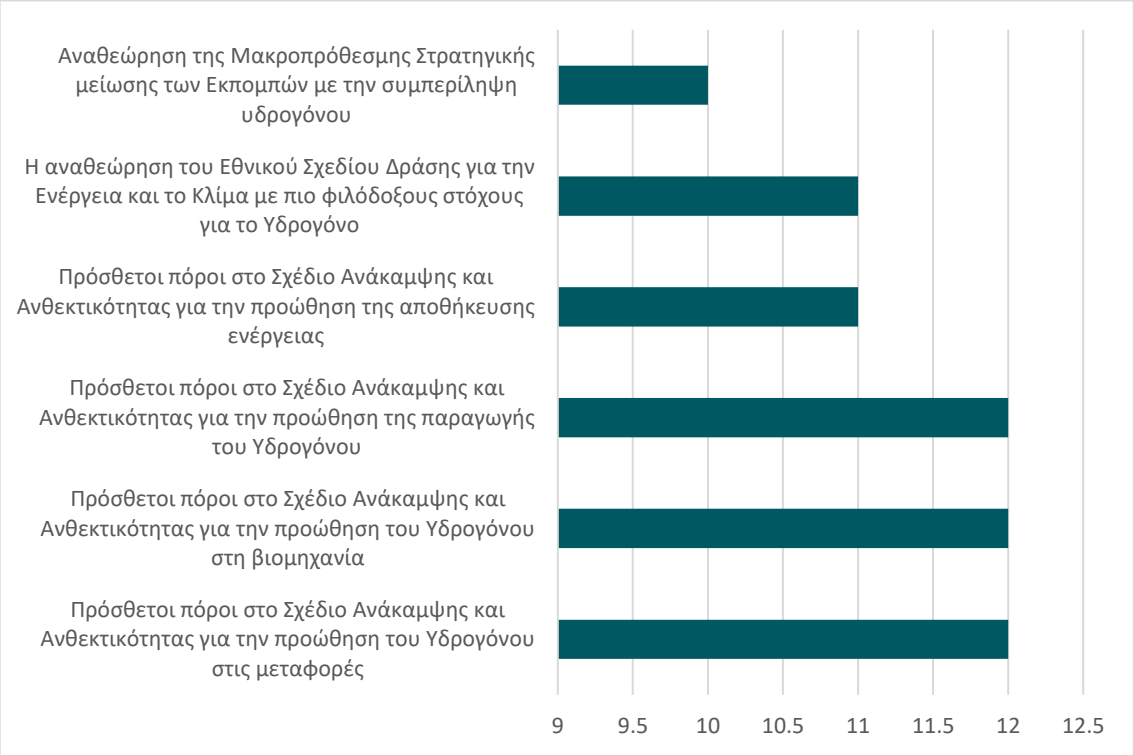

Figure 95: Part C Factors ranked according to their importance

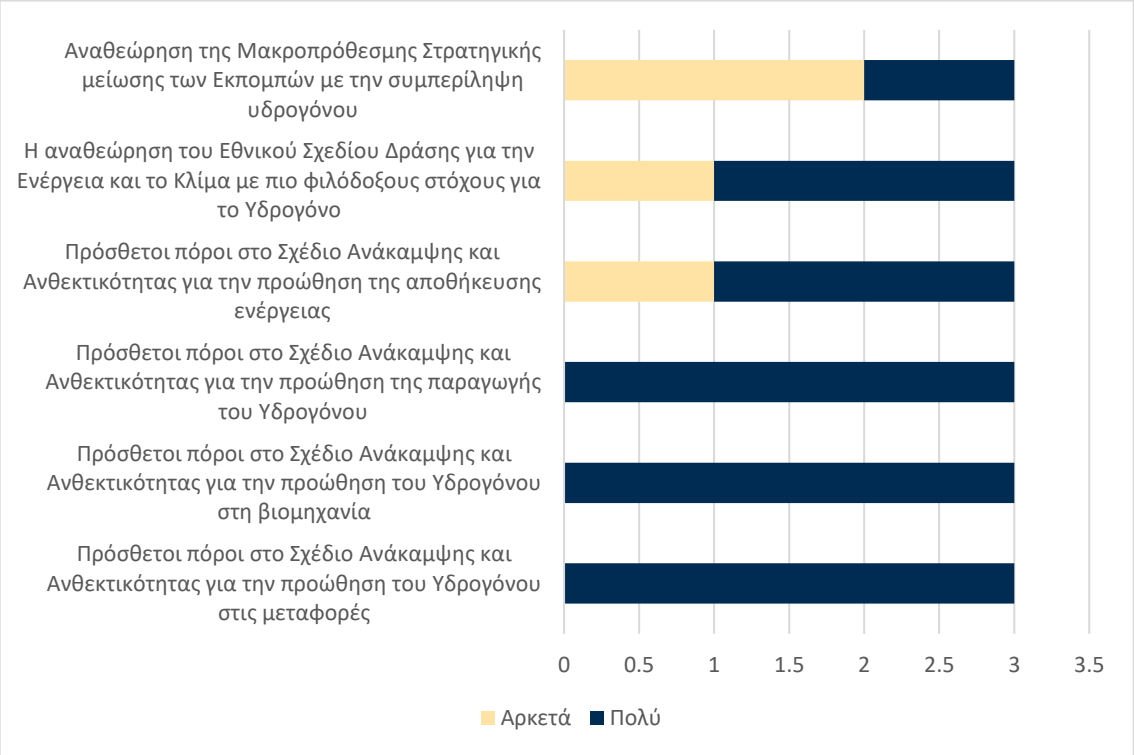

Figure 96: Representation of the diferentiation of the participants voting for each factor in Part C category

3.5.8 Part D

Three factors have been identified as the most important in this category, as they have been voted similarly by the participants and given only the weight of being very important. These factors are the following:

- Additional resources in the Recovery and Resilience Plan for the further promotion of RES in the private and public sector and in industry
- Additional resources to the Recovery and Resilience Plan to promote energy storage
- Additional resources to the Recovery and Resilience Plan for the sustainable management of agriculture and water resources

Three factors have been identified as the least important and have been voted as important by the participants of this group.

- Additional resources to the Recovery and Resilience Plan for the development of energy communities (e.g. creation of a regulatory framework)
- Additional resources to the Recovery and Resilience Plan to promote sustainable mobility (public transport, cycle paths, pedestrian streets)
- Additional resources to the Recovery and Resilience Plan to promote electromobility

Figure 97: Part D Factors ranked according to their importance

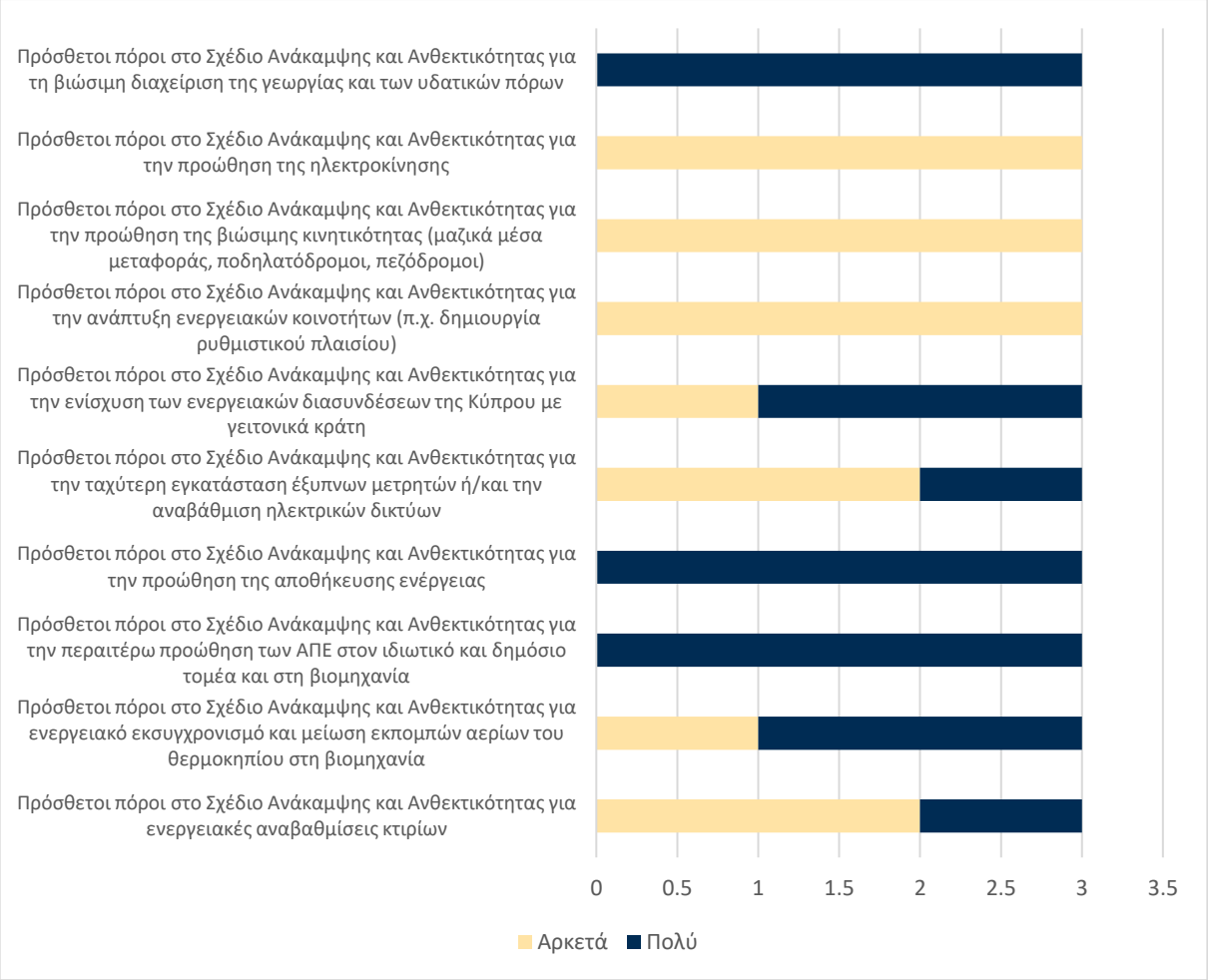

Figure 98: Representation of the diferentiation of the participants voting for each factor in Part D category

3.5.9 Part E

In this category the most important factor has been identified to be the "Lack of an appropriate regulatory framework to facilitate faster RES penetration" and has been voted as very important by all the participants.

The participants have voted the factor "Lack of staff in the construction sector for energy renovations and installation of RES" as the least important. This is a result as some of the participants have voted for this factor as being very important and the rest that they do not know its importance, so the calculated average weight of this factor was low.

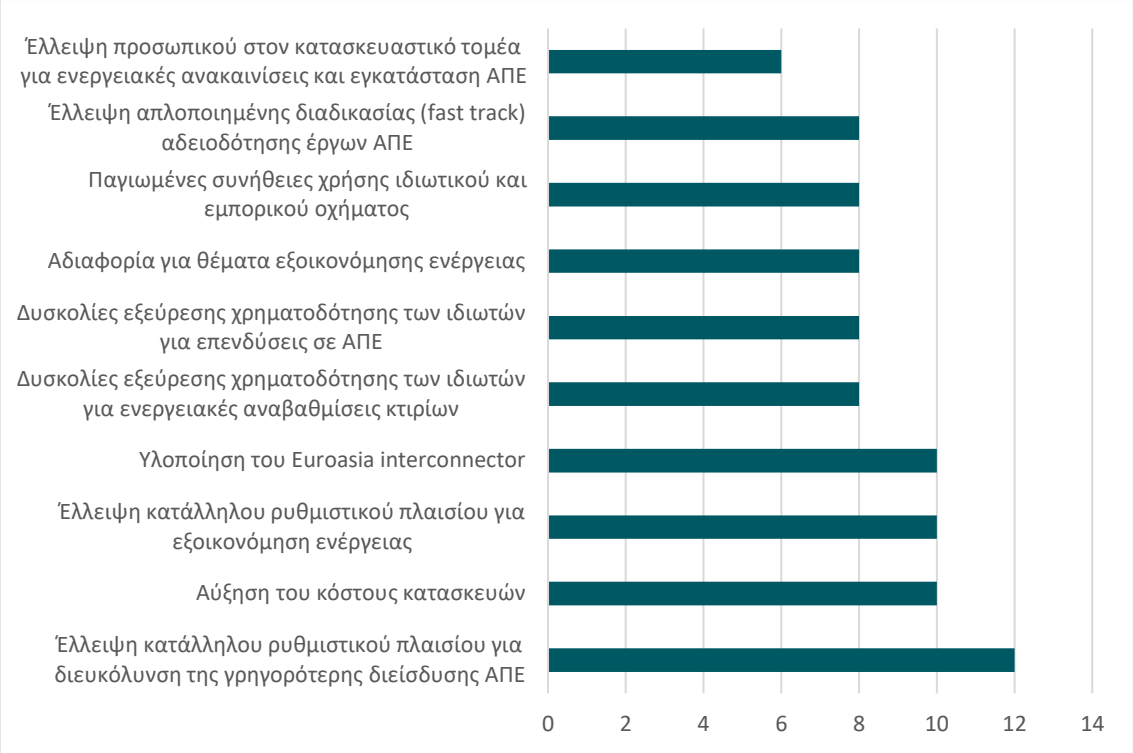

Figure 99: Part E Factors ranked according to their importance

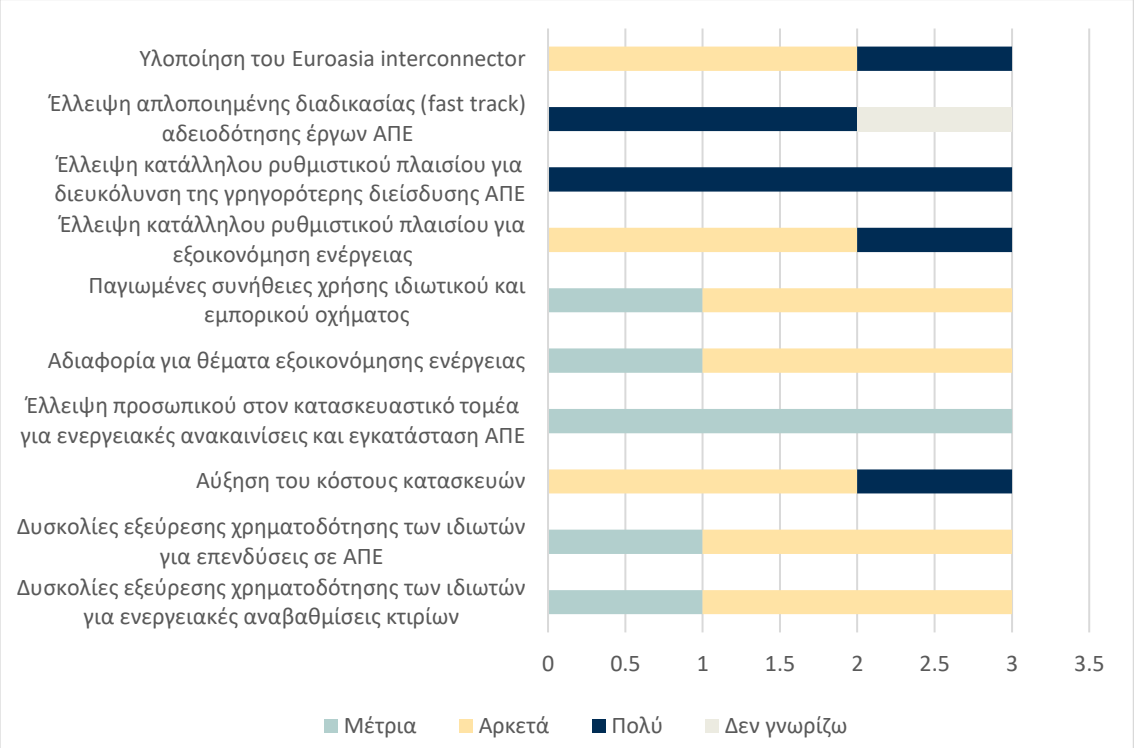

Figure 100: Representation of the diferentiation of the participants voting for each factor in Part E category

3.6 People from the academic community

3.6.1 Political Factors

In this category, the participants have voted that the most important factor is the "Ease of decision-making and facilities for the development of Hydrogen infrastructure which have been mainly voted as very important by the participants.

The least important factor has been identified the "Freedom of the Press", as participants have mainly voted this factor as being slightly and moderately important.

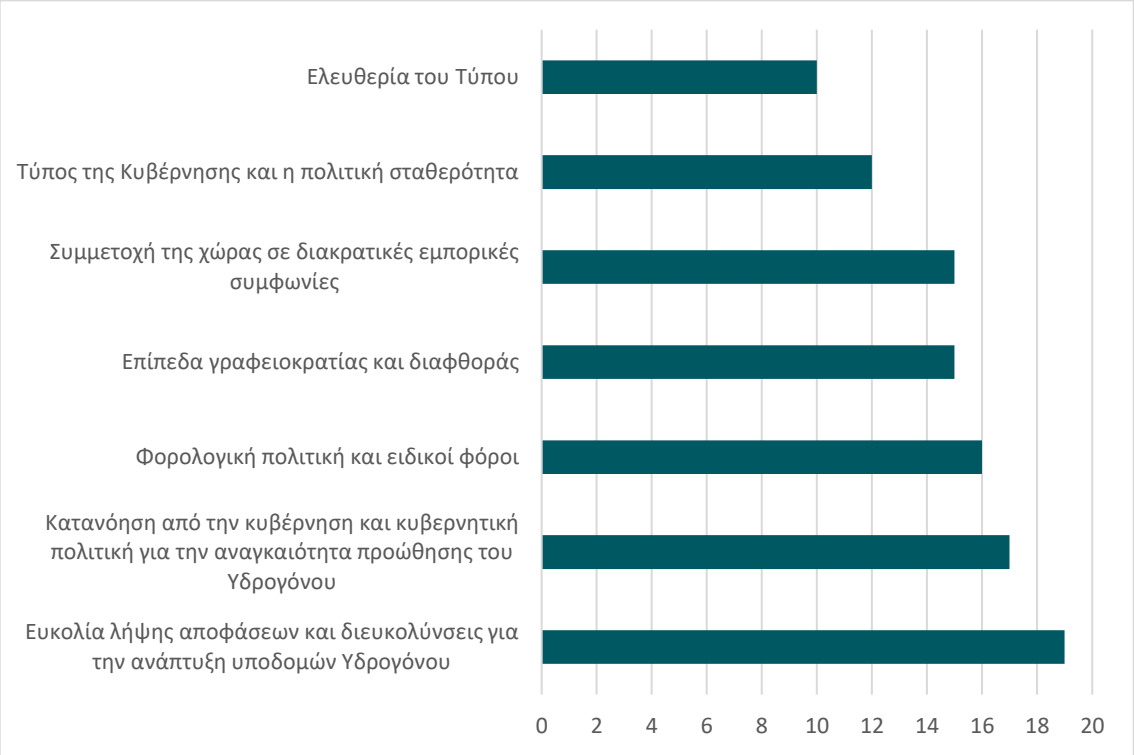

Figure 101: Political factors ranking of importance

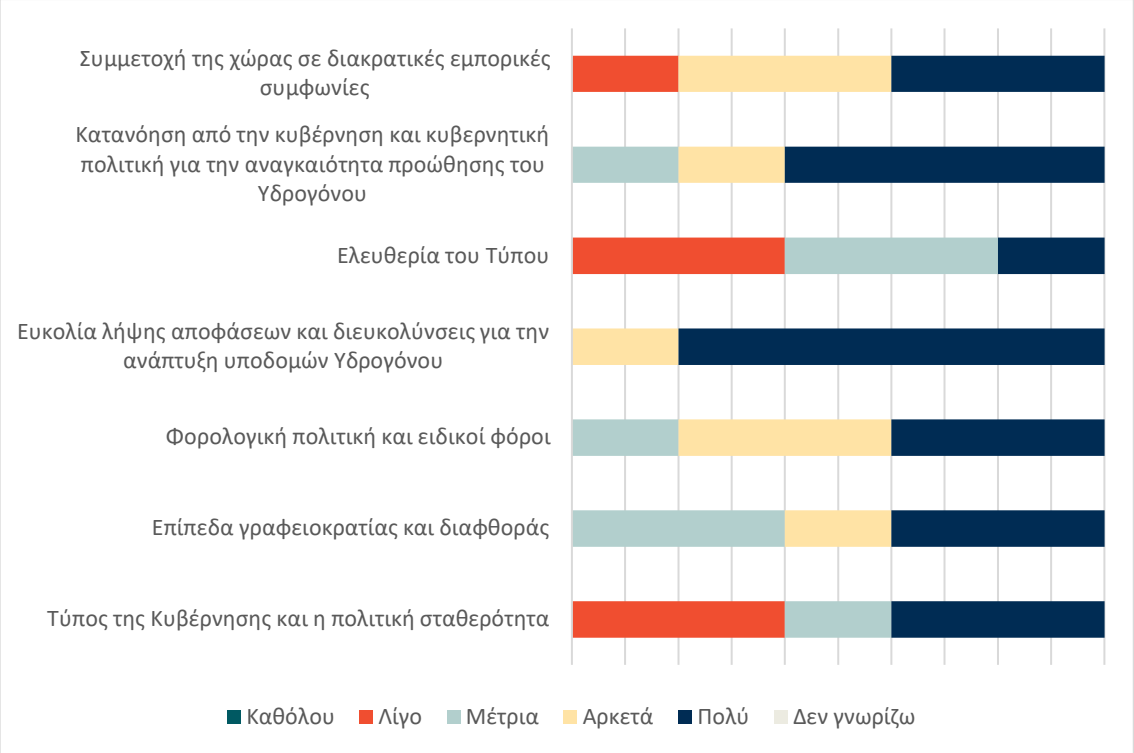

Figure 102: Representation of the diferentiation of the participants voting for each political factor

3.6.2 Economic Factors

The most important factor has been identified as being the "Possible impact of technological developments", as participants have mainly voted for this as being very important.
The least important factor in this category has been voted to be the "Freedom of the press"

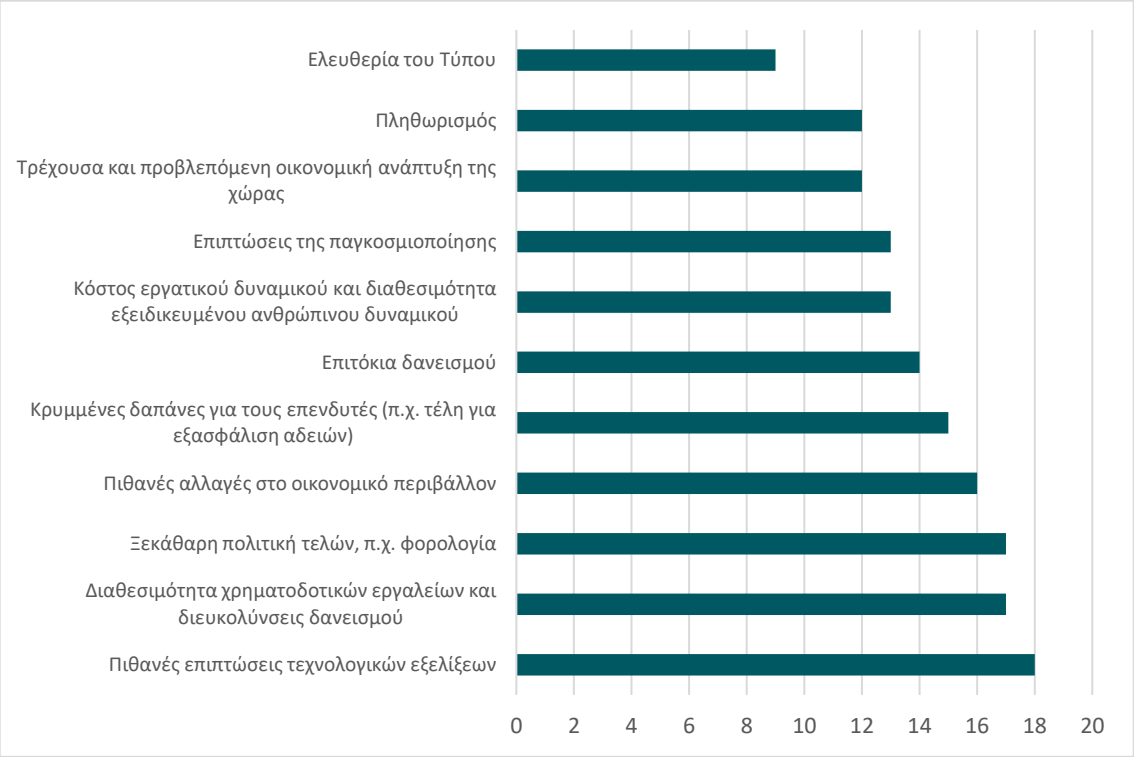

Figure 103: Economic factors category ranking of importance

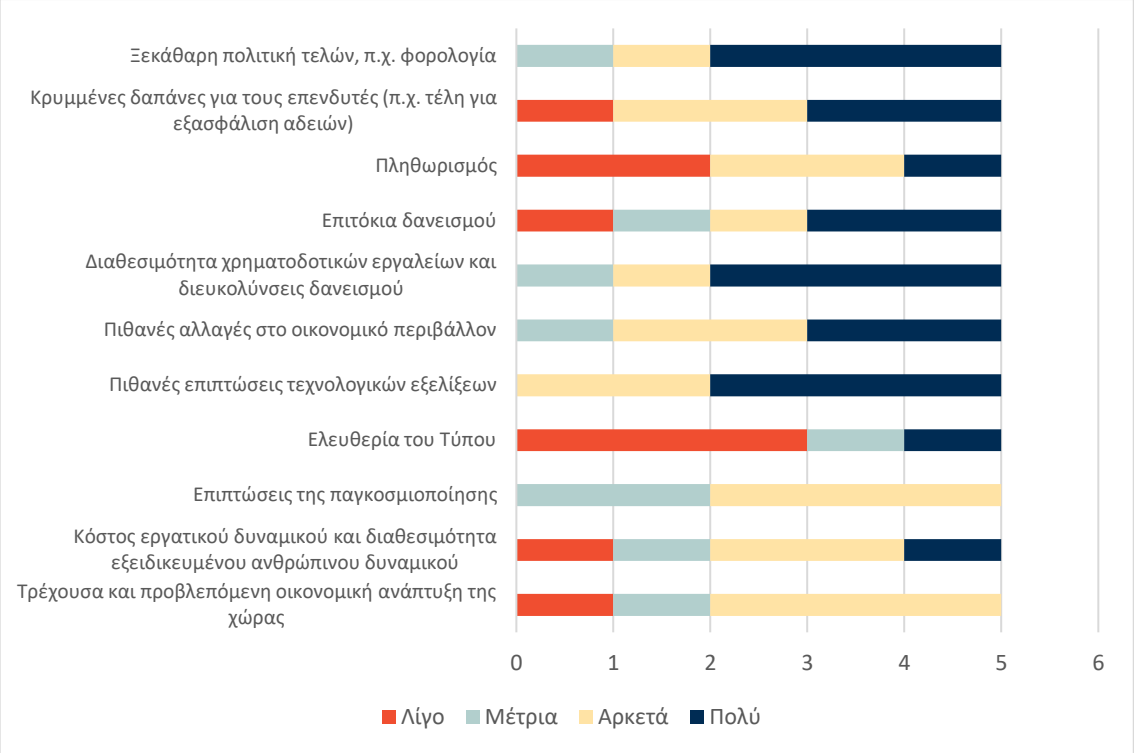

Figure 104: Representation of the diferentiation of the participants voting for each economic factor

3.6.3 Social Factors

The factor "Acceptance of Hydrogen technologies by local government and central government" has been mainly voted by the participants as very important and it is indicating that it is the most important factor in this category.

The least important factor has been identified to be the "Understanding health issues that may come from the burning of conventional fuels by a large portion of the population" as none of the participants believe that this factor is very important.

Figure 105: Social Factors ranking of importance

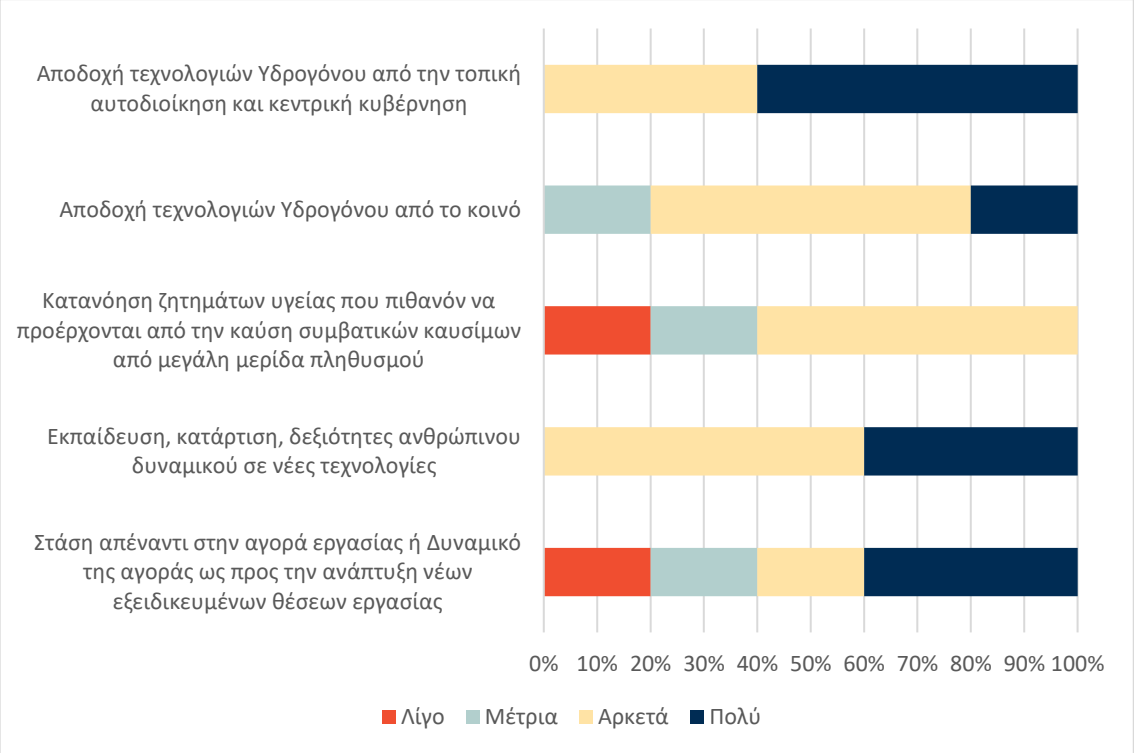

Figure 106: Representation of the diferentiation of the participants voting for each social factor

3.6.4 Technological Factors

The most important factor in this category has been identified to be the "Existence of energy storage systems" and has been mainly voted by the participants as very important.

The participants have voted the factor "Patents/ intellectual property issues" as the least important.

Figure 107: Technological Factors ranking of importance

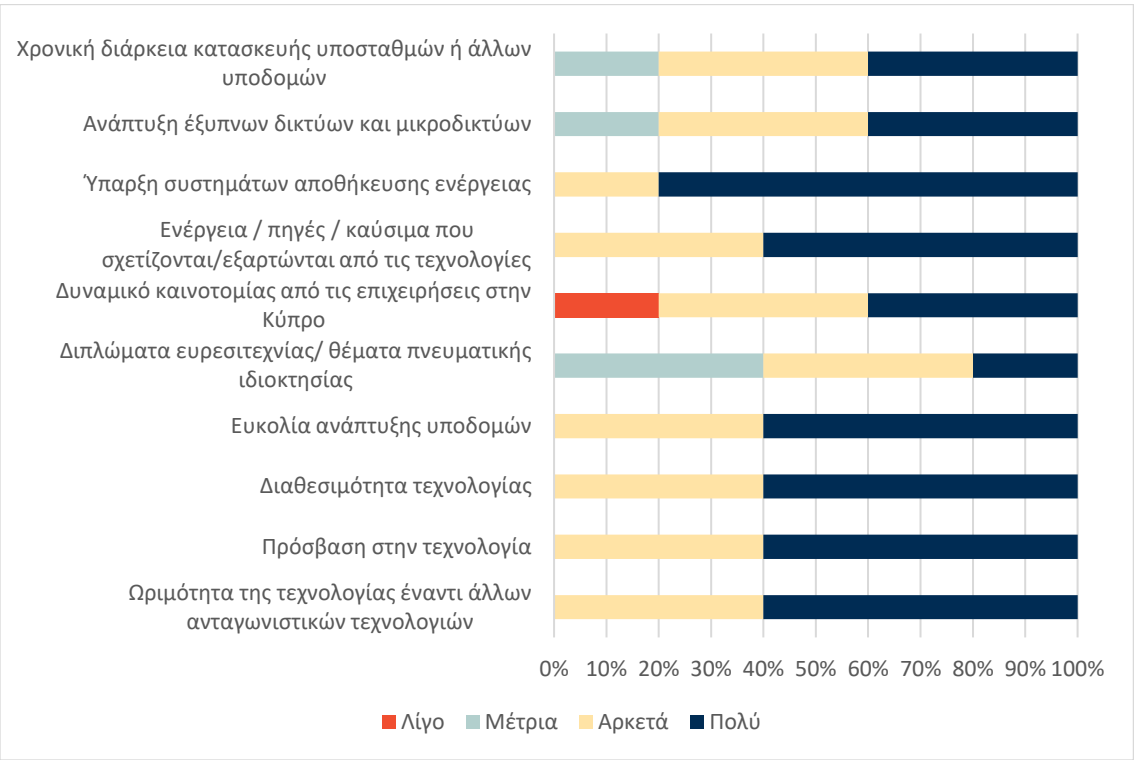

Figure 108: Representation of the diferentiation of the participants voting for each technological factor

3.6.5 Legal Factors

There are two factors with the same weight in this category that have been identified as the most important factors. The participants have mainly voted for them as being very important yet some other as being moderately important. The factors are:

- The absence of urban planning or other regulations

- System complexity for siting and environmental permitting

The least important factor is identified to be the "Full implementation of the National Energy & Climate Plan" with small difference from the calculated weighed of the factors "Sponsorship schemes to assist Hydrogen technologies" and "Single hydrogen market rules".

Figure 109: Legal Factors ranking of importance

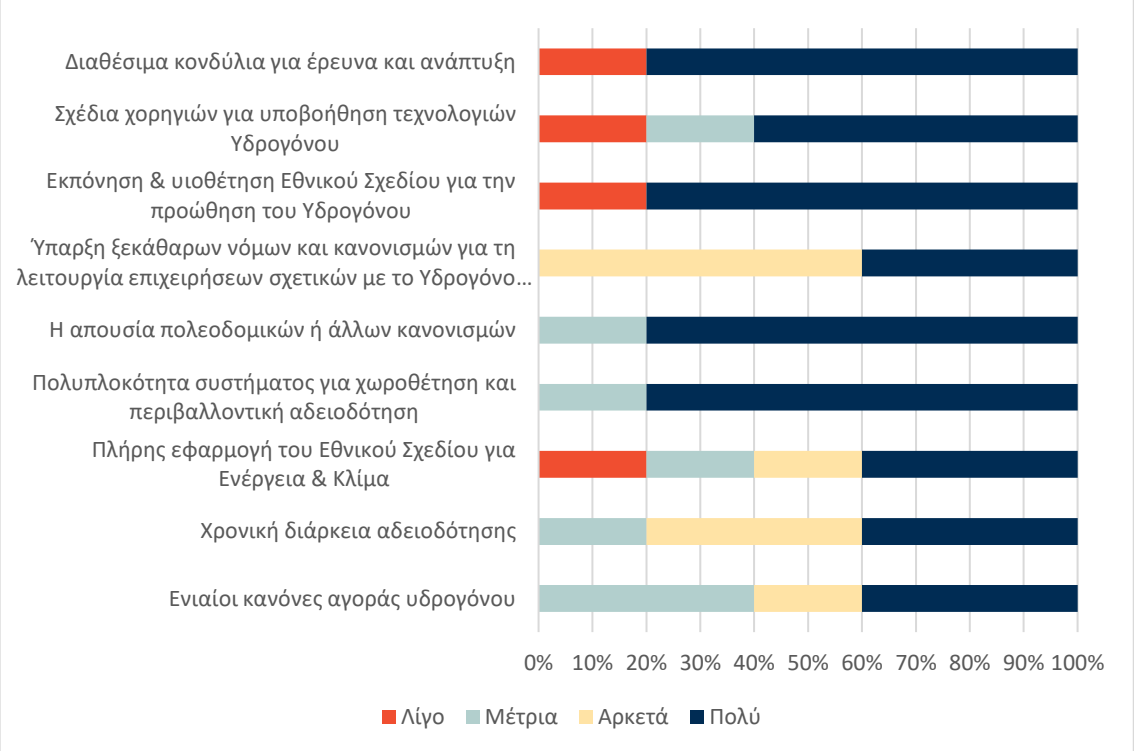

Figure 110: Representation of the diferentiation of the participants voting for each legal factor

3.6.6 Environmental Factors

The most important factor for this category has been identified the "Implementation of stricter European energy and climate legislation" most of the participants of this category have voted for this as being important and very important.

For the least important factors, two have been identified and are the following:

- Physical size measurements available (e.g. air velocity, waves, etc.)
    - For this factor, the votes of the participants are widely varied as the participants have voted for this factor as being not important, slightly important, moderately important, important, very important. Thus, this shows the complexity of this factor and how each background affect the answers.
- Designation of sensitive marine and coastal areas
    - This factor has not important, slightly important and important votes.

Figure 111: Environmental Factors Ranking of importance

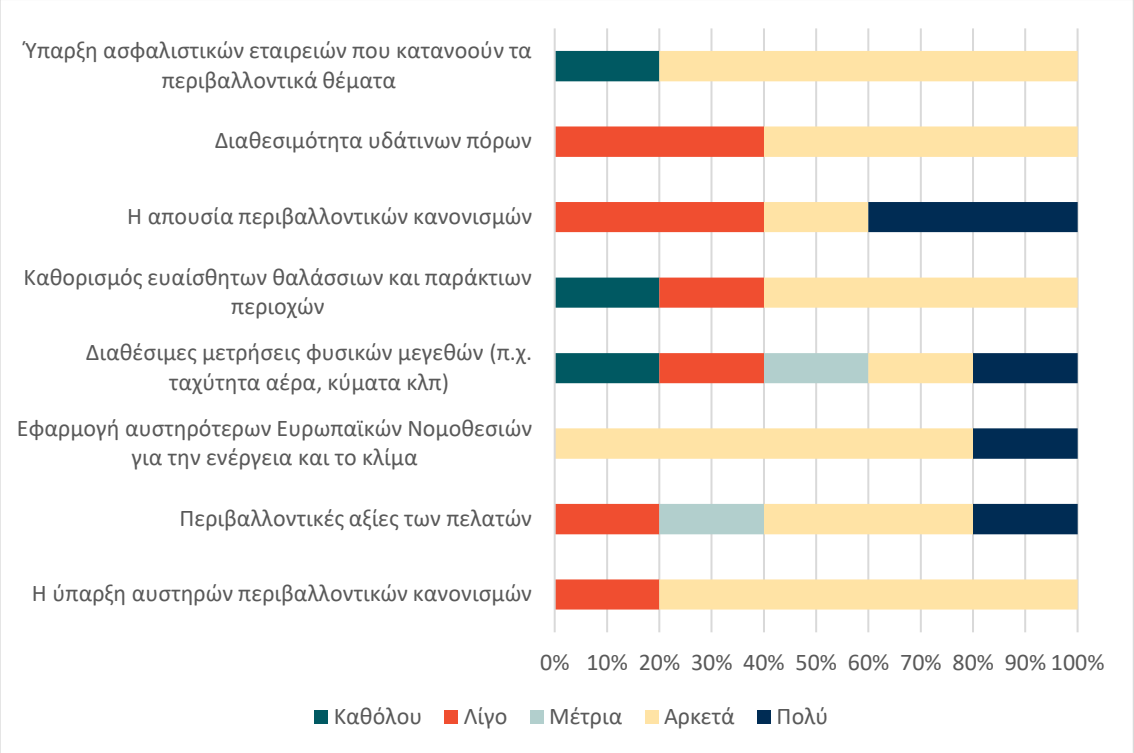

Figure 112: Representation of the diferentiation of the participants voting for each environmental factor

3.6.7 Part C

In this category, the participants have voted equally for two factors as the most important ones, voting mainly for them as being very important to this category. The factors are:

- Additional resources in the Recovery and Resilience Plan to promote hydrogen production
- Additional resources in the Recovery and Resilience Plan to promote energy storage

For the least important the participants have voted the factor "Additional resources in the Recovery and Resilience Plan for the promotion of Hydrogen in transport" as the votes given votes for this factors were, slightly important, moderately important and some voted for very important.

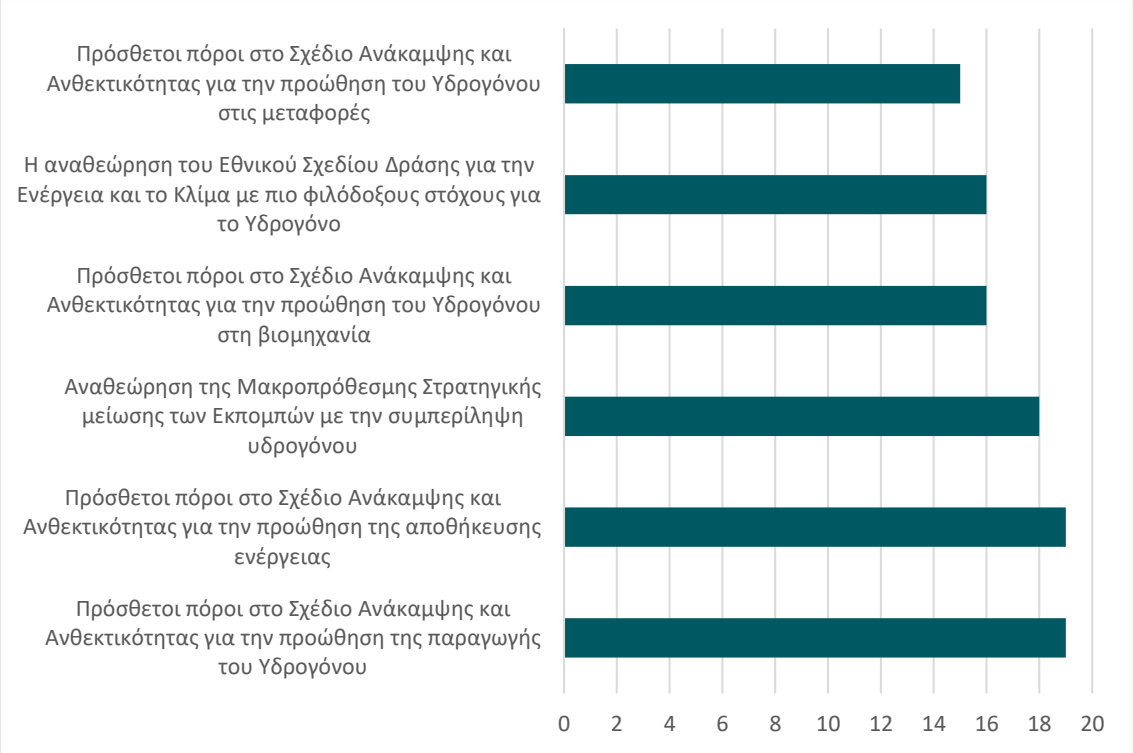

Figure 113: Part C Factors ranked according to their importance

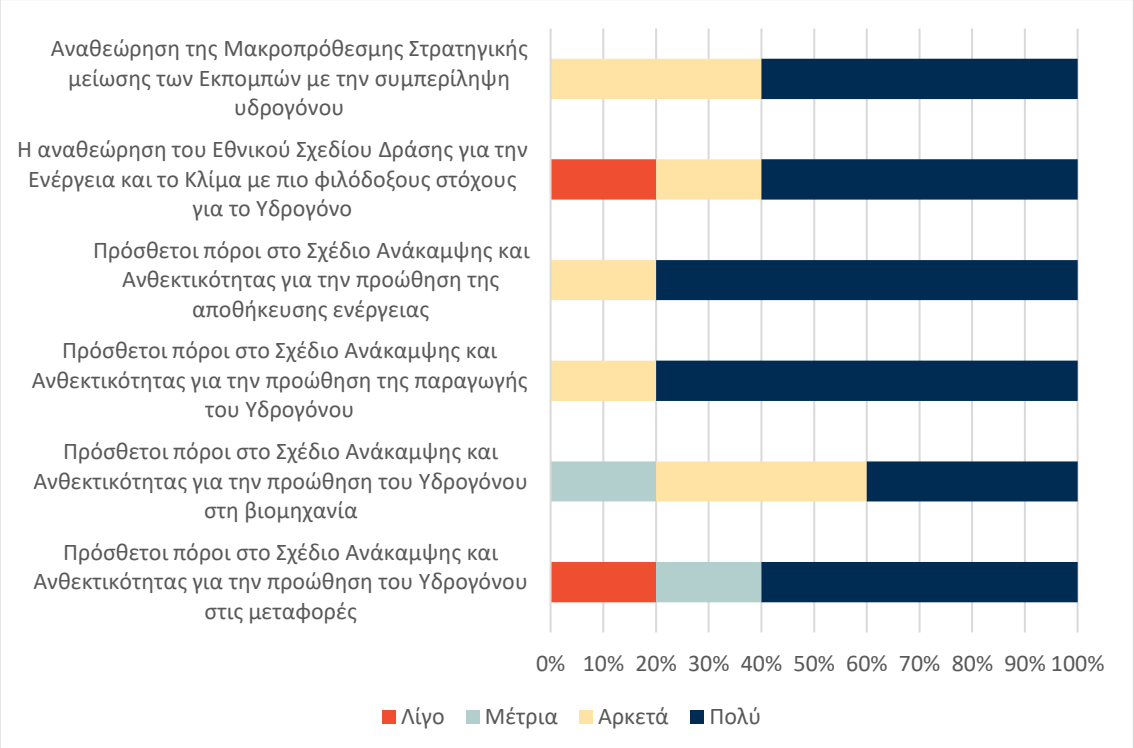

Figure 114: Representation of the diferentiation of the participants voting for each factor in Part C category

3.6.8 Part D

The most important factor, with the participants voting unanimously for this as a very important factor is the "Additional resources to the Recovery and Resilience Plan to promote energy storage".

The least important factor has been identified to be the "Additional resources to the Recovery and Resilience Plan for energy upgrades of buildings" as the votes of the participants varied, and included: slightly important, moderately important, important and very important.

Figure 115: Part D Factors ranked according to their importance

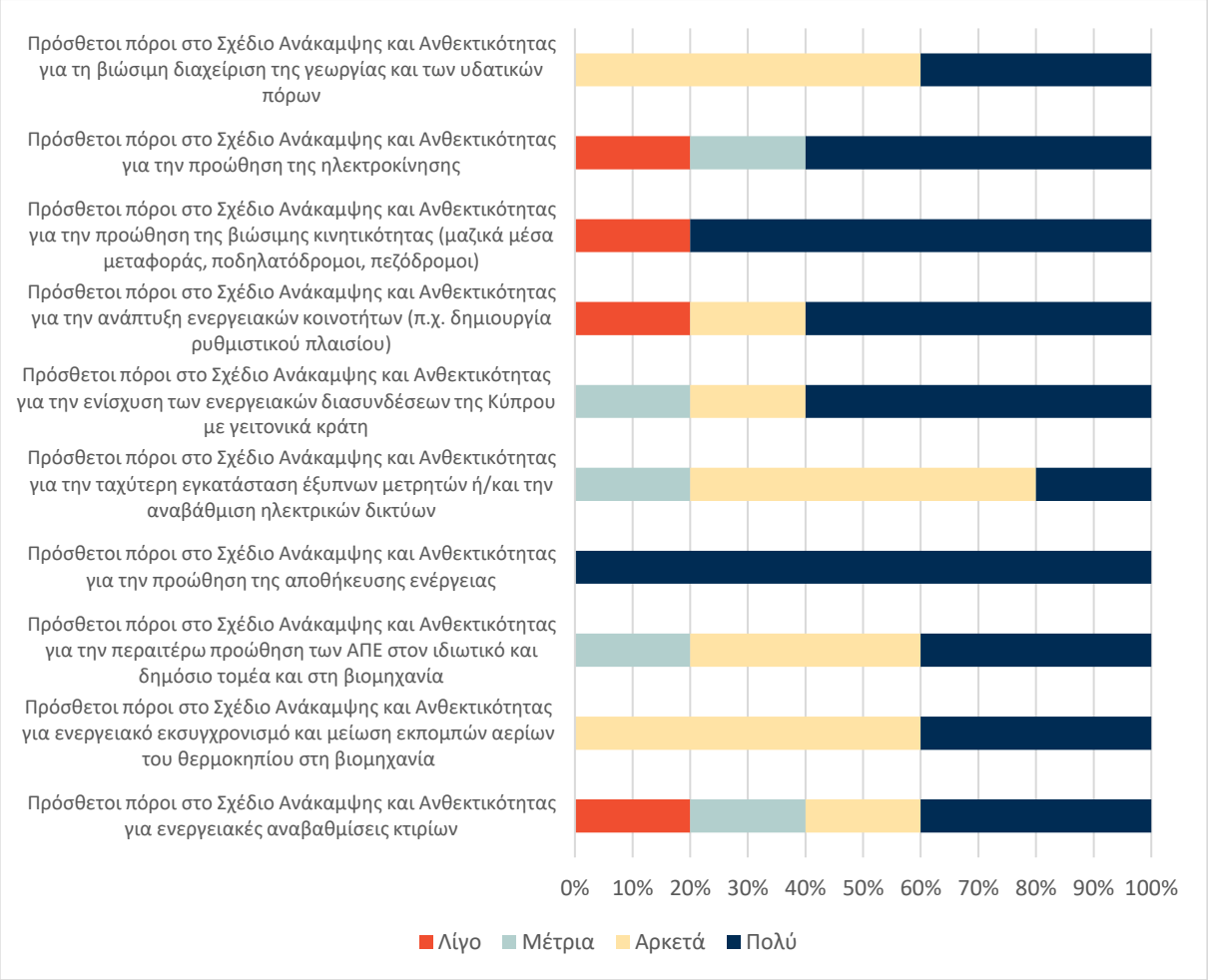

Figure 116: Representation of the diferentiation of the participants voting for each factor in Part D category

3.6.9 PART E

For this category, the most important factor has been identified the "Established habits of using a private and commercial vehicle", where the participants have voted for moderately important, important and very important.

The least important factor has been identified the "Lack of staff in the construction sector for energy renovations and installation of RES", as the participants have mainly voted for this as being slightly important or moderately important and only a few have voted for it as being very important.

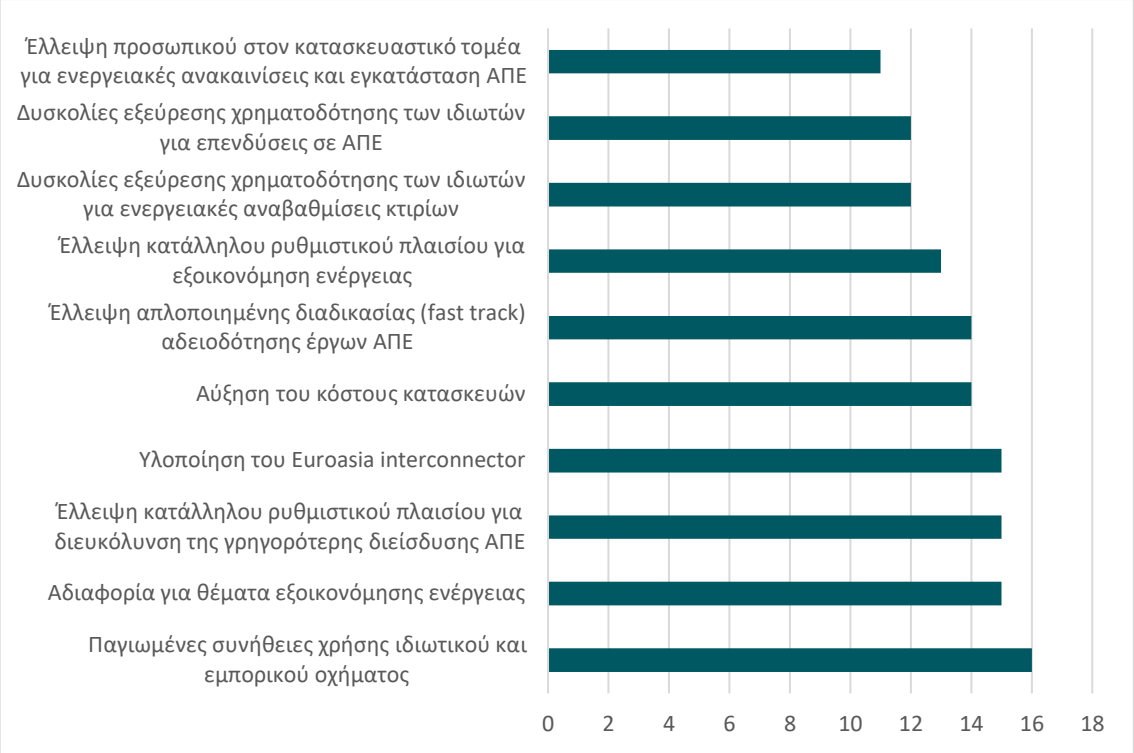

Figure 117: Part E Factors ranked according to their importance

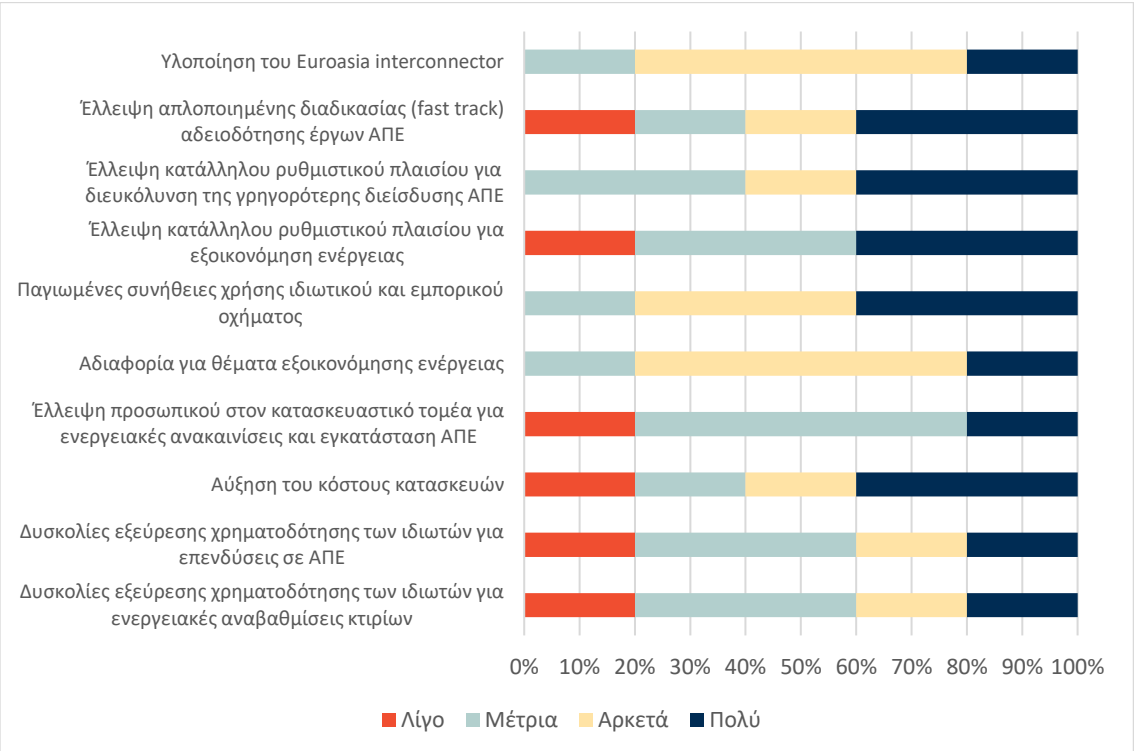

Figure 118: Representation of the diferentiation of the participants voting for each factor in Part E category

APPENDIX: Cover letter sent to all stakeholders (translation from Greek) and the full online questionnaire (in Greek)

Dear Mr./Ms. …,

The Republic of Cyprus, through the Ministry of Energy, Commerce & Industry (MECI), has requested and received technical assistance from the European Commission, for the development of the National Hydrogen Strategy. At the same time, in the framework of the "REPowerEU" initiative announced in May 2022 by the European Commission, this technical assistance will be able to indicate additional needs for investments and reforms that could be included in the National Recovery and Resilience Plan, to accelerate green energy transition and the independence of Cyprus from fossil fuels.

Trinomics is the foreign consulting company that has undertaken the implementation of RePowerEU in all member states and in Cyprus it is supported by the local team of the Cyprus Institute and ideopsis Ltd. A relevant letter from the MECI is also attached.

You have been selected as one of the important stakeholders and we are interested in your opinion. We would like you to spare 15-20 minutes of your valuable time to complete the questionnaire below regarding the PESTLE analysis and/or to contact you to arrange a meeting, either remotely or in person.

https://ec.europa.eu/eusurvey/runner/b6caee9b-1858-eb21-b7dc-7de08371bb54

Thank you very much for your cooperation. The deadline for completing the questionnaire is xx/xx/xxxx.

Online Questionnaire (in Greek)

Ερωτηματολόγιο

Ανάλυση PESTLE για τη δημιουργία του Χάρτη Πορείας προώθησης του Υδρογόνου στην Κύπρο και τις αναγκαίες επενδύσεις και μεταρρυθμίσεις για επιτάχυνση της ενεργειακής μετάβασης

Το υδρογόνο αποτελεί σημαντικό μέρος της συνολικής στρατηγικής της ΕΕ για την ολοκλήρωση των ενεργειακών συστημάτων. Η ειδική Ευρωπαϊκή Στρατηγική για το Υδρογόνο εγκρίθηκε το 2020 και πρότεινε ένα όραμα για τη δημιουργία ενός ευρωπαϊκού οικοσυστήματος υδρογόνου, από την έρευνα και την καινοτομία έως την κλιμάκωση της παραγωγής και των υποδομών. Η Κύπρος, μέσω του Υπουργείου Ενέργειας, Εμπορίου & Βιομηχανίας, έχει αιτηθεί και έχει λάβει τεχνική βοήθεια από την Ευρωπαϊκή Επιτροπή, για την ανάπτυξη της Εθνικής Στρατηγικής προώθησης του Υδρογόνου. Ταυτόχρονα, στο πλαίσιο της πρωτοβουλίας «REPowerEU» που ανακοίνωσε τον Μάιο 2022 η Ευρωπαϊκή Επιτροπή, αυτή η τεχνική βοήθεια θα μπορεί να υποδείξει επιπλέον ανάγκες για επενδύσεις και μεταρρυθμίσεις που θα μπορούσαν να ενταχθούν στο Εθνικό Σχέδιο Ανάκαμψης και Ανθεκτικότητας, για να επιταχύνουν την πράσινη ενεργειακή μετάβαση και την απεξάρτηση της Κύπρου από τα ορυκτά καύσιμα.

Έχετε επιλεγεί ως ένας από τους κύριους εταίρους και μας ενδιαφέρει η γνώμη σας. Θα θέλαμε να αφιερώσετε **15-20 λεπτά από τον πολύτιμο χρόνο σας**, για να συμπληρώσετε το πιο κάτω ερωτηματολόγιο που αφορά την ανάλυση PESTLE ή να επικοινωνήσουμε μαζί σας για διευθέτηση συνάντησης, είτε εξ αποστάσεως, είτε με φυσική παρουσία.

Η ανάλυση PESTLE: Political, Economic, Social, Technological, Legal, Environmental, είναι ένα είδος «ραντάρ» που λαμβάνει τις τάσεις και τις εξελίξεις στο **εξωτερικό περιβάλλον**, το οποίο μπορεί να χρησιμοποιηθεί για το μακροπρόθεσμο σχεδιασμό και τη λήψη αποφάσεων για τη στρατηγική που πρέπει να ακολουθηθεί για την προώθηση του Υδρογόνου και για τον εντοπισμό των κύριων προβλημάτων.

Ευχαριστούμε θερμά για τη συμμετοχή και τη συνεργασία σας!

ΜΕΡΟΣ Α: ΓΕΝΙΚΑ ΣΤΟΙΧΕΙΑ*

Α1. Σε ποια επαγγελματική Ομάδα ανήκετε;

- Ενεργειακό Γραφείο
- Οργανισμοί υποστήριξης επιχειρήσεων (Επιμελητήρια, Εργοδοτικές Οργανώσεις, Ομοσπονδίες κ.λπ.)
- Σύνδεσμος Επιχειρήσεων
- Τριτοβάθμια εκπαίδευση και έρευνα
- Μικρές και μεσαίες επιχειρήσεις (ΜμΕ) (χρήστης υδρογόνου, παραγωγός Υδρογόνου, Διανομέας Υδρογόνου)
- Άλλες μεγάλες επιχειρήσεις (χρήστης υδρογόνου, παραγωγός Υδρογόνου, Διανομέας Υδρογόνου)
- Παραγωγός ενέργειας (ΑΠΕ, Συμβατικά)
- ΜΚΟ
- Εθνική δημόσια αρχή
- Τοπική Αρχή
- Άλλο

  Προσδιορίστε (……)

Α2. Θέση/Επιχείρηση/Οργανισμός

…….

Α3. Συμμετοχή σε προσωπική συνέντευξη

Παρακαλώ συμπληρώστε αν επιθυμείτε να συμμετέχετε σε προσωπική συνέντευξη:

- Ναι
- Όχι

Αν **ναι**, παρακαλώ δηλώστε τον επιθυμητό τρόπο διεξαγωγής της συνέντευξης:

- Δια ζώσης
- Διαδικτυακά

Ονοματεπώνυμο…….

Email……..

ΜΕΡΟΣ Β – Συμπλήρωση ανάλυσης PESTLE*

B1. Political (Πολιτικοί παράγοντες είναι ο βαθμός που η κυβέρνηση παρεμβαίνει στην οικονομία, η πολιτική σταθερότητα, οι νόμοι, το πολιτικό καθεστώς και η μορφή κυβέρνησης κλπ).

Πόσο σημαντικοί πιστεύετε ότι είναι οι πιο κάτω πολιτικοί παράγοντες για την προώθηση του Υδρογόνου στην Κύπρο;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Τύπος της Κυβέρνησης και η πολιτική σταθερότητα						
Επίπεδα γραφειοκρατίας και διαφθοράς						
Φορολογική πολιτική και ειδικοί φόροι						
Ελευθερία του Τύπου						
Ευκολία λήψης αποφάσεων και διευκολύνσεις για την ανάπτυξη υποδομών Υδρογόνου						
Κατανόηση από την κυβέρνηση και κυβερνητική πολιτική για την αναγκαιότητα προώθησης του Υδρογόνου						
Συμμετοχή της χώρας σε διακρατικές εμπορικές συμφωνίες						
Άλλο – παρακαλώ συμπληρώστε						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με τους **πολιτικούς** παράγοντες.

……
……
……
……
……..

B2. Economic (Οικονομικοί παράγοντες περιλαμβάνουν την οικονομία της χώρας, την οικονομική ανάπτυξη, επιτόκια δανεισμού, συναλλαγματικές ισοτιμίες, το ρυθμό πληθωρισμού κλπ)

Πόσο σημαντικοί πιστεύετε ότι είναι οι πιο κάτω οικονομικοί παράγοντες για την προώθηση του Υδρογόνου στην Κύπρο;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Τρέχουσα και προβλεπόμενη οικονομική ανάπτυξη της χώρας						
Ανεργία και προσφορά εργασίας						
Κόστος εργατικού δυναμικού και διαθεσιμότητα						
Επιπτώσεις της παγκοσμιοποίησης						
Πιθανές επιπτώσεις τεχνολογικών εξελίξεων						
Πιθανές αλλαγές στο οικονομικό περιβάλλον						
Διαθεσιμότητα χρηματοδοτικών εργαλείων και διευκολύνσεις δανεισμού						
Επιτόκια δανεισμού						
Πληθωρισμός						
Κρυμμένες δαπάνες για τους επενδυτές (π.χ. τέλη για εξασφάλιση αδειών)						
Ξεκάθαρη πολιτική τελών, π.χ. φορολογία						
Άλλο – παρακαλώ συμπληρώστε						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με τους **οικονομικούς** παράγοντες.

……
……
……
……..

B3. Social (Κοινωνικοί παράγοντες περιλαμβάνουν διάφορες πτυχές, όπως για παράδειγμα τη συνειδητοποίηση των προβλημάτων υγείας που προέρχονται από ένα μη καθαρό περιβάλλον, των στάσεων σταδιοδρομίας στις νέες τεχνολογίες, της έμφασης στην ασφάλεια, κλπ).

Πόσο σημαντικοί πιστεύετε ότι είναι οι πιο κάτω οικονομικοί παράγοντες για την προώθηση του Υδρογόνου στην Κύπρο;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Στάση απέναντι στην αγορά εργασίας ή Δυναμικό αγοράς για ανάπτυξη νέων θέσεων εργασίας						
Εκπαίδευση, κατάρτιση, δεξιότητες ανθρώπινου δυναμικού σε νέες τεχνολογίες						
Κατανόηση ζητημάτων υγείας που πιθανόν να προέρχονται από την καύση συμβατικών καυσίμων από μεγάλη μερίδα πληθυσμού						
Αποδοχή τεχνολογιών Υδρογόνου από το κοινό						
Αποδοχή τεχνολογιών Υδρογόνου από την τοπική αυτοδιοίκηση και κεντρική κυβέρνηση						
Άλλο – παρακαλώ συμπληρώστε						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με τους **Κοινωνικούς** παράγοντες.

……
……
……
……
……..

B4. Technological (Τεχνολογικοί παράγοντες περιλαμβάνουν τις απαιτήσεις της τεχνολογίας, ωριμότητα αυτής, έρευνα και ανάπτυξη προϊόντων, κλπ)

Πόσο σημαντικοί πιστεύετε ότι είναι οι πιο κάτω τεχνολογικοί παράγοντες για την προώθηση του Υδρογόνου στην Κύπρο;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Ωριμότητα της τεχνολογίας έναντι άλλων ανταγωνιστικών τεχνολογιών						
Πρόσβαση στην τεχνολογία						
Διαθεσιμότητα τεχνολογίας						
Ευκολία ανάπτυξης υποδομών						
Διπλώματα ευρεσιτεχνίας/ θέματα πνευματικής ιδιοκτησίας						
Δυναμικό καινοτομίας από τις επιχειρήσεις στην Κύπρο						
Ενέργεια / πηγές / καύσιμα που σχετίζονται/εξαρτώνται από τις τεχνολογίες						
Ύπαρξη συστημάτων αποθήκευσης ενέργειας						
Ανάπτυξη έξυπνων δικτύων και μικροδικτύων						
Χρονική διάρκεια κατασκευής υποσταθμών ή άλλων υποδομών						
Άλλο – παρακαλώ συμπληρώστε						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με τους **τεχνολογικούς** παράγοντες.

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B5. Legal (Νομικοί παράγοντες περιλαμβάνουν τις απαιτήσεις της νομοθεσίας, την απουσία ρυθμιστικού πλαισίου, κλπ)

Πόσο σημαντικοί πιστεύετε ότι είναι οι πιο κάτω νομικοί παράγοντες για την προώθηση του Υδρογόνου στην Κύπρο;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Ενιαίοι κανόνες αγοράς υδρογόνου						
Χρονική διάρκεια αδειοδότησης						
Πλήρης εφαρμογή του Εθνικού Σχεδίου για Ενέργεια & Κλίμα						
Πολυπλοκότητα συστήματος για χωροθέτηση και περιβαλλοντική αδειοδότηση						
Περιβαλλοντικοί Κανονισμοί						
Ύπαρξη ξεκάθαρων νόμων και κανονισμών για τη λειτουργία επιχειρήσεων σχετικών με το Υδρογόνο (παραγωγή, χρήση, διανομή)						
Εκπόνηση & υιοθέτηση Εθνικού Σχεδίου για την προώθηση του Υδρογόνου						
Σχέδια χορηγιών για υποβοήθηση τεχνολογιών Υδρογόνου						
Διαθέσιμα κονδύλια για έρευνα και ανάπτυξη						
Άλλο – παρακαλώ συμπληρώστε						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με τους **νομικούς** παράγοντες.

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B6. Environmental (Περιβαλλοντικοί παράγοντες περιλαμβάνουν οικολογικές και περιβαλλοντικές πτυχές, οι περιοχές προστασίας της φύσης, το κλίμα, η κλιματική αλλαγή, το νερό ή ειδικοί παράγοντες που να επηρεάζουν)

Πόσο σημαντικοί πιστεύετε ότι είναι οι πιο κάτω περιβαλλοντικοί παράγοντες για την προώθηση του Υδρογόνου στην Κύπρο;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Περιβαλλοντικοί κανονισμοί						
Περιβαλλοντικές αξίες των πελατών						
Εφαρμογή αυστηρότερων Ευρωπαϊκών Νομοθεσιών για την ενέργεια και το κλίμα						
Διαθέσιμες μετρήσεις φυσικών μεγεθών (π.χ. ταχύτητα αέρα, κύματα κλπ)						
Καθορισμός ευαίσθητων θαλάσσιων και παράκτιων περιοχών						
Διαθεσιμότητα υδάτινων πόρων						
Ύπαρξη ασφαλιστικών εταιρειών που κατανοούν τα περιβαλλοντικά θέματα						
Άλλο – παρακαλώ συμπληρώστε						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με τους **περιβαλλοντικούς** παράγοντες.

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ΜΕΡΟΣ Γ - Ποιες πρέπει να είναι οι πρόσθετες επενδύσεις/μεταρρυθμίσεις προτεραιότητας για την κυβέρνησή μας για να προωθήσει το Υδρογόνο;*

Πόσο σημαντικοί πιστεύετε πως είναι οι πιο κάτω παράγοντες;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την προώθηση του Υδρογόνου στις μεταφορές						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την προώθηση του Υδρογόνου στη βιομηχανία						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την προώθηση της παραγωγής του Υδρογόνου						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την προώθηση της αποθήκευσης ενέργειας						
Η αναθεώρηση του Εθνικού Σχεδίου Δράσης για την Ενέργεια και το Κλίμα με πιο φιλόδοξους στόχους για το Υδρογόνο						
Αναθεώρηση της Μακροπρόθεσμης Στρατηγικής μείωσης των Εκπομπών με την συμπερίληψη υδρογόνου						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με τις **πρόσθετες επενδύσεις/μεταρρυθμίσεις για την προώθηση της παραγωγής/χρήσης του Υδρογόνου.**

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ΜΕΡΟΣ Δ – Ανεξάρτητα από την αξιοποίηση του Υδρογόνου, ποιες πρέπει να είναι ευρύτερα οι πρόσθετες επενδύσεις/μεταρρυθμίσεις που θεωρείτε ότι θα πρέπει να περιληφθούν στο αναθεωρημένο Σχέδιο Ανάκαμψης και Ανθεκτικότητας της Κύπρου, για να επιταχύνουν την απεξάρτηση της χώρας από τα ορυκτά καύσιμα και την πράσινη ενεργειακή μετάβαση; *

Πόσο σημαντικοί πιστεύετε πως είναι οι πιο κάτω παράγοντες;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για ενεργειακές αναβαθμίσεις κτιρίων						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για ενεργειακό εκσυγχρονισμό και μείωση εκπομπών αερίων του θερμοκηπίου στη βιομηχανία						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την περαιτέρω προώθηση των ΑΠΕ στον ιδιωτικό και δημόσιο τομέα και στη βιομηχανία						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την προώθηση της αποθήκευσης ενέργειας						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την ταχύτερη εγκατάσταση έξυπνων μετρητών ή/και την αναβάθμιση ηλεκτρικών δικτύων						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την ενίσχυση των ενεργειακών διασυνδέσεων της Κύπρου με γειτονικά κράτη						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την ανάπτυξη ενεργειακών κοινοτήτων (π.χ.						

	Καθόλου 0	Λίγο 1	Μέτρια 2	Αρκετά 3	Πολύ 4	Δεν γνωρίζω
δημιουργία ρυθμιστικού πλαισίου)						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την προώθηση της βιώσιμης κινητικότητας (μαζικά μέσα μεταφοράς, ποδηλατόδρομοι, πεζόδρομοι)						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για την προώθηση της ηλεκτροκίνησης						
Πρόσθετοι πόροι στο Σχέδιο Ανάκαμψης και Ανθεκτικότητας για τη βιώσιμη διαχείριση της γεωργίας και των υδατικών πόρων						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με τις **πρόσθετες επενδύσεις/μεταρρυθμίσεις του Σχεδίου Ανάκαμψης και Ανθεκτικότητας για γενικότερη επιτάχυνση της ενεργειακής μετάβασης.**

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ΜΕΡΟΣ Ε – Ποια θεωρείτε τα σοβαρότερα εμπόδια τα οποία θέτουν σε κίνδυνο την υλοποίηση των μέτρων του Σχεδίου Ανάκαμψης και Ανθεκτικότητας που αφορούν την πράσινη ενεργειακή μετάβαση; *

Πόσο σημαντικοί πιστεύετε πως είναι οι πιο κάτω παράγοντες;

	Καθόλου 0	**Λίγο 1**	**Μέτρια 2**	**Αρκετά 3**	**Πολύ 4**	**Δεν γνωρίζω**
Δυσκολίες εξεύρεσης χρηματοδότησης των ιδιωτών για ενεργειακές αναβαθμίσεις κτιρίων						
Δυσκολίες εξεύρεσης χρηματοδότησης των ιδιωτών για επενδύσεις σε ΑΠΕ						
Αύξηση του κόστους κατασκευών						
Έλλειψη προσωπικού στον κατασκευαστικό τομέα για ενεργειακές ανακαινίσεις και εγκατάσταση ΑΠΕ						
Αδιαφορία για θέματα εξοικονόμησης ενέργειας						
Παγιωμένες συνήθειες χρήσης ιδιωτικού και εμπορικού οχήματος						
Έλλειψη κατάλληλου ρυθμιστικού πλαισίου για εξοικονόμηση ενέργειας						
Έλλειψη κατάλληλου ρυθμιστικού πλαισίου για διευκόλυνση της γρηγορότερης διείσδυσης ΑΠΕ						
Έλλειψη απλοποιημένης διαδικασίας (fast track) αδειοδότησης έργων ΑΠΕ						
Υλοποίηση του Euroasia interconnector						

Στον χώρο αυτό μπορείτε να αναπτύξετε τις θέσεις σας αν το επιθυμείτε, αναφορικά με **τα σοβαρότερα εμπόδια που θέτουν σε κίνδυνο την υλοποίηση των μέτρων του Σχεδίου Ανάκαμψης και Ανθεκτικότητας που αφορούν την πράσινη ενεργειακή μετάβαση.**

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Ευχαριστούμε για τον χρόνο σας και τη συνεργασία!

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This project is funded by the EU via the Technical Support Instrument and implemented by Trinomics and its partner organisations, in collaboration with the European Commission. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.