

FINAL REPORT ABOUT V3 AFTER USER PRE-TESTS



ESTIA

AUDREY ABI AKLE

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EFFICIENCY ACTIONS

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GreenPlay aims at raising awareness among citizens through the implementation of a real time monitoring energy consumption platform and the development of a serious game

The project runs from March 2015 to August 2018, it involves seven partners and is coordinated by ESTIA (École Supérieure Des Technologies Industrielles Avancées, France).

More information on the project can be found at <http://www.greenplay-project.eu/>



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D5. 3: FINAL REPORT ABOUT V3 AFTER USER PRE-TESTS

PUBLISHABLE SUMMARY

This document was scheduled as Final report about V3 after user pre-tests related to T5.5 task. This should provide a final report about V3 after user pre-tests. Indeed, the task T5.5 was designed in order to validate the V3 solution through user pre-tests like in T2.4 and T5.5. This last user pre-test should include more than 10 users. The final objective of this task is the release a marketable solution at the end of the work package.

In order to perform the objectives of the task T5.5 we decide to produce an online questionnaire to validate the V3 solution with a high number of future potential users. The designed online questionnaire is divided in 5 parts: interest in the functions of the GreenPlay solution, the user profile on the web, the profile of gamer, the environmental awareness level and the general information about the participant.

The answers to the questionnaire allow us to identify the functions of the GreenPlay solution that are of most interest to potential future users.

As results, we notice that French and Spanish consumers do not have the same preferences. Indeed, French respondents have a slight preference for customized advices and the promotion of the best responsible behaviour, whereas Spanish respondents seem to prefer customized advices (as well as French respondents) and real-time monitoring in a playful way.

Broadly, the analysis of the answers indicates that the main functions developed in the GreenPlay solution have a strong or very strong interest for survey respondents. We therefore note a great interest in customized advices, the monitoring in a playful way, the promotion of the best responsible behaviour and real-time consumption monitoring. Only the function of social network is unanimous. Indeed, we are about a third of interest for it.



I. INTRODUCTION

This document was scheduled as Final report about V3 after user pre-tests related to T5.5 task. This should provide a final report about V3 after user pre-tests. Indeed, the task T5.5 was designed in order to validate the V3 solution through user pre-tests like in T2.4 and T5.5. This last user pre-test should include more than 10 users. The final objective of this task is the release a marketable solution at the end of the work package.

In order to perform the objectives of the task T5.5 we decide to produce an online questionnaire to validate the V3 solution whit a high number of future potential users.

II. METHODOLOGY

The designed online questionnaire is divided in 5 parts: interest in the functions of the GreenPlay solution, the user profile on the web, the profile of gamer, the environmental awareness level and the general information about the participant.

The questionnaires for French participants and Spanish participants are not exactly the same due to the language semantic. Moreover, there is one less question for Spanish participants. This is a choice to avoid redundancy.

Questionnaire to identify appraisal from future potential users

Would you be interested in a new gaming platform & social network ... (responses are given on a scale 1: No interest to 5: Very strong interest)

- ...connected in real time with your consumption of energies (water, electricity...)?
- ... to enable you to follow your electricity consumption in a more playful way? (This question was only available for French participants).
- ...to receive customized advices and challenges to change your consumption and save money?
- ... to share news, videos, images... on a worldmap with geolocation like Google Map, Open Street Map...) instead of a wall like Facebook, Twitter, LinkedIn...? (see figure)
- ... that promotes and highlights users with the best responsible behaviour concerning reduction of energies consumption?

User profile on the web

- Do you connect to internet? (possible responses: Very rarely; Several times a month; Several times a week; Several times a day)
- What kind of equipment are you using to connect to internet? (possible responses: smartphone; Tablet; Computer; Connected TV; Game console; Other)
- What kind of activities are you doing by using internet? (possible responses: Surfer, read the information; Make purchases, reservations (train, trip, concert place); View bank accounts; Communicating with friends / family, social networks; To play; Other)
- Are you a video game user? (possible responses: Never or very rarely; Several times a year; Several times a month; Several times a week; Several times a day)

Profile of gamer



- On what types of tools / equipment do you play? (possible responses: Portable console (Switch, DS ...); Console on TV (Wii, Playstation, Xbox ...); smartphone; Tablet; Laptop; Desktop; Other)
- What types of games do you play? (possible responses: Actions (combat / platforms / shooting); Adventures (puzzles, order entry); Roleplay; Reflection (Chess, labyrinth, Puzzle ...); Simulation (management of a park, city ...); Strategy (Construction of civilization: resource / fight ...); Sports, Auto Racing ...; Other)

Environmental awareness

- How many effort are you doing to reduce your environmental impact? (responses are given on a scale 1: "This is not my main priority in my daily life" to 5: "It's essential and my lifestyle is organized accordingly")
- With which of the following options do you identify yourself most?: (possible responses: I am a person engaged on environmental issues; I feel involved in preserving the planet and future generations; I prioritize my actions to improve the economic situation of my family; Other)
- Whether in your daily life or for your exceptional journeys, are you trying to favor "clean" transport? (possible responses: Not often; Yes, the train rather than the plane; Yes, carpooling rather than my car; Yes, the bus or the bike or the walk rather than the car)
- Are you currently using a monitoring system of your energy consumption? (possible responses: yes; no)
- When you make purchases (consumer goods), are you trying to choose eco-designed products (with an eco-label)? (possible responses: Almost never; Sometimes; Often; Very often)
- When buying appliances, are you trying to choose the energy label with an AAA? (possible responses: Almost never; Sometimes; Often; Very often)

General Information

- Household composition (possible responses: Single without children; Couple without children; Single with children; Couple with children)
- Number of children
- Gender (possible responses: M / F)
- Age (possible responses: Under 25; 25 - 35 years; 36 - 45 years; 46 - 55 years; 56 - 65 years; Over 65)
- Your socio-professional category (possible responses for French participants: operators farmers; craftsmen, tradesmen, businessmen; senior managers and intellectual professions; intermediate professions (teachers, civil servants, administrative employees, service staff, ...); employees; workers; retirees; students, high school students ...; unemployed & possible responses for Spanish participants: Independent workers, Employee, Student, Retired and Unemployed)

III. RESULTS/DELIVERABLE CONTENT

We collected 141 responses from French people and 67 from Spain. The results are divided into two parts the French respondents and the Spanish respondents. For each of them, we present 4 sections of analysis:



1. Preferences in the features of the solution GreenPlay i.e. the answers of all the sample
2. Interest according the gamer profile
3. Interest according the environmental profile
4. Interest according the personal profile

Finally, all the analysis is based on the 5 first questions about the interest in a new gaming platform & social network.

French participants

Preferences in the features of the solution GreenPlay

For the "connected in real time with your consumption of energy (water, electricity ...)" criterion, more than 28% of respondents say they are very strongly interested and 24% say they are strongly interested (see Figure 1).

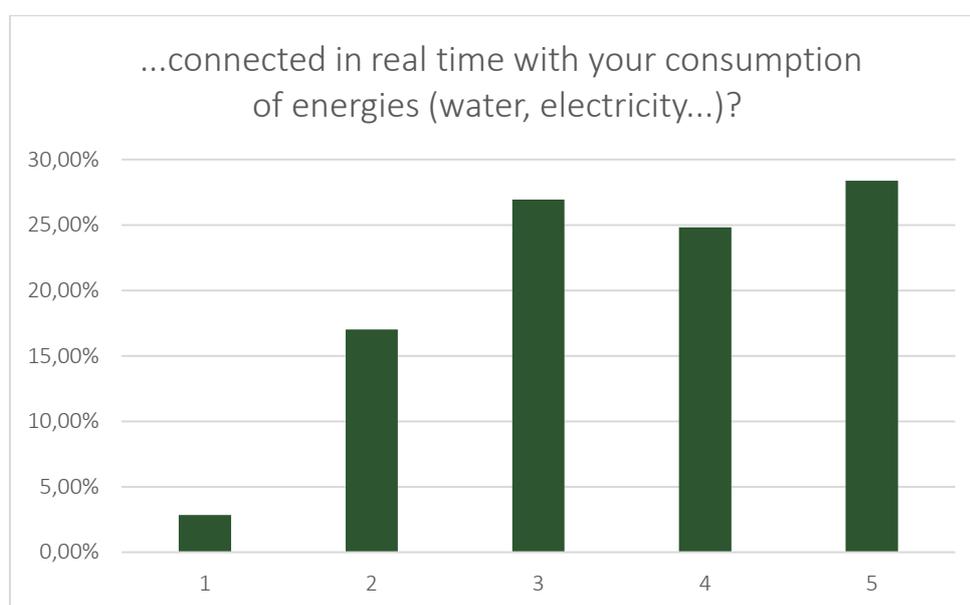


Figure 1. French responses for the "connected in real time with your consumption of energies (water, electricity...) for a playful monitoring of your consumption"

For the "to enable you to follow your electricity consumption in a more playful way" criterion, more than 32% of respondents say they are very strongly interested and 36% say they are strongly interested (see Figure 2).



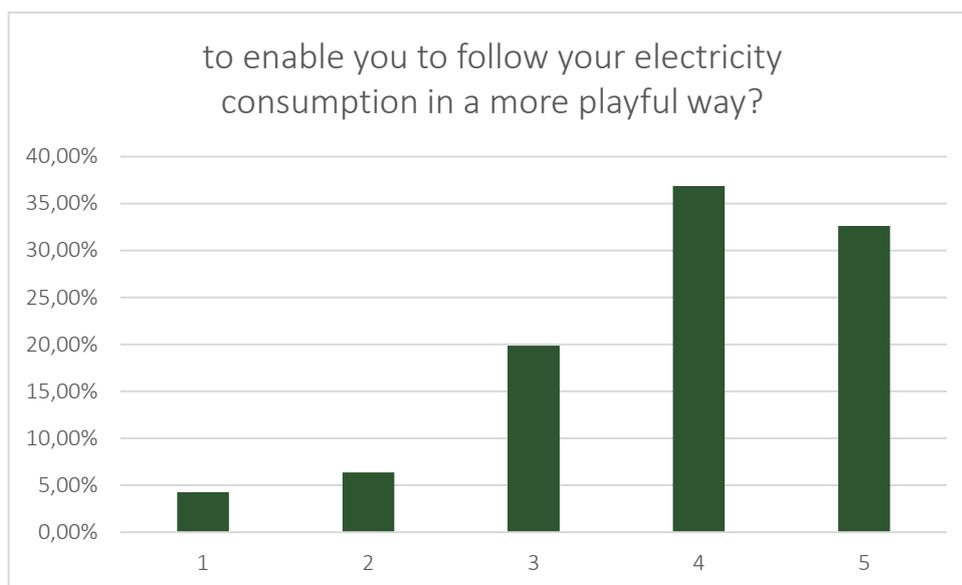


Figure 2. French responses for the “to enable you to follow your electricity consumption in a more playful way?”

For the "to receive customized advices and challenges to change your consumption and save money" criterion, more than 41% of respondents say they are very strongly interested and 34% say they are strongly interested (see Figure 3).

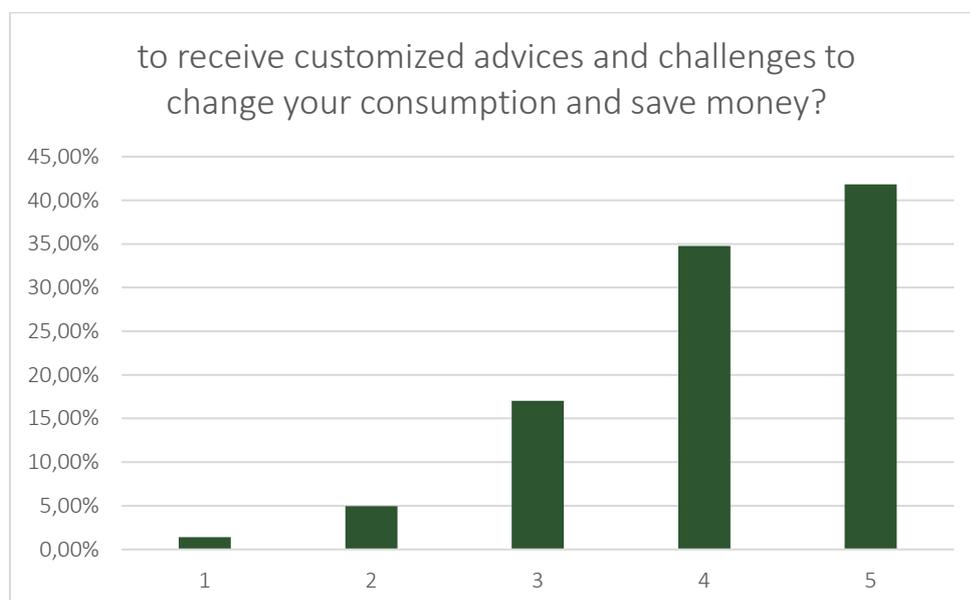


Figure 3. French responses for the “to receive customized advices and challenges to change your consumption and save money?”

For the "to share news, videos, images... on a worldmap with geolocation like Google Map, Open Street Map...) instead of a wall like Facebook, Twitter, LinkedIn..." criterion, more than 11% of respondents say they are very strongly interested and 18% say they are strongly interested (see Figure 4). This aspect of the game does not seem the one that consumers prefer.

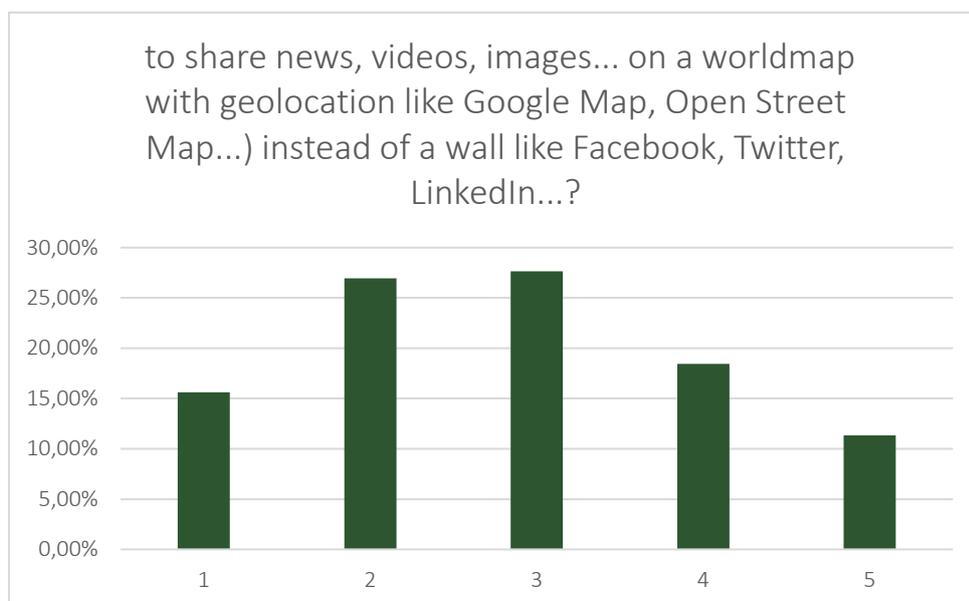


Figure 4. French responses for the “to share news, videos, images... on a worldmap with geolocation like Google Map, Open Street Map...) instead of a wall like Facebook, Twitter, LinkedIn...?”

For the " that promotes and highlights users with the best responsible behaviour concerning reduction of energies consumption" criterion, more than 36% of respondents say they are very strongly interested and 36% say they are strongly interested (see Figure 5).

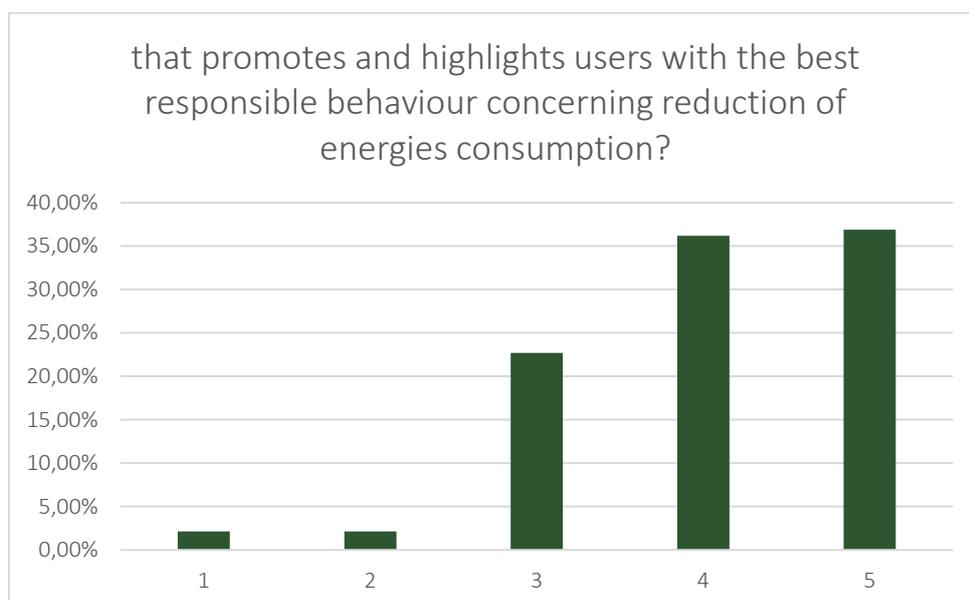


Figure 5. French responses for the “that promotes and highlights users with the best responsible behaviour concerning reduction of energies consumption“

Overall, the functions of the GreenPlay solution seem to be of great interest to consumers. Only the function of "social network" has received the least interest.

Interest according to the gamer profile

In this part of the analysis, we are focusing on the gamer profile of the respondents. We try to identify if some functions of the GreenPlay solution are more attractive to categories of gamers?



We have defined 5 profiles of gamers according to their frequency of gaming:

- Never or very rarely
- Several times a year
- Several times a day
- Several times a month
- Several times a week



We observe that for people who “never or rarely” gaming, their interest is mostly in the function (Figure 6) “to receive customized advices and challenges to change your consumption and save money” with 47% of very strongly interested. The second function with high interest is the “that promotes and highlights users with the best responsible behaviour concerning reduction of energies consumption” with 38% and 38% of very strongly and strongly interested people. Once again, we find a disinterest for the “social network” aspect (see Figure 6).

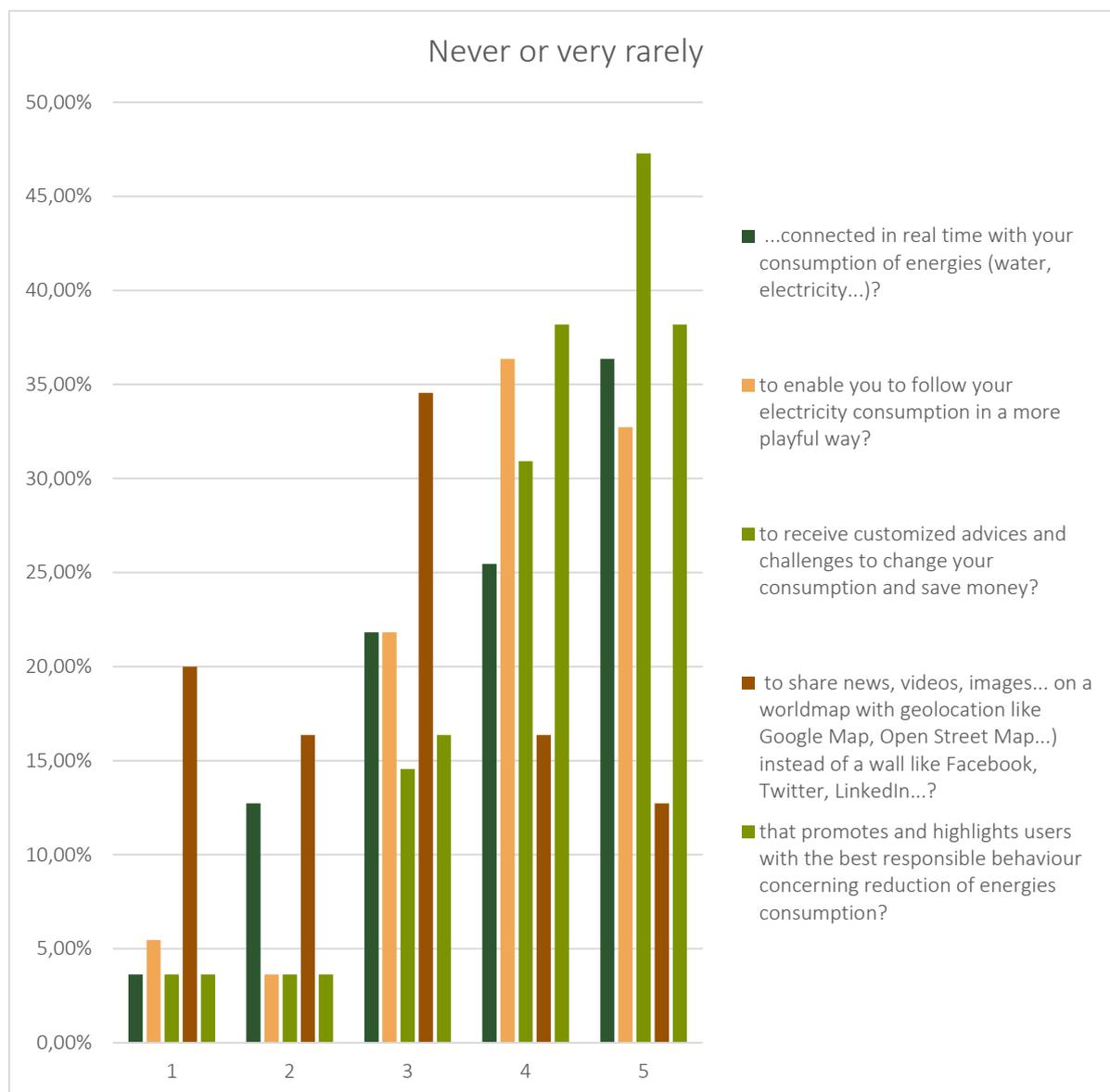


Figure 6. French profile for “never or very rarely «gaming

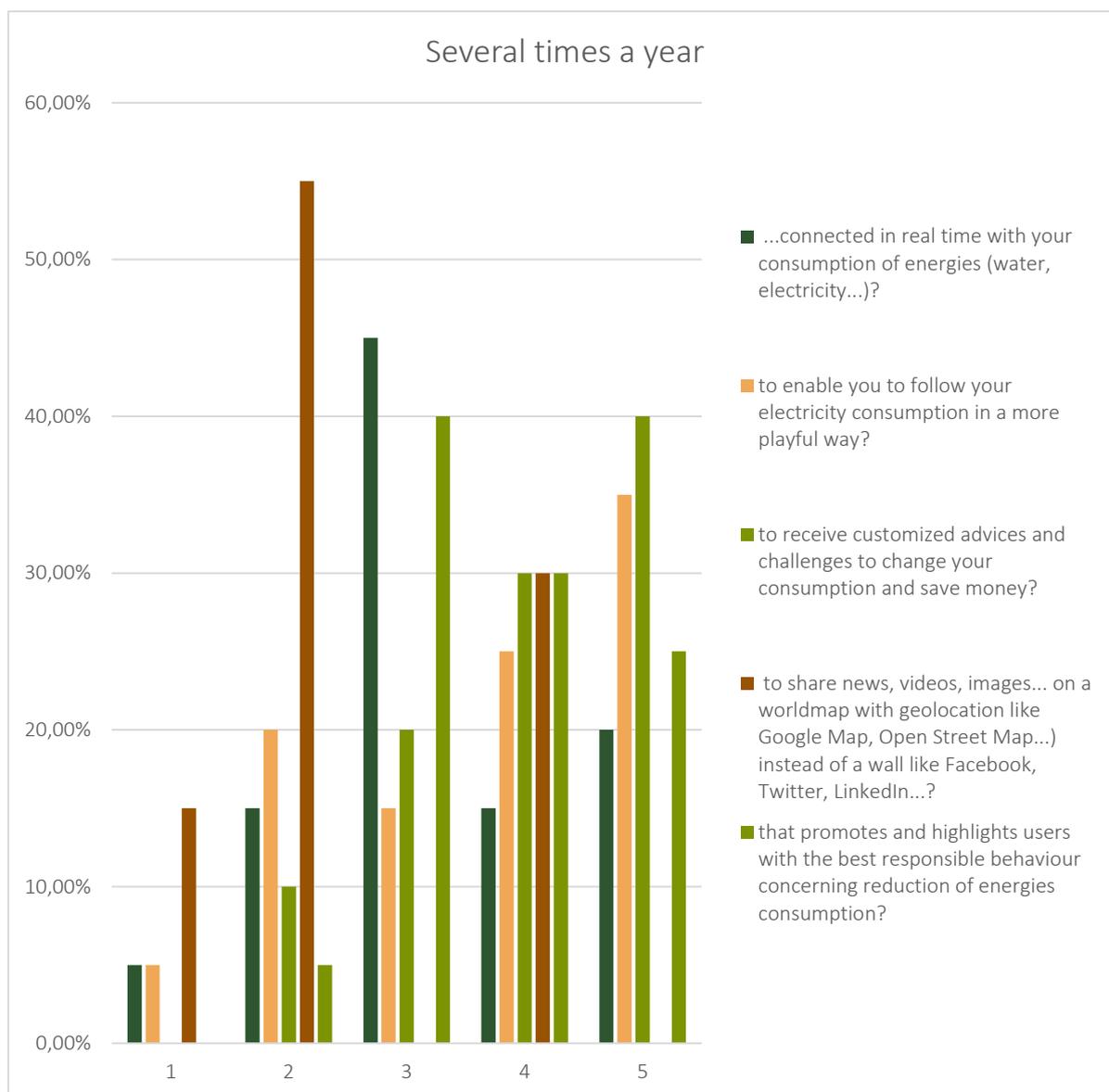


Figure 7. French profile for “several times a year “ gaming

For participants who play a game “several times a year”, the most interest criterion is “to receive customized advices and challenges to change your consumption and save money” with 40% of very strongly interested and to “enable you to follow your electricity consumption in a more playful way” with 35% of very strongly interested (see Figure 7).

In this case, we find mixed responses for the social network with 30% of strongly interested but 55% of little interested.



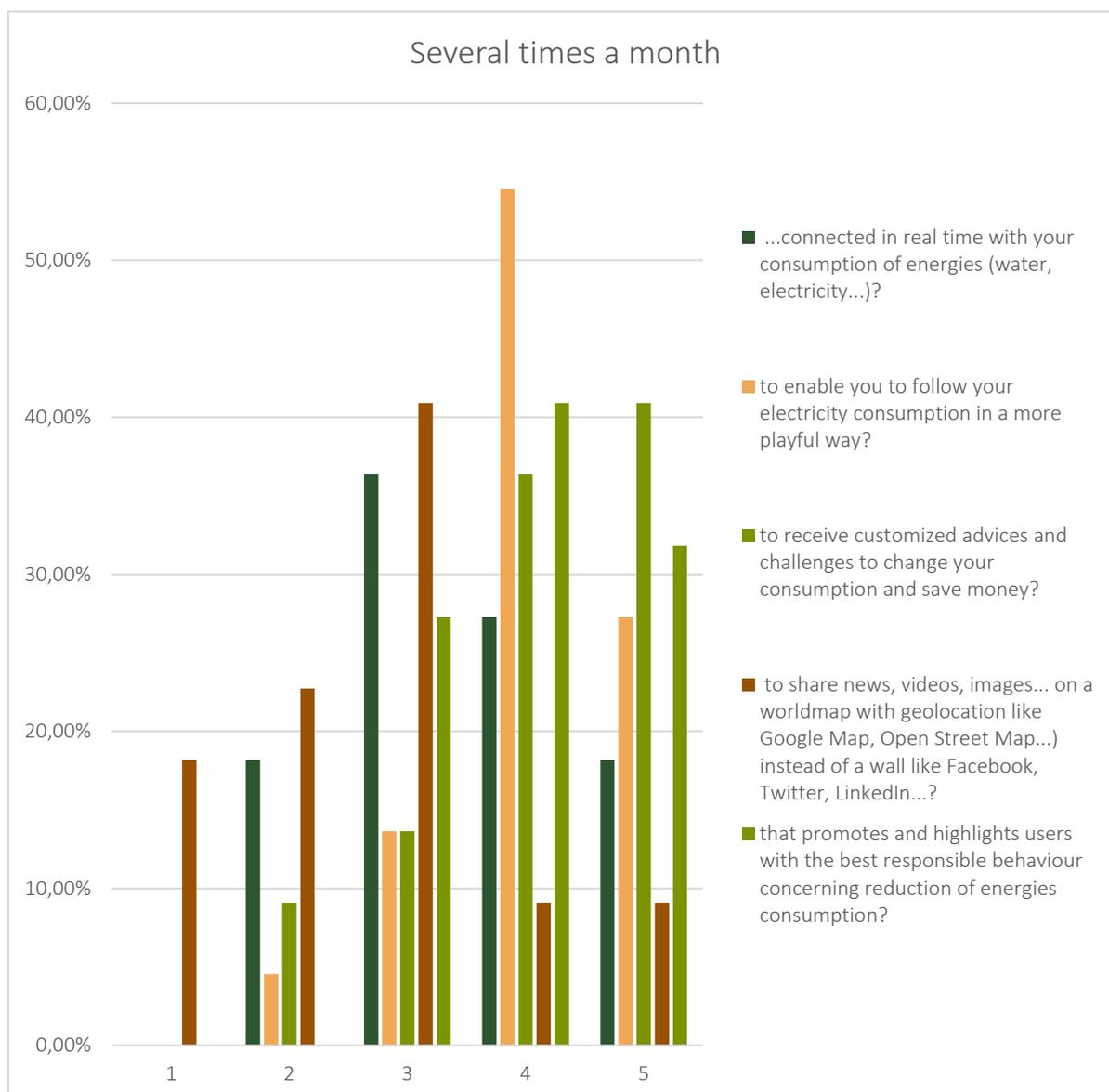


Figure 8. French profile for “several times a month “ gaming

For participants who play games “several times a month” we find similar results than people gaming “several times a year”. Indeed, they show interest in the customized advices (40% with very strong interest) and the playful way of monitoring with 54% of strongly interested. We also find a preference for “that promotes and highlights users with the best responsible behaviour concerning reduction of energies consumption” criteria (see Figure 8).



Figure 9. French profile for “several times a week “ gaming

For participants who play games “several times a week”, all the functions (except the social network) seem to be interesting (see Figure 9).



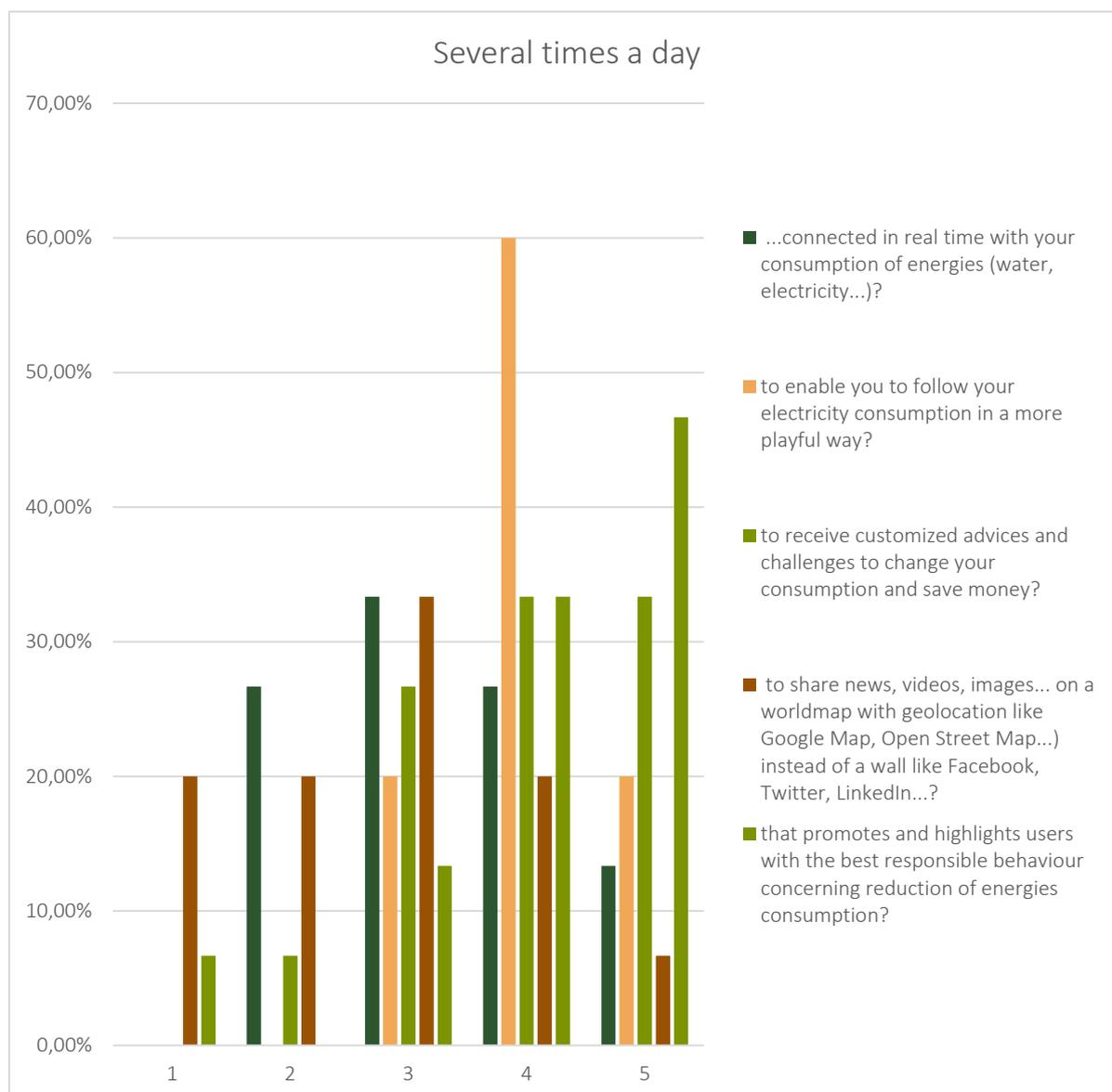


Figure 10. French profile for "several times a day" gaming

For the high gamer, without a lot of surprise, the criteria with the most interest is the playful way of monitoring with 80% of strong interest (60% of strongly and 20% of very strongly interested).

Interest according to the environmental profile

In this part of the analysis, we try to find a link between the level of environmental awareness of respondents and their preferences in the functions of the game.

As the measurements are on a scale we use the Spearman's rank correlation. The results obtained with the test of Spearman correlation indicate that there is no link between the preference of GreenPlay solution and the level of environmental awareness of respondents (see Table 1).

Table 1. Results of Spearman correlation tests for French respondents

	Connected in real time Vs. Eco-level	Playful way monitoring Vs. Eco-level	Customized advices Vs. Eco-level	Social network Vs. Eco-level	Promote the best responsible



					behaviour Vs. Eco-level
Rs	0.2005	0.069	0.1453	0.1196	0.2744
p-value	0.0642	0.5278	0.1820	0.2727	0.0106

These results are easily visible in the Figure 11, Figure 12, Figure 13, Figure 14 and Figure 15. Indeed, we cannot distinguish any lines in these charts.

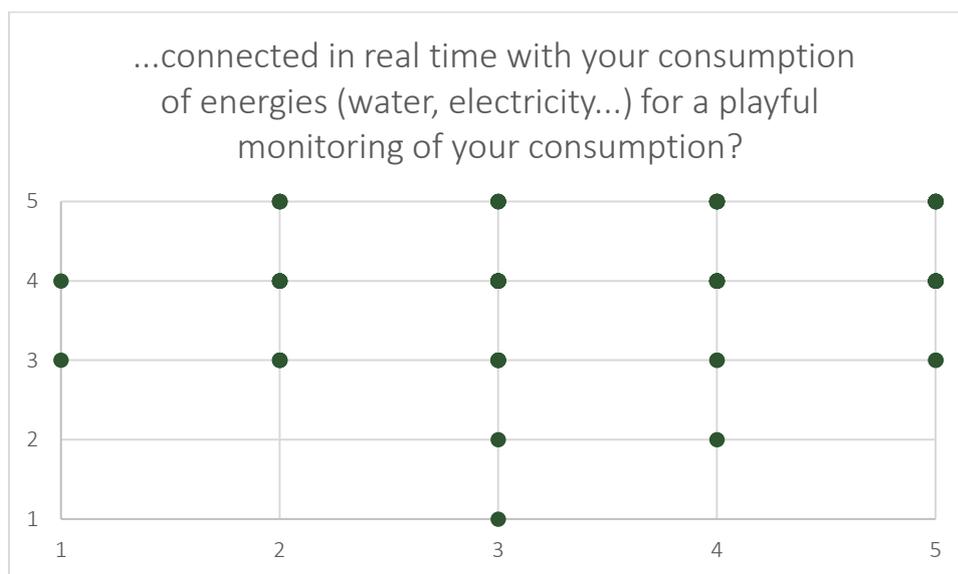


Figure 11. Connected in real time Vs. Eco-level of French respondents

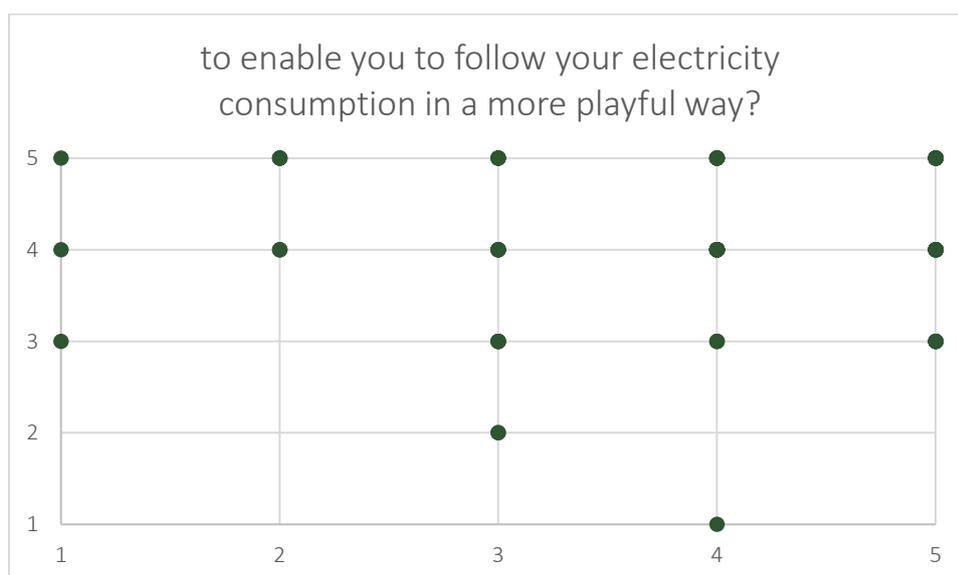


Figure 12. Playful way monitoring Vs. Eco-level of French respondents



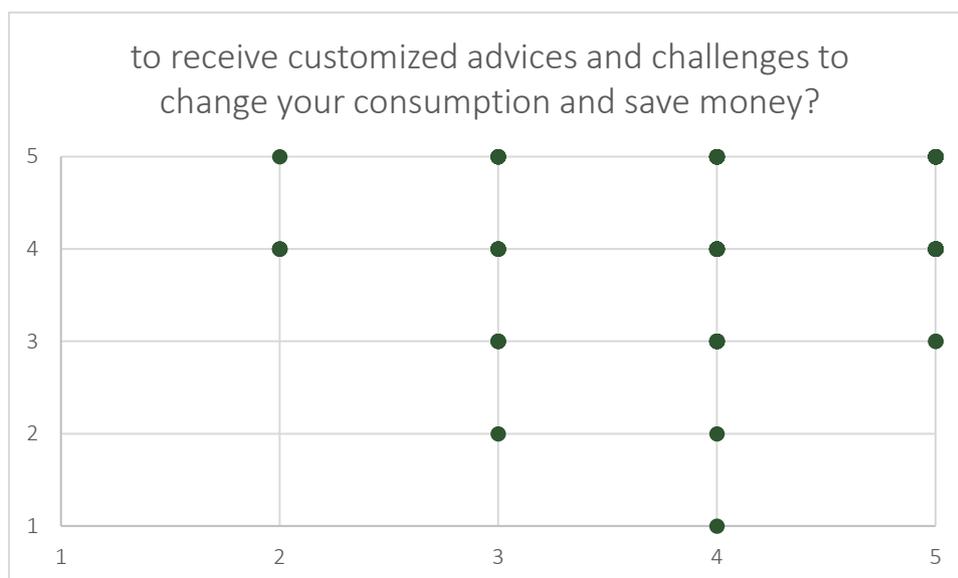


Figure 13. Customized advices Vs. Eco-level of French respondents

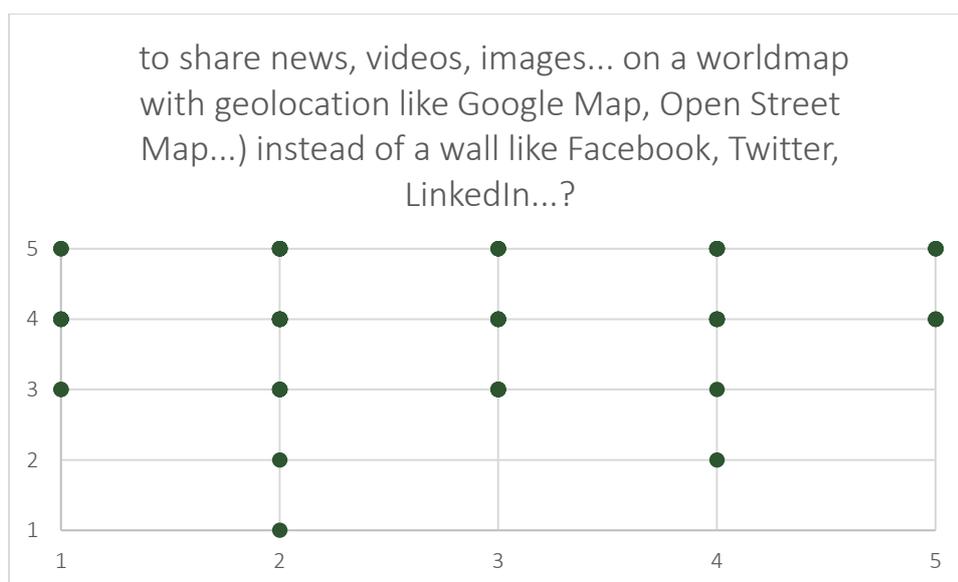


Figure 14. Social network Vs. Eco-level of French respondents

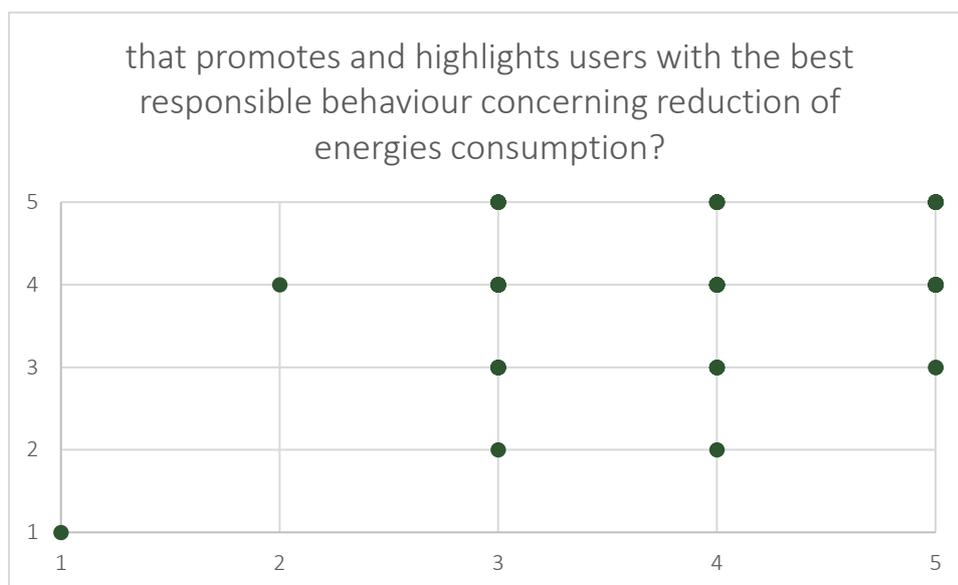


Figure 15. Promote the best responsible behaviour Vs. Eco-level of French respondents

Interest according to the personal profile

In this part of the analysis, we are interested in finding a correspondence between consumers preferences (about the functions of the GreenPlay solution) and their socio-demographic profile.

Household composition

First, we analyse the responses according to the household composition of the respondents.

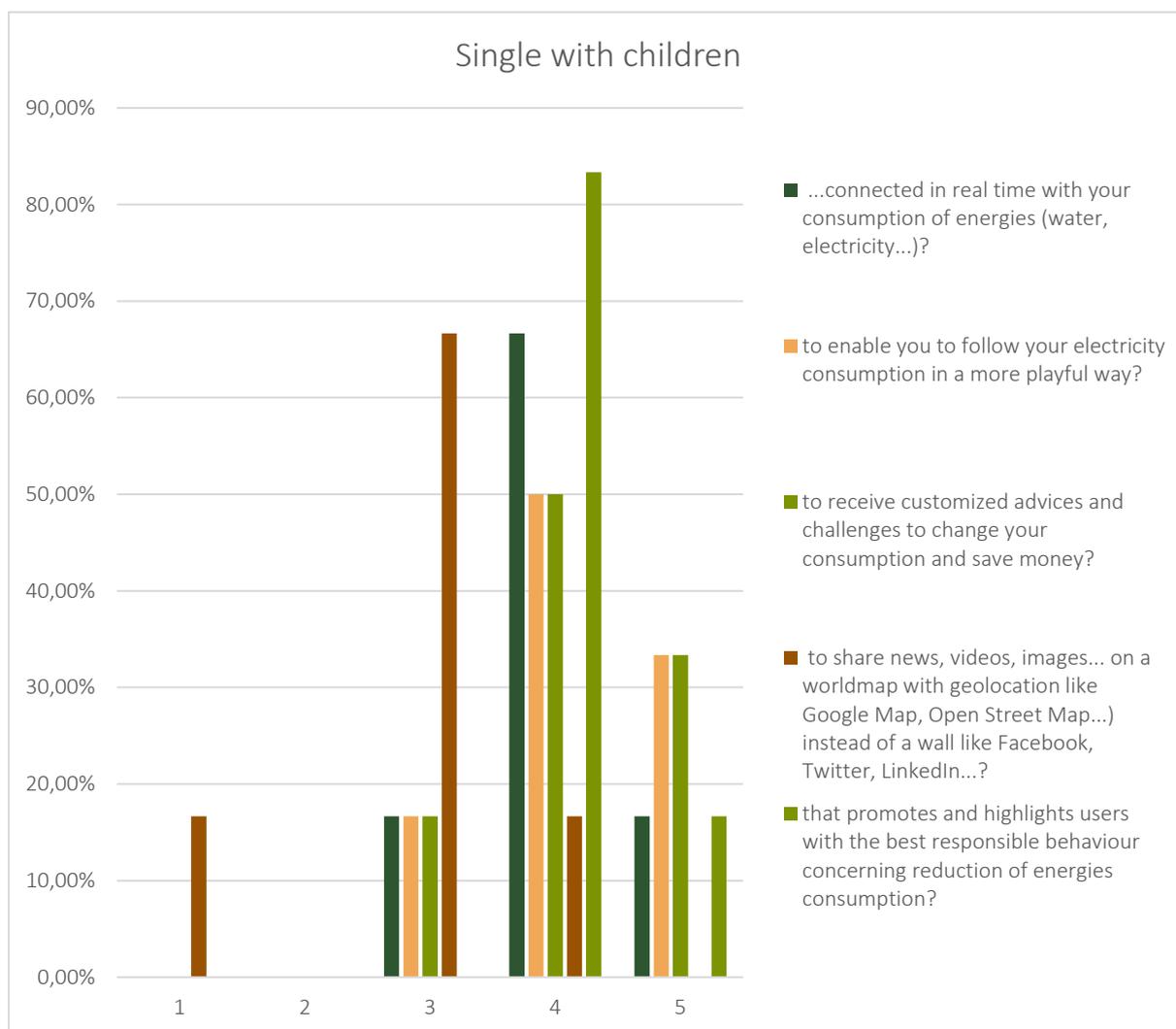


Figure 16. Responses of French "single with children" profile

We observe in Figure 16 that the function of "promotes the best responsible behavior" is the one that has the most interest for the participants with the profile "single with children" with 83% and 16% of strong and very strong interest. We notice also a high preference for the playful way monitoring criteria with 50% and 33% of strong and very strong interest.



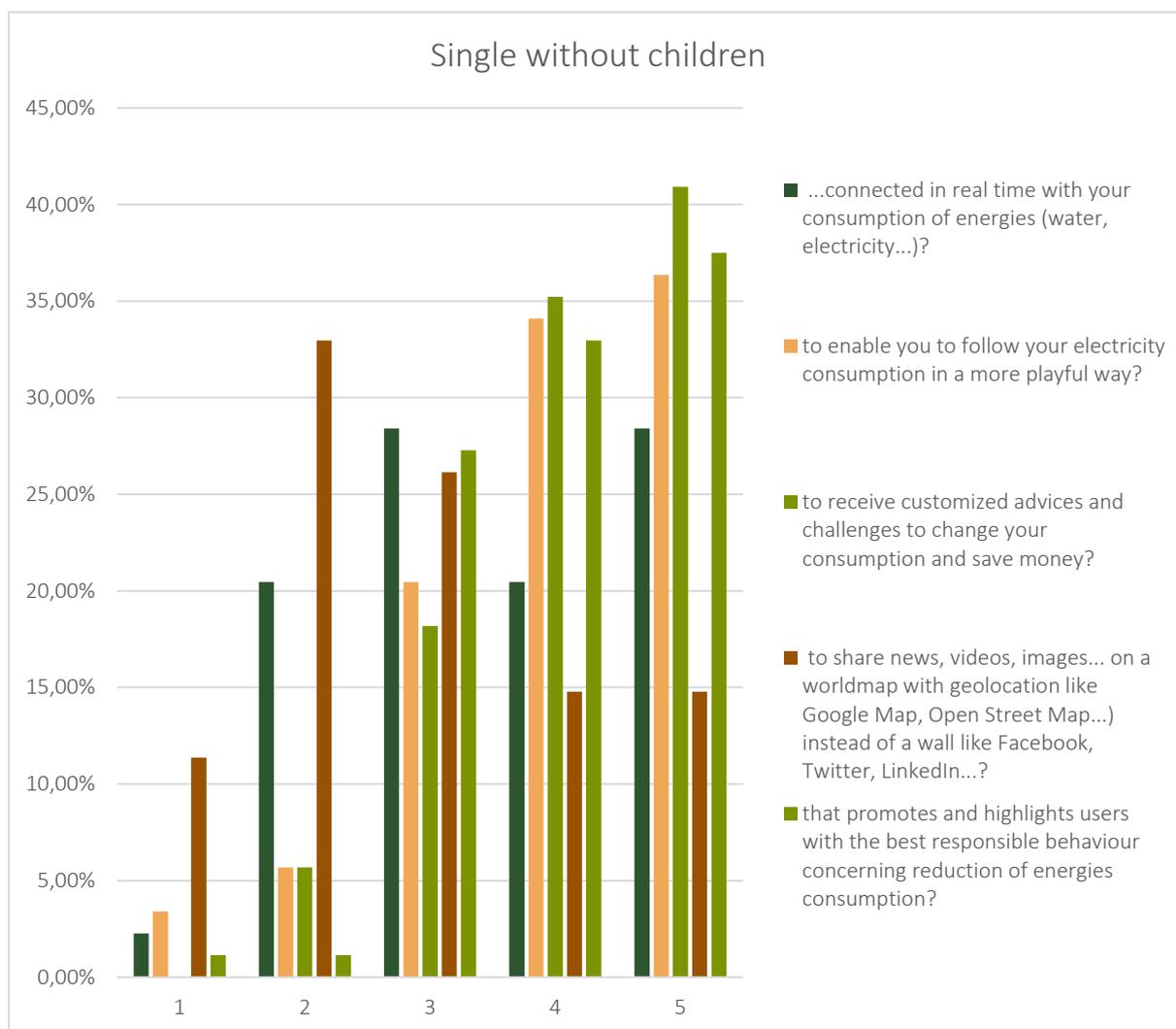


Figure 17. Responses of French "single without children" profile

For people "single without children" we notice that 3 of the 5 functions are highly appreciated. We find a strong interest in customized advices, the promotion of the best behavior and the playful way monitoring (see Figure 17). The real time connected tool gets also a good score for this category of household composition.

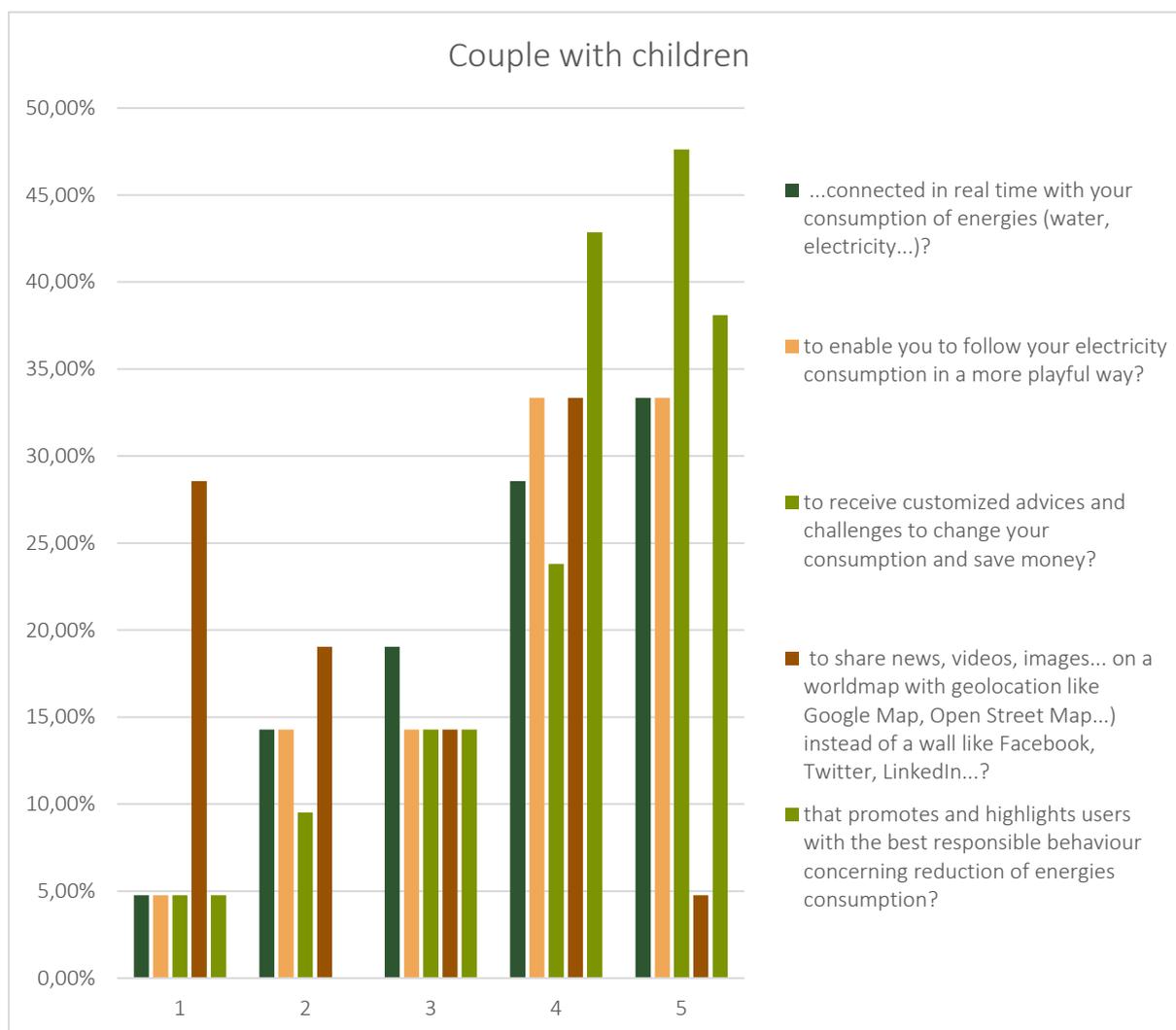


Figure 18. Responses of French “couple with children” profile

We find here similar results to the previous category. Couples with children, in general, have the same preferences as singles without children (see Figure 18).



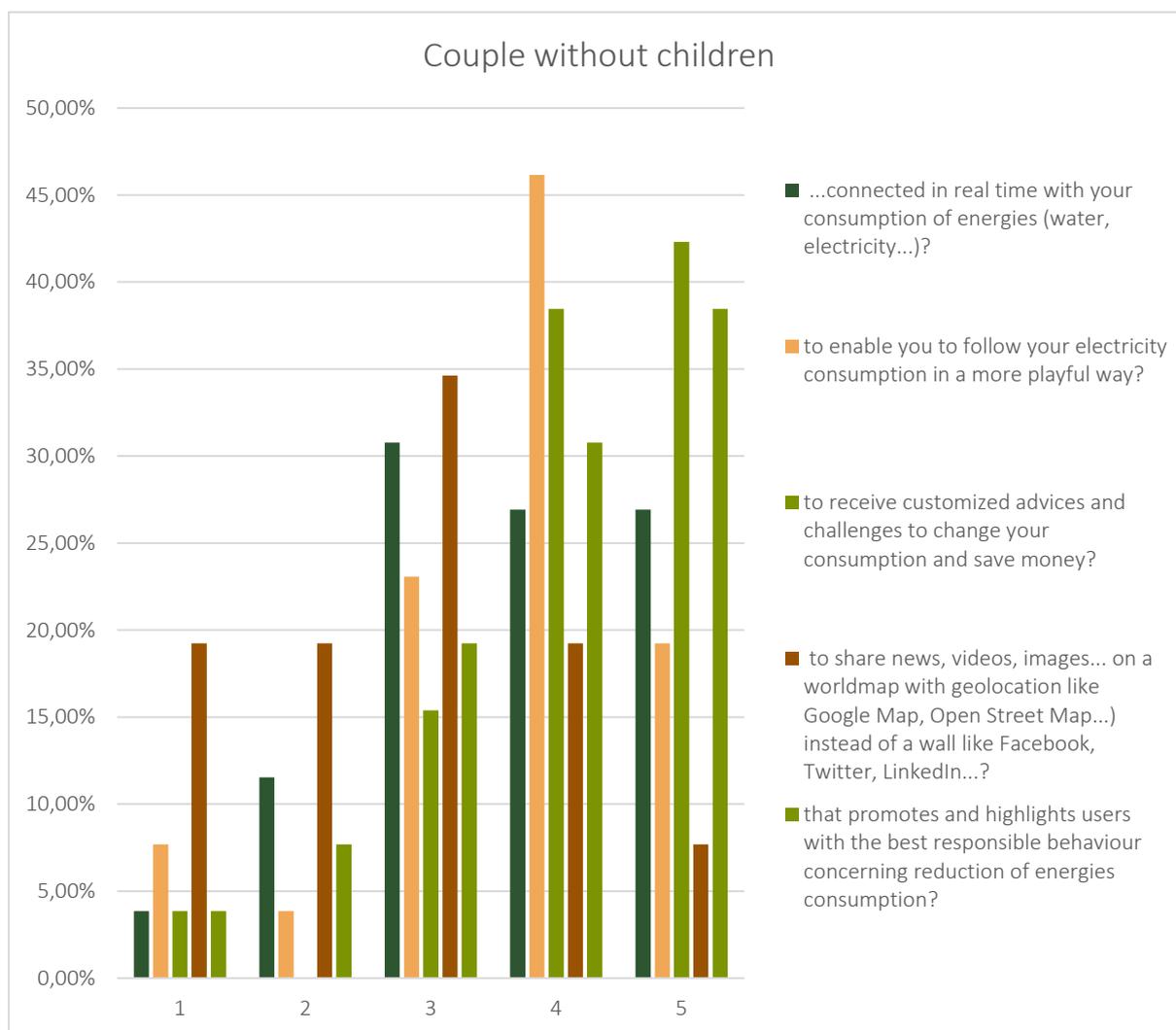


Figure 19. Responses of French "couple with children" profile

For Participants "couple without children" we notice that 3 of the 5 functions are highly appreciated. We find a strong interest in customized advices, promotion of the best behavior and the playful way monitoring (see Figure 19). The real time connected tool gets also a good score for this category of household composition.

Age

Then, in order to understand the preferences of consumers, we analyse data according to the age of the respondents. For this part of the study we define 5 categories:

- Under 25
- Between 25 and 35 years
- Between 35 and 45 years
- Between 45 and 55 years
- Between 55 and 65 years



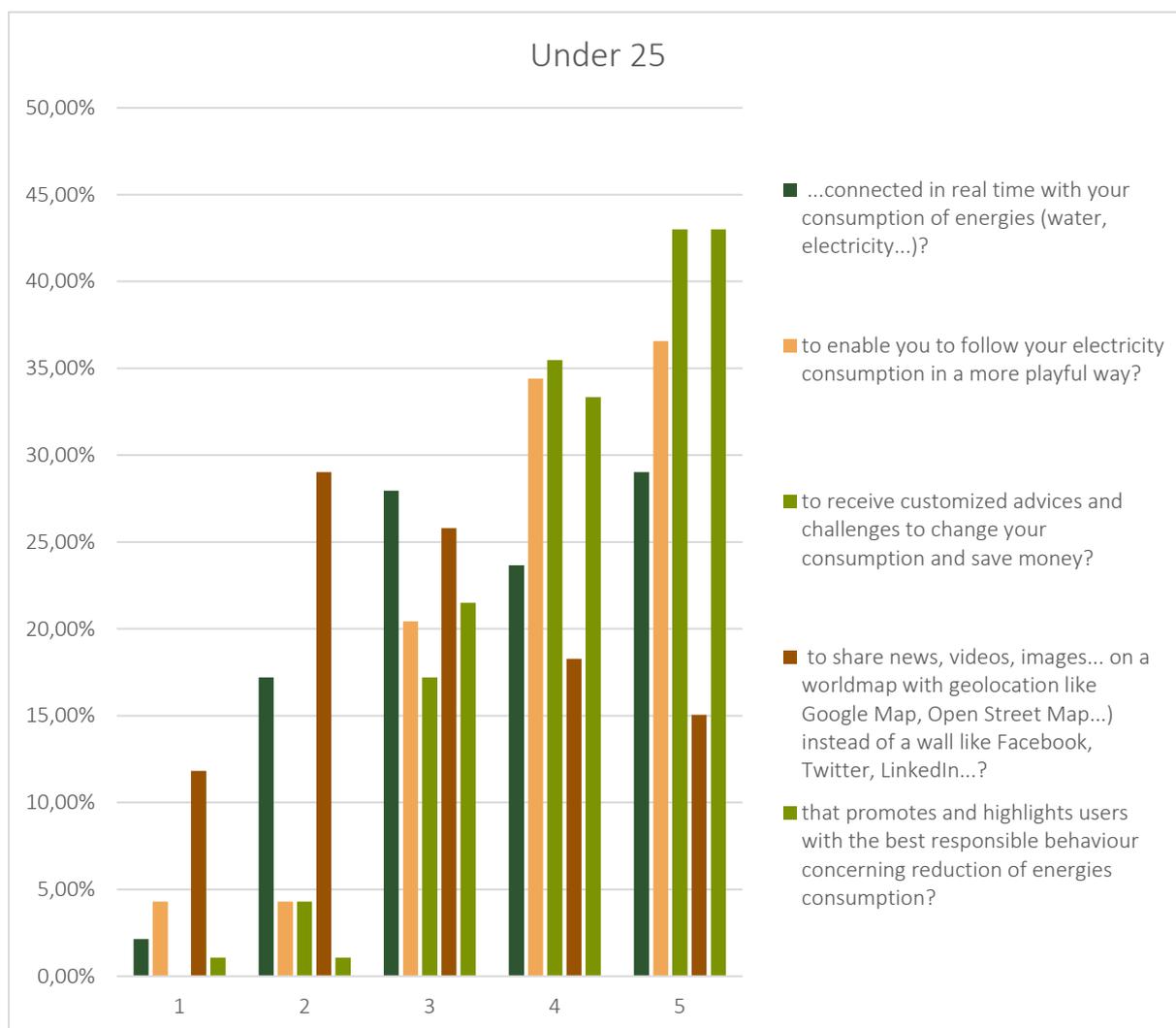


Figure 20. Responses of French “under 25 years old” profile

The respondents under 25 years show a high interest in the customized advices and the promotion of the best responsible behaviour functions. Obviously, we find good results for the real time monitoring and the playful way of the solution. However, the social network has no success with 40% of disinterest (see Figure 20).



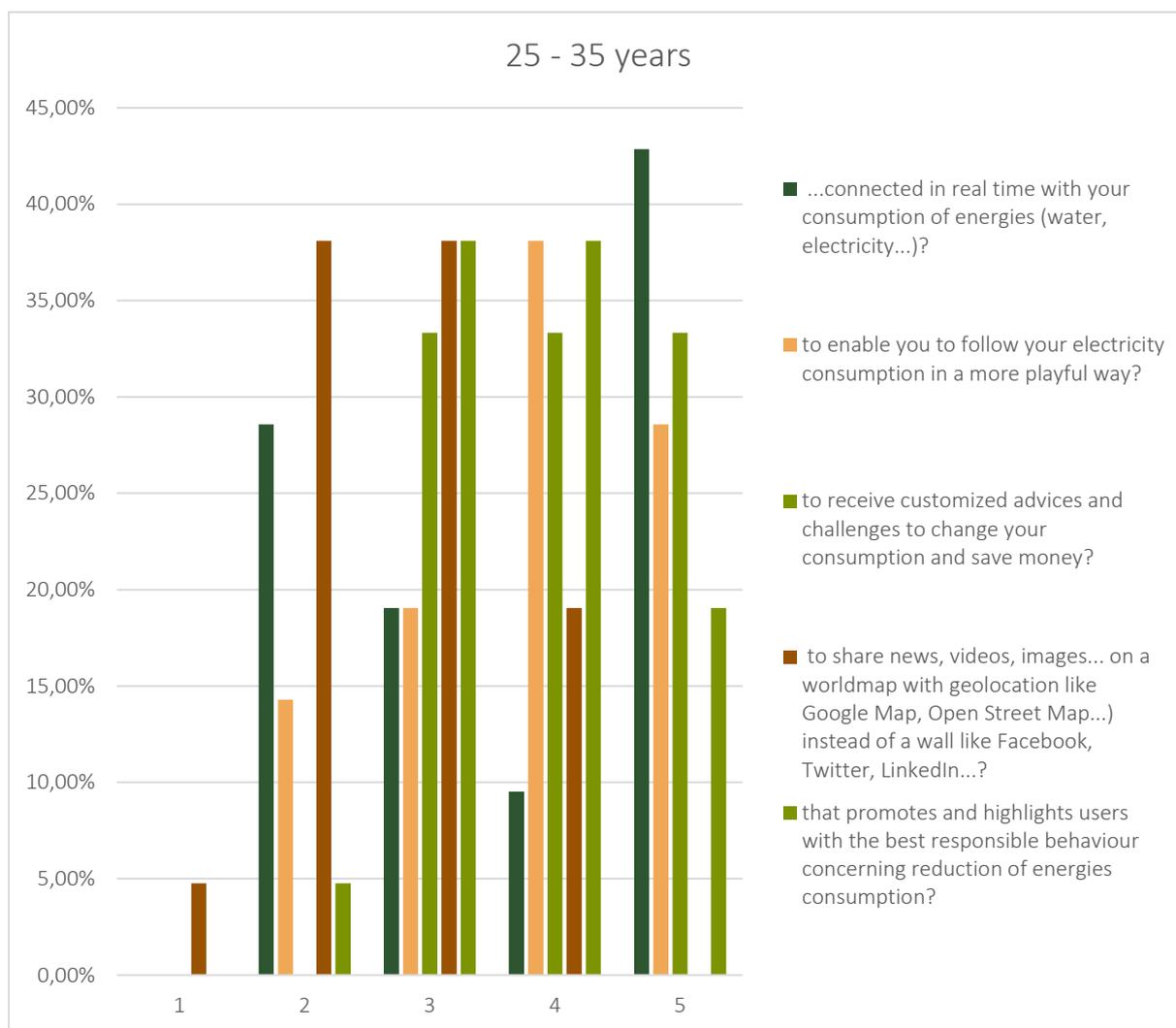


Figure 21. Responses of French "25-35 years" profile

For the participants between 25 and 35 years we find globally the same results as for the others but with a more important interest for the monitoring in real-time (see Figure 21).

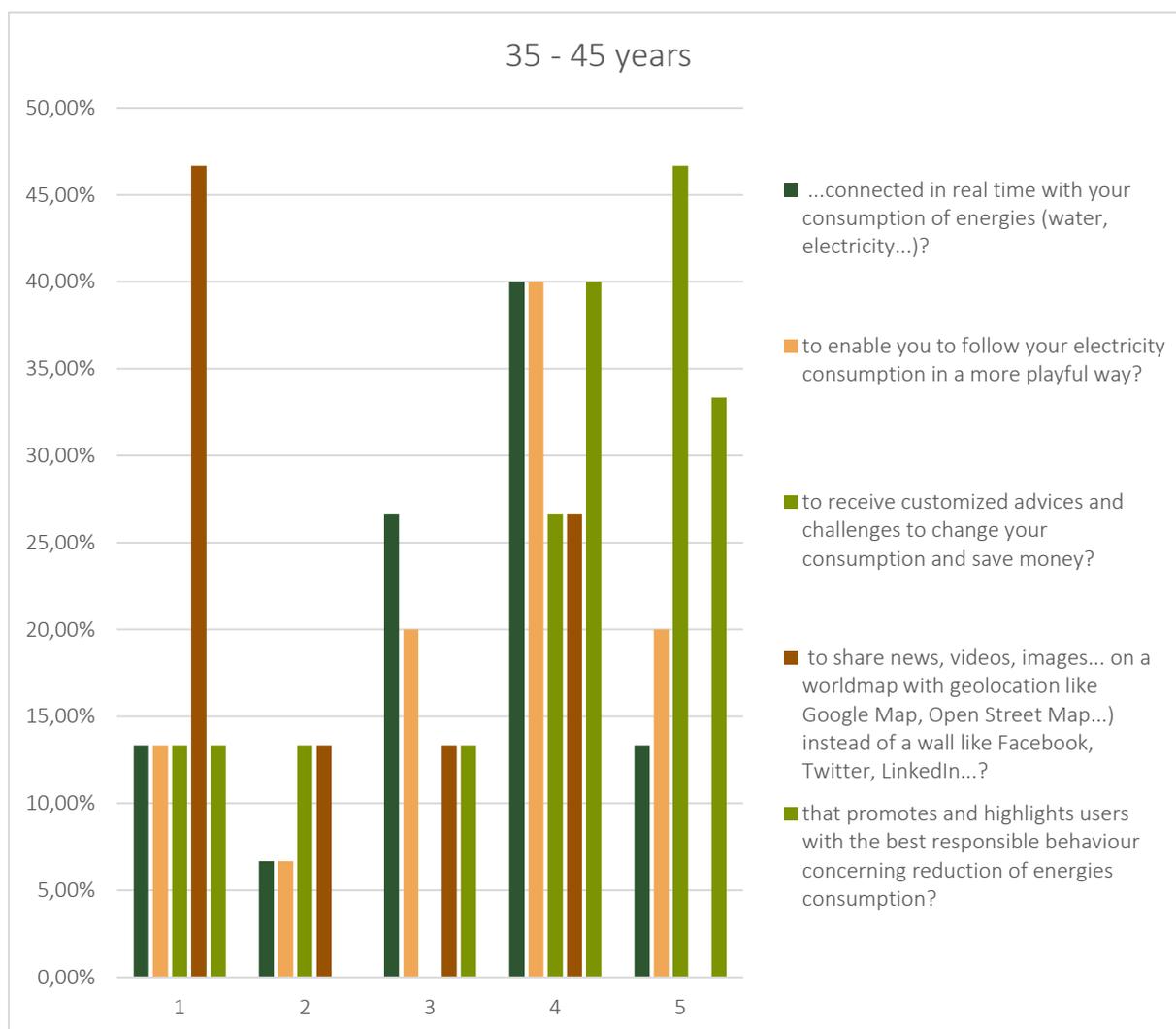


Figure 22. Responses of French "35-45 years" profile

Participants who are between 35 and 45 years seems to be more interested in the customized advices function and they depreciate the social network functionality (see Figure 22).



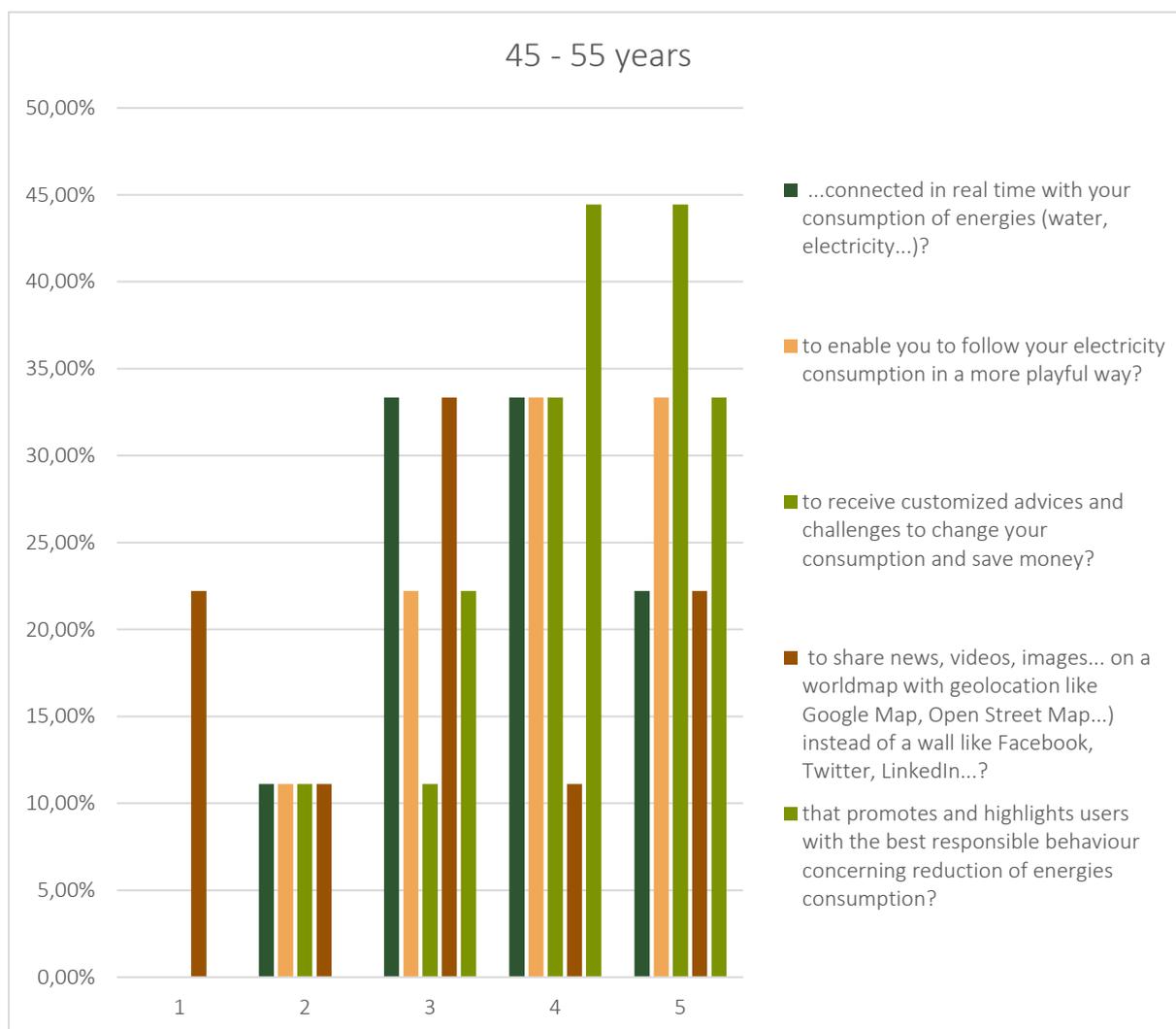


Figure 23. Responses of French "45-55 years" profile

In Figure 23, we observe that participants who are between 45 and 55 years highly like the customized advices and the promotion of the best responsible behaviour. We also notice that 33% of this profile are interested in the social network aspect (see Figure 23).



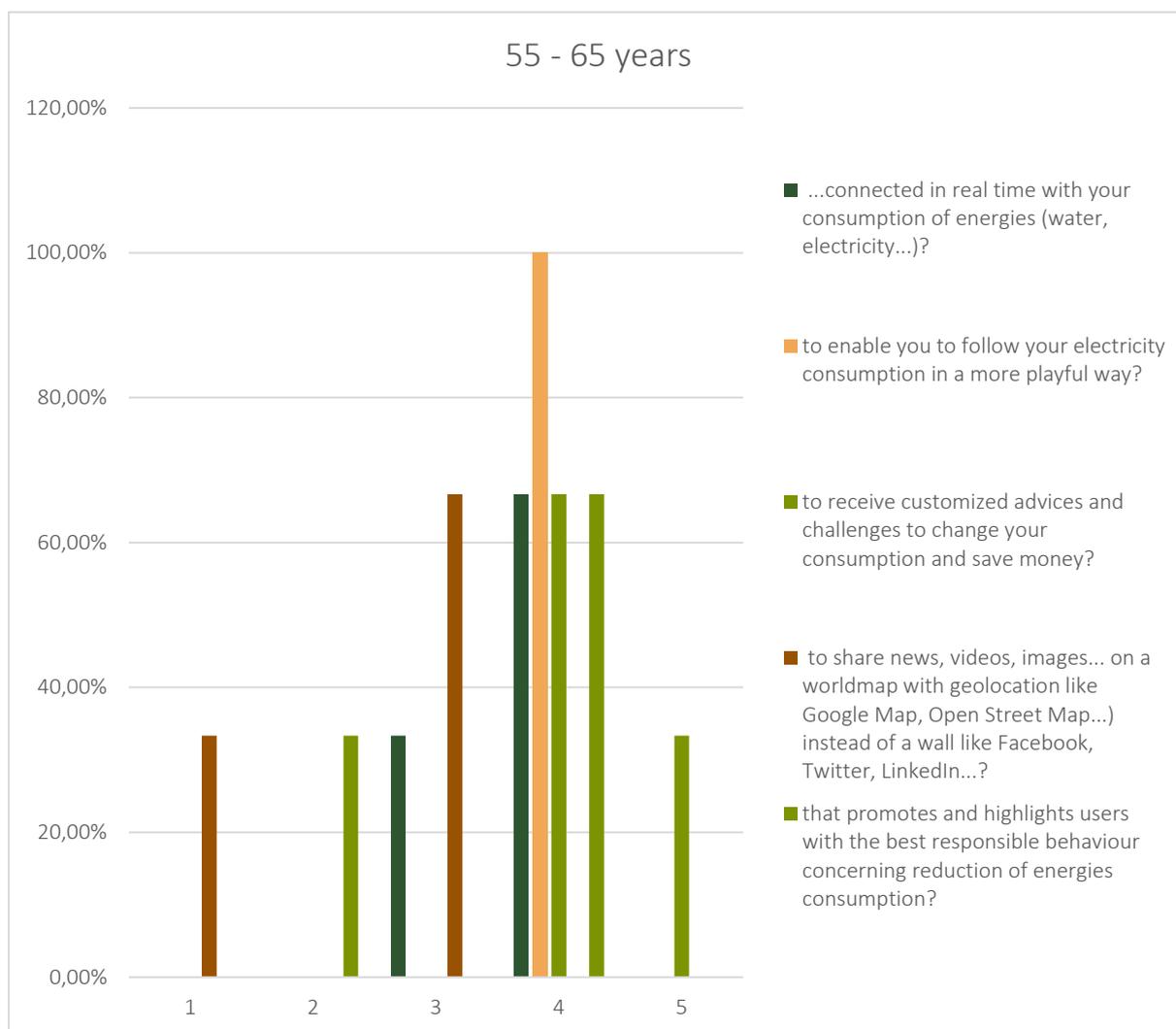


Figure 24. Responses of French "55-65 years" profile

Unfortunately, we have only 3 participants who are between 55 and 65 years. So it is difficult to interpret the results for this profile (see Figure 24).



Socio-Professional Category

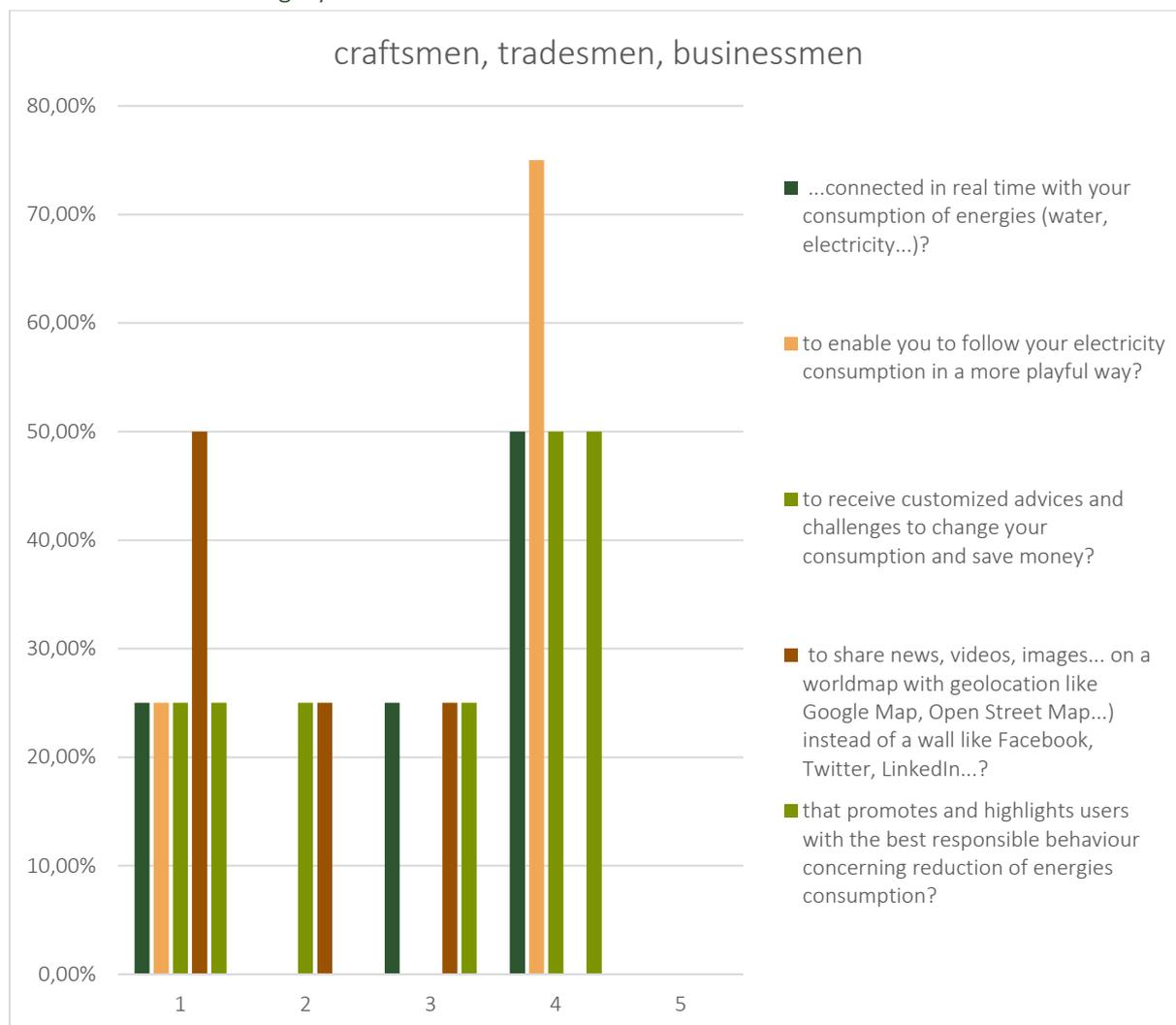


Figure 25. Responses of French “craftsmen, tradesmen, businessmen” profile

The analysis of responses for participants with the profile “craftsman, tradesmen, businessmen” is not possible because we have only 3 participants with this profile (see Figure 25).



Figure 26. Responses of French “senior managers and intellectual professions” profile

Participants with the “senior managers and intellectual professions” profile like the 4 main functions and seem dislike the social network aspect (see Figure 26).

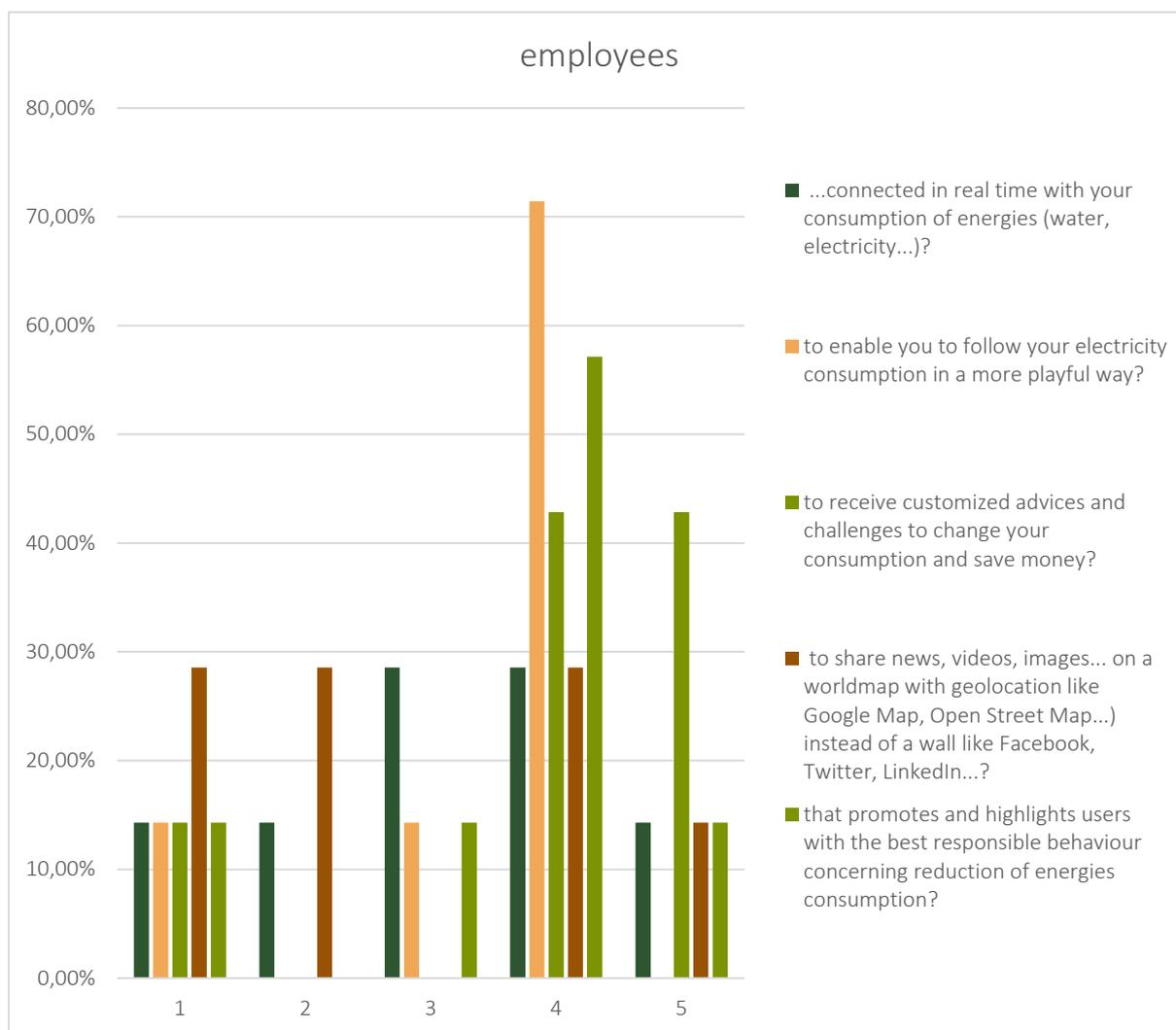


Figure 27. Responses of French “employees” profile

We observe in Figure 27 that “employees” prefer the customized advices with 84% of strong interest. Then, they also have high interest in the promotion of the best responsible behaviour and the playful way of monitoring.

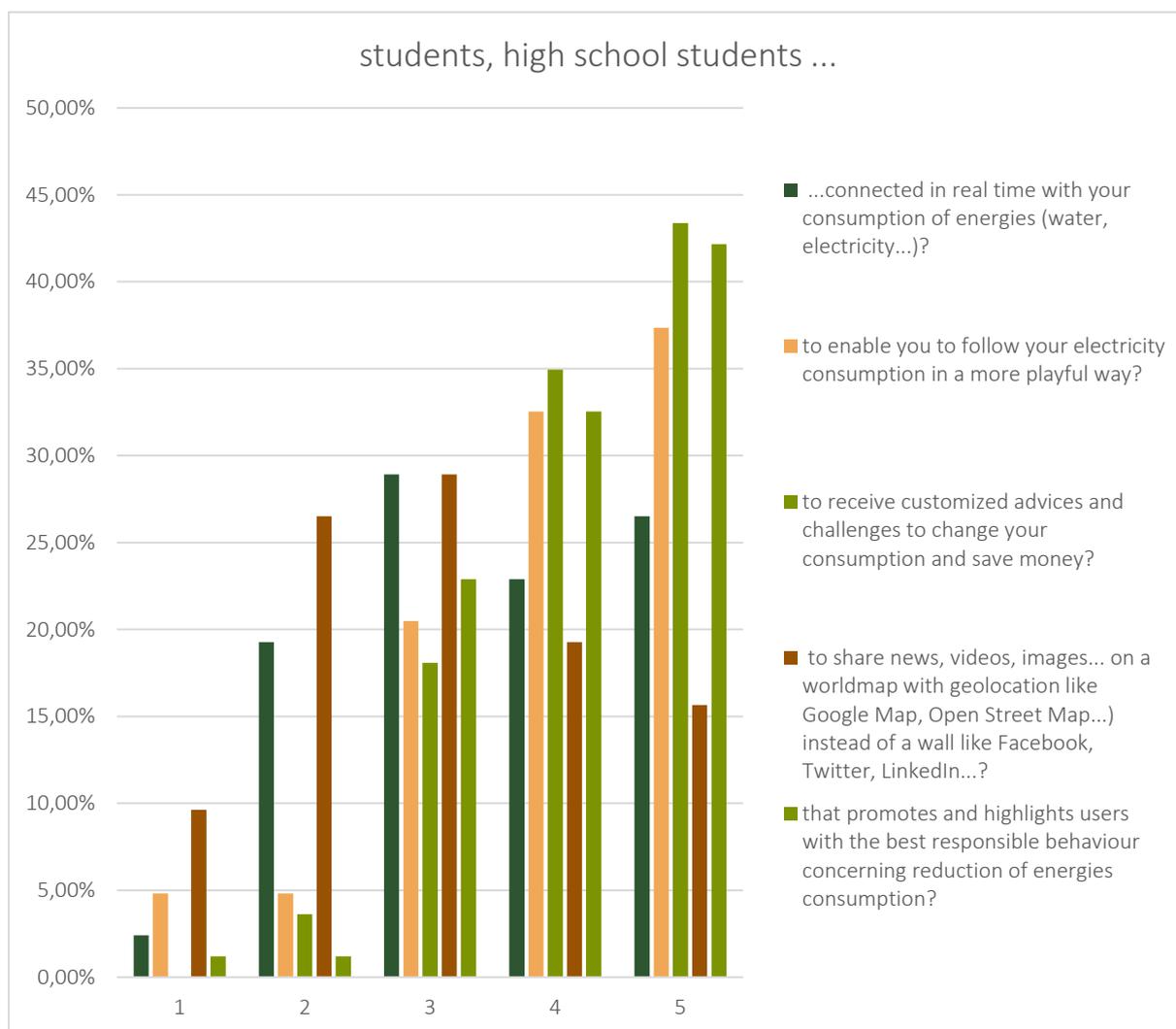


Figure 28. Responses of French “students, high school students ...” profile

Students respondents are highly interested in the playful way of monitoring, the customized advices and the promotion of the best responsible behaviour. Only half of the respondents indicates they are interested in the real-time aspect and a third in the social network aspect (see Figure 28).

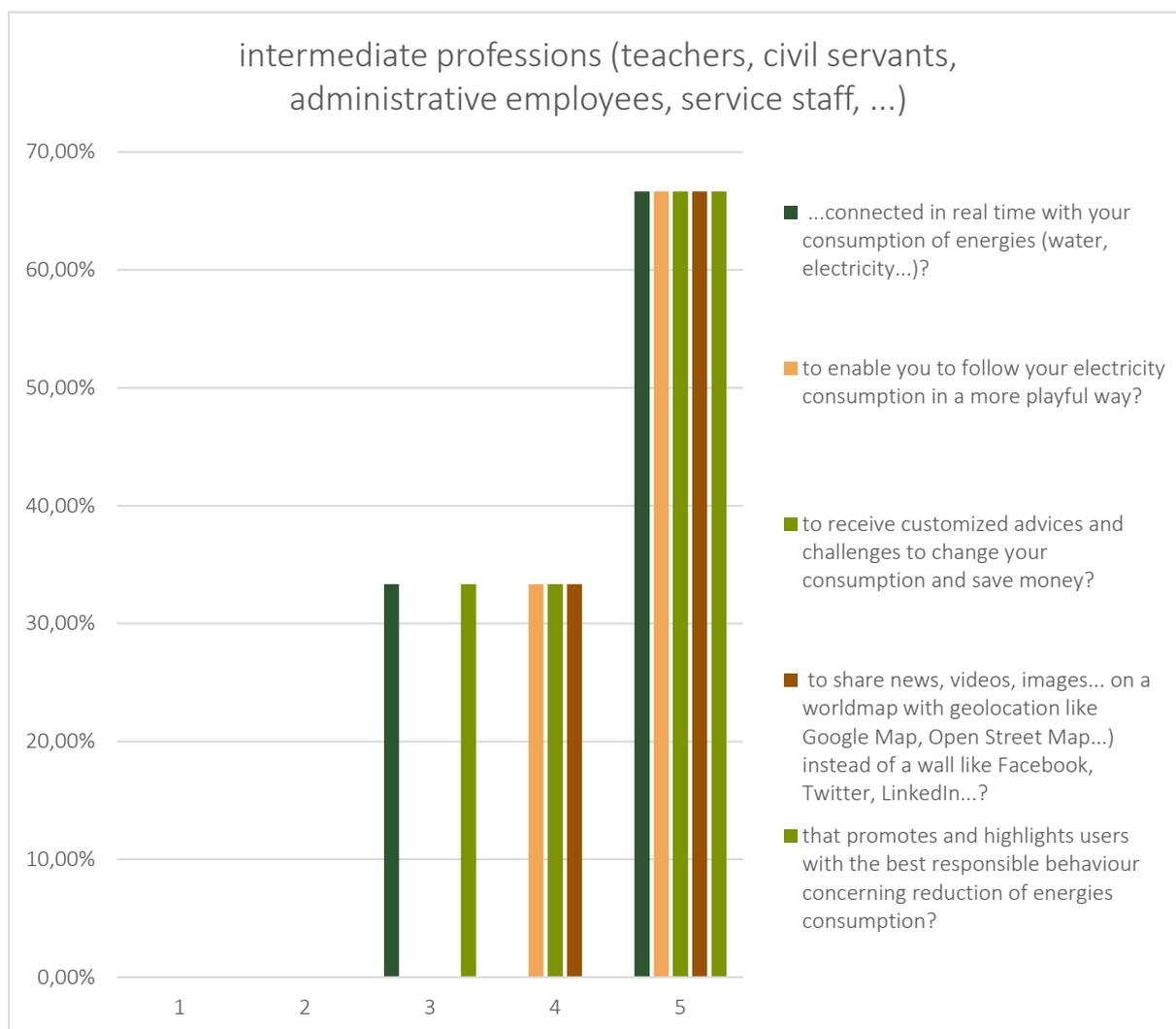


Figure 29. Responses of French “intermediate professions” profile

The number of respondents with the “intermediate professions” are not sufficient to be analysed; Only 3 participants responded to our questionnaire (see Figure 29).



Spanish people

Preferences in the features of the solution GreenPlay

For the "connected in real time with your consumption of energy (water, electricity ...)" criterion, more than 46% of respondents say they are very strongly interested and 29% say they are strongly interested (see Figure 30).

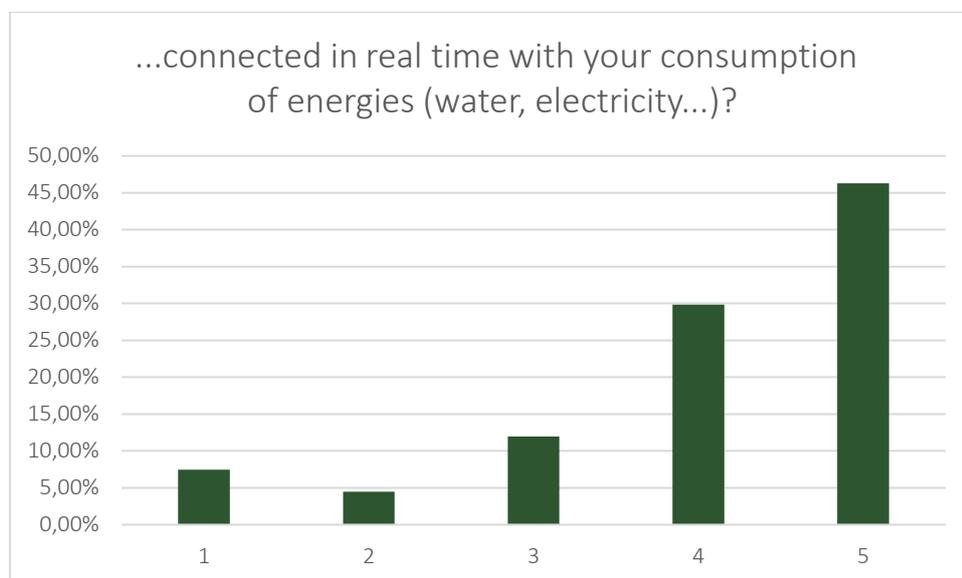


Figure 30. Spanish responses for the "connected in real time with your consumption of energies (water, electricity...) for a playful monitoring of your consumption"

For the "to receive customized advices and challenges to change your consumption and save money" criterion, more than 52% of respondents say they are very strongly interested and 23% say they are strongly interested (see Figure 31).

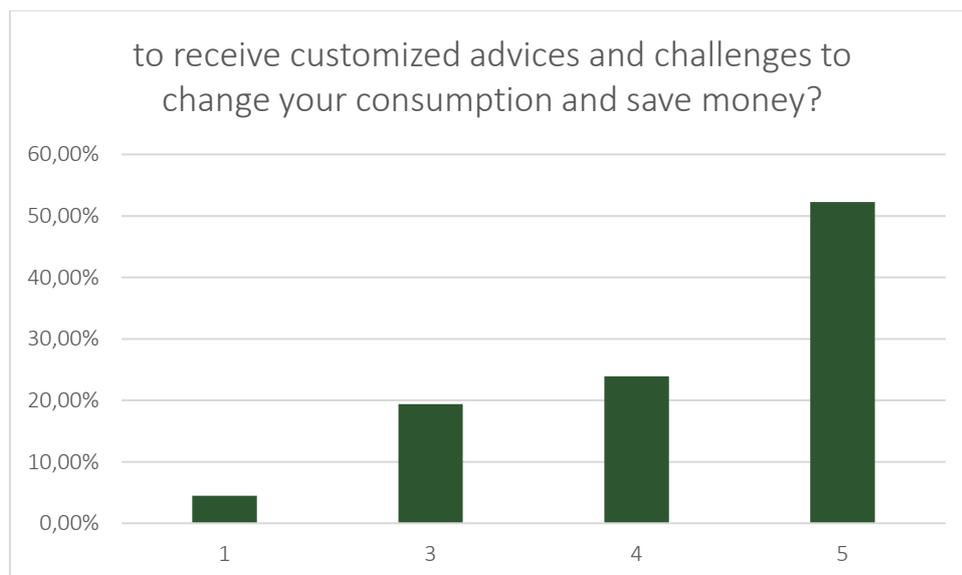


Figure 31. Spanish responses for the "to receive customized advices and challenges to change your consumption and save money?"



For the "to share news, videos, images... on a worldmap with geolocation like Google Map, Open Street Map...) instead of a wall like Facebook, Twitter, LinkedIn..." criterion, more than 16% of respondents say they are very strongly interested and 16% say they are strongly interested (see Figure 32). This aspect of the game does not seem the one that consumers prefer even if Spanish respondents seem to be more attracted by this function.



Figure 32. Spanish responses for the "to share news, videos, images... on a worldmap with geolocation like Google Map, Open Street Map...) instead of a wall like Facebook, Twitter, LinkedIn...?"

For the "that promotes and highlights users with the best responsible behaviour concerning reduction of energies consumption" criterion, more than 25% of respondents say they are very strongly interested and 28% say they are strongly interested (see Figure 33). For this function, Spanish participants seem to be less attracted than French ones.

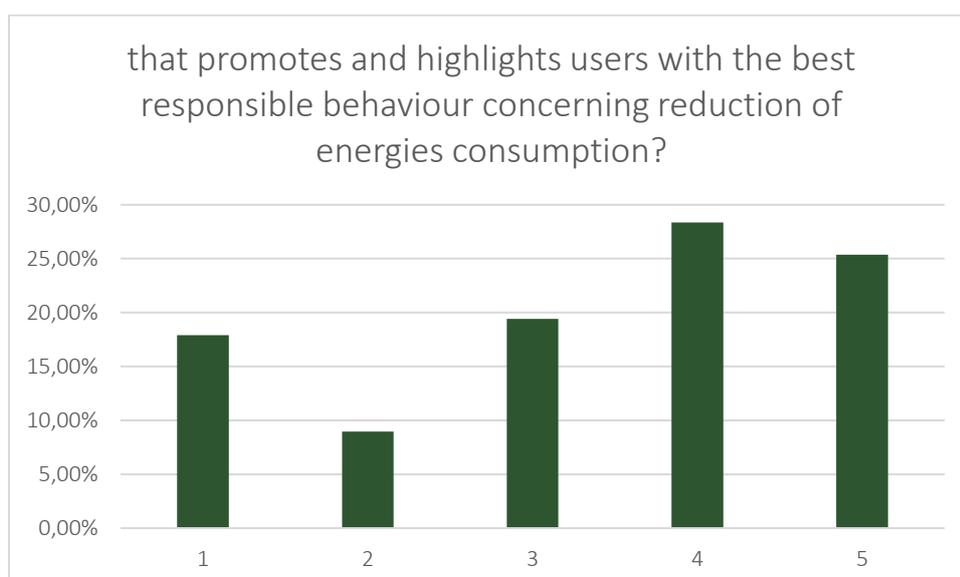


Figure 33. Spanish responses for the "that promotes and highlights users with the best responsible behaviour concerning reduction of energies consumption"



Overall, the functions of the GreenPlay solution seem to be of great interest to consumers. As for French respondents, only the function of "social network" has received the least interest.

Interest according to the gamer profile

In this part of analysis, we are focusing on the gamer profile of the respondents. We try to identify if some functions of the GreenPlay solution are more attractive to categories of gamers?

We have defined 5 profiles of gamers according to their frequency of gaming:

- Never or very rarely
- Several times a year
- Several times a day
- Several times a month
- Several times a week

We observe for people who “never or rarely” game in Figure 34 that the most interest is in the function “to receive customized advices and challenges to change your consumption and save money” with 52% of very strongly interested. The second function with high interest is the real-time monitoring, a playful way with 45% and 28% of very strongly and strongly interested people. Once again, we find less interest for the “social network” aspect (see Figure 34).

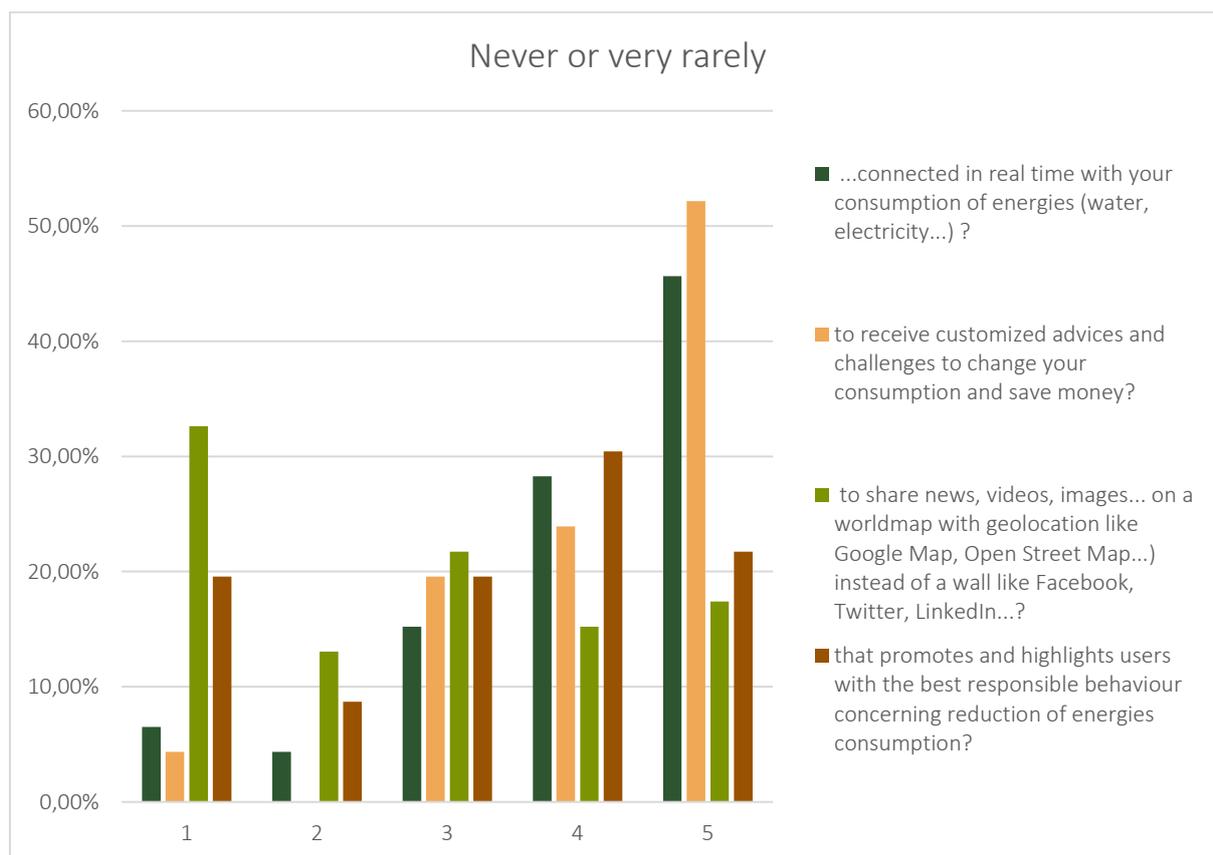


Figure 34. Spanish profile for “never or very rarely” gaming

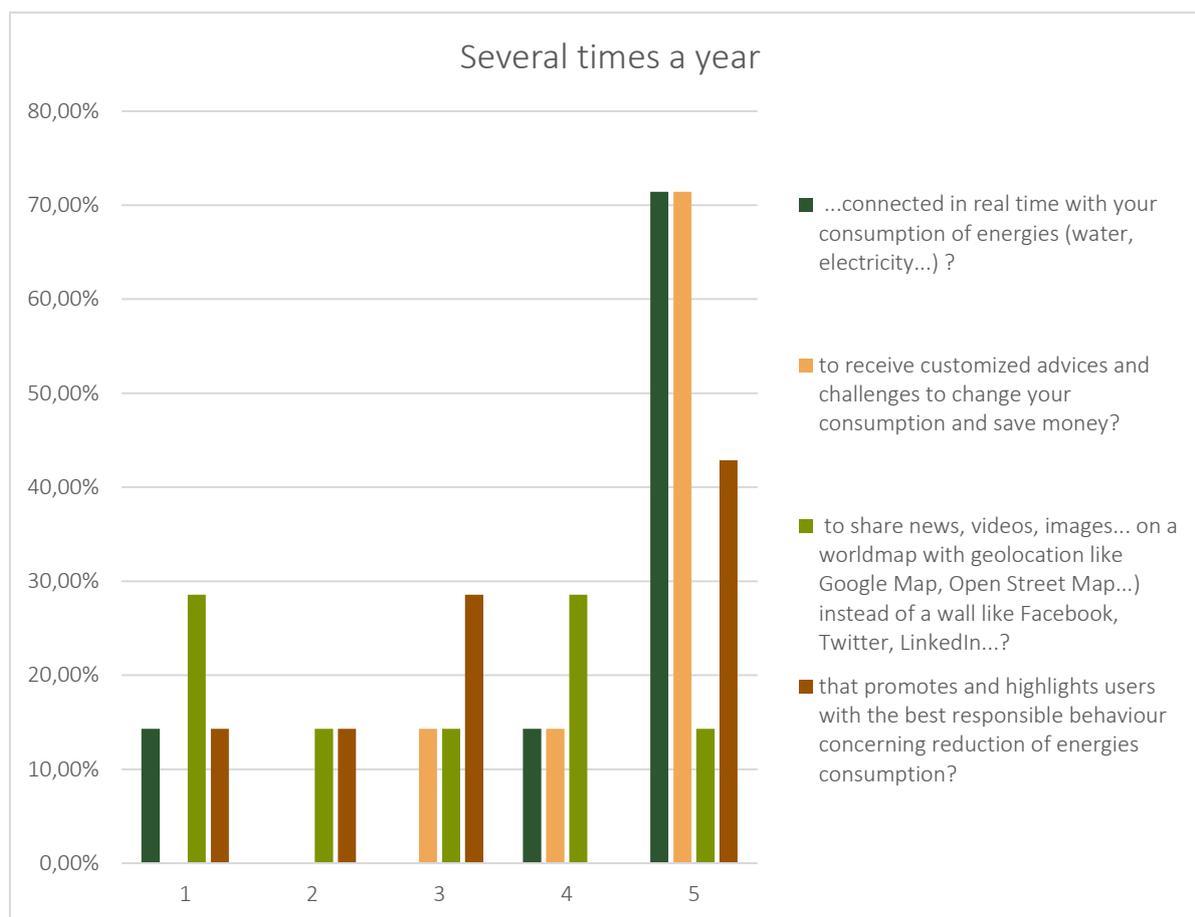


Figure 35. Spanish profile for “several times a year “ gaming

For people who play a game “several times a year”, the most interest criteria are “to receive customized advices and challenges to change your consumption and save money“ with 71% of very strongly interested and to “enable you to follow your electricity consumption in a more playful way” with 71% of very strongly interested (see Figure 35).



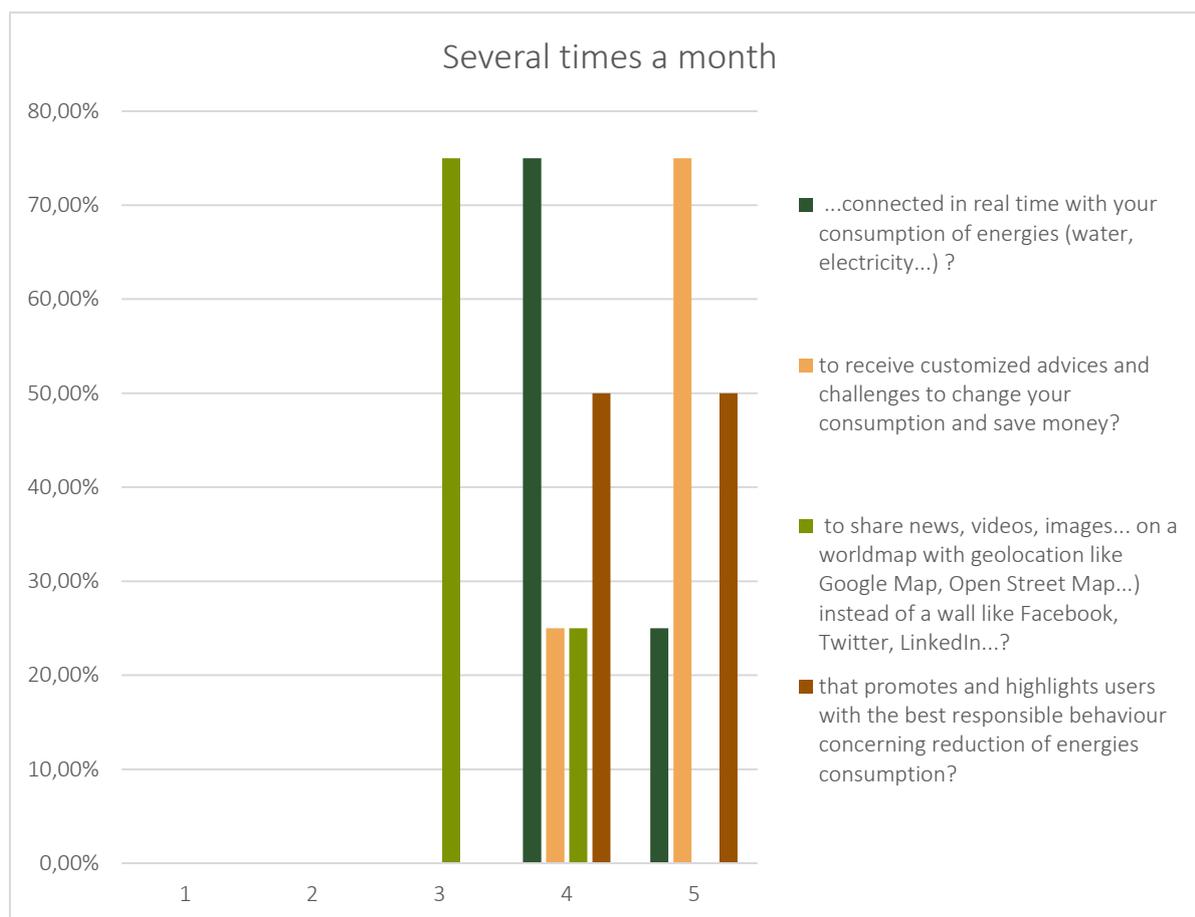


Figure 36. Spanish profile for “several times a month “ gaming

For people playing game “several times a month” we find that all respondents are favourable to the functions proposed by the GreenPlay solution. Indeed, in Figure 36, we observe only neutral to very strong interest for the functions.



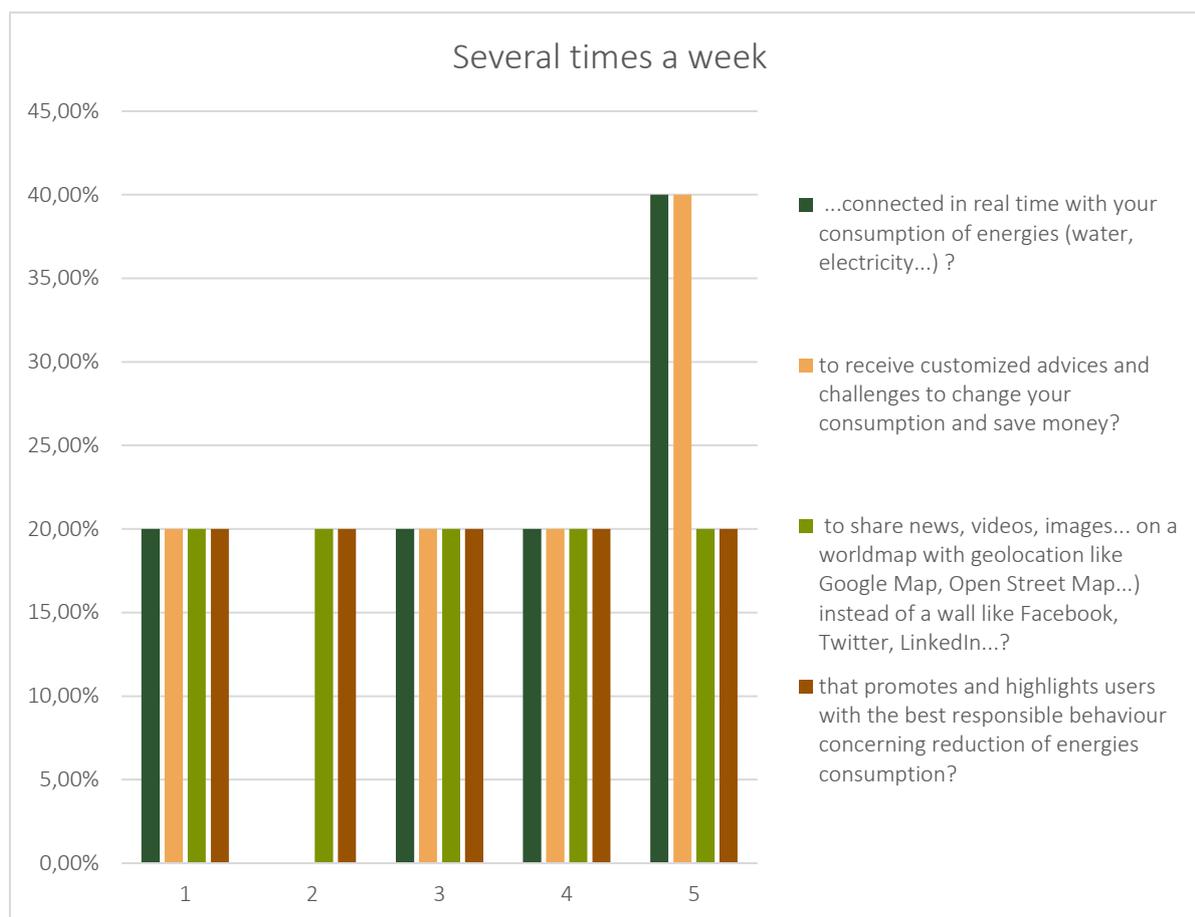


Figure 37. Spanish profile for “several times a week” gaming

For people playing game “several times a week” we find a high interest for 2 functions: the real-time monitoring in a playful way and the customized advices with 40% of very strong interest and 20 % of strong interest (see Figure 37).



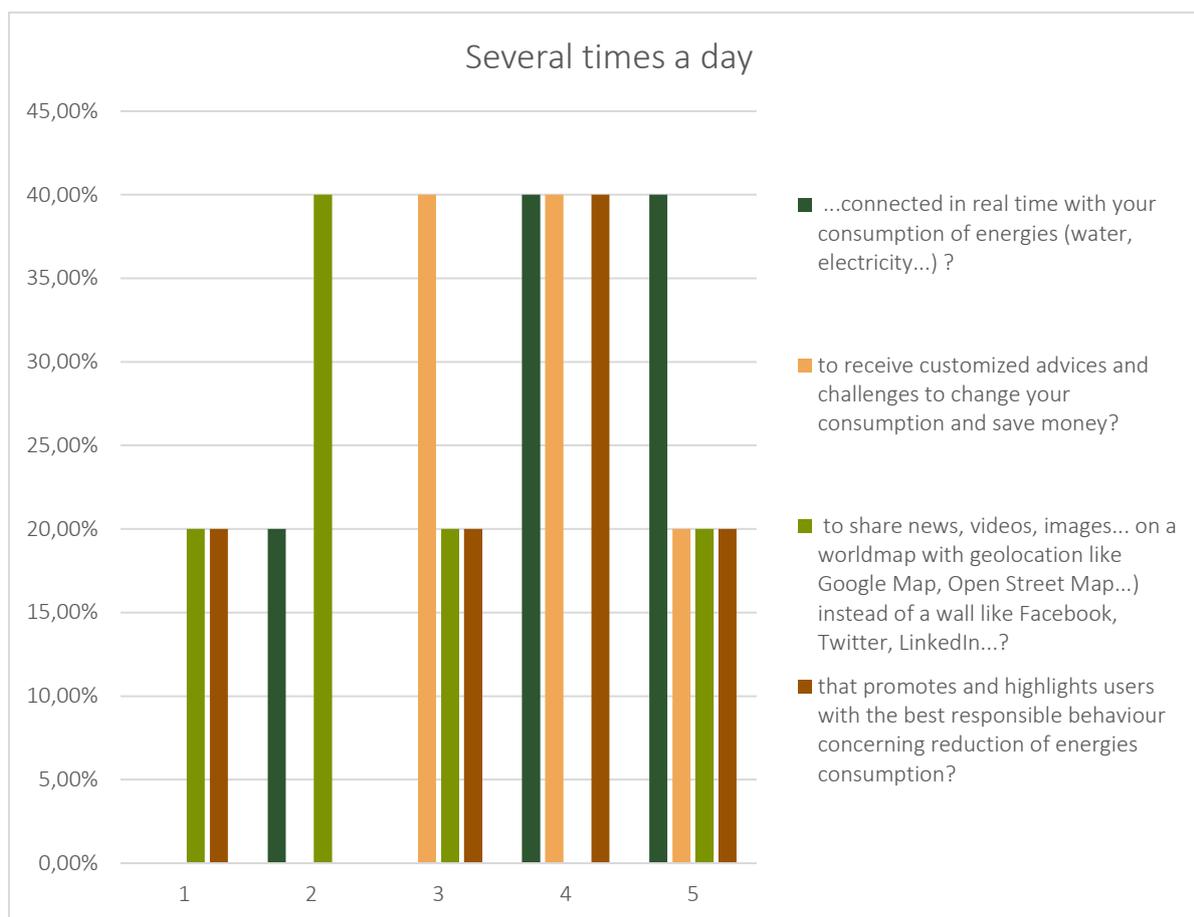


Figure 38. Spanish profile for “several times a day “ gaming

For the high gamer, we find a strong interest for all the functions of the GreenPlay solution except for the social network aspect (see Figure 38).

Interest according to the gamer profile

In this part of the analysis, we try to find a link between the level of environmental awareness of respondents and their preferences in the functions of the GreenPlay solution.

As the measurements are on a scale we use the Spearman’s rank correlation. The results obtain with the test of Spearman correlation indicate that there is no link between the preference of GreenPlay solution and the level of environmental awareness of respondents (see Table 2).

Table 2. Results of Spearman correlation tests for Spanish respondents

	Connected in real time and playfyl way Vs. Eco-level	Customized advices Vs. Eco-level	Social network Vs. Eco-level	Promote the best responsible behaviour Vs. Eco-level
Rs	0.2985	0.3757	0.419	0.416
p-value	0.0142	0.0017	0.0004	0.0005

These results are easily visible in the Figure 39, Figure 40, Figure 41 and Figure 42. Indeed, we cannot distinguish any lines in these charts.



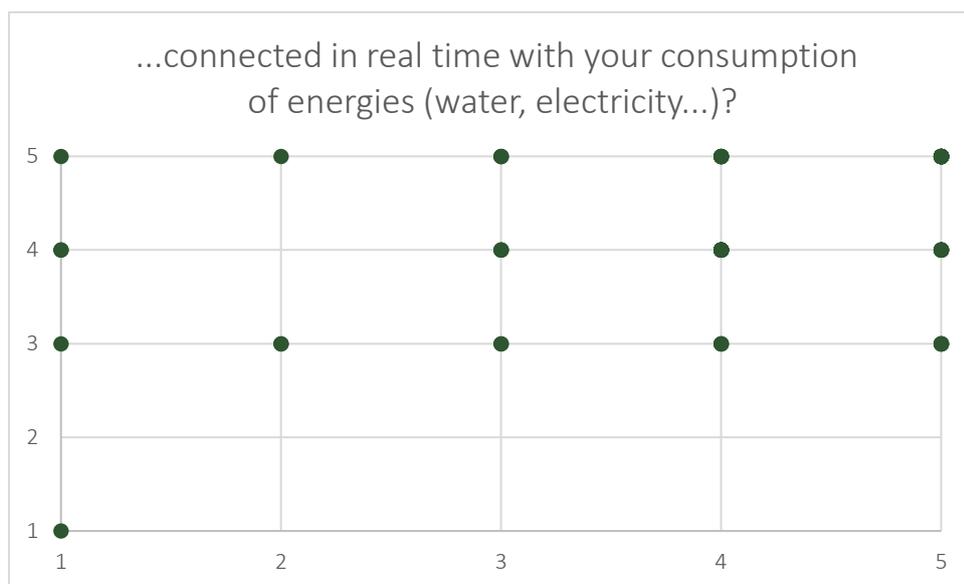


Figure 39. Connected in real time Vs. Eco-level of Spanish respondents



Figure 40. Customized advices Vs. Eco-level of Spanish respondents

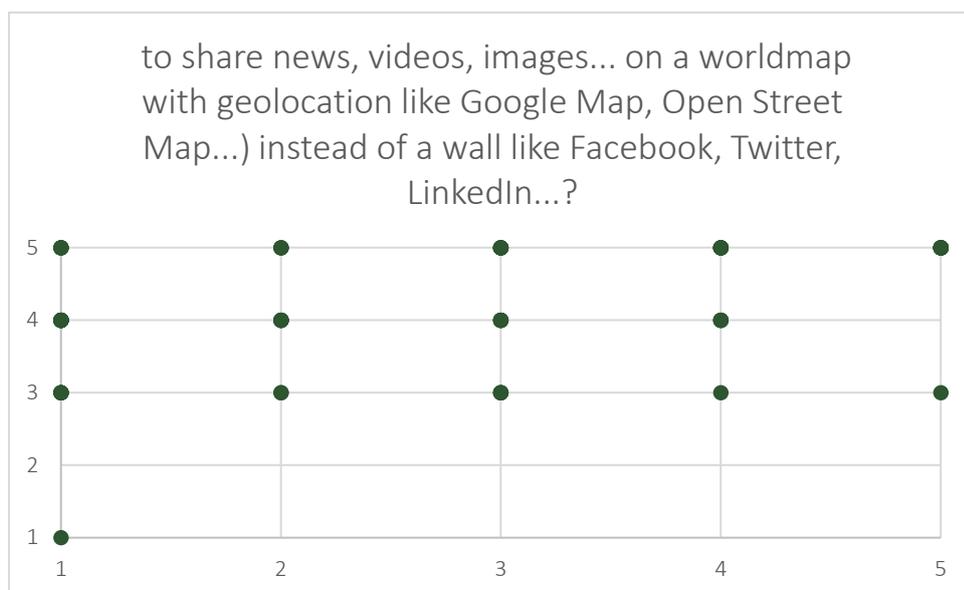


Figure 41. Social network Vs. Eco-level of Spanish respondents

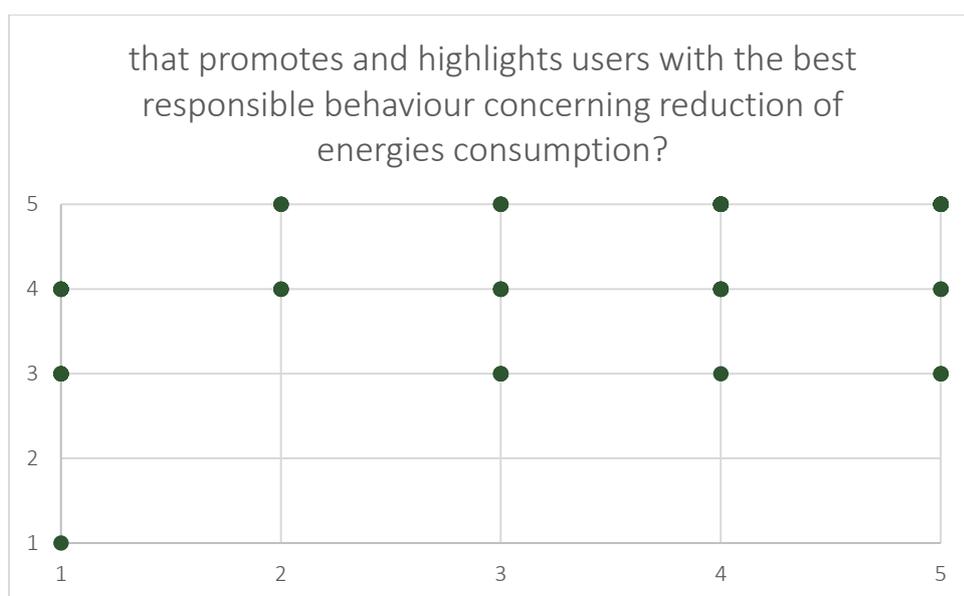


Figure 42. Promote the best responsible behaviour Vs. Eco-level of Spanish respondents

Interest according to the personal profile

In this part of the analysis, we are interested in finding a correspondence between consumer preferences (about the functions of the GreenPlay solution) and their socio-demographic profile.

Household composition

First, we analyse the responses according the household composition of the respondents.



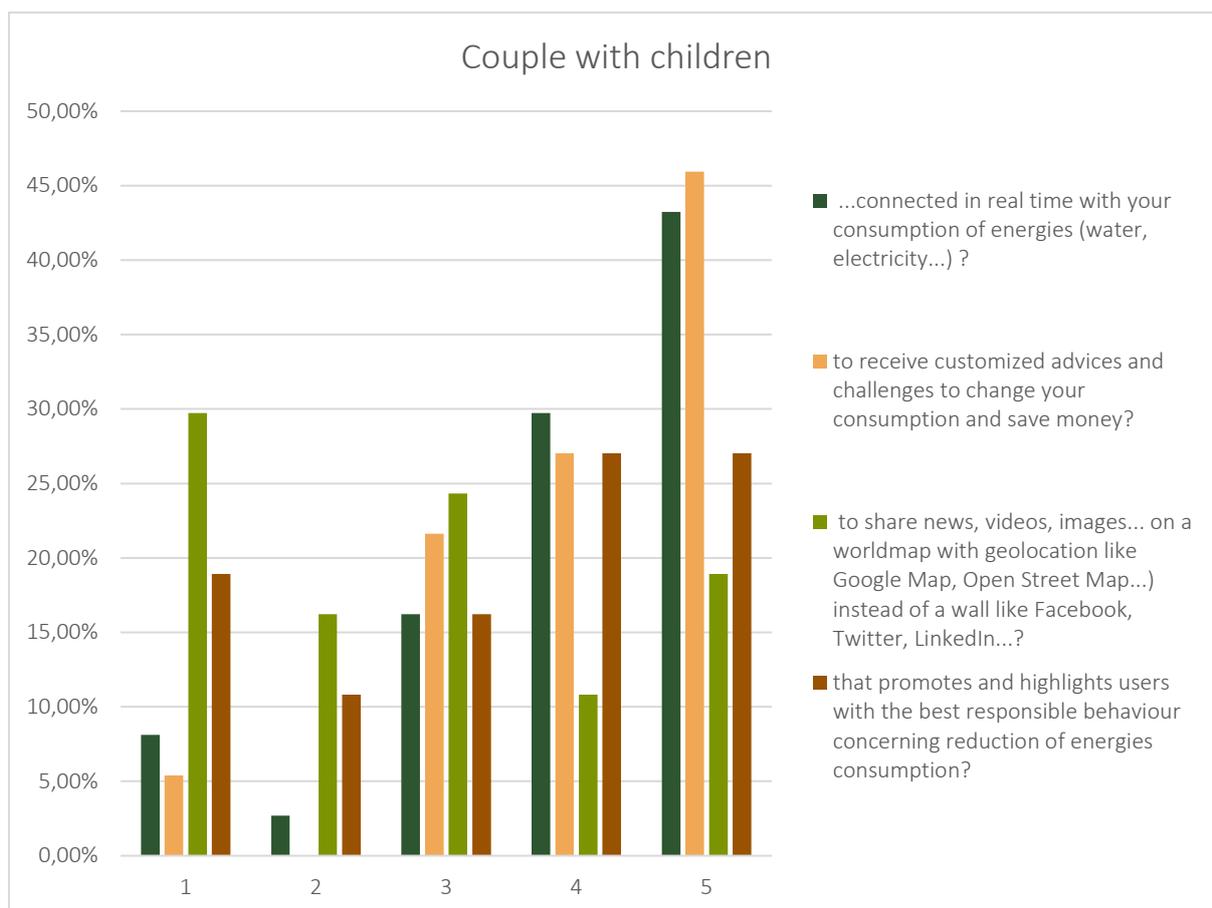


Figure 43. Responses of Spanish “couple with children” profile

For respondents with “couple with children” profile, we find very strong interest in the real-time monitoring with a playful way and in the customized advices with respectively 43% and 45%. We also observe that more than the third of the participants are interested in the social network aspect (see Figure 43).



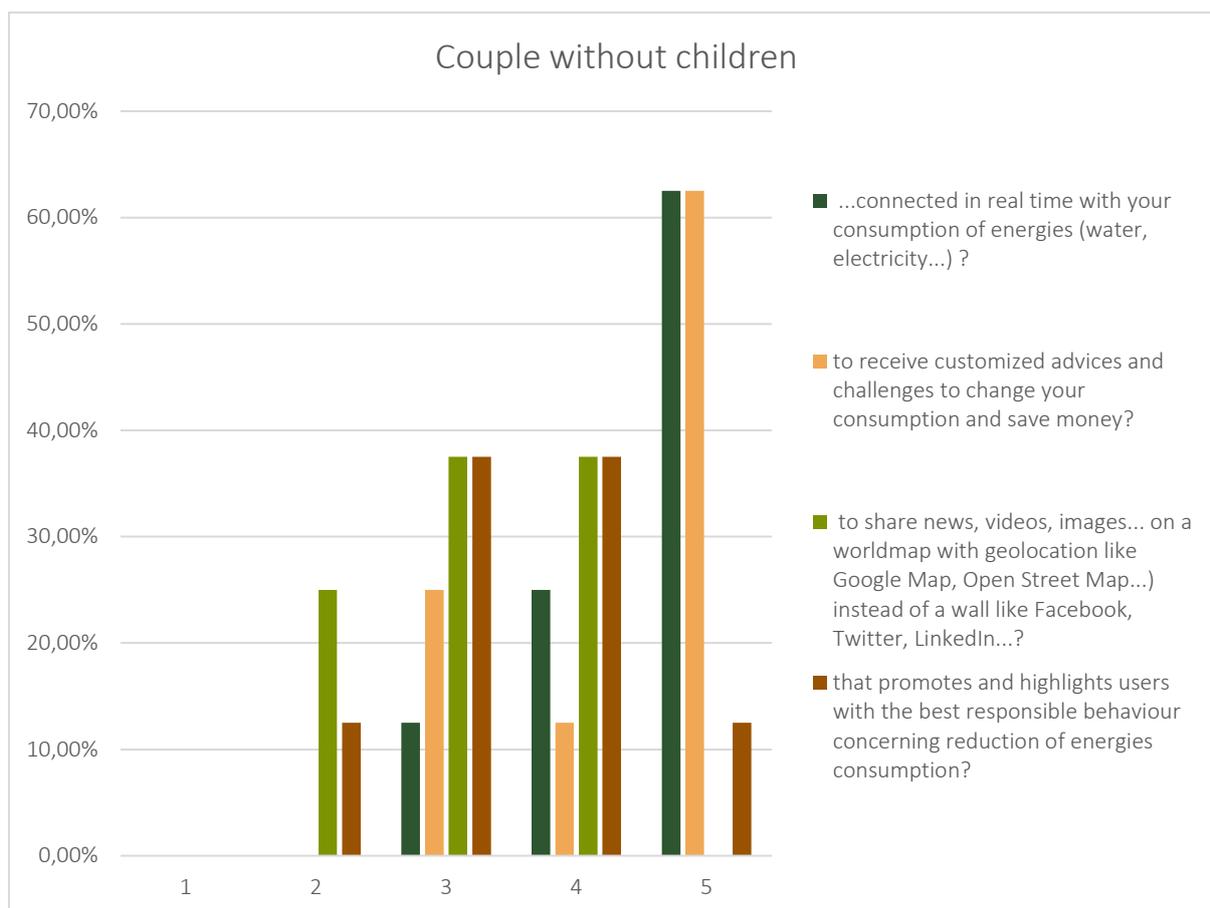


Figure 44. Responses of Spanish “couple with children” profile

For the couples without children, we notice, once again, the most appreciate functions are the real-time monitoring with a playful way and the customized advices with respectively 62% and 62%. In addition, we find half of the respondents are attracted by the promotion of the best responsible behaviour (see Figure 44).



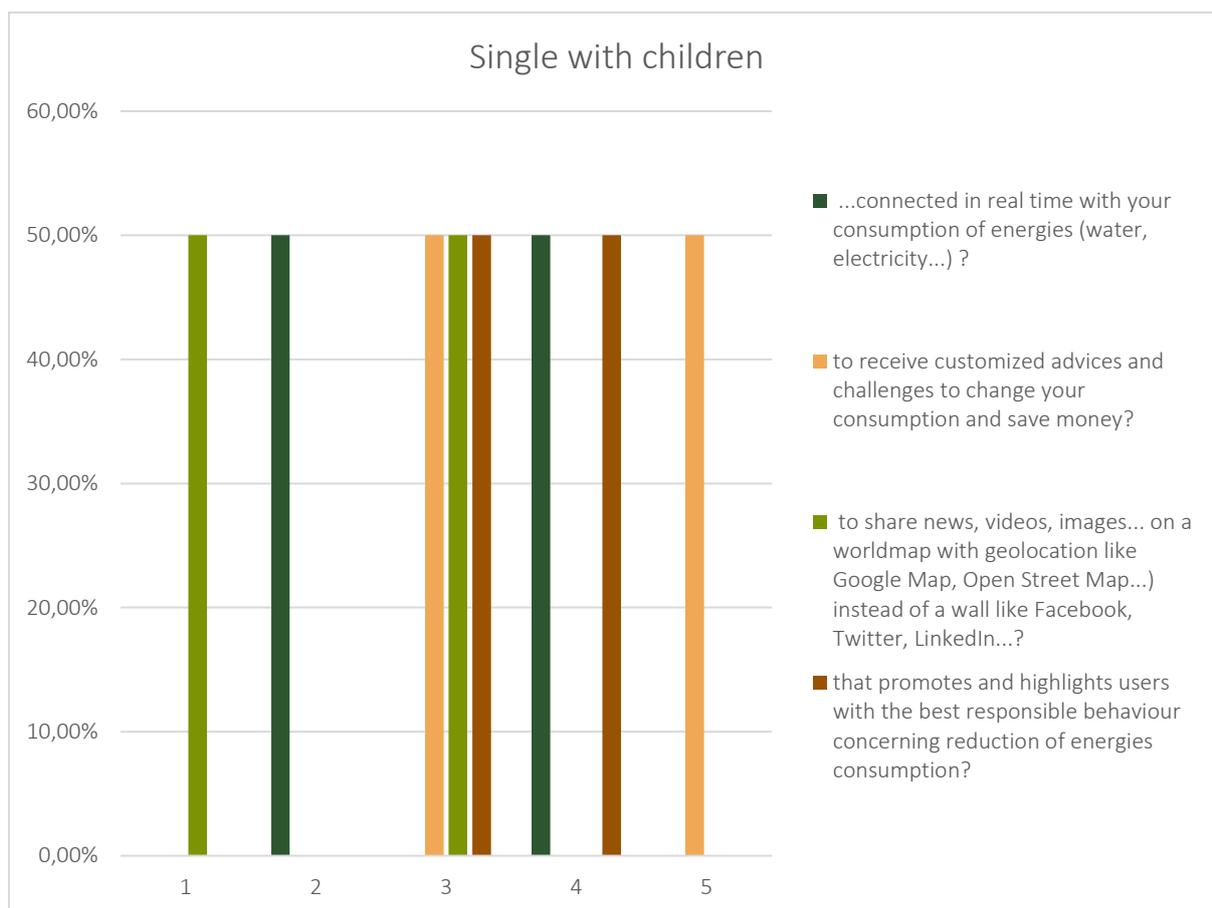


Figure 45. Responses of Spanish “single with children” profile

The number of respondents corresponding to the “single with children” is not sufficient to perform the analysis. Indeed, there are only 2 respondents (see Figure 45).



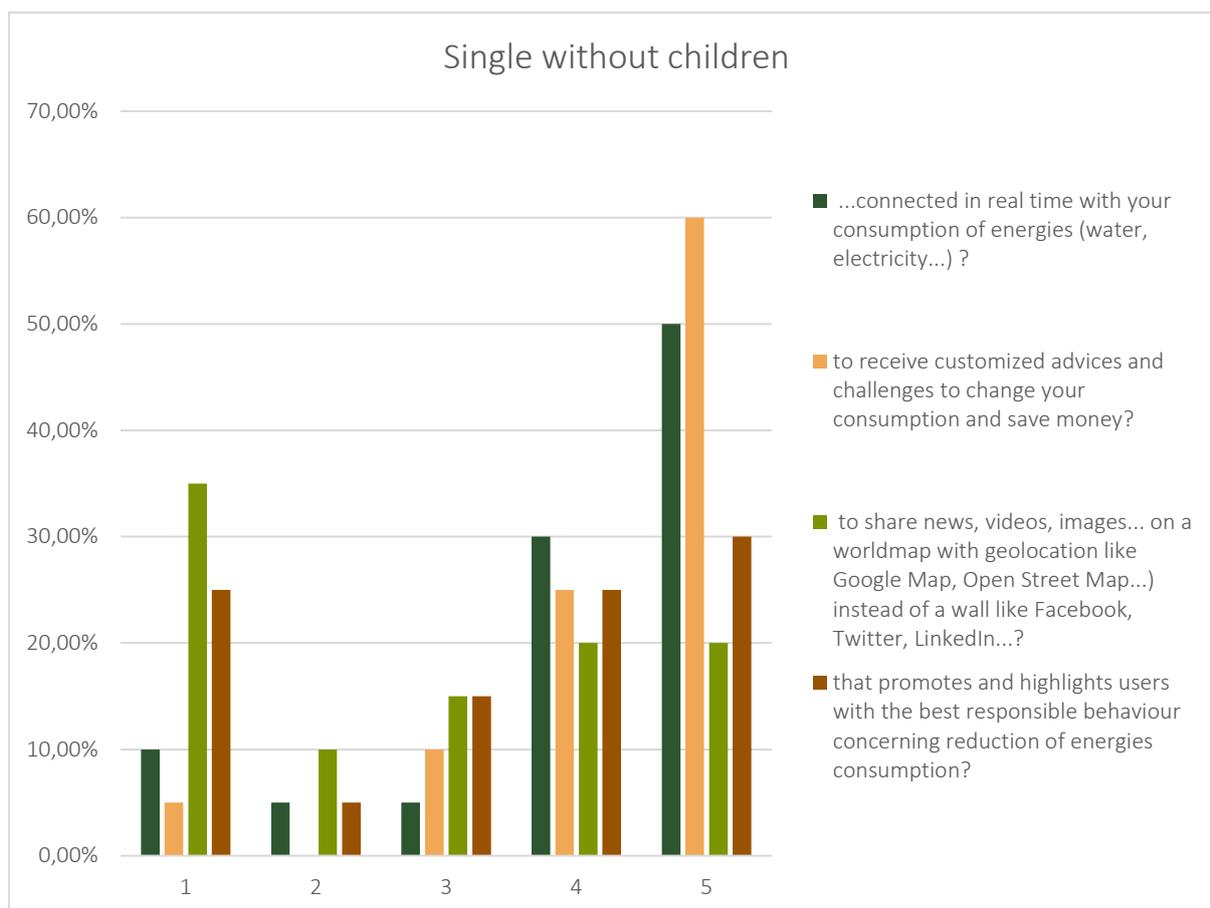


Figure 46. Responses of Spanish "single without children" profile

For people "single without children", we observe high interest in the real-time monitoring with a playful way and in the customized advices functions. We also notice that more than half are interested in the promotion of the best responsible behaviour and more than a third attracted by the social network aspect (see Figure 46).

Age

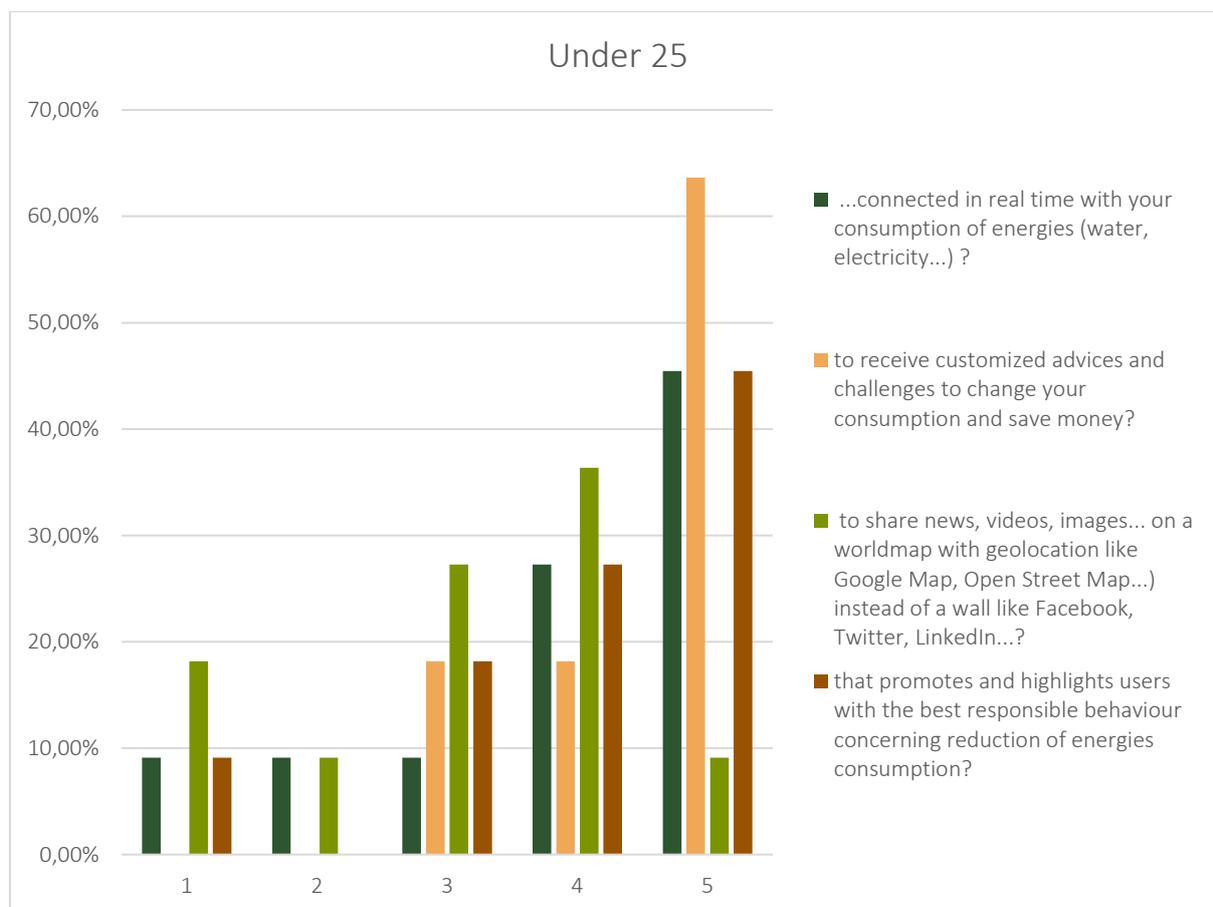


Figure 47. Responses of Spanish “under 25 years old” profile

In Figure 47, we observe that the most appreciate criterion for the GreenPlay solution is the customized advices with 63% of very strong interest. Also, we find 45% of very strong interest for the real-time monitoring in a playful way and the promotion of the best responsible behaviour. Finally, there is more than third of respondents with interest for the social network (see Figure 47).



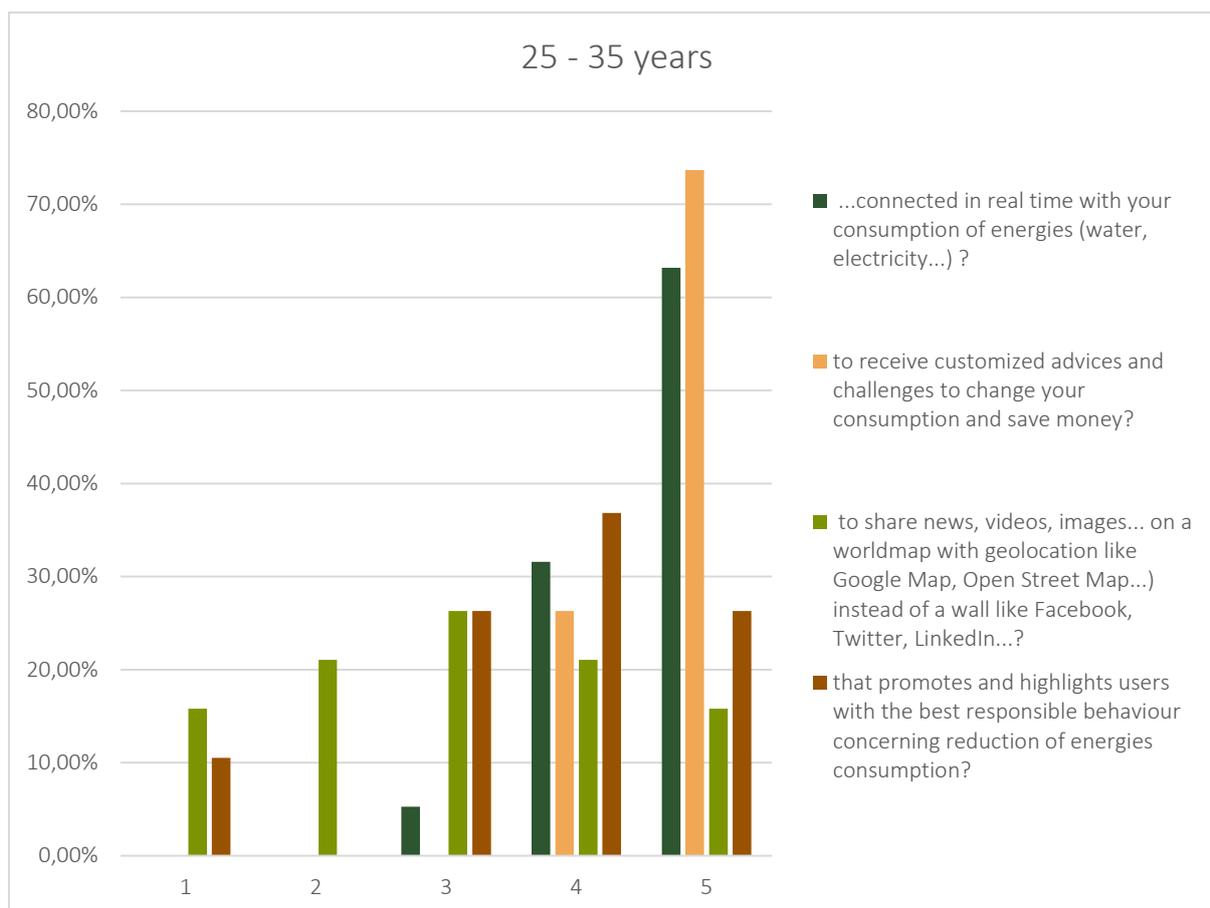


Figure 48. Responses of Spanish "25-35 years" profile

For the participants between 25 and 35 years we find once again a very strong interest for both functions: real-time monitoring and customized advices (see Figure 48). We observe also an interest in the promotion of the best responsible behaviour. On the other hand, the social network is not unanimous. Indeed, we have more than one third has interest in this function but also more than one third who is not interested by it.

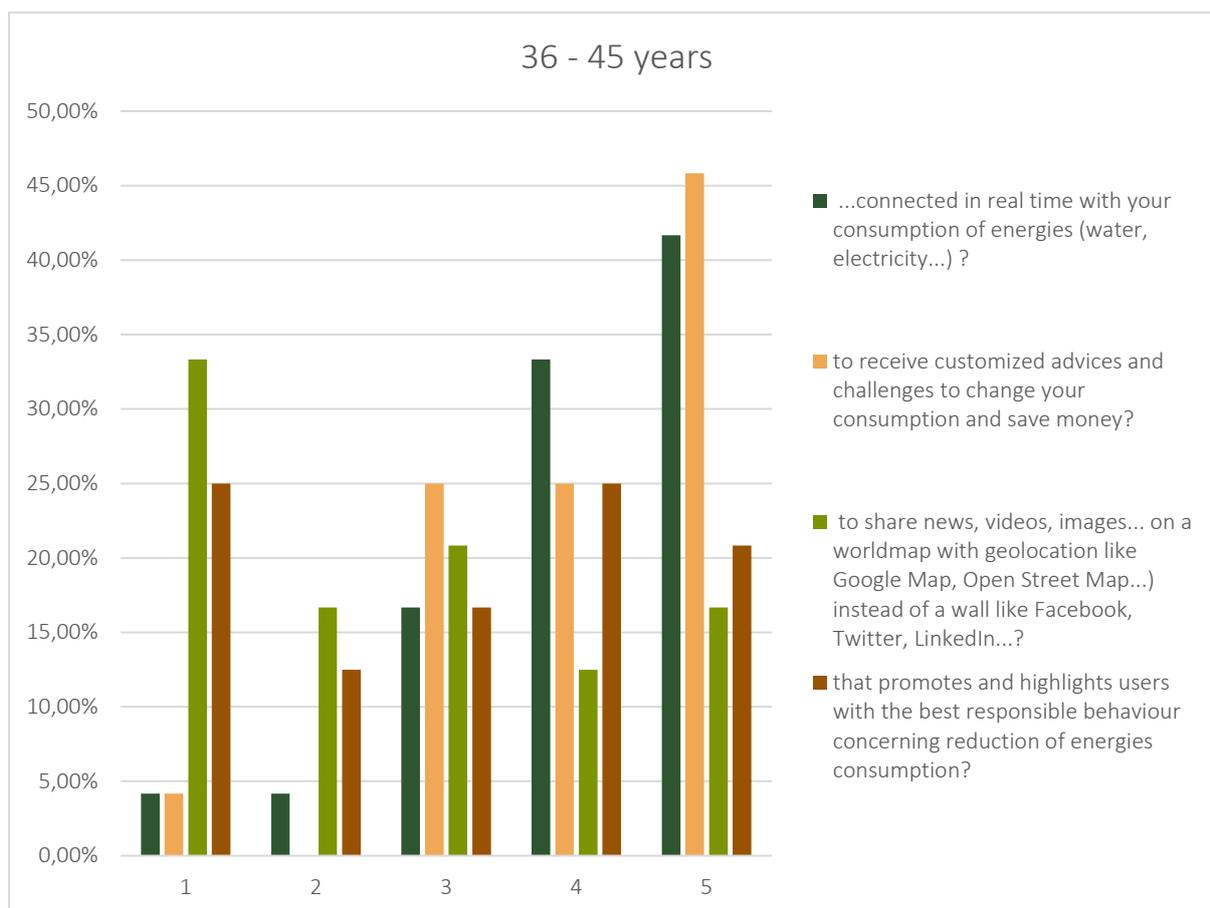


Figure 49. Responses of Spanish "35-45 years" profile

We find for Spanish people who are between 35 and 45 years old the same high attraction for the real-time monitoring and customized advices (see Figure 49). For this profile the social network aspect is not appreciated with half of the sample has no interested.

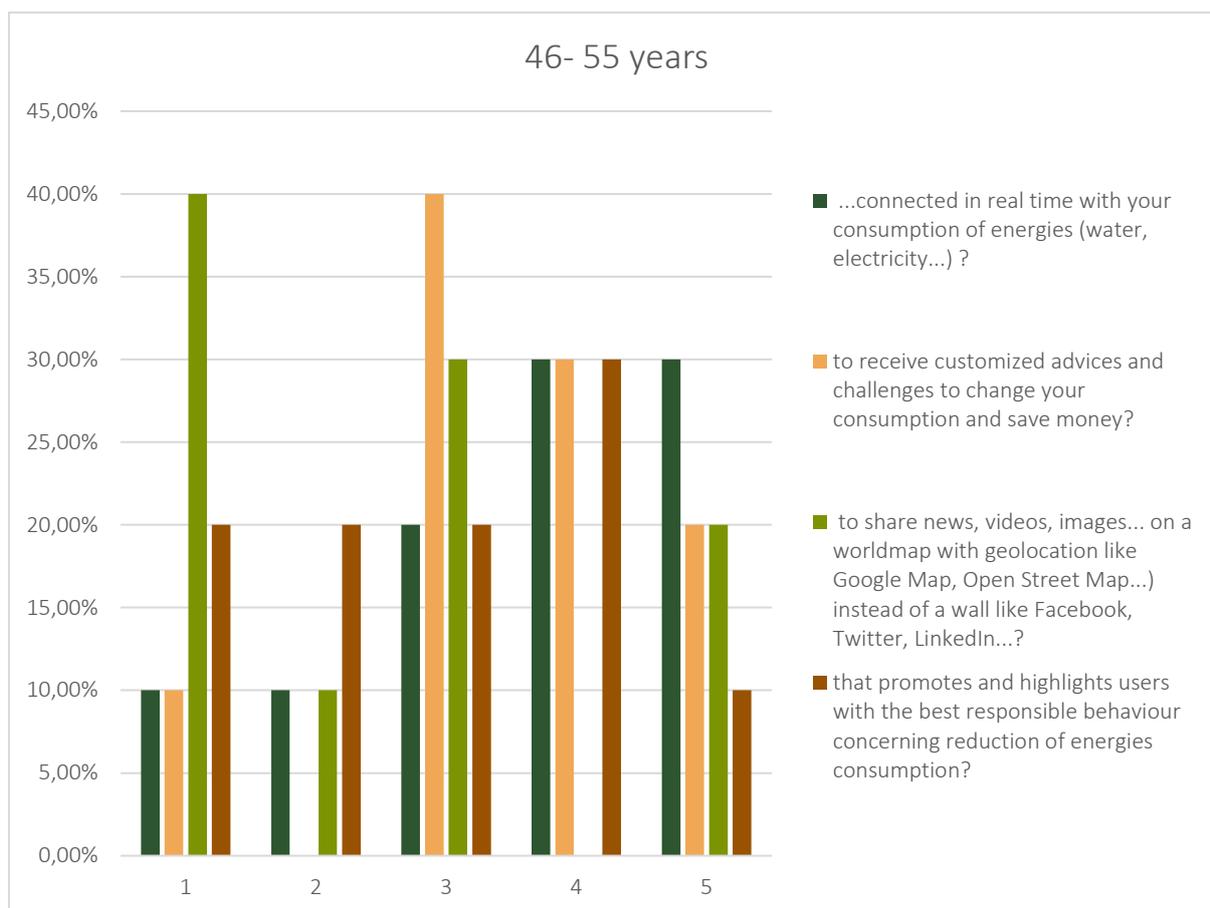


Figure 50. Responses of Spanish "45-55 years" profile

In Figure 50 we observe that Spanish participants who are between 45 and 55 are interested by the real-time monitoring in a playful way with 60%, by the customized advices with 50%. Unfortunately, the social network function is depreciated with 50% of no interest.

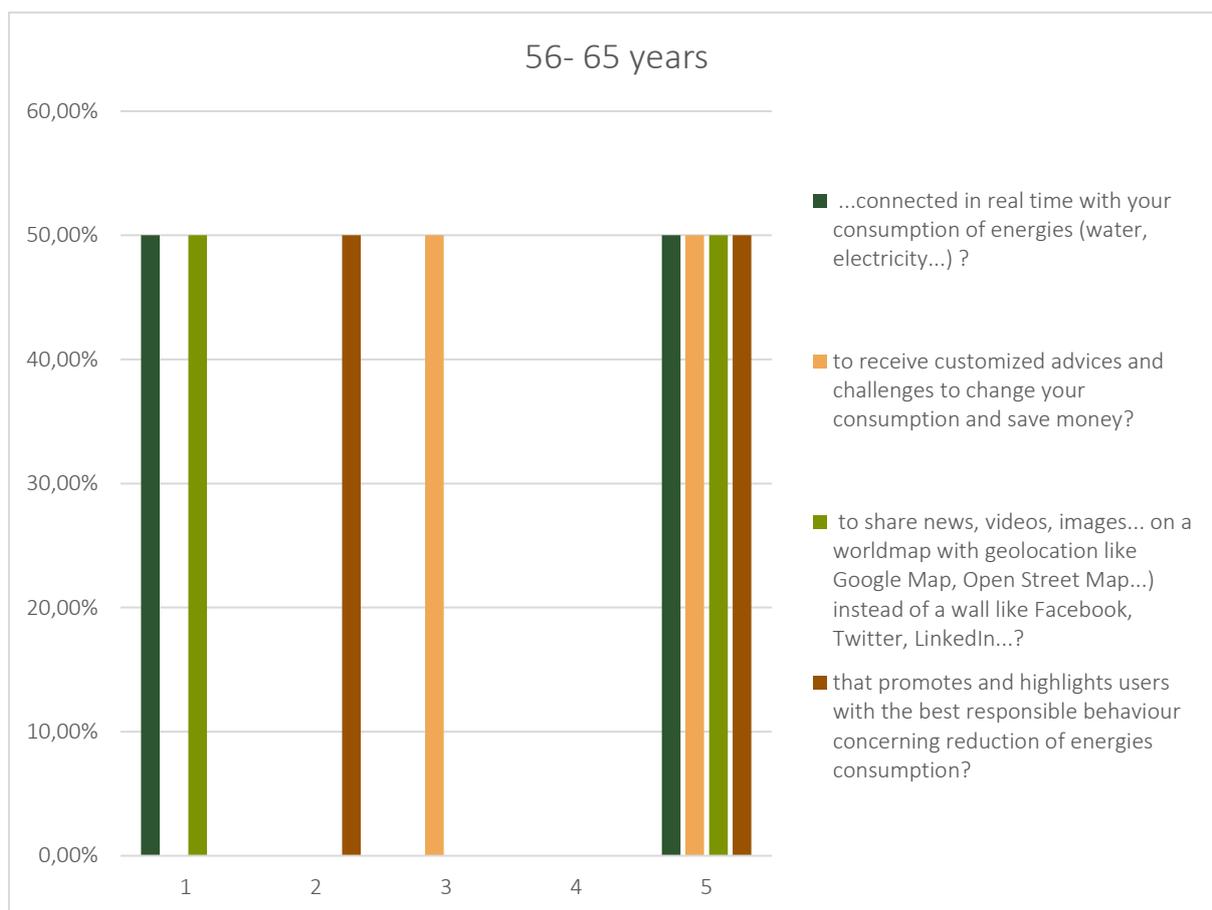


Figure 51. Responses of Spanish "55-65 years" profile

Unfortunately, we have only 2 persons who are between 55 and 65 years. So, it is difficult to interpret the results for this profile (see Figure 51).



Socio-Professional Category

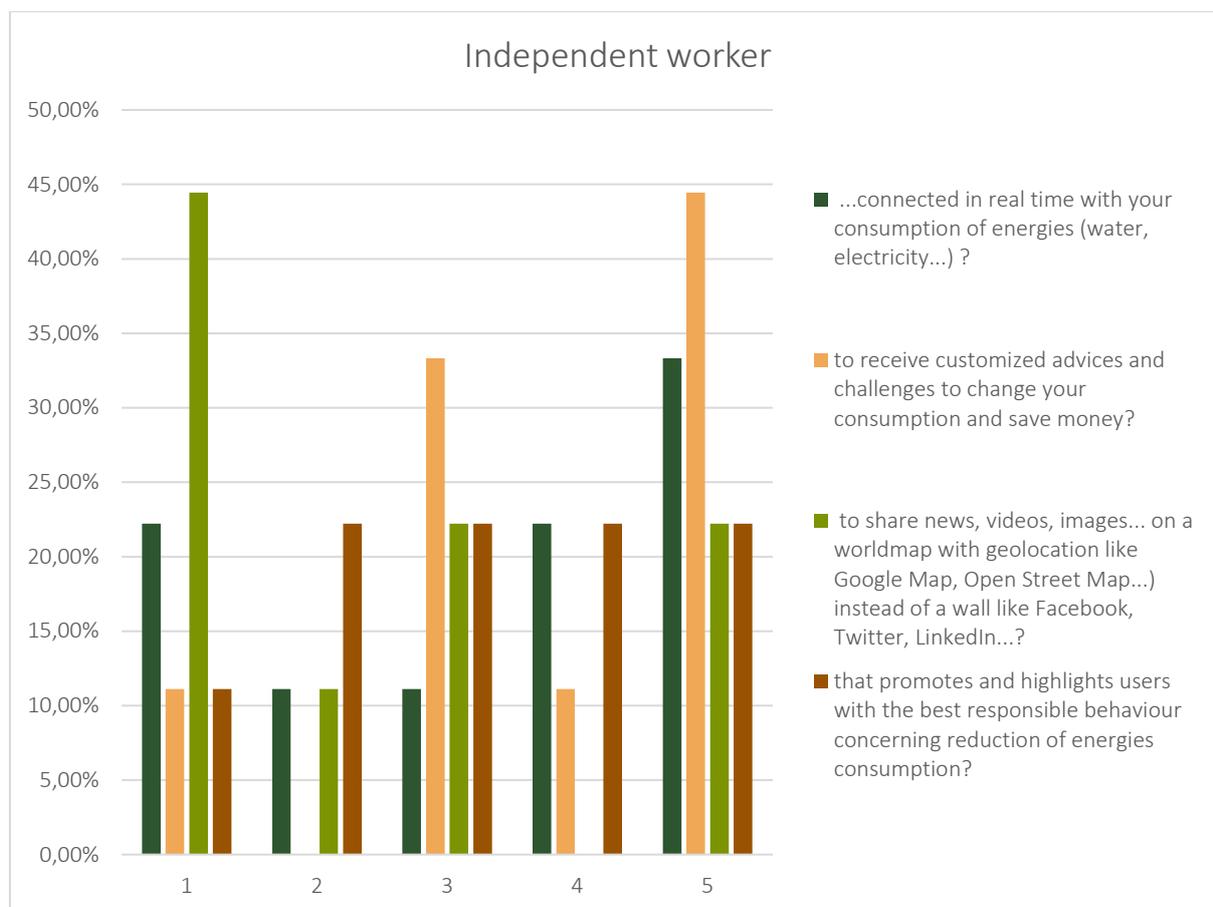


Figure 52. Responses of Spanish “independent worker” profile

Spanish people with the “independent worker” profile highly like the customized advices function (see Figure 52). We also find a great interest in the real-time monitoring in a playful way.



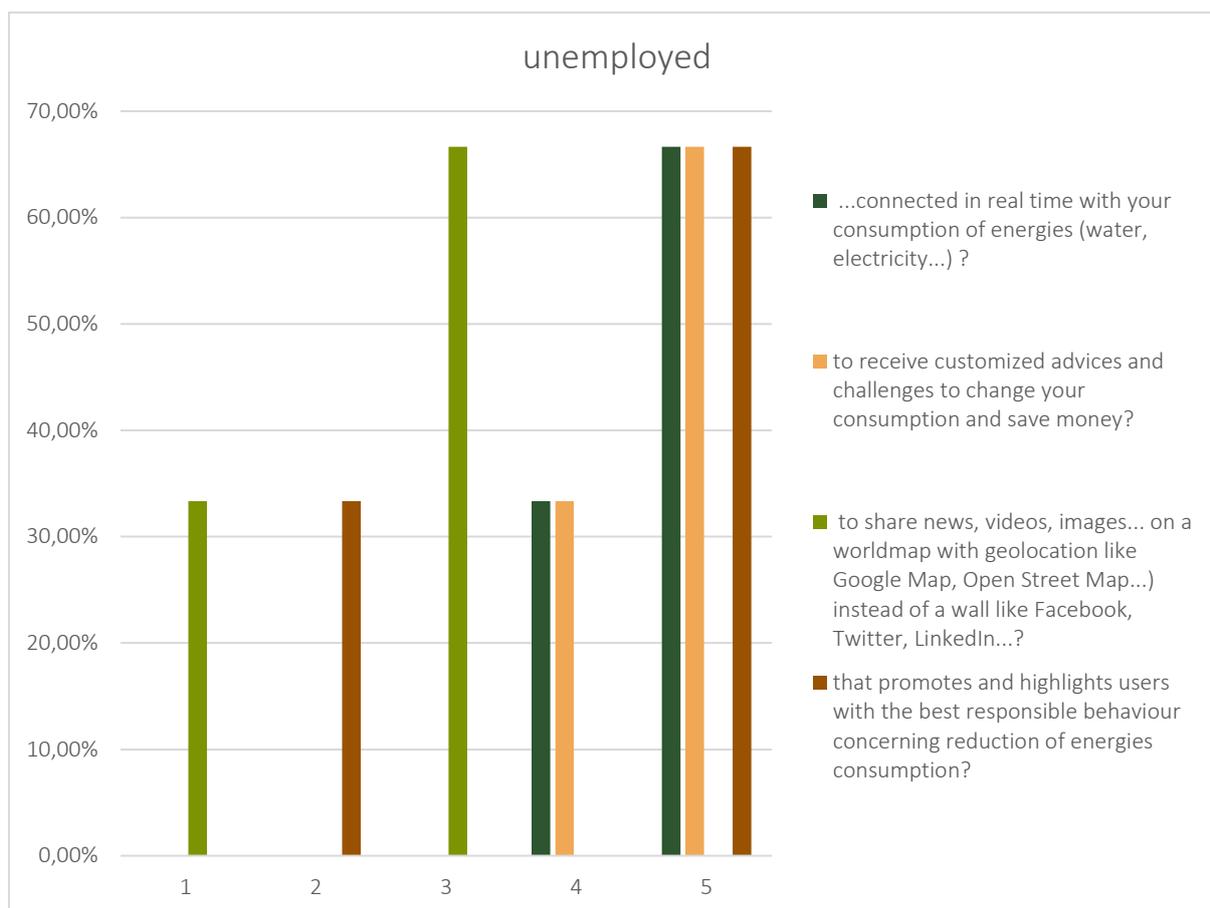


Figure 53. Responses of Spanish “unemployed” profile

Unfortunately, we have only 3 participants with the “unemployed” profile. So, it is difficult to interpret the results for this profile (see Figure 53).

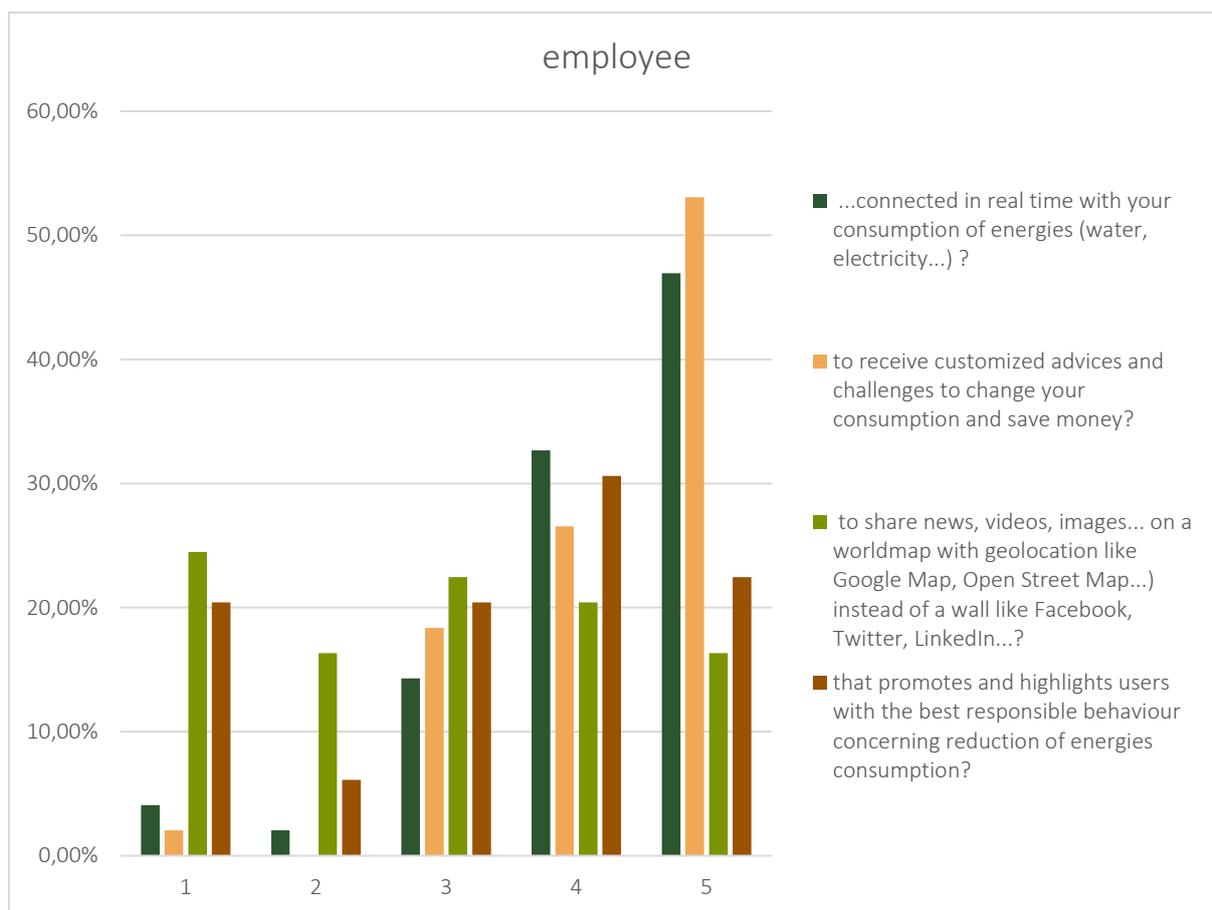


Figure 54. Responses of Spanish “employee” profile

Spanish participants with the “employee” profile indicate a high interest in both functions: customized advices (80%) and real-time monitoring in a playful way (80%). In addition, we find strong interest in the promotion of the best responsible behaviour (see Figure 54).



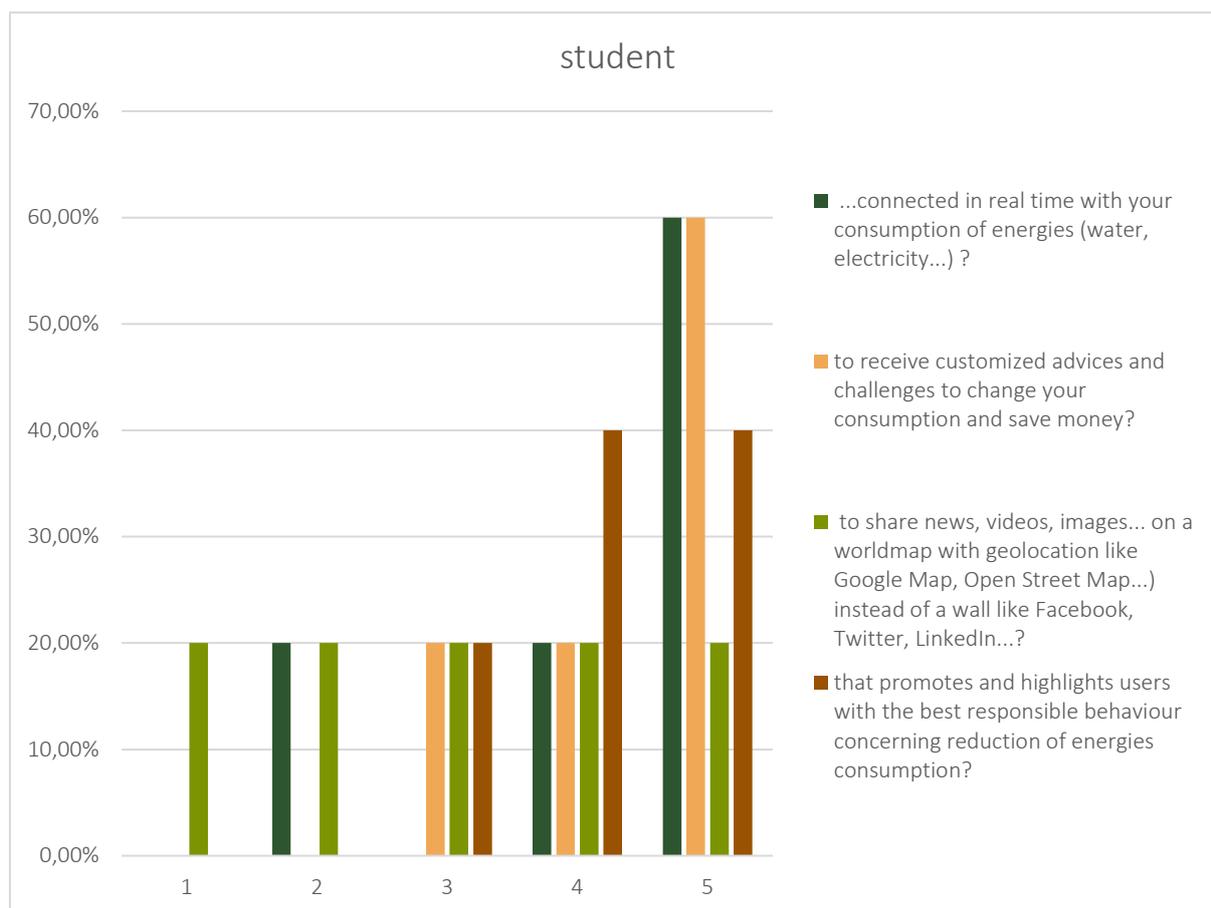


Figure 55. Responses of Spanish “student” profile

Unfortunately, we have only 5 persons with the “student” profile. So, it is difficult to interpret the results for this profile (see Figure 55).



IV. DISCUSSION AND CONCLUSIONS

The answers to the questionnaire allow us to identify the functions of the GreenPlay solution that are of most interest to potential future users.

As results, we notice that French and Spanish consumers do not have the same preferences. Indeed, French respondents have a slight preference for customized advices and the promotion of the best responsible behaviour, whereas Spanish respondents seem to prefer customized advices (as well as French respondents) and real-time monitoring in a playful way.

Broadly, the analysis of the answers indicates that the main functions developed in the GreenPlay solution have a strong or very strong interest for survey respondents. We therefore note a great interest in customized advices, the monitoring in a playful way, promotion of the best responsible behaviour and real-time consumption monitoring. Only the function of social network is unanimous. Indeed, we are about a third of interest for it.

The analysis of responses organized by categories of consumers allows us to refine the attraction of the solution according to the profile of the user. So, we know that the social network is more appreciated by people with specific profile:

- French under 25 (33%)
- French between 45 and 55 (33%)
- French students (34%)
- Spanish single without children (40%)
- Spanish under 25 (45%)

The results still allow us to be confident about the agreement between the functions developed and the expectations of the consumers.

A user test could bring better results, but we would have had fewer consumer responses and we wanted to evaluate the third version of the GreenPlay solution with a lot of consumer evaluation. Also, in this analysis we do not use statistical inference tests because we do not try to show a difference between user categories or between French and Spanish consumers. Here, we wanted to identify preferences and a level of interest for the functions of the solution developed.

