

Results from FEAP General Assembly Meeting

Venice, May 19th 2017

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Summary of the results from the FEAP meeting in Venice from May 19th,

BlueEDU is an Erasmus Plus Sector Skills Alliance LOT 1 Project, which aims at fostering growth in the Blue Economy by developing an action plan for Innovative European Aquaculture VET and harmonized qualifications. A survey was developed to evaluate the opinions of chief executives, senior managers and producer organisations from the European aquaculture industry. They met during the General Assembly meeting of The Federation of European Aquaculture Producers (FEAP) in Venice, which took place on May 19th, 2017.

This report summarises the opinion survey results based on the analysis of data gathered during the FEAP meeting in Venice. A combination of survey methods were deployed, starting with instant response tools during the meeting followed by the Lime Survey system at the end of the meeting. There were 36 respondents from the following 13 European countries: Croatia, Czech Republic, France, Greece, Hungary, Ireland, Italy, Norway, Poland, Portugal, Spain, Turkey, and UK (figure 1). The survey system contained 22 questions which are listed below.

98 % of the respondents' highlight that a competent workforce is essential for aquaculture to progress

There were 55% of the participants representing the national producer organizations, while 39% worked in fish producer companies (figure 2). A total of 58% were working as chief executives, while 42% were senior managers (figure 3). Various types of production were represented. In Northern Europe, 12 respondents were from the salmon production sector, whilst 15 represented Sea Bream and Sea Bass production in the Mediterranean region. Inland freshwater production was represented through production of Trout (20 respondents) and Carp (5 respondents) as illustrated by figure 4.

Recruitment from local communities is considered important by over 80% of the participants

The importance of education and training

There were 98% of the respondents' who believed that a competent workforce is essential for aquaculture to progress, indicating that access to appropriate education and training are crucial for industry progress in both the North and South of Europe. In addition, 72% of the respondents point out that the continuous updating of staff knowledge and skills is necessary to keep up with technological improvements. At the same time, the recruitment of staff from local communities is considered important by over 80% of the participants, with 50% strongly agreeing (figure 5).

Norway and Scotland have educational systems that offer work based training to aquaculture industry in their countries. Figure 6 shows that companies in the 11 other countries targeted by this survey, find it is difficult to recruit qualified personnel. The central and southern European countries experience this problem most acutely. There are

More than 2 out of 3 persons consider the continuous updating of knowledge and skills to be important in order to keep up with fast technical developments

54% of the respondents mentioning that fish farm staff may not have access to flexible training solutions that radically reduce the need for college attendance during training (figure 9). Again, many of these are from central and southern Europe. In addition, 66% of the respondents highlight, that aquaculture courses must be assessed in such a way that they provide a reliable indication of a persons` knowledge and skill, emphasising the importance of aquaculture qualifications. The countries in northern and southern Europe agree regarding this point (figure 11). There is also an indication that both southern and northern Europe believe that companies should train their own farm personnel (figure 12). There are 56% respondents claiming that the knowledge and skills required by farm personnel and site managers at the company level have been defined. However, 27% of respondents don't know whether definitions exist or not (figure 13). However, only 31% respondents believe that such definitions exist at the national level, while 36% don't know (figure 14).

Priority subjects and delivery modes

The respondents point out that it is important or very important that the staff at the cages should have updated knowledge in fish feeding (75%), fish health management (92%), fish transportation (72%), fish farm equipment and maintenance (86%), digital technologies (67%), boat operations (50%), aquatic environment and monitoring (84%) and fish harvesting (64%) This is illustrated by figure 15.

Most important areas for updated knowledge for staff at the cages:

- **Fish health management (92%)**
- **Fish farm equipment and maintenance (86%)**
- **Aquatic environment and monitoring (84%)**

By 2030, the respondents believe that knowledge in the following areas will become more important: fish feeding (58%), fish health management (86%), fish transportation (17%), fish farm equipment and maintenance (44%), digital technologies (69%), boat operations (17%), aquatic environment and monitoring (72%) and fish harvesting (17%) (figure 16).

The respondents point out that several education and training modes are important or very important for their staff: Informal company training (61%), work based training leading to a qualification (70%), online computer based learning (50%), skills based short courses (77%) and full time college based courses (45%). It should also be mentioned that 28% have a negative view of online computer based learning solutions (figure 17).

78% of the respondents want to receive the BlueEDU project results

Supporting BlueEDU

Finally, 58% of those attending the meeting in Venice want to promote the BlueEDU project to help the data gathering process, and 78% of the respondents want to receive the BlueEDU project results (figure 18).

Survey results

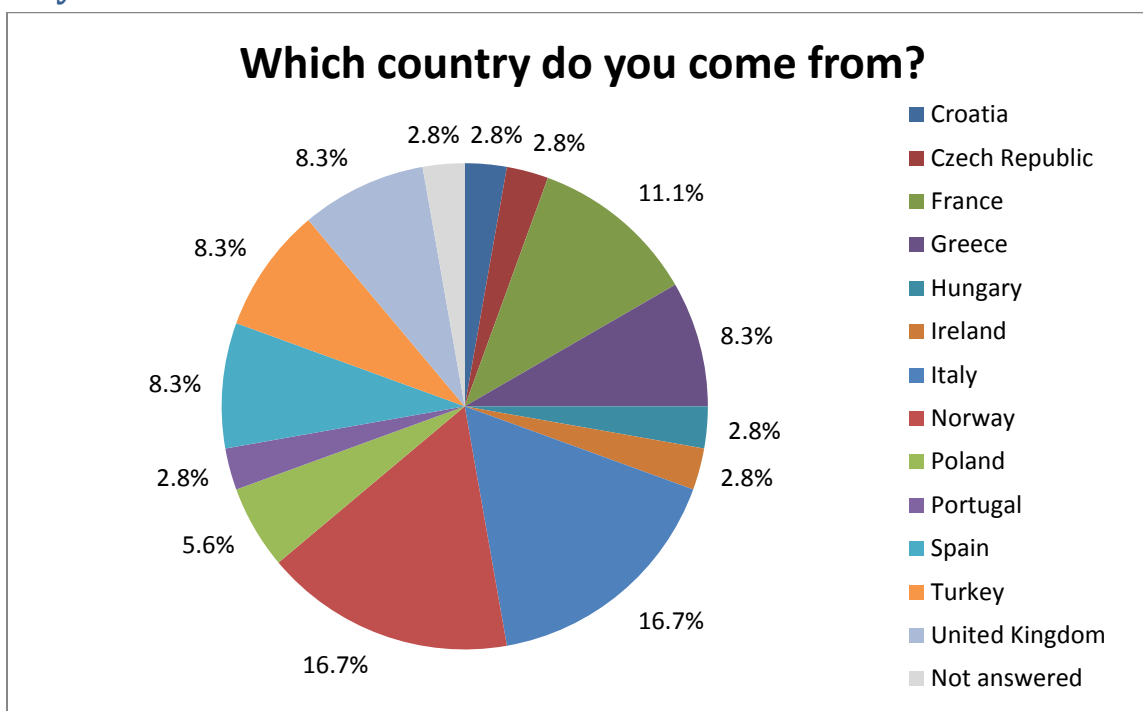


Figure 1: Country distribution of the participants in the meeting

Industry representatives from 13 countries have participated in the meeting (figure 1).

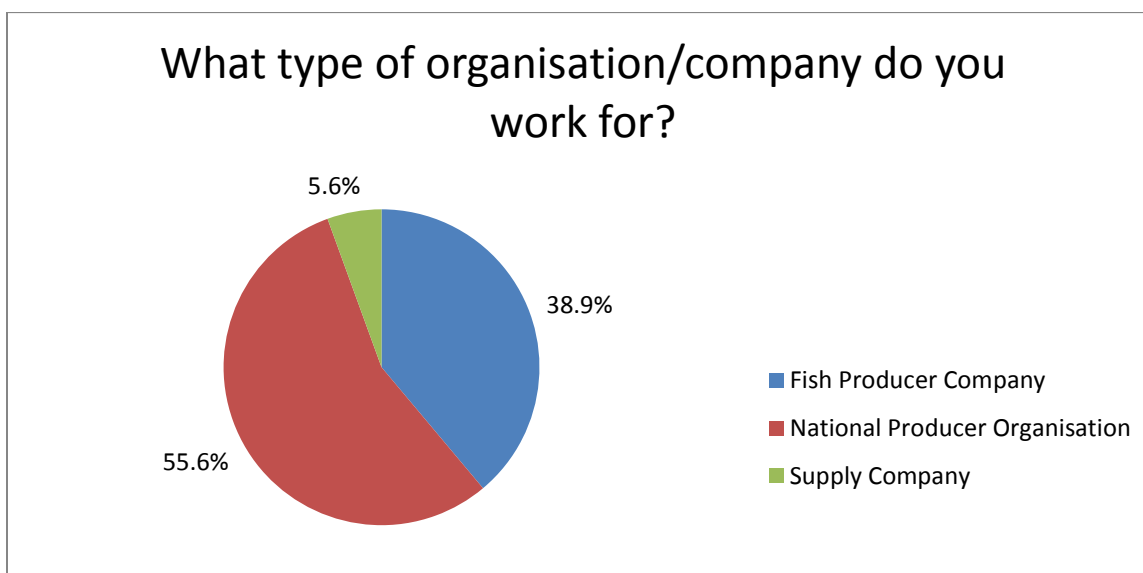


Figure 2: Distribution of participants by their affiliation

Over half of the participants work for a National Producer Organisation (figure 2).

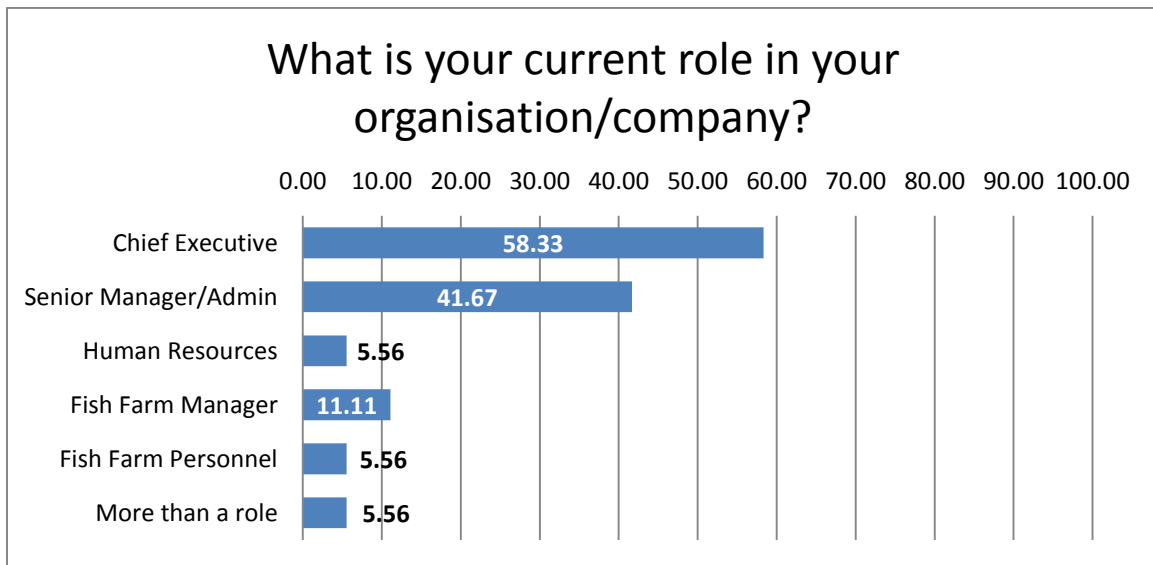


Figure 3: Distribution of participants by role in their organization. Values are given in percentages.

Most of the participants have roles in higher management positions (figure 3). Participants were allowed to select more than one role. Percentages are calculated to reference to the total number of respondents.

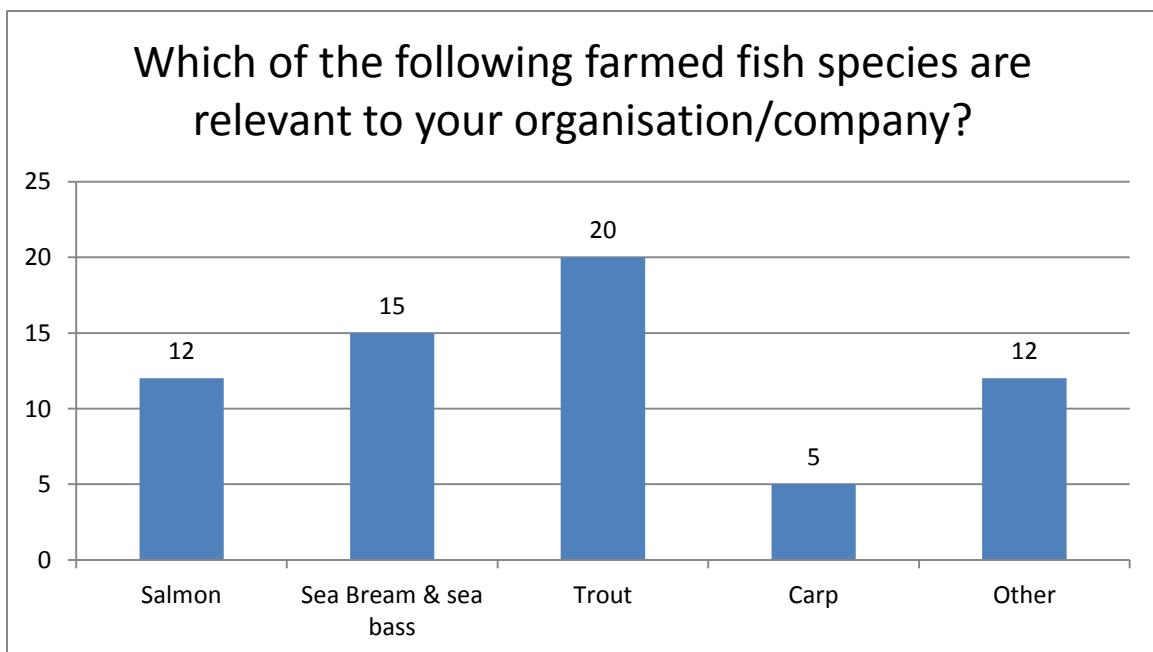


Figure 4: Distribution of relevant fish species

Over half of the participants have indicated trout as a relevant species to be produced in their company (figure 4).

The neutral middle point “Neither agree nor disagree” is set to 0%. The negative and strongly negative answers are stacked towards the left, while the positive and strongly positive towards the right. This means that the neutral bar is equally distributed between positive and negative sides.

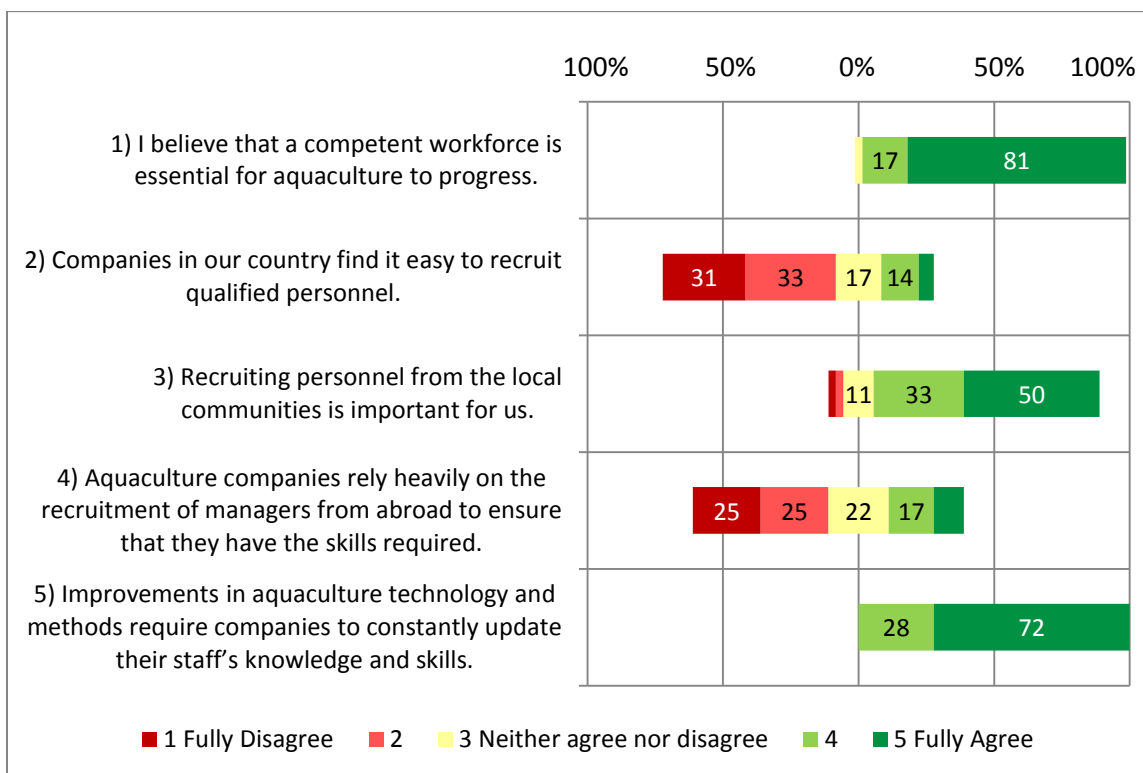


Figure 5: Several statements related to recruitment and workforce education

The results above show that appropriate education and training (figure 5, 1st statement) is paramount for industry progress according to over 98% of the respondents (with 81% strongly agreeing). In addition, 72% of the respondents point out (figure 5, 5th statement) that continuous updating of the staff's knowledge and skills is necessary in order to keep up with technological improvements. The recruitment of staff from local communities (figure 5, 3rd statement) is considered important by over 80% of the participants, with 50% strongly agreeing.

The 2nd and 4th statements from figure 5 require further investigation: The countries attending (figure 1), are grouped together in the following way:

North (marine cage based): Norway, Iceland, Finland, Denmark, United Kingdom, Ireland

South (marine cage based): France*, Spain, Italy, Croatia, Greece, Cyprus, Portugal, Turkey

Inland: Hungary, Czech Republic, Poland, France*

*France has both marine cage based and inland farming so it has been included in both groups.

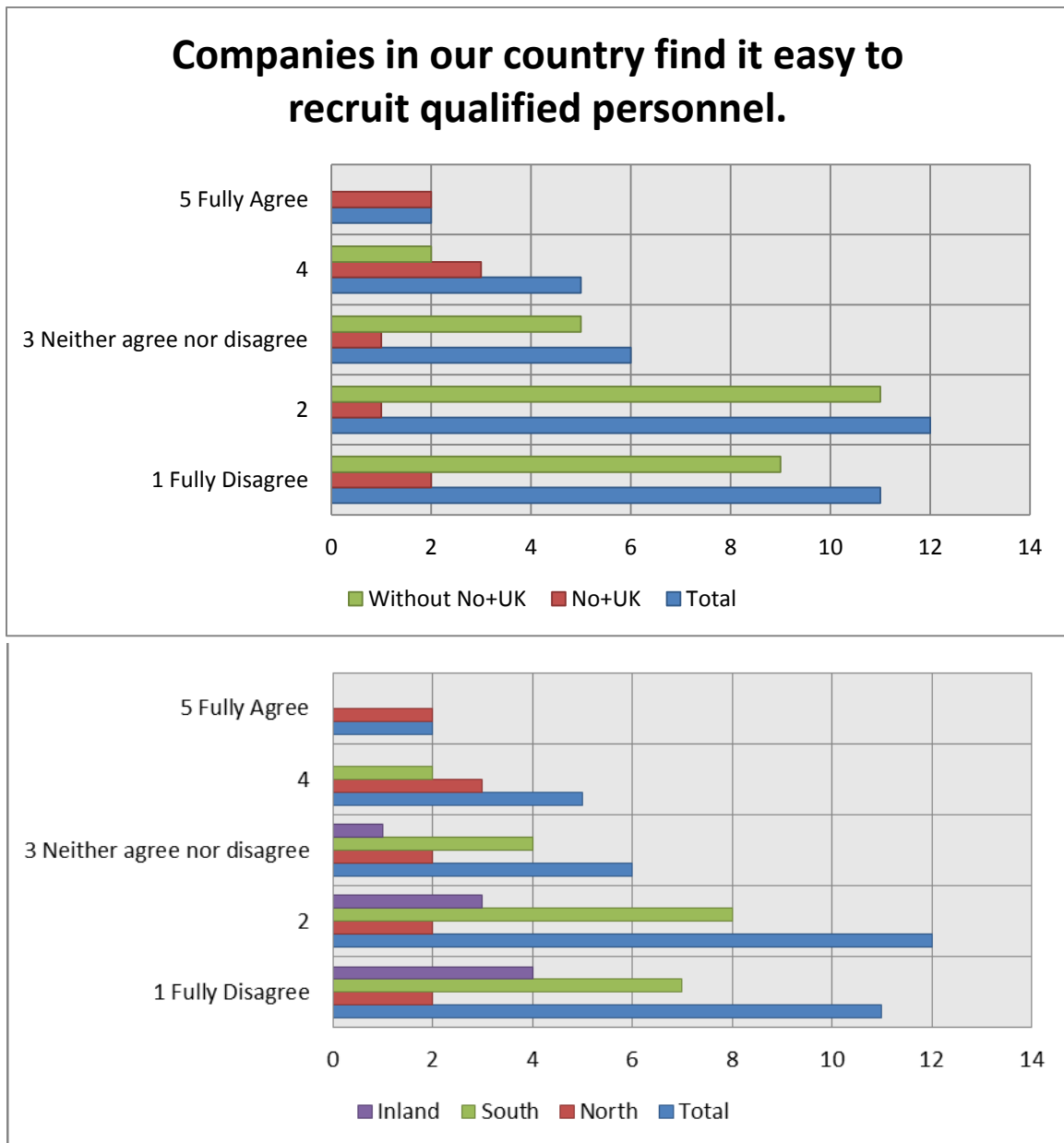


Figure 6: Comparative charts for figure 5, 2nd statement
(top: Norway and UK vs remaining countries; bottom: south vs north vs inland)

The answers indicate that it is challenging to recruit qualified personnel both in north, south and inland (figure 6).

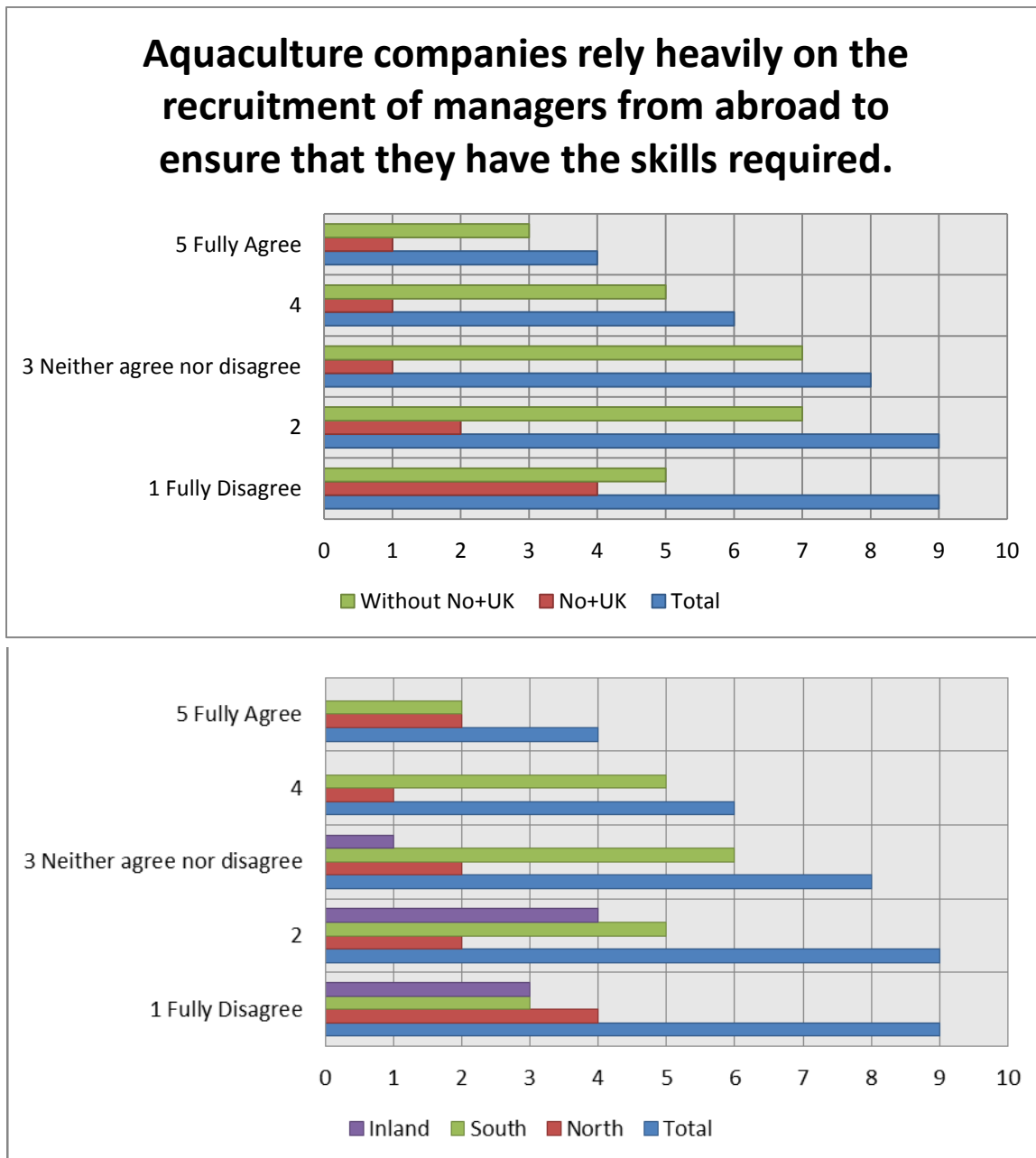


Figure 7: Comparative charts for figure 5, 4th statement
(top: Norway and UK vs remaining countries; bottom: south vs north vs inland)

There is a tendency of more disagreement for “inland” group vs the others in relation to recruitment of managers from abroad. (Figure 7)

The figure below shows the distributions of the replies from 9 questions using a divergent stacked bar chart approach. The missing answers are represented as a grey bar aligned to the rightmost part of the chart for easier comparison.

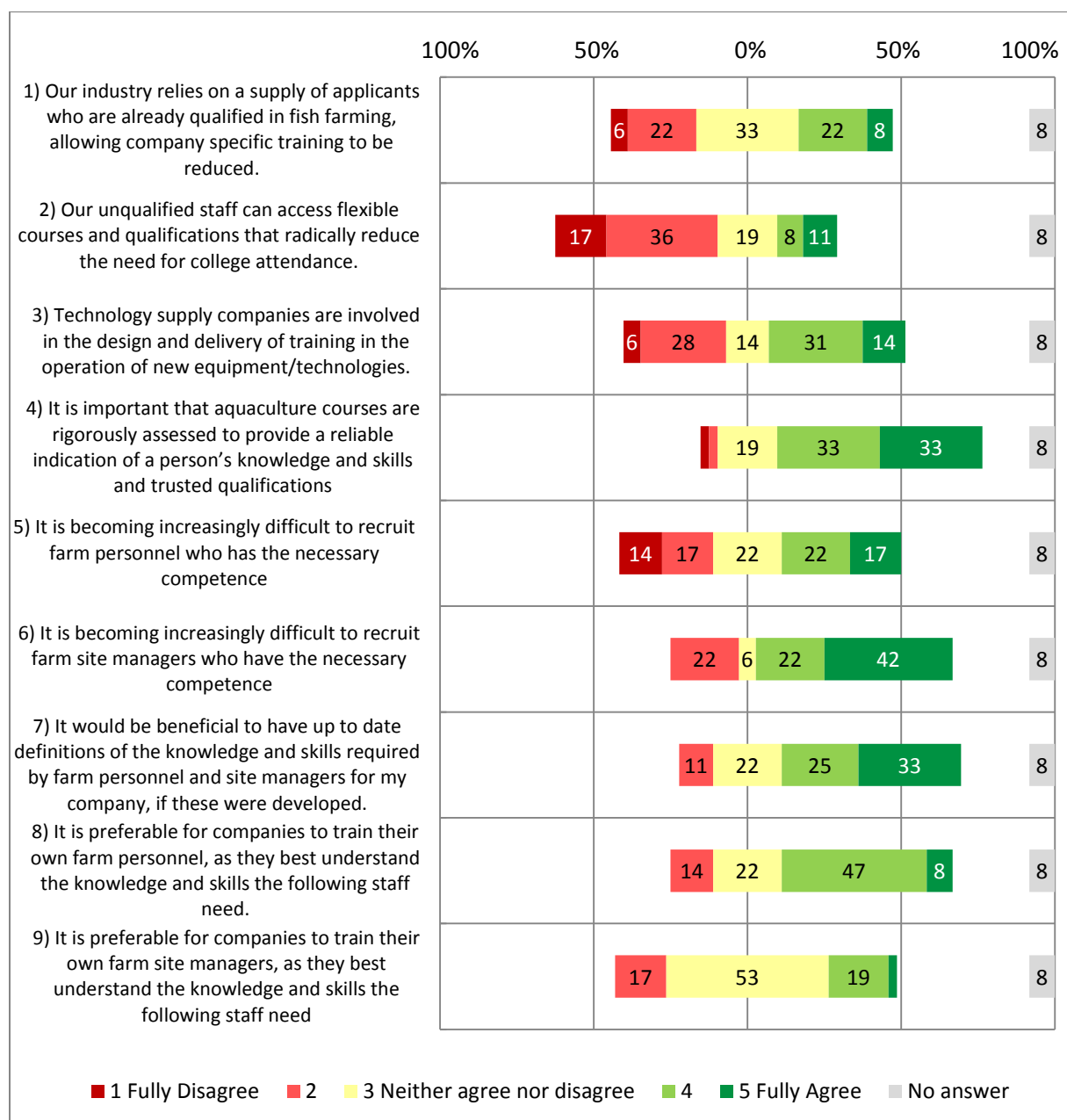


Figure 8: Statements related to workforce education and recruitment

64% of the respondents agree (42% strongly agreeing) that it is increasingly difficult to recruit farm site managers with the necessary competence (figure 8, 6th statement). 58% of the participants agree (33% strongly) that it would be beneficial to have updated definitions of knowledge and skills for farm personnel and site managers (figure 8, 7th statement).

From the statements in figure 8, the 2nd, the 3rd, the 4th and the 8th need further investigation. In the following charts we grouped the answers in the same way as mentioned previously.

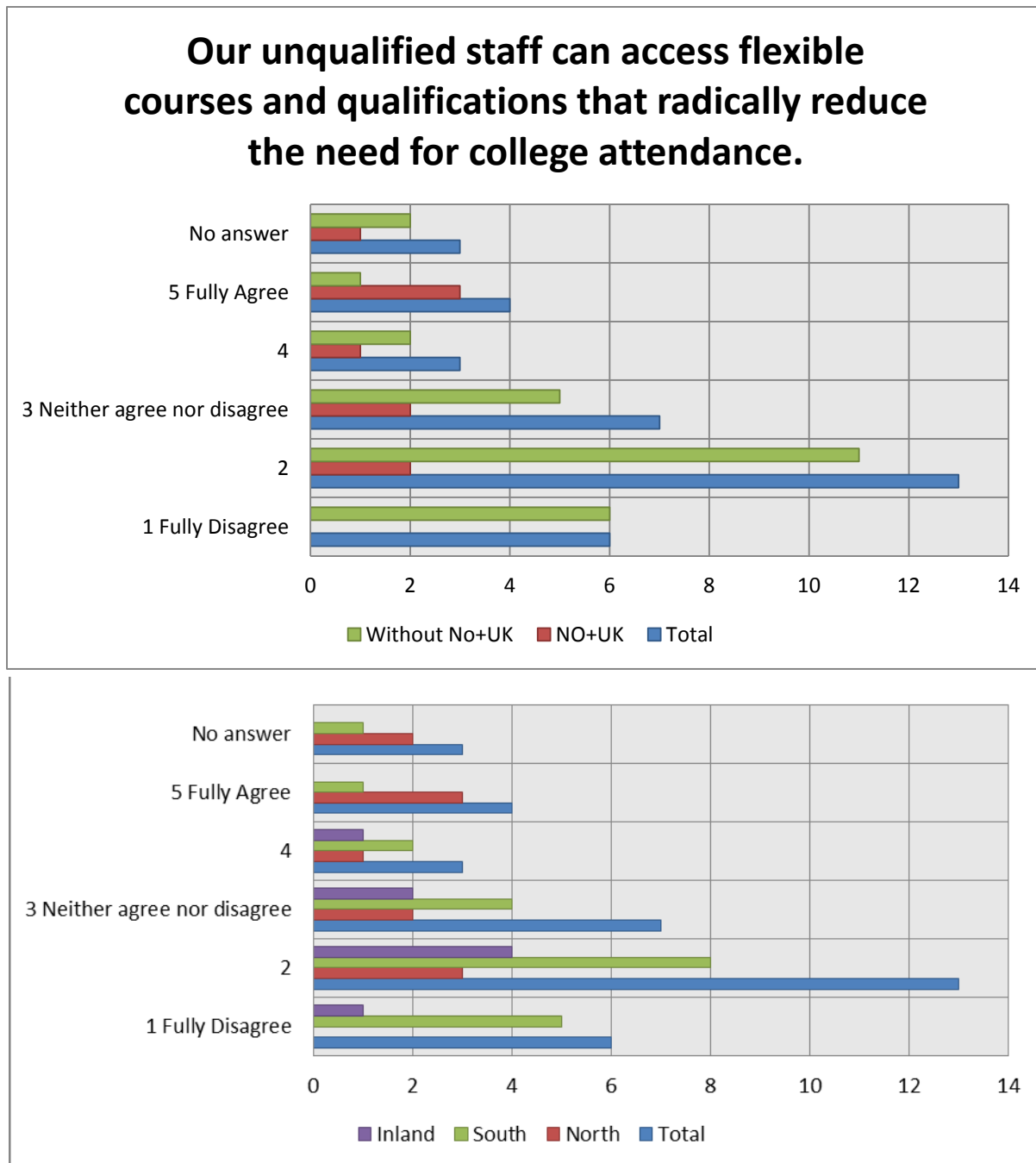


Figure 9: Comparative charts for figure 8, 2nd statement
(top: Norway and UK vs remaining countries; bottom: south vs north vs inland)

There is slightly better access to courses and qualifications in north especially in Norway and UK while the situation in the south is the opposite (figure 9).

Technology supply companies are involved in the design and delivery of training in the operation of new equipment/technologies.

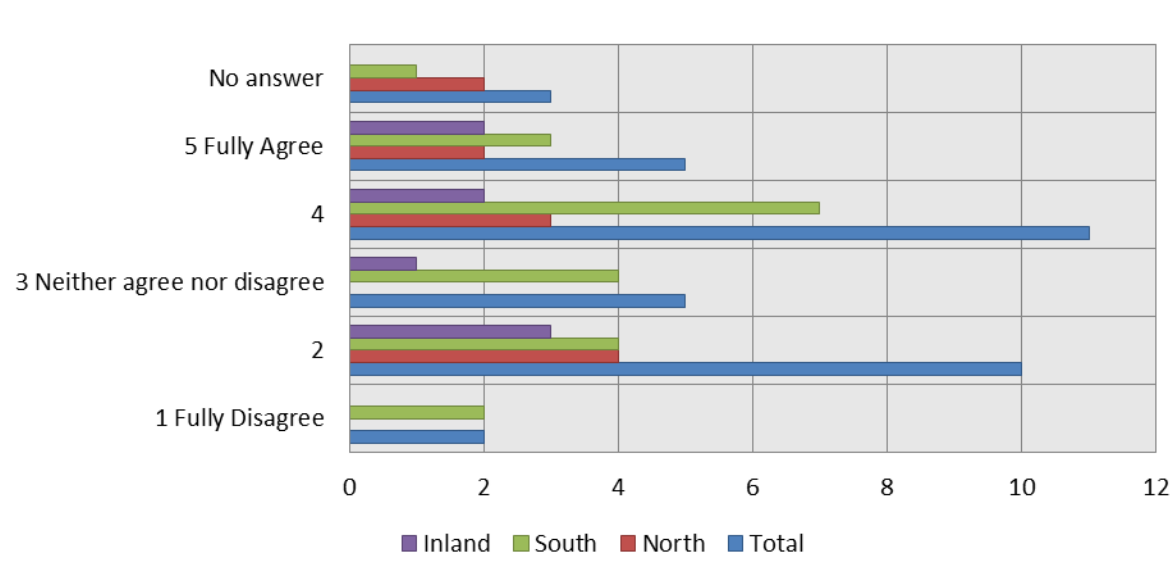
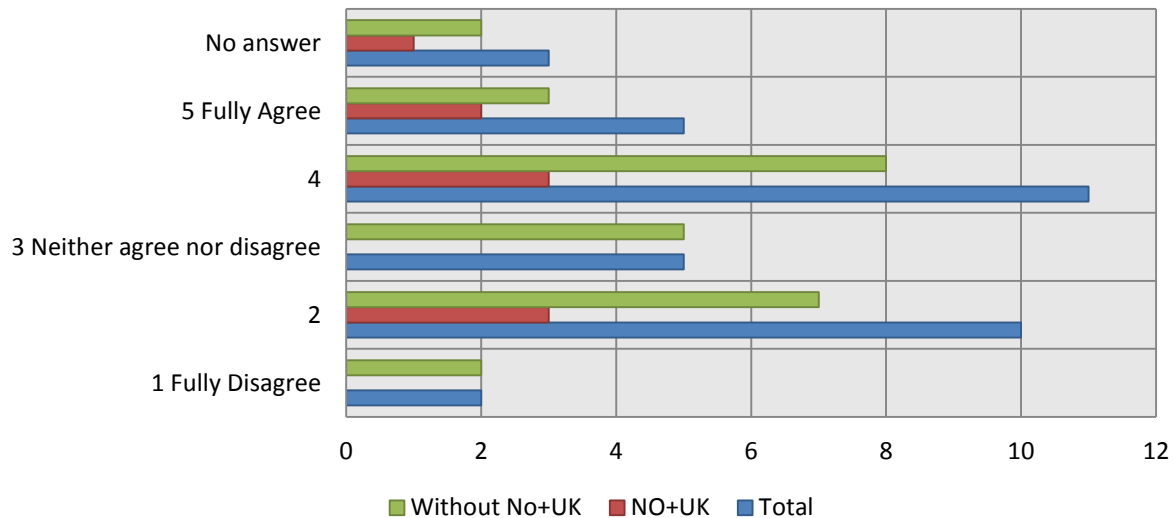


Figure 10: Comparative charts for figure 8, 3rd statement
(top: Norway and UK vs remaining countries; bottom: south vs north vs inland)

The involvement of the technology supply companies is heterogeneous as there is no clear tendency in the answers. Probably there could be variations between regions and the various supply companies (figure 10).

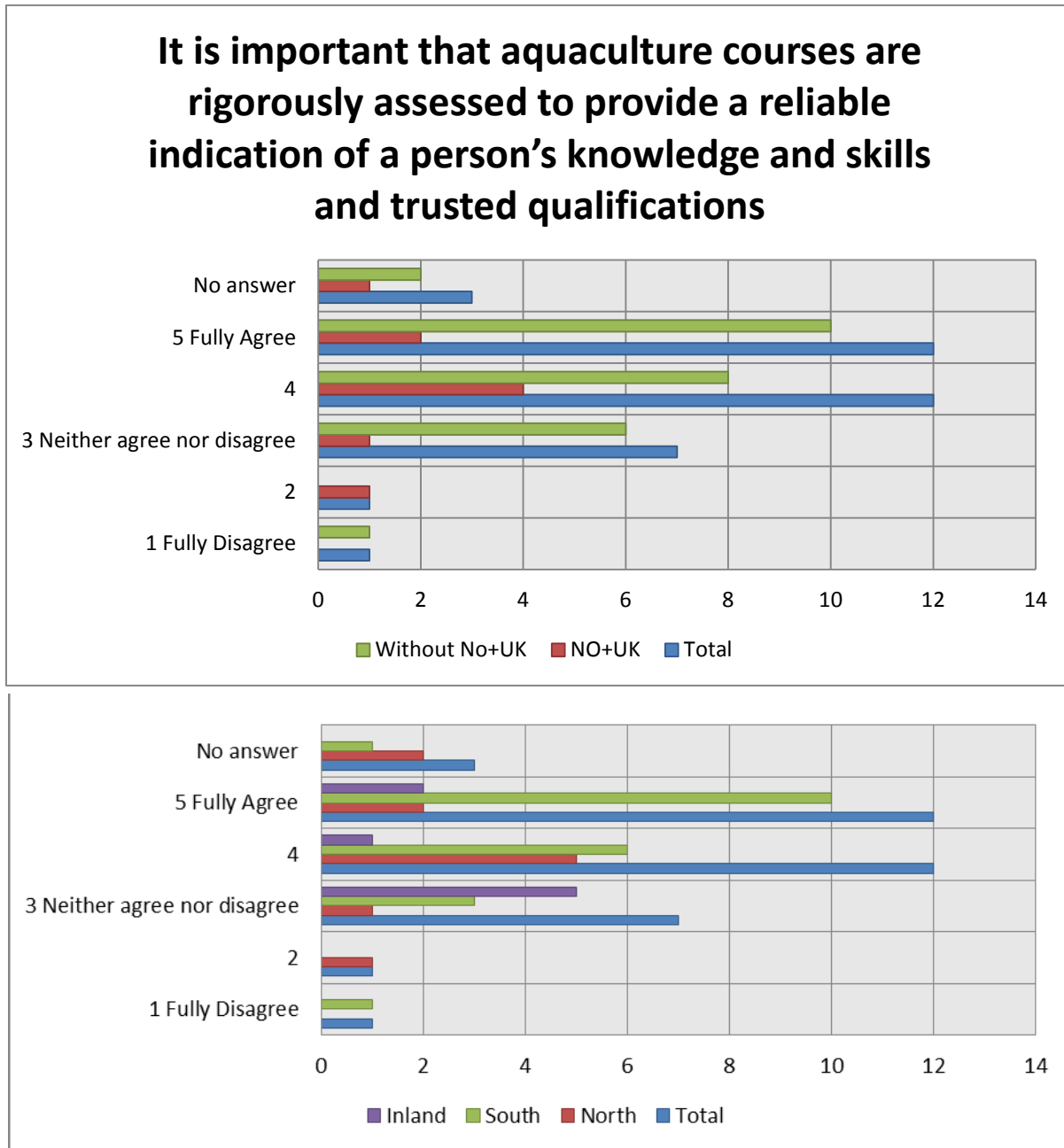


Figure 11: Comparative charts for figure 8, 4th statement
(top: Norway and UK vs remaining countries; bottom: south vs north vs inland)

Assessment in the blue sector is considered to be an important aspect all over Europe independently of the species farmed (figure 11).

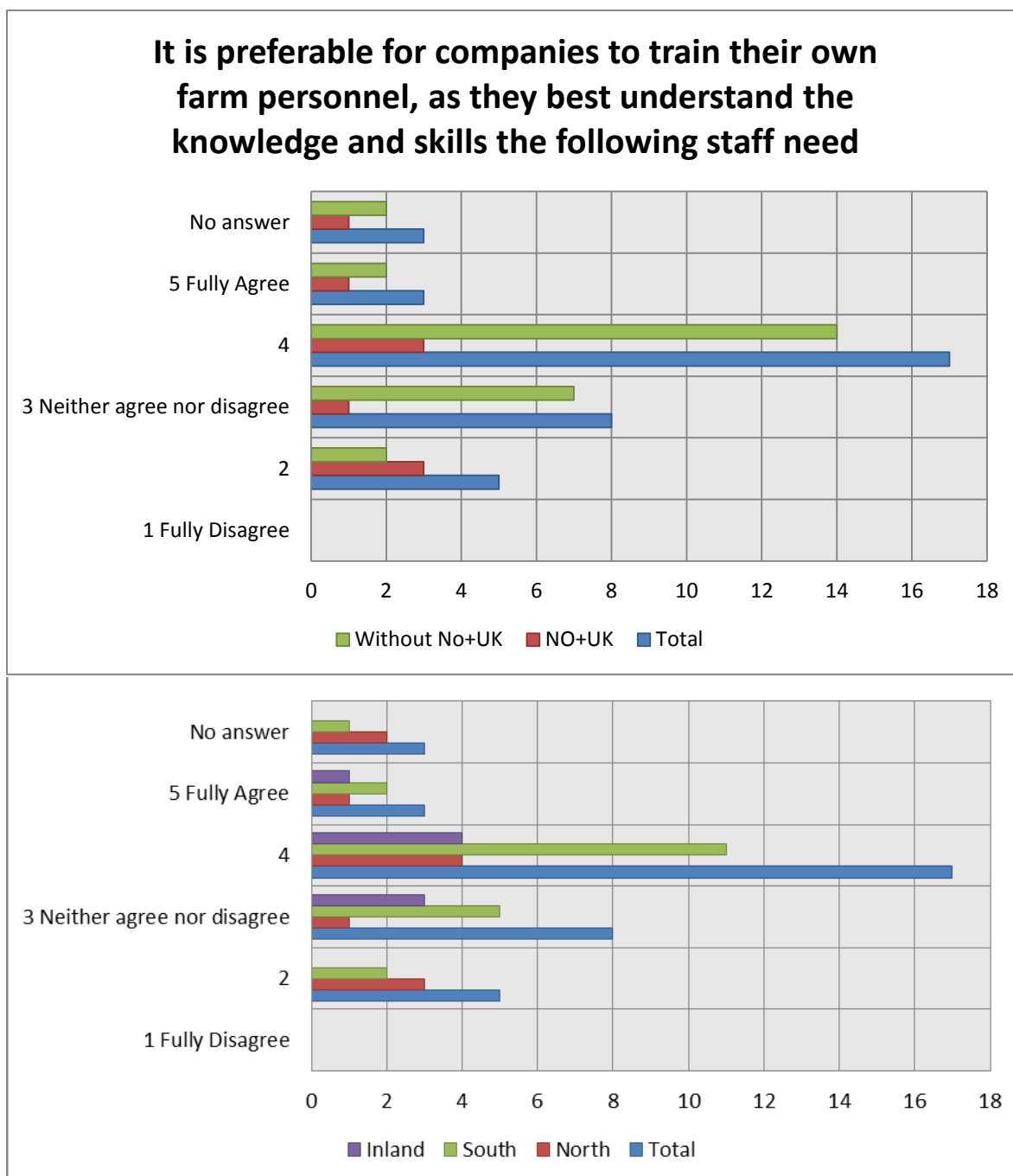


Figure 12: Comparative charts for figure 8, 8th statement
(top: Norway and UK vs remaining countries; bottom: south vs north vs inland)

The respondents mildly agree that it is preferable to train the farm personnel inside the company independently of the species farmed (figure 12).

Do you have definitions of the knowledge and skills required by farm personnel and site managers at company level

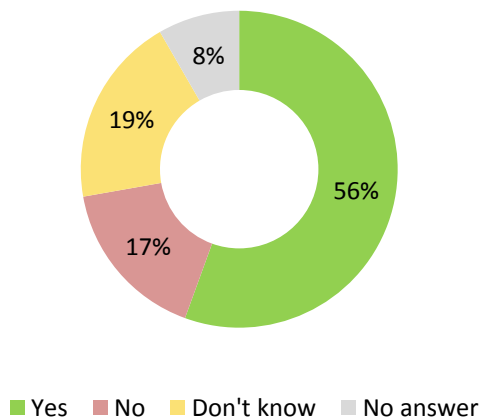


Figure 13: Availability of definitions for knowledge and skills at company level

56% percent of the participants have definitions for the knowledge and skills at company level.

Do you have definitions of the knowledge and skills required by farm personnel and site managers at national level for the sector

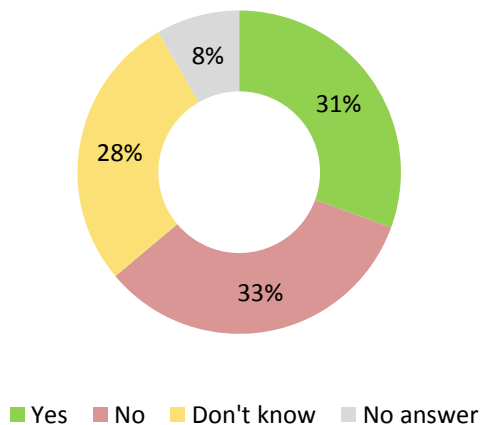


Figure 14: Availability of definitions for knowledge and skills at national level

Only 31% of the participants indicated that national level definitions are available. 36% of the participants do not know or they do not answer.

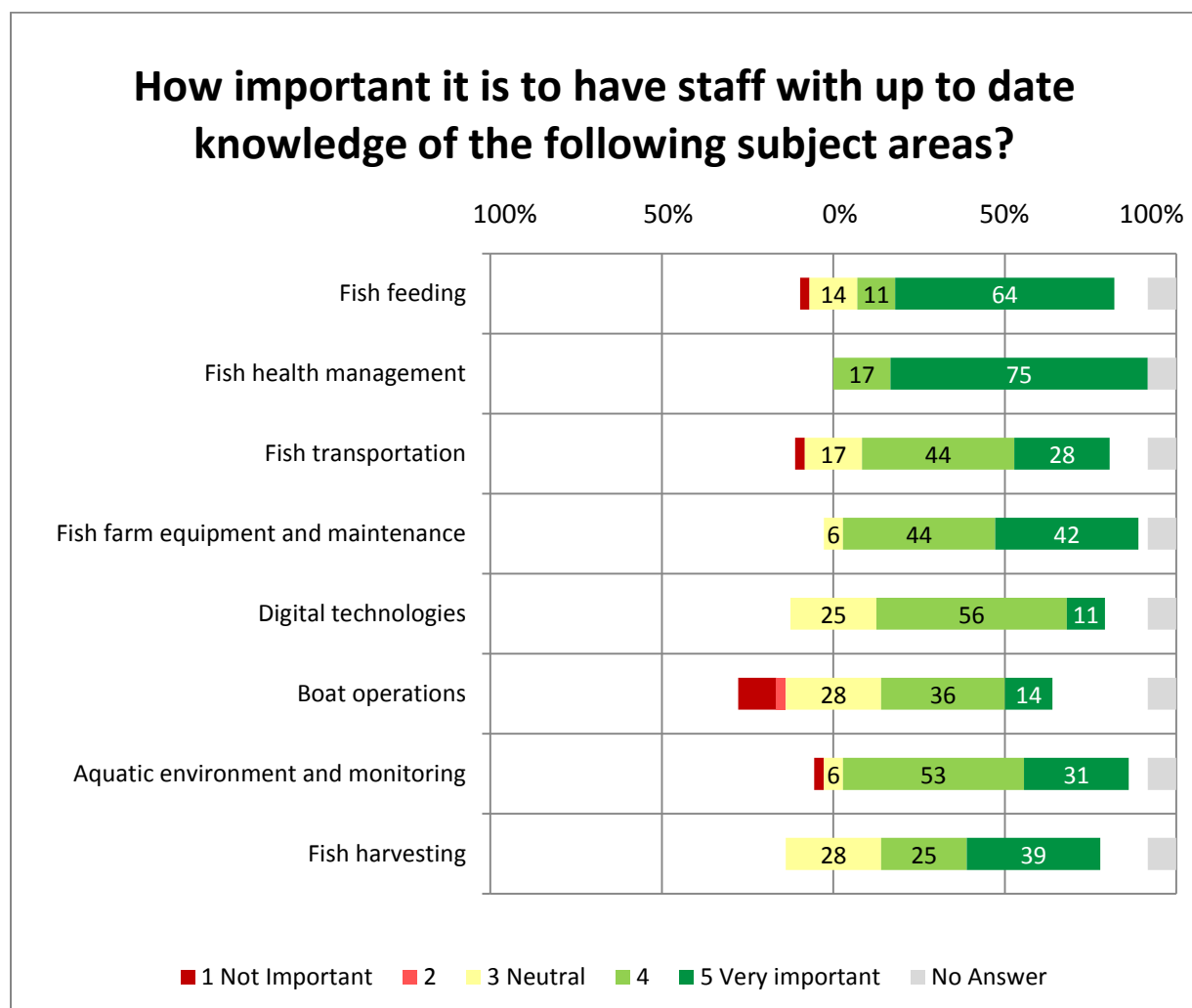


Figure 15: Importance of knowledge areas for staff

Fish health management is overwhelmingly seen as very important knowledge area followed by fish feeding in terms of strong agreement from participants (figure 15).

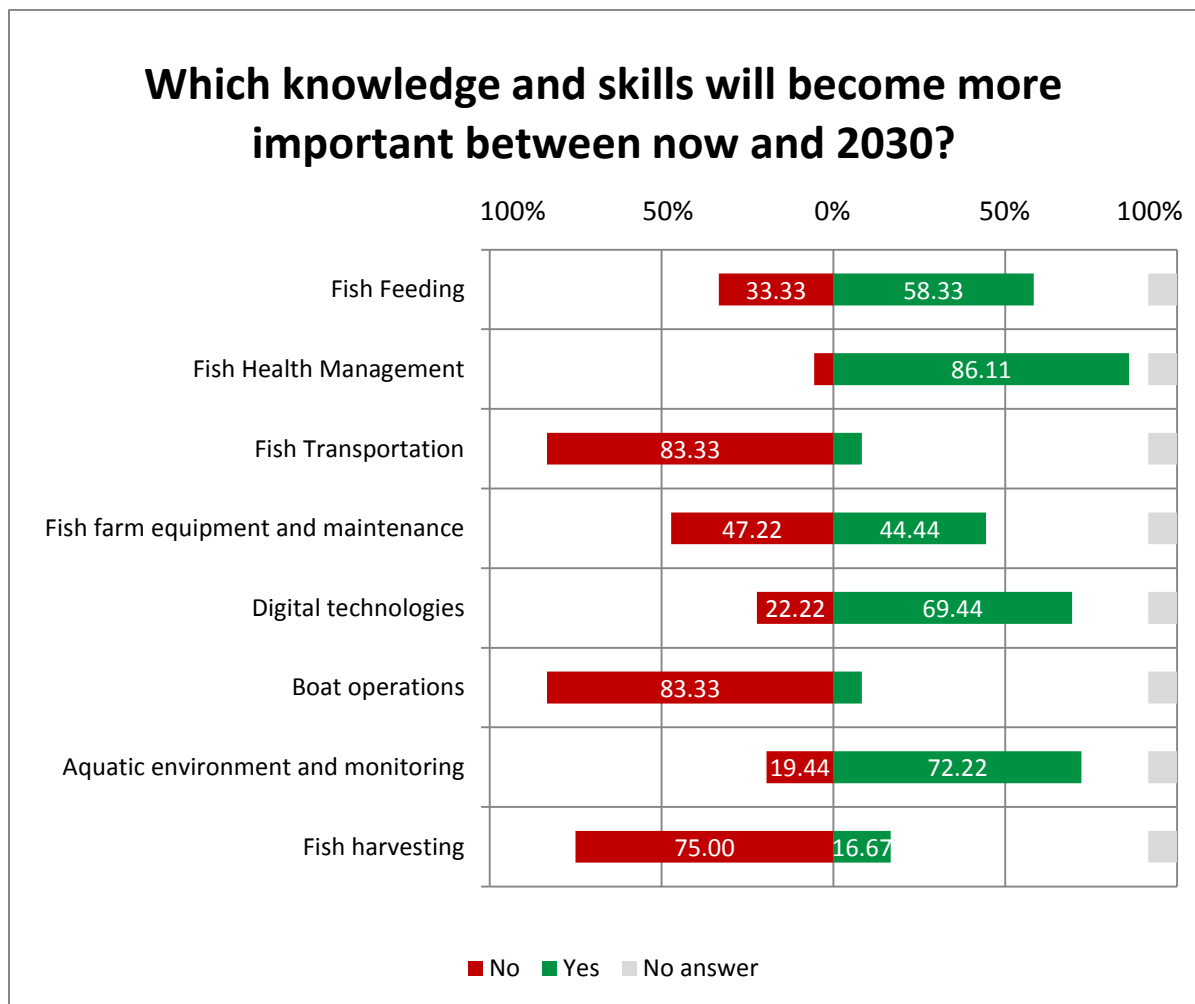


Figure 16: Importance of knowledge areas in the future

The following subject areas will increase in importance in the future according to respondents, including: Fish health management (86%), aquatic environment and monitoring (72%) and digital technologies (over 69%) Conversely, respondents indicated that some subjects will become less important, including: fish transportation (83%), boat operations (83%) and fish harvesting (75%) as illustrated by figure 16.

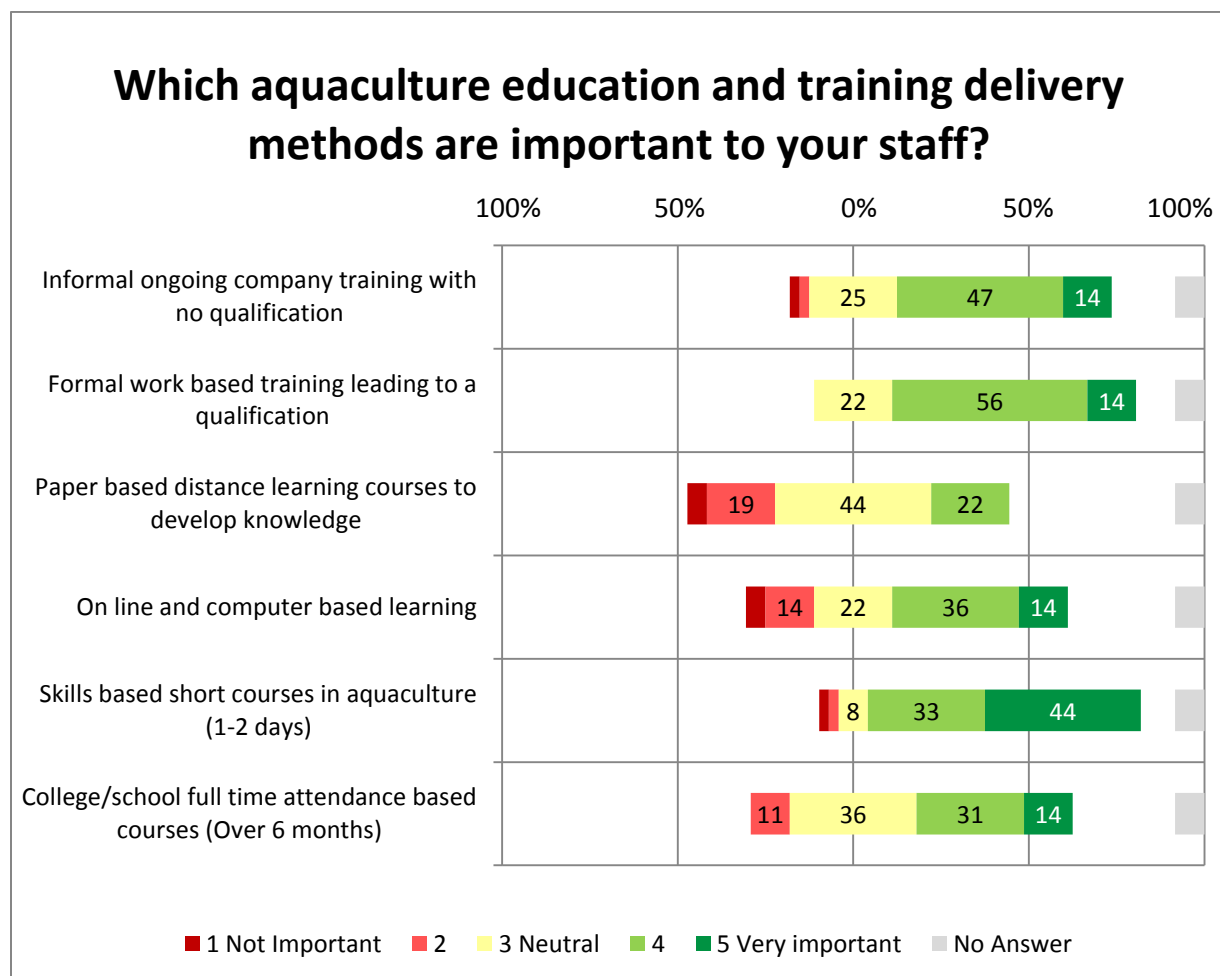


Figure 17: Distributions for education and training delivery methods

Most important education and training delivery method in the view of our respondents is through skills based short courses – 77% consider it important or very important (44% deeming it very important) as illustrated by figure 17. There are 70% of the respondents (including 14% strongly agreeing) that work based training which leads to a qualification has value, whilst 61% (with 14% strongly agreeing) see value in informal company training. For online and computer based training there is a high spread in the answers with no clear agreement.

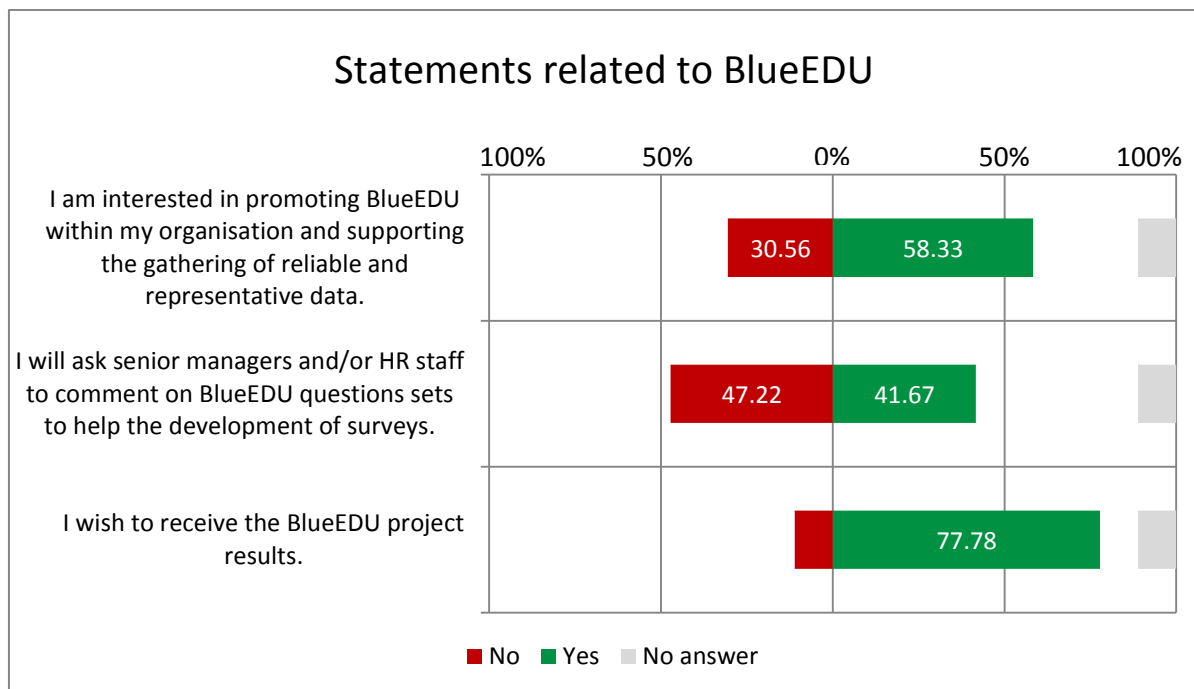


Figure 18: Participants willingness to support the project

There are 58 % of the participants willing to promote the project in their organization while over 77% desire to be kept up to date with project results. This includes 41% of the participants who are willing to actively help in the development of the next surveys by asking relevant staff in their organization to give feedback on the question sets.

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