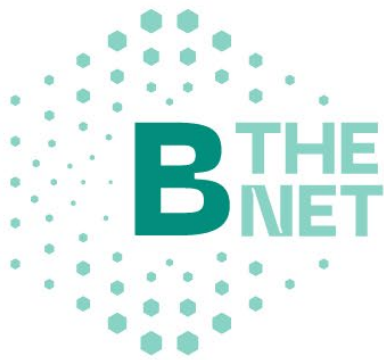




3.9

Report on the analyses by the sociological studies on the Best Beekeeping Practices

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Abstract	Deliverable 3.9 presents the outcome of the two sociological surveys, which were conducted jointly with the main survey of the beekeepers during the year 2023. In the first survey we investigated which are beekeepers' preferred means of receiving information. In the second survey we gauged which is the best way to present Best Beekeeping Practices to the beekeeping communities around Europe.
Keywords	Beekeeping practices, sociological studies, survey

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1 Executive Summary

One of the main outcomes of the B-THENET project is the dissemination of best beekeeping practices among beekeepers and advisors. Deliverable 3.9 presents the outcome of the two sociological surveys, which were conducted jointly with the main surveys on the beekeeping practices distributed among the beekeepers during the year 2023. In the first sociological survey, we revealed which means of receiving information beekeepers prefer the most.

In the second sociological survey, we aimed at investigating the best ways to present best beekeeping practices to the beekeeping communities around Europe.

Although the sociological part of the main survey was not mandatory, still many beekeepers participated and expressed their thoughts as well as provided answers to several questions of the sociological surveys.

2 Introduction

B-THENET aims to modernise the EU beekeeping sector by sharing the knowledge ready to be put into practice and fostering best practices exchanges. The project's ambition is to create a European bottom-up knowledge base and network, built on a cascade of four interlinked B-THENET platforms: "Best Practices Platform", "Research & Innovation Platform", "Exchange Platform" and "Repository platform", which engages relevant actors to collect, organise, share, disseminate, and store valuable knowledge about beekeeping practices as well as ready-to-use research and innovation solutions at national and international level.

In particular, the project pursues the following objectives:

- To modernize the EU beekeeping sector by establishing a multi-actor, bottom-up network with complementary knowledge that connects: beekeepers, researchers, advisors, and the other stakeholders in the apiculture sector.
- To collect, categorize ("Inventory") and select good practices and new research findings ready to put into practice or not sufficiently known, using a bottom-up methodology
- To create a digital, interactive knowledge platform ("Exchange") to increase the flow of practical information in the EU and to enable EU beekeepers to share their comments, questions and tips, as well as to express their opinion whether the description of the given beekeeping practice corresponds to the practice applied in their country.
- To create a digital knowledge platform ("Repository") to collect, share and store knowledge on best practices, for the long-term.

The B-THENET structure is based on a multi-actor approach through the participation of Partners and Collaborating Partners, reaching out also to stakeholders with different backgrounds (scientific, social sciences and humanities, policy-making, etc.) who have the capacity to effectively reach the heterogeneous target audiences. In other words, the multifaceted composition and networks of the Consortium enables to evaluate the selected priority practices, validate the best beekeeping practices, and to ensure their infiltration into the EU beekeeping sector.

After the process of selecting the best beekeeping practices, they have to be presented and disseminated to the EU beekeepers, using the most effective channels to maximise the involvement of the target audience. The main findings of Deliverable 3.9 "Report on the analyses by the sociological studies on the Best Beekeeping Practices" will also funnelled into the updated Dissemination and Exploitation Plan.

3 Methodology

3.1 Survey design

Surveys were selected as a tool for the sociological studies, as the highest number of beekeepers can be reached, comparing to individual consultations or other methods. Surveys for the beekeeper's were set-up and distributed using the EU Survey System and represented the tool that enabled us to make a sociological study of the beekeeper's preferences in relation to the preferred means of the communication and ways of how to better disseminate the priority practices.

Surveys were distributed using EU survey system (<https://ec.europa.eu/eusurvey/>), an online survey management system for creating and publishing forms available to the public.

In order to analyse and evaluate beekeeper's preferences we developed and distributed surveys in 15 languages (Austrian, Danish, English, Flemish, French, German, Greek, Hungarian, Italian, Latvian, Polish, Slovakian, Slovenian, Spanish and Swedish) by the project partners, from the 1st of March 2023 to the 15th of March 2023 (Survey #1) and from the 15th of November 2023 to the 20th of December 2023 (Survey #2).

The sociological part of the mentioned surveys was not mandatory, still many beekeepers participated and expressed their thoughts and provided answers to several questions. It was decided to not make this part of the survey's mandatory, as the main part for the voting of practices were quite long and primary to get replies for. Results of the first survey are incorporated into the scientific article which is currently submitted to the scientific journal.

3.2 Survey analysis

In the sociological part of the B-THENET survey, beekeepers were asked four questions for the survey #1 and 6 questions for the survey #2 (see Section 6 and Section 7 for the survey questions).

Survey responses were stored in the EU survey system and then downloaded as Excel datasets. To identify beekeeper's preferred means of communication, responses were collected and then analysed using the MS Excel software. Pivot tables were used to group the responses by the country of origin and Pivot charts were used for visualisation purposes. In case there were less than 10 responses per question per country these responses were not considered for the analysis.

4 Results

4.1 Survey responses

We received 574 answers for Survey #1 and 792 answers for Survey #2 originating from 22 EU countries (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland, Romania, Slovak Republic, Slovenia, Spain and Sweden). The above-mentioned numbers of responses were only for the sociological part of the survey.

In this report, countries with more than 10 replies to any of the sociological questions are presented. As the sociological questions were not mandatory within the main surveys, the number of replies to the sociological survey questions is fluctuating.

4.2 Preferred means of receiving information

As regards the preferred means of receiving information, the most preferred one is “Visual materials” (grey bars in the Figure 1 below):

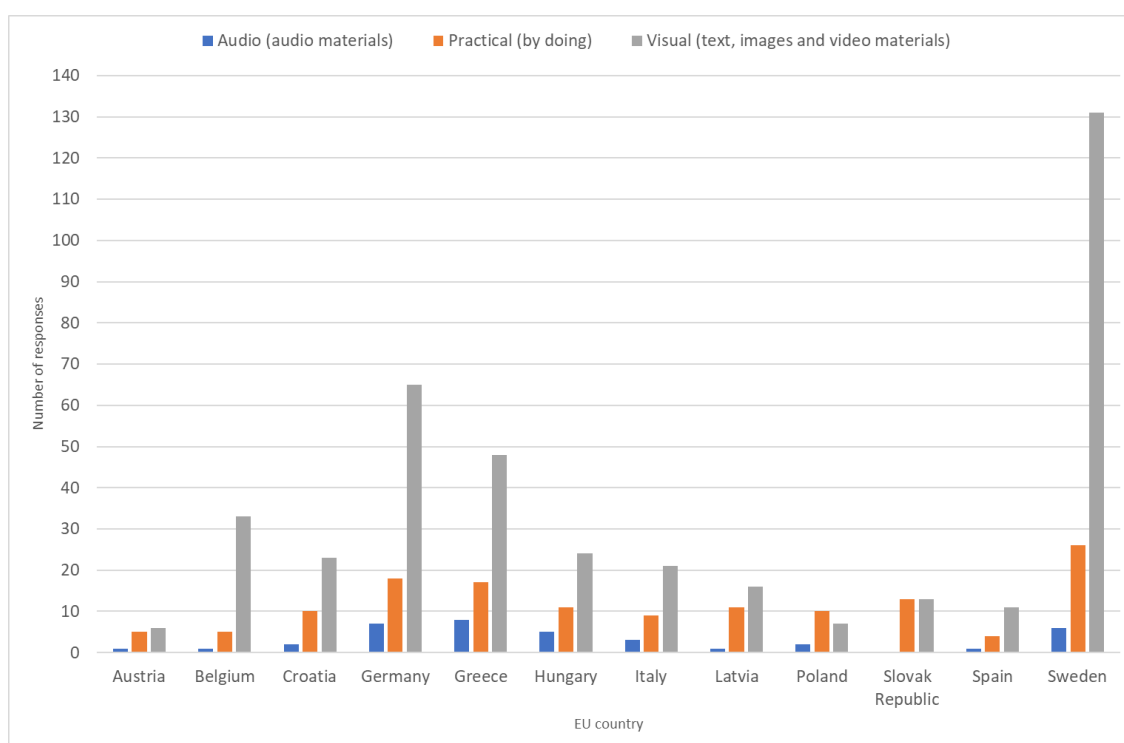


Figure 1. Preferred means of receiving information

EU beekeepers deemed visual materials as most favoured (398 respondents selected visual as rank #1), followed by practically doing (139 respondents selected practically doing as rank #1) and by audio materials (37 respondents selected audio as rank #1), which was ranked as the least preferred communication mean.

4.3 Knowledge of English language

Analysing the beekeeper's self-evaluation on their capability to receive information in a language that is not their native one, we observed that in all countries there is a certain proportion of beekeepers who cannot receive information in English. Within the first survey (see Figure 2) it was identified that in particular, 130 (19.7%) beekeepers could not receive information in English, 258 (39.1%) said that they could, but requiring additional efforts, and 271 (41.2%) could easily receive information in English.

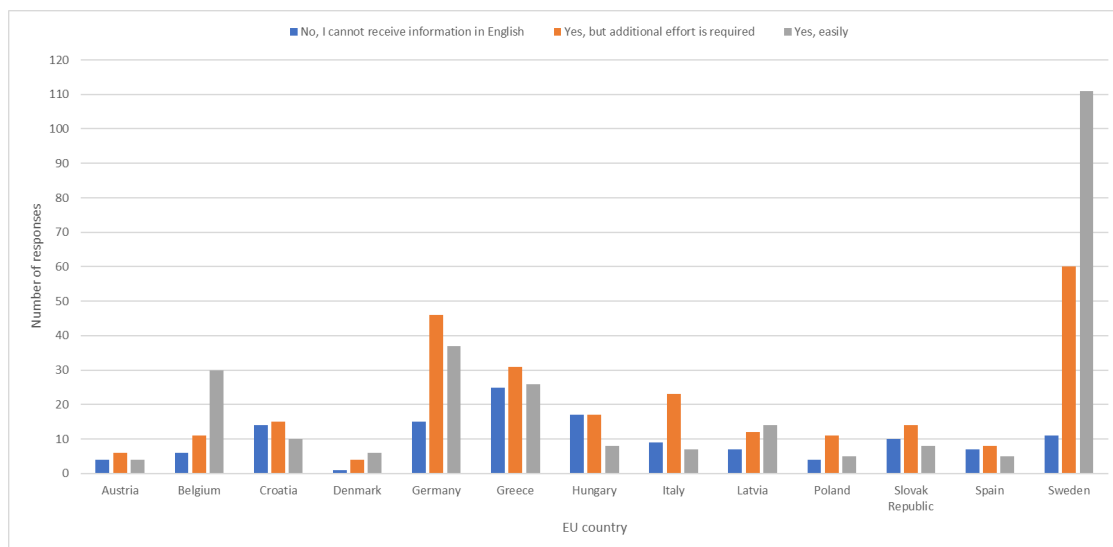


Figure 2. Understanding of English (Survey #1)

Within the second survey (see Figure 3) it was identified that in particular, 200 (25.2%) beekeepers could not receive information in English, 277 (34.9%) said that they could, but requiring additional efforts, and 315 (39.9%) could easily receive information in English.

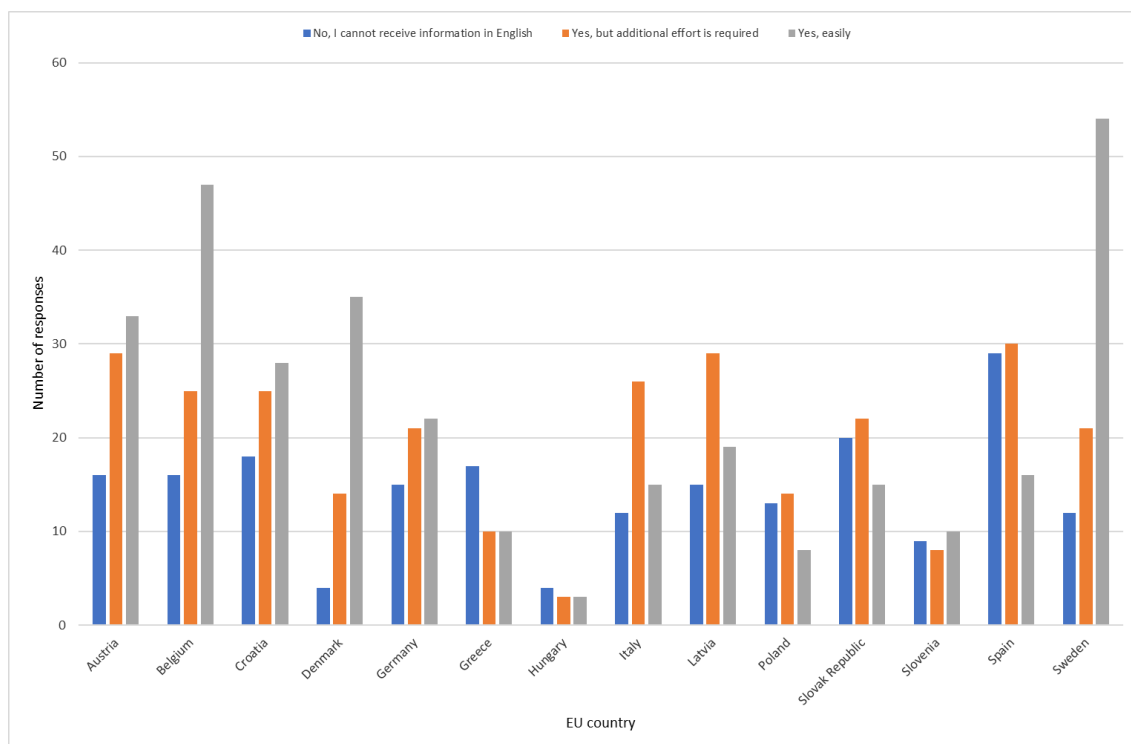


Figure 3. Understanding of English (Survey #2)

4.4 Length of the informative written material

Replies to the sociological survey question about the optimal length of the informative written material resulted in varying answers with no trend that could be determined (see Figure 4):

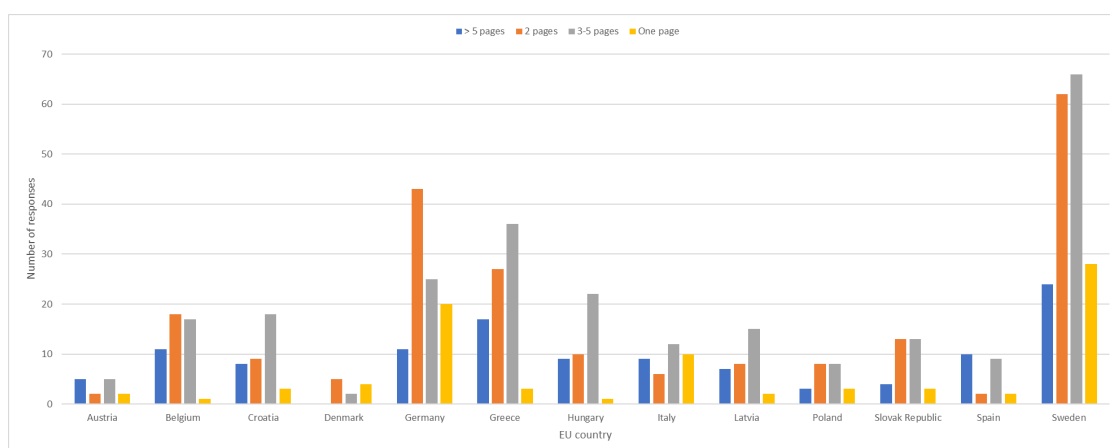


Figure 4. Length of the informative written material

4.5 Usage of subtitles in video materials

Beekeepers were asked how likely they would watch videos in English with subtitles provided in their native language (on a scale 1 to 5). According to the replies of beekeepers (see Figure 5),

all countries beekeepers would indeed likely watch such video sequences. 541 beekeepers will definitely watch such videos, and only 79 beekeepers answered that will not watch such videos.

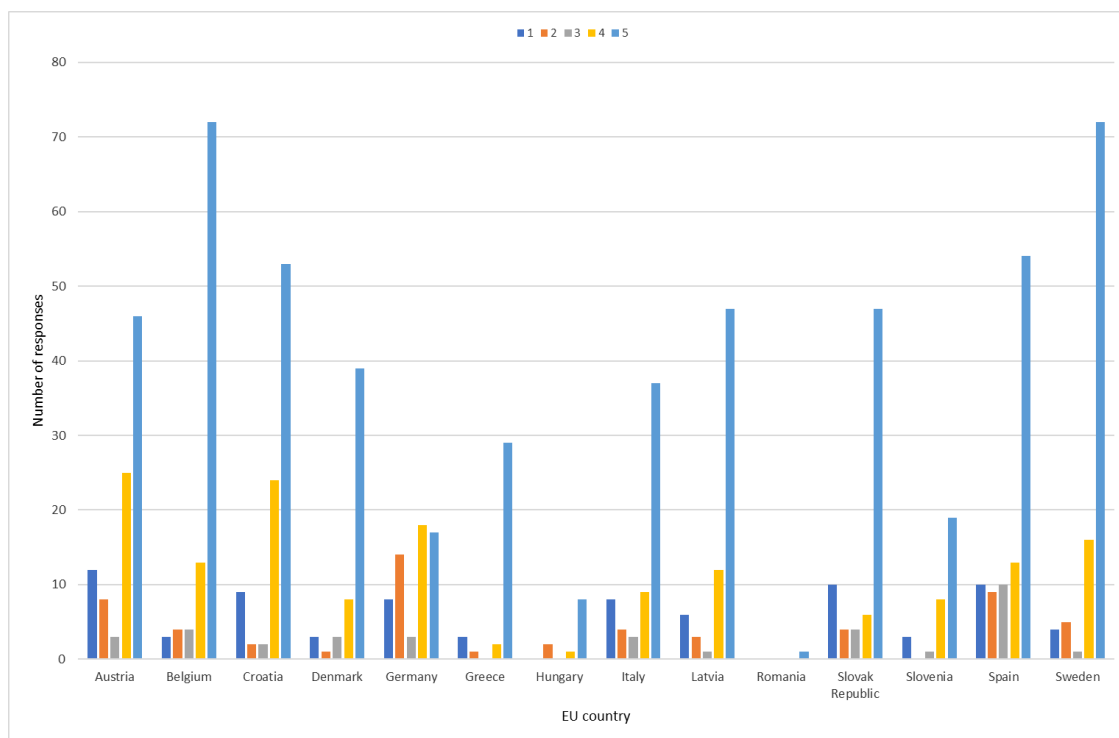


Figure 5. Usage of subtitles in video materials

4.6 Type of the video

We gauged the beekeepers' preferences as regards the type of the video sequences (animated or live-action video) about the best beekeeping practices (see Figure 6). In all the countries investigated, the vast majority of prefers live-action videos. Overall, 82% are voted for live-action videos.

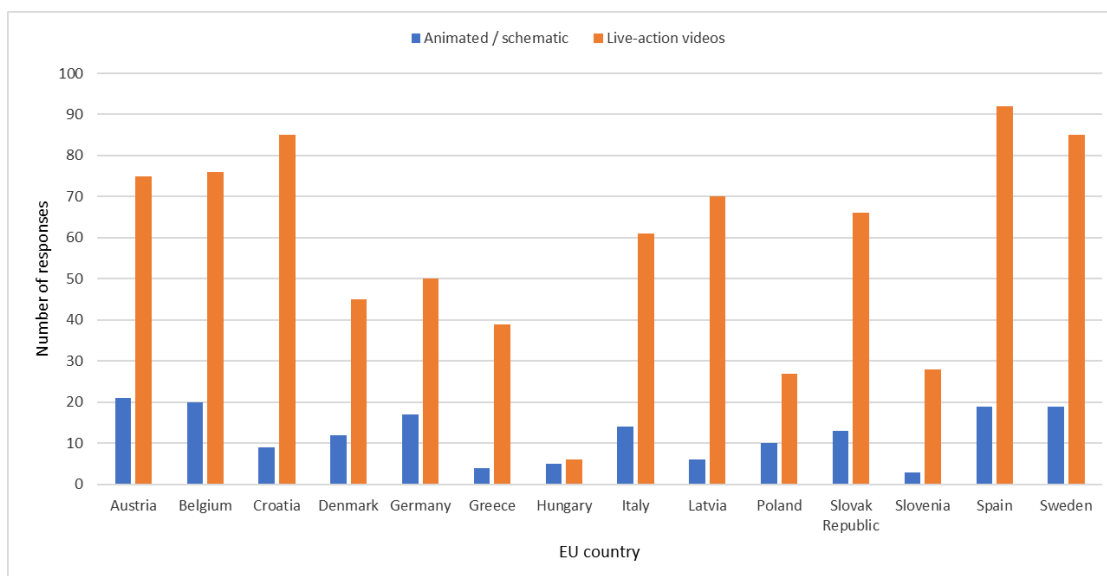


Figure 6. Type of the video

4.7 Who should explain the best beekeeping practices

One of the questions targeted beekeepers' choices over the person explaining the best beekeeping practices in the video sequences (see Figure 7). The replies were varying, however, most of the beekeepers (Nr. of responses = 473) would watch a video sequence in which fellow beekeepers or advisors are explaining the practice. Overall, the second preference would be - Experts of the B-THE NET project (Nr. of responses = 229), then 209 respondents stated that it is not important who is explaining the best beekeeping practices.

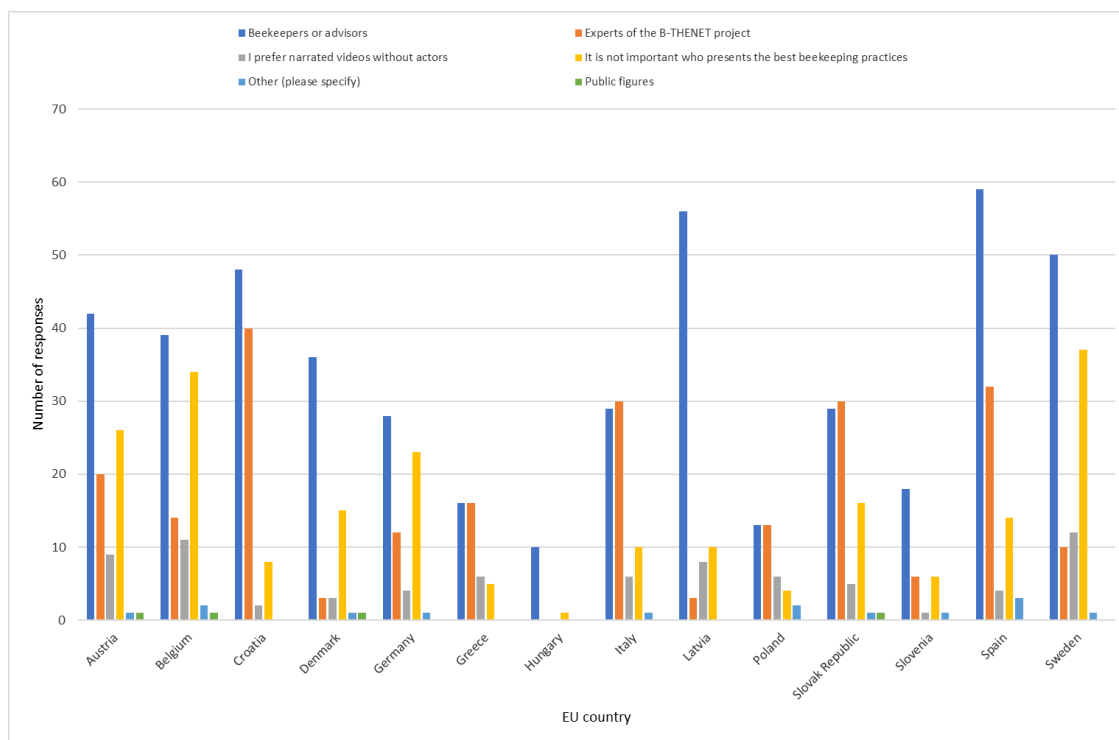


Figure 7. Person in the video

4.8 Channel for the video dissemination

Beekeepers' opinion on the channel through which they would prefer watching video materials was also collected (see Figure 8). The replies were inhomogeneous, yet the most preferred channel proved to be the YouTube platform (Nr. of responses = 701). In Denmark, beekeepers favour the local beekeeper's associations homepage to watch video sequences. The second preference was - a local beekeeper's associations homepage (Nr. of responses = 410), then Facebook (Nr. of responses = 324) and dedicated digital platform (Nr. of responses = 281).

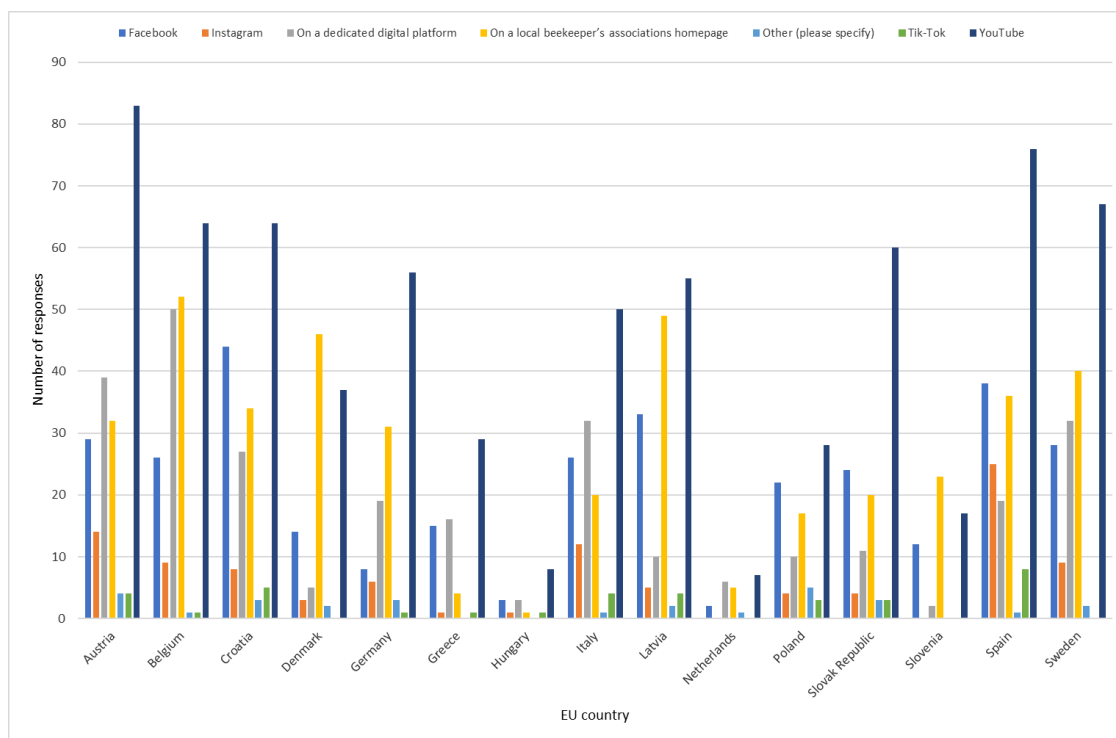


Figure 8. Channel for the video dissemination

4.9 Length of the video materials

The last question of the sociological survey was related to the optimal length of the video material (see Figure 9). Answers to this question also were very different, but it was clear that video sequences of 5-10 min length are the most preferred (Nr. of responses = 459). The second preference was – 3-5 min. long videos (Nr. of responses = 300), then >10 min (Nr. of responses = 198) and option <3 min, is less favourable (Nr. of responses = 45).

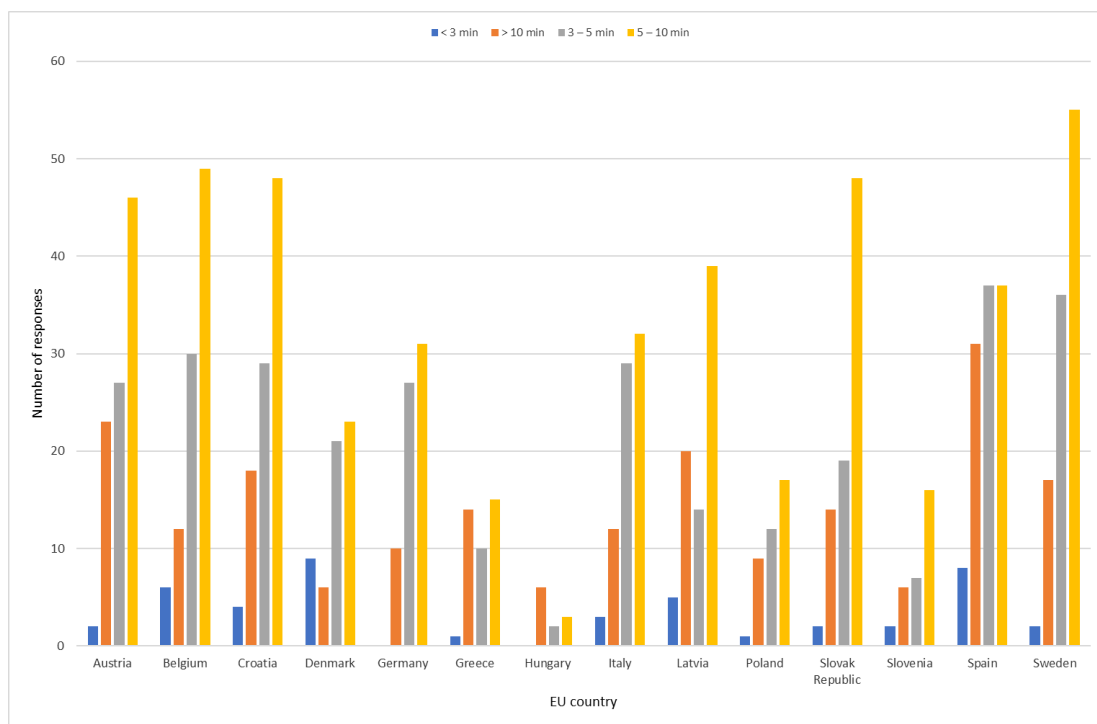


Figure 9. Length of the video materials

5 Conclusions

This deliverable provides the summary of the sociological analysis which were based on the sociological survey questions embedded into the main the beekeeper's surveys circulated among the EU beekeepers, in 2023. This analysis helped to identify preferred means and type of the communication for the future, effective dissemination of the best beekeeping practices.

It was found out that the practices description should include images and the planned videos among the visual materials are indispensable for the beekeepers for an optimal demonstration and understanding of the best beekeeping practices. As well, translation of the materials to the local language is very recommended to make it available for higher number of beekeepers.

Based on the EU beekeepers' preferences, we can conclude that video sequences of 5-10 minutes, in English with subtitles in the local language, presented by fellow beekeepers or advisors, and hosted on YouTube are the best channel and means options to reach the highest number of the target audience in the most effective way.

6 Appendix: Survey #1

Which are your preferred means to receive information? (Please rank from best (top) to worst (bottom))

- Audio (audio materials)
- Visual (text, images and video materials)
- Practical (by doing)

Can you receive information in a non-native language (in English)? - dropdown

- Yes, easily
- Yes, but additional effort is required
- No, I cannot receive information in English

What would be your optimal length for any informative written material (description of beekeeping practice)? - dropdown

- One page
- 2 pages
- 3-5 pages
- > 5 pages

In your opinion, what could be the optimal length of video material (tutorial on one specific beekeeping topic) in minutes? – free input

- Number of minutes

7 Appendix: Survey #2

1) Which channel would you prefer to watch videos of the best beekeeping practices

- Facebook
- Instagram
- Tik-Tok
- YouTube
- On a dedicated digital platform
- On a local beekeeper's associations homepage
- Other (please specify)

2) Can you receive information in non-native language (in English)? - dropdown

- Yes, easily
- Yes, but additional effort is required
- No, I cannot receive information in English

3) How likely are you to watch videos in English with subtitles provided in your native language (scale 1-5)

1 (I will not) – 5 (I will)

4) What kind of video would you prefer to watch when learning about best beekeeping practices?

- Animated / schematic (A type of video content that uses animation techniques to convey information. Animated videos are created using images, illustrations, or computer-generated graphics that are manipulated to create the illusion of motion and change over time)
- Live-action videos (A type of video content that features real people, objects, or scenes captured using cameras or recording devices. Live-action videos depict real-life situations, events, and subjects)

5) Who should explain the best beekeeping practices in the video?

- Experts of the B-THENET project
- Beekeepers or advisors
- Public figures
- It is not important who presents the best beekeeping practices
- I prefer narrated videos without actors
- Other (please specify)

6) What, in your opinion, could be the optimal length of the video materials (presentation of the one beekeeping practice) in minutes?

- < 3 min
- 3 – 5 min
- 5 – 10 min
- > 10 min

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