Smooth Transition from Academia to a Career in AgroBiotechnology:

Designing Carrier Plan

2023-1-SK01-KA220-HED-000160349

# SURVEY REPORT

**Reported by Education Agency for Development and Innovation – IDEA not-for-profit Sp. z o.o.**

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# Introduction

## General Survey Application

The project partners held an online meeting to revise project activities together. After the kick-off meeting, they began undertaking their assigned tasks.

### Responsibilities and Tasks

- UMH was the leading partner of Work Package 2. SUA took the lead in developing the initial survey content. The partners based this on 4 different topics in career development in line with the contemporary requirements.
- All the partners participated in survey question preparation and data collection through questionnaires, literature reviews, and teamwork.
- After the question preparations and arrangements, partners applied the surveys to their students, agrobiotech academicians and other relevant experts.
- Partners prepared their survey reports, including survey results and highlighting 5 important outcomes at the end.

## Date of Evaluation

11.06.2024

## Author(s):

Klaudia Liszewska; Project Officer

## Aims and Objectives of the Survey Application

The survey is designed to gather valuable insights from individuals interested in pursuing careers in the field of agrobiotechnology. The responses of the questions would directly contribute to the

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development of five key modules that will equip agrobiotech students and graduates with the knowledge, skills, and strategies necessary to navigate their professional pathway.

## Overall Objective:

Understand the aspirations, challenges, and needs of individuals in order to enter the agrobiotechnology industry.

## Section-Specific Objectives:

### *Section 1: Demographic Information*

- Identify the current position of the participants
- Determine the participants' seniority in sector/years of study in university

### *Section 2: Self-Assessment and Goal Setting*

- Encourage self-reflection and analysis of personal strengths and weaknesses.
- Help individuals visualise their ideal work environment within agrobiotechnology.
- Develop an understanding of the skills and qualities valued in the industry.

### *Section 3: Networking, Job Search Strategies, and Interview Tips*

- Highlight the importance of networking in building successful careers.
- Inquire about job search strategies within the agrobiotechnology sector.
- Reveal the strategies for preparing and excelling in job interviews.

### *Section 4: Professional Development and Training*

- Identify obstacles faced by individuals seeking professional development opportunities.
- Analyse the ideal balance between theoretical knowledge and practical experience.
- Showcase examples of effective training programs within agrobiotechnology.

### *Section 5: Career Advancement, Mentorship, and Coaching*

- Define the qualities individuals seek in a mentor within agrobiotechnology.
- Identify key leadership qualities for aspiring managers in the industry.
- Explore strategies for fostering collaboration and innovation in team settings.

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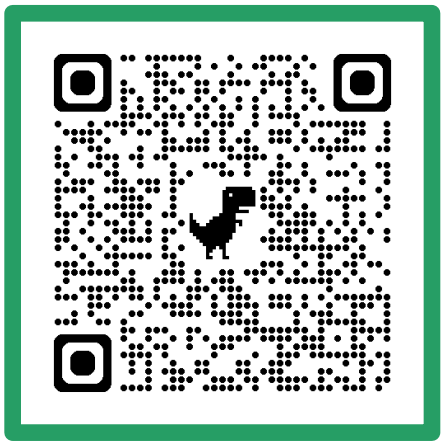

We invite interested researchers and educators to see the survey questions on an anonymous survey form whose QR code is provided above and share their opinions with us as well.

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# Methodology

## Evaluation Methods

Participants filled in a survey form including 4 multiple choice questions and 20 with checkboxes.

## Sample

25 responders participated in the survey applied in Lomza, Poland. 11 of them were academicians, 6 were sector representatives, and 8 students.

## Data Analysis Procedures

For all questions the frequencies of the answers were calculated.

The open-ended questions asking participants to specify their answer if they marked “other” provided an insight into the opinions of participants. And their evaluation were made through content analysis.

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# Results

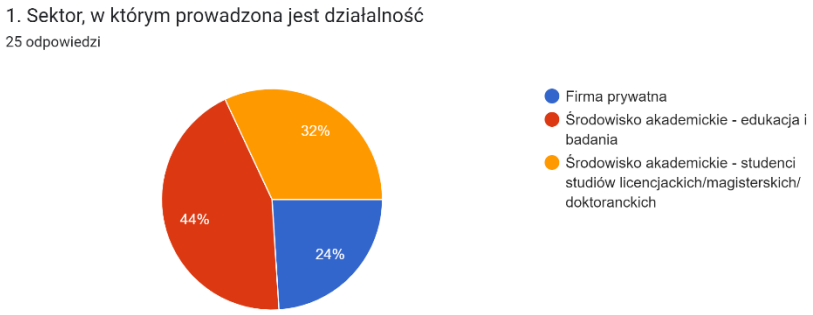
## Results by Section

### Section 1

The data collected in this section includes the demographic information and participants' experiences.

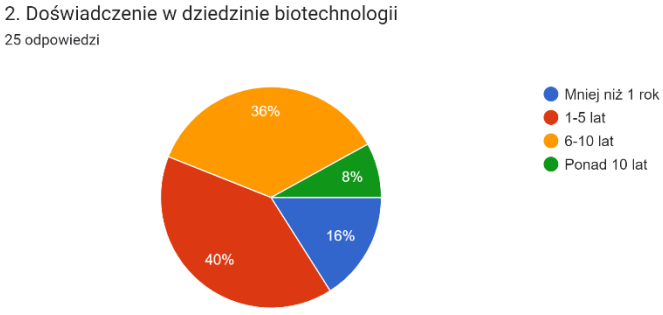
Q1

25 responders participated in the survey applied in Lomza, Poland. 11 of them were academicians, 6 were sector representatives, and 8 students.




Q2

There were only 2 people with over 10 years of experience in the biotechnology sector, 9 connected to the sector for 6-10 years, 10 others worked in biotechnology for 1-5 years, and 4 respondents had less than 1 year of experience.

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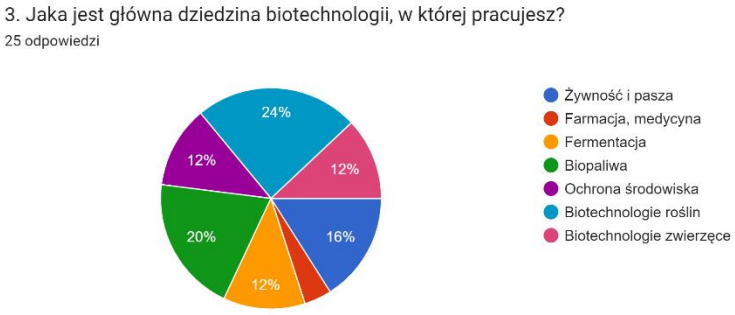
Q3

Responses to the question concerning the main biotechnological field in which they work included plant biotechnologies (24%), biofuels (20%), food and feed (16%), fermentations (12%), environment protection (12%), animal biotechnologies (12%), and pharmacy and medicine (4%).




Q4

The next question was related to role in the organization where the respondents work. Their answers were: research (24%), technical (20%), communication (16%), regulatory (16%), strategies (12%), and recruitment (12%).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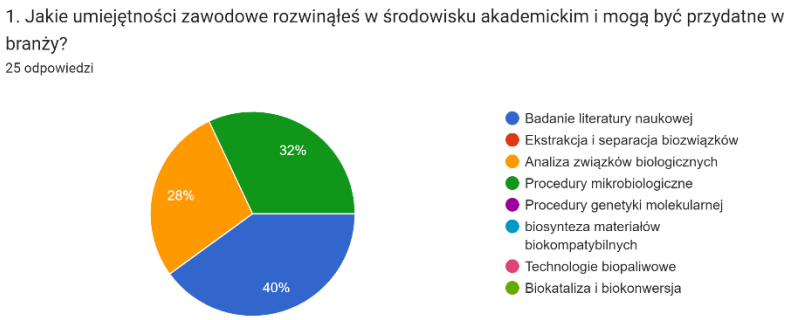
## Section 2

The data collected in this section includes the self-assessment and target specification.

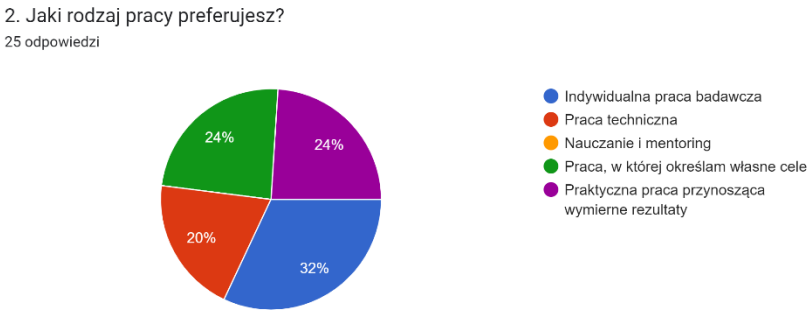
Q1

The most marked skill was scientific literature research with 40 percentage. Other preferred skills were respectively; micro-biological procedures (32%), and bio compound analysis (28%).




Q2

Individual research activities were stated by most of the participants (32%). Next in line were: “A work where I figure out my own objectives” (24%) and “Practical work with tangible results” (24%). Last but not least rated answer was “Technical work” (20%).

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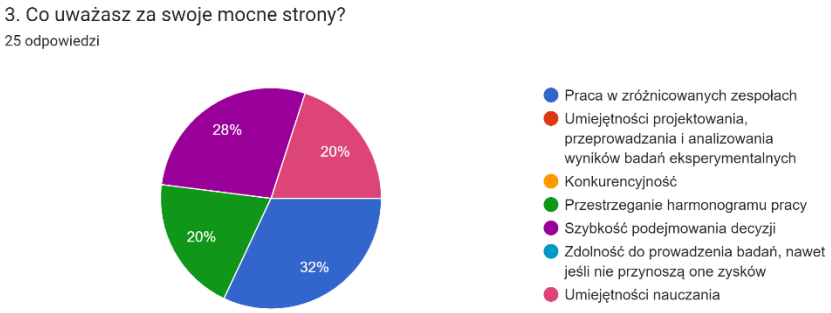
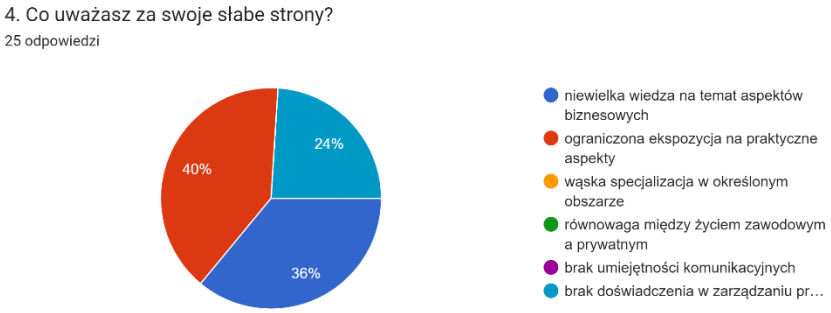
Q3

In the question regarding the respondents' strengths, there were only four answers selected. The most voted one was work in divers' teams (32%), next was making decision speed (28%), and then there were following a work schedule and teaching skills with 20% rates each.




Q4

In the question "What do you consider to be your weaknesses?", 40% of the respondents selected limited exposure to the practical aspects as well as little knowledge about business-related aspects (36%). The remaining responses (24%) covered lack of experience in research project management.

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Q5

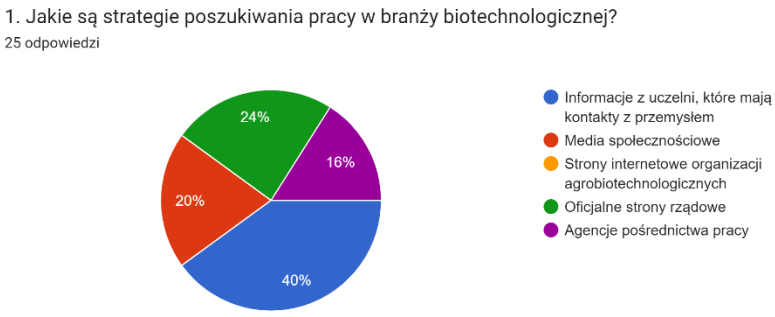
“Which of the following courses do you think would help you improve your knowledge related to the biotechnological industrial environment?” – that was the last question of the section. the responses were following: agro-biotech product development (36%), commercialization of agro-biotech products (20%), regulatory rules in agro-biotech domain (20%), innovation and technological transfer in agro-biotech (16%), and agro-biotech market dynamics (8%).


## Section 3

The data collected in this section includes networking and job search strategies.

Q1

The strategies used to look for a job in the biotechnology industry were rated in such order: information from university that have contacts with industry (40%), official governmental sites (24%), social media (20%), and recruitment agencies (16%).

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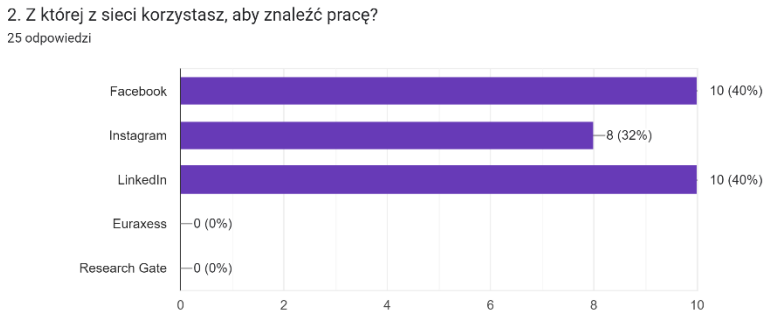
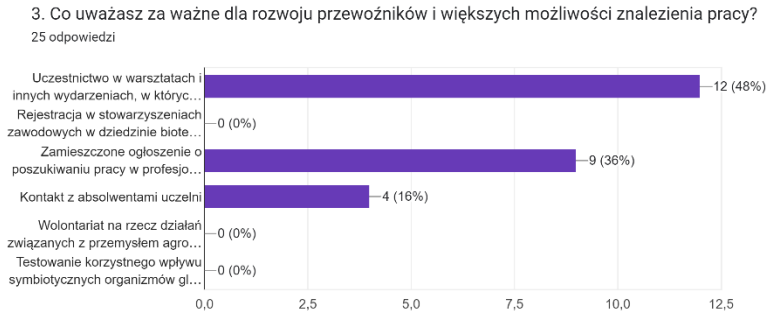
Q2

Regarding the networks used to find a job, only three were selected. On the first place, ex aequo, Facebook (10) and LinkedIn (10) were set and the third one was Facebook (8).




Q3

Responses to the question concerning important things to do for carrier developments and more opportunities to find a job considered attending workshops and other events where professionals from biotechnology industry come (48%), posts a job search ad on a professional network and wait to be contacted by somebody from industry (36%), and contact alumni of your university (16%).

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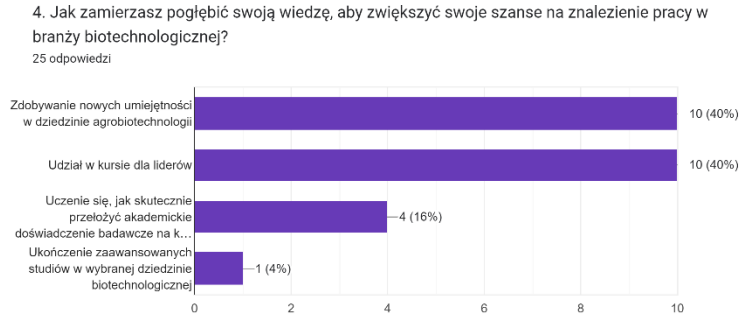
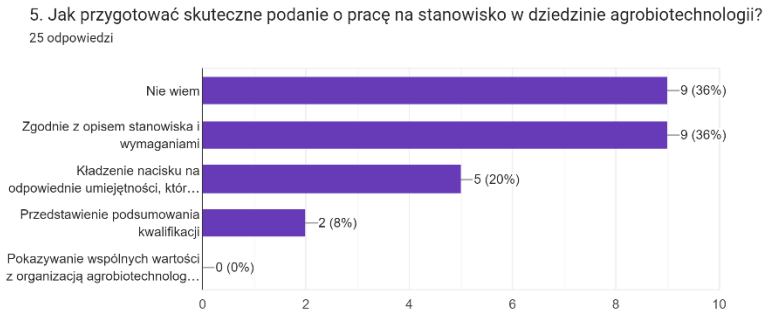
Q4

Plans to improve knowledge in order to increase the chances of finding a job in biotechnology covered four different backgrounds and they included: acquiring new skills in the field of agro-biotech (40%) and attending a leadership course (40%), learning how to translate in efficient way the academic research experience in specific skills for agro-biotech industry (16%), and graduation of advanced studies in the targeted biotechnological field (4%).




Q5

Next question concerned preparing an effective job application for a position in agro-biotech domain. Most of the respondents stated that they either don't know (36%) or that they would prepare according to the job description and requirements (36%). The rest of them selected providing a summary of qualifications (20%) and showing the common values with the agro-biotech organization (8%).

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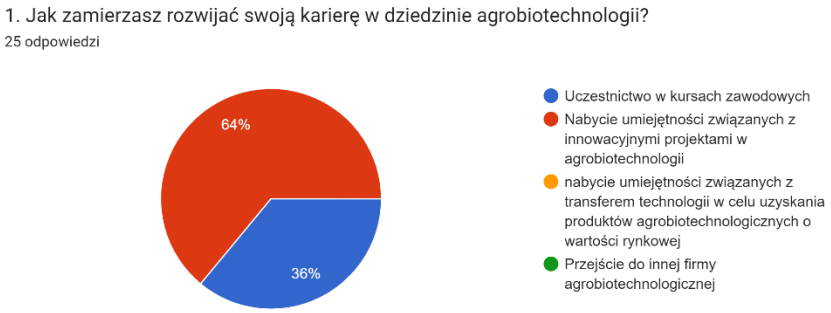
## Section 4

The data collected in this section includes professional development and training.

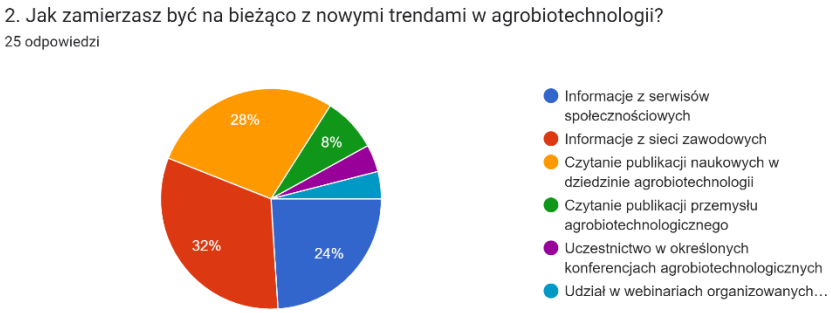
Q1

The plans to develop a career in agro-biotechnology covered acquiring skills related to innovative projects in agro-biotech (64%) and attending professional courses (36%).




Q2

Another question concerned plans to be updated regarding the new trends in agro-biotechnology. The replies were rather varied with one third of the votes going to information from professional networks (32%), then over half of the respondents selected reading scientific publications in agro-biotech domain (28%) and information from social networks (24%). The rest of the votes went to reading publications of agro-biotech industry (8%), taking part in webinars organized by agro-biotech industry (4%), and attending specific agro-biotech conferences (4%).

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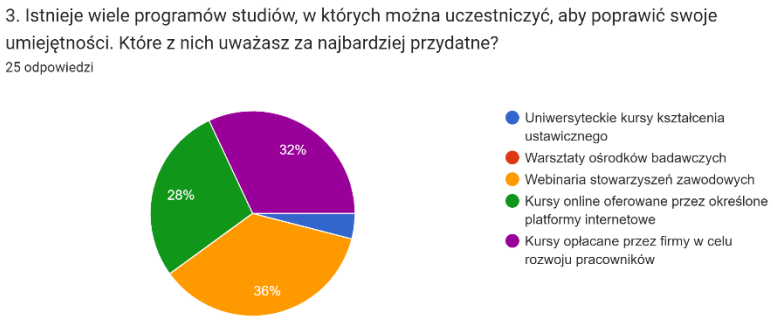
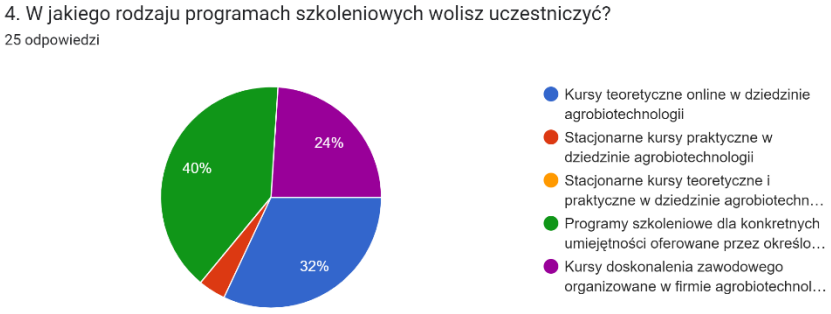
Q3

Question three concerned the most useful studying programs to attend to improve one's skills. Ranked as the first place was professional associations webinars (36%), then courses paid by companies for development of their employees (32%), and next online courses offered by specific platforms websites (28%). Remaining 4% covered university continuing education courses.




Q4

The most preferred training courses to attend were selected as skill-specific training programs offered by specific agro-biotech platforms (40%), online theoretical courses in agro-biotech domain (32%), professional development courses organized within the agro-biotech company (24%), and face to face practical courses in agro-biotech domain (4%).

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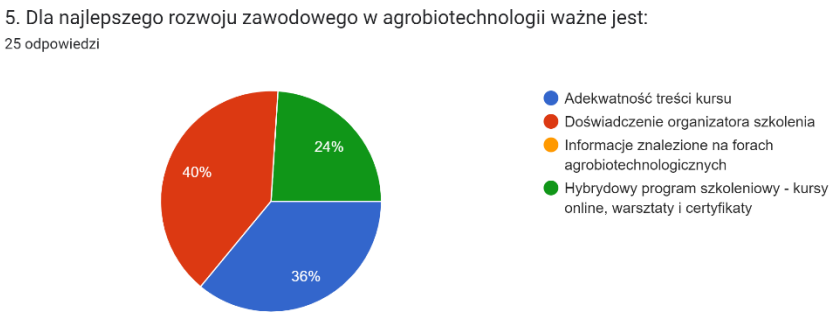
Q5

According to respondents' votes, for the best professional development in agro-biotech the most important factors are the expertise of the training provider (40%), the relevance of the course content, and hybrid training program – online courses (36%), workshops and certifications (24%).

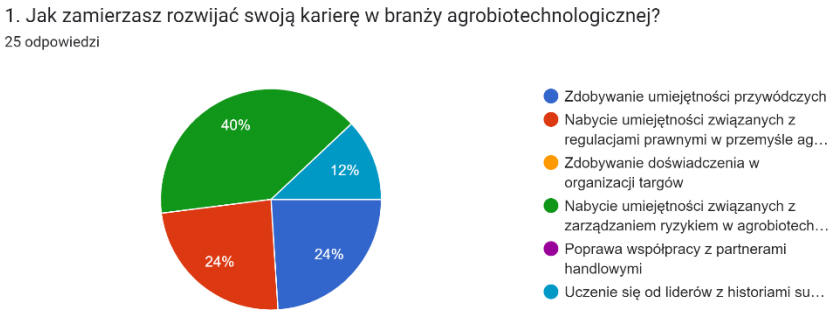



## Section 5

The data collected in this section includes career advancement.

Q1

In case of advancing the career in agro-biotechnology almost half of the respondents selected acquiring leadership skills (24%) and acquiring skills related to regulatory affairs in agro-biotechnological industry (24%). 40% chose acquiring skills related to management of risks in agro-biotech and the remaining 12% chose learning from leaders with success stories.

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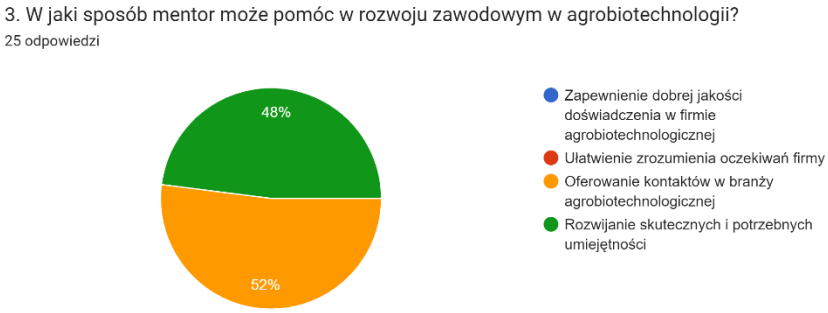
Q2

Another question considered the mentor-mentee relationship and if it can be an efficient way for career advancement in agro-biotech. Almost all of the respondents stated that they have no idea as they never experienced it with only one person saying “Yes, if the communication is continuous”.


Q3

Question three in this section focused on ways for a mentor to help a person in their professional development in agro-biotech and the votes were divided in almost a half. 13 people said it’s offering contacts in agro-biotech industry and 12 responses for advancing how to develop efficient the needed skills.

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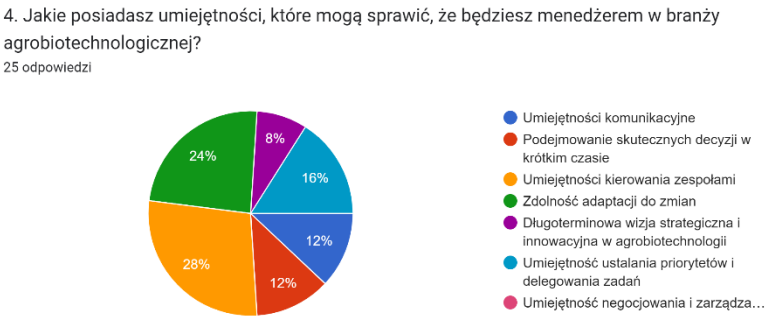
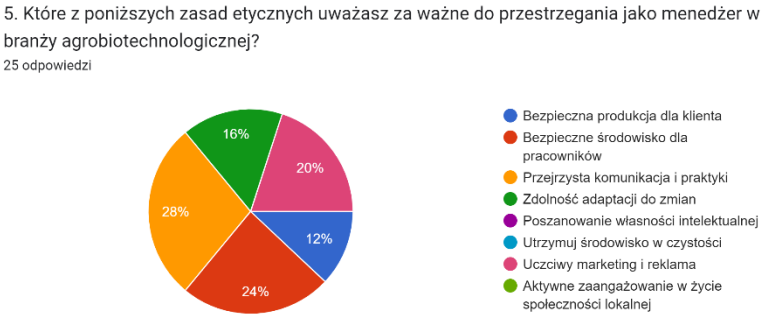
Q4

Regarding the respondents' skills that can make them manager in agro-biotech industry, the rates were given as following: teams guiding skills (28%), adaptability to face changes (24%), the ability to prioritize and delegate tasks (16%), making efficient decisions in short time (12%), communication skills (12%), and long-term strategic and innovative vision in agro-biotech (8%).




Q5

The following ethical principles are consider important to respect as a manager in the agro-biotech industry, according to our respondents: transparent communication and practices (28%), safe environment for the employees (24%), truthful marketing and advertising (20%), adaptability to face changes (16%), safe production for the customer (12%).

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# Analysis and Discussion

## Conclusion

Summarise 5 main takeaways from the analysis in 5 items.

- Most of the respondents were representing academic background, being either connected to teaching and research or bachelor/master/doctoral student;
- Almost all of the respondents (92%) have less than 10 years of experience in biotechnology;
- The most commonly used social media to find employment among all respondents are: Facebook, LinkedIn, and Instagram.
- Things to do for carrier developments and more opportunities to find a job considered most important by the questionnaire participants were: attending workshops and other events where professionals from biotechnology industry come (48%), posts a job search ad on a professional network and wait to be contacted by somebody from industry (36%
- As for participants' plans to develop their career in agro-biotechnology, there were only two answers selected: acquiring skills related to innovative projects in agro-biotech (64%) and attending professional courses (36%).

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