



Smooth Transition from Academia to a Career in AgroBiotechnology:

Designing Carrier Plan

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SURVEY REPORT

Reported by University of Life Sciences “King Mihai I” from Timisoara



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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

06.06.2024

Author(s):

Names and surnames; position

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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 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.



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.

Methodology

Evaluation Methods

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

Sample

28 responders participated in the survey applied in Romania. 6 of them were academicians, 4 were sector representatives, 18 students at bachelor, master and PhD level.

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 was made through content analysis.

Results and Discussion

Module 1 – -Introduction to Agro-Biotechnology Careers

1. Sectorul în care îți desfășori activitatea:

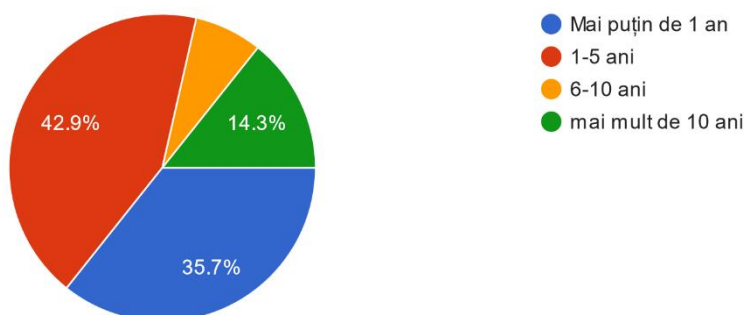
28 responses



The responders participated in the survey applied in Timisoara, Romania, were academicians (6), students (18) and agro-biotechnology sector representatives (4).

2. Experiența ta în domeniul agro-biotehnic

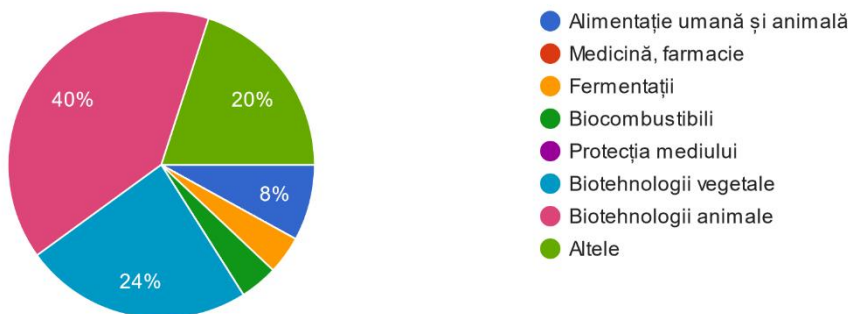
28 responses



The most of participants had experience in the field between 1-5 years (12), followed by those with experience less than 1 year (10), experience more than 10 years (4) and between 6-10 years (2).

3. Care este principalul domeniu agro-biotehlogic în care tu lucrezi?

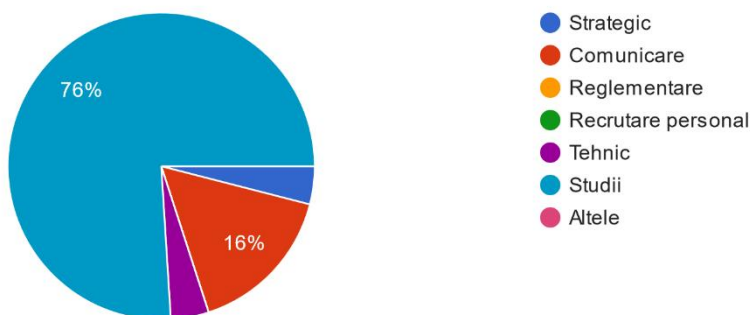
25 responses



25 participants responded to this question. Most of them had activity in the animal biotechnology sector (10), followed by the those in plant biotechnology (6), other agro-biotechnology sectors (5), food and feed sector (2), biofuels (1) and fermentations (1).

5. Care este rolul tău în organizația în care lucrezi?

25 responses



25 answers to this question. Considering that the most of the participants were students, naturally the most responses at the question were "Study" (19), followed by "Communication" (4), "Strategy" (1) and "Technical" (1).

Module 2 – -Self-Assessment and Goal Setting

1. Ce abilități profesionale ai obținut în domeniul academic și pot fi utile în mediul industrial?

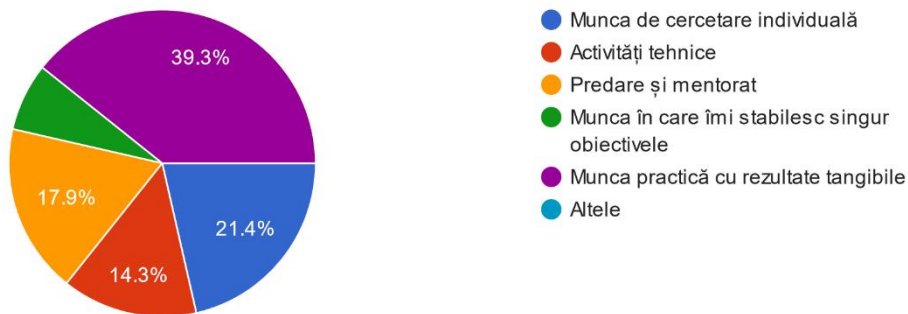
28 responses



The most marked skill obtained in the university useful in industry was research of scientific literature (12), followed by microbiological procedures (7), biofuels technologies (4), extraction and separation of biocompounds (3), biocompound analysis (1) and molecular genetics procedures (1).

2. Ce tip de munca preferi?

28 responses



The most of the participants preferred practical work with tangible results (11), followed by individual research work (6), teaching and mentoring (5), technical work (4) work where each one figures out his/her own objectives (2).

3. Care consideri ca sunt punctele tale tari?

28 responses



Work in divers' teams was stated as strength (12). Other strengths were skills to design, conduct and analyse the experimental results of a research (7), making decision speed (3), teaching skills (2), following a work schedule (2), competitiveness (1) and the ability to do research even if it does not bring profit (1).

4. Care consideri ca sunt punctele tale slabe?

28 responses



Little knowledge about business-related aspects was considered by most of the responders as weakness (8). Other weaknesses were work-life balance (7), lack of communication skills (4), lack of experience in research project management (4), narrow specialization in a specific area (2), limited exposure to the practical aspects (2), others (1).

5. Care din următoarele cursuri considerați că te-ar ajuta să-ți îmbunătățești cunoștințele tale legate de mediul industrial biotehologic?

27 responses

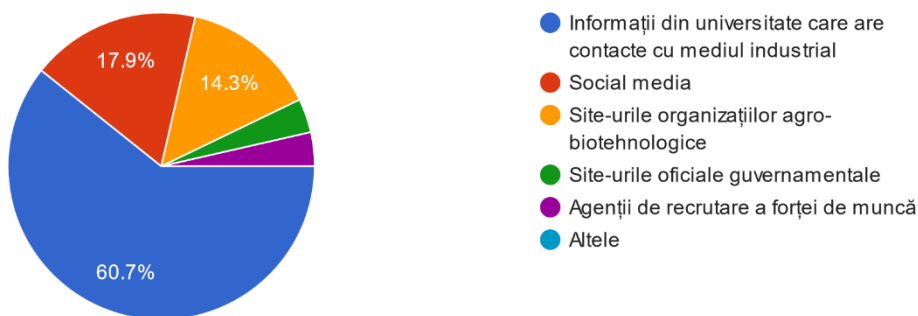


Most of the participants considered that the agro-biotechnological product development course would be useful (10). The courses on the dynamics of the agro-biotechnological market and innovation and technological transfer were considered important by an equal number of respondents (5). The course on regulatory rules in the agro-biotechnological field was considered important by 4 respondents, followed by the course on marketing agro-biotechnological products (3).

Module 3 – -Networking and Job Search Strategies

1. Care sunt strategiile folosite pentru ați căuta un loc de muncă în industria biotehologică?

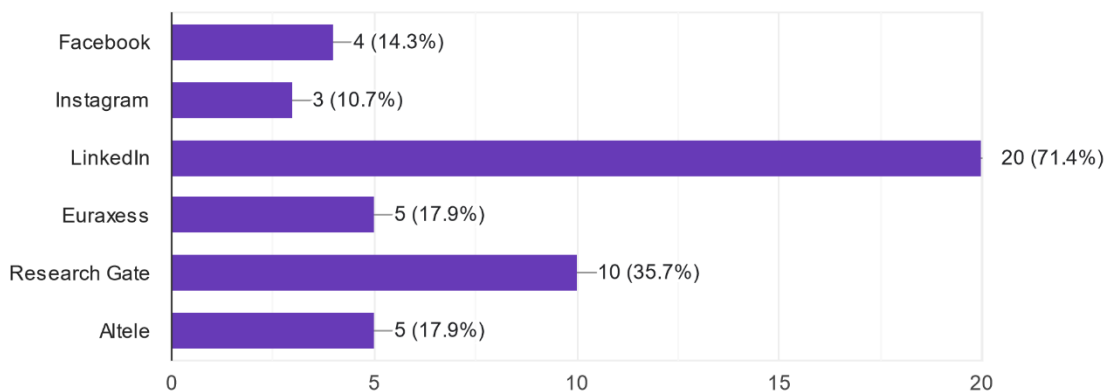
28 responses



The most of participants considered that the information from university that have contacts with industry was the most important way for finding a job (17), followed by social media (5), agro-biotech organizations websites (4), official governmental sites (1) and recruitment agencies 1).

2. Ce rețele profesionale folosiți pentru a vă căuta un loc de muncă?

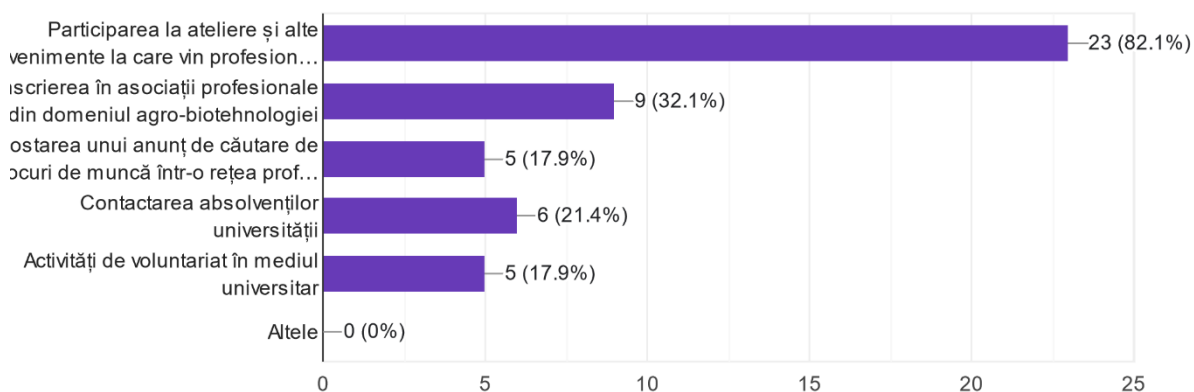
28 responses



LinkedIn is considered the most important network to find a job by 20 participants, followed by Research Gate (10), Euraxess (5), Facebook (4) and Instagram (3).

3. Ce considerați important pentru a vă dezvolta cariera și a avea mai multe oportunități de a vă găsi un loc de muncă?

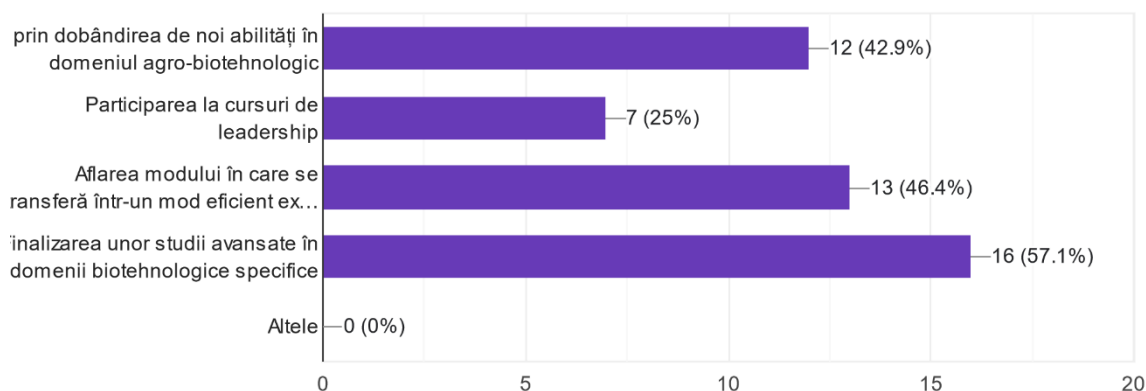
28 responses



Attending workshops and other events where professionals from biotechnology industry come was considered important by most of the participants in order to develop the carrier (23). Registration to professional associations in the field of biotechnology was important for 9 responders, followed by the respondents that considered that the alumni of university would be the good decision in finding a job and develop a carrier (6).

4. Cum crezi ca ar trebui să-ți îmbunătățești cunoștințele pentru a-ți crește șansele de a găsi un loc de muncă în domeniul agro-biotehologic?

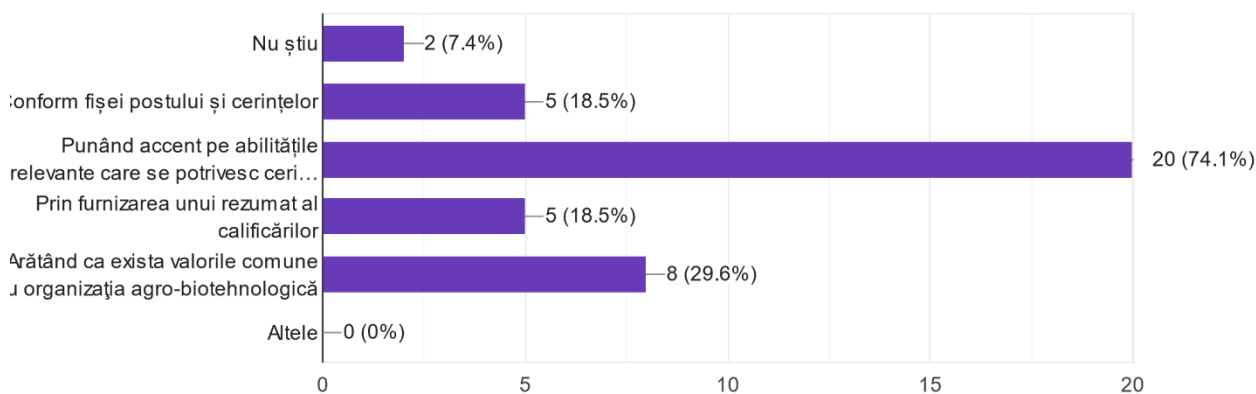
28 responses



The most participants considered that graduation of advanced studies in the targeted biotechnological field could be a good plan to improve their knowledge for a better job in agrobiotech sector (16), followed by learning how to translate in efficient way the academic research experience in specific skills for agro-biotech industry (13), acquiring new skills in the field of agro-biotech (12) and attending leadership course (7).

5. Cum se întocmește o aplicație eficientă pentru un loc de muncă în domeniul agro-biotehologic?

27 responses

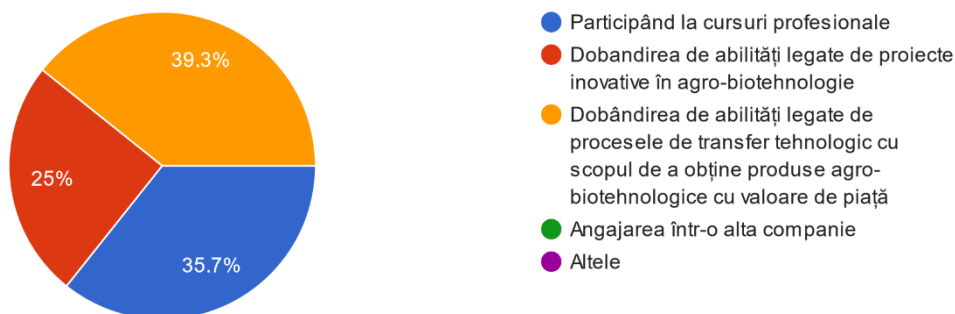


Emphasizing on the relevant skills that fit the job requirements was considered the most effective job application by 20 of participants, while 8 of them considered more effective to show the common values with the agro-biotech organization. 18.5% of responders considered important to prepare the job application according to the job description and requirements, providing a summary of qualifications (5). 2 responders pointed that they did not know how to prepare an effective job application.

Module 4 – -Professional Development and Training

1. Cum dorești să-ți dezvolti cariera în agro-biotehnologie?

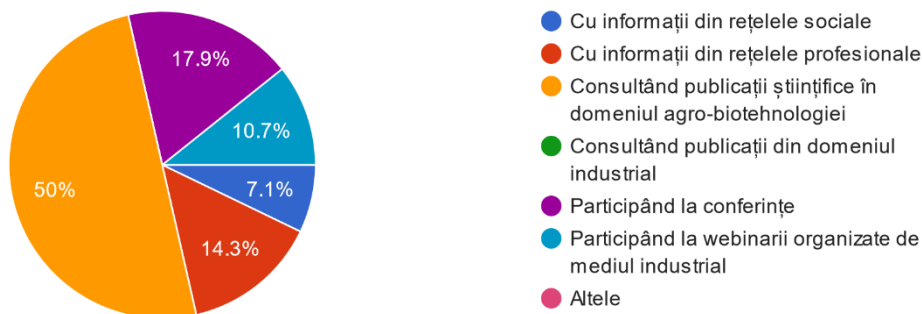
28 responses



Most of the participants (11) considered acquiring skills related to technological transfer in order to obtain market value agro-biotech products a good plan to develop your career in agro-biotechnology. Attending professional courses was preferred by 10 of respondents and acquiring skills related to innovative projects in agro-biotech by 7 of them.

2. Cum plănuieți să vă mențineți la curent cu noile tendințe în agro-biotehnologie?

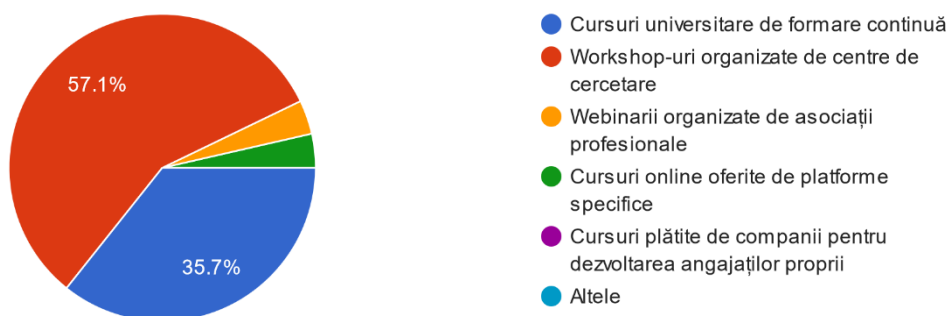
28 responses



50% of participants (14) considered that reading scientific publications in agro-biotech domain as the best way to be updated regarding the new trends in agro-biotechnology. Attending specific agro-biotech conferences was chosen by 5 respondents, followed by those consider effective information from professional networks (4) and taking part in webinars organized by agro-biotech industry (3).

3. Există multe programe de studiu pe care le puteți urma pentru a vă îmbunătăți abilitățile. Care crezi că sunt cele mai utile?

28 responses



The research centres workshops were pointed by 57% of responses (16) as the useful study program to improve skills, followed by university continuing education courses (10). Other programs considered useful were professional associations webinars (1) and online courses offered by specific platforms websites (1).

4. La ce tipuri de programe de training preferi sa participi?

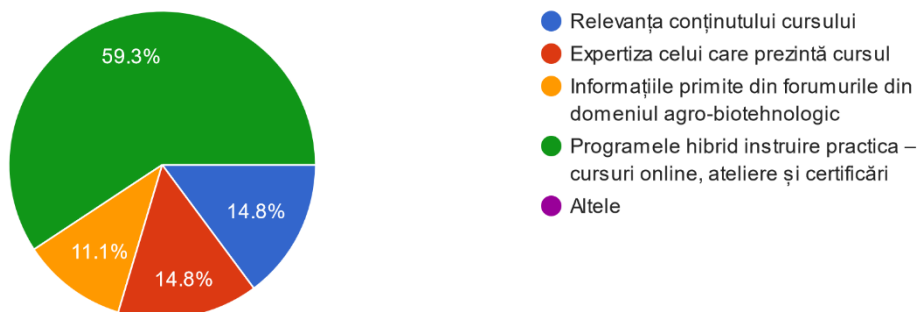
28 responses



Face to face practical courses in agro-biotech domain was pointed by 17 participants as preferred training programs. Face to face theoretical and practical courses in agro-biotech domain were preferred by 6 respondents, skill-specific training programs offered by specific agro-biotech platforms and professional development courses organized within the agro-biotech company preferred by 2 participants each.

5. Pentru cea mai buna dezvoltare profesională este importantă:

27 responses



For the best professional development in agro-biotech important were considered hybrid training program – online courses, workshops and certifications by 16 participants, followed by the relevance of the course content and the expertise of the training provider (4 participants each). 3 participants chose information found on agro-biotechnology forums as important for a professional development.

Module 5 – -Career Advancement

1. Cum plănuți să avansați în carieră?

27 responses



For advancement in agro-biotech carrier acquiring skills related to regulatory affairs in agro-biotechnological industry is stated by 8 respondents, acquiring leadership skills and skills related to management of risks in agro-biotech were pointed by 6 people each, learning from leaders with success stories by 3 participants.

2. Considerați relația mentor-mentorat ca fiind eficientă pentru dezvoltarea carierei în agro-biotehnologie?

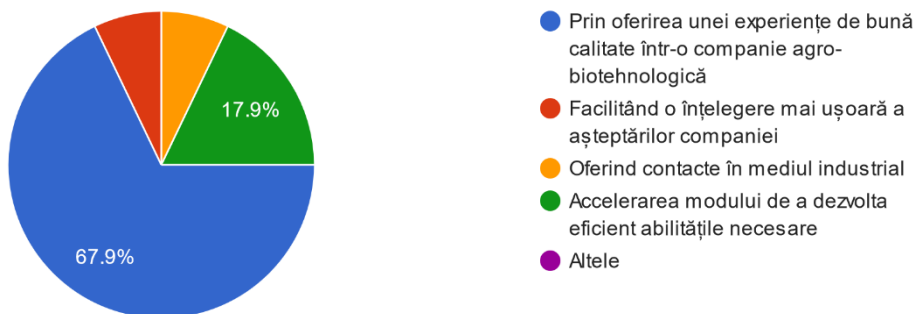
28 responses



27 participants consider the mentor-mentee relationship as effective if the communication is continuous and is based on mutual respect (27). One respondent answered that did not know, he/she had never experienced.

3. Cum vă poate ajuta un mentor în dezvoltarea profesională în domeniul agro-biotehnologiei?

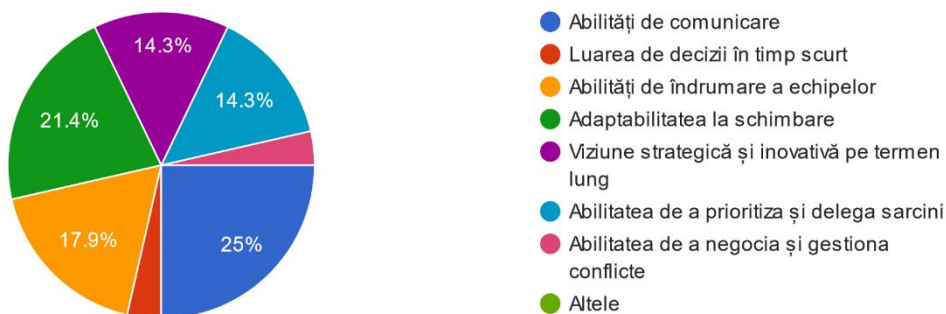
28 responses



19 participants considered that a mentor could help in professional development giving a good quality experience in an agro-biotech company, while 5 participants considered important advancing efficient development of the needed skills.

4. Ce abilități ai care te recomandă ca manager al unei companii din industria agro-biotehologică?

28 responses



The most respondents pointed that they have communication skills (7), after that adaptability to face changes (6), teams guiding skills (5), long-term strategic and innovative vision in agro-biotech (4), the ability to prioritize and delegate tasks (4), making efficient decisions in short time (1) and the ability to negotiate and manage conflicts (1). All these skills are required by a management position in agro-biotech sector.

5. Pe care dintre următoarele principii etice considerați că este important să le respectați în calitate de manager în industria agro-biotehnologica?

27 responses



The ethical principles considered important to be respected as manager in the agro-biotech industry were transparent communication and practices (8 participants), safe environment for the employees (7 participants), adaptability to face changes (4 participants), respect of the intellectual property (4 participants), keeping a clean environment (3 participants), positive involvement in the social life of the community (1).

Conclusion

The most respondents were from academia, students with 1-5 years of experience in the agro-biotech sector, with activity in the field of animal and plant biotechnologies.

The main professional skills of the survey participants were research/documentation in scientific literature and microbiological analysis methods, practical work with tangible results being preferred.

When looking for a job, most participants rely on information from the university that has contacts with the industrial environment and the LinkedIn network. Graduation of advanced studies in the targeted biotechnological field and attending workshops and other events where professionals from biotechnology industry come are the most effective for knowledge improvement and finding a job in biotechnology.

Career development in agro-biotechnology can be done most efficiently by acquiring skills related to technology transfer processes with the aim of obtaining products with market value and participating

in professional courses, consulting scientific publications in the agro-biotechnology field, participating in workshops and practical courses in physical format.

The most effective career advancement paths are the acquisition of communication skills, skills related to regulatory affairs in agro-biotechnological industry, mentor – mentee relationship based on communication and mutual respect, ethical principles related to transparent practices and safe environment for employees.