



Co-funded by
the European Union



Future Networks Academy Survey Analysis Report

Introduction

This report presents a consolidated analysis of the survey, initiated by the FNA Consortium, as a part of a collaborative and in-depth effort to precisely understand their expectations and training needs in the field of future networks, focusing on the demographic evaluation of respondents, their satisfaction levels with the survey, their preferences for the content, format and assessment formats of learning modules, and other relevant insights.

The survey was distributed in an electronic format for maximum accessibility and ease of use, focused on the four main training areas envisioned by the FNA. The aim was to gather detailed and specific information that will guide the development of targeted training programs, addressing the real and emerging needs of professionals, students, researchers, and policymakers/decision-makers in this rapidly evolving sector.

The Consortium adopted a broad-scale dissemination strategy to maximize reach and engagement. The survey was shared across multiple platforms and through various channels to reach a diverse and extensive audience. Initially, the survey was published on the FNA official website and LinkedIn profile, and was additionally circulated through the LinkedIn profiles of Consortium members, thus leveraging their extensive professional networks. Furthermore, the survey was distributed via email through wide-ranging networks, including academic mailing lists and Newsletters, and professional groups in the field of network technologies. This mixed approach aimed to reach not only experts and professionals in the field but also a broader audience that might have valuable insights to contribute.

The survey attracted a wide participation, encompassing a diverse demographic spectrum and offering a comprehensive insight into the perceptions and expectations surrounding 5G technology. Below, we present the key figures and data from the respondents:

The total number of responses: 130

The percentage ratios between different categories of respondents:

- 40% - industry professionals
- 30% - students
- 20% - researchers and educators
- 10% - policymakers/decision-makers/managers

The geographical distribution of the participants:

- France : 26.87%
- USA : 16.42%
- Malaysia : 10.45%
- Finland : 7.46%
- Canada : 7.46%
- Ireland : 7.46%
- Kosovo : 4.48%
- Japan : 4.48%
- India : 1.49%
- UK : 1.49%
- Senegal : 1.49%
- Not specified : 10.45%

It is important to note that a number of respondents preferred not to disclose their gender and geographical location, which makes the final data received slightly less comprehensive. It's also essential to acknowledge that some responses may not comprehensively represent the opinions or needs of all members within each target group. This report provides an initial overview based on available data, offering insights while recognizing the limitations inherent in the response set.

Demographic Analysis

The demographic analysis of respondents reveals diversity in professional affiliations, indicating broad and varied interest in industrial 5G technology:

Gender Distribution: the analysis shows a rather balanced distribution between genders with 60% to 40% ratio between males and females. This gender equity in participation illustrates the inclusiveness of the surveys and ensures that the perspectives and opinions gathered reflect a diversity of viewpoints.

Professional Affiliations: Industry professionals and students constitute the majority groups (40% and 30% respectively), reflecting the importance of 5G technology in both the academic world and the industrial sector. Researchers and academics also show significant participation (20%), highlighting the interest in research and innovation in the 5G field.

The presence of decision-makers and managers in the responses is limited (10%), suggesting a lack of interest or awareness of the strategic implications and training needs related to 5G technology. This observation raises questions about the engagement of these key groups in preparing for the adoption of 5G and indicates the need to increase awareness and involvement of these profiles in discussions on the future of 5G technology.

This diversity of respondent profiles, while offering a rich perspective on expectations and needs related to 5G, also highlights gaps in the engagement of certain key segments, which could affect strategic adoption and implementation of this technology.

It is crucial to develop targeted strategies to further engage decision-makers and managers, to ensure that the strategic implications of 5G are fully understood and integrated into planning and development at all levels of the concerned organizations.

Sectors of Interest

A marked interest in acquiring specific 5G skills is evident in all respondents' categories, with a preference for practical training that can be directly applied in professional contexts. Manufacturing and production, focusing on how 5G can optimize manufacturing processes through real-time data analysis and automation, and energy and utilities, exploring ways to utilize future networks for enhanced energy management, waste reduction, and sustainability, emerged as one of the most appealing sectors.

Preferred Training Formats

The preferred training formats expressed by all respondents' categories include a balanced mix of in-person workshops and seminars, as well as blended learning that combines online and in-person sessions. Short-term sessions (e.g., a few hours to a day) or flexible self-paced learning, accommodating individual schedules, are mostly favored by the respondents.

Suggestions and Comments: Participants offered valuable suggestions for improving 5G training initiatives, which FNA will incorporate into its training activities. Those suggestions include learning on real case studies, focusing on cybersecurity, and adapting content to emerging industry trends.

Preferred Assessment Format

In the analysis of survey concerning learning modules on 5G technology, participants expressed specific preferences regarding the assessment format of these modules. Although the precise details of individual responses were not previously discussed explicitly, a general trend that emerges from the collected data is a marked preference for assessment methods that are adaptive and inclusive.

This trend reflects learners' desire for assessments that consider and respect the diversity of educational backgrounds and skill levels. Participants seem to favor assessment approaches that allow for personalization and flexibility, suggesting an interest in methods capable of adjusting to individual learning needs and objectives.

This desire highlights the importance of adopting assessment strategies that are not limited to standardized exams or single methods, but rather offer a variety of options to effectively measure skill and knowledge acquisition, such as practical assignments, project work, collaborative group discussions, learning-by-challenge approach.

As for the certification format, the student respondents expressed a preference for educational credits, such as ECTS credits for academic recognition, while the rest of the respondents favored an Official Certificates of Completion.

It is essential hence to develop assessment systems that:

Are adaptive: assessments should be able to adjust to the learner's skill level, offering appropriate challenges that stimulate learning without discouraging less experienced participants.

Encourage an inclusive approach: assessment methods must recognize and value the diversity of learners, incorporating various formats that allow everyone to demonstrate their understanding and mastery of the subject matter.

Facilitate constructive feedback: beyond simply measuring success, assessments should provide feedback that guides continuous improvement and deepening of knowledge.

By integrating these principles, 5G training programs can better meet the needs of a wider range of participants, promoting a learning environment that is both challenging and accessible. Implementing diverse and personalized assessment modes will play a key role in the success of 5G technology training initiatives, ensuring that all learners, regardless of their starting point, can fully benefit from the opportunities offered by these programs.

Satisfaction Evaluation

The satisfaction levels regarding the surveys indicate a generally positive trend, with a majority of participants expressing a high level of satisfaction. This favorable response suggests that the surveys were well-designed and relevant to the participants, effectively capturing their opinions and attitudes towards 5G technology and associated training.

Recommendations

To effectively bridge the knowledge gap among different categories of learners and ensure a comprehensive understanding of industrial 5G technology, the following recommendations are proposed:

Introductory Sessions: Consider creating introductory sessions specifically tailored to different audience segments. These sessions should aim to build a foundational understanding of 5G technology, covering basic concepts, potential impacts, and key benefits. Tailoring content to the audience's baseline knowledge will ensure that all participants start from a common ground, facilitating more effective learning.

Specialized Training Modules: Develop specialized training modules that delve deeply into the practical applications and benefits of 5G technology within specific sectors. Such modules should cover case studies, implementation strategies, and sector-specific challenges and solutions, addressing the precise interests and needs expressed by the respondents.

Flexible Training Schemes: To ensure wider participation from various learner categories, it is recommended that training programs offer a variety of study formats. These could include online self-paced courses, instructor-led webinars, and hands-on workshops. Providing options will cater to diverse learning preferences, time availabilities, and accessibility needs, thereby increasing engagement and effectiveness.

Feedback and Continuous Improvement: Implement a structured feedback mechanism to gather insights from participants at various stages of the training process. Use this feedback to continuously update and improve the curriculum, teaching methods, and materials. This approach will not only enhance the quality of the training programs but also ensure they remain relevant and responsive to the evolving needs of the industry.

Enhancing Representativeness: To enhance the representativeness of all categories of learners, it is crucial to proactively reach out to underrepresented groups. Strategies might include targeted outreach campaigns, partnerships with organizations serving these communities, and offering scholarships or incentives to encourage participation. Ensuring diversity among participants will enrich learning experiences and foster a more inclusive understanding of 5G's potential.

Communication of Impacts: Clearly communicate the tangible impacts and successes of completed training programs to all stakeholders, including participants, sponsoring organizations, and the wider community. Highlighting case studies, participant testimonials, and post-training achievements will not only validate the program's effectiveness but also motivate ongoing engagement and support.

By integrating these strategies, training initiatives can be significantly enhanced to meet the diverse needs and interests of learners interested in industrial 5G technology. Tailored introductory sessions and specialized modules ensure depth and breadth of learning, while flexible formats and continuous improvement mechanisms respond to participant feedback and industry developments. Proactive inclusivity and clear communication of impacts will further solidify the program's value proposition, fostering a well-informed and skilled workforce ready to leverage 5G technology across various sectors.

Conclusion

The consolidated analysis of the FNA survey highlights the diversified interest and expectations regarding industrial 5G technology and the associated training. The diversity of professional affiliations and knowledge levels among participants underscores the importance of flexible and inclusive approaches in developing 5G training programs. The results also suggest a positive reception of the surveys, indicating their effectiveness as information-gathering tools. The feedback collected should guide the development of tailored education and training strategies to prepare various sectors effectively for the adoption and optimization of 5G technology.