



HACK

Hyper-Athletic Competitors Kicking into the Metaverse

D2.1 RESEARCH & ANALYSIS REPORT

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EXECUTIVE SUMMARY

The HACK project (Hyper-Athletic Competitors Kicking into the Metaverse) aims to enhance digital skills among athletes and strengthen the capacity of sport organisations to support their development in an increasingly digitalised environment. As digital tools become central to communication, visibility, performance, and career opportunities in sport, there is a growing need to equip both individuals and organisations with relevant competencies.

This report presents the results of the research phase of the project, based on data collected through structured questionnaires addressed to athletes (65 respondents) and sport organisations (more than 58 respondents). The analysis provides a comprehensive overview of current practices, skill levels, challenges, and training needs across the sports ecosystem.

The findings reveal a high level of awareness regarding the importance of digital skills. More than 90% of athletes and over 70% of sport organisations consider digital competencies essential. At the same time, a significant gap exists between awareness and actual capacity. Nearly 80% of both athletes and organisational staff report only basic or intermediate digital skills, while advanced competencies remain limited. Digital tools are widely used, particularly social media platforms, performance tracking applications, and video analysis tools. However, their use is largely functional and not supported by structured strategies or training. This indicates that while digital engagement is present, it is not yet optimised or fully integrated into sport practices.

The research also highlights that educational activities are already embedded within sport organisations, with 86.2% reporting the use of educational methods. Nevertheless, these activities focus mainly on traditional approaches and soft skill development, with limited emphasis on digital competencies. Only 24.4% of athletes report having participated in digital skills training, confirming a clear gap in provision. Athletes express strong interest in developing specific digital skills, particularly in areas such as personal branding (47.5%), data analysis (45.8%), and content creation. At the same time, organisations identify digital skills and athlete career development as key areas for improvement, reflecting a shared recognition of current limitations.

Despite these challenges, both groups demonstrate high readiness for engagement. A majority of athletes (64.1%) and sport organisations (67.2%) are willing to participate in training programmes combining sport and digital skills. This creates a favourable environment for the implementation of targeted interventions. The findings confirm that the sports sector is undergoing a transition, characterised by high awareness, moderate competence, and strong motivation to improve. The HACK project is well-positioned to address these needs by developing practical training programmes, accessible digital tools, and capacity-building activities. By aligning its outputs with the identified needs of athletes and organisations, the project aims to enhance digital competencies, support dual career pathways, and contribute to a more innovative and resilient sports ecosystem.

1.INTRODUCTION

The HACK project, Hyper-Athletic Competitors Kicking into the Metaverse, is designed to address the growing need for digital competence development within the sports sector. As sport continues to evolve within a rapidly digitalising environment, athletes are increasingly required to combine their physical performance with a strong set of digital, communication, and professional skills.

Digital technologies have transformed the way sport is practiced, promoted, and managed. Social media platforms, performance tracking tools, and online learning environments have become integral to athletes' daily routines and career progression. At the same time, sport organisations are expected to adapt their methods and provide appropriate support structures to guide athletes in this transition.

Despite these developments, significant gaps remain. Many athletes rely on informal and self-directed use of digital tools, without structured guidance or training. Similarly, sport organisations often face limitations in terms of digital expertise, resources, and strategic planning. This results in a disconnect between the increasing importance of digital skills and the actual capacity to develop and apply them effectively.

The HACK project aims to bridge this gap by promoting the integration of digital skills into sport education and training. It focuses on enhancing athletes' employability, supporting dual career pathways, and strengthening the capacity of sport organisations to respond to emerging needs. Through the development of innovative educational tools, training programmes, and collaborative activities, the project seeks to create a more sustainable and future-oriented sport ecosystem.

The present report represents the outcome of the research phase of the project. It provides a detailed analysis of current practices, behaviours, challenges, and needs related to digital skills and education in sport. By capturing the perspectives of both athletes and sport organisations, the report offers a comprehensive overview of the current landscape and identifies key areas for intervention.

The findings presented in this report serve as a foundation for the subsequent phases of the project. They ensure that all developed outputs are grounded in real needs, aligned with the expectations of the target groups, and capable of generating meaningful and lasting impact within the sports sector.



2. RESEARCH AND DATABASE

The research phase of the HACK project constitutes a core component for the overall design, development, and implementation of its activities. It was developed with the objective of providing a clear, structured, and evidence-based understanding of the current situation within the sports sector, particularly in relation to digital skills, educational practices, and the support mechanisms available to athletes.

In an increasingly digitalised environment, the role of athletes is evolving beyond physical performance. Athletes are now expected to engage actively with digital platforms, manage their personal image, communicate with diverse audiences, and prepare for career transitions both within and beyond sport. At the same time, sport organisations are required to adapt to these changes by integrating digital tools and educational approaches into their practices. However, the extent to which these expectations are currently met varies significantly, often resulting in fragmented approaches and uneven levels of preparedness across the sector.

In response to this context, the research phase was designed to systematically assess existing conditions, identify key trends, and highlight critical gaps that need to be addressed. The aim was not only to map the current landscape, but also to provide a solid analytical foundation for the development of relevant and impactful project outputs.

Data collection was carried out through structured questionnaires targeting two primary groups:

- Athletes, representing the end-users of the project's educational tools and the main beneficiaries of digital skills development
- Sport organisations, including clubs, NGOs, federations, and educational institutions responsible for training, education, and athlete support

This dual approach ensured a comprehensive perspective, capturing both individual experiences and organisational capacities within the sports ecosystem. It allowed for a direct comparison between the needs of athletes and the ability of organisations to respond to those needs.

The main objectives of this research phase were to:

- Identify current practices and behaviours related to the use of digital tools and educational methods in sport
- Assess the level of digital skills and competencies among athletes and organisational staff
- Understand the key challenges and barriers that hinder the effective use and development of digital skills
- Determine the specific training needs, expectations, and preferences of both target groups

Beyond the collection of descriptive data, the research also aimed to explore the relationship between awareness, behaviour, and capacity. Particular attention was given to identifying potential mismatches between athletes' expectations and the support provided by organisations, as well as to understanding how digital skills are currently integrated into sport-related activities and training processes.

The collected data was systematically analysed using both quantitative and qualitative approaches. Quantitative analysis enabled the identification of trends, distributions, and patterns across different variables, while qualitative responses provided deeper insights into experiences, perceptions, and practical challenges faced by respondents.

The results of this analysis reveal a sector that demonstrates a high level of awareness regarding the importance of digital skills, combined with a strong willingness to engage in learning and development activities. At the same time, the findings highlight significant gaps, particularly in terms of structured training opportunities, advanced digital competencies, and the strategic integration of digital tools within sport organisations.

These insights form the basis for the development of the HACK project's educational modules, digital tools, and capacity-building activities. By grounding all project outputs in real data and identified needs, the research phase ensures that the project's interventions are relevant, targeted, and capable of generating meaningful and sustainable impact within the sports sector.



3. QUESTIONNAIRE

In order to ensure a comprehensive, reliable, and evidence-based analysis, two structured questionnaires were developed and distributed to the main target groups of the HACK project:

- One questionnaire targeting athletes
- One questionnaire targeting sport organisations

The design of the questionnaires followed a carefully structured and thematic approach, aiming to capture a holistic picture of the current situation in the sports sector with regard to digital skills, education, and professional development. Particular attention was given to ensuring clarity, accessibility, and relevance of the questions, allowing respondents from different backgrounds and levels of experience to provide meaningful and accurate input. The questionnaires were designed not only to collect factual data, but also to explore perceptions, behaviours, and expectations. This approach enabled a deeper understanding of how digital skills are currently perceived and applied in sport, as well as how they are expected to evolve in the future.

A mixed-method approach was applied, combining:

- Multiple-choice questions for quantitative analysis
- Likert-scale questions to assess attitudes and perceptions
- Selected open-ended questions to capture qualitative insights and practical experiences

This combination ensured a balanced dataset, supporting both statistical interpretation and contextual understanding of the findings.

The questionnaires explored four main thematic areas:

Digital awareness and knowledge

This section assessed the level of understanding regarding the importance of digital skills within the sports environment. It examined how athletes and organisations perceive digital competencies in relation to career development, communication, visibility, and performance. The findings provide insight into the extent to which digital skills are recognised as a key component of modern sport.

Use of digital tools and educational methods

Participants were asked to identify the tools and methods currently used in training, communication, and learning processes. This included both traditional educational approaches, such as workshops and mentoring, and digital technologies, such as social media platforms, video analysis tools, and online learning systems. This section provided a clear overview of current practices and the level of digital integration.

Challenges and barriers

This section focused on identifying the main obstacles faced by athletes and organisations in developing and applying digital skills. Key issues included lack of time due to training commitments, limited access to structured training opportunities, insufficient knowledge, and organisational constraints related to resources and expertise. These findings highlight the structural and practical limitations within the sector.

Training needs and expectations

Participants were invited to express their needs in terms of future training, preferred learning formats, and priority areas for development. This section plays a crucial role in shaping the HACK project's educational tools and activities, ensuring they are relevant, practical, and aligned with the real needs of the target groups.

The data collection process resulted in a strong level of participation across both groups. More than 58 responses were collected from sport organisations, alongside a substantial number of responses from athletes, covering a wide range of countries, age groups, levels of participation, and sports disciplines. This diversity ensures that the dataset provides a representative and reliable overview of the current situation within the sports ecosystem. The collected data was systematically analysed using both quantitative and qualitative methods. Statistical analysis enabled the identification of key trends, patterns, and distributions, while qualitative responses provided additional depth by highlighting specific challenges, needs, and practical experiences.

Overall, the research process ensured a high level of validity and relevance of the findings. The insights generated form the foundation for the following sections of the report and directly inform the development of the HACK project's educational methodologies, tools, and capacity-building activities.



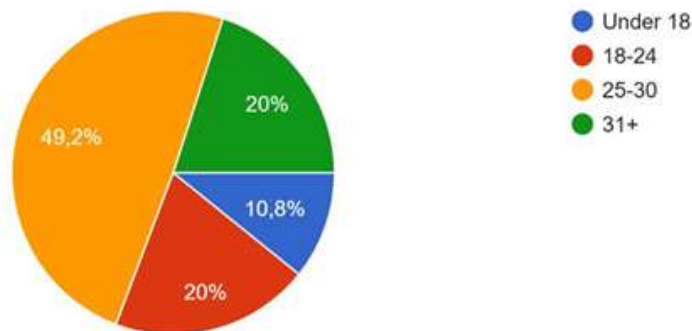
4.ANSWERS ANALYSIS

4.1 Athletes Questionnaire Analysis

Demographic Profile and Background

The athlete sample shows a balanced and diverse representation across partner countries. The majority of respondents come from Serbia (55.4%), followed by Germany (24.6%) and Greece (18.5%).

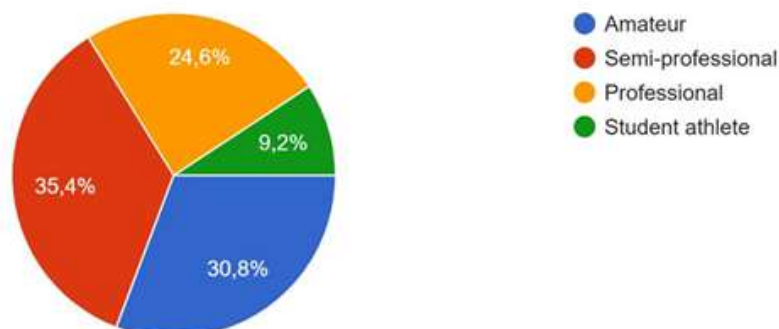
In terms of age, the largest group of participants falls within the 25–30 age category (49.2%), followed by younger and older age groups, indicating that the dataset is primarily composed of athletes in a critical phase of career development.



Gender distribution is balanced, with 50.8% male and 44.6% female respondents, ensuring inclusiveness of perspectives.

A significant majority of athletes (76.6%) are involved in team sports, while 23.4% practice individual sports. Regarding level of participation, respondents are mainly semi-professional (35.4%) and amateur (30.8%), followed by professional athletes (24.6%).

Most athletes have substantial experience, with over 70% reporting more than 6 years of involvement in sport. This confirms that the sample reflects experienced individuals with established engagement in athletic environments.



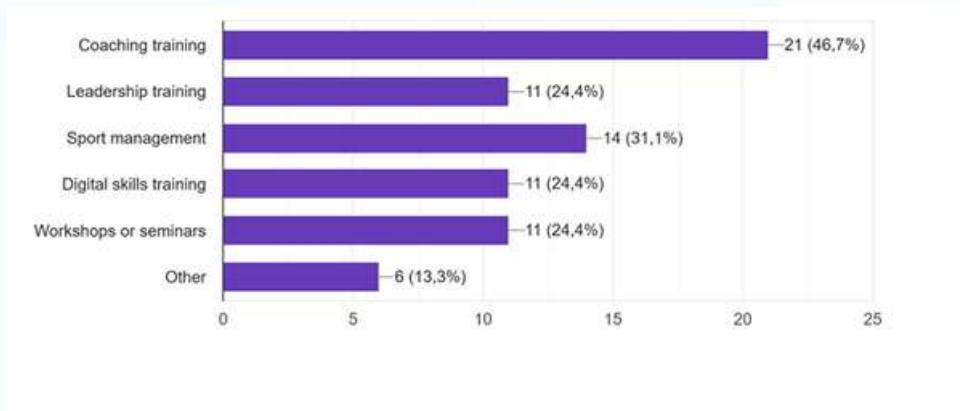
Participation in Training and Educational Activities

A majority of athletes (66.2%) report having participated in training or educational programmes, while 33.8% have not.

Among those who participated, the most common types of training include:

- Coaching courses (46.7%)
- Sport management training (31.1%)
- Leadership and digital skills training (24.4%)

These results show that while athletes are engaged in education, participation in digital skills training remains relatively limited compared to sport-specific training.



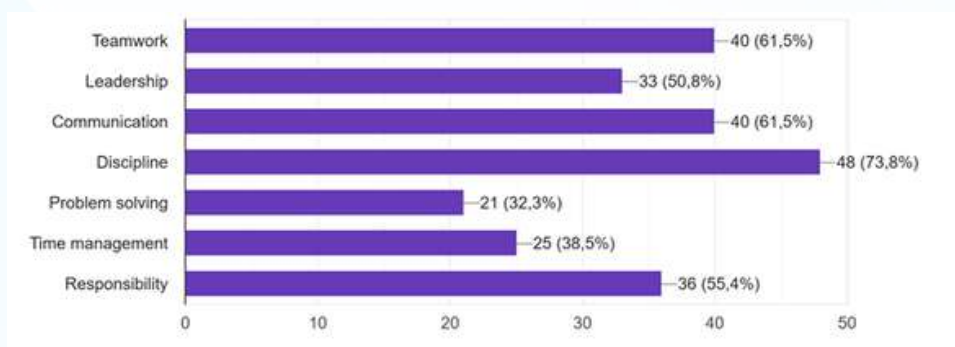
Skills Development Through Sport

Athletes strongly recognise the value of sport in developing key competencies. Over 79% of respondents agree or strongly agree that sport contributes to their personal and professional development.

The most frequently identified skills include:

- Discipline (73.8%)
- Teamwork and communication (61.5%)
- Responsibility (55.4%)
- Leadership (50.8%)

These findings confirm that sport plays a significant role in soft skill development. However, digital competencies are not among the most developed skills, indicating a clear gap in current training practices.

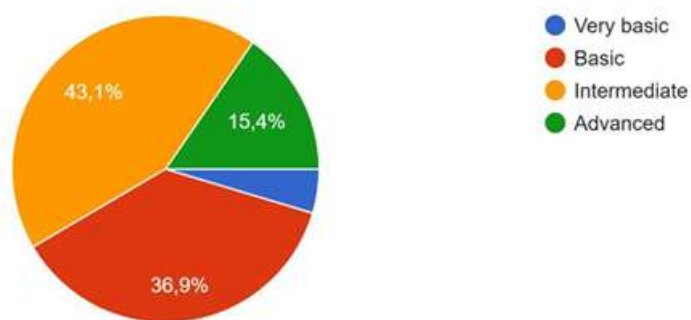


Digital Skills and Use of Digital Tools

Athletes' digital skill levels are primarily moderate:

- Intermediate level: 43.1%
- Basic level: 36.9%
- Advanced level: 15.4%

This indicates that nearly 80% of athletes operate at a basic or intermediate level, with limited advanced expertise.



In terms of tools used, athletes report high engagement with digital platforms:

- Social media platforms: 56.3%
- Performance tracking apps: 42.2%
- Video analysis tools: 37.5%

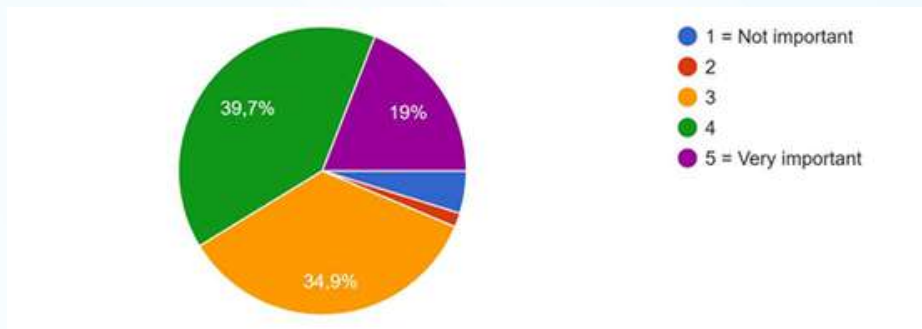
However, the use of more advanced tools remains limited, suggesting that digital engagement is largely functional rather than strategic.

Perception of Digital Skills Importance

Digital skills are widely recognised as important:

- Very important or important: over 90% of respondents
- Moderately important: a small minority

This demonstrates strong awareness among athletes regarding the role of digital competencies in career development, communication, and visibility.

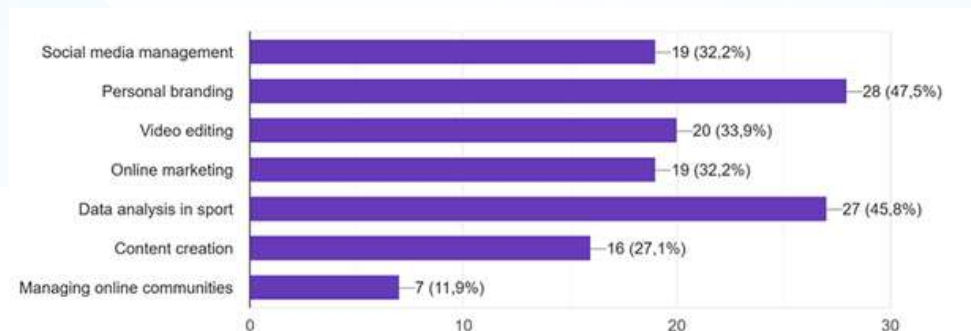


Training Needs and Expectations

Athletes express clear priorities in terms of skill development:

- Personal branding: 47.5%
- Data analysis in sport: 45.8%
- Video editing: 33.9%
- Social media management and marketing: 32.2%

A strong majority (64.1%) indicate willingness to participate in training programmes that combine sport and digital skills, while a smaller group remains uncertain.



Preferred learning formats include:

- Sport camps: 67.2%
- Online courses: 37.7%
- Workshops and blended learning: 31.1%

These results highlight a strong preference for practical, flexible, and experience-based learning.

Career Development and Future Perspectives

While 76.9% of athletes feel prepared for careers outside sport, a notable proportion (23%) feel unprepared or uncertain.

This highlights a significant gap in career transition support and reinforces the importance of integrating digital skills into broader employability strategies.

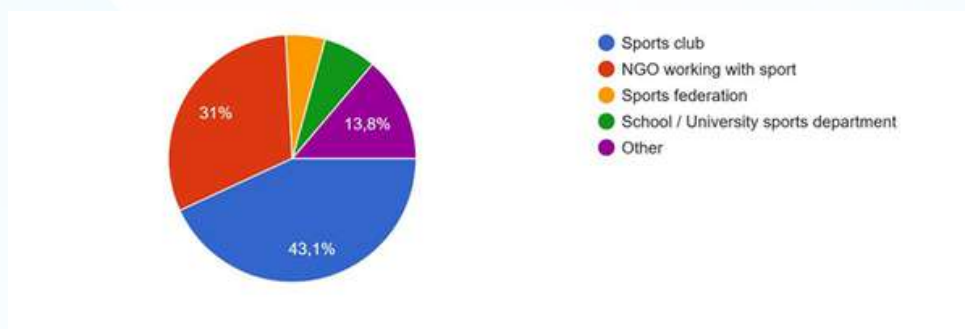
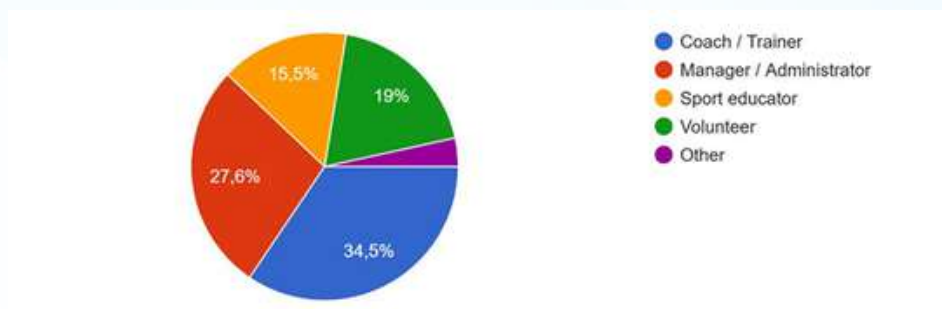
4.2 Sport Organisations Questionnaire Analysis

Profile of Organisations

The organisational sample includes more than 58 respondents, primarily from Serbia (41.8%), Greece (30.9%), and Germany (23.6%).

Most organisations are sports clubs (43.1%) and NGOs (31%), indicating a strong representation of entities directly involved in athlete development.

Respondents include coaches (34.5%), managers (27.6%), and other staff roles, ensuring a balanced perspective between operational and strategic levels.



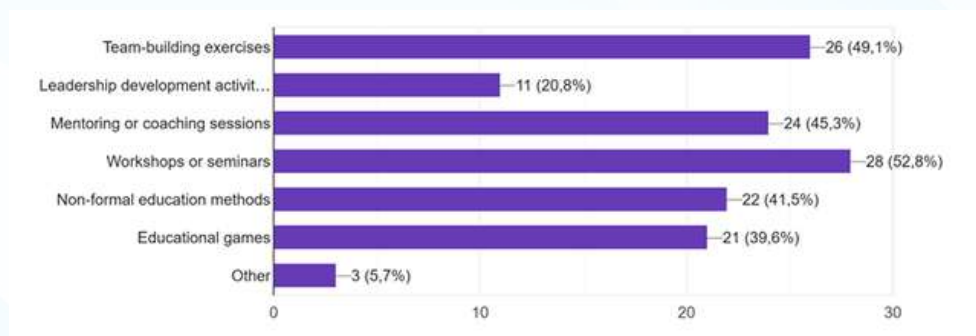
Educational Practices and Approaches

A very high percentage of organisations (86.2%) report using educational methods in their training activities.

The most commonly used approaches include:

- Workshops and seminars (52.8%)
- Team-building exercises (49.1%)
- Mentoring and coaching sessions (45.3%)
- Non-formal education methods (41.5%)

These results confirm that education is already integrated into sport, although mainly focused on traditional approaches.



Skills Development Focus

Organisations prioritise the development of transversal skills:

- Teamwork: 79.3%
- Discipline: 62.1%
- Communication: 56.9%
- Social inclusion: 41.4%

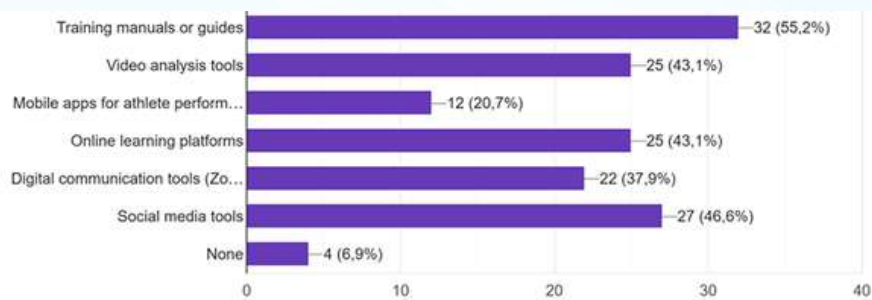
These findings closely align with athletes' responses, indicating consistency between organisational objectives and athlete experiences.

Use and Effectiveness of Tools

Organisations use a variety of tools:

- Training manuals: 55.2%
- Social media platforms: 46.6%
- Video analysis tools: 43.1%
- Online learning platforms: approximately 40%

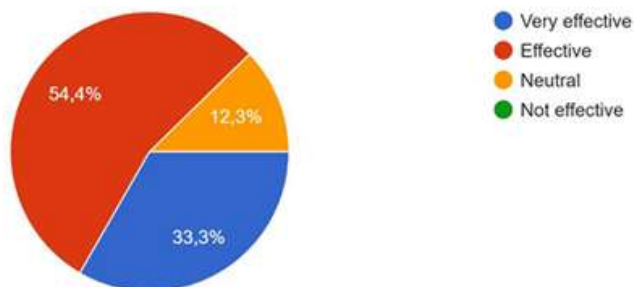




In terms of effectiveness:

- Effective: 54.4%
- Very effective: 33.3%
- Neutral: 12.3%

No respondents consider the tools ineffective, indicating overall satisfaction, but also suggesting room for improvement.



Digital Skills of Staff

Staff digital competencies are mainly at:

- Basic level: 44.8%
- Intermediate level: 34.5%
- Advanced level: 17.2%

This confirms a structural limitation in digital capacity within organisations, which directly affects their ability to support athletes.

Digital Tools and Integration

The most commonly used tools are:

- Social media platforms: 62.1%
- Online training tools: 39.7%
- Video analysis software: 31%
- Performance tracking tools: 25.9%

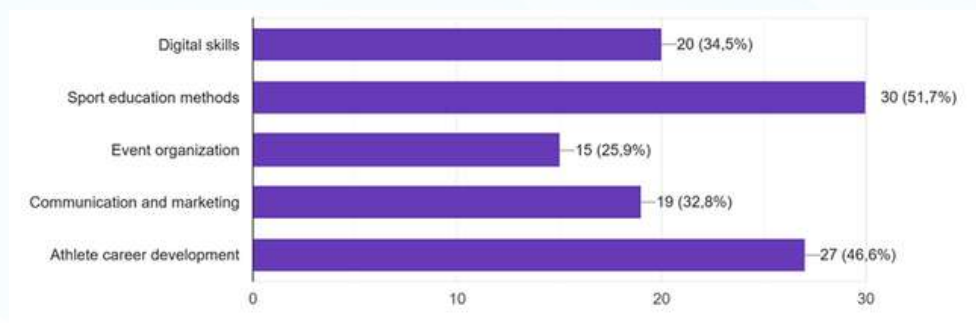
The use of advanced tools remains limited, indicating a need for more strategic and integrated digital approaches.

Needs and Areas for Improvement

Organisations identify key priority areas:

- Sport education methods: 51.7%
- Athlete career development: 46.6%
- Digital skills: 34.5%
- Communication and marketing: 32.8%

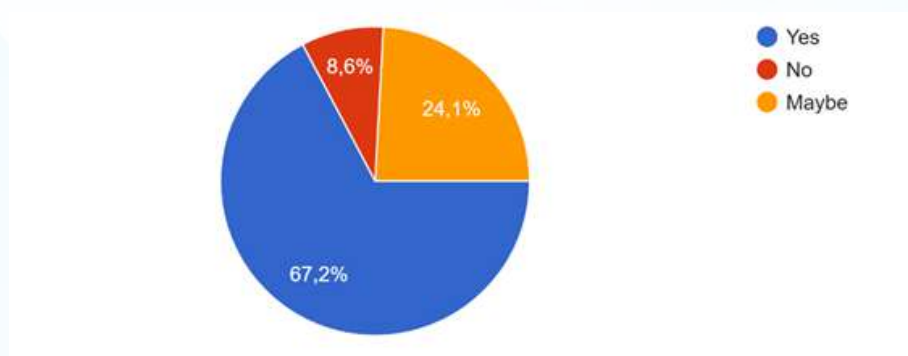
These findings highlight the need for both pedagogical and digital development.



Willingness to Engage in Training

A strong majority (67.2%) express willingness to participate in training programmes, while an additional 24.1% indicate potential interest.

This demonstrates a high level of readiness for capacity-building initiatives



Overall Analysis

The combined analysis highlights a clear and consistent pattern:

- Athletes show high awareness but moderate digital competence
- Organisations recognise the importance of digital skills but lack advanced capacity
- Both groups demonstrate strong interest in training and development

At the same time, key gaps remain:

- Nearly 80% of athletes have only basic or intermediate digital skills
- Less than 20% of organisational staff have advanced digital competencies
- Digital training participation remains significantly lower than sport-specific training

These findings confirm the need for structured, targeted, and practical interventions, positioning the HACK project as a highly relevant response to the identified challenges.



5.COMPARATIVE ANALYSIS

The comparative analysis between athletes and sport organisations provides valuable insight into the alignment, differences, and structural gaps within the sports ecosystem. By examining both perspectives, it is possible to identify areas of convergence as well as mismatches that directly impact the development and application of digital skills.

5.1 Alignment Between Athletes and Organisations

The findings reveal a strong level of alignment between athletes and sport organisations in terms of awareness and priorities.

Both groups clearly recognise the importance of digital skills. Among athletes, more than 90% consider digital competencies important or very important for their development, while over 70% of organisations rate digital skills as highly important. This demonstrates a shared understanding of the role of digitalisation in modern sport.

In addition, both groups highlight similar areas of skill development. Athletes identify discipline (73.8%), teamwork and communication (61.5%), and responsibility (55.4%) as key competencies developed through sport. Organisations confirm this perspective, with 79.3% focusing on teamwork, 62.1% on discipline, and 56.9% on communication.

This consistency indicates that sport is widely recognised as a strong environment for developing transversal skills, forming a solid foundation for further capacity-building initiatives.

5.2 Digital Skills Gap

Despite high awareness, both groups demonstrate limitations in terms of actual digital competencies.

Among athletes, nearly 80% report only basic (36.9%) or intermediate (43.1%) digital skills, while only 15.4% indicate advanced competencies. Similarly, within sport organisations, 44.8% of staff have basic digital skills and 34.5% intermediate, with only 17.2% reporting advanced levels.

This parallel trend highlights a structural gap across the sector, where digital engagement exists but is not supported by advanced knowledge or strategic use.

5.3 Gap Between Use and Strategic Application

Both athletes and organisations make frequent use of digital tools, but mainly at a functional level.

Athletes predominantly use social media (56.3%), performance tracking tools (42.2%), and video analysis tools (37.5%). Organisations show similar patterns, with 62.1% using social media, 39.7% online training tools, and 31% video analysis software.

However, the use of more advanced tools, such as data analysis systems, remains limited in both groups. This indicates that digital tools are widely accessible, but their use is not yet optimised or integrated into structured strategies.

5.4 Training Participation and Educational Gaps

A key difference between the two groups emerges in relation to training participation and educational provision.

While 66.2% of athletes report having participated in training programmes, only 24.4% have received training related to digital skills. In contrast, 86.2% of organisations report using educational methods in their activities, although these are primarily focused on traditional and non-formal approaches.

This reveals a gap between the availability of educational activities and their relevance to emerging digital needs. Training is present within the system, but it is not sufficiently aligned with current skill demands.

5.5 Capacity vs. Expectations

A clear mismatch exists between athletes' expectations and organisational capacity.

Athletes demonstrate strong motivation to develop digital skills, with 64.1% willing to participate in relevant training programmes. They also express clear interest in areas such as personal branding (47.5%), data analysis (45.8%), and content creation.

At the same time, organisations acknowledge limitations in their ability to support these needs. Only 17.2% of staff report advanced digital skills, and digital tools are often used without a structured framework.

This imbalance highlights a critical issue. Athletes are ready to engage and develop, but organisations are not always fully equipped to provide the necessary guidance and support.

5.6 Career Development and Support Gap

Another important finding relates to career development and employability.

While 76.9% of athletes feel prepared for careers outside sport, a significant proportion (23%) report uncertainty or lack of preparedness. Organisations also identify athlete career development as a key area for improvement (46.6%).

This indicates that although both groups recognise the importance of career planning, structured support mechanisms remain insufficient.

5.7 Readiness for Change and Engagement

Despite the identified gaps, both groups demonstrate a high level of readiness to engage in future activities.

Among athletes, more than 64% express willingness to participate in digital training programmes. Similarly, 67.2% of organisations are willing to engage in capacity-building initiatives, with an additional 24.1% potentially interested.

This shared willingness represents a strong opportunity for intervention, as both sides are open to adopting new approaches and improving their competencies.

5.8 Overall Comparative Insight

The comparative analysis highlights a clear and consistent pattern across the sports ecosystem:

- Awareness of digital skills is high in both groups
- Digital tool usage is widespread but mainly basic
- Advanced digital competencies are limited
- Training opportunities are not sufficiently aligned with needs
- Athletes' expectations exceed organisational capacity

Both groups show strong motivation to improve

These findings confirm the existence of a systemic gap between current practices and future requirements. At the same time, they demonstrate strong potential for impact, as both athletes and organisations are willing to engage in targeted training and development initiatives.

This alignment of needs and readiness provides a solid foundation for the HACK project to introduce innovative, practical, and scalable solutions that address both individual and organisational challenges.



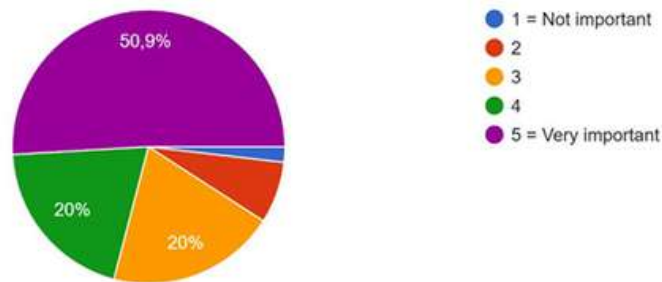
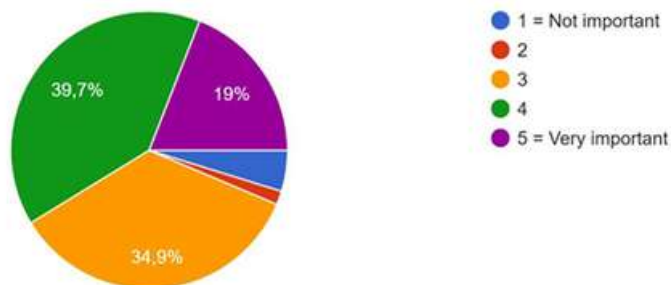
6. KEY FINDINGS AND INSIGHTS

The analysis of data collected from both athletes and sport organisations reveals a set of consistent trends, structural gaps, and emerging needs within the sports sector. These findings provide a clear understanding of the current landscape and highlight the areas where targeted interventions are required.

6.1 High Awareness of the Importance of Digital Skills

One of the most significant findings is the strong recognition of the importance of digital skills across both target groups.

Among athletes, more than 90% consider digital competencies important or very important for their personal and professional development. Similarly, over 70% of sport organisations rate digital skills as highly important within their activities.



This shared awareness indicates that the sports sector is already aligned with the broader digital transformation taking place in society. However, awareness alone is not sufficient to ensure effective implementation.

6.2 Gap Between Awareness and Competence

Despite the high level of awareness, both athletes and organisations demonstrate limited levels of advanced digital competence.

Among athletes:

- 43.1% report intermediate digital skills
- 36.9% report basic skills
- Only 15.4% report advanced competencies

Similarly, among sport organisations:

- 44.8% of staff have basic digital skills
- 34.5% intermediate
- Only 17.2% advanced

This indicates that nearly 80% of both groups operate at a basic or intermediate level, revealing a significant gap between perceived importance and actual capability.

6.3 Widespread but Non-Strategic Use of Digital Tools

Both athletes and organisations actively use digital tools, but mainly at a functional level.

Athletes primarily use:

- Social media platforms (56.3%)
- Performance tracking tools (42.2%)
- Video analysis tools (37.5%)

Organisations use:

- Social media (62.1%)
- Online training tools (39.7%)
- Video analysis software (31%)

While these figures demonstrate strong engagement, the limited use of advanced tools such as data analysis systems indicates that digital practices are not yet strategically developed or integrated.

6.4 Strong Role of Sport in Soft Skill Development

Both groups strongly agree that sport contributes significantly to the development of transversal skills.

Athletes identify key competencies such as:

- Discipline (73.8%)
- Teamwork and communication (61.5%)
- Responsibility (55.4%)

Organisations confirm this focus, with:

- Teamwork (79.3%)
- Discipline (62.1%)
- Communication (56.9%)

This alignment highlights the strength of sport as an educational environment. However, digital skills are not yet systematically included in this framework.

6.5 Limited Integration of Digital Skills in Training

Although 66.2% of athletes have participated in training programmes, only 24.4% report involvement in digital skills training.

At the same time, 86.2% of organisations state that they use educational methods in their activities. However, these methods are primarily traditional and non-formal, with limited focus on digital competencies.

This indicates a clear gap between the presence of educational activities and their relevance to current digital demands.

6.6 Clear Demand for Digital Skills Development

Athletes express strong interest in developing specific digital competencies, particularly:

- Personal branding (47.5%)
- Data analysis in sport (45.8%)
- Video editing (33.9%)
- Social media management and marketing (32.2%)

This demonstrates that athletes are not only aware of digital skills, but also have a clear understanding of which competencies are most relevant to their careers.

6.7 Structural Limitations in Organisational Capacity

Sport organisations face significant limitations in their ability to support digital skills development.

Only 17.2% of staff report advanced digital skills, while the majority remain at basic or intermediate levels. In addition, organisations rely heavily on traditional tools and lack structured digital strategies.

These limitations directly affect their capacity to provide guidance, training, and support to athletes.

6.8 Gap in Career Development Support

While 76.9% of athletes feel prepared for careers outside sport, a notable 23% report uncertainty or lack of preparedness.

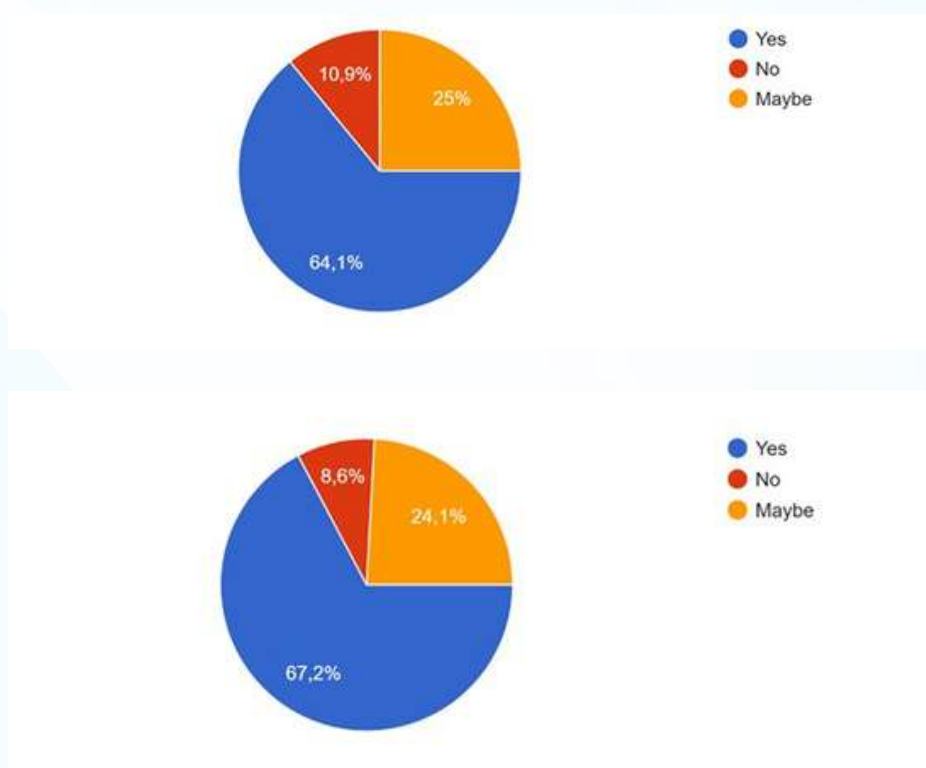
At the same time, 46.6% of organisations identify athlete career development as a key area for improvement.

This indicates that although awareness of career transition exists, structured support systems remain insufficient.

6.9 High Motivation and Readiness for Engagement

Despite the identified gaps, both groups demonstrate strong willingness to engage in training and development activities.

- 64.1% of athletes are willing to participate in digital training programmes
- 67.2% of organisations are willing to engage in capacity-building activities
- An additional 24.1% of organisations express potential interest



This high level of readiness represents a key opportunity for the successful implementation of the HACK project.

6.10 Key Insight

The overall findings highlight a sector that is aware, motivated, and actively engaged, but not yet fully equipped to meet the demands of digital transformation.

The main challenge lies not in willingness, but in the lack of structured training, advanced competencies, and strategic integration of digital tools.

At the same time, the strong alignment between athletes' needs and organisations' recognition of these needs creates a favourable environment for targeted intervention.

Overall Conclusion of Findings

The analysis confirms that the sports sector is at a transitional stage, where digital skills are recognised as essential but not yet fully embedded in practice.

The combination of high awareness, moderate competence, and strong motivation highlights both the urgency and the potential impact of the HACK project.

By addressing the identified gaps, the project can contribute significantly to enhancing digital competencies, improving career opportunities for athletes, and strengthening the capacity of sport organisations.



7.RECOMMENDATIONS

Based on the findings of the research phase, a set of targeted recommendations has been developed to address the identified gaps and support both athletes and sport organisations in strengthening digital competencies and improving educational practices. These recommendations are grounded in the statistical evidence and reflect the needs, expectations, and capacities of the two target groups.

7.1 Development of Structured Digital Skills Training Programmes

Given that nearly 80% of both athletes and organisational staff report only basic or intermediate digital skills, there is a clear need for structured and progressive training programmes.

Training initiatives should:

- Focus on practical and applied learning
- Be adapted to different levels of competence
- Include step-by-step guidance and real-life examples

Special attention should be given to the priority areas identified by athletes, including personal branding (47.5%), data analysis in sport (45.8%), and content creation skills such as video editing (33.9%).

7.2 Integration of Digital Skills into Sport Education

While 86.2% of organisations already use educational methods, digital competencies are not yet systematically integrated into training activities.

It is recommended to:

- Embed digital skills within existing sport training programmes
- Combine technical training with digital literacy
- Promote the use of digital tools as part of everyday training routines

This integration will ensure that digital skills are not treated as separate topics, but as essential components of modern sport education.

7.3 Capacity Building for Sport Organisations

With only 17.2% of organisational staff reporting advanced digital skills, strengthening organisational capacity is essential.

Recommended actions include:

- Training programmes for coaches, managers, and staff
- Development of practical toolkits and guidelines
- Support for the adoption of digital strategies

Enhancing staff competencies will directly improve the quality of support provided to athletes.

7.4 Development of Practical and Accessible Learning Tools

The findings show that both athletes and organisations prefer practical and easy-to-use resources.

Educational materials should:

- Be user-friendly and accessible
- Include interactive and visual content
- Provide real-life scenarios and case studies

Digital platforms should allow flexible access, supporting athletes who face time constraints due to training and competition schedules.

7.5 Promotion of Flexible and Blended Learning Approaches

Athletes show clear preferences for learning formats such as sport camps (67.2%), workshops, and online courses (37.7%).

Training programmes should therefore:

- Combine face-to-face and online learning (blended learning)
- Offer flexible schedules
- Allow self-paced learning where possible

This approach will increase participation and ensure accessibility for different target groups.

7.6 Support for Dual Career Development

Although 76.9% of athletes feel prepared for careers outside sport, a significant 23% remain uncertain.

To address this gap, it is recommended to:

- Integrate digital skills into career development programmes
- Provide guidance on employability and career planning
- Support athletes in building professional identities beyond sport

Digital competencies can play a key role in facilitating smoother career transitions.

7.7 Enhancement of Digital Strategy within Organisations

The research shows that digital tools are widely used but not strategically integrated.

Organisations should be supported to:

- Develop structured digital strategies
- Use data-driven approaches in training and communication
- Improve digital communication and marketing practices

This will allow organisations to move from basic usage to strategic digital engagement.

7.8 Strengthening Collaboration and Knowledge Exchange

Given the shared challenges identified across countries and organisations, there is strong potential for collaboration.

It is recommended to:

- Promote exchange of best practices between organisations
- Encourage transnational cooperation
- Create networks for knowledge sharing

This will enhance learning opportunities and contribute to long-term sustainability.

7.9 Encouraging Active Participation and Engagement

Both athletes (64.1%) and organisations (67.2%) show strong willingness to participate in training programmes.

To maximise engagement:

- Training activities should be interactive and participatory
- Incentives and recognition mechanisms should be considered
- Content should be directly relevant to participants' needs

This will ensure high levels of participation and impact.

7.10 Overall Strategic Recommendation

The findings highlight the need for a holistic and integrated approach that combines:

- Skill development
- Organisational capacity building
- Digital innovation
- Career support

The HACK project should therefore focus on delivering comprehensive solutions that address both individual and systemic challenges within the sports sector.

Conclusion of Recommendations

The recommendations outlined above respond directly to the identified gaps in digital skills, training provision, and organisational capacity. By implementing these actions, the HACK project can contribute to a more digitally competent, resilient, and future-oriented sports ecosystem.

The strong alignment between needs and willingness to engage provides a favourable environment for successful implementation and long-term impact.

8.CONCLUSION

The research conducted within the framework of the HACK project provides a comprehensive and evidence-based overview of the current situation regarding digital skills, educational practices, and development needs within the sports sector.

The findings clearly demonstrate that both athletes and sport organisations are increasingly aware of the importance of digital competencies. More than 90% of athletes and over 70% of organisations recognise digital skills as essential for communication, visibility, performance, and career development. This shared understanding reflects the broader transformation of sport in a digitalised environment.

At the same time, the analysis highlights significant gaps between awareness and actual capacity. Nearly 80% of both athletes and organisational staff report only basic or intermediate digital skills, while advanced competencies remain limited. Although digital tools are widely used, particularly social media platforms and basic training technologies, their application is often informal and lacks strategic direction.

The research also reveals that while educational activities are already present within the sports sector, they are primarily focused on traditional and non-formal approaches. Digital skills are not yet systematically integrated into training programmes, creating a disconnect between existing educational practices and emerging needs.

Furthermore, the findings underline the importance of digital skills in supporting athletes' career development and transition beyond sport. While a majority of athletes feel prepared for future careers, a significant proportion still express uncertainty, highlighting the need for more structured support and guidance.

Despite these challenges, the results demonstrate strong motivation and readiness for change. A majority of athletes (64.1%) and sport organisations (67.2%) are willing to participate in training programmes related to digital skills. This high level of engagement represents a key opportunity for impactful intervention.

Overall, the research confirms that the sports sector is at a transitional stage, characterised by high awareness, moderate competence, and strong willingness to develop. This combination creates favourable conditions for the successful implementation of the HACK project.

By addressing the identified gaps through targeted training, practical tools, and capacity-building activities, the HACK project has the potential to significantly enhance digital competencies, improve employability, and strengthen the ability of sport organisations to support athletes effectively.

The insights generated through this research phase ensure that the project's future activities are grounded in real needs and aligned with the expectations of its target groups, contributing to a more sustainable, inclusive, and digitally competent sports ecosystem.



HACK

Hyper-Athletic Competitors Kicking into the Metaverse

D2.1 RESEARCH & ANALYSIS REPORT

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