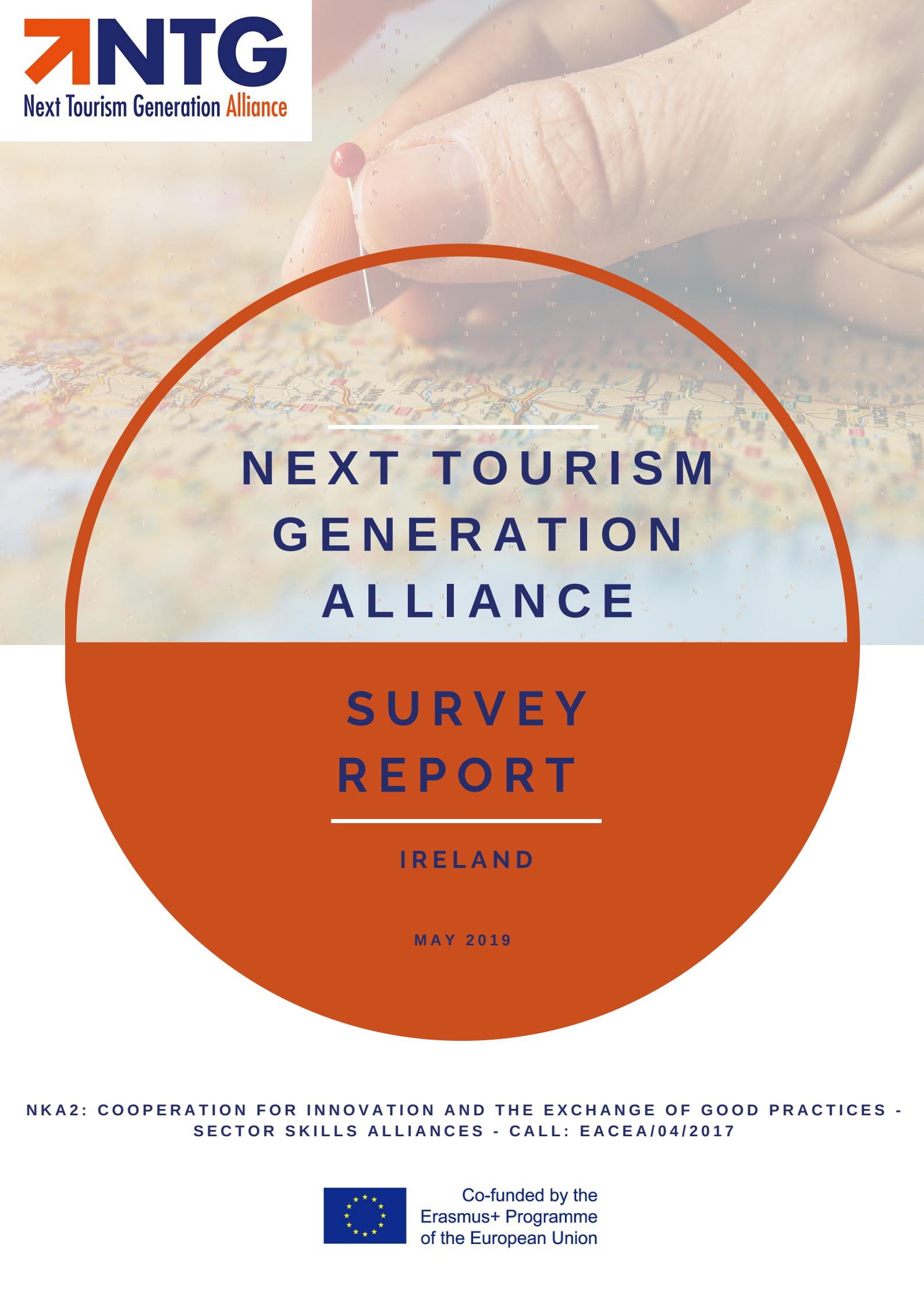




Next Tourism Generation Alliance



# NEXT TOURISM GENERATION ALLIANCE

## SURVEY REPORT

IRELAND

MAY 2019

NKA2: COOPERATION FOR INNOVATION AND THE EXCHANGE OF GOOD PRACTICES -  
SECTOR SKILLS ALLIANCES - CALL: EACEA/04/2017



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# Survey Country Report for Ireland

<b>Number of responses for Country:</b>	<b>74</b>
<b>Number of responses per sector:</b>	
Visitor Attractions:	<b>19</b>
F&B:	<b>23</b>
Accommodations:	<b>14</b>
Travel Agencies / Tour Operators:	<b>5</b>
Destination Management Organizations:	<b>13</b>

## Purpose of the Country Survey Report

- The key trends should be extracted from the country survey results (as prepared by University of Alicante) to establish how each sector is responding to the skill sets, highs, lows, current and future level of proficiency in digital, environmental, social and soft skills sets.
- Please ensure that an explanation and discussion for the results is according to the different sectors.
- Where are the gaps in the current and future level of proficiency in environmental, social and digital levels of proficiency across the 5 sectors and overall? Please make comments on specific shortages or excellent/good proficiency in environmental skills and what are the areas of significant weakness?
- Another goal of this report is to get an overview of current and future training provision types for the different skills sets.
- Template should be completed for each of the five sectors

Always ensure that you reflect the Sector in order for the results to be useful for the next stages of the project as we move into the Skills Matrix phase of the NTG project.

## **Sectors:**

- Visitor Attractions – Historic Buildings, Heritage Centre, Museum/Art Gallery; Place of worship; theatre/Cinema/Leisure/Theme Park; Park/Gardens; Wildlife Attractions/Zoo; Retail; Other
- Food and Beverage – Café; Restaurant; Bar/Pub; Distillery; Brewery; Other
- Accommodation – Hotel; Guesthouse/B&B; Self-catering/apartments; Hostel; Caravan/Camping; Other
- Destination Management – Destination Management Organisation; National Tourism Organisation; Regional Tourism Organisation; City Tourism Organisation; Protected Area Organisation
- Tour Operators – Travel Agency; Tour operator; both

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It must be noted that small respondent numbers within each sector means that statistical significance cannot be attributed to rankings or comparisons. This means that results cannot be generalised beyond respondent organisations and must be interpreted in light of this limitation.

## 1. VISITOR ATTRACTIONS

Environmental Skills	
Current Level of Proficiency. Three most and three least proficient	<p><b>Most:</b></p> <ol style="list-style-type: none"> <li>1. Ability to minimise the use and maximise efficiency of energy and water consumption</li> <li>2. Ability to manage waste, sewage, recycling and composting</li> <li>3. Knowledge of climate change</li> </ol> <p><b>Least:</b></p> <ol style="list-style-type: none"> <li>1. Promotion of sustainable forms of transport (e.g. public transport)</li> <li>2. Conservation of biodiversity</li> <li>3. Promotion of environmentally friendly activities and products</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p><b>Most:</b></p> <ol style="list-style-type: none"> <li>1. Ability to minimise the use and maximise efficiency of energy and water consumption</li> <li>2. Ability to manage waste, sewage, recycling and composting</li> <li>3. Knowledge of climate change</li> </ol> <p><b>Least:</b></p> <ol style="list-style-type: none"> <li>1. Promotion of sustainable forms of transport (e.g. public transport)</li> <li>2. Conservation of biodiversity</li> <li>3. Promotion of environmentally friendly activities and products</li> </ol>
Training Provision for these skills?	The survey results indicate that 12 visitor attractions provide training for their employees in environmental management skills (internally or externally provided) and 7 visitor attractions do not provide any environmental training (n=19).
Most popular/three main types of training	<ol style="list-style-type: none"> <li>1. On the job (n=9)</li> <li>2. One day on-site training by external provider (n=3)</li> <li>3. Several days on-site training by external provider (n=2)</li> </ol>

The sample for visitors attractions is small at 19, thus findings cannot be generalised to the sector and must be viewed as representing participant organisations. The mean values for all future environmental skill proficiency are higher than the mean values for all current skill proficiency (Table 1). This indicates that a gap exists between current level of proficiency and future proficiency needs across all environmental skill attributes. Arguably, proficiency in environmental skills will be more important in the visitor attractions sector in the future. The lowest current level of proficiency is ‘promotion of sustainable forms of transport’ ( $M=2.74$ ).

Notable gaps between current and future environmental skills include:

- Promotion of sustainable forms of transport (current  $M=2.74$  and future  $M=3.58$ )
- Promotion of environmentally friendly activities and products (current  $M=3.16$  and future  $M=4.05$ ).

The above skills represent key future priority areas for environmental training in this sector. The rankings of the most and least current and future level of proficiency in environmental skills are equal. For example, ‘ability to minimise the use and maximise efficiency of energy and water’ is both the most proficient for current skills ( $M=3.68$ ) and future skill proficiency ( $M=4.32$ ) indicating the importance of these skills currently and for the future generation of employees.

**Table 1: Environmental Skills Gaps: Visitor Attractions**

Environmental Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Ability to minimise the use and maximise efficiency of energy and water consumption	3.68	4.32	0.63	17.14
Ability to manage waste, sewage, recycling and composting	3.68	4.26	0.58	15.71
Conservation of biodiversity	3.11	3.89	0.79	25.42
Promotion of sustainable forms of transport (e.g. public transport)	2.74	3.58	0.84	30.77
Promotion of environmental friendly activities and products	3.16	4.05	0.89	28.33
Knowledge of climate change	3.58	4.21	0.63	17.65
<b>TOTAL</b>	<b>3.32</b>	<b>4.05</b>	<b>0.73</b>	<b>21.90</b>

N=19

The total mean gap percentage across environmental skills for respondents from this sector is 21.90%. This is the lowest total gap across sectors for environmental skills (the highest is the accommodation sector with a gap of 36.78%). Therefore, while environmental skills are important to respondents from the visitor attraction sector, the gap between current and future proficiency levels are not as pronounced as some of the other sectors.

The survey results indicate that 12 visitor attractions provide training for their employees in environmental management skills (internally or externally provided) and 7 visitor attractions do not provide any environmental training (n=19). Table 2 provides a breakdown of training type provision. This highlights that off-site training and apprenticeships are not offered by visitor attractions and on the job training is the most popular type of training provision. Therefore, this sector does provide some environmental training and it is predominantly offered on-site and on the job. Arguably, off-site training and apprenticeships may not be offered due to time and budgetary constraints.

A number of responses were provided to the open-ended question ‘can you explain why your organisation does not provide environmental management skills training for its employees?’. While the response rate to this question is low, the following highlights the key individual responses as to why this sector does not provide environmental management training:

- ‘it is not a central concern’
- ‘it is not a priority for training’

- ‘policy is not designed for SMEs...there is no fat within the business to be able to sustain environmental management skills training’
- ‘it is not applicable’.

The above statements suggest that environmental training may not currently be a priority for respondents from visitor attractions, particularly for the smaller attractions. This lends support to the qualitative research where currently, developing environmental skills is not a priority but it is perceived to be more important in the future.

**Table 2: Visitor Attractions Environmental Training**

Environmental Skill Training Type	No. of respondents
On the job	9
Online course	1
One day on-site training by external provider	3
Several days on-site training by external provider	2
One day off-site training by external provider	0
Several days off-site training by external provider	0
Apprenticeship	0
Vocational training	0
Higher education	1
Other	1
<b>Total</b>	<b>17</b>

N= 12

### Personal, Communication and Diversity Skills

Current Level of Proficiency. Three most and three least proficient per category	PERSONAL SKILLS- Most: 1. Customer orientation 2. Ethical conduct and respect 3. Problem solving and creativity
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	<p><b>PERSONAL SKILLS</b> - Least:</p> <ol style="list-style-type: none"> <li>1. Willingness to change</li> <li>2. Promoting a positive work environment</li> <li>3. Initiative and commitment</li> </ol> <p><b>COMMUNICATION SKILLS</b> – Most:</p> <ol style="list-style-type: none"> <li>1. Skills related to awareness of local customs (e.g., food, arts, language, crafts)</li> <li>2. Oral communication skills</li> <li>3. Written communication skills</li> </ol> <p><b>COMMUNICATION SKILLS</b> – Least:</p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Skills related to intercultural host-guest understanding and respect</li> <li>3. Skills related to cultural awareness and expression</li> </ol> <p><b>DIVERSITY SKILLS</b> – Most:</p> <ol style="list-style-type: none"> <li>1. Age-related accessibility skills</li> <li>2. Gender equality skills</li> <li>3. Skills related to disabilities and appropriate infrastructure</li> </ol> <p><b>DIVERSITY SKILLS</b> – Least:</p> <ol style="list-style-type: none"> <li>1. Skills related to diversity in religious beliefs</li> <li>2. Skills related to diversity in religious beliefs</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p><b>PERSONAL</b> - Most:</p> <ol style="list-style-type: none"> <li>1. Customer orientation</li> <li>2. Willingness to learn and to perform</li> <li>3. Promoting a positive work environment</li> </ol> <p><b>PERSONAL</b> - Least:</p> <ol style="list-style-type: none"> <li>1. Problem solving</li> <li>2. Initiative and commitment</li> <li>3. Ethical conduct and respect</li> </ol> <p><b>COMMUNICATION</b> – Most:</p> <ol style="list-style-type: none"> <li>1. Oral communication skills</li> </ol>

	<p>2. Active listening skills 3. Written Communication skills</p> <p><b>COMMUNICATION – Least:</b> 1. Ability to speak foreign languages 2. Skills related to intercultural host-guest understanding and respect 3. Skills related to awareness of local customs (e.g., food, arts, language, crafts)</p> <p><b>DIVERSITY – Most:</b> 1. Age-related accessibility skills 2. Skills related to disabilities and appropriate infrastructure 3. Gender equality skills</p> <p><b>DIVERSITY – Least:</b> 1. Diets and allergy needs skills 2. Skills related to diversity in religious beliefs</p>
Training Provision for Social Skills	The survey results indicate that 13 visitor attractions provide training for their employees in social skills (internally or externally provided) and 6 visitor attractions do not provide any social skill training (n=19).
Most popular/ three main types of training for social skills	<ol style="list-style-type: none"> <li>1. On the job (n=10)</li> <li>2. One day on-site training by external provider (n=7)</li> <li>3. Online course (n=4)</li> </ol>

Table 3 highlights that the current level of personal skill proficiency is particularly low for ‘willingness to change’ ( $M=3.68$ ) and the most current proficient personal skill is ‘customer orientation’ ( $M=4.42$ ) as reported by respondents from the visitor attraction sector. The most important future level proficiency for personal skills is also ‘customer orientation’ ( $M=4.95$ ). This indicates that proficiency in customer orientation/service will be important in the future. For all personal skills, the mean value is higher for future proficiency. Thus, respondents acknowledge the importance of future social/personal skills. Noteworthy personal skill gaps include the following:

- Willingness to change (current  $M=3.68$  and future  $M=4.68$ )
- Willingness to learn and perform (current  $M=4.21$  and future  $M=4.79$ )

**Table 3: Personal Skills Gaps: Visitor Attractions**

Personal skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Problem solving	4.26	4.58	0.32	7.41
Initiative and commitment	4.11	4.63	0.53	12.82
Customer orientation	4.42	4.95	0.53	11.90
Ethical conduct and respect	4.32	4.74	0.42	9.76
Willingness to change	3.68	4.68	1.00	27.14
Promoting a positive workenvironment	4.05	4.74	0.68	16.88
Creativity	4.26	4.74	0.47	11.11
Willingness to learn and to perform	4.21	4.79	0.58	13.75
<b>TOTAL</b>	<b>4.16</b>	<b>4.73</b>	<b>0.57</b>	<b>13.59</b>

N=19

Concerning communication skill proficiency (Table 4), the highest current level of skill proficiency reported by respondents is ‘skills related to awareness of local customs (e.g. food, arts, language)’ ( $M=4.32$ ). This differs to the highest future level of skill proficiency: ‘oral communication skills’ ( $M=4.58$ ), thus indicating that oral communication skills will be of most importance in the future. Additionally, the current skill ‘ability to speak foreign languages’ ( $M=2.79$ ) is particularly low indicating that employees currently do not perform well in this skill. As a future skill, however, it is of some importance to respondents ( $M=3.39$ ). The qualitative research also indicated that proficiency in foreign languages was poor, however, not an essential skill for employees to hold. Notable gaps between current and future communication skills include:

- Ability to speak foreign languages (current  $M=2.79$  and future  $M=3.89$ )
- Skills related to intercultural host-guest understanding and respect (current  $M=3.47$  and future 4.32).

**Table 4: Communication Skills Gaps: Visitor Attractions**

Communication skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Written communication skills	3.95	4.32	0.37	9.33
Oral communication skills	4.26	4.58	0.32	7.41
Active listening skills	3.95	4.53	0.58	14.67
Skills related to cultural awareness and expression	3.74	4.53	0.79	21.13
Skills related to awareness of local customs (e.g. food, arts, language, crafts)	4.32	4.42	0.11	2.44
Ability to speak foreign languages	2.79	3.89	1.11	39.62
Skills related to intercultural host-guest understanding and respect	3.47	4.32	0.84	24.24
<b>TOTAL</b>	<b>3.78</b>	<b>4.37</b>	<b>0.59</b>	<b>15.51</b>

N=19

Table 5 summarises diversity skills proficiency as reported by the nineteen respondents from the visitor attraction sector. The highest current level of diversity skill proficiency is 'age-related accessibility skills' ( $M=3.79$ ) and the highest future level of proficiency is both 'age-rated accessibility skills' ( $M=4.58$ ) and 'skills related to disabilities and appropriate infrastructure' ( $M=4.58$ ). Therefore, skills and training in disability, age and accessibility issues are areas for improvement in the future. All mean values are higher for all future diversity skill attributes highlighting the importance of proficiency in these skills in the future. Furthermore, the total overall gap reported by respondents in this sector for diversity skills is 25.89% and this is similar to responses from participants from the other four sectors. Substantial gaps between current and future diversity proficiency include:

- Skills related to diversity in religious beliefs (current  $M=3.21$  and future  $M=4.26$ )
- Diets and allergy needs skills (current  $M=3.37$  and future  $M=4.37$ )

**Table 5: Diversity Skills Gaps: Visitor Attractions**

Diversity Skills	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Gender equality skills	3.68	4.47	0.79	21.43
Age-related accessibility skills	3.79	4.58	0.79	20.83
Diets and allergy needs skills	3.37	4.37	1.00	29.69
Skills related to disabilities and appropriate infrastructure	3.63	4.58	0.95	26.09

Skills related to diversity in religious beliefs	3.21	4.26	1.05	32.79
<b>TOTAL</b>	<b>3.54</b>	<b>4.45</b>	<b>0.92</b>	<b>25.89</b>

N=19

The survey results indicate that 13 visitor attractions provide training for their employees in social skills (internally or externally provided) and 6 visitor attractions do not provide any social skill training (n=19). A summary of the type of social skill training is provided in Table 6. On the job (in house training) is the favoured type of training provision for visitor attractions. One-day on-site training by an external provider is also a common type of training currently provided by the visitor attraction sector.

Additionally, the responses to why social training is not provided by visitor attractions is outlined below:

- ‘not aware that social skill training is available for all employees’
- ‘lack of awareness around the requirement for such training’
- ‘social skills are assumed and selection is based to some extent on this’
- ‘not relevant’
- ‘not aware of a policy in respect of this’

The above responses to this open ended question highlight that social skill training may only be offered to certain employees, i.e. front of house or management and that social skills are assumed to be present and this is considered during the recruitment and selection process.

**Table 6: Visitor Attractions Social Skills Training**

Social Skill Training Type	No. of Respondents
On the job	10
Online course	4
One day on-site training by external provider	7
Several days on-site training by external provider	2
One day off-site training by external provider	1
Several days off-site training by external provider	0
Apprenticeship	0
Higher education	3
Other	1
<b>Total</b>	<b>28</b>

N=13

<b>Digital Skills</b>	
Current Level of Proficiency. Three most and three least proficient	<p><b>Most:</b></p> <ul style="list-style-type: none"> <li>1. Operating System use skills (e.g., Windows)</li> <li>2. Microsoft Office skills (e.g., Word, Excel, Powerpoint)</li> <li>3. Skills to adjust digital equipment such as Wi-Fi connectivity, sound systems and video projectors</li> </ul> <p><b>Least:</b></p> <ul style="list-style-type: none"> <li>1. Artificial Intelligence (AI) and robotics skills</li> <li>2. Data analytics, business intelligence, big data skills</li> <li>3. Computer programming skills</li> </ul>
Future level of proficiency in 2030. Three most and three least proficient.	<p><b>Most:</b></p> <ul style="list-style-type: none"> <li>1. Social media skills</li> <li>2. Online marketing and communications skills</li> <li>3. Skills for implementing online safety procedures</li> </ul> <p><b>Least:</b></p> <ul style="list-style-type: none"> <li>1. Artificial Intelligence (AI) and robotics skills</li> <li>2. Computer programming skills</li> <li>3. Skills related to applying digital hardware technologies, such as Augmented and Virtual Reality</li> </ul>
Training Provision for digital skills?	The survey results indicate that 13 visitor attractions provide training for their employees in digital skills (internally or externally provided) and 6 visitor attractions do not provide digital training (n=19).
Most popular/ three main types of training for digital skills	<ul style="list-style-type: none"> <li>1. On the job (n=5)</li> <li>2. One day on-site training by external provider (n=5)</li> <li>3. several days off-site training by an external provider (n=5)</li> </ul>

The highest current level of proficiency for digital skills reported by participants in the visitor attraction sector is ‘operating system use skills’ ( $M=3.95$ ) and the lowest level of current proficiency is ‘artificial intelligence’ ( $M=1.68$ ) and ‘skills related to applying digital hardware technologies’ ( $M=1.68$ ). Therefore, while currently employees skills in operating systems is adequate, current skills relating to hardware technologies and artificial intelligence is poor. The highest mean value for future digital skills proficiency is ‘online marketing and communications skills’ ( $M=4.32$ ) which emphasises the importance of this skill for visitor attractions in the future. Moreover, all future digital skill attribute mean values (Table 7) are higher than the current proficiency mean values, indicating the perceived importance of digital skills in 2030.

Notable gaps between current and future digital skills proficiency include:

- Skills related to applying digital hardware technologies, such as augmented and virtual reality (current  $M=1.68$  and future  $M=3.21$ )
- Artificial intelligence and robotics skills (current  $M=1.68$  and future  $M=3.00$ )
- Data analytics, business intelligence and big data skills (current  $M=2.47$  and future  $M=3.63$ )
- Skills to monitor online reviews (current  $M=3.21$  and future  $M=4.26$ )
- Website development skills (current  $M=2.74$  and future  $M=3.74$ ).

The above points indicate that participants feel that a higher level of skill proficiency in the future will be required for digital skills relating to online reviews, website development and new technologies, i.e. AI and robotics. Furthermore, the overall digital skills gap for visitor attractions is 34.38% which is the largest gap reported by respondents across all five sub sectors. Thus, the importance of proficiency in digital skills for the visitor attraction sector is noted.

**Table 7: Digital Skills: Visitor Attractions**

Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Operating system use skills (e.g., Windows)	3.95	4.16	0.21	5.33
Microsoft Office Skills (e.g., Word, Excel, PowerPoint)	3.84	4.16	0.32	8.22
Skills for implementing online safety procedures	3.32	4.26	0.95	28.57
Online marketing and communication skills	3.37	4.32	0.95	28.13
Skills to adjust digital equipment such as Wi-Fi connectivity, sound systems and video projectors	3.74	4.11	0.37	9.86
Desktop publishing skills (for designing brochures, catalogues, etc.)	2.95	3.84	0.89	30.36
Computer programming skills	2.47	3.16	0.68	27.66
Website development skills	2.74	3.74	1.00	36.54

Social media skills	3.53	4.37	0.84	23.88
Skills to monitor online reviews	3.21	4.26	1.05	32.79
Data analytics, business intelligence, big data skills	2.47	3.63	1.16	46.81
Artificial Intelligence (AI) and robotics skills	1.68	3.00	1.32	78.13
Skills related to applying digital hardware technologies, such as Augmented Reality and Virtual Reality	1.68	3.21	1.53	90.63
<b>TOTAL</b>	<b>3.00</b>	<b>3.86</b>	<b>0.87</b>	<b>34.38</b>

N=19

The survey results indicate that 13 visitor attractions provide training for their employees in digital skills (internally or externally provided) and 6 visitor attractions do not provide any digital training (n=19). Table 8 summarises the provision of digital skills training for the visitor attraction sector. Training by external providers and on the job (in house) training are the most popular types of current training provision.

Statements (reasons) for no digital training provision in this sector (6 visitor attractions) are outlined as follows:

- ‘lack of awareness for the requirement of training’
- ‘not considered necessary up to now’
- ‘not necessary for the roles’
- ‘we currently outsource this business unit, but plan to recruit a new team fully equipped with these skills’

**Table 8: Visitor Attractions Digital Skills Training**

Digital Skill Training Type	No. of Respondents
On the job	5
Online course	3
One day on-site training by external provider	5
Several days on-site training by external provider	4
One day off-site training by external provider	3
Several days off-site training by external provider	5
Apprenticeship	1
Vocational training	0
Higher education	4

Other	3
<b>Total</b>	<b>33</b>

N=13

Table 9 further highlights the importance of digital skill proficiency in the visitor attractions sector. Four of the top five gaps between current and future proficiency in relative terms are 'digital skills'.

**Table 9: Top Five Gaps in Relative Terms (%) Visitor Attractions**

Visitor Attractions Skills	GAP %
Skills related to applying digital hardware technologies, such as augmented and virtual reality	90.63
Artificial intelligence (AI) and robotics skills	78.13
Data analytics, business intelligence, big data skills	46.81
Ability to speak foreign languages	39.62
Website development skills	36.94

N=19

-- END OF VISITOR ATTRACTIONS SECTION --

## 2. DESTINATION MANAGEMENT ORGANIZATIONS

<b>Environmental Skills</b>	
Current Level of Proficiency. Three most and three least proficient	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Promotion of environmentally friendly activities and products</li> <li>2. Promotion of sustainable forms of transport (e.g. public transport)</li> <li>3. Knowledge of climate change</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Conservation of biodiversity</li> <li>2 Ability to manage waste, sewage, recycling and composting.</li> </ol>

Future level of proficiency in 2030. Three most and three least proficient.	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Promotion of sustainable forms of transport (e.g. public transport)</li> <li>2. Promotion of environmentally friendly activities and products</li> <li>3. Knowledge of climate change</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Conservation of biodiversity</li> <li>2. Ability to manage waste, sewage, recycling and composting</li> </ol>
Ability to Training Provision for these skills?	The survey results indicate that 5 destination management organisations provide training for their employees in environmental skills (internally or externally provided) and 8 do not provide any environmental training (n=13).
Most popular/ three main types of training	<ol style="list-style-type: none"> <li>1. On the job</li> <li>2. Several days off-site training by an external provider</li> <li>3. Online course / several days on-site training by an external provider.</li> </ol>

The response rate for the destination management sector is 13 indicating that results cannot be generalised beyond the organisations who participated in the survey and must be interpreted in light of this limitation. Concerning environmental skills, there is a gap (current vs future) in all environmental skills indicating that the need for proficiency in these skills will be higher in 2030 than current proficiency levels. As Table 10 indicates, the the highest gaps relate to 'the ability to minimise the use and maximise the efficiency of energy and water consumption' and 'conservation of biodiversity' each with a gap of 28.21%. Additionally, 'promotion of sustainable forms of transport (e.g. public transport)' has a notable gap of 26.67%. Of particular note, this skill is also rated highest in terms of future importance ( $M=4.38$ ), indicating a need for increased proficiency in this skill going forward. The top three gaps in environmental skills for the destination management sector are:

- The ability to minimise the use and maximise the efficiency of energy and water consumption (28.21%)
- Conservation of biodiversity (28.21%)
- Promotion of sustainable forms of transport (e.g. public transport) (26.67%)

**Table 10: Environmental Skills Gaps: Destination Management**

Environmental Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Ability to minimise the use and maximise efficiency of energy and water consumption	3.00	3.85	0.85	28.21
Ability to manage waste, sewage, recycling and composting	3.23	4.08	0.85	26.19
Conservation of biodiversity	3.00	3.85	0.85	28.21
Promotion of sustainable forms of transport (e.g. public transport)	3.46	4.38	0.92	26.67
Promotion of environmental friendly activities and products	3.62	4.31	0.69	19.15
Knowledge of climate change	3.31	4.15	0.85	25.58
<b>TOTAL</b>	<b>3.27</b>	<b>4.10</b>	<b>0.83</b>	<b>25.49</b>

N=13

In terms of current proficiency in environmental skills, it is notable that the highest current levels of proficiency are in the following environmental skills:

- Provision of environmentally friendly activities and products (M=3.62)
- Promotion of sustainable forms of transport (e.g. public transport) (M=3.46)
- Knowledge of climate change (M=3.31)

The findings in terms of future importance reflect the same skills as continuing to be important with one small difference with regards to ranking as ‘promotion of sustainable transport’ is rated as marginally more important in the future than the other two skills. However, overall proficiency in these skills are recognised by participants as important both currently and in the future:

- Promotion of sustainable forms of transport (e.g. public transport) (M=4.38)
- Provision of environmentally friendly activities and products (M=4.31)
- Promotion of climate change (M=4.15)

Of note is the fact that in comparison to environmental skills gaps in other tourism sectors, respondents in the destination management sector, while reporting a higher skills gap than both visitor attractions and travel agents and tour operators, report a lower skills gaps than both the food and beverage and accommodation sectors, as outlined in Table 11 below. This is because current proficiency levels among employees in participant organisations in the destination management sector with regard to these skills is second highest with a mean of 3.27 (visitor attractions is highest M=3.32) when compared to other tourism sectors.

Additionally, the recognition of the importance of these skills in the future is also quite high ( $M=4.10$ ), indicating an awareness by participants of the importance of environmental skills both currently and in the future.

**Table 11: Environmental Skills Gaps by Sector**

Sector	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Food and Beverage	2.63	3.70	1.07	40.50
Accommodation	3.11	4.25	1.14	36.78
Destination Management	3.27	4.10	0.83	25.49
Travel Agents and Tour Operators	3.07	3.77	0.70	22.83
Visitors Attractions	3.32	4.05	0.73	21.90

N= 74

Concerning training in environmental skills, The survey results indicate that 5 destination management organisations provide training for their employees in environmental skills (internally or externally provided) and 8 do not provide any environmental training (n=13). This reflects the findings of the qualitative research which highlighted that often green and environmental skills are not given priority by destination managers. Again reflecting the findings of the qualitative research, the main types of training provided include: 'on the job', 'several days off-site training by an external provider' and 'online course / several days on-site training by an external provider' (Table 12).

**Table 12: Destination Management Environmental Training**

Environmental Skill Training Type	No. of respondents
On the job	4
Online course	2
One day on-site training by external provider	1
Several days on-site training by external provider	2
One day off-site training by external provider	0
Several days off-site training by external provider	3
Apprenticeship	1
Vocational training	0
Higher education	1
Other	0
Total	14

N= 5

The main reasons given by respondents for not providing training in environmental skills suggest that, despite acknowledging that these skills are important now and in the future, training in environmental skills is not currently a priority as indicated by the following comments:

- ‘Budget’
- ‘Don’t know’ (x2)
- ‘It is not relevant to what we do’ (x2)
- ‘It is something we are looking into at the moment’
- ‘Not considered a priority’
- ‘Only as requested by employees, not company driven’

### Personal, Communication and Diversity Skills

Current Level of Proficiency. Three most and three least proficient per category	PERSONAL SKILLS- Most: 1. Customer orientation 2. Initiative and commitment 3. Problem solving
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	<p><b>PERSONAL SKILLS</b> - Least:</p> <ol style="list-style-type: none"> <li>1. Willingness to change</li> <li>2. Creativity</li> <li>3. Willingness to learn and to perform</li> </ol> <p><b>COMMUNICATION SKILLS</b> – Most:</p> <ol style="list-style-type: none"> <li>1. Written communication skills</li> <li>2. Oral communication skills</li> <li>3. Skills related to awareness of local customs (e.g., food, arts, language, crafts)</li> </ol> <p><b>COMMUNICATION SKILLS</b> – Least:</p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Skills related to intercultural host-guest understanding and respect</li> <li>3. Skills related to cultural awareness and expression</li> </ol> <p><b>DIVERSITY SKILLS</b> – Most:</p> <ol style="list-style-type: none"> <li>1. Gender equality skills</li> <li>2. Age-related accessibility skills</li> <li>3. Diets and allergy needs skills</li> </ol> <p><b>DIVERSITY SKILLS</b> – Least:</p> <ol style="list-style-type: none"> <li>1. Skills related to diversity in religious beliefs</li> <li>2. Skills related to disabilities and appropriate infrastructure</li> <li>3.</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p><b>PERSONAL</b> - Most:</p> <ol style="list-style-type: none"> <li>1. Willingness to change</li> <li>2. Promoting a positive work environment</li> <li>3. Creativity</li> </ol> <p><b>PERSONAL</b> - Least:</p> <ol style="list-style-type: none"> <li>1. Problem solving</li> <li>2. Initiative and commitment</li> </ol>

	<p>3. Customer orientation</p> <p><b>COMMUNICATION – Most:</b></p> <ol style="list-style-type: none"> <li>1. Oral communication skills</li> <li>2. Active listening skills</li> <li>3. Skills related to cultural awareness and expression</li> </ol> <p><b>COMMUNICATION – Least:</b></p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Skills related to intercultural host-guest understanding and respect</li> <li>3. Skills related to awareness of local customs (e.g., food, arts, language, crafts)</li> </ol> <p><b>DIVERSITY – Most:</b></p> <ol style="list-style-type: none"> <li>1. Age-related accessibility skills</li> <li>2. Diets and allergy needs skills</li> <li>3. Skills related to disabilities and appropriate infrastructure</li> </ol> <p><b>DIVERSITY – Least:</b></p> <ol style="list-style-type: none"> <li>1. Gender equality skills</li> <li>2. Skills related to diversity in religious beliefs</li> <li>3.</li> </ol>
Training Provision for Social Skills	The survey results indicate that 9 destination management organisations provide social skill training and 4 do not provide any social skill training (n=13).
Most popular/three main types of training for social skills	<ol style="list-style-type: none"> <li>1. On the job (n=7)</li> <li>2. One day on-site training by external provider (n=4)</li> <li>3. Online course (n=3)</li> </ol>

The current mean values for personal skills are all over 4.00, indicating a high level of current proficiency in social skills for destination management employees (n=13). The highest current skills are ‘problem solving’ ( $M=4.23$ ) and ‘initiative and commitment’ ( $M=4.23$ ). The mean for all future personal skills, however, are higher indicating that for participant organisations, proficiency in these skills will be more important in the future.

Sizeable personal skill gaps for destination management include the following:

- Willingness to change (current M=4.00 and future M=4.77; gap of 0.77)
- Creativity (current M=4.08 and future M=4.69; gap of 0.62)
- Willingness to learn and perform (current M=4.08 and future M=4.69; gap of 0.62)

The total gap for personal skills is 12.04%, which represents one of the lowest gaps across sectors in this skill category. Arguably, these skills do not represent a priority to destination management participants, as current levels of proficiency are high (Table 13).

**Table 13: Personal Skills Gaps: Destination Management Sector**

Personal skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Problem solving	4.23	4.54	0.31	7.27
Initiative and commitment	4.23	4.54	0.31	7.27
Customer orientation	4.31	4.62	0.31	7.14
Ethical conduct and respect	4.08	4.62	0.54	13.21
Willingness to change	4.00	4.77	0.77	19.23
Promoting a positive work environment	4.23	4.77	0.54	12.73
Creativity	4.08	4.69	0.62	15.09
Willingness to learn and to perform	4.08	4.69	0.62	15.09
<b>TOTAL</b>	<b>4.15</b>	<b>4.65</b>	<b>0.50</b>	<b>12.04</b>

N=13

Examining Table 14 below regarding communication skills, gaps between current and future levels of proficiency are more notable than for personal skills. The following current communication skills are particularly low for destination management participant organisations: ‘ability to speak foreign languages’ ( $M=2.77$ ) and ‘skills related to intercultural host-guest understanding and respect’ ( $M=3.08$ ). However, current skill proficiency is good for ‘written communication skills’ (4.08) and ‘oral communication skills’ ( $M=4.08$ ). The majority of communication skills, however, are below 3.80. Notable gaps between current and future level proficiency for communication skills include:

- Ability to speak foreign languages (current  $M=2.77$  and future  $M=4.08$ ; gap of 1.31)
- Active listening skills (current  $M=3.77$  and future  $M=4.69$ ; gap of 0.92)
- Skills related to cultural awareness and expression (current  $M=3.77$  and future  $M=4.69$ ; gap of 0.92).

The total gap for destination management communication skills is 23.87% (n=13). This is the highest total gap for communication skills as reported by participants across the five subsectors and may have implications for future skill training provision.

**Table 14: Communication Skills Gaps: Destination Management Sector**

Communication skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Written communication skills	4.08	4.62	0.54	13.21
Oral communication skills	4.08	4.69	0.62	15.09
Active listening skills	3.77	4.69	0.92	24.49
Skills related to cultural awareness and expression	3.77	4.69	0.92	24.49
Skills related to awareness of local customs (e.g. food, arts, language, crafts)	3.92	4.46	0.54	13.73
Ability to speak foreign languages	2.77	4.08	1.31	47.22
Skills related to intercultural host-guest understanding and respect	3.08	4.31	1.23	40.00
<b>TOTAL</b>	<b>3.64</b>	<b>4.51</b>	<b>0.87</b>	<b>23.87</b>

N=13

All mean values for current destination management diversity skills are below 3.70 indicating that current proficiency in these skills is low (Table 15). For example, ‘skills related to diversity in religious beliefs’ (M=3.23) and ‘skills related to disabilities and appropriate infrastructure’ (M=3.38). Furthermore, all future levels skill proficiency are over 4.00; suggesting that proficiency in these skills will be more important in the future. The total gap reported by destination management participants for diversity skills is 29.46%. Notable gaps between current and future skill proficiency include:

- Skills related to diversity in religious beliefs (current M=3.23 and future M=4.46; gap of 1.23)
- Diets and allergy skills needs (current M=3.38 and future M=4.46; gap of 1.08)
- Skills related to disabilities and appropriate infrastructure (current M=3.38 and future M=4.46; gap of 1.08).

The above represent social/diversity skills that may be important in the future for employees in these organisations and therefore may require provision of training.

**Table 15: Diversity Skills Gaps Destination Management Sector**

Diversity Skills	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Gender equality skills	3.69	4.38	0.69	18.75
Age-related accessibility skills	3.54	4.54	1.00	28.26
Diets and allergy needs skills	3.38	4.46	1.08	31.82
Skills related to disabilities and appropriate infrastructure	3.38	4.46	1.08	31.82
Skills related to diversity in religious beliefs	3.23	4.46	1.23	38.10
<b>TOTAL</b>	<b>3.45</b>	<b>4.46</b>	<b>1.02</b>	<b>29.46</b>

N=13

Of note is the fact that, relative to other social skills (communication, personal) and to other skill sets (digital and environment), participants working in destination management report that diversity skills ranks highest in terms of skills gaps. This has implications for training provision (Table 16).

**Table 16: Overall Skills Gaps Percentage for the Destination Management Sector**

Destination Management Sector Skills		Total Gap %
Social Skills	Diversity	29.46
	Personal	12.04
Diversity	Communication	23.87
Digital skills		28.87
Environmental skills		25.49

N=13

The survey results indicate that 9 destination management organisations provide social skills training and 4 do not provide any social skills training (n=13). Table 17 provides a breakdown of the types of training provision for this sector. On the job and on-site training are the most common current types of social skill training provision.

**Table 17: Destination Management Social Skill Training**

Social Skill Training Type	No. of Respondents
On the job	7
Online course	3
One day on-site training by external provider	4
Several days on-site training by external provider	2
One day off-site training by external provider	1
Several days off-site training by external provider	1
Apprenticeship	2
Vocational training	1
Higher education	1
Other	0
<b>Total</b>	<b>22</b>

N=9

Reasons given by destination management organisations for not providing social skill training for employees include the following open-ended responses:

- ‘happily employees are well educated and well travelled so have acquired these skills’
- ‘it has not been an issue for the organisation’
- ‘not relevant’

These responses suggest that currently the destination management sector do not see a need for training in social skills in general as employees already have good skills in this area.

<b>Digital Skills</b>	
Current Level of Proficiency. Three most and three least proficient	Most: 1. Operating System use skills (e.g., Windows) 2. Microsoft Office skills (e.g., Word, Excel, Powerpoint) 3. Computer programming skills  Least:

	<ul style="list-style-type: none"> <li>1. Artificial Intelligence (AI) and robotics skills</li> <li>2. Skills related to applying digital hardware technologies, such as Augmented and Virtual Reality</li> <li>3. Social media skills</li> <li>Operating System use skills (e.g., Windows)</li> </ul>
Future level of proficiency in 2030. Three most and three least proficient.	<p>Most:</p> <ul style="list-style-type: none"> <li>1. Operating System use skills (e.g., Windows)</li> <li>2. Microsoft Office skills (e.g., Word, Excel, Powerpoint)</li> <li>3. Computer programming skills</li> </ul> <p>Least:</p> <ul style="list-style-type: none"> <li>1. Artificial Intelligence (AI) and robotics skills</li> <li>2. Skills related to applying digital hardware technologies such as Augmented and Virtual Reality</li> <li>3. Social Media skills</li> </ul>
Training Provision for digital skills?	The survey results indicate that all 13 destination management organisations provide digital skills training (n=13).
Most popular/ three main types of training for digital skills	<ol style="list-style-type: none"> <li>1. On the job (n=11)</li> <li>2. Online course (n=7)</li> <li>3. Several days on-site training by external provider (n=5).</li> </ol>

Concerning digital skills of employees in destination management participant organisations, the findings of the survey show that there is currently a gap in all digital skills when comparing current versus future proficiency (Table 18); this indicates a potential future need for training in all digital skills for this sector. These findings reflect those of the qualitative research where there was general agreement by participants that there are a number of digital skills gaps in destination management.

**Table 18: Digital Skills: Destination Management**

Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Operating system use skills (e.g., Windows)	4.15	4.38	0.23	5.56

Microsoft Office Skills (e.g., Word, Excel, PowerPoint)	4.15	4.38	0.23	5.56
Skills for implementing online safety procedures	3.62	4.38	0.77	21.28
Online marketing and communication skills	3.85	4.54	0.69	18.00
Skills to adjust digital equipment such as Wi-Fi connectivity, sound systems and video projectors	3.62	4.08	0.46	12.77
Desktop publishing skills (for designing brochures, catalogues, etc.)	3.69	4.15	0.46	12.50
Computer programming skills	2.54	3.69	1.15	45.45
Website development skills	2.92	3.92	1.00	34.21
Social media skills	4.00	4.23	0.23	5.77
Skills to monitor online reviews	3.62	4.00	0.38	10.64
Data analytics, business intelligence, big data skills	3.23	4.23	1.00	30.95
Artificial Intelligence (AI) and robotics skills	1.92	3.77	1.85	96.00
Skills related to applying digital hardware technologies, such as Augmented Reality and Virtual Reality	2.31	4.08	1.77	76.67
<b>TOTAL</b>	<b>3.36</b>	<b>4.14</b>	<b>0.79</b>	<b>28.87</b>

N= 13

The most notable gaps are for the following skills:

- Artificial Intelligence (AI) and robotics skills (current M=1.92, future M=3.77, gap = 96%)
- Skills related to applying digital hardware technologies, such as Augmented Reality and Virtual Reality (current M=2.31, future M=4.08), gap=76.67%)
- Computer programming skills (current M=2.54, future M=3.69, gap=45.45%)

Currently, proficiency in these skills in the destination management sector is quite low, however, there is evidence that respondents see proficiency becoming more important in the future, in particular in relation to ‘skills related to applying digital hardware technologies, such as augmented reality and virtual reality’ (future M=4.08). However, in terms of importance, the most important future skills according to the survey include:

- Online marketing and communications skills (future M=4.54)
- Operating system use skills (e.g. Windows) (future M=4.38)
- Microsoft office skills (e.g., Word, Excel, PowerPoint) (future M=4.38)
- Skills for implementing online safety procedures (future M=4.38)

Of note is the fact that current proficiencies in these skills are currently quite high, therefore the skills gap is lower relative to those skills where current proficiency is low (e.g. 'Artificial intelligence (AI) and Robotics, current M=1.92, future M=3.77, gap= 96%). In particular, current proficiency in 'operating system use skills (e.g. Windows)' and 'Microsoft office skills (e.g., Word, Excel, PowerPoint)' is currently high (M=4.15 for each), therefore, despite the fact that, according to participants, these skills will be more important in the future, the skills gap is low. These findings have implications for training priorities.

Relative to other skill types (environmental and social) digital skills were rated second in terms of skills gaps by participants in the destination management sector (Table 19), showing the perceived importance of these skills in the future.

**Table 19: Highest Skills Gaps for all Skills in the Destination Management Sector**

Destination Management Sector Skills		Gap %
Social Skills	Diversity	29.46
Digital skills		28.87
Social Skills	Personal	12.04
	Communication	23.87
Environmental skills		25.49

N=13

Concerning digital training, all destination management respondents (n=13) currently provide training in digital skills of varying types. Training types are outlined in Table 20 and shows that the most popular types of training are: 'on the job' (11), 'online course' (7) and 'several days on-site training by external providers' (5).

**Table 20: Destination Management Digital Training**

Digital Skill Training Type	No. of respondents
On the job	11
Online course	7
One day on-site training by external provider	4
Several days on-site training by external provider	5
One day off-site training by external provider	2
Several days off-site training by external provider	3
Apprenticeship	1
Vocational training	1
Higher education	3
Other	0
Total	37

N=13

-- END OF DESTINATION MANAGEMENT SECTION --

### 3. TRAVEL AGENCIES / TOUR OPERATORS

Environmental Skills	
Current Level of Proficiency. Three most and three least proficient	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Knowledge of climate change</li> <li>2. Promotion of environmentally friendly activities and products</li> <li>3. Promotion of sustainable forms of transport (e.g. public transport)</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Ability to manage waste, sewage, recycling and composting</li> <li>2. Ability to minimise the use and maximise efficiency of energy and water consumption</li> <li>3. Conservation of biodiversity</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Promotion of sustainable forms of transport (e.g. public transport)</li> <li>2. Promotion of environmentally friendly activities and products</li> <li>3. Knowledge of climate change</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Ability to manage waste, sewage, recycling and composting</li> <li>2. Conservation of biodiversity</li> <li>3. Ability to minimise the use and maximise efficiency of energy and water consumption</li> </ol>
Training Provision for these skills?	<p>The sample size for this sector in Ireland is small-5 companies in total. Environmental skills training is barely visible except for one large company, interviewed for the qualitative phase of this study, that has taken on 'the environment' as an integral part of corporate strategy. In this case there has been a rigorous examination of the company's operations in the context of environmental impact, staff have been informed of practices that will, for instance, reduce carbon footprint. All companies report recycling efforts within the office environment.</p> <p>The survey results indicate that 2 travel agencies/tour operators provide training for their employees in environmental management skills (internally or externally provided) and 3 travel agencies/tour operators do not provide any environmental training (n=5).</p>
Most popular/ three main types of training	<ol style="list-style-type: none"> <li>1. Management skills internally or externally provided (n=2)</li> <li>2. One day on-site training by external provider (n=1)</li> <li>3. Several days on-site training by external provider (n=1)</li> </ol>

	4. Higher Education (n=1)
	5. Other (n=1)

The sample for travel agencies/tour operators is 5. Accordingly, results cannot be generalised to the sector as a whole and can only be viewed as representative of the five respondent organisations.

The mean values for all future environmental skill proficiencies are higher than the mean values for all current skill proficiency among participant organisations (Table 21). This indicates that a gap exists between current level of proficiency and future proficiency needs across all environmental skill attributes. Proficiency in environmental skills will be more important to participants from the travel agents/tour operator sector in the future.

Notable gaps between current and future environmental skills include:

- Promotion of sustainable forms of transport (current M=3.20 and future M=4.20)
- Promotion of environmentally friendly activities and products (current M=3.20 and future M=4.20).

**Table 21: Environmental Skills Gaps: Travel Agents and Tour Operators**

Environmental Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Ability to minimise the use and maximise efficiency of energy and water consumption	3.00	3.60	0.60	20.00
Ability to manage waste, sewage, recycling and composting	2.60	3.20	0.60	23.08
Conservation of biodiversity	3.00	3.40	0.40	13.33
Promotion of sustainable forms of transport (e.g. public transport)	3.20	4.20	1.00	31.25
Promotion of environmental friendly activities and products	3.20	4.20	1.00	31.25
Knowledge of climate change	3.40	4.00	0.60	17.65
<b>TOTAL</b>	<b>3.07</b>	<b>3.77</b>	<b>0.70</b>	<b>22.83</b>

N=5

The survey results indicate that 2 travel agents/tour operators provide training for their employees in environmental management skills (internally or externally provided) and 3 travel agents/tour operators do not provide any environmental training (n=5). Table 22 provides a breakdown of training type provision. This highlights that on the job and on-site training, and higher education in the employee's own time, are types of skills training offered by travel agents and tour operators. Therefore, this sector does provide some environmental training but does not offer apprenticeship or vocational training.

A number of responses were provided to the open-ended question 'can you explain why your organisation does not provide environmental management skills training for its employees?'. While the number of respondents to this question is low (3), the following highlights the key individual responses to why this sector does not provide environmental management training:

- 'something we have not considered yet'
- 'unknown as to how to go about this'
- 'we are a small company, two part time and one full employees. We do our best to be environmentally friendly all the time'.

The above statements suggest that environmental training is not currently a priority for travel agencies/tour operator respondents, particularly for the smaller companies.

**Table 22: Travel Agents/Tour Operators Environmental Training**

Environmental Skill Training Type	No. of Respondents
On the job	1
Online course	0
One day on-site training by external provider	1
Several days on-site training by external provider	1
One day off-site training by external provider	0
Several days off-site training by external provider	0
Apprenticeship	0
Vocational training	0
Higher education	1
Other	1
Total	5

N=3

It appears that respondents in this sector do not provide Environmental Management Training because, despite the popular discussion around Environment, most companies do not currently have the Environment as one of their main priorities. Similarly, participants in the qualitative interviews acknowledged that Environment is worthy of consideration if training can be proven to positively impact the ‘bottom-line’ but otherwise it is not perceived to be a priority. Interview data indicates that simple recycling procedures within the office and awareness of the desirability of sustainable transport for clients are the Environmental issues that travel agency/tour operator companies are aware of but for which they do not necessarily provide training. There were suggestions from interview participants that customers will drive the Environment issue, i.e. that businesses will react to customer demand for issues like sustainable destinations. This view is consistent with the survey finding that the gap between current and future Environment skills is largest (31%) for Promotion of sustainable forms of transport and Promotion of environmentally friendly activities and products.

### **Personal, Communication and Diversity Skills**

Current Level of Proficiency. Three most	PERSONAL SKILLS- Most: 1. Ethical conduct and respect 2. Customer orientation
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and three least proficient per category	<p>3. Initiative and commitment</p> <p><b>PERSONAL SKILLS- Least:</b></p> <ol style="list-style-type: none"> <li>1. Creativity</li> <li>2. Willingness to change</li> <li>3. Willingness to learn and to perform</li> </ol> <p><b>COMMUNICATION SKILLS – Most:</b></p> <ol style="list-style-type: none"> <li>1. Written communication skills</li> <li>2. Oral communication skills</li> <li>3. Active listening skills</li> </ol> <p><b>COMMUNICATION SKILLS – Least:</b></p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Skills related to intercultural host-guest understanding and respect</li> <li>3. Skills related to awareness of local customs (e.g., food, arts, language, crafts)</li> </ol> <p><b>DIVERSITY SKILLS – Most:</b></p> <ol style="list-style-type: none"> <li>1. Gender equality skills</li> <li>2. Age-related accessibility skills</li> <li>3. Diets and allergy needs skills</li> </ol> <p><b>DIVERSITY SKILLS – Least:</b></p> <ol style="list-style-type: none"> <li>1. Skills related to disabilities and appropriate infrastructure</li> <li>2. Skills related to diversity in religious beliefs</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p><b>PERSONAL - Most:</b></p> <ol style="list-style-type: none"> <li>1. Initiative and commitment</li> <li>2. Customer orientation</li> <li>3. Ethical conduct and respect</li> </ol>

	<p><b>PERSONAL - Least:</b></p> <ol style="list-style-type: none"> <li>1. Creativity</li> <li>2. Willingness to learn and to perform</li> <li>3. Willingness to change</li> </ol> <p><b>COMMUNICATION – Most:</b></p> <ol style="list-style-type: none"> <li>1. Skills related to cultural awareness and expression</li> <li>2. Skills related to intercultural host-guest understanding and respect</li> <li>3. Active listening skills</li> </ol> <p><b>COMMUNICATION – Least:</b></p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Skills related to awareness of local customs (e.g., food, arts, language, crafts)</li> <li>3. Written communication skills</li> </ol> <p><b>DIVERSITY– Most:</b></p> <ol style="list-style-type: none"> <li>1. Gender equality skills</li> <li>2. Age-related accessibility skills</li> <li>3. Diets and allergy needs skills</li> </ol> <p><b>DIVERSITY– Least:</b></p> <ol style="list-style-type: none"> <li>1. Skills related to diversity in religious beliefs</li> <li>2. Skills related to disabilities and appropriate infrastructure</li> </ol>
Training Provision for Social Skills	The survey results indicate that all (n=5) travel agents/tour operators provide training for their employees in social skills (internally or externally provided).
Most popular/three main types of training for social skills	<ol style="list-style-type: none"> <li>1. Other (n=5)</li> <li>2. On the job (n=3)</li> <li>3. One day on-site training by external provider (n=2)</li> </ol>

First, Table 23 highlights that the current level of personal skill proficiency among employees in the five respondent organisations is particularly low for ‘creativity’ ( $M=3.80$ ) and the most current proficient personal skill is ‘ethical conduct and respect’ ( $M=4.40$ ). The most important future level proficiency for personal skills is ‘initiative and commitment’, ‘customer orientation’ and ‘ethical conduct and respect’ (all  $M=4.60$ ). For all personal skills, the mean value is higher for future proficiency. Noteworthy personal skill gaps include the following:

- Willingness to change (current  $M=3.80$  and future  $M=4.40$ )
- Promoting a positive work environment (current  $M=4.20$  and future  $M=4.80$ )

**Table 23: Personal Skills Gaps: Travel Agents and Tour Operators**

Personal skill	Mean Value:	Mean Value:	Gap	Gap %
	Current level of proficiency (1 no skills – 5 expert)	Future level of proficiency (1 no skills - 5 expert)		
Problem solving	4.00	4.40	0.40	10.00
Initiative and commitment	4.20	4.60	0.40	9.52
Customer orientation	4.20	4.60	0.40	9.52
Ethical conduct and respect	4.40	4.60	0.20	4.55
Willingness to change	3.80	4.40	0.60	15.79
Promoting a positive work environment	4.20	4.80	0.60	14.29
Creativity	3.80	4.20	0.40	10.53
Willingness to learn and to perform	4.00	4.40	0.40	10.00
<b>TOTAL</b>	<b>4.08</b>	<b>4.50</b>	<b>0.43</b>	<b>10.43</b>

N=5

Second, Table 24 highlights communication skill proficiency. The highest current level of skill proficiency among employees in the five respondent organisations is ‘written communications skills’ ( $M=3.60$ ). This differs to the highest future level of skill proficiency: ‘skills related to cultural awareness and expression’ ( $M=4.60$ ). Additionally, the current skill ‘ability to speak foreign languages’ ( $M=2.40$ ) is particularly low indicating that employees currently do not perform well in this skill. However, as a future skill this is relatively unimportant ( $M=3.20$ ); this is consistent with comment in the qualitative study. Notable gaps between current and future communication skills include:

- Skills related to intercultural host-guest understanding and respect (current  $M=3.20$  and future  $M=4.60$ )

- Ability to speak foreign languages (current M=2.40 and future M=3.20)

There are more distinct differences among the communication skills (current vs. future) than among the personal skills.

**Table 24: Communication Skills Gaps: Travel Agents / Tour Operators**

Communication skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Written communication skills	3.60	4.20	0.60	16.67
Oral communication skills	3.60	4.60	1.00	27.78
Active listening skills	3.60	4.60	1.00	27.78
Skills related to cultural awareness and expression	3.60	4.60	1.00	27.78
Skills related to awareness of local customs (e.g. food, arts, language, crafts)	3.60	4.20	0.60	16.67
Ability to speak foreign languages	2.40	3.20	0.80	33.33
Skills related to intercultural host-guest understanding and respect	3.20	4.60	1.40	43.75
<b>TOTAL</b>	<b>3.37</b>	<b>4.29</b>	<b>0.91</b>	<b>29.12</b>

N=5

Third, Table 25 summarises diversity skill proficiency. The five respondents rank current and future needs as almost identical across diversity skills. The highest current and future level of diversity skill proficiency is 'gender equality skills' (current M=3.80, future M=4.40). All mean values are higher for all future diversity skill attributes highlighting the importance for respondents of proficiency in these skills in the future. Substantial gaps between current and future diversity proficiency include:

- Skills related to disabilities and appropriate infrastructure (current M=2.80 and future M=3.80)
- Age-related accessibility skills (current M=3.20 and future M=4.00)

**Table 25: Diversity Skills Gaps: Travel Agents / Tour Operators**

Diversity Skills	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%

Gender equality skills	3.80	4.40	0.60	15.79
Age-related accessibility skills	3.20	4.00	0.80	25.00
Diets and allergy needs skills	3.20	3.80	0.60	18.75
Skills related to disabilities and appropriate infrastructure	2.80	3.80	1.00	35.71
Skills related to diversity in religious beliefs	3.00	3.20	0.20	6.67
<b>TOTAL</b>	<b>3.20</b>	<b>3.84</b>	<b>0.64</b>	<b>20.00</b>

N=5

The survey results indicate that 3 travel agents/tour operators provide training for their employees in social skills (internally or externally provided) and 2 travel agencies/tour operators do not provide any social skill training (n=5). A summary of the type of social skill training is provided in Table 26. On the job (in house training) is the favoured type of training provision for travel agents/tour operators. Additionally, one respondent stated that social skills training is not provided by their travel agency/tour operation business because ‘we are a small organisation with 1.5 staff so not considered required at this point in time’.

**Table 26: Travel Agent/Tour Operator Social Skill Training**

Social Skill Training Type	No. of respondents
On the job	3
Online course	0
One day on-site training by external provider	2
Several days on-site training by external provider	1
One day off-site training by external provider	0
Several days off-site training by external provider	0
Apprenticeship	0
Higher education	0
Total	6

N=5

## Digital Skills

Current Level of Proficiency. Three most and three least proficient	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Operating System use skills (e.g., Windows)</li> <li>2. Microsoft Office skills (e.g., Word, Excel, Powerpoint)</li> <li>3. Social media skills</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Artificial Intelligence (AI) and robotics skills</li> <li>2. Computer programming skills</li> <li>3. Data analytics, business intelligence, big data skills</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Operating System use skills (e.g., Windows)</li> <li>2. Skills to monitor online reviews</li> <li>3. Social media skills</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Computer programming skills</li> <li>2. Artificial Intelligence (AI) and robotics skills</li> <li>3. Skills to adjust digital equipment such as Wi-Fi connectivity, sound systems and video projectors</li> </ol>
Training Provision for digital skills?	The survey results indicate that 3 travel agents/tour operators provide training for their employees in digital skills (internally or externally provided) and 2 travel agents/tour operators do not provide any digital training (n=5).
Most popular/ three main types of training for digital skills	<p>On the job (n=2)</p> <p>One day on-site training by external provider (n=1)</p> <p>Several days off-site training by an external provider (n=1)</p>

The highest current level of proficiency for digital skills in respondent organisations in the travel agents/tour operator sector is ‘operating system use skills’ ( $M=3.60$ ) and the lowest level of current proficiency is ‘artificial intelligence and robotics skills’ ( $M=1.40$ ) and ‘skills related to applying digital hardware technologies such as Augmented and Virtual Reality’ ( $M=1.60$ ). Therefore, while currently employees skills in operating systems is adequate, current skills relating to hardware technologies and artificial intelligence is poor. The highest mean values for future digital skills proficiency are ‘operating system use skills’, ‘Microsoft Office Skills’, ‘social media skills’, ‘skills to monitor online reviews’, all  $M=3.80$ , which emphasises the importance of both basic and marketing digital skills for respondents in the travel agents/tour operator sector in the future (Table 27).

Notable gaps between current and future digital skills proficiency include:

- Data analytics, business intelligence and big data skills (current  $M=2.20$  and future  $M=3.60$ )
- Skills to monitor online reviews (current  $M=2.60$  and future  $M=3.80$ )
- Artificial intelligence and robotics skills (current  $M=1.40$  and future  $M=2.00$ )

The above points indicate that a higher level of skill proficiency in the future will be required for digital skills relating to data analytics, online reviews, and new technologies, i.e. AI and robotics, in respondent organisations. Furthermore, the overall digital skills gap for travel agents/tour operators is 18.29% which is the smallest gap identified by respondents across all five sub sectors. Thus, the well established, essential nature of digital skills in this sector is confirmed.

**Table 27: Digital Skills: Travel Agents / Tour Operators**

Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Operating system use skills (e.g., Windows)	3.60	3.80	0.20	5.56
Microsoft Office Skills (e.g., Word, Excel, PowerPoint)	3.60	3.80	0.20	5.56
Skills for implementing online safety procedures	3.20	2.80	-0.40	-12.50
Online marketing and communication skills	3.00	3.40	0.40	13.33
Skills to adjust digital equipments such as Wi-Fi connectivity, sound systems and video projectors	2.80	2.80	0.00	0.00
Desktop publishing skills (for designing brochures, catalogues, etc.)	2.60	3.20	0.60	23.08
Computer programming skills	1.80	1.40	-0.40	-22.22
Website development skills	2.80	3.60	0.80	28.57
Social media skills	3.20	3.80	0.60	18.75
Skills to monitor online reviews	2.60	3.80	1.20	46.15
Data analytics, business intelligence, big data skills	2.20	3.60	1.40	63.64
Artificial Intelligence (AI) and robotics skills	1.40	2.00	0.60	42.86
Skills related to applying digital hardware technologies, such as Augmented Reality and Virtual Reality	1.60	2.00	0.40	25.00
<b>TOTAL</b>	<b>2.65</b>	<b>3.08</b>	<b>0.43</b>	<b>18.29</b>

N= 5

The survey results indicate that 3 travel agents/tour operators provide training for their employees in digital skills (internally or externally provided) and 2 visitor attractions do not provide any digital training (n=5). Table 28 below summarises the provision of digital skills training for the travel agents/tour operators sector. On the job (in house) training is the most popular type of current training provision.

Statements (reasons) for no digital training provision in this sector (2 travel agents/tour operators) are outlined as follows:

- ‘not necessary’
- ‘too small’

**Table 28: Travel Agents/Tour Operators Digital Skills Training**

Digital Skill Training Type	No. of Respondents
On the job	2
Online course	0
One day on-site training by external provider	0
Several days on-site training by external provider	0
One day off-site training by external provider	1
Several days off-site training by external provider	1
Apprenticeship	0
Vocational training	0
Higher education	1
Other	0
Total	5

N=3

-- END OF TRAVEL AGENCIES / TOUR OPERATORS SECTION --

## 4. FOOD & BEVERAGE

Environmental Skills	
Current Level of Proficiency. Three most and three least proficient	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Ability to manage waste, sewage, recycling and composting</li> <li>2. Promotion of environmentally friendly activities and products</li> <li>3. Ability to minimise the use and maximise efficiency of energy and water consumption</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Conservation of biodiversity</li> <li>2. Promotion of sustainable forms of transport (e.g. public transport)</li> <li>3. Knowledge of climate change</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Ability to minimise the use and maximise efficiency of energy and water consumption</li> <li>2. Ability to manage waste, sewage, recycling and composting</li> <li>3. Promotion of environmentally friendly activities and products</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Conservation of biodiversity</li> <li>2. Promotion of sustainable forms of transport (e.g. public transport)</li> <li>3. Conservation of biodiversity</li> </ol>
Training Provision for these skills?	The survey results indicate that 10 food and beverage provide training for their employees in environmental management skills (internally or externally provided) and 13 do not provide any environmental training (n=23).
Most popular/three main types of training	<ol style="list-style-type: none"> <li>1. On the job (n=10)</li> <li>2. Online course (n=1)</li> <li>3. one day on-site training (n=1)</li> </ol>

The sample size for the food and beverage sector is small at 23, thus findings must be interpreted in this light. Overall, the current environmental skill proficiency ratings are quite low for respondent organisations in this sector (Table 29). For example, ‘conservation of biodiversity’ ( $M=2.00$ ) and promotion of sustainable forms of transport’ ( $M=2.26$ ). The highest current level of proficiency is the ‘ability to manage waste, sewage, recycling and composting’ ( $M=3.09$ ). These findings suggest that there is a low level of current environmental skill proficiency amongst respondents. The skill with the highest future level of proficiency is the ‘ability to minimise the use and maximise efficiency of energy and water consumption’ ( $M=4.26$ ) highlighting the perceived importance of this skill for the food and beverage sector’s future generation of employees. Other highly rated future skills include: ‘ability to manage waste, sewage, recycling and composting’ ( $M=4.17$ ) and the ‘promotion of environmentally friendly activities and products’ ( $M=4.09$ ).

As highlighted in Table 29, respondents from this sector report a number of notable gaps between current and future proficiency of environmental skills including:

- Ability to minimise the use and maximise efficiency of energy and water consumption (current  $M=2.91$  and future  $M=4.26$ )
- Ability to manage waste, sewage, recycling and composting (current  $M=3.09$  and future  $M=4.17$ ).
- Conservation of biodiversity (current  $M=2.00$  and future  $M=3.09$ )

**Table 29: Environmental Skills Gaps: Food and Beverage**

Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Ability to minimise the use and maximise the efficiency of energy and water consumption	2.91	4.26	1.35	46.27
Ability to manage waste, sewage, recycling and composting	3.09	4.17	1.09	35.21
Conservation of biodiversity	2.00	3.09	1.09	54.35
Promotion of sustainable forms of transport (e.g. public transport)	2.26	3.17	0.91	40.38
Promotion of environmentally friendly activities and products	3.04	4.09	1.04	34.29
Knowledge of climate change	2.48	3.39	0.91	36.84
Total	2.63	3.70	1.07	40.50

N=23

As indicated in Table 29, the largest expected skill gap in relative terms for the 23 respondents in the food and beverage sector is ‘conservation of biodiversity’ at 54.35%. While proficiency is currently quite low/poor across these skills areas, future proficiency in a range of environmental skills is perceived to be important by these respondents.

Moreover, Table 30 shows that the overall environmental skills gap for food and beverage is 40.50% (current M=2.63 and future M=3.70). This is the largest gap percentage reported by respondents from all sectors, which suggests the future importance of environmental skill proficiency for respondents from the food and beverage sector.

**Table 30: Environmental Skills Gap by Sector**

Sector	Current	Future	Gap	Gap %
Food & Beverage	2.63	3.70	1.07	40.50%
Accommodation	3.11	4.25	1.14	36.78%
Destination Management	3.27	4.10	0.83	25.49%
Travel agents and tour operators	3.07	3.77	0.70	22.83%
Visitor Attractions	3.32	4.05	0.73	21.90%

N=74

The survey results indicate that 10 food and beverage respondents provide training for their employees in environmental management skills (internally or externally provided) and 13 do not provide any environmental training (n=23). Table 31 provides a breakdown of the current training provision by the food and beverage sector. On the job training is predominantly offered for this type of skill. Moreover, a larger proportion of respondents do not provide training for environmental skills compared to those that do. This highlights the lack of current training provision for environmental skill sets.

Examples of why training is not provided by the food and beverage sector is as follows:

- ‘cost and time’
- ‘lack of resources’
- ‘lack of time/finances’
- ‘never considered the need or interest’
- ‘no availability of courses locally and no budget’.

The above highlights that environmental skill training may not be a current priority and that time and budgetary constraints may exist for some businesses.

**Table 31: Food and Beverage Environmental Training**

<b>Environmental Training Type Provision</b>	<b>No. of Respondents</b>
On the job	10
Online course	1
One day on-site training by external provider	1
Several days on-site training by external provider	0
One day off-site training by external provider	1
Several days off-site training by external provider	0
Vocational training	0
Apprenticeship	0
Higher education	0
Other	0
Total	13

N=10

<b>Personal, Communication and Diversity Skills</b>	
Current Level of Proficiency. Three most and three least proficient per category	<p><b>PERSONAL SKILLS- Most:</b></p> <ul style="list-style-type: none"> <li>1. Customer orientation</li> <li>2. Willingness to learn and to perform</li> <li>3. Initiative and commitment</li> </ul> <p><b>PERSONAL SKILLS- Least:</b></p> <ul style="list-style-type: none"> <li>1. Creativity</li> <li>2. Willingness to change</li> <li>3. Problem solving</li> </ul> <p><b>COMMUNICATION – Most:</b></p> <ul style="list-style-type: none"> <li>1. Oral communication skills</li> <li>2. Active listening skills</li> <li>3. Skills related to intercultural host-guest understanding and respect</li> </ul>

	<p><b>COMMUNICATION</b> – Least:</p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Skills related to cultural awareness and expression</li> <li>3. Skills related to awareness of local customs (e.g., food, arts, language, crafts)</li> </ol> <p><b>DIVERSITY SKILLS</b> – Most:</p> <ol style="list-style-type: none"> <li>1. Diets and allergy needs skills</li> <li>2. Age-related accessibility skills</li> <li>3. Gender equality skills</li> </ol> <p><b>DIVERSITY SKILLS</b> – Least:</p> <ol style="list-style-type: none"> <li>1. Skills related to diversity in religious beliefs</li> <li>2. Skills related to disabilities and appropriate infrastructure</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient .	<p><b>PERSONAL</b> - Most:</p> <ol style="list-style-type: none"> <li>1. Customer orientation</li> <li>2. Ethical conduct and respect</li> <li>3. Willingness to learn and to perform</li> </ol> <p><b>PERSONAL</b> - Least:</p> <ol style="list-style-type: none"> <li>1. Creativity</li> <li>2. Problem solving</li> <li>3. Initiative and commitment</li> </ol> <p><b>COMMUNICATION SKILLS</b> – Most:</p> <ol style="list-style-type: none"> <li>1. Oral communication skills</li> <li>2. Active listening skills</li> <li>3. Skills related to cultural awareness and expression</li> </ol> <p><b>COMMUNICATION SKILLS</b> – Least:</p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Written communication skills</li> <li>3. Skills related to awareness of local customs (e.g., food, arts, language, crafts)</li> </ol> <p><b>DIVERSITY</b>– Most:</p>

	<p>1. Diets and allergy needs skills 2. Age-related accessibility skills 3. Gender equality skills</p> <p>DIVERSITY– Least:</p> <ol style="list-style-type: none"> <li>1. Skills related to diversity in religious beliefs</li> <li>2. Skills related to disabilities and appropriate infrastructure</li> </ol>
Training Provision for Social Skills	The survey results indicate that 16 food and beverage provide training for their employees in social skills (internally or externally provided) and 7 do not provide any training (n=23).
Most popular/three main types of training for social skills	<ol style="list-style-type: none"> <li>1. On the job</li> <li>2. One day on-site training by external provider</li> <li>3. Several days off-site training by external provider..</li> </ol>

The current food and beverage personal skills mean values are all relatively high in respondent organisations, indicating a good level of current proficiency in respondent organisations (Table 32). For example, ‘customer orientation’ ( $M=4.48$ ), ‘willingness to learn and perform’ ( $M=4.09$ ) and ‘initiative and commitment’ ( $M=4.04$ ) are currently high. However, higher scores are noted for the future food and beverage personal skills, for example, ‘customer orientation’ ( $M=4.87$ ), ‘ethical conduct and respect’ ( $M=4.87$ ) and ‘willingness to learn and perform’ ( $M=4.87$ ). Furthermore, gaps exist between all personal skills in this sector. Notable gaps include:

- Ethical conduct and respect (current  $M=4.00$  and future  $M=4.87$ )
- Willingness to change (current  $M=3.65$  and future  $M=4.61$ )
- Promoting a positive work environment (current  $M=3.96$  and future  $M=4.83$ ).

The above indicates that respondents believe that proficiency in all personal skills will be more important in the future/2030. Current proficiency is relatively good, however, some current skills are low, for example, ‘creativity’ ( $M=3.39$ ). Conclusively, all future personal skills exhibit a higher mean value than current personal skills indicating that respondents from the food and beverage sector attribute importance to this social skills type.

**Table 32: Personal Skills Gaps: Food and Beverage**

Personal skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Problem solving	3.78	4.57	0.78	20.69
Initiative and commitment	4.04	4.74	0.70	17.20
Customer orientation	4.48	4.87	0.39	8.74
Ethical conduct and respect	4.00	4.87	0.87	21.78
Willingness to change	3.65	4.61	0.96	26.19
Promoting a positive work environment	3.96	4.83	0.87	21.98
Creativity	3.39	4.17	0.78	23.08
Willingness to learn and to perform	4.09	4.87	0.78	19.15
<b>TOTAL</b>	<b>3.92</b>	<b>4.69</b>	<b>0.77</b>	<b>19.53</b>

N=23

The 23 respondents from the food and beverage sector report more marked differences in communication skill (Table 33). A number of these skills have a low current level of proficiency, for example, ‘ability to speak foreign languages’ (M=2.57) and ‘skills related to cultural awareness and expression’ (M=3.26). Moreover, the mean value for the majority of these skills is below 4, for example, ‘written communication skills’ (M=3.39). Future proficiency in communication skills is higher than all current proficiency. However, the gap between current and future levels of proficiency is low for some of these skills, for example, there is only a gap of 3.39% for the skill ‘ability to speak foreign languages’. This lends support to the qualitative data; foreign languages were not perceived to be a skill priority area in this sector. Sizeable gaps between current and future skill proficiency in respondent organisations are as follows:

- Skills related to cultural awareness and expression (current M=3.26 and future M=4.65)
- Skills related to awareness of local customs (current M=3.30 and future M=4.13)
- Skills related to intercultural host-guest understanding and respect (current M=3.48 and future M=4.48).

The above suggests that respondents identify a need for more emphasis to be placed on employee proficiency in socio-cultural skills in the future.

**Table 33: Communication Skills Gaps: Food and Beverage**

Communication skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Written communication skills	3.39	3.70	0.30	8.97
Oral communication skills	4.22	4.78	0.57	13.40
Active listening skills	3.61	4.70	1.09	30.12

Skills related to cultural awareness and expression	3.26	4.65	1.39	42.67
Skills related to awareness of local customs (e.g. food, arts, language, crafts)	3.30	4.13	0.83	25.00
Ability to speak foreign languages	2.57	2.65	0.09	3.39
Skills related to intercultural host-guest understanding and respect	3.48	4.48	1.00	28.75
<b>TOTAL</b>	<b>3.40</b>	<b>4.16</b>	<b>0.75</b>	<b>22.08</b>

N=23

Sizeable gaps are also observed between diversity current and future skill proficiency in participant organisations (Table 34). For example:

- Skills related to diversity in religious beliefs (current M=2.52 and future M=3.96; with a 56.90% gap)
- Age-related accessibility skills (current M=3.22 and future M=4.57; with a 41.89% gap).

Furthermore, respondents note that current proficiency in diversity skills of employees within their business is low; all scores are below 3.97 (Total M=3.22). Conversely, the majority of the future scores are over 4. For example, ‘diets and allergy needs skills’ (M=4.78), “age-related accessibility skills” (M=4.57) and ‘gender equality skills’ (M=4.35). These findings represent the highest gap in diversity skills reported by respondents across the five sub sectors (see Table 35).

**Table 34: Diversity Skills Gaps: Food and Beverage**

Diversity Skills	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Gender equality skills	3.22	4.35	1.13	35.14
Age-related accessibility skills	3.22	4.57	1.35	41.89
Diets and allergy needs skills	3.96	4.78	0.83	20.88
Skills related to disabilities and appropriate infrastructure	3.17	4.35	1.17	36.99
Skills related to diversity in religious beliefs	2.52	3.96	1.43	56.90
<b>TOTAL</b>	<b>3.22</b>	<b>4.40</b>	<b>1.18</b>	<b>36.76</b>

N=23

**Table 35: Diversity Skills Total Gap % Across Sectors**

Tourism Sub Sector	Total Gap %
Destination Management	29.46
Food and Beverage	36.76
Visitor Attractions	25.89
Travel Agents and Tour Operators	20.00
Accommodation	30.40

N=74

Additionally, although the sample is small at 74 respondents, it is interesting to note that social skills (personal, communication, diversity) represent the top five highest current and future skills across the five sub sectors. Table 36 gives the highest current and projected future skills levels total thus, highlighting the importance of social skills for respondents in all sub sectors of the tourism industry, including food and beverage. This lends support to the results of the qualitative research.

**Table 36: Top Five Current and Future Skills**

Highest Current Skills Levels Total Ireland	Score	Highest projected Future Skills Levels Total Ireland	Score
Customer orientation	4.43	Customer orientation	4.82
Oral communication skills	4.43	Promoting a positive work environment	4.80
Willingness to learn and perform	4.20	Ethical conduct and respect	4.78
Ethical conduct and respect	4.19	Willingness to learn and perform	4.78
Initiative and commitment	4.15	Oral communication skills	4.72

N=23

The survey results indicate that 16 food and beverage respondents provide training for their employees in social skills (internally or externally provided) and 7 do not provide any training (n=23). Training provision type in this sector is provided in Table 37. On the job training (in house) is the most popular type of training in this sector. Moreover, a large number of respondents stated that social skill training was provided. This differs to the above findings in the food and beverage sector where limited training is provided by organisations in environmental management skills. Arguably, the provision of social skills training is currently perceived as being important. This is further emphasised by respondents across all sectors in Ireland where the largest proportion of provision is social skills training (see Table 38 , 71.6%).

**Table 37: Food and Beverage Social Training**

Social Training Type Provision	No. of Respondents
On the job	16
Online course	0
One day on-site training by external provider	2
Several days on-site training by external provider	0
One day off-site training by external provider	0
Several days off-site training by external provider	1
Vocational training	0
Apprenticeship	0
Higher education	0
Other	0
Total	19

N=16

**Table 38: Skill Training Provision Ireland Across all Sectors**

	Yes	No	Total
Environmental skill training	39 (52.7%)	35 (47.3%)	74 (100%)
Social skill training	53 (71.6%)	21 (28.4%)	74 (100%)
Digital skill training	48 (64.9%)	26 (35.1%)	74 (100%)

N=74

Responses to the open-ended question ‘can you explain why your organisation does not provide environmental management skills training for its employees?’ are as follows:

- ‘all done informally on-the-job, management give good examples’

- ‘in house provided’
- ‘never considered this / never seen the need’
- ‘not necessary, small business’.

Digital Skills	
Current Level of Proficiency. Three most and three least proficient	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Skills to monitor online reviews</li> <li>2. Social media skills</li> <li>3. Operating System use skills (e.g., Windows)</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Computer programming skills</li> <li>2. Artificial Intelligence (AI) and robotics skills</li> <li>3. Skills related to applying digital hardware technologies, such as Augmented and Virtual Reality</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient .	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Skills to monitor online reviews</li> <li>2. Social media skills</li> <li>3. Desktop publishing skills (for designing brochures, catalogues, etc.)</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Computer programming skills</li> <li>2. Artificial Intelligence (AI) and robotics skills</li> <li>3. Website development skills</li> </ol>
Training Provision for digital skills?	The survey results indicate that 8 food and beverage provide training for their employees in environmental management skills (internally or externally provided) and 15 do not provide any environmental training (n=23).
Most popular/ three main types of training for digital skills	<ol style="list-style-type: none"> <li>1. On the job</li> <li>2. One day on-site training by external provider</li> <li>3. Several days on-site by external provider</li> </ol>

Current employee skill proficiency is reported as low for the following digital skills by respondents in the food and beverage sector: 'computer programming skills' (M=1.48), 'AI and robotics skills' (M=1.52) and 'website development skills' (M=1.83). Additionally, the majority of the current digital skills in respondent organisations in the food and beverage sector have a mean value of under 3.00, indicating a poor level of proficiency across digital skills (Table 39). The most important future skills proficiency reported by respondents in the food and beverage sector include: 'skills to monitor online reviews' (M=4.70), 'social media skills' (M=4.61) and 'online marketing and communication skills' (M=4.22). Thus, there are a number of sizeable gaps between current and future digital skill proficiency.

**Table 39: Digital Skills Gaps Food and Beverage**

Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Operating system use skills (e.g., Windows)	3.00	2.96	-0.04	-1.45
Microsoft Office Skills (e.g., Word, Excel, PowerPoint)	2.91	3.22	0.30	10.45
Skills for implementing online safety procedures	2.61	3.57	0.96	36.67
Online marketing and communication skills	2.91	4.22	1.30	44.78
Skills to adjust digital equipment such as Wi-Fi connectivity, sound systems and video projectors	2.43	2.91	0.48	19.64
Desktop publishing skills (for designing brochures, catalogues, etc.)	2.04	3.09	1.04	51.06
Computer programming skills	1.48	1.65	0.17	11.76
Website development skills	1.83	2.35	0.52	28.57
Social media skills	3.09	4.61	1.52	49.30
Skills to monitor online reviews	3.30	4.70	1.39	42.11
Data analytics, business intelligence, big data skills	2.00	3.00	1.00	50.00
Artificial Intelligence (AI) and robotics skills	1.52	1.91	0.39	25.71
Skills related to applying digital hardware technologies, such as Augmented Reality and Virtual Reality	1.61	2.09	0.48	29.73
<b>TOTAL</b>	<b>2.36</b>	<b>3.10</b>	<b>0.73</b>	<b>30.64</b>

N=23

As highlighted in table 39, data from the respondents in the food and beverage sector highlights that the total gap percentage across all digital skills is sizeable at 30.64%. This represents the second highest gap in digital skills reported by respondents across the five sub sectors. The only negative gap between current and future digital skill proficiency is 'operating system use skills' (current M=3.00, future M=2.96). This negative gap (-0.04; -1.45%) indicates that while proficiency in this skill is currently adequate, less importance could be placed on this skill in the future.

Notable gaps between current and future digital skills include the following:

- Online marketing and communications skills (current M=2.91 and future M=4.22)
- Social media skills (current M=3.09 and future M=4.61)
- Skills to monitor online reviews (current M=3.30 and future M=4.70).

Furthermore, five of the top ten gaps in relative terms reported by respondents in the food and beverage sector are digital skills (see Table 40).

**Table 40: Top Ten Gaps in Relative Terms (%)**

Food and Beverage Skills	Gap %
Skills related to diversity in religious beliefs	56.90
Conservation of biodiversity	54.35
Desktop publishing skills	51.06
Data analytics, business intelligence, big data skills	50.00
Social media skills	49.30
Ability to minimise the use and maximise efficiency of energy and water consumption	46.27
Online marketing and communication skills	44.78
Skills related to cultural awareness and expression	42.67
Skills to monitor online reviews	42.11
Age-related accessibility skills	41.89

N=23

The above results indicate that digital skill proficiency in the future is perceived to be important by respondents from the food and beverage sector, however, currently, the data suggests that there is limited training provision. Although total number of responses are low at 74 and therefore no definitive conclusions can be drawn, table 41 indicates that across the subsectors, food and beverage is the only sector with a higher count in 'no provision of digital training'. However given the sizeable gaps in digital skills, more emphasis could be placed on digital skill training in the future.

**Table 41: Digital Skill Training Provision across Sectors**

Sector	Yes	No	Total
Destination Management	13	0	13
Food and Beverage	8	15	23
Visitor Attractions	13	6	19
Travel Agents and Tour Operators	3	2	5
Accommodation	11	3	14
	48	26	74

N=74

Table 42 shows that respondents in the food and beverage sector currently provide a range of training, including online courses, several days on-site training and on the job training. Key responses to the open-ended question ‘can you explain why your organisation does not provide environmental management skills training for its employees?’ are highlighted below:

- ‘company doesn’t have funds for this training’
- ‘do not have time available to do so’
- don’t feel it is something we currently need’
- ‘it is not really needed’
- ‘lack of resources’
- ‘lack of time/finances’
- ‘manager does all of the online marketing, no need for staff training’
- ‘we are a franchise and all digital marketing is centrally controlled’

**Table 42: Food and Beverage Digital Training**

Digital Training Type Provision	No. of Respondents
On the job	7
Online course	2
One day on-site training by external provider	4
Several days on-site training by external provider	3
One day off-site training by external provider	2

Several days off-site training by external provider	1
Vocational training	1
Apprenticeship	1
Higher education	2
Other	1
<b>Total</b>	<b>24</b>

N=23

It must be highlighted that results cannot be generalised to the food and beverage sector in Ireland due to low respondent numbers.

-- END OF FOOD & BEVERAGE SECTION --

## 5. ACCOMMODATION

Environmental Skills	
Current Level of Proficiency. Three most and three least proficient	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Promotion of environmentally friendly activities and products</li> <li>2. Ability to minimise the use and maximise efficiency of energy and water consumption</li> <li>3. Ability to manage waste, sewage, recycling and composting</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Knowledge of climate change</li> <li>2. Conservation of biodiversity</li> <li>3. Promotion of sustainable forms of transport (e.g. public transport)</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Ability to minimise the use and maximise efficiency of energy and water consumption</li> <li>2. Ability to manage waste, sewage, recycling and composting</li> <li>3. Promotion of environmentally friendly activities and products</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Conservation of biodiversity</li> <li>2. Knowledge of climate change</li> <li>3. Promotion of sustainable forms of transport (e.g. public transport)</li> </ol>
Training Provision for these skills?	<p>The majority of respondents provide training in environmental skills (N=10) while 4 of the total 14 respondents do not provide any training. The main training methods used include:</p> <ol style="list-style-type: none"> <li>1. On the job (N=9)</li> <li>2. Several days off-site by external provider (N=1)</li> <li>3. Apprenticeship (1)</li> </ol>

There was a low total sample of 14 for the accommodation sector, making it impossible to generalise across the sector. The mean values for all future environmental skills proficiency are higher than those for all current environmental skills proficiency. This signifies that the 14 respondents have identified an existing gap between current levels of proficiency and future needs in all environmental skills in their organisations (Table 43).

**Table 43: Environmental Skills Gaps: Accommodation Sector**

Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Ability to minimise the use and maximise the efficiency of energy and water consumption	3.43	4.64	1.21	35.42
Ability to manage waste, sewage, recycling and composting	3.43	4.64	1.21	35.42
Conservation of biodiversity	2.79	3.79	1.00	35.90
Promotion of sustainable forms of transport (e.g. public transport)	2.86	4.07	1.21	42.50
Promotion of environmentally friendly activities and products	3.50	4.57	1.07	30.61
Knowledge of climate change	2.64	3.79	1.14	43.24

N=14

The highest environmental skills gap (current versus future skills proficiency) is in the area of ‘knowledge of climate change’ with a gap of 43.24%, indicating that a low level of proficiency currently exists relative to future needs within respondents’ organisations. The top three environmental skills proficiency gaps (current versus future) are:

- Knowledge of climate change with a gap of 43.24% (current M=3.11 and future M=4.25)
- Promotion of sustainable forms of transport with a gap of 42.5% (current M=2.84 and future M=4.07)
- Conservation of biodiversity with a gap of 35.9% (current M=2.79 and future M=3.79)

Bearing in mind that the number of responses are low, and therefore no definitive conclusions can be drawn, in terms of importance the ‘promotion of environmentally friendly products and services’ (current M=3.50 and future M=4.57) has the highest current proficiency level and is seen as the most important environmental skill in terms of future proficiency. Similarly, ‘the ability to minimise the use and maximise efficiency of energy and water consumption’; ‘ability to manage waste, sewage, recycling and composting’ and the ‘promotion of sustainable forms of transport’ (current M= 3.43 and future M= 4.64 for both) are also seen as important by respondents in terms of current and future proficiency. Therefore, those skills that are rated as most important currently and for the future and where notable gaps exist in proficiency include:

- Promotion of environmentally friendly activities and products: skills gap 30.61%

- Ability to minimise use and maximise efficiency of energy and water consumption: skills gap: 35.42%
- Ability to manage waste, sewage, recycling and composting: skills gap: 35.42%

This reflects the findings of the qualitative research where there was a general agreement by participants that environmental skills would become increasingly important in the future, particularly in relation to how they could generate efficiencies for the organisation. These findings also concur with the highest projected future skills needs across all 5 tourism sectors under study, where these three skills were rated by participants as the highest environmental future skills needs (Table 44). Additionally, relative to other skills sets (digital and social) in the accommodation sector, gaps in environmental skills such as ‘conservation of biodiversity’ (35.9%), the ‘ability to minimise the use and maximise the efficiency of energy and water consumption’ (35.4%) and the ‘ability to manage waste, sewage, recycling and composting’ (35.42) rank in position 10, 11 and 12 out of 38 skills in terms of gaps between current and future proficiency across all skills, indicating that the 74 survey respondents felt that these skills are becoming increasingly important.

**Table 44: Highest Projected Future Environmental Skills Needs Across all Sectors (Accommodation, Food & Beverage, Visitor Attractions, Destination Management, Tour Operators & Travel Agents)**

Environmental Skill	Score
Ability to maximise the use and efficiency of energy and water consumption	4.23
Promotion of environmentally friendly activities and products	4.22
Ability to manage waste, sewage, recycling and composting	4.20

N=74

Overall, the skills gap for environmental skills identified by the 14 respondents in the accommodation sector are the highest when compared with overall gaps in other skill sets in the accommodation sector indicating that current proficiency is low for these skills, as outlined in Table 45 below:

**Table 45: Highest Skills Gaps for all Skill Sets in the Accommodation Sector**

Accommodation Sector Skills		Total Gap %
Environmental skills		36.78
Digital skills		32.20
Social Skills	Diversity	30.40
	Personal	15.07
	Communication	10.66

N=14

In terms of comparison with other tourism sectors (Table 46), the accommodation sector is the second highest regarding environmental skills gaps with a gap of 36.78% in overall environmental skills, and has the highest mean score (4.25) in terms of future proficiency in environmental skills. This indicates that the respondents from this sector have identified a notable gap between current and future environmental skills needs.

**Table 46: Environmental Skills Gap by Sector**

Sector	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Food & Beverage	2.63	3.70	1.07	40.50%
Accommodation	3.11	4.25	1.14	36.78%
Destination Management	3.27	4.10	0.83	25.49%
Travel agents and tour operators	3.07	3.77	0.70	22.83%
Visitor Attractions	3.32	4.05	0.73	21.90%

N=74

Survey data indicates that currently proficiency in environmental skills reported by respondents across all sectors is low. However, as discussed above in relation to the accommodation sector, there is recognition among respondents that proficiency in certain environmental skills will be important in the future. This is also highlighted in Table 47 below which shows the highest projected future skills needs for all skill sets (environmental, digital, social) across all 5 sectors (accommodation, food & beverage, destination management, tour operators & travel agents, visitor attraction) in Ireland, and indicates that three environmental skills are ranked in the top 24 skills by respondents: ‘ability to minimise the use and maximise efficiency of energy and water consumption’, ‘promotion of environmentally friendly activities and products’, and ‘ability to manage waste, sewage, recycling and composting’.

**Table 47: Highest Projected Future Skills Needs for all Sectors**

SKILL	MEAN VALUE (highest - lowest)
Customer orientation	4.82
Promoting a positive work environment	4.80
Ethical conduct and respect	4.78
Willingness to learn and to perform	4.78
Oral communication skills	4.72
Willingness to change	4.70
Active listening skills	4.68
Initiative and commitment	4.68
Skills related to cultural awareness and expression	4.65
Problem solving	4.61
Diets and allergy needs skills	4.57
Age-related accessibility skills	4.55
Creativity	4.50
Social media skills	4.47
Gender equality skills	4.46
Skills related to intercultural host-guest understanding and respect	4.45
Skills to monitor online reviews	4.45
Skills related to disabilities and appropriate infrastructure	4.39
Skills related to awareness of local customs (e.g. food, arts, language, crafts)	4.38
Online marketing and communication skills	4.36
Ability to minimise the use and maximise efficiency of energy and water consumption	4.23
Promotion of environmentally friendly activities and products	4.22
Skills related to diversity and religious beliefs	4.20
Ability to manage waste, sewage, recycling and composting	4.20

N=74

In terms of training, the survey results indicate that 10 out of 14 accommodation providers provide training to staff in the area of environmental skills. On the job training is primarily used (n=9), with only one respondent providing a number of days training off-site by an external provider, and one supporting training by way of an apprenticeship. This reflects the findings across the other tourism sectors where 44.6% of respondents provide on the job training in environmental skills. It

also reflects the findings of the qualitative research where respondents explained that environmental training was predominantly done in-house and generally only provided to staff within specific departments e.g. facilities management.

Overall, the findings indicate that the majority of accommodation respondents (71%) provide some type of training on environmental skills, although it should be acknowledged that respondent numbers are low at 14, making it impossible to generalise across the sector. Four respondents do not provide training in this area for the following reasons:

- ‘no requirement at this point’
- ‘unable to provide the service in-house’
- ‘focus on improving industry skills at present’

These responses suggest that training in environmental skills is not currently seen as a priority by 21% of respondents (n=14). This again reflects the findings of the qualitative research where accommodation providers were found to be less focused on providing training in environmental skills. The qualitative research also identified that there was a general awareness among accommodation providers that developing awareness and skills in this area was something that would be important going forward, in particular with regard to how green practices can generate efficiencies for the business, which also reflects the survey findings.

<b>Personal, Communication and Diversity Skills</b>	
Current Level of Proficiency. Three most and three least proficient per category	<p><b>PERSONAL SKILLS- Most:</b></p> <ol style="list-style-type: none"><li>1. Customer orientation</li><li>2. Willingness to learn and to perform</li><li>3. Ethical conduct and respect</li></ol> <p><b>PERSONAL SKILLS- Least:</b></p> <ol style="list-style-type: none"><li>1. Creativity</li><li>2. Willingness to change</li><li>3. Problem solving</li></ol> <p><b>COMMUNICATION SKILLS – Most:</b></p> <ol style="list-style-type: none"><li>1. Oral communication skills</li><li>2. Active listening skills</li></ol>

	<p>3. Skills related to cultural awareness and expression</p> <p><b>COMMUNICATION SKILLS – Least:</b></p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Skills related to cultural awareness and expression</li> <li>3. Written communication skills</li> </ol> <p><b>DIVERSITY SKILLS – Most:</b></p> <ol style="list-style-type: none"> <li>1. Diets and allergy needs skills</li> <li>2. Gender equality skills</li> <li>3. Age-related accessibility skills</li> </ol> <p><b>DIVERSITY SKILLS – Least:</b></p> <ol style="list-style-type: none"> <li>1. Skills related to diversity in religious beliefs</li> <li>2. Skills related to disabilities and appropriate infrastructure</li> </ol>
Future level of proficiency in 2030. Three most and three least proficient.	<p><b>PERSONAL - Most:</b></p> <ol style="list-style-type: none"> <li>1. Ethical conduct and respect</li> <li>2. Willingness to change</li> <li>3. Promoting a positive work environment</li> </ol> <p><b>PERSONAL - Least:</b></p> <ol style="list-style-type: none"> <li>1. Creativity</li> <li>2. Initiative and commitment</li> <li>3. Problem solving</li> </ol> <p><b>COMMUNICATION – Most:</b></p> <ol style="list-style-type: none"> <li>1. Oral communication skills</li> <li>2. Active listening skills</li> <li>3. Skills related to cultural awareness and expression</li> </ol> <p><b>COMMUNICATION – Least:</b></p> <ol style="list-style-type: none"> <li>1. Ability to speak foreign languages</li> <li>2. Written communication skills</li> <li>3. Skills related to intercultural host-guest understanding and respect</li> </ol>

	<p>DIVERSITY– Most:</p> <ol style="list-style-type: none"> <li>1. Diets and allergy needs skills</li> <li>2. Gender equality skills</li> <li>3. Age-related accessibility skills</li> </ol> <p>DIVERSITY– Least:</p> <ol style="list-style-type: none"> <li>1. Skills related to disabilities and appropriate infrastructure</li> <li>2. Skills related to diversity in religious beliefs</li> </ol>
Training Provision for Social Skills	The findings show that of the 14 respondents 10 provide training in social skills, while 4 do not.
Most popular/ three main types of training for social skills	<p>Some respondents use more than one method of social skills training, the three main types are:</p> <ol style="list-style-type: none"> <li>1. On the job (11)</li> <li>2. One day on-site training by external provider (3)</li> <li>3. Higher education (3)</li> </ol>

With regard to personal skills for the accommodation sector (N=14), the mean values for all future personal skills proficiency are higher than those for all current personal skills proficiency (Table 48). This signifies that in the respondents' organisations, a gap exists between current levels of proficiency and future needs with regards to proficiency in all personal skills. Of particular note is the fact that all skills rate highly in terms of current and future levels of proficiency, indicating the level of importance that respondents place on personal skills. This concurs with findings in the qualitative research where interviewees explained that social skills (personal, communication and diversity skills) were the most important of all skill types.

**Table 48: Personal Skills Gaps: Accommodation Sector**

Personal skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Problem solving	4.21	4.86	0.64	15.25
Initiative and commitment	4.29	4.79	0.50	11.67
Customer orientation	4.57	4.86	0.29	6.25
Ethical conduct and respect	4.36	4.93	0.57	13.11
Willingness to change	4.00	4.93	0.93	23.21
Promoting a positive work environment	4.21	4.86	0.64	15.25
Creativity	4.21	4.86	0.64	15.25
Willingness to learn and to perform	4.57	4.86	0.29	6.25
<b>TOTAL</b>	<b>4.21</b>	<b>4.84</b>	<b>0.63</b>	<b>15.07</b>

N=14

For the 14 respondent organisations, the highest current level of proficiency in personal skills are: ‘customer orientation’ ( $M=4.57$ ), ‘willingness to learn and to perform’ ( $M=4.57$ ) and ‘ethical conduct and respect’ ( $M=4.36$ ). In relation to future personal skills, these skills remain important however, ‘ethical conduct and respect’ and ‘willingness to change’ are rated highest with a mean value of 4.93 each. In relation to gaps in personal skills current vs. future, the most significant skills gap is ‘creativity’ (35.42%), this occurs as current proficiency in this skill is lower than for other personal skills ( $M=3.43$ ) but is considered important for the future ( $M=4.64$ ). In contrast, the least significant skills gaps at 6.25% are ‘customer orientation’ and ‘willingness to learn and to perform’, while these are considered important for the future in terms of proficiency ( $M=4.86$  for each), proficiency is currently quite high ( $M=4.57$  for each).

In terms of future proficiency in personal skills the following skills had the highest mean values:

- Ethical conduct and respect ( $M=4.93$ )
- Willingness to change ( $M=4.93$ )
- Customer orientation ( $M=4.86$ )
- Promoting a positive work environment ( $M=4.86$ )
- Willingness to learn and to perform ( $M=4.86$ )
- Problem solving ( $M=4.86$ )

In relation to these skills, the highest gaps (current versus future proficiency) are:

- Willingness to change (gap 23.21%)
- Problem solving (gap 15.25%)
- Promoting a positive work environment (15.25%)

This indicates that proficiency levels in some personal skills that are considered important both now and in the future ('ethical conduct and respect', 'customer orientation' and 'willingness to learn and to perform') is currently considered to be quite high by respondents.

With regard to communication skills, the mean values for future communication skills proficiency are higher than those for current communication skills proficiency with one exception; 'ability to speak foreign languages' (current M=3.14, future M=2.93, gap of -6.82%) as outlined in Table 49. This is notable and indicates that respondents see the need for proficiency in foreign language skills declining in the future. This reflects the findings of the qualitative research where the need for language skills was not considered a key requirement but rather an extra benefit. Apart from this, the most notable gap in communications skills (current vs. future) is in relation to 'skills related to cultural awareness and expression' (26%), this has the lowest current proficiency score (M=3.79) but respondents see proficiency in this skill as important in the future. In relation to current proficiency in communication skills, 'oral communication skills' (M=4.57); 'active listening skill' (M=4.29) and 'skills related to intercultural host-guest understanding and respect' (M=4.29) score highest in terms of current proficiency and while the gaps in skills proficiency are quite low, these skills are also considered important for the future by respondents.

**Table 49: Communication Skills Gaps: Accommodation Sector**

Communication Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap %
Written communication skills	3.93	4.36	0.43	10.91
Oral communication skills	4.57	4.86	0.29	6.25
Active listening skills	4.29	4.86	0.57	13.33
Skills related to cultural awareness and expression	3.79	4.79	1.00	26.42
Skills related to awareness of local customs (e.g. food, arts, language, crafts)	4.14	4.71	0.57	13.79
Ability to speak foreign languages	3.14	2.93	-0.21	-6.82
Skills related to intercultural host-guest understanding and respect	4.29	4.64	0.36	8.33
<b>TOTAL</b>	<b>4.02</b>	<b>4.45</b>	<b>0.43</b>	<b>10.66</b>

N=14

In terms of future proficiency in communication skills, as reported by respondents in the accommodation sector, the following skills had the highest mean values:

- Oral communication skills ( $M=4.86$ )
- Active listening skills ( $M=4.86$ )
- Skills related to cultural awareness and expression ( $M=4.79$ )
- Skills related to awareness of local customs (e.g. food, arts, language, crafts) ( $M=4.71$ )
- Skills related to inter-cultural host-guest understanding and respect ( $M=4.64$ )
- Written communication skills ( $M=4.36$ )

This shows that each of these skills were considered of high importance in term of future skills needs by the fourteen respondents. However, as outlined above, the gap for some of these skills is quite low, indicating that proficiency is currently quite high. The most notable gaps between current and future proficiency in these skills are for:

- Skills related to cultural awareness and expression (26.42%)
- Skills related to awareness of local customs (e.g. food, arts, language, crafts) (13.79%)
- Active listening skills (13.33%)

As outlined in Table 50, in comparison to other skills sets (e.g. environmental skills), the gaps in communication skills are low and overall the skills gap for communication skills are the lowest when compared with overall gaps in other skill sets indicating that current proficiency is identified by the 14 respondents as highest for communication skills.

**Table 50: Overall Skills Gaps: Accommodation Sector**

Accommodation Sector Skills		Total Gap %
Social Skills	Communication	10.66
	Personal	15.07
	Diversity	30.40
Digital skills		32.20
Environmental skills		36.78

N=14

Concerning diversity skills in the accommodation sector (N=14), the mean values for all future diversity skills proficiency are higher than those for all current diversity skills proficiency (Table 51). This indicates that a gap exists between current and future levels of proficiency for all diversity skills within respondent organisations in the accommodation sector (N=14).

**Table 51: Diversity Skills Gaps: Accommodation Sector**

Diversity Skills	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Gender equality skills	3.64	4.71	1.07	29.41
Age-related accessibility skills	3.57	4.71	1.14	32.00
Diets and allergy needs skills	4.07	4.86	0.79	19.30
Skills related to disabilities and appropriate infrastructure	3.57	4.36	0.79	22.00
Skills related to diversity in religious beliefs	3.00	4.64	1.64	54.76
<b>TOTAL</b>	<b>3.57</b>	<b>4.66</b>	<b>1.09</b>	<b>30.40</b>

N=14

Of particular note is the skills gap (current vs. future) for ‘skills related to diversity in religious beliefs’ which has the highest gap of all diversity skills at 54.76%. Respondents acknowledge that skills proficiency in this skill is important for the future ( $M=4.64$ ) however, current skill proficiency is lower than that for other skills ( $M=3$ ). As illustrated in Table 53, this skill is also ranked in the top 24 future skills needs across all skills types, across all tourism sectors (accommodation, food & beverage, destination management, visitor attractions, tour operators and travel agents). Similarly, the skills gap for ‘age-related accessibility skills’ is identified as 32% by respondents in the accommodation sector and is similarly ranked as important in terms of future proficiency across all sectors (table 53). The third largest gap is in relation to ‘gender equality’ which has a skills gap identified by respondents in the accommodation sector of 29.41%, this indicates that current proficiency in this skill area is lower than what will be required in the future, indicating a need for further training in respondent organisations. Therefore, the three highest skills gaps in relation to diversity skills as reported by respondents in the accommodation sector are:

- Skills related to diversity in religious beliefs (54.76%)
- Age-related accessibility skills (32%)
- Gender equality (29.41%)

The lowest gap identified by respondents, is in relation to ‘diets and allergy needs skills’, proficiency in this skill is considered important for the future ( $M=4.86$ ) but current proficiency is high ( $M=4.07$ ). In terms of social skills (personal, communication, diversity) in the accommodation sector, diversity skills are highest in terms

of skills gaps as outlined in Table 52, indicating that this is an area where current skills proficiency is lowest ( $M=3.57$ ) but that proficiency in these skills is considered important for the future by the respondents ( $M=4.66$ ).

**Table 52: Social Skills Gaps: Accommodation Sector**

Social Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Diversity	3.57	4.66	1.09	30.40
Personal	4.21	4.84	0.63	15.07
Communication	4.02	4.45	0.43	10.66

N=14

While the gap in these skills is high relative to other social skills, the current level of proficiency is also quite high ( $M=3.57$ ) indicating that respondents currently identify a level of proficiency in these skills within their organisations. Again, this reflects the findings of the qualitative research, which highlighted that interviewees consider social skills to be important currently and in the future.

In comparison with other industry sectors, diversity skills in the accommodation sector ranks second in terms of skills gaps (Table 53) by respondents (n=74).

**Table 53: Skills Gaps in Diversity Skills: All Sectors**

Sector	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Food & Beverage	3.22	4.40	1.18	36.76
Accommodation	3.57	4.66	1.09	30.40
Destination Management	3.45	4.46	1.02	29.46
Visitor Attractions	3.54	4.45	0.92	25.89
Tour agents and tour operators	3.20	3.84	0.64	20.00

N=74

Concerning training in social skills, 12 respondents (N=14) ticked ‘Yes’ to the question asking them if they provided training in social skills. The most popular type of training is ‘on the job training’, followed by ‘one day on-site training by external provider’ and ‘higher education’. ‘One day off-site training by external provider’ is

provide by two respondents while other forms of training include; 'online course, several day on-site by external provider and 'other' (Table 54). Reasons for not providing training in social skills were not provided.

**Table 54: Social Skills Training by Type: Accommodation Sector**

Social Skills Training Type	No. of respondents
On the job	11
Online course	1
One day on-site training by external provider	3
Several days on-site training by external provider	1
One day off-site training by external provider	2
Several days off-site training by external provider	0
Vocational training	0
Apprenticeship	0
Higher education	3
Other	1
None	2
Total	14

N= 14

## Digital Skills

Current Level of Proficiency. Three most and three least proficient	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Microsoft Office skills (e.g., Word, Excel, Powerpoint)</li> <li>2. Skills to monitor online reviews</li> <li>3. Social media skills</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Skills related to applying digital hardware technologies, such as Augmented and Virtual Reality</li> <li>2. Computer programming skills</li> </ol>
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	3. Artificial Intelligence (AI) and robotics skills
Future level of proficiency in 2030. Three most and three least proficient .	<p>Most:</p> <ol style="list-style-type: none"> <li>1. Skills to monitor online reviews</li> <li>2. Social media skills</li> <li>3. Online marketing and communication skills</li> </ol> <p>Least:</p> <ol style="list-style-type: none"> <li>1. Computer programming skills</li> <li>2. Skills related to applying digital hardware technologies, such as Augmented and Virtual Reality</li> <li>3. Artificial Intelligence (AI) and robotics skills</li> </ol>
Training Provision for digital skills?	11 respondents provide training in digital skills (N=14).
Most popular/ three main types of training for digital skills	<ol style="list-style-type: none"> <li>1. On the job (7)</li> <li>2. Several days on-site training by external provider (4)</li> <li>3. Several days off-site training by external provider (3)</li> </ol>

Concerning digital skills, participants in the accommodation sector (n=14) noted a gap between current and future proficiency in all digital skills (Table 55 ). Digital (current vs. future) skills gaps are most pronounced for the following skills:

- Artificial intelligence (AI) and robotics skills (60%)
- Skills related to applying digital hardware technologies such as Augmented & Virtual Reality (53.57%)
- Data analytics, business intelligence, big data skills (47.5%)

This indicates that a low level of proficiency in relation to these skills exists within accommodation provider respondent organisations, and that there is recognition among respondents that proficiency will be important in the future. In relative terms, these skills were rated in the top four skills with regards to the highest gap between current and future skills proficiency for all skills (digital, social, environmental) by respondents in the accommodation sector. Also of note is the gap for ‘desktop publishing skills’ (current M=2.07, future M=4), signifying that while proficiency is currently low relative to other digital skills, proficiency in these skills is considered important for the future.

The smallest gap between current and future skills is for ‘operating systems use skills’ (10.53%) and ‘microsoft office skills’ (10.32%,) indicating that while these skills are considered important for the future by respondents, current proficiency in respondent organisations is high, and is higher than for other digital skills.

These skills were rated highly by respondents from across all sectors (accommodation, food & beverage, visitor attractions, destination management, tour operators & travel agents, n=74), across all skills sets (digital, environmental, social) in terms of current proficiency.

Of particular note are the findings with regards to ‘computer programming skills’, currently proficiency amongst respondents in these skills is low ( $M=2.07$ ), however in relation to other digital skills, this skill also rates lowest in terms of how important future proficiency will be ( $M=2.93$ ) indicating that these accommodation providers see this skill as less important than other digital skills both now and in the future.

**Table 55: Digital Skills: Accommodation**

Skill	Mean Value: Current level of proficiency (1 no skills – 5 expert)	Mean Value: Future level of proficiency (1 no skills - 5 expert)	Gap	Gap%
Operating system use skills (e.g., Windows)	4.07	4.50	0.43	10.53
Microsoft Office Skills (e.g., Word, Excel, Powerpoint)	4.14	4.57	0.43	10.34
Skills for implementing online safety procedures	3.36	4.36	1.00	29.79
Online marketing and communication skills	3.93	4.86	0.93	23.64
Skills to adjust digital equipment such as Wi-Fi connectivity, sound systems and video projectors	3.50	4.21	0.71	20.41
Desktop publishing skills (for designing brochures, catalogues, etc.)	2.93	4.00	1.07	36.59
Computer programming skills	2.07	2.93	0.86	41.38
Website development skills	2.57	3.71	1.14	44.44
Social media skills	4.00	4.86	0.86	21.43
Skills to monitor online reviews	4.14	4.93	0.79	18.97
Data analytics, business intelligence, big data skills	2.86	4.21	1.36	47.50
Artificial Intelligence (AI) and robotics skills	2.14	3.43	1.29	60.00
Skills related to applying digital hardware technologies, such as Augmented Reality and Virtual Reality	2.00	3.07	1.07	53.57
<b>TOTAL</b>	<b>3.21</b>	<b>4.13</b>	<b>0.92</b>	<b>32.20</b>

N=14

The three future skills needs identified as most important by participants are:

- Skills to monitor online reviews (current M=4.14, future M=4.93)
- Social media skills (current M= 4.00, future M=4.86)
- Online marketing and communication skills (current M=3.93, future M=4.86)

Proficiency in these skills amongst respondents is currently quite high however, while the skills gaps are relatively low, the importance of these skills with regard to future proficiency is rated highly. These findings reflect the qualitative research, which similarly identified these skills as important skills both currently and for the future. Additionally, ‘social media skills’ were rated highly by respondents across all sectors (accommodation, food & beverage, visitor attractions, destination management, tour operators & travel agents, n=74), across all skills sets (digital, environmental, social) in terms of current proficiency. Of note, these three skills are the only digital skills to rate amongst the highest projected future skills, across all sectors and all skills sets in terms of importance with regard to future proficiency as follows:

- Social media skills: Ranking of 14 out of 24 in terms if importance for future proficiency
- Skills to monitor online reviews: Ranking of 17 out of 24 in terms of importance for future proficiency
- Online marketing and communication skills: Ranking of 20 out of 24 in terms of importance for future proficiency

Relative to other skill types (environmental and social), digital skills rate second highest in terms of skills gaps by respondents in the accommodation sector (Table 56), indicating a higher gap in digital skills needs (current vs. future) relative to social skills needs within respondent organisations.

**Table 56: Highest Skills Gaps for all Skill Sets in the Accommodation Sector**

Accommodation Sector Skills		Gap %
Environmental skills		36.78
Digital skills		32.20
Social Skills	Diversity	30.40
	Personal	15.07
	Communication	10.66

N=14

With regards to training in digital skills, the majority of accommodation providers (11 out of 14) currently provide some form of training in digital skills. Training types are outlined in Table 57, which shows that the most popular types of training is a combination of ‘on the job’ (7), followed by ‘several days on-site training by external provider’ (4) and ‘several days off-site training by external provider’ (3) and ‘online course’ (3).

**Table 57: Digital Training Type Provision: Accommodation Sector**

Digital Training Type Provision Accommodation	No. of respondents
On the job	7
Online course	3
One day on-site training by external provider	1
Several days on-site training by external provider	4
One day off-site training by external provider	2
Several days off-site training by external provider	3
Vocational training	1
Apprenticeship	0
Higher education	1
Other	0

N=11

With regards to the reasons why some respondents do not provide any training in digital skills, the following reasons were provided:

- ‘lack of resources’
- ‘Small organisation so manager/owner undertakes all digital related activities’

-- END OF ACCOMMODATIONS SECTION --

#### CONCLUSION: Skill Gap Analysis across Sectors

Tables 48-54 provide a skills gap analysis across all of the five sectors (n=74). For each skill set (environmental, social and digital), the skill/attribute with the largest gap between current and future level of proficiency is highlighted. Additionally, the overall gap across sectors is highlighted. Table 48 summarises these key findings (n=74). The largest total skill gap identified by Irish respondents is digital skills. Additionally, across all sectors (n=74) all mean values for future level skill proficiency are higher than the current level of proficiency. All gaps are positive indicating that respondents predict growing importance of all skills in the future. This finding differs in individual sectors where some negative gaps exist. It must be noted that from the perspective of individual sectors in Ireland, small respondent numbers mean results cannot be generalised beyond respondent organisations and must be interpreted in light of this limitation.

**Table 48: Largest Skill Gaps and Total Skill Gaps Across Sectors**

Skill	Largest Skill Gap Attribute	Total Skill Gap	Total Skill Gap %
<b>Environmental</b>	Ability to minimise the use and maximise efficiency of energy and water	0.93	30.52
<b>Personal</b>	Willingness to change	4.09	15.16
<b>Communication</b>	Skills related to cultural awareness and expression	0.68	18.59
<b>Diversity</b>	Skills related to diversity in religious beliefs	1.03	30.24
<b>Digital</b>	Data analytics, business intelligence, big data skills	0.79	30.65

N=74

### **Environmental Skills Gaps Analysis**

Table 49 outlines the environmental skills gaps identified by 74 respondents across all sectors in Ireland and highlights the ‘promotion of sustainable forms of transport’ as having the highest skills gap across all environmental skills in all sectors (34.63%). However, in terms of importance, while having a lower skills gap (current vs future), the following skills are rated as the top three skills in relation to future proficiency by respondents:

- Ability to minimise the use and maximise efficiency of energy and water’ (M=4.23)
- Promotion of environmentally friendly activities and products (M=4.22)
- Ability to manage waste, sewage, recycling and composting (M=4.20)

**Table 49: Environmental Skills across Sectors**

Environmental Management Skill	Current Level of Proficiency (1=no skills present, 5=expert)		Future Level of Proficiency Needed in 2030 (1=no skills present, 5=expert)		GAP	GAP%
	Mean	St. Deviation	Mean	St. Deviation		
Ability to minimise the use and maximise efficiency of energy and water	3.23	1.054	4.23	1.067	1.00	30.96
Ability to manage waste, sewage, recycling and composting	3.30	1.119	4.20	1.060	0.91	27.46
Conservation and biodiversity	2.68	1.304	3.58	1.314	0.91	33.84
Promotion of sustainable forms of transport	2.77	1.245	3.73	1.208	0.96	34.63
Promotion of environmentally friendly activities and products	3.27	1.076	4.22	1.037	0.95	28.93
Knowledge of climate change	3.00	1.170	3.85	1.178	0.85	28.38
<b>TOTAL GAP</b>	<b>3.04</b>		<b>3.97</b>		<b>0.93</b>	<b>30.52</b>

N=74

Also of particular interest is the finding that in relation to ‘highest current skills level in Ireland’ (all sectors), no environmental skills are listed. However, in relation to a ranking of the top 24 ‘highest projected future skills levels total Ireland’, three environmental skills rank in 21st, 22nd and 24th position, thus indicating an awareness among respondents of the growing importance of these skills. The skills include:

- Ability to minimise use and maximise efficiency of energy and water consumption (ranked 21st)
- Promotion of environmentally friendly activities and products (ranked 22nd)
- Ability to manage waste, sewage, recycling and composting (ranked 24th)

With regards to comparison with environmental skills gaps at European level, there is a significant gap between Europe and Ireland’s environmental skills proficiency (current vs future). The study shows that Ireland has an overall skills gap of 30.52%, while the European gap is 19%, which suggest a current deficit in environmental skills proficiency in Ireland when compared to Europe. However, statistical analysis is needed to determine whether this difference is significant or not.

## Social Skills Gap Analysis

Comparing social skills with other skills types (digital and environmental) across all tourism sectors in Ireland (accommodation, food & beverage, destination management, visitor attractions, tour operators and travel agents), social skills rank highest and appear most frequently (18 social skills from a total of 24 skills) in terms of future projected skills needs (Table 50). While it is not possible to generalise from these results as a result of the small sample size, this suggests that proficiency in social skills is considered important by respondents from all sectors.

**Table 50: Highest Projected Future Skills Needs for all Sectors**

SKILL TYPE	MEAN VALUE (highest - lowest)
Customer orientation	4.82
Promoting a positive work environment	4.80
Ethical conduct and respect	4.78
Willingness to learn and to perform	4.78
Oral communication skills	4.72
Willingness to change	4.70
Active listening skills	4.68
Initiative and commitment	4.68
Skills related to cultural awareness and expression	4.65
Problem solving	4.61
Diets and allergy needs skills	4.57
Age-related accessibility skills	4.55
Creativity	4.50
Social media skills	4.47
Gender equality skills	4.46
Skills related to intercultural host-guest understanding and respect	4.45
Skills to monitor online reviews	4.45
Skills related to disabilities and appropriate infrastructure	4.39
Skills related to awareness of local customs (e.g. food, arts, language, crafts)	4.38
Online marketing and communication skills	4.36
Ability to minimise the use and maximise efficiency of energy and water consumption	4.23
Promotion of environmentally friendly activities and products	4.22
Skills related to diversity and religious beliefs	4.20
Ability to manage waste, sewage, recycling and composting	4.20

With regards to personal skills, ‘willingness to change’ shows the highest gap (current vs future) in skills proficiency across all sectors with a gap of 23.84%. In relation to future skills needs. The following skills, while having a lower skills gap, are ranked highest in terms of importance by respondents:

- Customer orientation (M=4.82)
- Promoting a positive work environment (M=4.80)
- Ethical conduct and respect (M=4.78)
- Willingness to learn and perform (M=4.78)

**Table 61: Social Skills – Personal Skills across Sectors**

Personal Skill	Current Level of Proficiency		Future Level of Proficiency Needed in 2030		GAP	GAP %
	Mean	St. Deviation	Mean	St. Deviation		
Problem solving	4.08	.736	4.61	.593	0.53	12.91
Initiative and commitment	4.15	.634	4.68	.500	0.53	12.70
Customer orientation	4.43	.704	4.82	.383	0.39	8.84
Ethical conduct and respect	4.19	.734	4.78	.476	0.59	14.19
Willingness to change	3.80	.811	4.70	.489	0.91	23.84
Promoting a positive work environment	4.09	.743	4.80	.437	0.70	17.16
Creativity	3.77	.944	4.50	.625	0.73	19.35

Willingness to learn and perform	4.20	.682	4.78	.414	0.58	13.83
TOTAL GAP	4.09		4.71		0.62	15.16

N=74

The lowest skills gap (all skills types) in Ireland (all sectors) is for personal skills (gap=15.16%) as indicated in Table 62 indicating that although respondents believe personal skills are important, they also believe that current proficiency in these skills is high. This is also reflected in the data from across Europe where the gap between current and future skills proficiency is identified as 10.83%

**Table 62: Skills Gaps across All Skills in Ireland**

Skill Set		Total Gap%
Social Skills	Personal	15.16
	Communication	18.59
	Diversity	30.24
Digital		30.65
Environmental		36.78

N=74

Concerning communication skills, Table 51 highlights that 'skills related to cultural awareness and expression' has the highest skills gap as identified by participants from all sectors in Ireland (29.32%). The following skills are ranked highest in terms of future importance:

- Oral communication skills (M=4.72)
- Active listening skills (M=4.68)
- Skills related to cultural awareness and expression (M=4.65)

**Table 51: Social Skills – Communication Skills across Sectors**

Communication and Cultural Skill	Current Level of Proficiency		Future Level of Proficiency Needed in 2030		GAP	GAP %
	Mean	St. Deviation	Mean	St. Deviation		
Written communication skills	3.77	.803	4.18	.834	0.41	10.75
Oral communication skills	4.23	.713	4.72	.537	0.49	11.50
Active listening skills	3.85	.806	4.68	.526	0.82	21.40
Skills related to cultural awareness and expression	3.59	.792	4.65	.560	1.05	29.32
Skills related to awareness of local customs	3.85	1.002	4.38	.735	0.53	13.68
Ability to speak foreign languages	2.76	1.083	3.31	1.354	0.55	20.10
Skills related to host-guest understanding and respect	3.54	.909	4.45	.894	0.91	25.57
<b>TOTAL GAP</b>	<b>3.66</b>		<b>4.34</b>		<b>0.68</b>	<b>18.59</b>

N=74

In comparison with European communication skills gap, the gap is lowest for all skill types (social, digital and environmental), with a European gap of 14.52% compared with a gap of 18.59% in Ireland, this reflects earlier findings that proficiency in social skills is higher than for other skill sets in Ireland, although statistical analysis is needed to determine whether these findings have statistical significance.

In relation to diversity skills across all five sectors in participant organisations in Ireland, Table 50 highlights that ‘skills related to diversity in religious beliefs’ has the highest skills gap (42.66%), this is a result of the low level of proficiency currently ( $M=2.95$ ) and an awareness that this skill will be important in the future ( $M=4.20$ ). The table also highlights that the top three skills needs in terms of future proficiency as identified by participants across all sectors in Ireland are:

- Diets and allergy needs skills (M=4.57)
- Age-related accessibility skills (M=4.55)
- Gender equality skills (M=4.46)

**Table 50: Social Skills – Diversity Skills Across Sectors**

Diversity Skill	Current Level of Proficiency		Future Level of Proficiency Needed in 2030		GAP	GAP %
	Mean	St. Deviation	Mean	St. Deviation		
Gender equality skills	3.54	.939	4.46	.645	0.92	25.95
Age-related accessibility skills	3.49	.940	4.55	.553	1.07	30.62
Diets and allergy needs skills	3.68	.981	4.57	.704	0.89	24.26
Skills related to disabilities and appropriate infrastructure	3.38	.917	4.39	.679	1.01	30.00
Skills related to diversity in religious beliefs	2.95	1.058	4.20	.906	1.26	42.66
<b>TOTAL GAP</b>	<b>3.41</b>		<b>4.44</b>		<b>1.03</b>	<b>30.24</b>

N=74

In comparison with European skills gaps in diversity skills, there appears to be a gap between Ireland (30.34%) and Europe (15.56%), although statistical analysis is needed to determine whether this gap is significant or not.

#### Digital Skills Gap Analysis

In relation to digital skills gas in Ireland (all sectors), Table 52 highlights that ‘artificial intelligence and robotics skills’ has the highest skills gap in digital skills (61.24%) however in terms of future skills proficiency needs, this skill ranks quite low with a future mean of 2.81. In relation to future skills, the following skills are ranked as the top three most important future skills in terms of proficiency needs:

- Social media skills (M=4.47)
- Skills in relation to monitoring online reviews (M=4.45)
- Online marketing and communication skills (4.36)

It is also of interest to note that the following skills were ranked quite low by respondents when compared with other digital skills in terms of future needs:

- Skills related to applying digital hardware technologies, such as augmented and virtual reality (2.91)
- Artificial intelligence and robotics skills (M=2.81)
- Computer programming skills (M=2.62)

**Table 52: Digital Skills across Sectors**

Digital Skills	Current Level of Proficiency		Future Level of Proficiency Needed in 2030		GAP	GAP %
	Mean	St. Deviation	Mean	St. Deviation		
Operating system use skills (e.g. Windows)	3.69	1.097	3.86	1.174	0.18	4.76
Microsoft office skills (e.g. Word, Excel, PowerPoint)	3.65	1.116	3.96	1.066	0.31	8.52
Skills for implementing online safety procedures	3.15	1.069	3.99	1.014	0.84	26.61
Online marketing and communication skills	3.39	1.145	4.36	.853	0.97	28.69
Skills to adjust digital equipment such as Wi-Fi connectivity, sound systems and video projectors	3.20	1.303	3.66	1.327	0.46	14.35
Desktop publishing skills	2.77	1.299	3.65	1.187	0.88	31.71
Computer programming skills	2.05	1.259	2.62	1.594	0.57	27.63
Website development skills	2.46	1.273	3.32	1.346	0.86	35.16
Social media skills	3.54	1.075	4.47	.895	0.93	26.34
Skills to monitor online reviews	3.45	1.148	4.45	.924	1.00	29.02
Data analytics, business intelligence, big data skills	2.51	1.295	3.65	1.389	1.14	45.16
Artificial intelligence and robotics skills	1.74	1.099	2.81	1.468	1.07	61.24
Skills related to applying digital hardware technologies, such as augmented and virtual reality	1.82	1.151	2.91	1.536	1.08	59.26

TOTAL GAP	2.88		3.67		0.79	30.65
N=74						

In comparison with European digital skills gaps, Ireland appears to have a higher skills gap (30.65%) than that in Europe (24.83%), however the gap is smaller than that of other skill sets i.e. environmental skills.

### Training Provision and Training Type Analysis across Sectors

Table 53 highlights current skill training provision across the five sectors (N=74). Overall, social, environmental and digital training is currently provided by all tourism subsectors. The highest percentage of training offered across sectors is social training (71.6%), followed by digital skill training (64.9%) and environmental training (52.7%). This highlights the current perceived importance of social skill training provision for employees and lends support to the findings above as environmental training is offered to a lesser extent by individual sectors. However, the above findings also suggest that in the future, the development of environmental skills and provision of training will be essential for the next generation of employees.

**Table 53: Skill Training Provision across Subsectors**

Skill Training	Yes	No	Total
Environmental skill training	39 (52.7%)	35 (47.3%)	74 (100%)
Social skill training	53 (71.6%)	21 (28.4%)	74 (100%)
Digital skill training	48 (64.9%)	26 (35.1%)	74 (100%)

N=74

Table 54 provides a breakdown of training type across skill sets and sectors. ‘On the job’ training is the most common/favoured type of training provision across sectors regarding environmental skill training (44.6%), social skills training (63.5%) and digital skill training (43.2%). Other types of training across skill sets and sectors are apparent, however, to a lesser extent. The second ranking of training provision is one-day on-site training by an external provider for both environmental skill training (8.1%) and social skill training (24.3%). Conversely, for digital skill training, the second rank is several days on-site training by an external provider (21.6%). This highlights that on-site and in-house training for all skills is currently the preferred option by respondent organisations across all sectors. This lends support to the sector findings and the qualitative research.

**Table 54: Skill Training Type across Sectors**

Training Type	Environmental Skills Training	Social Skills Training	Digital Skills Training
<b>On the job</b>	33 (1) (44.6%)	47 (1) (63.5%)	32 (1) (43.2%)
<b>Online course</b>	4 (5.4%)	8 (10.8%)	15 (20.3%)
<b>One day on-site training by external provider</b>	6 (2) (8.1%)	18 (2) (24.3%)	14 (18.9%)
<b>Several days on-site training by external provider</b>	4 (5.4%)	6 (8.1%)	16 (2) (21.6%)
<b>One day off-site training by external provider</b>	1 (1.4%)	4 (5.4%)	10 (13.5%)
<b>Several days off-site training by external provider</b>	5 (6.8%)	2 (2.7%)	13 (17.6%)
<b>Apprenticeship</b>	2 (2.7%)	0 (0%)	3 (4.1%)
<b>Vocational training</b>	0 (0%)	1 (1.4%)	3 (4.1%)
<b>Higher education</b>	5 (6.8%)	8 (10.8%)	11 (14.9%)
<b>Other</b>	2 (2.7%)	1 (1.4%)	4 (5.4%)
<b>Total</b>	62	95	121

In conclusion, the importance of social skills and social skills training in the five tourism industry subsectors in Ireland has been confirmed. The importance of digital skills and digital skills training has been highlighted across a broad range of traditional and more recently developed skill areas. Environmental skills and environmental skills training are not currently well developed across the five tourism industry sectors in Ireland and provide the largest differential in the European context.

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