



# **SKILLS GAPS AFFECTING THE REMOTE GAMING INDUSTRY IN MALTA**

*AN ANALYSIS OF SURVEY RESULTS*

## 1 Introduction and executive summary

The Malta Gaming Authority (MGA) estimates that direct employment in the remote gaming sector in Malta stood at 5,861 full-time equivalent (FTE) jobs at the end of 2017, increasing by 10% over the previous year. At the same time, remote gaming operators reported 781 unfilled positions, equivalent to one out of every eight employees. Unfilled job vacancies are primarily in the game operation and development category<sup>1</sup> at the operational level, presenting significant potential for services provided by the formal education system. Demand for indigenous human capital is further boosted by the potential to replace the flow of foreign workers in future years. A strong element of vacancies pertain to skills that are specific to the gaming industry, which cannot be found elsewhere in the economy. This necessitates specialised training which should be complemented by basic education efforts.

According to a survey carried out by the MGA among remote gaming operators in the first quarter of 2018, the main reason for unfilled vacancies is the lack of adequate work experience. However, there are other reasons why such vacancies are not filled. Medium-sized firms believe that another issue apart from the lack of expertise and work experience is that other companies, possibly larger ones are offering more competitive salary packages. On the other hand, large firms consider competition from other employers as their major issue. Other indicators of the potentially influential role that could be played by the local education system include the interest by workers in the sector, and the strong recruitment drive taking place from other firms as well as from abroad.

Various recruitment strategies are employed to attract workers, depending on the size of the organisation itself. Micro firms prefer to recruit workers immediately on completion of their studies at tertiary level while larger firms are more likely to recruit experienced employees, either from within the same industry or from other industries. Additionally, larger firms prefer to train their workers through in-house training particularly because such training can cater specifically for their products, systems, culture and values. Conversely, smaller firms are more likely to outsource their training or take no action in order to improve the situation as training is considered quite expensive.

## 2 Context

The gaming industry in Malta has grown markedly over the last years. In 2017, it generated just over €1.1 billion in terms of Gross Value Added (GVA)<sup>2</sup> accounting for over 11% of the economy total. This represented an increase of 10% over 2016 when gaming activities directly contributed one-eighth of the economic value added of the country. The gaming industry has become the third-largest sector in the economy, exceeding, in terms of value added, other sectors which were traditionally major economic pillars. The growth within the number of online gaming operators in Malta over the years has exposed the economy to increased entrepreneurship, employment, trade and foreign direct investment. The number of licensed companies operating from Malta stood at 294 as at the end of 2017, which are estimated to generate 6,673 full-time equivalent jobs. The contribution of the gaming

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<sup>1</sup> For the purpose of this report, jobs in the gaming industry have been grouped into six categories as explained in Annex 1.

<sup>2</sup> NSO, News Release (038/2018), Gross Domestic Product: 2017.

industry to jobs, at around 4% of the total, understates the extent of its contribution, in terms of value added generated.

Growth in activity and employment in the gaming industry led to a high number of job openings. The skills and professional backgrounds required by the industry are intensive and span on a number of areas including ICT, statistics and mathematics, law, finance and others. Furthermore, these areas of specialisation are experiencing a strong demand from other growth sectors of the domestic economy and also internationally. For this reason, the demand for human resources cannot be satisfied exclusively through home-grown talent but also requires attracting human capital from abroad.

The results of a survey conducted by the MGA<sup>3</sup> indicate that as at the end of 2017 around 72% of all employees in the remote gaming industry were reported to be non-Maltese, an increase of four percentage points when compared to the same period of 2016. This highlights the need of expatriate workers to sustain the growth of the industry. In line with the results of the survey carried out by the Authority for the period ending 2016, the share of non-Maltese employees tends to increase with the level of skill, estimated at 55% of technical jobs, rising to 61% for professional posts and 70% for senior management (also known as C-Suite) roles<sup>4</sup>. The availability of sufficient skills in the gaming sector needs to be considered as a key to sustain the growth and further development of the industry.

To obtain a better understanding of the existing skills gap, during the first quarter of 2018, the MGA conducted a survey among its licensed remote gaming operators. This report highlights the key findings from this survey exercise. Results reflect aggregates and averages of replies received from 150 individual respondents. All survey's participants are given equal weight to reflect the opinions expressed in a representative manner. The results of the survey were also analysed against the National Statistics Office (NSO) metadata<sup>5</sup> which classify company size according to the number of FTE employees. Firms with up to 10 FTE employees are classified as micro firms, those comprising up to 49 workers are considered as small, those which have up to 249 employees are classified as medium enterprises while those which have 250 or more employees are categorised as large firms.

### 3 Size, nature and causes of unfilled vacancies

For the purpose of this report, jobs in the gaming industry have been grouped into six main categories, as shown in Figure 1. The various job roles were based on desk research and corroborated through the interviews held with operators<sup>6</sup>. On the other hand, job levels in the sector were described as top management, middle management and operational level (see Annex 1). The following analysis was carried out for each job category, level and firm size.

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<sup>3</sup> MGA, 2017 Annual Report.

<sup>4</sup> MGA, 2016 Annual Report.

<sup>5</sup> <https://nso.gov.mt/metadata/classifications/Enterprise%20Size.pdf>

<sup>6</sup> Study commissioned by the MGA, February 2016.

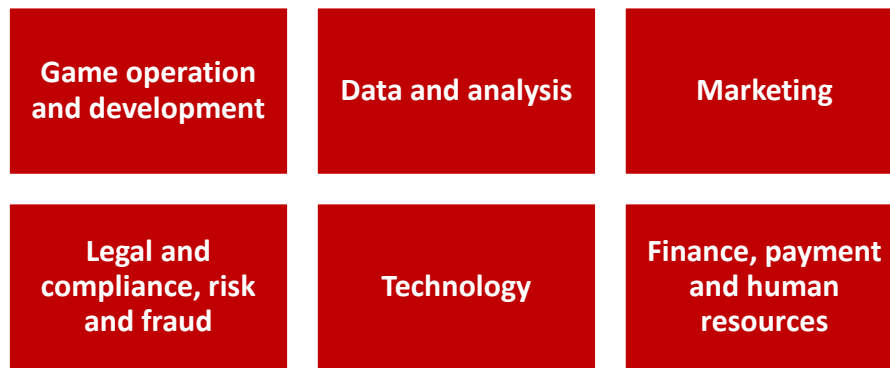


Figure 1 Job categories within the remote gaming industry

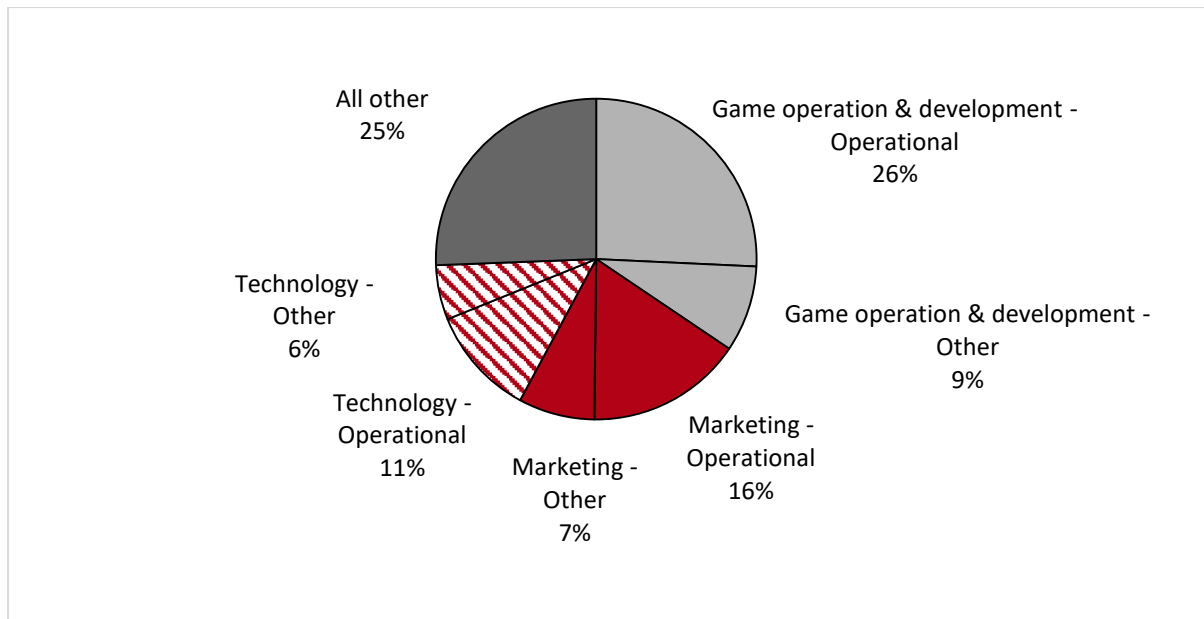
### 3.1 Unfilled vacancies

The results of the survey conducted by the MGA during the first quarter of 2018 show a total of 781 vacancies as at the end of 2017, as indicated in Table 1. The predominant area of vacancies relates to the game operation and development category, which accounts for 35% of vacancies, as indicated in Chart 1. It is concluded that one of the main factors for the amount of vacancies in the sector is linked to the shortfall in skills that are specific to gaming and which cannot be found elsewhere in the economy.

Vacancies within the marketing and technology categories are also significant, accounting for 40% of the total vacancies. These are jobs with strong demand elsewhere in the economy, as would be legal, finance and other management areas. Vacancies in data analysis are relatively small when compared to the other categories, but this needs to be seen in the context of the relatively specialised nature of the job and the relatively low headcount required to fulfil it. It is however a highly specialised area of human capital, quite specific to gaming, and which requires significant educational and training effort to develop.

	Top mngmt	Middle mngmt	Operational	Total
Game operation and development	25	43	201	269
Data and analysis	4	14	25	43
Marketing	7	53	123	183
Legal and compliance, risk and fraud	12	25	47	84
Technology	6	43	86	135
Finance, payment and HR	4	23	40	67
<b>Total</b>	<b>58</b>	<b>201</b>	<b>522</b>	<b>781</b>

Table 1 Job vacancies in the remote gaming industry - 2017



*Chart 1 Distribution of job vacancies - 2017*

Of the 781 vacancies reported at the end of 2017, around 67% related to operational jobs, which could typically be filled by those just leaving formal education. Just above one quarter of the vacancies relate to middle management positions, where more experience would be required, while only 7% relate to top management positions.

When considering results by firm size, a substantial number of micro firms have vacant posts for top manager positions. Such vacancies are mainly in the game operation and development category while only few stated that they have vacancies in other units for top managers. On the other hand, larger firms do not seem to have a large number of vacancies for top management positions during the period the survey was conducted.

The majority of the firms which were surveyed stated that they have vacancies in the middle and operational management levels. Nearly all size categories have vacant posts for such job titles in the marketing department. There is also substantial demand for positions at such levels in other units namely the finance; payment and human resources; game operation and development; legal and compliance; risk and fraud; and technology unit. It is evident that there is a small proportion of technical job opportunities available, but these are quite limited. The low demand for technical skills seems to be more an issue of labour costs in Malta, rather than lack of supply of skills.

This analysis indicates that there is significant potential for the local educational system to contribute in addressing the issues of job vacancies in skills that are specific to the gaming industry in Malta. Proceeding in this manner, a talent pool of human capital would be created who could take up unfilled vacancies in higher organisational levels into the future, also partly replacing the flow of foreign workers by upcoming indigenous talent. In other words, the demand for human capital produced by the education system for the remote gaming industry will extend beyond the filling of existing vacancies.

### 3.2 Main causes of unfilled vacancies

The phenomenon of unfilled vacancies in the remote gaming industry is highly indicative of a combination of strong demand and insufficient availability of suitable human capital, as presented in Chart 2.

Evidence of the strong demand for labour in the sector is the fact that almost one-quarter of respondents indicate competition for human capital from other firms as the main cause of unfilled vacancies within their firm. An almost equivalent amount report lack of qualified people in the labour market, while another third of respondents lament the lack of work experience. Thus, 57% of respondents consider the lack of appropriate skills, in terms of either work experience or qualifications, as the main cause of unfilled vacancies. Insufficient qualifications are mainly of a technical nature typically associated with the online gaming, but also include a lack of linguistic skills.

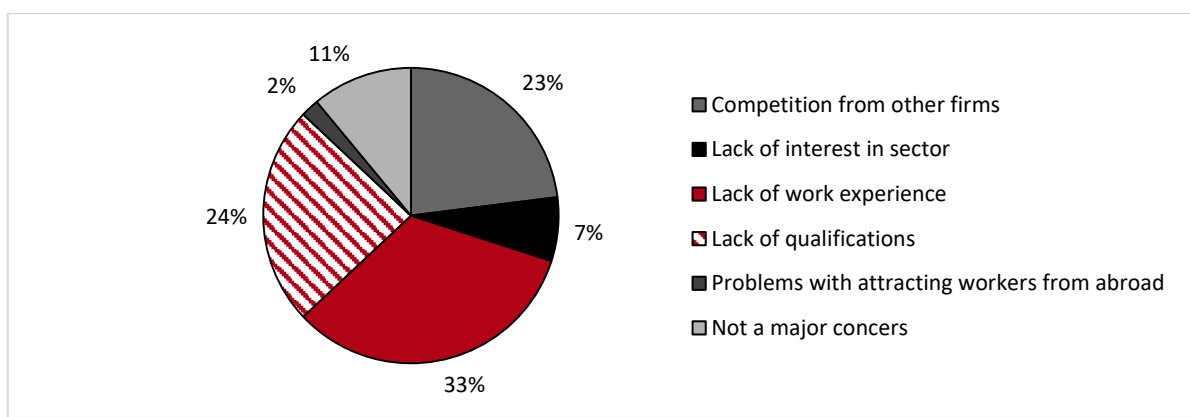


Chart 2 Main causes of unfilled vacancies

It is important to note that only 7% of firms indicate a general lack of interest by workers in the sector. Problems with attracting workers from abroad is only mentioned by 2% of respondents as a main cause of unfilled vacancies, although this could be impinging on a significantly higher number of operators as a secondary issue. Only 11% of respondents indicate that unfilled vacancies are not a major issue, which would happen either because they expect vacancies to be filled soon, or because they can readily tap into resources from talent pools in other countries.

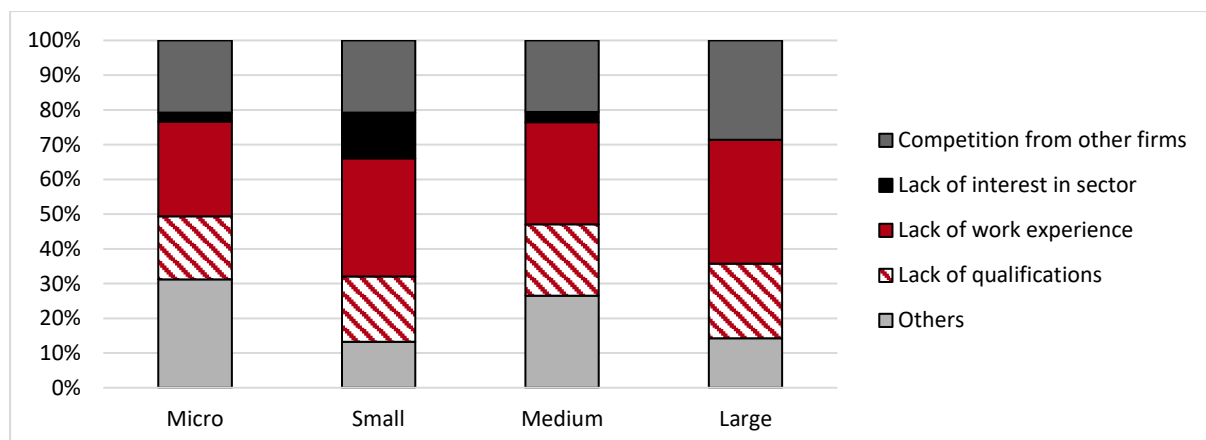


Chart 3 Main causes of unfilled vacancies by firm size

When considering differences in firm size, the majority of the respondents still answered that the main cause of unfilled vacancies is the degree of work experience that the company demands, which is lacking in Malta. The MGA will be launching a Student Placement Programme with the aim of reducing the mismatch which exists between the supply and demand for gaming skills in the Maltese labour market. Students who apply for this programme will have the opportunity to gain the experience needed by applying their academic and vocational knowledge on the job in a workplace scenario. As depicted in Chart 3, competition from other employers is a major issue especially for large enterprises. However, there are other reasons why such vacancies are not filled. For instance, various enterprises indicated lack of appropriate skills as one of the main cause of unfilled vacancies.

Medium-sized firms believe that, apart from the lack of expertise, another issue is that other companies, possibly larger ones, are offering more competitive wages. In fact, large companies do not seem to have other problems to fill their vacancies that affect the smaller-sized categories.

These results confirm the potential important contribution of the educational sector in addressing human capital requirements in the remote gaming industry in Malta. Investment in human capital through technical education would lead to a larger pool of experienced workers in future years. The strong interest by workers in the sector would furthermore indicate the existence of a pool of people who could be attracted to receive gaming-related training.

## 4 Skills requirements for jobs in the remote gaming industry

A significant number of job vacancies within the gaming sector require specific skills which are unique to such an industry. As outlined in Figure 1, jobs within the gaming industry are grouped in six categories, each comprising a number of sectors which require different skill sets. A detailed description of the generic and industry specific skills set required for the different job positions within each category is presented in Annex 2.

### 4.1 Game operation and development

The game operation and development category is a predominant area of vacancies among the surveyed companies. In fact, as depicted in Chart 1, this category accounts for 35% of total vacancies. All size categories have vacant posts in this area at all levels, particularly large firms which have a substantial number of vacancies at the operational level. The main sectors which fall within the game operation and development category include iPoker, iCasino and iBetting. Table 2 outlines the skill set required by a potential employee to work in these sectors.

Sector	Skill set required
iPoker and iCasino	Strong understanding of poker and casino games
	Strong understanding of mobile and web-based technologies
	Software development knowledge
	In-depth understanding of gamers
	Strategic and analytical thinking
	Problem-solving skills
	Customer-focused communication and presentation skills
	Familiarity and understanding of laws and regulations governing online gaming

iBetting	Strong understanding of sports, sport odds and sport betting
	Strong mathematical skills
	Advanced analytical skills
	Statistical skills
	IT skills
	Customer-focused communication and presentation skills
	Familiarity and understanding of laws and regulations governing online betting

Table 2 Skill set required in the game operation and development category

## 4.2 Data and analysis

Vacancies within the data and analysis category are relatively small when compared to other areas, primarily due to the fact that such units require specialised workers with gaming specific skills and significant training and education requirements. The main sectors which fall within this category include data analytics and Business Intelligence (BI). The skills set required by individuals who opt to work within these sectors are outlined in Table 3.

Sector	Skill set required
Data analytics	Degree with a mathematical or IT/business and computing-related qualification
	Knowledge of working in an online environment
	Statistical analysis and hypothesis testing skills
	Data analytics skills
	Problem-solving skills
	Critical thinking
	Strong communication and presentation skills
BI	Mathematical/statistical-related degree
	Familiarity with database management systems
	Data integration tool knowledge
	Ability to analyse digital customer acquisition
	Strong analysis/dashboard tools
	Statistical skills
	Knowledge of SQL and working within Agile and Scrum environments
	Knowledge working with data integration tools
	Coding ability with languages such as .NET, Java and/or Python
	Sound research skills
	Presentation and communication skills

Table 3 Skill set required in the data and analysis category

## 4.3 Technology

Workers within this field are not only required by gaming companies but also elsewhere in the economy. As shown in Chart 1, 17% of job vacancies among the surveyed firms relate to this category.



Furthermore, most vacant posts within this category are at the operational level and only few demanded top management positions. Table 4 outlines the skills that are required.

Sector	Skill set required
Technology	IT-related degree/qualification
	Strong software design and debugging skills
	Web development knowledge using software such as Spring MVC, Spring Web Sockets and AngularJS
	Development using enterprise technologies
	Agile development methodology
	Integrating with SQL and Non-SQL databases
	Analytical skills
	Evaluative skills
	Problem-solving skills
Front-end developers	Cross-browser and cross-platform issues (experience with JQuery)
	Advanced knowledge of web and mobile UX/UI
	HTML5, LESS and SASS experience
	Coding valid XHTML and CSS mark-up
	Knowledge of agile methodologies
	Good understanding of Web Accessibility
	Knowledge of working with version control systems such as GIT
	Knowledge of working with JavaScript frameworks to create rich interactive content
Back-end developers	Knowledge of systems such as .NET, C#, MVC, SQL and WCF
	Knowledge of frameworks such as NUnit, StructureMap, Moq or similar
	Experience using versioning control systems
	Communication skills, analytical, evaluative, and problem-solving skills

Table 4 Skill set required in the technology category

#### 4.4 Marketing

The marketing unit also requires individuals with skills which are not particularly specific to gaming as workers in this area are also required by other industries. Nonetheless, Chart 1 shows that 23% of vacant posts were within the marketing category. Table 5 highlights various skills which are required to work within this category.

Sector	Skill set required
Marketing	Degree in either Marketing, Computer Science or Engineering
	Understanding of SEO and web analytics principles
	Business development skills
	Digital marketing management skills
	Web content and editorial knowledge
	Knowledge of betting odds and games

	Creative writing skills
	Strategic thinking skills
	Sales management skills
	Understanding of online gaming and online gaming branding
	In-depth understanding of player base
	Familiarity with laws and regulations governing the promotion of online gaming
	Ability to design and execute marketing strategies
	Strong communication skills, both verbal and written
	Strong presentation skills
	Strong interpersonal skills and building/maintaining relationships
	Analytics and evaluative skills

*Table 5 Skill set required in the marketing category*

#### 4.5 Legal and compliance, risk and fraud

As outlined in Table 6, jobs within the legal and compliance, risk and fraud category do not entail gaming specific skills and can be transferable from other industries. Nonetheless, respondents stated that they have a number of job vacancies within this unit, albeit to a lesser extent.

Sector	Skill set required
Legal and compliance	In-depth knowledge of laws and regulations governing remote gaming
	Knowledgeable in gaming operations
	Critical and analytical thinking
	Effective communication skills
	Relationship building
	Eye for detail
	Time management skills
Risk and fraud	Knowledgeable in gaming operations
	Knowledge of anti-money laundering and gaming legal operations
	In-depth knowledge of fraud prevention and detection, including knowledge of the technology behind fraud management tools
	Critical thinking and analytical skills
	Strong judgement and decision-making skills
	IT skills
	Analytical problem-solver with regard to charge backs, colluders and chip dumpers

*Table 6 Skill set required in the Legal and compliance, risk and fraud category*

#### 4.6 Finance, payment and human resources

Table 7 outlines that skills required by individuals who work within the finance, payment and human resources category are mainly generic and do not apply specifically to the gaming industry. Job vacancies within this group, although not substantial, are at the operational level.

Sector	Skill set required
Finance and payment	Degree in accounting or finance
	Well-versed in consolidation and tax issues across European/International legislation
	Knowledge of accounting and reconciliation software
	Knowledge of gaming software applications
	Knowledge of gaming operations
	Familiar with laws and regulations governing remote gaming
	Analytical mind
	Attention to detail and excellent organisational skills
HR	Knowledge of HR management
	Knowledge of relevant skills required for gaming roles
	Data-led and results-orientated
	Well-versed in multi-channel and social recruiting
	Talent mining skills
	Relationship building skills
	Organisation skills
	Communication and stakeholder management skills

*Table 7 Skill set required in the finance, payment and HR category*

## 5 Recruitment strategies

Within this context, it is interesting to analyse the sources of recruitment of workers in remote gaming firms, with relevant results presented in Chart 4 and Chart 5. Unsurprisingly, over the past two to three years, the majority of firms recruited workers already employed by other firms in the online gaming sector (37%) or in other industries (24%). The sourcing of experienced talent from other firms in Malta is thus practised by over 60% of surveyed firms. Around one quarter of respondents indicated recruitment from abroad, which, respondents said, would typically be larger-sized firms. The recruitment of workers immediately following education was reported by only 15% of the surveyed companies.

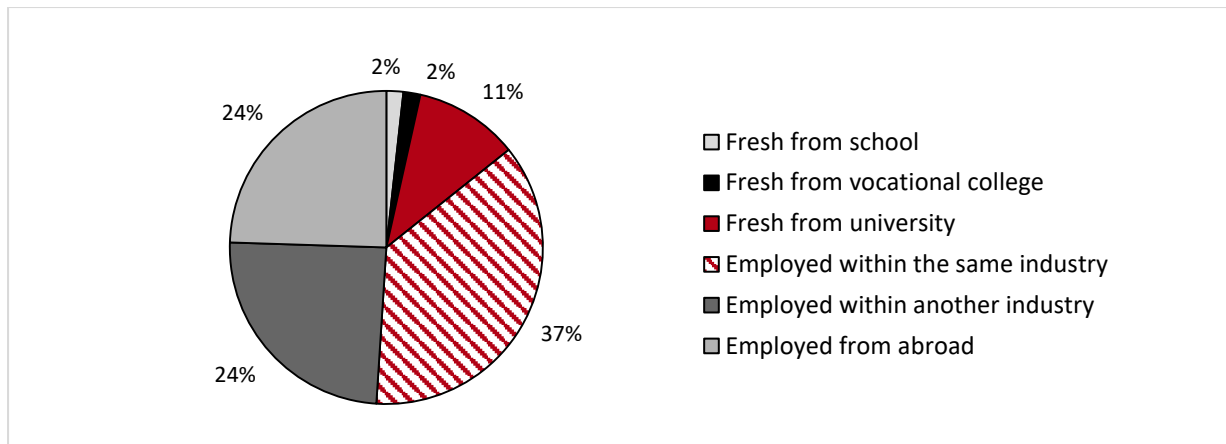


Chart 4 Sources of recruitment over the past two to three years

As shown in Chart 5, 15% of micro firms indicated recruitment of workers fresh from university. Conversely, the majority of large firms prefer to recruit experienced employees either from within the same industry or from other industries. A considerable number of firms also indicated recruitment from abroad, in view of the fact that foreign workers account for around two-thirds of employees in the industry.

These results confirm the potentially stronger role which could be played by local educational institutions in servicing the needs of the remote gaming industry.

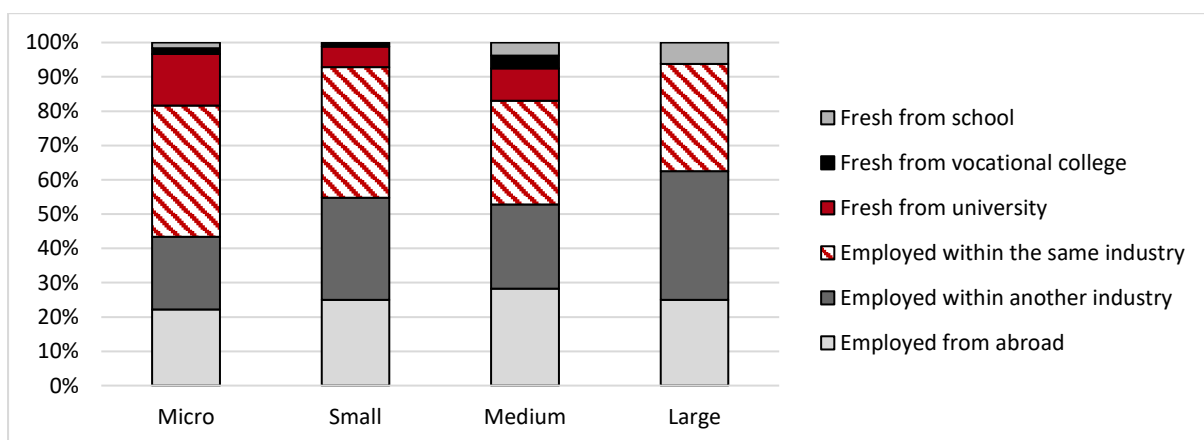


Chart 5 Sources of recruitment over the past two to three years by firm size

## 6 Training and development activities

Within this overall context, firms can be expected to invest in addressing the skill shortage in the industry. Indeed, as shown in Figure 2, only 7% of respondents admitted taking no action in order to decrease skills gap, and these are mainly the small and micro firms with limited resources to dedicate to human capital formation, or larger firms which can readily tap into foreign talent pools.

Out of all respondents to the MGA's survey, 55% indicated that they invest in in-house training, whilst 21% of companies invest in overseas training.

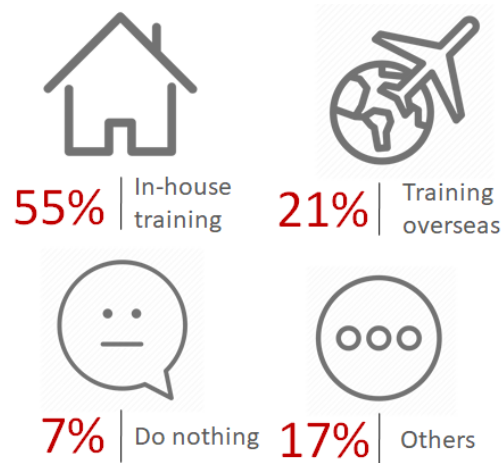


Figure 2 What kind of initiatives are being undertaken to fill in the existing skills gap?

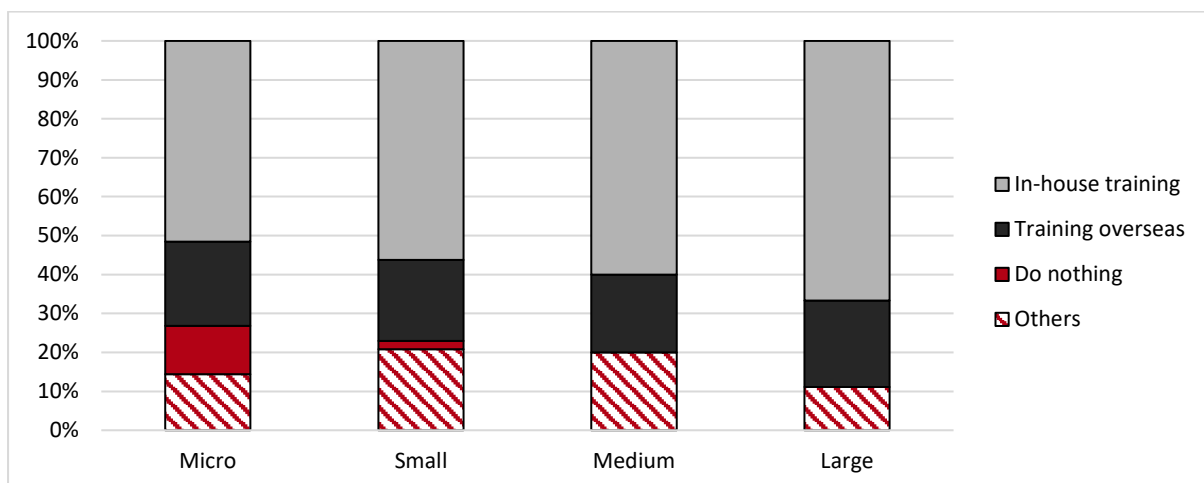


Chart 6 Initiatives undertaken to fill in the existing skills gaps by firm size

Although most of the survey respondents try to fill in their existing skills gap by organising in-house training, it is evident that such training is mostly preferred among large firms. In fact, 67% of large firms stated that their main strategy to train their workers is through in-house training. This is because they prefer to provide training for their customer service staff which is specific to the products, systems, culture and values of the operator. On the other hand, smaller firms are more likely to outsource their training or do nothing to improve the situation as training is quite expensive. Albeit foreign training providers provide some operational management training, an absence is noted in Malta. Such courses are specifically focused on increasing operational efficiency resulting in improved profitability. Moreover, technical training is generally not provided in-house. In some instances, operators sponsor their employees, either in part or in full, to pursue technical training abroad. Online gaming operators have notably developed a presence in universities and colleges to attract future graduates. Gaming training and education outside Malta appears to be primarily concentrated in a few countries, namely the UK and Sweden in Europe and in the United States.

The largest gaming operators in Malta revealed the dominance of internally developed training curricula and in-house training schools, developed over the years by the gaming operators as internal programmes were found to cover the majority of employee training requirements. The benefits of in-house training, include but are not limited to, the following:

- companies prefer employees to receive company specific training given the specific corporate values of the firm;
- in-house training allows participants to receive hands-on training, on company specific internal systems;
- the same trainers are used for multiple offices abroad, ensuring that all employees receive the same message and learning outcomes; and
- in-house training is more cost-effective relative to outsourced training given economies of scale.

The supply of gaming-related training in Malta has increased over the last years. Training providers can now provide training on various topics, both for the remote and land-based market, including gaming knowledge, game design, marketing, anti-fraud, and croupier and live dealer training. In addition, training targeted towards persons wishing to enter the land-based and remote gaming industry is now available also locally.

Such courses tend to be relatively expensive. However, this cost could be covered by various funding source, that may include:

- education and training provided by Government higher education institutions, against no payment for qualifying students;
- education and training at private higher education and training institutions paid for by participants, with costs potentially partly or fully reimbursed through national or EU funded schemes or tax credits; and
- education and training at private higher education and training institutions paid for by the employers of participants, with costs potentially partly or fully reimbursed through national or EU funded schemes or tax credits.

In Malta, Government-funded higher education and training is primarily offered through three institutions: the University of Malta, the Malta College for Arts, Science and Technology (MCAST) and the Institute of Tourism Studies (ITS). These institutions receive an annual subvention from Government's Consolidated Fund to cover their costs. In return, they offer higher education and training to EU nationals, against no payment. This does not include part-time and evening courses and post-graduate degrees, which are fee-paying.

Different business sizes undertake various kind of initiatives in order to fill in the existing skills gap. Table 8 outlines some of these initiatives.

Company size	Initiatives
Micro	Investment in local courses and seminars and external training
	Adverts in several newspapers
	Online training
	Outsourcing
Small	Internal recruitment, headhunting and internal “recommend a friend” referral and reward programme
	Outsourced and remote training
	Employer branding measures supported by social media campaigns
	Increase in perks and salaries to meet the industry 'standards'
Medium	Off-site training
	Conferences abroad
	Study sponsorships
Large	On-the-job training and proper induction
	Coaching and mentoring

*Table 8 Other initiatives to close the skills gap*

There is therefore substantial training activity taking place within the industry, at least part of which could potentially be more efficiently and effectively served by local formal educational institutions.

## 7 The educational offering to the remote gaming industry in Malta

The survey obtained respondents’ opinions regarding the quality of the educational offering in Malta, and their suggestions for further improvement. Table 9 summarises replies on quality while Table 10 provides a list of requirements.

Different agencies are providing several courses, focusing on the main topics of the gaming industry which cover important subjects, particularly anti-fraud and payments handling, Anti-Money Laundering (AML), and responsible gaming, amongst others. Some are of the opinion that the courses being offered in Malta, although expensive, are interesting, informative and satisfactory, especially those which cater for software developers. However, the level provided so far seems to meet the requirements for junior positions and not for experienced profiles. This is because these training courses are not specialised on any particular area. Hence, more specialised courses should be introduced in order to be in line with the requirements of the gaming industry. For instance, courses on digital marketing applied to the remote gaming industry are lacking in Malta. Respondents stated that the majority of the courses offered in Malta focus on employees at the operational level and only few courses are offered for middle and top management in the field of leadership, employee motivation and legal issues.

Some of the respondents stated that there needs to be AML, fraud and General Data Protection Regulation (GDPR) courses of a higher standard, which are also being recognised by the MGA. Over the last years, several topics have been covered, particularly courses regarding AML, which have been of high interest due to the Fourth AML Directive. It seems that auditors and tax advisors in Malta are specialising more and more in offering trainings and seminars. In the long run, people employed in the gaming industry will thus acquire in-depth knowledge of regulatory developments and requirements.

Introduction courses for new online platforms and/or new features or seminars with respect to regulatory changes and licensing requirements would be advisable.

Some also indicated that instructors may not have as much experience since for most operational roles within the online gaming sector, learning is really dependent on experience. There are new roles related to remote gaming and online business which are being created each year. Therefore, vocational training may not be readily available for specific roles. Such training is not only beneficial for new recruits, but also for experienced managers. Another issue is that the courses which are being offered in Maltese educational institutions are typically overly focused on theoretical knowledge, which is not always applicable to the working world, far less to the requirements of the gaming or e-commerce industries. Areas such as compliance, risk and fraud, user experience and BI are hard to recruit for and are not areas that people would have actively studied for locally. Respondents consider sports betting, fantasy games, specific marketing and advertising knowledge as a main skill deficit for which there are no courses to directly address this gap. Additionally, Malta needs to focus on the creative areas as there are not enough courses on the design and production of games.

Most medium and large remote gaming firms believe that although there is a good selection of courses which provide for most required technical and soft skills, there are other areas in BI and other technical areas necessary for online gaming which are not covered. Hence, employees must be sent abroad for such courses, particularly data mining courses. These companies also stated that the courses which are offered in Malta are not comparable with the rest of the EU.

Positive aspects	Negative aspects
Sufficient variety of courses	Insufficient level of technical specialisation
	Insufficient experience/quality of instructors
Legal and compliance aspects are well covered	Insufficient dynamism in response to industry demands
	Excessive focus on theory rather than practice
Many respondents are satisfied overall with quality of offering	Poor value for money by private providers
	Limited offering for mid- and high-level workers

*Table 9 Quality of the educational offering in Malta in relation to remote gaming*

With reference to the quality of the educational offering in Malta in relation to remote gaming, the survey results indicate that significant progress has been achieved over the years in providing quality education to the online gaming sector in Malta, but there are lacunae which may be preventing the development of higher value added activities. These would include highly specialised training which is innovative and in tune with global and local market developments, provided by internationally recognised trainers. The value for money of certain offerings needs to be carefully considered. There exists an opportunity to provide executive development programmes to mid- and high-level personnel.

The negative quality aspects are very much reflected in the recommendations provided in Table 10. The areas requiring further coverage are mainly of a technical, specialised nature but also extend to senior executive formation programmes and the delivery of work ethics and related soft skills. Industry operators are recommending investment in better quality infrastructures for education, opportunities to develop useful experience, specific online gaming degrees, and financial incentives to develop quality education initiatives.



Areas requiring further coverage	Policy recommendations
Legal, regulatory compliance, tax, AML, fraud	Training incorporating experience formation, including master classes, boot camps, internships, seminars and conferences
Senior-level executive development, including HR management	Investment in technical infrastructures to improve educational service quality
Technical including BI, data mining, software development	A specific online gaming degree offered at higher educational levels
Advanced topics such as competition analysis, product discovery and product optimization	Enhance academia-industry dialogue
Sportsbook operations including odds compiling, trading and scheduling	More workshops by regulatory bodies
Game design and production including artistic content	Training and internship fiscal subsidies
Work ethics and related soft skills	More attractive tax regime for highly specialised international trainers

*Table 10 Recommendations for improvements in educational offering*

The most significant skills gap is in the technical/specialist arena, especially with respect to front- and back-end software development and in BI and analysis. There are also shortcomings in the mix of soft and hard skills, whereby industry is expecting a more sophisticated and adaptable work force with the right mix of technical abilities, while also possessing strong communication, project management, collaboration, problem solving and business skills. The supply of skills also appears to lack the dynamism required to meet the frequent changes in technology. The resources provided by the public and private education system and efforts by business to provide on-the-job training and continuous professional development are not enough to meet industry requirements to a sufficient degree.

Several policy efforts have been made to address this skills gap. In November 2017, the European Gaming Institute of Malta (EGIM) was launched following an agreement signed between the MGA and MCAST. This strategic initiative aims to develop a talent pool in the gaming industry and create more long term careers for both local and foreign students, through educational programmes which will enhance the sustainability and growth of the workforce in the sector.

The following policy initiatives could potentially allow the economy and the Maltese labour force to reap the opportunities provided by the digital economy in general and the gaming industry in particular. These include:

- redoubling the impetus of the educational system to provide the skills in the required numbers and quality, and ensuring sufficient dynamism in meeting the rapidly changing technologies and skills set requirements;
- extending the Highly Qualified Persons programme to attract technically-qualified people in critical areas, also with a potential view to facilitate the transfer of knowledge;
- incentivisation, through fiscal and other measures, of training and continuous professional development activities, also through collaboration with academic institutions locally and abroad;
- facilitation of the attraction of international talent, also by providing lifestyle amenities for families; and

- introduction of the Student Placement Programme which will give students the opportunity to apply their academic and vocational knowledge on the job and enhance their work experience.

## Annex 1 Job levels and categories

Below are the level identifiers for the purpose of the survey:

- **Top management** - including C-level positions or equivalent;
- **Middle management** - including Heads, Managers, Senior Officers and Senior Executives or equivalent; and
- **Operational level** - Executives, Officers, Administrators, Administrative Assistants or equivalent.

Below is a non-exhaustive list of the typical job roles included within the categories listed below:

- **Game operation and development:** Head of Poker, Poker Manager, Casino Coordinator, Casino Campaign Manager, Mobile Product Manager, Head of Sportsbook, Sportsbook Manager/Product Development, Odds Compiler Specialist, Senior Bookmaker, Senior Trader.
- **Data and analysis:** Head of Analytics, Analytics Manager, Business Data Analyst, Data Warehouse Architect, Head of BI, BI developer.
- **Marketing:** CRM Manager, Head of Brand, Digital Marketing Manager, Head of Affiliates, Head of SEO, Chief Commercial Officer, Head of Customer Care, Sportsbook Marketing Manager, Digital Content Manager, Copywriter, Social Media analyst, Graphic Designer.
- **Technology:** Senior Software Developer, Front-end Developer, Back-end Developer, Web Developer, Web UX/UI Designer, Senior QA-Engineer, Platform Engineer, Software Engineer.
- **Legal and compliance, risk and fraud:** Key Official, Legal Compliance Manager, Legal Counsel, Chief Risk Officer, Fraud Manager, Fraud Analyst.
- **Finance, payment and human resources:** Chief Financial Officer, Payments and Reconciliation Analyst, HR Manager, Recruiter, Trainer.

## Annex 2 Job positions and required skills set

Below is a list of the main job positions within each category and an overview of the generic and industry specific skill set required for these job positions.

### Game operation and development

Jobs in the iPoker sector:

Job overview	Generic skill set	Skills specific to gaming
<b>Mobile Product Developer</b>		
<ul style="list-style-type: none"> <li>- Builds, maintains and delivers product launches and enhancements, elements of business analysis, UX, development and product management, all within mobile gaming</li> <li>- Creates new apps, produces requirements and full specifications, and then ensures that the Web design team produce an outcome that meets all business needs</li> <li>- Keeps up to date with mobile technology</li> </ul>	<ul style="list-style-type: none"> <li>- Technical degree/qualification</li> <li>- Strong understanding of mobile and web-based technologies</li> <li>- Experience in UX and UI and able to wireframe</li> <li>- Strategic and analytical thinking</li> <li>- Customer focused</li> <li>- Communication and presentation skills</li> <li>- Problem solving skills</li> </ul>	<ul style="list-style-type: none"> <li>- Thorough understanding of the target audience, the mobile casino, poker and bingo players</li> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Head of Poker</b>		
<ul style="list-style-type: none"> <li>- Drives front-end product development across desktop and mobile platforms</li> <li>- Overall management of poker products</li> <li>- Communicates with a number of key stakeholders, including the marketing team and back-end functionality</li> </ul>	<ul style="list-style-type: none"> <li>- Management skills</li> <li>- Communication skills</li> <li>- Customer focused</li> <li>- Understands working in an online environment</li> <li>- Interpersonal skills</li> <li>- Marketing skills</li> <li>- Basic software development knowledge</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Understands poker and target audience</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Poker Manager</b>		
<ul style="list-style-type: none"> <li>- Responsible for the direction that keeps the regular players coming back, while attracting new players with a mix of games, tournament structures,</li> </ul>	<ul style="list-style-type: none"> <li>- Creative analytical thinker</li> <li>- Customer focused</li> <li>- Communication, interpersonal and relationship</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Understands poker and target audience</li> </ul>

and events that offer something for both beginners and seasoned players - Responsible for revenue generation in accordance with business objectives - Acts as a key stakeholder and poker expert to the internal development team - Steers and provides inputs to product roadmap - Plans and schedules all poker tournaments	building skills, and maintaining skills - Understands working in an online environment	- Familiar with laws and regulations governing remote gaming
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Jobs in the iCasino sector:

Job overview	Generic skill set	Skills specific to gaming
<b>Casino Coordinator</b>		
- Defines marketing strategy - Ensures customers are looked after from their first-ever touch point onwards - Works with Marketing Manager to ensure customers receive relevant offers and communications - Reports on casino performance to the team and Managing Director - Improves reporting with insights that help further develop the product and offering, and customer experience - Oversees any product and game launch plans - Ensures that project deadlines and key milestones are met	- Communication skills - Organisational skills - Teamwork and interpersonal skills - Analytical and problem-solving skills - Marketing skills - Customer focused - In-depth understanding of target audience	- Understands the casino product, its development process and the online gaming industry - Knowledge of gaming software applications - Familiar with laws and regulations governing remote gaming
<b>Casino Campaign Coordinator/Marketing Manager</b>		
- Responsible for the implementation, monitoring and evaluation of campaigns	- Market analysis skills - Time management skills - Strategic analytical thinking - Customer-focused - Organisation skills	- Understanding of online casino and customer behaviour in online gaming industry

<ul style="list-style-type: none"> <li>- Develops the casino marketing, business development and brand strategy</li> <li>- Responsible for designing a customer loyalty programme which is in line with the company's strategy to attract, develop and retain the right target of customers</li> <li>- Accountable for developing new business opportunities, managing relationships with business partners and key customers</li> </ul>	<ul style="list-style-type: none"> <li>- IT skills</li> <li>- Communication skills</li> <li>- In-depth understanding of target audience</li> <li>- Business development skills</li> <li>- Management skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
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Jobs in the iBetting sector:

<b>Job overview</b>	<b>Generic skill set</b>	<b>Skills specific to gaming</b>
<b>Head of Sportsbook</b>		
<ul style="list-style-type: none"> <li>- Overall product management responsibility for the sportsbook products</li> <li>- In close cooperation with the Brand Managers, the Head of Sportsbook's responsibility is to ensure the best possible sportsbook experience for customers</li> <li>- Stays up-to-date with the latest market developments and competitors</li> <li>- Manages relationships with suppliers in sportsbook-related questions and relations with third party suppliers</li> </ul>	<ul style="list-style-type: none"> <li>- Communication skills</li> <li>- Organisational skills</li> <li>- Teamwork and interpersonal skills</li> <li>- Analytical and problem-solving skills</li> <li>- Marketing skills</li> <li>- Customer-focused</li> <li>- In-depth understanding of target audience</li> </ul>	<ul style="list-style-type: none"> <li>- Understands the casino product, its development and the process of the online gaming industry</li> <li>- Knowledge of gaming software applications</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

<b>Sportsbook Manager/Product Development</b>		
<ul style="list-style-type: none"> <li>- Leads all activities associated with the measurement, analysis and reporting of the performance of the sportsbook platform</li> <li>- Understands business strategy and competitive position</li> <li>- Works closely with other product owners to help shape plans for evolving the overall sportsbook customer experience</li> </ul>	<ul style="list-style-type: none"> <li>- Management skills</li> <li>- Communications skills</li> <li>- Customer-focused</li> <li>- Interpersonal skills</li> <li>- In-depth understanding of target audience</li> <li>- Business development skills</li> </ul>	<ul style="list-style-type: none"> <li>- Strong knowledge of online product development and online customer behaviour</li> <li>- Familiar with laws and regulations governing remote gaming</li> <li>- General understanding of sports betting</li> </ul>
<b>Odds Compiler Specialist</b>		
<ul style="list-style-type: none"> <li>- Monitors odds for matches available in the sportsbook</li> <li>- Compiles odds, evaluates risks, proposes betting fixtures, analyses profit/loss and betting behaviour</li> <li>- Reviews operational management and compliance</li> <li>- Operates the day-to-day sportsbook in collaboration with the team</li> <li>- Assists in the planning and coordination of product launches and improvement programs</li> </ul>	<ul style="list-style-type: none"> <li>- Strong mathematical and analytical skills</li> <li>- Statistical skills</li> <li>- IT skills</li> <li>- Communication and interpersonal skills</li> </ul>	<ul style="list-style-type: none"> <li>- General understanding of sports betting</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Senior Bookmaker</b>		
<ul style="list-style-type: none"> <li>- Leads a small team which compile sports odds</li> <li>- Proactively trades on sports markets, monitors liabilities and makes necessary price changes to ensure maximum profitability</li> <li>- Ensures sports offer is kept up to date</li> </ul>	<ul style="list-style-type: none"> <li>- Team player</li> <li>- Eye for detail</li> <li>- Critical and analytical thinking</li> <li>- Organisation skills</li> <li>- Communication skills</li> <li>- Time management skills</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding of sports betting</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

<ul style="list-style-type: none"> <li>- Analyses profit/loss and general betting behaviour from shops/clients</li> <li>- Monitors competitors' offers</li> </ul>		
<b>Senior Trader</b>		
<ul style="list-style-type: none"> <li>- Manages company liabilities</li> <li>- Analyses market trends and helps to increase the sportsbooks' current portfolio of markets</li> <li>- Supports and maximises the growth in profitability of the products by providing effective day-to-day trading and liability management of sports markets</li> </ul>	<ul style="list-style-type: none"> <li>- Statistical, mathematical and market analytic skills</li> <li>- Communication skills</li> <li>- Time management skills</li> <li>- Customer-focused</li> <li>- Risk management skills</li> <li>- Strategic and logical thinking</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding of sports betting</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Live Trader</b>		
<ul style="list-style-type: none"> <li>- Sets up and runs live betting markets</li> <li>- Compiles odds for specific matches and sports during the match</li> <li>- Settles, checks and ensures the correct working of live betting processes and makes sure the product is competitive in terms of both odds and range of bets</li> </ul>	<ul style="list-style-type: none"> <li>- Mathematical, statistical and analytical skills</li> <li>- Logical mind-set</li> <li>- Communication skills</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding of sports betting</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

## Data and analysis

### Jobs in the data analytics sector:

Job overview	Generic skill set	Skills specific to Gaming
<b>Head of Analytics</b>		
<ul style="list-style-type: none"> <li>- Works closely with the BI Team and liaises with the Data Warehouse Architect</li> <li>- Provides guidance on the BI strategy and assists different departments with analytics on reporting and business needs</li> </ul>	<ul style="list-style-type: none"> <li>- Degree or equivalent within financial, mathematical or economic discipline</li> <li>- Leadership skills</li> <li>- Business development skills</li> <li>- Problem solving and analytical thinking</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>



<ul style="list-style-type: none"> <li>- Responsible for developing reports and dashboards, and building Prototype Analytical Data Models</li> <li>- Develops new metrics and indicators to enhance aspects of player behaviour</li> <li>- Assists the enhancement of the in-house data warehouse</li> </ul>	<ul style="list-style-type: none"> <li>- Strong communication and presentation skills</li> </ul>	
<b>Analytics Manager</b>		
<ul style="list-style-type: none"> <li>- Builds the necessary systems to keep high quality data at hand at all times for the business</li> <li>- Implements company-wide analytics tools and customer retention schemes</li> <li>- Suggests ways of improving the product via a number of research techniques</li> <li>- Mentors junior analysts and drives day-to-day decision-making</li> </ul>	<ul style="list-style-type: none"> <li>- Degree or equivalent with financial, mathematical or economic discipline</li> <li>- Data analytics skills</li> <li>- Vast experience with manipulation using a variety of tools</li> <li>- Problem-solving skills</li> <li>- Critical thinking</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Business Data Analyst</b>		
<ul style="list-style-type: none"> <li>- Takes huge volumes of data and turns that data into real business insights that will enable growth of the business</li> <li>- Identifies how site development and changes drive changes in customer behaviour</li> <li>- Utilises various research methods to suggest improvements based on the data</li> </ul>	<ul style="list-style-type: none"> <li>- IT/Business and Computing related qualification</li> <li>- Knowledge of working in an online environment</li> <li>- Statistical analysis and hypothesis testing skills</li> <li>- Data analytics skills</li> <li>- Problem-solving skills</li> <li>- Critical thinking</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Data Warehouse Architect</b>		
<ul style="list-style-type: none"> <li>- Works within a multi-disciplinary team to deliver, develop and manage a multi-layered data warehouse with data sets specific to the gaming industry</li> <li>- Manages the data capture, loading, transformation and data integration processing, and scheduling of the data processing</li> <li>- Works closely with the BI Architect to design and deliver user facing</li> </ul>	<ul style="list-style-type: none"> <li>- Maths/Computing/Technical related degree</li> <li>- Statistical, mathematical and analytical skills</li> <li>- Knowledge of data integration products, data warehouse management and script language</li> <li>- Problem-solving skills</li> <li>- Communication skills</li> <li>- Extensive SQL query writing and optimisation</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

data models that promote speed, accuracy and ease of use		
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#### Jobs in the BI sector:

Job overview	Generic skill set	Skills specific to Gaming
<b>Head of Business Intelligence</b>		
<ul style="list-style-type: none"> <li>- Leads a team to develop analytical decision frameworks, design datasets, track and measure strategic initiatives</li> <li>- Works across the organisation and with clients to ensure that the right data is collected and processed to enable smart, data-driven decisions</li> <li>- Works with business partners to interpret results, devise action plans and evolve business execution</li> </ul>	<ul style="list-style-type: none"> <li>- Mathematical/Statistical related degree</li> <li>- Familiarity with database management systems, data integration tools, reporting tools, and analysis/dashboard tools</li> <li>- Statistical skills, IT skills, and research skills</li> <li>- Presentation skills and communication skills</li> <li>- Ability to analyse digital customer acquisition</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>BI Developer</b>		
<ul style="list-style-type: none"> <li>- Works with a team of analysts and data development professionals</li> <li>- Helps to create and manage company insights across its operations</li> <li>- Designs and develops the data warehouse platform</li> <li>- Provides reporting and dashboard solutions in conjunction with business needs</li> <li>- Data modelling and data integration of all business data including internal, third party and migration</li> </ul>	<ul style="list-style-type: none"> <li>- Maths/Computing/Technical related degree</li> <li>- Knowledge of SQL and working within Agile and Scrum environments</li> <li>- Knowledge in working with data integration tools</li> <li>- Coding ability with languages such as .NET, Java and/or Python</li> <li>- Strong communication skills and interpersonal skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

## Marketing

Job overview	Generic skill set	Skills specific to Gaming
<b>Senior Software Developer</b>		
<ul style="list-style-type: none"> <li>- Responsible for the ongoing development and maintenance of the software</li> <li>- Maintains the database structure for the company's applications</li> <li>- Develops enterprise quality systems for use in a highly distributed environment</li> <li>- Supports the development team by providing prototyping and technology explorations to help identify key technologies for future projects</li> </ul>	<ul style="list-style-type: none"> <li>- IT related degree/ qualification</li> <li>- Strong software design and debugging skills</li> <li>- Web development knowledge, using software such as Spring MVC, Spring Web Sockets and AngularJS</li> <li>- Development using enterprise technologies and agile development methodology</li> <li>- Integrating with SQL and Non-SQL databases</li> <li>- Analytical, evaluative and problem-solving skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Front-end Developer</b>		
<ul style="list-style-type: none"> <li>- Responsible for implementing front-end features on online channels</li> <li>- Develops and tests across multiple browsers, platforms and devices, including smartphones and tablets</li> <li>- Develops cross-browser and cross-platform compatible solutions</li> </ul>	<ul style="list-style-type: none"> <li>- IT related degree/ qualification</li> <li>- Understanding of cross-browser and cross-platform issues, experience with JQuery</li> <li>- Advanced knowledge of web and mobile UX/UII HTML5, LESS and SASS experience, coding valid XHTML and CSS mark-up, agile methodologies and working with version control systems such as GIT and JavaScript frameworks to create rich interactive content</li> <li>- Good understanding of Web Accessibility</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Back-end Developer</b>		
<ul style="list-style-type: none"> <li>- Responsible for defining the architecture and future direction of the back-end system</li> </ul>	<ul style="list-style-type: none"> <li>- IT related degree/ qualification</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> </ul>

<ul style="list-style-type: none"> <li>- Reports directly to the CTO with a focus on database applications and development architecture</li> <li>- Responsible for mobile application support and a technology review of the existing portfolio</li> <li>- Plans, designs, develops, debugs, implements and supports web-based applications and services</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of systems such as .NET, C#, MVC, SQL and WCF, and of frameworks such as NUnit, StructureMap, Moq or similar</li> <li>- Experience using versioning control systems</li> <li>- Communication skills</li> <li>- Analytical, evaluative and problem-solving skills</li> </ul>	<ul style="list-style-type: none"> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Web Developer</b>		
<ul style="list-style-type: none"> <li>- Helps imagine, prototype, build and maintain the user interfaces in different platforms, including websites, web applications and online games' interfaces</li> <li>- Works with the designers to bridge the gap between graphical design and technical implementation</li> </ul>	<ul style="list-style-type: none"> <li>- IT-related degree/qualification</li> <li>- Proficient understanding of web markup, HTML5 and CSS3, PHP, JavaScript, UI/UX principles, AJAX, JQuery and Websocket</li> <li>- Analytical, evaluative and problem-solving skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Web UX/UI designer</b>		
<ul style="list-style-type: none"> <li>- Focuses on the conception, design and implementation of interactive user interfaces using current web technologies, also for mobile devices</li> <li>- Analyses business requirements, gathers analytics data, creates and builds prototypes and verifies them through user testing and A/B testing</li> </ul>	<ul style="list-style-type: none"> <li>- IT and/or Marketing related degree/qualification</li> <li>- Expertise in use case development, mock-ups and fully interactive prototypes</li> <li>- User experience design for web applications that leverage emergent technologies</li> <li>- Strong conceptualisation and visual communication ability</li> <li>- Drawing and design skills and sketchbook technique</li> <li>- Understanding of responsive design practices, mobile applications and mobile optimisation</li> <li>- Analytical, evaluative and problem-solving skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

<b>Senior QA Engineer</b>		
<ul style="list-style-type: none"> <li>- Works as part of an Agile team following developments, from conception to release</li> <li>- Creates test strategies, test plans and test cases to cover all features under development</li> <li>- Implements automated tests</li> <li>- Defines the QA processes in use by the team</li> </ul>	<ul style="list-style-type: none"> <li>- IT-related degree/ qualification</li> <li>- Experience with high performance, high throughput and/or high availability systems</li> <li>- Knowledge in building automated tests, such as .NET and/or SoapUI or WCFTestClient</li> <li>- Knowledge of agile methodologies and testing</li> <li>- Analytical, evaluative and problem-solving skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Platform Engineer</b>		
<ul style="list-style-type: none"> <li>- Develops and owns critical, high-performance, and scalable platform frameworks and components</li> <li>- Responsible for systems modelling, simulation and analysis</li> </ul>	<ul style="list-style-type: none"> <li>- Experience in computer systems and engineering fields</li> <li>- Proficiency in infrastructure analysis, design concepts and implementations</li> <li>- Working experience in C, C++, Linux OS and Windows OS</li> <li>- Knowledge in specifying and deploying scalable, highly available hardware and network platforms</li> <li>- Knowledgeable with Microsoft Team Foundation Server, Visual Studio, .NET, C# and SQL Server</li> <li>- Analytical, evaluative, and problem-solving skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Software Engineer</b>		
<ul style="list-style-type: none"> <li>- Ensures the availability of products and services</li> <li>- Responsible for the correct operation and recovery of hardware and software systems</li> <li>- Liaises with operators, developers and third party providers to</li> </ul>	<ul style="list-style-type: none"> <li>- Degree in Computer Science/Engineering or related subject</li> <li>- Database knowledge and experience</li> <li>- In-depth knowledge of SQL</li> <li>- Strong knowledge in Windows Server</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

establish effective testing and implementation procedures - Resolves support issues with internal and external clients - Develops and maintains productive client relationships	applications, virtualisation technologies and IT infrastructure to include servers, networking and storage - Analytical, evaluative, and problem-solving skills	
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## Technology

Job overview	Generic skill set	Skills specific to Gaming
<b>CRM Manager</b>		
<ul style="list-style-type: none"> <li>- Creates and coordinates multiple online campaigns, and provides weekly reports on same</li> <li>- Works closely with the Affiliate Manager</li> <li>- Establishes and maintains scalable processes that ensure best practices in campaign and lead management</li> <li>- Works with the design team to create high performing ad content and affiliate collateral</li> <li>- Researches for product development in other areas related to online gaming</li> <li>- Helps create and improve UI/UX by providing user behaviour data (analytics and surveys) to design team</li> </ul>	<ul style="list-style-type: none"> <li>- Leadership skills</li> <li>- Business development skills</li> <li>- Ability to design and execute marketing strategies</li> <li>- Strong communication skills, both verbal and written</li> <li>- Strong presentation skills</li> <li>- Strong interpersonal skills and building/maintaining relationships</li> <li>- In-depth understanding of the target audience</li> <li>- Analytics skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> <li>- In-depth understanding of online gaming customer base and how to attract and retain</li> </ul>
<b>Head of Brand</b>		
<ul style="list-style-type: none"> <li>- Defines and presents the overall brand/project strategy and direction to the Board of Directors</li> <li>- Project management, execution, delivery, measuring and reporting of the approved brand/project strategy and direction</li> <li>- Brand/project departmental structuring, recruitment, direction, leadership, management and training of staff</li> </ul>	<ul style="list-style-type: none"> <li>- Leadership skills</li> <li>- Communication skills</li> <li>- Analytical, evaluative and problem-solving skills</li> <li>- Strong presentation skills</li> <li>- Business development skills</li> <li>- Management skills</li> <li>- Time management skills</li> </ul>	<ul style="list-style-type: none"> <li>- In-depth understanding of the online gaming industry and the company brand</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

<ul style="list-style-type: none"> <li>- Develops an ROI measuring dashboard for all efforts so that the Board of Directors understand impact and can refine/optimize the programme</li> <li>- Holds, documents and presents monthly, quarterly and annual projects and staff assessments as well as any necessary proposed revision of strategy and direction, based on facts, assessments and conclusions at hand</li> </ul>		
<b>Digital Marketing Manager</b>		
<ul style="list-style-type: none"> <li>- Manages all aspects of CRM, SEO, social media and website management</li> <li>- Manages the design process and builds the company websites with a clear emphasis on user experience and visual design</li> <li>- Overall management of SEO, web statistics and key word strategies as well as content</li> <li>- Creates and delivers strong creative and promotional content across all channels, including social media</li> </ul>	<ul style="list-style-type: none"> <li>- Strong knowledge of managing UX projects in areas such as responsive build and visual design</li> <li>- Digital marketing skills and knowledge in SEO and social media advertising</li> <li>- Knowledge in areas of retention, acquisition, reactivation and churn prevention</li> <li>- Presentation skills</li> <li>- Communication skills</li> <li>- Business development skills</li> <li>- Analytical, evaluative and problem-solving skills</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding of the online gaming industry and the company brand</li> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> <li>- Understanding of online gaming customer base</li> </ul>
<b>Head of Affiliates</b>		
<ul style="list-style-type: none"> <li>- Maintaining stimulating relationships with the current affiliates</li> <li>- Developing and monitoring affiliate promotions and materials</li> <li>- Identifying and recruiting new affiliates</li> <li>- Maintaining on-going communication campaigns</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of working in an online environment</li> <li>- Strong negotiation skills</li> <li>- Problem-solving and decision making skills</li> <li>- Creative digital marketing skills</li> <li>- Communication skills</li> <li>- Analytical and evaluative skills</li> <li>- Programming skills</li> </ul>	<ul style="list-style-type: none"> <li>- Online gaming-focused affiliate management skills</li> <li>- Knowledge of different gaming applications</li> <li>- In-depth understanding of the online gaming industry and the company brand</li> </ul>

<ul style="list-style-type: none"> <li>- Identifying and implementing other and new opportunities to enhance the affiliate programme</li> <li>- Keeping affiliates up-to-date on new products and programme enhancements</li> </ul>	<ul style="list-style-type: none"> <li>- Leadership skills</li> <li>- Statistical skills</li> <li>- Strategic planning and execution skills</li> </ul>	<ul style="list-style-type: none"> <li>- Familiar with laws and regulations governing remote gaming</li> <li>- Understanding of online gaming customer base</li> </ul>
<b>Head of Search Engine Optimisation (SEO)</b>		
<ul style="list-style-type: none"> <li>- Manages the processes necessary to continuously improve the on-site SEO for all brands and their specific markets</li> <li>- Participates in projects, ensuring optimized on-site SEO procedures and standards</li> <li>- Provides advice to SEO content managers concerning on-site SEO optimization</li> <li>- Plans new implementations of functions and SEO changes, in co-operation with other departments</li> </ul>	<ul style="list-style-type: none"> <li>- Degree in Marketing/ Computer Science/ Engineering</li> <li>- Understanding of all SEO processes</li> <li>- Basic web technology skills</li> <li>- General understanding of web analysis and internet marketing</li> <li>- Project management skills</li> <li>- Analytical, problem solving skills and organisation skills</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding of online gaming and online gaming branding</li> <li>- In-depth understanding of customer base</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Chief Commercial Officer (CCO)</b>		
<ul style="list-style-type: none"> <li>- Drives development and execution of a commercialization strategy of the company</li> <li>- Responsible for revenue growth within the organization</li> </ul>	<ul style="list-style-type: none"> <li>- Strong leadership skills</li> <li>- Strategic thinking skills</li> <li>- Analytical, evaluative and problem-solving skills</li> <li>- Sales management skills</li> <li>- Business development skills</li> </ul>	<ul style="list-style-type: none"> <li>- In-depth understanding of the remote gaming industry and the company brand</li> <li>- Familiar with laws and regulations governing remote gaming</li> <li>- Understanding of online gaming customer base</li> </ul>
<b>Head of Customer Care</b>		
<ul style="list-style-type: none"> <li>- Manages all contact points with customers</li> <li>- Keeps customers active and engaged in the brand</li> <li>- Analyses customer data to conduct the most effective CRM campaigns</li> <li>- Ensures that all customer journeys and touch points, both on web and</li> </ul>	<ul style="list-style-type: none"> <li>- Experience in customer service and sales management</li> <li>- Leadership and motivational skills</li> <li>- Communications skills</li> <li>- Strong reporting and presentation skills</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding of the online gaming industry and the company brand</li> <li>- Knowledge of gaming software applications and gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>



mobile, are considered within CRM planning - Analyses customer segmentation	- Good at using CS-Tools and MS Office	
<b>Sportsbook Marketing Manager</b>		
<ul style="list-style-type: none"> <li>- Takes campaigns from conceptualisation to completion, optimising in between and learning how to improve them, in order to increase ROI</li> <li>- Collaborates closely with other stakeholders and internal departments to ensure that the site experience and customer journeys are consistent</li> <li>- Maximises both usability and accessibility across multiple devices</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of branding and communications</li> <li>- Marketing skills</li> <li>- Business development skills</li> <li>- Customer-focused</li> <li>- In-depth understanding of target audience</li> </ul>	<ul style="list-style-type: none"> <li>- General understanding of sports betting</li> <li>- Solid understanding of retention, reactivation and conversion methods, as well as operating, attracting and retaining customer loyalty in an online transactional environment</li> <li>- Knowledge in online customer behaviour</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Digital Content Manager</b>		
<ul style="list-style-type: none"> <li>- Manages a team of copywriters and social media executives to deliver a wide range of online content</li> <li>- Develops and delivers upon a content plan, assuring that the websites are updated regularly with relevant and engaging copy, while adhering to brand guidelines</li> <li>- Oversees content production of both internal and external resources, taking on full responsibility for quality control, time management, and prioritization of tasks</li> </ul>	<ul style="list-style-type: none"> <li>- Digital marketing management skills</li> <li>- Web content and editorial knowledge</li> <li>- Strong communication and presentation skills</li> <li>- Creative writing skills</li> <li>- Knowledge in digital content writing/editing software</li> <li>- Experience in content management systems</li> <li>- Understanding of SEO and web analytics principles</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding of online gaming industry, software, applications and branding</li> <li>- Understanding of customer base</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Social Media Analyst</b>		
<ul style="list-style-type: none"> <li>- Acts as knowledge centre for the social media activity</li> <li>- Develops reports on social media traffic and campaign performance</li> <li>- Identifies direct and indirect social media feedback</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of all social media applications</li> <li>- Strong communication and presentation skills</li> <li>- Customer focused</li> <li>- Basic IT, marketing and advertising skills</li> </ul>	<ul style="list-style-type: none"> <li>- Understanding of online gaming and branding</li> <li>- In-depth understanding of customer base</li> </ul>

- Keeps up-to-date with emerging trends, measurement tools and keywords	- Analytical skills	- Familiar with laws and regulations governing remote gaming
<b>Graphic Designer</b>		
- Creates design solutions that have a high visual impact - Works to a brief agreed with the creative director or account manager. - Develops creative ideas and concepts, choosing the appropriate media and style to meet the brand's objectives	- Understanding of company brand - Creative thinking - Strong presentation skills - Knowledge of graphic design - Understanding of web content/development	- Up-to-date knowledge of industry software - Affinity with online gaming branding - In-depth understanding of customer base - Familiar with laws and regulations governing remote gaming
<b>Copywriter</b>		
- Writes creative, personal and effective copy - Creates content on a large variety of subjects, in a number of different media, such as social media, banners, articles for web and print	- Excellent writing and editing skills - Communication and presentation skills - Creative thinking - Basic IT skills - Marketing and advertising knowledge - Knowledge of branding	- Understanding of online gaming - In-depth understanding of customer base - Familiar with laws and regulations governing remote gaming

## Legal and compliance, risk and fraud

Job overview	Generic skill set	Skills specific to Gaming
<b>Chief Risk Officer</b>		
- Implements fraud prevention strategy and sets up anti-fraud workflow within the several departments of the company to ensure effective monitoring of anti-fraud activities throughout the company and solve queries about antifraud operations - Provides and implements a strategy regarding customer registration, verification, due diligence, Know Your Customer	- Knowledge and experience of online payments, banking and payments processing - IT skills - Management skills - Motivational skills - Ability to work with numerous internal and external cross-functional teams - Ability to introduce creative anti-fraud solutions	- Strong knowledge of gaming operations - Familiar with laws and regulations governing remote gaming

(KYC) and AML policies and processes	<ul style="list-style-type: none"> <li>- An understanding of the link between payments functionality and fraud prevention</li> <li>- Critical and analytical thinking</li> </ul>	
<b>Key Official</b>		
<ul style="list-style-type: none"> <li>- Represents the licensee with the MGA</li> <li>- Ensures that all games are carried out fairly and that the interest of the players is protected at all times</li> <li>- Prepares monthly reports for the MGA and ad-hoc reports on any changes to the operations, not limited to changes to Terms and Conditions, downtime of IT systems, installation of new hardware, affiliates and change of personnel</li> </ul>	<ul style="list-style-type: none"> <li>- IT skills</li> <li>- Knowledge of anti-money laundering regulations</li> <li>- Risk management and security issues</li> <li>- Conflict resolution skills</li> <li>- Communication skills</li> <li>- Analytical thinking</li> </ul>	<ul style="list-style-type: none"> <li>- Excellent knowledge of gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Legal Compliance Manager</b>		
<ul style="list-style-type: none"> <li>- Manages the overall compliance structure and plan as well as is responsible for executing different compliance projects</li> <li>- Licenses applications, compliance planning/monitoring/reporting, AML and security audits</li> <li>- Liaises with gaming authorities</li> <li>- Builds processes and routines for maintaining compliance in different jurisdictions</li> </ul>	<ul style="list-style-type: none"> <li>- Solid understanding of legal and technical concepts.</li> <li>- Project management skills</li> <li>- Communication skills</li> <li>- Problem solving skills</li> <li>- Creating and maintaining structure</li> <li>- Ability to work on own initiative and carry a project from start to completion</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledgeable in gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>
<b>Legal Counsel</b>		
<ul style="list-style-type: none"> <li>- Drafts, reviews and negotiates contractual documentation</li> <li>- Advises on and drafts legal, fiscal and general Group policies and procedures</li> <li>- Drafts rules and procedures</li> <li>- Implements legal, regulatory and ethical requirements</li> <li>- Trains, educates and raises staff awareness about legal matters</li> </ul>	<ul style="list-style-type: none"> <li>- Critical and analytical thinking</li> <li>- Communication skills</li> <li>- In-depth knowledge of legal regulations</li> <li>- Relationship building</li> <li>- Organisational skills</li> <li>- Eye for detail</li> <li>- Time management skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of anti-money laundering and gaming legal operations</li> <li>- Knowledge of all legal regulations governing gaming</li> </ul>

Fraud Manager		
<ul style="list-style-type: none"> <li>- Responsible for the organisation's fraud strategy, including devising new procedures and building innovative fraud solutions</li> <li>- Builds and maintains relationships with key internal stakeholders, reports regularly to the board and manages third party vendor relationships</li> <li>- Manages the organisation's Anti-Money Laundering policy and is responsible for a multi-disciplinary team</li> </ul>	<ul style="list-style-type: none"> <li>- In-depth knowledge of fraud prevention and detection, including knowledge of the technology behind fraud management tools</li> <li>- Critical thinking and analytical skills</li> </ul>	<ul style="list-style-type: none"> <li>- Manages fraud strategies within high volume transaction online environments</li> <li>- Knowledge of anti-money laundering and gaming legal operations</li> </ul>
Fraud Analyst		
<ul style="list-style-type: none"> <li>- Works through a number of pre-determined fraud queues to identify potentially fraudulent accounts, and places all appropriate restrictions</li> <li>- Conducts other investigations, including validation using a number of sources such as banks, credit card issuers, phone matches, IP search, various websites, etc.</li> <li>- Reviews a variety of documentation including ID cards, passports, credit card statements, bank account statements and customer responses, in order to determine the legitimacy of the account and account holder</li> <li>- Liaises with relevant banks and payment processors to respond to identified cases of fraudulent activity</li> </ul>	<ul style="list-style-type: none"> <li>- Identifies problems and issues by performing relevant research using the appropriate tools</li> <li>- Able to make discretionary decisions based on research</li> <li>- Strong judgement and decision-making skills</li> <li>- IT skills</li> </ul>	<ul style="list-style-type: none"> <li>- Investigates accounts delivered to agent through fraud queues in admin tools, for possible fraudulent activity</li> <li>- An analytical problem solver with regard to charge backs, colluders and chip dumpers</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

## Finance, payment and human resources

Job overview	Generic skill set	Skills specific to Gaming
<b>Chief Financial Officer (CFO)</b>		
<ul style="list-style-type: none"> <li>- Manages the Finance department, including treasury, invoicing, admin and accounting</li> <li>- Works closely with the CEO and Board to deliver strategic, analytical and development activities</li> <li>- Preparation of monthly, quarterly and annual statements, budgeting, management reporting and cash flow forecasting</li> </ul>	<ul style="list-style-type: none"> <li>- Strong team management skills</li> <li>- Communication and interpersonal skills</li> <li>- A creative mind-set, with the ability to generate operating margins</li> <li>- Critical and analytical thinking</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming rules and regulations</li> <li>- Fully versed in consolidation and tax issues across European legislations</li> </ul>
<b>Recruiter</b>		
<ul style="list-style-type: none"> <li>- Responsible for hands-on recruitment and the full recruitment lifecycle, from establishing role descriptions, writing advertisements and identifying talent, through to conducting interviews</li> </ul>	<ul style="list-style-type: none"> <li>- Organisation skills</li> <li>- Data-led and results-orientated</li> <li>- Communication and stakeholder management skills</li> <li>- Well-versed in multi-channel and social recruiting</li> <li>- Talent mining skills</li> <li>- Relationship building skills</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of gaming rules and regulations</li> <li>- Knowledge of relevant skills required for gaming roles</li> </ul>
<b>Payments and Reconciliation Analyst</b>		
<ul style="list-style-type: none"> <li>- Analyses, studies and is familiar with the betting software and the various third-party payment gateways offered to customers</li> <li>- Identifies a suitable, effective and professional way for each of the payment gateways to be integrated in the automatic reconciliation system being developed</li> <li>- Manages and coordinates further development of the automatic reconciliation system</li> <li>- Effectively identifies non-reconciling items, to be handed over to the relevant team members for further investigations</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of accounting and reconciliation software</li> <li>- Analytical mind</li> <li>- Attention to detail</li> <li>- Excellent organisational skills</li> <li>- Able to work on own initiative and to plan workload</li> <li>- Has a pragmatic approach</li> </ul>	<ul style="list-style-type: none"> <li>- Strong knowledge of gaming operations</li> <li>- Familiar with laws and regulations governing remote gaming</li> </ul>

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