Game Development Studie 2024

Die wirtschaftliche Bedeutung der österreichischen Spieleentwicklungsbranche, ihre Dynamiken und Einflüsse auf die Gesamtwirtschaft

Summary

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Die heimische Spieleentwicklungsbranche – Zusammenfassung

Die wichtigsten Erkenntnisse der vorliegenden Studie in englischer Sprache sei im nachfolgenden Abschnitt zusammengestellt.

Summary (englisch)

Game Development in Austria, a young and dynamic industry, is characterized by predominantly small and micro enterprises with an above-average number of young, well-trained and highly motivated employees. The profile of game developers in Austria and their economic performance and momentum were analysed in 2018 in a study commissioned by the Austrian Professional Association of Management Consultancy, Accounting and Information Technology (UBIT) and carried out by the Institute of Industrial Research (IWI) (IWI, 2019). In order to analyse the development of game development in Austria since then, UBIT and other partners commissioned a new study by IWI. In addition to a comprehensive survey of game developers with a broad range of questions, the economic effects of the industry on the domestic economy are also analysed. Serious games and education and training in game development are chosen as two topics for a special focus.

In Austria, around 150 active companies form the industry of game development in the first half of 2024, which implies growth of 71.3 % over the last six years.

The IWI database of game developers, which was updated for the survey, includes 149 companies that are active in game development. Compared to 2018, the reference year of the previous study, when 87 active companies were counted in Austria, this represents an increase of 71.3 %. In the course of the survey, completed questionnaires were received from 80 companies, which corresponds to a response rate of 53.7 %. Although the response rate is slightly lower than in the previous study (69.0 %), this high response rate is an indication of the high level of loyalty among game developers towards their own community, given that the industry has grown in the meantime.

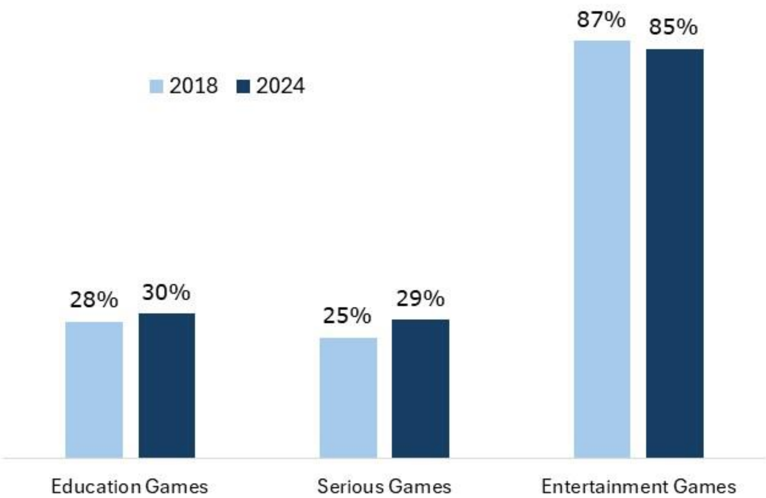
Small and micro enterprises shape the corporate landscape of game development in Austria

The game development industry is predominantly characterized by small and micro enterprises and only a few medium-sized companies. More than 81 % of companies have no more than 9 employees. 24 companies (16 %) employ 10 to 48 people and 4 companies (2.7 %) have 50 or more employees. In the sample of 80 companies surveyed, companies with fewer than 10 employees are slightly less well represented and the two groups of small and medium-sized companies are slightly more strongly represented than in the population. 81 of the 149 game development companies, or 54 % of the total, are based in Vienna. Compared to the results of the previous study, little has changed in the small company structure of game development, but the proportion of larger companies (small and medium-sized enterprises) has increased slightly in relation to micro-enterprises. The proportion of Viennese companies has weakened slightly since 2018.

The product range of game developers is large and their activities are diverse

The companies of domestic game developers produce a wide variety of products. They range from entertainment games (the majority) to educational games and serious games. 85% of respondents state that they develop entertainment games. 29% develop serious games and 30% education games. Compared to 2018, the importance of serious and educational games has increased.

Fig. SU1: Project type of the developed games, 2018 and 2024 in comparison



Note: n=80, all respondents, multiple answers possible
Source: IWI (2024)

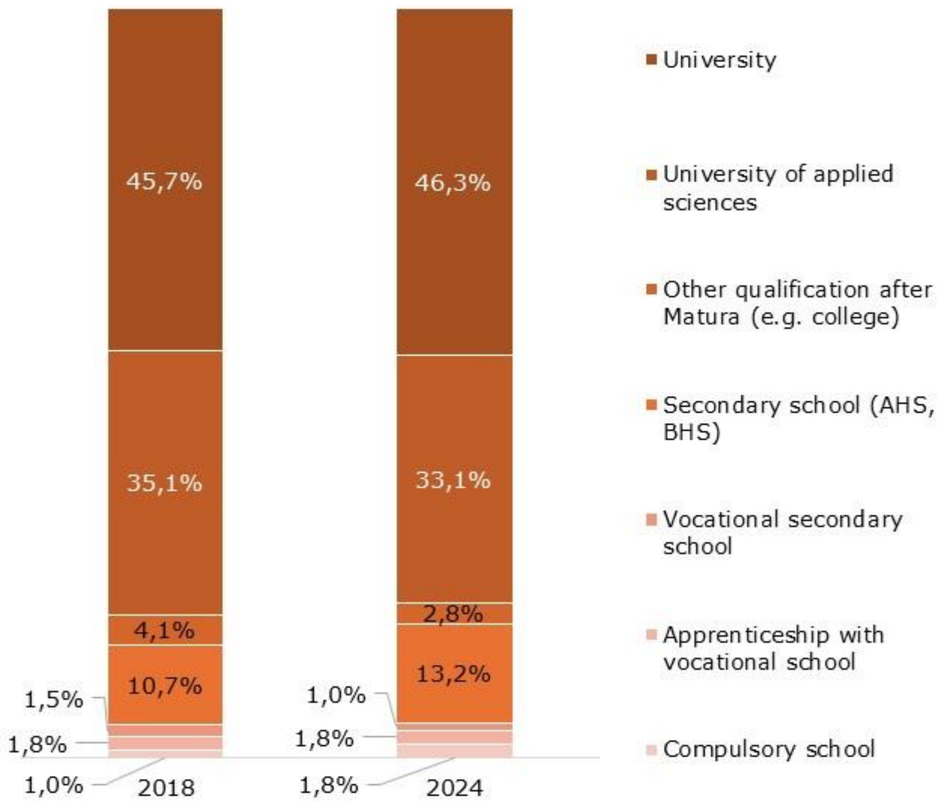
We find that the developed games are mainly for PC (more than half of respondents name the PC as their main platform) and mobile devices (smartphones/tablets), to a lesser extent for the web and for consoles. AR (augmented reality) and VR (virtual reality) are an important part of their products for 20% and 35% of respondents respectively. In terms of the platform on which the games are mainly developed, Unity dominates with 55%, followed by Unreal, Godot and proprietary technologies (in-house development).

As to the distribution of their working time, Austrian game developers are mainly involved with programming and graphics. These two key activities account for around two thirds of the workload. Marketing and public relations (PR), as well as music and translation, also play a role in game development. There has been no noticeable change in the distribution of these activities over the last six years.

When Austrian game developers start their careers, they are younger and better educated than the average of the country’s citizens

In 2024, the Austrian game developer scene still passes as a young industry, with the 25 to 34 age group dominating. In 2024, 10 % of employees are up to 24 years old, 48 % are 25 to 34 years old, 35 % are 35 to 44 years old and 8 % are 45 years old or older. The average age has risen compared to 2019: The older classes aged 35 and over have lost 7 percentage points to the younger ones, but around six out of ten game developers are still younger than 35. The industry is still predominantly characterized by university graduates in 2024. Almost 80% of those working in the relevant companies in Austria have completed tertiary education; they are exceptionally well-trained specialists. There are also employees with lower qualifications, but not to a degree that is relevant for the industry.

Fig. SU2: Highest level of education completed by game developers, 2018 and 2024 in comparison



n=66, RespondentInnen gaben die Beschäftigtenzahl und die Verteilung der höchsten abgeschlossenen Ausbildungen an
Quelle: IWI (2024)

A specialised or academic education is an important criterion when it comes to the qualifications required to work as a game developer. This also involves specific game development specialisations and courses. According to the majority of respondents in Austria, educational institutions (universities, universities of applied sciences, technical colleges) make a valuable and targeted contribution to the training of human capital in the field of game development. They also maintain links and regular exchanges with universities, universities of applied sciences and other educational institutions and recognise them as an important resource for further training, human capital and innovation.

Austrian game development companies are in an early stage of their lifecycle

In 2024, the companies are still young in their start-up phase, but there is a clear trend towards consolidation in the sector, with the proportion of companies in earlier phases having fallen significantly compared to 2018, while the proportion of more advanced groups has risen. This highly dynamic young sector is slowly growing up and consolidating. This is all the more remarkable given the large number of new companies compared to 2018. Almost one in five game developer companies is in the seed and start-up phase (19 %). Slightly more than one in three companies are in the 1st stage (market launch and market development), followed by around one fifth in the 2nd stage (national market penetration and expansion). The 3rd stage (start of international expansion) and the bridge or IPO stage account for 15 % and 8 % of companies respectively.

Most game developers choose the limited liability company as their preferred legal form

A variety of reasons play a role in the choice of a company's legal form, which, particularly in the case of small and micro-enterprises, depend heavily on the entrepreneur's background. The corporation, above all the GmbH, is the most common choice for game developers, followed by sole proprietorships and partnerships. There have been no noticeable changes in the legal form of game development companies in Austria compared to 2018.

Austrian game developers have established a profound network of external service providers, even beyond the domestic border

72 % of Austrian game developers currently rely on support from external service providers. This is roughly the same level as in 2018, with accounting, legal and tax consultancy services naturally being outsourced particularly frequently. Services in the categories of music (43 %), translation and graphics (31 % each) are also frequently outsourced to third parties and are closer to the product. One in five of those who outsource often do so for marketing and PR. The core activity - programming - on the other hand, is outsourced to a much lesser extent.

For all services except accounting, tax and legal advice, these are also procured abroad in varying proportions, whereby no pattern can be recognised for the target region of outsourcing (other EU countries or the rest of the world). With a share of 55 %, external programming is also predominantly carried out in Austria, as is music production by third parties.

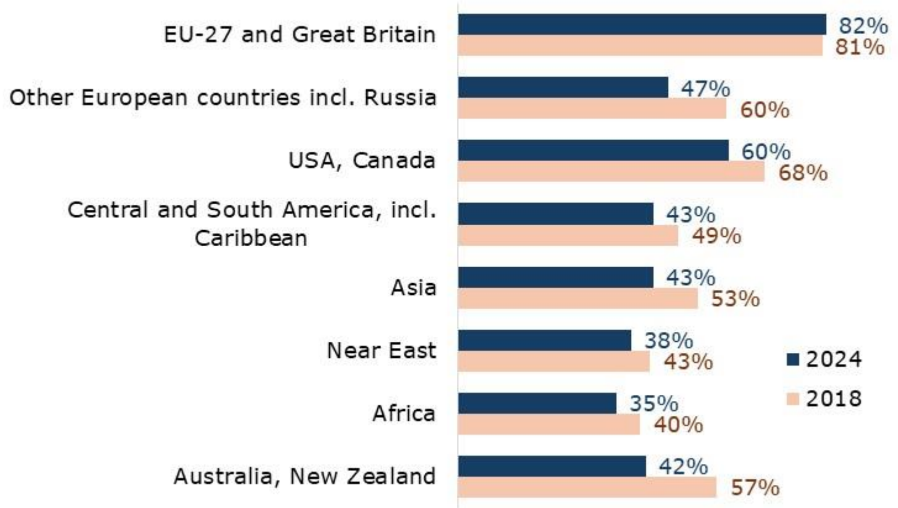
The games development industry is far less optimistic about future sales growth than it was in 2018

The dynamics on the markets of game developers have increased in recent years. Both the proportion of companies reporting strong sales growth (over the past three years) and those reporting strong sales declines have increased. Overall, the sector is far less optimistic about the expected future development of turnover than it was in 2018. In particular, the group of companies that anticipate a significant turnover growth of 10 % or more over the next three years has fallen from 57 % (in 2018) to 41 % (in 2014). The growth euphoria from before the coronavirus pandemic has slackened.

More than eight out of ten Austrian game development companies export their products

The games development industry is extremely export-orientated. Games are distributed via the internet, opening up global markets. It is therefore not surprising that 43 % of respondents who named at least one international market export to Central and South America and just as many to Asia. The EU-27 region and the United Kingdom came out on top with 82 %. The geographical reach is also given by the possibilities of global sales platforms such as ‘Steam’. All in all, however, with the exception of the EU region, all markets were mentioned less frequently in the survey than in 2018.

Fig. SU3: Export regions, 2018 and 2024 in comparison



Note: n=59, respondents naming at least on target region for exports
Source: IWI (2024)

Austrian game development companies rely especially on their own funds and on promotional services for financing

A variety of instruments are available to the companies nowadays to finance their activities. However, in the small-structured industry of Austrian game developers, self-financing or internal financing from profits, provisions and amortisation still surpasses all other forms, as was the case in 2018. It is important or very important for 92 % of game developers. They rate public funding (subsidies and grants) as the second most important financing source: 62 % very or somewhat important. The financing by shareholder contributions and loans is still important for 24 %, with the remaining ten other suggestions not exceeding the 20 % mark.

It is revealing that publishers of video games and digital games are cited several times as a source of financing in the open field survey. In the absence of acceptance or availability of financing sources other than equity or funding, game developers fall back on long-term dependence on publishers, which is associated with substantial revenue shares from the latter. When asked about the forms of financing that will play a greater role in the future, subsidies and crowdfunding stand out in comparison to the currently important forms of financing.

One in three game developers has applied for public funding in the last 24 months - with an average success rate of 65 %

As many projects in the games development industry are innovative and novel, public funding is an important source of financing. 32 % of the game developers surveyed have applied for funding. 21 % (i.e. 65 % of those who have applied for funding) received approval for the majority of their application(s). 11 % had their applications mostly or always rejected. 46 % did not apply for funding.

Austrian game developers utilise the entire spectrum of public funding and business promotion in Austria, with the AWS (Austria Wirtschaftsservice GmbH), the Vienna Business Agency and the FFG being mentioned most frequently. The business development agencies of the other federal states and the ministries or the tax office (research premium) and the UBIT trade association (education bonus) are among the other starting points. EU funding programmes (e.g. Horizon 2020) are also mentioned.

Those game developers that have not applied for public funding during the last 24 month give various reasons for doing so. Missing or insuffient attractivity of conditions and the administrative time and effort might be a factor just as lack of information.

Despite a critical view of Austria as a location, the game developers want to remain loyal to it

In 2024, game developers generally expressed a similar view of Austria as a business location as they did in 2018: in both surveys, only 5 % of companies planned to relocate abroad or close their site in Austria. At the same time, however, growth expectations for the domestic location in 2024 are not as pronounced as they were six years ago. While around four out of ten companies were still forecasting growth at their location in 2018, this figure stands only at around three out of ten in 2024.

In 2024, as in 2018, Austria's location policy clearly has room for improvement from the perspective of game developers. 77 % currently rate Austria as a poor or very poor location, an assessment that is even worse than in 2018. No improvement in the quality of the location is expected in the next three years.

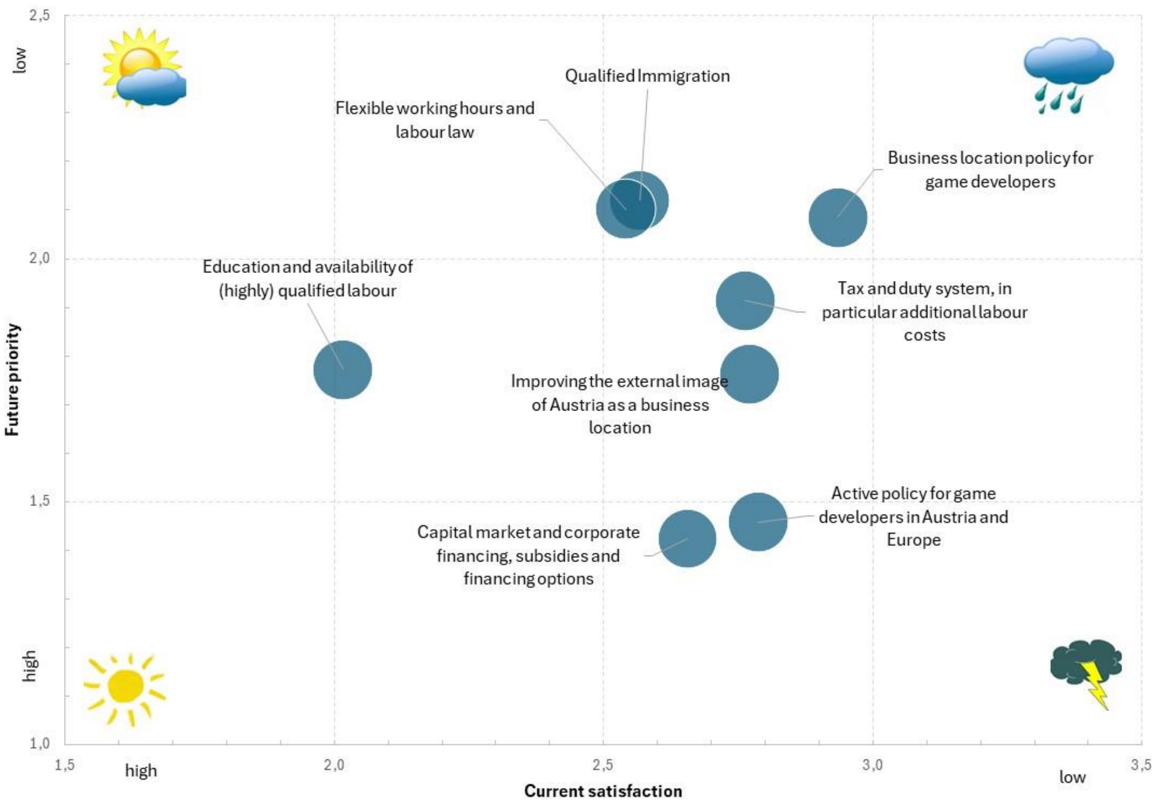
In the survey, both the current level of satisfaction of the game developers and their future priorities were determined for the fields of action.

There is a particular need for action in the fields of 'Active policy for game developers in Austria and the EU' and 'Capital market and corporate financing, subsidies and financing options'. Here, the domestic game developer scene is below average in terms of satisfaction with current conditions, while at the same time these topics are seen as a high priority for the future. From the perspective of the respondents, these are key conditions for location policy that need to be improved in the future.

Two further fields of action, 'Tax and duty system, in particular additional labour costs' and 'Improving the external image of Austria as a business location', display below-average satisfaction levels and have medium priority for the future. To address these must also lie in the interest of the game development scene.

Even less satisfaction is signalled regarding 'Business location policy for game developers', but this action field is attributed a relatively low future priority in the coming years. The remaining action fields are credited high or medium satisfaction levels, at the same time having relatively low priority for the future.

Fig. SU4: Action fields for location policy, current satisfaction and future priorities

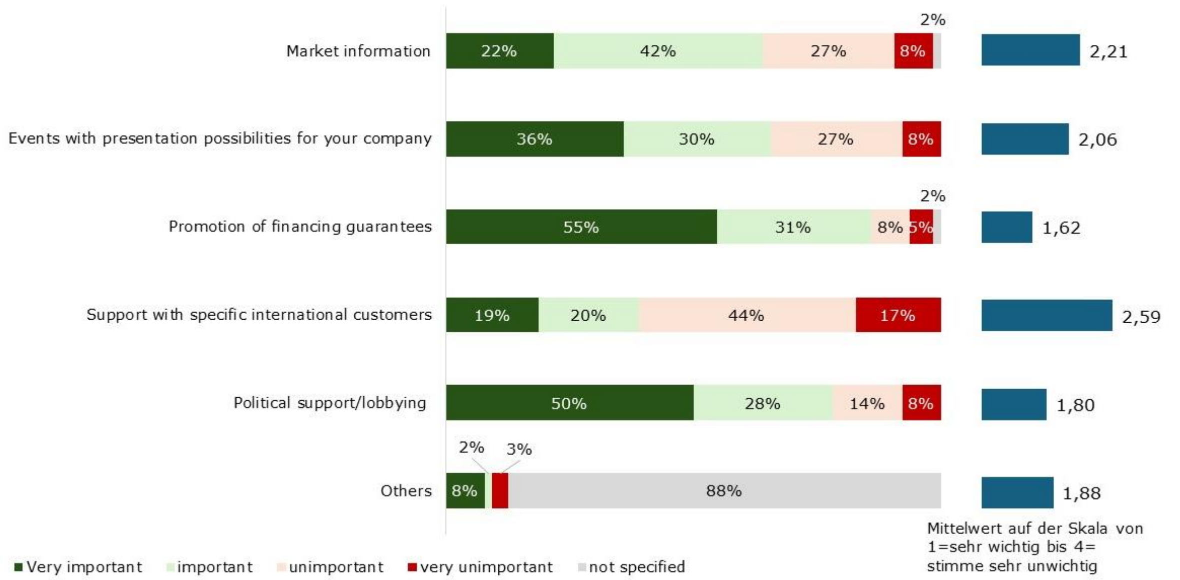


Note: n=63, Respondents evaluate the quality of the Austrian business location. We show averages of values on a scale from 1=best value to 4=worst value.
Source: IWI (2024)

Game developers are pinning their hopes on political support and lobbying to improve the framework conditions of their business

In the final part of the survey, specific measures that could be implemented by politicians or professional organisations were evaluated from the perspective of domestic game developers. Support is seen as very important in two of the five proposed points in particular: the promotion of funding guarantees (55 % very important) and political support or lobbying (50 % very important).

Fig. SU5: Importance of support measures for game developers in Austria



Note: n=64, Respondents evaluate at least one of the proposed support measures
Source: IWI (2024)

Game development as a current and future economic factor in the Austrian economy

The revenue generated by the approximately 150 domestic companies in the game development industry through their game development activities totalled EUR 92.8 million in the last financial year, 2023. This represents a nominal increase of more than 285 % (i.e. almost four times) compared to 2017, the reference year for the revenue estimate in the previous study. If an adjustment is made for the price development between 2017 and 2023, revenue growth still amounts to more than 180 %. Employment in the game development industry has risen from 474 jobs in 2017 to 1080 jobs in 2024, an increase of 128 %.

The growth of the past six years is unlikely to be repeated over the next six years. This conclusion is supported by both the self-assessments of the game developers in the survey and the currently very cautious assessment of the economy by the major economic research institutes. If we assume that the industry's growth will slow to a third of the level seen in recent years, this would still result in revenue growth of more than 60 % and employment growth of 42 % by 2029. Based on this plausible assumption, the game development industry in Austria would generate revenues (at 2023 prices) of EUR 149 million and employ more than 1,500 people in 2029.

Tab. SU1: Development of the game development industry 2017-2023 and projection for 2029

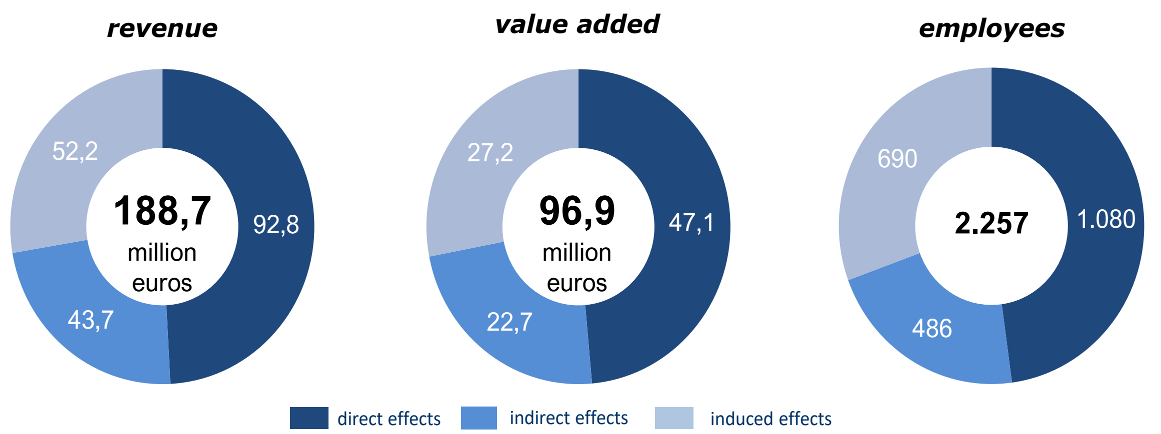
	2017	2023	*Growth 2017-2023*	2029	*Growth 2023-2029*
Number of Companies	87	149	*71,3%*	184	*23,5%*
Employment	474	1080	*127,8%*	1536	*42,2%*
Revenues at prices of 2023, mill. EUR	32,7	92,8	*183,6%*	149,0	*60,6%*

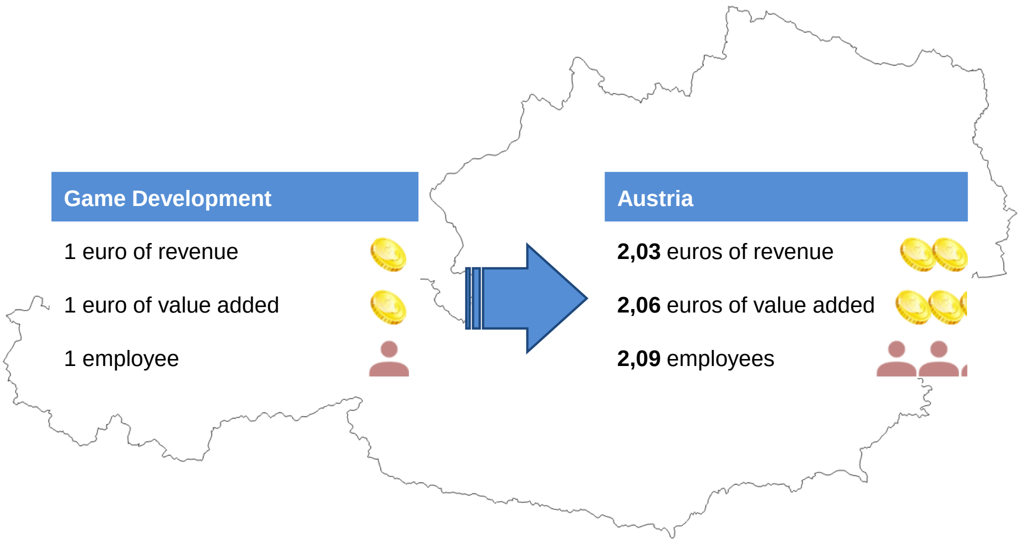
Note: The adjustment for price changes is based on CPI and on the price development in ÖNACE 62-63. We assume a slowdown of growth 2023-2029 relative to 2017-2023 by two thirds.
Source: IWI (2024)

One euro of revenue achieved by an Austrian game development company generates additional 1.03 euros of revenues countrywide

Austrian game developers generate overall revenues of EUR 188,7 million in Austria (2023). The companies themselves earn EUR 92.8 million (direct effects). In addition, EUR 43.7 million are generated by companies delivering intermediate goods (indirect effects) as well as EUR 52.2 million revenues that are created via consumption and investment effects (induced effects).

Fig. SU6: Macroeconomic and multiplier effects of game development in Austria 2023





Anm.: SpielentwicklerInnen-Umsatz. Rundungsdifferenzen möglich. Auswertung nach ÖNACE 2008. Input-Output-Tabelle 2020. Output-zu-Output-Modell des IWI.
Quelle: IWI (2024) auf Basis der Statistik Austria (div. Jahre), Input-Output-Tabellen, Volkswirtschaftliche Gesamtrechnung

Austrian game development companies generate direct and indirect added value of EUR 96.9 million in the domestic economy. For every euro of added value generated by game developers, a further EUR 1.06 of added value is generated throughout Austria via indirect and induced effects. Every job in a game developer company secures more than one additional job in Austria. In total, around 2,260 jobs are created in Austria by domestic game developers.

If the above-mentioned projection of the development of the games development industry were to be realised by 2029, the following economic effects would be likely: a production amounting to EUR 295.7 million would be triggered in the Austrian economy as a whole. The total value added emanating from the future game development industry according to the projection for 2029 would amount to EUR 155.6 million. In total, more than 3,200 people in Austria would owe their jobs directly, indirectly or through induced effects to game development activities.

Serious Games as a sub-segment of game development promise a high social benefit in the context of the digitalisation of society

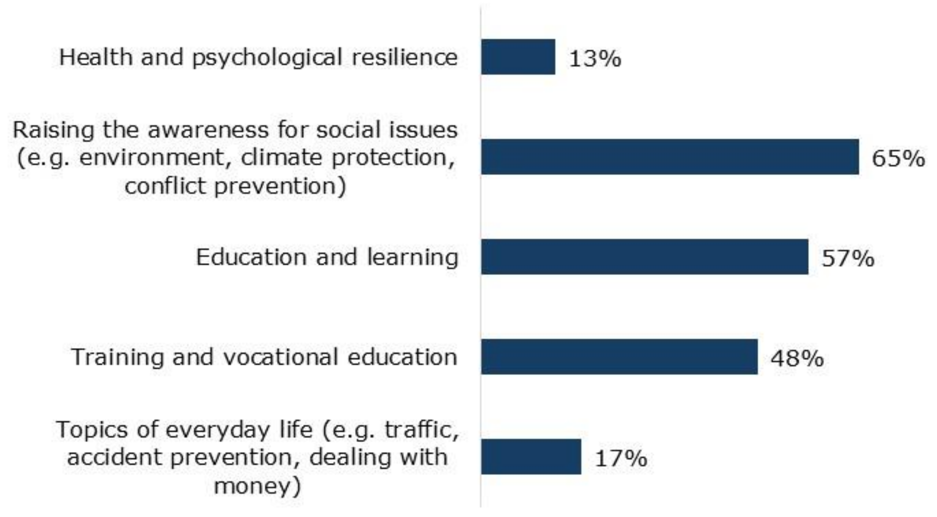
Serious games are digital games whose purpose goes beyond pure entertainment. They pursue a characterising goal (impact goal), e.g. learning, raising awareness. They do not have to be 'serious' in the conventional sense, but utilise the playful element to have a lasting effect. Serious games are enjoying ever greater acceptance. The enormous potential of these games is being further strengthened by ongoing digitalisation and the integration of new technologies, particularly in the context of the mobile learning trend.

Together with related trends such as gamification, serious games represent an area of the digitalisation of society and will become more widespread as digitalisation progresses, according to the experts interviewed. Ten years ago, there were only a few pioneers offering serious games in Austria, but today there are around 20 to 30 companies specialising in this area, employing around 130 to 150 people. In addition, there is increasing professionalisation in this sector, which manifests itself both in the development of more cost-efficient concepts and in a growing specialisation in application areas and technologies.

Among the goals and themes of serious games the most important is raising awareness for important social issues

The range of goals and themes covered by serious games is diverse and extends from education, health and professional development to everyday topics. However, one area stands out in the survey - raising awareness of important social issues (such as the environment, climate or conflict prevention) was mentioned most frequently in the survey as the motivation for developing a serious game. This was followed by the areas of education and learning as well as training and professional development.

Fig. SU7: Themes of Serious Games



Note: n=23, Company is a developer of serious games
Source: IWI (2024)

Unlike entertainment games, serious games are not marketed directly to consumers via download platforms, but are predominantly the result of commissions or co-operations and are subsequently distributed. Clients are most frequently found in the public sector (regional authorities, government agencies, ministries or authorities) or among public companies. Museums, research funding organisations, NGOs and churches also turn to game developers to design a serious game to communicate their message in a playful way. More and more clients are coming from the corporate world to use playful approaches for training, organisational development and supporting change.

Austria offers training programmes specifically for game development across several federal states

In total, there are 25 higher education programmes in game development in Austria that are explicitly geared towards game development and game design. There is a focus on Vienna with ten relevant degree programmes, where software engineering and web development are the mainstays of education. Three further regional focal points can be found at universities in Salzburg, Upper Austria and Carinthia. In addition, IT qualifications are taught in dedicated game development programmes and university courses in Styria, Vorarlberg and Lower Austria. The relevant range of qualifications is available across almost the whole of Austria, with only Burgenland and Tyrol not offering any explicit studies or university courses in game development.

Tab. SU2: Game-Development (Kat. 1 & 2) orientierte Ausbildungsangebote an Uni und FH, Anzahl Studien nach IT-Bereichen und Bundesländern

Hochschulen (Kat. 1 und 2)	Data Science	IT-Systems & Security	IT-Support & Anwendungsbetreuung	Software Engineering & Web Development	IT-Analyse & -Management	Automatisierung & Artificial Intelligence	Summe Gaming relevante Studien
Burgenland	0	0	0	0	0	0	0
Kärnten	1	1	1	2	0	1	2
Niederösterreich	3	2	1	3	0	3	3
Oberösterreich	4	4	4	4	4	4	4
Salzburg	3	3	3	3	2	2	3
Steiermark	1	1	2	2	0	0	2
Tirol	0	0	0	0	0	0	0
Vorarlberg	1	0	1	0	0	0	1
Wien	9	4	4	10	4	4	10
Österreich	**22**	**15**	**16**	**24**	**10**	**14**	**25**

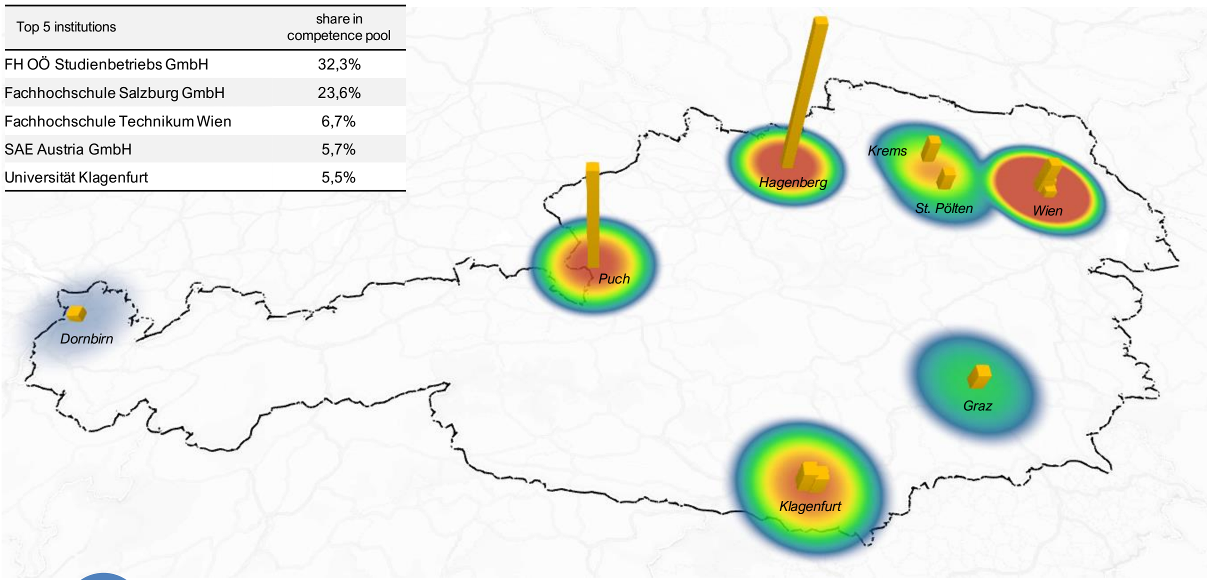
Quelle: IWI (2024), eigene Erhebung und Berechnungen

Hotspots of Austrian game development education are in Hagenberg (Upper Austria) and Puch (Salzburg)

In terms of skills output (proportion of IT content taught in the degree programmes at each location - weighted by the number of graduates), the locations Hagenberg in Upper Austria and Puch in Salzburg are central skills hubs for IT qualifications in game development studies. Together they account for around 50% of the skills pool. This means that every second graduate with relevant skills in the field of game development comes from one of these two universities. In the south of Austria, Klagenfurt and Graz are the centres of expertise. This pool of expertise is not as pronounced as that in the north, but the University of Klagenfurt in particular offers dedicated gaming development specialists for the regional demand for education. The game development competence pools are primarily supported by the university of applied sciences sector. In many cases, this sector offers specialised educational paths that combine gaming expertise with the necessary IT qualifications.

Fig. SU8: Heatmap: Regional distribution of the IT-competence pools in game development at universities in Austria, 2021/2022

Top 5 institutions	share in competence pool
FH OÖ Studienbetriebs GmbH	32,3%
Fachhochschule Salzburg GmbH	23,6%
Fachhochschule Technikum Wien	6,7%
SAE Austria GmbH	5,7%
Universität Klagenfurt	5,5%



The warmer the coloring (blue → red), the more present game development content is in the education offered at the specific location

The higher the bar, the greater the share of the of the educational institution at the location in the total educational output for Austria (= number of graduates x ECTS).

Source: IWI (2024), own research and calculations