Game Developer Index **2021**

DATASPELSBRANSCHEN
Swedish Games Industry

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The Swedish Games Industry is a collaboration between trade organizations ANGI and Spelplan-ASGD. ANGI represents publishers and distributors and Spelplan-ASGD represents developers and producers.

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Key Figures

Key Figures	2020	2019	2018	2017	2016
Number of companies	667 (+14%)	586 (+14%)	513 (+16%)	442 (+14%)	389 (+22%)
Revenue, million EUR	3.312 (+43%)	2.318 (+24%)	1.872 (+33%)	1.403 (+6%)	1.325 (+6%)
Revenue per employee thousand euro	238 (-9%)	255 (+10%)	236 (-10%)	263 (-15%)	309 (-8%)
Result, million EUR	720 (+46%)	493 (+47%)	335 (-25%)	446 (-49%)	872 (+65%)
Number of employees in Sweden	6.596 (+11%)	5.925 (+11%)	5.317 (+14%)	4.670 (+25%)	3.750
Men	5.186 (78,6%)	4.699 (79%)	4.286 (80%)	3.821 (82%)	3.107 (83%)
Women	1.410 (21,4%	1.226 (21%)	1.036 (20%)	849 (18%)	643 (17%)
Number of employees in Swedish compa-nies abroad	7.177 (+121%)	3.253 (+25%)	2.604 (+290%)	668 (+23%)	541

Key figures from the last five years. Increase from previous year in brackets. We have used the annual average exchange rate defined by the Riksbank, Sweden's central bank. In 2020 1 EUR was 10,4867 SEK

Index

Foreword

Creativity

Financial journalist Pontus Schultz passed away prematurely in 2012. A famous quote from him reads “creativity is the new steel”.

It is gratifying to be able to present a new record year. Some media have called computer games “the new basic industry” and this may be a good fit for an industry that had a turnover of EUR 3.3 billion in 2020. That is about the same as exports of wood products or iron ore, significantly more than the export of trucks, to name a few well-known basic industries.

But games, of course, are different from the basic industries in many ways. The raw material is creativity. The content is volatile, digital, hit-driven. It exists on screens (or in speakers!), is rarely touchable. Customers are players all over the world, games are rarely sold in different markets – the perspective is global. Passion is the impulse of entrepreneurship. The growth of games has taken place without a proportionate increase in the consumption of the planet’s finite resources. These and other factors make the world of computer games different, for better or for worse, but mostly for better. A strange basic industry.

Growth in 2020 was 43% compared to the previous year. This is due to several factors. The pandemic is one factor, when large parts of the world’s population have been more or less involuntarily trapped, games have

is the new steel

been able to offer an important breathing space: joy, fellowship, entertainment. This has been seen in sales (but has posed other difficulties, such as delayed development projects). Another factor is the growth of the world market, driven by the addition of more players: new audiences and new markets. This, of course, benefits Swedish companies that reach global audiences.

Part of the growth comes from acquisitions; in this year's report, for the first time, the number of employees in Swedish companies abroad is higher than at home in Sweden. The acquisitions are largely possible thanks to the fact that listed companies use their shares to invest abroad as well. For example, Sweden is the largest investor in the German games industry. The stock exchange itself is also a successful export, several foreign games companies have chosen to list their shares in Stockholm instead of in their home country (alternatively double listing). This is thanks to the expertise in games that has emerged around Nasdaq Stockholm.

Most of this points to a continued positive development for Swedish games companies, but the bottleneck is the supply of skills. Games education in Sweden is of a high standard but is not enough to meet the needs of companies. Reaching a larger labor market is an important driver for acquisitions and establishments abroad. Among the employees are many with foreign backgrounds, in some workplaces there are over fifty different mother tongues. Unfortunately, the problem of the so-called expulsion of competence remains, although there is hope in the form of investigative proposals and promises from the government. Sweden has the future in its own hands: there is demand, there are ideas, there is capital – but we need more people who have the skills to create games.

"The raw material is creativity. The content is volatile, digital, hit-driven."

You could say that Pontus Schultz has proven to be correct.

Finally, during the fall, questions about unwanted behavior including sexual harassment have received a lot of attention. It doesn't matter on what scale it occurs, each case is one case too many. It hurts the person who is affected, it damages the company and it damages the whole industry. We have come a long way with the work on gender equality, but there is still much to be done on this point. As a trade association, we are working with members to find and implement measures to address the problem. It is a job that may never be completed, but we must never be careless with it.

Stockholm October 2021

Per Strömbäck
Spokesperson Swedish Games Industry

Summary

The Game Developer Index charts, presents and analyzes the operations of Swedish game companies as well as international industry trends in the past year, by compiling the companies' annual accounts.

Swedish game development is an export industry in a highly globalized market. In just a few decades, the video game business has grown from a hobby for enthusiasts to a global industry with cultural and economic significance. The Game Developer Index 2021 summarizes the Swedish companies' last reported business year (2020). The report in brief:

- Swedish games industry's revenue grew to **EUR 3.3 billion** in 2020, which is an increase of 43% compared to global sales that increased by 20%.
- **Every fifth employee** in game development in Sweden is a woman, 1.410 in total. This corresponds to a share of just over 21%.
- A majority of companies are profitable and the sector in total is profitable for the twelfth year in a row. The total profit for the industry was **EUR 720 million** in 2020.
- Swedish game companies are growing and employing a total of **6,596 people** on site in Sweden and 7,177 people abroad. The difficulty in recruiting Swedish staff remains and many companies are expanding through acquisition of foreign development studios. In Sweden, the number of employees increased by 671, an increase of 11%.
- 81 companies started in 2020, bringing the number of active companies to **667** in December 2020, an increase of 14% compared to 2019.
- In 2020, **43 investments** and acquisitions were reported, four of which had a business value above the billion mark. Swedish companies were the purchaser in 40 of the deals, and in 11 of the transactions the seller.
- The 10 most profitable companies paid a total of over **EUR 140 million** in corporate tax on profit.
- The 10 largest employees have paid social security contributions of over **130 million EUR** in total.
- 19 Swedish companies are listed on the Stock Exchange in Sweden. Together, their revenue was **EUR 2 billion** in 2020, and with a total market capitalization of EUR 10 billion in December 2020.

Game development is a growth industry. Fourteen of the companies that exist today have existed since the 1990s, but just over half of all companies have been registered in the last five years. Games developed in Sweden are released on a global market with strong growth and the supply of skills is also largely in a global labor market. Some factors for continued growth are: more investments in regional clusters with incubators, accelerators and trainings, more serial entrepreneurs


Iron Gate – Valheim

3,3

Swedish games industry's revenue grew to EUR 3.3 billion in 2020.

720

The total profit for the industry was EUR 720 million in 2020.

starting new businesses and the implications and effects of the last couple of years' frequent and large investments and acquisitions.

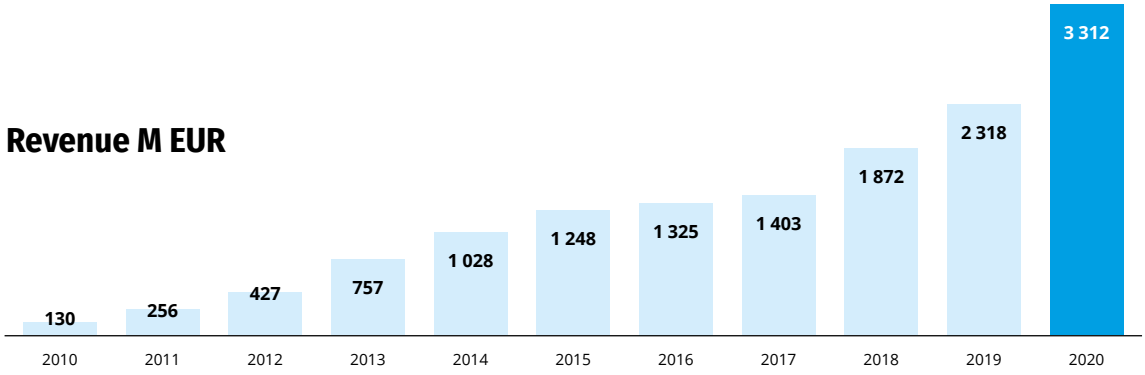
Swedish game developers are characterized by their range and quality. Sweden has world leading developers within AAA, console, PC, mobile, VR/AR, digital distribution and specialized subcontractors. The biggest challenges of the sector are indirect such as access to skills and funding, particularly in the early stages, as well as laws and regulations around digital markets that are out of step with developments. The biggest future issue is regarding diversity, both among game designers and players. Although major advances have been made in the last few years, a lot of work remains to be done. Long-term, video games have every opportunity to increase diversity and inclusivity; games offer a possibility to leave the everyday behind and step into worlds where the only limit is the imagination.

The number of "second generation companies" is growing, e.g. where experienced game developers have gone on to create their own projects, or where the management has created a second company,

Also growing, is the number of investments and acquisitions with Swedish companies as purchasers. In total Swedish companies were lead investor in 40 of 43 games-related business deals in 2020. Of these, eight were investments and acquisitions on the Swedish market. Successful companies increasingly re-invest in the industry, often in the Swedish market.

Revenues & Results

Swedish game companies have continued to expand during 2020 and increased revenues by 43% to 3.3 billion EUR. This is an increase of more than a billion euro.



In the global arena, the companies have successfully gained market shares, attracted talent and expertise and, not least, created gaming experiences for hundreds of millions of players worldwide. According to analysis company ICD data, the global industry grew by 20% in 2020, and according to Superdata, the increase was 12%. The European trade association ISFE has measured the increase in five European countries to 22%. The same study estimated the total revenue for the Games industry in Europe to 23.3 billion euro.

With 81 new companies, the Swedish industry is showing stable growth and over the past decade has increased turnover from EUR 130 million to an incredible EUR 3.3 billion over a ten-year period.

The industry as a whole continues to be profitable, now for the 12th consecutive year.

For Swedish parent companies with subsidiaries abroad, the entire revenue is included in the total, as not all companies separately account for the revenue nationally in their public reports. This can, on the one hand, make it more difficult to compare the games industry with other industries, while knowing that a large part of the value is retained in the group and thus creates value in the parent company as there is generally a low proportion of purchases of goods or services from outside.

The pandemic has affected the industry. Revenues have initially been good for many companies with games on the market, as well as those that could be released during the year. The players have become more active and at times games have been one of the few social spaces available. At the same time, several companies have seen their share price affected by market expectations, and there have been major changes both for existing employees and to recruit to a situation that in many cases has meant working entirely remotely. A longer analysis of the impact of the pandemic can be found later in the report.

Throughout the year, there have been many investments as well as write-downs and depreciation on development projects. Both of these events have affected the reported results in this report.

Unchanged from previous year, seven companies have a turnover of over EUR 100 million. The ten largest companies account for 82% of total revenue and the ten most profitable companies have collectively


Paradox – Hearts of Iron IV – Battle For The Bosporus

"With 81 new companies, the Swedish industry is showing stable growth and over the past decade has increased turnover from EUR 130 million to an incredible EUR 3.3 billion over a ten-year period. The industry as a whole continues to be profitable, now for the 12th consecutive year."

paid more than EUR 140 million in tax on earnings. In addition, payments of social security contributions on salaries have increased as the number of employees in Sweden increases, and the ten largest employees have together paid over EUR 130 million in total social security contributions. 35 companies have a turnover of over SEK 100 million.

Embracer Group has had revenues of over EUR 850 million this year, which means that the Karlstad based company consolidates its position as the country's largest game development group, and alone accounts for just over a third of the entire industry's increase during the year.

The games industry is an export industry and, like all Swedish exports, has benefited from the favorable SEK exchange rate versus the rest of the world. This is particularly noticeable in the buoyant revenue figures. Despite the weak Krona, several companies have made large investments, which of course influences the result. A more detailed review of investments in the Swedish industry can be found in the chapter Investments.

Highlights

The number of Swedish-developed games that are released varies from year to year, but these days the industry is broad enough for individual titles not to have a significant impact on the overall outcome. Here are some examples of major events in 2020 and early 2021:

- **Embracer Group** continued to grow by acquiring several companies around the world and now consists of nearly 80 studios with over 240 brands. In early 2021 Embracer acquired American company **Gearbox Entertainment**, creator of famous games such as Borderlands and Brothers in Arms. The Swedish operating group **Coffee Stain** is the publisher of the independent Skövde based studio **Iron Gate**, which in January 2021 released the game Valheim, which in the first month made a huge success and sold 5 million copies.

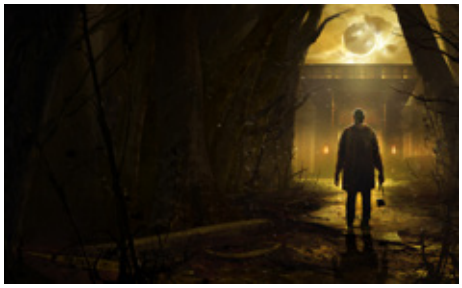
- **King** continues to be stable going forward. Candy Crush had over 273 million players and the brand had sales of over 10 billion in 2020. The Swedish company reported 4.7 billion in sales and during the year was the most profitable company in the industry with a profit of over EUR 250 million.

- **Mojang** continues to have stable sales and continues to be the world's best-selling game with over 238 million copies sold. In May 2020, Minecraft Dungeons was released. Meanwhile, Minecraft: Education Edition is used in school education in over 150 countries.

- **Stillfront** has a continued good growth and acquired several game studios in 2020, such as German **Sandbox Interactive** and US based mobile game developer **Storm8**.

- **G5 Entertainment** maintains a stable position in the mobile games segment with good growth in both sales and number of employees. The company reports record results, and for the fourth year in a row their turnover is over EUR 100 million. With a

Expansive Worlds – theHunter Call of the Wild



Fast Travel Games – Wraith: The Oblivion Afterlife

wide game catalog including games such as Hidden City, Mahjong Solitaire and Jewels of Rome, the company had 7.4 million active players (MAU) at the end of 2020.

- For **Paradox**, 2020 was the best in the company's history in terms of both turnover and profit. Crusader Kings III was the company's biggest and perhaps most important game release of the year, and the game was praised by both players and critics. Paradox has expanded its business with the acquisitions of French **Playrion Game** and Finnish **Iceflake Studios**, while also gaining great success with releases of several expansions to existing games.

- Several vampire games are in the making around the country. **Paradox** acquired the rights to World of Darkness several years ago and is currently working on upcoming Vampire the Masquerade Bloodlines 2. Malmö studio **Sharkmob** released Vampire The Masquerade – Bloodhunt in 2021; a battle royal game based on the World of Darkness.

- Unrelated to this universe, Skövde-based **Stunlock Studios** has announced the survival vampire game V Rising, and Linköping-based **Graewolv** has the vampire game Project Veil in development.

- **Raw Fury** has continued to have good growth during the year, invested heavily in more indie game projects, and in the summer of 2021 opened two art galleries, one in Stockholm and one in Croatian Zagreb. In August 2021, the investment company **Altor** acquired a majority in Raw Fury and bought out the former partner **Nordisk Games.**

- **Avalanche Studios Group** had several major successes during the year. Expansive Worlds theHunter: Call of the Wild passed one billion in sales and has an average of one million monthly active users. Systemic Reactions Generation Zero and Second Extinction both have over one million players. In the summer of 2021, Avalanche Studios Group announced upcoming game Contraband, which will be developed with **Xbox Game Studios** as the publisher.

- In 2020, **Ubisoft Entertainment** became the country's largest employer in the industry with 741 employees, including 641 at **Ubisoft Massive** in Malmö and 100 people at **Ubisoft Stockholm**. During the year, it became public that the company will make a Star Wars game in collaboration with **LucasArts**. Alongside this project, the studio is working on the upcoming game Avatar: Frontiers of Pandora in partnership with **Lightstorm Entertainment** and **FoxNext Games**, as well as Tom Clancy's The Division series.

- Another collaboration with LucasArt takes place in Uppsala where **MachineGames** has been commissioned to develop the next upcoming Indiana Jones adventure.

- During the year, several Swedish game companies have been awarded prizes at various galas. For example, Lost in Random from **Thunderful Zoink** won the Best Indie Award at Gamescom 2021.

The above list is not exhaustive; there are many other examples of Swedish game development success in the past year.

Employees

The number of employees in the games industry in Sweden increased by 9% in 2020 to 6,596 people. This corresponds to 671 new full-time positions.

In the same year 4,000 full-time positions were added abroad in Swedish-owned companies, mainly due to acquisitions. The largest employers in Sweden are Ubisoft and EA Dice, both of which employ over 700 people. 15 companies in Sweden have over 100 employees.

In addition to employees in Sweden, Swedish-owned companies have over 7,000 employees around the world outside Sweden, and a total of 7,177 people are employed by a Swedish-owned game development company. More details about this can be found in the chapter on Swedish Games companies around the world.

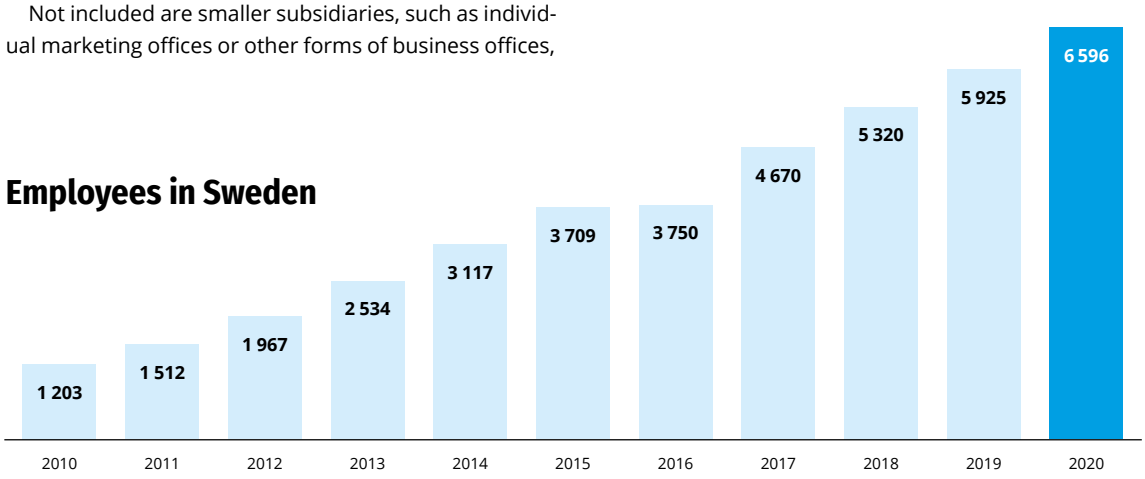
The numbers presented above are based on the reported average number of full-time employees over the entire accounting period. This means that the actual figure in the industry is often higher since many companies have expanded and with more employees at the end of the year than at the beginning of the year. When possible, the number of employees in December 2020 has been used as a reference to better reflect the progress during the year. When it comes to employees abroad, the Swedish company must have reported that there is a subsidiary in each country.

Not included are smaller subsidiaries, such as individual marketing offices or other forms of business offices, often run as a consultants, as they have only a marginal influence on the total number of employees. Also not included are foreign marketing subsidiaries based in Sweden.

In addition to the reported numbers, there are people in different company structures, people in companies that have not yet published their accounts, freelancers and subcontractors that are not shown as employees in the annual accounts. Taking these hidden numbers into account, the total is estimated to be higher. As an example, there are 255 sole traders registered under computer games in the Swedish business register.

There is high demand for employees in all work categories, which hampers the full development of the companies, not least when it comes to recruiting within the Swedish borders. This is evident when the companies expand, and Embracer, Stillfront, EG7 and G5 are examples of companies that employ more people abroad than in Sweden. An overview of all Swedish-owned game studios can be found on the World Map later in the report.

Employees in Sweden



Really Interactive – Virtuoso

Number of Companies

In 2020, 81 new games companies were registered, an increase of 14%, up to a total of 667 companies.

A major change in this year's report is the total number of companies. This year, with the help of Statistics Sweden's business register, we have carried out a major review of the companies in our database and manually reviewed all companies with NACE code* 58.210 – Publishing of computer games. Thanks to this, we identified almost 200 companies with a clear connection to the industry who were not previously included in the Game Developer Index. We also found 170 companies listed under NACE 58.210 whose main business was in other industries. These companies were not included in the Game Developer Index database.

Since far from all added companies were founded in 2020, we have revised and updated the comparative figures for the number of companies accordingly based on the companies that exist today. This means that we in this report show higher figures historically compared to previous reports, but that the real figure is probably higher since we can only revise for companies that still exist and not those who have shut down or gone bankrupt. For 2019, the revised increase was 151 companies from 435 to 586. It should also be noted that, for administrative reasons, the economic activity of a game studio may be divided into several companies. More details about the selection can be found in the Methodology chapter.

In this year's report, 103 companies are over ten years old, compared to previous Game Developer Index, reporting that there was a total of 106 companies in the industry in 2010. This data point is now revised to 115 companies thanks to the new NACE analysis. Looking back at old registers, we can see that around 80 of these companies from 2010 are included in this year's report. This points to a relatively small turnover of companies in the industry, and very few companies go bankrupt or change operations.

Other types of business

In 2020, there were 231 Sole traders, 35 Trading partnerships and 4 Economic associations registered under NACE 58.210 - computer game publishing.

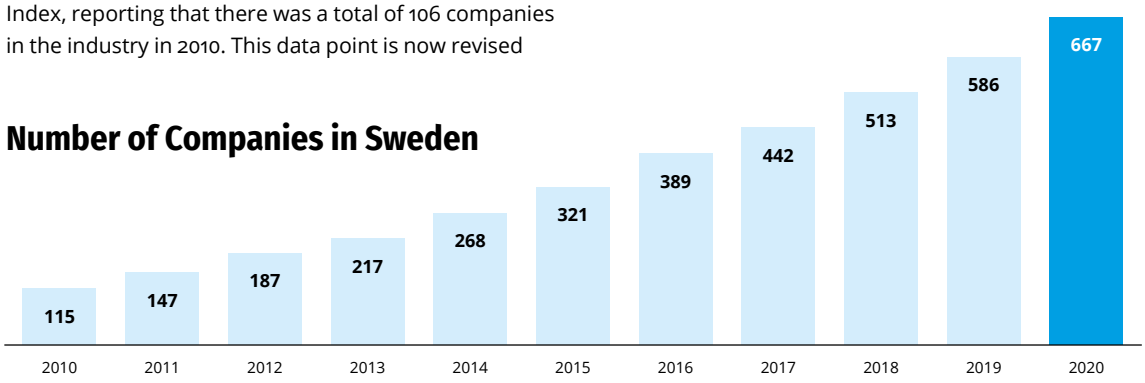
Among the sole traders, 87 reported revenue in 2020. 12 traders reported a revenue of more than SEK 500K and only three individual firms had a revenue of more than SEK 1 million. 16 traders were women, 7 of these reported revenues, none over SEK 500K.

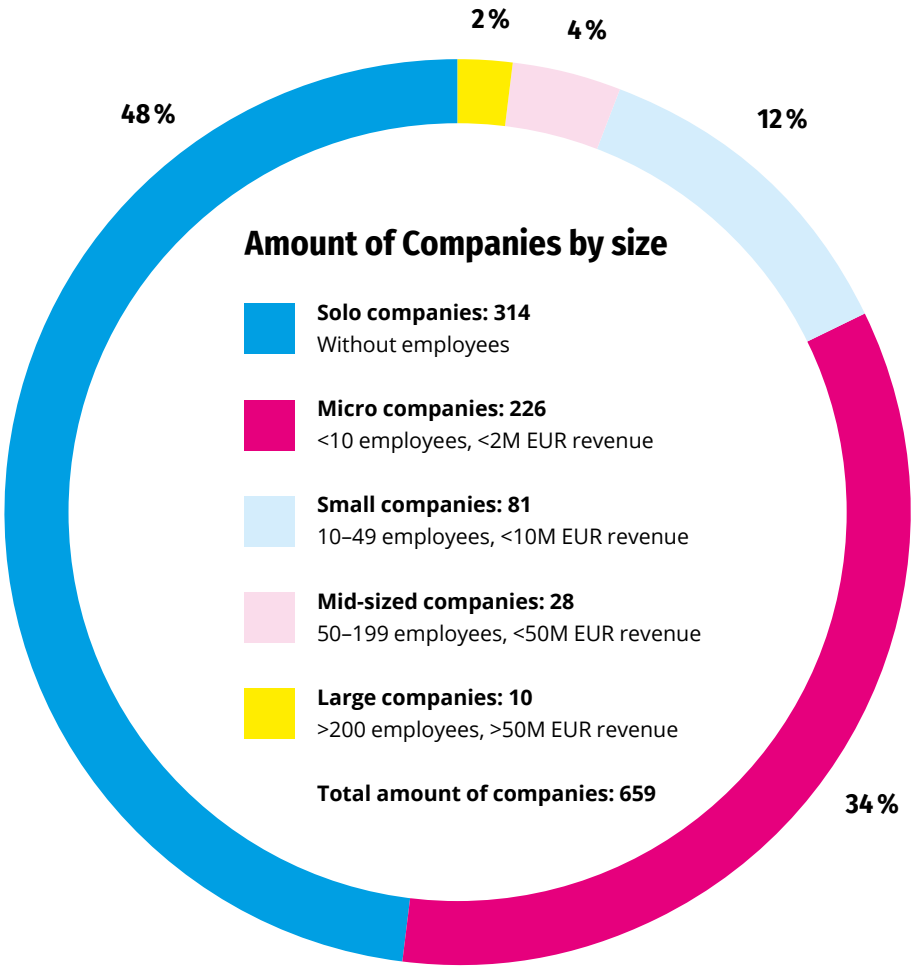
12 of the Trading partnerships reported revenue.

Several of the businesses registered under NACE 58.210 and operating in 2020 were not working with game development. In addition to these, we are aware of about 40 traders who create games, but have their business registered under other NACE codes. Some of these can be found on the Game Developer Map.

* NACE, Nomenclature of Economic Activities is the European statistical classification of economic activites. In Sweden these are called SNI, Svensk näringslivsindelning.

Number of Companies in Sweden





Number of Employees & Revenues by Company type

A large proportion of companies in the industry are small. Just under half of the companies are without employees and a quarter of the companies registered no revenue in 2020.

The definition of companies below is based on the EU definition of company size. In this report we have adjusted the definition of solo companies to companies without employees (the EU definition also includes companies where the owner is employed), and medium-sized companies are here defined as companies with 50-199 employees instead of 50-249 employees. These changes are due to how data is reported from Statistics Sweden. In this chapter we have, for clarity purposes, used an even exchange rate of SEK 10 per EUR.

The chart shows that the largest proportion of companies in the industry is small. Solo and micro-companies together account for 82% of all companies in the industry. 144 companies have more than 5 employees, of which only 22 companies are employing more than 50 people. Almost 100 companies have a turnover of more than EUR 1 million, of which some companies are subsidiaries of other companies in the industry. 35 companies in the industry had over EUR 10 million in revenues in 2020.

Due to new data sources and a revision of the number of companies in the report this year, we will not make a comparison with previous years in this chapter.

Women & Gender Distribution

In 2020, both the number and the percentage of female employees in the game industry increased. In total 21.4%, or 1,410 employees at Swedish video game companies are female, an increase of 184 women compared to last year. Among the new recruits, 27% were women.

During the year, 1,712 women were employed by a subsidiary to a Swedish game company abroad. This corresponds to 24% of all staff at Swedish-owned game studios around the world. The majority of these are working for Embracer Group, Stillfront, G5 Entertainment and Paradox.

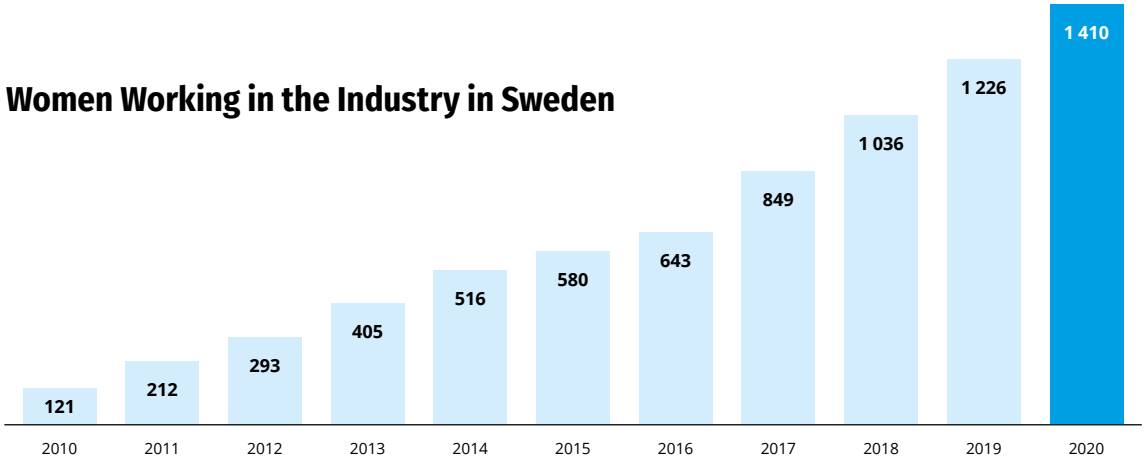
What impedes analysis of this subject is the difficulty in obtaining data on gender distribution in many companies. The listed companies have an obligation to report this in their annual accounts, but the majority of small, medium-sized and even large companies are not making this information available, neither in annual reports nor web pages. For this year's report, we have supplemented with data on gender distribution from Statistics Sweden, but it has not been available for all companies. There is also a lack of data on non-binaryness. In order for the industry to grasp the existing challenges and actively work towards equality in, for example, recruitment processes, it would be helpful if more companies made this information public.

The challenges lie in attracting more women to the industry and to retain them, but also to make more women start companies. Women in the game industry are mainly found in medium-sized and large companies. The most equal distribution can be found in companies working on mobile platforms and VR. One company that stands out in this year's report is Avalanche Studios Group, which during the year increased both the proportion and number of women employed in the company and went from 18% women in the Swedish Division in 2019 to just over 22% at the end of 2020. Also, six solo companies are run as limited liability companies where a woman has taken a salary during the year.

To the extent that data has been available, gender distribution has been reported based on gender identity according to how the respective company has reported this information.

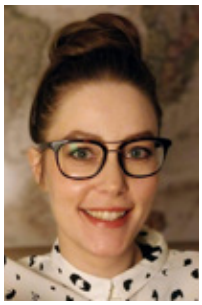
16 out of 259 sole traders registered under NACE code 58.210 (Computer game publishing) were women. 44%, 7 of the female sole traders, reported turnover in 2020. That compares with 33% of all male sole traders in the industry.

Women Working in the Industry in Sweden



THE INDUSTRY VOICE MY NILSSON

Studio Manager, Frogsong



My Nilsson, now Studio Manager at Frogsong, investigated the representation of women in different professions in the Swedish gaming industry in 2020. Among other things, she found that a lower proportion of women than men reached leadership positions, even when taking into account that fewer women work in the industry. Most women were found in roles outside the classic production chain of programmers, graphic artists and designers.

Hello My Nilsson! Were you surprised by anything in the results of your study?

– It was expected that women were underrepresented in the classic production chain and in leadership positions, but I was surprised that they were also so noticeably underrepresented in professions outside the production chain.

Is there anything in your results that you think more companies can embrace?

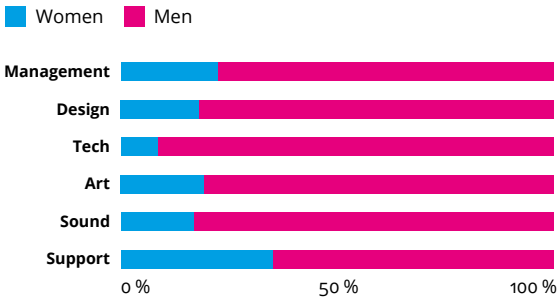
– What I most want companies to understand is the negative effects that female employees can experience from forming a minority not only in companies as a whole but also by forming a minority in their professional category. Although the proportion of women is increased at the company as a whole, it does not necessarily make a difference to those women who are still a minority in their professional category, in tech where 8.4% were women, negative effects could persist even if the proportion of women in all other categories increased.

What other lessons can we learn?

– Hope is not lost! Every year since 2014, the game developer index has measured a constantly increasing proportion of women in the industry. Although it may be some time before women's minority status in industry is significantly reduced, there are several possible measures to reduce the negative effects women may experience. According to research, there are a variety of ways of working, such as breaking restrictive professional identities and thus giving women a better fit in the game industry's seemingly male coded professions to work with objective evaluation methods. If companies can put aside prestige and work with real gender equality internally as motivation with clear concrete goals, I am hopeful for all people's future experiences in the game industry regardless of gender.

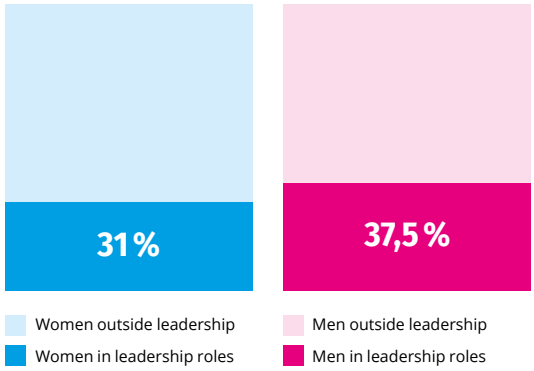
Two key take outs from My Nilsson's study

Gender distribution in different professions



"Support" includes all non-production roles such as marketing, finance, and HR.

Distribution of leadership titles



Sharkmob – Bloodhunt

Several initiatives in the industry

- In 2020, Paradox offered a game development course aimed at women and people who identify as women or non-binary under the name Games by Her. The goal is to help improve diversity in the game industry and, in particular, within programming.

- Leveling The Playing Field is a funding initiative from Coffee Stain, focusing on smaller studios that employ at least the same number of women as men, to promote equality in game development.

- In 2020, The Internet Foundation created Tidsvåg – a virtual celebration of games and women's achievements in the industry.

- Wings was founded in 2018 and invests in indie games by teams in which women and people of marginalized genders hold key company positions.

- GEM, Game Empowernment Movement, started operations in southern Sweden in 2021 as a local initiative to support gender equality and inclusion culture in the games industry.

- DONNA is an interest group based at Skövde University that has worked for the past ten years on gender issues in game development, work that has been hailed as learning examples of how to work with gender mainstreaming at colleges and universities. In 2021, the mini-conference DONNA DAY was arranged for the fifth time in connection with the Sweden Game Conference.

Some key figures

- 22 companies consist of at least 50% female employees, compared to 31 last year. The largest of these is Star Stable with 73 women employed

- 70 companies have a higher proportion of women than average, with at least 22% female employees; in total they have revenues of EUR 1.4 billion

- 108 companies with more than one employee consist of only men, the largest of these companies has 23 employees

Largest companies

More companies are expanding. Seven companies have revenues exceeding EUR 100 million and 15 companies had over 100 employees. Around half of the companies report profit, 49 companies have profits of over EUR 1 million and 86 companies have more than ten employees.

Something We Made – TOEM

Revenue in EUR million

	Company	Revenue MEUR 2020
1	Embracer Group	861
2	King	447
3	Mojang	428
4	Stillfront Group	381
5	Paradox	171
6	G5 Entertainment	129
7	EA DICE	121
8	Ubisoft Sweden	68
9	Avalanche Studios Group	59
10	Toca Boca	55

In addition to the list above, Thunderful Group should be mentioned, which in 2020 had sales of M EUR 294, but where most of the revenue came from the distribution.

Number of Employees in Sweden

	Company	Employees in Sweden 2020
1	Ubisoft Sverige	741
2	EA Dice	714
3	King	693
4	Paradox	431
5	Avalanche Studios Group	376*
6	Embracer Group	286*
7	Goodbye Kansas Group	196
8	Sharkmob	156*
9	Star Stable Entertainment	143
10	Embark Studios AB	138

*Number of employees on 31 December 2020. Sharkmob employed an average of 124 people during the year, and in September 2021 had 240 employees in Malmö. Embracer's key figures are from March 31, 2021.

Business Groups and the Stock Exchange

A change that has taken place in the Swedish games industry in recent years that more and more business groups with a Swedish parent company and subsidiaries abroad have gained market share and retained their parent companies with a registered office in Sweden.

This is reflected in market capitalisation, where Karlstad-based Embracer Group in spring 2021 became the highest valued game company in Europe. This report's Game Developer Map illustrates where Swedish game companies are acquiring studios around the world.

The business groups in this report have changed over the years. Goodbye Kansas has existed in various forms and different corporate structures, and since 2019 the company has been listed as Goodbye Kansas Group on First North Stockholm. The company is also active in film production and VFX, but the assessment for this year's report has been that the games part is a significant business for the company, and their annual report states that 2/3 of the revenue at the end of 2020, including the VFX production, was in game related projects.

Other business groups, such as Embracer and Stillfront, have a large part of their operations outside of Sweden. Together, the two companies own a significant part of the German games industry. THQ Nordic, Koch Media and Goodgame are three examples of Swedish owned game companies in Germany. In this report revenue is reported on group basis as the parent companies are listed in Sweden and have their registered office here. The proportion of employees is published by studio and country.

A new business group is Thunderful Group. Formed by the merger of Gothenburg game studios Image & Form and Zoink, they later merged with Nintendo distributor Bergsala and went public in December 2020. A significant 95% share of Thunderful Group's revenue is attributed to Thunderful Distribution, which includes the operations of Bergsala, Nordic Game Supply and Amo Toys, while the other part of the business, Thunderful Games, that develops and publishes games, is a smaller but growing share. In the case of Thunderful Group, we have broken out and included the part of the business related to game development, i.e. 156 million in sales and 136 employees in Thunderful Games. In total, the Group had sales of almost 300 M EUR in 2020.

Listed companies

19 Swedish game companies are listed on the stock market, 14 of which were listed in the last 5 years. 5 of the companies had a turnover in excess of 1 billion SEK in 2020. The stock market table also includes Thunderful Group, a game development company, but where a large part of the turnover is from the division that distributes Nintendo's games in the Nordic region.

Together, the listed companies had revenues of EUR 2 billion in 2020, almost double the total from last year.

The total market capitalization for the listed Swedish game companies in December 2020 was EUR 10,7 billion.

Kavalri Games – Equestrian the Game

Company	Year of (first) listning	Listed on	Revenue 2020 MEUR
Starbreeze AB	2000	Nasdaq Stockholm	11
G5 Entertainment AB	2006	Nasdaq Stockholm	129
Star Vault AB	2007	Nordic SME	-
Safe Lane Gaming AB	2010	Nordic SME	0,6
Stillfront Group AB	2015	First North Stockholm	381
Embracer Group AB	2016	First North Stockholm	861
Paradox Interactive AB	2016	First North Stockholm	171
Jumpgate AB	2016	Nordic SME	1,4
Gold Town Games AB	2016	Nordic SME	1
Enad Global 7 AB	2017	First North Stockholm	54
MAG Interactive AB	2017	First North Stockholm	21
Goodbye Kansas Group AB	2017	First North Stockholm	15
Qiiwi Games AB	2017	Nasdaq First North Growth Market	10
Beyond frames Entertainment AB	2018	Spotlight Stock Market	1,2
Zordix AB	2018	Nordic SME	0,9
Adventure Box Technology AB	2019	First North Stockholm	0
Thunderful Group AB	2020	First North Stockholm	291
Sozap AB	2021	Nasdaq First North Growth Market	1
Wicket Gaming AB	2021	Spotlight Stock Market	0

THE INDUSTRY VOICE
MARTIN LINDELL

Game historian and Senior Advisor at Embracer Group

What was Sweden's first commercial game success?

– Christer Medin developed the game Stone Sling for Philips Videopac, which was released back in 1981. Shortly thereafter, Peter Inser started the company Intron, which, in addition to other software development, employed six people to make games for Philips, among others.

But what did it really look like, were there any women who developed games in the 80s?

– Kajsa Söderström was the first female published game developer in Sweden. Her game Agent 999 was listed in the magazine Allt om hemdatorer in 1984. Before that, Elsa Karin Boestad-Nilsson and her colleagues, among others Ulla Jismark, made war simulators and turn-based strategy games for the defense department in the 1950s and 1960s, but they were not entertainment games.

How did society really view the game pioneers of the time, did they get any recognition?

– The daily press had the most amusing headlines such as "video games during working hours with the manager's approval" when SvD wrote about Intron in 1984. Newspapers such as Allt om hemdatorer and Joystick noted when games were developed by Swedes, but it left no lasting impressions. It was probably only with Digital Illusions (DICE) and their diary in Datormagazin in the early 1990s that game developers gained a little more stardom.

AGENT 999
med rätt att äventyra

■ ■ Från Kajsa Söderström har vi fått en äventyrspel till Spectravideo. Du är Jan Bonde, agent 999 med rätt att leta rätt på din chef Z:s hemliga dokument.

Tyvärr, skriver Kajsa i det medföljande brevet, att spelet kunde vara bättre strukturerat, men det fungerar i alla fall.

```
10  SCREEN 0,0:COLOR 1,14:PRINT "DU AR JAN BONDE AGENT 999. I DETTA":PRINT"UPPDR
AG AR DU PA JAKT EFTER HEMLIGA":PRINT"PAPPER AT DIN CHEF Z FA HEMLIGA":PRINT"SER
VICEN. LYCKA TILL!"
20 IF INK$="THEN 20
30  REM----------Rum----------
40 DATA I EN STOR SKOG,N02 V16,I EN GLANTA,N03 G13 S01,FRAMFOR HUSET,N04 U09 S02
,I EN LANG HALL,U09 G08 S03 V07 N06 D05,I ETT LITET KOK,U04,I ETT RUM,N08 S04,I
ETT BADRUM,S04,I ETT VARDAGSRUM,S06 S03 V04,PA OVERVANINGEN,D10 S04 V11
50 DATA I ETT LITET RUM,N12 V09,I ETT DUNKELT RUM,S09,I ETT SOVRUM,D03 S10,VID E
N FORLANDE BACK,D14 V02,PA EN VAG,S15 V13,HEMMA HOS Z,N14,PA EN SMAL STIG,N17 U0
1,I EN GROTTA,S16 V18,I EN OKEN,D17
60 REM----------Fraseki----------
70 DATA SPADEN,16,DYNAMITEN,17,NYCKELN,14,DET HEMLIGA DOKUMENTET,0,TANGSTICKORNA
,7,MATEN,0,KNIVEN,5,SPEGELN,7,DEN TRASIGA SPEGELN,0,DET TRASIGA FONSTRET,0,FONST
RET,3,DORREN,3,EN OPPEN DORR,0,EN HUNGIG TIGER,11,SKORPIONEN,10,ETT HUS,2
80 DATA STALDORREN,9,DEN LILLA DORREN,9,ETT KASSASKAP,10,ETT SPRANGT KASSASKAP,0
,KYLSKAPET,5,DET OPPNA KYLSKAPET,0,EN BEVAPNAD GANGSTER,6,DEN DODA SKORPIONEN,0,
ETT OPPET FONSTER,12,ETT ELEKTRISKT STANGSEL,2,EN TUNNEL UNDER STANGSLET,0
90 DATA DEN OPPNA STALDORREN,0,DEN OPPNA LILLA DORREN,0
100 REM --------Datainlasning---------
110 DIM RN$(18),HR$(18):FOR I=1 TO 18:READ RN$(I),HR$(I):NEXT
120 DIM FN$(29),PL(29):FOR I=1 TO 29:READ FN$(I),PL(I):NEXT
130 COLOR 15,4
140 R=1:CLS:LOCATE ,,1:PRINT "JAG AR ";RN$(R):GOTO 460
150 REM---------Vaderstreck----------
160 PRINT:INPUT INK$
170 IF LEN(INK$)>1 THEN 520
180 IF INK$="I" THEN 840
190 FOR I=1 TO LEN(HR$(R))
200  IF INK$=MID$(HR$(R),I,1) THEN 230
210 NEXT
220 GOTO 160
230 FOR J=I TO LEN(HR$(R))
240  IF MID$(HR$(R),J,1)=" " THEN 290
250 NEXT
260 IF R=18 AND PL(24)=0 THEN PRINT:PRINT "SKORPIONEN STICKER DIG":GOTO 880
270 IF R=PL(23) THEN PRINT:PRINT "GANGSTERN SKJUTER DIG":GOTO 880
280 IF R=11 AND PL(6)<>11 THEN PRINT:PRINT "TIGERN ATER UPP DIG":GOTO 880
290 IF R=3 AND INK$="N" AND PL(13)=0 OR R=4 AND INK$="S" AND PL(13)=0 THEN PRINT "
DORREN AR LAST":GOTO 160
300 IF R=2 AND INK$="N" AND PL(27)=0 THEN PRINT "AJJ! JAG FICK EN STOT! JAG KAN I
NTE GA NORR.":Z=Z+1:IF Z=3 THEN 880 ELSE 160
310 IF R=3 AND INK$="U" AND PL(11)=3 THEN PRINT "FONSTRET AR STANGT":GOTO 160
320 IF R=9 AND INK$="V" AND PL(28)=0 THEN PRINT "DORREN AR STANGD":GOTO 160
330 IF R=9 AND INK$="O" AND PL(29)=0 THEN PRINT "DORREN AR STANGD":GOTO 160
340 R=VAL(MID$(HR$(R),J-2,2)):PRINT "JAG AR ";RN$(R)
```

28

Agent 999 by Kajsa Söderström, from Allt om hemdatorer issue 9, 1984

Cover to Stone Sling, developed to Philips Videopac by Christer Medin

Article from Svenska Dagbladet, December 14th 1984, Headline: "Video Games during working hours with the managers approval"

```
350 IF R=0 AND PL(10)=0 THEN PL(11)=0 ELSE IF R=0 AND PL(11)=0 THEN PL(10)=0
360 IF R=3 AND PL(10)=0 THEN PL(11)=3 ELSE IF R=3 AND PL(11)=0 THEN PL(10)=3
370 IF R=4 AND PL(13)=0 THEN PL(12)=4 ELSE IF R=4 AND PL(12)=0 THEN PL(13)=4
380 IF R=3 AND PL(13)=0 THEN PL(12)=3 ELSE IF R=3 AND PL(12)=0 THEN PL(13)=3
390 IF R=11 THEN PL(17)=0:PL(20)=11
400 IF R=9 AND PL(20)=0 THEN PL(17)=9 ELSE IF R=9 AND PL(17)=0 THEN PL(20)=9
410 IF R=10 THEN PL(18)=0:PL(29)=10
420 IF R=9 AND PL(29)=0 THEN PL(18)=9 ELSE IF R=9 AND PL(18)=0 THEN PL(29)=9
430 FOR I=1 TO 29:IF R=PL(I) THEN PRINT "JAG SER ";FN(I)
440 NEXT
450 IF PL(19)=0 AND R(12 AND R)3 THEN PL(23)=R
460 PRINT "JAG KAN GA ";
470 FOR A=1 TO LEN(HS(R)):A$=MID$(HS(R),A,1):IF A$="N" OR A$="G" OR A$="S" OR A$
="V" OR A$="U" OR A$="D" THEN PRINT A$;" ";
480 NEXT
490 IF PL(4)=99 AND R=15 THEN 910
500 GOTO 160
510 REM-------Handling----------------
520 FOR I=1 TO LEN(IN$)
530  IF MID$(IN$,I,1)=" " THEN 620
540 NEXT I
550 IF IN$()"HJALP" THEN 570
560 IF R=2 THEN PRINT:PRINT "((GOR SOM MULLVADEN))":GOTO 160 ELSE PRINT "DU KLAR
AR DIG BRA UTAN HJALP.":GOTO 160
570 IF IN$()"GRAV" THEN 610
580 IF R=2 AND PL(1)=99 THEN PL(27)=2:GOTO 430
590 IF PL(1)=99 THEN PRINT "JAG HAR INGEN LUST." ELSE PRINT "JAG KAN INTE."
600 GOTO 430
610 PRINT "FORSTAR EJ.":GOTO 160
620 VI$=LEFT$(IN$,I-1)
630 FI$=RIGHT$(IN$,LEN(IN$)-I)
640 FOR I=1 TO 9
650  IF VI$="TA" AND FI$=FN$(I) AND R=PL(I) THEN PRINT "JAG TAR ";FI$:PL(I)=99:r=
I)=1
660  IF VI$="SLAPP" AND FI$=FN$(I) AND P(I)=1 THEN PRINT "JAG SLAPPER ";FI$:PL(I)
=0
670  IF VI$="OPPNA" THEN GOSUB 730 ELSE IF VI$="SLA" THEN GOSUB 700
680 IF IN$="DODA SKORPIONEN" AND R=10 AND PL(7)=99 THEN PL(15)=0:PL(24)=10
690  IF PL(2)=99 AND PL(5)=99 AND VI$="TAND" THEN GOSUB 800
700 NEXT
710 IF FI$="SPEGELN" THEN PRINT "DU TAPPAR SPEGELN!":PRINT "SJU ARS OLYCKA.":PL(
23)=7
720 GOTO 430
730 IF FI$="DORREN" AND PL(3)=99 AND R=3 THEN PL(12)=0:PL(13)=3 ELSE IF PL(3)=99
 AND R=4 THEN PL(12)=0:PL(13)=4
740 IF FI$="STALDORREN" AND R=9 THEN PL(17)=0:PL(20)=9
750 IF FI$="DEN LILLA DORREN" AND R=9 THEN PL(18)=0:PL(29)=9
760 IF FI$="KYLSKAPET" AND R=5 THEN PL(21)=0:PL(22)=5:PL(6)=5
770 RETURN
780 IF FI$="FONSTRET" AND R=3 THEN PL(23)=R:PL(11)=0:PL(10)=3
790 RETURN
800 PL(2)=0:PL(5)=0
810 IF R=10 THEN PL(19)=0:PL(20)=10:PL(4)=10 ELSE PL(23)=R
820 RETURN
830 REM--------Inventory----------------
840 FOR I=1 TO 9:IF PL(I)=99 THEN PRINT FN$(I)
850 NEXT
860 GOTO 160
870 REM -------Slut(dor)--------------
880 PRINT "DU AR DOD.SORRY."
890 IF INKEY$="" THEN 890 ELSE RUN
900 REM ------Slut(lycklig)----------
910 FOR W=1 TO 1000:NEXT:CLS:LOCATE 10,10:PRINT "GRATULERAR JAN BONDE.":LOCATE 1
0,12:PRINT "UPPDRAGET AR SLUTFORT!":LOCATE ,,0
920 IF INKEY$="" THEN 920 ELSE RUN
```

29

TV-spel på arbetstid med chefens godkännande

En trappa upp i en f. d. lägenhet sitter fyra civilingenjörer och två gymnasieingenjörer och spelar TV-spel. På arbetstid!

Och chefen, Peter Inser, tycker bara det är roligt!

Det hela låter konstigare än vad det är. Peter Inser och hans medarbetare tillhör den illustra skara som konstruerar TV-spel, bl. a. åt Philips. Det är deras förtjänst att spelen "Helicopter Rescue" och "Air Battle" har den fina grafik och det varierade ljud som de har.

— Det tar lång tid att få en ny idé accepterad på marknaden. Minst 4—8 år, förklarar Inser TV-spelens svårigheter att hävda sig i Sverige.

Sedan 1978 har han arbetet med mikroprocessorer. Det är de viktigaste, elektroniska komponenterna i allt från datorer till TV-spel. Ursprungligen arbetade Inser med administrativ databehandling men via jobb på Philips med utveckling av bl. a. styrprogram till videobandspelare startade han eget tillsammans med en kompanjon. En av specialiteterna är att utveckla program till Tv-spel och hemdatorer.

Mapp med idéer

— Vi börjar med en idé, som vi skissar upp på vanligt papper. Våra idéer samlar vi sedan i mappar som kunderna kan titta i. Får vi sedan en beställning går vi vidare.

Först skrivs en specifikation, sedan görs en spelplan upp. Verkar det bra drar det verkliga arbetet igång.

Det innebär att Inser och hans medarbetare börjar arbeta vid datorn. Bakgrunder kan till viss del föras in med hjälp av ljuspenna, men det mesta måste matas in för hand.

— Vi har beställt en "grafisk pad", säger Inser.

Det är ett elektroniskt ritbord där bakgrunder m. m. förs direkt in i datorn, något som underlättar arbetet mycket.

Åtta månader

Ändå tar det bortåt åtta månader för en person att konstruera ett spelprogram. Fast hos Insers företag Intron är det ju flera som delar på jobbet.

Det är ett mycket komplicerat arbete att få ett nytt TV-spel att fungera. Det är inte bara själva spelet som skall bli bra, både ljud och bild skall läggas in parallelit.

Foto: OVE SÖRLIOM

Peter Inser.

Därför arbetar Inser och hans folk med en utvecklingsdator. Det är en dator av samma typ som används när man konstruerar nya datorer.

Innan ett nytt TV-spelprogram skickas till fabriken filar Insers mannar på tempo m. m. i ett par veckor.

— Det krävs en hel del erfarenhet att få det snygg, säger Inser.

Intelligens i datorn

I dag är det två saker som är viktiga med nya spel, högt spelvärde och fin grafik.

— Problemet är att få den som spelar att fortsätta, berättar Peter Inser.

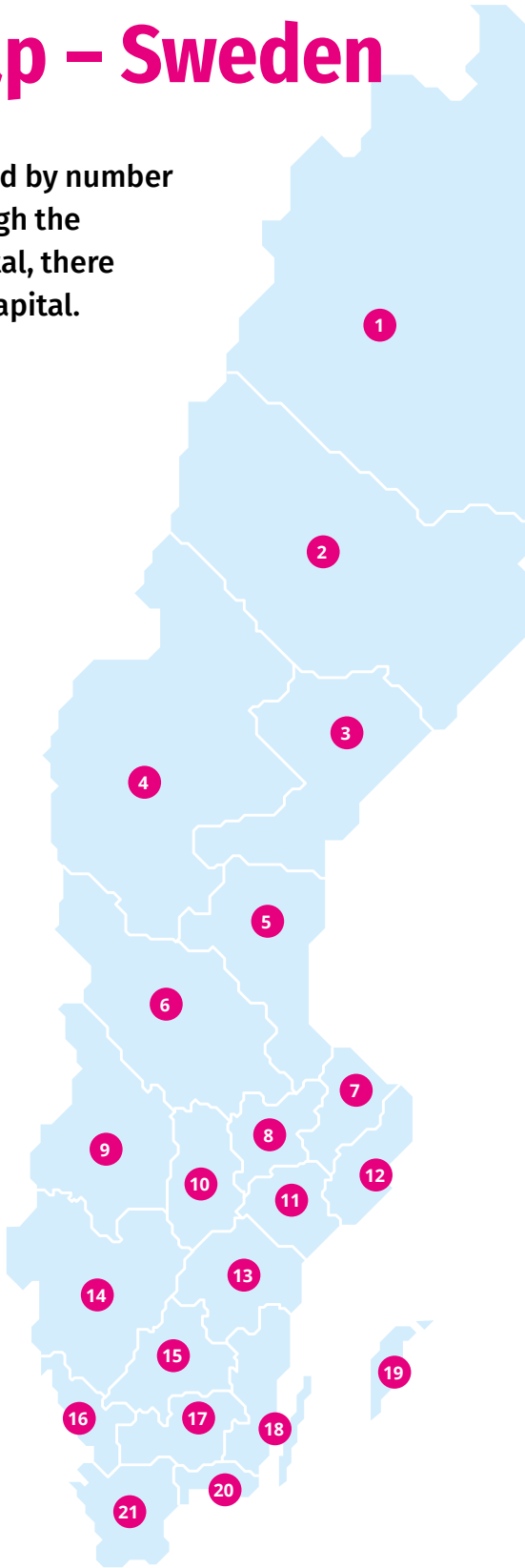
— Man måste bygga in intelligens i datorerna.

När TV-spelen var nya var det i regel två personer som spelade mot varandra. I dag går de flesta TV-spelen ut på att man spelar mot datorn. För det är faktiskt datorer man använder i TV-spel.

Mats Hedberg

Game Developer Map – Sweden

The table below shows the largest regions ranked by number of employees and number of companies. Although the majority of the employees are based in the capital, there are a higher number of companies outside the capital.



Some Stockholm companies, for example King, Avalanche Studios Group, Paradox Interactive and DICE, have offices in more than one part of the country. Malmoe-based Massive also has offices in Stockholm and Karlstad-based Embracer Group owns several studios around the country. Worth noting is that only employees of limited companies are included, and that it is the number of full-time employees stated in the annual reports. The actual number of people working in games development in the respective regions is therefore significantly higher.

Note that the numbers below include game studios that started in 2021.

Region	Number of Studios	Number of employees
CAPITAL	310	4 244
WEST	105	613
SOUTH	98	1 237
NORTH	77	297
Rest of the country	95	229
Total	685	6 620

CAPITAL includes Stockholm, Uppsala and Södermanland. WEST includes Västra Götaland and Halland, SOUTH includes Skåne and Blekinge, and NORTH includes Norrbotten, Västerbotten and Västernorrland. As far as possible, employees at local offices are reported under respective location.

The purpose of the map is to illustrate as much as possible where in the country there is game development and which companies are behind it. Therefore we have used studio names rather than company names when such information has been available. For the same reason, to the greatest extent, there are not administrative divisions of studios on the map. *Italicized names* are companies in forms other than limited liability companies and added manually. Is your company missing from the map? Please contact us with description.

NORRBOTTEN 1

Boden
5 Fortress AB
921 Studios AB
Cafiend AB
House of How Games Sweden AB
Nethash AB
TNTX in Boden AB
Wanderword i Sverige AB
Frozen Waffle

Haparanda
Tiny Lady

Luleå
Bazooka Game Studios AB
Blamorama Games
October8 AB
RDY Arena AB
Stormraven AB
Virtual Light VR AB
Pixadome HB

Piteå
Aurora Punks AB
Baldheads Creative AB
Digital Awakening AB
Frozen North Studios AB
Lucky Star Creative Agency

VÄSTERBOTTEN 2

Skellefteå
Boxplay Skellefteå AB
Creative Crowd AB
Cubetopia AB
DANIEL LEHTO AB
Eloso Digital AB
Flat Tail Studios AB
Frigol IT & Media AB
Goat Mountain Development AB
Gold Town Games
Grand Pike AB
Lazer Wolf Studios AB
Limit Break Studio
Mindforce Game Lab AB
Natural User Interface Technologies AB
Nirah Studios
Nordsken Handlingskraft AB
North Kingdom
Strangewood Studios AB
Tales To Be Told Sweden AB
Tarvalley, Aktiebolag
Technique Program i Skellefteå
Triolith Games AB
Vavel Games AB
Vorto Gaming
White Warlock AB
Yalts AB
Arctic Beard Studio HB
Limit Break
Tap Your Feet

Umeå
Bruno Janvier Software AB
Cassius Creative AB
COLDWOOD INTERACTIVE AB
David Marquardt Studios AB
Frostspektrum Interactive AB
Level Eight AB
Morningdew Media AB
Musikmedel Future Vision AB
nostop horses AB
ORYX SIMULATIONS
Skyturns AB
Slice Start Software Solutions AB
Source Empire AB
The Fine Arc Nordic AB
Turborilla AB
TWO 58 PRODUCTIONS AB
Zordix
OddGames Umeå

VÄSTERNORRLAND 3

Härnösand
Setup Control Aktiebolag

Örnsköldsvik
BITZUM AB

Sundsvall
A bit ago AB
AtomicElbow AB
Caeiro AB
Corncrow Games AB
Good Decision AB
Grey Tower AB
KONUNGER GAMES AB
Molntuss Spel AB
Nbrigade Music
R&P Games AB
Saber Interactive Sweden
Sideline Labs AB
SideQuest Sweden AB
SPACELOOM STUDIOS AB
Neozoo Creative

JÄMTLAND 4

Åre
Hindelid Development AB

GÄVLEBORG 5

Gävle
Early Morning Studio AB

DALARNA 6

Borlänge
Quiz Anytime AB
Zoikum Games Aktiebolag

Falun
Aktiebolaget Adit Studios
Deadghost Interactive AB
Giron Software AB
Kolesterol Cät Interactive AB
MEGAFRONT AB
North Concept ArtStudio AB
Tension Onsite Sport AB
TENSION technology AB
The New Branch AB

Hedemora
Clifftop Games AB
Killmonday Games AB

Leksand
HJO Creations Leksand

Säter
Twoorb Studios AB

REGION UPPSALA 7

Enköping
Yoger Games AB

Håbo
aMASE AB

Knivsta
Studio Knick-Knack AB

Uppsala
Aegik AB
Bad Yolk Games AB
Chizu AB
Disir productions AB
Doctor Entertainment AB
Epic Games Sweden Scanning AB
Frojo Apps AB
GAME-HOSTING GH AB
Javxa
MachineGames Sweden AB
Matematikspel i Uppsala Aktiebolag
Neon Giant AB
Nexile AB
Night Node AB
PikkoTekk AB
Red Cabin Games AB
RLG AB
Semiwork Studios AB
VisualDreams
Wicket Gaming AB
YemSoft AB
Teotl Studios

VÄSTMANLAND 8

Köping
LS Entertainment AB

VÄRMLAND 9

Karlstad
Agera Games AB
Clear River Games AB
Coastalbyte AB
Embracer Group AB
Forgebyte Studio AB
Gerado AB
Insanto Studios AB
Mirage Game Studios AB
Nuttery Entertainment AB
Plucky Bytes AB
QL Holding AB

Kil
Philisophic Games Sweden

REGION ÖREBRO 10

Degerfors
ORBMIT Productions AB

Nora
Toasty Leaf AB

Örebro
Elder Grounds AB
LOYD Studios AB
Shemshem Studio AB
vibynary Aktiebolag

SÖDERMANLAND 11

Eskilstuna
AppsAlliance AB
DVapps AB
Todys Games AB
Tree branch

Nyköping
SOZAP
Sysiac games AB

Continues on the next page

Continued from previous page

REGION STOCKHOLM 12

Botkyrka
Beadhead Games AB
Stringent Ljud AB

Danderyd
Peppy Pals AB
Planeshift Interactive AB
Solvarg AB

Ekerö
chillbro studios AB
Playstack AB

Haninge
Gamatron AB
Horror Generation AB
Pretty Fly Games AB
Rain of Reflections AB

Huddinge
Bearded Ladies
Frosty Elk AB
Moon Mode AB
Razzleberries AB
Typosaurus AB

Järfälla
Farewell games AB
Merrybrain AB
Unleash the Giraffe AB

Lidingö
Bridgeside AB
Eight Lives AB
Envar Entertainment AB
PIXEL TALES AB
Right Nice Games AB
GD Studio

Nacka
2Play Studios AB
Colin Lane Games AB
LeadTurn Gaming AB
Liquid Swords AB
Mentalytics AB

Norrtälje
Argent Realms AB
Space Plunge AB
Roaring Kittens Handelsbolag

Sigtuna
Polygrade Holding AB
Svantech Studios AB
Usurpator AB

Södertälje
Diffident Games AB
JN Interactive AB

Sollentuna
Ullbors Illustrations AB
Shining Gate Software

Solna
Christian Nordgren AB
Frozen Dev AB
FunGI AB
Jona Marklund AB
Kaj Forell Video Game Brand AB
Sharcoal Studios AB
Solutions Skövde AB
TRB Studio AB
Life Games Handelsbolag

Stockholm stad
10 Chambers
10 Chambers AB
A Small Game AB
Above Entertainment AB
Acegikmo AB
Adventure Box Technology AB
Aktiebolaget Fula Fisken
Ampd AB
Amplifier Game Invest AB
Antler Interactive AB
Approppe AB
Arcmill AB
Arrowhead Game Studios AB
art by rens AB
Avalanche Studios Group
Axolot Games AB
Barnacles Studio AB
Battlecamp AB
Beyond Frames Entertainment AB (publ)
Blackfox Studios
Blastronaut AB
Bodbacka:Boom AB
Book of travel AB
Checheza AB
Chief Rebel AB
Chuffy Puffy Games AB
Coffee Stain
Cold Pixel AB
Collecting Smiles AB
Coocoolo AB
Cortopia AB
Cosmico AB
Crackshell AB
Creation Zero Point Holding AB
Deeznuts AB
Define Reality AB
Defold
Devm Games AB
Diax Game AB
Digital Exception Sthlm AB
Doomlord Interactive AB
DorDor AB
EA Dice
Ekvall Games Sweden AB
Eldring Games AB
Elias Software AB
Embark Studios AB
Enad Global 7 AB
ExoCorp AB
EXP Studios AB
Expansive Worlds
Experiment 101 AB
Fablebit AB
Fall Damage Studio AB
Fast Travel Games AB
Fatshark
FEO Media Holding AB
Filimundus AB
FJRD Interactive
Flarie AB
Flashe Gaming Group AB
Friend Factory AB
FunRock Development AB
Future of Retail AB
G5 Entertainment AB
Gameloom AB
Gamersgate AB
Gamescan Stockholm Studios AB
Ghetto Blaster AB
Gleechi AB
Glorious Games Group AB
Goodbye Kansas
GraphN AB
Grindstone Interactive AB
Gro Play Digital AB
Happi Studios AB
Hatrabbit AB
Hazelight
HELG Group AB
HVNT Entertainment AB
Hyperspeed Entertainment AB
JO Johansson Film & L Lindbom AB
Kavalri Games AB
Kickflip Digital AB
King
Landfall Games AB
Legendo Entertainment AB
Lekis AB
LERP AB
Level Stars AB
Light & Dark Arts AB
Like a Boss Games AB
Linbasta AB
Lionbite AB
LIQUID MEDIA AB
Maadwalk Games AB
MAG Interactive AB
Mibi Games AB
Midjiwan AB
Might and Delight AB
Mimerse AB
Miso Games AB
Mojang AB
Motvind Studios AB
MuddyPixel AB
Mudpike AB
Mutate AB
Nadasoft AB
NAG Studios AB
Neat Corporation
Neuston AB
NFG Nordic Forest Games AB
Northplay Holding AB
Odd Raven Studios AB
Osivvi AB
Other Games AB
Oxeye Game Studio AB
P Studios AB
Palabit AB
Paradox Development Studio AB
Paradox Interactive AB
Petter Bergmar AB
Photon Forge AB
PLAYCOM GAME DESIGN AB
Playtrigger Games AB
Plotagon Production AB
Polarbit AB
Pronoia AB
Psychogenic AB
Pusselbit Games AB
Quel Solaar AB
Questadore AB
Rainbow Road AB
RAKETSPEL INTERAKTIVA PRODUKTIONER AB
Raw Fury AB
Really Interactive AB
Red Cup Games AB
Refold AB
Regius Group AB
Reset Media AB
Resolution Games AB
Ride & Crash AB
Ringtail Interactive AB
Rock A Role Games AB
Rovio Sweden AB
Rowil AB
Rymdfall AB
Safe Lane Gaming AB (publ)
Scion Studios AB
Shelter Games AB
Simway AB
Sleeper Cell AB
Snowprint Studios AB
Spelkraft Sthlm AB
STAR STABLE ENTERTAINMENT AB
Starbreeze
Stillfront Group AB
Strawberry Hill AB
Stroboskop AB
Stumpysquid AB
Sunhammer AB
Svartskägg AB
Systemic Reaction AB
TALAWA GAMES AB
The Gang Sweden AB
Thriving Ventures AB
Tiger & Kiwi AB
Toadman Interactive AB
Toca Boca AB
Tomorroworld AB
Toppluva AB
Trail Games AB
TROISDIM AKTIEBOLAG
TwifySoft AB
Unity Technologies Sweden AB
Valiant Game Studio AB
Villa Gorilla AB
vingar interaktiva AB
Vinternatt Studio AB
Virtual Brains AB
Visiontrick Media AB
Warm Kitten AB
Wayfare Studio AB
Westre Games AB
Wild Games AB
Wilnyl Games AB
Wonderscope AB
wrlds creations AB
Xpert Eleven AB
Zenz VR AB
Defender Studios
Hörberg Productions
Nifflas Games
Ryggio Handelsbolag
Superposition Games
Unordinal AB


Fatshark – Darktide

Sundbyberg
KEP Games AB

Täby
Delayed Again AB
Frojo Investment AB
NIALBE AB
Omnizens Games AB
Polyregular Studios AB
Tealbit AB
Warpzone Studios AB
Handelsbolaget Seatribe

Tyresö
Sista Potatis AB
Spelagon AB
Pixols Tyresö

Upplands Väsby
Dinomite Games AB
Fredaikis AB
RobTop Games AB

Upplands-Bro
Bambino Games AB
Freshly Squeezed AB

Vallentuna
Pixeldiet Entertainment AB

Värmdö
Good Night Brave Warrior AB
IMGNRY International AB
Massive Shapes AB
Spelkultur i Sverige AB

ÖSTERGÖTLAND 13

Linköping
Aftnareld AB
Appelsin Apps AB
Avokodo Studios AB
Beartwigs AB
Catalope Games AB
Graewolv AB
Incredible Concepts of Sweden AB
Irrbloss AB
Landell Games AB
Laxbeam AB
Lurkware AB
Lutra Interactive AB
Martin Magni AB
Miltonic Games AB
overflow Aktiebolag
Pixleon AB
Power Challenge AB
Simplygon Studios
Therese Kristoffer Publishing AB
VISIARC Inclusive Design AB
Worldshapers AB
Zero Index AB
Holm Computing
SetShape Studio
Solid Core
Sparris Studio
Wavebots

Motala
Campcreation AB
Code Club AB
Friendly Fire AB
Norrköping
AmberWing AB
Correcture Games AB
Dimfrost Studio AB
FeWes AB
Gamesclub International AB
GOES International AB
Molndust Interactive AB
Perpetuum Media Sverige AB
Pugstorm AB
Skyfox Interactive AB
Sutur AB
Caspian Interactive
Silkworm

VÄSTRA GÖTALAND 14

Ale
Wishful Whale AB

Alingsås
Alega & Qiiwi Learning AB
Qiiwi Games AB

Bollebygd
Rockheart Studios AB

Borås
Gigantic Duck AB

Falköping
Cosmic Picnic
Falk Animation Studio
Gothenburg
1337 Game Design AB
Atvis AB
Box Dragon AB
Bulbsort AB
Carry Castle AB
Craft Animations and Entertainment AB
Creative AI Nordic AB
Creative Vault AB
Dennaton Games
Devkittens AB
Elden Pixels AB
Epic Games Sweden AB
Friendbase AB
Fully Multiplayer AB
Greenblade Studios AB
Hello There
Hiber AB
Humla Games AB
Insert Coin AB
int3 software AB
ius innovation AB
just some games AB
Kirikoro Studios AB
Lavapotion AB
MindArk
Neckbolt AB
Outbreak Studios AB
Pax6 Games AB
Playcentric Studios AB

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Continued from previous page

Räven Aktiebolag
Retroid Interactive AB
River End Games AB
Skill2Win Studios AB
SkyGoblin AB
SteelRaven7 AB
Thunderful Group
Thunderful: Image & Form
Thunderful: Zoink
Winteractive AB
Wishfully Studios AB
YCJY Games AB
Zcooly AB
Faravid Interactive
Skygoblin
Warcry Interactive

Götene
VaragtP Studios AB

Kungälv
Dreamon Studios AB

Lidköping
Black Tundra Productions AB
Pixel Pointer Studios AB

Mark
EXTRALIVES AB

Mellerud
Vovoid Media Technologies AB

Mölndal
E Games Invest Nordic AB
Heyman Atelje & Verkstad AB
Itatake AB
nornware AB
Pathos Interactive AB

Munkedal
Coilworks AB

Skövde
Angry Demon Studio AB
Babloon Studios AB
Brimstone Games AB
Designlayout EGU AB
DoubleMoose Games AB
Flamebait AB
FRAME BREAK AB
Green Tile Digital AB
Iron Gate AB
Knackelibang Productions AB
Let it roll AB
Ludosity AB
Nattland Interactive AB
Nørdlight Games AB
Palindrome Interactive AB
Pieces Interactive AB
Piktiv AB
PocApp Studios AB
Redbeet Interactive AB
Sandspire Interactive AB
Sonigon AB
Stunlock Studios AB
Subfrost Interactive AB
Sunscale Studios AB
Thunderful: Skövde
Whirlybird Games AB
Small friend games

Stenungsund
Ace Maddox AB

Tanum
Tenstar

Trollhättan
ActiveQuiz Europe AB
Easy Trigger AB

Vänersborg
Virtuverse AB

REGION JÖNKÖPING 15

Jönköping
Brandywise AB
Cuddle Monster AB
PrettyByte AB
Radical Sunset AB

Tranås
Head Coach Games AB

HALLAND 16

Halmstad
Erik Svedäng AB

Kungsbacka
Nifly Apps AB
Oganon interactive AB
Snojken AB

KRONOBERG 17

Älmhult
Inntq AB

Alvesta
Wadonk AB

Tingsryd
Spelkollektivet Sweden AB

Växjö
Mabozo AB
Universal Learning Games ULG AB
Wildcore AB

REGION KALMAR 18

Kalmar
CJ Pedagog Handelsbolag

Nybro
Deadly Serious Media Sweden AB
JMBM AB

GOTLAND 19

Eat Create Sleep AB
Jumpgate AB
Pixel Ferrets AB
Storm Potion AB
Tableflip Entertainment AB
BetterBuilt Studio
Bloodberry Games
Power of Two Games Handelsbolag

BLEKINGE 20

Karlshamn
Dreamwalker Studios AB


Angry Demon – Gory Cuddly Carnage

Levall Games AB
Mana Brigade AB
Noumenon Games AB
Prasius Entertainment AB
Pretty Ugly AB
Redgrim AB
Something We Made AB
Thunderful: The Station
Okay Games

Karlskrona
Blackdrop Interactive AB
Loophole Interactive AB
Macaroni Studios AB
Shatterplay Studio AB
Suffocated AB
Svavelstickan AB

Ronneby
Activout AB
Nodbrim Interactive AB

SKÅNE 21

Ängelholm
PMAbit AB

Burlöv
Spiddekauga Games AB

Eslöv
Digital kittens AB
Pastille AB
Triassic Games AB

Helsingborg
Localize Direct AB
Monsuta AB
Pixelbite AB

Kävlinge
Dengu AB

Kristianstad
JE Software Aktiebolag

Landskrona
KFH Graphics AB
Urban Binary AB

Lund
Abcde Entertainment AB
Illwinter Game Design AB
Junno Labs AB

Malmö
Apoapsis Studios AB
Art in Heart AB
ayeWARE AB
Coherence Sweden AB
Cross Reality International AB
DeadToast Entertainment AB
Divine Robot AB
Dunderbit AB
Echo Entertainment AB
Ernst & Borg Arkitektur AB
Frictional Games AB
Frogsong Studios AB
Icehelm AB
Illusion Labs AB
IO Interactive AB
Learning Loop Sweden AB
LERIPA AB
Longhand Electric AB
Luau AB
Mediocre AB
Multiscription AB
nevsram AB
Nordic Game Resources AB
Nordic Game Ventures i Malmö AB
Not My Jeans AB
On the Outskirts AB
Oskar Stålberg AB
Plausible Concept AB
ProCloud Media Invest AB
Richard Meredith AB
Robertson Nordic Partners AB
Rubycone AB
Section 9 Interactive AB
Senri AB
Sharkmob AB
She Was Such a Good Horse AB
Simogo AB
Southend Interactive AB
Star Vault AB
Stjärnstoft Studios AB
SWEDISH GAME DEVELOPMENT AB
Tales & Dice AB
Tarsier Studios
The Sleeping Machine AB
Transmuted Games AB
Tuxedo Labs AB
Ubisoft Entertainment Sweden AB
VisionPunk AB
VoDoo Studios
Vreski AB
webbfarbror AB
WhyKev AB
Dancing Devils
Fused Lizard Handelsbolag
Gameflame
Newnorth Technology
Nutty Games
Peakpoint Consulting
Pixel Shade
Transcenders

Simrishamn
JLJ Productions AB

Skurup
Spelmakare Jens Nilsson AB

Staffanstorp
Straw hat games AB

Svedala
Binary Peak AB

Tomelilla
Pixilated Production AB

Vellinge
Impact Unified AB
Primary Hive AB

Swedish game companies around the globe

Several game companies have expanded internationally. In Game Developer Index 2020, there were 39 Swedish-owned game studios around the world. In 2020, that figure grew to 126, and the number of Swedish companies with subsidiaries abroad has more than doubled.

In total, there are studios across 38 countries in five continents. 21 companies are located in the US, and 84 studios are located in Europe, of which 20 are based in Germany. Sweden is the largest source of investment for German companies in recent years. The company with largest business outside of Sweden in 2020 was Embracer Group, which through its various branches has 69 studios in more than 40 countries. Embracer is closely followed by Stillfront with 25 studios in 16 countries. Other companies with a subsidaries abroad are G5, Paradox, Goodbye Kansas, MAG Interactive, EG7, Starbreeze, Sozap, Thunderful, Zordix, Jumpgate and Qiiwi. Included in the map are also Avalanche New York & Liverpool, Sharkmob London and Dice LA, studios with a foreign corporate parent company.

In total, Swedish-owned game companies employed 7,177 people outside of Sweden. 24% of these were women.

The increase of studios and employees on site in Sweden is largely driven by organic growth, while the growth abroad is largely acquisition-driven, although several of the individual studios outside of Sweden also increased in size.

The locations of where Swedish corporations expand abroad largely depends on where there exist game studios that have performed well in the past. In some cases, there are economic reasons for the establishment. For example, Canada has a long history of generous tax rules for creative companies, and several other geographic regions use financial incentives to attract investments from foreign companies. To some extent, location may also be decided on cultural connections, for example, employees or founders with backgrounds in specific countries. The vast majority of Swedish-owned studios around the world are in countries with pay grades comparable to, or higher, than Sweden.

Game Developer Map – Global

Below is a map of Swedish-owned game studios in the world, as well as foreign-owned studios that are subsidiaries of Swedish game studios.

ASIA 1

Japan
Goodgames, Stillfront

Philippines
Goodbye Kansas Manilla

Viet Nam
SHFT, Stillfront

India
Moonfrog, Stillfront

U.A.E
Babil Games, Stillfront

Jordan
Babil Games, Stillfront

Russia
G5, Kaliningrad
G5, Moscow
G5, Cheesboksary
Artplant Russia, EG7
Saber Interactive, Embracer

EUROPE 2

Belarus
Saber Interactive, Embracer

Belgium
Appeal Studios, Embracer

Bosnia
Gate21, Embracer

Bulgaria
Snapshot Games, Embracer
Imperia Online, Stillfront
Decca Games Bulgaria, Embracer

Cyprus
Easybrain, Embracer
Milligames / WeAreQiiwi International

Finland
Bugbear Entertainment, Embracer
Iceflake Studios, Paradox
Goodbye Kansas

France
Voxler, Embracer
Playrion Game Studios, Paradox
Starbreeze

Ireland
eRepublik, Stillfront

Italy
Milestone, Embracer
Destiny Bit, Embracer
34 Big Things, Embracer

Croatia
Nanobit, Stillfront

Malta
G5
Dorado Games, Stillfront
4A Games, Embracer

Netherlands
Triumph Studios, Paradox
Vertigo Games, Embracer

Norway
Misc Games, Embracer
Artplant Norge, EG7

Austria
Rare Earth, Embracer
Pow Wow Entertainment, Embracer
Purple Lamp, Embracer
THQ Nordic, Embracer

Poland
Flying Wild Hog, Embracer

Portugal
Saber Interactive, Embracer

Romania
eRepublik, Stillfront
Quantic Lab, Embracer

Serbia
Sozap Doo, Sozap
Madhead Games, Embracer
Goodbye Kansas

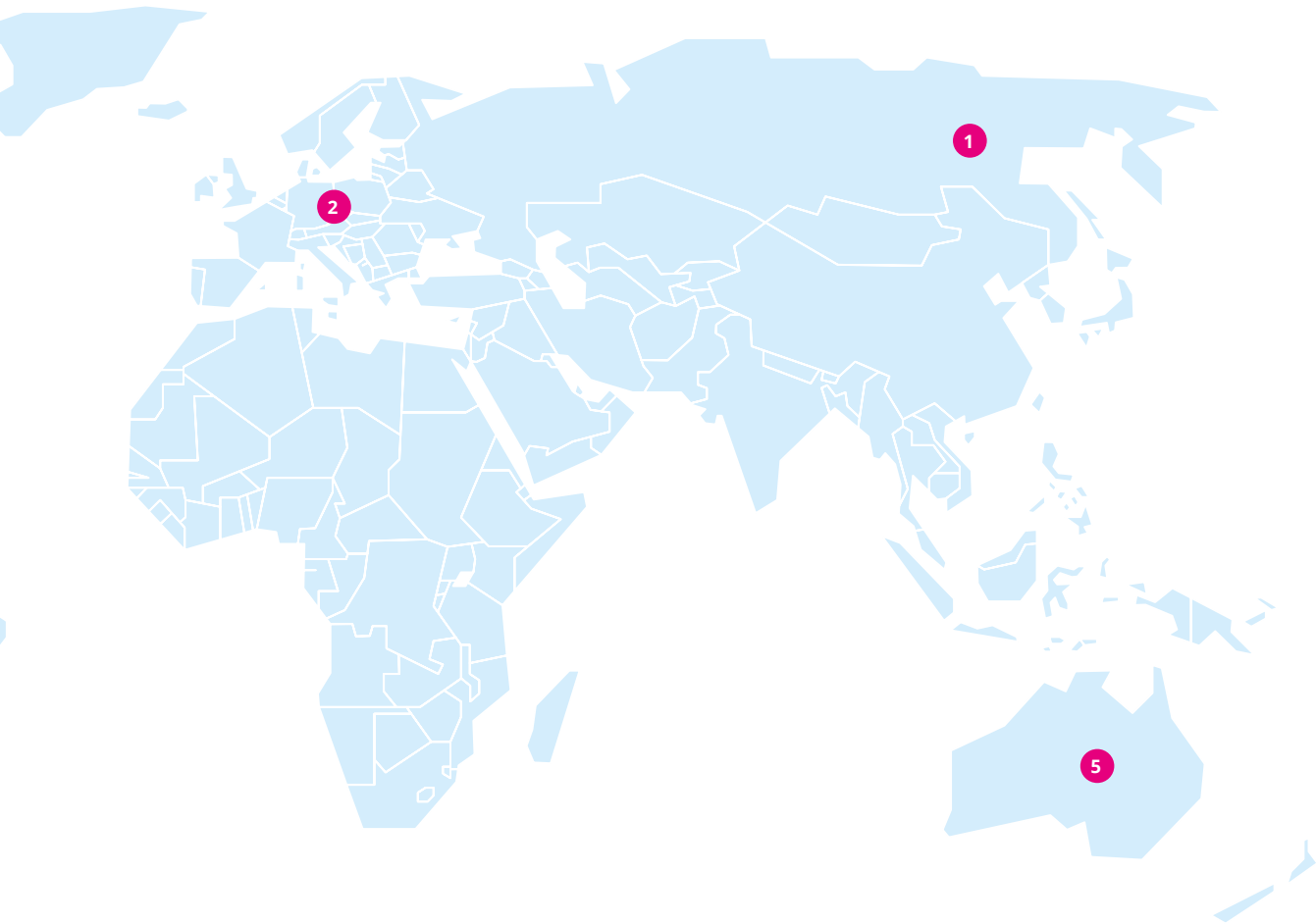
Slovakia
Nine Rocks Games, Embracer

Spain
Nine Rocks Games, Embracer
Saber Interactive, Embracer
Akimia Interactive, Embracer
Paradox Tinto
Starbreeze
Vermila Studios, Embracer
Everguild, Stillfront

Czech Republic
Ashborne Games, Embracer
Warhorse, Embracer

Germany
Toadman Berlin, EG7
DECA, Embracer
Deca Games Berlin, Embracer
Snowprint Berlin
Sandbox Interactive, Stillfront
Piranha Bytes, Embracer
KAIKO, Embracer
Handygames, Embracer
Deep Silver FishLabs, Embracer
Tivola Games, Jumpgate
Bytro Labs, Stillfront
Goodgames, Stillfront
Playa Games, Stillfront
Deep Silver, Embracer
Ravenscourt, Embracer
Grimlore Games, Embracer
Black Forest Games, Embracer
Massive Miniteam, Embracer
Goodbye Kansas
OFM Studios, Stillfront

UK
MAG Brighton



Avalanche Liverpool
Sharkmob London
Everguild, Stillfront
Silent Games, Embracer
Antimatter Games, EG7
Soldout, EG7
Goodbye Kansas
Thunderful Sunderland

Ukraine
G5 Kharkov
4A Games, Embracer
G5 Lvov

Hungary
Zen Studios, Embracer
Invictus Games, Zordix

NORTH AMERICA 3

Canada
New World Interactive, Embracer
Rainbow Studios, Embracer
Gearbox Entertainment, Embracer
A Thinking Ape, Embracer
IUGO, Embracer
Kixeye, Stillfront
Big Blue Bubble, EG7
Piranha Games, EG7

United States
Aspyr, Embracer
Gunfire Games, Embracer
C77, Embracer
Paradox Tectonic
Deep Silver Voilition, Embracer
New World Interactive, Embracer
Saber Interactive, Embracer
DICE LA
Starbreeze
Simutronics, Stillfront
Candywriter, Stillfront
Avalanche New York
Rainbow Studios, Embracer
G5 San Fransisco
Super Free Games, Stillfront
Paradox Seattle
Gearbox Entertainment, Embracer
Kixeye, Stillfront
Storm8, Stillfront
Big Blue Bubble, EG7
Daybreak Games, EG7
Petrol, EG7
Goodbye Kansas

SOUTH AMERICA 4

Argentina
Nimble Giant Entertainment, Embracer

OCEANIEN 5

Australia
Kixeye, Stillfront
MachineCell, Stillfront

Investments & acquisitions

Investments and acquisitions have come to play an increasingly greater role in the Swedish games market in the last few years.

Although no single deal has topped the EUR 5.9 billion price tag of mobile games developer King, purchased by Activision Blizzard in 2016, there have been several transactions valued over EUR 100 million. What has been consistent in recent years is that it is Swedish companies that have been the investing part, and in the few cases during recent years where a foreign company finances game development in Sweden, it has mostly been investments and not acquisitions.

4 acquisitions in 2020 had a value over EUR 100 million. The largest transaction was when Embracer Group bought US studio Saber Interactive in a deal worth USD 525 million, closely followed by Stillfront's acquisition of US studio Storm 8 and Croatian studio Nanobit, as well as Embracer's acquisition of Polish studio Flying Wild Hog.

During 2020, a total of 44 known deals that included Swedish companies took place, compared to 46 transactions in 2019. Three foreign companies have had financial interests in Swedish studios. American Microsoft acquired Zenimax during the year, which means that Uppsala studio MachineGames, perhaps best known for the latest critically acclaimed Wolfenstein games, now belongs to the Microsoft family. In addition, Chinese Tencent made an investment in 10 Chambers, and Finnish Supercell invested 10 million in Wild Games.

Just over half of all acquisitions in 2020 have been in game companies in other European countries, mostly in the UK, Germany and Austria. 10 deals were in Swedish game companies, one of the more notable was that Nintendo distributor Bergsala is now part of the game company Thunderful Group. Bublar Group acquired Goodbye Kansas and changed its name to the latter. Karlshamn based The Station and Skövde based Guru Games became part of Thunderful, and MAG Interactive acquired Apprope.

In 2021, Embracer Group acquired American Gearbox in a deal worth up to USD 1.3 billion, which is the largest single transaction to date where a Swedish company has been the buyer.

Many investments in the games industry are made in new issues, but a significant secondary was Altor's acquisition of Raw Fury from Nordisk Games in 2021.

Frogsong Studios – D-Corp

Investments & acquisitions 2020

Seller	Country	Buyer/Investor	Country
10 chambers collective	Sweden	Tencent	China
34 Big Things	Italy	Embracer Group (Saber interactive)	Sweden
4A Games	Malta	Embracer Group (Saber interactive)	Sweden
A Thinking Ape	Canada	Embracer Group (DECA Games)	Sweden
Approp e	Sweden	MAG Interactive	Sweden
Bergsala	Sweden	Thunderful	Sweden
Candywriter	United States	Stillfront	Sweden
Coatsink Software	England	Thunderful Group	Sweden
Coffee Stain North	Sweden	Embracer Group (Coffee Stain Holding)	Sweden
Daybreak Games	United States	EG7	Sweden
DECA Games	Germany	Embracer Group	Sweden
DestinyBit	Italy	Amplifier Game Invest	Sweden
Everguild Limited	Spain	Stillfront	Sweden
Flying Wild Hog	Poland	Embracer Group (Koch Media)	Sweden
Goodbye Kansas	Sweden	Bublar Group	Sweden
Guru Games	Sweden	Thunderful	Sweden
Hutch Games	UK	MTG	Sweden
Ice Flake Studios	Finland	Paradox Interactive	Sweden
Invictus	Hungary	Zordix	Sweden
IUGO Mobile Entertainment	Canada	Embracer Group (DECA Games)	Sweden
MachineGames/Zenimax	Sweden/United States	Microsoft	United States
Mad Head Games	Serbia	Embracer Group (Saber interactive)	Sweden
Moon Mode	Sweden	Beyond Frames	Sweden
Nanobit	Croatia	Stillfront	Sweden
New world interactive	United States/Canada	Embracer Group (Saber interactive)	Sweden
Nimble Giant	Argentina	Embracer Group (Saber interactive)	Sweden
Palindrome Interactive	Sweden	Embracer Group (Amplifier Game Invest)	Sweden
Playrion Game Studio	France	Paradox Interactive	Sweden
Pow wow entertainment	Austria	Embracer Group (THQ Nordic)	Sweden
Purple Lamp Studios	Austria	Embracer Group (THQ Nordic)	Sweden
Quantic Lab	Romania	Embracer Group	Sweden
Rare earth games	Austria	Embracer Group (Amplifier Game Invest)	Sweden
Saber Interactive	United States	Embracer	Sweden
Sandbox Interactive	Germany	Stillfront	Sweden
Sandbox Strategies	United States	Embracer Group (Saber interactive)	Sweden
Silent Games	UK	Embracer Group (AmplifierGame Invest)	Sweden
Snapshot Games	Bulgaria	Embracer Group (Saber interactive)	Sweden
Sola Media	Germany	Embracer Group (Koch Media)	Sweden
Storm8	United States	Stillfront	Sweden
Super Free Games	United States	Stillfront	Sweden
The Station Interactive	Sweden	Thunderful Group	Sweden
Vermila	Spain	Embracer Group (Amplifier Game Invest)	Sweden
Wild Games	Sweden	Supercell	Finland
Zen Studios	Hungary	Embracer Group (Saber interactive)	Sweden

Six billion downloads

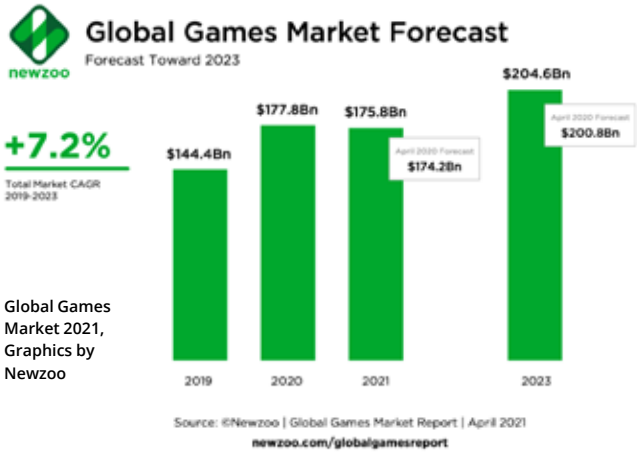
Our estimate based on downloads is that every fourth person in the world has played a game created in Sweden. In total, Swedish-developed games have been downloaded nearly six billion times, and large Swedish games top the download and sales lists regularly.

Most popular are King's Candy Crush series, which has been downloaded four billion times, followed by Minecraft, Granny & Slendria from DVLoper and Robbery Bob from Level 8. The Toca games, Battlefield, QuizDuel and Stardoll are other examples of game series loved by a lot of players.

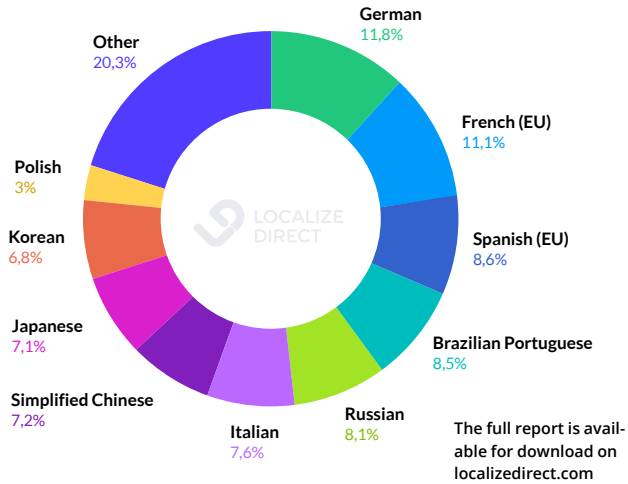
The world market for games is strong and the forecast is growth. Players are driving growth at the companies, and despite the lack of semiconductors, the new generation consoles (Playstation 5 and Xbox Series S/X) have sold more than the last. The Swedish game development companies together have a broad profile and develop games in almost all genres and for all established platforms, which is a great strength, and makes development continue to be stable.

In August 2021, the European trade association ISFE, Interactive Software Federation of Europe, published a survey of the European games market, based on data from the major countries of France, the United Kingdom, Spain and Germany. Here is a selection of the results.

A complementary picture of the games market can be seen in which translations are made. Helsingborg-based LocalizeDirect translates games played all over the world, and which languages are used the most gives an indication of where the markets are large and growing. At the company, the fastest growing languages for translation are Vietnamese, Thai, Hindi, Tagalog and Arabic.



Global Games Market 2021, Graphics by Newzoo



The full report is available for download on localizedirect.com

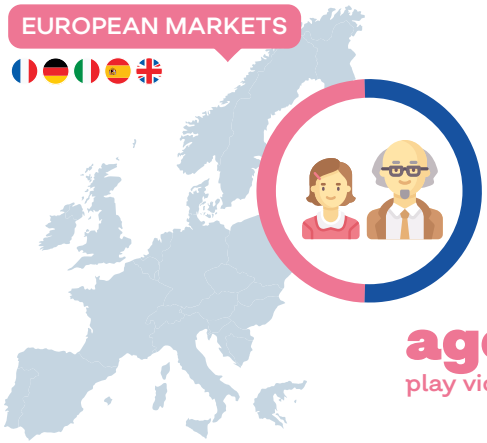
Top 10 languages for game localization

The chart illustrates the distribution of the most popular game localization languages in terms of the word count. In total, LocalizeDirect's data pool includes 45 languages
© LocalizeDirect | Game Localization Report 2021 | www.localizedirect.com

EUROPEAN VIDEO GAME PLAYER

WHO WE ARE

EUROPEAN MARKETS



50% of the population **aged 6-64** play video games

AMONG VIDEO GAME PLAYERS

Women represent **53%** of all mobile and tablet video game players

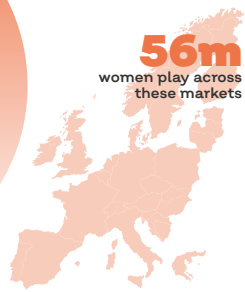
32 years old is the average age of a female player

Girls who play video games are **3x** more likely to pursue a STEM career than girls who don't

WOMEN & VIDEO GAMES

47% of European video game players are **women** (up from 45% in 2019)

56m women play across these markets

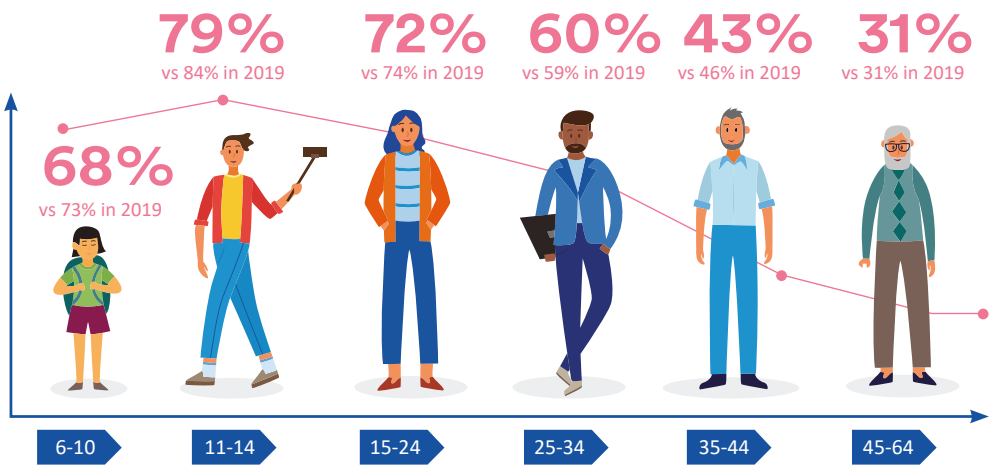


AMONG VIDEO GAME PLAYERS

		Average player age
60%	Play on smartphone or tablet	25.9 yrs
54%	Play on console	32.4 yrs
49%	Play on PC	29.6 yrs

The infographic comes from ISFE and is based on GameTrack data from IPSOS MORI, on behalf of ISFE.

SHARE OF VIDEO GAME PLAYERS BY AGE GROUP



Entrepreneurship and national collaborations

In a growing industry, the need for regional support and engagement as well as cooperation with higher education and the local economy is clear. In the last few years, several regions have focused on game development and local enterprise, often thanks to local enthusiasts. These drives create new companies and employment in the country as a whole.

Arctic Game Lab is one of Sweden's fastest growing game clusters, and it is based in Västerbotten and Norrbotten. With a common platform for the development of new game studios, establishments, training, meeting places and investments in Norrbotten and Västerbotten, the cluster has become a base for successful game creation in northern Sweden. This is also evident in the growth in the region, with 30% more companies and (241) more employees compared to 2019. A major educational initiative in the region has led to more courses being started, and there are now 14 game educations spread across different professions at college/university, folk high school and YH, Higher Vocational Education, with a total of 600 students in autumn 2021. The region's first game incubator, NEXT, started in Boden.

Unfortunately, Nordsken and the associated Arctic Game Week had to be cancelled in 2020 due to the pandemic, but are planned as hybrid events in 2021.

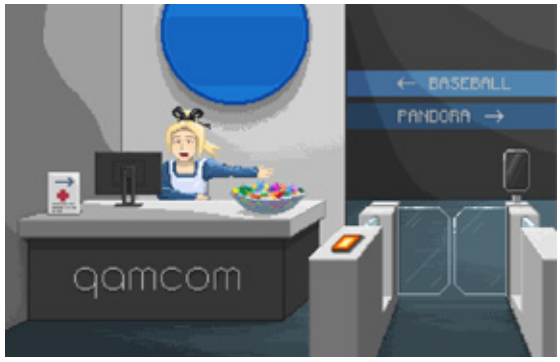
In Västernorrland, a brand-new cluster has been built – Game ON Mid Sweden – based in Sundsvall and Kramfors. It is a project financed by the European Fund for Regional Development together with Region Västernorrland, as well as the municipalities of Sundsvall and Kramfors. During the year, the project has carried out several activities such as network meetings, workshops with established industry players, lectures in collaboration with NTI Gymnasiet and a Skill Up Program to educate people interested in entering the industry. In autumn 2021, Hola Folkhögskola in Kramfors will start a new course in game development.

Since its opening in August 2017, East Sweden Game has built an ambitious community in Östergötland, and in 2021 the third round of the ESG Accelerator was conducted, a series of lectures with experts and guests with the goal of the participants going from hobby developers to game entrepreneurs. In the autumn of 2020, East Sweden Game started its own game course together with Valla Folkhögskola, Valla Game Education. During the year, a collaboration with the podcast Spelskaparna was also initiated and has released several interviews with people from the industry. In 2021, Linköping Game Week is planned for the first time, including LIU Game Conference, Winter Game Jam, Atomic Café (arcade game weekend) and bar events at Kappa Bar.

Visby is home to one of Sweden's oldest games courses run by Uppsala University Campus Gotland. Alumni from the training are among the founders of the game companies Nexile, Neat Corp, Toadman Interactive, Enad Global 7, Redbeet Interactive and Pixel Ferrets. The incubator Science Park Gotland has also run the game-related project over the years. One example is Game Camps, an international collaboration project that gave game developers from Sweden, Finland, Estonia and Latvia an opportunity to learn about the games industry. The main purpose of the project was to provide participants with knowledge of the games industry and arrange game jams that would lead to new companies and business opportunities. Game Camps engaged nearly 300 participants and 10 new cross-border companies were formed, an example

Continues on the next spread

Hiber – Hiber World



Insert Coin – Chronicles of the blue sphere

THE INDUSTRY VOICE

PATTY TOLEDO

Game ON Mid Sweden

Hi Patty, you have a long international career in creative industries, and you moved to Sundsvall to start up the game cluster Game ON Mid Sweden just before the pandemic. What has been the most challenging, the hardest and the most fun during the year?

– The hardest part has been to get the companies and politicians and entities to understand each other and improve the communication between them. The most fun has been to develop a new initiative, and to enable foreigners who have lived in the region for many years to be included and be part of the community.

What's best about the games industry in Västernorrland?

– That it is a blank canvas, we have the talents and the education and all the ingredients you need and it's now a great adventure to be part of painting a new picture. And I'm trying to get our region and the teams to be international from the start.

What are you looking forward to when/if life goes back to normal?

– I'm looking forward to being able to meet and discuss things live again. To be able to network again, as it's very important in games, being such a small industry.

What has been most surprising during the year working with the Swedish games industry, from your expat point of view?

–I was very surprised at how bureaucratic Sweden is. Reporting and administration around the project has been much more extensive than a similar project would have been in in Finland for example. On the positive side, the games industry has been very open and interested in collaboration and there have not been many closed doors.

–I've also learned that if you need anything Swedish or Nordic people will probably say yes if you ask them. They are keen to help, but you need to make the first move.

Continued from previous spread

of commercial success is the game Death & Taxes by Placeholder Gameworks. Additional release expected from the project is Birds With Feelings by Birdpals.

In between Oslo and Stockholm, is The Great Journey, the Karlstad Hub for game development. Supported by Embracer Group, the hub currently has several teams and studios in development, some in the accelerator and two studios in Fasttrack, with the opportunity to finance 9 months of game development using CSN. The Great Journey also offers a range of events and activities, such as Friday Stories, a presentation and Q&A session with industry profiles sharing their experiences. Together with Futuregames, the hub offers courses in games; more expected during the autumn 2022.

Falun has the prestigious PlayGroundSquad game training, which has been teaching students Game Graphics, Game Programming and Game Design for more than 20 years. During the year, a record number of students applied for the training. Here, the games industry works closely with the more traditional Swedish industries such as paper, steel and hospitality with how digitalization, games and knowledge from the games industry can be utilized to develop and become more attractive for future workers, for example. During the year, a new company with a focus on the traditional sports world also started.

Stockholm got its first game incubator in 2017, when Sting introduced Sting Game, which has three startups in its incubator program. As a complement to Sting Game there is a co-working space at Embassy House and regular meet-ups. Partners of Sting are Goodbye Kansas, Resolution Games and Paradox Interactive.

The Game Incubator has run a successful incubator program for game developers in Skövde since 2004 and since 2016 they can also be found in Gothenburg. The incubator has produced over 100 companies and is a strong contributing factor to the western parts of Sweden becoming fertile ground for game companies. In the business park, companies such as PocApp, Coffeestain Studios, Stunlock Studios, Flamebait, Pieces Interactive, Redbeet Interactive and Ludosity can be found, with titles such as Goat Simulator, Satisfactory, Battlerite, Castle Cats, Passpartout, Raft, Slap City and Valheim. Based in Skövde, the project Sweden Game

PocApp Studios Dungeon Dogs – Idle Hero RPG

Arena focuses on export drives at game fairs and international conventions. Also, in Skövde, the Sweden Game Conference is held in October every year, with speakers from all over the world.

In southern Sweden, Gameport have a long history running a successful business incubator in Karlshamn, part of Blekinge Business Incubator. In Malmö, the local association Game Habitat is working in collaboration with Region Skåne and Malmö City to grow the local game community. The success of the work can be seen in both the number of employees and the number of new companies established in the region. Game Habitat opened a coworking space in 2018, Game Habitat DevHub, and it has survived the pandemic and reached full capacity in 2020. Gothenburg company Thunderful opened a Malmö studio in 2020 and industry veterans started new companies such as She Was Such a Good Horse and Section 9 Interactive in 2021. In 2020, Game Habitat also started GASS, Game Accelerate South Sweden, a game accelerator with support from the European Regional Development Fund, as well as GEM, a network for women in the games industry, in 2021. Together with games companies in the region, Game Habitat runs the GameSwe project, language training for game developers and introduction to the country.

Covid-19

The pandemic has affected Sweden and the world in many ways. Many industries have been hit hard, people have become ill, and many have lost their jobs.

The video game industry, along with other home entertainment industries, has been spared the biggest financial consequences, and many companies have seen an increase in sales. As the world closed down, more people worked and studied from home, and restrictions made many other activities impossible, leading to more people embracing the world of games. Gaming has also been a way to socialize and hold on to a social life where it has not been possible to meet in person. Many players rediscovered older online games, such as Among Us or now Swedish-owned Everquest.

For the companies behind the games, the restrictions have led to new ways of working. Most employees at games companies in the country have worked remotely during the year, which has been a major transition for the entire industry. Game development is a team effort, and the challenges have been many, ranging from finding new ways to work and communicate, but also how to plan work remotely and manage increased sick leave, while making sure of a good working environment and physical and mental health for all employees.

In some cases, the pandemic has affected the schedule for game releases, and some delays have been communicated. Many of the major events planned during the year have been cancelled, such as the Game Developers Conference in San Francisco and Dreamhack in Jönköping. Other events, such as Nordic Game Conference and Gamescom, have been completely digital during the year as well as in 2021.

"As the world closed down, more people worked and studied from home, and restrictions made many other activities impossible, leading to more people embracing the world of games. Gaming has also been a way to socialize and hold on to a social life where it has not been possible to meet in person."

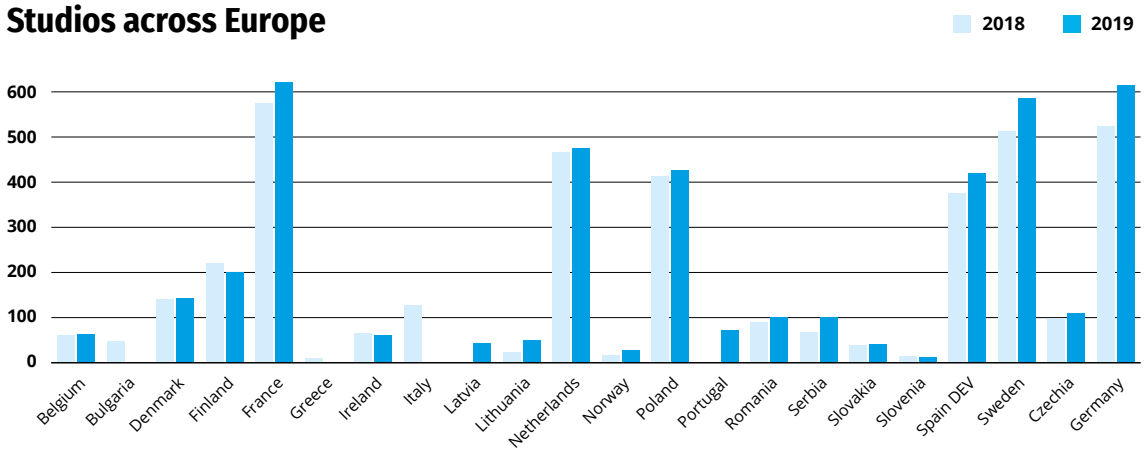
Another impact has been the launch of the ninth-generation game consoles at the end of the year, but the global shortage of semiconductors and the deteriorating economy of households have slowed the shift.

A special initiative during the year has been Games to Hospital Heroes/Vården får spel, a project together with the Danish and UK industry where hospital staff received donated game codes.

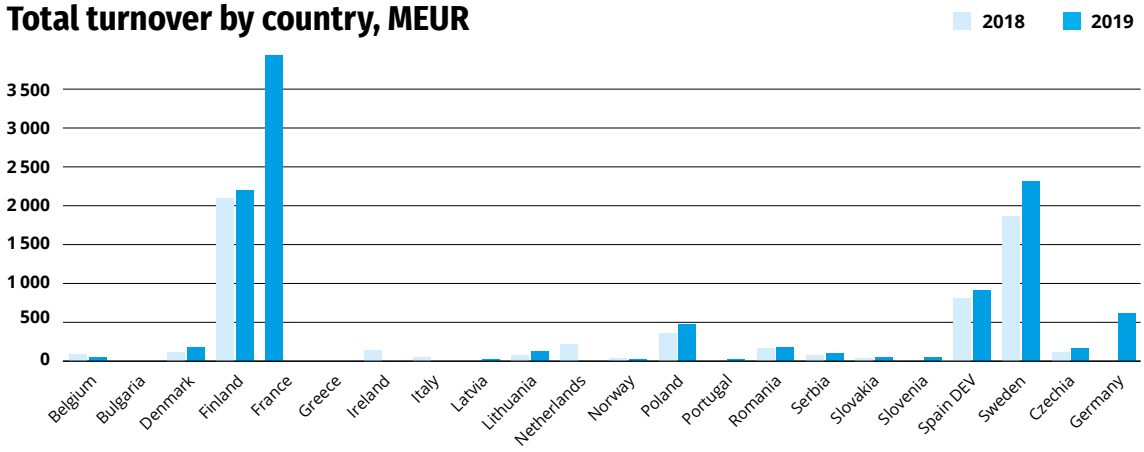
Games industry in Europe

In August 2021, the European Game Developers Federation (EGDF) released an industry report on game development in Europe. It is a compilation of several European industry reports and therefore has some backlog in results. Data in this year's report comes from 2019, and for some countries it is based on estimates from the respective industry associations. The full report and methodology are available on egdf.eu

Studios across Europe



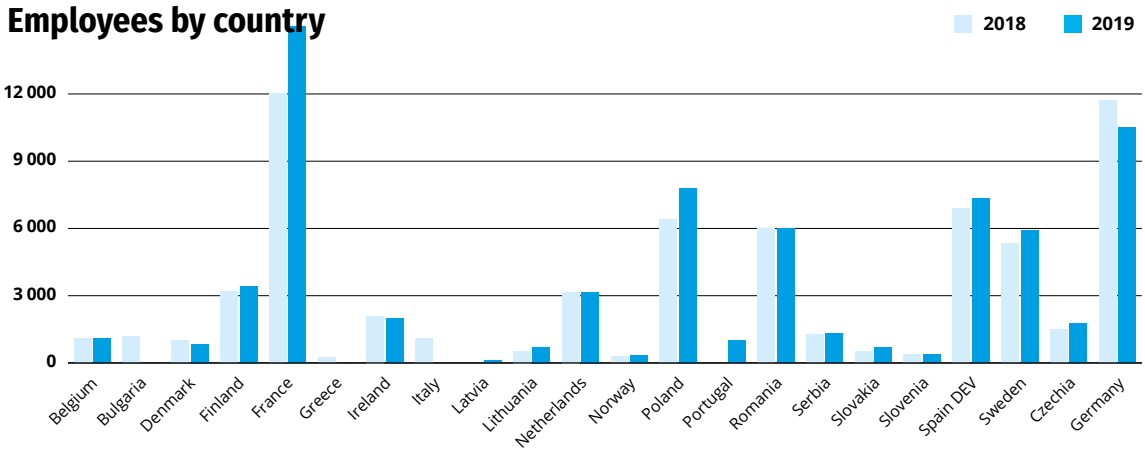
Total turnover by country, MEUR



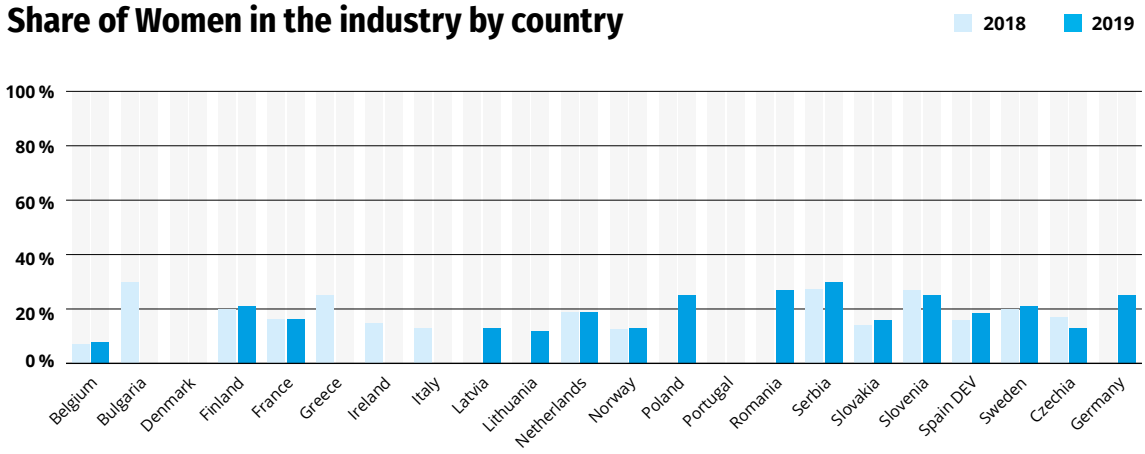
Systemic Reaction – Second Extinction

Dinomite Games – Go Fight Fantastic

Employees by country



Share of Women in the industry by country



Public investments in the EU

Guest chapter by Thierry Baujard and Hugo Derivry from SpielFabrique. Research based on interviews and data collection for The Gaming Public Fund Guide, developed in collaboration with Media Desk Denmark & Italy. The complete guide and a search tool for public funding opportunities in Europe is available via SpielFabrique.eu from 15 November 2021.

Interest in the video game industry has recently increased among the European authorities. The Corona crisis has highlighted an innovative and growing sector, accelerating this process. The video game industry is not yet mature and requires a high amount of investments to support the growth of small independent studios. Different public policies emerged in European countries to support the local ecosystem. However, they usually differ in terms of strategy, funding size (50M€ for France and Germany, 1M€ for Spain), funding terms. Those differences usually depend on the ministry the public structure is attached to. Also, comparing European countries highlight a high disparity in term seniority. While a few countries have supported the video game industry for more than 20 years and propose different types of support (France, Germany, UK), the majority started recently (e.g. Spain, Italy, Croatia in 2021).

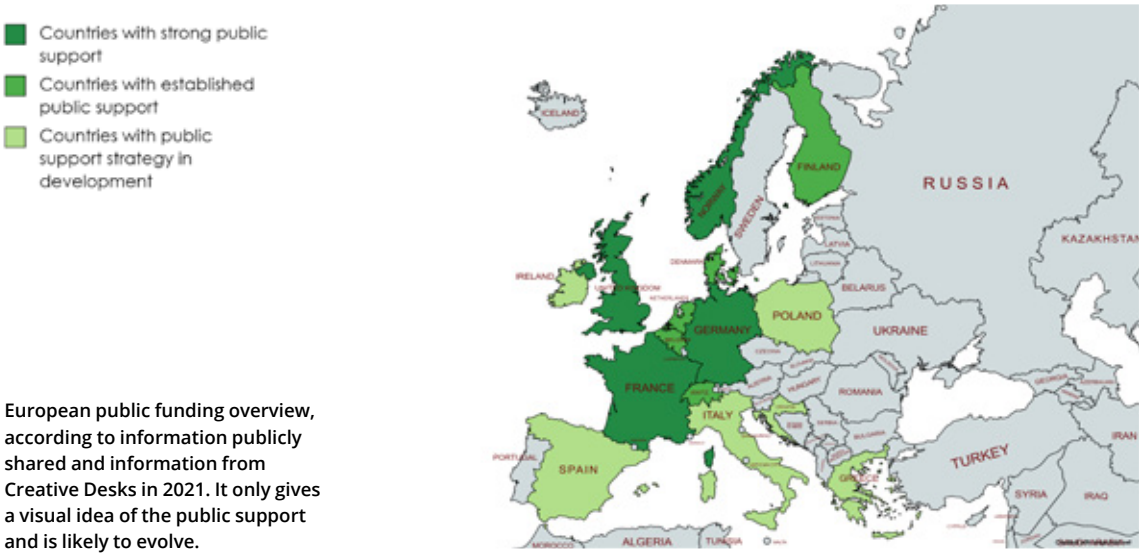
Public Funding Overview

Each country has its own strategy and specificities, but they can usually be split into 2 main groups:

- Cultural focus: Most of the public funds supporting the video game industry come from the national ministry of culture. The primary objectives are usually to support the promotion of the national culture at an international level and protect the Intellectual Property (IP).
- Commercial focus: Few sponsors have a purely commercial focus. They usually focus on attracting ambitious projects and support the international development of domestic companies. Best examples in Europe would be Business Finland and BPI France. They invest directly in the companies instead of specific projects.

Numerous financing tools are proposed across Europe, though not in all countries.

- Subsidies & Loans: The most common funding opportunity that video game studios have access to. Either as a grant (usually with constraints, such as obligations to hire interns, etc.) or a reimbursable loan (funds are recovered based on the video game's earnings). This is widely used by small and medium independent studios that don't have access to other financing sources to produce their first video games.
- Tax Rebate: Another way to support the video game industry is to offer a tax reduction on projects. Widely used in France, other countries have expressed their interest to develop the same offer, such as Ireland, Italy and Greece. In contrast to subsidies and loans, tax rebates are applicable to all kind of studios, helping smaller ones to generate cash for internal



European public funding overview, according to information publicly shared and information from Creative Desks in 2021. It only gives a visual idea of the public support and is likely to evolve.

development and attracting international ones with a strong incentive.

- Studio Investment (Equity): Only a few countries propose a public equity investment offer, as they usually focus on being the first funding sources to attract private financiers for the expansion stages.

- Guarantees: Public structures sometimes offer guarantees on loans for traditional banks.

- Acceleration Program: In addition to financing, acceleration programs are run in several places, with the aim of professionalizing smaller game studios. These often need help with financial issues, strategy and internationalization. Therefore, in some countries, programs for studios or new students are offered to support them in further company development.

To sum up, a large majority of the public funding focuses on video games projects. More specifically, they mainly invest in the production phase. Though, it is also common to see support on the conception and prototype phases, such as IP creation (generally grants). Some public structures also finance the marketing/sales part to boost the promotion of the video game at an international level. Public funding is often the first funding opportunity available for game development companies.

Despite all these initiatives, a growing industry requires a wide variety of offers, covering all stages of company development. However, except in the Northern countries, there is a lack of specialized private financiers in the rest of Europe. Most of the traditional banks and investors consider the video game industry as too risky or not interesting enough to develop a specialized offer for this market.

Coproduction, an alternative funding offer

Independent European studios also face another major issue. Thousands of games are released every day on the different platforms. The market is global and European studios are in direct competition with American and Asian AAA productions. They must make better games with a lower budget, making it very hard to create enough advantages to achieve a sustainable growth. Public funding helps on the first stages only and private alternatives are not sufficiently sustainable. Therefore, other opportunities must be found. One of them could be coproduction.

Coproduction is widely used in the audio-visual industry but is rare in video games production (aside from large international studios). It does, however, offer many benefits, such as sharing expertise, better access to other markets, and most importantly, finding financing in other countries, making it possible to produce a higher quality game.

Threats and challenges

In the course of the year, Swedish game developers have increased both revenues and number of employees, but there are many threats to the positive developments and these need to be dealt with to enable growth to continue and in order to prevent the Swedish industry from falling behind the rest of the world.

Recruitment

In 2020, 539 people were employed in Sweden, but there continues to be a huge demand for competence and it is clear that recruiting within Sweden is not enough to secure growth. Every year, significantly fewer game developers graduate than are employed. The industry is recruiting abroad to a high degree and it is often difficult for new arrivals to find accommodation and receive a work permit. Several game developers have been affected by so-called competence deportations, i.e. withdrawn work permits due to for example administrative errors by previous employers. Long processing times for both issue and renewal of work permits lead to insecurities in the job market and to employees rejecting Swedish employers in favor of countries where the process is simpler and more predictable. Other practical obstacles, such as employees not being able to travel whilst waiting for permits, is another hindrance. The work within the industry towards diversity and equality has meant that more women have been employed and has created an increased recruitment base, but this work needs to continue. Further training of existing staff is also important in order for the industry to thrive.

Work environment

A clear challenge is the working environment. The industry as a whole works to constantly improve working conditions but does not always fully succeed. Game development is a creative industry where many people who work in it also have the games as their main interest. There is a professional pride in making good and entertaining games, and as in any creative industry, there is a drive to always make your creation a little better.

Sometimes it goes to excess, and the game industry is not spared from occasional poor leadership, corporate culture and problems in the workplace, which we are constantly striving to improve. During the year, there have been reports of abuse in Swedish workplaces, something that stakeholders have taken seriously and are working on. At the same time, there are challenges with many young people, clashes with employees from different backgrounds in an international environment, and creative projects where many strong wills need to coexist. The games industry is also largely a consumer-close industry, where contact with players can have a major impact on product development, which comes with both benefits and challenges.

Financing

The access to capital has improved but looking at the investments in the Swedish market, just like in previous years, a clear majority are by established companies. The flow of new capital is limited, and not least in early stages, it is remarkably difficult to find funding. This particularly punishes smaller companies without a strong, existing network and it is threatening to hinder innovation and diversity long-term. In competing

Aftnareld – Coridden

countries such as the United States, Canada, United Kingdom and Finland, there are long established financing structures, tax relief and other forms of support to give start-ups a boost in international competition. For Swedish companies, the absence of such measures means a restriction on trade in practice. Within the industry, there is a need for further increased business competency, especially in small and newly formed companies.

In order to retain value-creating capital and rights in the country, a regulatory framework is needed that is able to handle global competition, and where Swedish companies of all sizes have the potential to gain new market shares.

Digital Market

The European Community is working extensively to simplify the digital market, and essentially it is an ambitious project, also benefiting the Swedish companies selling games to consumers all over the world. But there is a lack of understanding of how games work, and game developers are often impacted by rules made for tackling problems in other industries, or where specific large companies have abused their position. The proposal of a digital tax is one such example, potentially having a devastating impact on smaller developers. The game companies are often also squeezed between the dominating platforms, trademark infringement and licensing abuse. The copyright reform leaves a lot to be desired in these areas, some of which could possibly be addressed in the domestic implementation of EU directives.

Illegal competition in the form of unauthorized distribution, trademark infringements, clone apps, data theft, fake users, copied keys or other factors can also pose concrete risks and barriers to growth. The illegal market of third-party operators selling game content is a hard-to-reach problem as operators often operate online and are based in countries outside of international agreements.

Sustainability

A majority of the population of Europe is gamers of some description, and with that comes a responsibility for how games and game development affect the environment and climate. The shift to digital distribution leaves a smaller climate footprint than physical games, but running servers and hardware still has an impact. Online games on servers, where the game is run on local software, is more energy efficient than for example video streaming, but the cloud gaming of the future requires more access to renewable energy to be sustainable long-term.

Methodology

This report is a compilation of annual reports from the Swedish Companies Registration Office's Business Register supplemented by data from Statistics Sweden's business register.

The report maps and compiles annual reports from limited companies that have game development, publishing or specialized subcontracting functions as a major part of their operation. Examples of subcontractors: Elias Software (adaptive audio engine), Localize-Direct (location/ translation of games) and a large part of Goodbye Kansas' VFX business. Companies focusing on poker, gambling or casino games are not included in the selection.

As of this year's report, data has been collected from Statistics Sweden on all limited companies (aktiebolag) registered under NACE code 58.210 – Publishing of computer games. As of April 26, 2021, there were 579 active companies under this code. From this list, we did a manual review and excluded 170 companies as they have been shown to have main activities in other industries, mostly casino games or other software development.

In addition to companies registered under NACE 58.210, we have manually identified 247 companies that belong to the game industry, but are registered under other NACE codes, mainly 62.010 – Computer Programming. The largest company in this category is EA Dice. In 2020, these 247 companies together had a turnover of 800 million EUR and had 2,248 employees in Sweden.

Retailers or pure distributors, such as the Swedish office of Bandai Namco, are also not included, despite their importance to the industry. The data also does not include companies with e-sports as a main focus, such as Dreamhack or individual e-sports professionals.

The main part of the report concerns limited companies. A small review of other forms of business can be found under the chapter on the number of companies.

Several companies have broken financial years. For these, the most recent available annual report has been used and for the larger companies reconciliation has been made for the number of employees in December 2020 to get as up-to-date a picture as possible of the total industry. One consequence of this is that Embracer Group is one year ahead of EA Dice and Ubisoft Sweden, which should be noted when reading the list of largest companies.

In isolated cases, as in the case of newly formed and reconstituted companies, the annual report has covered a longer period than 12 months. In these cases, data for full years have been used as far as possible. In the report, this concerns only a handful of smaller companies.

Data from Statistics Sweden's business register were collected on 28 May 2021 and include key data from 2020.

The method has several shortcomings. There may be more companies that should be included in the report but are missing because we do not know about them. Manual selection opens up to mistakes, and there is a grey area of companies that are difficult to assess. The strength of the method is that the documentation collected is auditor-reviewed and public through the publication of the National Authority. The manual selection allows us to ensure that all major companies are included, and the report will be more representative for the industry regardless of NACE code.

For companies that registered zero turnover and no employees in Statistics Sweden's business register, the annual report has not been collected from Swedish

Turborilla – Mad Skills Motocross 3

Companies Registration Office. In 2020 this concerned 85 companies. Data on the number of employees and gender distribution have been supplemented from Statistics Sweden reports when available.

In some cases, the annual report has been submitted late in the year, which is often a recurring pattern. In these cases, the annual report for the last year is presented.

In total there were 121 companies whose annual accounts have not yet been registered at the time of publication of this report, which means that the figures presented for these companies are from 2019. The total revenue of these companies in 2019 was around 1% of the total revenue for the industry, which means that the impact on the overall report is very small. The largest company this concerns is Epic Games.

The companies' group accounts have been used, as far as such have been issued and as far as the main group activities relate to game development.

Two reports have been used as a basis for comparison data in Europe. One is ISFE & EGDF Key Facts 2021, which is mainly based on a study commissioned by ISFE made by the research institute ISPOS MORI. The second is the 2019 European Video Game Industry Insights Report from EGDF based on national industry reports; for Sweden the data source is last year's game developer index. Both of these reports were published in August 2021 and are available to download and read in full on isfe.eu and egdf.eu respectively.

More details about the selection and method of the key figures can be found in each chapter.

Glossary

AAA: A popular term for elaborate games with big budgets and large staff numbers, produced for larger screens. Usually released by the biggest publishers in the industry and to a full price point.

AI: Artificial Intelligence - in simple forms it controls characters in a game with path finding and flow charts. More modern AI with methods such as machine learning in neural networks is a growing area within video games.

Alpha: Signifies the phase in software development when the product is ready for software testing.

AR/Augmented Reality: Direct or indirect viewing of a physical environment, with elements augmented (or complemented) by computer generated sensory input (audio, video, graphics or GPS data).

Beta: The phase following alpha. It is often during this phase that the software is available for consumer testing for people outside the development team. These external testers are called beta testers.

Casual games: Games of the simpler kind. They often have minimal storylines, shorter learning curves and are designed to be played in short bursts.

Cloud gaming: Also known as gaming on demand, a type of online game that allows streaming of a game hosted by the servers of the operator or developer. This means a game can be played without the need for a console or optimal computer performance, as all calculations are carried out elsewhere.

Core: A term used to describe games made for more self-aware players or "gamers".

CPM: *Cost per mille,* cost of a thousand advertisement impressions.

Crossplay: Enabling a game to be played simultaneously on different platforms.

Crowdfunding: Financing of a project through donations or pre-orders from interested customers. In recent years this has been expressed through various web platforms that collect their financial support for various projects from interested private individuals or companies.

Crowdsourcing: Outsourcing to an undefined group of people, rather than paid employees.

DAU: Daily Active Users; the number of unique users per day.

Digital distribution: Sales of digital software through digital channels.

DLC: Downloadable content; downloadable add-ons for video games, often on a smaller scale than classic "expansions".

Early Access: Games released for sale in an early development phase before the official launch.

Freemium: Collective term for a business model where the product or service is offered free, but where the player has the possibility to unlock advanced functions and virtual objects or bypass waiting times, by means of micro transactions.

Free-to-play/free2play: Games that offer the user to play the game free in its basic version, but where the income is instead generated through adverts, or the option to unlock the full version for a fee.

Game jam: Brief event where developers meet and create games together during a limited time, often with a particular aim or theme.

In-app purchase: A purchase made in an app or game, rather than externally or through a linked payment system. The goods purchased usually consist of new runs, equipment, experience points or subscription services.

Indie: from "independent". A prefix characterizing games from independent. developers, usually of the smaller kind, with few involved in the development process.

IP: Intellectual Property, the immaterial rights of the company, often used in the video game industry to describe a concept, trademark or anything within the framework.

MARPPU: Monthly Average Revenue Per Paying User

MARPU: Monthly Average Revenue Per User

MAU: Monthly Active Users; the number of unique users over 30 days.

Middleware: Software used to develop games. Middleware acts as a "glue" between two existing software components.

Micro payments: A transaction involving smaller sums, carried out online. There are different definitions of the amount of money they can consist of, but in the games business the term is used to describe payment of for example DLC and in-app purchases.

Outsourcing: To hire external personnel and specific competence from other companies. Production tasks for other companies.

Premium: Business model where the player pays full price for the game by buying a copy or license from start.

Retail: Games sold in a retail store.

Serious games: Games with a principal purpose other than entertainment. It can refer to simulators, exercise games, learning games, rehabilitation games or commercial games, so called advergames.

Social games: Collective term for social network games.

Soft launch: To launch a game in certain markets to evaluate engagement.

Streaming: Direct playback of digital material simultaneously transmitted via the internet.

Studio: Game development company or a division within a game development company, e.g. at another location

Virtual goods/items: Term referring to virtual objects, such as those existing in video games in the form of puzzle pieces, weapons or other items.

VR/Virtual Reality: A way of being visually enclosed in a game experience, often with the help of a goggle-like accessory.

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