

State of the

Icelandic Game Industry

2019



Written by:

NORTHSTACK

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State of the Icelandic Game Industry

Report

2019

Active Game Companies in Iceland — November, 2019

For the report we interviewed a panel of industry experts from all corners of the industry. Their comments are scattered throughout the report to add insight and information on some of the topics.

The experts are:

Birgir Már Ragnarsson,

Partner and investor at Novator Partners and board director at multiple international game companies.

David Thue,

Adjunct Assistant Professor of Computer Science at Reykjavík University, Iceland, and Assistant Professor of Information Technology at Carleton University, Canada.

Hilmar Veigar Pétursson,

CEO of CCP Games, Iceland's biggest game company.

Ívar Kristjánsson,

CEO & Co-founder, 1939 Games, co-founder and former CEO and CFO, CCP.

Margrét Júlíana Sigurðardóttir,

CEO & Co-founder, Mussila.

Sigurlína Ingvarsdóttir,

Producer at Bonfire Studios and previously Senior Producer at EA Games / FIFA 2019 and Star Wars Battlefront 2.

Name	Year of Founding	Platform	Number of Employees
1939 Games	2015	PC, Mobile	11-20
Aldin Dynamics	2013	VR	1-10
CCP	1997	PC, Mobile, VR	200-250
Dress Up Games	2007	Browser	1-10
Directive Games North	2015	PC, Mobile, AR/VR	11-20
Gebo Kano	2002	Mobile	1-10
Jooncorp	2017	PC, Mobile	1-10
Licorice	2012	PC, Mobile, Console	1-10
Locatify	2009	Mobile	1-10
Mainframe Industries	2019	PC, Mobile, Console	1-10
Mussila	2015	Mobile	1-10
Myrkur Games	2016	PC, Console	11-20
Parity Games	2017	PC, Mobile	1-10
Porcelain Fortress	2017	PC	1-10
Solid Clouds	2013	PC	11-20
Tasty Rook	2017	Mobile	1-10
Teatime Games	2017	Mobile	21-30

November 25, 2019

Foreword

It is with great pleasure that I write the foreword to this report. The Icelandic game industry is at an exciting point in its history.

In the last decade, there have been:

- Dozens of new game companies founded in Iceland.
- Various kinds of games released across all major platforms.
- Notable investments raised from both local investors and some of the world's leading tech and game investors.
- Sizable acquisitions made by established global companies.
- Improvements made in the operational and talent environment.
- Dedicated effort expended to create a vibrant grassroots community.

Hence, a lot has happened. But there is still significant room for improvement and many opportunities for enhancing industry growth.

IGI (the Icelandic Game Industry Association) exists to actively work on improvements and opportunities for the game industry. Our vision is for Iceland to become an excellent international environment and community for a vibrant game industry.

One of the challenges we have faced in recent years when presenting the industry, both locally and internationally, is the fact that we haven't had accurate data on the state of the industry and how it's been evolving. Additionally, we have lacked strong publications where both analyzed data as well as insights from industry experts and leaders are properly materialized.

The main purpose of commissioning Northstack to write this report was to establish an up-to-date and accurate representation of the Icelandic game industry in order to:

- Attract and gain further interest from international media, investors and partners in the industry.
- Continue to evolve the industry in collaboration with our local support network and policy makers.

This report can therefore become a cornerstone piece in addressing the aforementioned challenges and serve as a valuable representation of the industry.

But a report only does so much on its own. We need to act. IGI can act by facilitating alignment between game companies, reforming its strategic policy for the industry going forward, and

engaging in continued conversations with key stakeholders. Policy makers can act by removing obstacles and enhancing support in the operational and talent environment for the industry. The game companies themselves can act by sharing knowledge and supporting each other where possible. The grassroots community can act by engaging with individuals interested in game development and supporting them in taking their first steps. And the list goes on.

Together we can do it. We can create an excellent international environment and community for a vibrant game industry.

I would like to thank SI (Federation of Icelandic Industries) and Promote Iceland for funding this report. This initiative truly can make a difference to the industry.

Last but not least, I would like to specially thank Northstack for taking on and leading this initiative. The effort behind this report is extensive and the collaboration has been superb. Thank you for the quality work presented here.

Executive Summary

In this first comprehensive report on the Icelandic Game Industry we provide an overview of the current status of the industry and developments in recent years.

Games are a major growth industry worldwide, with new aspects around competitive games constantly evolving. In terms of business, the industry already outshines music and movies combined in revenue generated.

The industry in Iceland showed decent growth from 2009 to 2016 with annual revenue growing from \$63m to \$121m, and an employee count staying steady above 400 between 2014 and 2017. The following years the industry was hit with several big changes: two of the three biggest companies, QuizUp and Novomatic, closed up shop, while revenue decreased at CCP. These changes resulted in a decline in overall revenue and employees: in 2018 the industry amassed \$82m in revenue and employed 355 people.

In spite of that, both indie and emerging startups in the industry have contributed a considerable amount of development resulting in a new game being released approximately every 1,5 months.

The talent pool for the game industry in Iceland is identified as both a major challenge and an opportunity for the Icelandic ecosystem. The talent pool is small and generic, but recent investments by the education system show promise for what is to come. Similarly, recent interest by government and other institutions in marketing Iceland to potential talent is encouraging, although more could be done.

Venture and private investment in game companies is healthy, attracting around \$130m in investment over ten years. This is especially true in recent years with a minimum of three game company investments tracked per year since 2015. The industry is successful in attracting global capital from top tier investors, and the local VC funds also participate. Public grants to game companies reached a peak in 2015, but have dropped fast since then, highlighting an opportunity for the industry and government to increase early stage funding through focused efforts.

Two big topics are discussed from an operational perspective: the Icelandic Krona and governmental support. The former will most likely remain in place, even though the vast majority of companies competing internationally view it as a negative. Governmental support for generic R&D and technology development has been raised in recent years with more

increases promised. There is however, no current discussion on specific actions or investments focused on growing a game industry in Iceland.

Three main opportunities are identified as suggested focus areas for government policy: the talent pool, development costs and incentives, and early stage funding. Firstly, the talent pool, which will require further investment in the education system as well as changes to immigration policies to maximise outcomes. Secondly, developmental costs and incentives, where both general R&D incentives and specific video-game related tax incentives are suggested to make the Icelandic environment globally competitive. Finally, early stage funding could be better utilized to further support the development of new companies that provide the basis of the future industry.

In conclusion, we suggest five key metrics with which to measure the industry and its development: number of active companies, number of active companies with more than 50 employees, total employees, average annual investment, and annual revenue. Based on these metrics, as well as a high-level assessment of the environment, we draw up three scenarios depicting the possible state of the Icelandic game industry in 2030, depending on the amount of focus and investments key stakeholders choose to put into building the industry out from 2020 onwards.

The Icelandic Game Industry

By November 2019, the Icelandic Game Industry was comprised of 17 actively operating game companies building games for all major platforms and employing 345 people.

LICORICE



teatime



Locatify

Games & Guides Everywhere!

PARITY
CREATIVE
HOUSE

Dressup
Games



mainframe



1839



MUSSILA
— MUSIC SCHOOL —

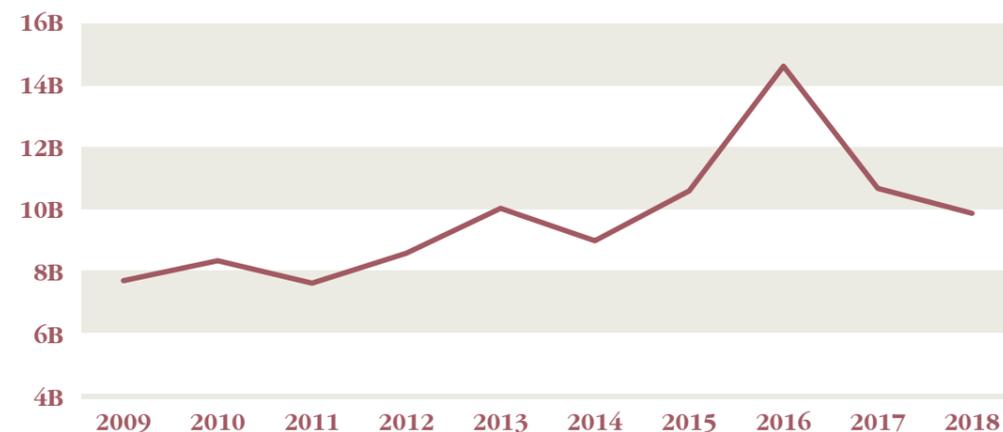


Jooncorp

Key Figures

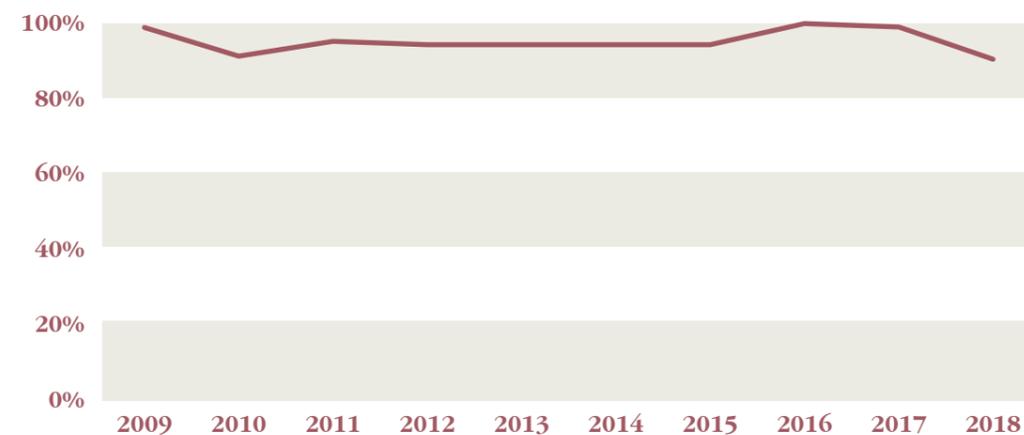
In the years 2009-2016, turnover in the industry almost doubled, from 7.5 billion ISK to 14.5 billion ISK (\$63m to \$121m)¹. The industry averages around \$84m in annual revenue, and has in the last ten years accumulated more than 100 billion ISK (~\$843m) in revenue. This revenue and growth was mostly driven by CCP and their flagship game Eve Online. CCP has been and still is, by far, the biggest player in the industry. In 2017, Plain Vanilla ceased day-to-day operations in Iceland, which coincided with a considerable drop in turnover in the sector.

Total Revenue (in ISK) – Game Industry²



Almost all of the revenue from the industry comes from abroad and serves as an important source of currency inflow. In the last decade,

Export Revenue Percentage of Total Revenue - Game Industry³



¹ Throughout the report, we display currency based on the currency represented in the source data - i.e. if the data we use is in ISK we default to ISK and if it's stored in USD we use USD. For numbers stored in ISK we use the conversion rate of 1 USD = 120 ISK.

² Statistics Iceland (Hagstofan)

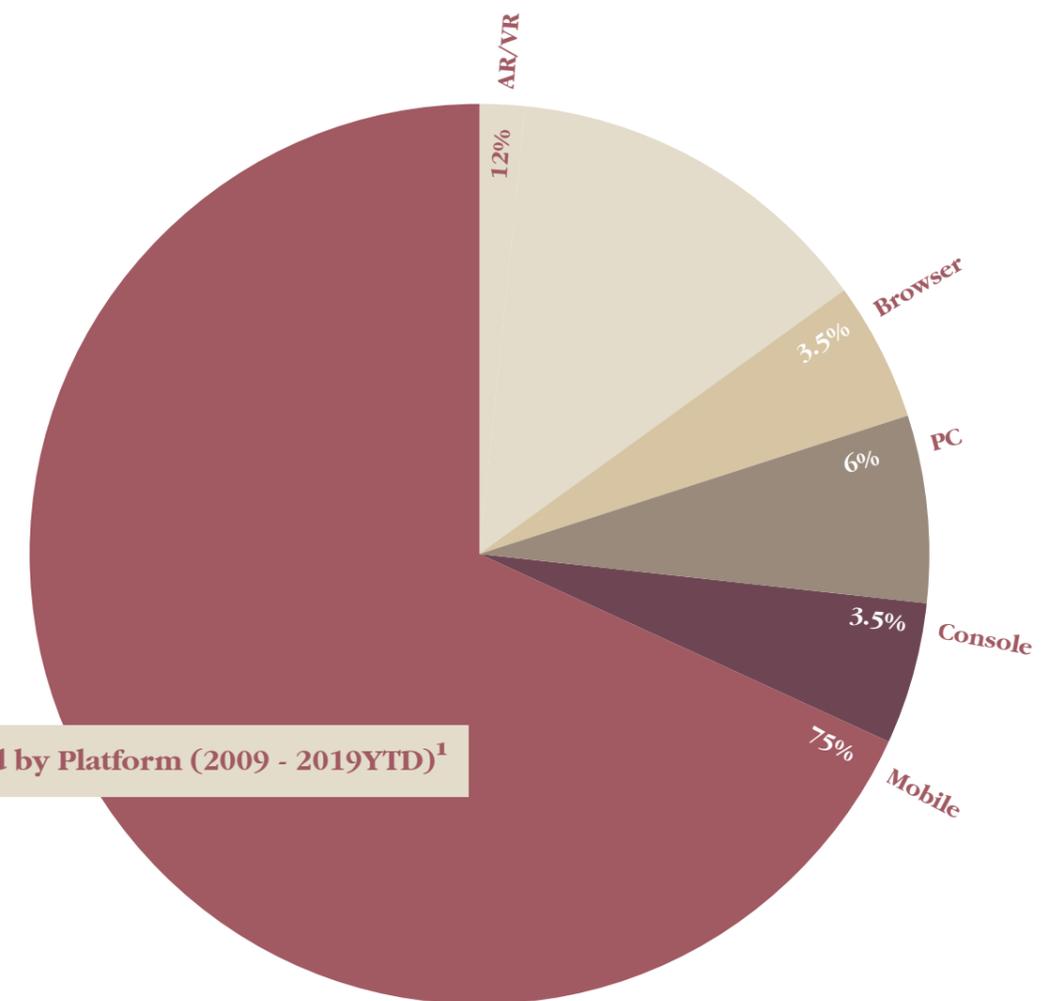
³ Statistics Iceland (Hagstofan)

the export revenue from the industry has been on average over 95% of the total revenue. In multiple years, the percentage is over 99%, which truly highlights how international the industry is.

From 2009 through October 2019, the Icelandic game companies released 83 games. That means a new Icelandic game is released, on average, every 1,5 months.

All platforms – mobile, console, PC, browsers, AR (augmented reality), and VR (virtual reality) – were served, but by far the biggest platform is mobile, with 75% of the games released being designed and built for that platform. The second biggest platform is AR/VR, with 12% of the games released for AR/VR devices. In addition to these games released, there's continuous investment and development in EVE Online, which isn't surfaced in a graph showing number of games released because the releases of updates to the game are continuous.

Games Released by Platform (2009 - 2019YTD)¹



¹ Source: IGI (Icelandic Game Industry). 2019 is Year to Date. Games are counted once for each platform they're released on. Alpha/Beta and early access are not counted.

Talent & Education

The game industry requires a myriad of specialized skills, ranging from computer game programming to game design, storytelling, and technical art and modelling. Based on our expert interviews, talent is by far the most important resource to the game industry as a whole.

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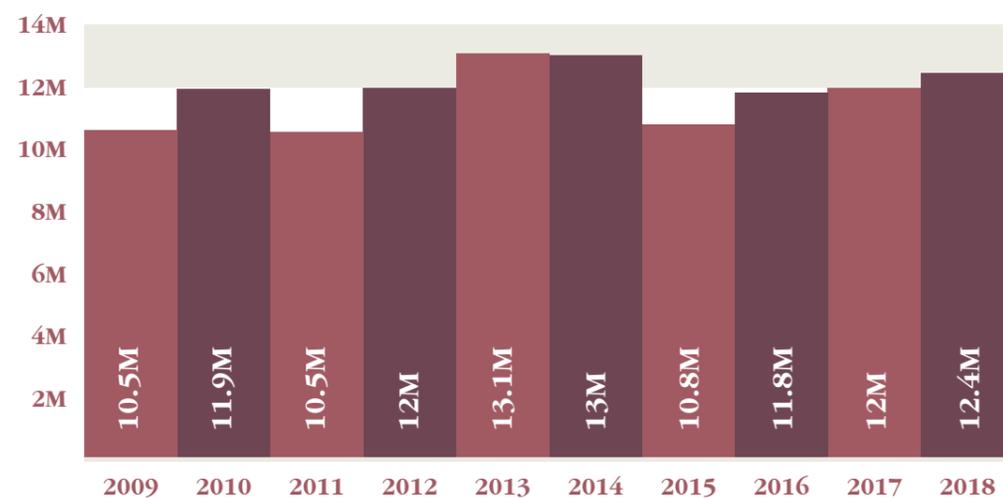
The talent that is in Iceland is expensive relative to other regions, and often doesn't have specialized game development related skills.

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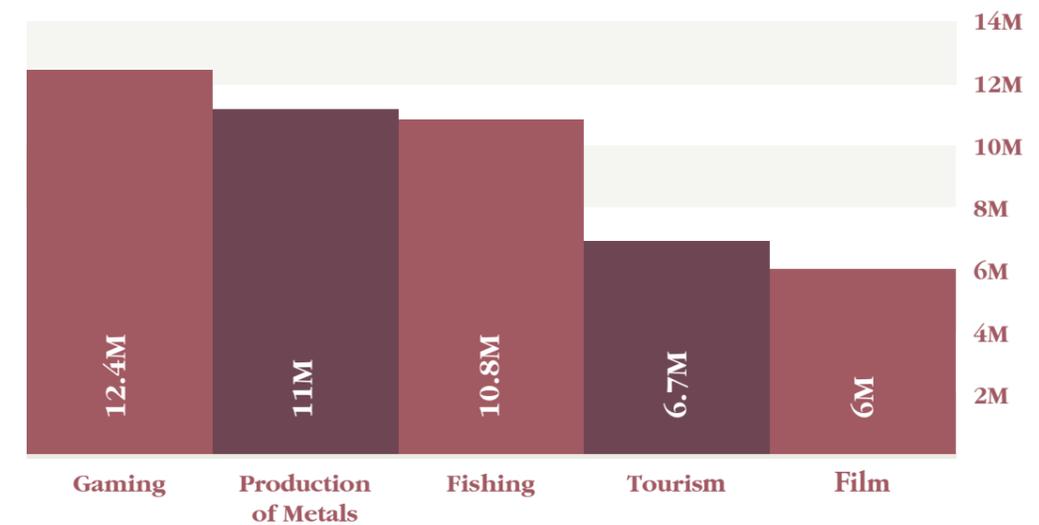
Hilmar Veigar,
CCP

The cost of talent, which consists mostly of salaries and related expenses, is the biggest financial investment for most game companies, contributing more than 50% to the total costs for Icelandic game companies (excluding depreciation). For the last ten years, the annual cost per employee has fluctuated between 10.5 and 13 million ISK, holding steady at around 12 million for the last three years (~\$100,000).

Total Annual Talent Cost Per Employee (in ISK) - Game Industry¹



Total Annual Talent Cost Per Employee in 2018 (in ISK) - Several Industries¹



Compared to other leading industries in Iceland, like fishing, heavy industry and tourism, the cost per employee in absolute numbers is one of the highest, if not the highest. It is fair to say that a big portion of these costs ends up as income tax revenue for the government.

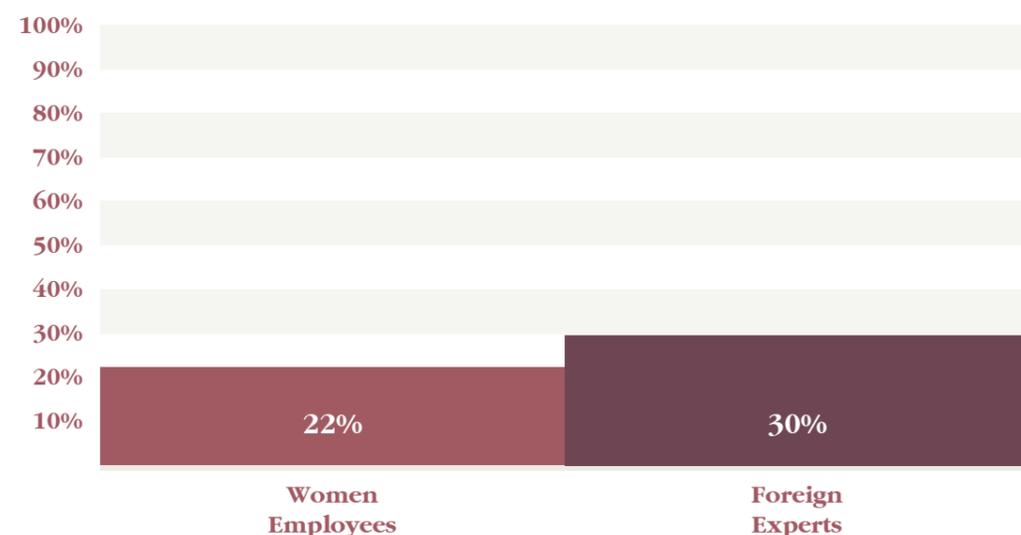
Relative to other geographic regions and tech innovation ecosystems, the cost of talent in Iceland is also high. This is due to the high cost of living in Iceland, relatively high average wages, as well as regular wage increases across the board due to strong collective bargaining.

There are, broadly speaking, two sources the Icelandic game industry can use to acquire talent: through the Icelandic education system or by attracting foreign specialists. Both of these channels can enlarge and strengthen the total pool of talent available to game companies.

Although the education system has in recent years started to focus more on the skills required for game development, the talent pool still possesses relatively generic skills, lacking deep specialization in specific game development skills. This leads to the larger companies needing to hire people from abroad and relocate them to Iceland when looking for specific knowledge or experience.

Foreign experts in this context are foreign individuals that moved to Iceland to specifically work in the game industry. Demographically, the game industry is heavy on foreign experts – where around 16.8% of Iceland’s workforce can be described as foreign nationals, the number shoots up to nearly 30% for the Icelandic game industry’s workforce. From a gender perspective it’s a different story: only 22% of the game industry workforce are women.

**Percentage of Women and Foreign Experts
- Game Industry Employees¹**



¹ Icelandic Game Industry. 2019 data.

CCP

CCP was established in 1997 and launched its first game, EVE Online, in May 2003. CCP is considered the most experienced game company in Iceland, with over 16 years of uninterrupted activity and learnings. In that time, CCP has become a world-leading massively multiplayer online (MMO) game developer by creating cutting edge games and breaking new ground with its proprietary tech, artistry and unique player-driven combined with, infinitely scalable storytelling narratives.

With the release of EVE Online, CCP set out on its mission to create virtual worlds that are more meaningful than real life and positioned itself as one of the most innovative companies in the interactive entertainment industry, winning numerous awards and receiving critical acclaim worldwide. EVE Online is an immersive, community-driven experience set tens of thousands of years in the future and, filled with adventure, riches, dangers and glory. EVE Online’s universe of New Eden is governed by a hyper-capitalistic economy where space flight is the path to all commerce, communication and conflict. Players are challenged with building their reputation to become powerful pilots, trusted by their friends and feared by their enemies. EVE Online is renowned for its scale, complexity and its gigantic, world record-breaking in-game battles where thousands of players come head-to-head in a single star system. In addition, CCP has released four virtual reality titles, having recognized the importance of VR in the coming years by embracing the new technology early.

In 2018, CCP was acquired by the Korean video game developer Pearl Abyss, creators of Black Desert Online, resulting in the biggest acquisition in Iceland’s tech history to date. CCP now operates as an independent subsidiary of Pearl Abyss.

CCP is the biggest game company in Iceland with around 270 employees across 3 studios: - their headquarters in Reykjavík, plus additional offices in London, England and Shanghai, China.



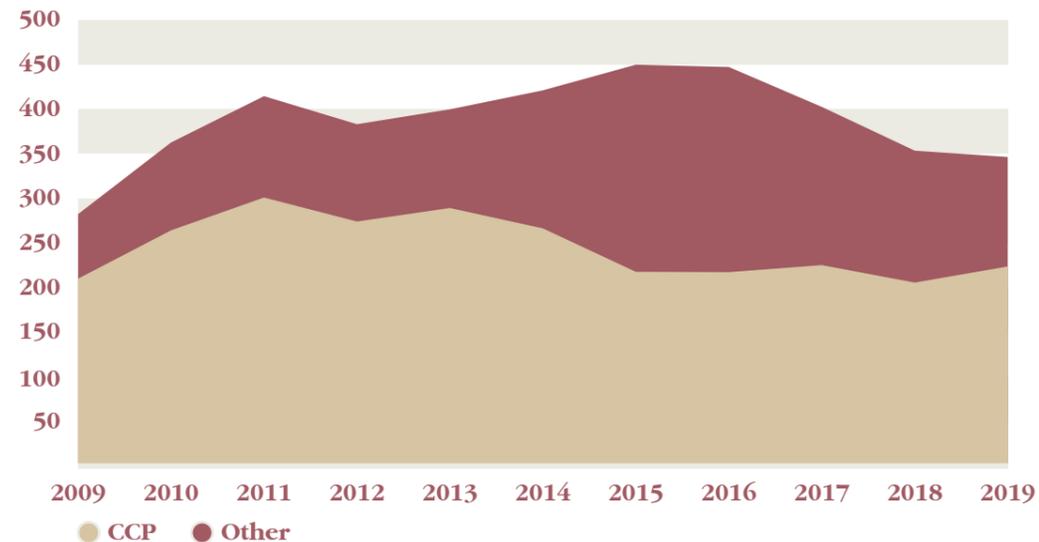
Founded:
1997

Platform:
**PC / Mobile
/ VR**

Employees:
**200-250
(Iceland)**

The Icelandic Game Industry employs around 345 people as of November 2019. A large number – around 65% – work for Iceland’s largest game company, CCP Games. Earlier this year, one of Iceland’s biggest game company employers, Novomatic (formerly Be-tware), announced they were closing their offices in Iceland, which employed 70 people¹.

Total Number of Employees - Game Industry²



“
One of the biggest obstacles to the success of Icelandic game companies is that Iceland is a small country. That said, we probably have a world record in the number of people working in the game industry, per capita.”

Ívar Kristjánsson,
1939 Games

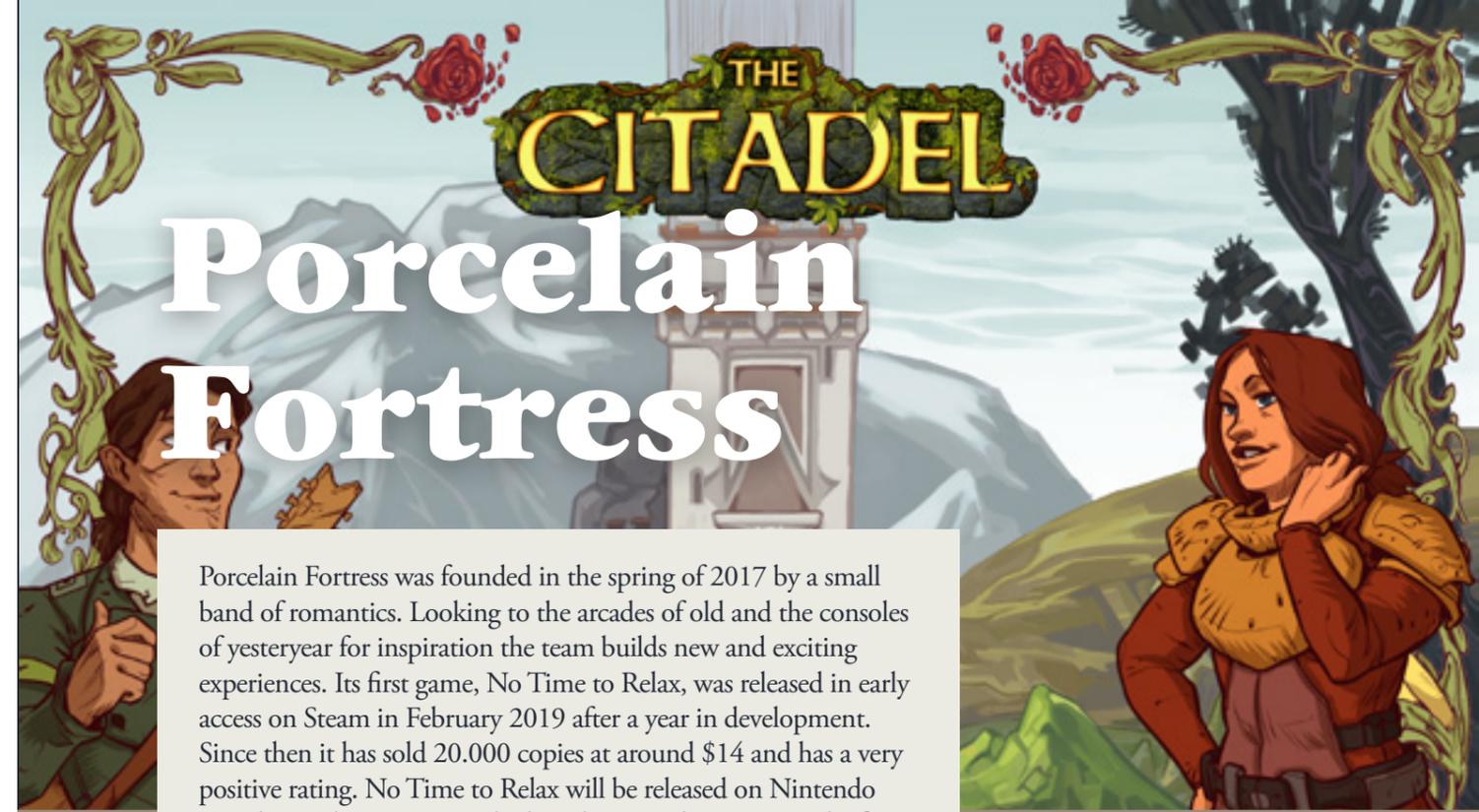
After Novomatic’s closure in Iceland earlier this year, it is worth mentioning the current vast gap between the biggest game company employer (CCP with 227 employees) and the 2nd biggest game company employer (Teatime Games with 22 employees). The other fifteen active game companies currently employ between 1 to 16 people.

Education System

Iceland’s education system consists of three stages:

- **Grunnskóli:** elementary/primary and junior high, grades 1 through 10; 6 to 15-year-olds.
- **Menntaskóli:** senior high school/upper secondary/ junior college, 16 to 19-year-olds graduate with the equivalent of a matriculation exam (is. stúdentspróf).
- **Háskóli:** university, 19 years and older; students graduate with BS / BA, or equivalent, as well as post-graduate qualifications.

For the game industry, the most relevant stages when it comes to



Porcelain Fortress was founded in the spring of 2017 by a small band of romantics. Looking to the arcades of old and the consoles of yesteryear for inspiration the team builds new and exciting experiences. Its first game, No Time to Relax, was released in early access on Steam in February 2019 after a year in development. Since then it has sold 20.000 copies at around \$14 and has a very positive rating. No Time to Relax will be released on Nintendo Switch in February 2020 which makes Porcelain Fortress the first video game company in Iceland to release a game on a Nintendo console. For a project originally made to validate the team, and being its first self-published video game on an oversaturated market, it is considered a great success.

Porcelain Fortress ran through the business accelerator Startup Reykjavik in the summer of 2017 and has since then received grants from the Icelandic Technology Development Fund and Innovation Center Iceland. This support has been vital to the company and additionally the company is funded through personal funding and angel round investments. Porcelain Fortress has now grown to a company of 5 people working from Iceland and Canada with its offices in Innovation House, Seltjarnarnes, Iceland.

Porcelain Fortress is now working tirelessly on their next game codenamed The Citadel where they have had the privilege of getting one of the world’s leading game designers, Rob Daviau, working on the project. The Citadel is a survival strategy game where the game evolves based on the narrative driven decisions the player makes. This latest installment in the company’s portfolio is a grander undertaking than No Time to Relax and is estimated to sell more than 1 million copies across all platforms. Release date for The Citadel is Q1 2023. The team expects to scale up to 10 employees for the development of The Citadel and is currently raising project funding through publishers, investors and grants.



Founded:
2017

Platform:
PC / Console

Employees:
1-10

¹ Fréttablaðið - “Novomatic Lokar á Íslandi” - January 20, 2019. <https://www.frettabladid.is/frettir/novomatic-lokar-a-islandi/>
² Statistics Iceland (Hagstofan) and IGI (Icelandic Game Industry).



Mussila

Mussila was established in 2015 by Margret Juliana Sigurdardottir, a DipRAM postgraduate from the Royal Academy of Music in London, and Hilmar Thor Birgisson, an MSc in computer engineering, and avid gamer and developer. Their goal is to revolutionise music education with their Mussila games, thereby creating an opportunity for everyone to learn music and enabling music-making to be a part of everyday life.

The Mussila app covers both theory and practical components, including specific skills such as reading musical notations and then playing it on a keyboard. Mussila offers over 20 music courses, with more than 1000 challenges, educational cards with facts about music, fun music games and parent progress reports. Everything the app conveys is wrapped up in beautifully produced and entertaining activities.

Mussila has received excellent reviews, and their application has received a number of awards, including the Parents' Choice Gold Award for Best App in the USA 2019, the educational Comenius EduMedia Award Seal 2019 for Outstanding Digital Solution - Germany, as well as the German Pedagogical Media Award 2018.

The company has been funded equally with grants and investments from investors in Iceland and the UK. The grants include two development and two marketing grants from the Technology Development Fund in Iceland and the first stage grant from EASME (the European Commission's Executive Agency for Small and Medium-sized Enterprises).

Mussila employs around ten employees and is based in Reykjavik. Their flagship app Mussila Music School, can be downloaded through App Store or Google Play and used at home or in educational institutions.

MUSSILA
— MUSIC SCHOOL —

Founded:
2015

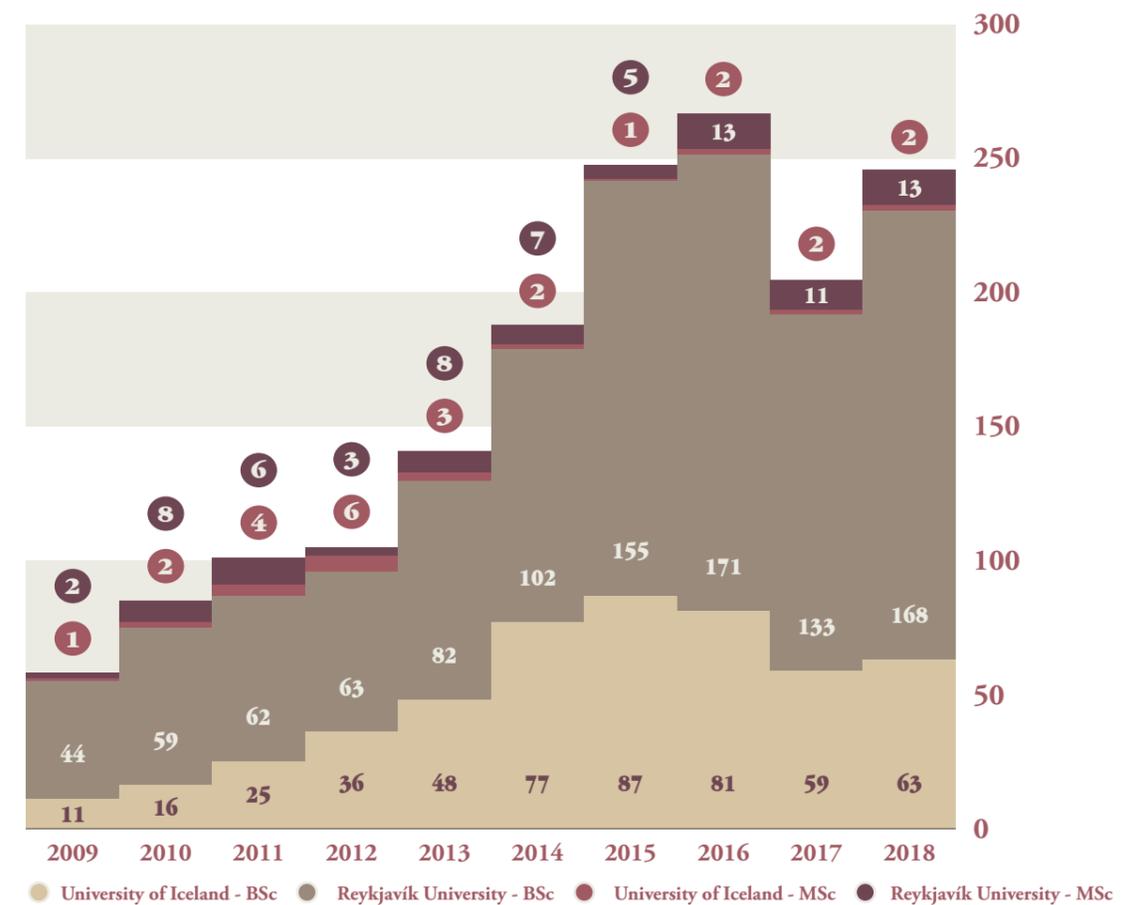
Platform:
Mobile

Employees:
1-10

direct skill-building related to game development are the upper two levels. In recent years, both these levels have seen increased interest and variety in course offerings for people interested in learning skills related to game development, most notably by the addition of a new game development degree at Keilir Academy.

This positive change in recent years can be traced to the increased interest of education providers in producing talent fit for the game industry. In addition, computer science graduates grew fast in the first half of the decade, reaching what seems to be an equilibrium of 200-250 students graduated per year.

Graduated Computer Scientists - Icelandic Universities¹



Junior College | Secondary School

Two colleges, Keilir Academy and Reykjavik Academy of Digital Entertainment, offer college level courses of study related to the game industry.

¹ University of Iceland & Reykjavik University.

“

The general talent pool in Iceland is homogenous and needs more people with the specific skills, experience and education required for game development and operations. Same applies to investors and founders. There are very few that have the experience to take a project from an idea to a successful game operation. There are a lot of people with good ideas, but making them into a business is a whole different ball game.

Birgir Már,
Novator Partners

”

Reykjavík Academy of Digital Entertainment offers a two-year diploma course in Multimedia. By completing an additional year at a university that provides Multimedia courses, students can earn a BA degree in Multimedia. The school teaches 3D design, game development and special effects for movies. The course is designed in close cooperation with companies in the field, including CCP Games, Caoz, and RVX, who help both with the development of the courses, as well as by providing guest lecturers.

Keilir Academy offers a field of study at junior college level in Game Creation. The college program focuses on diverse subjects related to game development, together with providing a base level of knowledge on the topic. The objective is to provide a course in game development which both meets the working environment's demand for highly educated and specialized employees, while satisfying the interest of young people wanting to study creative subjects.

University

Two universities – the University of Iceland and Reykjavik University – have computer science programs, and Keilir Academy offers a BSc degree in Interactive Media - Games in collaboration with the Noroff School of Technology and Media.

Reykjavík University offers BSc degrees in Computer Science, and Discrete Mathematics and Computer Science, as well as an MSc degree in Computer Science.

For the BSc degree, students can choose Designing & Developing Computer Games as an elective line of specialization. This line offers classes in seven subjects related to game development, both required and elective. These are, for example, Computer Game Design & Development and Advanced Game Design & Development. These courses emphasize the fundamental components of computer games such as computer graphics and the technical construction of game servers.

The MSc course offers several classes related to the game industry. These are, for example, Artificial Intelligence, The Communication between a Human and a Computer and Virtual Environments, where the academic as well as the practical side of designing and developing virtual environments are discussed.

The University of Iceland offers a BSc in both computer science and soft-

“

The education system has, in recent years, reacted to and developed well towards being able to provide talent for a game industry, to the extent that we already have several classes of talent with more insights into game development than before.

Hilmar Veigar,
CCP

”



Aldin

Aldin was founded in early 2013 by Hrafn Thorri Thorisson and Gunnar Steinn Valgarðsson. It is a virtual reality (VR) company and has been at the forefront of the VR industry ever since its establishment. Aldin focuses on creating believable virtual reality experiences designed to entertain and inspire diverse audiences in ways that are only possible through the VR medium.

Aldin has created a series of made-for-VR apps, including their latest, *Waltz of the Wizard*, a VR experience where users can feel what it's like to have magical powers. *Waltz of the Wizard* now has over 350.000 players and was an honoree in the 2016 Proto Awards for Best Interaction Design.

Aldin's products are driven by innovative software technologies such as user behavior analysis which enables worlds to react more believably to users and also powers their *Ghostline XR* tool suite, which is used to improve design and production of immersive content.

Aldin has received a grant from the Icelandic Technology Development Fund as well as investments from Investa and Crowberry Capital. Aldin employs between five to ten employees, and is based in Reykjavík. Their latest entertainment experience, *Waltz of the Wizard*, is available on Steam, the largest PC marketplace in the world, where it remains the highest-rated VR app ever to be released.



Founded:
2013

Platform:
VR

Employees:
1-10

Teatime Games

Teatime Games was founded in 2017 by the founder and key leaders of QuizUp, Thor Friðriksson, Ýmir Finnbogason, Jóhann Bergþórsson and Gunnar Hólmsteinn.

Teatime Games aims to reinvent social gaming. The company is building a more social and personalized experience for mobile, allowing people to play fun, real-time multiplayer games and communicate with friends and fellow players at the same time through a built-in video chat. On top of the video chat, Teatime Live offers the players face filters and face-controlled 3D avatars that are unique to each individual game on the platform.

As a platform for game developers, Teatime handles the complicated and boring details such as account creation, moderation, friend lists and live video so the game developers can focus on creating the best gaming experience.

The company is funded by venture capital, with the biggest investors being Index Ventures and Atomico.

Teatime employs over twenty people and is based in Reykjavík. Teatime is currently accepting early access companies for collaboration on creating a social gaming platform for their games.



Founded:
2017

Platform:
Mobile

Employees:
21-30

ware engineering, as well as an MSc in Computer Science. The programs offer elective courses in computer game programming (in collaboration with CCP), e.g. computer graphics, and artificial intelligence. Students can also focus on computer games in their final projects, both in the BSc course and MSc course.

Keilir Academy, in collaboration with the Norwegian university Noroff School of Technology and DIGItal Media, offers a bachelor's degree in Interactive Media - Games. The course is taught online from Noroff, but Keilir supports students with organizing their studies. Emphasis is put on the design and development of game design. The course prepares students for various jobs in the game and animation industry with the purpose of giving students a professional competitive advantage and insight into the process of Game Making. Keilir only started offering this course of study in 2018, and therefore no graduation statistics are available yet.

Immigrant workers

Due to Iceland's participation in the European Economic Area, workers from the EU and EEA can work in Iceland without any need for specific licenses or visas. That also means that data on the number of foreign specialists that move to Iceland is not fully accurate. The only data that is available at the moment is the number of specialist visas granted to non-EEA/EU nationals.

In 2017, 46 specialist work visas were granted to specialists working outside of tourism, agriculture and healthcare, based on data from the Directorate of Labor in Iceland. In the same year, Rannís (The Icelandic Centre for Research), which handles tax deductions awarded to foreign specialists, received 83 applications and approved 58 (70%) of them¹. These numbers are tiny when compared to the fact that 7,888 immigrants moved to Iceland in that same year. It suggests that the influx of people to Iceland is either mostly for low-skilled jobs, or that documentation on the skill level of immigrants is lacking, or both. In any case, drawing conclusions on the qualifications and skills of people moving to Iceland is very hard from a data-driven viewpoint.

Based on data gathered for this report, five of seventeen active game companies currently employ 102 foreign nationals workers, amounting to 29.6% of the total game industry workforce. Ten of these employees received the tax deduction previously discussed. The bigger and better funded companies are much more likely to employ foreign experts, suggesting a certain threshold in network reach, cost, and risk associated with hiring from abroad for young startups.

“
Reykjavik University has offered an internship program in collaboration with CCP, with most students ending up in full or part-time hires from CCP - it's an excellent channel for getting students into the industry.

David Thue,
Reykjavik University

“
It's common practice in the game industry to move for a job, and Reykjavik offers freedom and safety that's hard to find elsewhere. So, even though the talent pool is small, there's potential for growth through relocation of talent.

Sigurlína
Ingvarsdóttir,
Bonfire Studios

¹ The Icelandic Centre for Research (Rannís)

Funding & Acquisitions

Direct funding of game companies in Iceland is derived from two sources: public grants and private investments.

“I haven't seen many funds in terms of cultural contributions, like if there's an artist who uses games in their practice, how do they support themselves to contribute to interesting Icelandic culture through video games? If there were grants to support that, that would be amazing.”

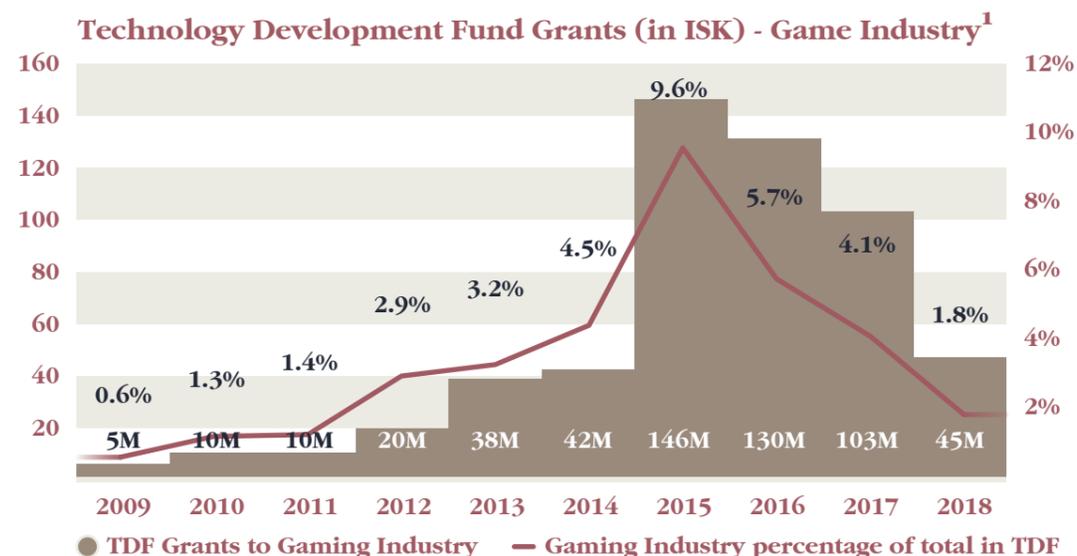
David Thue,
Reykjavík
University

Public Grants

The public grants come from the Technology Development Fund (TDF), a public grant institution aimed at supporting companies that are developing technologies. They fund early stage projects with up to 70 million ISK (approximately \$580k) over two years.

The TDF is a general fund and thus does not have a specific game division, which means game companies and projects go through the same evaluation as others. The TDF was increased significantly in size in 2016, and now has around 2.5 billion ISK (more than \$20m) to grant each year.

In recent years, game companies have always formed a part of the projects receiving grants, with the sector being rewarded between 4 to 9% of total funds granted each year from 2014 to 2017.



¹ Technology Development Fund (Tækniþróunarsjóður)

Private Investment

Private investment comes mostly from a small number of angel investors and VC (venture capital) funds. In addition to local investors, game companies have been relatively successful in attracting international investment.

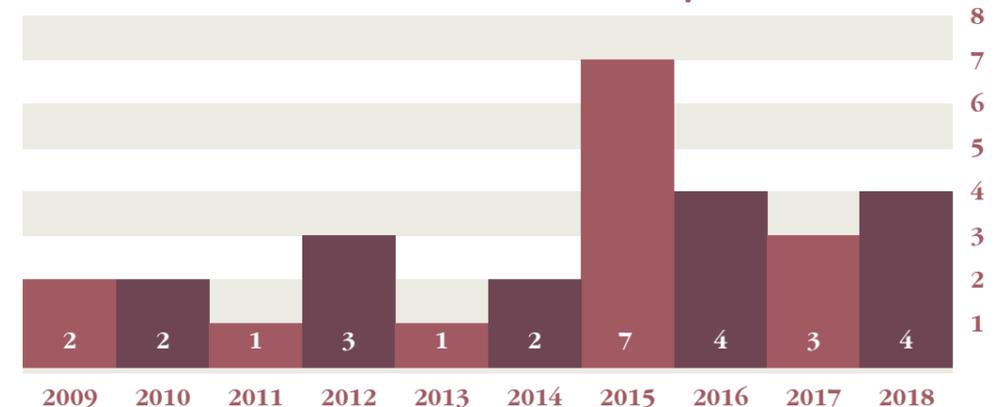
Every year in the last nine years (2010 through 2018) an Icelandic game company has raised angel or venture capital, and in the four years since 2014, at least three companies have raised money this way every year.

In total, twelve companies have raised around \$130m in this 9-year timeframe, from a combination of angel, seed and venture investors, both local and international. Eleven of the twelve companies have raised money in more than one round, while two were sold and two have ceased operations.

Total Amount in Private Investments (in USD) - Game Industry¹



Number of Private Investments - Game Industry²



¹ Northstack Investment Data

² Northstack Investment Data

“

I think it's relatively easy to finance the early stages of a startup here in Iceland with angel investors and grants i.e. from the Technology Development Fund, but it seems to be more challenging when game companies aim for bigger investment rounds.

”

Ívar Kristjánsson,
1939 Games

The total amount invested in this timeframe is characterised by sporadic large leaps which can be traced to mainly two game companies – CCP and Plain Vanilla – raising big amounts of money on several occasions.

These numbers also suggest increased activity in 2015, which was a peak year for private funding events (7) with a private funding amount of \$38 million raised as well as public grants being awarded to games. Since then, investment amounts have gone down, but have held steady at three or more funding events per year, suggesting greater access to early and later stage capital for game companies.

Some of the world's leading investors in early stage technology companies have invested in Icelandic game companies, including Sequoia, Tencent and Index Ventures¹.



Index Ventures

atomico

Tencent 腾讯

NEA

SEQUOIA

NOVATOR

GENERAL CATALYST

SSU
GAME VENTURES

INVENTURE



GREYCROFT

Acquisitions

In the last ten years, there have been three notable acquisitions of game companies in Iceland: Betware, acquired by Novomatic Lottery Solutions for an undisclosed amount in 2013; QuizUp, acquired by Glu Mobile for \$7.5 million in 2016; and CCP Games, acquired by Pearl Abyss for up to \$425 million in 2018.

The CCP acquisition brought to a close a chapter in Iceland's biggest and most prominent game company's history, as in the last years before the acquisition rumours of an exit popped up regularly.



1939 Games

1939 Games was established in 2015 by former CCP veterans and brothers Ívar Kristjánsson and Guðmundur Kristjánsson. They're bringing authentic and premium World War II experiences to the digital collectible card game genre in a game called KARDS. The game is free to play and is expected to launch on PC in January 2020, followed by the mobile version in Q2 of the same year.

KARDS draws on familiar features from the card game genre, but adds classic WWII gaming elements for an elegant, action-packed and fun card game where players can build strategic card decks with the aim to beat their enemies in PvP (player versus player) or PvE (player versus environment) mode. The game is a cross-platform game, which means players can play matches against each other on a variety of platforms.

Still in its early stages, the company has raised over \$3,4m in grants and equity funding. The company finalized a \$2,3m Seed Round in 2018, led by Tencent and including Sisu Game Ventures (Finland) and local venture capital fund Crowberry Capital. The company has received around \$500k grants from the Icelandic Technology Development Fund.

1939 Games has eleven full-time employees and a wide network of contractors working on KARDS. The company is based in Reykjavík. KARDS is available for early access on Steam.



1939

Founded:
2015

Platform:
PC / Mobile

Employees:
11-20

Operational Environment & Support

Iceland is a western democracy, ranking 1st on the Global Peace Index, 21st on the Ease of Doing Business Index, and 20th on the IMD World Competitiveness Index in 2019. In short, doing business in Iceland should be a relatively safe and easy endeavor. There are, however, two aspects specifically to review that are usually of interest to game companies: the national currency, and governmental support and policies.

“
The fluctuating króna makes planning difficult, especially because most of the revenue is in foreign currency. Creating stability is very important and the government should focus on that.

Sigurlína
Ingvarsdóttir,
Bonfire Studios

The Icelandic Krona

Iceland is one of several countries in Europe that still maintains its own currency, the Icelandic krona. Due to the small size of the country, game development is almost exclusively an export business, meaning that game developers make all of their money in foreign currencies, but have most of their costs calculated in Icelandic krona. The krona has long been the focus of heated debate between factions in the political and economic landscape, yet it's fairly safe to say that there won't be any real change in the currency setup of the country in the coming years.

In a recent study by Northstack, 73.5% of companies focused on technology development and innovation (mostly export industries) believed that having a standalone currency had either a somewhat or very negative impact on the operations of their business. Game companies specifically within that survey had a similar story to tell.

Governmental Support and Policies

Governmental support for the game industry usually comes in two forms. The government either provides direct funding or tax rebates that lower the costs of developing a game within the country's

THE DARKEN
ECHOES OF THE END

Myrkur Games

The idea for Myrkur Games was first born when computer science students Daníel A. Sigurðsson, Friðrik A. Friðriksson and Halldór S. Kristjánsson were collaborating on a group project at Reykjavík University. The company was established in 2016, and the team is now developing The Darken: Echoes of the End, a narrative-driven, action-adventure game set in a new and original fantasy world. Their goal with the Darken is to deliver a powerful, character-driven story with meaningful character relationships. The game is the first installment of a planned trilogy.

Myrkur Games is innovating on many aspects of game development, with their mission being to become a leading developer of the next generation of story-driven games. The Darken features a large cast of highly realistic characters, with actors taking on the role of lifelike digital doubles. This is achieved through the company's new state-of-the-art photo scanning and motion capture studio, making the characters of the game realistic and relatable. They also scan real-world locations to create a wide range of photorealistic game environments delivering a beautiful and unique visual experience.

After Myrkur Games participated in Startup Reykjavík 2017, Startup Reykjavík Invest invested in the company, earning it the position of co-founder. Myrkur has already received \$850K through investments and grants and will be raising further project funding through investors, publishers and additional grants. The Myrkur Games team consists of around sixteen employees, in addition to actors, support staff and contractors, and is based in Reykjavík. Their games will be released on Xbox, PC and PlayStation, with The Darken: Echoes of the End, being planned for release in 2022, with a sales goal of 2 million copies.



Founded:
2016

Platform:
PC / Console

Employees:
11-20



Solid Clouds

Solid Cloud was founded in 2013 by Stefán Gunnarsson, Stefán Þór Björnsson and Sigurður Arnljótsson.

The company, which has the ambition to become a leading Massively Multiplayer Online Strategy (MMORTS) game developer, had the insight that there is a great opportunity in combining the scale and politics of browser-based strategy games with the production quality of single-player 4X strategy games.

The first game from the studio is called Starborne which features thousands of players battling for supremacy on a seamless single layer map. Players have to build their empire alongside other players and wage war for control of the galaxy, in games that last eight weeks each. After each game, a new one starts in a brand new galaxy.

Starborne will launch into open-beta early in 2020. Solid Clouds is both privately and publicly funded, with the largest round closing in 2018. Solid Clouds employs between fifteen and twenty people working full time, on-site in their Reykjavík office.



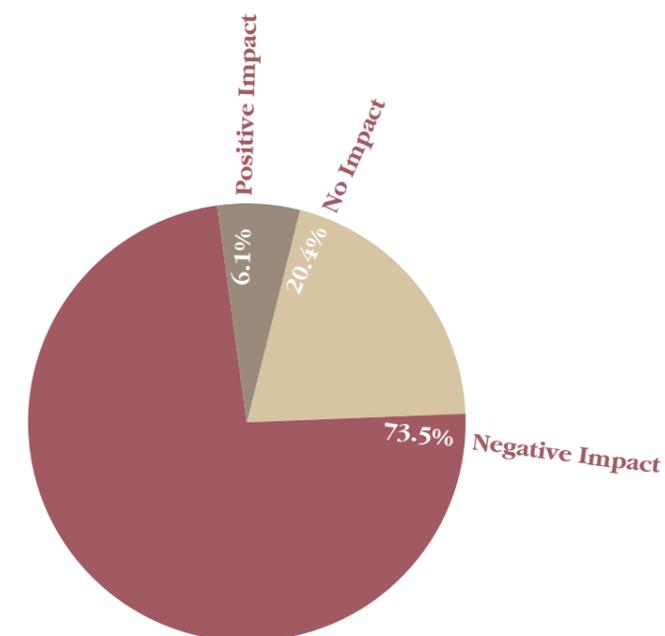
Founded:
2013

Platform:
PC

Employees:
11-20

Standalone Currency Sentiment in 2019 - Tech Companies¹

Do you believe having a standalone currency (ISK) has a positive or negative impact on your company's operations?



borders, or offers more “soft” support through shared participation in marketing and publishing efforts, networks and consulting.

In Iceland, the game industry, along with other IP (intellectual property) intensive industries, is not tracked or analyzed specifically. Economic data on game companies is hard to come by and rarely compiled separately from general statistics, unless the industry or other parties specifically request it.

However, the government has in recent years become more interested in a “fourth” sector (next to fishing, energy-intensive, and tourism), which is focused on IP-intensive, export-driven industries, of which games form a part.

For those types of companies and industries, the government offers some support, most notably in three ways:

- Direct funding of companies and projects through grants awarded by the Technology Development Fund.
- Tax deductions for foreign specialists that relocate to the country to work in Iceland.
- Research and development (R&D) tax incentives, which can be either a tax deduction or a tax rebate on R&D costs.

For younger companies, grants from TDF have provided seed money, as discussed earlier in the Funding chapter. For more established companies, R&D tax refunds can be the deciding factor on where to locate headquarters or new development offices.

“*I think the government should look for example to Finland and set up specific grants for game development, as well as increasing deductions related to development costs and have them uncapped. It's an obligation for government, industry, and the educational system to support this fast-growing industry that will soon be by far the biggest sector in entertainment.*”

Birgir Már,
Novator Partners

¹ Northstack, Gallup & TDF (Unpublished) - Report on the Icelandic Innovation Ecosystem

“

There's no active effort from the government to assist with the biggest issue facing the game industry: lack of talent, and the cost of the talent that is available. Other regions that Iceland is competing with are investing heavily in making talent acquisition easier for game companies, and decreasing the cost of talent with incentives and tax breaks.

Hilmar Veigar,
CCP

The Icelandic government offers a tax deduction of 20% for up to 600 million ISK spent in costs (around \$5m). This can result in a maximum deduction of 120m ISK (\$1m). The deductions were recently increased to this cap amount and apply to all R&D projects.

Direct investments in games specifically, or a decision to build up a game industry in Iceland, has not been discussed by officials. The Icelandic government has not, at least not in recent years, had a strategy to build up a specific industry. In addition, the brand-new innovation policy for Iceland until 2030 promotes general support mechanisms over targeted investments in industries, although it doesn't rule out the latter.

However, the Icelandic government has previously focused its efforts on specific sectors with incentives and policies, with some success. The energy sector and the energy-intensive industry as well as the local film industry Iceland were purposefully built out with big, direct, and specific government incentives. Both are now a major source of foreign currency and employment for Iceland, so focusing on industries is not something unheard of in Iceland's industrial policy.

“

There are tons of opportunities in this industry. It is an industry that requires a range of skills and we have people in the arts, engineering, math, music and everything in between. It is not a threat to the nature and it is rooted in literature and storytelling. It is also a high-growth industry – very competitive but also creative and the environment is extremely exciting and forward thinking.

Margrét Júlíana,
Mussila

”

Parity Games

Parity Games was founded in 2017 by the former CCP employee and game industry veteran María Guðmundsdóttir. Parity is building story-driven adventure games with inspiration from the beautiful Icelandic nature and the country's, long history, fantastic tales and folklore. Their games are created with a focus on rich story lines, beauty and strong player empowerment. The goal is to offer more diverse games and appeal to a broader range of players.

Currently, Parity is developing Island of Winds, a game where players start their journey as a witch in a world inspired by 17th century Iceland, where real stories of witchcraft and known folklore are told in 2D animated videos. The game is set in an astonishing open world environment where the gameplay revolves around the journey of the heroine who races to find her clan before they are burned at the stake.

Parity Games is funded through personal funding and angel round investments, along with a grant from the Icelandic Technology Development Fund

Around eight employees work at Parity Games, which is based in Reykjavík. Islands of Wind will be available in 2021 for both PC and Playstation 4.

PARITY
CREATIVE
HOUSE

Founded:
2017

Platform:
PC/Console

Employees:
1-10

Community & Grassroots

Over the last several years the grassroots and community surrounding the game industry have expanded and become better organized. A new organisation, Game Makers Iceland, was founded as a spinoff of IGI's community group (the Icelandic Game Industry), and esports have recently gained traction with organisations around games to make esports more mainstream.

“The grassroots of the game industry is already here, now we just need a good push to grow and become a real industry.”

Ívar Kristjánsson,
1939 Games

Game Makers Iceland

Before being formally founded in January 2018, the community operated as a stand-alone community group within the Icelandic Game Industry. Now, Game Makers Iceland hosts monthly meet-ups, game jams as well as other networking events. Event topics have included Women in Games and Shipping Indie Games. Additionally, the group has hosted multiple game jams, workshops, studio intros and laidback networking events.

Between events, the local game makers have found an online home in the group's official Slack channel. In this chat room, around 380

“

The environment in the Icelandic Game Industry is small and the atmosphere is extremely positive. The experts help the beginners and everyone is willing to share their knowledge and expertise. Therefore, it is easy to find talented people to work with and things can happen quite fast.

”

Margrét Júlíana,
Mussila

people convene to talk about art, coding, game engines, the industry, music, animation and other related things. The group's goal is to grow an inclusive, diverse and vibrant grassroots game development scene in Iceland. In the near future, Game Makers Iceland aims to bring in foreign game development experts to share their successes and failures with the Icelandic community.

RÍSÍ and Esports

RÍSÍ, the Icelandic Esports Association, is an organized interest group established in late 2018 by people who have been connected to the game industry for a long time. Their goal is to make esports a mainstream sport in Iceland and evolve the necessary infrastructure: training and practices, competitions and community.

Following the founding of RÍSÍ, many of Iceland's leading sport clubs have established their own esports teams. Early 2018, RÍSÍ organized the esports competition of the Reykjavik International Games, an international sporting event hosted by the Sports Union of Reykjavik (ÍBR).

“

7 to 8 years ago, I'd have said the community was kind of small in terms of lack of a support network for new companies - but that has improved a lot in the last few years. The community around the game industry has grown incredibly.

”

David Thue,
Reykjavik University

Industry Summary, 2019

Based on the data, interviews, and observations on the industry today in 2019, we try to summarize the key metrics that are of importance when looking at the industry as a whole. As a first version, we suggest the following key metrics:

- Number of active game companies as a proxy of activity and developments in the industry.
- Number of active game companies with 50+ employees, because as the data shows, a major portion of the Icelandic industry is - and has been - driven by CCP. The creation of more long-lived, sustainable game development operations in Iceland is a key for the industry.
- Total employees as a proxy of activity, developments, and impact - for example through tax revenue and derivative value created through services and other economic activity.
- Investments to proxy the future prospects of the industry and the entry of new players and innovators into the industry. We suggest an average of the previous five years to even out peaks.
- Annual revenue to identify the value the industry creates.

No. of Active Companies

17

Companies with 50+ Employees

1

Total Employees

345

Investments

12.2M USD / 1.5B ISK

Annual revenue

82M USD / 9.9B ISK (2018)

Based on those numbers, we can create an assessment of the Icelandic industry and ecosystem based on the dimensions discussed earlier. While rather un-scientific, it gives us an indicator on where we could benefit from focusing our efforts.

Talent and Education



Funding and Acquisitions



Operational Environment and Support



Community and Grassroots



As of today, there's one big, profitable game company in Iceland: CCP. We've had some good runs - most notably Betware and Plain Vanilla Games - which grew and established a good presence, but have since been acquired and later left the country. There's also an active grassroots community and several promising companies that have received good amounts of investment very recently. The industry could develop into many different directions, as there is still significant room for improvement and many opportunities for enhancing industry growth.

“I've experienced a real change in attitude towards the game industry. People, and especially government officials and the media, understand better that games are a good business, with good numbers, and not merely a cute, creative, hobby.”

Hilmar Veigar, CCP

The Opportunity

Highlights

Games are a major growth industry worldwide, with new aspects around competitive games constantly evolving. In terms of business, the industry already outshines music and movies combined in revenue generated. Five of the ten top grossing media franchises from the last ten years (based on Wikipedia's list¹) are from video games. The trajectory is clear: video games are already massive and they will only continue to grow.

Other governments, ranging from the UK to Finland to Nova Scotia, have recognized this and embarked on a mission to proactively create an environment and incentives conducive to a flourishing game industry.

The reasoning for governments is easy: Games are a growth industry which mostly employs highly skilled and highly paid specialist workers and requires little resources outside of that. The industry is global, creating revenue streams from all over, and is reasonably environmentally friendly (or at least, not environmentally unfriendly).

Highly skilled and highly paid specialist workers create a magnitude of spillover effects such as more money to be spent on local retail and services and increased tax revenue to fund essential government programs like education and health care.

The biggest leap to be made is for Iceland to start viewing game development as a real opportunity and to begin putting effort into building up the necessary infrastructure to support a growing and sustainable industry. Based on our analysis, there are three main areas of improvement or opportunity for Iceland to start having an actual shot at growing a game industry: the talent pool, development cost and incentives, and early stage funding.

“
The game industry has already outgrown the music and movie industries combined globally and that shows how much opportunity there is. It is a big, growing industry and it should be a part of Iceland's strategy for the future. I'd like to see 10 to 12 game companies as big as CCP in revenue in 15 to 20 years.

”
Ívar Kristjánsson,
1939 Games

“

Something really amazing happens when you put together a group of people with very different skills and backgrounds – and often different characters too – to create something new. This is the essence of this industry and what I love about working in this environment. It is sparkles and fireworks every day!

Margrét Júlíana,
Mussila

”

“

Iceland's small size can only sustain a certain amount of industries, and if we want to become great at something we'll need to focus. Games are a high growth industry and in my opinion a good bet for Iceland.

Sigurlína
Ingvarsdóttir,
Bonfire Studios

”

The Talent Pool

The education system has started to react to a growing demand for game development jobs. With Keilir's new game design collaboration with Noroff, the breadth of available education for the game industry has increased. That said, there's still a decisive lack of marketing- and business-related education aimed at the game sector.

The other way to grow the talent pool is by increasing immigration of talented individuals. At this point in time, it's next to impossible to measure and analyze the immigration of specialised talent to Iceland. Both the game industry and the government should find a way to measure the inflow of talent in order to help them decide on whether, and which, measures should be taken to increase that flow.

Iceland can be the highly skilled specialist worker's dream place. The country has a very high quality of life, peace and security, unrivalled access to nature, an active local culture scene, and is conveniently located between two major geographic markets. Yet, based on qualitative feedback, recruiting senior staff to Iceland is difficult. The process of moving to Iceland, getting settled, and integrating into the community is ill-documented and could be made easier to understand for all parties involved. The quality of life in Iceland is also not advertised well enough or strategically marketed to attract prospective talent. Promote Iceland, together with the Federation of Icelandic Industries and the Icelandic Government, recently launched a marketing web - Work in Iceland (work.iceland.is) - for this purpose, but apart from that, there are no marketing initiatives for attracting talent specifically. In the past, the focus has been on tourism, but not livability, and for talent acquisition the latter is key.

Development Costs and Incentives

Iceland has a small talent pool and the talent that is here already is expensive. To speed up the growth and establishment of game studios, incentives that decrease the cost of development would level the playing field, making costs here similar to elsewhere. In addition, a competitive incentive structure could increase the likelihood of international game companies setting up shop in Iceland and helping to grow the industry, talent pool and ecosystem.

Many other countries, like Canada or the UK, have established aggressive incentive policies specifically focused on video games - i.e.

video game tax relief or dIGItal media tax credits - similar to the incentives Iceland has for the movie industry. Those countries made the decision to compete for game companies, similar to when Iceland decided to build up an aluminum industry, and they've created a playbook of policies and incentives to implement. Iceland wouldn't need to invent anything, just implement tried and tested practices.

It's essential for the industry that more than one long-lived, international game company is established and kept up and running in Iceland. Whether those other companies are born in Iceland, or move here due to a good environment, does not matter to the big picture: a strong and sustainable game industry.

Early Stage Funding

While there's been active venture capital participation in the Icelandic game companies, both from local and foreign investors, an opportunity exists in funneling grants directly to early stage game companies. An active community with passionate developers can make a small amount of money go a long way.

Although the current innovation policy states that Iceland shouldn't pick a sector, it also suggests that if the government wants to support or influence the development of certain sectors, it should do so through competitive funds. A similar initiative was run in Finland. Following growth in the game industry, the Finnish government decided to add fuel to the fire by, for a limited time (2012-2015), providing a special fund for grants to game companies.

A similar approach is very possible through a vehicle like the Technology Development Fund.

In addition, many of our neighboring countries have acknowledged the cultural aspect of video games. To foster that part of it, governments have created grants with a cultural focus, similar to grants related to film production. This is an area of policy not yet explored by the Icelandic government.

There is an opportunity for the government to decide that gaming is an industry worth investing in, just as it did with fishing, energy-intensive heavy industry, and film production. With the right combination of focus, incentives, and active outbound marketing we could reach the goal of growing the industry to a sizeable part of the local economy. The future for gaming in Iceland can very well be bright, but it will require a dedicated push.

Icelandic Game Industry in 2030 Scenarios

Here we explore three scenarios on what the Icelandic game industry could look like in 2030:

- 1.** The industry reaches its full potential
- 2.** The industry grows notably
- 3.** The industry carries on as is

Scenario 1 - 2030

The industry reaches its full potential



In this scenario, the game industry has grown vastly and reached its full potential as a very important industry in Iceland. This was no coincidence. Game companies continued relentlessly to create and innovate, and through hard work and a bit of luck, new successes emerged which reinforced a new growth spurt in the industry. At the same time IGI, policy makers and key stakeholders proactively acted on the opportunity and worked incredibly hard in cooperation with one another on improving the environment supportive of a vibrant and international game industry. This resulted in a 'snowball' effect and enabled the industry to grow much faster.

Talent and Education: Immigration in Iceland has been made much easier for foreign talent – both through simplified government processes as well as support within the industry for recruiting and onboarding foreign employees. The Icelandic education system continued its journey to better support talent for IP-intensive industries. With regards to game development, demand and interest from up-and-coming students kept on increasing, which led to Reykjavik University, University of Iceland and Keilir offering and expanding on programs within the field. There are also now 500 students that graduate annually with a bachelor's degree in Computer Science in Iceland compared to around 250 students a little over a decade before (2019). This has greatly benefitted the game industry as well as other IP-intensive industries. Additionally, business schools within two universities now offer courses that are highly relevant for those seeking business-related careers within the game industry.

Funding and Acquisition: With more and more successes emerging from the Icelandic game industry, the interest from interna-

tional investors, established game companies and game publishers towards the local game portfolio grew significantly. Game startups in Iceland continue to secure notable investments from well-connected and respected investors. Three new acquisitions have also occurred, including an acquisition from a major US studio. These acquisitions are a notable boost for the industry's overall local talent pool, as it establishes the international connection and foreign expert flow into the industry.

Operational Environment and Support: Specific operational incentives for game companies are put in place by policy makers. Those incentives include a tax incentive for video game development and operations. This enables local game companies to operationally compete with companies in other international regions. A five-year focus project at the Technology Development Fund, where a dedicated percentage of the fund was granted only to game companies, proved successful in growing the pool of upstart game companies. The Ministry of Education has also acknowledged games as a cultural art form and now annually funds small, cultural game projects from individuals and indie companies.

Community and Grassroots: We have finally built out several long-lived, sizeable, profitable game companies. The area that is today reserved for an airport in downtown Reykjavik is built out to become game-ville, servicing a big part of the 1200-person game industry we've built up and creating vibrant satellite industries in retail, hospitality and culture in a strong and growing central Reykjavik. The grassroots part of the community has never been more active and engaging for those interested in game development, inside and outside the industry.

Scenario 2 - 2030

The industry grows notably



In this scenario, the game industry has grown notably over the years. This is a definite change for the industry, as we now have three companies of over 50 employees that show stable performance over time. There are more emerging companies in the industry and an increased number of venture-backed companies by international investors.

One of the venture-backed game companies exited to a big foreign company in the game scene. This led to the founders and early employees to start again, shortly after, and emboldened the angel investment scene in the industry. Another company decided not to sell - for the time being at least - and built up a good presence in Iceland, starting a talent rivalry with CCP, while participating in investing in the talent stream through collaboration with the education system.

Industry stakeholders and policy makers rallied together and pushed through notable improvements in the environment. Immigration has been improved and is in good shape through simplified government processes, but still has room to become great. There are more offerings in the educational system for game development studies. Incentives for R&D have been increased as the government follows through on their plan to remove the ceiling. In addition, a temporary measure to “fuel the fire” has been put in place, where the Technology Development Fund focuses part of their grants on games for three years, leading to more game companies being founded.

The community and grassroots groups have continued to be a strong connector for people inside and outside the industry. The Gróska area is now not only the home of CCP, but also the home of a game industry cluster for emerging companies in the industry. Overall, we are now a step closer to supporting a vibrant and international game industry.

Scenario 3 - 2030

The industry carries on as is



In this scenario, the game industry carries on as is and results stay similar. There are moderate successes by a few emerging companies, with good profitability in some years. But no company other than CCP is able to maintain and persist as a sizable, profitable company over time. We do little to nothing new in the environment around the industry to advance it.

Overall, hiring is still a big challenge. The immigration process stayed the same with known hurdles and tricky bits. The universities continued their baseline support on game development with some new talent going into the industry. But the outcry from the industry for more specialized employees still continues. The total industry hovers at around 325 people.

Government incentives for R&D stalled at levels established a decade before, leading to CCP focusing abroad for new investments. It doesn't happen overnight, but when their next product takes off, the growth will not be in Iceland, and the focus will be shifted to other offices, slowly, but surely. Community and grassroots are still strong and breed hope that the industry can be improved. But then again, that was also the situation a decade earlier.

Conclusion

While these scenarios may be described as unscientific, they do succeed in providing a portrait of what the Icelandic game industry could become, if afforded the right combination of collective will, dedicated action, and a dash of good luck. Given the growth status of game development internationally, it is probably one of the few IP-intensive industries in Iceland that has a real shot at becoming a sizable industry, based on the current ecosystem and available opportunities.

However, it's important to remember that while a great environment increases the chances of success, it cannot guarantee it. The ultimate deciding factors will always be the passion and commitment individuals and companies invest in making great games loved by an abundance of old, new and future players.

About the report

This first comprehensive report on the Icelandic Game Industry was commissioned by IGI (Icelandic Game Industry Association) and funded by Samtök iðnaðarins (Federation of Icelandic Industries) and Íslandsstofa (Promote Iceland).

The aim was to discuss the industry as a whole through analyzing economic data and exploring important dimensions of the industry: talent and education, funding, the operational environment and government support, as well as the grassroots and community around game development.

To deliver a comprehensive overview of the industry, Northstack researchers collected, analyzed, and reviewed industry data from multiple sources: Statistics Iceland, Northstack, the Technology Development Fund, as well as information gathered directly from companies.

Statistics Iceland: Economic data based on a list of game companies, from years 2009-2018.

Northstack: Funding and acquisition data for the Icelandic Ecosystem, 2009-2019.

Technology Development Fund: Public grant data.

Directly from companies: Details on company activity, product releases, employees, and confirmation of other data.

Additionally, desk research was used to gain a solid understanding of the initiatives and programs around the game industry.

Finally, interviews were conducted with industry experts to add an extra dimension of data insight to our analysis. The following experts were interviewed:

Hilmar Veigar Pétursson, CEO of CCP Games, Iceland's biggest game company

Birgir Már Ragnarsson, partner and investor at Novator and board director at multiple international game companies.

Ívar Kristjánsson, CEO & Co-founder, 1939 Games, co-founder and former CEO and CFO, CCP.

Margrét Júlíana Sigurðardóttir, CEO & Co-founder, Mussila.

Sigurlína Ingvarsdóttir, producer at Bonfire Studios and previously Senior Producer at EA Games / FIFA 2019 and Star Wars Battlefronts 2.

David Thue, Adjunct Assistant Professor of Computer Science at Reykjavík University, Iceland, and Assistant Professor of Information Technology at Carleton University, Canada.

We thank all the experts that participated by providing their insights and comments. We'd also like to thank Gísli Már Gíslason at Statistics Iceland (Hagstofan) who proved extremely helpful navigating the economical data on the industry.

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About IGI

IGI (Icelandic Game Industry) is an industry association for game companies in Iceland. IGI exists to actively work on improvements and opportunities for the game industry. It does so through analysis, partnerships, policy-making, lobbying, and other activities. IGI's vision is for Iceland to become the host of an excellent international environment and community for a vibrant game industry. IGI was founded in 2009 and is a member of Samtök iðnaðarins (Federation of Icelandic Industries).

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About SI

Samtök iðnaðarins (SI) - The Federation of Icelandic Industries - was founded in the year 1993. It is the largest employers' organisation in Iceland, has nearly 1,400 member companies who are very diverse in terms of size and field of activity. Among the industries represented are construction, manufacturing, food, power intensive industries, high-tech and creative industries.

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About Promote Iceland

Promote Iceland is a public-private partnership established to improve the competitiveness of Icelandic companies in foreign markets and to stimulate economic growth through increased exports.

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About Northstack

Northstack is Iceland's leading tech- and innovation-focused media and analysis firm. Since 2015, Northstack has provided news coverage as well as detailed analyses of the innovation ecosystem, venture capital and public policy related to the space. Apart from its own reporting, Northstack also collaborates with other industry organisations to conduct research and analysis.

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