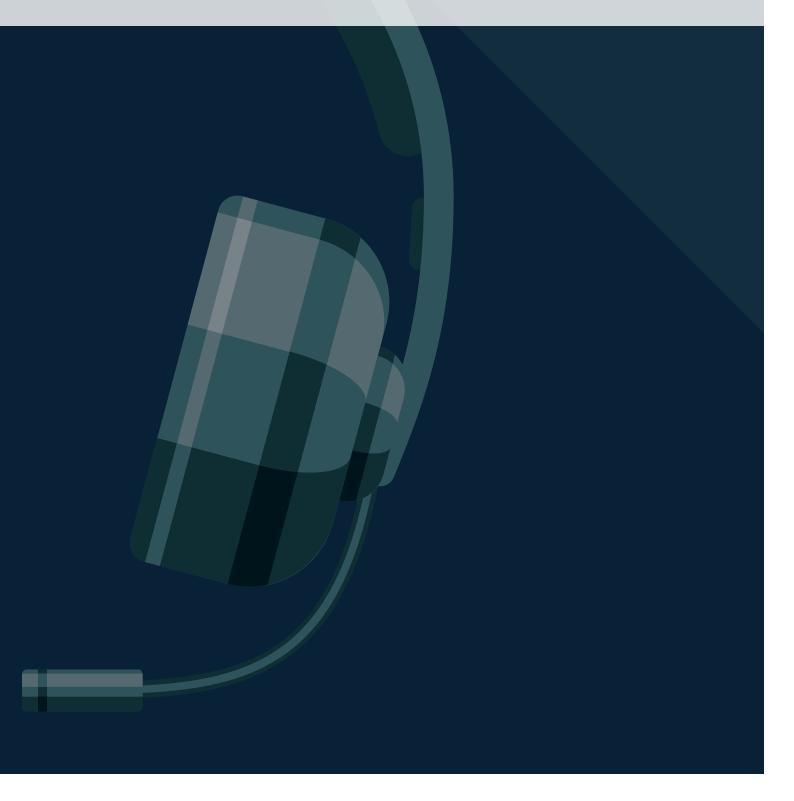
The Netherlands - Autumn 2020



Gaming: a new player on the real estate market







Question We see a new demand for real estate from the gaming industry. What is this demand exactly, and how can property owners benefit from this growing market?

Introduction Most people think about video games as a mainly solitary activity and as something that people mainly do at home. But nothing could be further from the truth. Video games first appeared in the 1980s with the arrival of video arcades. They offered people the chance to play classic games such as PacMan and Space Invaders, and attracted large numbers of enthusiasts.

Gaming grew in popularity - and it was a social activity. Later, the development of games consoles and computer games led to a transition within the market and in the years that followed it was the market for gaming at home that expanded. Today, a new shift seems to be taking place. More people are still gaming at home than ever before, but the social aspect of gaming has also become much more important. This is resulting in many initiatives that allow people to game together. This is leading to a very specific type of demand for real estate. But what is the demand exactly, and how can property owners benefit from this growing market?



The gaming sector is coming of age - what happened?

As more and more multiplayer games have become available in recent decades due to increasing internet connectivity, the competitive aspects of gaming have also grown significantly.

Figures major (tech) players that enable video game streaming



Twitch by Amazon A video live streaming service Introduced in June 2011. The site primarily focuses on video game live streaming



Facebook Games In the game streaming market, Facebook is No. 3 in total hours watched, behind YouTube and Twitch



YouTube YouTube Gaming launched in 2015. Promoted as a way to improve the live stream experience and keep irrelevant content away from gaming fans

Source Savills Research

Social media platforms where multiplayer games are broadcasted and viewed by millions of users daily have risen in recent years.

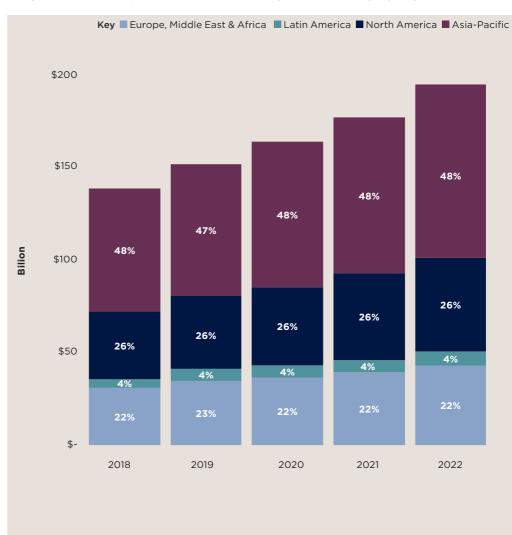
Twitch is such a platform for example, which allow gamers to show off their skills to the general public. As a consequence, a wide-ranging community has

sprung up around gaming. Growing audiences have already generated a great deal of advertising and sponsorship revenue, meaning that many gamers can now 'go professional' and actually earn a living simply by playing and streaming games.

66 Social media platforms where multiplayer games are broadcasted and viewed by millions of users daily have risen in recent yearsf 99

The gaming sector continues to grow

Graph Total and expected revenue of the games industry by region, 2018-2022



Source Newzoo

The huge popularity of gaming is reflected in the overall revenues of the gaming industry.

Between 2018 and 2019, sales grew by at least 9.7%, and growth is expected to continue at a similar level in the years to come. A lot of that growth is coming from the United States and Asia, but the games industry seems to be taking off almost everywhere in the world.

The increasing use of smartphones to play video games has had a major impact on global sales.

Although console gaming remains enormously popular and still accounted for around 31% of total revenues in 2019, revenues from smartphone gaming actually made up 36%. Mobile phone gaming has brought gaming to an even wider market. The US market research agency NPD has found that the average US gamer is 33 years old. Gaming is no longer something that only young people do.



AN INCREASINGLY SOCIAL ACTIVITY

The growth of the gaming community is creating more opportunities to develop the social aspects of gaming, and gaming outside the home is becoming more popular. Ever more physical and online events are being organised to cater to the gaming community. Examples include e-sports tournaments and video game fairs. Video arcades are staging a comeback, too, with four new arcades opening their doors in the Netherlands in the past year. These are based on an increasingly diverse range of concepts, including a Japanese-style video arcade and a Formula 1 simulator. Clearly, gaming is catching on with an increasingly wide audience and is truly becoming an industry. But how large is the Dutch gaming sector today, and where is it concentrated?

Gaming is catching on with an increasingly wide audience and is truly becoming an industry

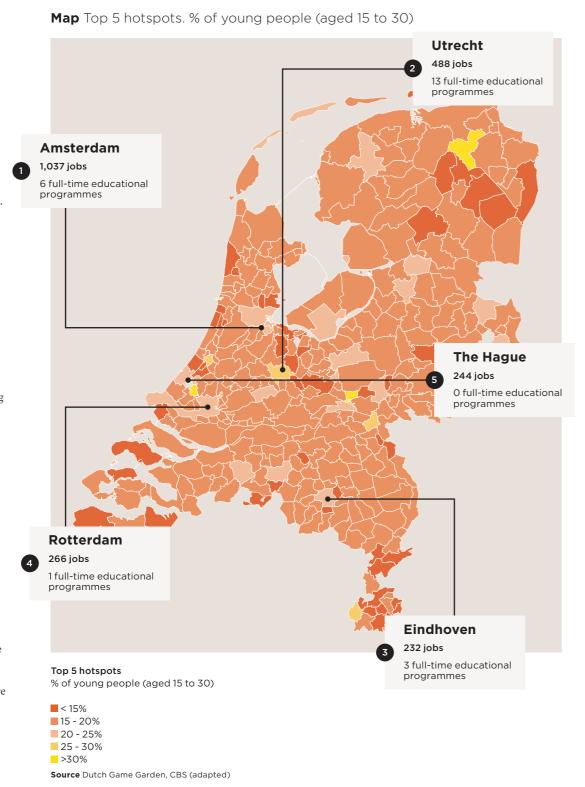
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The gaming industry in the Netherlands: who, what, where?

The Dutch gaming sector has also been expanding quickly in recent years.

In 2014, it generated revenues of around €639 million, and by 2019 this figure had passed €1 billion (Source: PWC), a growth rate of no less than 56%. And it is not just the number of gamers in the Netherlands that is growing: the number of jobs in the video game sector has also been rising. Between 2015 and 2018, the number of jobs in the sector increased by 10% every year. This growth has mirrored the growth in annual total revenues.

Although the video game sector is growing throughout the Netherlands, companies within the sector are often concentrated in certain locations. By far the highest number of the 3,850 jobs in the sector are located in Amsterdam (1,000 in total), followed by Utrecht and Eindhoven. The growing number of jobs and increasing popularity of gaming are also leading to more gaming-related educational programmes. In 2018, there were 44 gaming-related educational programmes in the Netherlands, 33 of which were full-time. Most of these are located in Utrecht (13) and Amsterdam (6). In Utrecht, many of the programmes focus largely on the development of 'applied games' - games designed to be used in the business sector for training purposes (for example, flight simulators). Because this relatively young industry attracts mainly young workers, Amsterdam and Utrecht already have an advantage in this respect. But Eindhoven, Rotterdam and The Hague also have strong fundamentals, partly due to their good accessibility and relatively young populations. The share of young people (15 to 30 years old) in these municipalities is relatively high, and this is the dominant age group within the sector.



Real estate use by gaming sector: increasing dynamism

Partly due to the growth described above, gaming is now also leading to a growing and quite specific demand for real estate.

This is evident from the growing number of real estate users within the sector, and the increasing amount of floor space that individual users are using.

Game developers, in particular, have already seen significant growth. For example, the Netherlands' largest game developer, Guerilla Games, moved into the former Telegraaf building in Amsterdam in 2019, with approximately 7,300 sq. m on five floors. Meanwhile, it is not only the more 'traditional' categories of real estate such as office and retail space that the games sector is making use of. Video arcades, concept stores, e-sports arenas and training centres are all growing, as the table below shows.

The Netherlands' best E-Sports team, Team Liquid, now has a base in the centre of Utrecht with a new training centre, for example. Since May 2020, Team Liquid is located in the building 'Het Platform'in Utrecht. They use this location right in the heart of the city's Central Business District to provide facilities for their e-sports team. This original office building has been fitted out as a training complex, including a restaurant, training zones, green-screen areas and relaxation areas. The number of video arcades has also increased significantly as the enthusiasm for video games continues to grow. Gamestate, an arcade operator which opened its first location in 2013, now has seven locations. Another fast-growing operator is TonTon Club, which has opened three locations in quick succession in Amsterdam. Their concept combines gaming with hospitality.

Players in the retail gaming segment are also adapting their strategy, opening more 'concept stores', designed as places to meet and try out games. This is because the social aspects of gaming are becoming more important, but also because games are increasingly sold as downloads instead of as 'boxed games'. One example of a concept store is the recently opened 'Game Mania' in Hoog Catherijne, which is designed as a place where clients can try out games and meet other gamers. These companies are entering the playing field at a rapid pace, but what kind of locations are they looking for?

Table Gaming and real estate: who are the current users?

User	Type of real estate	Examples
Developers	Office	Guerilla (Amsterdam), Triumph (Delft)
Gaming stores	Retail	Game-Mania, Nedgame
Competitive socialising / Video arcades	Leisure	Gamestate, TonTon Club, F1 Racing Centre
Educational institutions	Office	AUAS, UU, TU/e
E-Sports	Leisure	Team Liquid, H20 Campus Purmerend

Table Large gaming-related transactions, 2018 - 2020 ytd

Guerilla Games	Team Liquid	Gamestate	Formula 1 Simulator	Game Mania Concept Store
Central Amsterdam	Central Utrecht	Amsterdam Zuidoost	Wall Utrecht	Central Utrecht (Hoog Catherijne)
2019	2020	2019	2020	2018
7,300 sq. m	1,000 sq. m	1,250 sq. m	1,400 sq. m	150 sq. m

66 The Gaming industry is entering the real estate playing field at a rapid pace. Leading to a growing and quite specific demand for real estate ranging from office space to experiece centers 99

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Between approximately 400 and 500 additional jobs are expected to be created between 2020 and 2023

Outlook

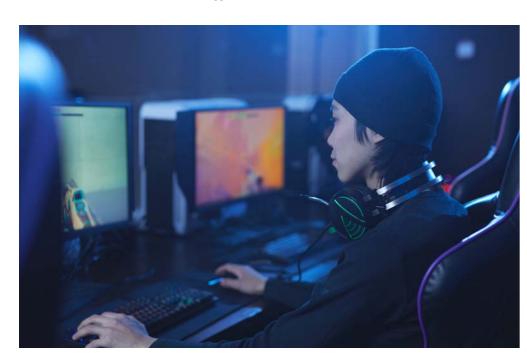
The growth of the gaming industry is expected to continue around the world, including in the Netherlands.

Although a limited slowdown is expected in the growth of annual revenues in the next few years, the total revenue of the games industry in the Netherlands is still expected to grow by 10% between 2020 and 2023. Based on this forecast, between 400 and 500 additional jobs are expected to be created between 2020 and 2023. As a result, the demand for office space in this sector will also grow.

However, the demand for real estate for the games sector shifted away from office space some time ago and the industry is more likely to require other types of real estate in the future. Savills expects the number of video arcades, concept stores and e-sports arenas to continue to grow. This is because the social aspects of gaming are growing steadily. As a result, the gaming industry will require an increasing amount of a specific type of real estate - in easily accessible locations and of a significant size.

This is partly because the social aspects of gaming are becoming increasingly important and, as a result, the need for providers to cluster is also increasing. In comparable sectors, we already see clustering in major cities. A good example is the Houthavens district of Amsterdam, which has become a hub for businesses in tech and fashion. The same applies

to the gaming sector, but there are more pointers when it comes to finding the right locations. The combination of an 'experience store', an e-sports arena and the presence of a development company and/or educational institution, all in close proximity, would create opportunities to combine the educational and professional aspects of the industry with the recreational aspects. It would also fit in very well with the current real estate trend towards 'living, working and recreation' all within the same area. The clustering process would lead to synergy benefits and cooperation, and would ensure that the sector can continue to professionalise. The creation of such a cluster would be simple. However, as mentioned, the demand profile of the gaming sector is specific. In addition, the sector would need to compete with other functions at the desired locations, with good accessibility within city centres. Finding the ideal location is not that straightforward. But it would certainly bring opportunities - in particular for investors in city centre locations, who are very likely to face rising vacancy due to the impact of the coronavirus pandemic on the Dutch retail landscape. If a gaming cluster can be encouraged in the right location, the sector could provide some very promising tenants for the future.



+10%

Total revenue of the games industry in the Netherlands is still expected to grow by 10% between 2020 and 2023

WHAT KIND OF SPACES ARE GAMING COMPANIES LOOKING FOR IN 2020?

In every sector, specific factors will play a decisive role in where they decide to locate. Unsurprisingly, then, the gaming and e-sports sector has its own criteria and preferences too. Savills has conducted research among various users within the gaming sector, which revealed a number of preferences:

What is notable is that users in this sector often prioritise high-quality power and internet connections. Buildings that provide these facilities as standard will automatically find favour. Because the market is highly international in character, good accessibility and mobility are also important factors. Companies often host business partners or customers from abroad, so good links to airports and the rail network are certainly another advantage.

Top 5 Top five criteria for real estate users in the games and e-sports sector

High-quality power and internet connections



Good accessibility / mobility

Visibility (





Flexibility in terms of own capital contribution



Floor and ceiling height (for competitive socialising)

Source Savills Research



Source Newzoo, PWC, Dutch Game Garden, NPD, CBS, Savills Research



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