

QUALITY INNOVATION AWARD 2023

The maximum length of the completed application is about 2-4 pages and max 5 attachments / 10 pages. Please send the completed application form to your local innovation competition partner. Please note that this form is for your reference only and that you should check which form is used in your country from your local competition partner. You can find the details here: <http://www.qualityinnovation.org/participate-now/>

The official name of the organisation LUDUS TECH S.L.		
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Competition category (please check mark the category of innovation. An innovation may only participate in 1 category).		
Potential innovations: For all innovations that are "still on paper" and have not been tested in the market yet		
Circular economy and carbon neutrality innovations - For innovations that have a clear environmental focus		
Health care sector innovations - For innovations in the health care sector		
Education sector innovations: For innovations in the education sector		
Public services innovations: For innovations in the public / municipal service sector		
Business innovations (Micro & startup): For companies with turnover less than 2 million EUR and less than 10 employees		
X Business innovations (Small and Medium): For companies with turnover less than 50 million EUR and less than 250 employees X		
Business innovations (Large): For companies with turnover more than 50 million EUR and/or more than 250 employees		
Has the innovation taken part into Quality Innovation Award in the past? If yes, which year and what are the main improvements made after that?		
Total number of employees 33		
The name of the quality innovation (max. 100 characters) LUDUS GLOBAL – Learn by living		
A short description of the quality innovation (max. 200 characters) LUDUS GLOBAL is the first European virtual reality platform focused on enhancing the work of health and safety trainers.		
<p>Description of the innovation (Explain the essence of this innovation, starting point, steps taken, resources used - human and financial - and a description of how the innovation has made a difference financially or environmentally)</p> <p>LUDUS GLOBAL is the world's leading on-demand virtual reality (VR) industrial training and education platform. It is the digital EdTech platform that is revolutionising traditional operator training through a series of hyper-realistic VR simulations that increase workers' knowledge retention through experiential learning, Learn by living.</p> <p>Learn by living is a training methodology that incorporates the opportunity to make mistakes and learn from the consequences. And the key to implementing this in the occupational risk prevention industry is virtual reality. In fact, the technology is a perfect match with the industry. Trainers can do trainings that would be dangerous and costly in real life with our platform. In addition, Ludus' innovative evaluation system allows the trainer to demonstrate that the trainee has fully mastered the safety process.</p> <p>LUDUS GLOBAL was created in 2020 by LUDUS TECH SL (LUDUS) a company created in 2016 and which is the evolution of the company Pulsar Concept SL, created in Bizkaia in 2011, by 4 young people who were dedicated to developing applications for third parties.</p> <ul style="list-style-type: none"> In 2014, before any VR hardware company brought their devices to the market, 4 entrepreneurs identified the need for sick leave, industrial accident rates, and saw the potential and benefits that virtual reality could bring to workplace training. They started to develop their own VR technology with the support of local and state institutions, becoming the European pioneers and leaders in the development of VR for industry. In a second phase of technology development, the focus was on customised projects for and with large companies and generating cutting-edge content. Having developed more than 100 ad hoc projects in VR projects for training and education for large industrial multinationals such as Naturgy, Ford, BASF, Cepsa, UBE, DHL... and a long list of others. with more than 150,000 hours of experience in the development of VR simulations for the industry, in early 2020 Ludus turned all its knowledge and experience into the creation of the VR SaaS Platform focused on training in industrial environments LUDUS GLOBAL Today this platform has more than 20 products, is used in more than 16 countries around the world by more than 150 clients between External Prevention Services and Own Prevention Services of large companies, which in 2022 have registered more than 19,500 trainings carried out that 19,500 training sessions carried out in 2022, which have made it possible to avoid numerous accidents, reduce accident-related costs and alleviate pressure on the environment. (see appendix). https://www.ludusglobal.com/en/pricing <p>LUDUS, currently headquartered in Bilbao and with a delegation in Mexico.</p> <p>It employs 40 people (less than 15 in the days of the consultancy) and has an important shareholding, as well as a powerful network of partners. Led by CEOs who have been able to raise several rounds of investment totalling around 8 million euros in total, it currently finds its most representative economic turnaround, in the economic change, in the conceptual change of the business model that involves centring the financial soul of the company around the MRR (non-existent in customised projects), which is growing exponentially on an annual basis as well as its workforce.</p>		

INNOVATION

Self-assessment of the innovation's novel features. How the innovation does fulfil and/or exceed the customers, society's or the environment's needs in a new or significantly revised way?

LUDUS GLOBAL innovation meets and exceeds customer needs by providing immersive, accessible training.

The platform adapts to different sectors and requirements, and its SaaS business model provides convenience and flexibility. In addition, constant upgrades and updates ensure that customers always have access to the latest and most effective training solutions.

For both external prevention services as well as own prevention services in large companies this new training modality saves direct costs related to training needs as well as those related to possible materialisation of accidents, thus making training more cost-effective.

<https://www.ludusglobal.com/en/how-virtual-reality-benefits-hse-training-courses-for-companies>

<https://www.ludusglobal.com/en/how-external-prevention-services-can-increase-their-earnings-with-vr-by-ludus>

On the other hand, it meets the needs of society by democratising VR training and promoting safety at work.

It also meets the needs of the environment by reducing resource consumption and emissions associated with traditional training.

Its novel and significantly revised approach contributes positively to society and the environment, promoting more sustainable development.

<https://www.ludusglobal.com/blog/entrenar-extincion-incendios-sin-impacto-ambiental>

Ludus enjoys its worldwide positioning thanks mainly to the key differences with the three main potential competitors, PIXOVR, Immersive Factory and IMMERSE. **First of all, we are differentiated by a 100% in-house technology** and also, first and foremost, the end user, who is the trainer and not the student, the volume of contents offered and continuously updated as well as the possibility of online and offline use, the degree of realism of the simulations and, finally, the target markets.

The innovative character of LUDUS has been reflected in the double nomination as a finalist in the Prevencionar 2022 Awards

in the categories of COMPANY OF THE YEAR (SME) and PREVENTIVE INNOVATION and in the AIXR VR AWARDS in the category of TRAINING & EDUCATION CATEGORY. Ludus has also been recognised as one of the 13 Basque startups of the future of education <https://startupill.com/13-best-pais-vasco-education-startups-the-future-of-education/> and has been included in the 101 most-innovative Spain based virtual reality companies startups <https://futurolgy.life/101-most-innovative-spain-based-virtual-reality-companies-startups/>. Finally, the numerous press appearances consolidate the recognition and interest in this great innovation. (see appendix).

<https://www.eleconomista.com.mx/capitalhumano/Metaverso-y-trabajo-Como-llevar-los-entornos-laborales-a-la-realidad-virtual20220505-0098.html>

<https://forbes.do/tecnologia/2023-03-22/entrenamiento-mediante-la-realidad-virtual-impacto-inmediato-en-las-organizaciones>

Self-assessment of usability. How is the innovation applied in practice? Is it done systematically and according to a plan within the organisation? Is the innovation usable?

Innovation is the DNA of Ludus, since its creation it has not only innovated in the value proposition it makes, but it has innovated in all internal areas of the company. The change to the new business model, **going from being a consultancy firm to having a SaaS business model, allows innovation in any area of the company.** In production, agile methodologies have been adopted, in marketing the latest trends in positioning and SEO, in People practices such as Inbound recruiting, etc. Since 2020, the entire management of the company has undergone radical changes in terms of processes and procedures, in addition to the structure itself. New departments, positions and workflows have emerged. The usefulness of the innovation is reflected in improved efficiency, quality, customer satisfaction and the exponential growth of the company in terms of both turnover and staff.

In 2022-23, an integrated management system (ISO 9001 and ISO 45001) has been implemented and certified in order to unite and consolidate innovation in interrelated processes and procedures, ranging from procurement to commercial management, clearly including the production of simulations and the management of the platform itself, within a framework of continuous improvement. In addition, to complete the quality assurance of the service provided and the operation of the company itself, **an information security management system is being implemented to respond to one of the major social concerns of the moment.**

Although the current focus (market niche) of LUDUS is the training sector in the industrial field and the main clients are SPA and/or SPP, as well as vocational training centres or some universities, **it is a technology/business model applicable to other purposes and other sectors.**

Currently, although there are isolated projects in this sense, **initiatives are being carried out to position the platform in other sectors that are very sensitive to occupational health and safety, such as construction, with the support and direct participation of key agents in each sector.**

The system created by Ludus could be extrapolated to other training activities beyond OHS, such as quality, machine operation, technical training, language training, or soft skills for example. It can also be complemented with other types of products and services based especially on technologies such as AI, BigDATA, data analysis, etc. We are in indeed working on a project to complement the platform with a statistics engine aimed at providing useful information to facilitate business decision making based on the convergence of these technologies.

Finally, it is very important to highlight the recognition that the platform is also achieving in the European R&D environment, having been introduced as a **validation platform for other technologies developed by the main international research and technology centres (Politecnico di Milano, Fraunhofer-Gesellschaft, DKI, Tecnalia, etc.) in the framework of projects financed by the most important European research programme, HORIZON EUROPE.**

Learning. Is the innovation based on a new idea or discovery? Is the innovation based on a systematic development process? Does the innovation extend an existing knowledge or practice?

In 2014, before any virtual reality hardware companies had even launched their devices on the market, there was a realisation of the need to reduce workplace accidents, and the potential and benefits that virtual reality could bring to the market.

The need to reduce workplace accidents, and the potential and benefits that virtual reality could bring to training in the industrial sector to that end.

The innovation arose after having developed more than 100 ad-hoc projects for large multinational companies from which it was deduced that there were a number of patterns that could be exploited to create synergies between product standardisation projects through the development of simulations valid for any industry initially, but applicable today to any field of work and/or common life in some cases, and marketing as SaaS in order to democratise the benefits of training through VR.

The innovation is based on existing knowledge or practices that were innovatively applied in the context of virtual reality and training. On the one hand, VR technology has been brought to an area where it has not yet been exploited.

On the other hand, the training sector has been modernised and digitalised. Today, LUDUS GLOBAL is used in the training of both industrial operators and future operators in the academic sector.

<https://www.ludusglobal.com/en/blog/learn-by-living-virtual-reality-vr-hse-training>

Furthermore, within the framework of our continuous improvement process, as mentioned above, there are projects that are born from the systematic analysis of our customers' demand, and others are being initiated to go a step further in the value chain from VR training to the possibility of reliving, when necessary, these virtual experiences in the workplace itself, during the performance of the job functions through augmented reality.

QUALITY

Self-assessment of customer orientation. How does the innovation correspond to stakeholders' and customers' current and/or future needs? How does the innovation meet and exceed their requirements and expectations?

HSE training needs to evolve, as it is one of the fields that has evolved the least in the last 40 years.

Applying the benefits of new immersive technologies AR, VR; XR to training is essential. Each of these has its own main role in each area of training. The LUDUS GLOBAL platform corresponds closely with the current and future needs of customers in the field of training. **Virtual reality offers an interactive and immersive approach that allows users to experience real situations safely and effectively, maximising information retention.**

This responds to the need for improved training in the industrial sector, where safety and efficiency are priorities that need to be worked on from academic education and trained in the workplace.

LUDUS GLOBAL meets and exceeds the requirements and expectations of customers by providing a comprehensive and parameterised solution.

The platform offers a wide range of simulations valid for any sector, which allows it to adapt to the needs of each client. In addition, it is marketed as SaaS, which provides flexibility and ease of access to customers and is complemented by training services for trainers in an extensive onboarding process. The SaaS business model and the online onboarding we have in place allow for automatic distribution, order processing, and installation at any customer anywhere in the world. This is what allows us to have customers in Malaysia, Sudan, Mexico, Oman... etc.

LUDUS GLOBAL's innovation also exceeds expectations by providing a more effective and attractive training approach.

Virtual reality provides an immersive, hands-on experience, increasing knowledge retention and improving user performance.

This goes beyond traditional training methods and meets expectations for more efficient and engaging training. **The involvement of the trainers has been essential to meet their expectations.** From the beginning, the company has worked closely with trainers to understand their needs and expectations.

Trainers have been involved in the process of designing and developing the simulations, providing feedback on the topics to be covered, the skills to be taught and the techniques to be used. Trainers have also been involved in the testing of the simulations, providing feedback on the ease of use, effectiveness of the training and overall attractiveness of the simulations. **The involvement of trainers has enabled Ludus to create simulations that are educational, engaging and effective.**

In addition, the LUDUS GLOBAL platform is constantly updated and evolving to meet the future needs of customers.

In order to maximise the added value of our platform, new simulations and functionalities are regularly introduced, in most cases as a result of consultative processes carried out with our clients themselves, **demonstrating a continuous commitment to innovation and improvement of the customer experience.**

Self-assessment of effectiveness. How has the innovation improved technological and commercial performance with regard to the customer and environmental/ social responsibility?

In relation to technological performance, the change of business model and the creation of a virtual reality training platform **has enabled the reproduction of risky and costly situations without the need to materialise them and which can also be repeated infinitely in a way that is accessible to many companies.**

A construction company, for example, can use a VR simulation to train its workers on how to work safely in a high-risk area, such as a scaffold or an excavation. The simulation can realistically recreate working conditions, including heights fall hazards and weather conditions or risks associated with operating machinery or tools. **This enables workers to practice their skills, procedures and emergency responses safely and without risk of injury.** On the other hand, there is no need to interrupt processes and no need for materials expenditure, thus providing overall savings.

From a business perspective this has meant exponential growth and the incursion and positioning in new markets. This year in particular, the MRR (Monthly Recurring Revenue - indicates the amount of revenue a business generates on a monthly basis) is expected to double from last year. The MRR expresses what you can expect to earn consistently over time). It is expected to grow from an MRR of 120.000€ to 240.000€. A subsidiary was established in Mexico by the end of 2022 and is currently making inroads into the Middle East market.

Finally, due to the nature of the technology, this is effectively contributing to the reduction of environmental impacts related especially to the consumption of resources, atmospheric emissions and waste generation by numerous companies around the world (For example, according to data collected by the platform itself, every month 1200 virtual fire extinguishers are emptied, equivalent to approximately €18,000 and a significant amount of atmospheric emissions, as well as waste generation). In addition to **offering the possibility of contracting the hardware through leasing, this also means giving a second life to equipment that would otherwise fall into disuse.** Finally, from a social perspective, it is actively contributing to alleviating the scourge of workplace accidents.

In view of the sales trend (during the first three quarters of 2023 the annual quota of 2022 has doubled) and customer satisfaction (3.7 points out of 5 in 2022, measured annually), which is reflected in a renewal rate of almost 100%, **a strong expansion and growth is foreseen for the coming years, which could reach 5 million euros and 100 people employed by 2025.**