# GLEECHI
## VIRTUAL REALITY EST. 2014

Foundation in robotics. Experience of gaming and healthcare.

Over 30+ published papers on interaction and leveraging a background in scientific **research.**

Today the focus is 100% practical hands-on training for the industry.

*Natural hand interaction made possible in VR*

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# REQUEST FOR TENDER

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Gleechi AB, reg. no. 556975-8658, (**"Gleechi"**) was declared bankrupt on 28th August 2023 by the District Court of Stockholm, Sweden. Johan Hörnberg, the law firm Schjødt AS, filial, was appointed as Official Receiver in the Bankruptcy.

Gleechi is a Swedish technology company specializing in cutting-edge software solutions within the domains of virtual reality hand interaction, as well as virtual training and education. Gleechi's training platform enables industry companies to create, distribute and track virtual trainings. The technology is based on extensive interaction research at KTH and has been prized by IEEE and MIT. The training platform includes a number of software tools that together enables high-quality training experiences for hard skill tasks. Further, Gleechi provides the VirtualGrasp™ software, an interaction engine that facilitates real-time movement and interaction for artificial hands in various domains, including virtual reality and robotics. VirtualGrasp™ automates hand movement and interaction animations, unlocking entirely new realms of realistic training and gaming experiences in VR.

Gleechi's software solutions are paving the way for the next generation of immersive training within the metaverse. Notably, the software has already proven successful in helping students throughout Europe learn through virtual hands-on training from the comfort of their homes. It has been demonstrated to reduce training time while enhancing the learning outcomes of education.

The Bankruptcy Estate of Gleechi is now offering the business for sale. This business package encompasses the VirtualGrasp™ technology, Gleechi's Virtual Reality Training Platform, training content, established commercial contacts, and a robust team comprising experienced leaders, world-renowned interaction researchers, and highly talented VR developers and 3D artists.

The bankruptcy estate is continuing the business during the tender process.

Enclosed you find a presentation of Gleechi's business and the tender process. For more information about Gleechi, please visit https://www.gleechi.com/.

For additional information and invitation to the dataroom (AdminControl), please request a copy of the Non-Disclosure Agreement and submit via e-mail to: tommy.hallsten@schjodt.com.

**Interested parties shall submit a written tender by e-mail to tommy.hallsten@schjodt.com. Last day for submission of a written tender is 25th September 2023.**

The Bankruptcy Estate reserves the right to (i) in its sole discretion evaluate any tender, (ii) sell the business or parts of the business before the tender period has elapsed and (iii) extend the tender period.

All information provided in this tender document has been provided by Gleechi. The Bankruptcy Estate does not make any guarantees regarding the correctness of the information in this document or other information provided in the tender documents, appendices and the data room.

Schjødt

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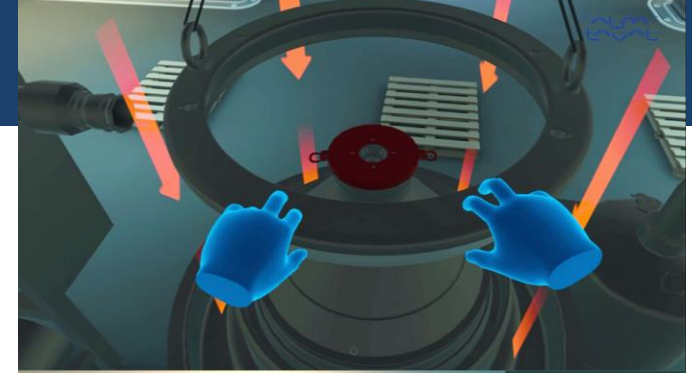
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# INTRODUCTION
## GLEECHI'S VIRTUAL REALITY TRAINING PLATFORM



**Gleechi's Virtual Reality Training Platform**

Gleechi develops software solutions to enable the next generation of immersive training with the help of the metaverse. The software is successfully helping students across Europe to learn through virtual hands-on training from their homes, and has been proven to reduce time spent in training for as well as enhancing the learning effect from the education.

Gleechi's Training Platform is a software suite of no-code tools to enable simple development, deployment and maintenance of hands-on VR training at a scale. The software shortens the process of building new VR trainings with more than 80% and is compatible with the most popular VR headsets on the market. The Platform includes a number of software tools, such as:

- The step manager: a tool to setup and organize hard skill trainings as well as allowing clients to edit instructions and languages through simple web-based interfaces.
- The Assessment centre: an easy-to-use web tool for in-depth insights into how students perform.
- Room editor & 3D object importer: sculpture your own environments and import custom 3D objects.
- Learning framework:  a science-based pedagogical framework developed in-house over several years, based on multiple studies conducted together with leading research institutes and education providers.
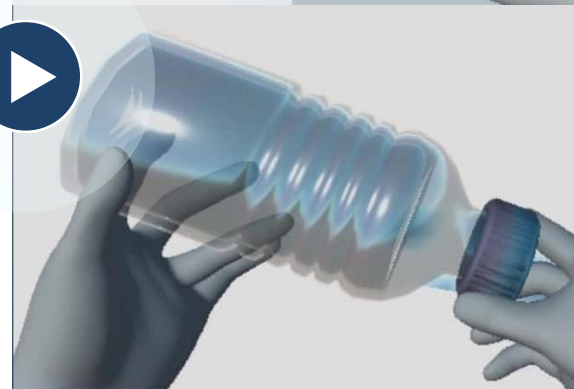
# INTRODUCTION

VirtualGrasp™

**VirtualGrasp™ Technology**

Based on 8 years of robotics research, Gleechi provides the software VirtualGrasp™, an interaction engine that creates real-time movement and interaction for artificial hands in areas including virtual reality and robotics.

VirtualGrasp™ automates the animation of hand movement and interaction, opening up entire new fields of realistic training and gaming experiences in VR and AR.

- The result of eight years of world-class robotics research at Sweden's Royal Institute of Technology.
- Published across 30 papers and awarded best manipulation research by renowned IEEE.
- Trade secret protected and patent pending. Compatible with hardware ranging from handheld controllers and finger-tracking to mouse & keyboard.



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**MiT | SOLVE**

Awarded the "Work of the Future" solution from MIT Solve

**XPRIZE**

Xprize Foundation Rapid Reskilling

**eit Digital**

European startup competition "EIT Digital Idea Challenge" winner

**GM**

Winner of "The General Motors Prize for Advanced Technologies"

**Sting**

Awarded "Startup of the year" by the startup accelerator Sting

**NyTeknik**

One of "Sweden's hottest startups" 2018, 2019 and 2021 by Ny Teknik

**IEEE**

Best Manipulation Paper Award at the ICRA conference

**European Innovation Council**

Supported by the European Innovation Council

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# INTRODUCTION
## CLIENTS, PARTNERS AND AWARDS

**CLIENTS**

MARIESTAD
ABB
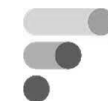SAINT-GOBAIN
SAAB
SCANIA
BILLERUDKORSNÄS
FLIR

ÖREBRO UNIVERSITET
Region Örebro län
ALFA LAVAL
Yrkes Akademin
Fagskolen Oslo
Helsinki StadinAO

**AWARDS**

33listan
ALMI INVEST
GM
STING STARTUP OF THE YEAR

**RESEARCH PARTNERS**

cea
RISE
Lernia

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# THE PROBLEM

DESPITE MASSIVE TRAINING SPENDINGS, BLUE-COLLAR WORKERS LACK NECESSARY TOOLS TO LEARN SKILLS

€300 bn — spent on corporate training yearly - expected to grow at a 9.4% CAGR

70% — of training content is forgotten within 24 hours and nearly 90% in a month

90% — of executives agree that existing employee training methods in their workplace need to be more effective

€14 million — per 1,000 employees is lost yearly due to ineffective training

# AN EMERGING SOLUTION

Virtual Reality training is rapidly emerging as an invaluable training tool:

**400%** faster learning compared to traditional methods

**90%** of workers can do a better job after Gleechi's VR training

**35%** reduction in errors after using VR training

However, VR development has for long been too expensive:

! For VR to be deployed, customers demand customization, high quality and full end-to-end solutions

! VR is mainly provided by consultants developing the VR-application from scratch – expensive and slow
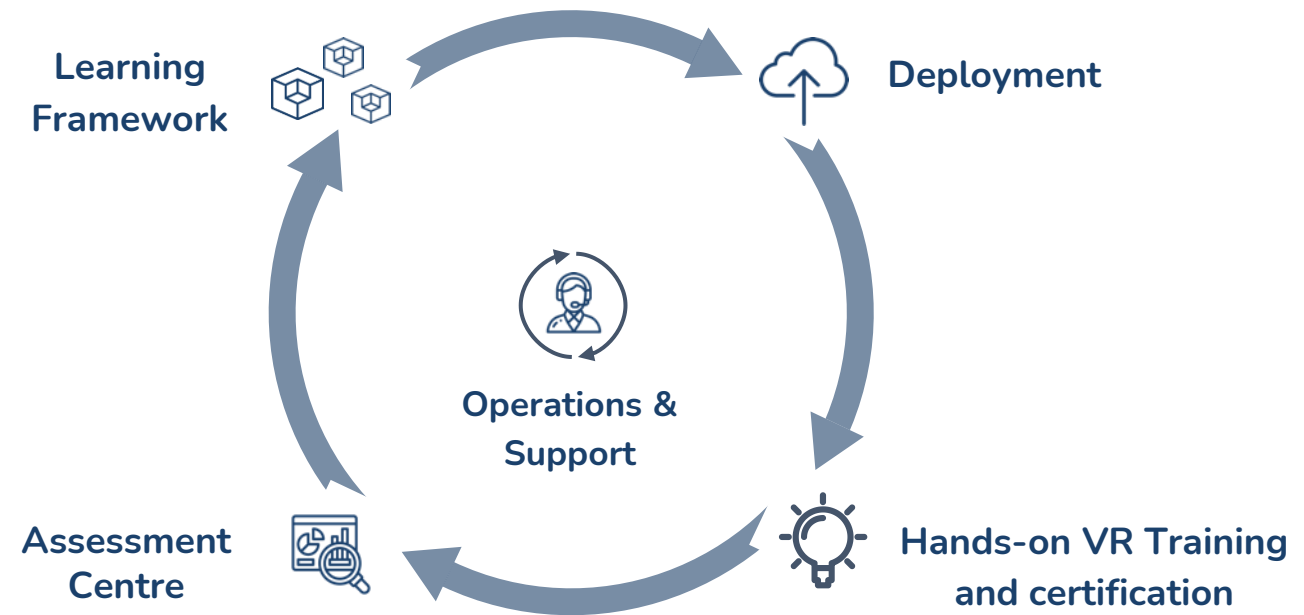
! Projects tend to get stuck in prototyping – fail to deploy and no plan for maintenance

# THE GLEECHI VR TRAINING PLATFORM

Gleechi VR Training Platform enables **set-up of customized trainings in hours**, with no coding needed.

- Creation tools combined with content packages enables customers to create and update trainings themselves.

- The unique interaction engine **VirtualGrasp**, coming from 8 years of robotics research awarded by IEEE, enables the first scalable approach to hands-on learning. Proven to enhance memory retention with 54% and sense of presence with 43%[2]

- Assessment centre providing in-depth insights into user performance, turning training transparent.

**Learning Framework**

**Deployment**

**Operations & Support**

**Assessment Centre**

**Hands-on VR Training and certification**

# BUILT ON VIRTUALGRASP™ TECHNOLOGY
## HANDS-ON TRAINING MADE POSSIBLE IN VIRTUAL REALITY



Developed from over **eight years of published research**, initially in the field of advanced robotics.

Converging in Virtual Reality and providing the **most advanced natural hand interaction technology** available on the market.

Natural hand interaction **makes learning hard skills possible** - using your hands to interact and perform training tasks.

The freedom of interaction **makes Virtual Reality far more immersive** and makes it possible to make mistakes - enabling learn-by-doing.

### VIRTUALGRASP TECHNOLOGY

Leveraging the core technology to provide a no-code creation platform - Virtual Reality becomes the paintbrush.

### GLEECHI VR TRAINING PLATFORM

Use VR to customise ready templates to create stunning VR training scenarios that reflect business-specific requirements.

# LEARNING FRAMEWORK

## INTUITIVE AND INCLUSIVE VIRTUAL LEARNING ENVIRONMENT

The research-based learning framework developed several years is based on multiple studies and well-established learning methodologies and frameworks from the real world and translates them into the virtual context. The learning framework addresses how people best learn in 3D environments including everything from how instructions are provided to comfort, intuitive, bite-sized training modules and optimised learning patterns.

### VR STRESS REDUCTION

High frame-rates, plasticity from shaders and static locomotion systems reduce motion sickness and relieve stress.

### BITE-SIZE TRAINING

Learning in VR is highly effective since all noise and disturbances are excluded. Learners can focus up to 20 minutes at most for the most effective results, which is why the modules are between 2 up to 20 min long.

### PATTERN RECOGNITION

Humans crave and quickly learn patterns. Gleechi harness to create trainings where users learn by doing not by instruction.

### NATURAL INTERACTION

Virtual grasp offers muscle memory and the ability to learn by trial and error in a realistic hands-on training environment.

### COLOR VALUES

Colour coded norms as part of the objects define call to actions, direction, progress and success which become intuitive in context..

### INCLUSIVE TRAINING

Based on research and follows accessibility best practices accommodating reading, and colour disabilities and attention deficit disorders.

# GLEECHI ASSESSMENT CENTRE

## AN EASY-TO-USE WEB TOOL TO TURN TRANING TRANSPARENT

The Gleechi Assessment Centre is included in all training programmes and provides user management functions and in-depth insights into how students perform.

As students interact and progress through VR training, their progress is automatically collected, and the data is seamlessly transformed into easy-to-understand and actionable insights.

### QUALITY & CONTROL

To support a quality program, you will be able to follow that everyone has the knowledge and know the processes agreed. This will also be the source of truth reporting to authorities if needed.

### DATA SAFE

User data is carefully stored in our secure cloud, fully compliant with GDPR and with storage options across multiple regions.

### BUILD A LIBRARY

Manage all your VR training programs with Assessment Centre. Distribute control and publish your courses to different parts of the organization.

### YOUR BRANDING

The Assessment Centre can be branded with your company logo to give users a cohesive experience.

### SELF-SERVICE

User administration, access rights, quiz and labelling customization provides complete control over your user training experience.

### PRE-INTEGRATED & LMS

No technical setup or integration is required - users who are added are automatically configured and ready to start training. Use it as is or connect to the LMS of choice.
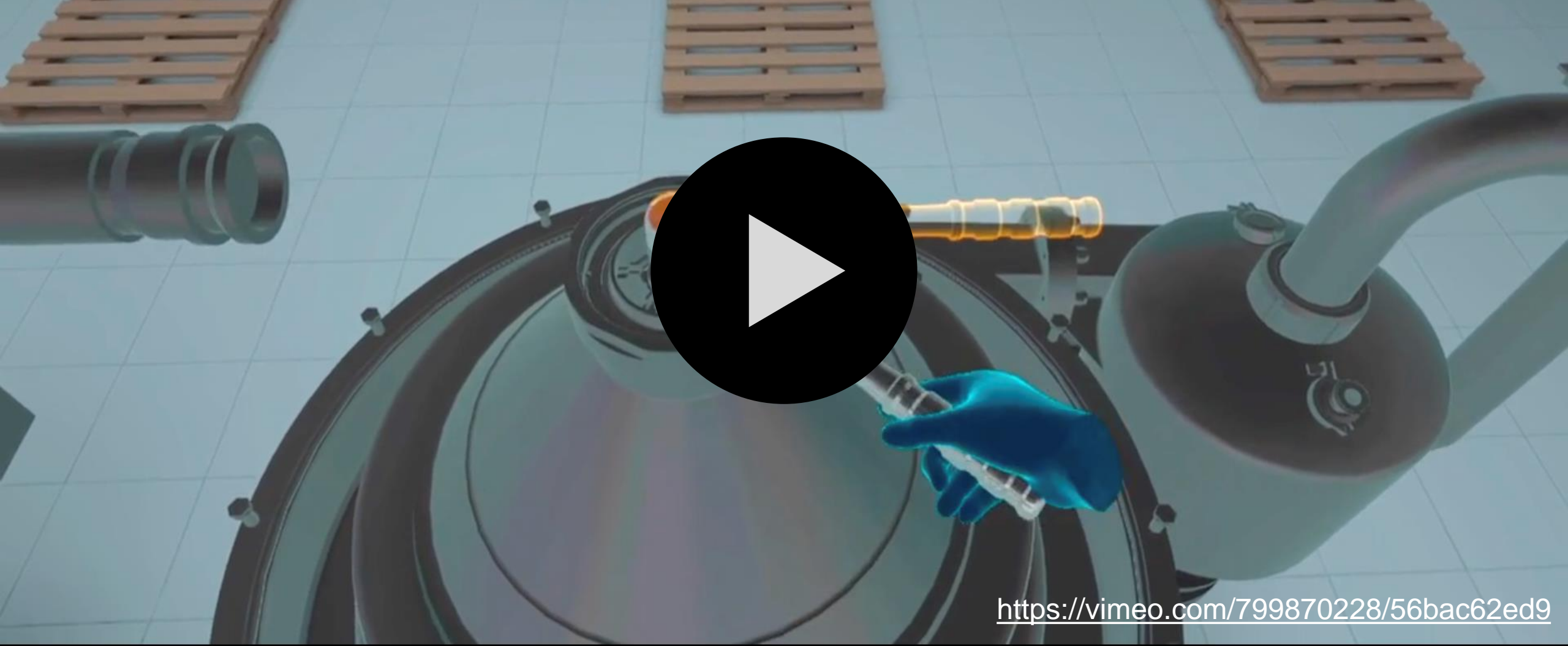
### UNIQUE INSIGHTS

VR makes it possible to gain a greater depth of understanding, enabling students to be given more focused help and support.

# DEMO: GLEECHI PLATFORM



https://vimeo.com/655743959/c8b81285c3

DEMO: SHOWREEL

https://vimeo.com/799870228/56bac62ed9

# BUSINESS MODEL
## VR TRAINING AS A SERVICE

### ANNUAL SUBSCRIPTION: €420 PER SEAT

- Annual licenses paid up-front; traditionally low churn industry.
- Focus on mid-sized enterprise clients.
- Target group: est. 80 000 clients.
- Launched subscription model in 2022. Growth from 0 to €100 000+ ARR (~250 licenses).
- More than 90% of users recommend Gleechi's VR training as a training tool.

TRUSTED BY:

YA Yrkes Akademin    ALFA LAVAL    ABB    FLIR    SIEMENS    SAAB

## TEMPLATE TRAINING PACKAGES:

**STERILE TECNICIAN TRAINING**
Bite-sized training for sterile technicians / equipment preparers.

**DENTAL NURSE TRAINING**
Bite-sized training for Dental Nurses.
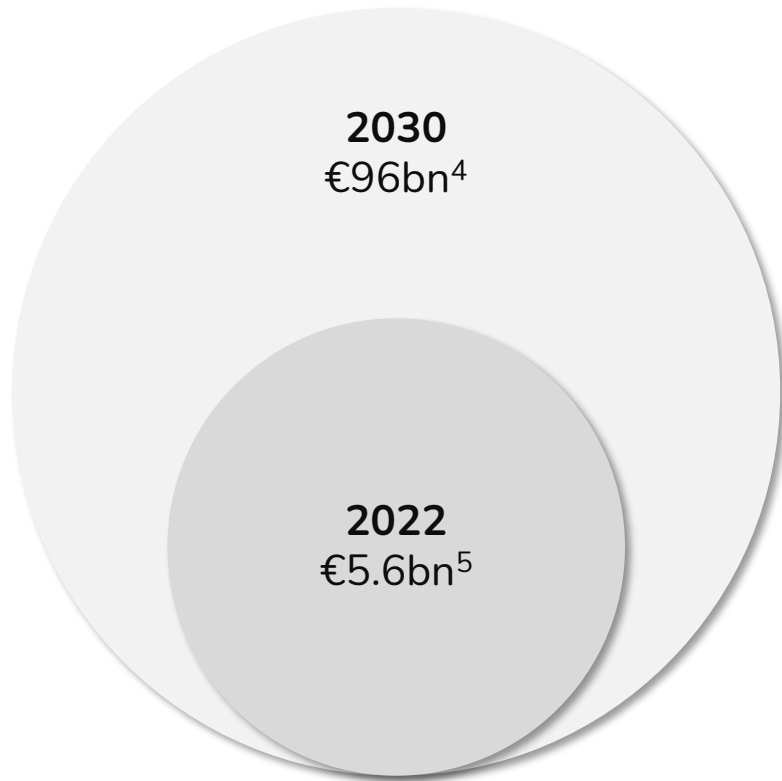
**PROPERTY MAINTENANCE TECHNICIAN**
Property maintenance technician training.

**CRANE TRAINING**
Crane training to enable operators to practice.

# MARKET & TRENDS

**2030**
€96bn[4]

**2022**
€5.6bn[5]

The enterprise Virtual Reality
training market

- Talent crisis in manufacturing industry with **11 000 baby boomers** retiring each day, while Generation Z employees stay on average 2 years & 3 month at a workplace.

- **Rapid adoption of VR** among enterprises driven by pandemic, reduced hardware prices and new enabling software tools:

  o Price of hardware reduced from €1 500 in 2018 to **€260 in 2021.**

  o **60**% of executives expect to **raise spending on virtual training tools** after the pandemic.

  o Gleechi VR implementation reduced from **5 months in 2020 to 2 days.**

  o Adoption among **SMEs launching at full scale,** e.g. YrkesAkademin & Stadin with less than 300 employees.

  o **23 million jobs** expected to rely on immersive training by 2030.

# MAKING VR SCALABLE

|  | IMPLEMENTATION | COST | CUSTOMIZATION | HARDWARE | LEARNING |
|---|---|---|---|---|---|
| CONSULTANCY | 5-10 months | €50 000 – €250 000 | Manual | Rebuild | As good as real life |
| GLEECHI | 1 day to 5 weeks | €35 / user & month | By client | Independent | +54% |

# TEAM

Strong team comprised of experienced leaders, world-leading interaction researchers and highly talented VR developers and 3D artists

- Gleechi combines world-leading robotics expertise with business-oriented and awarded entrepreneurs.

- Gleechi has a truly international team with 10 people from 5 different countries sitting together in the same office in Stockholm to create the world's best solution for interactive VR training.

- The team has competence ranging from PhDs to experienced game developers.

## RECOGNITIONS & AWARDS

- Awarded best "Work of the Future" solution by **MIT Solve and General Motors**, prize: €30k
- Awarded by renowned **XPrize Foundation** to use VR to upskill underprivileged workers in US, 2021
- Listed as one of **Sweden's 33 hottest tech startups** by renowned tech magazine Ny Teknik, 2021
- Receiver of **€2m EIC grant**
- Best Manipulation Paper Award at **IEEE**

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# GET IN CONTACT

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Partner

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# Appendix

# DENTAL NURSE VR TRAINING

The dental clinic simulator is delivered using Virtual Reality and comes complete with the tools and instruments that dental nursing students encounter in a real dental clinic. 28 bite-size trainings from 5 to 20 minutes.

Website: https://www.dentalvr.academy/

All modules: https://www.dentalvr.academy/modules

## New modules December 2022:

**PROPHYLAXIS TREATMENT**

Practice performing a standard Prophylaxis Treatment with plaque disclosing and polishing.

**FILLING TREATMENT**

Learn how to properly prepare for a filling treatment, including which instruments and objects are needed and how to set them up properly.

**ENDODONTIC RINSE**

Learn how to clean and prepare a tooth for a root canal.

**ENDODONTIC FILLING**

Learn how to work through a Root Canal procedure as well as the consequences of a procedure that has not gone as planned.

**X-RAY TREATMENT**

Practice taking x-ray pictures based on different patient cases.

**TEETH AND BITE EXAMINATION**

Examine teeth and bite, and identify quadrants and teeth.

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# STERILE TECHNICIAN VR TRAINING

Sterile technician training provides unique challenges for conventional training, requiring access to specialized equipment and tools in a clean environment.

The sterile technician training program comprises three training rooms, offering washing, packaging and storage. Each room focuses on specific skill sets, such as preparing instruments for washing, using sterilization equipment and manual inspection.

Participants can gain invaluable hands-on experience with the ability to repeat and practice infinitely.

Website: https://www.gleechi.com/products/sterile-technician-training

**The essential sterile technician training**

- Daily equipment inspection
- Check-in of surgical tools
- Packing for washing
- AGS loading and preparation
- Evaluation of washing process

- Handling of failed instruments
- Visual inspection of instruments
- Lubrication of instruments
- Packaging of instruments for
- Autoclave operations

- Evaluation of sterilization process
- Evaluation of process curve in T-Doc
- Selection of Autoclave program

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# PROPERTY MAINTANENCE VR TRAINING

The property maintenance simulator is delivered using Virtual Reality and comes complete with the tools and instruments that students encounter in a real world situations. 5 Scenarios including 10-20 problems to address, reflecting a workday as a property maintenance technician.
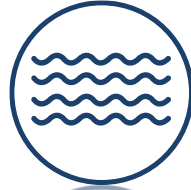
Website: https://www.gleechi.com/products/property-maintenance-training

**Power cut**
The building suddenly goes dark, and it's up to you to figure out what happened and how to get the power back on.

**Airflow**
An unexpected airflow has been discovered in the ventilation system and you need to determine the cause.
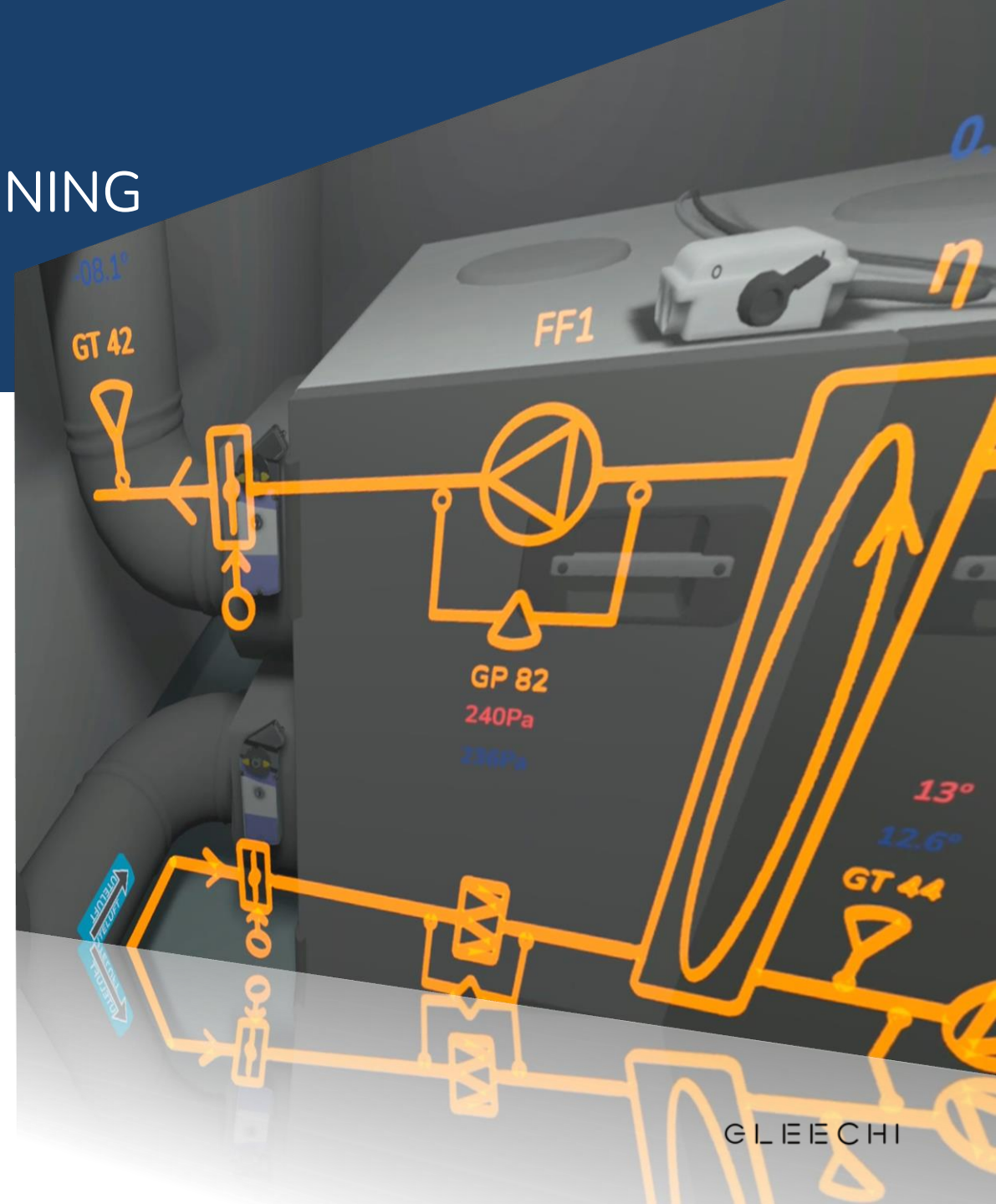
**Waterflow**
The ventilation system has an undesired flow of water, and you need to figure out how to solve it.

**District heating**
Your teacher asks you to identify various parts of the intricate heating system and perform a step-by-step diagnosis.

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# OVERHEAD CRANE VR TRAINING

The overhead crane training simulator is delivered using Virtual Reality and comes complete with a number of different types of scenarios based on real world situations. 6 different scenarios of different difficulty levels, real physics and various challenges for the user, reflecting a workday as an overhead crane operator.

Website: https://www.gleechi.com/products/overhead-cranes-training

**BASIC CONTROLS – LEVEL 1**
Practise your coordination using the two-handed crane controller. Get acquainted to the environment and prepare for more advanced training.

**SIMPLE PATH – LEVEL 2**
Lift the piece of cargo and move it along a straightforward path. Understand how to operate the overhead crane in a basic scenario.

**SWAYING CARGO – LEVEL 3**
Learn and improve the ability to stabilise cargo that is caught in a turbulent swing.

**OBSTACLE COURSE – LEVEL 4**
Navigate the cargo through a challenging obstacle course. Move around in the environment to get the best point of view.
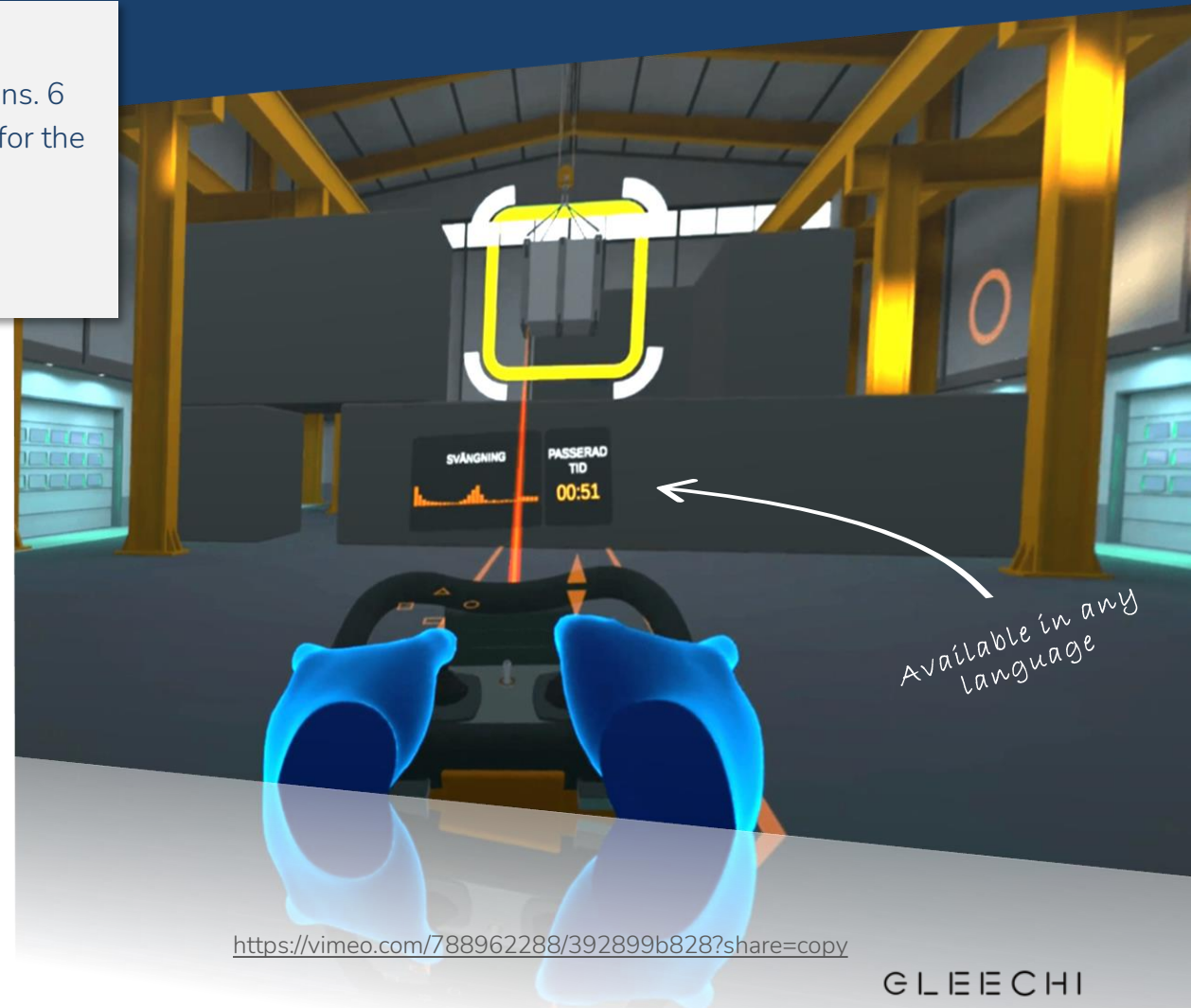
**SMOOTH MOVEMENT – LEVEL 5**
Refine your abilities to move the cargo in steady movements, while still following the path of cargo movement.

**CONSTANT VELOCITY – LEVEL 6**
Get used to moving the cargo at a constant speed without stops while keeping a steady pace, avoid obstacles and avoid swaying cargo.

*Available in any language*

https://vimeo.com/788962288/392899b828?share=copy

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