

# Prototype Portfolio

EmTech Labs Middle East

## Our Labs

EmTech Labs have delivered  
**+100 prototypes & experiences**  
supporting our people and clients

**Our mission** is to inspire, innovative and help disrupt the firms traditional ways of thinking. We create rapid prototypes and experiences for both the firm and our clients, whilst working with regional and global tech teams, startups and universities. The focus is to solve real business problems using emerging technologies that delivers value for our clients.

Decked out with the latest state-of-the-art tech, our labs are designed in a way that fuels the team's creativity whilst also inspiring our clients. The team is comprised of creatives, developers and UX designers and focused on having a youth driven culture.



Dubai Lab, **UAE**



Riyadh Lab, **KSA**



Doha Lab, **Qatar**



Amman Lab, **Jordan**



Cairo, **Egypt**

## Industries of Focus

The deck aims to capture our use cases in the following industries:

Financial  
Services

1



Retail &  
Consumer  
Markets

2



Education

3



Energy,  
Utilities and  
Resources

4



Sports &  
Entertainment

5



Health  
Industries

6



Real  
Estate

7



Transport &  
Logistics

8



Hospitality &  
Tourism

9



Cybersecurity

10



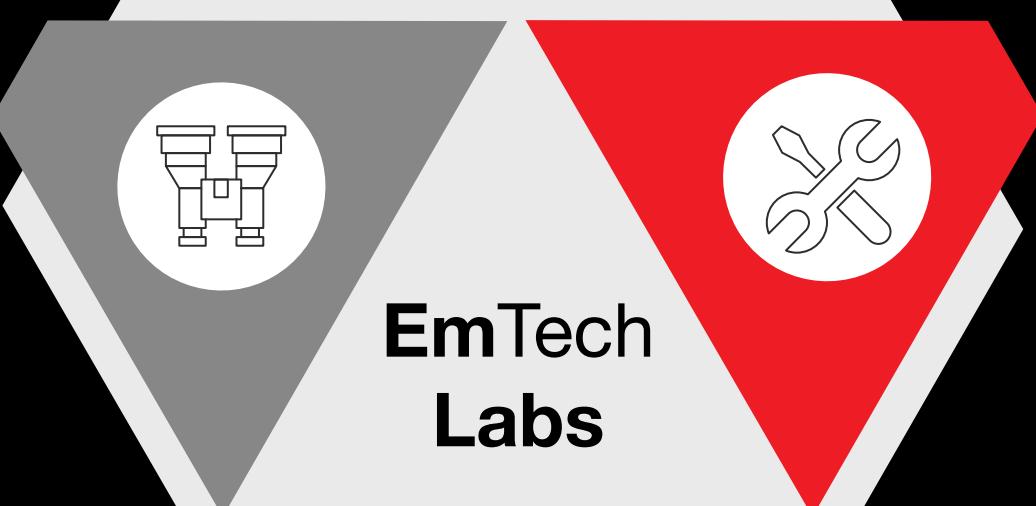
Additionally, we monitor tech trends within several major industries and create awareness about ***what's next in tech.***

## Prototyping Cycle

We create rapid prototypes to disrupt our firm and present new opportunities to our clients using innovative and iterative methods

*Ideators & researchers help us identify business problems and tech trends, while scoping and shaping them into tangible prototype ideas*

### Research



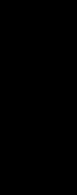
### EmTech Labs

### Build



*Developers & engineers help us create innovative and disruptive prototypes using emerging tech that we can demo and scale*

### Experience

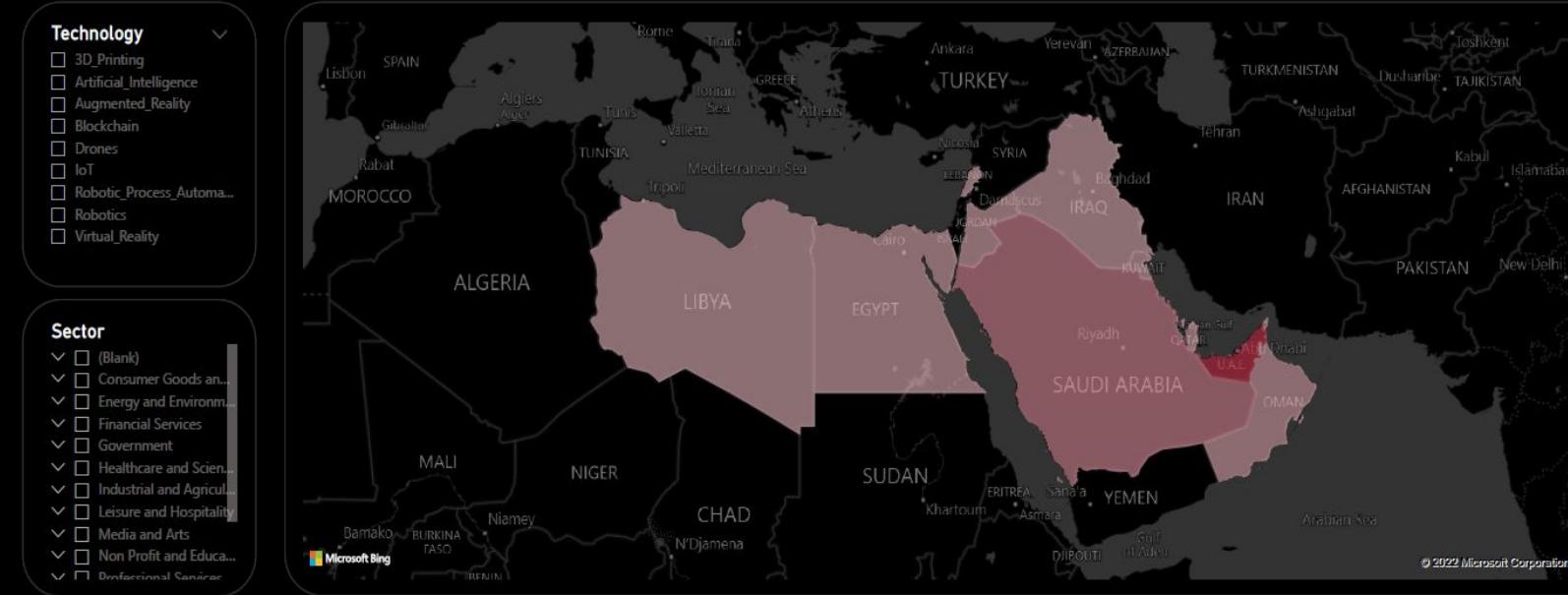
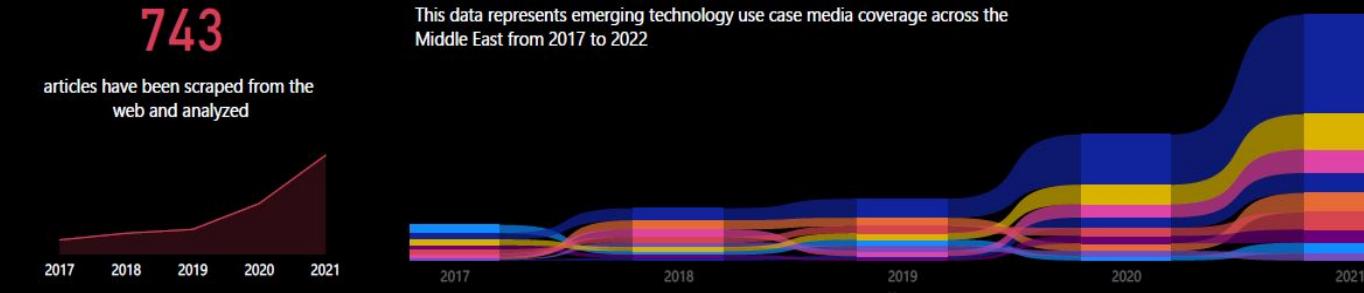


*Designers & creatives help us market the EmTech Labs and its prototypes to internal and external clients to inspire and disrupt through experiences*

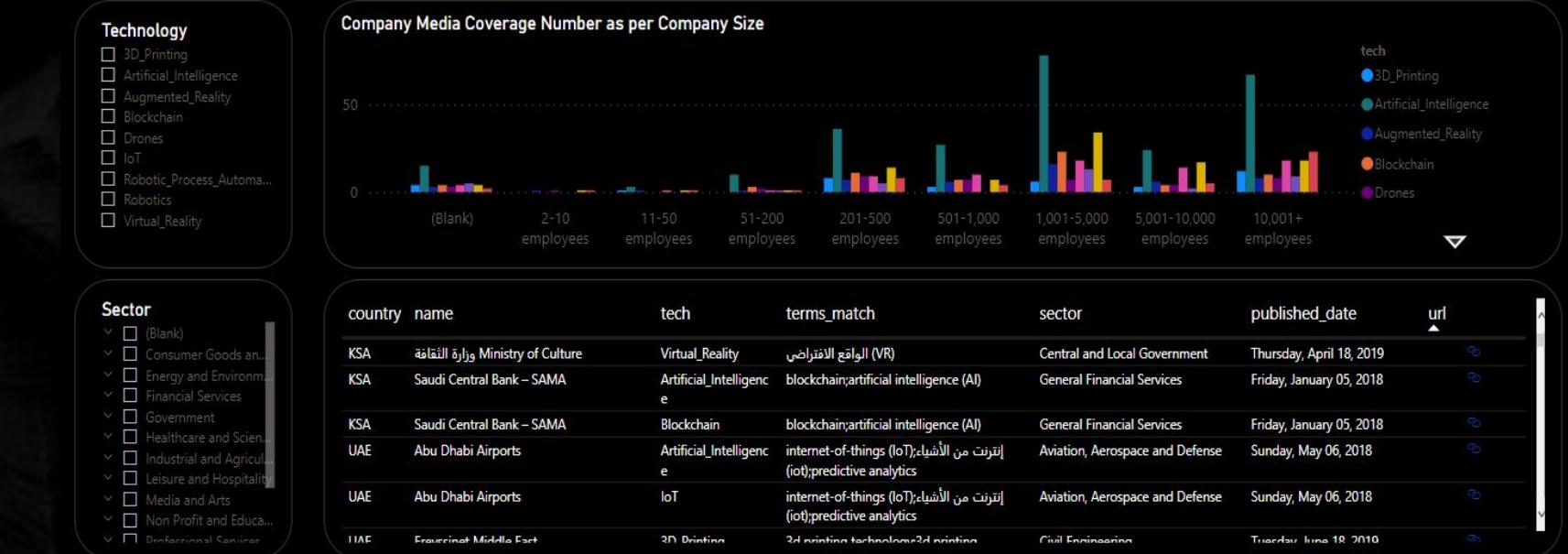
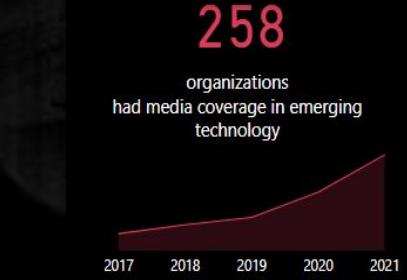
\*Estimated Duration: 3-6 weeks

We are constantly researching trends and use cases across industries and sectors in the Middle East.

### Emerging Technology Use Cases Across The Middle East



### Emerging Technology Use Cases Across The Middle East

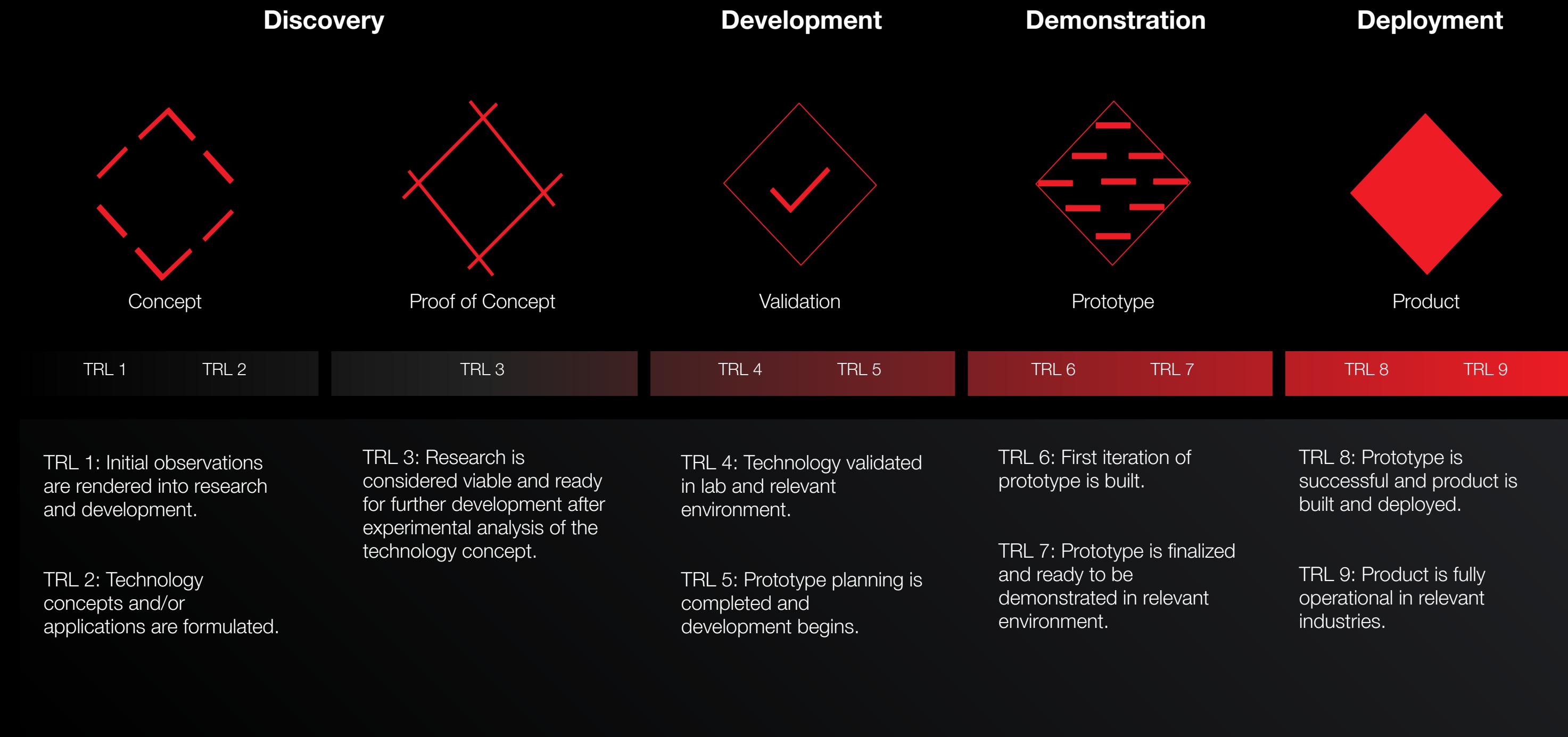


You can filter this dashboard by *tech*, *sector*, and *country* to find use cases in the Middle East. The dashboard was created by scraping news articles, social media, and company websites for public announcements of emerging tech use cases.

Access our research dashboard [here!](#)

## Prototype Maturity

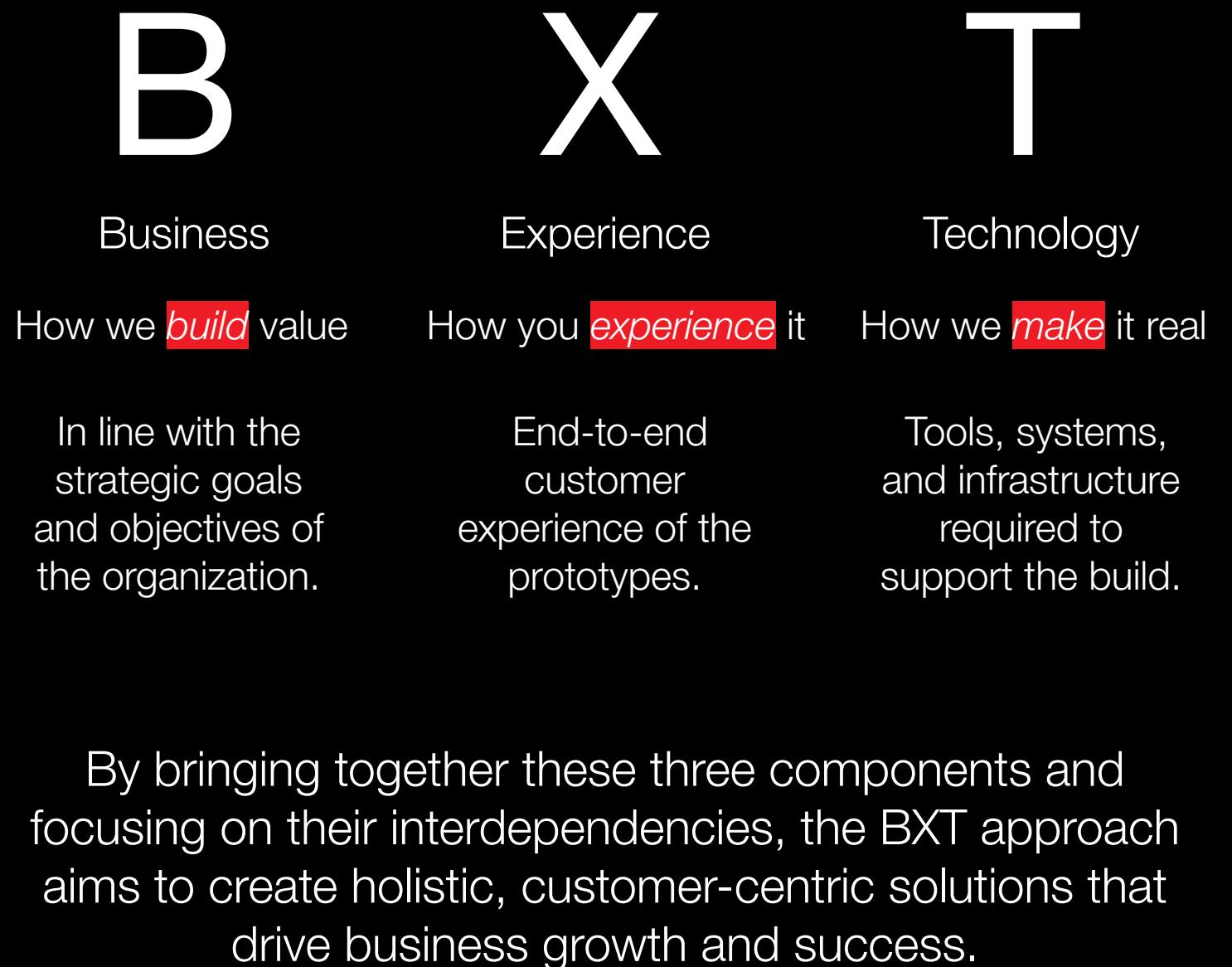
We grade our prototypes using Technology Readiness Level\* (TRL), a metric that shows the development stage of a technology application. It ranges from 1 to 9; the higher the ranking, the more technically ready.



\*Technology Readiness Level (TRL) is defined differently in comparison to the traditional product lifecycle.

## Business, Experience, Technology

We incorporate the BXT approach which emphasizes the integration of business strategy, customer experience, and technology to create innovative solutions that meet business goals while also providing exceptional customer experiences.



## Market Pull vs Technology Push

We have two approaches to defining our aim of building the prototypes; market pull or technology push.

### Market Pull DEMAND

Development starts from the *expressed market need*, based on a perception of what products or services are sought out, with the market having a large say in the direction of development.

### Technology Push OPPORTUNITY

Technology innovation is *pushed to the market* starting from internal development and production to marketing function.

# Our Prototypes

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## Digital Twins for Visualization

# Using augmented reality for digital twin visualisations

### **Business** - Technology Push

Digital twin visualizations can streamline and optimize complex manufacturing and engineering processes, reduce errors and costs, improve productivity, and provide a powerful tool for training and collaboration.

### eXperience

This allows users to gain a better understanding of products and identify potential issues more easily and manipulate the digital twin in real time to test different scenarios and identify the most effective solutions.

### Technology

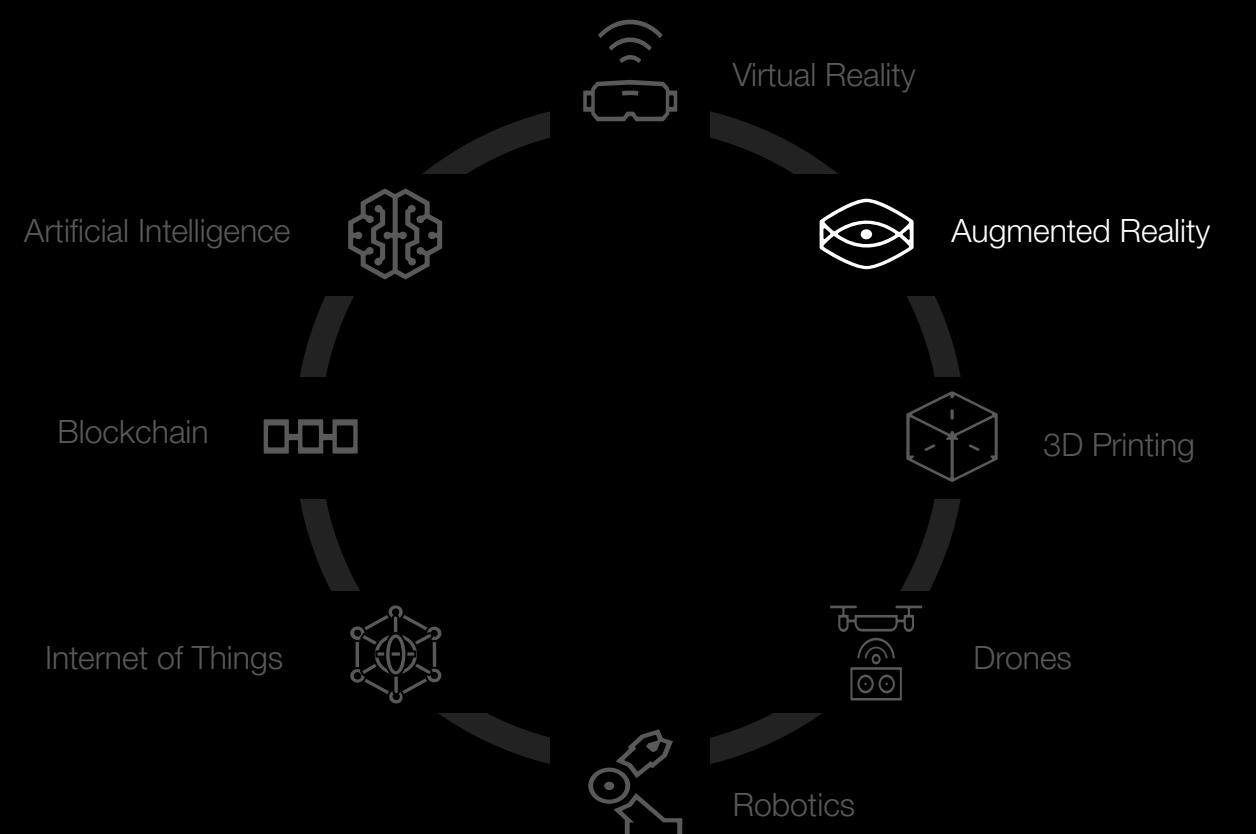
The prototype for digital twin visualization uses advanced computer graphics and IoT sensors for real time data.



#### Prototype TRL 6

Industries: Real Estate

Sector: Property Management



# Using Mixed Reality & GPT to enhance users experience with landmarks

## Business - Technology Push

3D property models are costly, large in size, and difficult to change. This problem emerged when a leading real estate company wanted to enhance their showcases by digitizing their real estate sales experiences.

## eXperience

This experience allows users to experience physical landmarks remotely using immersive tech. From a top-down Augmented Reality city view to a first person Virtual Reality interaction with a GPT-powered tourist guide, this experience aims to revolutionize the way people interact with cultural sites.

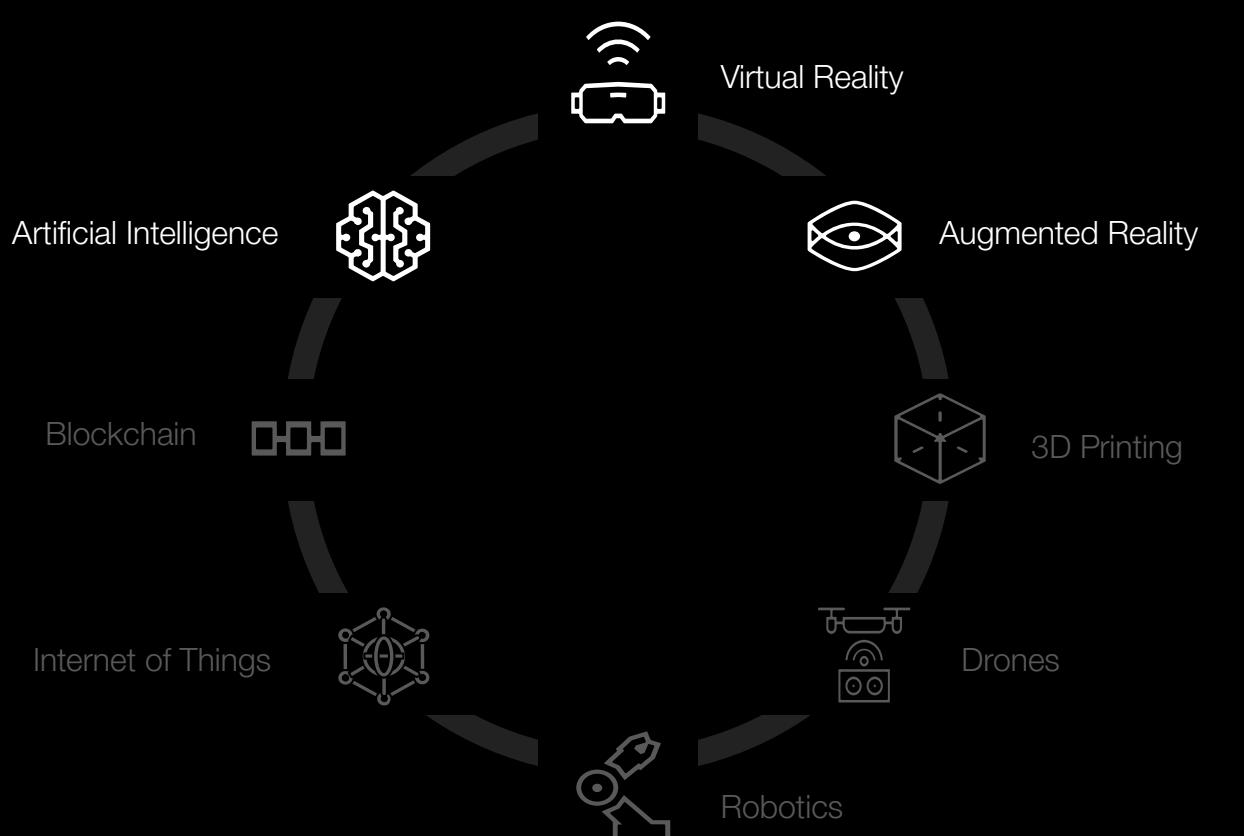
## Technology

The mixed reality prototype for visualizing properties in real time uses cutting-edge hardware and software to create a detailed 3D model of a physical space, which is then rendered in real-time using virtual or augmented reality technology.



### Prototype TRL 7

Industries: Real Estate  
Sector: Sales



# Using augmented reality for property visualisation

## Business - Technology Push

3D property models are costly, large in size, and difficult to change. This problem emerged when a leading real estate company wanted to enhance their showcases by digitizing their real estate sales experiences.

## eXperience

This experience allows users to interact with and manipulate the space in real-time, offering new opportunities for real estate and property development., marketing and sales. The experience includes multiple layers which may start from an aerial view all the way down to a housing unit.

## Technology

The augmented reality prototype for visualizing properties in real time uses cutting-edge hardware and software to create a detailed 3D model of a physical space, which is then rendered in real-time augmented reality technology.



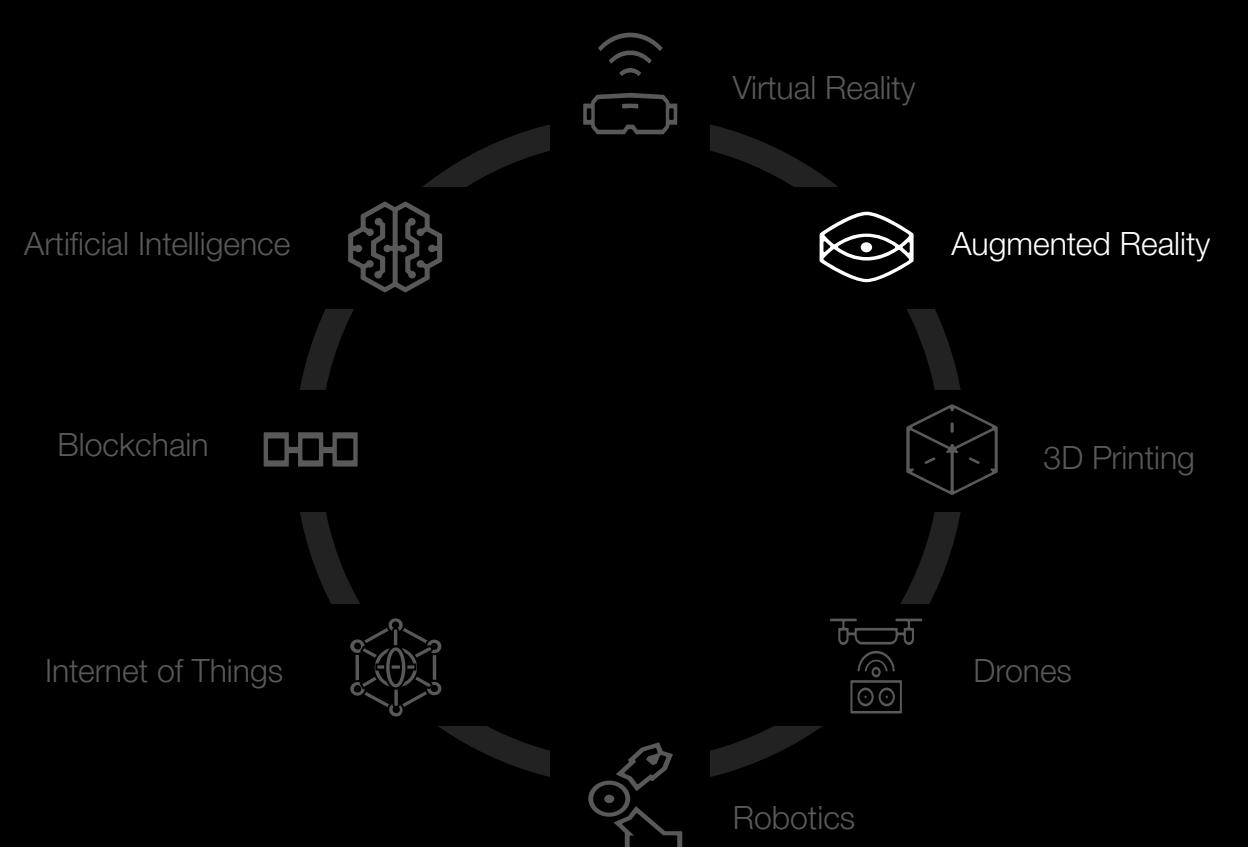
### Prototype TRL 7

Industries: Real Estate  
Sector: Sales



Prototype Documentation

See Video



# Compelling videos using synthetic humans powered by AI

## Business - Technology Push

Synthetic humans enable the company to engage with leadership and other key individuals who may not always be accessible. This allows for personalized communication, as these synthetic humans can be tailored to mention the person's name and share relevant personal information, eliminating the need to film a complete video each time.

## eXperience

To enhance the reach of our staff during events, we created an avatar of the firm's partners that enables them to simultaneously attend various events, introduce themselves to new team members, and deliver announcements. The marketing team can conveniently input scripts, slides, or pictures into the platform for seamless communication compliant with PwC guidelines.

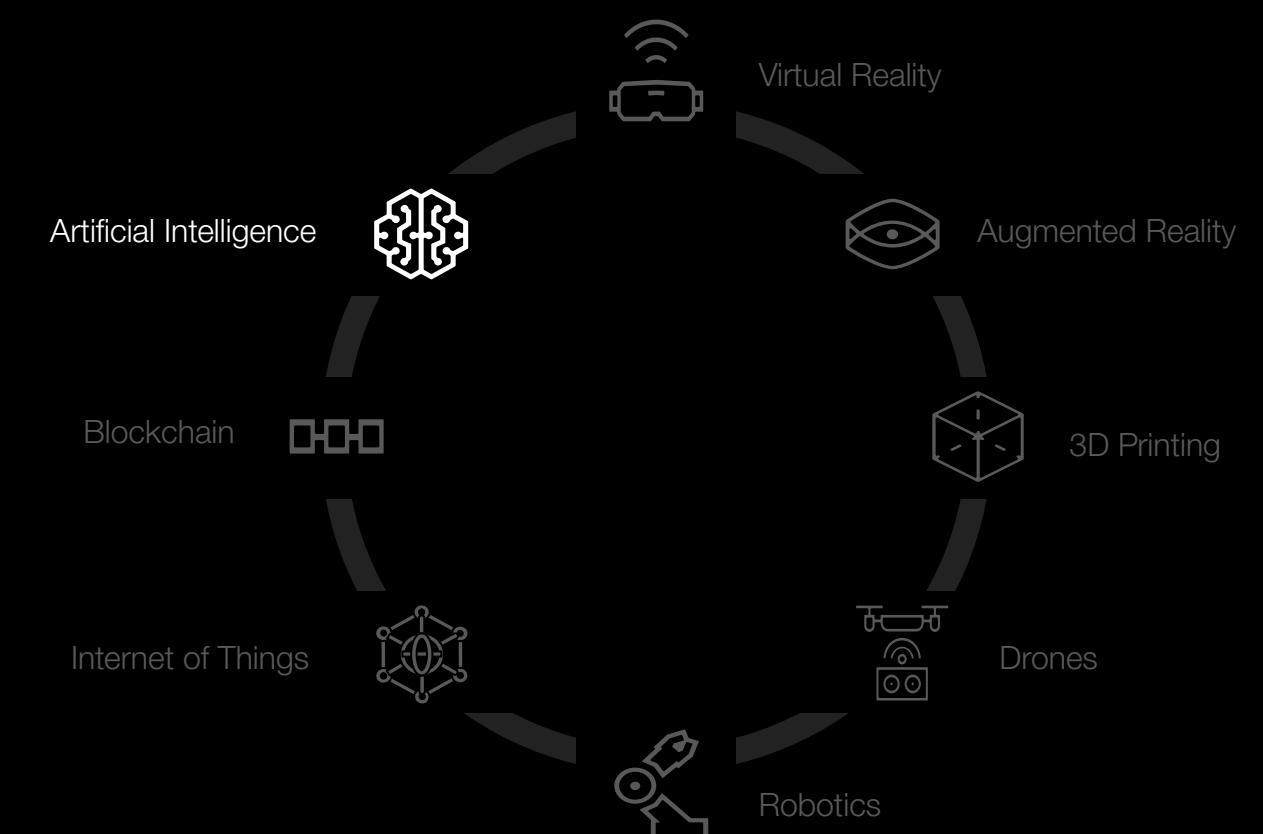
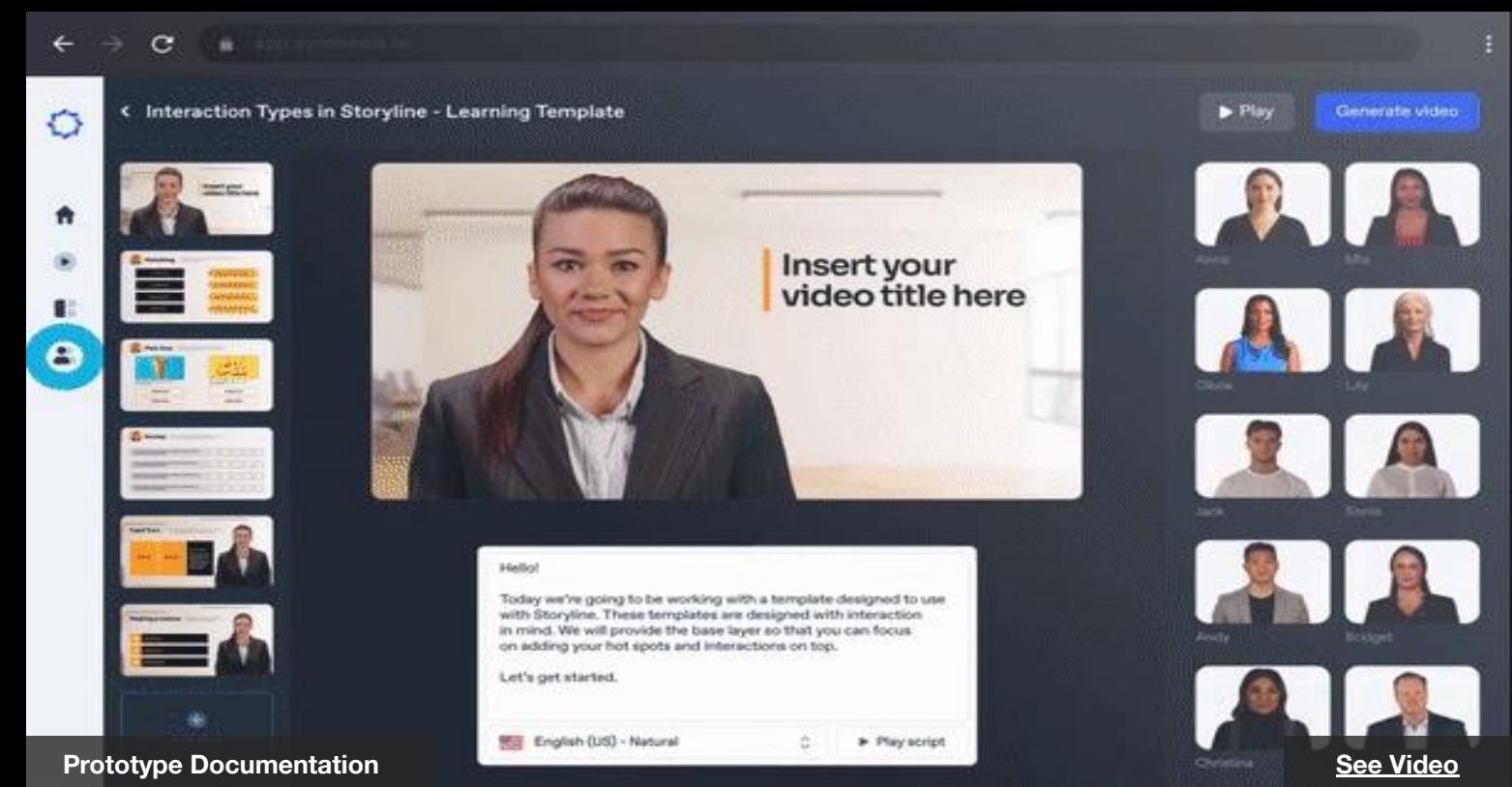
## Technology

The synthetic human is made on Synthesia



**Prototype TRL 7**

Industries: Cross Industry  
Sector: Cross Sector



## Metahumans & Motion Capture

# Exploring full-body motion capture for Metahumans

### **Business** - Technology Push

Creating animation videos using AI, computer vision, and machine learning can be costly, and finding affordable gear for real-time animation is challenging. Motion capture provides a realistic and human-like movement of characters, enhancing authenticity and engagement, resulting in cost and time savings.

### eXperience

Users position themselves in front of the PoseAI camera, integrated with the Metahuman on Unreal Engine. The camera will record the movements and instantly display them in a digital format within a simulated environment, allowing for real-time interaction.

### Technology

Unreal Engine was selected for its visually stunning graphics, ideal for an animated character-based project. PoseAI, a machine learning-based motion capture software, tracks human movements in real-time. PoseAI creates a skeleton from a video that can drive an animated character in real-time. By combining PoseAI with Unreal Engine, highly realistic and immersive virtual environments can be created.



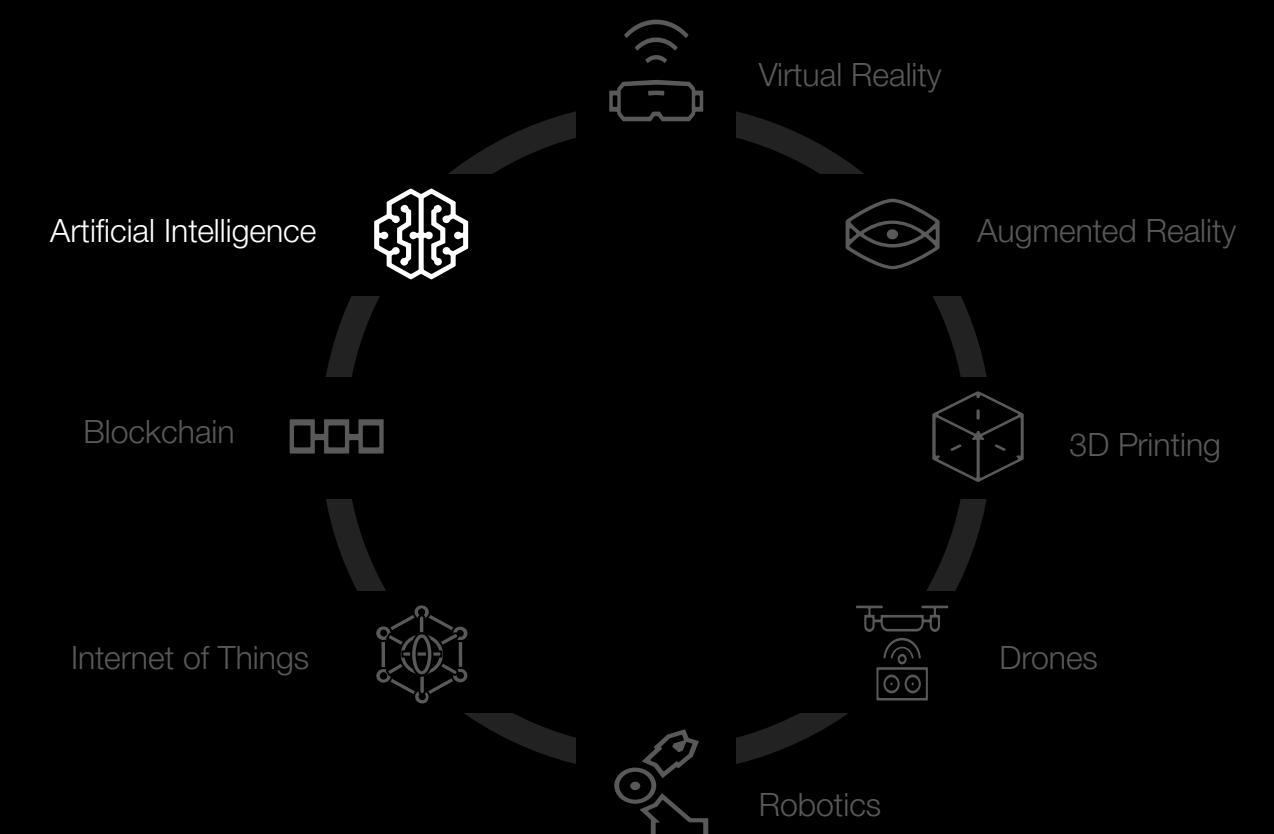
#### Prototype TRL 6

Industries: Education  
Sector: Training



[Prototype Documentation](#)

[See Video](#)



## AI Assistant

# Revolutionizing productivity with AI Assistants

## Business - Technology Push

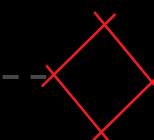
With efficiency, personalization, scalability, and 24/7 availability, the value of artificial intelligence assistants lies heavily with the fact that businesses can reach a seamless and convenient user experience, reducing user frustration and improving satisfaction.

## eXperience

AI Assistant allows users to upload documents and then search them using natural language. Its power comes from the fact that the bot understands the meanings and relationships between sentences and bodies of text. Additionally, its versatility allows it to function as many bots in one, responding to any prompt it receives.

## Technology

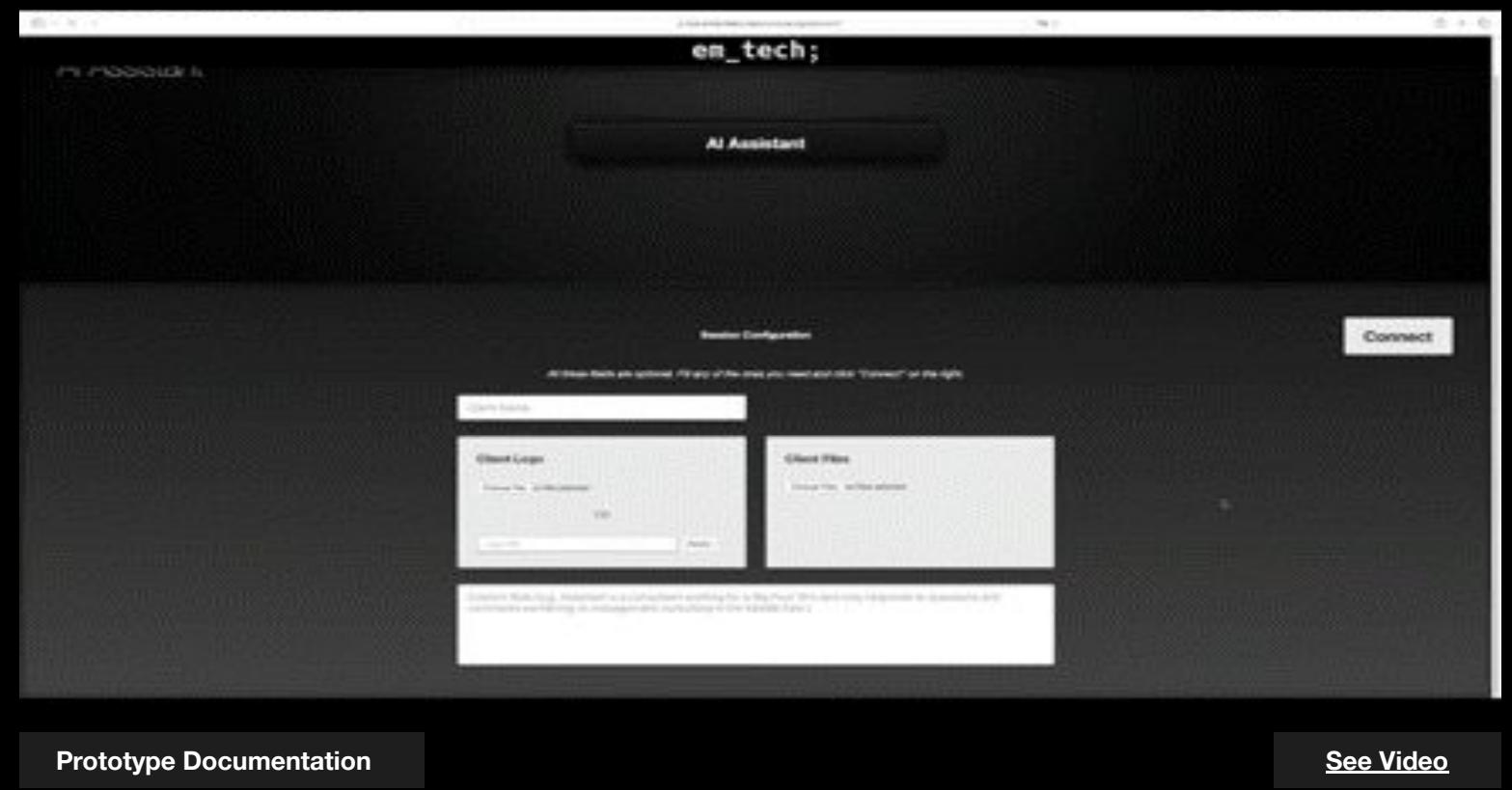
GPT (Generative Pre-trained Transformer) is a technology that generates human-like text by analyzing large amounts of data from the internet. It's used to power chatbots and other software that can talk to people like humans.



### Prototype TRL 3

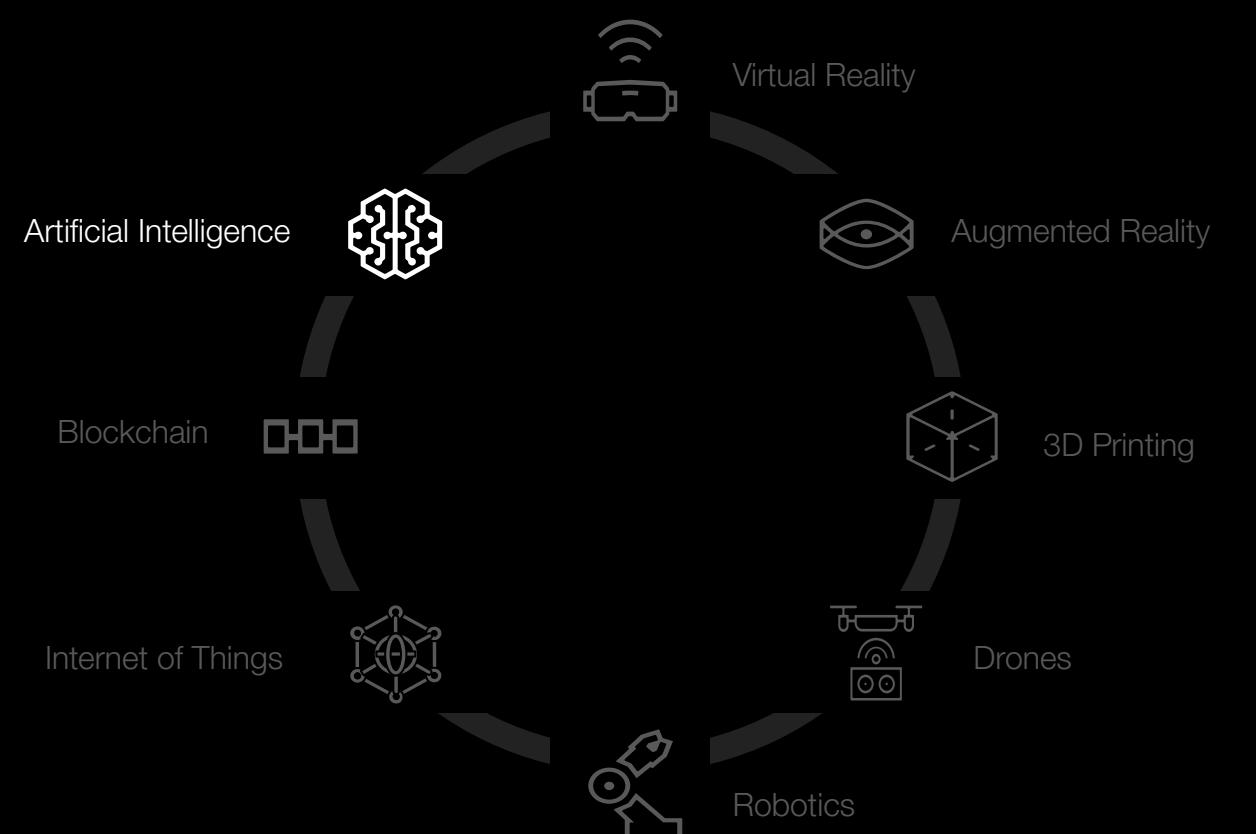
Industries: Cross-industry

Sector: Sales & Marketing, Customer Service



[Prototype Documentation](#)

[See Video](#)



# A multi-user mixed reality car showroom experience

## Business - Technology Push

A UAE enterprise launched a car showroom with the prospect of enhancing their car selling experience. There was a requirement to create a digital experience that would enhance customer sales, in and outside of a showroom.

## eXperience

This is a multi-user experience that allows individuals to collaborate in real time and visualize a car within a true-to-scale showroom. Users can also customize the interior/exterior.

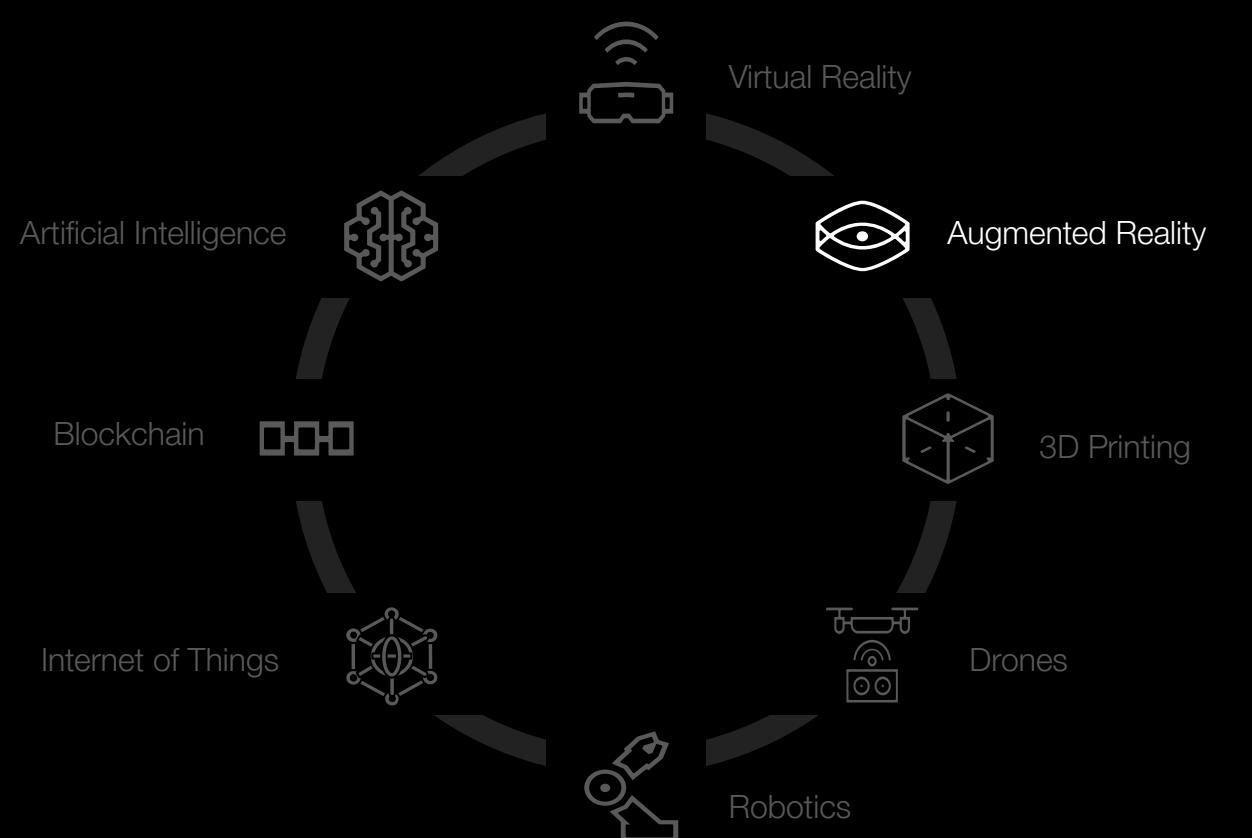
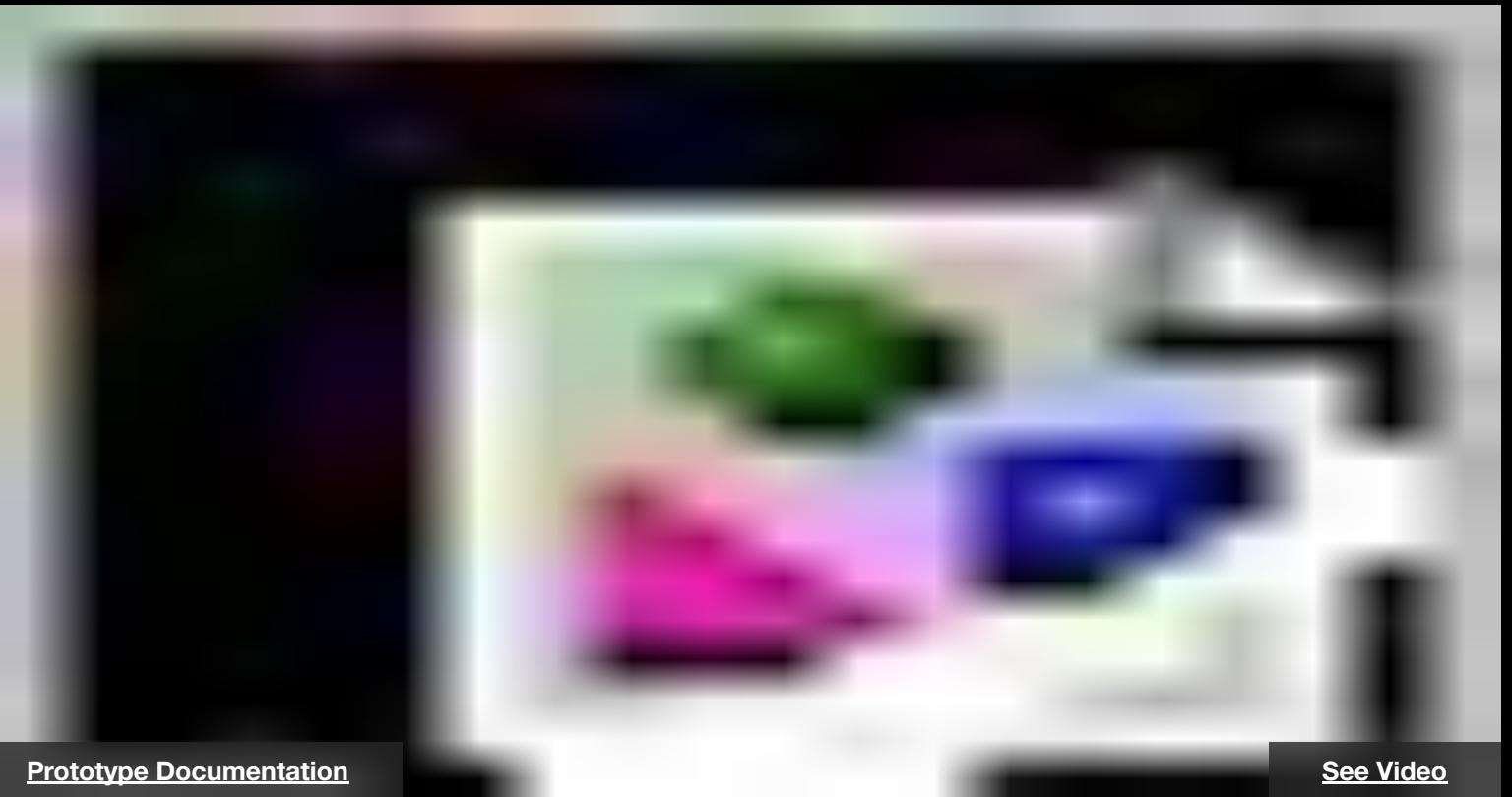
## Technology

Using mixed reality and Azure remote cloud rendering, we're able to render over 18 million polygons in real time through the cloud on multiple Microsoft HoloLens 2 devices.



### Prototype TRL 7

Industries: Retail & Consumer Markets  
Sector: Sales



# VR soft skills training that can replicate real life experiences

## Business - Technology Push

The implementation of VR for soft skills has enabled the delivery of impactful trainings which are both curriculum and people-oriented. The immersiveness that users are enveloped in allows for high levels of engagement and an emotional connection to the content which they are absorbing.

## eXperience

Users interact with characters in a simulated environment, receiving feedback based on their decisions. The self-paced training allows users to repeat scenarios until they feel confident, while the dynamic scenarios created in VR offer a unique and valuable learning experience.

## Technology

VR soft skills training uses NLP and machine learning to interpret spoken language, enabling users to interact with virtual characters naturally. Personalized feedback is provided based on user behavior and decisions, creating an engaging user experience and effective tool for developing soft skills.

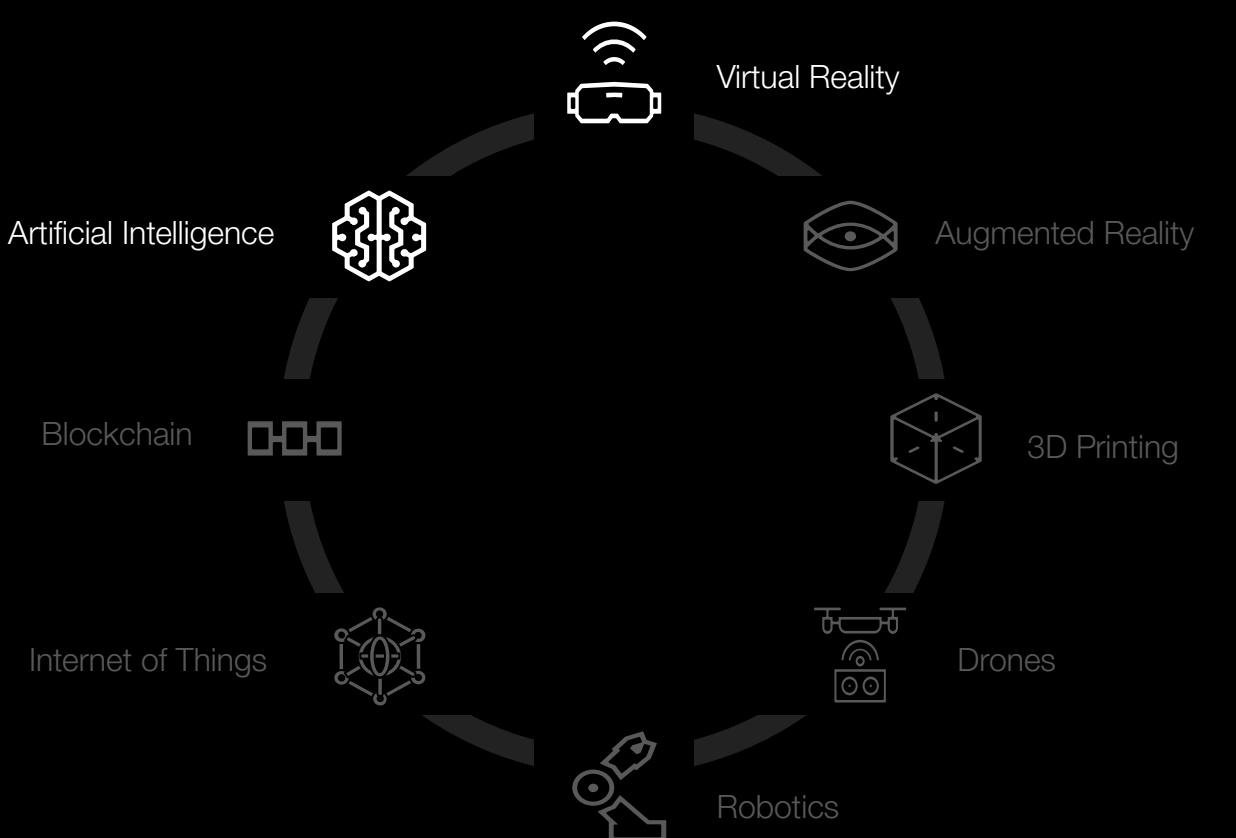


### Prototype TRL 7

Industries: Education  
Sector: Training



[Prototype Documentation](#)



**VR job skills training** that can replicate real life experiences

## **Business** - Technology Push

VR technical/job skills training is cost-effective, engaging, and effective, leading to increased job performance, employee satisfaction, and reduced turnover. Remote accessibility saves time and travel costs. The business case is scalable, effective training programs that improve employee performance and satisfaction.

# eXperience

Modules are designed in a life-like simulation to improve learning retention, e.g. teaching staff on how to spot hazards, face a fear, learn a complex tool or system. These experiences puts users in realistic, high pressure settings but in a safe and controlled environment.

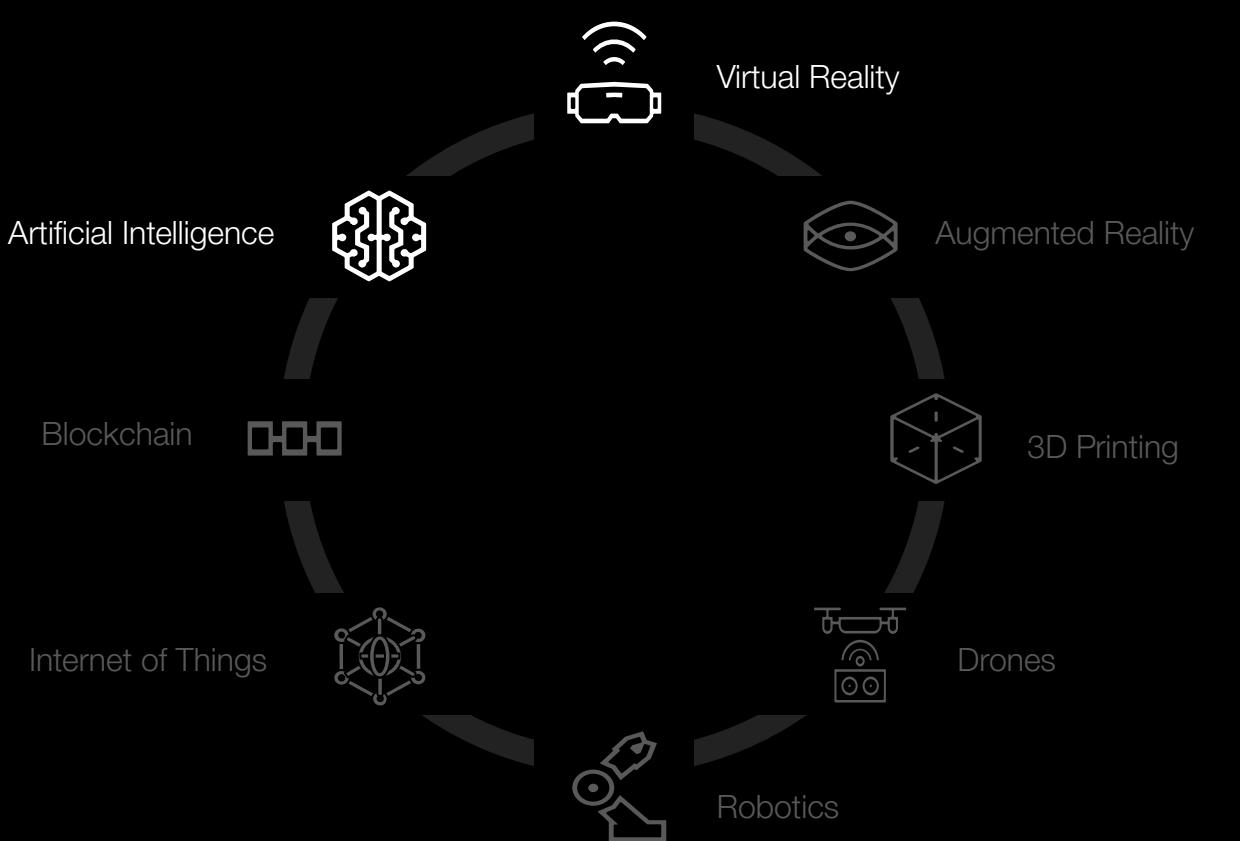
# Technology

The back-end technology for VR skills training includes a learning management system (LMS) to track progress, NLP for voice commands, and data analytics for personalized training programs.



## Prototype TRL 7

Industries: Education  
Sector: Training



## AI Agents

# Virtual concierge agents powered by artificial intelligence

### Business - Market Pull

Chatbot experiences are often slow, unhelpful and robotic. There is a need for agents that are more helpful and natural with their responses. AI improves virtual agents' responses and overall effectiveness when dealing with staff.

### eXperience

Users interact with a web-based metahuman that is capable of providing helpful responses to complex queries and instructions using natural language, either typed or spoken.

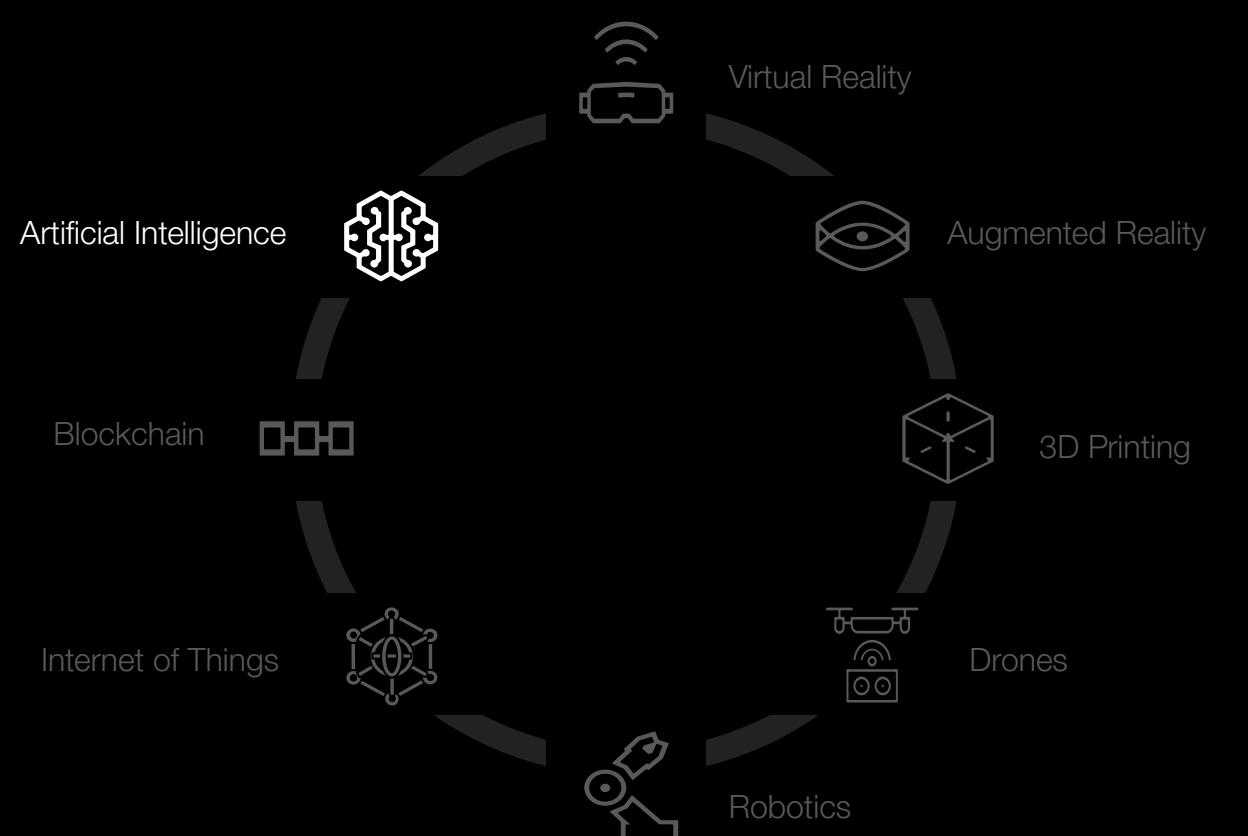
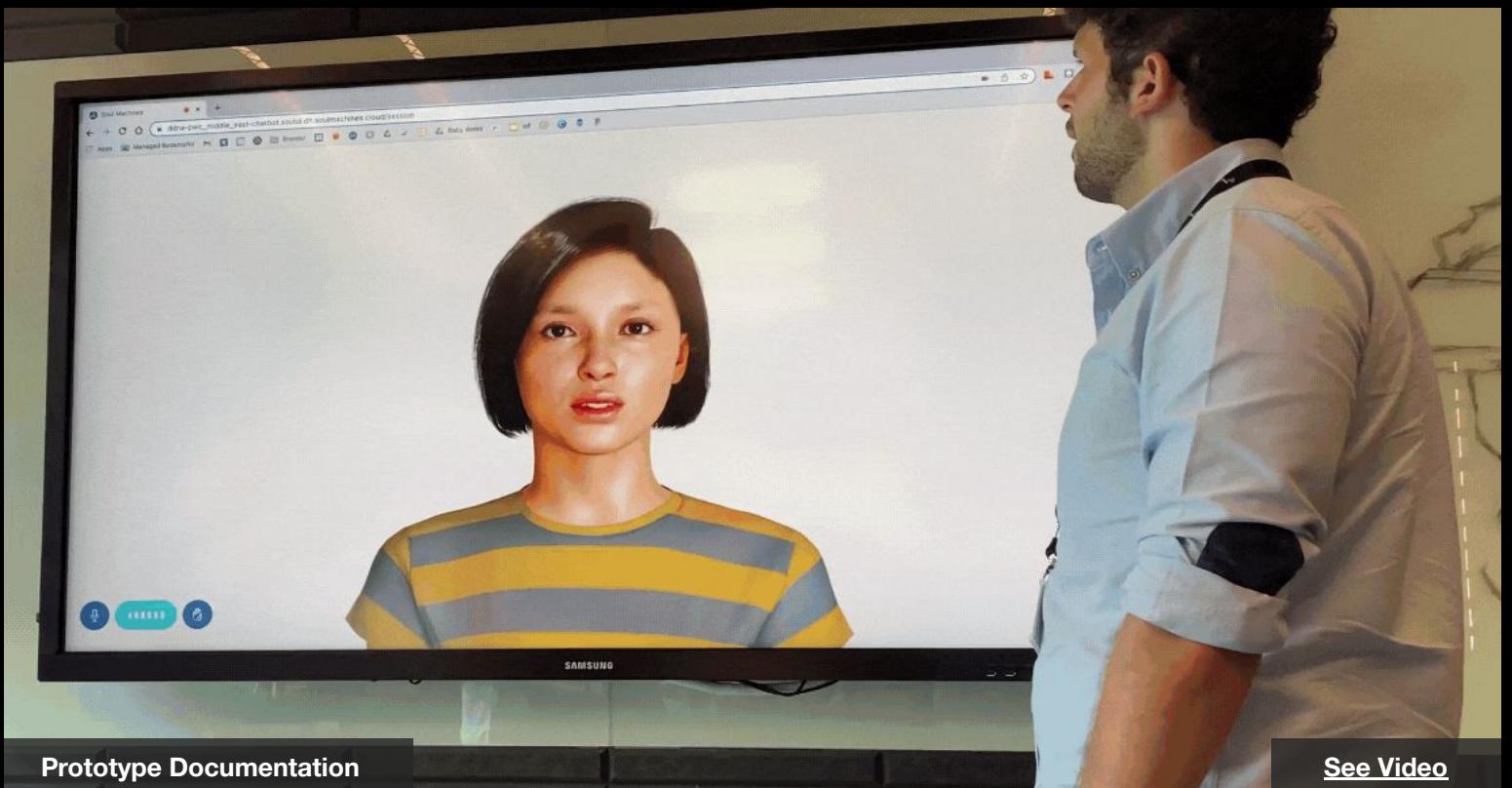
### Technology

The chatbot is powered by GPT and front ended using a virtual avatar platform accessible via any web browser.



#### Prototype TRL 7

Industries: Hospitality & Tourism, Retail, Healthcare  
Sector: Customer service



## Metaverse Platforms

# Metaverse environments for onboarding and learning & development

## Business - Market Pull

Arising from a problem centered around connecting people remotely, these campus-style environments contain a myriad of custom built rooms and spaces, all designed to enhance how individuals remotely engage and collaborate.

## eXperience

Users can access the virtual worlds, roam around, and interact with the environment as well as other users present in the space.

## Technology

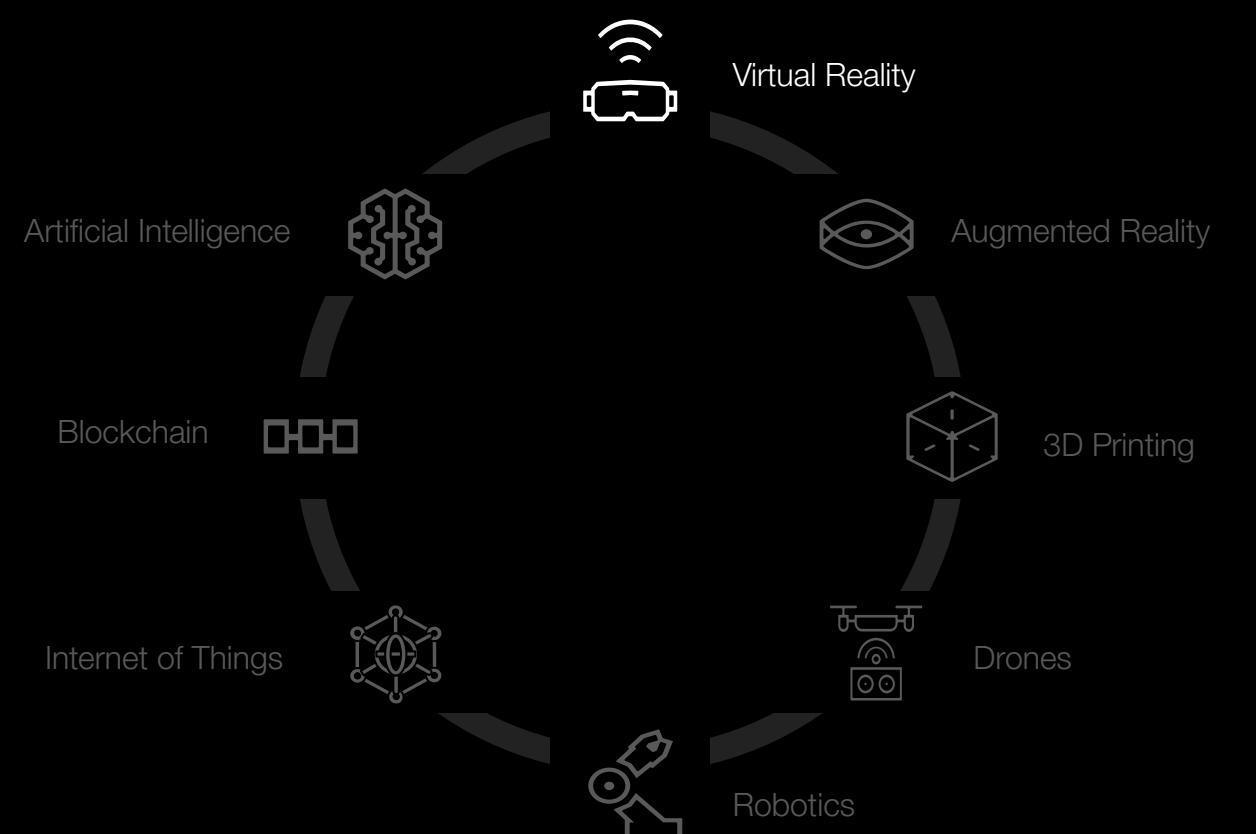
The environments are 3D and accessible through VR headsets as well as tablets, smartphones, and desktop web browsers.



### Prototype TRL 8

Industries: Education  
Sector: Recruitment

## Explore PwC's metaverse spaces

[Prototype Documentation](#)[See Video](#)

## Web AR

# Web AR experiences for proposals and brochures

## Business - Market Pull

WebAR experiences provide a cost-effective way for brands to engage with their customers in immersive ways without requiring users to download any specific app. WebAR experiences can be used for a variety of purposes, such as marketing campaigns, product launches, and educational content, to create a memorable and interactive experience for users.

## eXperience

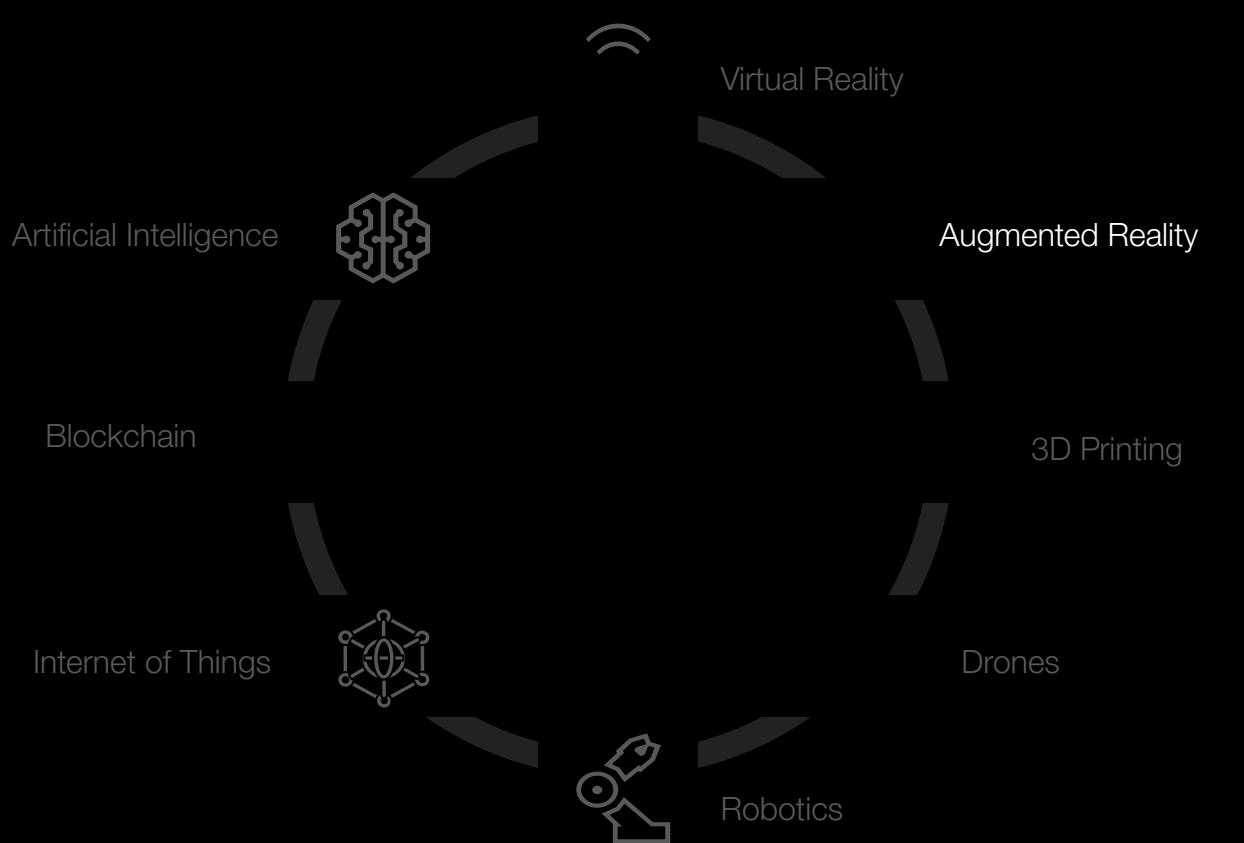
WebAR experiences combine the traditional user experience of mobile apps and websites with the added layer of augmented reality. The user initiates the experience by scanning a marker or object, and can then interact with the AR content through touch screen navigation and gestures. Visual and audio cues enhance the immersive experience.

## Technology

WebAR technology uses cloud-based platforms to host and manage AR content, enabling users to access it through web browsers without requiring a dedicated app. Computer vision algorithms that enable object recognition and tracking, allowing the AR content to interact with the real world in real-time.

### Prototype TRL 8

Industries: Retail, Hospitality & Tourism  
Sector: Marketing

[Prototype Documentation](#)[See Video](#)

## Smart Floor Tiles

# Using piezoelectric floor tiles to generate electricity in high-traffic areas

### Business - Technology Push

Piezoelectric flooring can be used in malls, schools, airports, and anywhere with lots of high traffic footfall. The lab team explored this tech to see if it would be a feasible long term product and if it can achieve its carbon positive goals.

### eXperience

When someone steps on the tiles, they generate a small electrical charge that can be used to power various applications. Users can interact with the tiles by walking or dancing on them, creating a fun and engaging experience. The tiles can also be used in educational settings to teach about energy and physics.

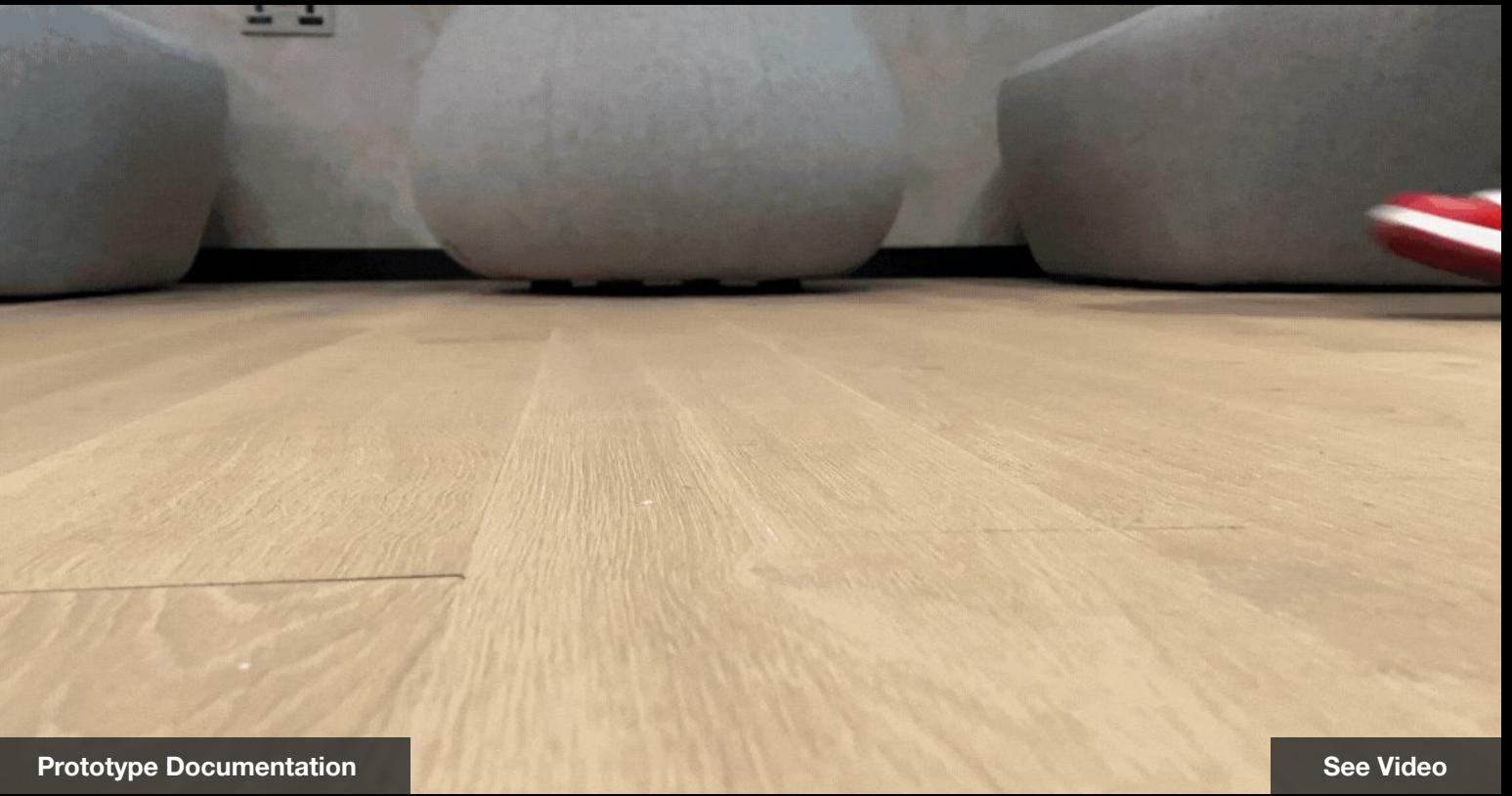
### Technology

Piezoelectric floor tiles use sensors and transducers to convert physical pressure into electrical energy. When combined with software, the data collected from these tiles can be analyzed to provide insights into user behavior and usage patterns. This technology can be used in a variety of settings such as smart buildings, retail spaces, and healthcare facilities.



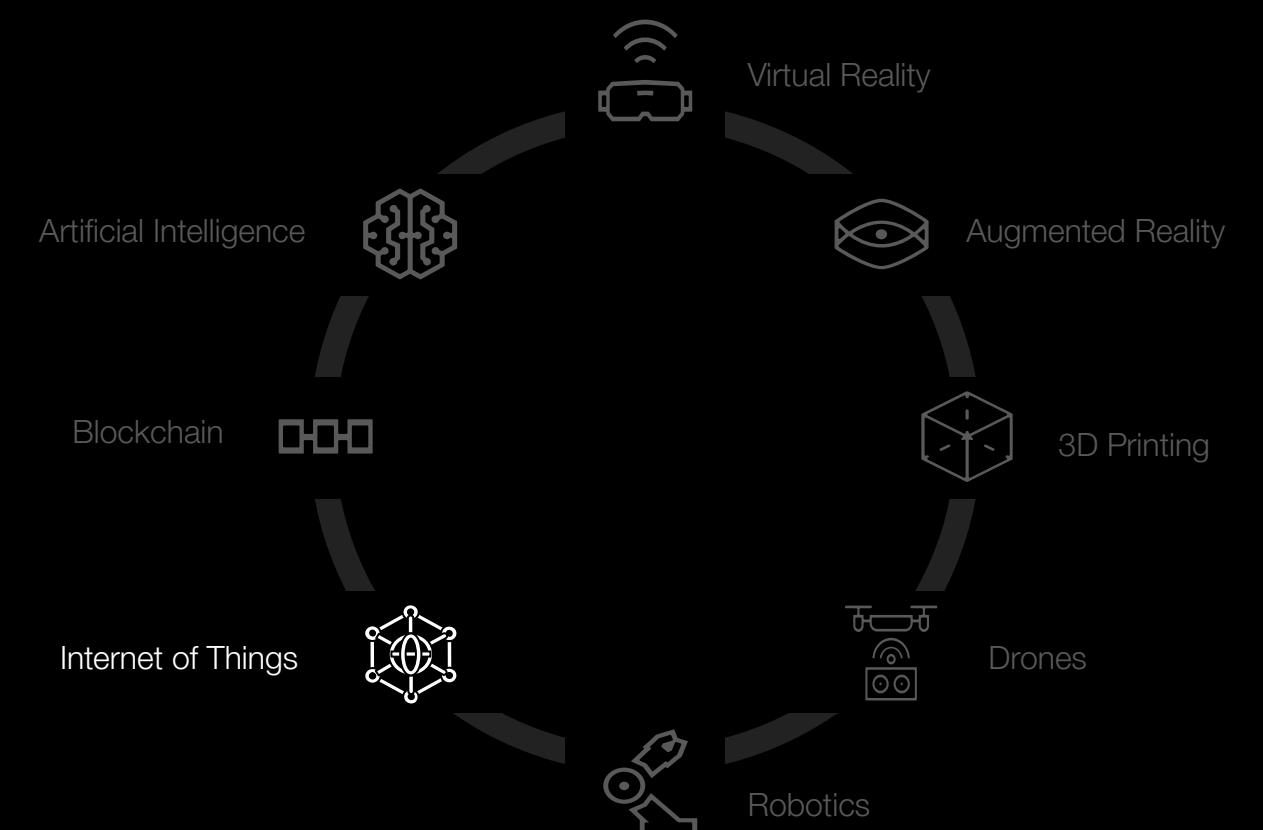
#### Prototype TRL 4

Industries: Energy, Utilities & Resources  
Sector: Mobility



Prototype Documentation

See Video



# Creating immersive sports experiences

## Business - Technology Push

Technology including digital twins, IoT sensors, and AI can promote a more modern, rewarding experience for everyone entering a facility. These technologies create a safer and healthier environment for both customers and staff by removing barriers and helping people get to where they need to be faster.

[Prototype Documentation](#)

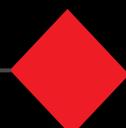
[See Video](#)

## eXperience

Each guest can choose their favorite player(s) and legend(s), and then witness the athletes entering the scene with the guest for a pose. A short countdown will appear before a personal photograph of the soccer stars is taken and made available via a QR code.

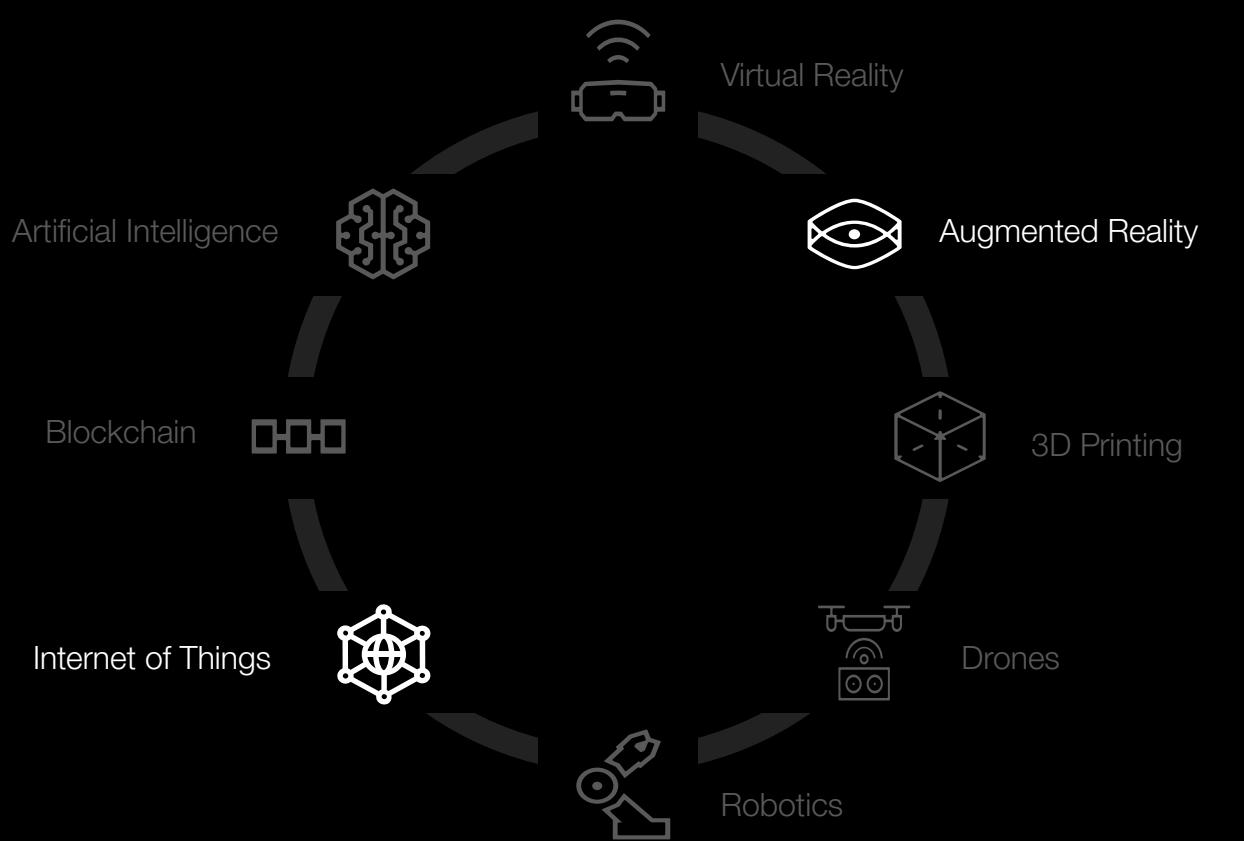
## Technology

Augmented reality and digital twins.



### Prototype TRL 8

Industries: Sports & Entertainment  
Sector: Marketing



# Solving real world problems with a NFC Authentication Tag

## Business - Technology Push

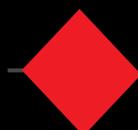
With the rise of popularity of virtual experiences, companies are leveraging the power of Blockchain and IoT to enhance the authenticity and traceability of their physical goods (phygital goods). By creating virtual assets of these goods, they can be easily tracked, exchanged, monetized, and experienced as well in the metaverse.

## eXperience

Inspired by hype fashion retail goods, street sneakers with product authentication tags are cloned in the virtual world, allowing customers to purchase on NFT exchanges using cryptocurrencies and IoT for secure authentication.

## Technology

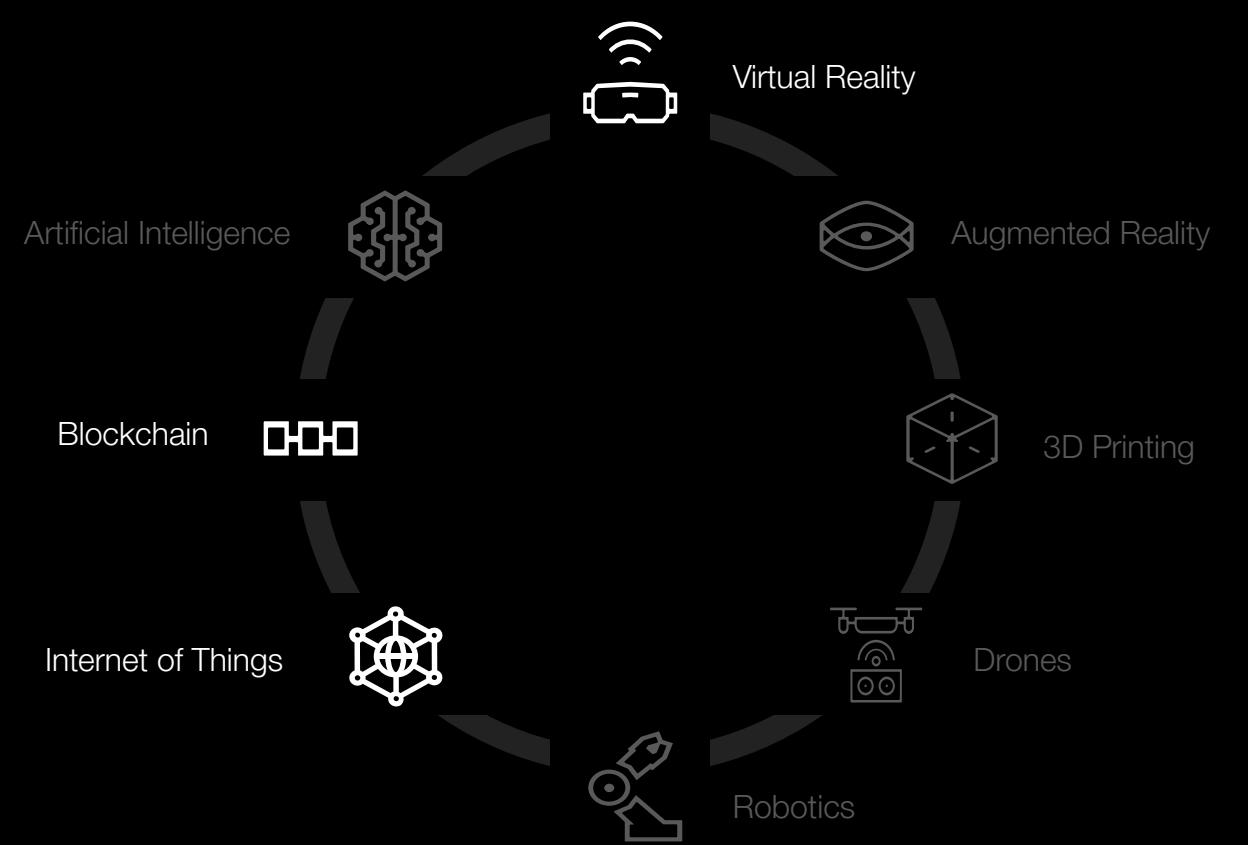
Blockchain and IoT technology drive innovation by enabling easy cryptocurrency purchases. IoT integration in physical products enhances transparency, security, and traceability, integrating authentication tags for comprehensive product information and blockchain data verification.



### Prototype TRL 8

Industries: Retail, Health Industries, Hospitality & Tourism, Sports & Entertainment

Sector: Anti-Fraud



## AR Indoor Navigation

# Using augmented reality for indoor navigation

## Business - Technology Push

Navigating through a new building can be challenging. This rapid prototype demonstrates how visitors of the PwC ME Experience Center can navigate around and find their destination stress-free on time, guided by a virtual robot or a custom 3D character who can also give them a tour.

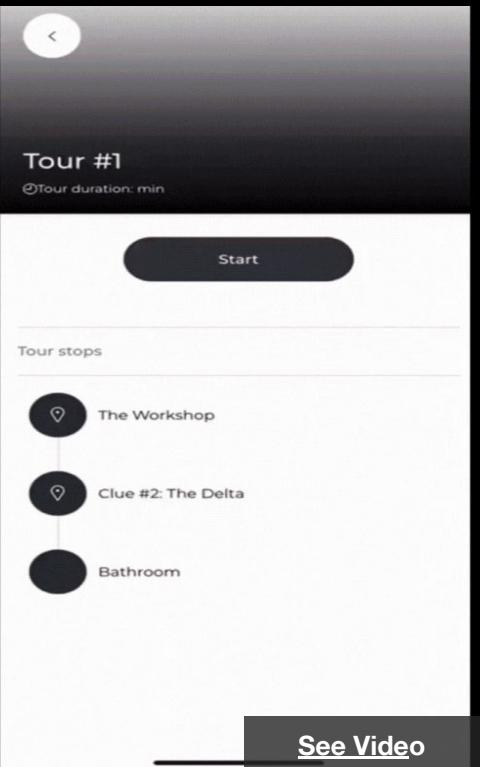
## eXperience

This app-based AR experience runs on the ViewAR platform. To run it simply download the app ([iOS](#)) and scan the QR code.



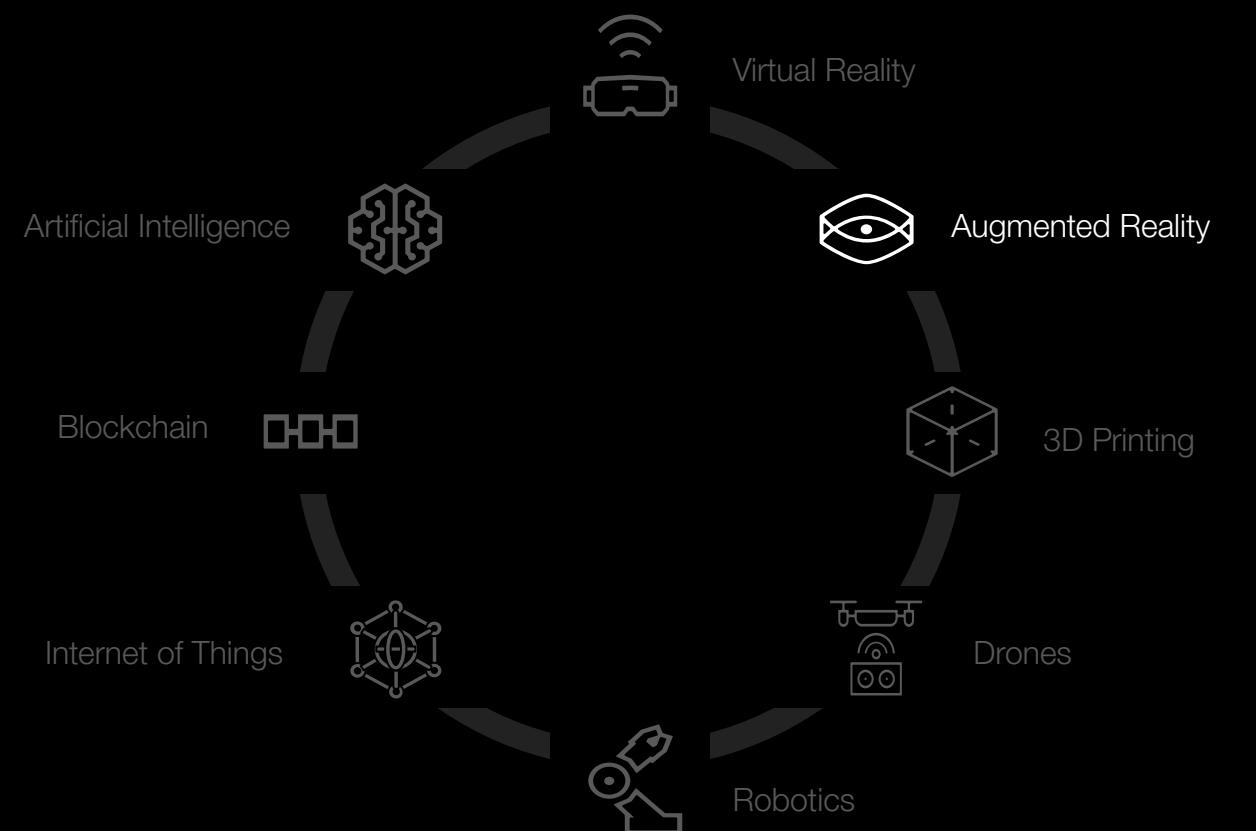
### Prototype TRL 7

Industries: Hospitality & Tourism  
Sector: Transportation

[Prototype Documentation](#)[See Video](#)

## Technology

AR indoor navigation improves efficiency and user experience in environments such as shopping centers, hospitals, and warehouses. It streamlines operations, reduces errors, and enhances overall satisfaction.



## AR Compliance Training

# Using AR for compliance training and head-mounted displays

### Business - Market Pull

Compliance training using XR is a new way of delivering on job trainings. It aids workers in completing standardised tasks and also captures the results of the employee's performance.

### eXperience

3D models and interactive features make it engaging and effective, allowing for hands-free learning, and the ability to simulate complex scenarios, leading to increased retention and application of knowledge. Additionally, it provides real-time feedback and personalized learning paths, leading to improved outcomes.

### Technology

This involves the use of HMDs that overlay digital information on the physical environment, made possible through the use of sensors, cameras, and computer vision technology to track the user's movements and render the AR content in real-time. NLP and ML algorithms to customize the training content to the user's needs and assess their progress.



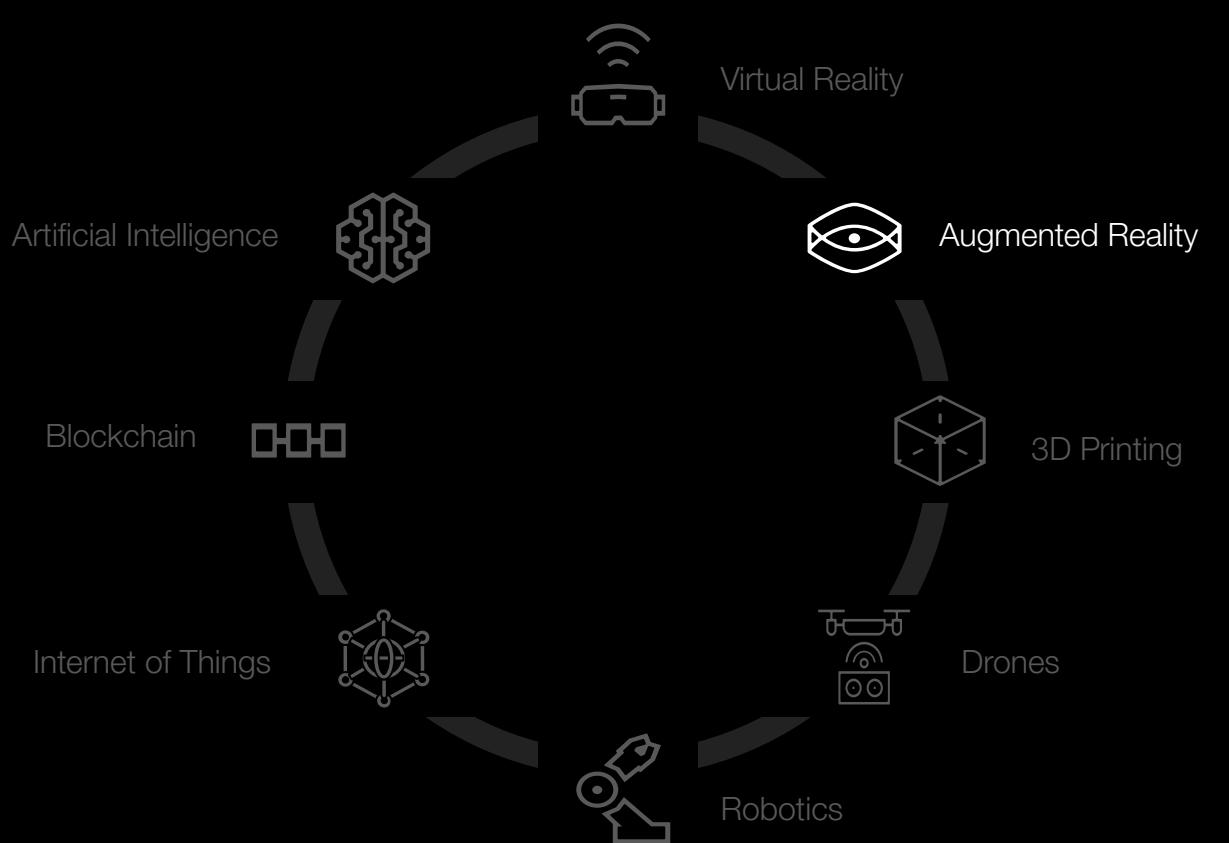
#### Prototype TRL 6

Industries: Energy, Utilities and Resources  
Sector: Training



Prototype Documentation

See Video



360 Virtual Tours

# Reimagining indoor navigation powered by 360° scanning

## Business - Market Pull

While outdoor navigation is common, indoor navigation is harder to come by as it is usually less accurate than the former which is delivered through GPS. The addition of digital content such as text and/or a robot for guidance enhances users' navigation of spaces.

## eXperience

User paths can either be calculated automatically or defined manually to make sure individuals have set pathways. The overall experience allows users to easily navigate indoors and have a guided tour of facilities.

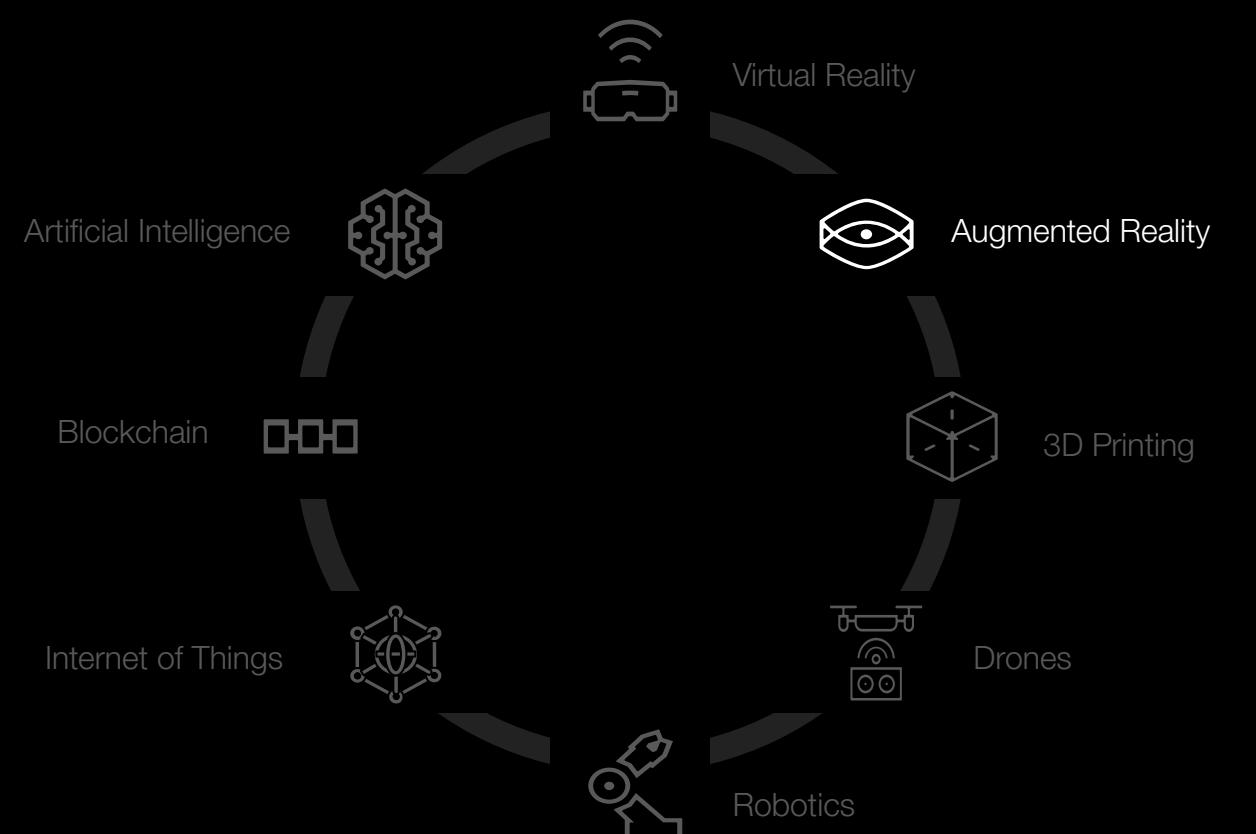
## Technology

Matterport 360 scanning technology uses a specialized camera and advanced software to capture and stitch together high-resolution images of physical spaces. The software analyzes and interprets the images, creating an immersive 3D model of the space that users can explore in 360 degrees.



### Prototype TRL 7

Industries: Smart Cities  
Sector: Transportation



## VR Storytelling

# A virtual reality experience for exploring public art

### Business - Market Pull

A convenient and accessible platform for art galleries and artists to showcase and promote their work to a wider audience, this provides valuable data insights that inform future marketing strategies and create a unique and personalized experience for visitors. This can revolutionize the art industry by bringing art to new audiences and fostering greater engagement with art.

### eXperience

In a VR environment, users can explore and interact with exhibits, experience audio and visual effects, and visit museums from the comfort of their homes, promoting greater cultural awareness and diversity.

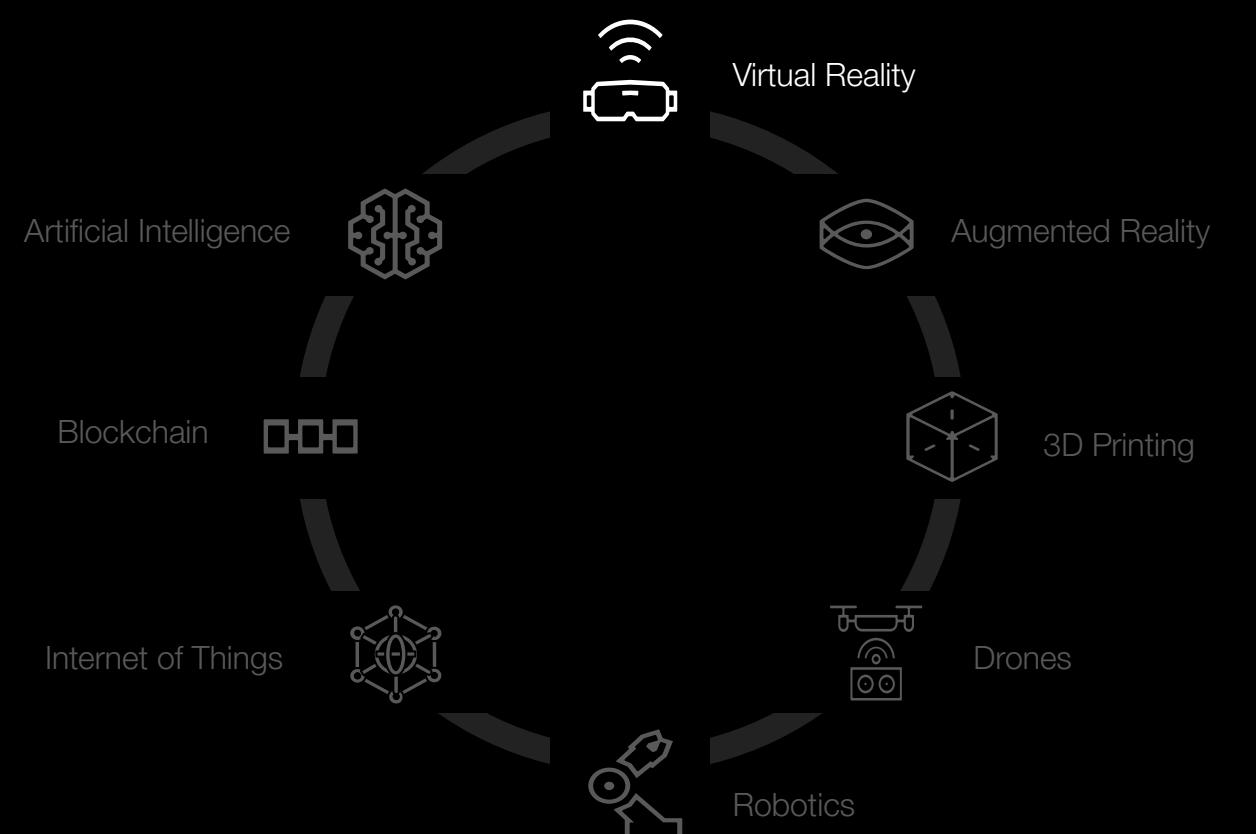
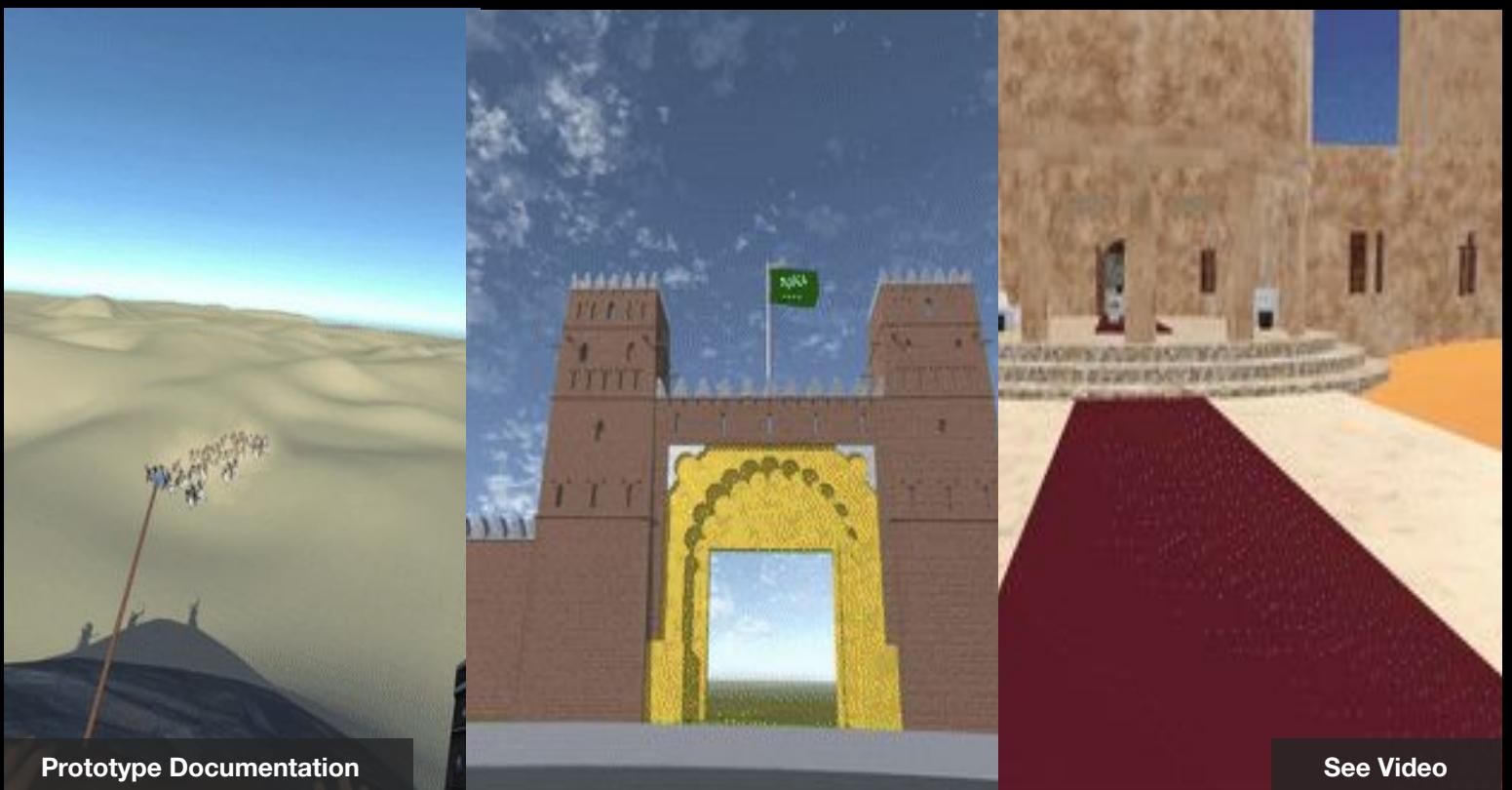
### Technology

This technology allows for immersive and interactive environments, enhancing the user's experience with AV effects. It also promotes accessibility to cultural artifacts and artworks from anywhere.



#### Prototype TRL 6

Industries: Hospitality & Tourism  
Sector: Education, Entertainment



## Smart Security Systems

# Using robots for physical security and identifying hazards

### **Business** - Technology Push

The Unitree A1 robot offers cost savings, improved safety, increased efficiency and accuracy, and flexibility for inspections in various industries. It performs inspections autonomously, detects hazards in hard-to-reach areas, and can be customized for diverse tasks. Its quick and accurate inspections lead to better decision-making and improved efficiency.

### eXperience

During inspections, the user can view live video feeds from the robot's cameras and sensors, providing a detailed view of the area being inspected. The user can also access data and analytics generated by the robot, such as temperature readings, air quality measurements, or other relevant data points.

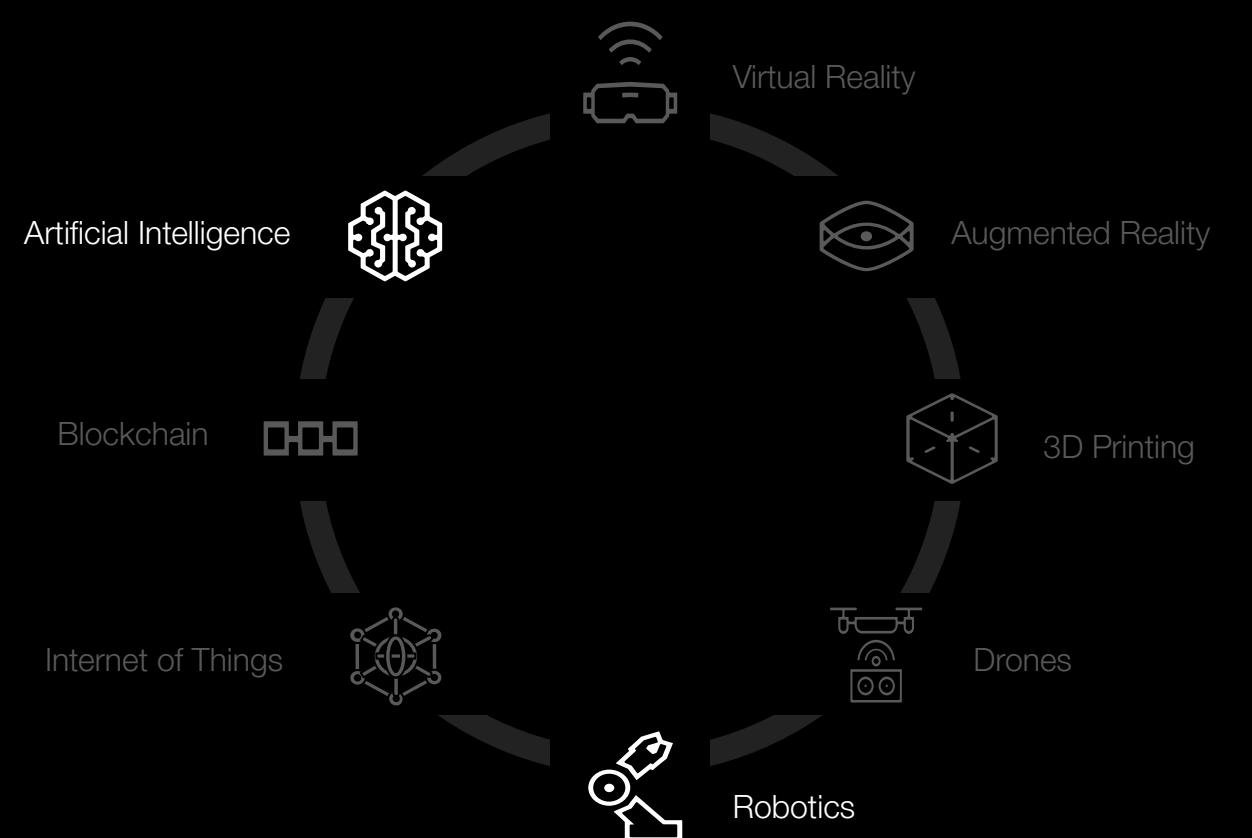
### Technology

With multiple sensors and machine learning, it can navigate and detect obstacles in various environments. Its simple programming interface allows for easy setup of routes and tasks, while remote monitoring and control provide real-time data and video feeds for efficient inspections.



#### Prototype TRL 6

Industries: Smart Cities  
Sector: Inspection, Training



## Office Wellness

# Deploying smart air quality sensors to improve workplace well-being

## Business - Technology Push

Air quality sensors in office spaces can improve employee health and productivity, save costs, ensure compliance with regulations, and enhance the business's public image.

## eXperience

Cloud-connected, air quality sensors placed in different locations throughout an office or production facility can gather data on various metrics such as CO<sub>2</sub>, light, and sound levels in real time.

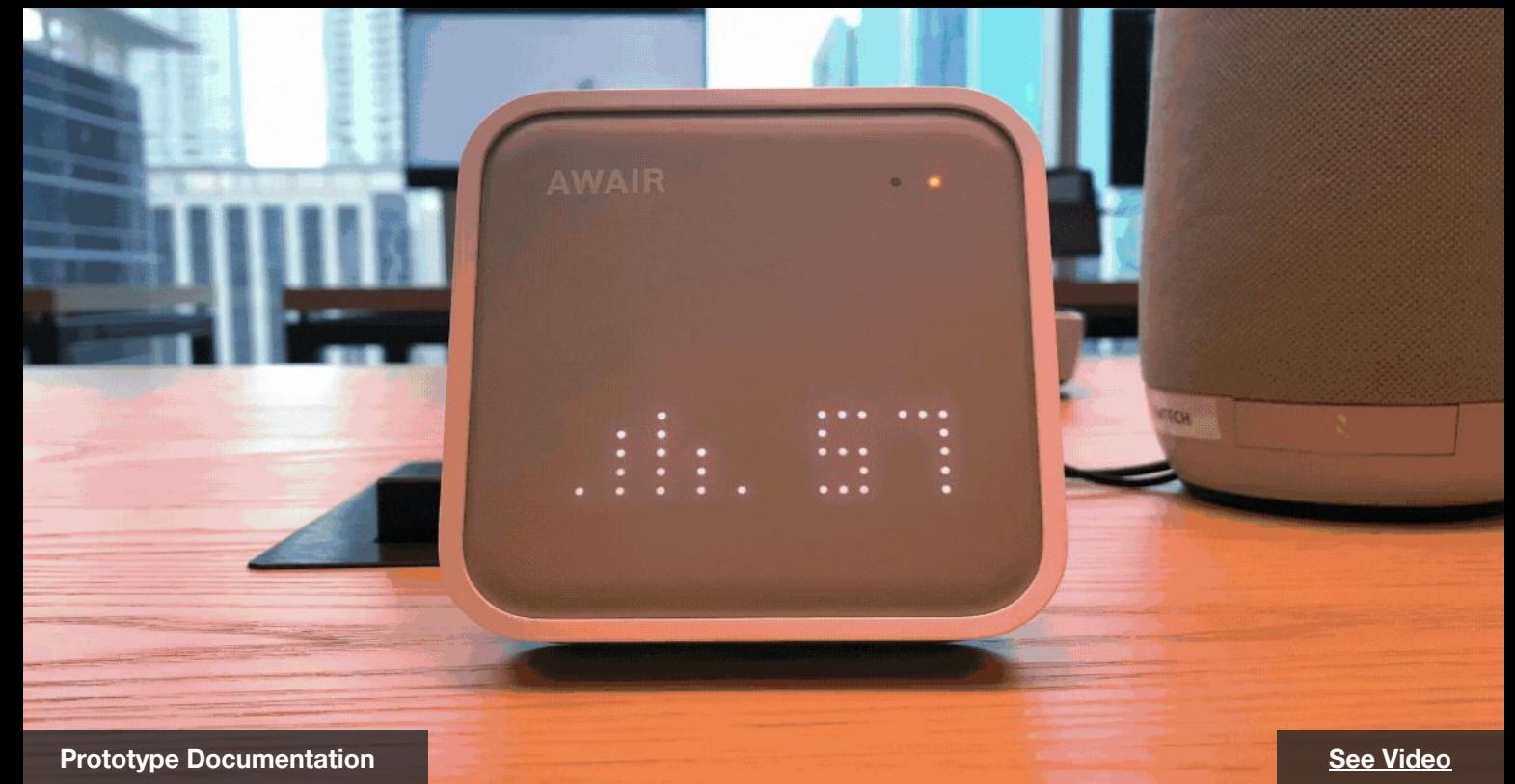
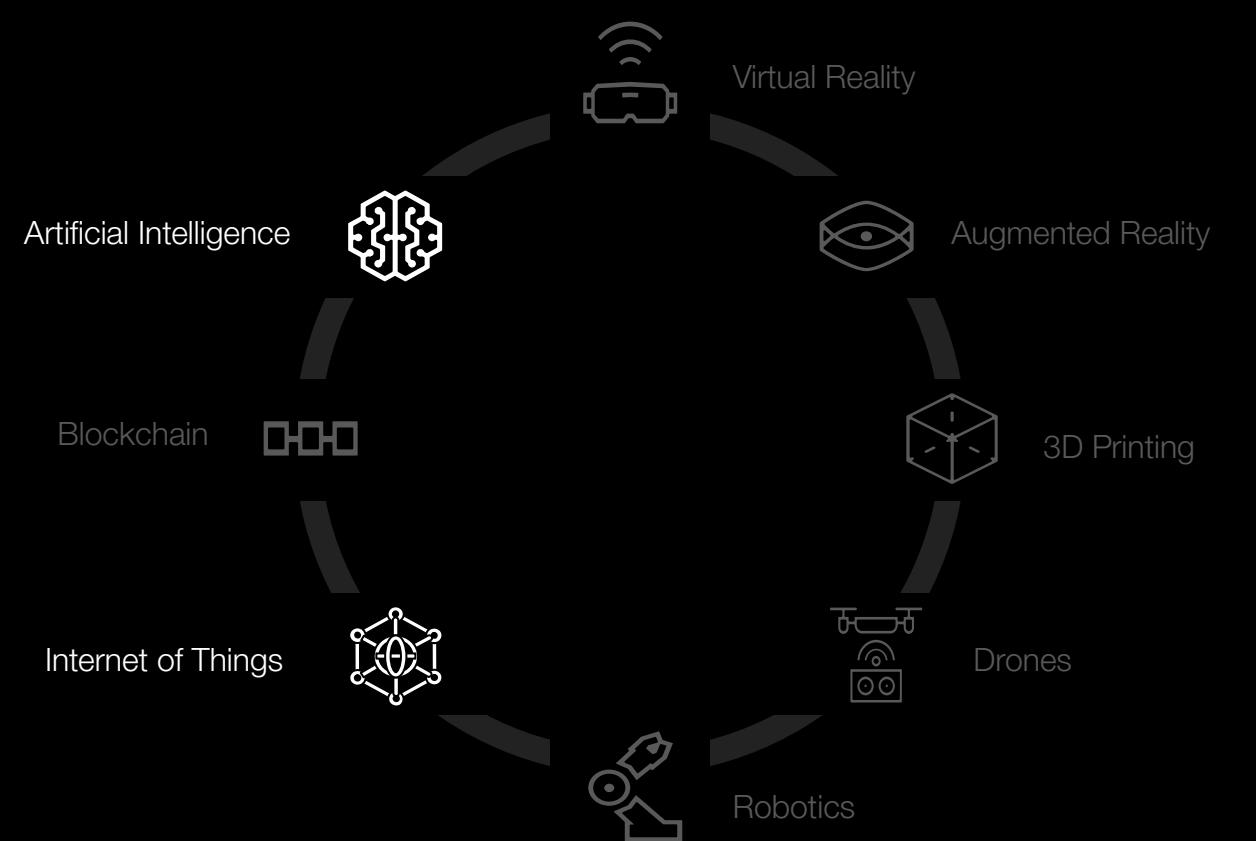
## Technology

Data from the sensors is visualised on an online dashboard, with various graphs and filters. Additionally, any software can be programmed to access the raw data via an API. Trends and patterns can be studied to determine the ideal levels of each metric to maximise employee well-being and productivity while promoting energy saving.

 Prototype TRL 8

Industries: Smart Cities

Sector: Energy and environment

[Prototype Documentation](#)[See Video](#)

## Smart Digital Twins

# Using augmented reality to create smarter digital twins

### **Business** - Technology Push

Mirroring digital twins onto physical counterparts has potential for industries beyond smart concierge services. Integrating this tech can increase efficiency, optimize processes, and improve customer experiences.

### eXperience

The digital twin of our workshop offers a smart digital concierge service for visitors to learn about the prototypes on display. This technology can improve visitor experience with an interactive tour.

### Technology

This prototype of a digital twin uses 3D modeling, augmented reality, and sensors to overlay the physical space and respond to actions taken in the room, such as turning lights on/off.



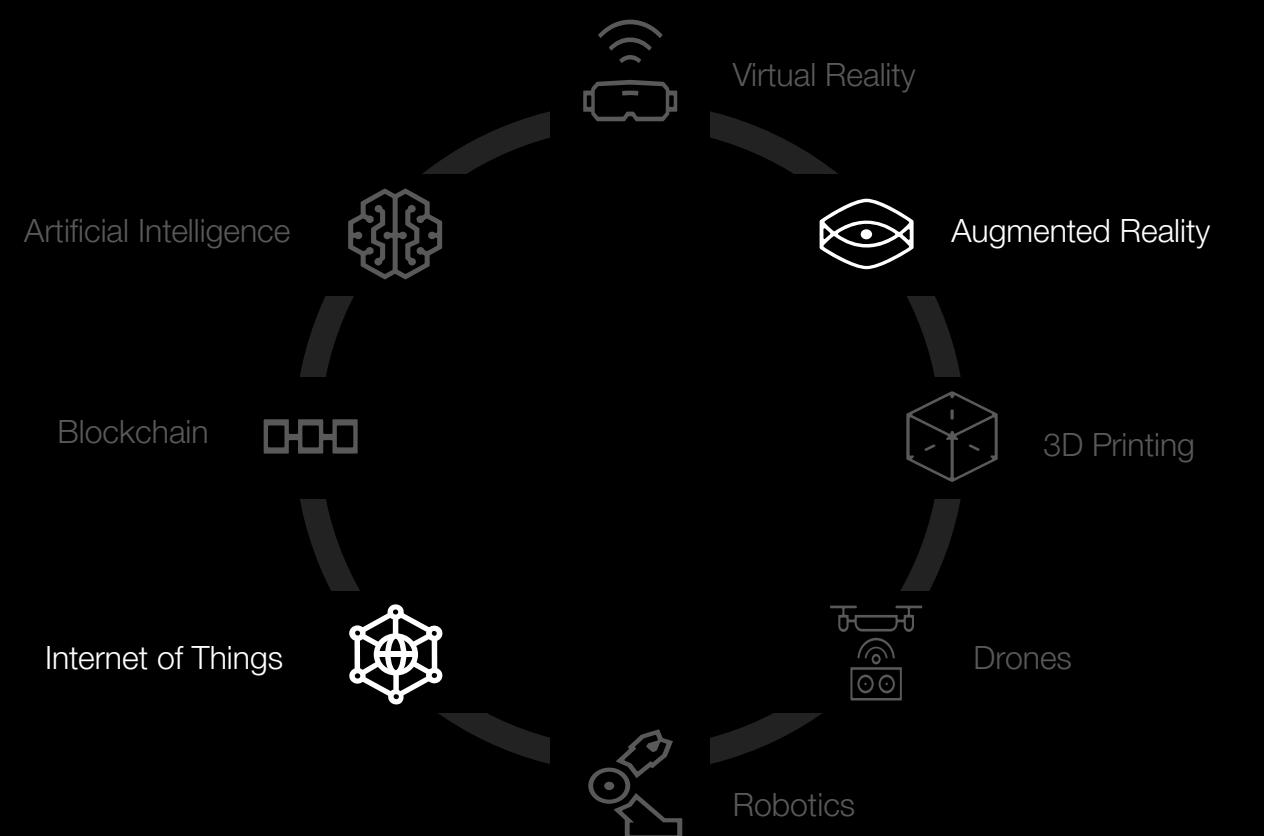
#### Prototype TRL 6

Industries: Smart Cities, Real Estate  
Sector: Management

### A DIGITAL TWIN IN AUGMENTED REALITY

[Prototype Documentation](#)

[See Video](#)



We have developed virtual agents which act as a concierge

### Business - Market Pull

AI bots meet the market demand for personalized and conversational customer service experiences, which is driven by customers' desire for better service.

### eXperience

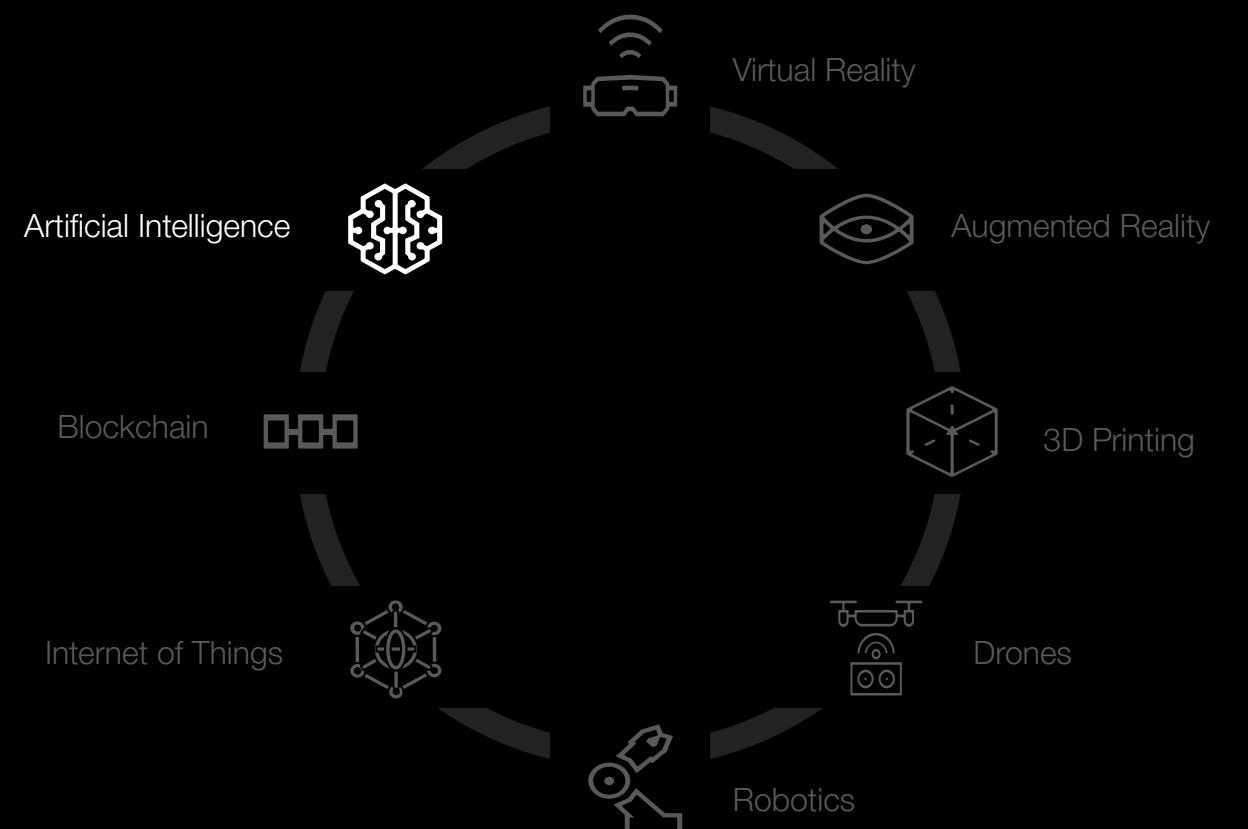
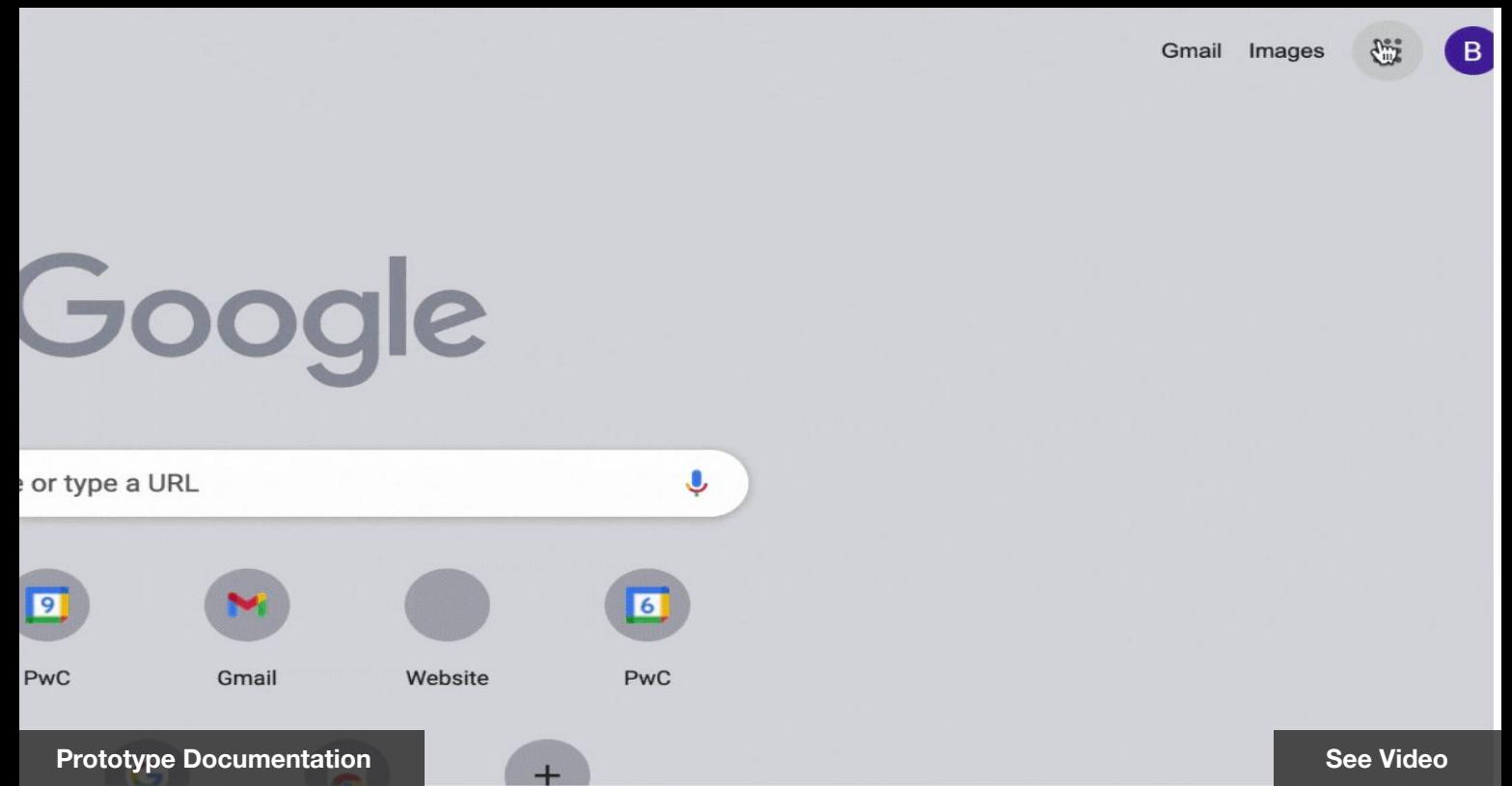
AI bots enhance customer service experiences by providing personalized and conversational interactions, as well as quick and reliable connectivity to the right contacts.

### Technology

AI bots use natural language processing and advanced algorithms to provide personalized interactions, and they connect to portals and databases to retrieve and update customer information.

#### Prototype TRL 9

Industries: Cross-industry  
Sector: Customer service



## Straight Through

We have successfully piloted an AI which acts as a concierge

### Business - Technology Push

Sophia is a AI-driven solution that automates the data capturing process. It automates the entire data capturing process from end-to-end, turning unstructured data into structured data meeting the market demand for faster and more accurate data entry.

### eXperience

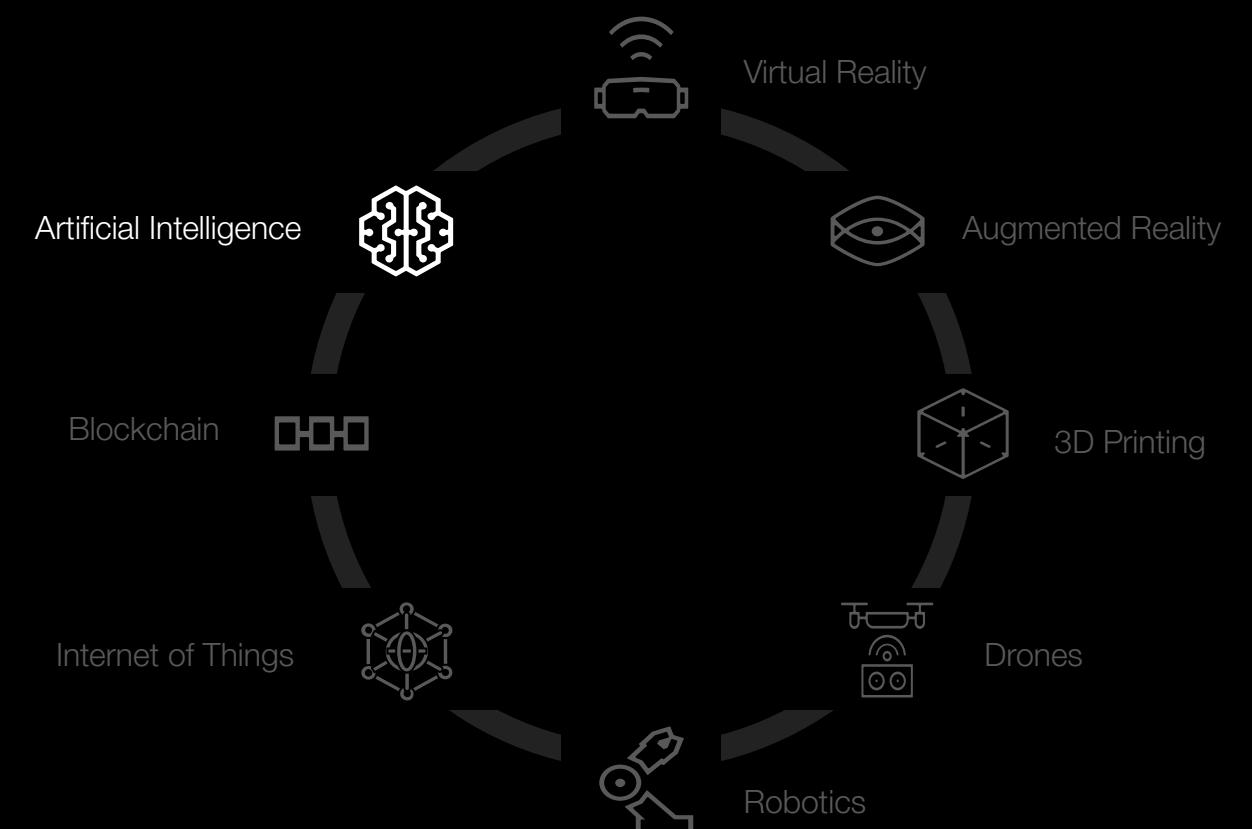
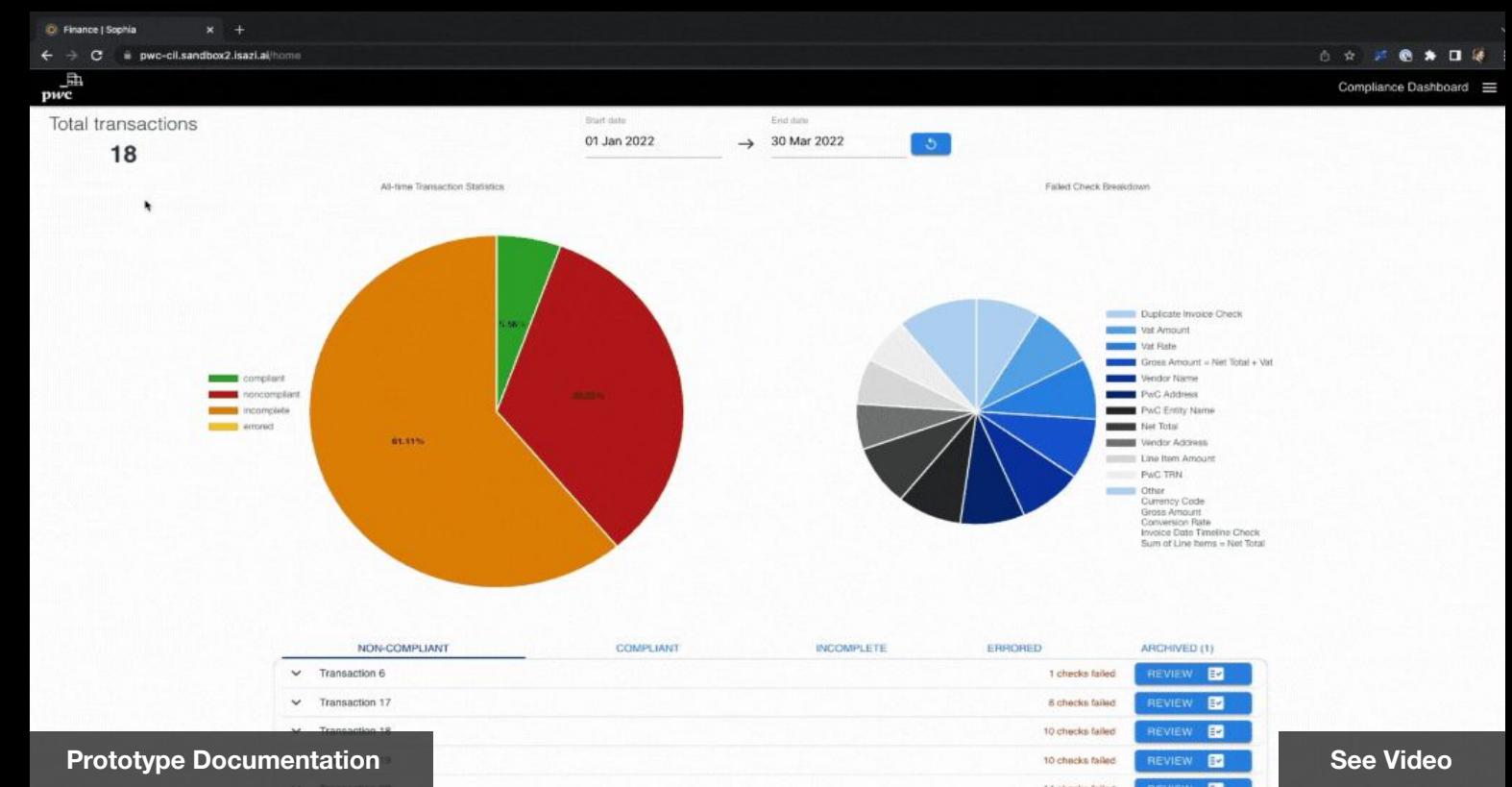
Sophia simplifies the process of classifying and extracting data across complex, difficult-to-read documents, including handwritten forms, PDFs, images, emails and more.

### Technology

Sophia uses AI and optical character recognition (OCR) technology to read and classify data from handwritten and typed documents, including difficult-to-read formats such as images, emails, and PDFs. It also utilizes advanced algorithms to extract and structure data in a meaningful way.

#### Prototype TRL 9

Industries: Financial Services  
Sector: Cross-sector



# Using AI and IoT to conduct real-time monitoring on edge devices

## Business - Technology Push

The real-time monitoring system meets the market demand for efficient traffic management systems. With growing urbanization and increasing traffic congestion, the system provides a solution by dynamically adjusting traffic signals based on traffic density.

## eXperience

The system uses a Smart decision-making algorithm to verify content in real-time and retrieve information on objects, activities, or identities. It also utilizes alerting protocols to notify relevant parties of any suspicious activity.

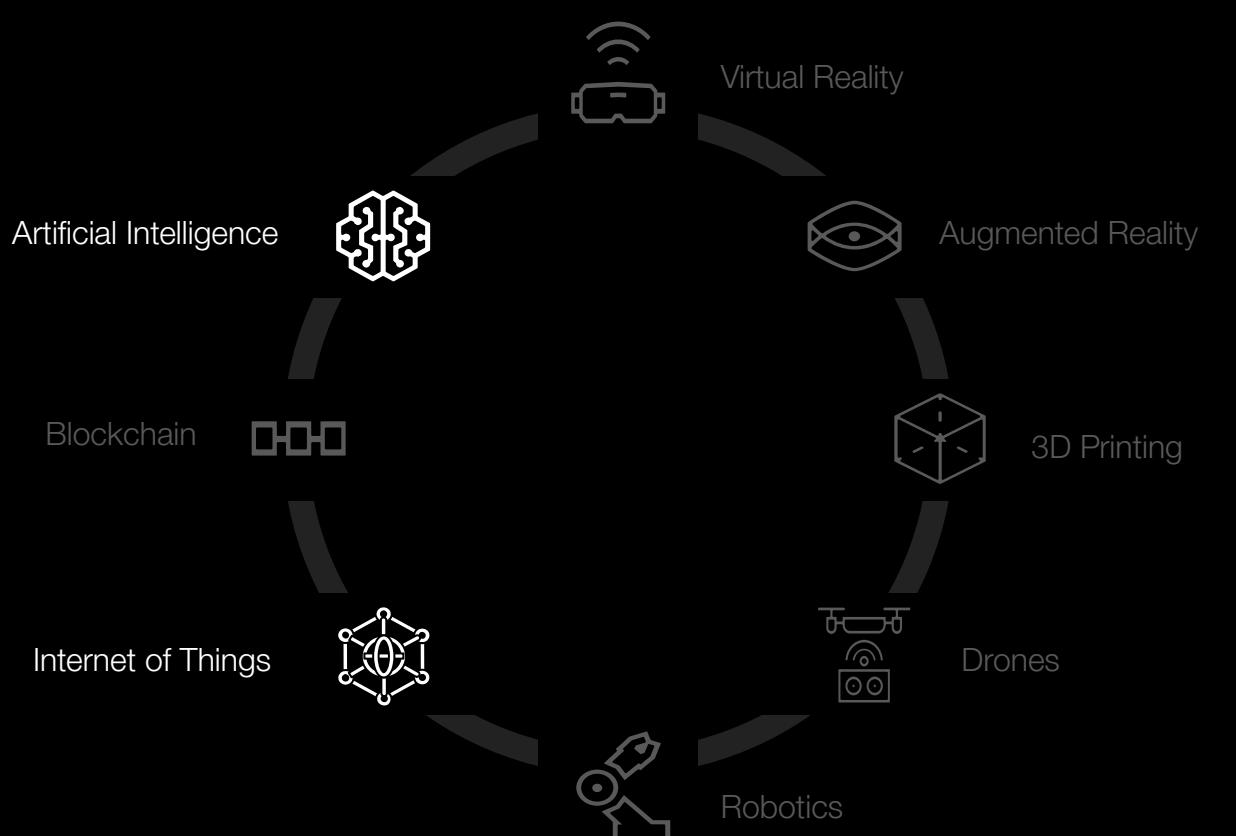
## Technology

PwC ME has created a demo for traffic surveillance that showcases the real-time monitoring system's capabilities. The system offers efficient and effective monitoring of traffic signals, improving traffic flow and increasing safety on the roads.



### Prototype TRL 7

Industries: Transport & Logistics  
Sector: Traffic management



## Remote Worker PoC

# Using computer vision to help with quality inspection

### **Business** - Technology Push

Technology deployed for remote access to information, guidance, training, and support meets market demand to improve worker productivity. Remote work is becoming more common in businesses and remote assistance is needed.

### eXperience

Technology has been deployed and tested across clients to support plant site visits for operational diligence and supplier qualification. Remote quality assurance inspection and evidence inspection have improved worker productivity.

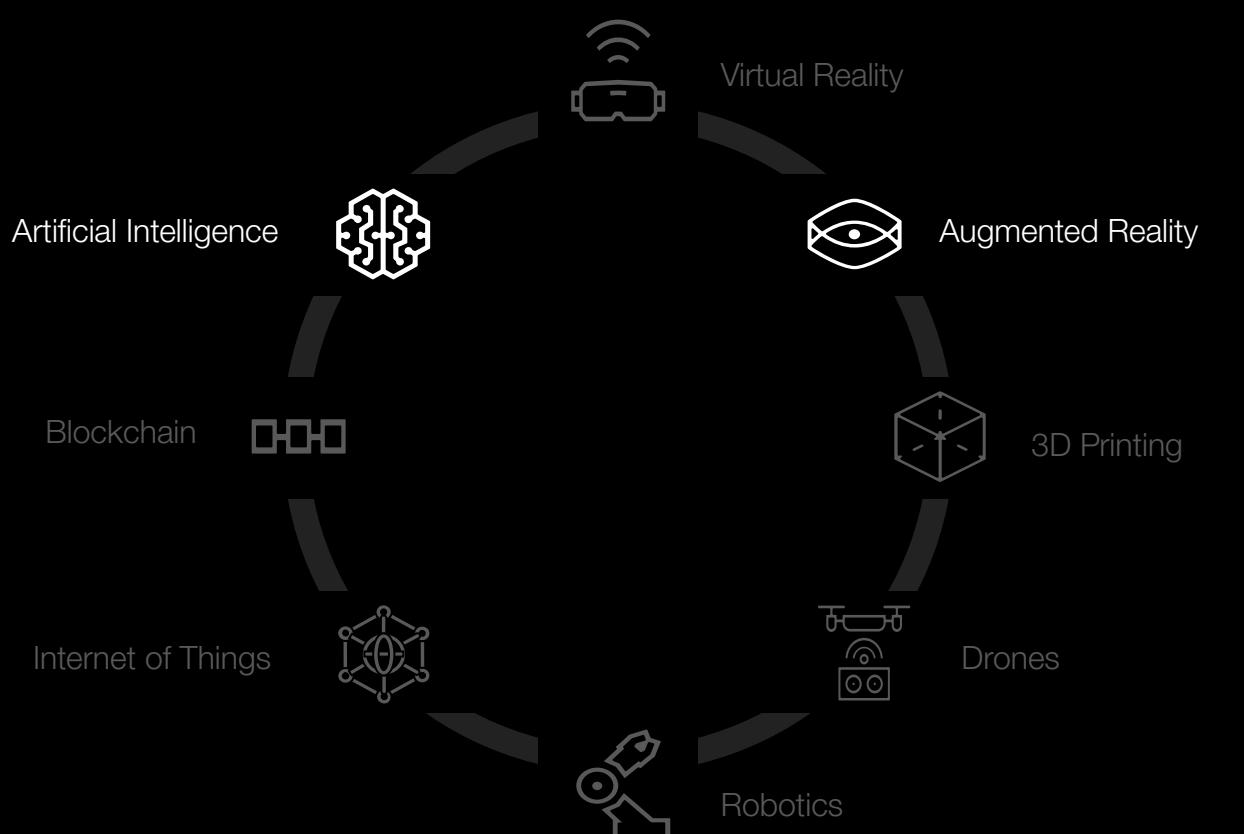
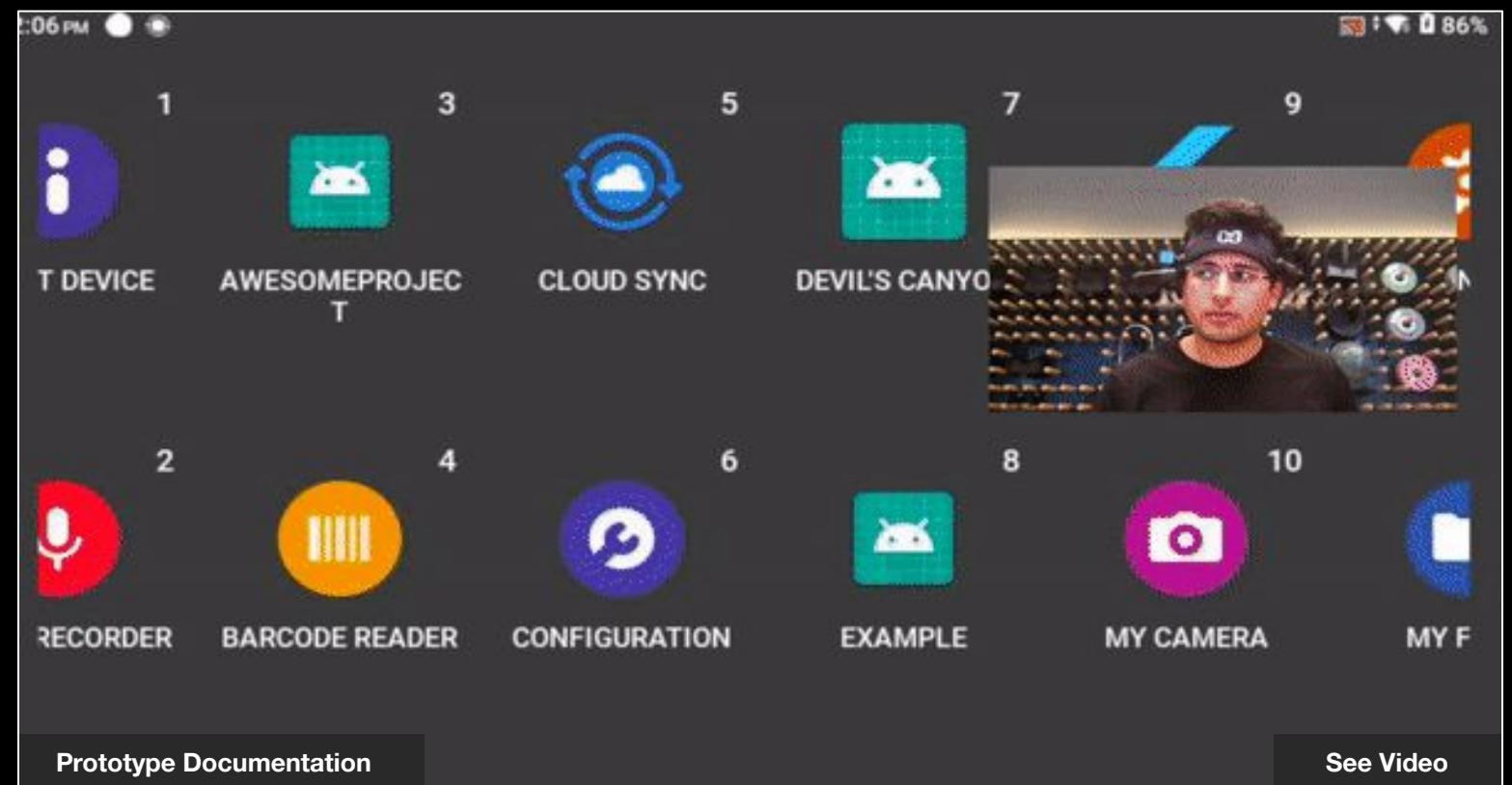
### Technology

The technology used for remote access includes augmented reality, and remote collaboration software. These tools enable real-time guidance and support, improving worker efficiency and effectiveness in challenging environments.



#### Prototype TRL 7

Industries: Transport & Logistics  
Sector: Inspection



## Physical Security

# Using facial recognition for physical security and presence

### Business - Market Pull

Facial recognition technology is a technological innovation that can be applied across various industries, improving access control, accessibility, security, and forensic investigations.

### eXperience

The technology is explored for use cases such as security systems, accessibility aids, and forensic investigations. Facial recognition offers a touch-free and fast method of recognizing faces from a distance.

### Technology

The team explores methods of access control and accessibility for people with disabilities. Third-party SDKs are used to create a presence API, providing richer product experiences. The technology constantly evolves, providing innovative solutions for various industries.

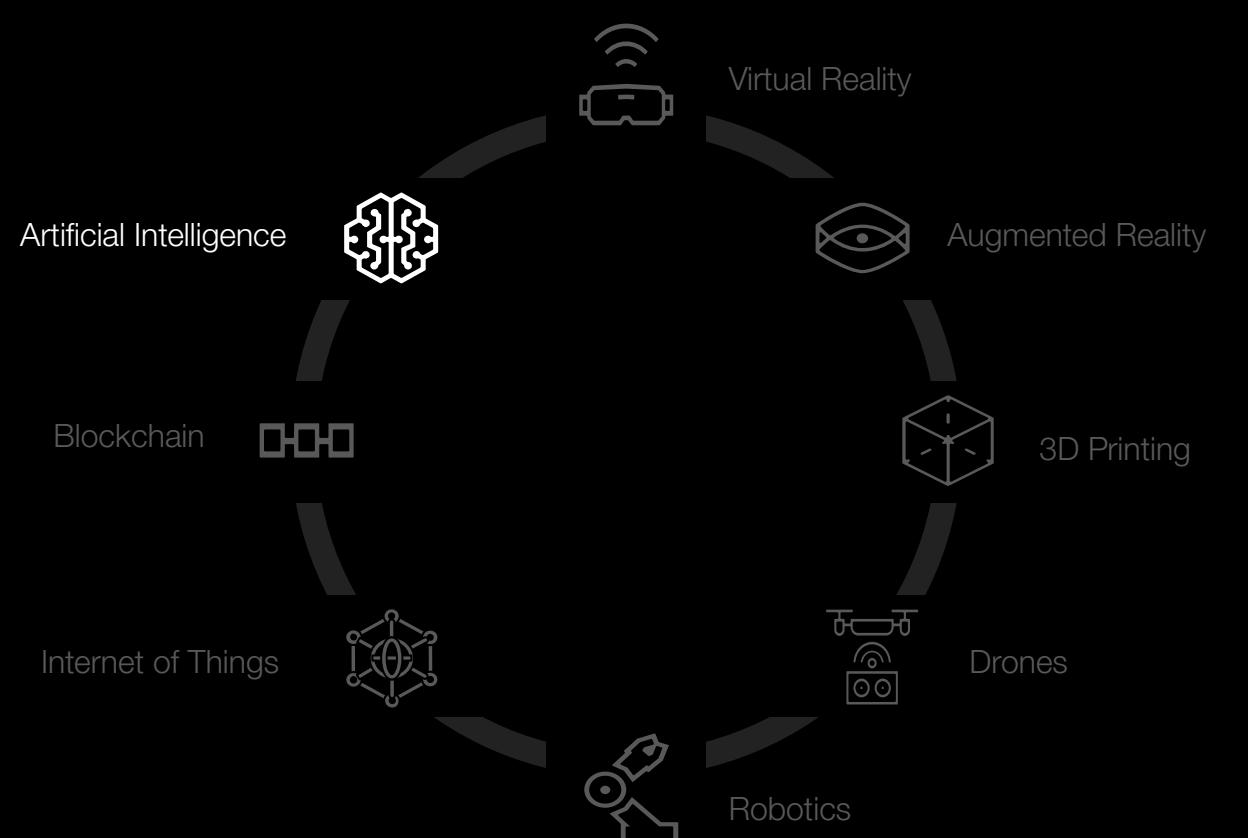


#### Prototype TRL 7

Industries: Cross-industry  
Sector: Security



Prototype Documentation



## NFTs for Attendance/Ticketing

# Minting NFTs on the blockchain as certificates or attendance tokens

### Business - Technology Push

NFTs act as digital mementos, minted in celebration of life's remarkable moments. They allow event organizers to better engage with their audiences by providing a customized experience.

It's not only about the art, but allows for a range of integrated services such as private chat rooms, raffles, and more.

### eXperience

For being a part of the EmTech Away Day, and in the spirit of Emerging Technology, we gave away the entire team of 30 people an NFT to keep for life! NFTs could also be used for certificates (birth, death, marriage, & achievements)

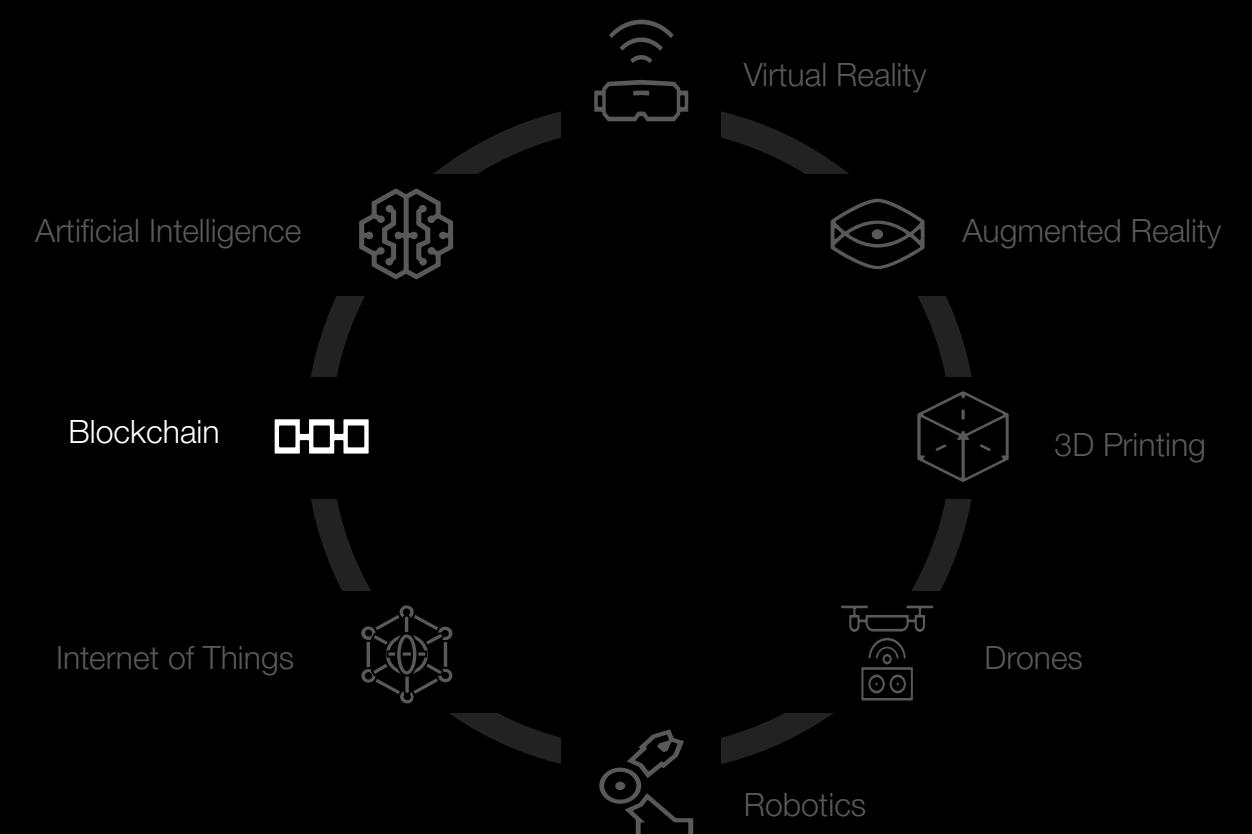
### Technology

The NFTs were minted on the Ethereum blockchain.



#### Prototype TRL 7

Industries: Cross Industry  
Sector: Cross Sector



RFID readers for personalized experiences

# Using the Magic of **RFID Bracelets and Readers** for personalized experiences

## **Business** - Technology Push

Personalized RFID tags, enabling unique outputs for individual users, prove to be highly valuable. Consequently, numerous prominent corporations have adopted these readers as well such as Disney, Amazon, and Zara

## e**X**perience

An application was created for a client managing a high-traffic location frequented by millions of visitors with varying literacy levels and navigation needs. The application utilized RFID bracelets that stored data such as language, age, and nationality, enabling the program to assist them in their preferred language. It also uses augmented reality to guide the user through the venue

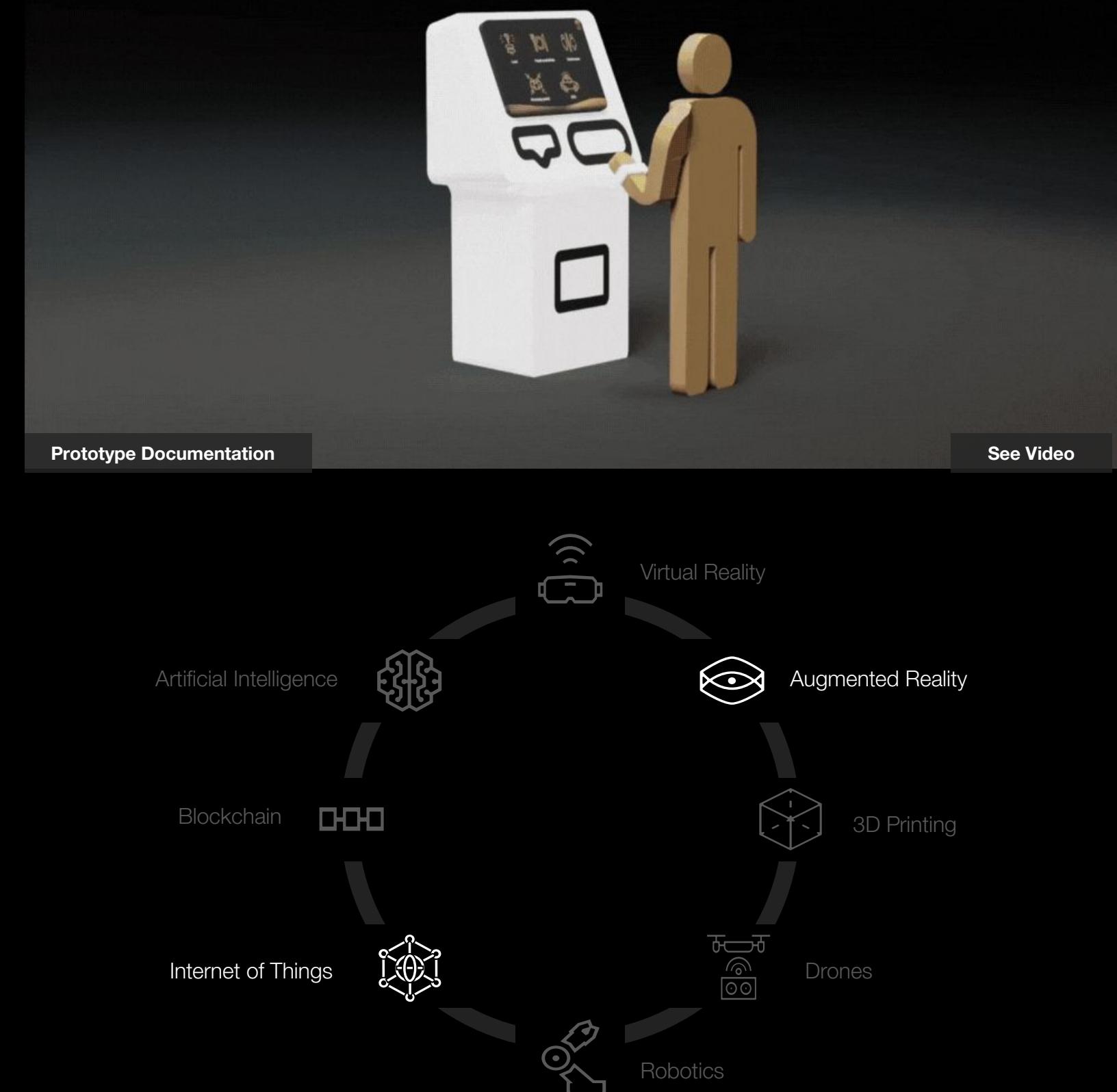
## Technology

Using an RFID tag and RFID reader, as well as a screen to display the front-end of the application.



### Prototype TRL 7

Industries: Tourism and logistics  
Sector: Customer experience



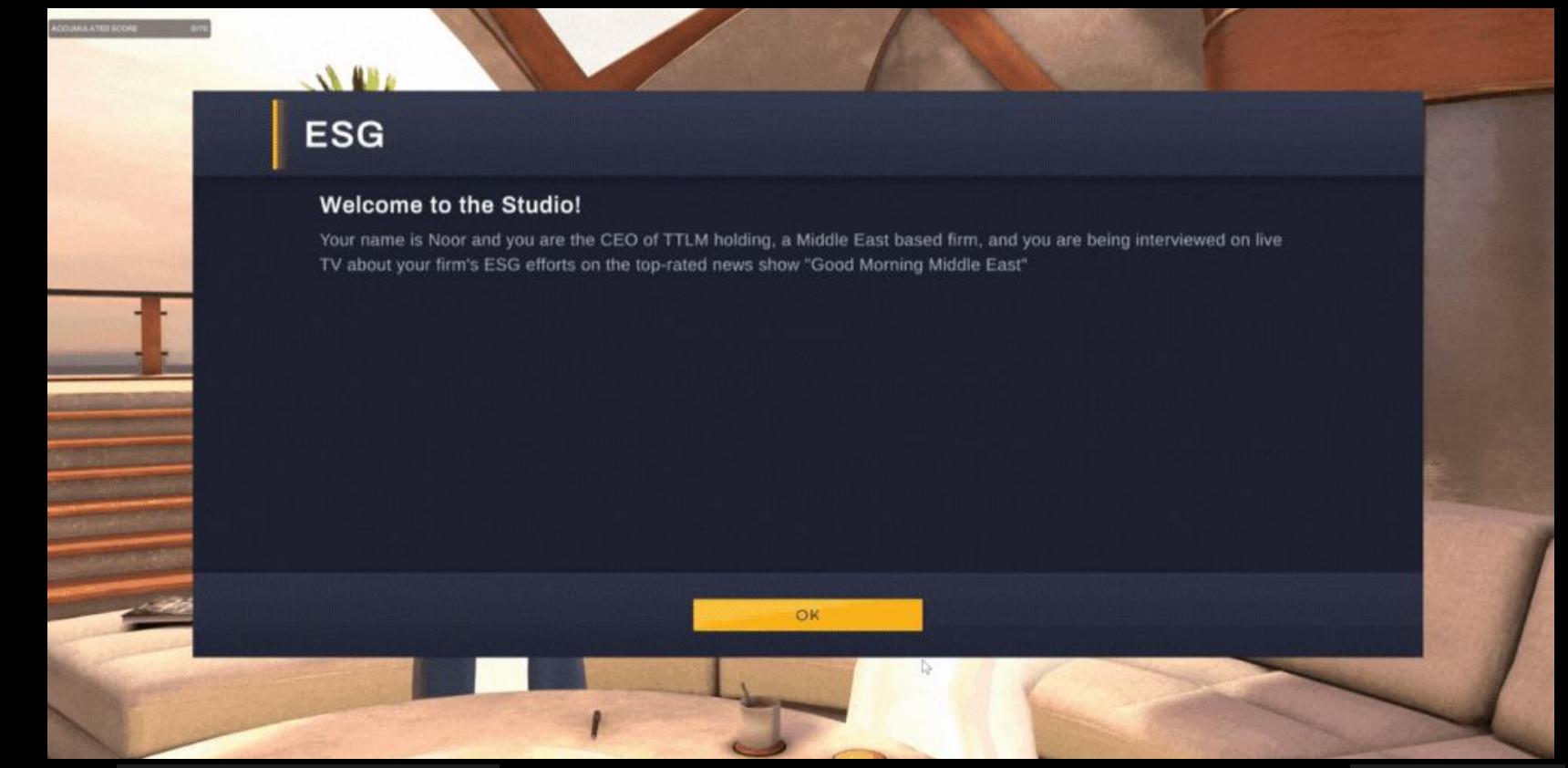
# Virtual CEO interview on ESG Learning

## Business - Technology Push

PwC's vision and the vision of many countries in the Middle East for 2030 include a strong focus on Environmental, Social, and Corporate Governance (ESG). This engaging and lively experience aims to assess users' understanding of ESG while also providing educational insights.

## eXperience

The user is the CEO of a large corporation and is being interviewed on TV. They are then guided through a dialogue about the different aspects of ESG. The experience is divided in 3 sections and the user is tested in every section with their responses.



Prototype Documentation

See Video

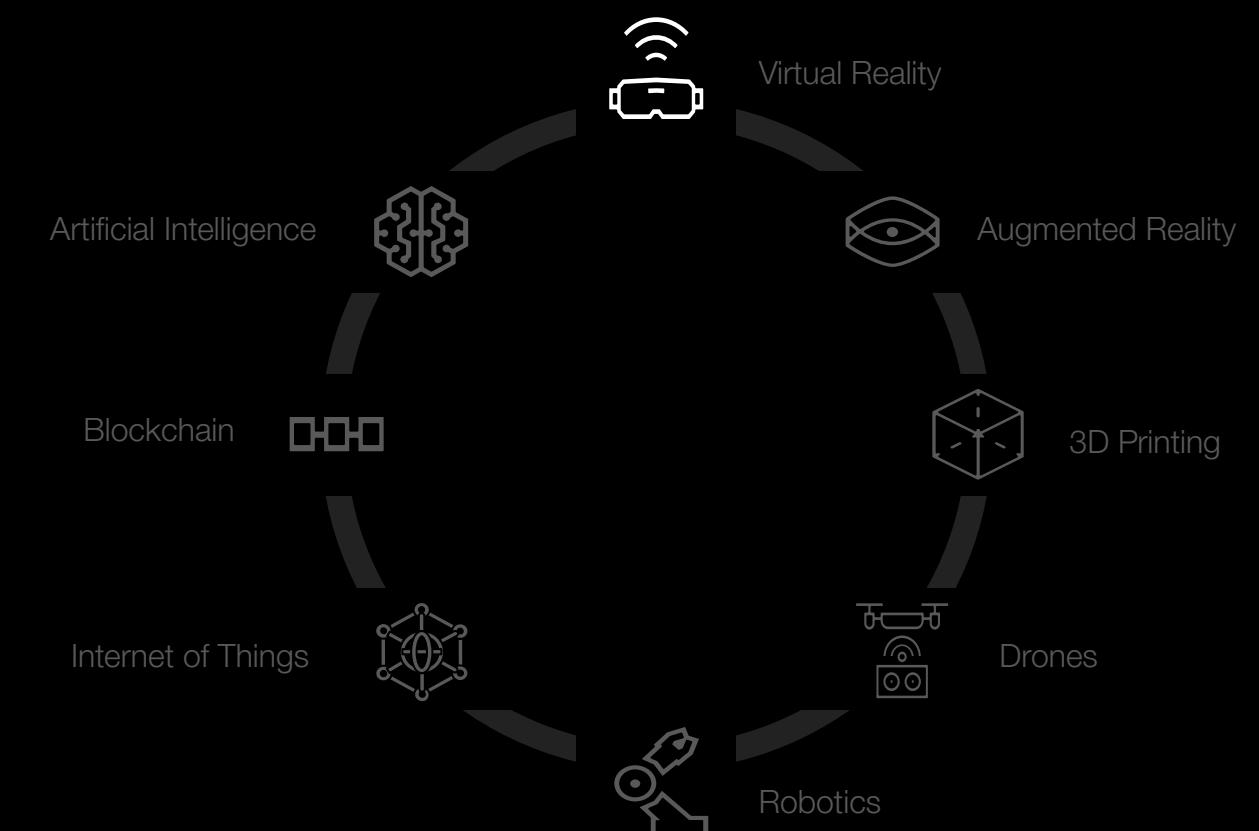
## Technology

The module can be played on Oculus VR headset or a browser, and uses the Talespin app



**Prototype TRL 7**

Industries: Education  
Sector: Training



# The Future of Geoscience: Augmented Reality and 3D Visualisation

## Business - Technology Push

Revolutionizing collaboration for the oil and gas industry, this prototype, eliminates travel costs and enhances efficiency allowing data manipulation, exploring geological charts, and gaining unique insights in an immersive way through augmented reality



[Prototype Documentation](#)

[See Video](#)

## eXperience

You can experience 3D geoscience data first-hand, and have multiple users remotely join the same room and work together, enabling you to learn from other perspectives and analyse charts closely.

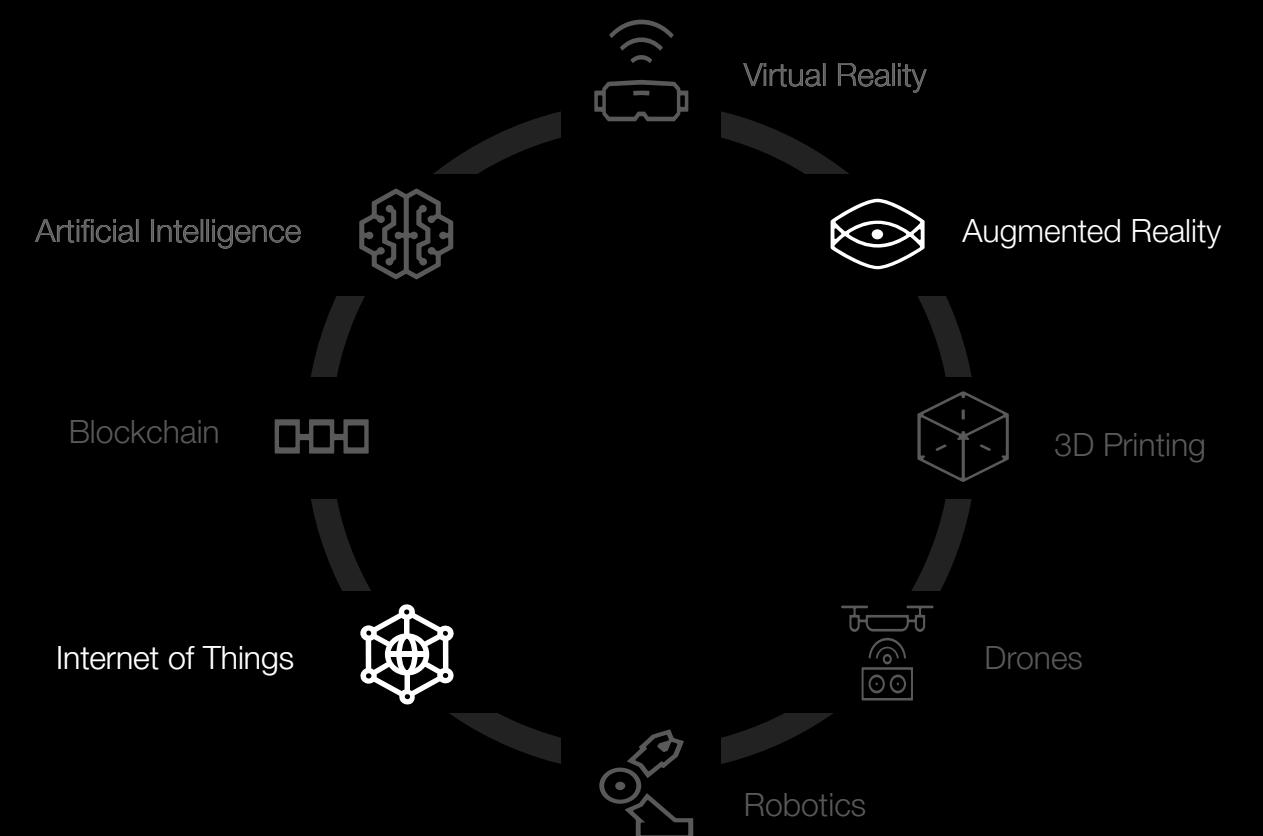
## Technology

The BaselineZ app allows cross-device collaboration and is supported on Oculus headsets, hololens 2, iOS and android.



**Prototype TRL 7**

Industries: Oil and gas  
Sector: Education



## Art using AI

# Using Generative AI to generate images based on sticky notes

## Business - Technology Push

Enhancing communication and productivity through generative AI. By converting text on sticky notes into expressive visual representations, we aim to improve the clarity and impact of ideas, fostering streamlined collaboration within teams.

## eXperience

Prioritise a seamless and user-friendly experience by posting sticky notes on the wall. Our interface is easy to use regardless of technical expertise. With real-time text-to-image generation, ideas can be brought to life instantly.

## Technology

The team explores methods of capturing different colours and texts from a board using computer vision and relaying that information to generate images from text.

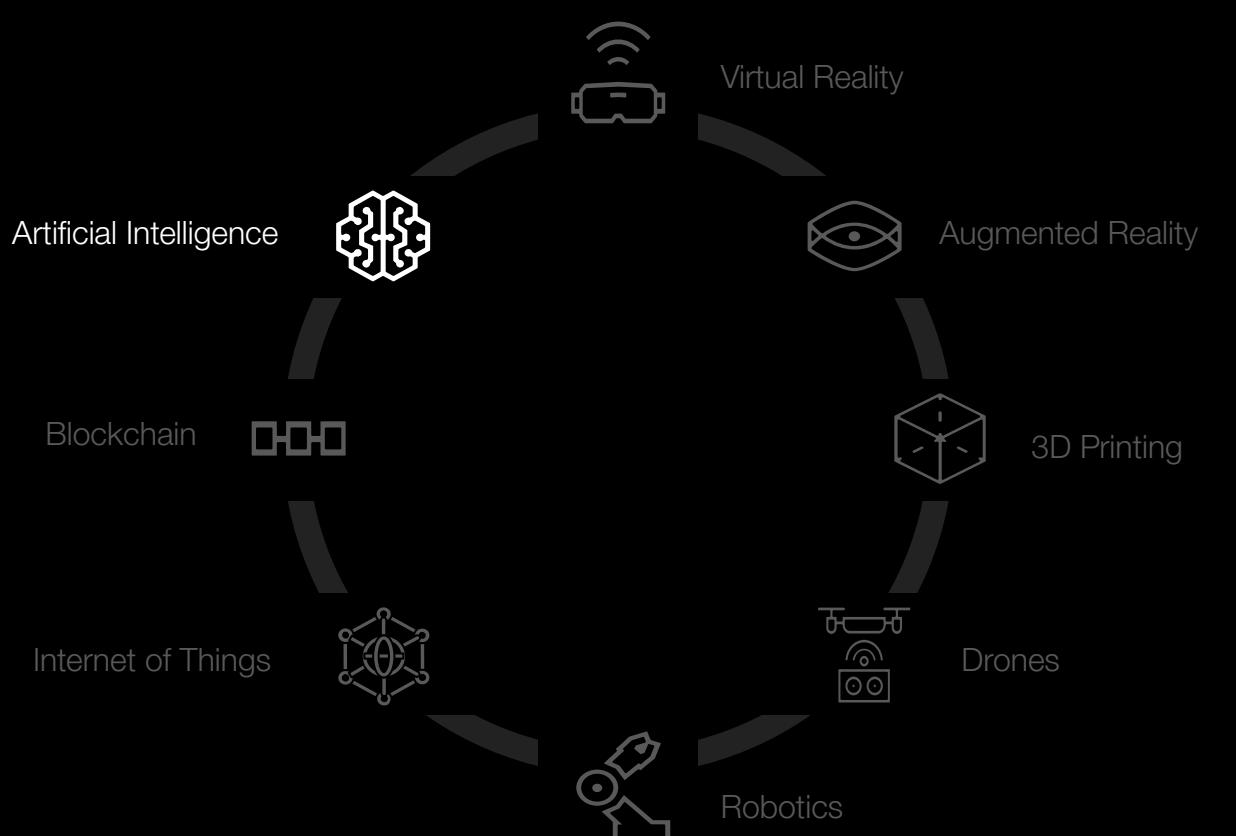


### Prototype TRL 7

Industries: Cross-industry  
Sector: Training

Prototype Documentation

See Video



Interactive videos for audience engagement

# Pick your own journey marketing video **in** **VML**

## **Business** - Technology Push

Personalised video content to optimise engagement in a creative, secure, and data-driven way

## e**X**perience

You can experience 3D geoscience data first-hand, and have multiple users remotely join the same room and work together, enabling you to learn from other perspectives and analyse charts closely.

## Technology

The BaselineZ app allows cross-device collaboration and is supported on Oculus headsets, hololens 2, iOS and android.

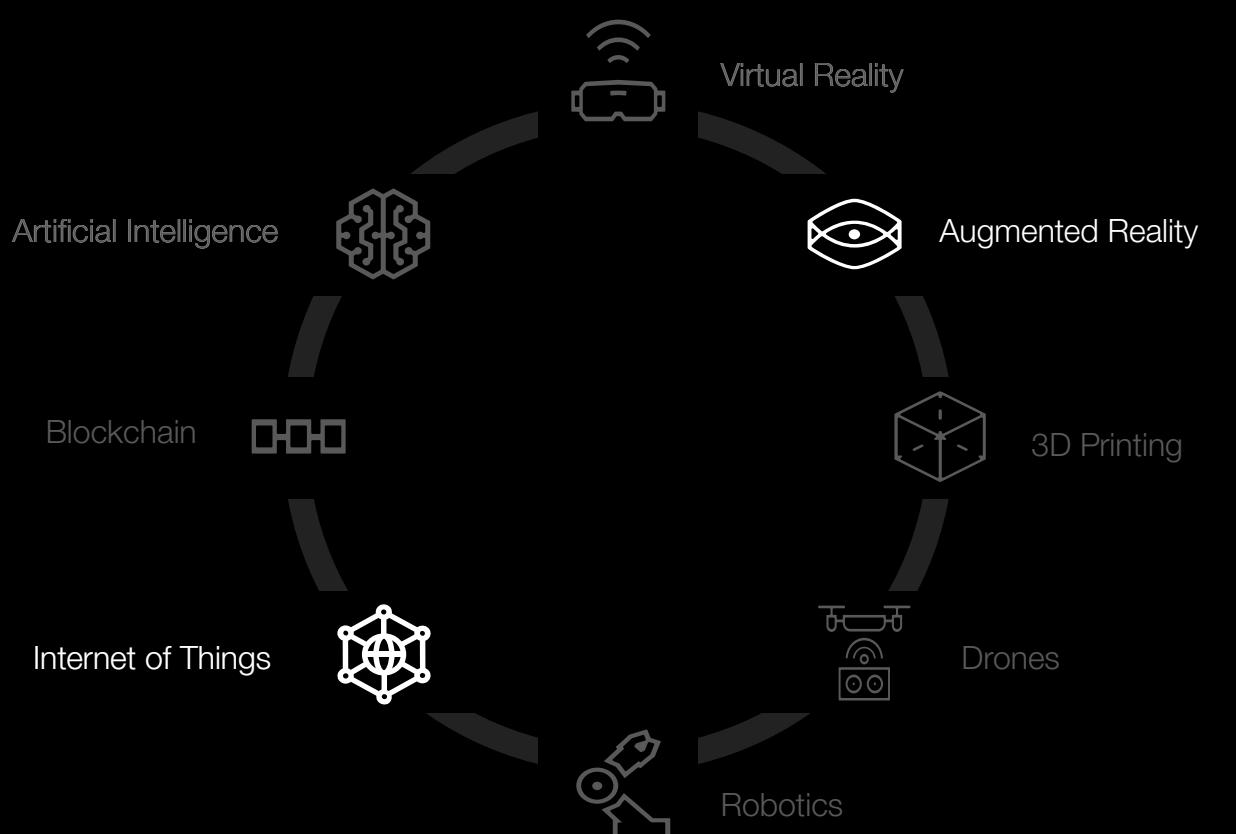


### Prototype TRL 7

Industries: Oil and gas  
Sector: Education

Prototype Documentation

See Video



EmTech Labs in Qatar

# Launching our Qatar Labs with a WebAR experience

Using different emerging technologies such as

INDUSTRY 4.0

THE  
METAVERSE

ARTIFICIAL INTELLIGENCE

allows us to create immersive and interactive experiences, such as this WebAR experience that showcases the lab in an interactive 3D experience.

