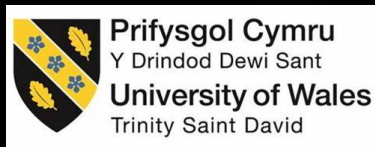


Avanade and UWTSD

Manufacturing Innovation In Practice

Industry 4.0 and a focus on
Extended Reality



The Future of Work Partnership

Applied Industry Innovation



Avanade Team

We are delighted to share our experiences and insight into the manufacturing industry and practical application of Industry 4.0 technologies with a focus on extended reality.



Tom Nall

Global Industry Lead
for Manufacturing



Matt Hulbert

Sr Director, Emerging Experiences
Global Extended Reality Lead

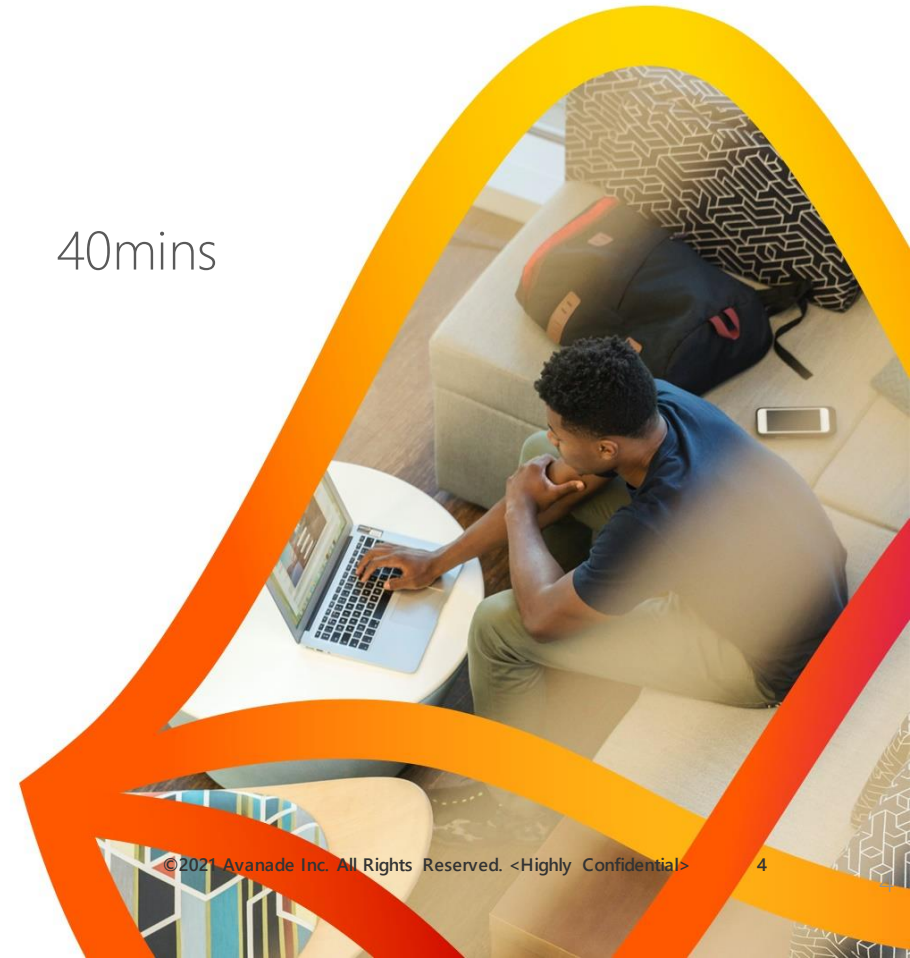


David Morgan

Global Industry Marketing
Lead for Manufacturing

Agenda: Guest Lecture

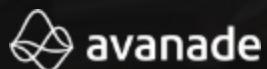
- Avanade overview & partnership with UWTSD : David Morgan 10mins
- Manufacturing Overview : Thomas Nall 30mins
 - Avanade's Manufacturing Practice
 - Primary Industry Drivers and Challenges
 - How we Help Manufacturers Solve Them
 - Emerging Trends and Technologies
 - Spotlight : The UK Ventilator Challenge
- Extended Reality & Training : Matt Hulbert 40mins
 - XR Overview
 - XR in Training
 - UK Ventilator Challenge
- Q&A



Who is Avanade?

Avanade is the leading provider of innovative digital and cloud services, business solutions and design-led experiences delivered through the power of people and the Microsoft ecosystem.

Our purpose is to make a genuine human impact.



Avanade

Best of Accenture and Microsoft

Created by Accenture and Microsoft, Avanade brings the best in strategy and technology to unlock more value from your IT investments and maximize business results.

Today we are arguably one of the most successful joint ventures in the industry, bringing together the world's largest community of experts on Microsoft-based solutions with 75,000+ skilled professionals across Avanade and Accenture.



Avanade by the numbers

Our people know Microsoft better than any other partner



40,000

Skilled and diverse
professionals –
32% of whom
are women



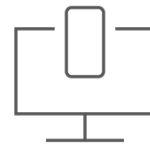
32,000

Microsoft Gold
certifications in all
18 categories



**15 Centers
of Excellence**

Specializing in
cloud, Dynamics
AX, CRM, digital
marketing and
more



10 mil+

Office 365 seats
deployed; more
than any other
partner



20+

Participation in
Microsoft Early
Adopter Programs



#1

Only systems
integrator with
access to the
exclusive Microsoft
Technology Center
Ecosystem

We think global, act local

As leading Microsoft experts we can scale to meet your needs



80 locations

25 countries



10,000+

Projects with 4,000 clients since our inception



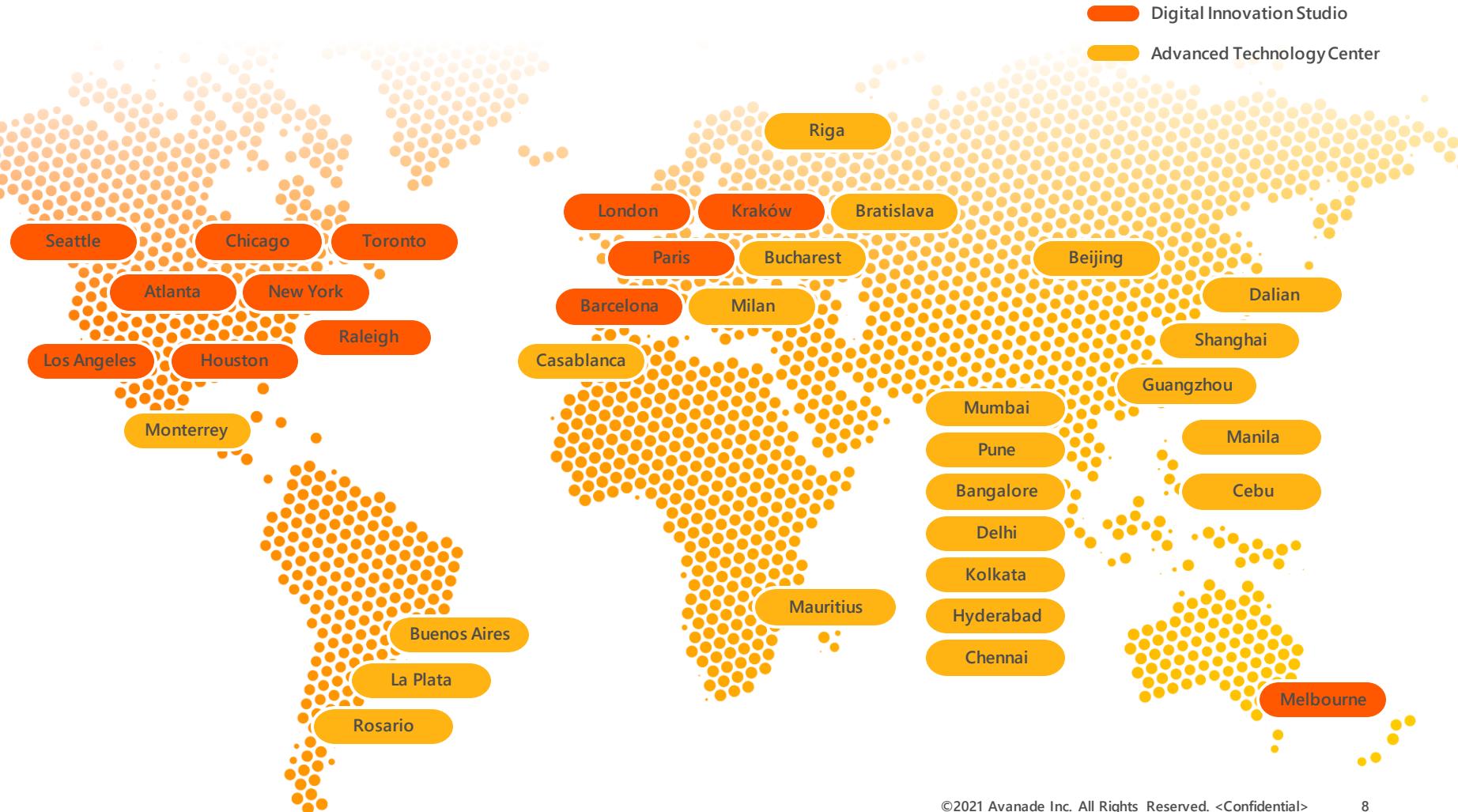
46%

of Global 500 companies are clients



34%

of Fortune 500 companies are clients



We're recognized as the **leading digital innovator** on the Microsoft ecosystem

Microsoft
Partner



Microsoft Global Alliance
SI Partner of the Year
for the 15th time

2020 Partner of the Year Winner

Global AI and Machine Learning Partner of the Year

Global Connected Field Service Partner of the Year

Global DevOps Partner of the Year

Global Modern Workplace for Firstline Workers
Partner of the Year Award

Global Healthcare Partner of the Year

Australia Country Partner of the Year

France Country Partner of the Year

Manufacturing Overview



Tom Nall

Global Industry Lead for Manufacturing

- Avanade's Manufacturing Practice
- Primary Industry Drivers and Challenges
- How we Help Manufacturers Solve Them
- Emerging Trends and Technologies
- Spotlight : The UK Ventilator Challenge

We work with the Microsoft **Manufacturing** experts

Commitment to innovation

- 20 years in business as a Microsoft-Accenture joint venture delivering Microsoft solutions
- Dedicated to Microsoft
- The Accenture Microsoft Engine
- Strategic Partnerships
- Manufacturing thought leadership
- Partner and industry solution accelerators
- Global network of digital studios
- Microsoft Alliance Partner of the Year for 15 consecutive years



Partnerships for
industry leading
research and
development



3,500+

manufacturing
industry delivery
professionals

46%

of Global 500
companies are
clients

1000+

manufacturing
clients
worldwide

BAXI

ABB

BDR THERMEA GROUP

ENCORY
a joint venture of BMW Group and ABA Group

Theramex
For Women. For Health.

Breville®

Henkel

Continental

Pernod Ricard España

LEWA
Creating Field Solutions

VELUX

DUPONT



CAT

ECOLAB

Lenovo

Manufacturers tell us these are their most immediate challenges

Connected workplace experience

Manufacturers must ensure the safety of their workers while identifying and implementing new operational best practices and opportunities to automate the workplace.

Resilient operations

Greater flexibility is needed to scale and drive new resilient business models for diverse supply chains and supplier ecosystems.

Agile production

To meet the changing needs of consumers and partners, manufacturers must respond with agility by supporting investments in “factories of the future.”



Our Manufacturing GTM Strategic Priorities

Our Manufacturing Value proposition

We help clients go beyond Industry 4.0 digitalisation, to enhance the worker and workplace, drive resilience at the core and enable agile innovative production for sustainable operations and personalized products and services.



Leveraging Cloud and Industry 4.0 technologies

Workforce Empowerment

Empower the workforce

- War for talent driving need to upskill.
- Worker health and safety and responsible business key considerations.
- Workplace and worker transformation to attract and retain OT and IT workers.
- Optimized and digitally skilled workers required to differentiate.
- Technology (XR / AI) improving training and knowledge transfer.
- Deliver exceptional experiences to your workers exactly when and where needed

Operational Resilience

Embrace the next challenge

- Need for process optimization and reduction of technical debt.
- Leaner operations and automation required for adaptability to protect the core.
- New business models and partnerships for flexibility and scale.
- Integrated front and back-office solutions protecting supply chain disruption.
- Remote working requires a secure 'cloud' infrastructure.

Organizational Agility

Sustainable innovative production

- Sustainability driving digital manufacturing
- Connected IIOT for smarter products and services.
- Rapid response to address the evolution of consumer needs and move to personalization.
- Investment in Innovation (Industry 4.0 and beyond) driving growth and transformation ambitions.
- Ability (knowledge / experience) to innovate at scale with agile, secure and remote solutions.
- Using Data and Analytics to drive decisions

Connected Ecosystem

Factories of the Future - Factory floors must become more innovative, sustainable, remote, data driven for the future of manufacturing on the edge. Technology is driving change, growth and integration at scale.

New business models – partner ecosystems being updated – **COVID-19 has driven manufacturers to work with totally new partners** (sometimes competitors) across a wider ecosystem.

Integrated platforms are key to gain insight and competitive advantage

Leveraging Cloud and Industry 4.0 technologies

Modernized infrastructures - enabling flexibility, security and innovation at scale.

Circular business models and sustainability are key investment considerations and require common platform

Operational Resilience:

Ensuring your supply chain and manufacturing operations can anticipate and manage challenges



MAINTENANCE
MATURITY ASSESSMENT



PRE-CONFIGURED
MODULAR
SOLUTIONS



MOBILE INTERFACE



EMBEDDED ANALYTICS



IOT INTEGRATION
TEMPLATES



BACK-OFFICE
INTEGRATION



BUYERS/ & INFLUENCERS:

- VP of Supply Chain
- VP of Manufacturing
- VP of Purchasing/ Procurement



Business Outcomes:

- ✓ Reduced material handling costs
- ✓ Reduced equipment downtime, improved OEE
- ✓ Reduced cost of production
- ✓ Improved client satisfaction
- ✓ Improved employee engagement



Probing Questions:

- Do you have visibility across the entirety of your supply chain and identification of critical suppliers and components tied to demand?
- Do you have the ability to quickly pivot between suppliers if a supply problem occurs?
- Are your maintenance operations primarily preventative and break fix or are you including predictive maintenance in your
- How are you connecting and collecting data from your machines? How are you visualizing that data? How are you making it actionable?

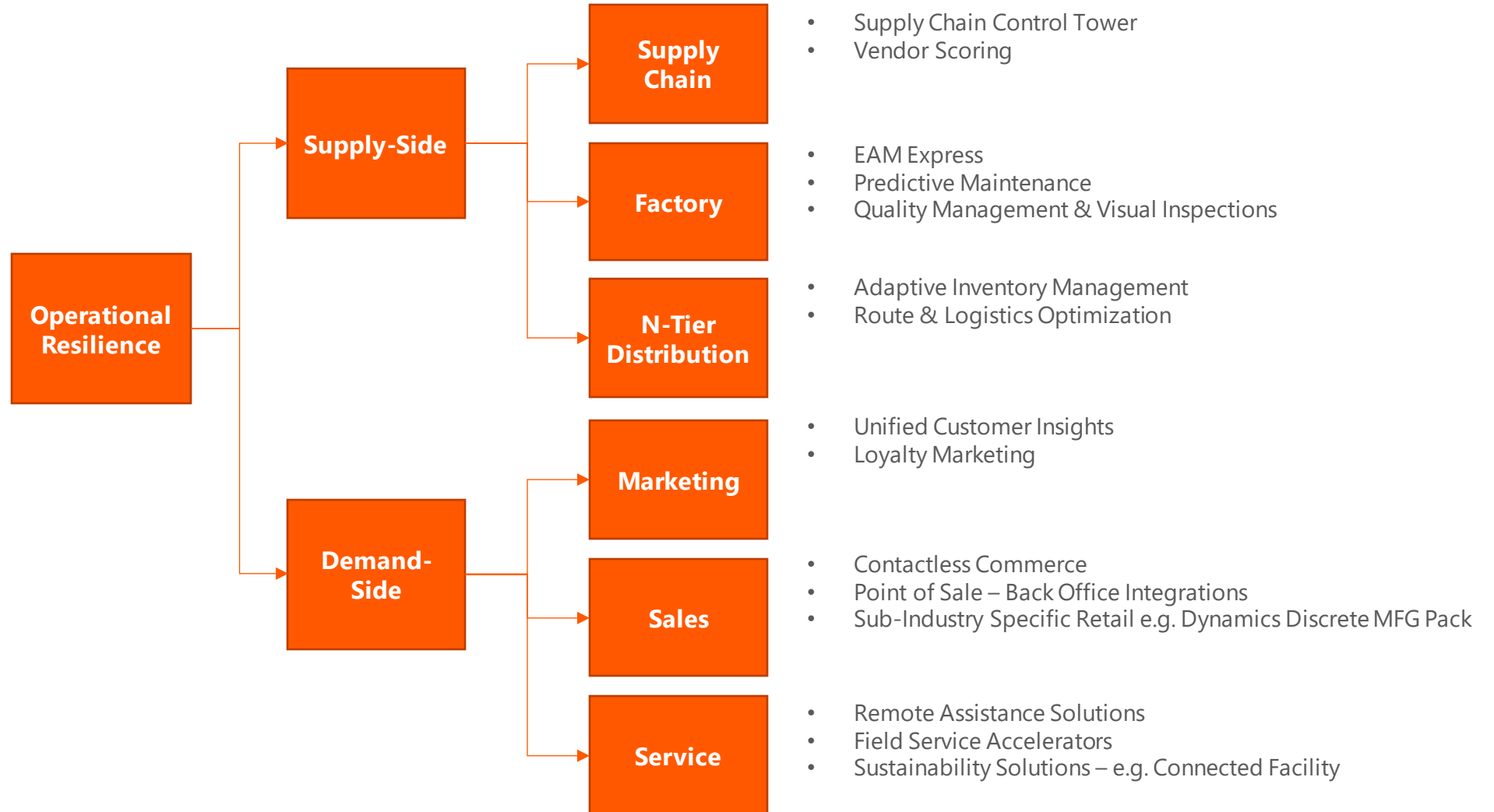
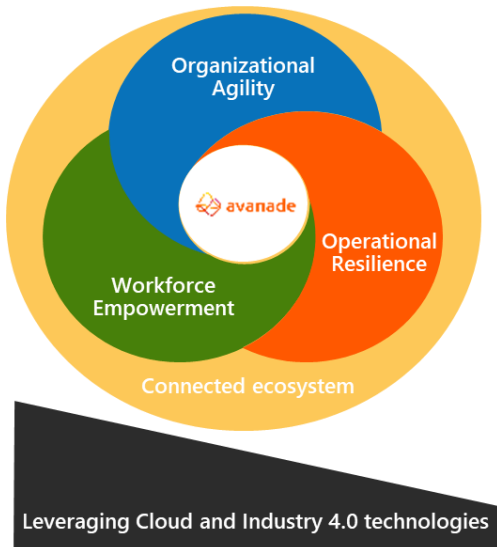


Avanade Solutions & Assets:

- Dynamics Express Suite: EAM, ERP, FS
- Connected Ecosystem
- SCM Control Tower
- Chatbots/ Virtual Agents/ RPA Starter Kits
- Journey to Cloud

Delivery of Asset-Backed Pragmatic Solutions by Theme Contextualized by Sub-Industry

EXAMPLES FOR OPERATIONAL RESILIENCE
NOT EXHAUSTIVE SET OF ACCELERATORS



What's Next?
Emerging
trends and
technologies
that will
impact
manufacturers



✓ **Cross Technology Investing:**

- ✓ Centralized strategy and programmatic approach to investigating and adopting digital technologies
- ✓ Incorporation of multiple technologies and business units/functional areas into Industry 4.0 projects
- ✓ Continued convergence of IT/OT

✓ **Increased Focus on Corporate Citizenship:**

- ✓ Rapid expansion of sustainability and drive to net-zero
- ✓ Increased focus on workforce experience, collaboration and inclusion in technology decisions
- ✓ Increasing importance to consumers and employees-will soon be a core decision criteria of both
- ✓ Move from being driven by independent organizations with voluntary participation to governmental regulation

✓ **Rapid Expansion of Specific Technologies:**

- ✓ Next generation connectivity will drive continued adoption of IoT and rapidly increase adoption of Artificial Intelligence and Machine Learning
- ✓ Increased investment in becoming data driven organizations
- ✓ Digital Twins emerging as the next "hot" technology
- ✓ Wholesale small-scale updating of Technology Business Applications
- ✓ Rapid expansion of low code/no code, citizen development



VENTILATOR
CHALLENGE | UK

*"Organizations have been judged on their
response [to COVID-19] – and that judgment
will far outlast the virus itself."*
– Fjord Trends 2020

Industry 4.0 solutions delivering a genuine human impact by saving lives

As COVID-19 cases were spiking the UK Government realised they were 15,000 ventilators short



- Early in the pandemic, tens of thousands of UK citizens were becoming infected with Covid-19, and hundreds were being admitted to hospitals daily, the most seriously ill needing ventilators to breathe. a dire picture began to emerge. Ventilators were clearly able to save lives, and models predicted that 30,000 or more may be needed.
- There were less than 6000 available

The Government came up with a monumental challenge-lets build 10,000 more ventilators.

In 12 weeks

VENTILATOR
CHALLENGE | UK



Some of The World's Leading Companies Stepped Up

Approved Ventilator



Two Ventilators
Were
Approved

smiths medical



How did Avanade help?



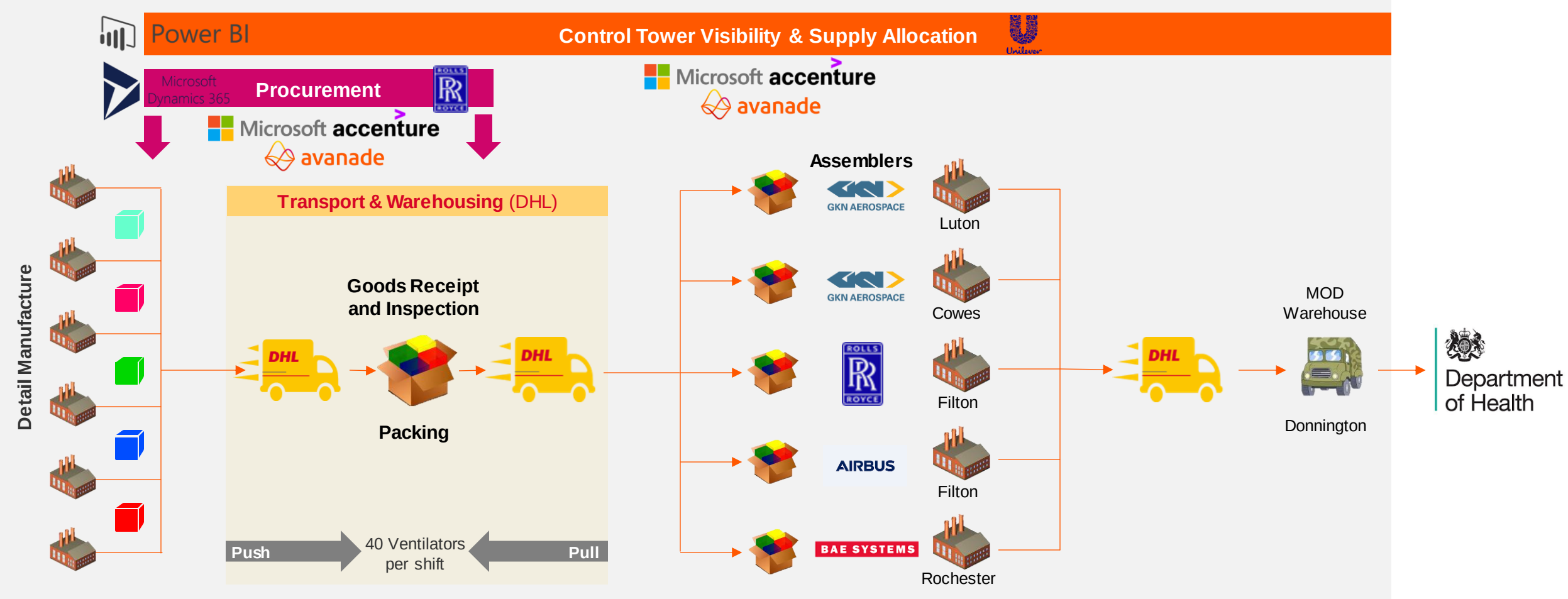
First, we deployed a Microsoft Dynamics Rapid ERP - Supply Chain solution, enabling **parts** to be in the right place at the right time

These types of projects typically take **months**, and sometimes **years**

As part of the UK Ventilator Challenge it was finished in **3 weeks**

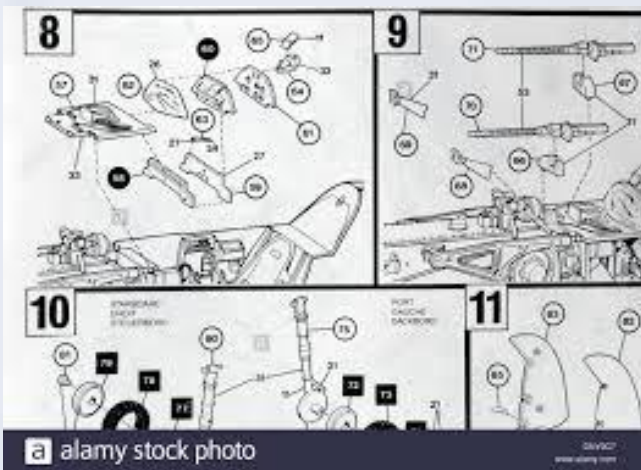


The End to End Ventilator Process





Training the Assembly Line – IN EXTENDED REALITY



Mobile Device Management

Providing consistent and secure devices for use in the field



Dynamics 365 Guides

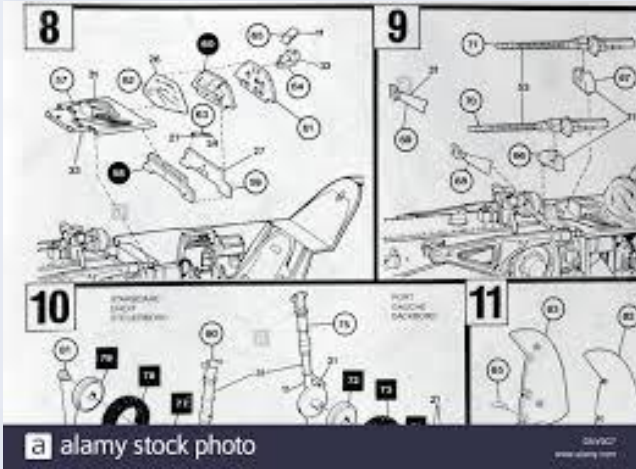
Enabling immersive learning and guide procedural knowledge



Dynamics 365 Remote Assist

Hands free support from remote experts no matter their location

3) Training the Assembly Line – IN AUGMENTED REALITY



Mobile Device Management

Providing consistent and secure devices for use in the field



Dynamics 365 Guides

Enabling immersive learning and guide procedural knowledge



Dynamics 365 Remote Assist

Hands free support from remote experts no matter their location



Programme Management

Directing the myriad of simultaneously activities to reach a common goal in the shortest possible time



Managed Services

Consistent and continued support across the several solution stacks



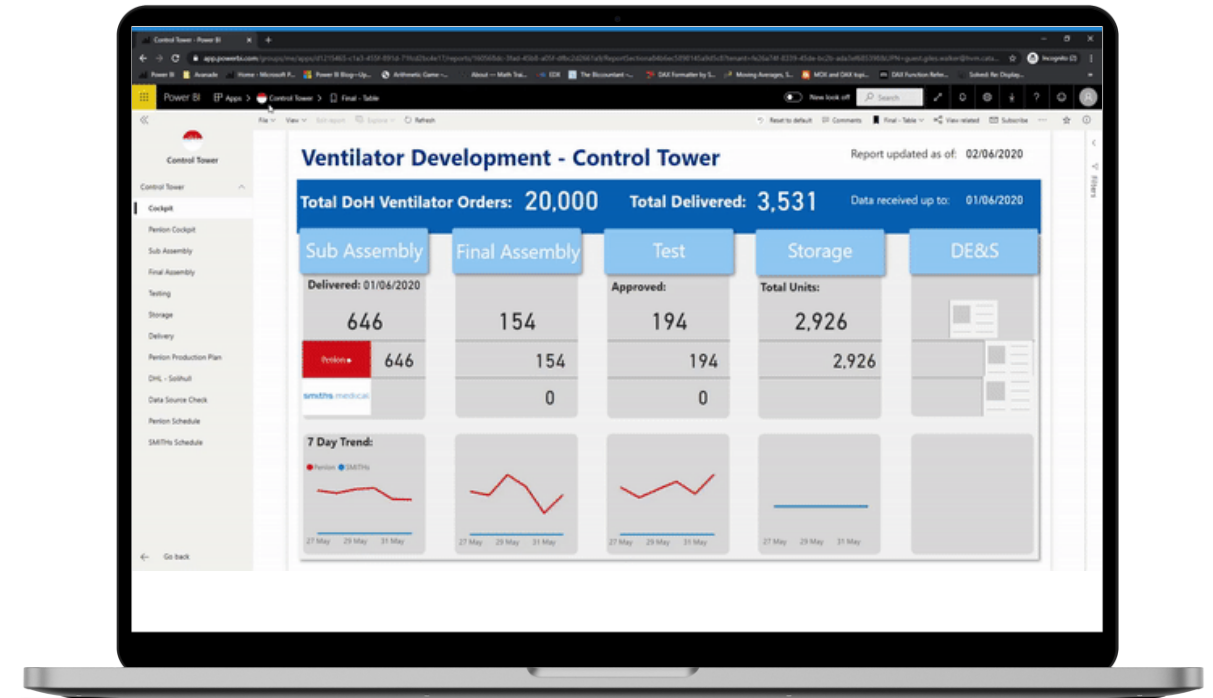
Next, a 'Control Tower' - Power BI

360° view of operations

- Confirm short-term strategy for synchronizing supply and demand
- Enhance production forecast accuracy
- Complete supply chain scenario planning

Single source of truth - live

- Seamless view of operations
- Data was near live
- Used every morning for stand-ups and twice a week for production updates

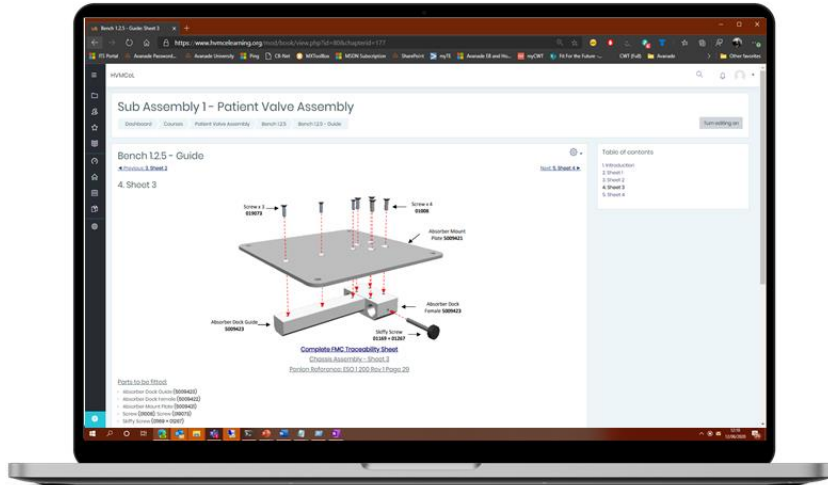


4) Assembly Line eLearning



Cloud-powered Training

- Requirement to train 2500 personnel on how to build ventilators
- 3rd party intellectual property that needs securing
- Non-employees in scope for training
- Rapid deployment required
- Highly regulated healthcare requirements demanded strong auditing and grading of all trainees



For perspective

- The consortium manufactured 13,437 ventilators.
- 88 unique companies were setup in the ERP Supply Chain Solution,
- Over 15 million parts flowed through the system
- 3500 manufacturing line workers were trained
- Production scaled from 50 units to more than 1500 per week or a ventilator every 88 seconds,
- 100 HoloLens 2s were configured to help train and remote assist technicians'

Vision



Reality



20 years' worth of production ...in 12 weeks

Extended Reality / Art-of-the-Possible



Matt Hulbert

Sr. Director, Emerging Experiences
Global Extended Reality Lead

- XR Overview
- XR for Training with examples
- Ventilator Challenge



Avanade integrates skills and methods from game design, movie production and software development to create new ways for enterprises to discover, imagine and work.

What is XR?

EXTENDED REALITY

Extended reality (XR) refers to all real-and-virtual combined environments and human-machine interactions generated by computer technology and wearables



Augmented

Digital content overlaid on real world



Mixed

Digital content is placed in and interacts with real world



Virtual

Full immersion in digital simulated environment

AVANADE FOCUS

Why XR?



Connect people from around the globe

Erase distance while having shared vision, audio, telestration and access to documents

- Remote assistance
- Augmented trainer-lead training
- Remote inspections
- General collaboration



Enable virtual training, practice & simulations

Create training and simulations to train or test experiences virtually.

- Immersive self-driven experience increases effectiveness and recall
- Encourage learners to learn from their mistakes without harm
- Enable training or testing on equipment that is unavailable



Virtualize location-specific activities and processes

We now have tools to enable connecting people across space and connect processes and people in new powerful ways.

- Virtualize interfaces from “control rooms” and typical on-site hardware and sensors
- Enable people to access people, data and systems from anywhere



Make abstract data tangible via visualization

Much of the world’s data is stuck in spreadsheets and databases. Making interfaces that are based on real-world constructs increases understanding and cognition

- Combining IoT data over a 3D model of facility makes it more intuitive and accessible
- Visual data displays enable richer understanding

XR solution continuum



End-to-end XR services

Avanade's services will accelerate deployment, ensure governance and compliance and enable full device and service support.

- Device setup and implementation
- Device and service support
- Content updates and creation



First- & third-party apps

Existing supported applications solve key issues can be licensed and deployed quickly.

- Remote assistance
- Augmented training
- Model visualization
- Remote inspection
- Collaboration



Apps based on accelerators

These applications leverage accelerators and cloud services to create experiences quickly and efficiently.

- Built with Avanade accelerators
- May use existing frameworks
- Relies on Azure and other cloud services to expand capabilities



Tailor-made solutions

Solutions that solve specific use cases tailor-made and may be deeply integrated into enterprise data and systems.

- Solution based on specific requirements, data availability and outcomes
- Leverages accelerators, frameworks and cloud services

Manufacturing XR Use Cases



Communications

Connecting remote experts to local teams, maintaining social distancing, connecting outside of clean rooms, etc.

- Remote expertise
- Augmented trainer-lead training
- Remote inspections
- Immersive collaboration



Safety

Increase safety through training, awareness and real-time direction

- Train safe methods and mindsets in an immersive, experiential way
- Conduct safety training centrally, distributed and/or self-driven based on need and priority
- Guide employees to safe locations using augmented wayfinding
- Safety Checklists (lock-out/tag-out) to ensure work area is safe



Training

Create training and simulations to train or test experiences virtually.

- Train new-comers with content based on SME knowledge and best practices to rapidly bring them up-to-speed
- Immersive self-driven experience increases effectiveness and recall
- Enable training or testing on equipment that is unavailable



Process & Optimization

Use XR to drive higher quality bars with oversight and work guidance locally or with partners

- Run virtual work audits and/or validations to ensure quality and compliance
- Use Guides to create process “training wheels” to reinforce sequences and processes during complex tasks

Avanade immersive learning

XR training in context



REAL TIME GUIDANCE

Connecting experts to people on-the-ground

Using HoloLens or modern mobile devices we connect people directly via D365 Remote Assist to local people to get the information and instruction to assess a situation or complete a critical task without travel

- D365 Remote Assist
- HoloLens 2 or iOS, Android

Guides for on-task real-time process guidance

When it's safe, use HoloLens and D365 Guides to provide on-task instruction and specifications to complete a diagnostic, maintenance operation or repair while ensuring best practices and safe operations

- D365 Guides
- HoloLens 2



SELF-DRIVEN TRAINING

Step-by-step training over a physical asset

Use D365 Guides to central- or distributed-training of employees using the multi-modal content with real steps on a real asset for maximum learning potential

- D365 Guides
- HoloLens 2

Use a virtual asset to train people without hassles

Immersive multi-modal training on virtual 3D models in D365 Guides enables training on assets before production or in situations where assets are not available for training

- D365 Guides
- HoloLens 2

XR training value proposition



Improved skilling

4x improvement to service time among employees who receive mixed reality training.

Efficiency & quality gains

25% boost in productivity, plus **errors reduced to effectively zero**, with directions and data given in mixed reality.

Less instructor time

Instructor time can often **be reduced by 40-60%** compared to traditional training



Accelerating Resolution for

60 Production- Impacting Issues

\$2.1 million

- Issues resolved at least **5 days faster**
- Reduced costs and losses from reduced throughput or stoppages
- Each faster resolution prevented **4 hours of lost production**
- Composite **avoided \$950** for each hour saved in wasted labor
- Avoided **\$2,500** in lost operating income
- Avoided **\$1,563** in direct costs
- **\$20,052 in savings** per issue



Labor & Travel Savings for

50 Field Technicians

\$684,000

- Field technicians shifted **50% of inspections** to virtual
- First-time fixes improved by **10% for Tier 1 issues**
- First-time fixes improved by **40% for Tier 2 issues**
- Techs could now self-resolve **75% of Tier 3 issues** with remote expert support
- 55 trips per year avoided, saving **188 hours**
 - Valued at **\$4,230**, plus **\$2,498** in travel costs



Labor Savings for

15 Highly Specialized Experts

\$1.2 million

- Trips for major manufacturing site inspections reduced
- Avoided last-minute travel for Tier 3 issues at customer and manufacturing sites
- Avoided **17 international trips** per year, saving **384 travel hours** valued at **\$39,744.**



Dynamics 365 Remote Assist

Remote Assist (on HoloLens, iOS, and Android) brings augmented reality to the collaboration power of Microsoft Teams to enable immersive collaboration using video, audio, telestration tools and real-time document sharing.

- Experts are seconds away from helping on-site people solve problems in real time.
- Work can be observed in real time or remotely verified once it's complete.
- Participants can share diagrams, draw or place arrows and graphics as part of the conversation.



Dynamics 365 Guides

Help employees learn new skills faster by empowering employees through the use of hands-on training created via powerful authoring tools.

- Enhance learning with step-by-step instructions that guide employees through the process.
- Guides training is self-guided with progress and speed tracked within the system.
- Increase cognition and recall through the use of holograms, videos, photos and the hands-on experience of executing tasks.



Step 1 / 2

Safety is the number 1 core value at Matrix

Working at heights is one of the most dangerous aspects in construction.

It's dangerous for not just the people at height but for all the people, equipment and facilities below them.



Safety is the Number 1 Core Value
Task 1 / 4



What are the benefits of XR in learning?

Mirror real-life situations

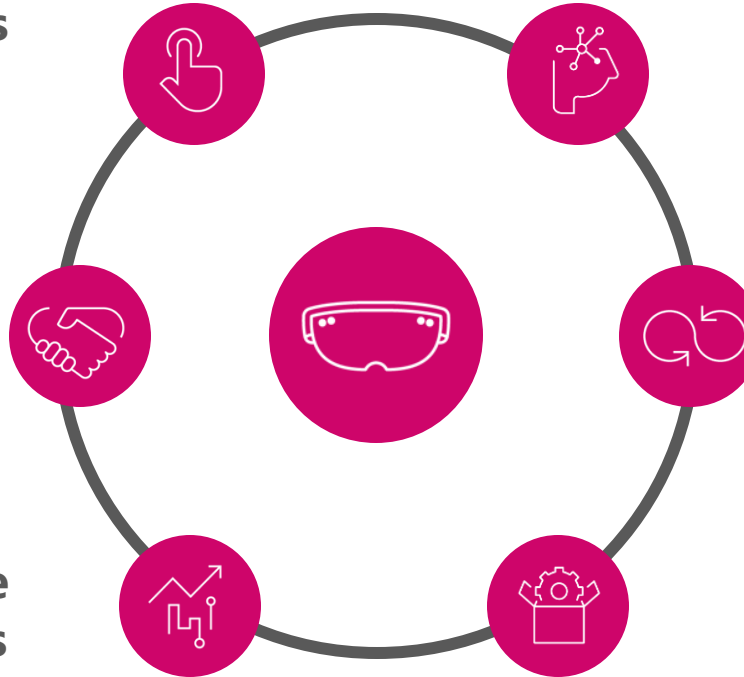
By providing safe environments that replicate real-life situations, employees can reach greater levels of expertise in less time.

Break barriers of distance

Businesses can tap expertise from anywhere in the world, and even provide remote guided tours and remote collaboration.

Reduce operational costs

Immersive learning cuts costs on employee travel and transporting equipment to training locations and even save space on real estate.



Learning through mistakes

People do not have to worry about making mistakes. XR also allows for practice to avoid negative behaviors.

Increased engagement

With the ability to build-in gamification, immersive learning can be fun. Engaged and interested trainees lead to better retention.

Better analytics

XR can capture enriched user data—behavioral, eye & gesture tracking and heat maps. Automated reports enable management review of immersive experiences.

Multi-modal immersive learning



Telling

This is typical classroom teaching or maintenance manuals that are mostly text.

Showing

This includes diagrams, photos, videos and holograms which provide richer detail and context.

Doing

When people do tasks “hands-on” we sharply increase effect, cognition and retention

INCREASED DETAIL, CONTEXT & ENGAGEMENT BOOSTS EFFECTIVENESS >>>

The reality of most field service training



Manuals lack detail and can be incorrect

Most documentation lacks detail and often has errors and omissions. It's not typically written in a way to truly teach people effectively.



Tips and Tricks are undocumented

Any optimizations or special techniques used by experienced field techs are often not documented or centrally shared.



Lack of details, context and visuals

The typical manual may have a few paragraphs to describe a 10 minute process. It probably doesn't have pictures or diagrams to increase comprehension.



Content is untested & out-of-date

Training manuals are usually completed when the product is completed and often not updated after. Content is rarely tested with users.

Avanade's exclusive approach to human-centered training



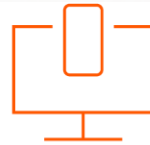
Understand process

Read the manuals and understand what's being stated and unstated. Identify confusing statements and complex processes.



Work with SMEs

Identify nuance, complexity and areas where people have most trouble. Determine the appropriate level of detail. Document tips and tricks.



Assume user mindset

Put yourself in their shoes. Leverage your ignorance in the topic to flag complex tasks and intricate steps.



Tell, show, do

People learn in different ways, ensure you tell, show and do for each complex step. Create clear guidance for tips and tricks.



Test & refine

Always test your work with both SMEs and target user groups to ensure clarity and comprehension.

Human-centered Guides process

Review & Deployment

- Review the Guide for final approval
- Migrate the Guide to the appropriate instances
- Prepare for deployment

Iterative Testing & Refinement

- Review the Guide and story with SMEs
- Test the Guide with users
- Gather feedback and refine the Guide iteratively

Research & Discovery

- Conduct research on the use case for the Guide
- Build an understanding of the use case through SMEs and manuals
- Arrive onsite and gain a deeper, contextual understanding

Storyboarding & Filming

- Create the storyboard and detail the instructions for the Guide
- Identify reference images, videos, and holograms needed for the story
- Shoot photos and videos

Building the Guide

- Build out the Guide on PC through the desktop app, translating the story
- Place identified images, videos, and holograms
- Build out the Guide in 3D space using the HoloLens



Life of a D365 Guide



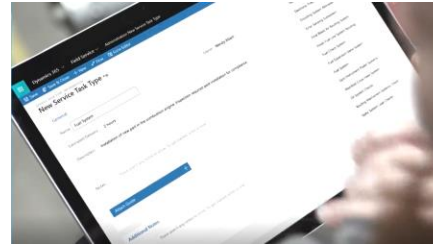
Create training

- Author collects/creates assets: photos, videos, 3D models
- Author writes training sequence and steps and plans which assets to use
- Uses Guides Windows application to upload assets into steps and tasks



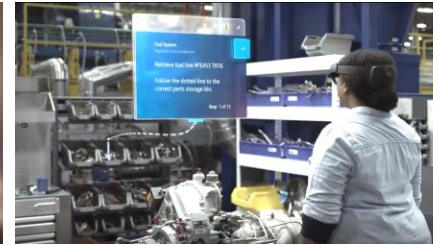
Setup holograms

- Open training on HoloLens and place holograms for each necessary step
- Test content for clarity, accuracy and context



Task assignment

- Manager assigns training to each user
- User can view all pertinent training



Learning experience

- Trainees take self-driven training at their own pace
- Training can be done centrally or remotely
- HoloLens is hands-free to allow a real-life training opportunity



Optimize

- Manager can view detailed training and time-on-task reports
- Data can identify people who could use additional training or optimize training

UK manufacturing consortium accelerates ventilator manufacturing in response to COVID-19

The High Value Manufacturing Catapult (HVMC), a UK-based consortium of leading manufacturers, was tasked with massively increasing the number of ventilators produced by the UK supply chain.

“We knew we need to scale from 15 a week to 1500 a week or even more.”

Dick Elsy, CEO, CBE, a member of HVMC



How XR enabled the massive transformation



Procure and mobilize HoloLenses & Platforms

Avanade's expertise with the Microsoft platforms allowed us to quickly setup all platforms and apps with proper security and identity management

- HoloLens 2 configuration, MDM
- Dynamics Field Service
- Dynamics Remote Assist
- Dynamics Guides



Planning via real-time communications

Teams used Dynamics Remote Assist to communicate about logistics, manufacturing space and requirements during restricted travel

- This allowed offsite people to have critical understanding of layouts and challenges on the manufacturing floor



Global virtual team creates Guides training

Avanade ramped up a global team of 30 to create Dynamics Guides to train workers on their new tasks

- Avanade team built more than 40 Guides in 10 days
- The team worked with Subject Matter Experts at Smith to ensure the Guides were optimized and accurate



Frontline workers use Guides to ramp up

Once the Guides were complete, workers at each workstation were trained on the steps and specifications they needed to create ventilators

- Each worker was able to use Guides hands-free while executing manufacturing tasks
- Each workstation had a custom Guide to teach them in minutes rather than days

Change the world

By working with Avanade as Microsoft's #1 Global XR partner you are poised to get the most value and speed for driving modern immersive learning into your organization, increasing speed, effectiveness and safety.



Questions?



Appendix

Subsea 7 uses mixed reality to perform vital hands-on maintenance remotely

Subsea 7 is a subsea engineering, construction and services company headquartered in London and serving the offshore energy industry.

Challenge

Subsea 7 had to perform critical maintenance on some of its vessels stationed in Vigra, Norway, but the engineers that they needed were trapped in Italy by a COVID-19 lockdown

Solution

Avanade rapidly responded to the request by setting up a mixed-reality solution that enabled engineers in Italy to provide remote expertise through a hands-free device to engineers in Norway. The team can now complete maintenance successfully, meeting Subsea 7's contractual obligations to its customers.

Results

Fast delivery and implementation within 5 days of the request, despite COVID-related supply and logistics challenges

Security and scalability with a new Mobile Device Management (MDM) strategy

Ongoing discussion of potential for unlocking additional value, scale and use cases from the solution

Quick onboarding and ongoing support through a new Managed Services structure

UK manufacturing consortium accelerates ventilator manufacturing in response to COVID-19

The High Value Manufacturing Catapult (HVMC), a UK-based consortium of leading manufacturers, was tasked with increasing the number of ventilators produced by the UK supply chain from 150 to more than 30,000 per month.



Challenge

Production lines for assembling and quality-checking 3D-printed parts had to be ramped up very quickly.

Solution

Bringing together a team of 30 skilled professionals from locations around the world, Avanade digitized assembly instructions onto HoloLens 2 devices, provided a Mobile Device Management strategy and supported the project with managed services and program management.

Results



Delivered multiple Guides in days rather than the typical timeframe of two weeks per Guide



Ensured devices were preloaded with the security, app and identity management features required in the highly regulated healthcare industry

Remote assistance for real-time intelligence and decision-making

ABB Turbocharging is a technology and market leader in the manufacture and maintenance of turbochargers for diesel and gas engines.

Challenge

With only a small workforce of specialized engineers available to provide customer support across the globe, ABB needed to ensure that each of its engineers had the right skills and most up-to-date training.

Solution

Avanade is working with ABB to enable remote assistance with Microsoft's HoloLens 2—an immersive mixed reality device that combines cloud and AI services to help employees learn, communicate and collaborate more effectively.

Results



Reduction in downtime and faster time to repair



Improved service level agreement (SLA) compliance rates



Enhanced productivity

Read more [here](#)