



Inspiring Great British
Manufacturing

Advanced Visualisation

Defence and Security Equipment International 2019

Microsoft
Partner | Mixed
Reality

Advanced Visualisation at the MTC

Advanced
Production
Systems

Digital
Engineering

Component
Technology

Intelligent
Automation

Metrology & NDT

Physics Modelling

Business &
Factory
Optimisation

Data &
Information
Systems

Advanced
Visualisation

Advanced Visualisation definition



Human

Ergonomics

Interaction

Environment

Perception

Data



10



30



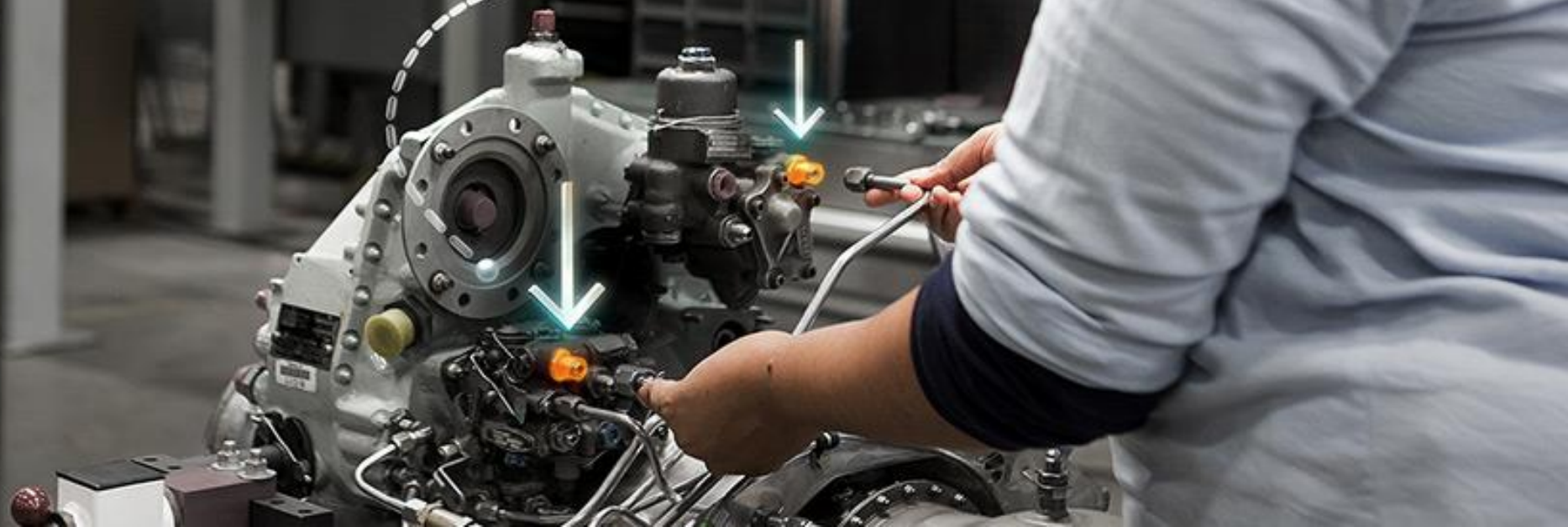
Fuel Injection System
Regulator line installation

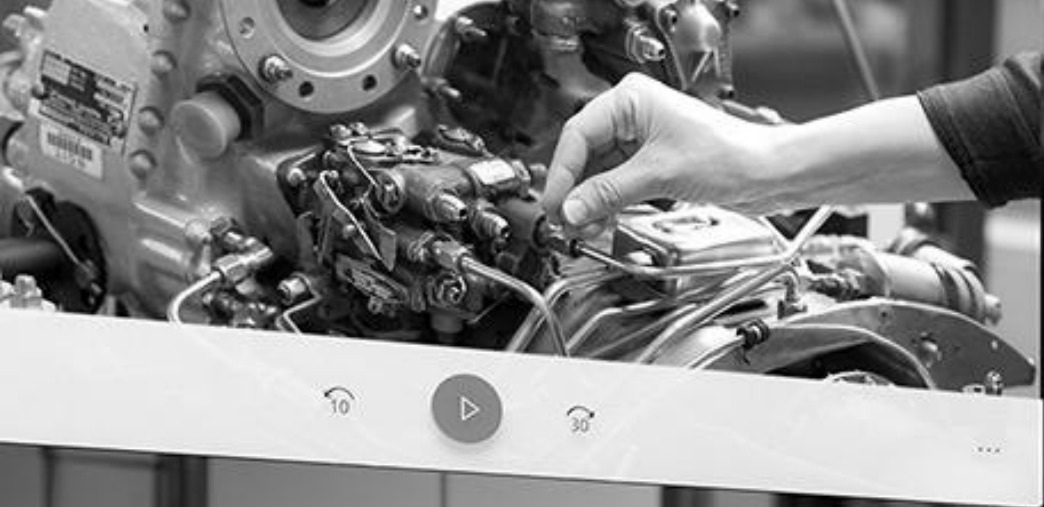


Place the regulator line in position at
the inlet and outlet ports.

Attach the regulator line to both ports
simultaneously using the captured
threaded collars on the line.

Step 11 of 15





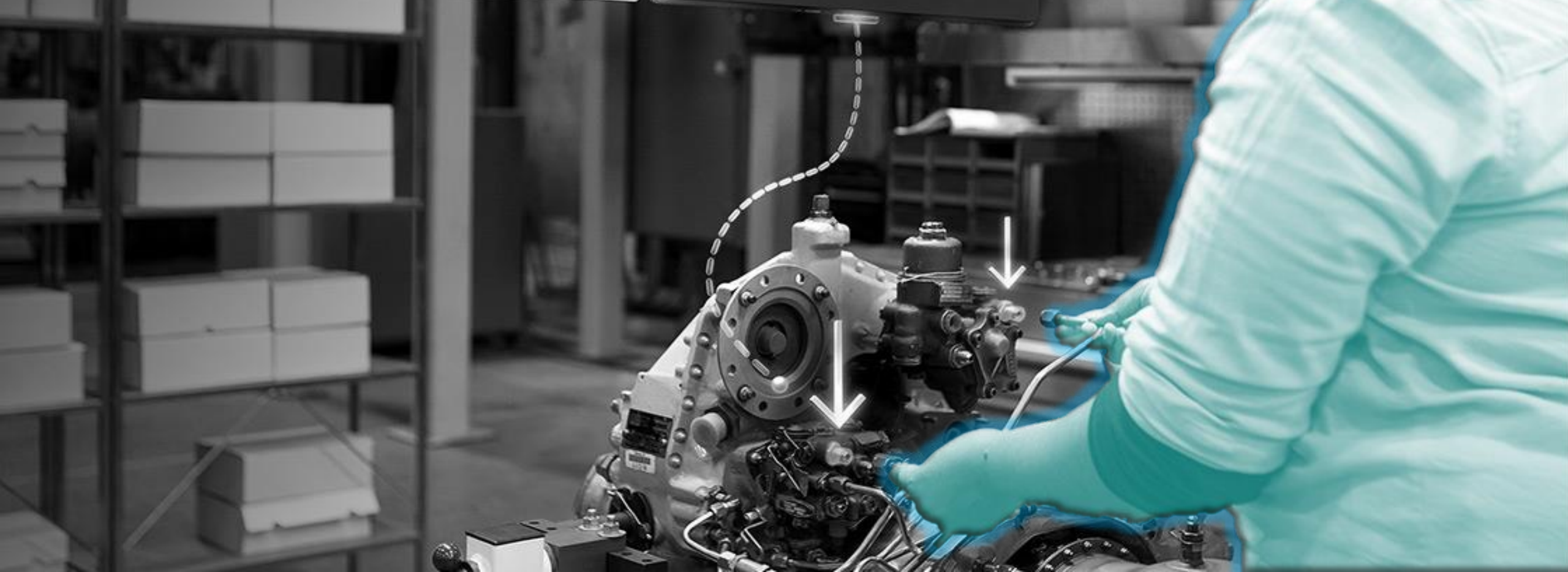
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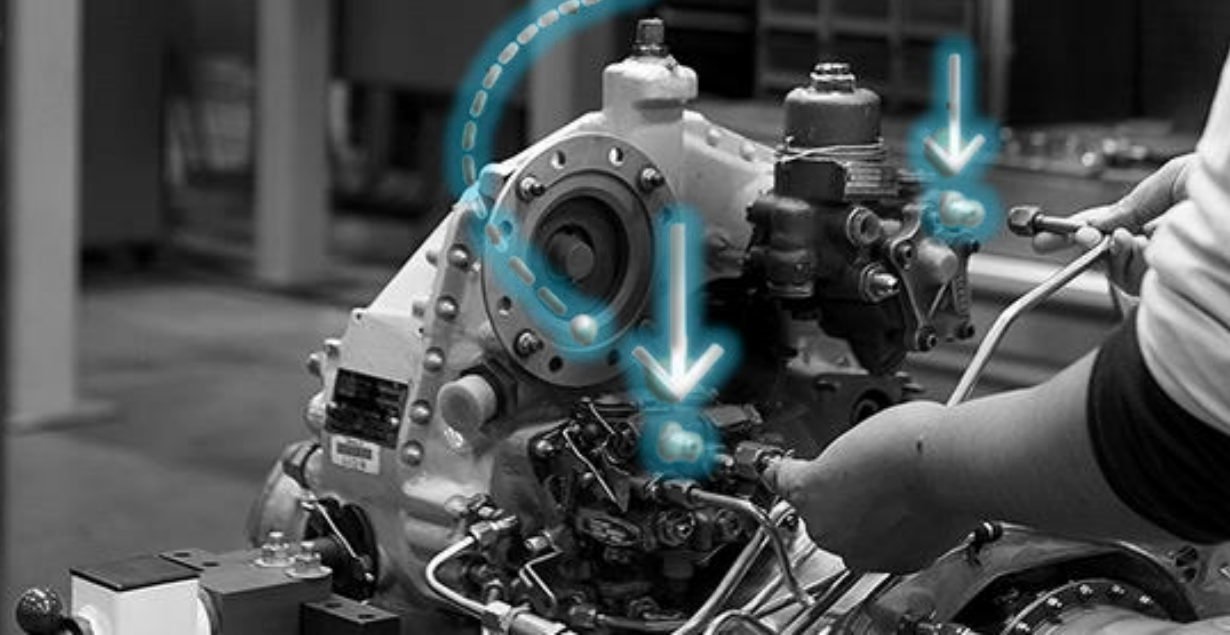


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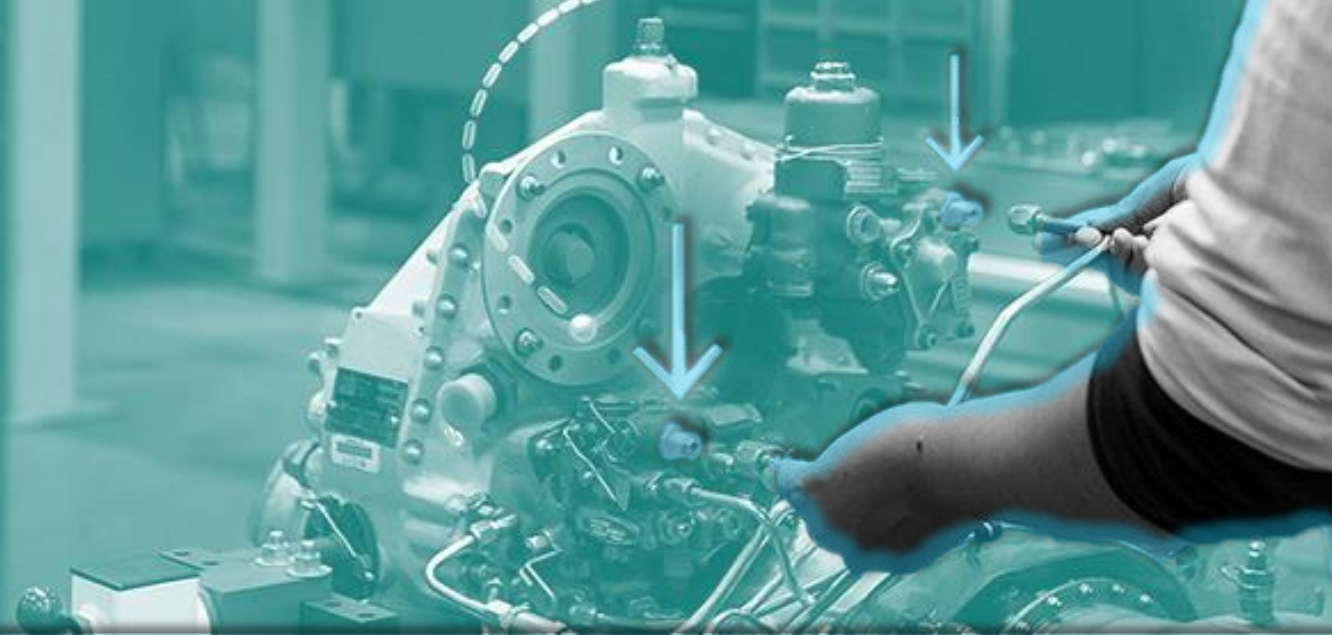
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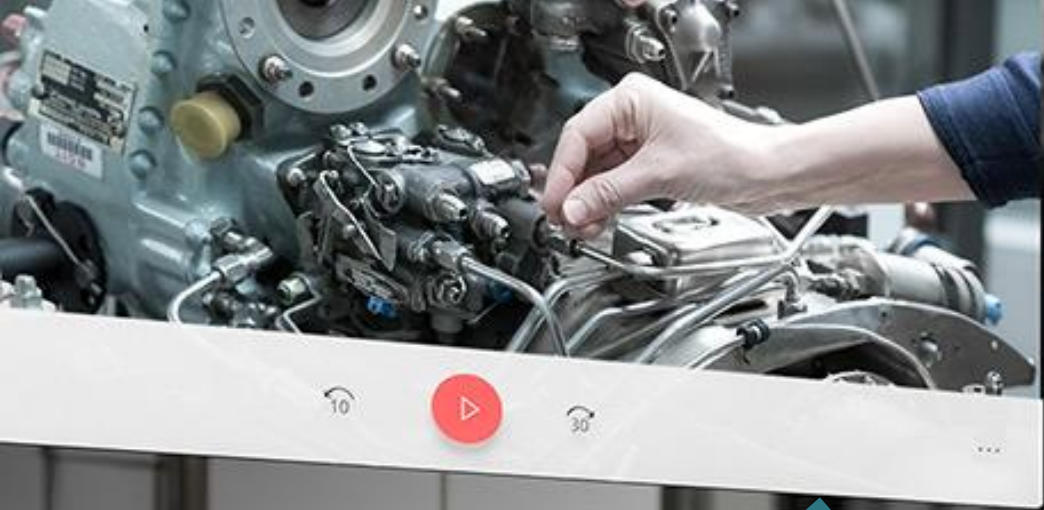


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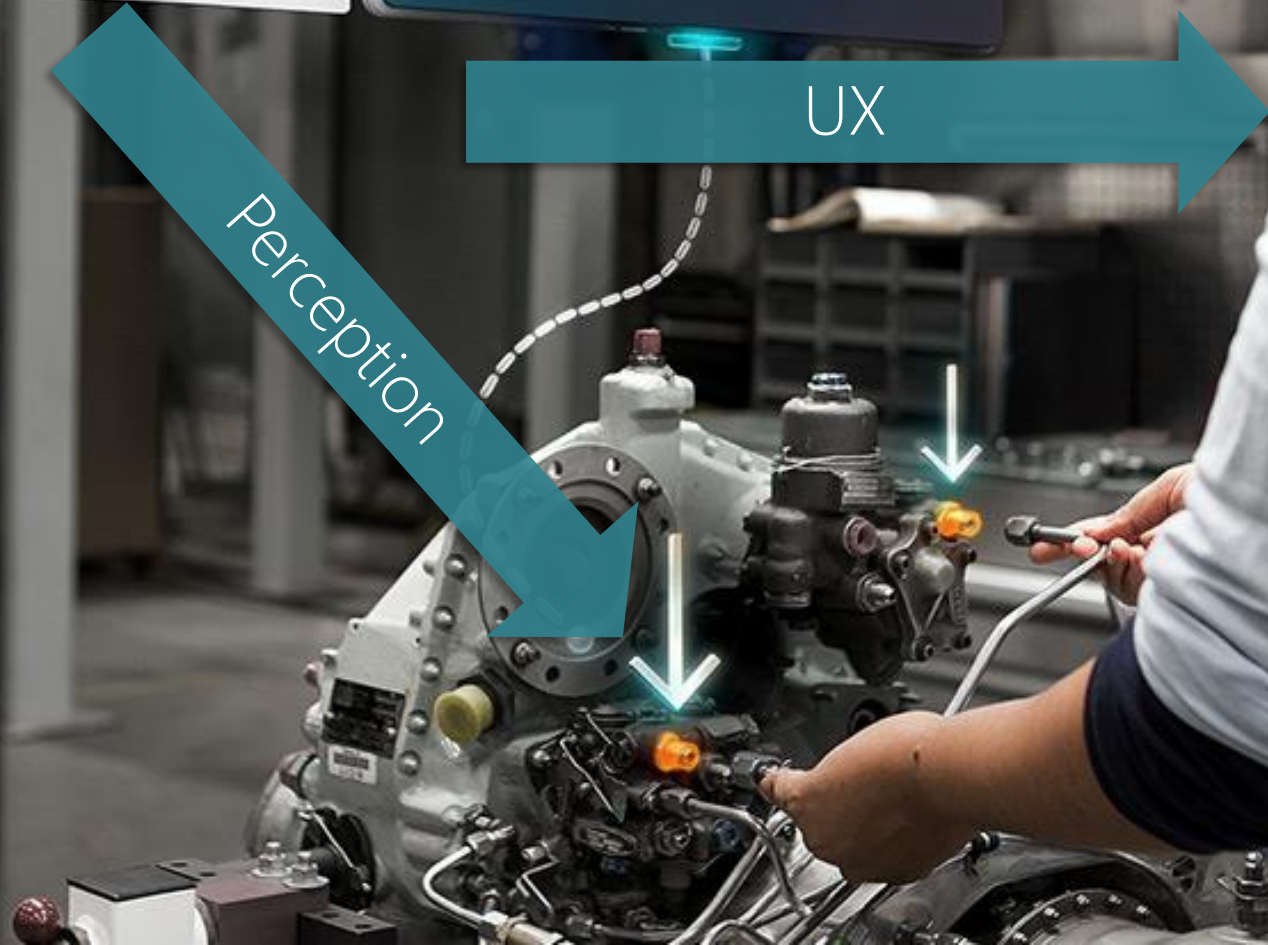




Interaction

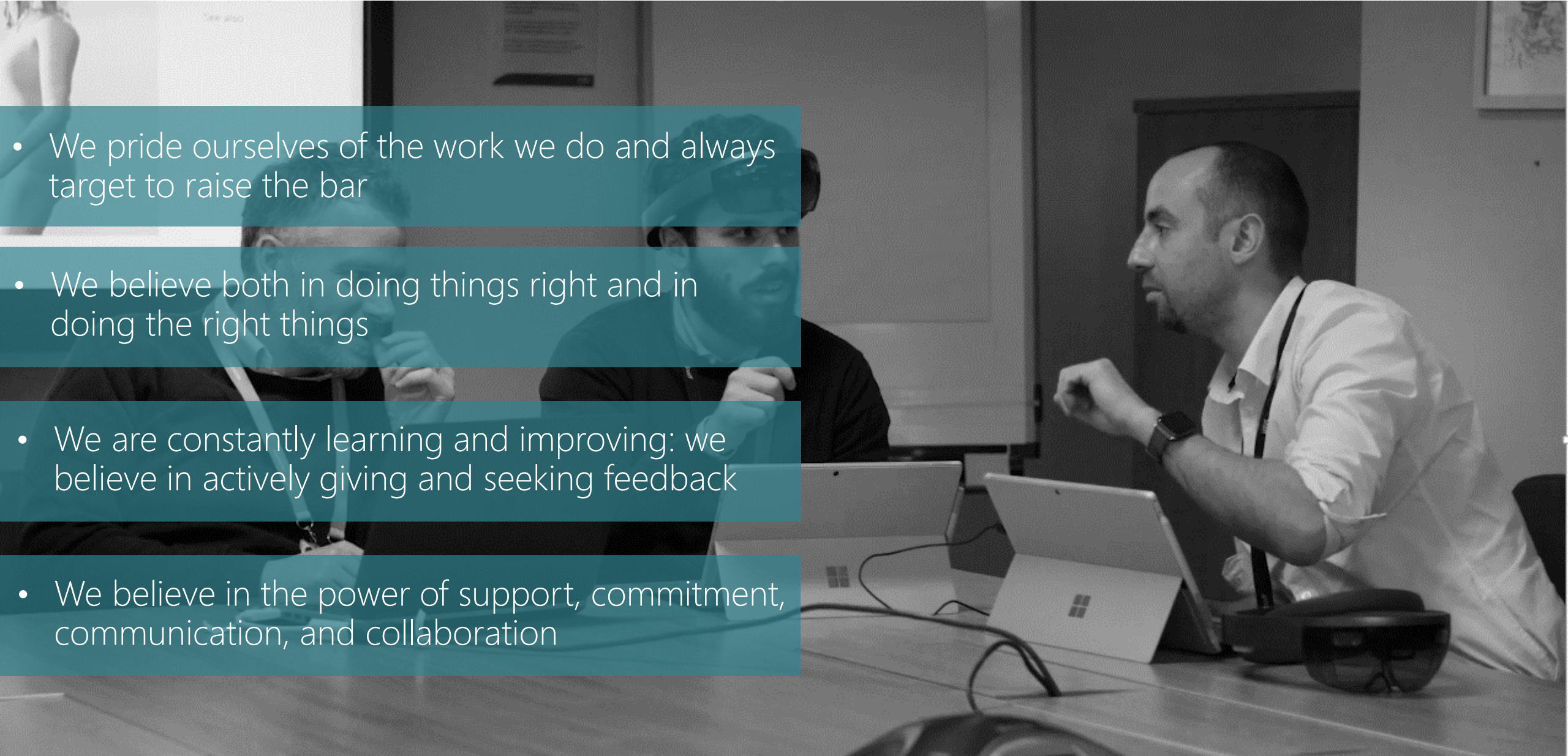
UX

Perception



Core Values

- We pride ourselves of the work we do and always target to raise the bar
- We believe both in doing things right and in doing the right things
- We are constantly learning and improving: we believe in actively giving and seeking feedback
- We believe in the power of support, commitment, communication, and collaboration



Advanced Visualisation's Mission

- Accelerate UK's industrial growth using Advanced Visualisation technologies
- Deliver innovation in Advanced Visualisation technologies
- Create and embed future skills in / and using Advanced Visualisation technologies
- Change the way businesses compete using Advanced Visualisation technologies
- Maximise synergies across supply chains using Advanced Visualisation technologies

We do it by...



- Evangelising Technology

- Thought leadership
- Technology demo
- Technology network

- Developing Technology

- Development team
- Usability testing
- Market awareness

- Embedding Technology

- Frameworks and standards
- Business strategy
- Training

A man wearing a VR headset is shown in profile, looking towards the right. He is wearing a light-colored shirt and a dark tie. The background is a blurred industrial setting. Three teal-colored text boxes are overlaid on the image, each containing a value proposition.

Improve
Communication
and Collaboration
across distributed
workforces

Tackle Skills
Shortage

Improve quality
and reduce costs
of manufacturing

Improve Communication & Collaboration

Companies with...

Distributed workers, on-site operations, supply chain, etc.

Experiencing...

Challenges managing resources, allocating budget and costs associated to travel and miscommunication

We can help by...

Developing and embedding tools and services

So they can...

Improve service delivery, enjoy happier employees, and enable new business models for competitive advantage

Case Study: MTC's Business Launch Centre

Improved efficiency through better
Communication and Collaboration

Small team of high-demand consultants to cover
nation-wide SME market

High number of travel hours stretched capacity of
workforce; low availability of SME managers;
exhausted employees

Developed two services based on Mixed Reality
remote assistance:

- Remote Line Walk
- Remote Engineer

Transformed business model to double service
capacity, halve travel needs, increase adaptability
to customer availability, and increase workers
satisfaction





Microsoft Dynamics 365

Tackle Skills Shortage

Companies with...

Ageing workforce, fast change in demand, skills shortage

Experiencing...

Challenges managing delivery, training, and retaining knowledge

We can help by...

Develop and embed tools, services and frameworks

So they can...

Enjoy improved delivery, enable flexible manufacturing, retain knowledge in the business, increase employee satisfaction



Tackling skills shortage in construction with Immersive Training for the CITB

Construction ageing workforce, skills on demand, shift towards off-site construction, increased need for continuous training

Sector affected by very low attraction of talent, huge amount of waste generated by re-work, health and safety at the top of priorities

Developed a platform to eliminate the skill barrier create and deliver immersive training

Created a platform for allowing CITB members to generate and deploy their own training courses, therefore delivering training with a much higher level of engagement, retention, and employee satisfaction

Improve quality and reduce costs

Companies...

Suffering costs of low performance, penalties due to quality flaws, with highly regulated operations

Experiencing...

Challenges in quality compliance and costs associated

We can help by...

Developing and embedding tools for in-process QA

So they can...

Keep satisfied customers, experience business growth, increase reputation & market share



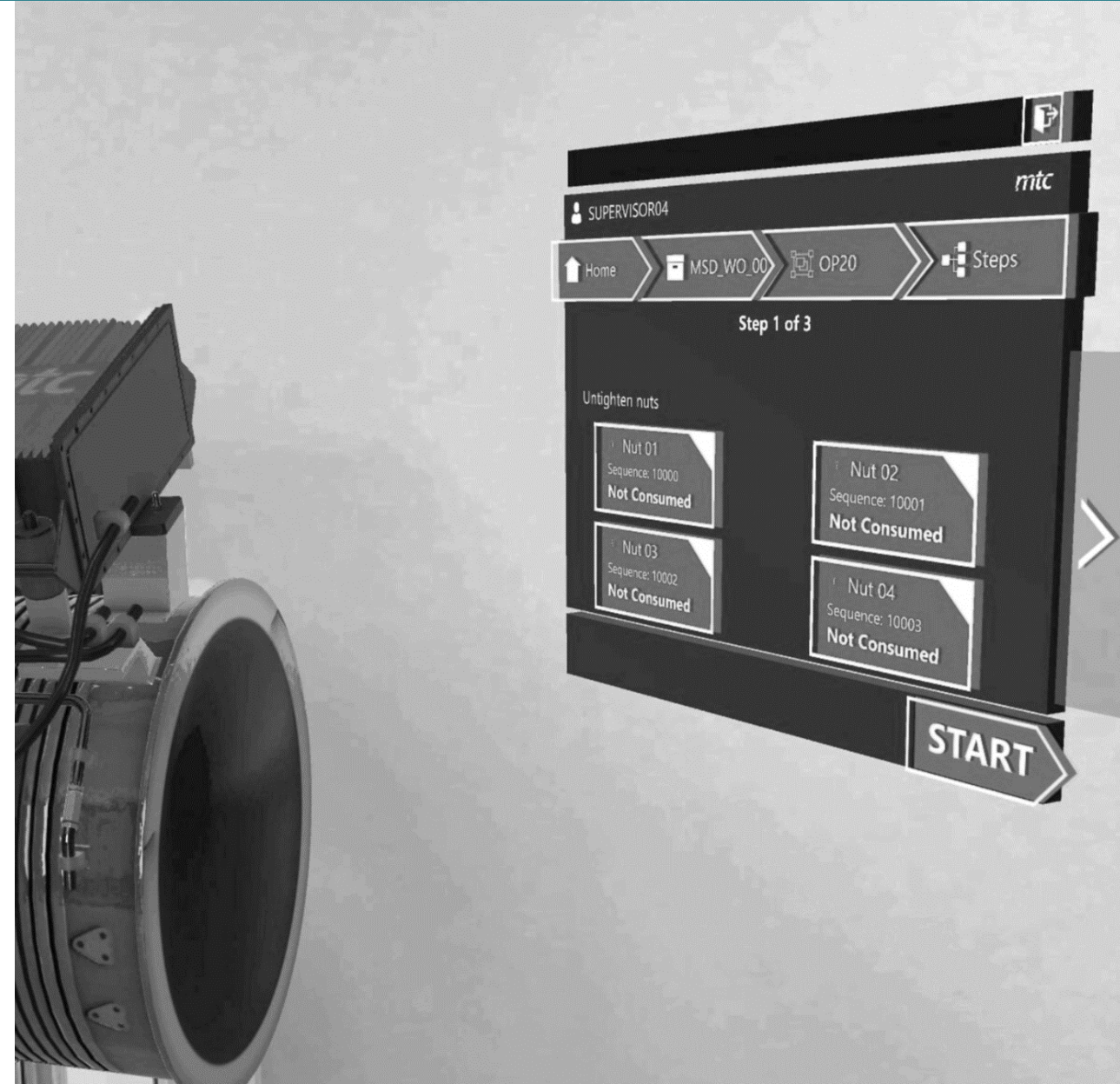
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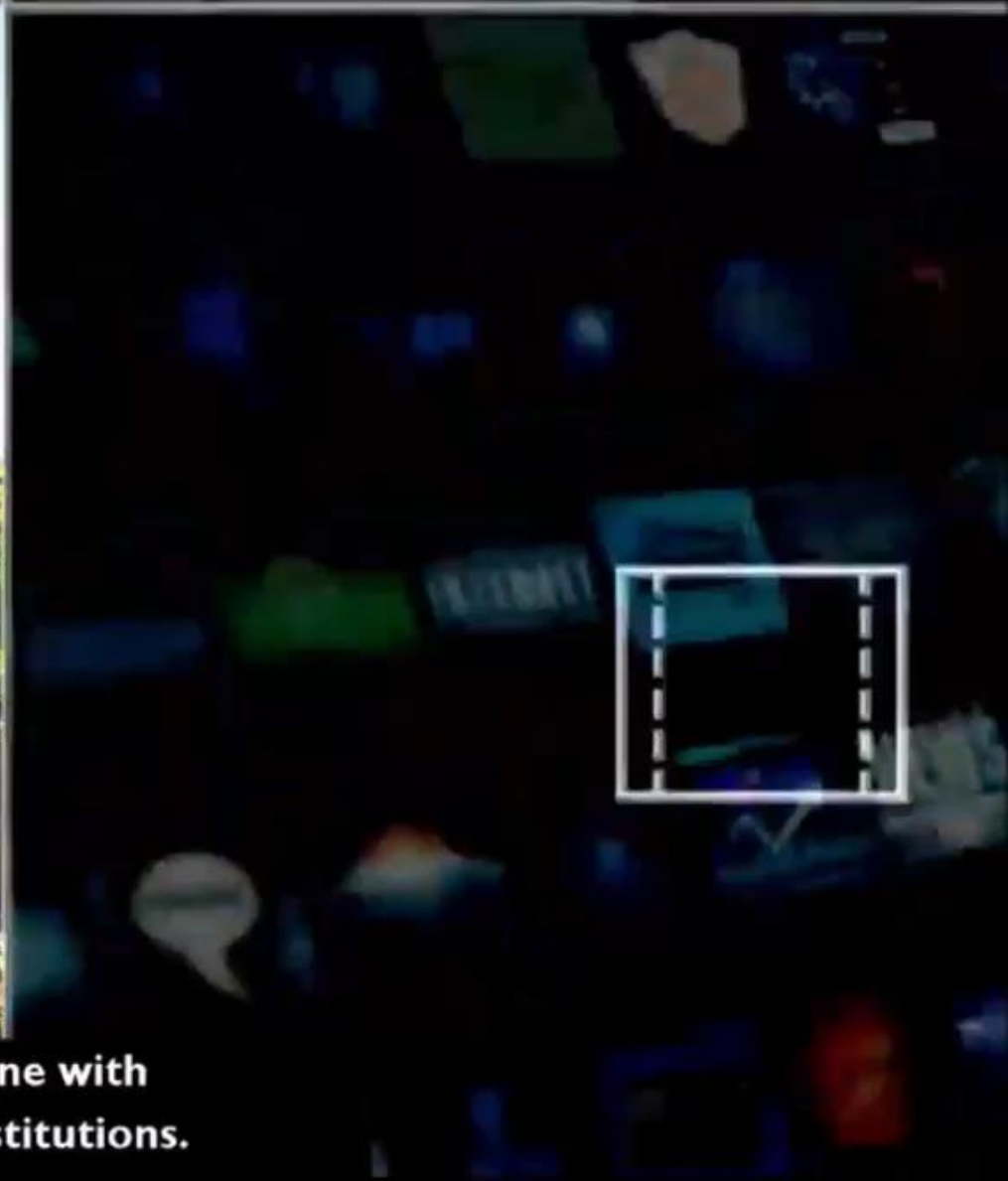
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in an individual organisation but can be done with the government creating these kinds of institutions.

mtc
Manufacturing
Technology Centre

Thank you

