



How Augmented and Virtual Reality can help enhance Nuclear Security

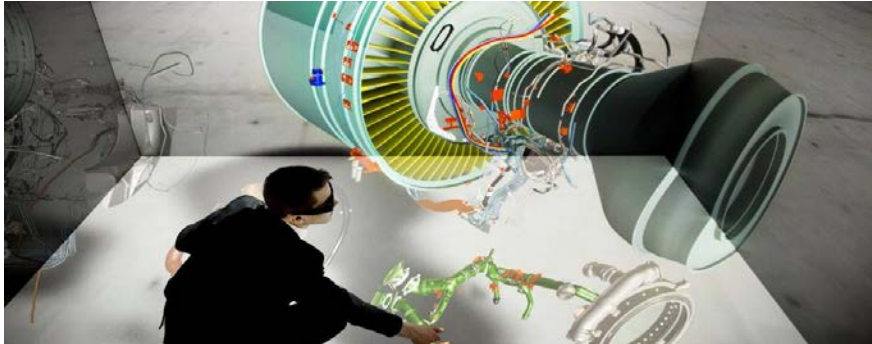
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20.03.18

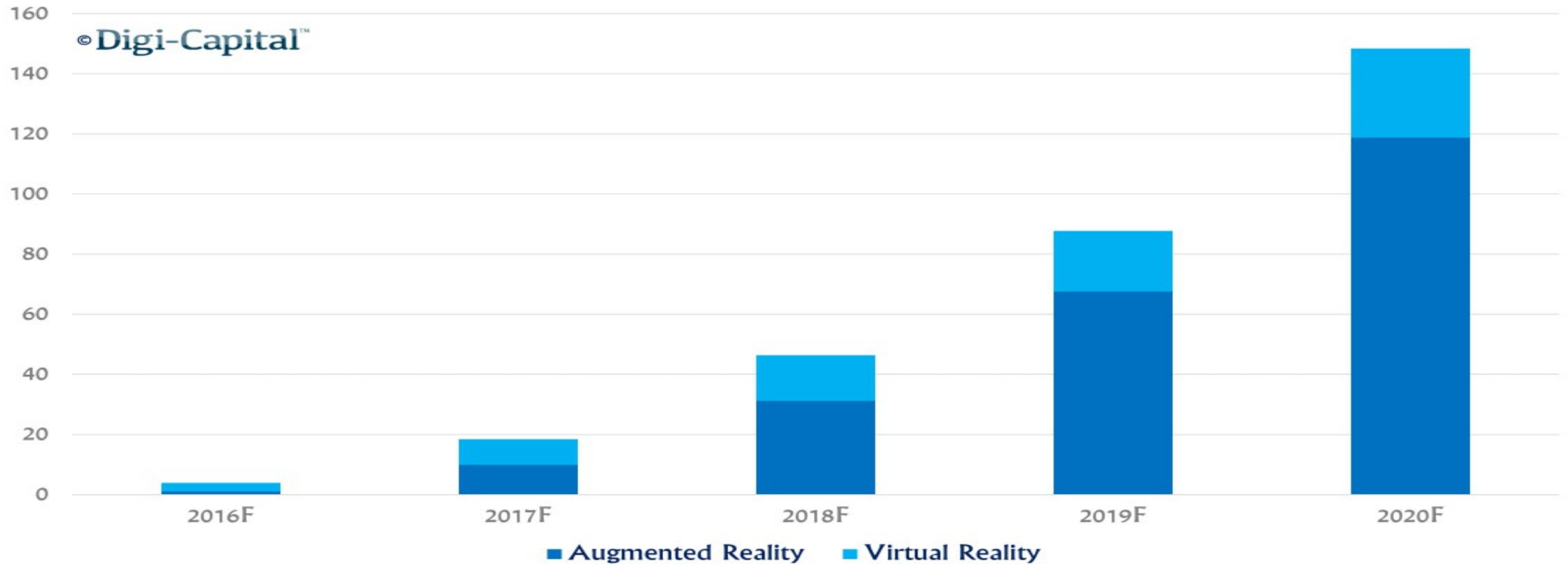
Virtual Reality
(encapsulated environment)

AVR

Augmented Reality
(mix of animated and real environment – see through)



Augmented/Virtual Reality Revenue Forecast (\$B)



AR VR Market Size



AR & VR To Hit \$150 Billion, Disrupting Mobile By 2020

“Within the next 10 years, smart glasses will outsell smart phones”.
Gartner

THE WALL STREET JOURNAL

The New York Times

FORTUNE

Forbes Gartner

INCREASING THE SPEED OF COMMUNICATION BETWEEN MAN & MACHINE

“Speed Of Thumb” Too Slow, Neural Lace Too Far Away

Today the **bandwidth is far too slow**, we communicate at the “**speed of thumb**” with mobile devices. While futuristic technologies such as **neural lace** supported by **Elon Musk** could achieve instant connection with machines, they **will take too long time to develop** to prevent the negative scenario.

Humanity Needs A Solution Today!

We believe that **EON H2.0** can provide this solution and **significantly increasing the speed of communication** between man-machine by using **Augmented Virtual Reality (AVR)** fueled by **Artificial Intelligence (AI)** and **Internet of things (IoT)**





ABOUT EON REALITY

World leader in VR AR based Knowledge transfer

EON Reality has based on +15 years of R&D become the world leader in VR based Knowledge Transfer in Industry, Education and Edutainment with > 450 industry customers, > 400 academic organizations & 55 government partners.

Established > 25 Interactive Digital Centers (IDC) around the world



Publishing Formats – Phone to Dome Solution

VR AR and Immersive Systems



Mobile



Mobile AR



Zeiss glasses



Cardboard



Oculus Rift



PC



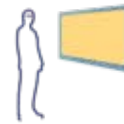
EON Idesk



EON Ibench Mobile



EON Holopodium



3D TV



EON Interactive Mirror



EON Ibench



EON Holographic I



EON Icube Mobile



EON Icube Compact



EON Idome Mobile



EON Icatcher



EON Idome

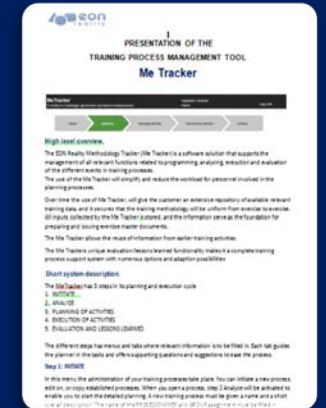
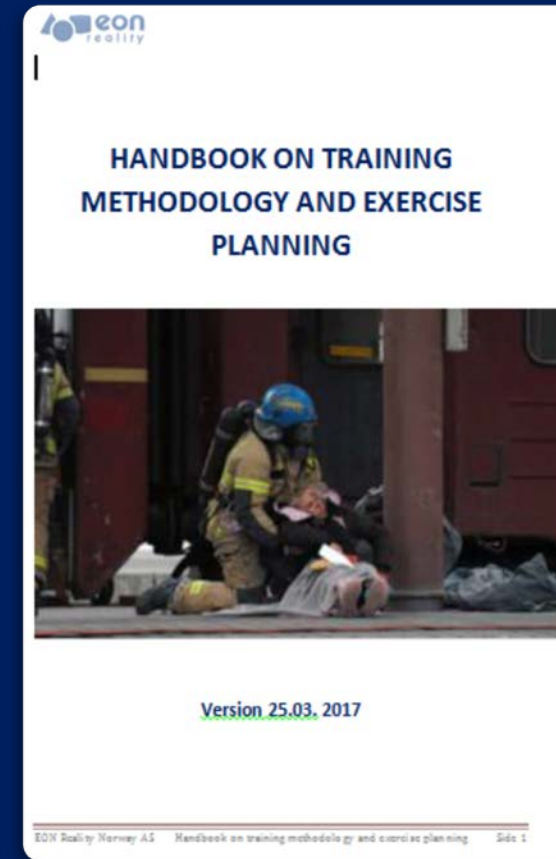
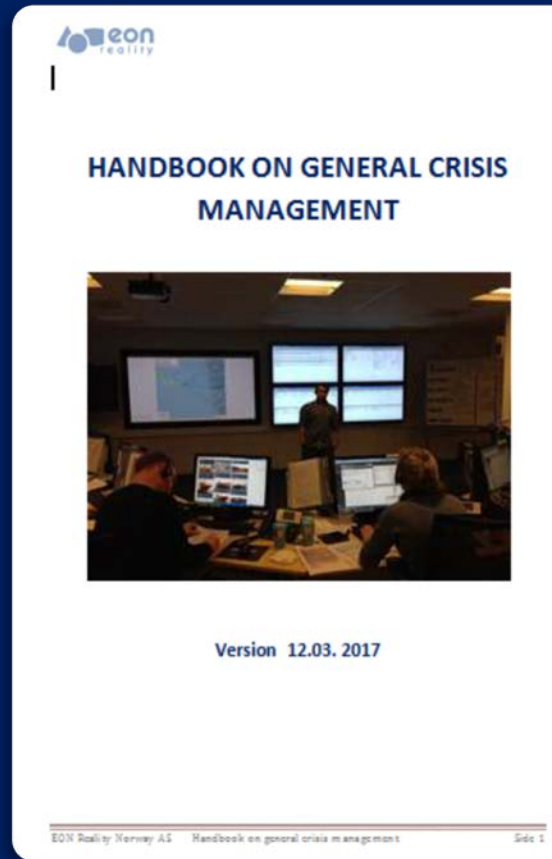
Methodology

Training tools
AR and VR

EON
Security

Security
consultancy

R&D



Our competence

EON has an extensive experience and has conducted a decade of R&D regarding incidents and crisis management & security training in different European countries and studied where different emergency and security organizations have their challenges in handling different sorts of crises.

Our competence is documented through numerous R&D-project documents, white papers, handbooks and presentations in different national and international conferences.



Challenges

Cost - There is a need to minimize the time and resources spent on training.

Complexity I - Collaboration between actors in managing unknown complex situations are proven to be insufficient.

Difficult To Assess - Traditional evaluation methods are often insufficient.

Complexity II - More complex tasks and more integrated systems require even more specific skills training on individual level.

Risk - Organizations cannot effectively train for the wide variety of hazardous situations an employee might face.

SECURITY
AVR TRAINING SOLUTION

MeTracker
A tool to plan, execute and evaluate training processes

Concorde
morten@crisistraining.no

Log out ↗

initiate → analyze → activity → execute → lessons learned

TeamWiz 2

Analyze

Training need analysis (TNA) | Main Training Objective (MTO) | Training objective (TO) | Evaluation point (EP)

Training need analysis is a method for analysing the training needs in a contingency/emergency organisation. The analysis must be based on the current risk assessments and contingency plans.

History

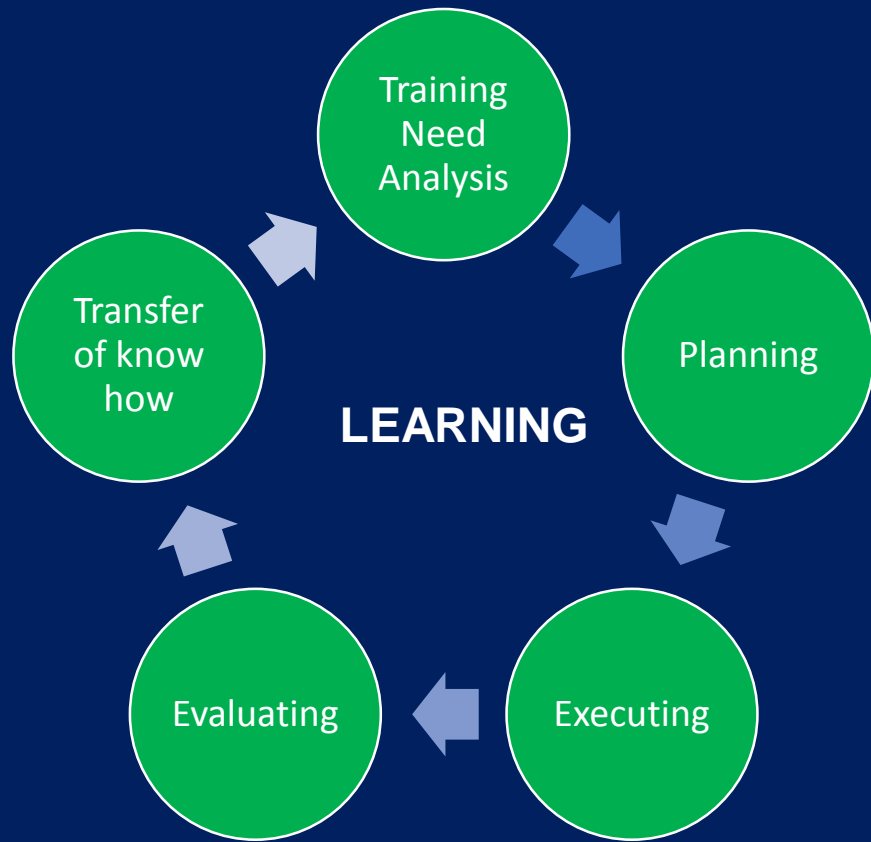
- Identify the organisational objectives >
- Past experiences >

Competency survey

- Profession specific competence >
- Organisation and management >
- Collaboration and team processes >
- Decision making processes and decision making >
- Communication - internal and external >
- Situational Awareness and shared mental models >

Assessment of educational- / training needs:

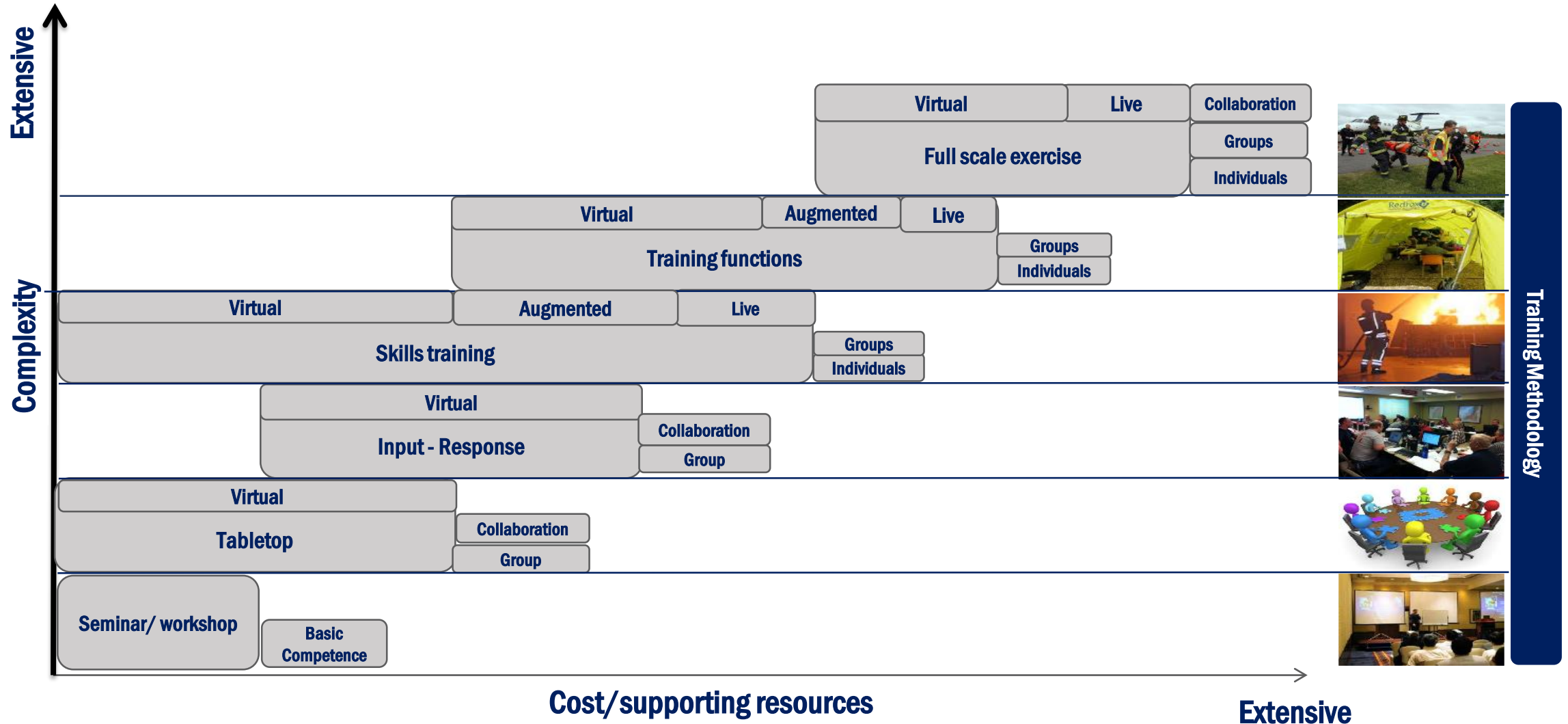
- Determine education / training need >



MeTracker - Learning and training process tool

A cost- and time effective web-based solution, to be used in all kinds of learning and training processes. The MeTracker supports defining the most relevant AVR-solution for the customers specific needs.

EON's Security Platform Portfolio Provides Cost Effective Competence Building With Multiple Training Components



Skills training

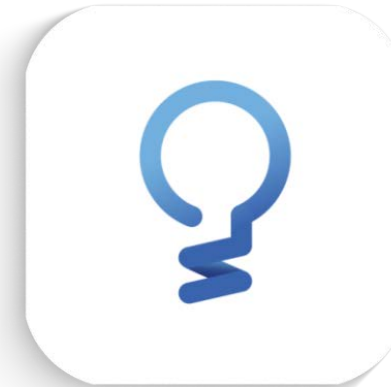
THE AVR PLATFORM

A premiere suite of AR & VR products.



The cloud based EON AVR Platform enables users to develop, run, manage, access, store, host, and distribute AVR applications without the complexity of building and maintaining the infrastructure associated with developing an Augmented or Virtual Reality app.

Applications developed using the AVR platform provide an efficient man-machine knowledge transfer interface through the smart cooperation of users, AI, cloud computing, and the internet of things.



CREATOR AVR

Fast-Knowledge revolution: From weeks to Minutes to create an AVR Knowledge App

- User-generated AVR content
- Faster Learning
- Greater Level of Engagement
- Exploration, Performance and Assessment Mode





Make security training available to the one million people employed directly in the tourism industry, using the leading security experts and latest AVR technology

Launched at the World Tourism Organization's High Level Ministerial Task Force on Tourism and Security in Madrid on MAY 12, 2017, the Partnership will deliver Anti-Terrorism Knowledge Transfer to address the tourism industry's security challenges in the changing environment



"The World Tourism Organization UNWTO fully supports the project to develop these AVR Tourism Safety Academy applications, that can train the millions of people employed in travel and tourism", said Taleb Rifai, Secretary General of the World Tourism Organization. "UNWTO together with World Travel & Tourism Council (WTC) and our partners have taken upon ourselves to support this project based on the positive feedback from our members. We have received requests from our members and we believe that this project is very much needed in the current situation of the global tourism industry."

EON Has Established Safety Academy for Travel & Tourism

Target Workers in the travel and tourism industry

Focus on airport employees, reception and concierge staff, rail and subway workers, museum and attraction employees, to be aware, vigilant and know how to act

EON AVR Platform for Security

Make AVR applications available accessible and affordable, agnostically deployable on all devices from phone

Focus on Five Suspicious Signs

Suspicious signs for humans, vehicles, luggage, packages and documentation

Launch in September 2017

Launch the first five Augmented Virtual Reality applications by Q3/2017

Suspicious Signs

AVR Courses

1. Humans
2. Vehicles
3. Luggage
4. Documentation
5. S.B- Suicide Bomber

Tourism Safety Academy

Welcome to part two of
Suspicious Signs- Vehicles

Physical signs
Parking
Placement



START



Tourism Safety Academy

You have completed this lesson on
Suspicious Signs- Vehicles



Navigation



3+ Correct reports
You got: 0



Bomb found

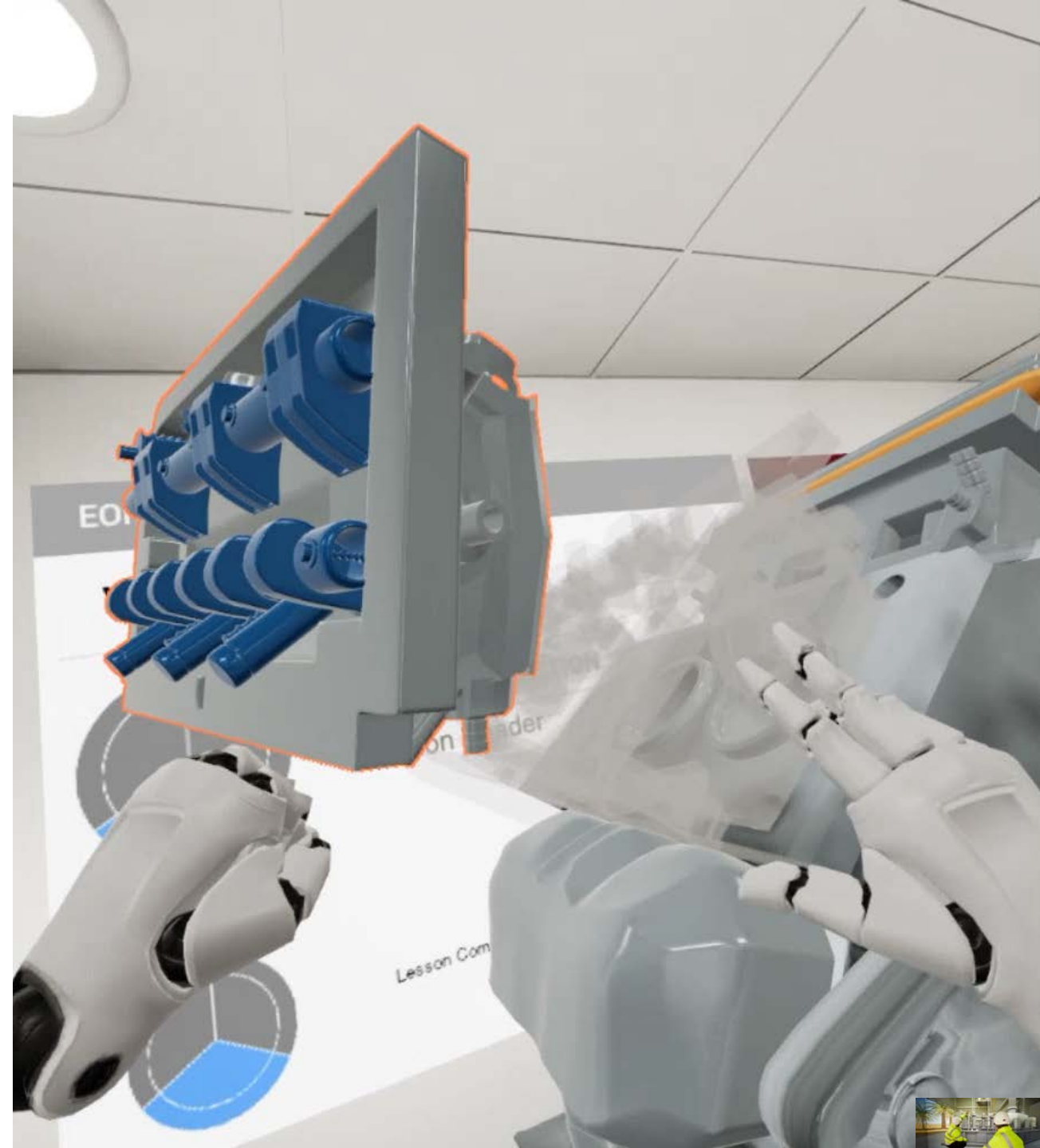
Virtual	Augmented	Live	Groups
Skills training			Individuals



VIRTUAL TRAINER

Learn Faster, Remember Longer & Decide Better

- Higher Knowledge Transfer Dimension
- Virtual Reality Training Simulator
- Safety
- Greater Engagement
- Assessment





Virtual Trainer Lyngvik

Faster Learning - Learn more with less, less time and less money

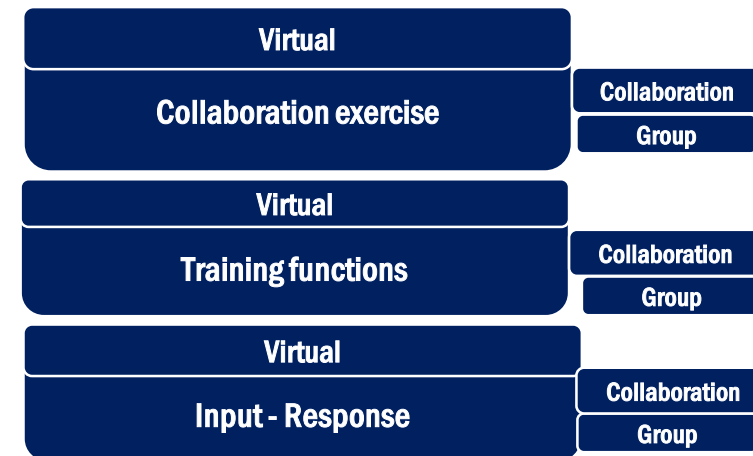
Greater Level Of Engagement - Experience-based discovery, awakens curiosity for learning

Ability to train on a major number of crisis and disaster scenarios



Dynamic Training: Exercise Managers/Game Masters controls the scenario to achieve the pre-defined training objectives.

Knowledge Transfer - Record and replay functionality of all activities and all communication, gives good prerequisite to evaluate for reflection and learning



Virtual Collaborative Training

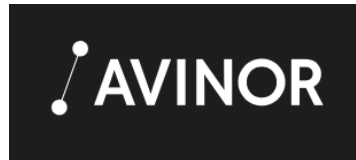
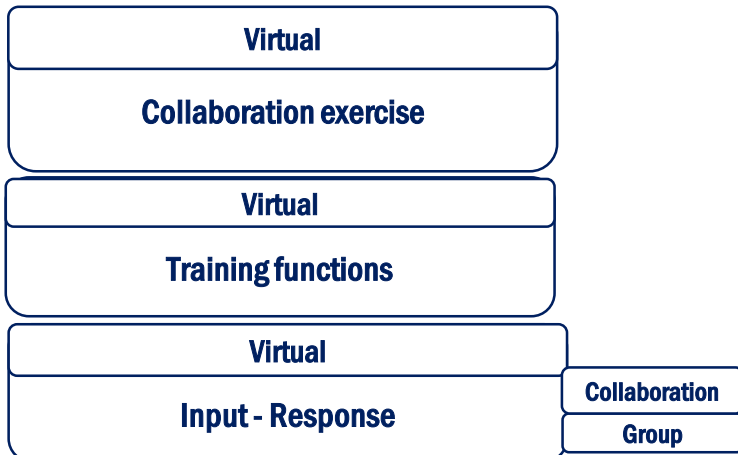
The Challenge

Collaboration between actors in managing unknown complex situations are proven to be insufficient. Traditional collaborative (live) training is time and resource consuming giving insufficient prerequisites for evaluation and knowledge transfer.

The Solution

EON Reality Norway was selected by Avinor to conduct a study on how virtual training could be used to prepare relevant actors in handling crises on an airport. Sola Airport was developed in an virtual environment and integrated with a training simulator. This to give actors the possibility to train on a number of predefined scenarios.

The simulator will record and replay all activities and all communication - giving good prerequisite to evaluate for reflection and learning processes.



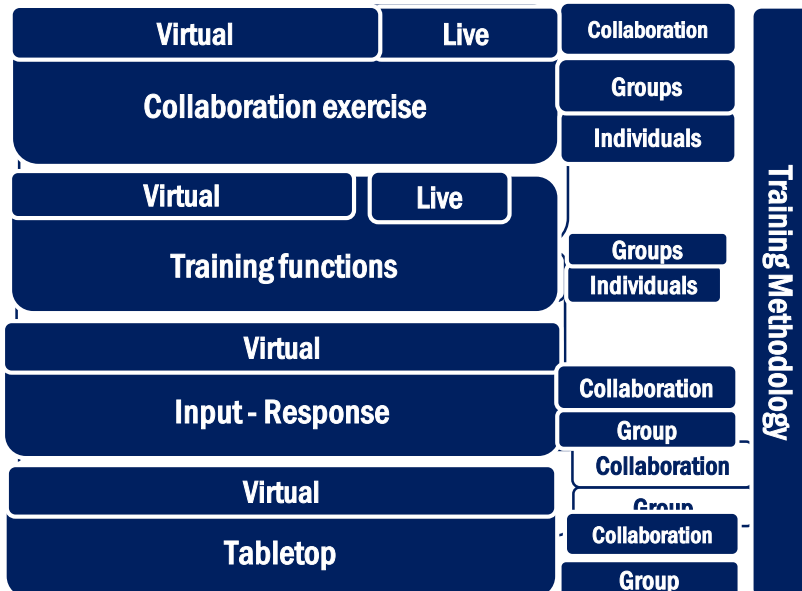
Virtual Collaborative Training

The Challenge

Collaboration between actors in managing unknown complex situations are proven to be insufficient. Traditional collaborative (live) training is often time and resource consuming giving insufficient prerequisites for evaluation and knowledge transfer.

The Solution

EON Reality Norway was a partner in the EU co-financed Research & Development project BRIDGE. EON Reality Norway's role was to develop a concept for an integrated training environment consisting of a holistic training methodology and relevant supporting tools for collaborative training. EON Reality Norway developed a virtual industrial area integrated with a virtual simulator. The virtual simulator was then tested by the Oslo Emergency Organizations as part of their preparation for the EU co-financed international exercise HarborEx-15.



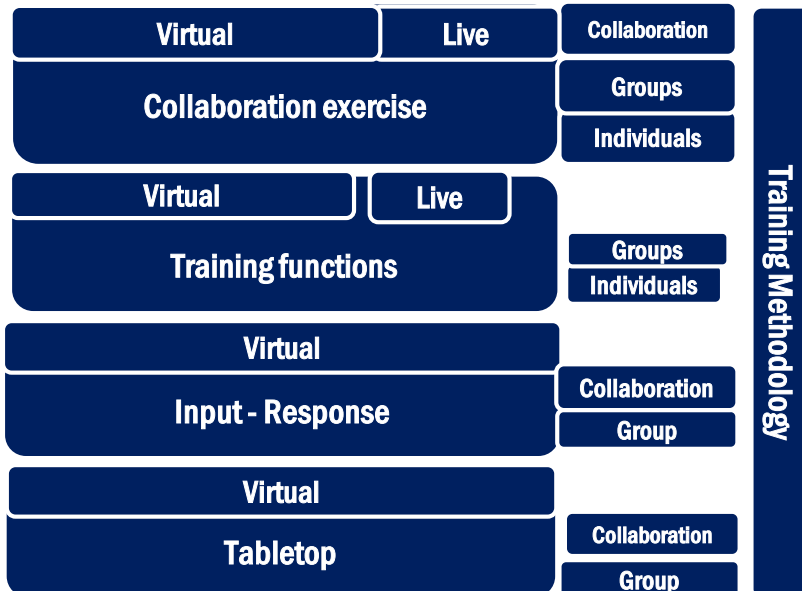
Virtual Collaborative Training

The Challenge

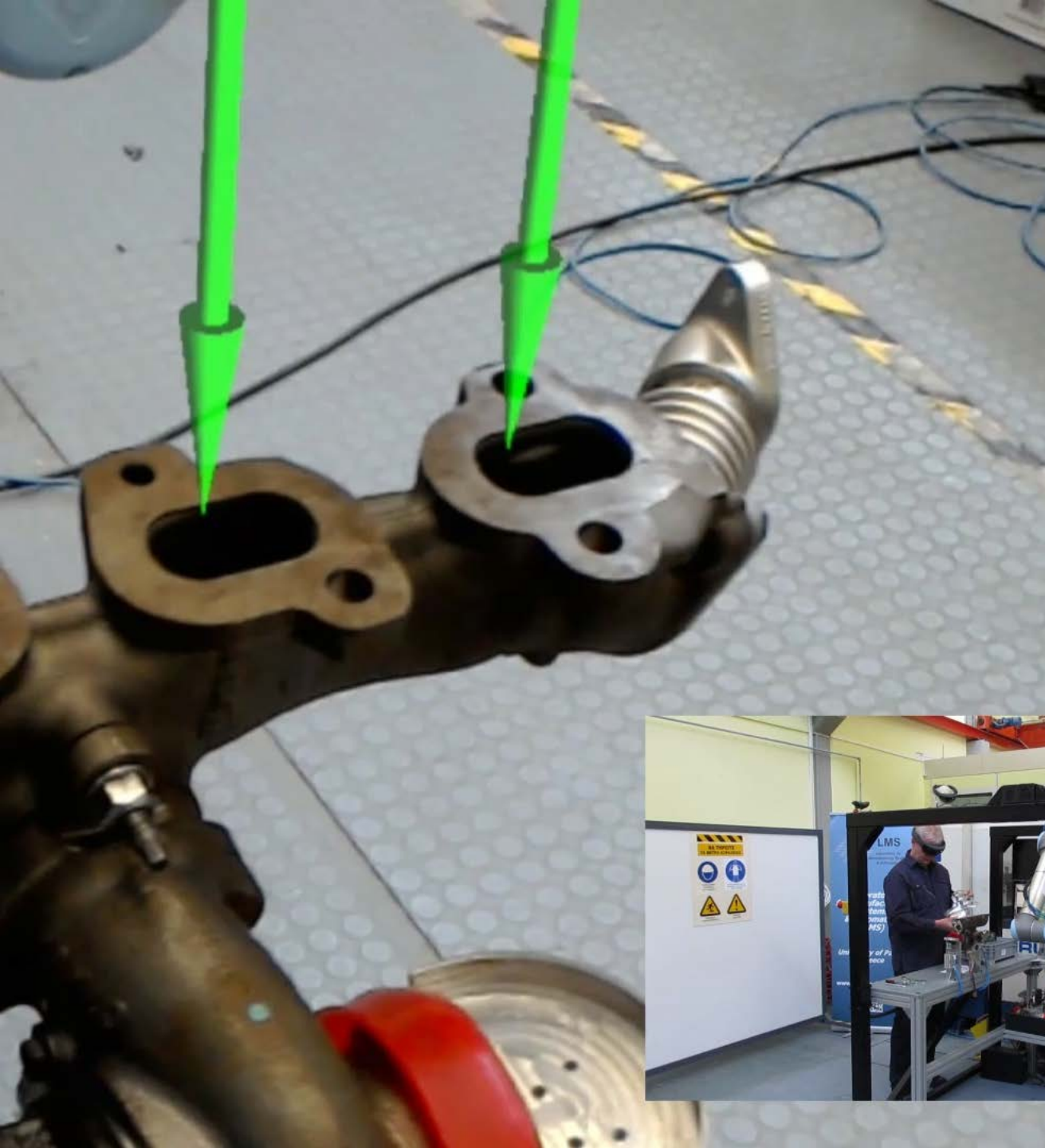
Collaboration between actors in managing unknown complex situations are proven to be insufficient. Traditional collaborative (live) training is often time and resource consuming giving insufficient prerequisites for evaluation and knowledge transfer.

The Solution

EON Reality Norway is a partner in the EU co-financed Research & Development project COncORDE. EON Reality Norway's role is to develop a concept for an integrated training environment consisting of a holistic training methodology and relevant supporting tools for collaborative training. EON Reality Norway has developed the web-based training methodology solution, MeTracker, and a virtual Municipality integrated with a virtual simulator. Both solutions were tested by the Hellenic Rescue Team in Thessaloniki Q1 2017.



COncORDE 



AR ASSIST

Knowledge - When you need it as you need it

- Inject Knowledge Into the World
- Visual Instructions
- AR 3D Annotations
- AI processed IoT data



AR Decision Support System

The Challenge

Collaboration between actors in managing unknown complex situations are proven to be insufficient. Traditional collaborative (live) training is often time and resource consuming giving insufficient prerequisites for evaluation and knowledge transfer.

The Solution

EON Reality Norway was selected by The Inland University of Applied Sciences to develop an AR Decision Support System training solution.



Virtual		Groups	Training Methodology
Collaboration exercise		Individuals	
Virtual	Augmented	Groups	
Training functions		Individuals	
Virtual	Augmented	Groups	
Skills training		Individuals	
Virtual		Collaboration	
Input - Response		Group	
Virtual		Collaboration	
Tabletop		Group	
Seminar/ workshop		Basic Competence	



Centre for Crisis Management

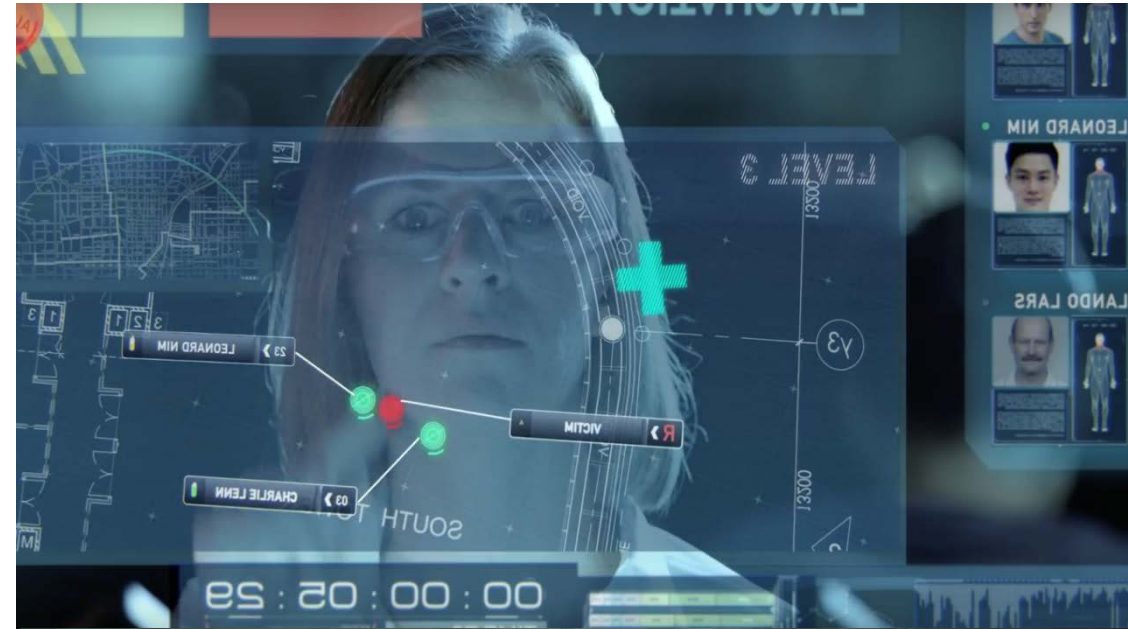
The Challenge

Collaboration between actors in managing unknown complex situations are proven to be insufficient. Traditional collaborative (live) training is often time and resource consuming giving insufficient prerequisites for evaluation and knowledge transfer.

The Solution

EON Reality Norway was selected by The Inland University of Applied Sciences to develop an overall training solution consisting of supporting tools for a Training Methodology, Augmented, Virtual & Constructive Training Solutions. It also consists of establishing an operational support organization for their Centre for Crisis Management Training

Virtual		Live	Groups	Training Methodology
Collaboration exercise			Individuals	
Virtual	Augmented	Live	Groups	
Training functions			Individuals	
Virtual	Augmented	Live	Groups	
Skills training			Individuals	
Virtual			Collaboration	
Input - Response			Group	
Virtual			Collaboration	
Tabletop			Group	
Seminar/ workshop			Basic Competence	





EON Reality can provide:

- Security domain knowledge
- Learning and training methodology
- Global Leading Augmented Virtual Reality (AVR) Platform for Security
- AVR Security training solutions
- Security IDC

Questions?

Thank You

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