



This Communication is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°957258

IOTWeek

Dublin — June 20-23, 2022

Consuming real-time data in Mixed Reality application through distributed data broker: A case study on large construction site

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GLOBAL VISION:

IoT TODAY AND BEYOND



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Demo goals

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Real-time monitoring of construction site personnel

Integration mixed reality technology and edge devices through MQTT protocol

Real-time feed of information



The Construction Sector

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Dynamic and complex, with large number of processes

2.876 accidents / 100.000 employees

Long working hours, without sufficient breaks, under unfavorable weather conditions for many workers

Significant social and economic impacts, led by loss of lives and profits

Lack of preventive and proactive measures to identify risks and hazards

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Lack of risk identification, safety awareness, proper training and education

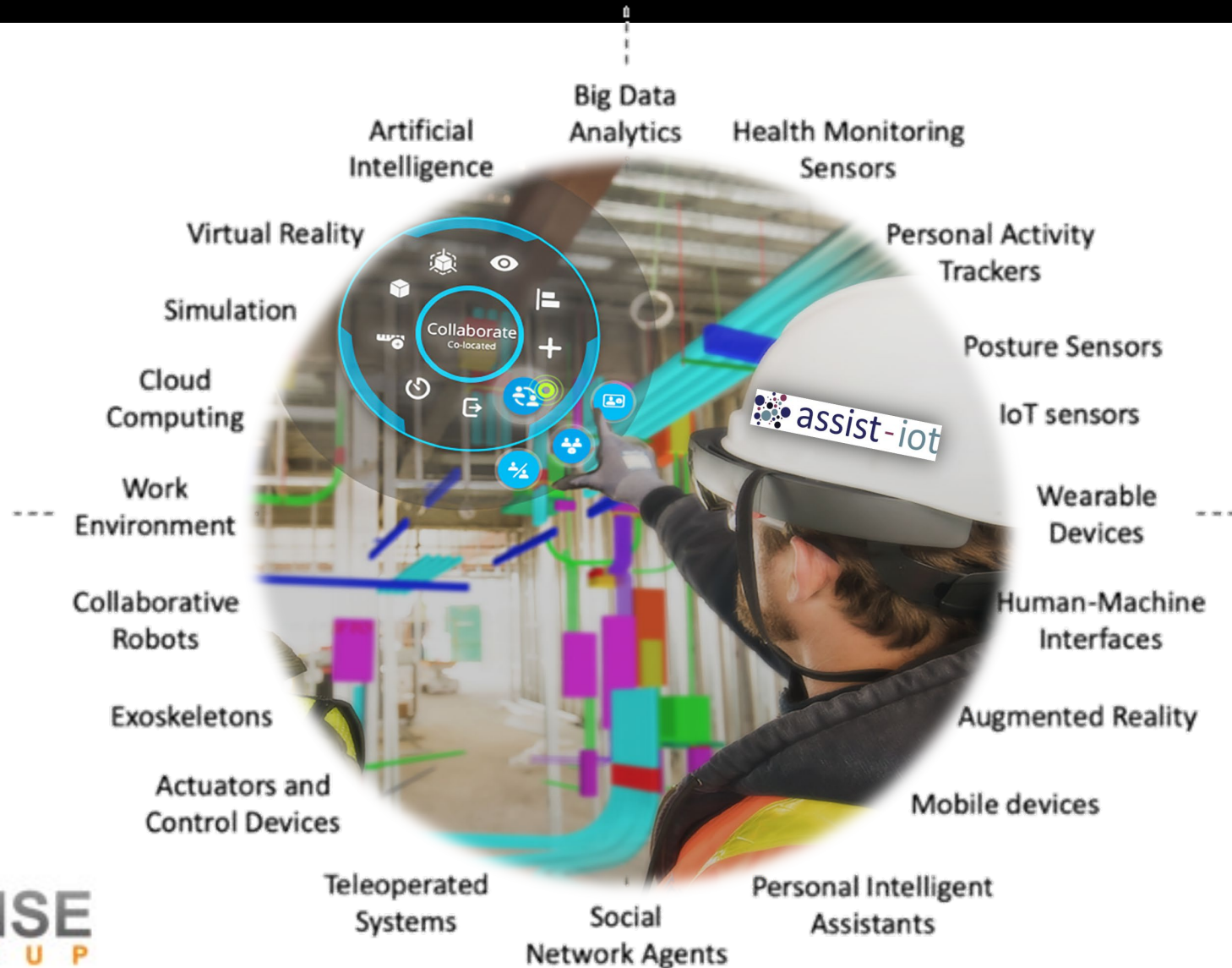
Lack of risk identification, safety awareness, proper training and education



Health & Safety manager of Construction 5.0 environment

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Demo Components

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Microsoft HoloLens 2



Custom-made heart rate monitor
wristband

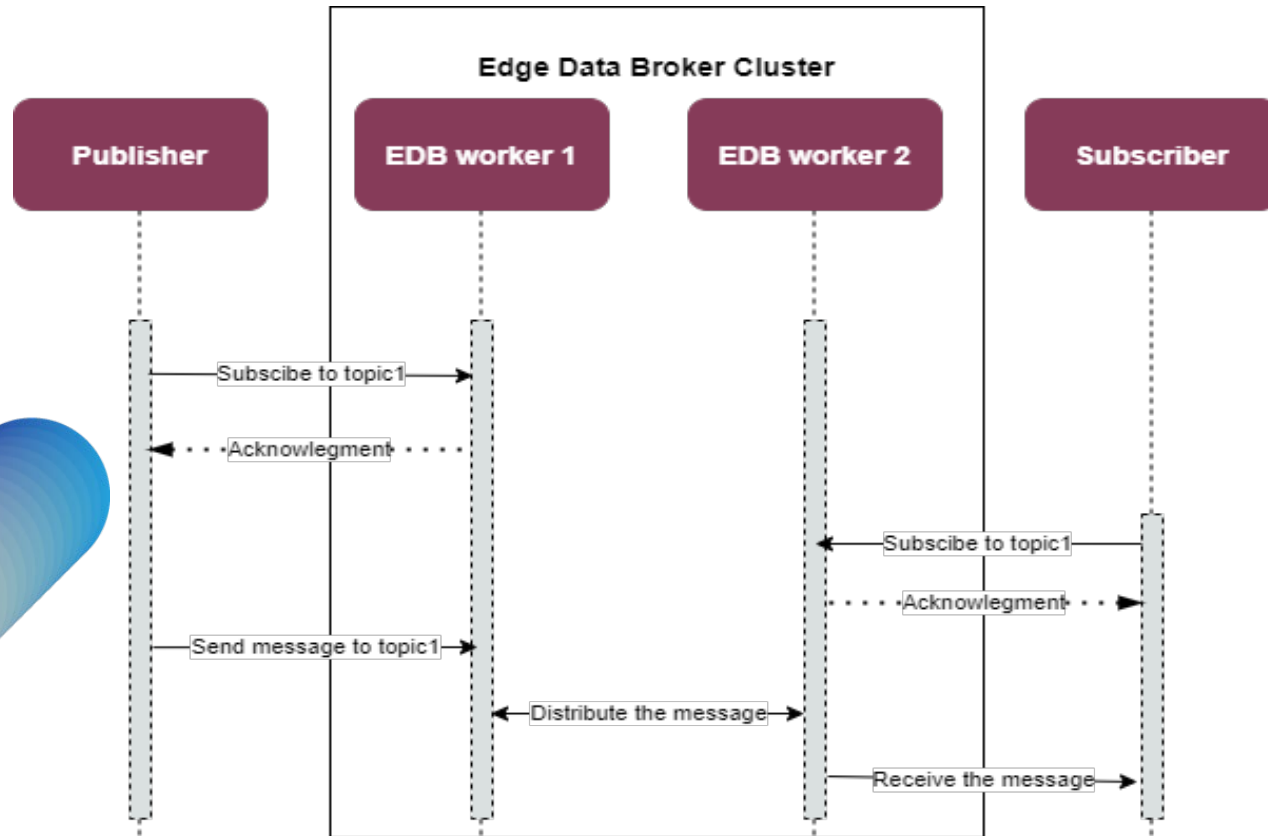


MQTT-ready clustered Edge
devices

Edge Data Broker Enabler

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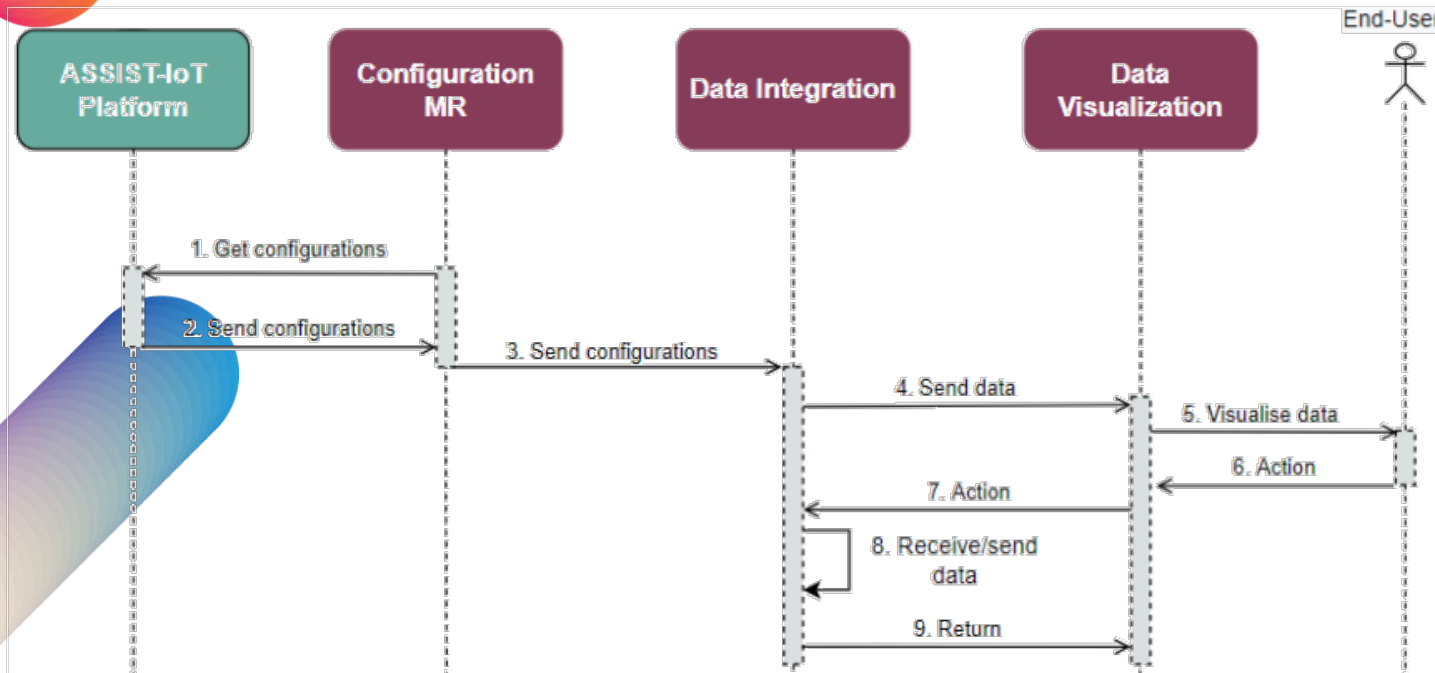
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MQTT-ready clustered Edge devices



Mixed Reality Enabler

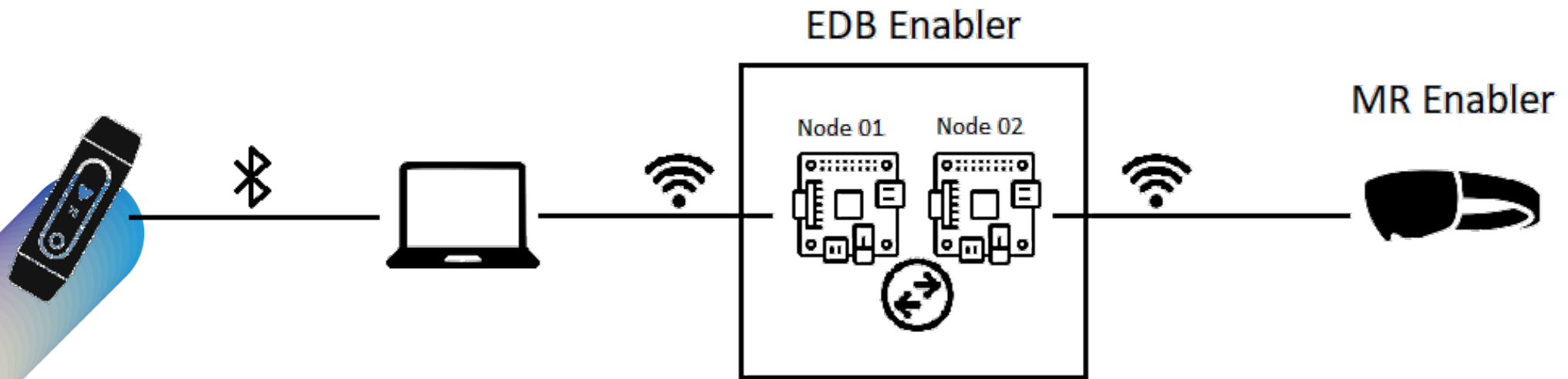


Microsoft HoloLens 2

Mixed Reality Enabler

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LIVE DEMO!

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Thank you!

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