

**Business scope:** Improve productivity and transparency of human-centric industrial activities as: preventive maintenance, product assembly, quality assurance, construction works, work safety audits, work result analysis using artificial intelligence tools. Cross industrial applications.

## 1. Shop floor managers

- ❖ Transparency of the work: what shall be done and what was done
- ❖ Work order schedule management
- ❖ Synchronization of multiply event-driven workflows (teams working in parallel)

## 2. Workers

- ❖ Clear work assignment shown in the smart-glass
- ❖ Optional online learning of always up to date instructions
- ❖ All information (drawings, schemes) accessible from the smart glass
- ❖ Voice controlled communication
- ❖ Each work action is recorded (text, voice, video)
- ❖ Remote virtual assistance to worker
- ❖ Offline learning and testing of new workers

## 3. Technologists and productivity analysts

- ❖ User friendly and workflow design and update as technology changes (zero programming)
- ❖ Work execution multimedia results manual analysis by technologist and business analysts
- ❖ Input for AI video analytics systems

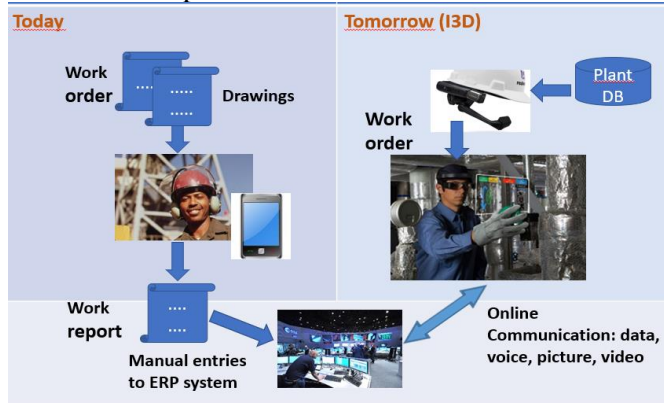
## 4. Company level benefits

- ❖ Adherence to ISO Standards of the company
- ❖ Sharing information between real and digital twin of the company (Industry 4.0)
- ❖ Work optimization (workflow content, duration, cost, workforce capacity) based on analysis of recorded experience.

### Bottom line:

**Improved quality and productivity of human-centric shop-floor processes.**

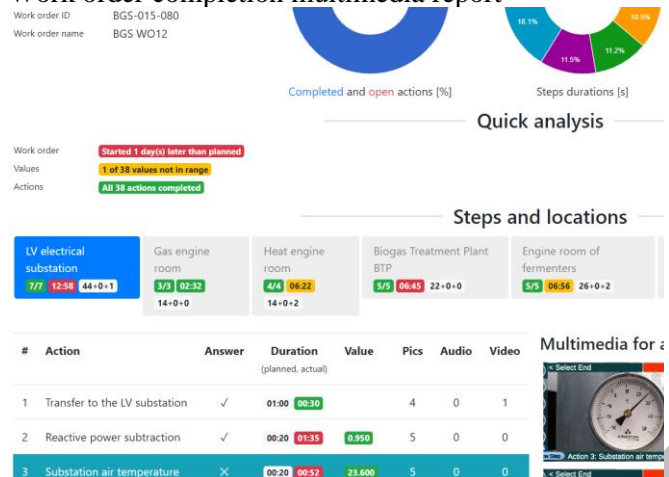
### The I3D concept



### The work execution in I3D



### Work order completion multimedia report



Comment: Novitech (SK) is I3D development partner of e-Content Store S.a.r.l. (LU)



## I3D INDUSTRIAL SERVICES PORTFOLIO

### Key I3D Industrial Services

#### **I3D-WF -- Workflow editor**

Definition and/or update of workflows: Work locations, actions, events, resources, tools.

#### **I3D-WO -- Work order management**

Composition of work orders from defined workflow types. Schedule and Assigning work order to worker(s).

#### **I3D-LE -- Work order learning**

Delta learning of work order in VR (virtual reality) smartglass mode

#### **I3D-WE – Work order execution**

Execution of work order in AR (augmented reality) smartglass mode

#### **I3D-WR – Work order completion reports**

Work order results reports by steps and actions (worker multimedia inputs)

### Optional I3D Industrial Services

#### **I3D-RA -- Remote assistant**

Online remote support for technician / worker in work order execution (I3D-WE)

#### **I3D-OR – Object recognition**

Recognition of an object (machine, product) from a set of object samples

#### **I3D-NW – New worker learning**

Offline VR learning of workflow by a new worker. Test capabilities of worker.

#### **I3D-ML – Multilanguage**

Working language(s) and local company settings

#### **I3D-VT -- Industrial virtual tour**

VR presentation - virtual tour of plant (Smart glass and desktop). Navigation to work order locations.

#### **I3D-MW – Multiply workflow management**

Workflows managed by events based on workers' inputs set during their work order executions

#### **I3D-OC -- Optical character recognition**

Value inputs to work order can be collected from OCR, barcode or QR code

#### **I3D-AR -- Alarm receiving centre**

Two-way live video streaming, with availability to connect to third party video streaming server

#### **I3D-AP -- Interfaces / connectors**

APIs to connect with ERP (SAP, Oracle) and process control systems (IoT) of Client

### Client support services

#### **I3D-S0 – Pilot use case service**

Technical assistance in pilot use case selection, design and implementation (max. 2 months) – free

#### **I3D-S1 – Trainings of client team**

Web meeting and on-site trainings of shop floor managers, technologists and workers

#### **I3D-S2 – Help desk services**

7/24 help desk services

#### **I3D-S3 – Custom SW development**

SW development in integration of I3D services with client IT systems

