

**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 was & shall be done
- Work order schedule management
- Synchronization of multiply event-driven workflows (teams working in parallel)

## 2. Workers

- Clear work assignment shown in the smart-glasses
- Optional online learning always up to date instructions
- All information (drawings, schemes) accessible from the smart-glasses
- 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 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

## TIME & MONEY SAVINGS

- Workflow design – clear and transparent definition
- Digitized processes – no manual retyping of values
- Reporting, BI & AI – real-time evaluation

## REFERENCE – PILOT PROJECTS RUNNING

- Public transport in Budapest – bus night check
- Slovnaft – maintenance of packaging line
- Biogas plant – regular maintenance of plant

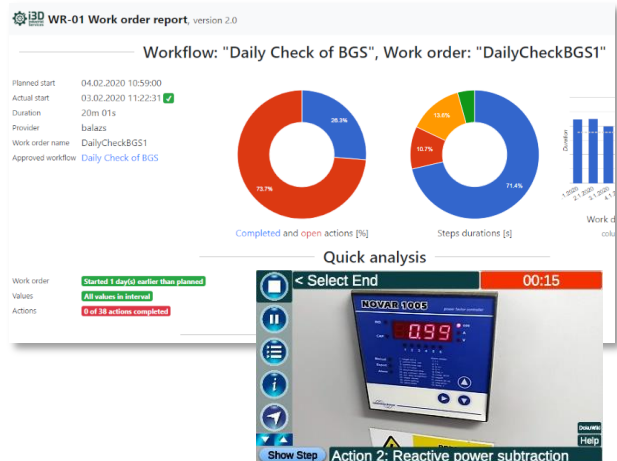
## THE I3D CONCEPT



## THE WORK EXECUTION IN I3D



## WORK ORDER COMPLETION REPORT DATA, IMAGES AND VIDEO ANALYSIS



Comment: Novitech a.s. (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

