

A full-page background image showing a male worker in a yellow hard hat and blue overalls. He is looking up at a large mechanical component of a train engine, which is suspended by a crane. He is holding a tablet in his left hand and reaching up with his right hand to touch the component. The setting is a large industrial factory with yellow overhead cranes and various pipes and structures visible in the background.

**actyx**

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## Factory Software Made Simple

Case Study: Maintenance 4.0  
for periodic train repairs





## Case Study From Lean to *Digital*

### Customer

#### **Responsible for operating and maintaining over 350 trains and trams**

The customer is the municipal transport company that operates all underground trains and busses in one of Germany's five largest cities. The transport company provides an excellent passenger experience with the highest degree of comfort and safety, through high-quality repair and maintenance processes.

### Challenge

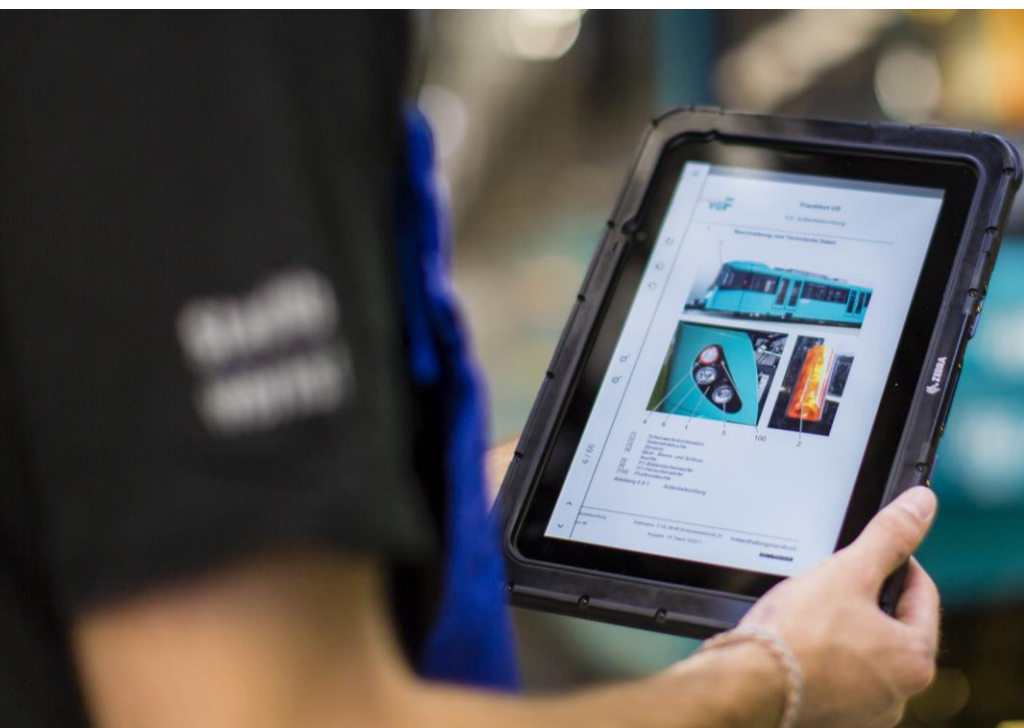
#### **Lean processes came with costly administrative overheads**

The workshop of the transport company had already optimized its shopfloor processes through introducing lean best practices, such as shopfloor boards, daily round tours and an activity ticket system. This led to a decrease in cycle times for periodic maintenance, however also came with significant overhead for managing paper-based documents, reports and activity tickets.

The main challenge was to find a way to reduce the problems that came with the huge amounts of paper, while not affecting the established lean structures. Furthermore, the customer had issues with effectively prioritizing daily work, due to a lacking understanding of the current status on the shopfloor.

Additionally to this challenge, workers suffered from the complexity coming from their IT-setup, which was mainly used by office staff. Documentation relevant to the workers was often outdated and only accessible through a long process. Logging their work data became a pain because of long travel paths. They started collectively logging work only at the end of a shift, resulting in lower worker happiness and data quality.

In order to deal with these challenges, the transport company decided to call for proposals. After multiple visits and discussions with relevant stakeholders, Actyx crafted a *Solution Design* tailored towards these most pressing challenges, which won the request for proposals.



#### Worker applications

##### **Digital Quality Inspections**

DQI logs digitally signed checks and manual measurement results.

##### **Manual Work Logging**

MWL shows prioritized tickets and logs start, pause, end-of-work, interruptions.

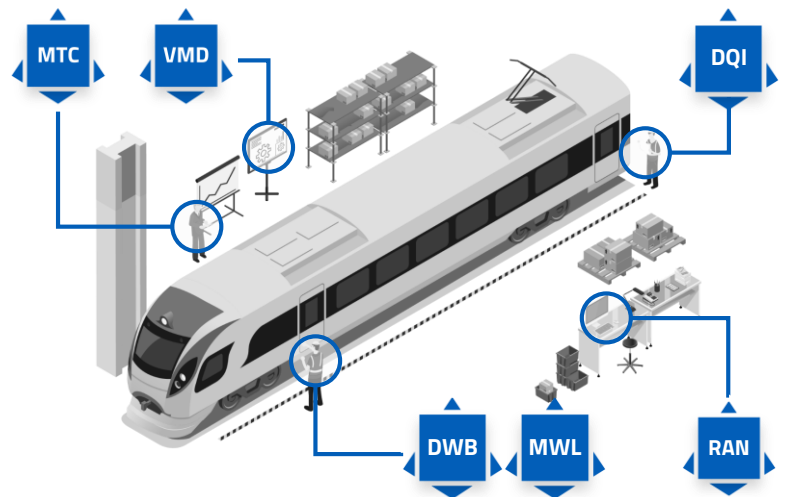
##### **Digital Workbook**

DWB gives access to relevant PDFs with shortcuts to relevant sections.

## Solution

### Applications for supporting workers and management, by providing the right information at the right time

The solution designed by Actyx benefits all stakeholders from shopfloor to management. It gives workers access to the information they need, exactly when they need it. Management is provided with real-time and historic data on their operations, including alerts if something goes wrong. The solution is seamlessly integrated with their *Microsoft File Server* and their *Zedas system*.



## Impact

### Increased flexibility and productivity, while reducing administrative overhead

The paper management and administrative overhead that came with lean processes is not only reduced, but almost eliminated through the usage of the Actyx solution.

Furthermore, the solution led to higher process security, as workers are intuitively led and supported through their work. This guidance includes for example prioritized tickets and relevant, up-to-date documentation, as well as efficient communication of corrective tickets.

The real-time data, automatically logged from the workers, enabled better daily planning and prioritization decisions. Historic data allowed management to continuously optimize processes and master data.

## Customer Success

### Robust, sustainable and fully-operated applications, devices and integrations

Contrary to traditional IT-projects, the Actyx approach is *All-Inclusive*. This means, that all software, hardware and integrations were provided and are fully managed by Actyx. The customer executed the project, with almost no IT-involvement. Status and health of the solution are continuously monitored and maintained by Actyx. For emergencies, the *Enterprise 24x7 Support* responds to requests through chat or phone.

Regular visits of the *Customer Success* team ensured that users from shopfloor to office work with the applications correctly and leverage them to their full potential. Through this, the customer unlocked the full value of the solution.

## Management applications

### Visual Management Dashboard

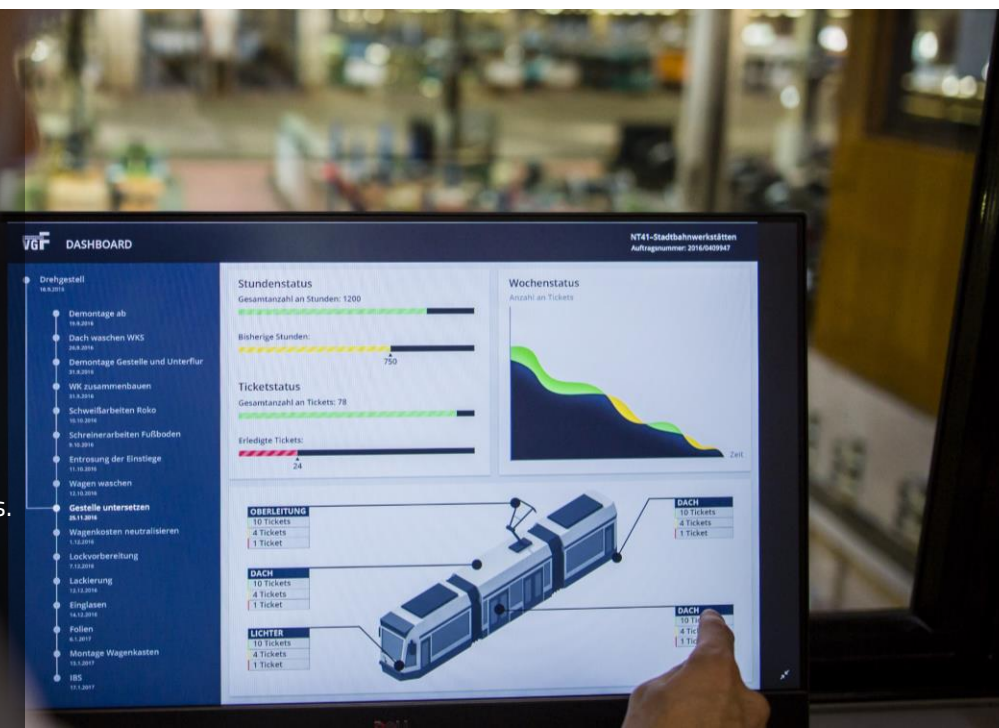
VMD shows real-time information on ticket progress and target/actual data.

### Reporting & Analytics

RAN allows periodic performance reports and BI tools for further analysis.

### Mobile Team Collaboration

MTC is for communicating between shopfloor and management office.







Step into the  
digital era  
[www.actyx.io](http://www.actyx.io)

**actyx**

Actyx AG  
Ridlerstr. 31B  
80339 Munich  
Germany

[hi@actyx.io](mailto:hi@actyx.io)  
+49 89 9439 7400

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