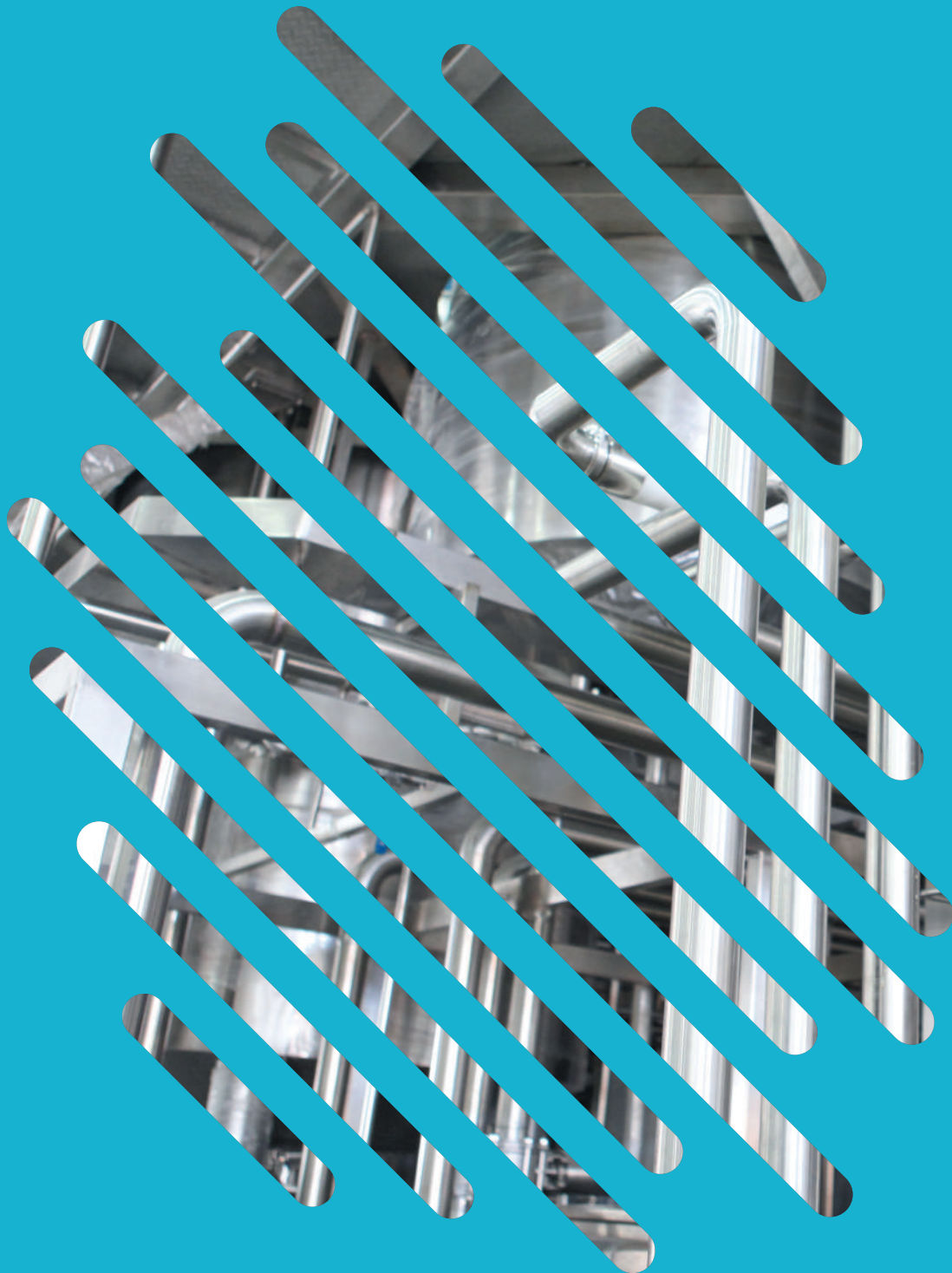


Smart factories
use 4Industry

APP4MATION



Part of Plat4mation

For further questions visit us online at:
www.app4mation.com or email us via info@app4mation.com

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“It is our mission to develop technical innovations to achieve excellence in the physical workspace. In both industrial and office settings.”

Luc Raeskin, App4mation Managing Director

About App4mation

App4mation makes your workspace a better place

Our mission is to create technical innovations to achieve excellence in the physical workspace. We develop technology to revolutionize the workspace in both industrial and office settings.

We do this in the form of applications to help the employees of our clients in the most user friendly way as possible and to stimulate adoption.

The solutions created by App4mation arise out of real challenges in the market. We support companies around the world to address these challenges in the best way possible. We improve the processes, enable companies to innovate and use the newest technologies to improve the working life of employees.

Let our solutions make you achieve excellence by successfully realizing business goals and make working life easier for your employees.



Let technology work for you

We believe in the power of technology and the relief it can bring. We want to equip you with the best, most trustworthy, innovative and scalable technology the market has to offer. Transform your office or industry workplace in a more intelligent workplace with the proven track record of the cloud platform ServiceNow®. Using the ServiceNow platform, we can translate your (IoT) data into intelligence that drives automated and manual workflows.

Plat4mation as a skilled partner

Many enterprises have found their way to Plat4mation, with an average satisfaction score of >9. Being the only company in the world with a Triple Gold Status, it was time to increase the focus on business apps to even better serve our clients.

With App4mation we continue to build world-class apps, and bring new products and product features to the market quicker to ensure they stay optimally aligned with client needs.

Why use 4Industry?

Improve manufacturing productivity with 4Industry



Adding intelligence to the workplace for industry

“OEE measures the percentage of planned production time that is truly productive. Many manufacturing lines are only 60% productive, meaning there are tremendous opportunities for improvement.”

OEE

It is often thought that a world-class OEE score is 85%.



Managing your production line

Your customers are demanding more personalized products that meet their changing needs, of course at the lowest costs. Manufacturing companies that want to survive, even thrive, need to be able to operate flexible and controlled production lines and rely on IT systems to make this happen.

Making data work for you

In complex manufacturing environments, composed of large amount of equipment, it is common that various operational technologies are put in place that increasingly rely on sensors and Internet of Things technology to generate data. The key is to connect the data from these different sources on a single work orchestration platform, gain insights and direct action towards where it is needed. This is the domain of 4Industry.

High Overall Equipment Effectiveness

The vision behind 4Industry is to achieve excellence in the physical work space. Within manufacturing, this typically translates in a high Overall Equipment Effectiveness (OEE). To improve OEE, we offer a set of modules to manage processes based on the Total Productive Maintenance (TPM) methodology.

We support processes to manage deviations, identify countermeasures, perform root cause analysis, continuous improvement, maintenance, control your changes, assess how well you are doing and much more.

Six Big Losses

Use 4Industry to eliminate the Six Big Losses to boost OEE.



Manufacturing challenges

The steam engine led to the First Industrial Revolution. After this came electricity (Second Revolution), and operational technology (Third Revolution) to allow machines to perform complex tasks. We are in the Fourth Industrial Revolution where production lines and facilities become smart and connected. Data is gathered from production machines and (IoT) sensors. Advanced algorithms and Artificial Intelligence transform this data into insights and meaningful actions. Companies that are successful in developing these capabilities will benefit by seeing manufacturing objectives being met.

Manufacturing objectives

In the upcoming years manufacturing will face many challenges. 4Industry can help you to meet customer expectations, to stay ahead of the competition and reduce costs.

Improve Overall Equipment Effectiveness

Industry average OEE is currently approximately 60%, whereas World Class Manufacturing sets the standard to 85%. An OEE score of 100% means you are manufacturing only good parts (Quality), as fast as possible (Performance), with no stop time (Availability).

Improve operational processes

In order to improve OEE, it is essential that procedures are always followed and continuously improved. Workers need to perform proactive tasks to prevent downtime and environmental issues, as well as stimulating a safe and healthy work environment. Manufacturers therefore adopt Total Productive Maintenance (TPM) or Lean Manufacturing processes that need to be properly executed.

Reduce administration load

Ensuring that processes are followed requires technology that collects process data and directly feeds back knowledge to workers and supervisors. Not many people genuinely appreciate doing administrative tasks, so the systems in use must be as simple as possible to use and at all cost avoid any form of double administration.

Overcome technical challenges

Before you can improve, you have some technical challenges to overcome.

Make machine data actionable

IoT and other technologies lead to massive amounts of Big Data that can be used to optimize manufacturing and open up entirely new business possibilities. Having huge amounts of data only makes sense when it is used to drive the actions of your workers and decision makers. This fuels the need for a platform that functions as a single “System of Action”.

Current ERPs are constraining

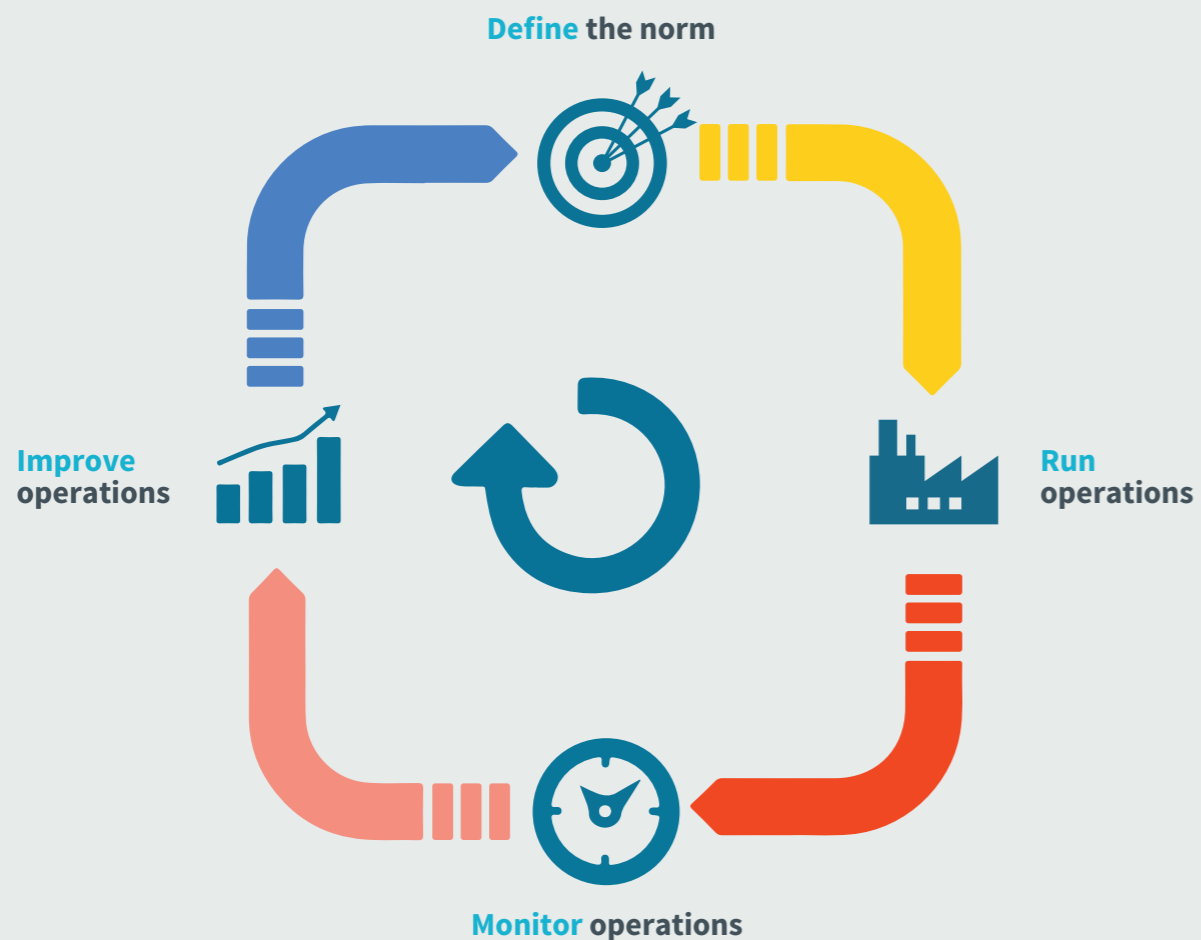
Gartner: “Many ERP solutions are old, and they cannot cope with the amount of data and transactions to be processed, and the level of granularity in business transactions” said Christian Hestermann, research director at Gartner. However, instead of replacing existing ERP systems, organizations can adopt Bi-Modal IT strategies to lower initial investments.

4Industry

4Industry allows you to enhance productivity through optimization and automation. It can be seamlessly connected to your existing manufacturing software (ERP), Operational Technology and IoT platforms.

Continuous improvement

Modules for the full improvement cycle



Define the norm

- Define equipment with expected performance
- Define work areas and potential EHS hazards
- Define Maintenance Plans and Assessments

Run operations

- Setup work shifts and assign operators
- Assign and prioritize tasks (Kanban)
- Perform Maintenance tasks
- Track Deviations and Breakdowns
- Request and receive work permits

Monitor operations

- Use Obeya Board to monitor processes
- Perform Assessments and (5S) Audits
- Gather and analyze machine and process data

Improve operations

- Perform Root Cause Analysis using 5 Whys
- Register and process Continuous improvement ideas
- Document and improve knowledge articles (SOPs, maintenance checklists etc.)
- Implement and track Changes

4Industry processes

The processes within the 4Industry product are the core of the product. All other components within 4Industry enrich or use the data provided in these processes.

Our processes are based on Total Productive Maintenance (TPM) and Lean Manufacturing best practices.

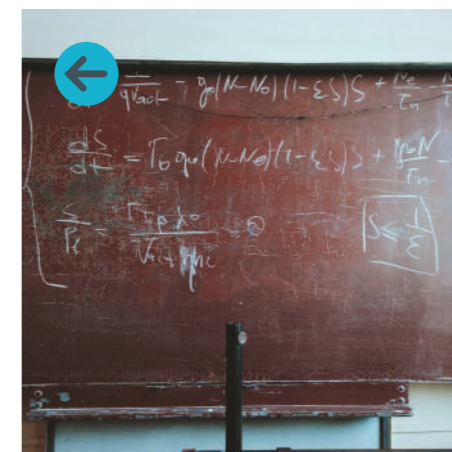
Deviation management

Increase control over your production lines by registering and analyzing deviations. Registration can be automatic by integrating to existing tools or by using our mobile apps.



Root cause analysis

When a big deviation / breakdown occurs, we support frameworks like 5 Why in an on-line tool. This allows you to collaborate remotely with vendors, head office or any other colleague to find the root cause.



Maintenance management

When equipment fails, it has a direct impact on Overall Equipment Effectiveness. To minimize this risk, 4Industry supports preventive, reactive and predictive maintenance.



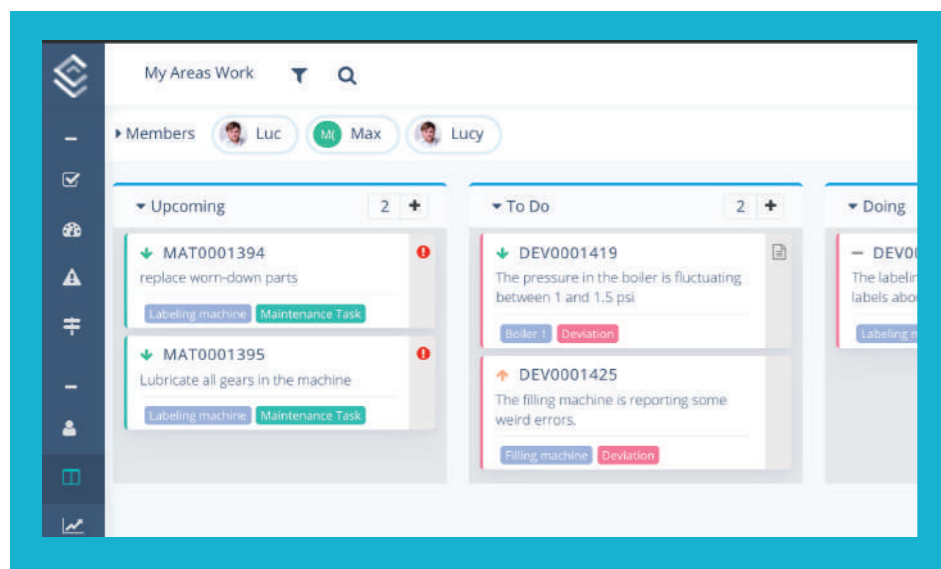
Continuous improvement

Working on deviations, breakdowns, maintenance and other activities can lead to ideas for improvement. Make it easy for everyone to register these ideas and improve your business.



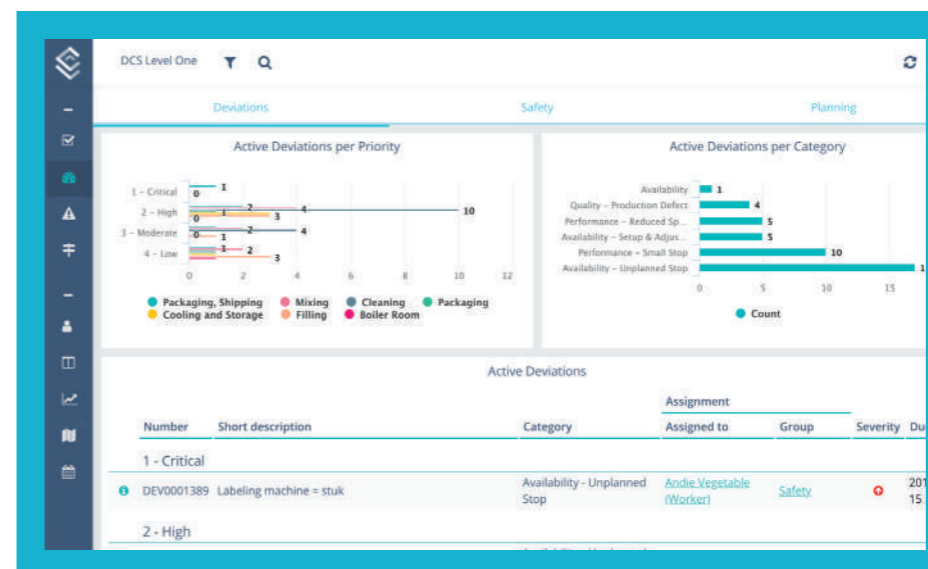
4Industry tools

The following tools are part of the feature set. It is our mission to provide solutions that are intuitive and a pleasure to use. 4Industry provides tools to make standard activities effortless.



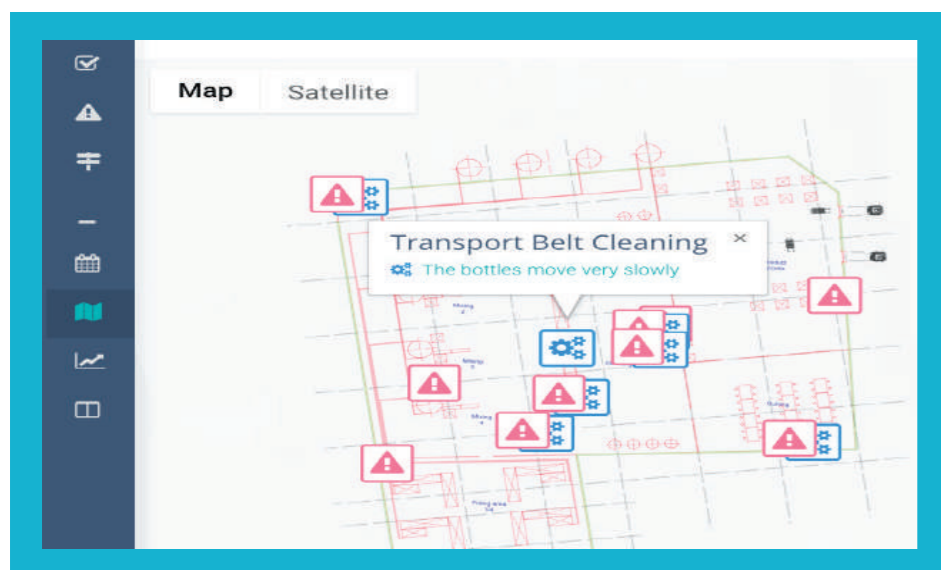
Kanban board

Visualize your tasks (i.e. RCA, maintenance) in a single overview. Use drag 'n drop features to easily prioritize work, assign tasks to workers, manage Work in Progress (WIP) and report progress.



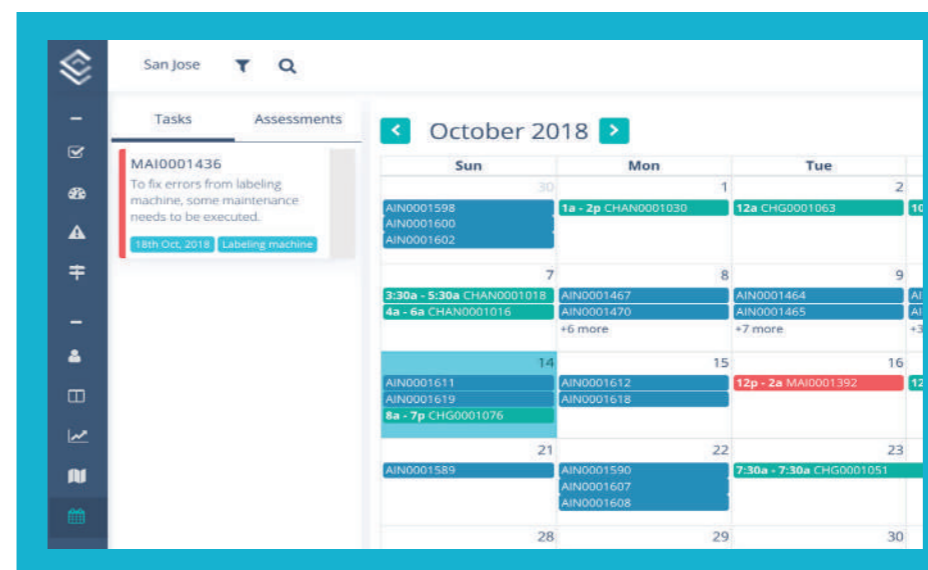
Obeya board

Give your operators, supervisors and directors access to all relevant data shown in an easy interpretable way. Allow them to make informed and timely decisions.



Floor visualization

Show real time and historic data (i.e. equipment and deviations) in 2D manufacturing floor plans. Allow your operators to better understand where work needs to be done.



Work planner

Gives your supervisors the ability to define work shifts associated to a work area, assign operators to work and schedule tasks in one single overview.

Mobile ready

Your engineers require an easy to use mobile application that can also be used when wearing gloves. Our mobile app provides a simple and effective user experience that stimulates user adoption and improves data quality.



User interface

Our intuitive UI offers easy to interpret screens and large buttons. This ensures our app can be used by engineers and operators in various environments.



Multiple functionalities

One app that supports you and your team in all your daily activities like executing your tasks and reporting deviations.



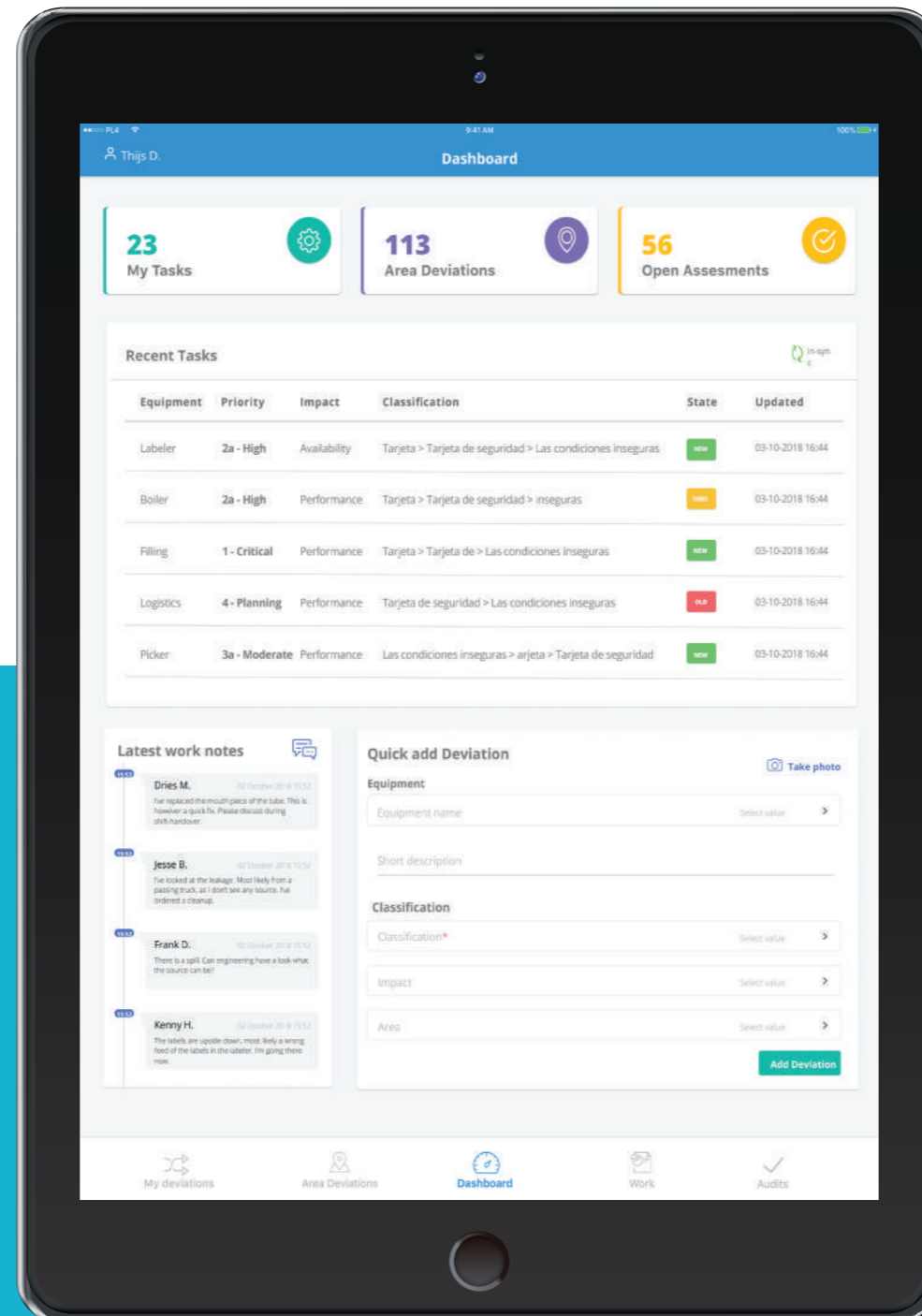
Offline capabilities

We know that manufacturing sites do not always have Wi-Fi or 4G internet connectivity. That's why we developed powerful offline capabilities to allow operators to use the app at anytime and anywhere.



iOS and Android

Our app can be installed on all devices that run Android and iOS.



Operators and engineers have direct access to their assigned tasks, supported by knowledge articles. They can perform their jobs consistently and have the tools to easily communicate with their colleagues across the world.



Access knowledge

Provides your operators direct access to the knowledge base, so they can find the information relevant to complete their tasks.



iBeacon technology

Using iBeacon technology, our mobile app is able to find the assets in your vicinity, allowing you to easily relate the asset to a deviation.



Taking photos

The app makes it easy to take photos and associate them to a deviation or audit. Add drawings on photos to indicate the exact location or root cause of a problem. This makes it easier to understand and follow up.



Direct messaging

Make notes and interact with your colleagues.

Reporting and analytics

Our reporting and analytics capabilities ensure your processes are monitored and continuously improved. We can report on OEE to allow you to improve manufacturing performance.



4Industry supports many (TPM) processes that generate valuable data. By connecting 4Industry to Operational Technology and sensors, even more data flows into the system. However, it is not the volume of data that drives manufacturing performance, but it is the insights that are derived from this data. 4Industry offers a powerful Analytics and Reporting engine that allows you to visualize this data, to provide actionable insights.

Flexible and easy to use

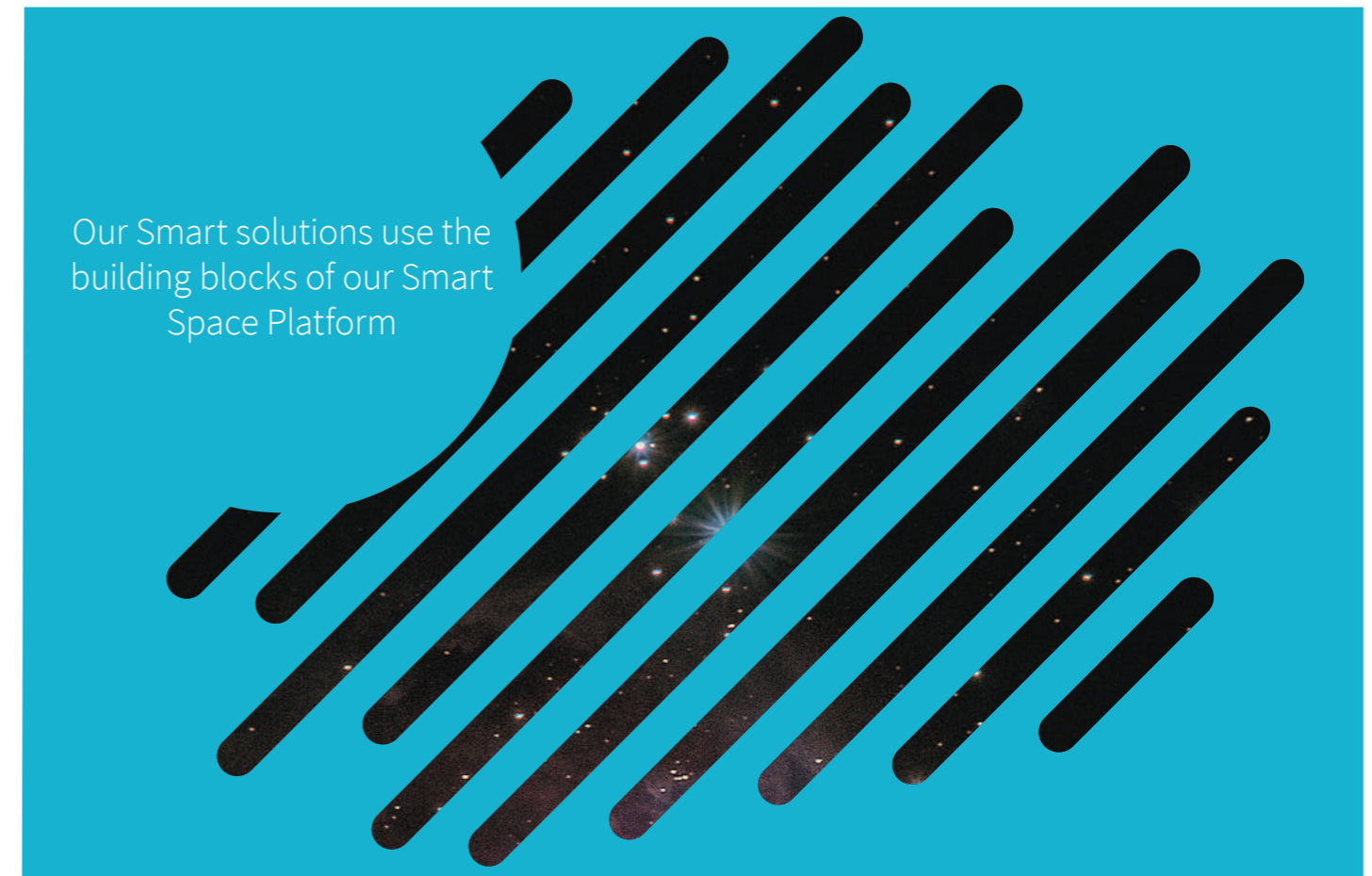
We observe that in today's market it is common to export data from manufacturing applications into Excel or other off-line tools. Here it is manipulated to produce the required reports. Why? Most reporting features in manufacturing applications are either very limited or very advanced and complex to use. 4Industry provides a very flexible and easy to use reporting environment that allows every user to build their own dashboards to show the

data relevant to them. Of course, also standard dashboards can be created to show the "official" version of the truth.

It is not required to build all your reports yourself. 4Industry comes with a large set of predefined reports and dashboards to allow you to effectively monitor your processes. Also our Obeya board (4Industry tool) is a ready made reporting solution that covers the most common manufacturing information needs.

Smart Space Platform

Our Smart Space Platform is built on the Now Platform and provides the building blocks to rapidly develop Smart solutions for clients in asset intensive industries.



Smart Space Platform building blocks

App4mation's mission is to achieve excellence in the physical workspace. We focus specifically on asset intensive environments, such as manufacturing, health care, oil & gas and large scale offices. Our Smart Space Platform provides reusable building blocks and master data structures that can be applied in all these environments. Also generic integration components are available to allow quick integration with available Operational Technologies,

Big data and IoT platforms. This provides access to the data to make our solutions Smart to drive intelligent and automated actions.

Now Platform by ServiceNow

We rely on the Now Platform of ServiceNow to provide the foundational layer supporting our Smart Space Platform. ServiceNow is #1 on the Forbes World's Most Innovative Companies list. Additionally, this platform is recognized by industry analysts (i.e. Gartner) as a leading

technology in the area of High Productivity Application Platform as a Service. It allows us to rapidly build new solutions and provides us the flexibility to configure our solutions to exactly meet the needs our clients. Advanced High Availability architecture gives superior performance and is able to scale to meet the demands of the largest international organizations. The Now platform provides a secure environment and is compliant to: ISO 27001, ISO/IEC 27018, SSAE SOC 1 Type 2 and SOC 2 Type, FedRAMP, and more.

Reference: Supporting Heineken with an app built on ServiceNow

Before beers of Heineken have made it to your kitchen table, hundreds of people have been taking care of the raw materials and machinery that are needed to ensure a steady supply of the beverage. Heineken operates more than 165 breweries in over 70 countries around the globe which produce over 188 million hectoliters of beer each year.

Managing all the supply chain machinery within these facilities is challenging. Each day, problems occur and changes need to be implemented. More often than not, multiple ways of monitoring and logging are used to manage different parts of the supply chain. This makes it difficult to gain a reliable overview of all past and ongoing incidents and changes, let alone predict when maintenance is needed.

However, the processes underlying this part of supply chain management are very similar to ITSM. At Heineken, ServiceNow is used to manage incidents and changes and encourage employees to log all relevant information. Engineers at Heineken use an app for ServiceNow that has been specifically designed for this purpose. The functionality of the app is configured in ServiceNow and completely customizable.

Making data work for you instead of against you

At Heineken, the app allows engineers to quickly request information from the ServiceNow platform about incidents and tasks that have been assigned to them. It also enables them to upload information about what they see in the brewery onto the platform. They can receive guidance through the app when working on a change or incident: photos, drawings of designs and Q&A functionality are all available to name a few.

Employees that use the app are supported by iBeacons. If an employee uses the app to make a bluetooth connection with the beacon, all relevant information about the machine or cluster of machines this beacon is linked to will be retrieved from ServiceNow and presented in the app. In this way, past incidents, changes and the actions that have been taken to solve them are accessible on the spot. In addition, since connectivity in

production facilities is often lacking, the app is designed to function on its own. All computing is done in the ServiceNow cloud and no permanent connection between the two is needed for the app to function.



Limitless Possibilities

Information that has been gathered in ServiceNow is presented on easily comprehensible dashboards that give a quick overview of the current state of affairs in the supply chain. Management will spend less time filling out spreadsheets to manage changes and incidents, and have more time to analyze data that helps improve the supply chain.

The genie that causes supply chain headaches can be put back in the bottle, or rather a handy app. All retail enterprises that rely on large supply chains can benefit from it, whether they are webstores, dairy co-operatives, produce food & beverages or deliver tens of thousands of parcels a day. The possibilities are as limitless as those of ServiceNow itself.

Talk to us

Bas Tax is the project manager for Heineken. Contact him for more details about the project via bas.tax@plat4mation.com



APP4MATION

Services

Build

>250

app customers

We deliver innovative, certified ServiceNow and mobile apps to customers worldwide to support their business goals. Started in 2013, we have the most knowledgeable development team with years of experience.

Implement

>300

implementations

We deliver implementation services to ensure we configure our applications to align exactly to your business processes. We bring deep content and technological expertise to ensure quick time-to-value.

Support

>100

certified engineers

Our responsive DevOps support engineers monitor your applications to ensure they perform optimally, so you can focus on what really matters to you.

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