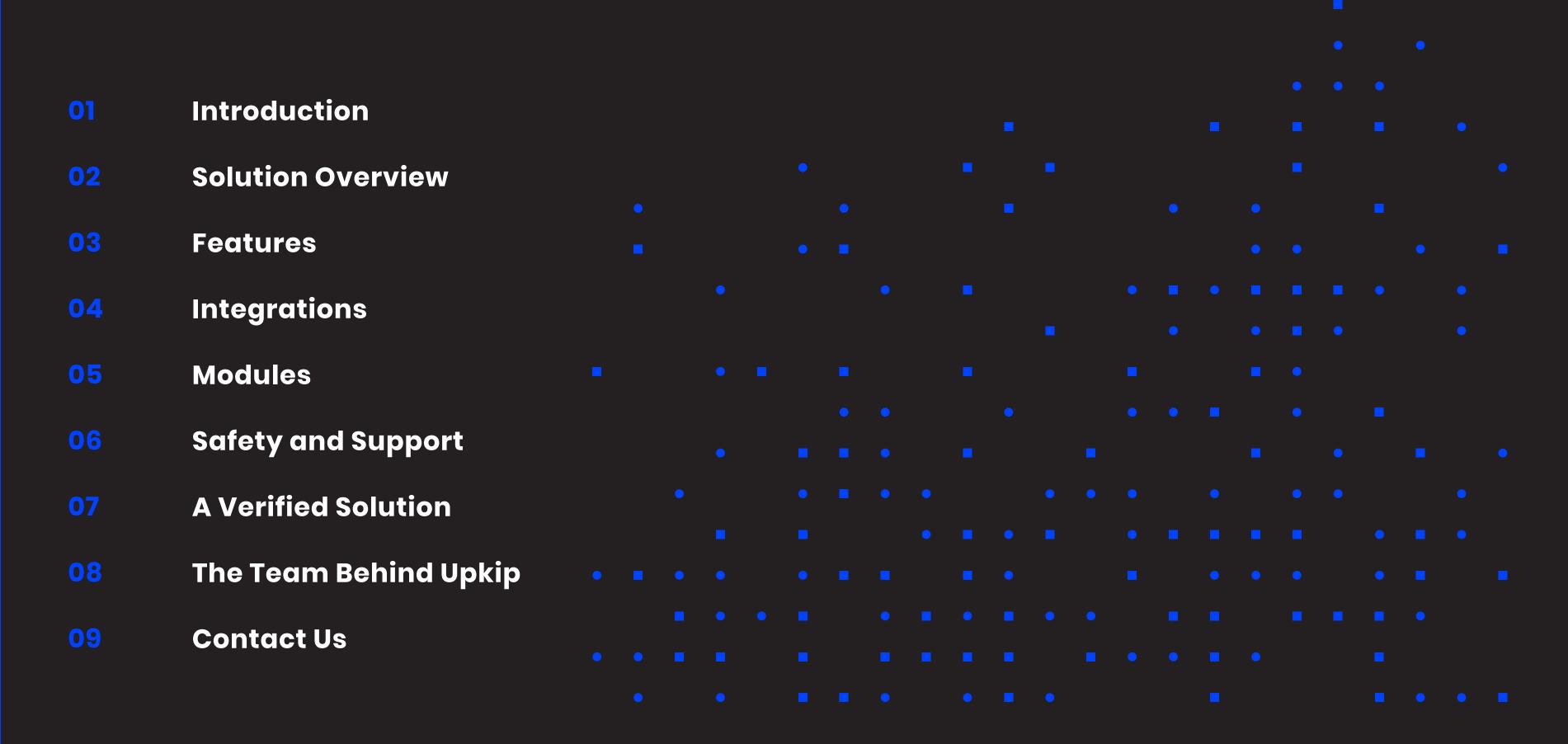
The simple, affordable way to get started with industry 4.0





#### Contents



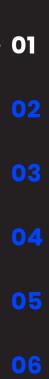


Digital transformation at your reach

Achieve shorter production time, better OEE, predictive maintenance and unlimited sensor connectivity with Upkip, a cloud-based industrial IoT solution for manufacturers of all sizes.









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#### Connect.

Let your machines communicate with you and securely connect your shop floor to the cloud.

Continuously gather data from equipment automatically and cross-reference it with operational and external data for complete real-time remote monitoring of your manufacturing processes.

#### Visualize.

Transparent manufacturing in a user-friendly virtual environment that shows you what you need to know.

With a 3D digital twin and multiple interactive dashboards, Upkip provides actionable analytics, statistical reports and root cause analysis that support all roles in your company - from operators to managers.

#### Optimize.

Uncover your full production
potential with a deeper, systematic
understanding of your operation.

Then take action to improve quality, reduce costs, scrap and eliminate unplanned downtime. What's more, with efficient predictive maintenance and condition monitoring, your focus can remain on the consumer.



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### State of the art capabilities that fit your budget

IIoT software can often be restrictive for smaller players, but we believe in **growing together** with our partners.

Upkip delivers the means to advance your competitive edge while working on a flexible pay-as-you-go basis so that it can start where you are and be scaled-up whenever you need.

LEARN MORE ABOUT OUR AVAILABLE PLANS





**Automatic continuous data** collection from CNC machines and sensors.



**Analytical machine learning** models for predictive maintenance.



Management KPI dashboards.



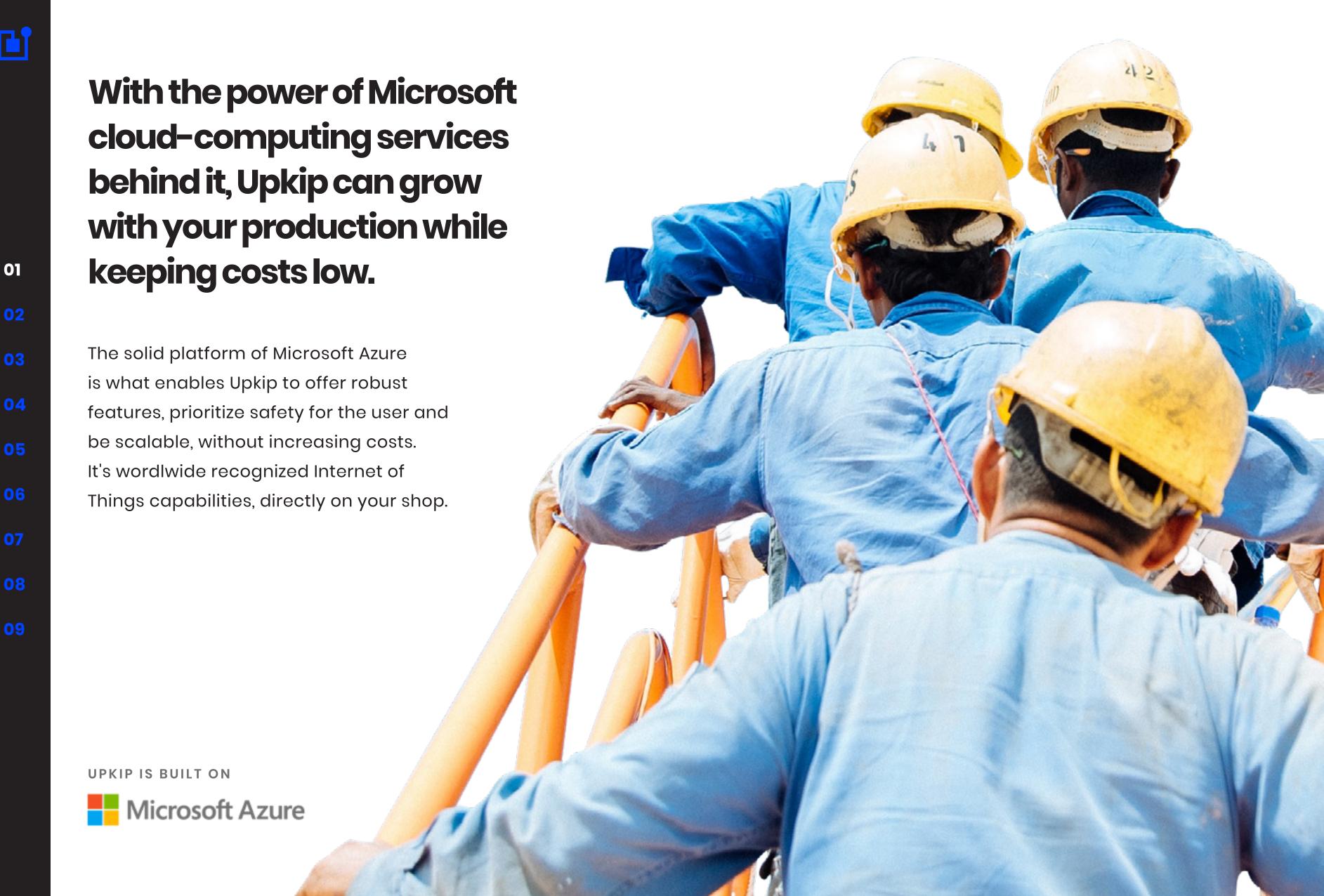
Intuitive, easy-to-use & responsive interface.



Customizable alerts & notifications: E-Mail, SMS, Viber, IFTTT.



Self-service BI capabilities with drilldown.

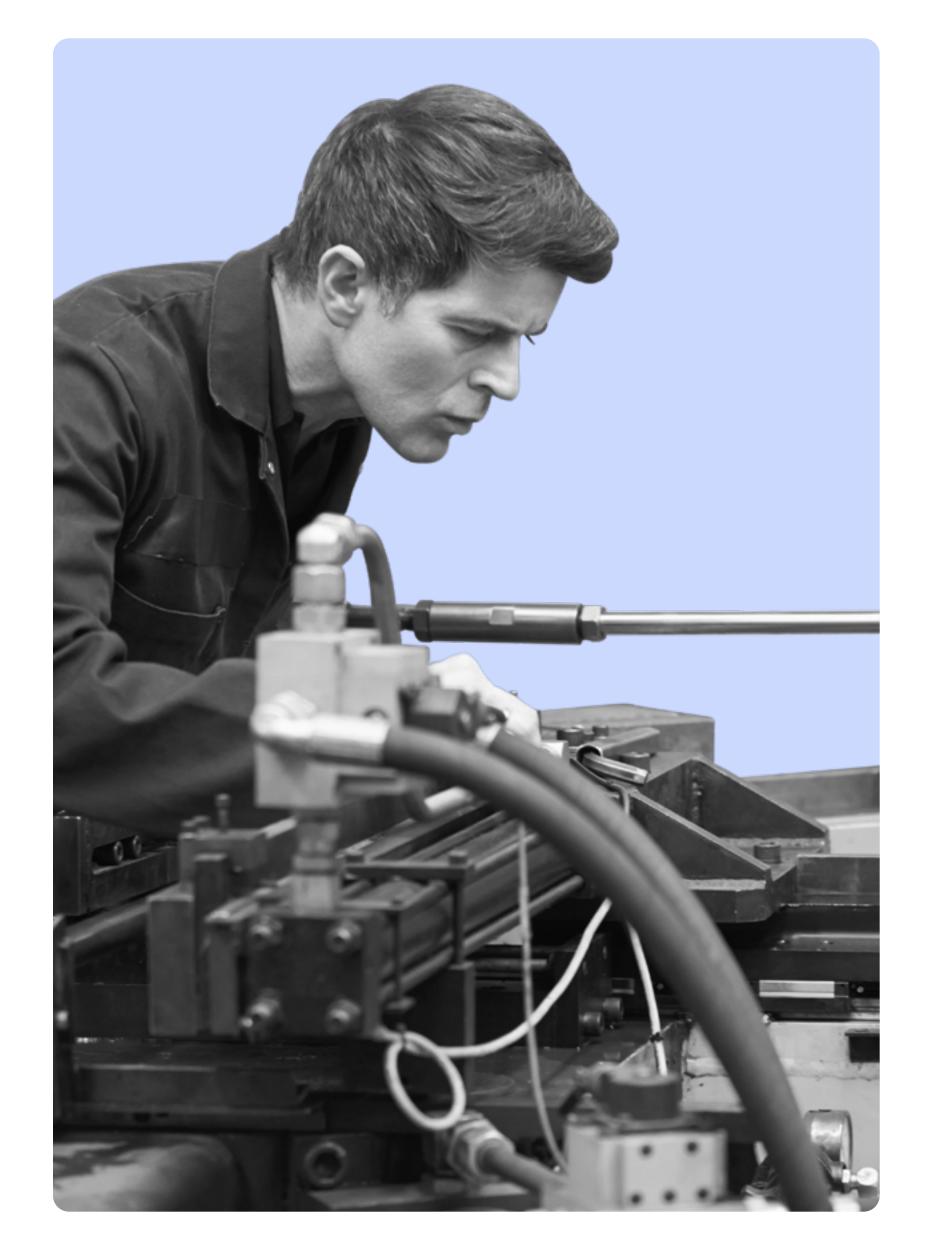


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### Upkip will help you tackle complex manufacturing challenges:

Poor efficiency of labor and equipment.

Working capital constraints due to underutilized equipment and inventory.

Poor monitoring of field employees resulting in low productivity.

<u>\i</u>

Occupational health and safety incidents due to lack of compliance tracking.

Root cause analysis on failure or productivity.

Decision making impacted by the lack of meaningful analytics to measure volatile costs and poor customer service.

Lack of efficient predictive and preventive maintenance.

High service levels relating to scheduling conflicts, lack of skills, sub-optimal routing, inefficient dispatch and inventory depletion.

Missed new business sales revenue opportunities due to poor service levels.

## AVITUG environment for everything in Vour production



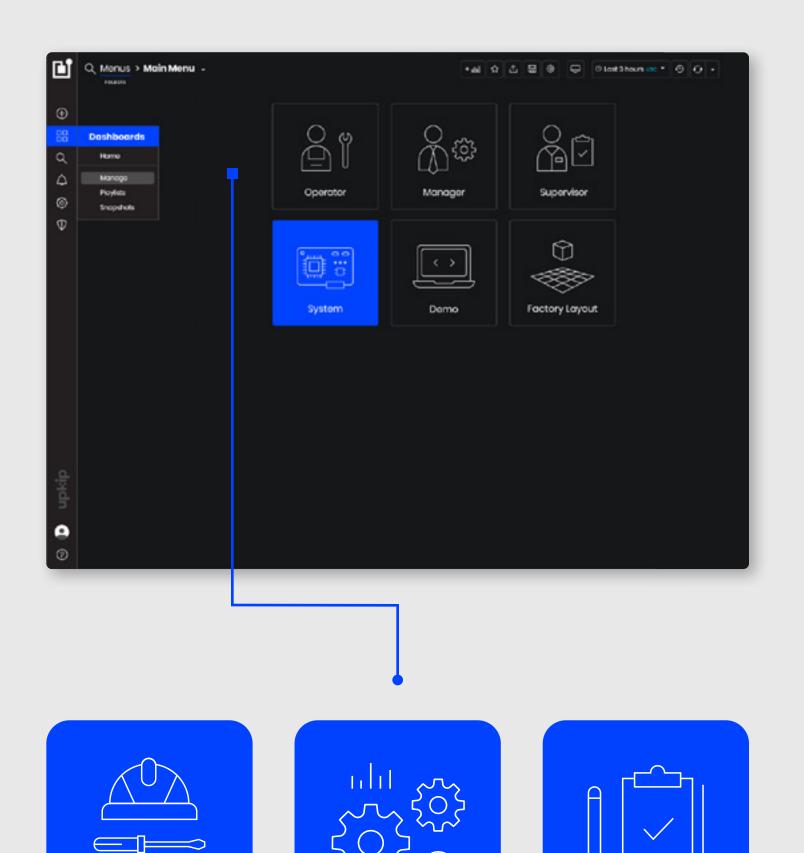
\* All screenshots taken from demo version 6.4.3 and might differ for each installation.



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**OPERATOR** 



MANAGER

SUPERVISOR

#### **Built-in Dashboards.**

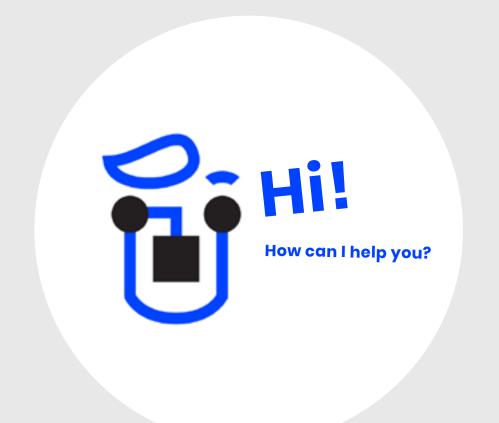
These intuitive workspaces give you **accurate real-time and historical information** on multiple elements of your production including individual machine health and status, performance of shifts and overall facility conditions. Multiple drill-downs are available to showcase downtime, progress, quality, orders, OEE and maintenance.

#### From shop-floor to top-floor.

Upkip was designed alongside actual manufacturers, which allowed us to consider all roles in the organization and pre-set packaged views for every level. Operators, managers and supervisors are covered with dashboards that contain what is most important to each role.









#### Support for the long-run.

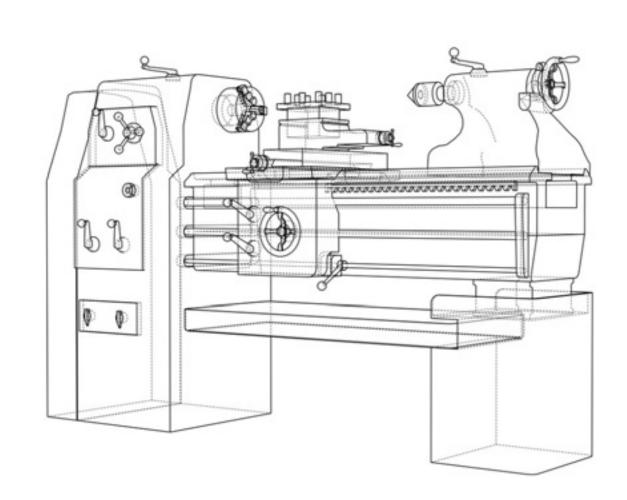
We get it, a system with multiple capabilities and parameters can be overwhelming at first. That's why Upkip comes with a **chat-bot** that can help to ease you in the dashboards and **quickly find what you need**. Our team will also be with you, training you in your first steps and ready to provide support whenever you need.

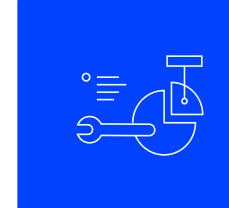
#### See what you need to know.

Count on a flexible platform that can be as simple or as detailed as you need. From a bird's-eye view of the entire factory to component-centric visualizations of individual machines, operators, orders and manufacturing areas (such as turning, assembly, milling, welding and others).

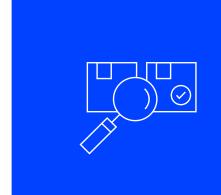
#### Let your machines do the talking and free your team to focus on decision-making.

The platform comes with a set of manufacturing best practice KPIs and monitors performance against them, so you can evaluate what's more important for your business.





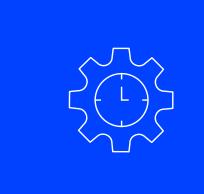
**Overall Equipment Effectiveness** OEE



**Availability**, Performance, Quality Machine, Order, **Operator** 



**Equipment Specific KPIs** Rate, Load, Temperature, Status, Noise



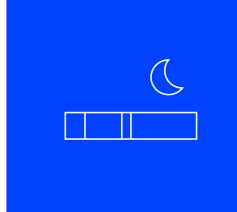
**Operator Work** Time and **Equipment** Utilization



**Operation Progress Estimated VS Left on Number** and Count



**Work Order Status** On Time, on **Budget, on Quality** 



**Equipment Downtime Tagging** 



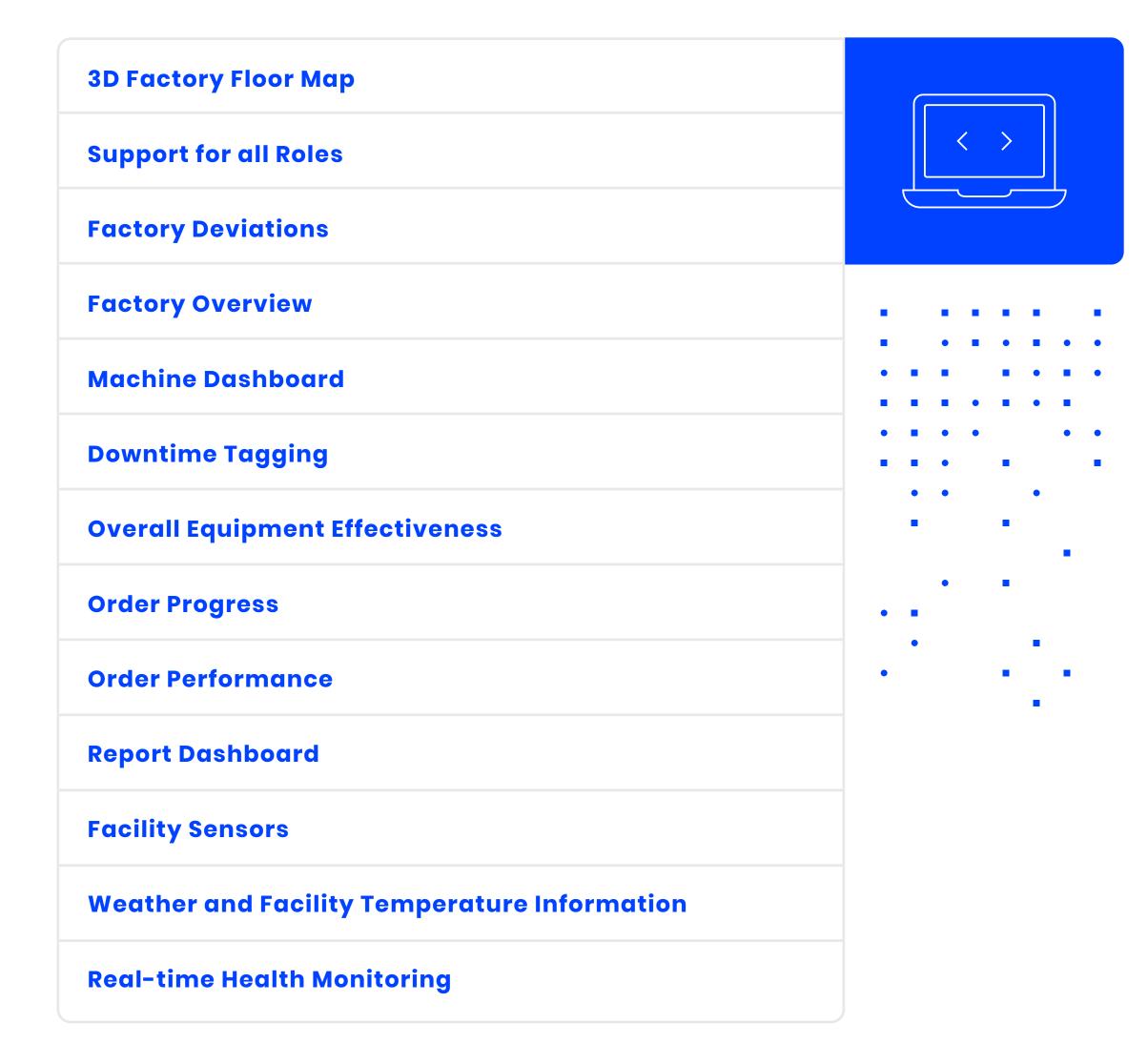
**Equipment** Maintenance **Progress** 

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#### **FEATURES**

Featuring simple self-install IIoT connectivity that integrates with ERP and MES, real-time production data is visualized within customizable dashboards. These accessible analytics empower workers to meet production goals and enable production managers to make more informed and confident decisions.

Go deeper into the data to identify bottlenecks and count on numerous available reports to back you up.
They range from job & operator performance, OEE, cycle analysis, machine utilization to downtime history and many more.



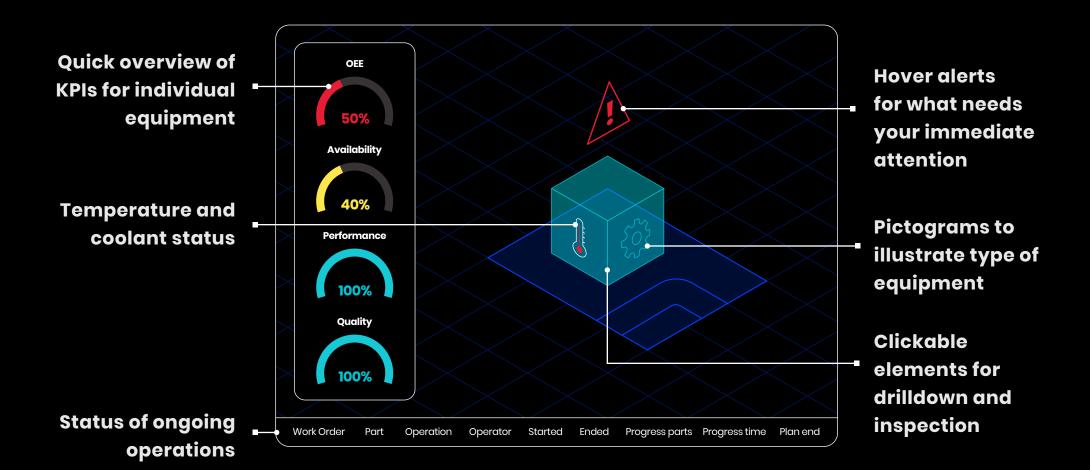
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## 3D Factory Floor Map

Navigate through a digital twin of your facility and interact with your equipment to check their indiviual status.

- ✓ FACTORY OVERVIEW
- **✓** REAL-TIME STATUS
- ✓ CONTEXTUAL INFORMATION
- **✓** INTERACTIVE
- ✓ EASIER ORIENTATION







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## Factory Deviations

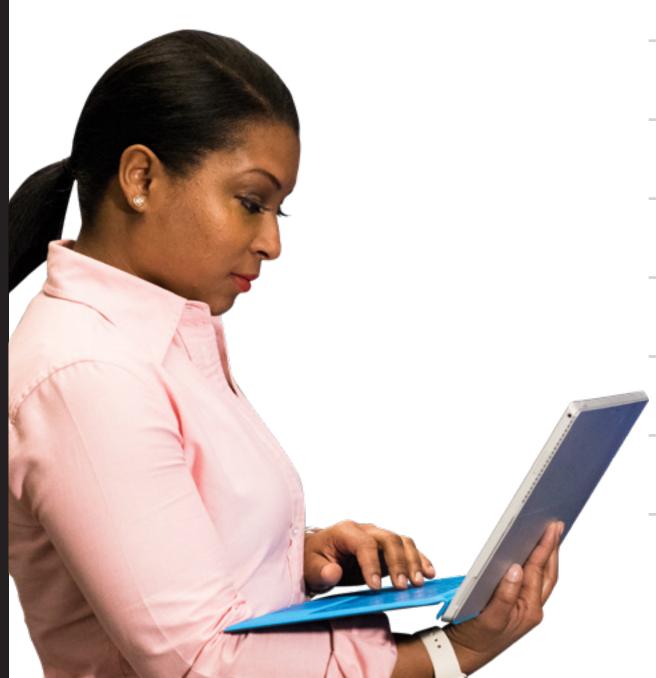
Deviations from original order plan at a glimpse with specifications for cost deviation and historical view of efficiency (OTD percentage).

- ✓ ON-TIME DELIVERY (OTD)
- ✓ COST DEVIATION
- ✓ ORDERS REMAINING WORK
- ✓ SCRAP ABOVE 10%
- ✓ ORDER OOE BELOW 80%
- ✓ MACHINE OEE BELOW 80%
- ✓ ACTIVE ALARM



#### What you can expect

Upkip was designed alongside manufacturers to help them address the most relevant and troubling issues in their production. It has proved successful in diverse scenarios and is being constantly improved upon with customer feedback.



- Automated objective manufacturing with KPI evaluation.
- Customization on all levels with open API available.
- Decision-making support for several business areas.
- Early detection of plan deviations and fast reaction in case of failure.

Historical and geographical process comparison for optimization.

- Improved operator / machine ratio.
- ✓ License protection in a pay-as-you-go, scalable solution.
- Overall improvement of your productivity and innovation capacity.
- ✓ Software layer between machines and LoB systems.
- Statistical reporting of process results.
- Streamlined production with increased availability and optimized workload.
- Traceability parameters in near real-time and historical overview.



INTEGRATIONS

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Growing compatibility Upkip is compatible with the most common devices in manufacturing, we are also regularly issuing new integrations.

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#### **MACHINES**

Mazak, Fanuc, Heidenhain, Datron, Siemens, HAAS, Bosch Rexroth, Fanuc Robot.

#### MAIN PROTOCOL & COMMUNICATION

MTConnect, OPCUA, OPC Classic, Profinet, Profibus, Modbus.

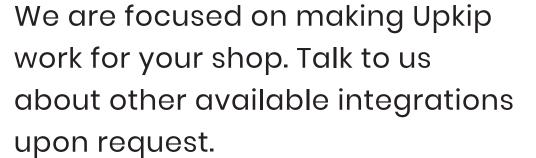


**FANUC** 









regularly issuing new integrations.

Upkip is compatible with the

manufacturing, we are also

most common devices in



HEIDENHAIN













**REST API SERVICE** 

Weather Reports and further customization

#### **SENSORS**

Disruptive Technologies, ReMoni, NCD, El-Watch NeuronSensors.









#### **SUPPORTED INTEGRATIONS**

SAP Business One and Maintenance View.



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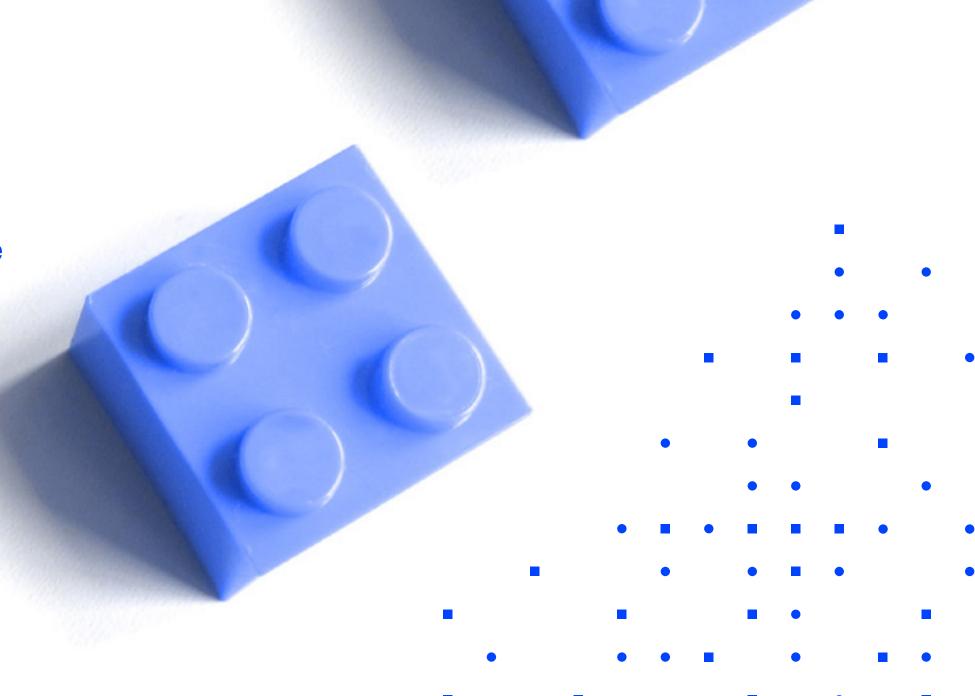


### Flexibility at the core

Upkip offers different modules so it is built in a way that best suits your facility and the structure of your organization.

Our purpose is to help manufacturers of all sizes to achieve higher productivity and be more competitive with the help of the latest technology. With different plans, Upkip can be implemented and deliver value to each according to their needs.

See which plan best suits your facility with the functionality breakdown in the following pages.



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FUNCTIONALITY / DASHBOARD	BASIC	ADVANCE	PRO
Basic All-In-One Summary*	•	•	•
Dedicated Equipment Dashboards*	•	•	•
Status Summary	•	•	•
Alarms Summary	•	•	•
Downtime Summary	•	•	•
Downtime Tagging	•	•	•
Factory Utilization	•	•	•
Tool Usage	•	•	•
Weather Information	•	•	•
Facility Monitoring		•	•
Register Progress*		•	•
Machine OEE*		•	•
Maintenance*		•	•
Factory 3D Layout*		•	•

SUPERVIS	OR LEVEL		
FUNCTIONALITY / DASHBOARD	BASIC	ADVANCED	PRO
Downtime Tagging Report	•	•	•
Operator Work Time*		•	•
Order Inspection*		•	•
Quality Control*		•	

MANAGER LEVEL			
FUNCTIONALITY / DASHBOARD	BASIC	ADVANCED	PRO
Factory OEE	•	•	•
Operator Dashboard*		•	•
Operator Productivity*		•	•
Deviations Overview*		•	
Work Order OEE*		•	•

NOTIFICATIO	NS AND AL	ERTS	
FUNCTIONALITY / DASHBOARD	BASIC	ADVANCED	PRO
E-mail	•	•	•
SMS±		•	•
Viber			•
IFTTT			•
CONN	ECTORS		
ERP read only		•	•
Maintenance System			•
ADMINIS	STRATION		
System health & diagnostics	•	•	•
Management portal	•	•	•
SUP	PORT		
Critical level of bug-fixing priority covered and one annual upgrade	•	•	•
Medium to high level of bug- fixing priority covered and semi-annual upgrade			•
All level of bug-fixing priorities covered plus quarterly system upgrades			•

FUNCTIONALITY / DASHBOARD	BASIC	ADVANCED	PRO
Deliveries according to plan			
for the last 24 hours			
Reports delayed operations for			
each day, compared against			
the previous day			
On Time Delivery			
Reports on time delivery			
for customers and delays			
in their orders with			
percentage			
Sales			
Implementation of the sales			
plan to the planned annual			
turnover, best-selling			
products, implementation			
of the plan over time			
ОТ	HER		
External sensors support		•	•
APIs			
Integration, Raw Data, Alarms			
and Warnings, Data Analytics			•

#### **CONTACT US FOR A FULL ESTIMATE**



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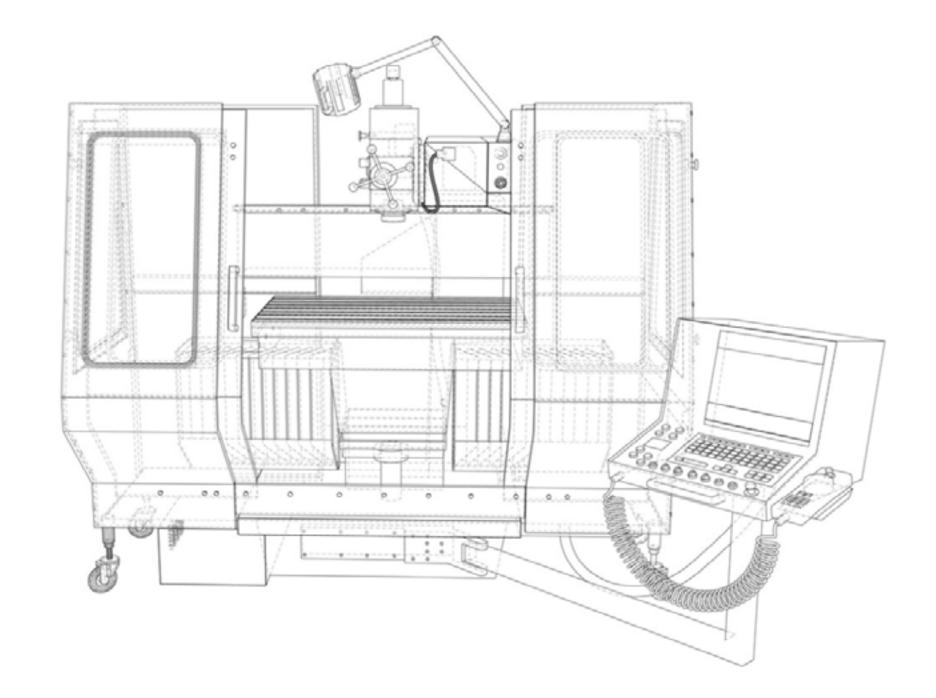
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## System Dependency

Some functionalities, dashboards and reports are dependent on the available sensors, connectors and systems in the factory. Understand your possibilities by checking the table to the right.



#### **EXTERNAL SENSOR DEPENDENCY** Dedicated Equipment Dashboards LOW Factory 3D Layout LOW **Facility Monitoring** FULL **EPR CONNECTOR DEPENDENCY** Factory 3D Layout LOW Basic All-in-one Summary LOW Various Machine Dashboards LOW **Deviations Overview** MEDIUM Machine OEE MEDIUM Factory OEE MEDIUM Operator Dashboard FULL Operator Work Time FULL **Operator Productivity** FULL Register Progress FULL Order Inspection FULL Quality Control **FULL** Work Order OEE FULL MMS CONNECTOR DEPENDENCY Dedicated Equipment Dashboards LOW Maintenance MEDIUM

## You've made it this far, now let's grow together.

We understand that successful digital transformation looks different for every company, that's why our solution is customer-focused, scalable and flexible. This allows for an iterative, paced process that builds a true partnership with mutual learning.

Our team will be alongside you to understand your necessities and to implement the software according to them. We will also provide training and tutorials for your team, so everyone can make the most of it. All plans also cover critical level bugfixing and at least one annual upgrade.

The entire platform was built with **firewalls at every step of data gathering and exchange across all environments**, with
server-side and in-transit encryption. Upkip is also compliant
with **all Microsoft Azure safety controls**, which means that,
by default there is no access to customer data, no user
or administrator accounts on customer virtual machines
(VMs) and that it grants the least privilege that's required to
complete a task (audit and log access requests).

Be assured, your data is yours alone.

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## A story of international cooperation.

Upkip was inspired by a unique breed of skills acquired by ICB, ICB Digital, and International Development Norway (IDN).

The expertise in business, consultancy and technology behind the partners allowed for a very close collaboration with key manufacturing players in the European market and sparked the development of what would become the Upkip platform.

#### **ICB**

Since 1996 InterConsult Bulgaria (ICB) has been working on projects related to industrial automation, factory and sensor connectivity and data extraction, manipulation and visualization in the maritime and manufacturing industries.

The company started extracting multiple parameters from different devices in factories and in vehicles, nowadays handling over 40k parameters per second in some of the software they've designed. Furthermore the company has expertise and is involved in key machine learning and artificial intelligence projects in the manufacturing industry.

#### FIND OUT MORE ABOUT ICB

#### ICB Digital and IDN

expertise in digital transformation in the manufacturing industry, especially optimization of processes leading to higher profitability and streamlined operations. Backed by International Development Norway (IDN), it has been providing consulting and management services to projects with international scale. Through a global network of experts, IDN facilitates knowledge exchange and project cooperation, focusing on Circular Economy, Green Energy, Entrepreneurship, Education & Social Inclusion, Manufacturing, SMEs, ICT and Innovation.

FIND OUT MORE ABOUT ICB DIGITAL

FIND OUT MORE ABOUT IDN





## " If you cannot measure it you cannot improve it

WILLIAM THOMSOM

1ST BARON KELVIN

Inspired by Lord Kelvin's philosophy, we worked with partners to dive deep in the intricacies of the manufacturing sector and started measuring all types of data from production and business processes within factories. In the initial phase, we understood the possibilities and limitations of interconnecting CNC machines and then pushed for an open architecture that allowed integration with various sensors and other systems that play a decisive role in the performance of a manufacturing company.

Together with the original project partners, the team managed to **validate the entire concept** behind the full software platform and shape it into a repeatable solution, leveraging a modern cloud technology powered by Microsoft Azure. Upkip was deployed and validated in actual manufacturing contexts and has **an active team behind it to keep delivering tailored solutions for users**, new integrations and continuous overall improvements for an optimal, unique experience.

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# Are you ready to uncover your full production potential?

#### **Metodi Amov**

Business Development Director @ICB

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- M +359 894 554 670

Our team is ready to assess your business and provide a customized estimate based on your current configuration.

You can also contact us for a live demo or to solve any additional questions.

