Newsletter issue no. 8, March 2021

UPTIME PLATFORM | INTERVIEW | JOIN OUR COMMUNITY | EVENTS

WELCOME TO THE UPTIME NEWSLETTER!

Dear reader,

Welcome to the 8th edition of the UPTIME Newsletter.

The UPTIME project has officially ended in February 2021. After 3,5 years of research and development, the UPTIME Platform is ready now for the market. The UPTIME consortium has defined a concrete go-to-market strategy to optimize the impact of the Uptime Platform on the market and maximize its chances of success. The consortium feels this is the right time to launch a new solution for predictive maintenance with all of the advanced features the Uptime Platform and its substituent components offers.

UPTIME proposes a differentiating value proposition, and its business model offers enough flexibility to reach a wide range of companies of different size and type. The market-oriented website - www.uptime-predictive-maintenance.com - with clear key messages and its demo-space is a good tool to get new leads and will be further built upon and utilized going forward in the exploitation activities. An adoption methodology for UPTIME deployment has been also created according to the successful deployment in the three-business cases and is introduced in this Newsletter.

The consortium plans to drive forward the convergence of the UPTIME Platform with Industry 4.0 standards and beyond that, to address the issues that are beginning to be championed under the banner of Industry 5.0. A strong foundation has been laid for the convergence with Industry 4.0 in the full compliance of the UPTIME Platform with the RAMI 4.0 reference architecture and addressing Asset Administration Shell (AAS) interoperability. The next step is to realise the AAS interface more fully and establish the UPTIME Platform as a Digital Twin for asset maintenance.

Events such as the 2nd UPTIME showcase event will be repeated since they proved extremely helpful in overcoming constraints imposed by the COVID-19 pandemic, however a live and in-person event will be organized as soon as possible in the post-project commercial phase. As a first step, UPTIME will be hosted by BIBA at Digital Hannover Messe event, which will take place from 12 - 16 April 2021. We'd like to take this opportunity to invite you to join us virtually at this event. You can register your participation free of charge using the ticket code "CVJVm" through this link.

On a wider scale, the cooperation begun in the framework of the <u>ForeSee cluster</u> will also be maintained by the UPTIME partners, to contribute in the implementation of its structured Predictive Maintenance roadmap and to have a greater impact on standards and production of commons for European industry, which will shape the access to the new market of maintenance, which is key for the industry of the future.



Karl Hribernik UPTIME Project Coordinator BIBA - Bremer Institut für Produktion und Logistik GmbH

We hope you enjoy our newsletter!

Visit UPTIME at Digital Hannover Messe: 12-16 April 2021.

Register free of charge with code: CVJVm

UPTIME PLATFORM

A modular, adaptive and scalable platform to manage all your assets with full insight



Trends in industry 4.0

- Online monitoring can give insight to the current status of the equipment and assets
- Stream data analytics can provide forecasts of future asset behaviour and imminent incidents
- Analysis of OEE Data and maintenance logs can provide great insight regarding interruptions
- Machine Learning and Rule based systems can discover new strategies for maintenance

The UPTIME Platform offers a unified interface to a unique combination of state-of-the-art predictive maintenance components. Real-time sensors, business analytics, detection and prediction, decision-making and FMECA risk analysis can all be tailored to your individual needs. UPTIME's algorithms are tuned to your processes, your experts, and your data. It transforms your operational data into knowledge which helps you improve your OEE and maintenance actions.

Moreover, the UPTIME Platform gives you a competitive advantage by empowering everyone involved in your maintenance activities. It targets shop floor operators with real-time asset alerts and notifications as well as maintenance managers with real-time visualization of asset conditions, correlation analyses and actionable plans based on trusted data analyses and accurate predictions.

The UPTIME Platform provides innovative and reliable components which put the power of IoT, Machine Learning and AI at your fingertips. Six main components, addressing various phases of the unified predictive maintenance approach, include: UPTIME_SENSE for data acquisition and manipulation, UPTIME_DETECT & PREDICT for stream data analytics, UPTIME_DECIDE for maintenance decision-making and action planning, UPTIME_ANALYZE for batch data analytics, UPTIME_FMECA for risk assessment, and UPTIME_VISUALIZE for visual analytics. Lastly, the UPTIME Workers 'Mobile Application ensures that the workers on the shop floor are notified in time to take the proper maintenance action.

We look forward to showing you how our platform allows you to optimise your maintenance performance. You can choose your components which are right for you and adapt them to your needs!

To request a demo, please register through our homepage: www.uptime-predictive-maintenance.com.



Dimitris Ntalaperas Software Architect UBITECH

INTERVIEW

Beyond the Proof of Concept: How to sustainably deploy predictive maintenance

In this 8th edition, Guillaume Pellen from MEWS Partners interviewed our three industrial partners as well as the technical teams handling the implementations of the UPTIME Predictive Maintenance Platform, and shares with you some of the lessons learnt from our exercises to develop an adoption methodology.

The adoption methodology aims to provide each future UPTIME deployment project with a deployment approach describing the key activities and success factors gathered from the concrete experience of UPTIME's previous and ongoing projects.

1. Start small and simple, before working up to complex reasonings

Most industrials should start with a pilot on a reduced scope (a single machine for example), where the main parameters linked to failure modes

are already known by the maintenance experts and can be exploited in simple predictive algorithms. Once a first level of maturity is reached on the possibilities offered by the technology and the associated prerequisites, more complex topics can be addressed by extending the capacities linked to the initial asset or by tackling new perimeters.

2. Collect the relevant data as early as possible

The lack of available data, whether from sensors/machines or IT systems such as the ERP, MES, CMMS, etc. and in terms of relevant data sources or their history, is a frequent issue in these types of projects.

This can be anticipated to some degree, by ensuring all data already available on the target scope is captured and stored before starting the project to be able to quickly initialize preliminary models, and adding to that data as requirements become clearer and new sources are acquired.

Of course collecting data is one thing, but doing so sustainably and with the right level of quality is quite another: the next step will be to set up a robust data governance.

3. Involve the users in building the innovation

One of the main risks in transformation projects lies in the non-acceptance of the new ways of working by the impacted population. As a consequence several precautions must be taken to ensure a smooth and sustainable change:

- Involve key business representatives from the start: they must be convinced of the stakes and have a say in every major step of the design of the solution
- Anticipate basic trainings on Predictive Maintenance
 / AI / Machine Learning for the project team to ensure
 everyone has a common understanding of the related
 concepts and of the possibilities that Predictive
 Maintenance will offer, but also its prerequisites and
 limits
- Work hand in hand with Operational experts during the configuration and customization phase of the project to capture their expertise, but also to have them be co-creators of the end result

Of course working in an Agile or Agile-like approach with multiple iterations with end-users to gradually validate and improve on the solution will significantly help its final acceptance.



Guillaume Rokicka Pellen Manager Mews Partner

JOIN OUR COMMUNITY LIVE WEBINAR

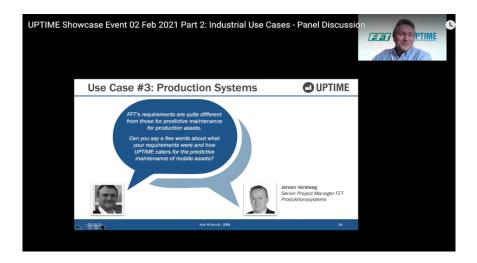


Watch the UPTIME final showcase event recording

UPTIME final showcase event was held on 2nd February 2021 with focus on the theme: "How predictive maintenance will change your business".

We were very pleased to welcome 65 participants to our virtual showcase event, where we had the opportunity to have open and vibrant discussions with the participants from industry, academia as well as a group of maintenance engineering students, which are doing an apprenticeship in industrial companies.

The event was organized in two distinct parts. The first part covered introduction of UPTIME, its impacts and benefits, as well as the UPTIME Platform from a technical perspective. It is then followed by a panel discussion with the three UPTIME end-users discussing among others critical factors for adoption of UPTIME solution. The testimonies from the three diverse industrial cases proved the capacity of the Platform to be generic, flexible and tailored to the customers' needs at the same time.



"Take time to learn and start gradually from a small project with a simple deployment and then extend it, when it brings you to what you expect from it".

The second part was dedicated to parallel workshops of "Open Space Technology", covering more detailed discussions in small groups, where each participant could choose their topics of interest from proposed 9 topics. The participants had the opportunity to be engaged directly in the small group discussions, and they were very fruitful discussions.



We were happy to share our experiences, answers any of your questions and requirements and glad to receive your valuable and constructive feedbacks confirming that the UPTIME Platform meets your operational needs. Thus, we'd like to take this opportunity to thank all UPTIME partners and all participants for your active participation at our event and their feedbacks!



Isabelle Tanguy UPTIME Community Management ISADEUS

LATEST NEWS

ForeSee Cluster Webinar Series: Predictive Maintenance European Success Stories

The <u>ForeSee Cluster</u>, a European Cluster of six innovative R&D projects – UPTIME, PROPHESY, PROGRAMS, Z-BRE4K, PRECOM, SERENA – for sustainable Predictive Maintenance solutions organised a series of webinars.

The ForeSee webinars presented relevant use-cases developed within the six projects and the related technologies deployed from the shop floor to cloud infrastructure. The events featured a keynote speech on relevant technologies and trends in the manufacturing field.

UPTIME was presented on the Webinar#4 taking place on 28 January 2021, where the results of the joint work of the ForeSee Cluster on assessment of standardisation opportunities, knowledge and best-practices were shared and examples of application of Standards, protocols and other set of rules to demonstrate the importance in each project and to the overall industry 4.0. were introduced.

Further information about the ForeSee Cluster and recorded videos from past webinars are available on the ForeSee Cluster website: http://foresee-cluster.eu/.

Come meet us here!

12 - 16 April 2021 UPTIME at Hannover
Online Messe Digital Edition

15 - 18 June 2021 Flexible Automation and Athens, Greece Intelligent Manufacturing (FAIM) 2021

23 - 24 Sept 2021 Online **IoT Virtual Summit**

Let's keep in touch!

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UPTIME - Unified Perdictive Maintenance System - is an EU Horizon 2020 funded project aiming at developing a predictive maintenance system for the manufacturing industry.



www.uptime-h2020.eu



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