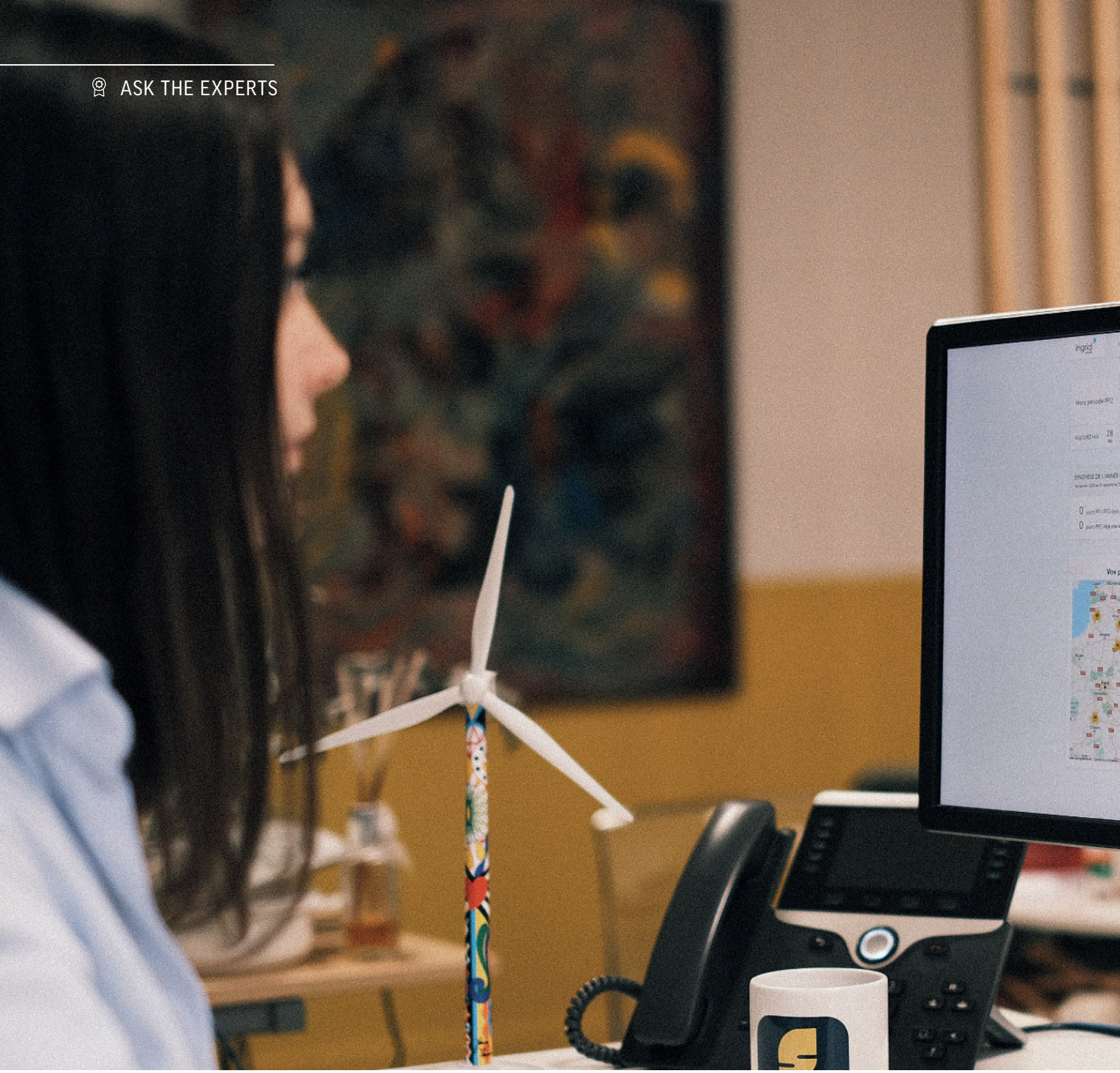
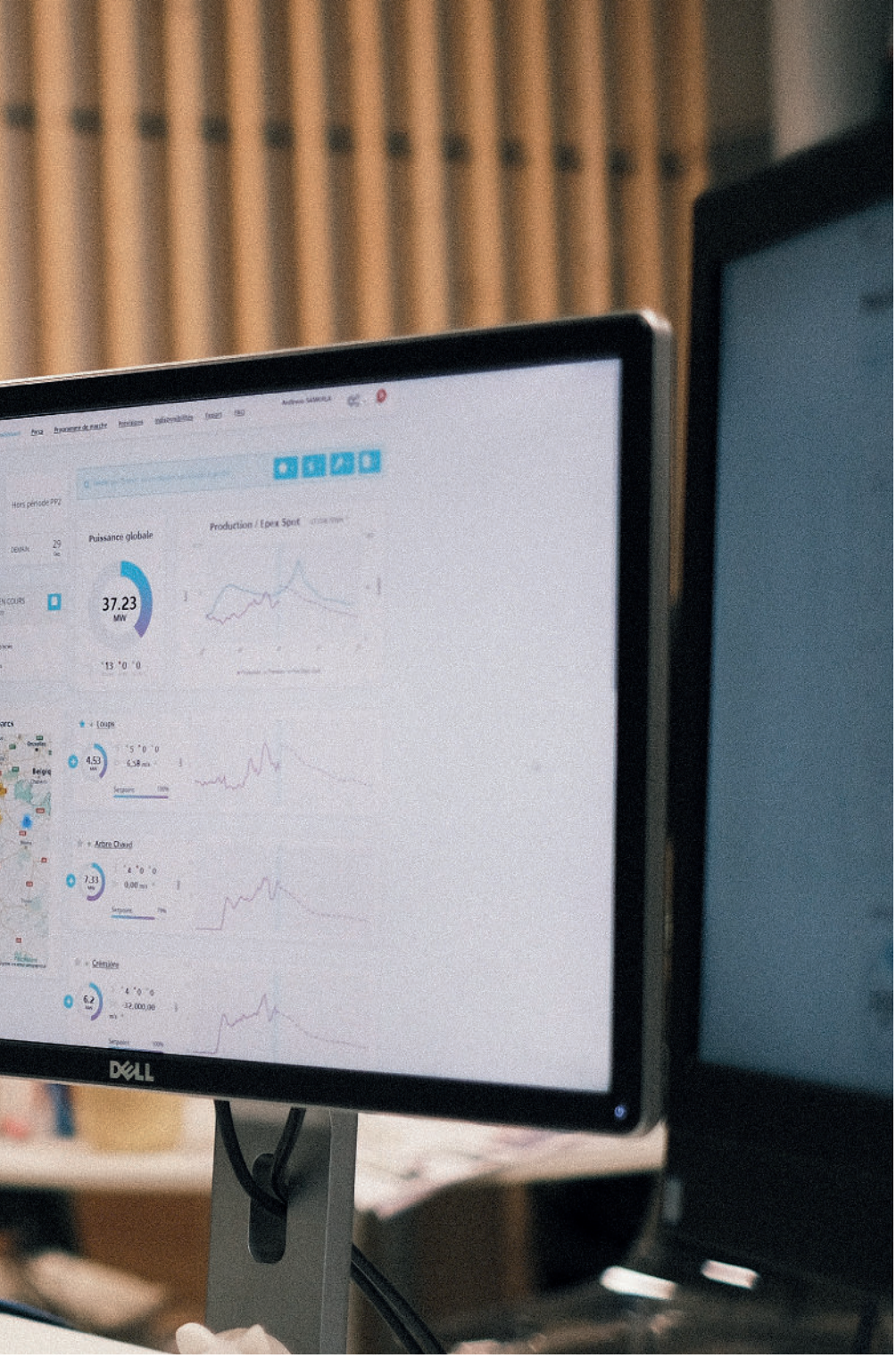


Wind farm management in a digital world

Carlos Blanco, Sales & Marketing Director at Sparksis, explains to PES how digital technology is speeding up the inspection process for wind farm owners, with data collection methods that are already proving popular in France now making their way to the UK too.



Carlos Blanco

PES: It's great to welcome you for the first time to PES Carlos. As a relative newcomer to the industry and certainly to the UK market in particular, it would be good to begin by introducing Sparksis to our readers if you will?

Carlos Blanco: Sparksis is a French start-up that designs, develops, and markets innovative solutions for the operation of wind farms. Two business-oriented solutions, initially developed by an operator, currently make up Sparksis' product portfolio.

Firstly, the Eofix mobile application allows on-site visual inspections using easy-to-use customized checklists. All the data collected with the mobile app is monitored and managed through the web application. The evolution of the non-conformities is tracked until their resolution.

Secondly, Ingrid control is a substation monitoring and control solution which enables better integration of wind farms to the grid and the market. Companies such as BayWa, Vestas France, ERG, Ostwind, Eurowatt are using Sparksis' products in their daily operations.

PES: The business is now turning its attention to wind farm owners in the UK; how big a market do you see this being for you?

CB: We believe our solutions may be of interest to small to medium size IPP/operators of wind farms, as is the case in France. We have a step-by-step approach. We are conducting a market entry in the UK with the help of Business France to test the appeal of Eofix within the UK market. If the feedback is positive we will invest more effort.

PES: What are some of the main advantages that you feel Sparksis brings to the industry and what are its unique selling points that make it different to what's already available?

CB: Our solutions have been designed by an IPP for IPPs. The Eofix users particularly appreciate the user-friendly mobile application to conduct wind turbine and substation inspections. The tool has been initially designed for wind farms compared to other multi-sector solutions existing in the market. Therefore, its database structure and workflow are really oriented for wind farms installations. We are also publishing updates regularly based on user feedback.

Finally, we offer one unique full functionality version and our pricing is based on a pay-per-use model. We hope UK operators will appreciated Eofix as French users do.

PES: How big a problem is it, do you think, that much of the wind farm industry still relies on quite traditional forms of reporting inspection results?

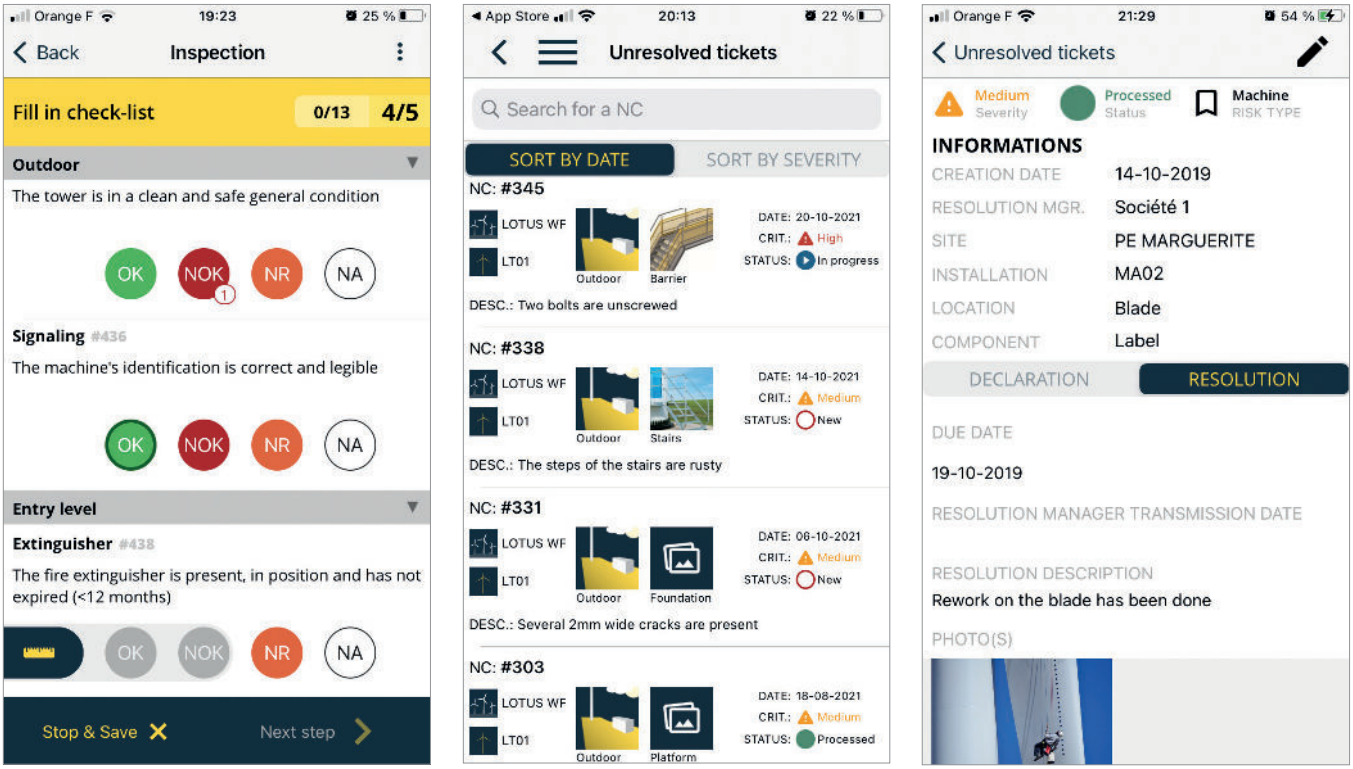
CB: The problem for an operator to use the traditional way to do visual inspections using an excel file checklist and taking photos with a mobile phone are many: time wasting, poor quality of the data collected and reporting, difficulty to use the data to follow up KPI's and more.

PES: What are the main challenges and drawbacks of this? It must be quite time consuming and costly to do it this way?

CB: Yes, it is. One example to illustrate it is the edition of an inspection report, which is time consuming. On site operators don't need to spend hours at the office to create reports. They'd be better off on site to look after the proper functioning of the installations.

PES: So how can digital technology, such as Eofix, help change this?

CB: The answer is easy and not very original.



Eofix allows inspectors to fill-in customized checklists on site and to monitor every open non-conformity to be solved

It is the common use case for digital solutions. Basically, the use of an Eofix mobile application to conduct inspections and update existing non-conformities tickets on site and the web application to centralize and share all the data.

PES: How easy is it to digitize the inspection process? Can you briefly explain how the Eofix tool can be used?

CB: The user administrator creates as many customized checklists as needed on the web application and gives access to them to the authorized operators on their mobile application. The inspectors will have the checklists on their mobile and will fill in all the data requested for each checkpoint, such as description, severity, photos, resolution manager, due date, etc. All the data will be synchronized in the cloud and the report can be immediately created and shared from the web application.

PES: For wind farm operators and managers looking to go down this route, do they need to invest in any particular technology or equipment to carry out on-site inspections digitally?

CB: No. A recent mobile terminal and a PC are the only equipment needed.

PES: How secure are the results and is it straightforward to then share them and resolve issues? Presumably this is a far quicker process than with notepad and pencil in the traditional way?

CB: For sure. One benefit of Eofix is that operators can give a specific user access to its service providers so they can connect to Eofix via mobile and web and solve the non-conformities for which they have been defined as the resolution manager. There is no need any more to update and exchange files by email. Our clients needed to convince the service providers as the turbine manufacturers in the beginning to use the tool. But now, they realize Eofix is a very useful tool and it makes life easier for them as well.

PES: What are the benefits of using such technology in terms of establishing trends in non-conformities and the general ongoing management of maintenance of turbines?

CB: Having all the data available on Eofix Datawarehouse makes it possible for operators to create their own KPIs using business intelligence tools. This is good for following up trends, comparing service providers performance to solve the non-conformities, managing periodic meetings, and ensuring the installations are in good condition and working at their maximum performance.

PES: It sounds fascinating and a great way forward for wind farm inspections. Do you have any real-world examples of Eofix being used that you can share with us?

CB: We have many case studies we can talk about. For example, Vestas France uses Eofix to define the 'Punch list' at the end of their wind turbine installation and solving non-conformities quicker, and transferring them to the O&M department who will take over the remaining non-conformities.

For Eurowatt, French IPP, the adoption of the tool eliminated the tedious task of writing inspection reports. They have estimated this reduction at 0.2 man-days per wind turbine per year, so that is to say 20 man-days per year for 100 Turbines. This represents approximately €12,000 per year in time savings.

We are glad to say that every Eofix user would not imagine coming back to the notepad and pencil.

PES: Thank you for sharing that insight with us, I'm sure our readers will find it helpful to get a feel for how the technology is already being used. Just one or two final points before we close; how important is it, do you think, to improve the quality of data and reports in this way, particularly as the industry evolves and gets even bigger?

CB: I think everyone is now convinced of the importance and value of data management. Eofix makes it possible to digitize a traditional process and therefore exploit the inspection data.

PES: Do you think this is just the beginning and that there is even more potential for digital technology to inform wind farm management in the future?

CB: Yes, at our level we are working on database interoperability and AI, to make Eofix reach a next step on the inspections digitalization.

www.sparksis.eu/