IBM

"The bot is my best friend"

Belgium's NBN does more in less time with
IBM Robotic Process Automation software

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The butterfly effect. In pop culture, it's a notion that suggests that a small change to an initial condition can have a profound effect on a larger system.

In the case of the Bureau voor Normalisatie (NBN), the Belgian organization for developing and publishing standards, that small change came in the form of a bot based on IBM® Robotic Process Automation software.

The importance of standards can't be overstated. They improve product and service quality. They drive efficiencies and facilitate trade. And they support

national economies and global commerce by leveling the playing field. In Belgium alone, the development and publication of one additional standard, on average, increases Belgium's gross domestic product (GDP) by EU 2.04 million per year, according to a 2020 study (external link) published by VUB (Vrije Universiteit Brussel).

As Belgium's national member body of the European Committee for Standardization (CEN), NBN contributes to the development and the publication of European (EN) standards. On average,

CEN publishes roughly 1,100 EN standards a year, and NBN publishes all of them as national Belgian standards (NBN EN) as well, per legal mandate.

NBN is also the national member body of the International Organization for Standardization (ISO) and contributes equally to the development and the publication of ISO standards. Although NBN is not required to implement all ISO standards as Belgian standards (NBN ISO), traditionally it would publish a select few each year. But Belgian industries' demand for NBN

ISO standards has increased in recent years. In 2020, NBN turned its sights to publishing more ISO standards.

The work, however, had to be done manually. Because the existing in-house automation tool was not designed to support ISO standards, NBN needed to gather information and key in ballot information by hand. The process took eight weeks or more, thereby limiting the number of ISO standards NBN could publish each year.

"It was tedious, repetitive work," says Catherine Michel, NBN's Production Expert responsible for the publication process. "To register a standard, there are several fields to fill in. Each field has to be copied from a different site or screen, and you have to search for the information. So the risk of making mistakes was high. Moreover, employees couldn't do this all day because they have other tasks to perform."

Using RPA software, NBN registers

2,150 ISO

standards/year, compared to 800 in the past

Time saved using automation software

650 hours

in 2021

Automating publishing with a bot named Otis

In October 2020, NBN engaged Parplex, a technology firm that specializes in robotic process automation (RPA) software solutions. Ellen Bartholomeeusen, NBN's Operations Manager, says, "It was important for us to see that Parplex was an IBM Business Partner. And we choose Parplex because they proposed the best solution."

The collaboration began with a pilot focused on processing a small subset of ballots. In January 2021, after the pilot's success, Parplex turned its attention to automating the entire process of implementing ISO standards as Belgian standards and configuring

Catherine Michel, Production Expert, NBN

the bot, called Otis. Parplex worked iteratively and fine-tuned and validated the bot for each phase. After end-to-end testing, NBN launched Otis in May 2021.

Nordine Vandezande, the owner of Parplex, elaborates: "IBM RPA software has all the features necessary to build a bot and automate NBN's ballot process.

We configured the complete process: creating the ballots and collecting the information from the standards. The bot runs every evening. It functions based on spreadsheets that contain ISO-related metadata, such as the number and description of the standard. By reading the spreadsheets, the bot knows which ballots it needs to create and which ones it needs to close."

Otis runs on a workstation completely configured by Parplex. It integrates with the in-house product information management (PIM) system, the ISO website and NBN's software-as-a-service (SaaS) platforms. This ensures that the information gets where it belongs in real time.

Ms. Michel adds: "Each morning we immediately see which ballots were implemented correctly — they're flagged with 'ok.' In some cases, the bot can't fill in a field because the information is missing in the ISO systems or for some other reason. In these cases, the bot highlights that field and human intervention is needed to make a correction or fill it in."

Ms. Bartholomeeusen also appreciates the solution's ability to report errors and bugs. "It makes the task easier by showing us what did not work so we can finish the task very quickly," she says. "I'd say that only 5% of the standards implementations require manual intervention. From a speed and quality point of view, implementing the bot has been a great added value."

"As an NBN employee, I am very glad that I can concentrate on higher value and more qualitative tasks. So the bot is my best friend."

Catherine Michel, Production Expert, Bureau voor Normalisatie

Publishing more, saving hundreds of work hours

The number of NBN ISO standards published each year has skyrocketed.

Back in 2019, NBN published only 140 NBN ISO standards. In 2020, with support from student interns and five people doing ballot creation, it published 800. But in 2021, using automation technology, it recorded 2,150 NBN ISO standards — a whopping 1,435% increase in just two years.

"Thanks to Parplex we can process a large number of standards," says Ms. Michel. "When the bot was first launched, we performed tests and discovered exceptions. Each time,

Ellen Bartholomeeusen, Operations Manager, NBN

Nordine was able to enhance the bot to handle the exceptions, so the bot became better and better."

She continues: "We've made huge progress. By next year, we will have handled the ISO standards that

weren't previously in our catalogue. With IBM automation technology, we've accelerated the thoroughness of our standards catalogue, and we will continue our collaboration with Parplex."

Equally important for NBN is improving data quality and saving time. The center closes about 4,000 national ballots per year. For those ballots related to the development of EN and ISO standards, the agency estimates it saved roughly 150 working hours a year in 2020 and 2021. For NBN ISO standards it saved 500 hours of work in 2021.

"Freeing our workforce from repetitive and tedious tasks is very important for us," says Ms. Bartholomeeusen. "And customers have faster access to our content." Ms. Michel concurs: "As an NBN employee, I am very glad that I can concentrate on higher value and more qualitative tasks. So the bot is my best friend."

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Nordine Vandezande, Owner, IBM Business Partner, Parplex

NBN
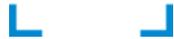
About Bureau voor Normalisatie (NBN)

Established by law in 2003 and fully active by 2007, NBN (external link) is an agency of Belgium's national government responsible for facilitating the development, publication and sales of Belgian, European and international standards. It serves a wide range of sectors, including energy, construction, consumer products and more. NBN also provides services to promote the dissemination and use of standards and boasts a portfolio of 42,000 standards. NBN is headquartered in Brussels.

Solution component

- IBM® Robotic Process Automation

PARPLEX

About Parplex

IBM Business Partner Parplex (external link) is an award-winning provider of robotic process automation solutions, services and support. With more than 20 years of experience in process automation, Parplex knows how to avoid common pitfalls and how to help customers successfully implement RPA. Parplex is located in Heusden-Zolder, Belgium.