

Innovation Across Borders – Forum VBO-FEB

Innovation Case Preparation Form

WHO

- Welke onderneming(en) werd(en) hierbij betrokken? (grootte, bedrijfssector,...)?
- Met welke partner(s) (clusters, O&O-centrum, spin-offs, hubs,...)?

This project is an example of collaborative innovation and is based on a concept that brings together different companies to create an innovation pilot:

- 1. Philips Lighting Turnhout:** The Turnhout site is home to a world-class plant manufacturing high-end **burners** for high-intensity discharge lamps, digital projection and specialty applications. As of 2015, the site employs **830 FTEs**, comprising 150 white-collar workers, 500 blue-collar workers, as well as 75 employees working on R&D, 65 on BG Lamps and 40 on PiNS. The plant's sales in 2015 totalled €250 million. Typical applications include greenhouse lighting, sport stadium lighting, beamer lamps and shop lighting.
- 2. Proceedix:** This small start-up provides software for wearable devices such as smartphones and smart glasses and was founded in 2015.
- 3. PwC:** As part of the Big Four, PwC employs over 1,500 people in Belgium who provide insurance, tax and consulting services. The consulting team was involved in the technological and operational aspect of this project.

WHAT

- Wat was de doelstelling van de innovatie?
- Waarin bestaat precies de innovatie (toepassing, soort innovatie – product/procedé/businessmodel/support diensten/management,...)?

The project aimed to increase the efficiency of the daily field checks conducted by facility maintenance technicians at the Turnhout site (two hectares). Each day different equipment needed to be inspected, some parameters had to be logged, and at the end of the check all data were entered into a central system, which was then used to report to external suppliers about the equipment. The two main challenges posed by this process were as follows:

1. The checks covered the whole factory and focused on different machines every day. During these checks technicians had no access to information and only had their own knowledge to rely on.
2. While going through the checklist, technicians were sometimes interrupted by urgent breakdowns and needed to remember where they stopped the check. This sometimes resulted in unfinished checks, errors made in logging, etc.

The innovation primarily strived to make the entire process more efficient by digitising the check and removing all waste in the process.

Thanks to the project, maintenance technicians now use a smartphone, which provides them with all instructions for that day. By confirming each step, they always know where they are in the process. Machines have been given QR codes, so upon scanning these technicians immediately have access to information about that specific piece of equipment. Since all parameters are immediately logged and stored on the Cloud, technicians have direct access to all relevant data, even if they are in the field, meaning that they can immediately see if a parameter is trending and proactive action is required. By entering all required data immediately into a smartphone, there is no longer any need to transfer data from paper to a centralised computer.

IMPACT

- Voor de business/ de onderneming (verwerving van een nieuwe markt, groei, kostenvermindering,...)
- Op de markt (eindafnemers, tussenpersonen)
- Over het geheel genomen, ten aanzien van de maatschappelijke thematiek

As a result of the project, maintenance technicians now spend 30 minutes less on their daily administrative tasks and system costs have fallen. Total savings account for 6% of the team's annual budget.

Additional soft benefits:

1. **Applying the benefits of wearable technology from personal to professional life:** People are very familiar with wearable devices from their daily lives, which reduces resistance when implementing the new technology on the shop floor.
2. **Having information where and when you need it:** All information is shown in a 'digestible' way, so there is no longer any need to go through a 150-page manual to find the one paragraph you are looking for. Information is highlighted according to the activity.
3. **Being proactive instead of reactive:** Since technicians now have immediate access to data when they are in the field, they can instantly make decisions. This reduces the time wasted running back and forth and can help them to fix something before it actually breaks, thus cutting costs.
4. **Boosting potential:** Smartphones can be used as a medium to guide technicians through a difficult work order step-by-step by giving them access to instruction manuals, pictures and more detailed documentation when needed. Out-of-control action plans (this is a term commonly used in operations to describe the document that prescribes the activities to be undertaken when something is wrong or out of control) can easily be uploaded and indicate what to do in case of an issue.

The developed solution is not specific to Philips Lighting Turnhout; it can easily be applied in different sectors and companies faced with this challenge,

How to give the right person the right information at the right time? How to support implementation and minimise process waste?

KATALYSATOREN & OBSTAKELS

- Hoe verloopt / verliep de ontwikkeling van het project (duur, algemene indruk)?
- Wat vergemakkelijkt / vergemakkelijkte het verloop van het project (katalysatoren)?
- Wat zijn / waren de moeilijkheden en uitdagingen waaraan het hoofd moet /moest worden geboden (hinderpalen)?

There were two main driving forces behind the innovation:

1. Speed of implementation
2. Collaborative innovation

1. Speed of implementation:

The project was approached according to LEAN start-up principles: it began with a simple smartphone and the minimum viable software to demonstrate the idea and its potential. Over various iteration loops, the solution was improved based on user feedback, process insight and joint discussions. Over 13 weeks, all processes were digitised and implemented with the aid of the actual end users.

2. Collaborative innovation:

Each of the parties involved brought their expertise to the table, resulting in a very smooth and insightful project:

1. **Philips Turnhout:** As process owners, they specified the challenges and requirements for the end solution.
2. **PwC:** They provided the industry 4.0 long-term vision and shared the solution's potential. PwC also put the theory into practice through their understanding of and insight into processes.
3. **Proceedix:** The technology company that developed the software managed to translate the different user requirements into an easy-to-use software package

LESSONS LEARNT

Wat kon er / had er kunnen verbeterd worden om deze innovatie te vergemakkelijken? (enkel invullen indien van toepassing)

- Organisatie/management van het project
- Samenwerking/partnerschap
- Beheer van de intellectuele eigendom
- Lancering van de innovatie op de markt
- Financiering van het innovatieproject (fiscaal beleid, beschikbaarheid van kapitaal, investeringsubsidies, enz.)
- Andere beleidsaspecten /regelgevingsaspecten

1. Start small but think big: on the one hand you need to have a clearly defined problem you want to solve, with a rather small scope to have fast results. On the other hand you need to think ahead to estimate the overall business impact and connect this small pilot solution to your overall strategy

2. Collaboration is key: the best solution can only be created by acknowledging that you don't have all knowledge inside your own organisation. Reach out to others and co-create a solution, which requires an open mind and good communication during the project.