



Standardised maintenance calculations for building installations



Complex calculations, everyone doing it their own way

Croonwolver&dros is a technical services provider specialising in the installation and maintenance of building-bound systems. Climate installations, boilers, cooling systems, electrotechnical infrastructure: these are the invisible backbones of large buildings, tunnels and industrial complexes. Alongside realising new construction projects, Croonwolver&dros also enters into multi-year maintenance contracts with clients such as universities, hospitals and large corporations. Digitalising the processes around those maintenance contracts was a logical next step in the further professionalisation of the organisation.

Winning such a contract starts with a calculator, the specialist responsible for calculating maintenance quotes.

SOLUTION

Maintenance planning app

TECHNOLOGY

OutSystems

INDUSTRY

Technical services

They receive a list of all installations in a building, the so-called equipment list, and their job is to turn that into a well-founded quote. For each installation, they determine how much time maintenance will take, factoring in things like accessibility and complexity. The end result is an annual price at which Croonwolver&dros can carry out the maintenance.

In practice, however, this process was not always as straightforward as it sounds. Every calculator had their own Excel files, their own structure and their own method. There was no standard way of working, no shared overview and no central place to see which calculations were running, what stage they were at and who was working on them.

One

standardised method for maintenance calculations

Less

error-prone process compared to individual Excel files

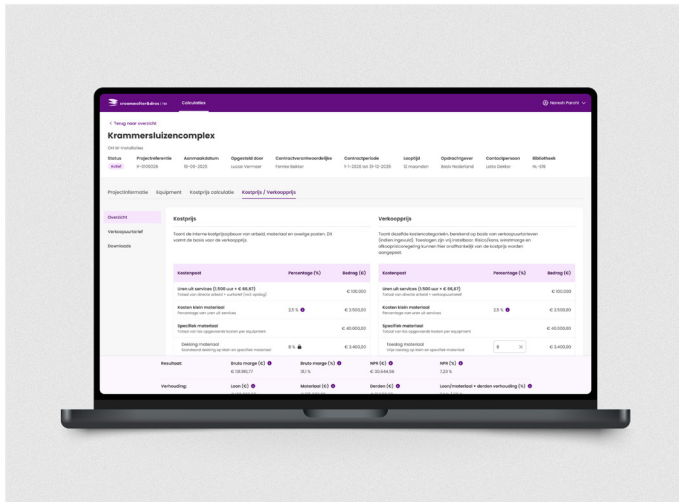
Full

oversight of ongoing calculations within the organisation

Digital

foundation for further optimisation of the calculation process

For the calculators themselves it worked fine – they knew their own files. But for the organisation as a whole, it was a blind spot.



From Excel to a shared platform

The ambition at Croonwolter&dros was clear: bring the maintenance calculation process together in a central application that enables standardisation without limiting the professional judgement of the calculator. Calculators are specialists. They need to be able to deviate from standard times when the situation calls for it, make their own assessments and process complex building-specific conditions. A rigid system would not help them, it would slow them down.

Product League was brought in to make that digitalisation happen, with OutSystems as the platform of choice. Before building began, a proof of concept had already been developed that laid the groundwork. The core calculations were sound, but the reality proved more complex than initially assumed. Details in the process only became visible through conversations with the people doing the work every day. That insight shaped the approach for everything that followed.

Weekly validation with the people who know best

Product League started with a thorough discovery phase and then set up weekly working sessions with a fixed working group. This group included calculators, the business owner and other key stakeholders. Every week, the chosen direction was presented, discussed and adjusted based on feedback from practice. This approach,

Case Overview

Company name
Croonwolter&dros

Industry
Technische dienstverlening

Challenges

- Every calculator worked in their own way using individual Excel files, with no standardised process
- Fragmented working methods led to errors and a lack of organisational oversight
- No company-wide visibility into ongoing calculations and their status
- Complex calculations were difficult to review and validate

Solutions

A central maintenance planning application (Maincal), built on OutSystems, that digitalises and standardises the calculation process for multi-year maintenance contracts

Benefits

- One standardised method for maintenance calculations across the organisation
- Less error-prone process compared to individual Excel files
- Better oversight of ongoing calculations within the organisation
- Stronger support for a complex and specialist working process
- Digital foundation for further optimisation of the calculation process

where the digitalisation of complex working processes goes hand in hand with direct user involvement, is characteristic of how Product League builds software.

The direct involvement of end users was notably strong throughout the project. With a user group of around fifteen calculators, there was almost no need to make assumptions: every design decision could be validated quickly with the people the

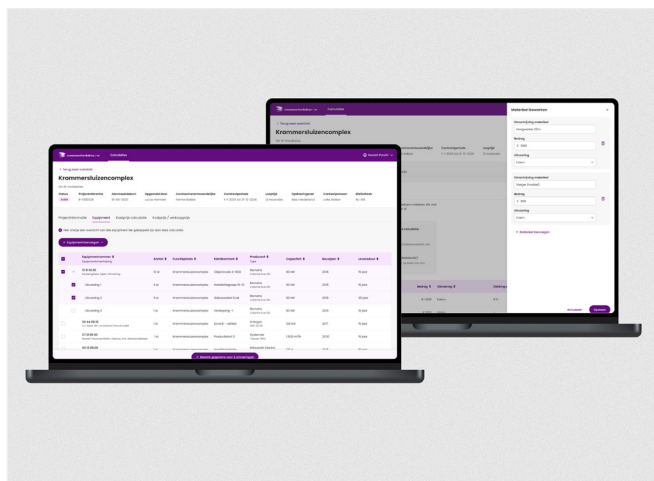
application was being built for. That created a working process where learning and building went hand in hand.

Sprint reviews were used as moments for broader stakeholders to check in and provide input. The collaboration was experienced by all parties as open and constructive, with genuine attention for what the end user actually needs. Something that, according to the team, stood out compared to many other projects.

Product League's UX specialist used interactive prototypes to iterate quickly on the design, giving calculators a realistic sense of how the application would work long before a line of code was written. That shortened feedback cycles and meant design decisions were already validated before development began.

Maincal: structured calculating without losing freedom

The result is Maincal, a maintenance planning application built on OutSystems by Product League. The application digitalises the entire calculation process for multi-year building maintenance. In the application, calculators can import equipment lists via bulk upload or add them manually, review and enrich installations with specific information, adjust standard maintenance times based on the situation on site, monitor the full calculation in a clear overview and ultimately generate a well-founded quote for a multi-year maintenance contract.



The application is deliberately designed to let calculators continue making their own professional judgements. Standard times are a starting point, not a constraint. If an installation is difficult to access, the calculator can account for that. If a specific situation calls for a different approach, there is room for it. Maincal provides structure without restricting the specialist.



"We create software and digital solutions that move your organization forward. Easy to use, tailored to your needs. Low-code, High impact."



Daniël Kuhlmann
Technology Director

What does change is that all those individual judgements now take place within a shared system. That means the organisation has, for the first time, a complete picture of which calculations are running, what their status is and what the outcomes are

A pilot with an eye on the future

Maincal is more than an application for Croonwolter&dros. It is also a first serious exploration of what OutSystems as a platform can mean for the organisation. Earlier, the existing system Compano, used for construction projects, was investigated as a potential solution for the maintenance domain. It turned out not to be a good fit. The choice for a custom-built solution on OutSystems gave the freedom to design the process exactly as practice demands, without the limitations of an off-the-shelf package.

The project is still ongoing. Following the initial delivery, work is now focused on further improving the user experience and making the import of large equipment lists even more straightforward. The digital foundation is in place. The next step is making sure Maincal becomes not just the standard, but the tool calculators genuinely prefer to use.

How we work for others

Curious how we approach these kinds of challenges for other organizations?

On [our website](#), you'll find [more cases](#) where we show how we go from idea to a working solution and what that delivers in practice.

About Product League

We help you move from idea to a working solution with an approach that makes sense and keeps delivering over time. We start with **Discover** to define what is really needed, translate this into intuitive solutions during **Design**, and build it into reliable software in **Develop**. We use low-code platforms such as OutSystems and Power Apps to move fast, without compromising on quality or scalability.

You work with multidisciplinary teams where roles like UX, Business Analyst, Product Owner, and developers collaborate seamlessly. We support you from strategy through to delivery and ensure solutions truly work in practice. After go-live, we stay involved through Managed Services for maintenance, optimization, and further development, or as a separate service whenever you need support.

Product League
Bisonspoor 3002, Tower C - C501, Floor 4
3605 LT Maarssen

+31 (0) 850-091-430
info@product-league.com
www.product-league.com