Create high-impact; break loose with bimodal IT

Backend systems shouldn't be a showstopper for innovation

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Introduction

There's a good reason why many project teams embraced low-code modeling in combination with an agile way of working to explore innovative and progressive ideas. The Agile philosophy enables them to quickly iterate on added value and low-code environments deliver refined working software increments fast that could be tested in real-life. Over the years we find that only a small percentage of these innovative ideas 'fly' independent from data from, or integration with core backend systems. These systems are built and maintained to run reliably for years and require different methods to be able to do so. The core systems itself are mostly not the ones preventing the newborn ideas to "take off". In many cases it is the misalignment in pace and methods that prevents a successful journey.

The answer is in truly understanding and embracing bimodal IT. **"It's all about managing two separate but coherent styles of work; one focused on predictability, the other on exploration."** In Gartner's Bimodal definition, **"Mode 1 is optimized for areas that are more predictable and well-understood. It focuses on exploiting what is known while renovating the legacy environment into a state that is fit for a digital world. Mode 2 is exploratory, experimenting to solve new problems and optimized for areas of uncertainty."**
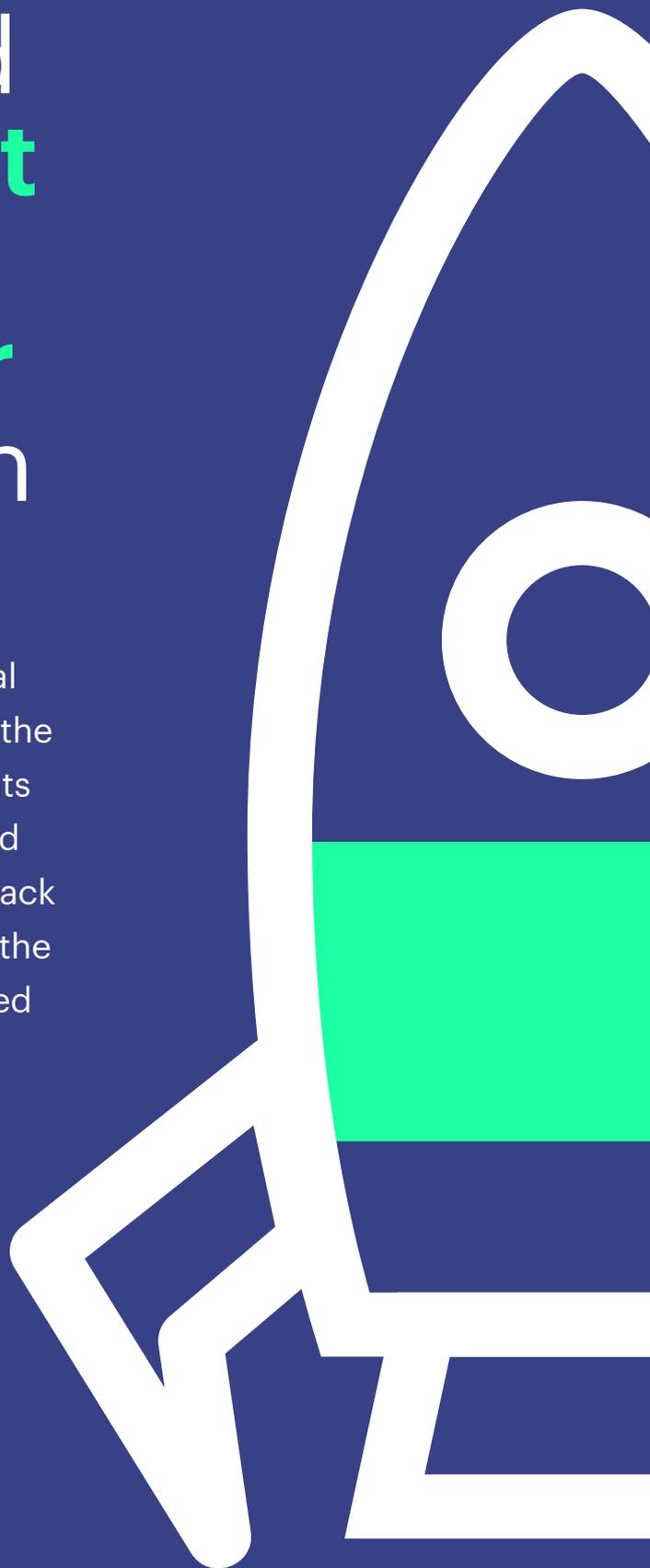
Luckily, you don't have to choose. The right combination and collaboration of modes 1 and 2 will result in an organization that can keep its core systems up and running reliably, and at the same time explore the edge. We find that the key in embracing both modes in the same organization is clearly and actively distinguishing the modes in areas such as project methods, team composition, budget allocation and business involvement. Used the right way, developing new layers of distinctive applications will not stand in the way of solid and well ran backend systems.

There's no need to be afraid of new applications ruining the systems your company depends on. When correctly applied, both worlds will reinforce each other. In this whitepaper, we'd like to show you how you can master innovation and trigger a successful digital transformation, and why low-code will have a high impact on your business. The instructive case of the pension planner at AZL will highlight the collaboration of modes 1 and 2. Enjoy!

Marc Gelissen, CEO and founder Bizzomate

Why backend systems don't have to be a showstopper for innovation

Business demands are increasing in an unprecedented way. The need for digital services in the workplace is soaring. At the same time, the traditional IT departments are confronted with fewer resources and legacy systems that are holding them back to truly deliver the innovative solutions the business demands. Bimodal IT, combined with low-code, helps you to innovate without disrupting or compromising your daily operations.

What is **Bimodal IT?**

Bimodal IT is the practice of combining two ways of structuring processes within an organization, known as mode 1 and mode 2.

Mode **1.**

Mode 1 is optimized for 'improving and renovating well-understood processes in a more predictable way', according to market analyst Gartner. After all, you don't want any changes to uproot your core business. Especially operational tasks, such as updating ERP and CRM operating systems, benefit from this structure.

Mode **2.**

Mode 2, on the other hand, is about exploring and experimenting. According to Gartner, working with mode 2 lets you take on mostly new problems. Instead of working towards big goals with structured planning documents, these initiatives begin with a hypothesis that is tested during short iterations. This allows you to better adjust your work to your goal, or even change your goal if necessary. In which cases is this most useful? For instance, when you develop new services. The agile approach of mode 2 makes it very suitable for low-code platforms, such as the Mendix platform.

Succesful innovation

1. Leverage the power of low-code

The promise of low-code is to allow users to innovate and develop software products in weeks, not months. Equally important is the ability to deploy iteratively, allowing successive refinements after initial implementation.

Mode 2, designed to quickly realize differentiating capabilities, is the mode that will distinguish you from your competitors; using one or another ERP system will not convince customers to come to you, but new and daring applications will. Low-code has proven itself to be a perfect tool to support mode 2. Companies are increasingly turning to tools designed to create applications quickly, without the need to write and debug thousands of lines of code.

Many companies face an upgrade of their ERP system. Over the years, new software layers have been added to these systems. IT departments have made customizations directly in the ERP system, because they have always been told that the systems can handle this. Technically they may be able to do that, but a large, rigid system has emerged, which is difficult to upgrade. The expensive customizations drive up the price of such an upgrade enormously.

Transferring those adjustments from the core systems to a low-code platform, will make things easier. By keeping applications away from the core, it remains clean. In a world where the expectations of businesses are that business strategies have to be deployed faster; low-code platforms are now essential tools to gain a competitive advantage for the organizations employing them.

The global pandemic dramatically accelerated the interest in and use of enterprise low-code, a technology trend that had already been well underway prior to the pandemic. According to the 'State of low-code' research by Mendix 77% of enterprises in the USA, China, UK, Germany, Belgium, and the Netherlands have already adopted low-code, and 75% of IT leaders said it's a trend they can't afford to miss.

And there's another advantage in a world where there's a shortage of IT staff. The pressure to transform enterprises to be 'digital-first' has led to great enthusiasm among IT professionals for new solutions and different ways of working. IT departments are embracing opportunities to democratize software development beyond IT: 64% of organizations have relied on non-technical staff to relieve pressure on the IT department during COVID-19.

By not implementing bimodal IT, there's a big chance you will end up trying to solve ever changing problems with old systems. It will simply take too much time. Deploying new solutions will take forever, while low-code can solve this in an instant. Low-code platforms are aimed at translating an idea to production as quickly as possible.

Implementing bimodal IT requires a new team and a different mindset, because it requires a completely different approach. A mode-2 team consists of different developers. Mode-1 types of people often describe mode 2 as 'total chaos', because of the short iterations and sprints, and the ability to adapt to ever changing insights. Keep in mind that mode 1 and 2 teams are equally important for the company. Mode 1 brings stability, mode 2 will take care of competitive advantage and innovation.

2. Use design thinking

A low-code platform is a great tool for innovation and for building a flexible layer on top of your core systems. Unfortunately, there's no fixed manual to prepare a company for implementing low-code, and reaching well-functioning teams requires deep insights in the organization. That's why we apply design thinking methods throughout the project in order to fully understand the needs of the customer.

How? Naturally, an implementation partner should listen to their customer's needs, but in the first place it should be a trusted advisor. What exactly does the company want to achieve? Try to specify the business goals from all angles; the company, the departments, the customer, users of the customer. Distinguish between all different personas. Do they all want the same? Design thinking will help build these goals, every step of the way.

Many consulting companies often follow customers, just because "the customer says so." But why would an organization spend a lot of money, and not bother to find out why the customer asks for a certain need? Design thinking will help the team to challenge the customer and think creatively to maximize business value and realize the organization's goals.

3. Work in different teams

An optimal execution of mode 2 means a drastic change to the organization and to all involved teams. The way the company looks at problems, budgets, planning and even recruitment needs to be approached differently. Setting up a new system can be a challenge for companies that have had traditional methods for years.
Working agile using low-code confronts the company with new thinking; analysts tend to write down how applications should be built. The problem with these functional designs is that they are multi-interpretable. Agile means you don't need to write anything down in elaborate plans. Instead, the team should write a user story, from the user's point of view. It should describe the user's experience. Traditional software makers tend to describe the process technically, resulting in huge documentation.
Do you really need two teams for the right IT setup? Yes, 'mode 1' is not about software development, it's mainly about software configuration or implementation. An implementation manager must have thorough knowledge of the product, so that he has clear insights into the possibilities of the software. Software development, on the other hand, starts with a clean slate. The developer needs to understand the customer's wishes to make the translation into applications.

By separating the two approaches, bimodal IT becomes an ideal solution for both innovation and quality preservation. The stripped-down core will make a company flexible and agile, while the surrounding shell can be used to innovate and experiment to your heart's content.
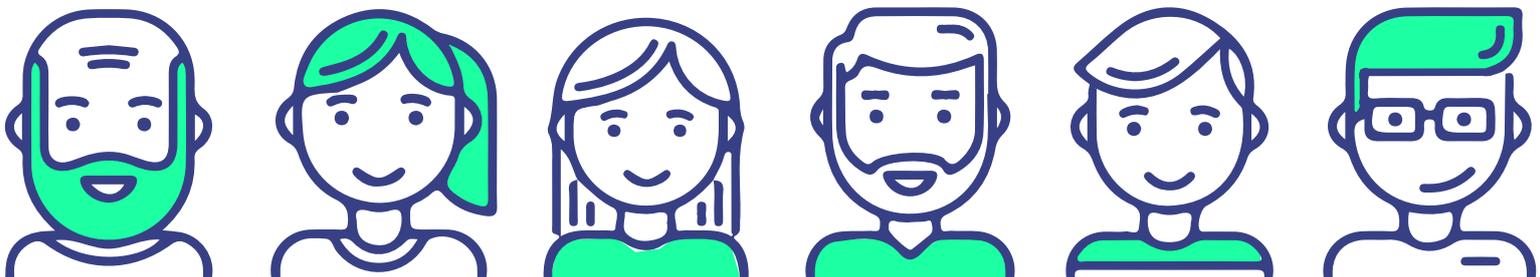
Business case

Pension portal of AZL: Customer-oriented innovation without loss of reliability and accuracy

Pension fund provider AZL had the guts to change the organization completely. This business case shows how the company managed to implement bimodal IT using low-code, ending in great results.

As a pension provider, AZL manages the administration of various pension funds, helps with transparent communication and provides legal and actuarial advice. The company has been doing this for over 50 years, for more than 50 pension funds with 13.000 affiliated employers and nearly 1.5 million participants. AZL is constantly looking for ways to make their IT systems, processes, and organization more flexible and future proof. Over the last couple of years, AZL and Bizzomate have developed various successful low-code solutions with Mendix, but the real eye-catcher is the new pension planner option in the portal for participants.

The purpose of this portal is to inform all pension participants about their pension in a customer-friendly and transparent manner. The pension portal is now used by 1.5 million people, and the planner option is available as well. **"Employees want to know at any time what is in their pension pot and what a change in legislation or in their personal situation means for them. It's no longer sufficient to inform them once a year with a complicated letter, they want to be in control - anytime, anywhere,"** says Edward Heijkers, CIO at AZL.

The pension portal is very user-friendly, participants can log in with their DigID. They can upload all kinds of documents, which are immediately processed in the back-end. In addition, a participant can calculate all kinds of pension scenarios in real-time. Despite the fact that this requires enormous computing power, an individual participant can calculate this using his own device and without the intervention of an AZL employee. **"Previously, four employees worked full time on calculating pension scenarios, but with the participant portal that's no longer necessary. The traditional question-answer communication between an AZL employee and a pension participant is also changing as a result. Our employees are becoming much more pension consultants than administration specialists."**
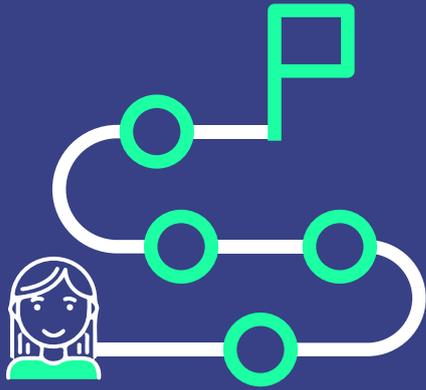
Focus on the **customer journey**

An optimal customer journey for the pension participant was key during the development phase of the participant portal. Extra attention was paid to the group of people who are approaching their retirement age. **"The most complex process is 'retire', the moment that you actually need to receive a pension. That process is way more complex than entering a pension fund and sending in the correct documentation"**, explains Heijkers.

To improve the customer journey during this process, AZL commissioned a customer survey. Heijkers: **"One of the striking things, for example, was that if someone had completed his paperwork, he then heard nothing for six months and had to**

wait, biting his nails, whether he would actually receive a pension when he left the company. Now we use a notification system: 'In 100 days you will receive your first pension payment'. And we repeat this, for instance, 50 days and a week before the retirement date. This is one of the simple functions we built into the portal, which contributes to an improved customer journey."

The portal is set up generically but can be used multi-client. Therefore it isn't necessary to develop 50 separate portals. Administrators can, for example, adjust their front-end themselves, so that the pension participant logs in to the portal of the brand he's familiar with.
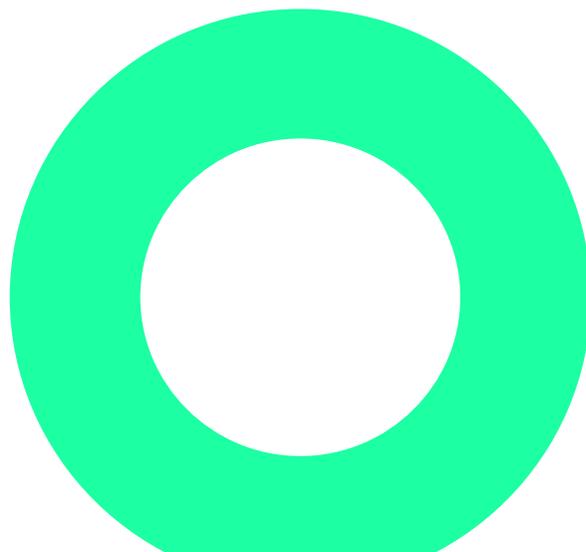
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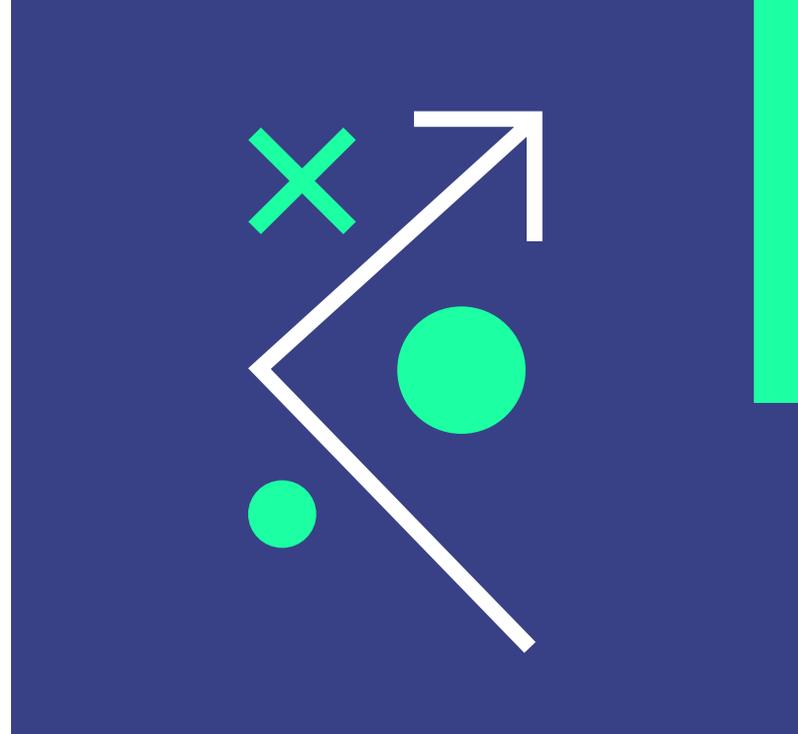
AZL and Bizzomate have been working together for over eight years now. During this period both parties improved their cooperation capabilities and pushed each other to achieve better results. For AZL, the right balance between reliable computing power and a customer-oriented approach is key. Therefore, Bizzomate advised AZL to build a flexible layer for functional applications on top of its base layer of important core systems for pension administrators. To build this top-layer, they selected the low-code platform from Mendix.

" **We were used to working with extremely reliable systems and to carefully design and test every step in the process. As you can imagine, this is a timely and costly process. Our traditional development processes did not fit the modern requirements of building applications at speed, adding functionality in an instant, or applying customer feedback directly into the solution.** "

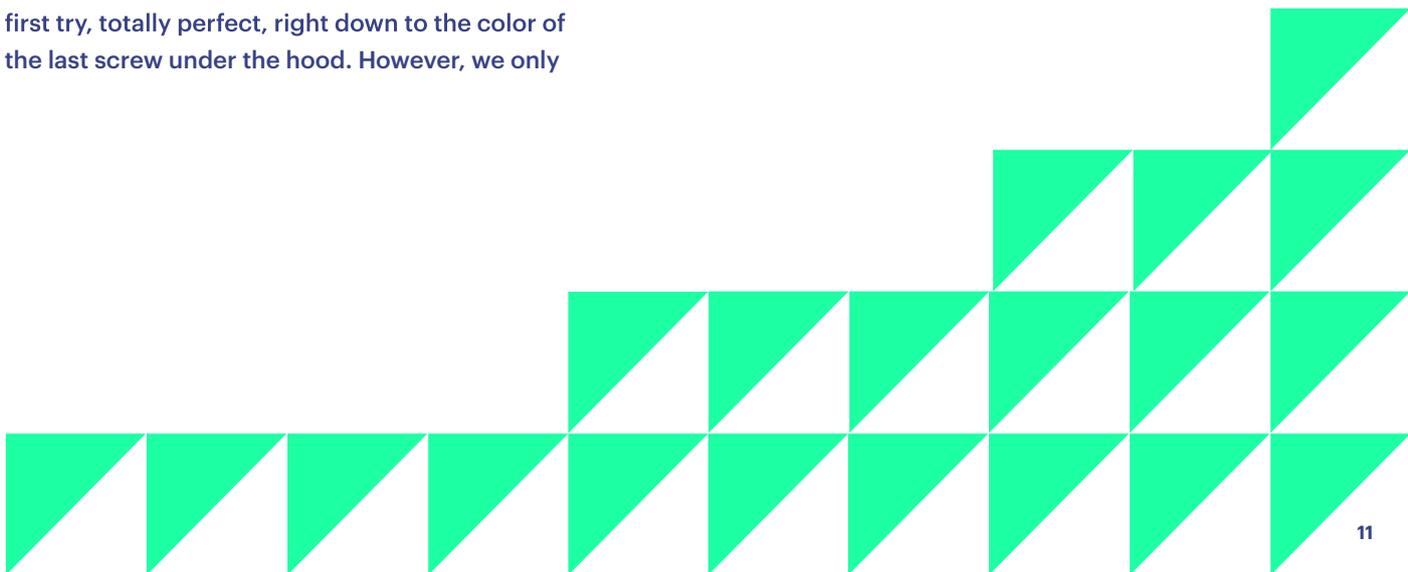**Edward Heijkers**
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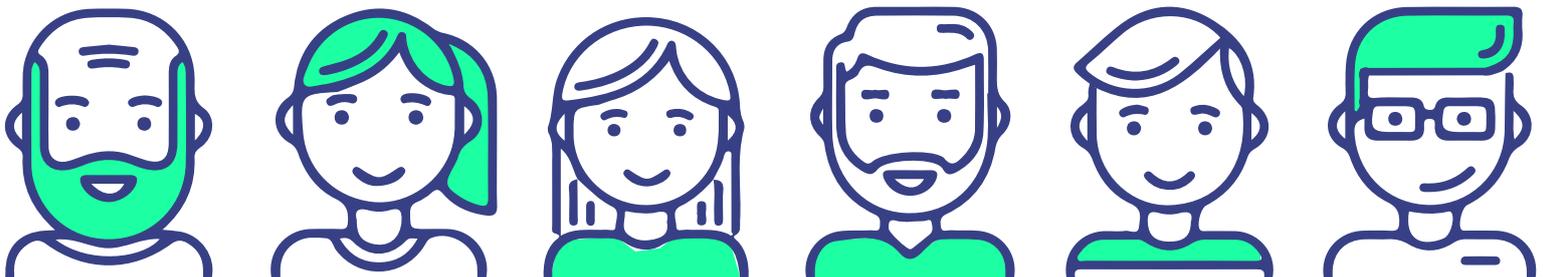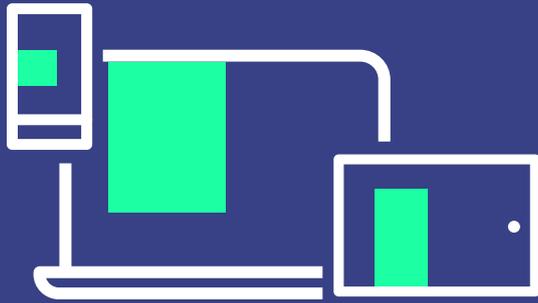
PACE
Layered
Application
Strategy

AZL uses Gartner's well-known PACE Layered Application Strategy. The core accounting systems for the pension administration in Oracle PL/SQL are the 'systems of record', and low-code is used to develop 'systems of differentiation and innovation'. This may sound very logical on paper, but in practice, this turned out to be more complicated – especially in the first years. Heijkers: **"Low-code is a wonderful technology, but it doesn't work if you use it in a traditional way. Our developers had to adapt to a different working method. With the help, experience, and expertise of Bizzomate, we implemented agile teams and a strategy that was suitable for the rapid delivery and production of a minimal viable solution."**

Furthermore, the budget, and the number of manhours within this budget, is now a real benchmark. Heijkers compares it with purchasing a new car: **"For our customer-oriented solutions we previously delivered a brand new sportscar at the first try, totally perfect, right down to the color of the last screw under the hood. However, we only**

need to build a small family car that drives safely to meet our customer demands. If there is no money for tinted windows on the car, that extra option can easily be added later. This is one of the great possibilities of low-code."

Full steam ahead

As for the pension planner functionality within the pension portal, ING's pension fund will be the first live customer. Heijkers: **"About 125 people are retiring each month, so at the beginning of the next year we can assess how we're doing and measure customer satisfaction properly. In the meantime, we will of course continue to work in the background on improving the participant portal and the other projects we are working on, such as the invoice portal for directors and the employer portal. Full steam ahead!"**

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Edward Heijkers
CIO at AZL
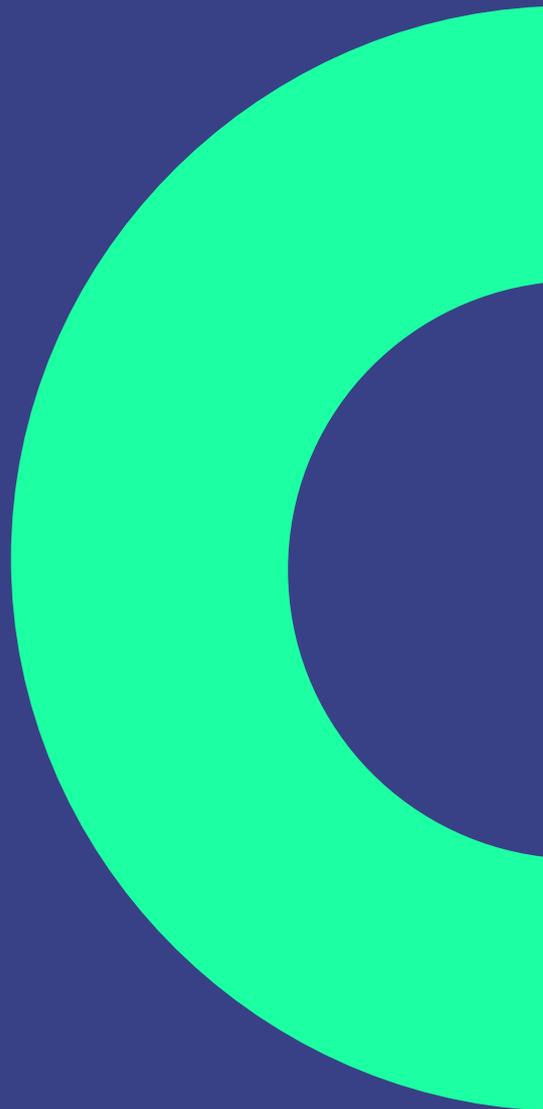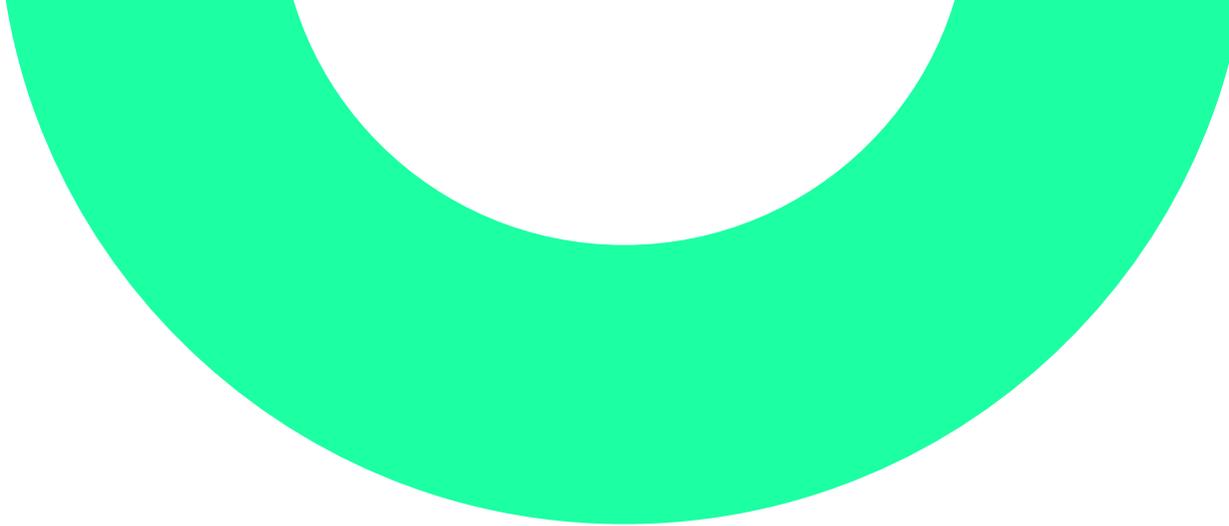
Bizzomate stands for Low-Code high-impact. Contact us now to boost your organization with Low-Code.

Would you like to fire up your digital transformation process? Is your organization considering low-code? We would love to share our lessons learned and customer stories!

Contact us through:

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