



CIONET

DISCUSSION SUMMARY

THROW OFF YOUR SHACKLES: LOW- CODE IN INDUSTRY & MANUFACTURING

This article was written by Daniel Eycken, Partner COO for CIONET, and is based on the conversations held during an exclusive dinner on November 29th 2022. The event was sponsored by Mendix, the leading enterprise low-code application development platform.

THROW OFF YOUR SHACKLES: LOW-CODE IN INDUSTRY & MANUFACTURING

"Throw off your shackles: Low-code in industry and manufacturing". The title of the roundtable was indeed meant to be somewhat provocative. After all, low-code would allow the CIO to break down the chains with ERP or other legacy systems. Low-code would allow building bridges between IT and the business by strongly involving or even entrusting the latter with part of the development work. These and other claims were confronted with concrete Low-code experiences of CIOs such as Chris Borremans of Komatsu and Bert Schoofs and Steven Vansteenkiste, respectively Global Head of Applications and Head of Manufacturing Applications at the ETEX Group. It resulted in an animated roundtable discussion with a dozen CIOs over a delicious dinner from top chef Jeroen Storme in the beautiful Ter Ham castle in Londerzeel.

How do you see low-code?

Our CIOs arrived at the table with a wide range of experiences, visions and expectations around low-code.

The promise of low-code to connect IT with the business is very appealing, to most CIOs, as it is a must to enable companies' digital transformation and create 'digital business'. According to Wim Nagels, CIO of DPD the question is indeed how the IT team can keep all the legacy applications up and running while getting enough time and flexibility to meet the evolving needs of the business. "Perhaps low-code can help ensure that the business no longer simply throws its requests for IT support and development in the IT team's tray with a sympathetic post-it on it saying "just call me when it's ready". Patrick Putman, CIO of Manuchar commented on this saying: The idea of pulling the business into the equation when it comes to software development is not bad, but at the end of the day you always have to be careful not to be faced with an unsustainable tangle of DIY applications developed here and there in the different business lines."Although, good ideas or solutions can often be found in shadow IT, while capturing, managing and maintaining them can be governed with a low-code platform", as to Wijnand Pauwelyn, Enterprise Account Executive at Mendix.

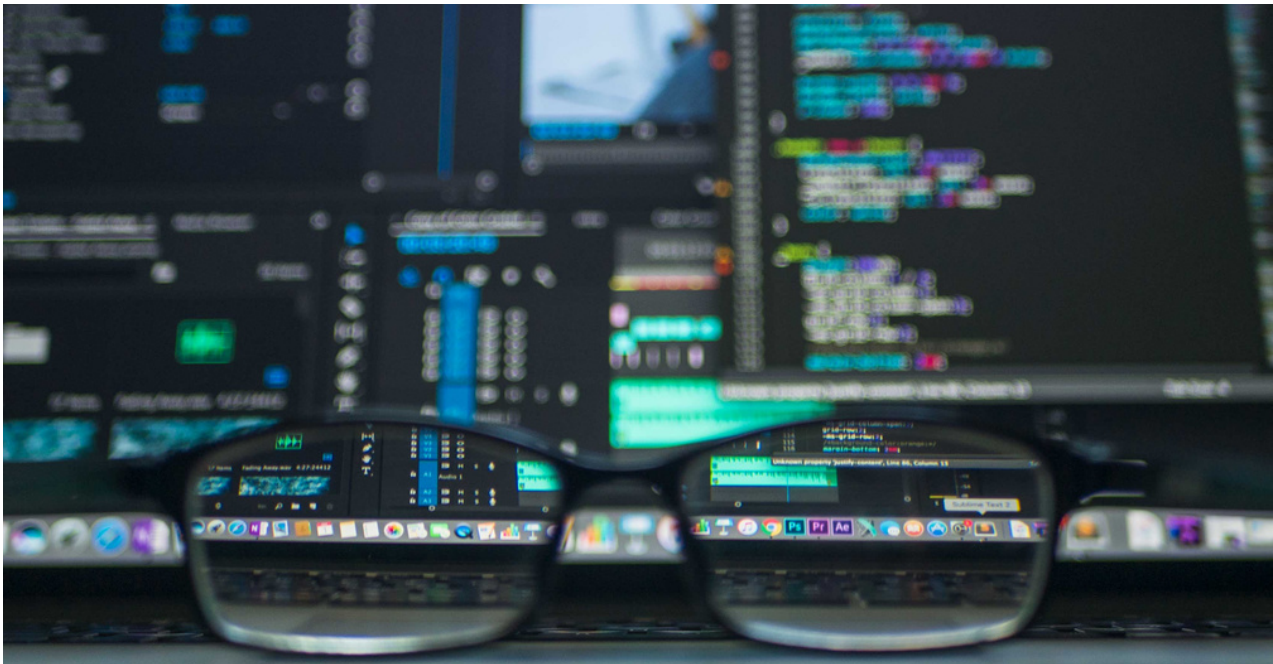


"At Imec, we apply the principle of the hardcore with the flexible edge", dixit Maarten Burssens, Digital Strategy Director at Imec. "Our ERP and MES core is the backbone of our organisation, but this does not always allow us to meet all end user needs without undesired heavy customisation. Low-code allows us to offer a solution tailored to the context and needs, and call on business users and their expertise. One reservation I do have, however, is the question of conclusive management and, of course, the ultimate TCO of this exercise".

"Milcobel also has experience with low-code development", adds Robert Moeyens. "However, engaging users in development is a nice idea indeed, but in practice, unfortunately, business colleagues have neither the time nor the inclination to spend too much time tackling development projects themselves. Except for the more technically oriented colleague who likes to spend evening hours helping to develop a business application tailored to their needs. "Still", as to Sigurd Segers, Director Applications at Terumo, "there's a tech savvy generation of workers (business technologists) that are entering the job market who expect a certain level of involvement with the IT applications landscape".

Eric Goris, responsible for vendor management and the transformation programme at YPTO (NMBS), speaks mainly from his experience with low-code development at his previous employer Ethias.

Low-code has a clear added value in an environment facing rapid change.



After all, a low-code application enables the business team to make the necessary adjustments themselves, on the one hand, since they were involved in its development and on the other hand because low-code mainly works with intuitive visual interfacing. Mind you, in practice, it is indeed an illusion to think that low-code would drop the work in the camp of the business. Time, interest and priorities of business colleagues are de facto often a bottleneck”.

What was your experience with low-code?

Bert and Steven then gave a more detailed account of their low-code programme at Etex. Etex is a group specialising in the production of building materials, operating worldwide with 15,000 employees and 125 production units. Their initial transformation programme heavily focused on the ERP system. After some time, however, they realised that the rigid nature of the ERP system was an inhibiting factor. They then changed the course to give way to a plan focused on innovation, flexibility and fostering an engineering culture. They introduced the concept of IT product ownership with business partners. The objective was to make the digital core systems as lean and standard as possible and to have IT and the business develop applications to generate value as quickly as possible while creating the engineering culture sought. The low-code programme brought relief. The first steps were tentatively taken with the development of an application to register scrap during production, a practical pain point for many factories. Given the speed of delivery and the success of this application, they quickly took further steps into the domain of manufacturing applications. This involved a learning process, especially for the business that was not used to working with agile concepts such as short iterations and MVPs (minimum viable products).

“During these developments, business colleagues worked with the IT team to draw out the business logic, workflow, screen layout, and look and feel throughout the application”, says Steven. “After all, the proof of the pudding is in the eating. If business owners are not comfortable with the result, they will simply not use it. So the advantages of low-code development lie mainly in the fact that you can work small, intuitively and fast in development and during deployment”. “Still” he adds, “IT has to keep things under control, taking care of the necessary governance, security and maintainability. In our experience, we speak of citizen involvement rather than citizen development. The latter - done with platforms such as Microsoft, for instance - might at first sight have a cost advantage since they are part of your O365 licence. However, secondary costs drive the price up. And, they are more suitable for smaller applications only touching Microsoft technology. Moreover, such applications are often not managed by the central IT team”.

“In a Japanese business culture where continuous improvement is the mantra, low-code's strengths come into their own”, emphasises Chris Borremans, CIO of Komatsu. “We built our original business case on a number of best-of-breed applications around the ERP system. But we never realised it. And that was a conscious decision. After the first low-code application was delivered, the business was so satisfied that we went full steam ahead on the path of custom low-code development. Today, we are even about to deliver a complete MES (Manufacturing Execution System) that was entirely developed in-house in low-code. If you compare it to buying and implementing an off-the-shelf MES solution, we estimate that we are at the same lead time (less than one year) at about one-third the cost. The same goes for the workflow management system; there too, we moved away from a package and built our catalogue of workflows in collaboration with the business in low-code. As cited by others, the resourcing problem should not be underestimated. Working with an external partner, we have trained a group of Mendix Developers within the company. These are primarily people from the business, such as former project managers and even someone with an accounting background. Staffing this team is an ongoing task, as is monitoring your methodology. Old habits can quickly take over, putting you at risk of slipping back into the waterfall system”.

The roundtable concluded with a 'tour de table' where everyone was allowed to give their main takeaway.

What remains of the claims around low-code?

The IT team must retain ownership; it is an illusion that low-code can or should suddenly place ownership with the business. In the upfront journey, a solid business analysis and an assessment on what to build with low-code remains mandatory, alongside the choice to make or buy. Low-code adds a strong make option.

Next, IT has to take care of governance, security, hosting, cost and roadmap. Making the business more responsive is a welcome side effect of the low-code approach. And, although there's a new tech savvy generation of business engineers that expects a certain level of involvement with the IT applications, the bottleneck remains their availability.

Low-code requires a specific approach; agile, good project and communication management between business and IT. Be alert to avoid slipping into old waterfall or other 'old' development methods.

Low-code is not merely a quick fix for small applications or temporary solutions. Low-code -especially the dedicated professional version - has much more potential, as demonstrated by Komatsu's MES system. Its strengths come out best in an environment that goes for continuous improvement or where constant change is commonplace. In short, your context determines the extent to which you can best capitalise on the strengths of low-code development.





About CIONET

CIONET is the leading community of more than 10,000 digital leaders in 20+ countries across Europe, Asia, and the Americas. Through this global presence CIONET orchestrates peer-to-peer interactions focused on the most important business and technology issues of the day. CIONET members join over a thousand international and regional live and virtual events annually, ranging from roundtables, programs for peer-to-peer exchange of expertise, community networking events, to large international gatherings. Its members testify that CIONET is an impartial and value adding platform that helps them use the wisdom of the (IT) crowd, to acquire expertise, advance their professional development, analyse and solve IT issues, and accelerate beneficial outcomes within their organisation.

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About Mendix

Mendix is a leading enterprise low-code application development platform. With Mendix you can convert a spreadsheet into an app, create an organisation-wide app portfolio, modernise an entire core system – and else everything in between. The Mendix Platform enables continuous collaboration between those who build the software and those who use it – this accelerates the application development lifecycle and supports iterative deployment at scale. Organisations can create modern, flexible applications quickly in a tool that maintains the highest standards of security, quality, and governance. The Mendix Platform has been adopted by more than 4,000 leading companies around the world. Mendix is a Siemens business.

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