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Mendix for Public Sector

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How are government administrations successfully using low-code application development to meet the needs of the public?

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Low-code is a well-established technology that is already being used by several industries including manufacturing, finance, insurance, retail, and public sector. Its popularity means people hear many different things about low-code that they may believe to be true. Misconceptions often create fear, uncertainty, and doubt, so the public sector hesitate choosing low-code. How are government administrations successfully using low-code app development to meet the needs of the public?



Here are some of the more common myths around low-code and how it is used by public sector organizations of different needs, skillsets, and sizes:

Low-code app development is not for custom code projects

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Low-code app development is a threat to corporate technology services

Low-code app development is only for small and simple business cases

Low-code app development is too expensive

Low-code app development is not sustainable

Low-code app development is the answer to all development

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### Low-code app development is not for custom code projects.





When thinking about projects to improve operational efficiency, some people may consider that low-code is not flexible enough for regulated organizations of the public sector. Some IT departments may be skeptical of the customization capability of low-code for digital transformation projects. Commercial-of-the-shelf (COTS) products sometimes cannot meet business needs, regulatory requirements, and complex integration with real-time data. Many public sector organizations are looking for better ways to build custom apps that can integrate with legacy systems and meet those needs.

### Low-code development is versatile to build apps without code and enable software engineers to still extend basic functionality with code when necessary.

Low-code is ideal for custom code projects with custom integration or user interfaces whilst reducing the burden on development resources for core functionality and underlying coding. Low-code is being used to speed up app development. Even less technically trained people can contribute and easily keep track of the project's progress. The public sector can create engaging experiences for employees and the public. Visual development is faster. These methodologies apply to all types of public sector projects now and in the future.



## Complexity

**Featuring:** City of Rotterdam

Serving the City of Rotterdam from a technological perspective requires handling an innate amount of complexity at scale. CIO, Mark Vermeer, said,

"An organization like the City of Rotterdam is comprised of maybe 30 product lines – we have traffic lights, an engineering department, parking tickets, and public health. We have around 800 IT systems in place to support all of that, and we have a portfolio of easily about 100 projects in IT alone at any given moment in time."











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Low-code app development is a threat to corporate technology services.

With constrained budgets and increased demand on limited resources, the public sector may feel that low-code would negatively impact team culture. On the contrary, **low-code eases the burden on corporate technology functions by leveraging the entire workforce, from leadership to frontline, for app development.** Users combine their own expertise with that of technology professionals and digital experts, to develop apps and deliver unrivalled time-to-value.

Public sector enterprise apps can be built without coding. From seasoned developers to non-technical frontline staff and government officials, business and IT collaborating together, Mendix empowers the entire workforce to rapidly build applications with or without coding skillsets. All it takes is a clear strategy and the right low-code platform.





**Featuring:** ProRail

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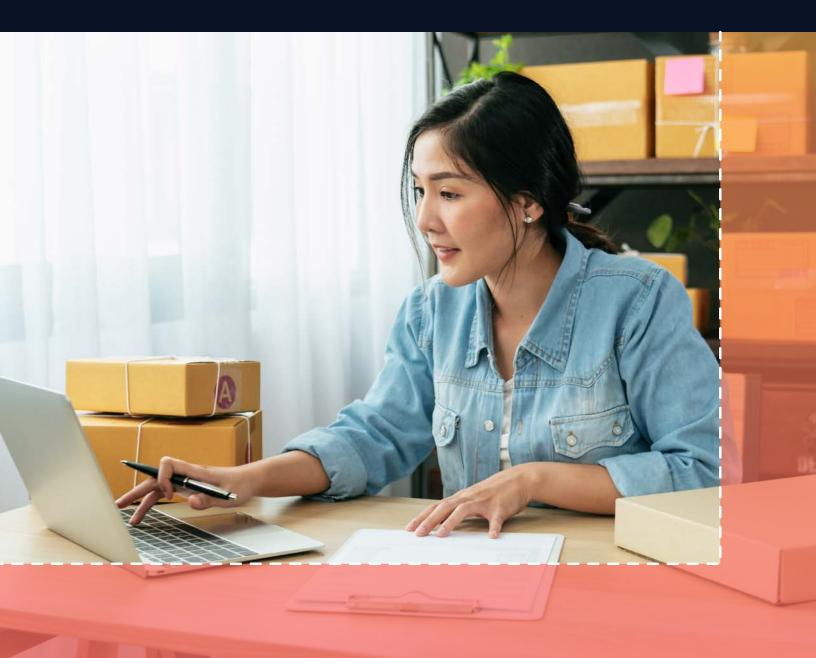
"Platform development is more efficient," says van der Linde, "you build one thing and you re-use it. We've found that as we build functionality, we can re-use it across our portfolio."

This new approach to application development, working alongside the business and re-using functionality, has enabled ProRail and its IT team to significantly speed development and satisfy the business, all while creating significant operational efficiency gains.





Low-code app development is only for small and simple business cases.



Public sector organizations may often have bigger IT environments where they worry that they would be unable to implement low-code. Their systems and legacy assets are sprawled over lots of departments, separated and siloed from each other, which represent core components for critical operations across the organization. There are risks associated with any implementation of new enterprise systems. Digital execution through a proof of concept (POC) tests risks and how low-code overcomes barriers for integration with enterprise systems.

### Low-code solves the problem of digital continuity.

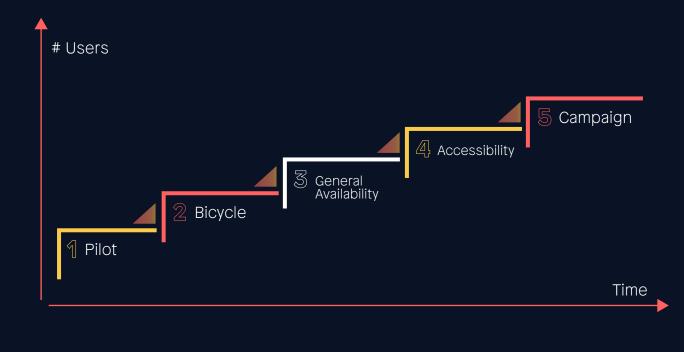
The public sector suffers from difficulties with recruitment and retention of development resources and talent. Low-code means the public sector can build something today, which is supported by a new team tomorrow. Public officials with other skillsets can contribute to app development without neglecting their front-line, core responsibilities. Visual development using common building blocks streamlines the app development process for enterprise solutions that scale across departments. Organizations can move quickly without making concessions on usability and reliability. Low-code enables operational staff to deliver public services quickly and easily, using flexible approaches that give the user more control.





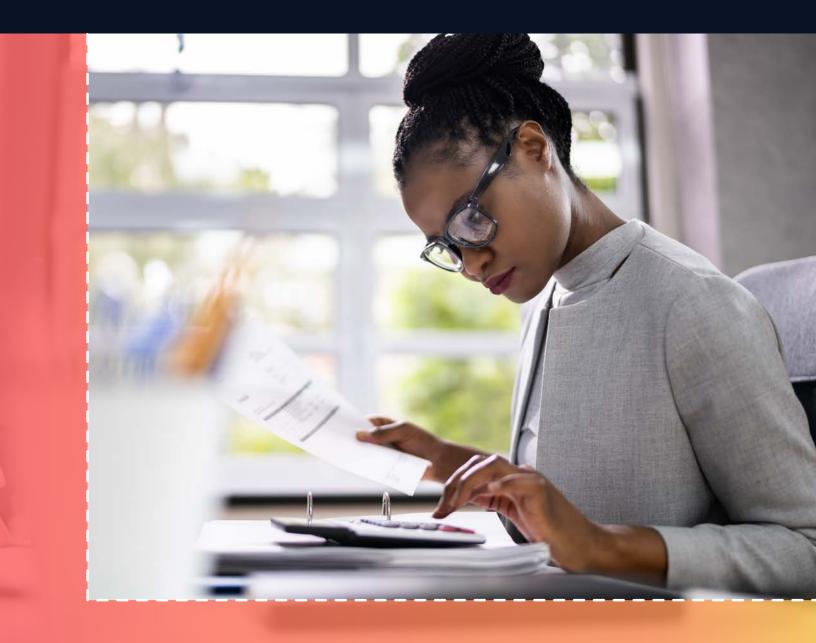
**Featuring:** Dutch Railways

### Community based scaling



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# Low-code app development is too expensive.



When it comes to digital transformation, many public sector organizations may be interested in the potential of new technology. Long established processes have baked-in inefficiencies. Public expectations often change rapidly because of their experience with services from other industries. Justifying the business case for new investments into technology like low code can be tricky. Budgets are as tight as ever and governance of public spending is particularly strict. The public sector may struggle to balance a reluctance to innovate operational processes with an expectation from the public for convenient access to services.

Low-code helps create engaging experiences for employees and the public. A low-code app development platform can achieve the inclusive design digital public services that meet the needs of the public. Rapid development enables you to adapt a service quickly and marry the benefits of robust architecture from COTS products with the flexibility of custom development. Public sector organizations can improve operation efficiency and enrich public services by starting small and scaling fast.

This agile approach justifies investment in low-code app development platforms to be less expensive than underestimating the costly risks of staying in the status quo and neglecting legacy systems.





**Featuring:** Dutch Directorate-General for Public Works and Water Management

With 15 apps developed in 18 months, it has become clear that the new method offers many advantages:



Increase in quality and speed



Greater involvement of both business and IT



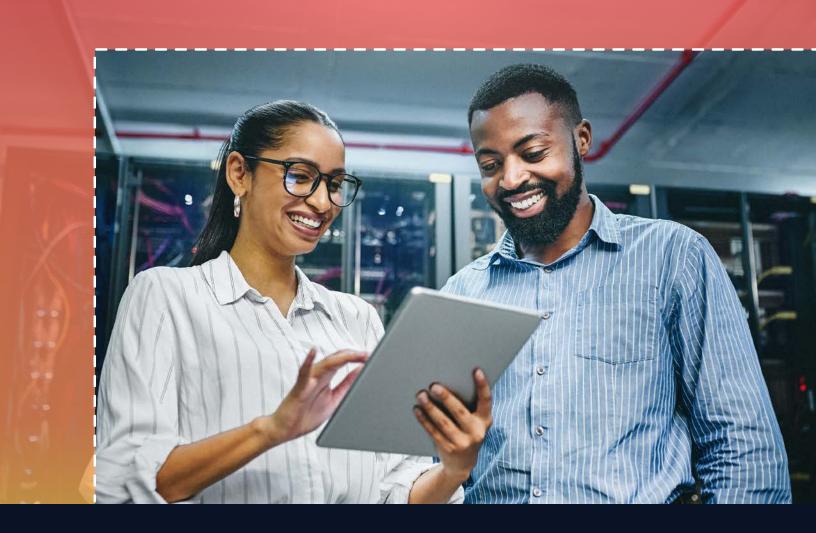
Significantly lower costs, thanks to an enterprise licensing model: no more 'pay per application'



Effective management and maintenance thanks to virtualization



Direct deployment provides enormous time saving



## $\mathbb{M}\mathbb{Y}\mathbb{T}\mathbb{H}$

Low-code app development is not sustainable.

Every community organization, government service, and municipality will face a crossroads in the digital age. Public services must be modernized to serve the needs of communities, but with any digital transformation comes the risk of introducing complicated technology that quickly grows obsolete. The purpose of sustainable digital public services is to manage technology in a way that can be maintained at its current level. This includes future-proof solutions that are built to last, appropriate for the unique needs of specific communities, and cost-effective to implement. Regulated industries like public sector need long-term, reusable solutions.

### Low-code is a sustainable platform solution for the myriad public services your organization is responsible

**for providing.** Whether it is waste management, public safety, water and pollution management, or other public works; your organization can introduce technical solutions and monitoring tools that are responsive, intuitive, and secure. Low-code platforms enable organizations to easily custom-build multi-app solutions that meet the exact needs of their business stakeholders while integrating seamlessly with existing systems and data sources. With low-code, a parks and recreation department can quickly tweak an application that a waste management department has successfully deployed. Think of low-code, with its emphasis on reuse, as the building blocks to deploy digital public services that can stay agile and responsive to new regulatory requests.



## Maintenance

### **Featuring:**

Massachusetts Department of Housing and Development

"Mendix has changed the way our users participate in the development process. We've gone from user fatigue to user engagement, bordering on delight. We can easily make changes along the way and create the system they need and the system they'll use."

> Charles Schiappa CIO, MassHousing

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### Low-code app development is the answer to all development.



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No two organizations in the public sector are the same. Some have very small departments for corporate technology services who traditionally buy technologies. While others have access to large talent pools of technology professionals and digital experts who may often build solutions. CTOs in the public sector are sometimes open-minded and looking for smarter, better, faster solutions and they may also consider that the benefits outweigh the difficulties of adopting new technologies because modern public services must quickly adapt to unexpected demands such as response to Covid-19 pandemic. Ultimately, CTOs need to be able to bring new technologies into testing and development environments for POC that demonstrate how the technology fits with their organization.

Low-code was not built as a full replacement hard coding and custom development. In fact, in most cases, it complements it by accelerating the software development process. It therefore should not be viewed as the answer to everything even though it is a perfect answer for many scenarios. The challenge is identifying which are the best scenarios that improve operational efficiency and accelerate legacy modernization. That is why testing out a low-code platform by building a minimum viable product (MVP) is important before deciding on whether to adopt it. Low-code can keep public sector agile in the world that is increasingly focused on technology.

## Where today meets tomorrow:

Mendix low-code is a proven solution for digital public services.

Amid unprecedented change and the rapid pace of innovation, digitalization is no longer tomorrow's idea. We take what the future promises tomorrow and make it real for our customers today. Delivery of public services has fundamentally changed and so must app development for Govtech. There is a lot of buzz and just as many questions around low-code app development. We're discussing the myths behind the tech in our new Mendix podcast mini-series.

**Mendix** Podcast

Tune in and hear what our experts have to say.

### Learn More

Learn more about how Mendix for public sector can help you rapidly improve operational efficiency and citizen engagement. Meet the needs of the public with solutions created swiftly and intuitively.

https://www.mendix.com/industries/public-sector/

