

# quid NEWS

| CENTRAL THEME

## DEFUSING THE LEGACY BOMB

| CASE STUDY

### LUSOPONTE

More agility and  
accordance with the  
GDPR

| SOLUTION SPOTLIGHT

Integrated Training  
Management Solution



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## *Adaptability is key*

“It is not the strongest of the species that survives, nor the most intelligent, but the most adaptable to change.” The quote, often attributed to Charles Darwin, is actually from a North-American business professor named Leon C. Megginson, who was inspired by the British naturalist contribution to the science of evolution and transferred the idea to the business world.

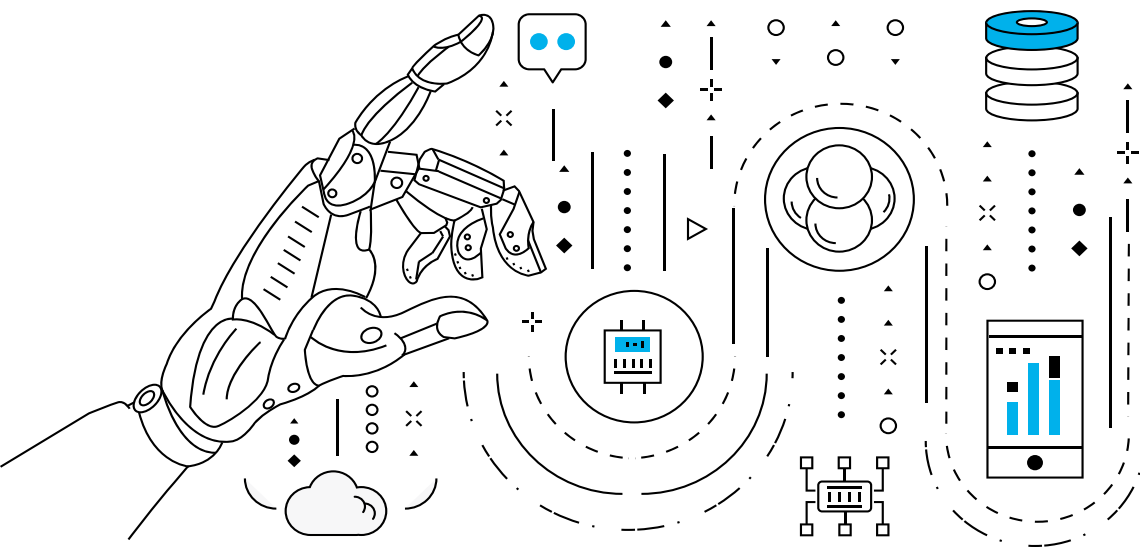
Part of this QuidNews’ issue is about our ability to transform, pivot our strategies, and cope with an ever-changing landscape. The last few months proved a point that was discussed long before the virus arrived: companies who have the best digital experiences and the ability to successfully connect business objectives to technology attract and retain clients easier.

To succeed, businesses must be capable of answering their target needs. These are increasingly demanding when it comes to the technology that must be used to solve them. Outdated core systems are a barrier to the implementation of modern digital solutions. Artificial intelligence and cloud solutions are among the technologies that make remarkable changes to today’s businesses but cannot be implemented in an obsolete system.

These outdated systems, usually dubbed legacy systems, were once a state-of-the-art solution. We see this happening in many industries, where most of the players were technology early-adopters, such as the Banking field. However, today’s banks are being overstepped by new and more agile newcomers who use ingenious technologies to promote growth, excel in profit margins, and guarantee a continuous innovation of their operation.

Where did incumbent players go wrong, and how can they regain terrain? These are the types of questions that will be answered in this QuidNews’ issue.

**CRISTINA MARINHAS** | CEO at Quidgest



## University of Minho with a remote curricular unit about Modelation and Automatic Generation of Software

The University of Minho has developed, in partnership with Quidgest, a curricular unit of Modeling and Automatic Software Generation, for the Master of Engineering and Information Systems Management.

This online course intends to educate students on how to develop and produce software according to the no-code paradigm using Genio - Quidgest's automatic code generation platform, which is based on domain modelling (model-driven engineering) and artificial intelligence. By the end of the curricular unit, trainees should be able to produce the models of a business/organizational situation necessary for the production of software via

the Genio platform. Moreover, they should be able to produce the models of the software application using the available standards, apply the generator for the automatic production of software based on the models, verify that the available software displays the desired functionalities and characteristics, and also change the models in an evolutionary way and regenerate the software.

For this curricular unit, the Information Systems Department of the University of Minho has the collaboration of Álvaro Damas, one of Quidgest's administrators, as a guest teacher.

João Varajão, University of Minho's officer for the discipline, highlights the importance of this paradigm of software production and its impact on the management of information systems projects.

"This is another important element of the innovation effort made at the University of Minho in the context of teaching in technologies and information systems, specifically in organizational development based on information technologies," says João Álvaro Carvalho, Full Professor and Director of the Information Systems Department at University of Minho. ■







## Local Gov 4.0 Talks: the art of adding value through local public management

What are the digital transformation challenges of local governments, and how can technology drive economic growth and add value to their citizens?

This was the central question of the Local Gov 4.0 Talks, an event organized by Quidgest in February that revolved around the opportunity of creating regional wealth through the support of companies focused on software development and other digital activities, which export their products and services to the global market.

Simultaneously, local governments must not overlook their own internal resources management systems. The combination of the speed at which the change of procedures

and the legislation is updated and growing citizens' digital needs are not compatible with obsolete solutions, which do not empower citizens or public employees. To be compliant with the ever-changing times we are living it is essential local governments adopt modern, intelligent, and agile systems.

The event had the participation of several Quidgest's experts, representatives from the City Councils of Mafra, Sintra, and Fundão, as well as APDSI and Saphety. The presentations are available on Quidgest's [website](#).

The event counted with the support from several organizations, namely APDSI, CIO, Gesbanha, PH informática, and Saphety. ■



## Talks on Model-Driven Engineering and Artificial Intelligence Approaches: the Algorithmization of Architecture

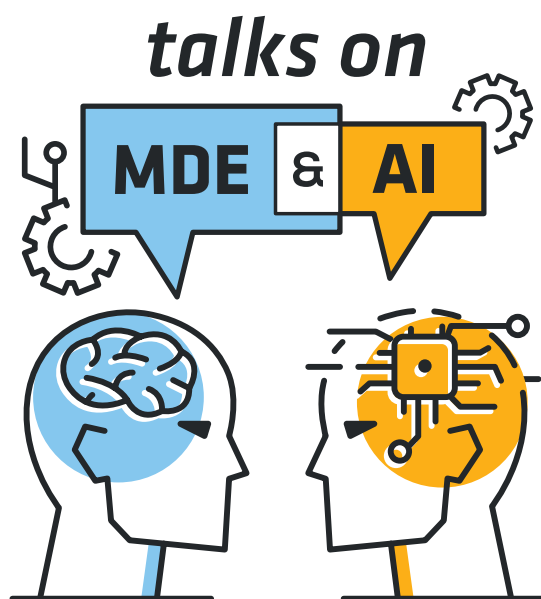
Like several other areas, architecture is going through a tremendous but irreversible change: a new generation of practitioners is beginning to employ algorithmic approaches in their design processes, allowing them to conceive forms that were almost unthinkable before. Besides using algorithms, they automate design and analysis processes and, consequently, optimize projects. That allows them to improve their behavior in different metrics, such as structural resistance and luminous and thermal comfort.

In this session, that took place on January and is part of a series of meetings regularly promoted by the Computer Engineering Department of Instituto Superior Técnico and Quidgest, the “architecture algorithmization” was discussed, and presented some recent developments in this area.

Since this is a topic on the agenda, the event served to present some recent developments in this area, namely the tools available and all the possibilities that open with the algorithm’s placement at the service of architecture.

António Menezes Leitão, Assistant Professor at the Instituto Superior Técnico of the University of Lisbon and senior researcher at INESC-ID, in the Software Engineering group, was the guest speaker and presented several practical examples.

During the session, the conference paper “Model-Driven Automatic Code Generation: An Evolutionary Approach to Disruptive Innovation Benefits” by João Penha-Lopes, Manuel Au-Yong-Oliveira, and Ramiro Gonçalves, was also presented. This paper shows the advantages and disruptive benefits that clients achieve when working with Quidgest. ■





# Training in Financial Management and Public Accounting in the Digital Era

Public financial managers' demands and responsibilities have significantly increased in recent years. The situation is noted in hundreds of organisms in the public sector, which appreciates accountants whose habilitations are up-to-date.

There is a gap in the number of specialists qualified for this function today. And, concurrently, the digital transformation has brought new challenges and completely different perspectives on the management of organizations. It was with the objective of overcoming these difficulties that Quidgest promoted an innovative training .

Designed for the leaders of the future, this certified training provided the participants with knowledge that allows them to design and understand the operation of financial management information systems and public accounting. ■



## 1<sup>st</sup> Artificial Intelligence Marathon in Portugal

It was to debunk the idea that artificial intelligence (AI) cannot be used in the software development process that João Paulo Carvalho participated in the 1<sup>st</sup> Artificial Intelligence Marathon in Portugal. This online event took place in June.

“Abstraction, Inference, and Artificial

Intelligence in Programming Automation” was the subject presented by Quidgest’s administrator, who started his participation by asking the audience, “is a computer able to write code as well as an expert software developer?”

The initiative was powered by I2AI- International Association of Artificial Intelligence, whose mission is to interconnect the AI’s ecosystem.

The one-hour presentation, which starts with a briefing by Fernando Domingues Jr., I2AI’s Head of Portugal, [is available on YouTube](#). ■

## EU: Quidgest proposes Digital Twin to boost recovery

The pandemic disrupted many aspects of the life we knew before 2020. Even after the storm is over, social and economic dynamics will never be the same. One of the main changes was the collective migration to digital. In the context of growing digital transformation challenges brought in several industries, Quidgest proposed the EU a [Digital Twin](#), a virtual model of the socio-economic reality that accurately describes current operations and may also predict future performance for various scenarios to optimize decision outcomes.

The next couple of years will be guided by the Old Continent's mission to reshape societies and economies deeply affected by the lockdown. As a consequence, a great responsibility rests on the shoulders of the EU

members who will assume the Presidency of the Council in the upcoming years: Germany (second half of 2020); Portugal (first half of 2021); Slovenia (second half of 2021).

Digital means can be a supporting tool to propel recovery. However, to re-design our near future, current statistics and data support have little to no use. The future – now more than ever – will not be an extension of past trends in any domain of social or economic dynamics. Only a complex system such as a Digital Twin could be up to the challenge of providing useful answers.

In the EU's case, the virtual socio-economic model would consider dozens of variables - from economic and employment to the environment and innovation. The aggregation of these variables provides more holistic and near-real-time data support. As a consequence, this enables more effective mid- and long-term policies, namely through regulation and incentives.

Quidgest also suggested implementing the Balance Scorecard to monitor, reflect, and redefine values, missions, and strategies. ■



## ISCTE adopts Quidgest's ERP SINGAP WEB



With over 10.000 students, ISCTE is one of Portugal's most successful universities. The communication between the scientific departments of each of the four schools – Social Sciences and Humanities, Management, Sociology, and Public Politics, Technology, and Architecture – generates unique opportunities for their students, who have nearly 100% employment rates. With about 300 lecturers, 390 researchers, and 270 non-lecturing employees, the education institute is proud of being one of Portugal's most dynamic and innovative institutions.

To better achieve its strategic objectives, ISCTE decided to invest in a new and more efficient enterprise resources planning (ERP). The modern system will speed up the administrative work (in the teleworking regime as well), provide indicators and reports promptly, and let Professors focus on their primary tasks: teaching and researching. The new management team, led by dean Maria de Lurdes Rodrigues, launched a public tender in 2019 to acquire a new ERP and, above all, specialized services, already under the new SNC-AP accounting standard – the new

accounting standardization system for public administrations.

Quidgest – and its innovative product called SINGAP-WEB, produced with modeling and automatic generation –, was the go-to player to fulfill these needs. This complex solution is suited for Financial Management, Logistics Management, Human Resources Management, Project Management, Contract Management, Sales and Services Management and enables report production in each area. It also involves creating interfaces with other applications, such as the academic management application. It will replace the old SAP on-premises solution.

For José Azevedo Rodrigues, ISCTE's vice-chancellor, "the complexity of the challenges ISCTE faces today, from globalization to digital transformation, from climate change to social, economic and territorial inequalities and crises, demands the continuous focus on the differential value of the programs. We believe that a new system, such as Quidgest's and its support services, can form the basis for us to pursue our objectives in a much more informed, rapid, and competitive way." ■



## Quidgest and OceanXbox partner to enhance solutions in the Health and Social Economy sectors

Since the end of 2018, OceanXbox and Quidgest are cooperating to create a joint offer of software solutions based on the development through models. Such solutions are aimed at the health sector - namely, social solidarity and, more specifically, primary care and home support.

This market, which is nearly run by public entities and private institutions of social solidarity, lives under strong efficiency and productivity pressure. "All the solutions that can contribute to relieve the administrative burden and improve management control with great flexibility and licensing values compatible with those of this heterogeneous



sector and, of course, with better care for the patient, are increasingly sought after", highlighted Miguel Martins, CEO of OceanXbox.

The Spanish market, Latin America, and the Miami region are also in this partnership's aim. The legal sector using artificial intelligence for legal support is another division the two entities intend to develop together. "In new developments, we want to count, first of all, with our partners. This is one of the strategic goals," said Carlos Costa, Marketing & Partnership Development Manager at Quidgest. ■



Miguel Martins, OceanXbox CEO and Cristina Marinhas, Quidgest CEO

# Baker Tilly and Quidgest launch the Xtreme Low-Code Competency Center



Baker Tilly is a multinational organization that provides services in the areas of auditing, taxation, incentives, outsourcing, consulting, corporate finance & transaction services, and information systems. Present in 145 countries, with about 35 thousand employees and 746 offices, it has an annual sales volume of about four billion dollars, ensuring a global range of skills and financial capabilities, accounting, tax, among others, of multidisciplinary and complementary scope.

Baker Tilly joined Quidgest to create a new training mechanism: the Xtreme Low-Code Competency Center. The automatic code generation platform - Quidgest's Genio - is the foundation of this partnership whose goal is the creation and rapid development of tailor-made solutions (100% designed to be used in web browsers and mobile devices) aimed at companies around the world. All this done in one tenth of the time and with one tenth of the common resources used in the software industry.

The center of excellence is especially engaged to the updating of technologically obsolete solutions, as well as to the creation of urgent, complex, and unique solutions. This is a differentiating and extremely competitive approach in Digital Transformation projects, an area in which organizations are usually under great pressure to move forward and implement.

The Xtreme Low-code Competency Center results from a careful market analysis that indicates a growing demand for this type of technological and procedural approach. Recent studies by Gartner point out that by 2021, at least 33% of companies will have implemented a multidisciplinary development platform to support web development, mobility and augmented reality. And, by 2024, 75% of large companies will use at least four low-code development tools, both for information systems development and citizens' development initiatives. ■

# Why Quidgest with Genio\*

FRANK OTTO | Partner at iCem Institut für Customer Experience Management (Germany)



*A future-proofed, flexible tech solution is crucial when considering long-term value. While it's important to think about the look and feel of a digital product, it's more important to choose a flexible solution that can keep pace with the ever-changing rhythms of business and learner needs.*

We had a project and the idea of the project was to replace an existing software. We're talking about a customer who was seeking to replace an outdated system delivering learning and training application. It's a German enterprise, having 100.000 employees only in Germany. It's a global player and there's 150.000 employees across the world. There are three CRM systems, all the three you know: Salesforce, Siebel/Oracle, SAP. They are all customized. Don't believe they are synchronized. They have different wordings. You book the same, but it's called different, it's very, very crazy. And it's customized, always lagging.

So, we said no, don't take a standard because this system has to survive. And we have to be fast if there are requirements that have to be implemented as fast as possible. Because if you talk about customizing standard products, you basically work in handcuffs. You take a car and you want to do something with the car and you cannot lose the frame of the car. You can't buy a Mercedes and replace the doors with BMW doors. It doesn't work.



If you customize it today, imitate things, that's the typical downside of those types of customization situations. So, we chose something that could be developed on a bespoke individual level and we landed at Quidgest and it was worth doing it. Then we started, and that's more a series of funny surprises because a little bit more than 1 month after the project started, Quidgest delivered a prototype. The client never thought this was possible, to enter with this prototype and for the prototype to survive. Since then we made so many changes. I think one of the programmers, who's not here, he can sing some songs about how many changes we were making. It was very fast. And this prototype turned into a regular version and it's still living.

The client has two existing Learning Management Systems. The main SAP system got one update and it was communicated as a huge change, just behind man on the moon, and they just managed that if you log in, it detects your department, so that you don't need to see all the 2000 trainings, but just the 400 relevant for you. Big deal. And the second standard application is trying hard to come up with an update: "oh, we program that way", "oh there's a change", "we have to take this into

account", "oh we have to write another offer, ok, you have to sign it off", "so this is ok then". And after 2 years they're still not rolling out the update. So, our situation is pretty different. Fast delivery of feedback combined with a strategical view on the next steps supports a productive and stable relationship with the customer.

All in all, using this technology, in fact gave us this flexibility and we are always surprised how fast and how flexible this is. And it's very different from hiring some programmers that are doing something for the first time and discussing it. It's a totally different world, so we can cope with a situation of this moving target because if we have a requirement and new ideas, 3 months later, at the latest, they are delivered, and people know, "ok we can discuss something, and we get it, they get it done", and it's coming in a timely way, and not after 2 years. Not like: "What are they delivering? Ah I remember. But this is outdated, we don't need it anymore, did someone tell you that? No. Oh ok, sorry." That's a waste of money. So that's some of the many benefits and people love it. ■



***"WORKING WITH GENIO HAS GIVEN A HUGE FLEXIBILITY TO THE PROJECT. ALL IT-PROJECTS ARE MOVING TARGETS. BUT IF YOU DON'T INTEGRATE FEEDBACK IMMEDIATELY, ANY SOLUTION WILL STAY A LAME DUCK."***

\*This text is an excerpt from Frank Otto's intervention as a speaker at the Q-Day Conference 2019

**FRANK OTTO** is a customer and learning experience passionate. He is a partner at [iCem Institut für Customer Experience Management](#), a network of experts and technology providers in the field of innovative customer relationship management. He has vast experience translating CX-strategies into digital talent development strategies and integrated learning solutions that support workplace learning. He participated as a speaker at the Q-day Conference in 2019, with the theme "A New World of Learning Systems".

# DEFUSING THE LEGACY BOMB

The business world requires software more than ever. The COVID-19 pandemic brought a shining light to the importance digital channels have on numerous business models.

Companies in which plans to adopt digital mediums were never on the table had to implement them quickly – this either enabled them to survive or thrive during these turbulent times.



## WHAT IS A LEGACY SYSTEM?

According to Gartner, a legacy system is an information system that may be based on outdated technologies, but is critical to day-to-day operations. Replacing legacy applications and systems with systems based on new and different technologies is one of the information systems professional's most significant challenges.

“Every business is a software business”, as Watts Humphrey, software engineering pioneer and dubbed the “father of software quality”, said nearly 20 years ago. Regrettably, only recently, decision-makers from various fields realized this. The rush to embrace digital channels without proper planning or strategy might have cut short its impact on businesses. But more than operating systems, companies need modern and agile core systems - the ones that allow them to swiftly pivot their strategy and make technology capabilities not a barrier but an enabler for transformation, and to quickly launch new products and services as well as comply with the new regulation.

The reality among big corporations is the technology used is often outdated. Organizations that were once early-adopters on enabling tech on their operations are now using legacy systems to control their businesses.

### THE LEGACY-TROUBLE

The existing large software systems were never built to cope with the current business requirements and its natural evolution, one of

the challenging issues in today's competitive environment. These computer programs are not flexible enough to continually evolve and eventually undermine companies' growth strategies.

To compete side-by-side with the top industry performers and attract and retain customers, leaders must adopt platforms that enable rapid innovation for their digital business initiatives.

Otherwise, more agile competitors will launch products and services and devour incumbents' market share.

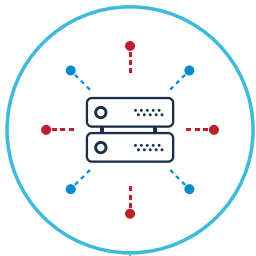
Modern applications that can potentially disrupt and grow businesses require new technologies and architectures such as cloud, mobile, in-memory computing, web-scale, micro-services, hybrid IT, and Application Programming Interfaces. This, by itself, is a challenge to traditional and legacy systems that do not support or run cloud-native applications, for example. Moreover, business leaders who intend to keep their legacy systems up and running will face barriers that will only rise as the years pass. The following three are just the tip of the iceberg of an endless list of problems companies are bound to face when sticking to legacy systems.



## 1.

### Skilled human resources

Skilled human resources who can work with obsolete platforms will only get harder and harder to hire. Most of the programming languages used in legacy systems are outdated, so much that university students are not taught how to operate them. Consequently, companies working with obsolete systems often have to rely on the few skilled human resources who can navigate their way in these ancient computer programs. This is a problem for two main reasons: they will not be able to bring new and fresh-minded programmers to work for them, and the skilled programmers that can operate the system will only get more and more expensive.



## 2.

### The absence of up-to-date documentation

The absence of up-to-date documentation makes the problem mentioned above even harder. Newcomers who joined the IT force will have to rely on the team members who already know how to cope with the system.



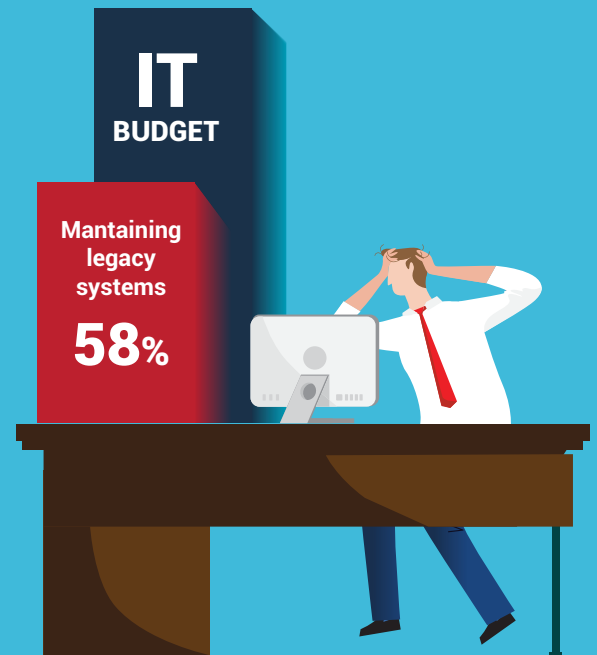
## 3.

### Lack of integration

Lack of integration is also a big part of the legacy challenge. The absence of interfaces and integration services carries a great difficulty to integrate with other systems. In turn, this means companies who want to innovate will most likely not be able to so.

**All in all, this adds up to costly maintenance of legacy system software since fault detection is expensive and time-consuming - due to improper documentation and consequent lack of knowledge about functionalities of the system (also the reason why these kinds of systems are standing still most of the time).**

According to Cybera, the average retailer spends 58% of the IT budget on maintaining legacy systems. And although the largest percentage of the budget goes to maintaining it, the system's evolution to provide new functionalities is nearly impossible, leaving little to no room for other innovative projects in the pipeline.



## A NATURAL EVOLUTION?

An Avanade study indicates that 80% of senior IT decision-makers believe that not modernizing IT systems will negatively impact their organization's long-term growth. Around two-thirds note that conventional systems and approaches typically used are not fit for solving digital businesses' emerging requirements.

On the opposite side of the spectrum, they also consider the modernization of core systems has the potential to boost annual revenue by over 14%. Additionally, business operating costs can benefit as well: respondents anticipate that business operating costs can be reduced by 13% with updated core systems. Nine in ten believe modern software engineering approaches and process automation technologies are vital to addressing emerging digital business requirements.

## With all this in mind, why are companies stuck to systems that not only are costly but are also dragging them behind their competition?

They may be unaware. Leaders can be behind without acknowledging it, which is the worst-case scenario since dramatic changes to their businesses can happen unexpectedly. It can also occur that previous systems implementations took so long decision-makers are afraid the next update will also be interminable.

Furthermore, there are often fears that prevent people from migrating to another platform. Data loss when migrating, high costs involved in the transition, and the lack of flexibility of the new system are among the mental barriers business leaders face when deciding on sticking to the same platform or updating it.



## A PRACTICAL CASE

New era businesses outpace legacy businesses at grander scale and speed, resulting in lower costs, faster delivery, and more significant technology usage. Traditional risk assessment approaches are too slow, too siloed, and unscalable to accommodate digital business deliverables.

The Banking industry is still one of the business fields that still relies heavily on old core systems. In the '60s and '70s, banks were the early-adopters of platforms that enabled them to report, centralize information about their clients, and access files. The most common programming language available was COBOL – it was created in 1959.

Here is the problem: since then, banks started to add business capabilities on top of these systems. Processes were developed to cope with the available mechanisms, and from that point forward, the whole operation relied on it.

COBOL was undeniably the state-of-the-art technology to use when The Beatles were still touring around the world, but more agile platforms appeared since then. The industry

seemed to ignore or be unaware of this until new and swift competitors started appearing with better user experience and customer support, and seamless control over assets.

Revolut, for instance, is a fine example of where this happened. Ever since the business was found in 2015, the London-based fintech scaled its operation worldwide while promising customers better and additional services, account tracking, and the ability to trade currencies at a minimal cost. Fast forward to today, the more than 12 million users are now able to trade cryptocurrencies and stock over a mobile app.

The laggards will struggle to keep their systems operating and continuously lag if nothing is done. They can always keep up with their old weapons, but the implementation speed is far slower due to their legacy systems.

But even if the new players have the technology upper hand, they must follow a continuous innovation approach and adopt new technologies. Otherwise, the path taken will be identical to that of incumbent banks.



## MOVING FORWARD INGENIOUSLY

It can be hard to find a platform that enables continuous innovation. The exercise of keeping updating technologies can be, among many other aspects, hard to accept by decision-makers, prone to losing data in the transition, and expensive. This is why we believe we have the best solution in the market to update legacy systems. One that promotes continuous and everlasting innovation.

**Quidgest's principles and vision are based on software engineering that uses a model-driven approach propelled by Genio.**

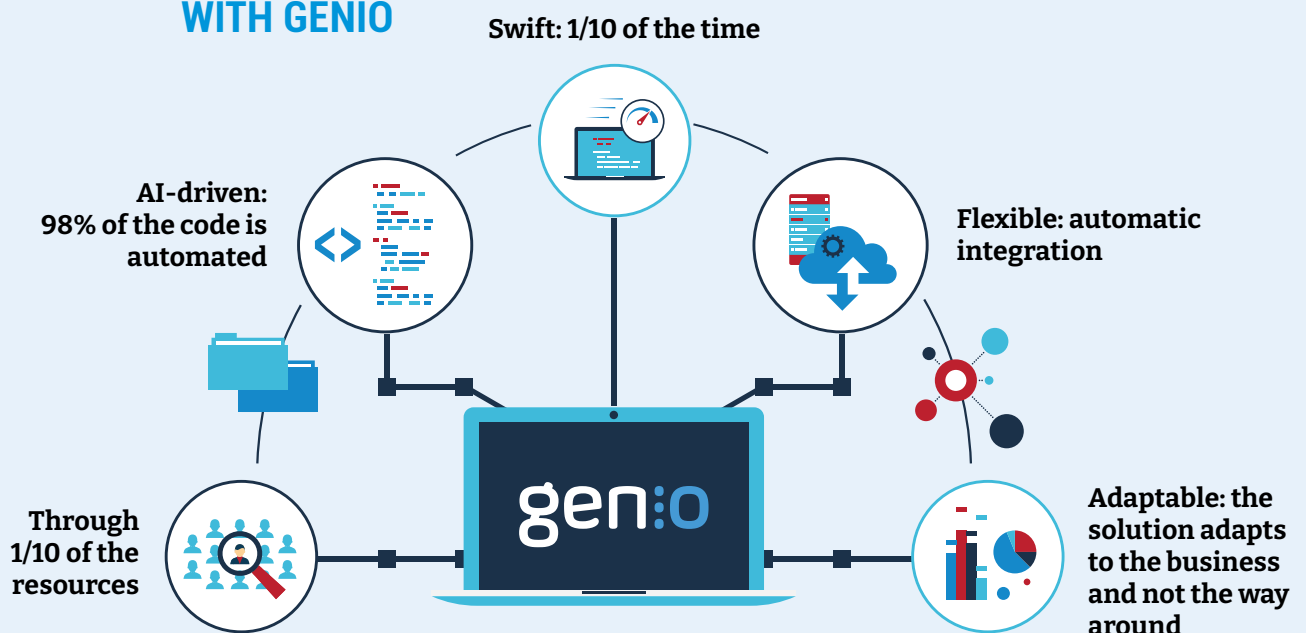
This means that we use patterns instead of code, which grants us (and our clients) technology independence

– code languages are ephemeral, but patterns are forever.

We address every single fear that organizations may have when retiring their systems. That is the case with data loss. As stated previously, business leaders are often terrorized by the potential of losing information. To make sure this does not happen, our team lists all the essential data needed for the system to operate, and - with close collaboration with the client - we migrate everything from the old program to the new solution.

Additional to the maintenance costs and the revenue boost new core solutions provide, Quidgest has a state-of-the-art solution for a fraction of our competitors' price. We charge no bills for annual licenses, number of users, volume of data stored, or by the number of functionalities used - to name a few examples of what is usually charged by most IT providers.

## UPDATING YOUR CORE SYSTEM WITH GENIO



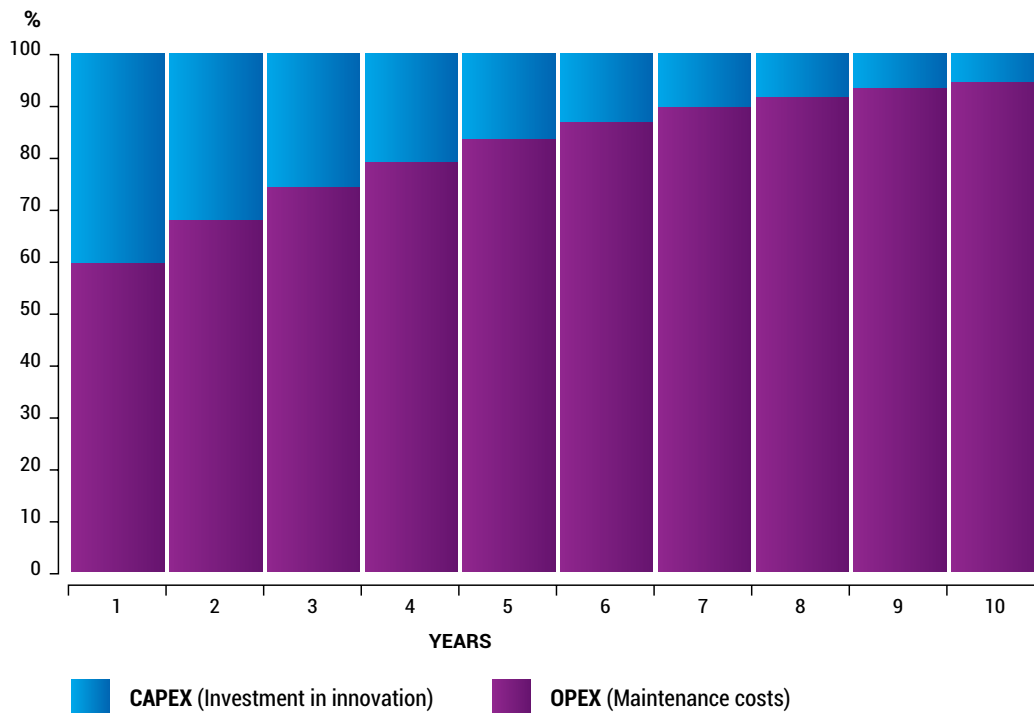
## OPEX & CAPEX FRIENDLY

As seen above, a great part of the IT budget is still captured by the operation and maintenance cost (OPEX) of old systems. This prevents capital expenditure (CAPEX) on benefits that will guarantee a growing and innovative operation.

The operation and maintenance costs are up to 10 times more economical in new systems. Through our methodology, with a small CAPEX investment, obsolete management

software applications are converted into new solutions which are already equipped with the latest technologies. In practice, we migrate technologically obsolete solutions, recreating them with all their features in the most modern technologies, architectures, programming languages, and development methodologies proven to be more efficient.

Technology is essential, but the way businesses operate should not depend on strict technology rules.



**Gartner states that business leaders should “focus on the application of technology and not on application technology”.**

**That is the mindset that must prevail among organizations’ leaders to achieve tremendous success and deeply understand where and how technology can generate real value.**

# LUSOPONTE

MORE AGILITY  
AND ACCORDANCE  
WITH THE GDPR



## **The General Data Protection Regulation (GDPR) brought a lot of challenges to organizations. Companies that deal with large masses of private data are the most affected since they must ensure the integral security of their customers' information.**

This was the case with Lusoponte, the concessionaire of the two main bridges over the Tagus river, which are crossed by over 36.5 million vehicles annually. With the advent of the GDPR, Lusoponte sought to meet the European Union's new standards and created the role of Data Protection Officer (DPO). The current person in charge, Pedro Oliveira, recalls that after turning to consultants and legal and technological partners, his team concluded they needed support from a software to achieve the objectives and comply with the new European demands.

"At the time, we consulted with some companies, and Axians advised us to move forward with Quidgest."

The solution, which consisted of two modules: Data Protection Management and Data Subject Management. The integration, which also involved the analysis of data from the evaluation carried out by Lusoponte, as well as the migration of data from the GDPR measures, information processing activities and repositories, allowed for greater information sharing and easier control and monitoring of

data by multiple users

Although the primary objective was to comply with GDPR, Quidgest's went far beyond that. The new solution provided Lusoponte's team with a new work agility and efficiency. Some of the most useful updates highlighted by Pedro Oliveira are "the process extraction of the tasks that were defined in the risk mitigation plan" and "the ability to deliver annual reports to management more quickly". Such tasks that previously had to be done manually, the team is now able to automate.

Along with those benefits, Pedro Oliveira also points out the system enabled outstanding communication between services, elimination of parallel information, faster speed in the execution of operations, and a reduction of errors through validation and automatic filling mechanisms.

With the implementation of the two modules, the Lusoponte team is set to meet all the objectives defined at the start of the project and overcome the challenges it previously faced and which Quidgest set out to solve.

**After implementing the Quidgest system, according to the DPO's estimates, the operation costs will fall between 20 and 30 percent. He also adds that Quidgest consultants explained the whole process in a language "down-to-earth to the entire team, even to people who are not technicians", and showed "quite a lot of goodwill and even more than what we had asked for." ■**



# INTEGRATED TRAINING MANAGEMENT SOLUTION





**Training entities need adequate methodologies and tools to ensure their sustainability, while maximizing the know-how of their clients. The Integrated Training Management Solution is the most competitive and functional solution in the market, with no user limit and no annual renewal.**

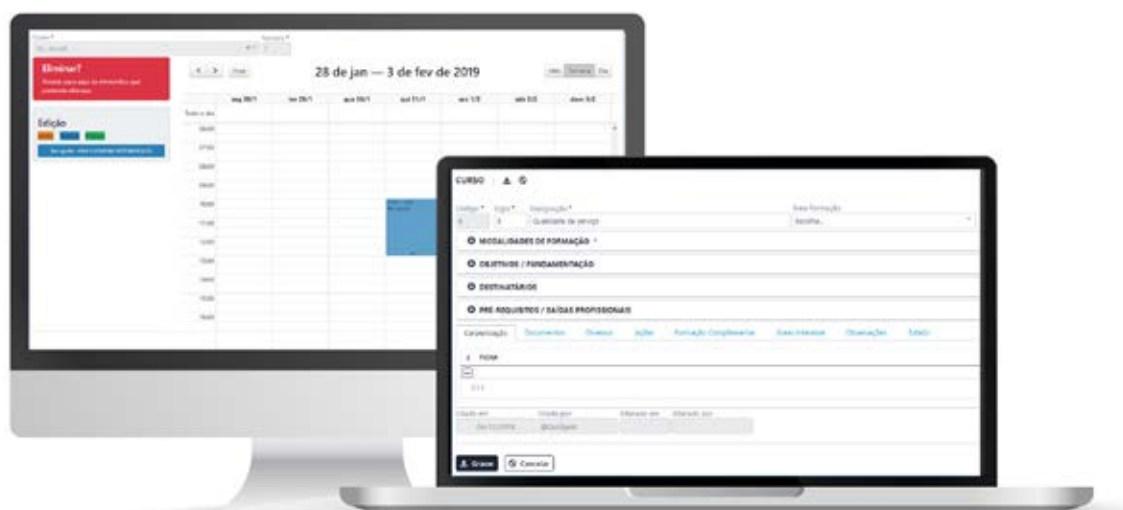
### Training entities: certification challenges

Knowledge has little value if it is not accessible and not recognized as vital. However, to be transmitted effectively, certified training entities must be the ones lecturing it. The certification of these entities depends a lot on them having structures with adequate human resources, facilities, and equipment – hence the exciting potential Integrated Training Management Solution has to transform these entities entirely.

### Quidgest's Solution

Developed to promote a solid technical and behavioral training in a digital environment that reflects the expectations of technological modernization, Quidgest's system is a fully web-based tool that simplifies the implementation of all processes related to training, whether private or corporate, funded

or unfunded. It is also worth noting that the fully responsive platform layout allows appropriate navigability for mobile devices. The system does not depend on third parties for its maintenance and continuous growth, and the level of updates allows a quick adaptation to new rules and legislation. Furthermore, it enables any entity to monitor and control the training cycle's entire workflow. It not only ensures greater efficiency of training processes but also access to reliable information in real-time, reduction of the administrative burden related to the insertion and processing of data, control of human capital, through the clear perception of the profile and work developed by each trainer/employee, as well as increasing the productivity of trainers and trainees - the trainer, trainee, and customer portals guarantees its users simple, fast, and effective communication between their various stakeholders.





## MAJOR ADVANTAGES

### **Management of real needs:**

Better identification of training needs;

### **Optimization of internal communications:**

Integrating all training components in a single process. Departments work on the same system, with coherent and permanently updated information, and can also receive information through a web portal;

### **Optimization of external communications:**

Timely dissemination to potential trainees to enroll in training actions. The tool also facilitates the registration process;

### **Budget management:**

Possibility to control and monitor the annual budget;

### **Performance promoter:**

Administrative data is integrated into a common database, with information shared by the departments, so that there is no need to enter the same information repeatedly by different users of the system;

### **More efficient management of registrations and queues:**

Automation of documentation, distribution of candidates, selected by the respective courses, the inclusion of trainees' preferences, creation of waiting lists;

### **More significant cost rationalization:**

Drastic reduction of time with the administrative processes inherent to training management;

### **Efficient human capital management:**

Clear perception of the profiles of trainers and trainees, as well as the activities developed by each one of them;

### **Encouraging the development of a continuous improvement culture:**

Valuing trainers by integrating their evaluation into the system. Evaluation allows an adequate allocation of human resources in future sessions;

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Valuing trainers by integrating their evaluation into the system. Evaluation allows an adequate allocation of human resources in future sessions;

### **High capacity to integrate and share information:**

Due to their flexibility, the systems related to the Training Management solution can be integrated with Quidgest's software or with other suppliers' systems;

### **Communication with the Integrated Information System of the European Social Fund:**

The Training Management Solution can be integrated with the Human Potential Operational Program. This functionality allows training entities to automatically (and without the duplication of efforts) to export all the information required in the context of European funding of training actions;

### **Differentiated access:**

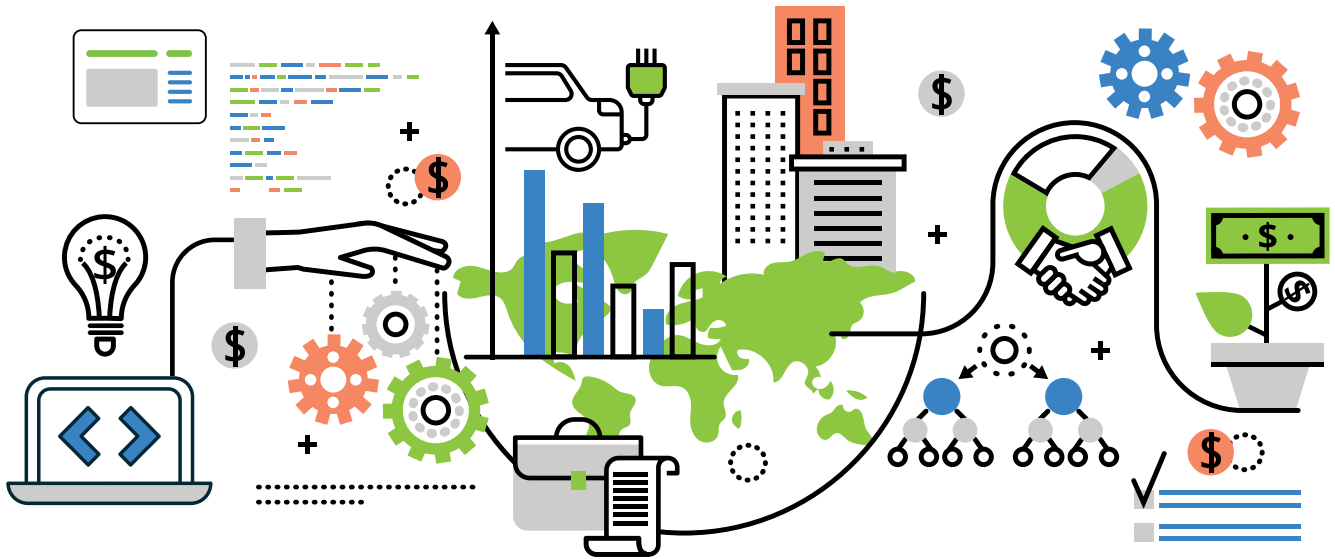
The system preserves the security and privacy of the information. The user will be able to define several data access profiles through individualized login, guaranteeing confidentiality and differentiated access to data;

### **Easy-to-use and visualization interfaces:**

The system is easy-to-use and navigate, contributing to reducing learning efforts.

# Legacy fuel, modern low-code hybrid or hyper agile electric?

CARLOS COSTA | Marketing & Partnership Business Development Manager at Quidgest



***Nicolas Tesla allegedly told Henry Ford that he did not believe that people wanted to travel with an explosive liquid tank next to them. He was wrong. Profit from oil dictated the rules and convinced people that there was nothing to do. For over a century! Strange, isn't it?***

During the last 100 years, combustion engine cars have dominated the world. They have fed and continue to provide many businesses and families, but the environmental damage they have done and still do is incalculable. Toxic fumes, noises, oils, many mechanical parts, heavy maintenance costs... The list is endless. For many years, we have had the technology to change this, to make our car fleet simpler and more environmentally friendly. But the "interests" installed in this industry have stopped this change via all marketing means at their disposal. Over time, they have managed to adapt to the constant threat of electric vehicles (EVs), which, I am not sure if you know, were invented first than combustion engine cars.

With quieter engines, less polluting fuels, and, in the last few years, even with a start-stop, to give the idea of environmental friendship, legacy fuel cars have recently reached the maximum exponent of this schizophrenia with hybrids.

## **“I HAVE 200 PROGRAMMERS, AND I NEED 300!”**

*This is what a CIO told me a long time ago. “No! You only need 100!” - I answered him. And while I briefly explained the advantages of model-driven hyper agile development, he gave me his card to set up a meeting.*

Yes, a car with two energy sources and two types of engines, with significant autonomy and low consumption, to shut up once and for all those who defend this EV thing. They were wrong. The founder of the company Tesla, producer of the most famous EVs globally, is today the richest man on the planet. And the entire automotive industry is in an unprecedented deep wave of accelerated electrical transformation, trying not to lose the comfortable position it has held for so many decades.

**The software industry is also experiencing a similar situation. The “combustion software” will be all that software made in ancient languages. That is the case with Cobol, Clipper, Fortran, and more updated languages, such as C++ and Java. These are often delivered in fixed packages that evolve very slowly at the producers and will not meet the client’s specificities.**

That is a massive business of resellers and integrators who give a few touches around them to provide the illusion of customization. With the constant changes in business and technology, everyone (as in the software producer market) wins more money. The client believes there is nothing he/she could do and pays what is necessary without protesting too much, just like endlessly sitting on a deposit of explosive fuel protesting, but without leaving. Recently, just like in hybrid cars, some fast development platforms, better known as low-code, have appeared to create these customizations around the packages. A schizophrenic state which keeps the whole software business ecosystem on the rise, with low efficiency, high costs, and rigidity of change for the primary and most important stakeholder: the client. Suffocated by the pressures of digital transformation, the CIO calls for more money and resources for its software development teams, when it should and could substantially reduce them,



increasing the application development and upgrade process's effectiveness. For many years now, there have been modeling and automatic code generation platforms that allow a different approach to delivering software solutions, as is the case with Genio from Quidgest - just like EVs, who are much faster at start-up, and more user and manager friendly. This platform has more than 30 years of continuous improvement, using artificial intelligence, modeling, and automation concepts that make it unique in the market. The solutions produced by Genio, from a model, can be more easily and quickly modified, both during the creation process and when already in production in critical environments. This is probably the only company in the world that does this and resists the traditional approach of core package software with "hedgehogs" of applications around it. A more conservative banking manager, for instance, continues to look for peripheral software solutions and apps for smartphones, without considering changing the banking core or its ERP, where the highest costs and risks grow – in other words, where there is more combustion. Probably only Quidgest

has the technology to propose such a change. Without great risks. However, only the most daring reach the stage of asking for a proof of concept. The others prefer the old pistons, connecting rods, exhaust pipes software, or, with modern tools like low-code, invest in hybrid software.

But free competition does not forgive. Sooner or later, those who can do more with fewer resources will pass before them. And we will all live in a more efficient, higher quality, more sustainable, and user and business manager-friendly hyper agile software development environment.

It is worth nothing that model programming is a disruptive leap of innovation, just like EVs, and needs to be looked at differently. As Professor and author Oren Harari said, "electric light did not come from the continuous improvement of candles". Candles have their own space and so do the hybrid lighting processes of wax and electricity. In the world of software, it's the same. It's time to jump into increasingly efficient and economical electrical lighting. That is, by analogy with automobiles, to hyper agile electrical software. ■

**Quidgest**

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