# Continuous Renewal

**FERNBACH**
simply better financial technology

**What is your modernisation strategy – A "big-bang" project to introduce a new software package or a constant upgrade of the existing system?**

**We can recommend a third option. With our "Continuous Renewal" project method, the project risks are smaller and success is faster and more customer-focused. You will receive a manufacturer-independent, state-of-the-art component system.**

## Why are we discussing this right now?

Banks are increasingly focusing on their lending business. Perhaps this is because margins in other areas are falling away, which is why "credit" – in whatever form, i.e. consumer credit, corporate credit, overdraft facilities, mortgage loans, etc. – has experienced a renaissance. In 2020, we live in a time when we can no longer be certain that a satisfied customer will remain with us and continue to shop with us. Today, the customer is always right. They decide on the type of business they want to do and who to engage with. And here, special conditions – i.e. lower fees – and/or the next super-cool gadget are usually much stronger arguments than a relationship of trust that has grown over many years, as was the case in the past.

Regardless of this, we are constantly confronted with new regulatory. With the *EBA Guidelines on Loan Origination and Monitoring*, the next big chunk is just ahead.

Another challenge comes from within the organisations. Almost every bank is currently required to optimise its cost/income ratio, to improve efficiency further and to reduce costs again.

At the same time, sales departments are required to sell more, while more and more attention is being paid to the issue of risk management (e.g. against the background of the reserve funds to be built up). If you believe the *Accenture Top 10 Banking Trends 2020*, then banks are entering into a massive dilemma here, because it is expected that impairments will increase by 5-6% per year until at least 2020. Given the corona crisis, this estimate seems rather conservative.
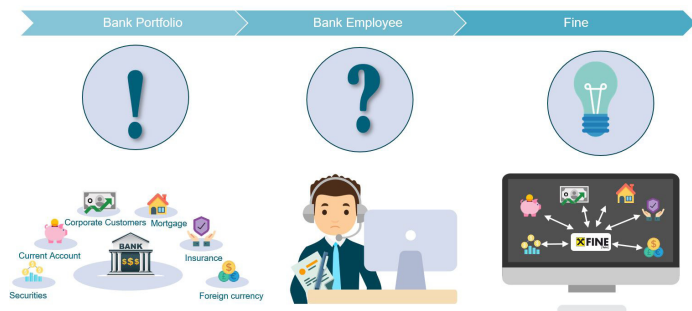


In the credit sector, we are mostly talking about traditional expert systems. Yes, still! This means that a bank employee acts as a "brain". Such an expert must know the products that are available and the fields that have to be entered for the banking product in question – and how to do this.

Lending systems are also traditionally deeply embedded in existing IT infrastructures. This means a huge amount of interfaces and services that need to be maintained. It also means that if any feature is changed or a new one is integrated, that feature must be tested with all corresponding services, and all components have to go live together.

All of this leads to complexity. A lot of complexity. And experience has shown that, for example, due to retirement, the number of experts who can master this complexity is steadily decreasing, while it is very difficult and costly to familiarise new employees with it. Against this background, it seems not surprising that many institutions are currently dealing with technology issues in the area of lending.

However, when we talk to customers or prospective customers, we regularly find that there is often uncertainty about how a project needs to be implemented, what are the concrete objectives, what priorities are to be set, etc.

## What options are available to you?

Let us take these thoughts a step forward. Suppose you have already made the decision to do "something". Then there is the question of "how?". Would you prefer a big-bang project – that is, a kind of a "big", revolutionary, replacement project, or rather an evolutionary approach – more step-by-step.
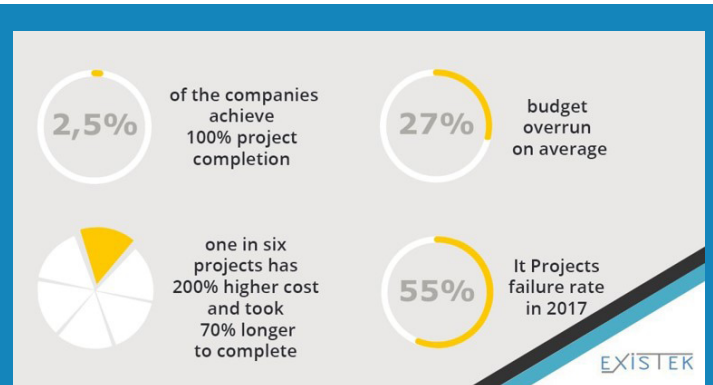


Both alternatives are quite valid options and have advantages and disadvantages.

In the case of a big-bang project, you definitely have the opportunity to throw the legacy overboard in one fell swoop and enter a new era. However, we do not wish to deal with the huge costs and risks that go hand in hand with this kind of large-scale project.

One main drawback of this approach is that a large-scale project often takes three to five years to implement while the existing systems are not developed any further. This is equivalent to an incredible sales disadvantage since it usually takes more than five years until this drop in sales can be compensated for by the customer and the market.

The situation is naturally different with a flowing migration. Nevertheless, we advise our customers to adopt a smooth transition ("continuous renewal") – simply because the project risks and the total costs are much lower, according to our experience, and that a step-by-step approach quickly results in encouraging success.

Moreover, it is undisputed that over the years a great deal of manpower has flowed into existing systems, and therefore it does not make sense to make all this obsolete in one fell swoop. On the contrary, we advise our customers to build on this kind of stable basis and to continue using the existing potential on the one hand while optimising it by the addition of modern innovative technologies.

## The essential cornerstones that must be observed

Our clear recommendation is to move away from a traditional expert system and rather focus on the customer, his concrete situation and his needs.
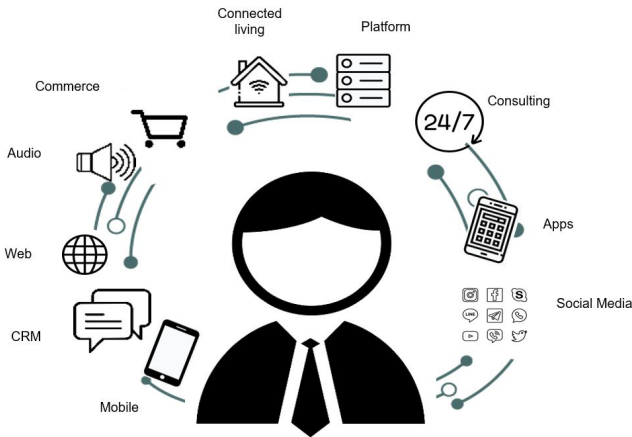


We clearly recommend moving away from a traditional expert system and focusing on customers, their actual situation and needs. This means being able to provide customers with a complete picture and a suitable service across all channels and in real time. Regardless of the channel through which a customer contacts an institution, he/she should feel welcome – whether he/she interacts with an employee in the branch or is active independently via an electronic channel (e.g. web and/or mobile banking).

Figuratively speaking, we recommend a virtual three-way division – namely between the communication channel, the "depot" of the available products on offer and completely separated from the processing platforms operating in the background, where the products – e.g. a mortgage loan – are then actually being processed and accounted for.

Such abstraction layers make a modern modular design possible – including the possibility of generating and receiving all the services required in the "suitable" places in the process. This prevents, for example, the need to generate code redundantly. A credit calculator is simply a credit calculator. It can be used several times if the services are available to access it – without having to have several of the items available.

Ideally, such a solution is accessed via a web browser while experience has shown that most customers use their available technologies in this case anyway, and want to integrate specific masks easily.
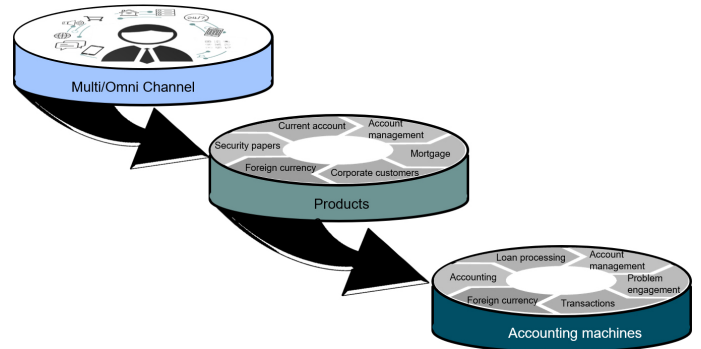


The rules are defined in the business layers. So, put simply, the timing and the nature of the processes that have to be implemented are determined.

As already mentioned, we advise our customers to continue to use the systems and processes that work well and to integrate them into a new architecture. This can be said for all technologies even if they are twenty years old.

A few examples of what this might entail include the credit calculator, printer connectivity, product configuration, collateral management system, etc. From our point of view, it makes little sense to reinvent the wheel here – unless there are good reasons. Then, of course, there is no objection. But "less is more" should always be the motto.

Another strategic advantage of this type of architecture is the fact that the integration of third-party systems (e.g. systems of intermediaries, consultant workstations, chatbots, etc.) can be carried out very easily.

Of course, this also applies to various portals for Customer Self-Service – via web or mobile banking. A bank can always control the functions that the end customer can access and/or use. In practice, this brings not only added value for a bank's customers, but also particularly significant cost saving for the bank– especially when the entire credit life cycle is considered, i.e. not just the application process.

Because the reason being: By answering questions such as how long a loan will continue and/or when the next instalment is due, the bank actually only has additional expense – without generating any revenue.

As mentioned earlier, we recommend adopting a clear focus on prompt success. Therefore, a quick win. Ideally, this takes the form of innovations that either increase the added value for the end customer – that is good for sales – or that can help reduce costs and potential risks.

In order to achieve this, we also recommend splitting an entire system or a total platform into several cycles that are determined by a bank's go-to-market strategy. This ensures that work can be carried out in parallel in various sectors – e.g. chatbots for loans, web loans, special financing, etc. – without one unit being blocked by another.

Moreover, individual teams and people no longer need to understand the whole system – the logic required for this lies in the system itself. All in all, you gain a very agile approach with short but specific test cycles and therefore the quick wins required.

**Next a few words about technology:**

It is a given fact that we consciously rely on state-of-the-art technologies that represent market standards and that are open enough for customers to become active themselves – i.e. without our intervention and/or contribution.
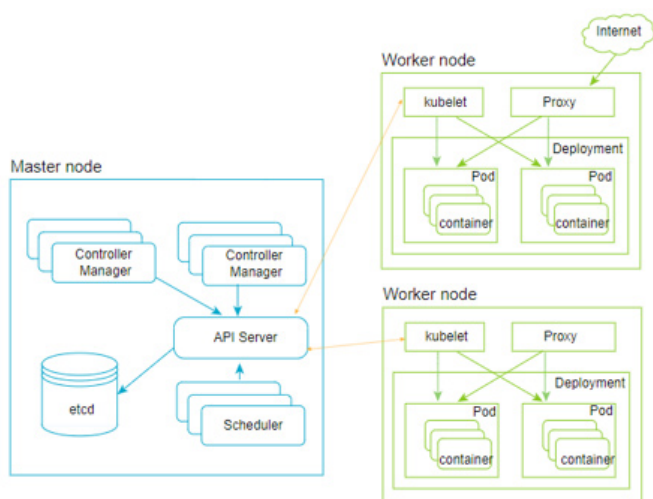


An essential building block is Kubernetes, which we use for orchestration purposes. In principle, this means that a master node - quasi a main instance - controls and manages any number of worker nodes. This provides a fail-safe network for the various services required for the final application solution. Each node is itself divided into so-called pods and containers.

The container forms the smallest unit of services. Each individual pod or container can contain different technologies from different manufacturers, which in turn results in complete flexibility.

In simple terms, the pods are business applications, which in turn

consist of different components/services, in this case equivalent to containers.

Our communication standard is Restful, which enables very simple, standardised and flexible communication between components and containers that are not known to each other. The technical service provided can be used via the respective Restful interface. It is also a prerequisite for decoupling the individual development techniques – and thus makes it possible for old systems to be gradually integrated.

We use OpenAPI as an open and standardised documentation format. We use Swagger as a tool because it offers a very helpful infrastructure. For example, this allows for uniform documentation for all parties involved – and, for example, each unit can develop and test its interfaces separately from the others.

But now to the question that probably interests you most:

**What does this mean in concrete terms for you or what real benefits can you get from our findings?**

With our FlexFinance software, we at FERNBACH offer a component-based solution that covers the whole credit process, including loan applications, management, accounting, bank management, reporting and optimisation of business processes.



This solution can be installed and operated as a whole or in modules. The great advantage is that customers start with a component that is precisely tailored to their requirements and thus complements and optimises the existing infrastructure.

This means that significant added value is obtained within a very short time and at manageable expense – without a "large-scale" project. At a later date, additional components can of course be installed successively if the customer thinks it necessary. But there is no need for that.

## Why do this anyway and why now?

The benefits are obvious and we have already mentioned some of them above. The primary benefit here is the fact that no systemic revolution is necessary, but that great success is achieved through small steps – or in other words little bites that are easily digested.

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The bottom line is that with this approach we enable our customers to benefit optimally from agility, flexibility and efficiency in a way that avoids the risk, cost, and implementation time of a big-bang project.



For example, we know of a bank that has managed to reduce its processing costs by 85% by introducing a new technology in the credit sector, reducing processing time by 90%, while at the same time increasing positive loan applications by 40% – which, overall, pleased not only the CFO of the bank, but also both end customers and sales!

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