

Composable banking

The transformational approach that treats change
as a constant



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The future of banking is a moving target

Over the past years, an increasing pace of change around three main factors triggered incumbent banking players to rethink the way they operate.

Customers

Globalisation and socio-demographic evolution generate significant changes in the profile of the client, triggering demand for new products—extended digital offering, service aggregators, cross-border payments or remote advisory.

In addition, companies and individuals demand the same high-quality experience they are used to from other service providers like Amazon and Netflix. The customer of today expects knowledge and expertise available at hand in combination with an easy, quick, and effortless experience.

Technology

AI solutions constantly become smarter and faster. Therefore, elegant, automated processes are the new standard. This contrasts with the technology costs and development pace of incumbent banks.

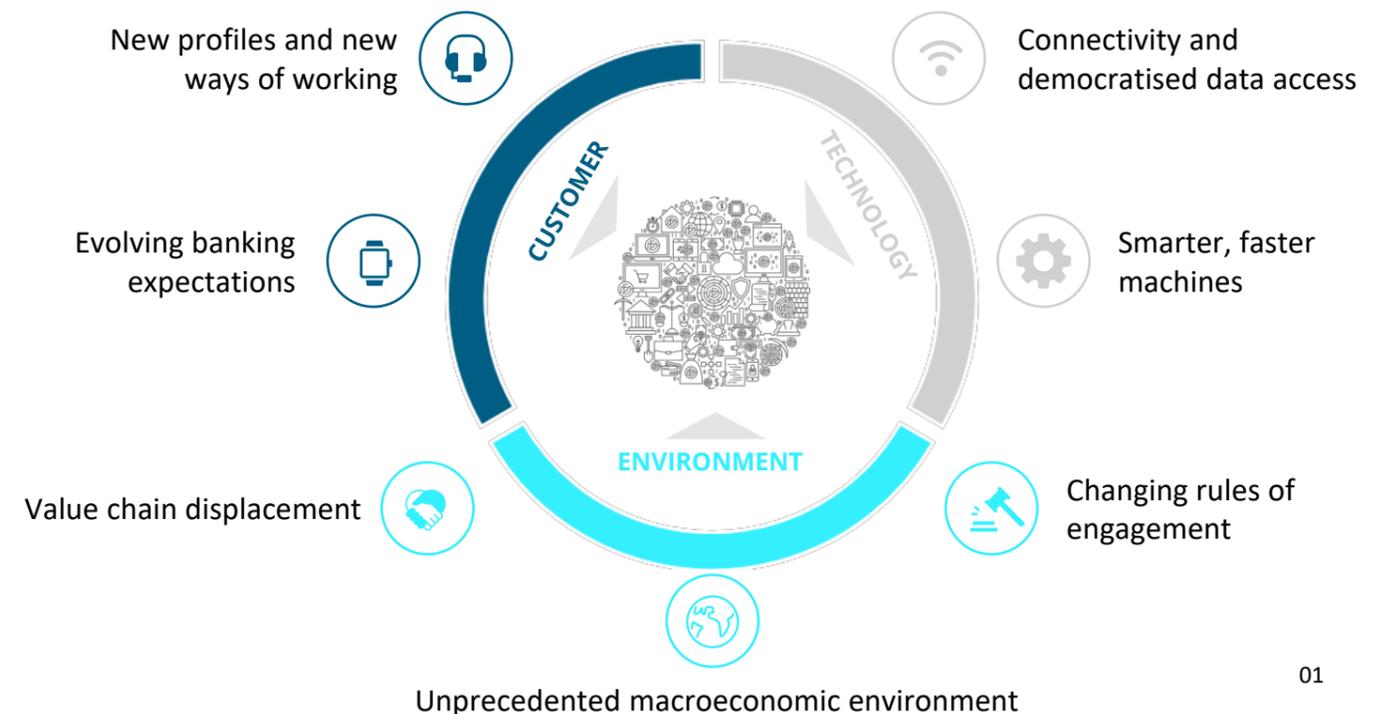
In addition, democratisation of access to financial and non-financial data is increasing the ability of non-bank third parties to offer competitive financial products and services to companies. Established players require the ability to adapt in order to stay relevant within this highly competitive environment.

Environment

The current macroeconomic conditions delay investment decisions and pose a huge threat to the sustainability of the current banking business models.

Non-traditional players found their place within the banking ecosystem and started to compete directly with established banks via innovative financial products and services, challenging them on key value chain activities.

On the regulatory side, the scope and role of regulators at jurisdictional level are evolving in light of activity-based regulation, emerging sources of risk, and the entry of non-bank players into the ecosystem.





Flexibility enables neobanks to embrace the changing environment and disrupt the status quo

Non-traditional players and neobanks like Revolut or N26 are growing fast by offering seamless and easily accessible digital services. These players possess the business agility to quickly adapt their product line and offer it through scalable channels, with the customer at the centre. This flexibility towards the customer is enabled by the flexibility of their internal systems

Inspiration for established players?

Established players can rely on key strengths such as brand recognition and trust, a strong customer base, extensive customer data, a high level of compliance with regulations in place or a strong balance sheet to compete in the market. Yet, a lot of these players are challenged by the lack of flexibility of their architecture landscape which prevents them from accelerating their pace of transformation and support their latest strategies to stay ahead in an ever more competitive market.

Deloitte identifies four transformation approaches that meet different strategic purposes and priorities. This paper will further elaborate on how the recent trend around composable banking solutions aims to address the current, but also the future challenges of these organisations.

N26

- Founded in Munich in 2013
- Full banking license
- Servicing +7M customers in 25 countries and +100K customers in BE

KEY STRENGTHS OF ESTABLISHED PLAYERS

-  Brand recognition and trust
-  Strong customer base and extensive customer data
-  Strong balance sheet and proven profitability
-  High level of compliance with regulations in place



Legacy modernisation



E2E package implementation



Composable banking solution



Business process outsourcing (BPO)

Relevant for systems with high unamortised value and/or highly customised functionalities that differentiate them in the market that they want to keep.

Relevant for IT-driven E2E replacement of the legacy aiming to reduce costs, simplify the architecture within an agreed time frame, and adopt out-of-the-box functionalities of a proven solution.

Relevant for value-driven business transformations aiming to build differentiating customer experiences whilst setting up a future-proof, flexible and cost-effective IT landscape.

Relevant for non-strategic activities to optimise cost efficiency and availability of technology expertise.



Modular does not mean composable

Banking system vendors have been touting modularity for years. What they really mean is a predefined suite of proprietary modules that extend the functionality of their core systems. They are extensible but they are not flexible nor open. An apt metaphor is the jigsaw puzzle piece vs the Lego brick:



Modular

- E2E core banking system provided by established SaaS vendors
- Functionality of core can be extended by adding architecturally separated modules
- Choice of modules is limited to what the vendor (or his ecosystem) provides: the system is not open or flexible

Result: A set of puzzle pieces (modules) that can be combined into **one, predefined picture**, with limited possibilities to change a piece for a better one.



Composable

- Core banking engine coordinates a set of independent components through open APIs
- Functionality can be extended by adding or swapping components
- Choice of components is unlimited: any player can integrate with the system

Result: A Lego structure where blocks (components) can **easily be swapped for best-for-purpose solutions**, allowing you to flexibly compose your future-proof solution landscape to design differentiating customer experiences and address your specific market needs.



Introducing composable banking

“ Composable banking is an approach to design and deliver financial services that is based on the rapid and flexible assembly of independent, best-for-purpose systems. - [Mambu](#) ”

ADVANTAGES OF COMPOSABLE BANKING

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High flexibility and scalability
Composable banking gives you the freedom to quickly combine and recombine solutions whenever you need to.
- 

High speed to market
Get new products or whole new banks to market in months, not years.
- 

Low vendor dependency
Unlike package implementations, there is no dependency on a single banking suite vendor.
- 

Low total cost of ownership
Composable banking requires fewer resources, no big capital investments, and comes with low maintenance costs and automatic upgrades.
- 

Hyper-personalisation of client journeys
The endless ways to recombine solutions allow you to compose your banking system to your needs and hyper-personalise your client journeys.
- 

Best of breed solutions
With many solution vendors in each functional domain, you can easily select your best-for-purpose solution.
- 

Future-proof technology
Composable banking does not create the legacy of tomorrow. There is no need for big transformation programmes every 10-20 years.

The principles and tech that make composable work

Ecosystems beat pre-integrated suites

No single vendor can innovate on every front as well as an extensive ecosystem of vendors, each dedicated to one thing. Need a cross-border payments solution? Choose one of several specialists. Fintech is your friend.

Everything must be open

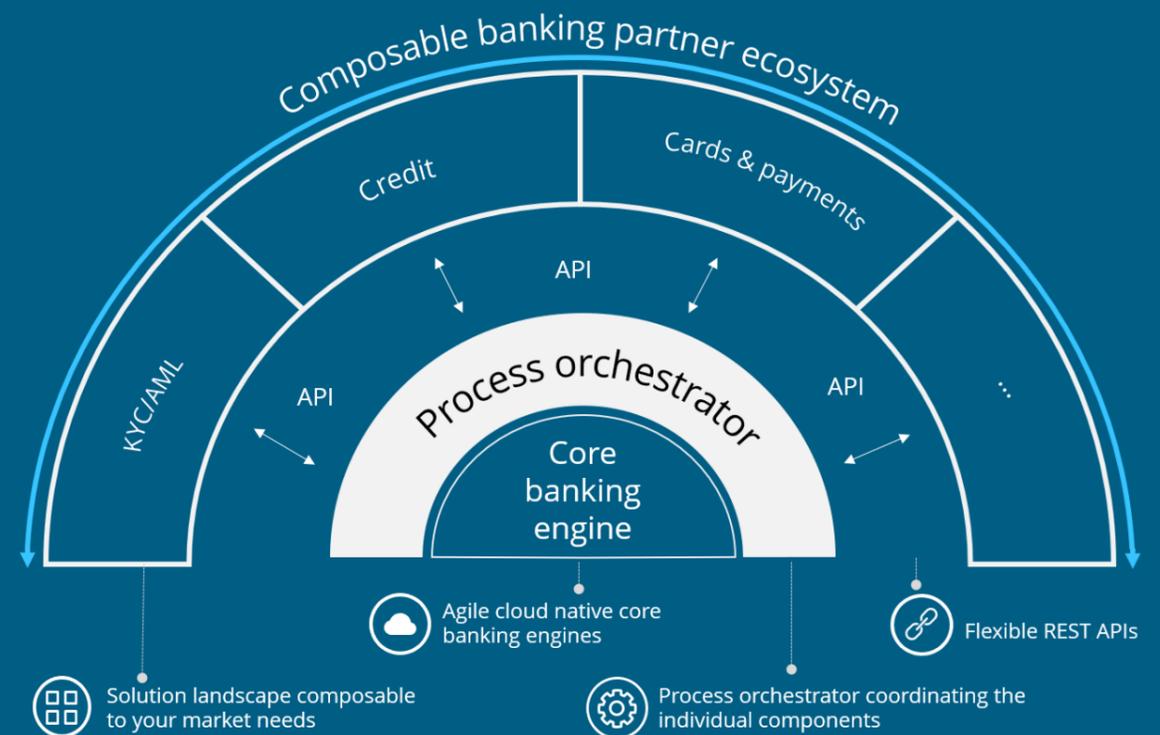
Open, easy to integrate modules are essential for composability. Closed modules severely restrict agility. A risk assessment application needs to be able to easily call out to an AML module or a KYC service.

Configuration and testing must be easy

Developers need to be able to work with open, public APIs and access existing developer forums. Every component must be easy to trial and test. In addition, turnaround times for error reporting and support need to be fast.

Independent and secure

Each module is independent, secure and takes care of one specific business process. So, for example, a payments engine handles the entire payment process, and an authentication module handles authentication only.





The solution landscape

Solutions

As stated in the principles, composable banking leverages the best-of-breed solutions available on the market. Instead of relying on an E2E solution provider who cannot be the best in everything, a composable set-up gives the opportunity to explore the market and select the best-in-class lending, payment or asset management solution. As shown on the wheel below, the solution landscape is diverse and dominated by Fintech players often focusing on a single functional capability. A combination of different solution providers enables the required flexibility to compose a future-proof solution landscape based on specific market needs. The criteria that could be used to properly select a certain solution provider are further discussed below.

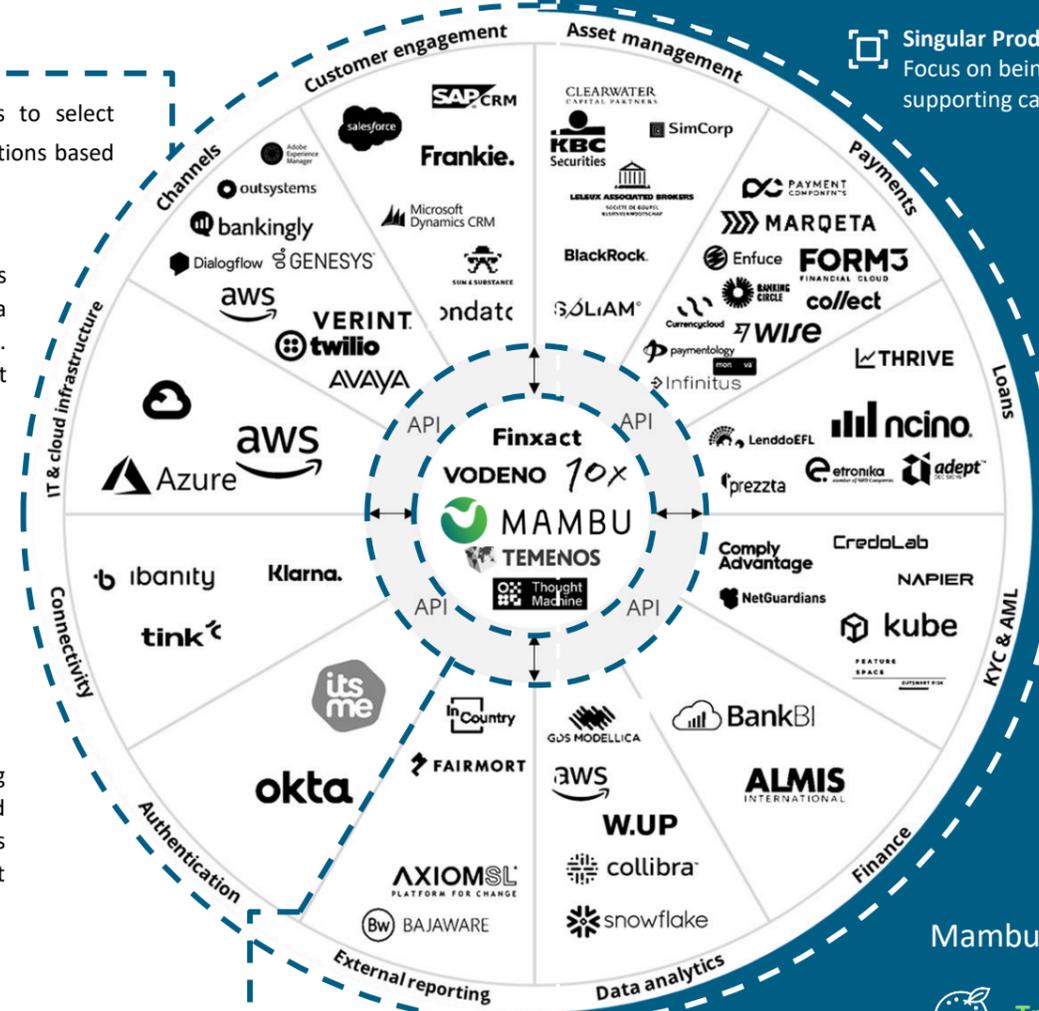
Solution selection process

When composing a future-proof solution landscape, having a robust process to select solutions is key. Deloitte has built an extensive assessment method of these solutions based on four main criteria to support its clients in making the right choices.

- 1 Functional coverage**
 A key factor to consider in the solution selection process is its functional coverage. When mortgages are your core business, a lending solution that offers no support for them is of little value. Especially in their ability to comply with local regulations and market demands, the so-called localisation layer, solutions can differ.
- 2 Experience enablement**
 The extent to which a solution enables a customer experience in line with your vision is a determining factor for its added value. The breadth of services within a functional scope and confidence in the vendor's ability to deliver innovative features in the future, are important elements to take into account.
- 3 Solution maturity**
 Before selecting a solution, the maturity of a vendor's operating model and its ability to provide support during implementation and ongoing operations should be assessed. Strong market credentials, as demonstrated by, for example, well-known clients or a high market valuation, can serve as an indication of vendor maturity.
- 4 Licensing model attractiveness**
 There are as many licensing models as there are solutions. Choosing one that best fits your needs (in terms of total cost of ownership, flexibility, etc.) is key.

Integration layer

In order to ensure all the different solutions can work together in a proper and harmonised way, the process orchestrator in the middle manages all the different API integrations. There is no value in building those integrations point to point. If then a specific component needs to be swapped, everything needs to be rebuilt and reconnected. Therefore, it's crucial to have that integration and orchestration layer in the middle to remove those concerns.



Partner spotlight



Mambu is the leading SaaS banking engine powering innovation banking and deposits, the lean alternative to legacy core banking systems. Mambu's cloud-native solution is the driving force behind configurable API-driven architectures which enables clients to leverage best-of-service technologies to rapidly realise business value.

Mambu's core product principles.

- Configuration vs Customisation**
 Zero-code product, process and data-set configuration
- Cloud-Native & API-First**
 Cloud-first and API-first development and ecosystem enablement
- Singular Product Focus**
 Focus on being best-in-world in core and supporting capability
- SaaS Servicing Model**
 Managed application and infrastructure services

Flexible and agile core engines in the cloud.

- Lending Engine**
 Supporting the full lifecycle of all types of loans from origination to servicing to collections. Product factory able to create thousands of configurations of SME, consumer, mortgage, corporate, and leasing types of products.
- Deposits Engine**
 Supporting the full lifecycle of all deposit products from current accounts to term deposits with or without overdraft facility and the full range of interest and fee calculation options. Full ability to customise data capture on account and transaction level.

Foundational Platform including features

- Transactions & Accounting**
 Full real-time balance sheet, profit and loss, and trial balance visibility and transaction-level traceability on all account activity with fully customisable and searchable reference data.

Mambu's commercial approach is different.

- | | |
|---|---|
| Traditional <ul style="list-style-type: none"> • Set-up costs for custom-built solution • High additional cost due to vendor lock-in | Mambu <ul style="list-style-type: none"> • SaaS subscription fee tailored to your volumes • All inclusive—updates, maintenance, hosting, infrastructure, SLAs and more |
|---|---|

Deloitte and Mambu

- Joint implementation experience at multiple customers of which three transformations
- Deloitte winner of Mambu Global Partner Recognition Award 2021
- Multiple accelerators and best practices to maximise the success of the implementation project



Composability allows for a new way to transform

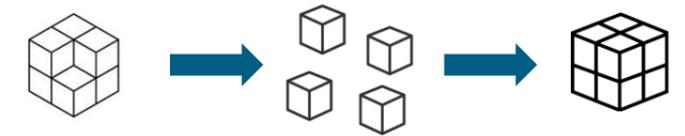
Big bang transformations that take so long they deliver outdated products are a thing of the past. With a composable technology foundation, you get a plug-and-play approach that allows transformation to take place fractionally, delivering results in days and weeks, rather than years.

Legacy solutions Big bang transformation



-  Multi-year projects
-  Higher transformation risk
-  Negative ROI
-  Measurement criteria are obsolete by the time you complete

Composable solutions Fractional transformation



-  Embrace lean implementation models with shorter delivery cycles
-  Lower transformation risk
-  Measurable ROI in reasonable timeframe
-  Make business decisions based on data and iterate
-  Continuous improvement by adding or replacing best-of-breed ecosystem components

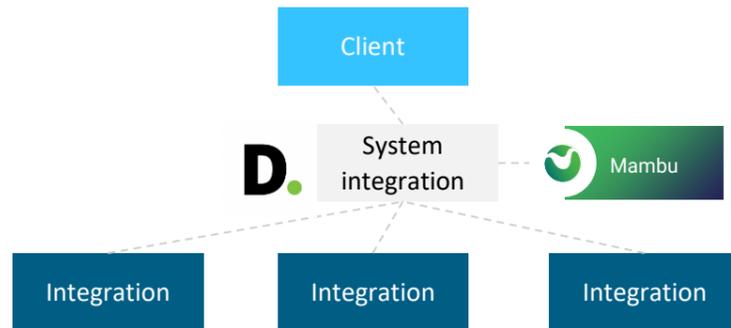


Flexible delivery models

Launching a business transformation programme in order to embrace composability is not straightforward. There are different delivery models/approaches available to bring such a project to life and provide the run services afterwards. Three different delivery models in the context of a Mambu implementation combined with different integrated solutions are further explained below with Deloitte as the systems integrator.

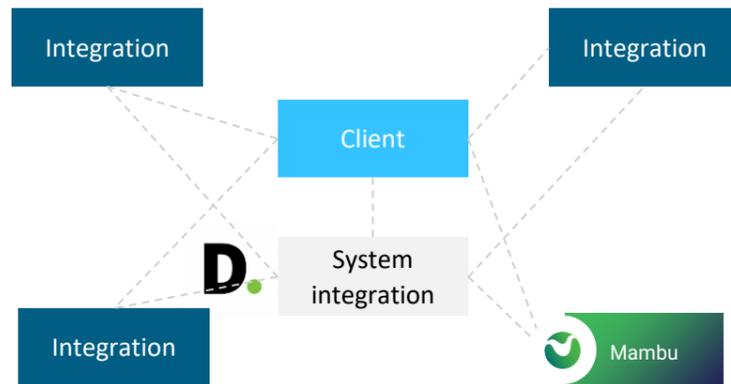
Managed

Deloitte acts as the single point of contact for the customer for the delivery and/or the contractualisation of the different components of its composable architecture landscape to provide professional services for configuration, integrations, custom business processes, customer builds, and maintenance of the integrated solution.



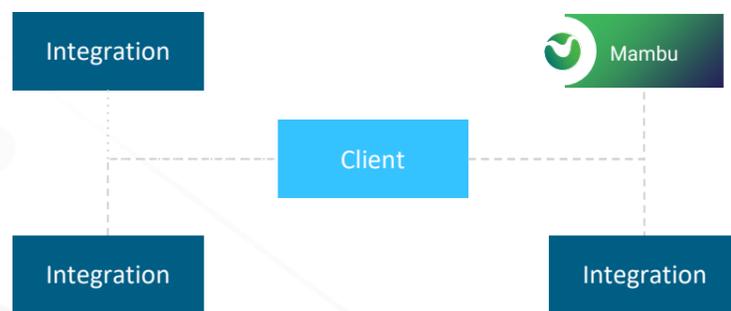
Supported

Deloitte supports as a system integrator in the implementation of Mambu the integration with other components of the client's architecture landscape. The financial institution contracts directly with each component of its architecture as well as with the system integrator.



Independent

The end-customer has full ownership over the business, functional and non-functional requirements. Mambu provides application training and technical support. No use is made of a systems integrator. As a consequence, the customer needs to develop those capabilities in-house.



Considerations

Composable is a powerful approach to design and deliver financial services, but several considerations need to be taken into account before commencing with the implementation. These are described below, along with potential solutions to overcome them.

1. Enterprise architecture

Making use of a composable approach puts a stronger emphasis on the integration of the different solution components and generates new types of challenges (e.g., end-to-end responsibility on the overall solution design and performance, solutioning of potential application failures that might occur in the run) that need to be addressed as from the start of the transformation. Building a resilient architecture, envisioning different delivery models, and having the right governance to run the platform can be the answer to these challenges.

2. Procurement

Having the ability to pick and choose a set of different solutions implies increased complexity in terms of solution procurement: different vendor contracts need to be negotiated and properly managed in order to avoid vendor lock-in and keep the solution landscape future-proof. Therefore, it is crucial to establish a business-driven RFP process to ensure the right clauses are included in the contracts with the different vendors.

3. Roadmap

Before implementing such a business transformation programme, it is vital to have a clear view on the project set-up (greenfield, brownfield, or integrated) taking into account scope, timing, and budget. Important questions to consider are: What domain of the business do we want to tackle first? When do we start decommissioning legacy systems in order to start realising cost savings? Therefore, it is essential to develop a clear transformation roadmap bearing in mind the business priorities/needs, friction points, and current IT landscape constraints.

4. Data

Composable can pose challenges for data management. Data might be scattered across the many solutions in use, data flows might be obscure, etc. Additionally, it might be unclear how historical data can be migrated to the new system. Setting up a data lake and developing strong data management capabilities can be part of the solution to these challenges.

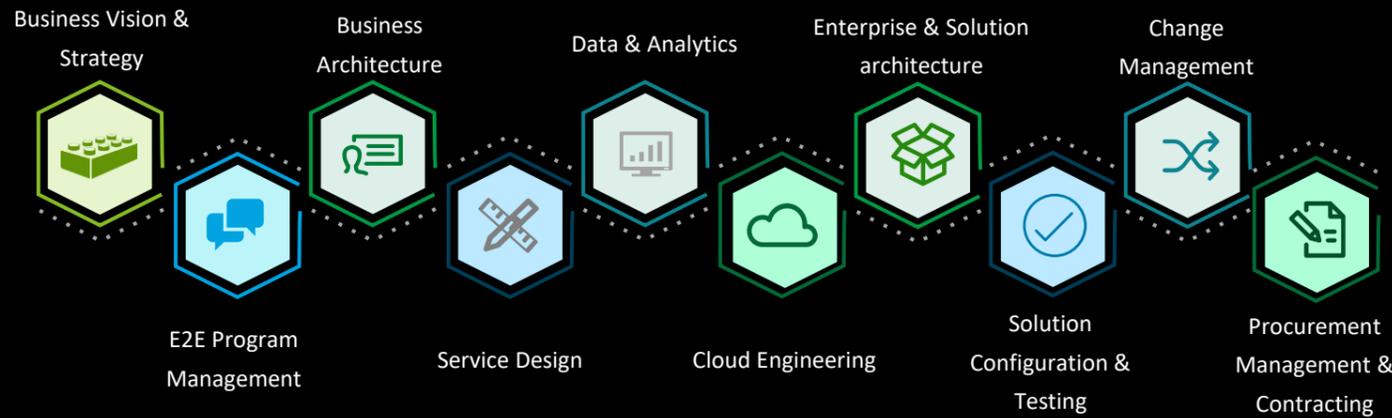
5. Cloud maturity

Composable ecosystems are cloud-native. For enterprises with low cloud maturity, this implies a paradigm shift toward a cloud-centric IT approach. This is not a straightforward exercise—it requires careful planning and sponsorship from key stakeholders.

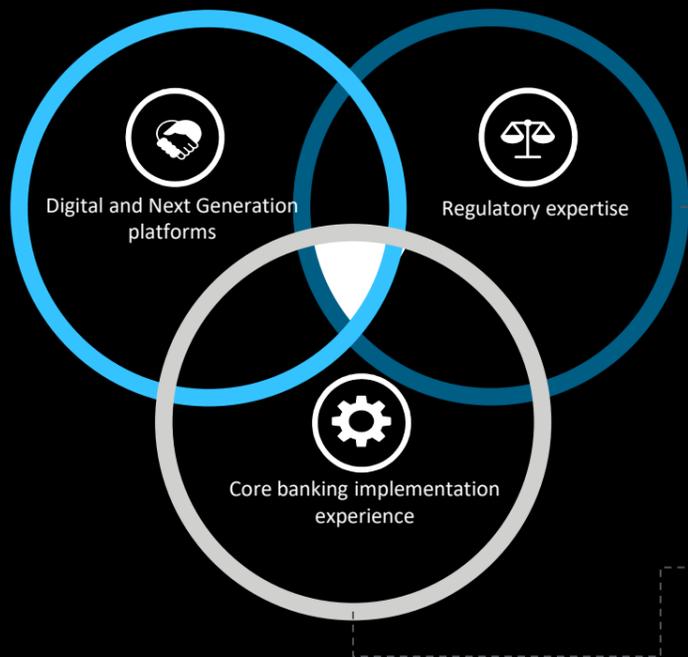


Deloitte can provide E2E support

At Deloitte, we help to imagine, deliver and run the future of our clients. In addition to support in addressing the previously raised considerations, Deloitte can offer a wide range of skills that are required when embarking on a transformation journey.



What makes us different?



Deloitte has delivered digital strategy projects, building new digital banks from scratch based on next generation platform architectures and ensuring enhanced customer journeys based on service design approach. In terms of composable banking platforms, we have a CoE for Mambu located in Portugal.

Deloitte has deep regulatory compliance experience and understanding across different geographies. Our relationships with regulators will assist you in navigating the possible implications of such a transformation.

We bring a global team that is experienced with core banking implementations as well as the capabilities and experience for **all parts of the delivery lifecycle**, with the best experts in pre-inception and inception phases.



Contacts

Don't hesitate to reach out to learn more about how composable banking could transform the way you operate your business!



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