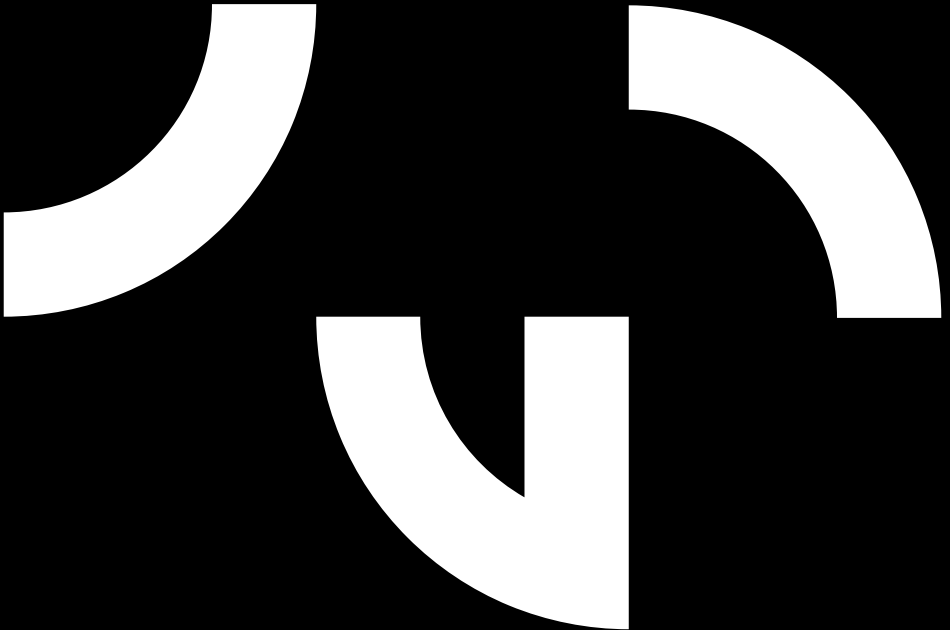




Engine by Starling

# The **complete** digital banking platform.



Engine by Starling

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November 2024

# The Engine Story

Today, in banking, providing excellent digital services is no longer an option - it's a necessity. Born out of Starling Bank, one of the most successful digital banks in the world, Engine is an organization made up of people who know, and care about, banking.

Here at Engine, we understand that large-scale digital transformation isn't a one-size-fits-all journey. Whether you're starting a greenfield digital bank, launching a new banking proposition within an established estate, or looking to migrate legacy systems to a fully cloud-native platform, we are here to help.

Our platform offers unique advantages. We believe it is the world's most mature, cloud native banking platform. It is proven to enable very high levels of employee and customer satisfaction, at a low cost to serve, at scale, and with outstanding levels of resilience.

Engine is provided as a managed service that gives you predictability of costs, eliminates upgrade projects, and allows banks to focus on what's important; providing value to customers.

Our fully modular, bank-built platform is designed to help you provide scalable, future-focused banking experiences for your employees and customers. We cater to a range of different banking models, from retail to SME, across the globe.

We believe in delighting through delivery, and our approach has been proven to deliver remarkable results in rapid time. We work with our partners to help capitalise on market opportunities - whether that's standing up a fully-featured retail bank or an expansion into a new segment like SME banking. Engine can deliver a core set of flexible products that enable a broad range of propositions - a market-ready offering for all core banking products across deposits, savings, cards and loans.

We love to share our experience of building a highly successful digital bank, and describe not only what the platform does, but also how we use it and what we've learned. We're incredibly proud to be working with some of the most innovative banks around the world that share our vision. Our clients are doing innovative things that benefit all; we want to build long-term relationships built on trust, expertise and mutual success.

Thank you for considering us as a trusted partner on this journey to define what's possible for the future of digital banking.



**Sam Everington**  
Chief Executive Officer

# Engine by Starling is a **cloud native,** **modular, SaaS** banking platform

Engine delivers a functionally-rich set of capabilities to run a highly competitive and cost-effective digital bank.

Born in the cloud and delivered as a fully-managed service, the platform is modular, entirely API-based and a proven technology at scale.

Engine simplifies core banking Software as a Service delivery by offering a complete set of digital features and capabilities that can be configured rapidly.



# Engine is the result of years of success with Starling Bank

Starling Bank has proven the profitable digital banking model in the UK, serving millions of retail and SME customers. This success has been driven by the cloud-native banking platform, Engine, built and battle-hardened by the bank over the last 7 years.

The platform is designed for banks to deliver digitally-native banking experiences to customers, increase operational efficiency and lower the risk and cost of digital transformation.

**4.2m**  
Accounts

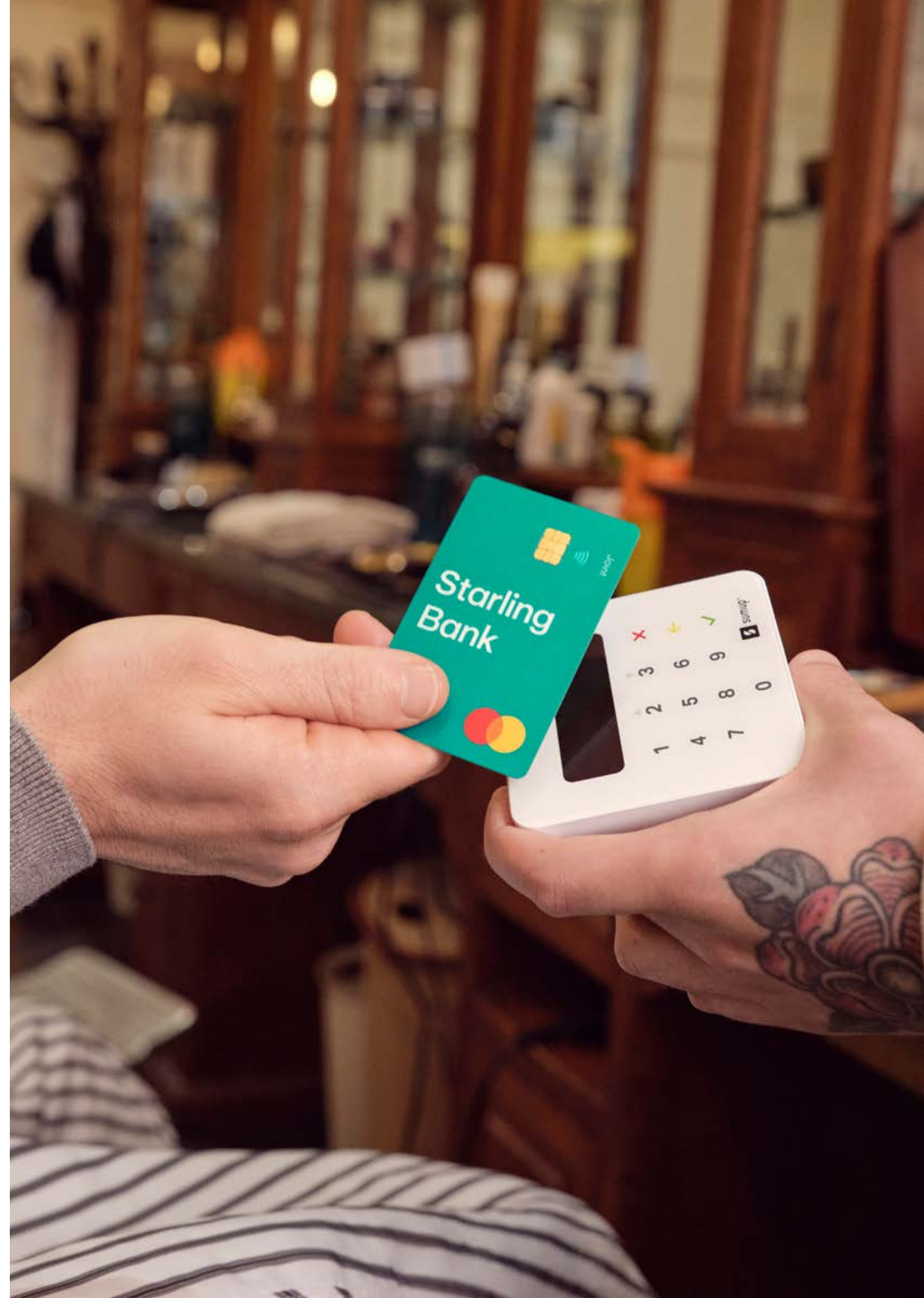
**£682.2m**  
Revenue

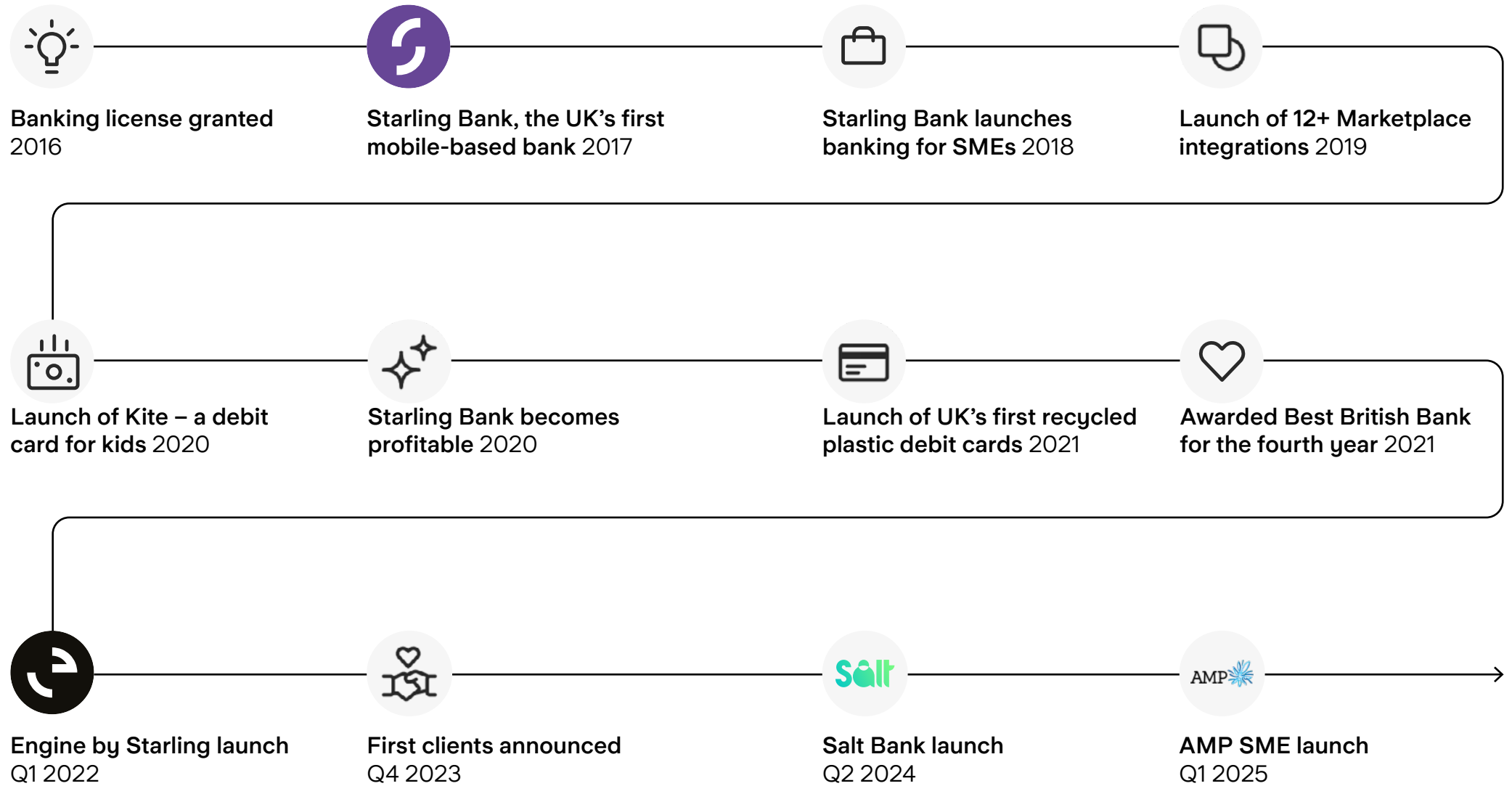
**£301m**  
Pre-tax profit

**78%**  
Active customers

**31.5%**  
ROTE Post-tax

**4.34%**  
NIM





# Engine is uniquely placed as a **technology partner**

## **A complete solution**

Because it was built to power Starling Bank in the UK, the Engine platform provides a fully functional bank that can be stood up on Day 1. It is much more than a core and the entire platform has been stress-tested at scale over the last 7 years.

## **Flexible and configurable**

Whilst being a comprehensive solution, Engine is also flexible and configurable with the ability to adjust, remove or replace modules and capabilities to suit your objectives and requirements.

## **Pre-integrated approach**

Unlike existing composable models, where multiple solutions need to be stitched together, Engines capabilities are modular but pre-integrated and designed to work in harmony. Workflows and processes are based on proven journeys.

## **A managed service**

Engine is a managed service with modern architecture deployed on public clouds. A continuous delivery model takes away the burden of managing expensive updates, patching and support, lowering risk and IT operational costs.



# Our platform has been built and developed by people who **understand banking and best-in-class technology**

When banks work with Engine they benefit from our years of experience and expertise. The success of Starling Bank speaks to the reliability and resiliency of Engine's best-in-class technology. We had to rethink how banking should be for customers and employees alike, from the core technology and customer experience to operational processes.

The platform has been built by a team that has real-life experience running a successful digital business at scale.

We can now, and will continue to, share how this technology and expertise has enabled success for Engine clients as well as Starling Bank itself.





# From greenfield to migration, Engine is designed to deliver

We understand every bank is on its own journey. Whether you're building a new bank from the ground up, unlocking a new area for growth or looking to migrate systems, Engine is the ideal partner to de-risk the process and increase time to value.

## Launching a greenfield digital bank

Build a fully-featured digital bank in rapid time. Leveraging our platform, we've proven we can deliver full scale programmes in less than 12 months.

## Launching a new proposition

Offer exciting new propositions without impacting legacy technology that supports your other product types.

## Core modernisation

Free yourself from legacy systems completely. By taking a parallel core approach we can deliver the transition safely and at speed.

# Built on **cloud native technologies** and modern architectural principles

## **Fault tolerant**

Services are built to anticipate, expect, and isolate failure using defensive mechanisms.

Engine achieves the highest levels of availability with stability and scale built-in.

## **Scalable**

The individual applications that comprise Engine are designed to be horizontally scalable.

Multiple identical copies of each service are deployed, allowing the load to be shared amongst them.

## **Performant**

As customer volumes increase, or usage spikes, the system will continue to meet all applicable performance levels.

## **Available 24/7**

Continuously available, meaning that new versions of services are deployed with zero downtime.

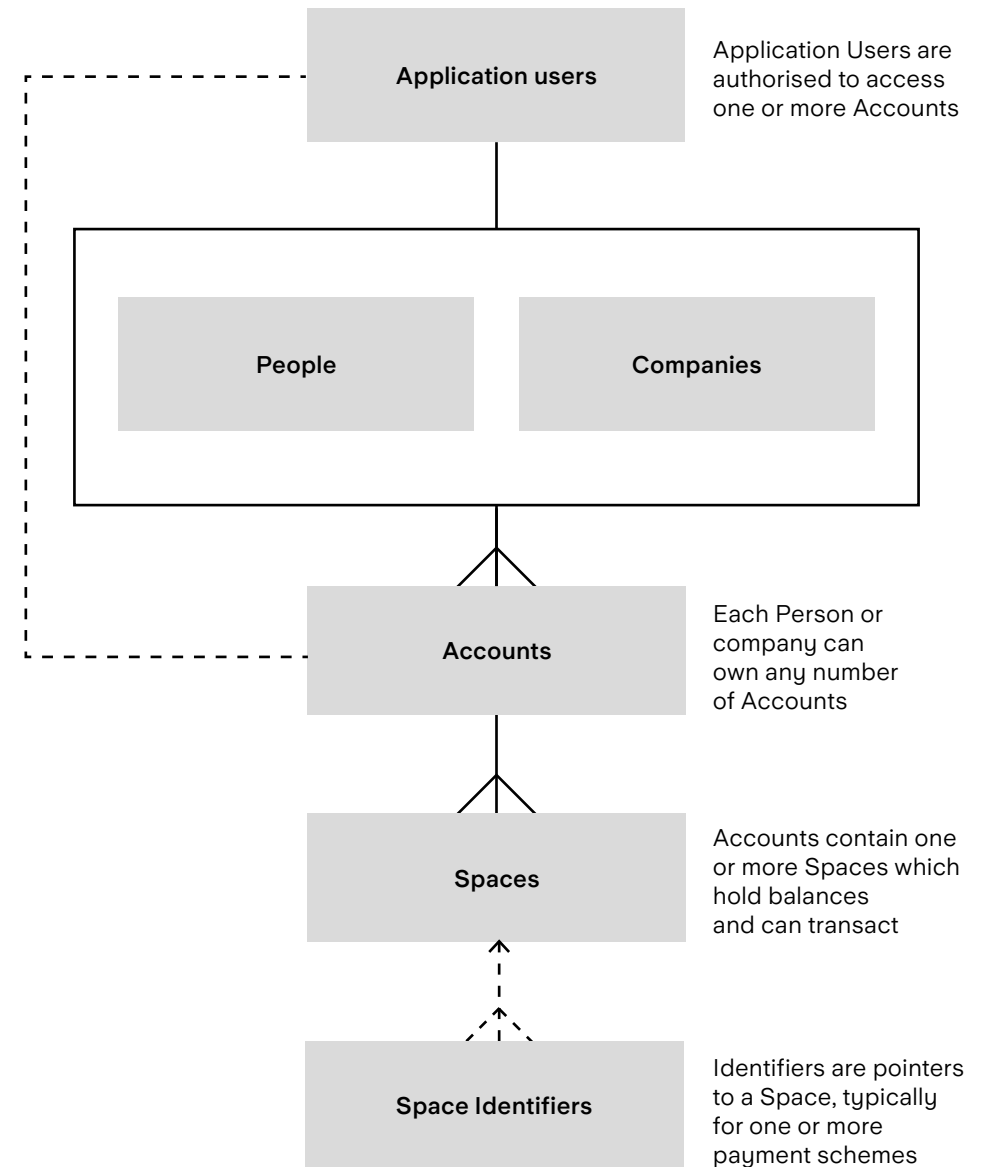
## **Secure by design**

Multiple layers of protection and extensive monitoring.

Data storage and processing is contained within an independent cloud provider account, providing a single tenant instance of Engine.

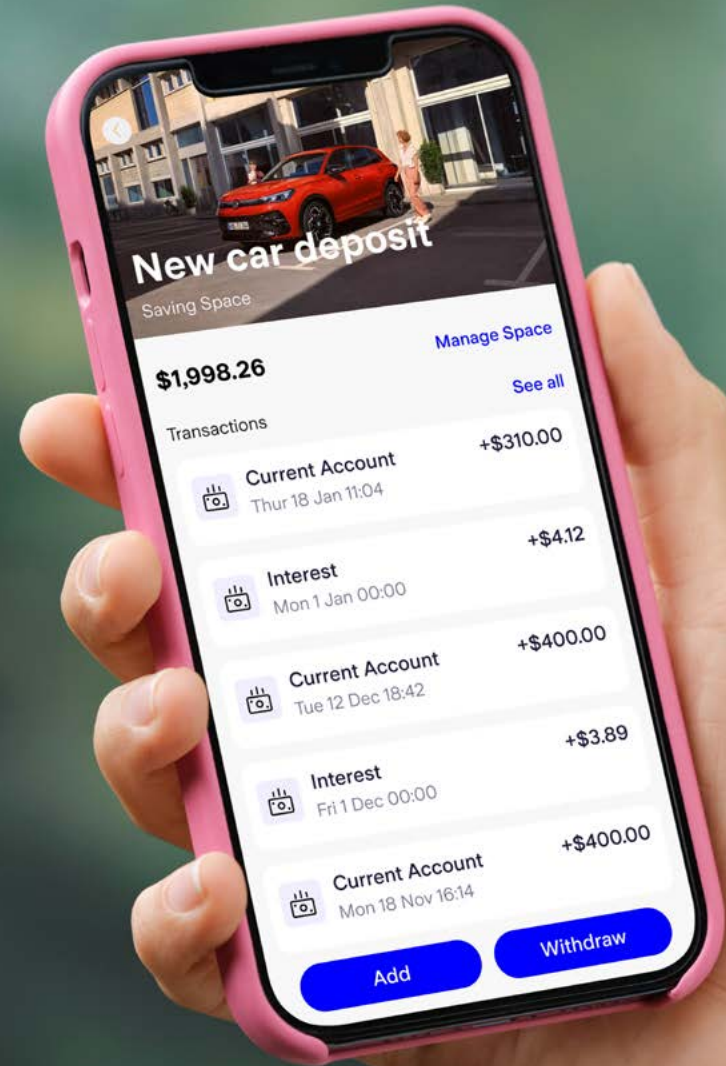
# Engine has a **unique data architecture** that provides a true, single customer view

Our modern, adaptable data architecture offers unrivalled flexibility and interoperability with legacy cores, while enabling innovative features such as 'Spaces' that allow money to be managed in discrete segments under a single account.



Engine by Starling

# Products



# Transaction Accounts

## Customer features

### Digital onboarding

A tried and tested digital onboarding journey with high-levels of fraud prevention and security.

### Spending insights

Our Spending Insights feature allows customers to see a breakdown of their spending for a custom date range, by category and merchant.

### Multi-currency

Offer customers the ability to have accounts in multiple currencies and make international payments.

### Easy account management

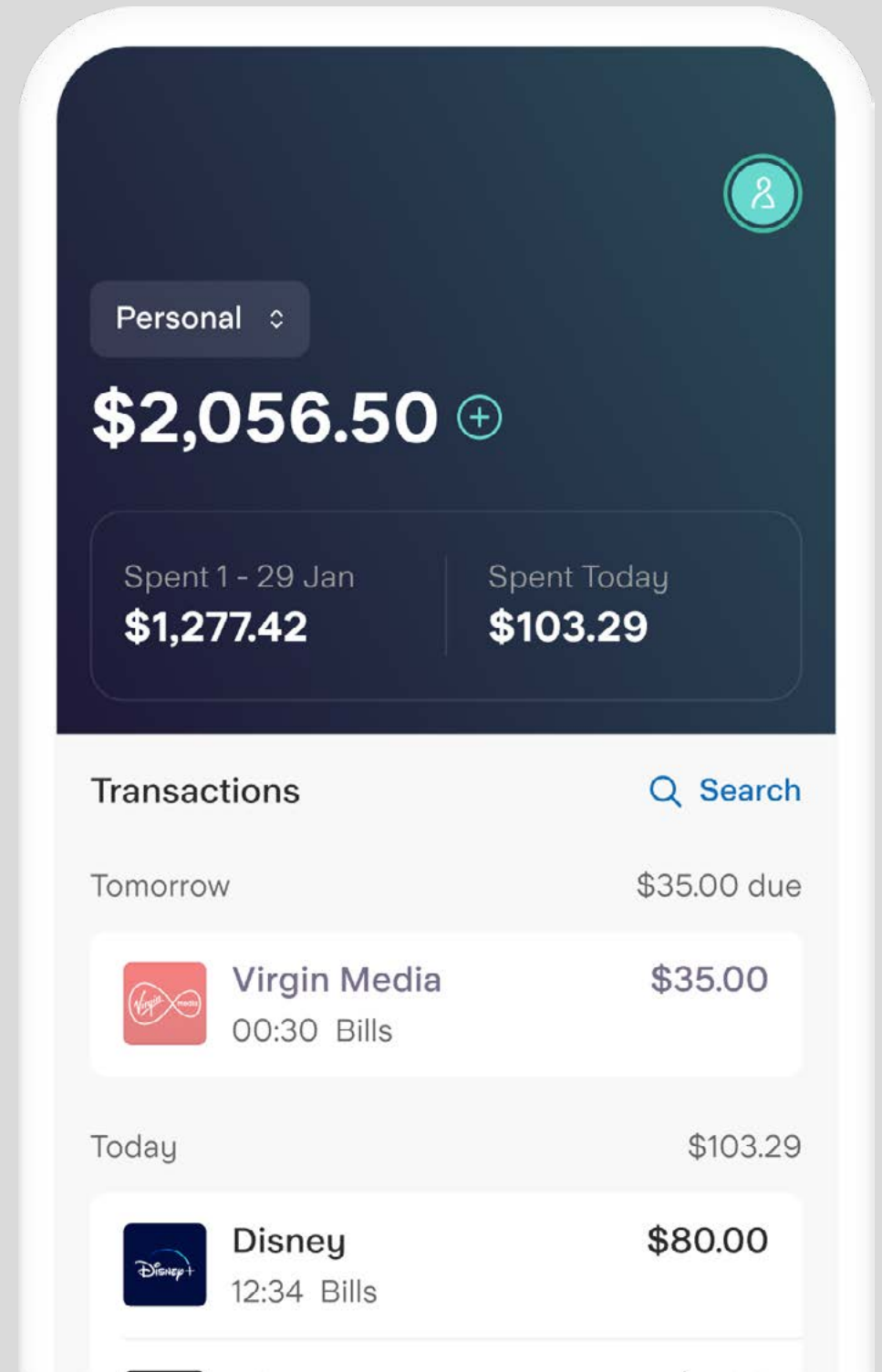
Help customers manage their financial life fully from the app, with features including PDF or CSV statements, attachments or notes on transactions and more.

### Split bills & payments

Let customers split payments with friends or spread money from an incoming payment across different accounts and Spaces.

### Pay from a dedicated space

Customers can link cards, direct debits or standing orders to a chosen Space, and spend directly from that Space for more effective budgeting.



# Transaction Accounts

## Employee features

### Payments control

With Engine's fincrime module, our clients can set event monitoring rules, trigger automated actions, manage case queues and more.

### Account opening

Pre-configured operational portal and workflows for onboarding teams to conduct ID&V checks, as well as review checks against external datasets for KYC purposes.

### 360° view of the customer

Our single browser-based interface, Management Portal, allows clients to manage all operations related to customers, from onboarding to customer service.

↶
**People**
▼
🔍
**Profile**
Addresses

## Person

Details History
Contact
Scramble Mobile Number

<b>Title</b>	Mrs
<b>First Name</b>	Kerry-Ann
<b>Last Name</b>	Williams
<b>Date Of Birth</b>	17/04/1992 (aged 32 years)
<b>Gender</b>	Not set
<b>Place of birth</b>	Not set
<b>National identifier number</b>	Not set
<b>Mobile Phone Number</b>	+447700900551#3468772 <span style="border: 1px solid #ccc; padding: 2px 5px; font-size: 10px;">📄 Copy</span>
<b>Email Address</b>	k.a.williams82@gmail.com <span style="font-size: 12px; color: red;">✖</span> <span style="font-size: 12px; color: gray;">👁</span>
<b>Accounts Eligibility</b>	<span style="font-size: 12px; color: gray;">👁</span>
<b>Address</b>	1198 Ledgewood Drive VT 05495 Williston United States <span style="font-size: 18px; color: blue;">G</span>
<b>Legal Address</b>	1198 Ledgewood Drive

# Savings Accounts

## Customer features

### Spaces

Rich data model that allows for segregation of money which can be aligned to goals and associated with physical or virtual cards for a personalized banking experience.

### Round ups

Help customers save effortlessly by rounding their day-to-day spending and allowing them to transfer the difference to a Space.

### Save automatically

Customers can set automated transfers to their specific savings Spaces for a seamless, regular saving mechanism.

### Fixed-term deposits

Help customers save for their future with fixed term deposits, opened in a few taps. Show customers how much interest they will earn in advance.

### Savings goals & personalisation

Help customers save with the ability to set savings goals and monitor progress. Let customers create up to 100 Spaces at one time with personalized pictures.

Total in Instant Access

[Edit List](#)

**\$5,000.00**



**General Savings**

Saving Space

**\$1,980.54**



**New car deposit**

Saving Space

**\$1,998.26**

54%



**Holiday**

Saving Space

**\$1,021.20**

31%

Total in Fixed saver

[Edit List](#)

**\$10,000.00**



**House Deposit**



Payments



Spending



Home



Card



Spaces



# Savings Accounts

## Employee features

### Real-time MI

Management Portal comes pre-equipped with a range of MI dashboards, giving your management team insights on everything from onboarding queue length to alerts fired.

### Product Configuration

Give your staff the ability to design and launch savings products, including the ability to create interest rate schemes, set limits on withdrawals and deposits, enable or disable different payment types in/out of accounts and more.

### Manage spaces

Enable employees to manage a customer's Spaces, see incoming and outgoing transactions, add or withdraw funds and lock the space to prevent fraud.

The screenshot shows a user interface for managing savings accounts. At the top, there is a navigation bar with a home icon, a dropdown menu labeled 'Accounts', a search icon, and tabs for 'Account' and 'Feed'. Below the navigation bar, the main content area is titled 'Spaces'. It contains a table with columns for Name, Type, and Effective balance. The table lists several spaces: 'Current (USD)' (Default Space, US\$4,057.35), 'Bills' (Savings Goal, US\$395.00), 'Family Vacation' (Savings Goal, US\$1,900.00), and 'New Car' (Savings Goal, US\$2,200.00). Below the table, there are two rows showing account balances: 'Customer Account Balance' (USD 8,552.35) and 'Ledger Balance' (8,552.35). At the bottom of the screenshot, there is a section titled 'Authorised Users' with a list containing 'Kerry-Ann Williams'.

Name	Type	Effective balance
Current (USD) <b>Default Space</b>	Default	US\$4,057.35
Bills	Savings Goal	US\$395.00
Family Vacation	Savings Goal	US\$1,900.00
New Car	Savings Goal	US\$2,200.00
<b>Customer Account Balance</b>	USD 8,552.35	
<b>Ledger Balance</b>	8,552.35	

**Authorised Users**

- Kerry-Ann Williams

# Loans

## Customer features

### Transparent lending

Allow customers to see all of their upcoming loan payments split into interest and capital, as well as up to date arrears balances.

### Digital origination

Customers can apply for a loan or overdraft seamlessly in the app and receive instant decisions on their application as a notification.

### Forbearance

Offer customers peace of mind with interest only or full payment holidays, as well as term extensions structured to meet their needs.

### Flexible payments

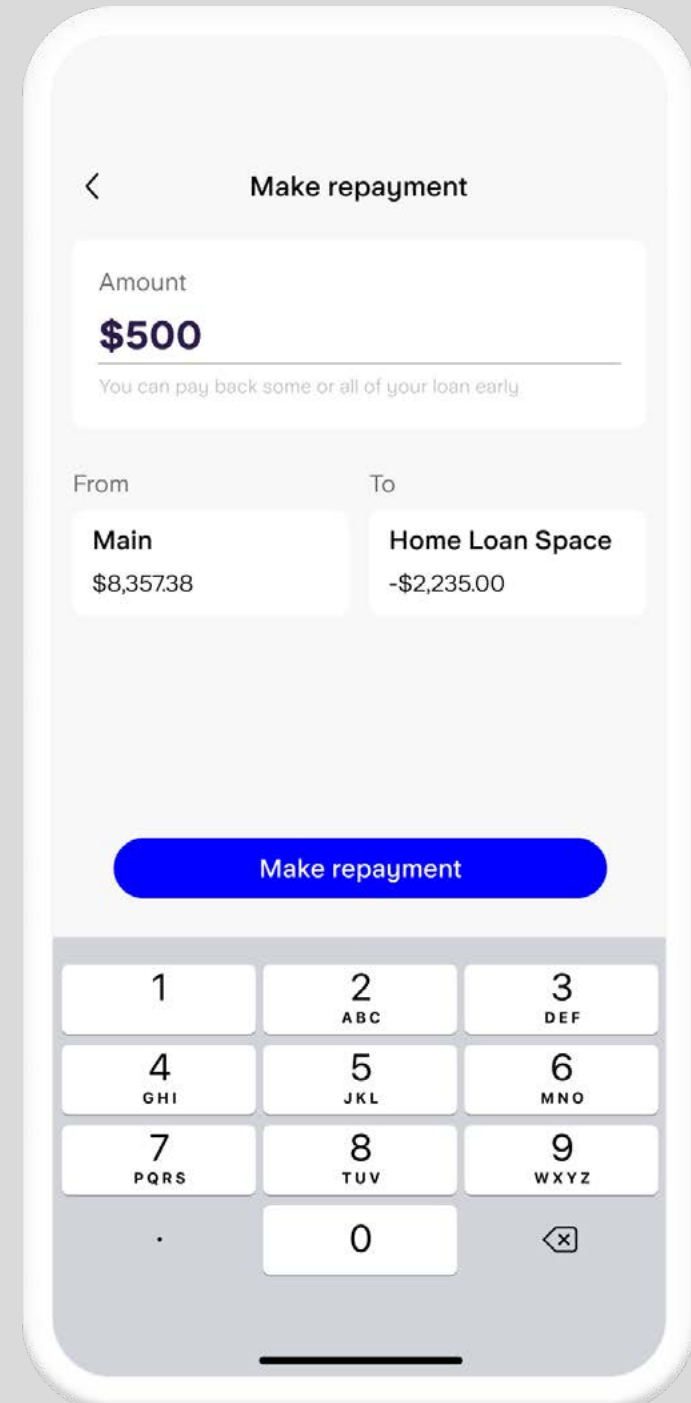
Take customers' payments from their current account automatically, as well as allowing instant early repayments and payments to pay down an arrears balance.

### Product history

See all current and past loans within the one screen in the mobile app.

### Document management

Customers can manage and view annual statements, interim statements, and closure statements from within the app.



# Loans

## Employee features

### Collections management

Create cases for missed payments and insolvencies. See case workload and outstanding actions. Configure automated customer communications based on events such as missed payments.

### Ruleset configuration

Our rule set builder enables you to create and implement eligibility and decisioning rulesets, add simple and complex rules and build integrations to external data sources e.g. credit bureaus.

### In-life management

Customer Services can see all requisite information against the customer's account including historic loan payments and upcoming payments, whilst also being able to adjust the loan term, interest rate, and payment structure.

The screenshot shows a web application interface for configuring funds availability. At the top, there is a navigation bar with a home icon, 'Product Configuration' (with a dropdown arrow), 'Account Products', and 'Card Products'. Below the navigation bar, the main heading is 'Check Availability of Funds Configuration'. To the right of this heading, there are two buttons: 'Local' and 'U.S. P'. The main content area is titled 'Standard Release Schedule' and contains a table with two columns: 'Release option' and 'Amount'. The table has two rows: 'Up to' with a value of '225' and 'Remaining Amount Held' with a value of '225'. Below the table is an 'Add row' button. Below the table, there is a section titled 'Exceptions' with a sub-heading 'Checks deposited at non-proprietary ATMs'. This section also contains a table with two columns: 'Release option' and 'Amount'. The table has one row: 'Up to' with a value of '225'. Below this table is an 'Add row' button.

# Credit and Debit Cards

## Customer features

### Simple interface

Intuitive interface for customers to view their transactions and card balance from month to month.

### Card controls

Instantly lock or unlock cards. Set card security controls, including enabling/disabling online payments, cash withdrawals & magstripe payments.

### Digital journeys

Order, activate, cancel and replace cards, all digitally with no intervention from operations teams.

### Card limits

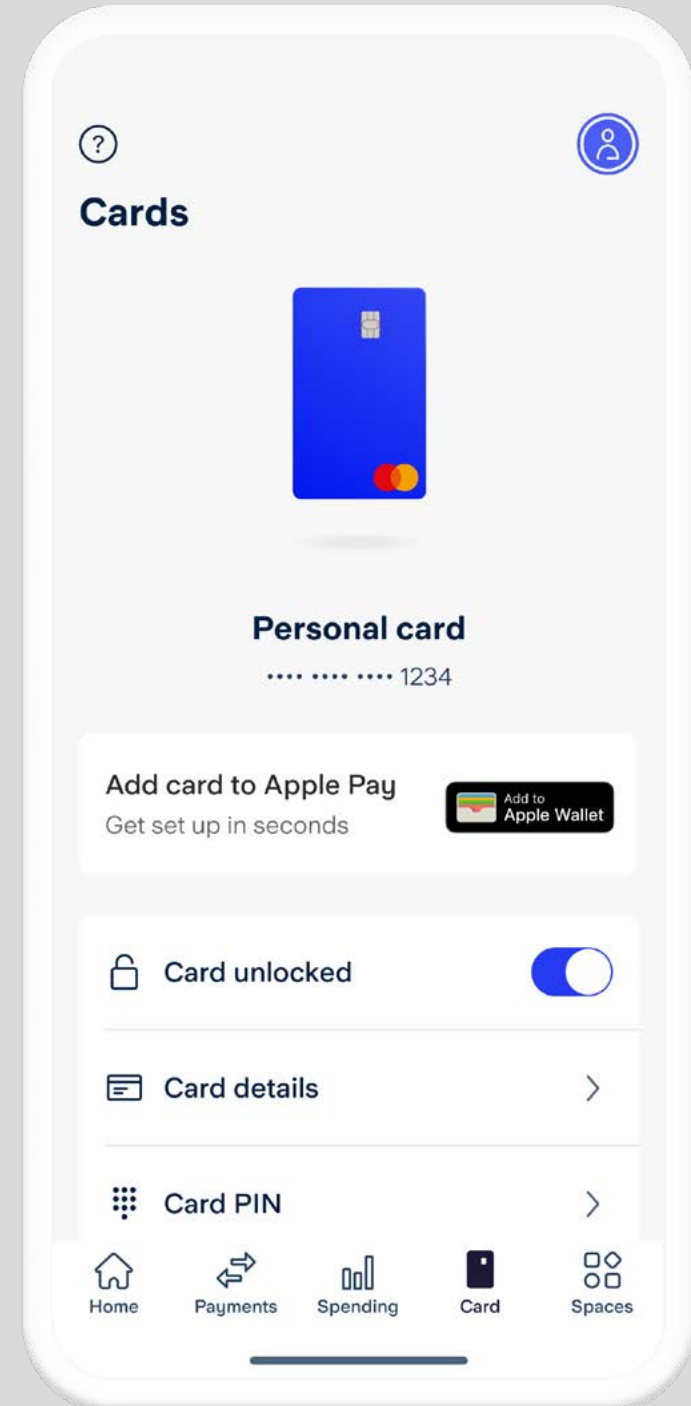
Manage daily spending limits as well as limits for online payments, mobile wallet payments and more.

### Mobile wallet enabled

Engine's card processor is MDES certified in order to support mobile digital wallets for Apple Pay, Google Pay, Samsung Pay and Garmin Pay.

### Instant notifications

Receive instant notifications for transactions. Customers can see where the transaction took place, the transaction status (pending or settled), minimising contact to contact centre.



# Credit and Debit Cards

## Employee features

### Support your customers

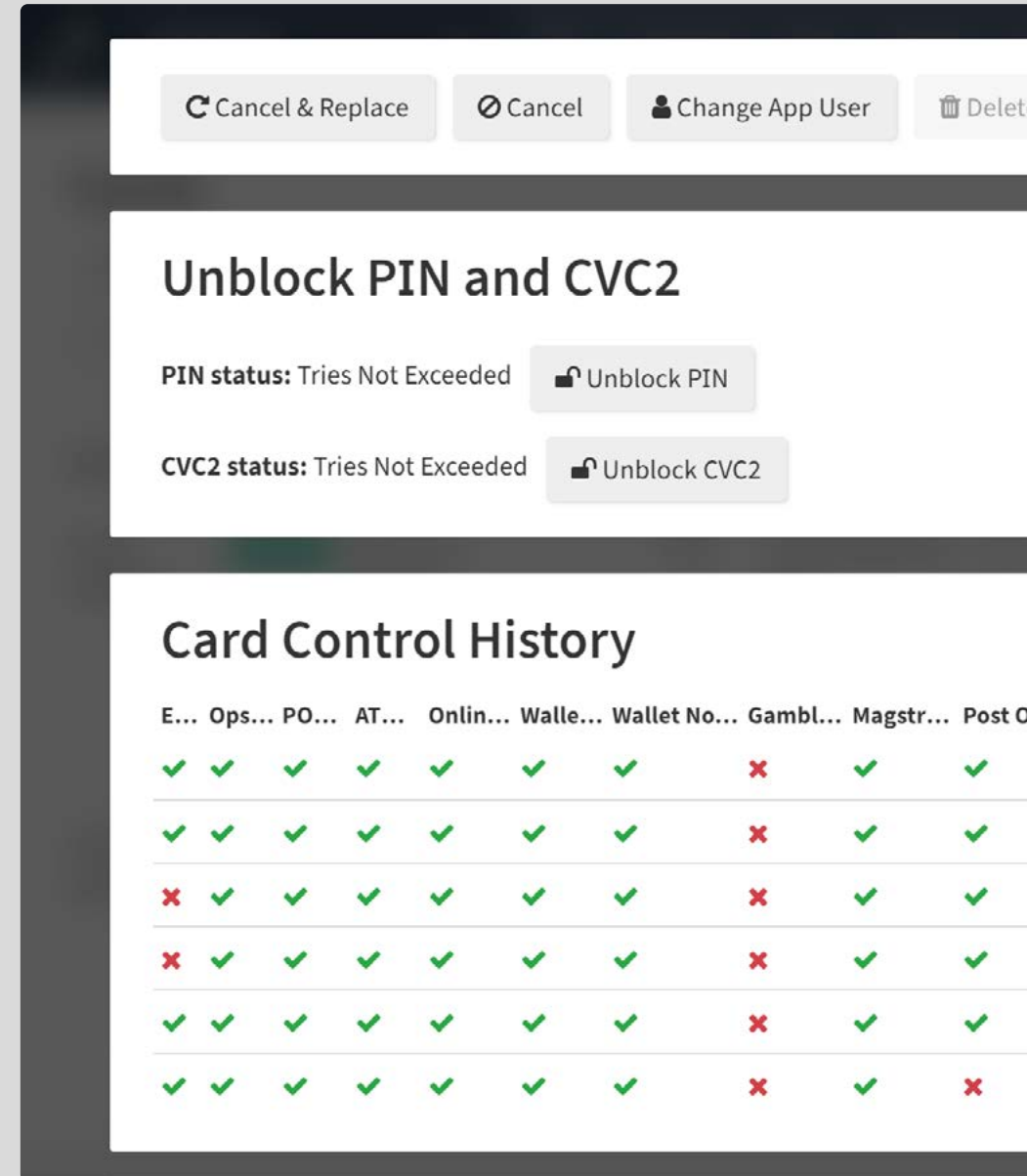
Engage with customers via the channel of their choice, including live chat, messaging and phone. Easily manage conversations and queues with pre-configured workflows and case management capabilities.

### Rich transaction data

Engine's in-house Mastercard linked card processor allows you to view granular transaction data, allowing you to support the customer with card fraud and transaction disputes.

### Card control history

View card control history by transaction channel, including date, method of update (manual or automated) and whether this has been instructed by the customer.

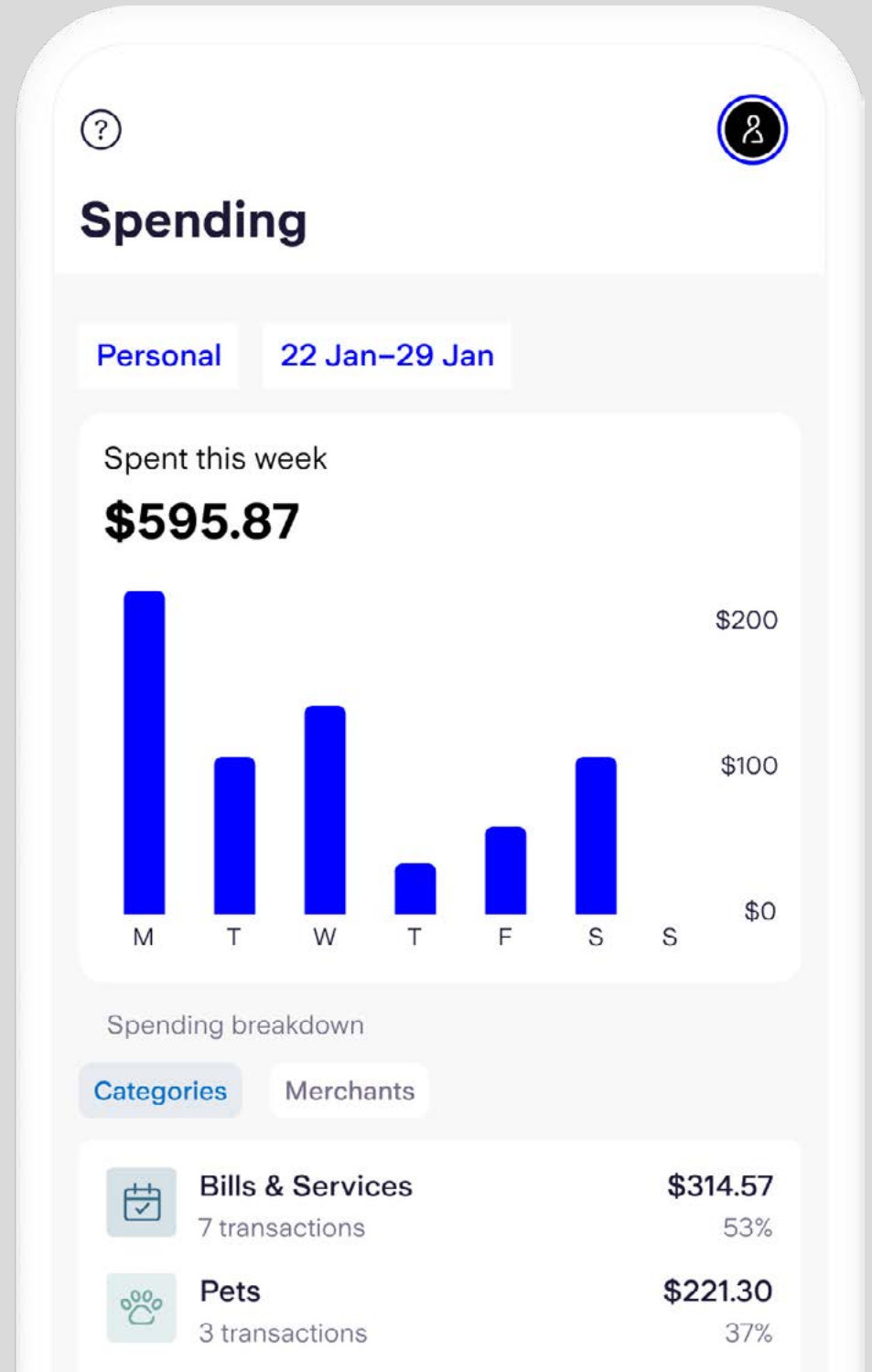


# Accelerate your mobile app build with proven journeys

Engine provides a set of segmented pre-built and tested mobile SDKs for both iOS and Android which serve as building blocks of code for specific products. You can choose to leverage any number of these to launch your app to market faster and with more confidence. These are also maintained by Engine, saving development time while ensuring reliability and scalability.

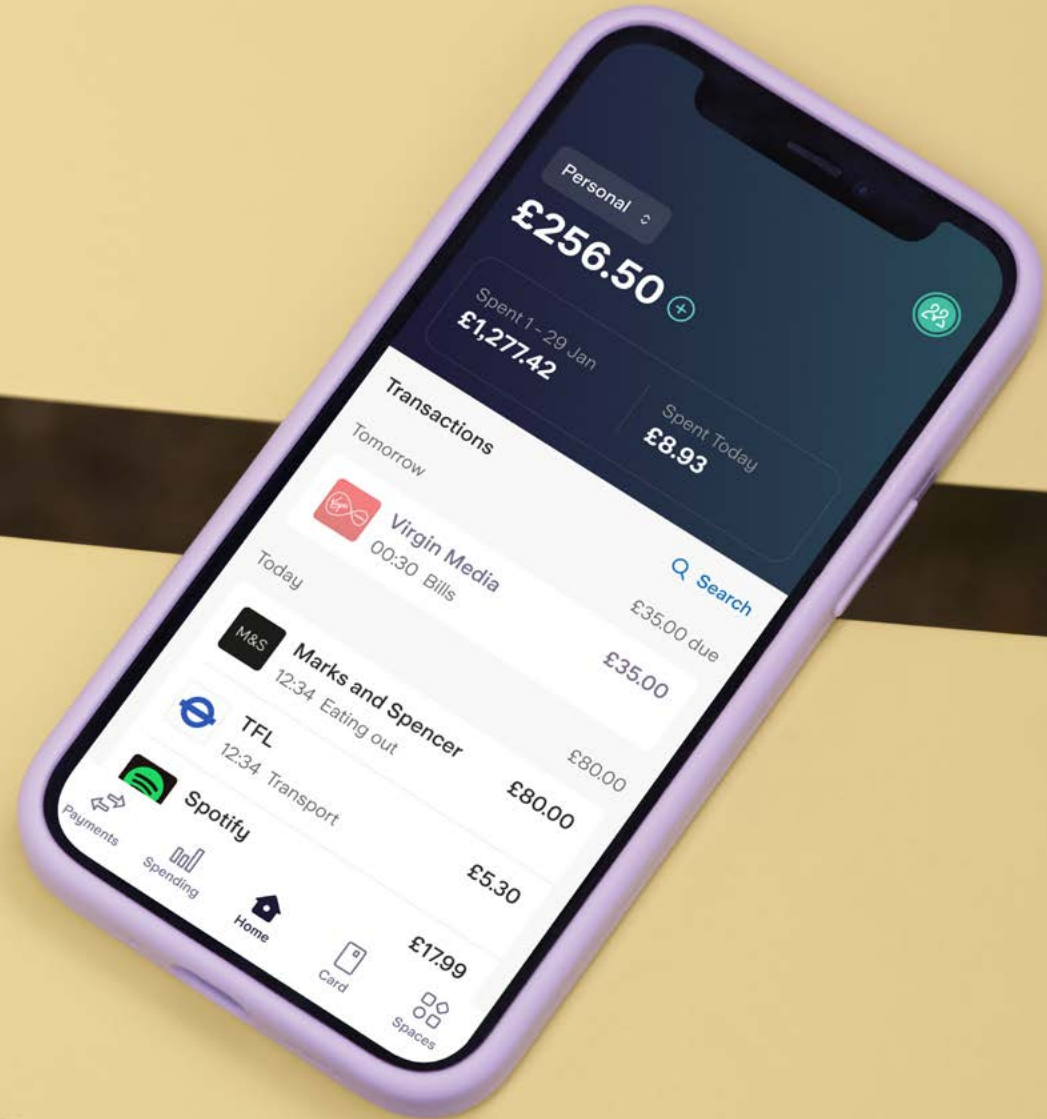
The Engine mobile platform powers the app used by Starling, one of the UK's most successful digital banks. Tested and improved over nearly a decade, the mobile SDKs offered by Engine are rich in features and provide the building blocks for an exceptional customer experience.

Mobile SDKs	
Account Management & User Settings	Overdrafts
Spending Insights	Loans
Transactions	Customer Service
Person Onboarding	Payments
Business Onboarding	Spaces
Cards	Term Deposits



Engine by Starling

# Capabilities





# Comprehensive capabilities out of the box

Bank and Product management	Cards	Core Banking	Customer and Account Management	Customer Servicing and Contact Centre	Daily Banking	Data	FinCrime	Lending Management	Payments
Accountancy Partners	ACS Processing	Automated Ledger Postings	Account Access and Security	Asynchronous Messaging	Spaces	Data Feed API	AML Controls	Arrears	Batch Payments
Fees	Card Controls	FX Rate Management	Account Product Management	Broadcast Messaging	Spending Insights	Opening Banking	Entity Screening	Collections	Cross-border Payments
Product and Legal Document Storage	Card Lifecycle Management	Interest Engine	Onboarding	Call Management	Statements		FinCrime Case Management	Credit Card Engine	Cheques
Product Configuration	Cardholder Card Management	Ledger Management	Business Management	Contact Centre Case Management	Transaction Management		FinCrime MI	In-life Management	FX Payments
Product Eligibility	Third Party Processor	Trial Balance	Customer ID&V	Contact Centre MI			Fraud Detection	Origination	Internal Transfers
Role Based Management and Team Management	Virtual Cards		Customer 360	Complaints			Fraud Prevention	Repayments	Instant Payments
	In-house Card Processor*		Delegated Access	Email			Investigations	Set and Manage Interest	Beneficiary Management
	*Currently Mastercard only with Visa support in 2025		Person Management	FAQs and Help Topics			Payment Screening	Third-party Lending Origination	Nearby Payments
	Card Limits			Live Chat					Payment Aliases
	Card Manufacturer Intergration			Macros and Workflows					Payments Enabling Capabilities
	Card Processing Operational Portal			Push Notifications					Payments Infrastructure
	Card Security Controls			SMS					Payment Mandates
	Dispute Management			Suggests					Payment Operations
	Loyalty								Returns and Rejections
	Mobile Wallet Processing								Scheduled and Recurring Payments
	Mobile Wallet Provisioning								
	Transaction Processing								

# Benefit from a **single coherent system** to operate the bank

We know what it takes to run a highly efficient bank. With Engine you are provided Management Portal: a single pane of glass that provides a full 360° view of the customer - whether that's a person or business.

It's an intuitive, browser based interface that all operational and management staff use to operate and configure the bank; from onboarding to customer support and AML and fraud. And it comes with pre-built workflows and processes that have been tried and tested over many years.

Providing the best possible experience to employees means they are more empowered and have the tools they need to better serve customers.

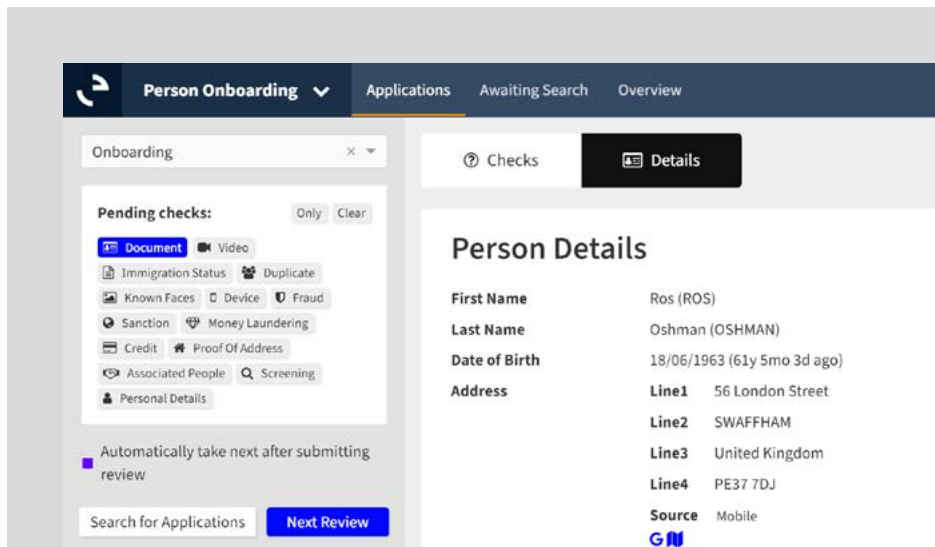
Achieve operational simplicity and powerful functionality with a system that's been designed to deliver results.



# Banking capabilities: Spotlight

## Onboarding

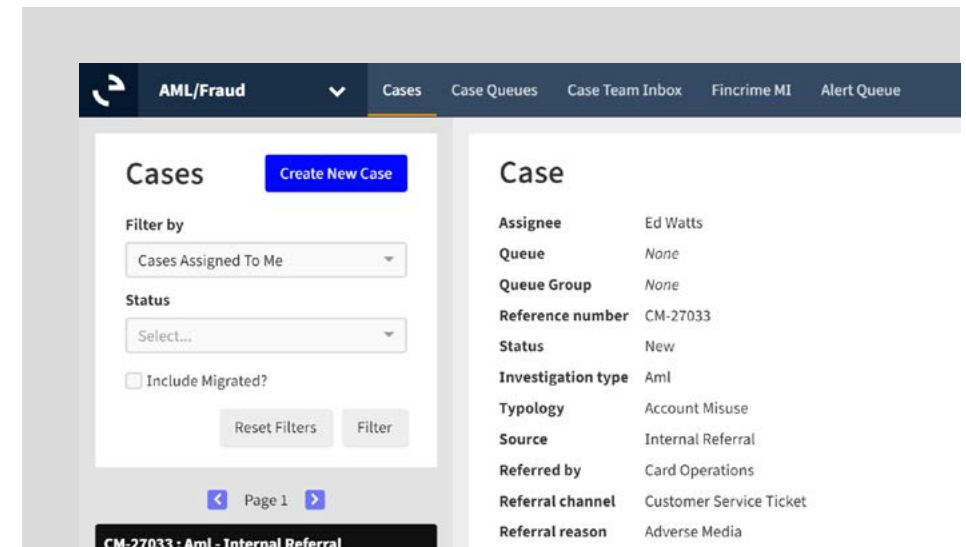
Along with automated rules-based capabilities, onboarding teams can handle every step of the process – helping your business grow and ensuring rigorous verification and risk procedures are in place.



## AML & Fraud

Engine has a range of capabilities to help you identify, tackle and block financial crime, whether that's alerting customers to risks or setting up event monitoring.

Engine enables comprehensive workflows to investigate alerts and manage cases through to resolution.



# Operational capabilities: Spotlight

## Card management

Get a single view of all customer card payments, with info presented at a granular level to deliver meaningful insight.

Engine's in-house built cloud native card processor enables card issuing and processing on the Mastercard network with plans to support Visa in the near future.

Card Details			
UID	749ed659-c8b9-4f6e-beb1-4702c0f36581	Association UID	749e2f62-3
GPS Token	IHOP (IDEMIA)	Creation Requested	19/08/2024
Type	Customer	Created	19/08/2024
Product	Personal	Dispatch	20/08/2024
Product Sub-type	Standard Card	Activation Requested	✓
End of Card Number	7831	Activated	19/08/2024
Replaced	-	Cancelled	✗
Name on Card	Kerry-Ann Williams	Accounts Linked	USD ✓
First Name	Kerry-Ann	Enabled	✓
Last Name	Williams	Ops Enabled	✓

## Customer support

Engine provides the tools to effectively manage customer queries without losing the essential human touch. Whether it's real-life agents or fully self-serve, Engine ensures customers feel supported throughout the entire journey.

**Contact Centre** | Live Contacts | Contact History | **Tickets** | Overview | Approvals

Assigned | Views | Search | **#10412** About your overdraft

**Open** About your overdraft EW

Mar 21st

10:22: Behzad Ghaffari changed the subject from Add to About your overdraft

Behzad Ghaffari Message 21 Mar, 10:22 Actions

Your overdraft payment is due tomorrow. Please contact CS to discuss things.

Behzad  
Care Center Salt

Read by customer on: 12/04/2024, 13:50:06

# Implementing Engine: Greenfield

Launching a new digital bank or proposition can be fundamentally different with Engine. Instead of years to achieve your target goal, you can deliver in **9-12 months**. You would have access to a full scope, functioning development environment along with API specifications and documentation from the get go - this allows you to manage risk more effectively and spend more time on what will really differentiate you in the market.

## Engine Implementation

**Delivery & Sync**  
4-10 weeks

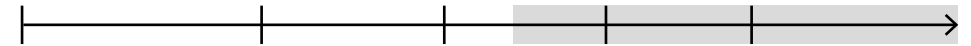
Engine presents the key functionality and works with you to understand needs and requirements.

**Iterative Delivery**  
9-12 months

Period of iteration to refine the plan before delivery.  
  
Engine works iteratively to make the platform available and configure it as required.

# Typical Implementation

Scope      Design      Build      Test      Fix      Accept



Engine implementation starts here

**MVP Pilot and Launch**

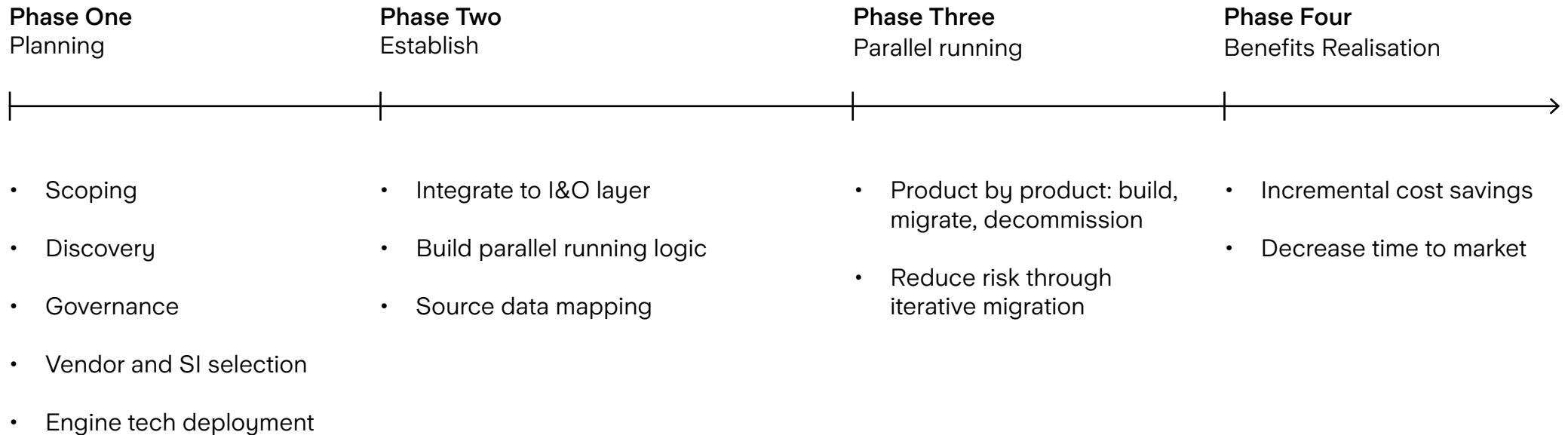
MVP Pilot is released to a set of your users to identify improvement areas.  
  
MVP is then deployed to a wider set of users ahead of full launch.

**Run**  
Phased App Launch

Engine will continue to offer support and you will have a chance to influence Engine's future roadmap.  
  
Post-launch, you may have further functionality releases planned.

# Implementing Engine: Modernisation

By implementing our modern, cloud-native solution in parallel to a legacy estate, with an integration layer that keeps customer data in lock step, you can take a more agile approach to modernisation and improve delivery time frames.



Engine by Starling

# Case studies

“Engine provides a best-in-class platform that fits into our digital strategy and we were impressed by Engine’s success with Starling Bank in the UK.”

**Gabriela Nistor**  
CEO of Salt Bank



# AMP Bank

AMP provides banking, retirement and advice services in Australia and New Zealand, supporting over one million customers and employing approximately 3,000 people.

## Objective

Address a gap in the Australian market for a fully digital banking proposition built specifically for the needs of sole traders and small business.

## Engine's solution

Provide AMP with a fully-featured, cloud-native banking platform to help launch their new digital bank division.

Engine will help AMP offer transaction and savings accounts, designed to provide tailored functionality and features to help small business owners manage their finances 'on-the-go' from their mobile phones.

The solution is targeting small businesses with 1-20 employees, and will be launched in Q1 2025.

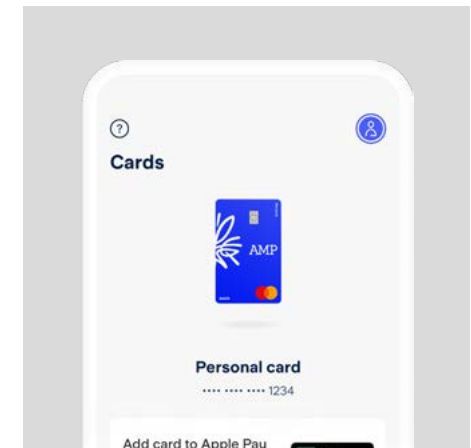
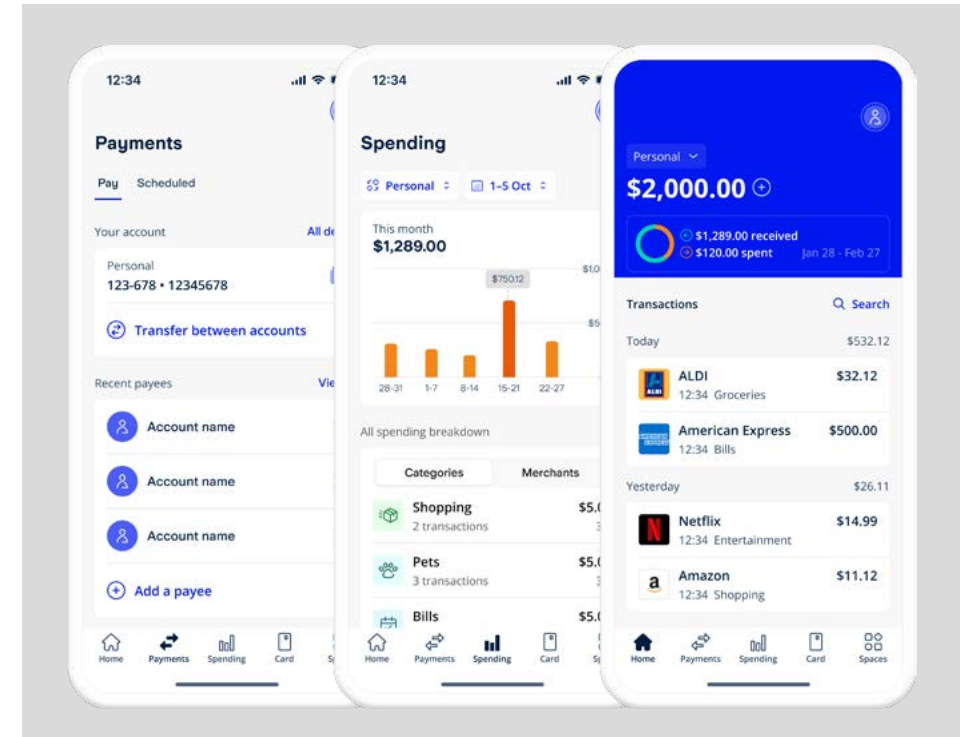
## Project type

Launching a new proposition

## Cloud provider

AWS

Delivered with



# Salt Bank

Salt Bank, based in Romania, is a wholly owned subsidiary of Banca Transilvania Financial Group – the largest bank in Southeastern Europe.

## Objective

Disrupt the banking market in Romania by offering customers simple and seamless digital experiences.

## Engine's solution

Thanks to Engine's cloud-native platform Salt Bank was able to build and launch the new digital bank in under 12 months. Salt offers transaction accounts in local and 16 foreign currencies for retail customers with automated digital onboarding supported by a manual review workflow in Engine for marginal cases.

Customers can access to innovative, self-serve banking features like saving spaces, spending insights, card controls, and Apple and Google Pay in-app provisioning.

Salt also offers a Mastercard debit card to its customers with benefits such as travel insurance and all debit card processing and 3D-Secure processing is supported by Engine.

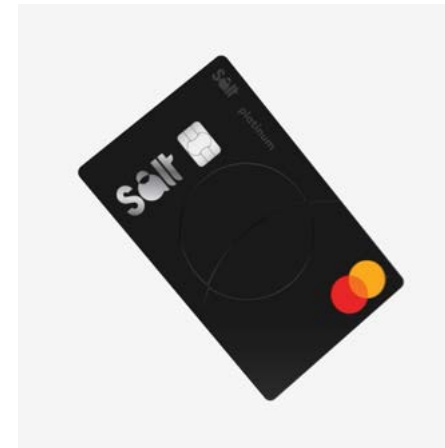
## Project type

Greenfield digital bank

## Cloud provider

AWS

Delivered with



# The Leadership Team



**Sam Everington**  
Chief Executive Officer

As CEO, Sam is responsible for delivering our market-leading banking platform to financial institutions around the world. Previously, he led the development and design of the highly scalable, modular and cloud native core banking platform that powers Starling Bank.



**Victoria Newton**  
Chief Product Officer

Victoria leads on the strategy of the Engine business and advancement of the proposition. Previously, she had a career as a financial services consultant, and built out Starling's business banking offering and Marketplace of 3rd party integrations.



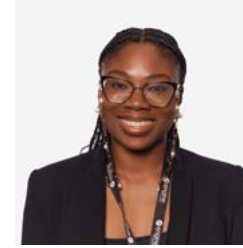
**Nick Drewett**  
Chief Commercial Officer

Nick is responsible for Engine's commercial and business strategy and for driving growth. Before Engine, Nick was an Executive Partner at IBM Global Business Services, working with clients such as ANZ, RBS and Virgin Money.



**Araminta Russell**  
Chief Delivery Officer

Araminta shapes our approach to solution design and leads our implementation teams. Starting her career with Accenture, she then led Starling's delivery of strategic technology programmes such as cheque imaging, 3D secure and cash deposits.



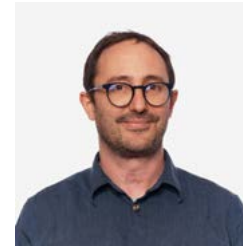
**Mariam Ogunbambi**  
Chief Client Officer

Mariam leads the management of Engine's existing clients. Previously, she delivered the integrations that made Starling the 1st in the UK to launch Apple Pay in-app provisioning, fully automate the Current Account Switch Service. Mariam also led the Starling Card Payments team.



**Tom Beresford**  
Chief Technology Officer

Tom leads Engine's technical and engineering operations. Previously, Tom helped build out Starling's engineering function and led the delivery of the bank's core transaction processing systems and payment system integrations, and facilitated the build of its cloud-native banking platform.



**Jaco Engelbrecht**  
Deputy Chief Technology Officer

Jaco is responsible for supporting the technology function and teams. Previously at Starling, Jaco was Engineering Director and led the development and delivery of the bank's cloud infrastructure ensuring it could scale to service millions of customers.



**Becci Freeman**  
Chief of Staff

Becci coordinates all business and administrative operations for Engine. Previously, Becci helped grow Starling's technology function and has held senior people and business management positions, directly supporting a number of the bank's C-level executives.

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