THE SOUNDS OF SMARTER BANKING
The Sounds of Smarter Banking represent more than just a baseline. They embody both digital and emotional tones. They are the symbiosis of how the company presents itself, its origins, its values and its ‘raison d’être’. Likewise, they describe the implemented software codes with their grammar, their syntax and their unique semantics. They express themselves in concepts, functions, functionalities, processes, products and solutions from the Finnova house. Using the metaphor of ‘The Sounds of Smarter Banking’, we connect this with our emotions. At Finnova Day 2019, Anna Känzig and her band delivered topics to us, which our photographer captured at this most important Community event, and which we will henceforth implement in an agile manner.

Finnova Day conveys many facets of our corporate culture to the outside world, bringing ‘Openness’, ‘Commitment’ and ‘Innovative strength’ to life as a real, existing value triad.
FINNOVA BANKING
SOFTWARE
END-TO-END, OPEN, INNOVATIVE, EFFICIENT

3 SWISS BANKS trust in the Finnova Banking Software

4 STRATEGIC FIELDS OF ACTION

4 LOCATIONS with headquarters in Lenzburg

4 PRODUCT SUITES

5 SERVICES & SOLUTIONS

40 YEARS HISTORY

80 PARTNERS

99 MILLION SWISS FRANCS ANNUAL TURNOVER

100 % SELF-FINANCED

100 CUSTOMER BANKS

400 EMPLOYEES
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Our promise
In order to be able to keep this promise in future, we have realigned ourselves as far as staff and organisation are concerned, switching to agile development methods and investing substantially in our product, service and solution portfolio. Furthermore, we are updating the architectural and technological basis for our Finnova Banking Software and our solutions.

For this, the Finnova Open Platform has the duty of ensuring the integration and orchestration, as well as the efficient operation, of digital applications.

With our 400 committed and talented employees, we actively manage the largest banking community of Switzerland, consisting of around 80 universal banks, 20 private banks and 100 partner companies. We use a wide range of panels and formats to this end. With the Finnova Banking Software and the accompanying services, from analysis and consulting to training, operation and support, our community can reap the benefits of a high-performance and reliable banking platform. It can be used end-to-end for various business models thanks to its wide range of functions, resulting in an attractive total cost of ownership.

The Finnova platform is open to software solutions developed by banks or third-parties such as fintechs, so that banks can differentiate themselves on the market in the era of digitalisation. Finnova also offers complete flexibility in choosing the most appropriate operating model for the bank, whether individual installation, multi-tenant installation or BPO services, supported by the selected operating partner. From Finnova’s own Application Management, we now also provide our products and solutions as an SaaS solution. The offer ranges from individual products to the full scope of the Finnova Banking Software. Not only are banks addressed here, but also further institutions such as insurance companies, pension funds or external asset managers. This enables us to always remain true to our claim: stable operation, innovative products and solutions for the Community with low TCO and, as needed and desired, individualisation of the respective customer needs.

Our roots
As one of the first fintech companies in Switzerland, our success story began in 1974 with the development of the ‘FIS’ software. In the early eighties, various banks joined forces in the FIS user bank pool. From this organisation, finis AG for banking software emerged in 1999, which developed an integrated modular solution for universal and private banks from scratch. This launch took place with a handful of customer banks and around 55 employees.

In autumn 2003, this mission was accomplished and finis became Finnova, which concentrated on the further development and marketing of its standard solution, the Finnova Banking Software. Only a few months later, the first banks opted for the new Finnova solution.

In summer 2005, the parallel operation of several banks on one single installation in a so-called multi-tenant tower was realised, which enabled further efficiency gains. Over the years, more and more banks have opted for the Finnova Banking Software, and the organisation has grown steadily. In order to be able to meet our customers’ requirements, also in the future, and to further increase our attractiveness for new talents, we have fundamentally transformed our organisation, operational methods, architecture and technology since 2013.

Our future
It is our ambition for the future to maintain and continuously enhance the establishment of Finnova software solutions as the leading reference for end-to-end banking in our target markets. We want to enable banks, operating partners and selective intermediaries, together with third-party providers, to take digitalisation, industrialisation and regulation as an opportunity and to successfully position themselves in the new era of banking. We focus our efforts on our roughly 100 existing customers. We wish to gain further banks for the Finnova Community in Switzerland and Liechtenstein, particularly in the private banking sector. We are investing heavily in our product and services portfolios in order to bring innovative solutions to market at the right time, be it in the form of Finnova developments or together with partners. We are investing in new operating models like SaaS so that financial institutions such as pension funds can also only use the parts of the software that are relevant for them. Topics like blockchain are on our agenda and cryptocurrencies can already be mapped in the Finnova Banking Software.

Our Organisation
Finnova is a limited company under Swiss law. Various stakeholder groups are represented in our shareholder base, in which all owners have a long-term commitment and share the company vision. This makes us a reliable partner. The majority shareholder of Finnova (registered as finnova AG Bankware) is the German IT consulting and system integration company msg systems ag. As part of the msg group, we have access to this globally designed network that includes over 7,000 experts and offers strategic consulting as well as value-adding IT solutions, primarily for sectors with vertical value-added chains, such as insurance companies, banks and the public sector. In addition, several customer banks, the strategic partner Swisscom and the Executive Board also have shares. This balanced structure, which is also reflected in the Board of Directors, incorporates the interests of the most important stakeholder groups. Our solidity can be seen in our 100% self-financing level.

All shareholder groups are represented in Finnova’s Board of Directors. Hans Zehetmaier, founder and CEO, and from 1 January 2020 onwards, chairman of the supervisory board of msg systems ag, has been its president since 2015. The Executive Board comprises the CEO and the heads of the five business units: Product Management, Development, Services, Business Development & Sales and Corporate Development & Finance. Our Executive Board members collectively have many years of experience in the IT and financial sector. Some of them have held leading positions at internationally active companies.
SOLUTIONS FOR SMARTER BANKING

In the future, successful business models in banking will be determined more than ever by the intelligent use of technology. Growing cost pressure resulting from the erosion of margins, the digitalisation of banking and increasing compliance requirements are driving forces here. In this interplay, we offer our customers efficient and innovative IT solutions, enabling ‘smarter banking’ with the open Finnova ecosystem.

The single-source banking solution

As an open, complete package, the Finnova Banking Software offers banks a broad range of functions, enabling consistent data storage and processing, up-to-date interaction with clients and comprehensive data analysis.

The Core Suite is the centrepiece of the Finnova Banking Software. It represents the Systems of Record, which guarantee processing that is as automated as far as possible and data storage, and this with sharply rising volumes, high speed and an increasing process orientation. The data is used and supplemented by the Systems of Engagement (Client Engagement Suite) and the Systems of Insight (Management Suite). The Systems of Engagement address customer experience, mobility and context-oriented services and information – with the aim of increasing the interaction of products and services for bank clients and making their banking activities as easy as possible. Last but not least, the Systems of Insight provide analyses concerning clients, products and markets as well as in-house procedures – with the aim of making informed decisions, of continuously introducing improvements and innovations, and of having risks under control at all times.

The Open Platform of the Finnova Banking Software enables integrations for third-party, development and service partners. It is also used for the integration and orchestration of Finnova’s own applications and suites. This makes way for an open ecosystem. From the bank clients’ perspective, the processes are continuously perceived in a digitalised manner. In accordance with the ‘Systems of’, Finnova takes on different roles as business driver and/or business enabler.
VALUE PROPOSITION FOR OUR CUSTOMERS

With the Finnova Banking Software, around 80 universal and 20 private banks benefit from the attractive total cost of ownership of this very modern, reliable and high-performance standard solution, which can be used front-to-back for various business models thanks to its wide range of functions. An appealing UX design enables a consistent user experience for bank end clients. Software individualisation takes place via parameterisation as well as via technical possibilities and tools made available in the Open Platform.

1 Stability
Parts of our software have been operating for years in varied constellations of use. It is characterised by the stability that our customers highly value, whether for peak loads such as the year-end processing or for rolling out new functionalities as a result of continuous releasing.

2 Functional breadth and depth
The Finnova Banking Software covers all essential functions of universal, retail, private and transaction banks, from core functions such as client master, fees or account balancing, to business processes such as payment transactions, financing and investments, as well as the Portfolio Management System, the digital workplace for client advisors, and the E-Banking, Mobile Banking and Branch client channels. We have developed this breadth of functions over the years for and with our 100 customer banks. Each bank can configure the software for its own needs using the near-endless parameterisation options. All functions put current regulatory requirements into practice.

3 Performance
The Finnova Banking Software is a particularly efficient processing platform with high scalability and high STP rates. This makes it possible, for example, to run the software on a multi-tenant tower with 26 banks, or as the backbone of the Swisscom processing centre, via which Zürcher Kantonalbank processes all of its payment transactions.

4 Innovations
Together with our customers and partners, we drive forward the further development of the standard solution within the framework of the Finnova Community panels with new products such as the Advisor Workbench, Loan Advisory, the Investment Cockpit and the Analytical Framework. With the systematic opening up of the Finnova platform to customised developments and third-party solutions, Finnova supports new business ideas that individual banks want to use to differentiate themselves on the market. Each bank can therefore choose how it wants to approach the digital transformation. Finnova is making significant investments in innovation topics such as digitalisation and the opening up of the software via the Open Platform.

5 Efficiency
Thanks to the broad cost distribution in the largest banking community in Switzerland, the automation and industrialisation made possible by the software, and the flexible operating models, our customer banks obtain a very attractive TCO. This is demonstrated every year with the top positions of our banks in the ranking of Swiss retail banks with the lowest cost-to-income ratio. Finnova banks occupy the top ten places of the 2018 ranking.

6 Community
With around 100 banks and over 80 partner companies, the Finnova Community is Switzerland’s largest, most diverse banking IT ecosystem. It unites banks with different business models and a wide range of sizes. We actively manage our Community via our topic-specific Expert Panels, the Advisory Panel at strategic level and the CEO Panel at top level. The Finnova Community offers banks and partners the opportunity to actively help shape and further develop the Finnova Banking Software and to drive innovations forward together. It means that we always have our finger on the pulse of our customers and partners and can therefore set the right priorities.

7 Expertise
Finnova has broad, in-depth experience with the Finnova Banking Software. With us, customers can get everything from one source, from business analysis and consulting to solution architectures and technology, as well as operation, training and support. In particular, special requirements can be implemented quickly together with the banks.

8 Flexible operation
Whether the software is installed individually, on a multi-tenant tower, or as a BPO service, our customers can choose the operating model that suits them best, with an operating partner of their choice. In all operating models, they benefit from our continuous releasing process. New software is rolled out incrementally – on a quarterly, or if desired, monthly basis. Finnova does not have major releases and the associated project costs.

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Cost-to-Income Ratio (CIR) Ranking of Swiss Retail Banks 2018
(Basis 2017)

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<th>Ranking</th>
<th>Bank</th>
<th>CIR</th>
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<tr>
<td>1</td>
<td>Banque Cantonale de Fribourg*</td>
<td>34.03%</td>
</tr>
<tr>
<td>2</td>
<td>Schweizer Kantonalbank*</td>
<td>42.62%</td>
</tr>
<tr>
<td>3</td>
<td>Bank EEK AG*</td>
<td>43.69%</td>
</tr>
<tr>
<td>4</td>
<td>AER Bank 1828 Genossenschaft*</td>
<td>43.78%</td>
</tr>
<tr>
<td>5</td>
<td>Caixa d’Epargne d’Automne société coopérative*</td>
<td>45.37%</td>
</tr>
<tr>
<td>6</td>
<td>Zuger Kantonalbank*</td>
<td>45.57%</td>
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<tr>
<td>7</td>
<td>Schaffhauser Kantonalbank*</td>
<td>45.57%</td>
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<tr>
<td>8</td>
<td>Graubündner Kantonalbank*</td>
<td>45.59%</td>
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<tr>
<td>9</td>
<td>Migros Bank*</td>
<td>44.50%</td>
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<tr>
<td>10</td>
<td>Appenzeller Kantonalbank*</td>
<td>47.07%</td>
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Source: IFZ Retail Banking Study 2018, p. 53 *Finnova bank
SUCCESS FOR CUSTOMER SEGMENTS

A wide spectrum of customer segments can benefit from our Finnova Banking Software. These are notably universal, retail, private and transaction banks, BPO/BSP providers, but also fintech and development companies.

Universal and retail banks
The focus of universal and retail banks is on increased efficiency and comprehensive functionalities. We support them with our highly automated software, high STP rates and efficient processes. The Finnova Banking Software standard solution already contains a very broad functionality for universal and retail banks that can be individually extended, notably through our open partner ecosystem.

Clientis banks
ESPRIT network
Banque Cantonale de Fribourg
Graubündner Kantonalbank
Migros Bank
Valiant

Private banks
The change in private banking with growing compliance requirements, margin pressure and changed client needs results in new business models. We offer private banks specific functionalities such as our new Portfolio Management System and the Advisor Workbench, as well as the possibility of simple connection of best-of-breed third-party solutions, which are already being used in many forms in private banking via FIL Integration Services. With its integrated functions and interfaces, the Finnova Banking Software offers a compliant implementation of regulatory and tax requirements, leaving private banks on the safe side – at an overall attractive TCO.

Habib Bank Zürich
Lienhardt & Partner Privatbank
Mercantil Bank (Switzerland)
Neue Bank (Liechtenstein)
Privatbank Bellerive
REYL & CIE

Transaction banks
The most efficient processing possible of payments, securities, foreign exchange and loans for other banks is the core competence of transaction banks. The Finnova Banking Software helps them achieve this with maximum scalability, high STP rates and maximum automation.

InCore Bank
VZ Depository Bank

BPO providers
Efficiency in banking is achieved today by breaking down the value chain and outsourcing standard processes to BPO providers. The Finnova Banking Software is ideally suited as a backbone for the industrialisation of banking processes. In addition, it offers a user platform especially designed for BPO providers, with which processes for several banks can be handled simultaneously.

Finanz-Logistik
Sobaco/InCore Bank
Swisscom

Fintechs and development companies
The integration solutions of the Open Platform enable a systematic connection of various systems to the Finnova Banking Software. The Finnova platform thus becomes an open ecosystem that supports the interaction of various actors such as banks’ own development teams, operating partners, development companies, fintech businesses and BPO partners. It helps Finnova to increase agility in the provision of functionalities and to meet the challenges resulting from the breakdown of the value chain and the technological change in banking more quickly.

Bexio
Camunda
Crypto Finance
Ergon Informatik
True Wealth

The listed names are an extract from the reference lists.
FINNOVA BANKING SOFTWARE
AT A GLANCE

The Finnova Banking Software is a comprehensive front-to-back software product for retail, universal and private banks. A consistent process orientation and a modular architecture enable a flexible adaptation and integration of the business functionalities required by banks, their clients and BPO providers today.

Value creation processes

In times of transformation towards digital excellence and increasing competitive pressure, banks are required to focus on the market services that create added value for their clients, and for which their clients are therefore willing to pay an appropriate price. This means banks can optimise their profitability via the added value generated. The turnover of the banks is primarily composed of the following value creation processes.

Payments

Digitalisation has significantly simplified the basic function ‘Payment Transactions’. Nowadays, payments are increasingly made via mobile devices, around the clock. Thanks to a consistent optimisation of front-to-back banking processes, it is possible to design simple touchpoints for the client as a way to create a unique client experience. In order for this to happen, straightforward processing and a high-performance processing engine are also necessary. Most of the basic products of banks, such as accounts or cards, and their administration are also allocated to the payment transaction processes.

Financing

While financing needs were previously addressed mainly at a regional level, digitalisation has eliminated geographical restrictions to a large extent. Banks across Switzerland now compete against each other, and as a result of digitalisation, the competition may soon spread to Europe. The importance of fast, cost-efficient and effective front-to-back processing in the lending business is growing, taking into account regulatory requirements – from client acquisition to an overall view from a management perspective.

Investments

The complexity of processes in the investment business is continuously increasing as well. This places higher demands on all those involved, from the client to the client advisor, through to compliance and back office employees – especially as not only national regulatory authorities and domestic and foreign tax authorities, but also special bilateral solutions play a part in this. New and innovative technology-based business models challenge conventional advisory methods. In this context, it is important to create added value for the bank clients that can be offset. Simple implementation and the costs play an important role for the bank. This places considerable demands on the flexibility of multiple systems such as tracking, valuation, alert, exception handling and reporting, to name but a few.

Management processes

The effective control of a bank and fulfilment of compliance requirements front to back require clearly defined processes along the value added chain of a bank, as well as consistent data storage and aggregation.

Bank Management

Managing a bank in a dynamic environment with an ever-increasing number of competitors and in an increasingly regulated market challenges many banks and their managers. Management decisions need to be taken on the basis of verifiable facts and in-depth analyses, which requires a comprehensive, coherent and consistent data and information base.

Compliance

Increasing compliance requirements on the part of regulators and authorities also present new challenges for the client-bank relationship. These challenges can be met by consistently focusing our software development on the client and thus on the banking needs. Therefore, compliance is becoming an integral part of the interaction between the client and the bank. The aim is to further automate compliance topics through the use of additional technical tools.

Business Process Management

By consistently aligning bank transactions to the clients’ needs, banks are able to create genuine added value for their clients. User-centred, effective and flexible process management is growing in importance – and with it technical software support in the form of integrated front-to-back core banking solutions like the Finnova Banking Software.
The Finnova Banking Software is divided into three user-oriented product suites, supplemented by the Open Platform, which itself is divided into product groups. Expansions take place in all suites in accordance with the strategic focus. The options available today in addition to the standard product and the integration services are presented in this brochure under the associated suite and in the appendix. We inform our customers and partners about the further development of the Finnova Banking Software in the quarterly Finnova Product Update.

**Finnova Banking Software**

Smarter banking with three coordinated business suites and the Open Platform

The Finnova Banking Software is divided into three business suites and the Open Platform. The suites address fundamentally different stakeholders. As its name suggests, the Core Suite stands for the central element of core banking and is the real backbone of the Finnova Banking Software for achieving high-performance industrialisation and digitalisation and ensuring 24/7 operation of straight through processing in real time. The other two suites build on this and focus accordingly. The Client Engagement Suite ensures the interaction between client and bank. It includes all channels, self-service offers in the portal, e-banking and mobile banking, as well as processes managed by advisors or service centres at the teller. The Management Suite constitutes the information and management centre for the bank management, which gets the maximum out of data using analytical approaches. The Open Platform is the link within the Finnova Banking Software and to customised and third-party solutions.
Finnova Client Engagement Suite

The Client Engagement Suite addresses the interaction with clients. Its central task is the best possible support of banks in client communication on all channels available to them. The orchestration of processes and content in the interaction with clients is of utmost importance. This ensures consistency across all channels as well as a user experience optimised for digital excellence, and offers banks the possibility of flexibly equipping the available channels with functionalities and process steps. The Client Engagement Suite is currently being expanded with a focus on investment. We take into account the increasing demands of end clients in mobile banking and e-banking, and support innovations in the area of ATMs and the connection of market places. In the areas of external asset management and in the repositioning of our customer banks in the local branch business, we also offer attractive solutions which enable banks to differentiate themselves on the market using modern information and communication technologies.

This use of technology also requires a new generation of workplace for advisors and service centres to support them in their daily sales activities. This workplace is role-based and offers an integral client and advisor perspective, as well as enabling a direct change to various advisory tools in the areas of financing, investments and pension provision.

Finnova Core Suite

The focus of the Core Suite is on transactionality and the data master. A high-performance, robust core application designed to provide the highest degree of automation and standardisation is an indispensable asset for financial services providers. The functionally rich, integrable and modularised Core Suite fulfils the requirements imposed on core banking.

The Core Suite is the central workplace, above all for the middle and back office, as well as for our BPO partners. It is and remains the backbone of the Finnova Banking Software and comprises the known expert modules. The modular structure of the Core Suite covers all modules with payment transactions, financing, investments, portfolio management, basic products, client and advisory processing. The master data retention is located here accordingly. For example, client master, card administration, interest rates, fees, charges and limits are integrated here. The parameterisable process management guarantees the banks an efficient and individual integration. The focus of the Core Suite is on the quick and comprehensive processing of all business cases and the unrestricted, role-based access to all data, as well as the fulfillment of operative security requirements in real time.

Finnova Management Suite

The keyword of the Management Suite is ‘interpretation’. The use of all available data to be able to make informed decisions is a main task of the Management Suite. This also takes place with analytical tools under the heading of artificial intelligence and machine learning. In particular, the Management Suite also addresses needs in the areas of integrated bank management such as financial and company accounting, risk management, compliance and legal reporting, and is thus the comprehensive instrument for bank and risk management.

It pools analyses and reports and in addition, its functionalities cover the ever-increasing compliance requirements in the banking sector.

Finnova Open Platform

The Open Platform makes the Finnova ecosystem more accessible to customers, partners and third-party providers. It embodies the openness of the Finnova Banking Software and its solutions. In times of ever faster change, innovation and agility are sought-after qualities. In order that the operated Finnova solution can better satisfy these needs, the Open Platform is being further designed and developed on an ongoing basis in close cooperation with key players in the Finnova ecosystem. Digitalised and industrialised banking will be possible in the future if solutions can be built and operated to be compatible with XaaS. The Open Platform product groups target different stakeholders in the Finnova ecosystem with their specific needs and requirements – from customised developments via Solution Integration to quality assurance and high-performance, cost-effective operation.

Operating models

In times of eroding margins and increased cost pressure, a low TCO is important for the competitiveness of banks. For this, the selection of the right and appropriate operating model of its IT solution plays a central role for the bank. The Finnova model is based on an open partner approach. Our customers can choose between different partners and operating models.

In practice, different operating models and integrations of third-party solutions have become established – from individual installations to multi-tenant towers with a parallel operation of 26 banks (in the past, there were also over 40 banks on one tower), from cost-effective standard solutions to the implementation of complex special requirements with third-party solutions, for example in the private banking sector.
Technology

The technology and architecture stacks on which the Finnova Banking Software is based determine the performance, flexibility and operating costs of the software. With the changing requirements of banking regarding IT solutions, and as a result of ever new technological possibilities, both the technological and architectural concepts used must also be continually adapted. Technology is never an end in itself. We strictly follow the principle ‘business drives technology, and technology enables business’.

Technological development of the Finnova Banking Software

Since the beginning of the Finnova Banking Software, the requirements facing banks have continually developed, as have technological possibilities. In the over 40-year-long history of Finnova, the technology and architecture stacks underlying our software have been successfully renewed three times (see figure below). We are currently working on the fourth renewal. The new technology is being implemented both in parallel with and in addition to the established technology. The established technology is the reliable backbone, and the new technology makes innovation and a modern user experience possible.

Established Gamma technology

The Core Suite is currently based on the so-called Gamma technology and architecture stack, which is ideal for meeting the requirements of the backbone of a banking system. We rely on established components, optimised for transaction-oriented systems. The most important part is an Oracle database that covers the whole data storage and the business logic. The presentation layer – the UI – is written in Java. As a result of many years of experience and the very high degree of maturity of the technologies used, we can reach a sustainably high level of stability and a high throughput, which is essential to a core banking system. The application of the technologies has been continually optimised over the years so that currently very high volumes of transactions can be processed with high efficiency and stability in the Core Suite. Thanks to sophisticated caching and load-balancing mechanisms, it is possible for several thousand users to work on one installation simultaneously without any problems.

New architectural and technological concepts

By expanding the Finnova Banking Software in the areas of the Client Engagement Suite and the Management Suite, as well as opening up the software with the Open Platform, we support banks in implementing digital business models in the front office, in data analytics and in the integration of third-party solutions.

Modern, digital client experiences present new requirements for design, mobility and intuitive operation. At the same time, integration with the Core Suite and a secure, consistent data flow need to be guaranteed. Finnova is addressing these challenges by using a new technology and architecture stack, which we call ‘Omega’. Omega uses new technological, container-based possibilities and concepts, meaning it is particularly suitable for the implementation and scaling of innovative and efficient operating models. With the Finnova Integration Layer, new architectural and technological concepts are also used for modular integration in the Core Suite.

Central features of the new Omega technology, such as failover, scaling, isolation of data storage and software distribution, reduce the complexity of operating, developing and even integrating customised products, which leads to lower operating and project costs. Thanks to the open and independent development platform, topics like excellent user experience or data analytics can be addressed more easily.

Additional operating models

Besides the existing operating models, an additional operating model is needed for the timely implementation of customised solutions that will differ considerably from today’s single-source approach, especially in the area of front-office applications. Through the use of modern cluster solutions (OpenShift), a model for the operation of new applications (container-based technology) is introduced that allows Finnova and the operators to run a bank-specific solution for each customer – a dedicated infrastructure is not necessary. This new operating model is also based on open-source components like Linux or OpenShift – no proprietary hardware and software need to be acquired. They are an integral part of the Omega architecture and technology stacks. Despite a high degree of individualisation, the TCO thus remain low thanks to the use of mainstream hardware and licence-free operating systems. With the resulting relief of the transaction-related systems of the Finnova Core, the operating costs can potentially be further reduced in the future.
FURTHER DEVELOPMENT OF THE FINNOVA BANKING SOFTWARE

It is our ambition for the future to maintain the position of Finnova software solutions as the leading reference for end-to-end banking in our target markets and to continuously adapt to the circumstances of the industry. We want to enable banks, operating partners and selective intermediaries, together with third-party providers, to take digitalisation, industrialisation and regulation as an opportunity and to successfully position themselves in the new era of banking. In the coming years, we will continue to invest significantly in the product, services and solution portfolio.

Principles of further product development
In the further development of the Finnova Banking Software, we are guided by the following objectives:

» Our product is the leading stable, flexible and easy-to-model banking software with the best total cost of ownership compared with competitors.
» It is an integrated standard product which is open for the integration of third-party systems and the development of customised solutions (custom development) via defined Integration Services. We thereby ensure end-to-end banking so that we can play an active role in the dynamic developments of digitalisation and industrialisation.
» Our aspiration is for our customers to be successful in the transformation of banking with regard to digital excellence, integration into the value-added chains of clients, and support of clients and advisors in the Finnova Banking Software, and we focus our efforts on this.
» Our product offers customers and BPO providers measurable quantitative and qualitative added value. This is maximised through a carefully selected and actively maintained partner ecosystem.
» The Finnova Banking Software uses state-of-the-art technology. It supports new, evolving operating models of the banks and BPO providers and optimally covers the requirements of mobility and contemporary user experience.

Strategic fields of action
The strategic hot topics are still the improvement of the digital experience, the use of information from data analytics for decision-making and the reduction of operational and compliance costs. With our strategic fields of action, we have defined clear focuses for development in order to support our customers and partners in the new era of banking with an open ecosystem. The efficiency advantages of a standard solution are thereby combined with the market differentiation of customised solutions.

Digitalisation
Digitalisation affects all areas of banking, first and foremost the interaction between bank clients and service providers in the provision and improvement of the digital experience. In B2B too, digital provision of services is spreading, extending product ranges and processing. Established business models are under pressure, and banks need to develop strategies to determine which added value they want to and can offer their clients in the digitalised world of tomorrow. Every bank has a slightly different starting point and needs to define the best way for itself. In the coming years, Finnova will focus on supporting customer banks as they implement their digitalisation strategies. On the one hand, this will be done through efficient, innovative standard products integrated into the core system on the bank’s client interface (Client Engagement Suite). On the other hand, it will be based on the easy and fast integration of third-party products or customised developments (Open Platform). It goes without saying that the digitalisation of existing processes falls considerably short of the mark; bank clients need to start reflecting on how to adjust and revise processes accordingly.

Industrialisation, standardisation
With banks focusing on investment in client-oriented digitalisation projects and the general cost pressure, the industrialisation of the banking business, along with standardisation and automation of processes and outsourcing of partial processes, is becoming increasingly important. Finnova follows the standardisation initiatives on the market closely with its investments. It implements processes and functionalities, which are becoming quasi-standards, cost-effectively, thereby driving forward the automation of the banking business.

Data, Analytics & Compliance
With the technological possibilities available, banks can obtain a competitive advantage through the systematic analysis of large quantities of structured and unstructured data, and the intelligent use of the results, be it in increasing revenue or in reducing risks in operative and strategic issues. Therefore, Finnova increasingly relies on the use of analytical tools. In doing so, it supports banks in achieving full transparency with regard to their own business. It helps with the implementation of regulations, transaction hedging and the processing, aggregation and provision of information for clients. Alongside the implementation of the various regulatory requirements, Finnova will continue to invest in its systems of insight, the Management Suite.

Ecosystem
The optimal solution architecture in banking IT is a symbiosis of efficient, fully-integrated systems and various tailor-made, non-core systems for special applications. The core system ensures consistent data storage, offers a uniform client experience and enables a low TCO. With the connection of selected non-core systems, high-quality cutting-edge solutions that enable market differentiation can be integrated. Finnova is investing significantly in the expansion of the Open Platform, which will really simplify the opening up of the Core Suite to third-party systems and customised developments. Finnova will thereby offer its customers an efficient, agile ecosystem with over 80 partners, with which they can implement their own needs.
**Strategic objectives**

With the Finnova Banking Software, we want to offer banks and operating partners an efficient, stable and flexible platform for modern end-to-end banking. At the heart of the strategic objectives lies the ‘Systems of...’ differentiation.

Our Core Suite has the function of Systems of Record with a focus on reliable and efficient processing of transactions and consistent primary data storage. If, figuratively speaking, the Core Suite can be understood as the heart, then our Systems of Insight, the Management Suite, are the brain, providing control. The focus is on static control information – the longer, the more algorithmic and dynamic. We will further expand the Management Suite with corresponding analysis functions that banks can use to generate added value from their data, above all in client interaction, but also for control.

Using the Finnova Analytical Framework (FAF), our customers are in a position to respond to individual issues such as fraud detection and prevention, client profiling or simulation. However, our aspiration goes much further: Finnova offers the banks the possibility of expanding the analytical framework step by step in the direction of a comprehensive solution, in accordance with their individual needs, the available know-how, as well as their resources and possibilities in terms of staff, infrastructure and finances.

On the client front, we will transform the Systems of Engagement from a multi-channel approach to an omni-channel approach, where client interaction can take place seamlessly across the channels. The Client Engagement Suite stands for ensuring the support of all client interaction across all channels. Integration capability is of central importance in the Systems of Engagement and is assured by the Open Platform.

The changes in banking show us the importance of integrating banking services into a wider ecosystem. The Open Platform enables this integration with regard to all three named ‘Systems of...’ and furthermore offers everything that is necessary for the quality of integration, with security, stability and consistency as the most important characteristics.

These strategic objectives for comprehensive end-to-end banking require consistent data storage and stringent process orchestration. With the vision of a Digital Experience Platform, which goes beyond the borders of individual financial institutions, open new perspectives in the cooperation between the bank and its clients. An overall view of the clients and their processes is required to ensure a consistent user experience. The figure above illustrates both the required process synchronisation across the client channels and the process orchestration between the individual systems. In order to be able to guarantee consistent data storage, primary data storage is ensured in the Systems of Record and Core Suite at all times.
FINNOVA SERVICES

Product-specific know-how and experience are key factors for success. Offering a wide range of services, Finnova enables banks, BPO providers and implementation partners to tap into the internal know-how and years of experience in the parameterisation, integration and operation of the Finnova Banking Software. This saves time and minimises project risks.

Consulting & Academy
The Finnova Consulting, Account System Engineering (ASE) and Academy teams combine know-how and practical experience concerning the Finnova Banking Software. If effectiveness and efficiency are important to you, no doubt you will draw on our network of pooled resources.

Optimal use of software to the advantage of the customers
Thanks to their close cooperation with the Development department, frequent contact with financial institutions and profound knowledge of the Finnova Banking Software and the operation of the required hardware and middleware, our specialists are able to ensure an optimum use of software for the customers, meeting their requirements without compromise.

The professionals in our teams have expert knowledge of the banking environment and the technical basics. They quickly grasp the problems, work out the best solutions possible and offer support in the following five areas, either as part of an individual mandate or as a general contractor: analyses, studies, consulting, implementations and training.

Well advised, also regarding architecture questions and integration projects
In this era of accelerated digitalisation and increasingly complex IT system landscapes, a sustainable and trendsetting IT architecture is of vital importance to satisfy the future requirements of modern IT solutions.

Architecture consulting supports our customers in the formulation and implementation of their digitalisation strategies, develops custom-fit solution concepts together with our internal and external partners, and accompanies demanding integration projects in the event of architecture questions and in implementation.

As a consultant for technology and methodology, we lend a hand in the establishment of architecture management, undertake tasks in product management and accompany sales. With our service, customers secure the sustainable and integral development of their IT thanks to impartial, independent and competent advice.

Data & Analytics
Consistent databases through effective data management guarantee the smooth operation of the systems – that is where our core competence lies. We make a measurable contribution to cost and project efficiency. On top of that, we support our customers in guaranteeing and optimising the operation of the software throughout its entire life cycle, for example in acquisitions or sales, mergers, reorganisations or platform changes.

Valuable analyses for managers and experts
We support decision makers in the company with meaningful analyses from a consistent database. Together with customers, we implement an efficient, multitenant-capable solution that provides added value for a wide range of banking business models. Thanks to jointly developed analytical solutions, we ensure that the banks’ needs are the focus of our services and our actions.

Our top priority is to use existing data and generate faster results, with the most attractive conditions possible and with a standardised solution. Individual requests can be implemented thanks to the use of standard technology and thanks to the chosen software architecture. The autonomy of the solution is ensured at all times. We provide support for individual analyses of customer-specific needs and the conversion to effective and performant DWH or big data solutions. We map reports and data views from different perspectives, depending on where the focus lies: sales opportunities, further product developments, cost optimisation potentials or management/department reporting.
Application Management
On request, Finnova Services also ensures application management for our customers. Our basic service package covers all maintenance efforts across the board. With this, the ongoing operation of the Finnova platform and second-level support are ensured. It also includes the testing and installation of software updates in the productive environment, as well as a specific quota of advisory and support services for ad hoc orders. We regard Application Management as a central knowledge and experience base that we consistently integrate into our software development.

Exchange of knowledge and experience
We also make this know-how available to our partners that operate the Finnova Banking Software for other banks. The services provided by Application Management enable efficient use and the highest possible performance of the Finnova platform, whether it is operated by Finnova or by one of its experienced partners. Moreover, we provide advice and assistance to our customers when it comes to creating implementation concepts for the efficient introduction of options, or when they purchase additional software components.

Quality Assurance
Our commitment towards our customers continues after they have purchased our software. We aim to support our customers throughout the entire life cycle of the software. Practical training courses enable a tailored software operation geared towards the various requirements of front office and application management employees. Our comprehensive multilingual documentation offers answers should any questions arise.

From expert knowledge to support, through to integration boxes
If Finnova users require further support, our three-level support process is set into action. In the event that the first two support levels cannot solve the problem or provide the necessary assistance, our customers can count on the third-level support provided by Finnova Customer Support for software-related problems and on the account system engineers (ASE) for technical questions.

Furthermore, we offer our customers and partners dedicated Finnova cloud environments for the proofs of concept of third-party systems to be connected with our integration boxes. The same applies for early tests in the case of further developments of such third-party systems. This accelerates the time to market and enables cost optimisation.

Integration & orchestration
The system landscape of our customers is becoming increasingly more complex. Within the framework of their digitalisation strategies, third-party systems are being connected to the Core Suite. These undertakings require a clean integration and a consistent data exchange in both directions. From analysis to implementation, Finnova Services guides and supports our customers in their integration endeavours.

With the FIL Integration Service (FIL IS), Finnova offers a standardised integration into the Finnova Banking Software. In addition to the standard product, Finnova is able to provide a customer-specific and individual integration in the form of a FIL Business Service Adapter (FIL BSA) for special requirements. This enables us to address customer-specific requirements directly and to implement an optimally adapted integration solution.

Growing importance of process orchestration
We provide a central overlying process view of the increasing number of interfaces and integrated services. On the basis of the Business Process Framework (BPF), Finnova Services enables our customers to automate their bank-specific processes. The processes are modelled in a standard format (BPMN 2.0), and are processed and executed directly by the Business Process Framework. Manual process steps can be automated in iteration and existing services can be orchestrated in a process-oriented manner. This enables our customers to handle their bank-specific processes from beginning to end in a consistent and transparent way.

Cross-system, end-to-end processes under control
The Business Process Framework (BPF), as an elementary component of the Open Platform, is versatile. Using it, a bank can customise any processes from beginning to end and digitalise across multiple systems.

Digitalisation of partial processes in selected software solutions
Processes are often partially digitalised today and exhibit media disruptions at the beginning, in the middle or at the end. These media disruptions occur because, for example, front-end processes are digitalised in explicitly selected software solutions. However, as soon as data entered and generated in the process is to be transferred to other systems for further processing, this implementation either via bridging with the BIO interface or via a point-to-point interface development. In rare cases, there is a central overview of which processes are allocated to which employees and which status these have.

Central process overview thanks to the Business Process Framework
If a bank decides to orchestrate cross-system, end-to-end processes via the Open Platform with BPF, it receives a central overview and evaluation options of processes that are ongoing and already executed per employee, organisational unit and process via the integrated process cockpit. The process overview can also be integrated into other systems via an interface so that all employees can find the information relevant for them in their most important work tool.
The customer touchpoints represent the main communication channels for financial institutions. This occurs with processes where the bank connects with its clients via the products. Usability has long since advanced to become the ‘differentiator’. This takes full effect when the processes are consistently mapped front-to-back in the Finnova Banking Software and the user perceives the user interface as a uniform, beneficial ‘stage of experience’.

MUSIC MOVES THE SOUL, BODY AND MIND
The Client Engagement Suite is aimed at bank clients, such as private, business or investment clients, as well as external asset managers and bank advisors. The Client Engagement Suite combines the digital channels – such as E-Banking, Mobile Banking and the Advisor Workbench – with the physical touchpoints such as Teller and ATM. This forms the basis for the future end-to-end orchestration of processes, documents and tasks. In addition to functionally consistent topics across the channels and touchpoints, the applications of the Client Engagement Suite also have a catalogue of non-functional requirements in common, most notably the look and feel, and security.

Open for the integration of third-party providers

The capability to integrate third-party applications simply and seamlessly into the front-end applications of the Core Suite is a key element of our developments in the Client Engagement Suite.

The Client Engagement Suite enables the implementation of hybrid branch strategies and customised advisory approaches. Finnova products play a key role in this. Furthermore, the Finnova ecosystem is an important cornerstone for the integration of value-added chains, ensuring the optimal implementation of bank-specific ideas and requirements.

**FINNOVA BANKING SOFTWARE**

**CLIENT ENGAGEMENT SUITE**

The rapid spread of mobile devices with sensors and internet access, for instance wireless loudspeakers, fitness trackers, smart watches, smart home devices and now also networked cars, change the way in which we interact with the world around us and with banks also in future.

Flat-rate data plans, the spread of wifi, and in particular the introduction of 5G mobile technology form the basis for the IoT (Internet of Things) business model – they introduce a new era of connectivity between human beings and machines.

‘Banking of Things’ is currently more a vague slogan than a tangible, established business model. It is clear that it makes new, exciting forms of client interaction possible and allows company-wide and cross-sector processes to be handled in an automated and efficient manner. In the context of IoT, new possibilities for business model innovations also open up for financial services providers, away from traditional banking products and services.

For Finnova, IoT is a future topic that we are actively pursuing on our technology radar. In order to be prepared, we are working in various innovation labs on topics such as controversial interfaces for a robo-advisor together with msg, as well as prototypes for language interfaces for the Mobile Banking app with Netcetera. For the Client Engagement Suite, we are implementing a cross-channel notification server. For the branches, we are establishing the interplay with smartphones/mobile banking for new forms of cash withdrawal, e.g. via QR code, online and POS authentication or digital signatures. In the context of blockchain, we are evaluating various areas of application, such as trading and storage of cryptoassets and the use of smart contracts.

**IoT in Banking – The Bank of Things**

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Digital Experience

Digital experience is understood to be the sum of digital interactions between a client and a company and the resulting impression. In the case of the Client Engagement Suite, the name says it all. The Finnova E-Banking application and the Mobile Banking app have already gained a foothold in the market. With Loan Advisory and the Advisor Workbench, two further flagship products are about to be established in the Finnova Community. In conjunction with the central orchestration components, the evaluation of a portal solution will ensure cross-channel customer journeys in future.

In order to keep pace with changed user behaviour, Finnova has continually developed the product range in the front-end channels in the past years. The current E-Banking application (payment transactions, stock exchange) is becoming a complete, fully-fledged application for existing clients thanks to additional self-service elements such as power of attorney and card administration, integrated robo-advisory or direct connection of ERP systems. Furthermore, general understanding of increasing mobility and location independence are taken into account. The Mobile Banking application will appear with a new look in 2019 and is oriented towards the current E-Banking application in terms of design and usability.

In parallel to the self-service channels of bank clients, the workstation of client advisors is aligned with the respective role and the associated needs with the Advisor Workbench (AWB) and Loan Advisory (LA).

The Advisor Workbench has recently reached general availability and is being used productively on a daily basis. The advisor dashboard aggregates the considerable calls to action (pending tasks) and is the starting point for the client search, advisories, and client and product processes. The client dashboard enables the quick view of a client. In addition to a complete financial overview, products and services used are the focus of the respective viewer. Many functionalities for increasing efficiency and assuring quality are already being analysed, planned or implemented for further development: order management (payment transactions and stock exchange), connection of the Finnova Analytical Framework to the AWB opening process (with integrated real-time compliance check) and enhancements for legal entities – these will facilitate day-to-day business for banks in future.

Loan Advisory has also reached market maturity. It addresses several roles: the advisor in client meetings, the advisor in the processing of loan transactions, and, if necessary, all middle and back office parties involved in the loan decision. The modern tablet application offers support in face-to-face advisory with convincing and high-quality visualisations and leads to a quicker loan decision thanks to an integrated set of rules. Client meetings become more structured as a result and acquiring a home becomes perceptible, tangible and documentable for the client.

The back-end solution of Loan Advisory sets new standards in process optimisation. The flexibly parameterisable set of rules distinguishes between standard and non-standard cases and thus ensures quick decision-making processes and throughput times. Integrated price, rating and appraisal services support automation, thereby gaining in time and quality. The end-to-end process in the banks’ lending business can be redefined with the future transfer to the Finnova Core Suite (under development). With a generic interface, it will be possible to integrate third-party tools easily and efficiently into Loan Advisory and avoid double entries in future.

With the evaluation of a suitable portal solution, Finnova wishes to bridge the gap between the anonymous bank website and the mainly transaction-oriented E-Banking/Mobile Banking application in future. In conjunction with a central orchestration component, the portal enables the interplay of the content of client and advisor channels (so-called customer journeys), and thus a further important step in the direction of digital experience.

E-Banking & Mobile Banking

E-Banking application

With the Finnova E-Banking application, private, business and investment clients – as well as external asset managers – are provided with a modern and high-performance solution. The excellent user experience of the E-Banking application is optimised for tablets and desktop devices. Native smartphone apps are also available in iOS and Android for small screens.

In the Finnova E-Banking application, account, balance and posting queries are made, and payments are entered and processed. Thanks to options for analysing expenditure, household budgets or future account transactions, clients have an up-to-date and clear presentation of their financial situation at all times. The digital financial assistant provides a comprehensive overview of all transactions, including credit cards. Expenditure is automatically grouped into categories, and individual, personal household budgets can be created. Financial circumstances are clearly displayed and are based on data as it is also available in the advisor’s Portfolio Management System.

Furthermore, stock exchange orders can be entered, executed, queued and processed by means of STP in the E-Banking application. With the mortgage extension, existing financing can be directly handled by the client and processed in the Loans module in the Core Suite. Further modules include E-Bill, Electronic Archive as well as Secure Mail for secure communication with the bank. Whether from the Payment Transactions or Stock Exchange application, Finnova accepts the orders and further processes them in real time. Our numerous partnerships enable a flexible choice of authentication and transaction signature procedures such as text message/mTAN, Crontosign, Smartcard, Swisscom MobileID and Kobil SSMS.

External asset managers (EAM) work with the Finnova Banking Software directly or via the E-Banking application. With the EAM profile, a specific EAM dashboard is available, which provides a clear overview of the most-used functionalities and the most important information. The focus is on efficient searches for clients, accounts, securities holdings and orders, as well as the list orders that are key for EAMs. All queries and processing jobs in the E-Banking application occur in real time, and all data is directly stored in the central database. This results in advantages in terms of data consistency and low operation costs.
Mobile Banking

Finnova Mobile Banking enables secure, simple access for completing bank transactions. With the use of native technologies such as iOS and Android, there is a focus on great user-friendliness, a high level of security and optimised performance. Finnova Mobile Banking offers all clients a direct and personal opportunity for interaction with their bank. The app displays the information relevant for the client and is characterised by a modern and contemporary design that is oriented towards the design principles of the current E-Banking application. It has been designed for all bank clients who wish to access their bank and asset information (account, custody account, portfolio) securely and conveniently.

Complete payment transaction and stock exchange functionalities are available. The app enables the ordering of documents and ensures the direct and confidential connection to a client advisor via Secure Mail. Of course, a comfortable document scanner for inpayment slips is available. Additionally, functionalities of the personal financial assistant (PFM) are integrated for analysing the income and expenditure of mobile banking end users. The Finnova Mobile Banking app is available as a native app on Android and iOS.

Branch & ATM

Branch (Teller)

The Finnova Teller application enables banks to efficiently serve their clients in the branch. Various client needs are covered here: deposits and disbursements in Swiss francs or foreign currencies, money exchange, precious metals, coins, collection of cheques, coupons and securities, and cash deposit for subscribed medium-term notes. Finnova enables the creation of physical and digital client and bank documents, including barcodes, as well as the fully automatic archiving of documents via document scanning. Via a standard interface, different types of automated teller safes can be controlled. The Teller application also contains auxiliary functions which enable control activities in the operation. In order to guarantee a maximum level of security, the most important business cases are also available in critical situations thanks to the integrated offline operating mode.
New branch models with a focus on client experience are emerging due to changing client needs. Cash transactions can be executed in the branch via a QR code, which can be used at the ATM. A teller safe is no longer required for this purpose. The bank can implement the cashless branch with this solution, without having to accept a fundamental dismantling of services. The solution also offers considerable advantages in crime prevention and protects the front office employees from such negative experiences.

ATM (Automated Teller Machine)
The ATM application enables the operation of ATMs, foreign currency ATMs and deposit machines with the Finnova application. Processes carried out at the ATM with banks’ own clients take place entirely in the Finnova Banking Software. The application processes services for cards issued by the bank, such as withdrawals, deposits and account transfers. It also supports the withdrawal of foreign currencies and the management of multi-accounts. A multitude of accounts can be assigned to a card and individual authorisations can be defined per account. In addition, calculations of limits and transaction fees are performed.

In the context of the standardisation of the ATM business by SIX, the module will be revised and updated. As of 2019, all business cases will be settled via SIX and processed accordingly in the ATM module. For example, it will be possible to connect pure deposit machines directly to Finnova in future.

Advisor Workbench
The Advisor Workbench plays a central role in the Client Engagement Suite. As the most advanced generation of an advisor workstation, it enables consistent, digitalised front-to-back processes in conjunction with Finnova and third-party products. The field of application of the Advisor Workbench is aimed at all front-oriented staff members such as client advisors or teller employees, and is also being extended for call centre employees.

- Comprehensive client view
  Demanding clients and higher compliance requirements pose great challenges for banks. Therefore, being able to access extensive client information quickly and easily is of vital importance. The Advisor Workbench summarises information regarding a client on a few screens.

- Guided processes
  Efficiency is also of central importance for a bank in a digitalised world. Guided processes enable quick client and product openings without limiting the required flexibility.

- Modern look and feel
  The advisor workstation is characterised by a modern look and feel and is being developed in close cooperation with UX specialists and client advisors on the bank side.

- Comprehensive range of functions
  The range of functions includes the advisor dashboard, client search, client dashboard, client and product opening, card administration and integration of third-party content. It is being gradually expanded.
Investment Cockpit: Operational excellence in asset management

The megatrend of individualisation is having an impact worldwide: Demanding customers in private banking increasingly expect custom-made, individual offers. If banks do not wish to fall behind in asset management, it will soon be mandatory to offer clients customisable products. The Investment Cockpit supports product customisation with mass customisation, thereby enabling operational excellence.

As a modern, web-based application, the Investment Cockpit seamlessly joins the tools of the Finnova Client Engagement Suite. Dashboards and portfolio overviews that can be configured user-specifically visualise the status of mandates for target groups for the management and monitoring of mandates. This enables the user to prospectively identify a need for action and to introduce measures that effectively reduce the risk of an undesired development.

Graphical widgets in the dashboard show which mandate types, financial service types and strategies are particularly attractive, where a high liquidity coverage ratio displays incoming capital and therefore a need for investment, where strategy deviations or even restriction violations exist, or which test aspects have been violated and whether these have already been processed.

The dashboards are supplemented by a global portfolio overview, from which not only the investment status of a portfolio can be seen at a glance, but also with which ratio this is invested, whether one of the accounts in the portfolio shows a debit balance, how high the portfolio drift, performance or risk is, and whether any violation of an investment restriction exists.

The selection of portfolios for further processing, such as a portfolio restructuring, is intuitive and easy. A guided step-by-step process supports the user both in the preparation and quick implementation of investment decisions in the mandates, with or without special client instructions.

Particularly in combination with the functionality ‘Topic-oriented investing’, which allows for a thematic customisation of mandates beyond the traditional product range, the Investment Cockpit supports banks in achieving operative excellence and at the same time satisfying the requirements of demanding clients by means of attractive, customisable products.

Loan Advisory

Financing advisory is made easy with Finnova Loan Advisory. Aimed at all client types and transaction types, first-class visualisations and a comprehensive set of rules support convenient, differentiated and structured client advisory, thereby enabling a prompt loan decision. The application supports the entire process, from the loan advisory through to processing – in a digitalised, automated and fully integrated manner.

With the digitally supported advisory discussion, the tablet application allows the client advisor to perform a comfortable face-to-face client advisory for home financing tailored to the client. A novel and unique advisory experience for both clients and client advisors takes centre stage. In conjunction with the desktop application, the advisory part can be optimally used in a seamless and efficient overall process for pre- and post-processing, the loan decision, quality assurance and refinement.

The full integration into the Finnova core (Core Suite) is part of Loan Advisory. The solution is based on new web technologies and can be used on all terminals. Thanks to the new orchestration possibilities, the client advisor can call up Loan Advisory directly from their Advisor Workbench.
Customer Management
With Customer Management, the Finnova Banking Software offers detailed information and structured evaluations. These and further functionalities are also currently available directly in the Advisor Workbench (AWB). In future, data from any systems and applications will be summarised, analysed and made available again accordingly prepared in a central data storage. This information can be used to get a clear and detailed image of the client. It enables clients to be advised better and via their preferred channel. For example, this allows pending tasks to be managed, categorised and prioritised more efficiently and more effectively as a result of the expansion of the pending task system.

Business Banking
Functionalities specifically for business clients are combined in the Business Banking module. A lot can be expected here in future – in particular with the integration of banking services into the processes of business clients. The Finnova Payment Transactions (ZV) application currently puts banks in a position to offer their demanding business clients competitive payment transactions and cash management. The support of this important client segment is gaining in significance, in particular in international competition. This includes the processing of electronically submitted payment files, client cash reporting in line with market requirements, as well as the support of clients with several bank accounts (multi-banking). Business banking functionalities are available in the Finnova E-Banking and Mobile Banking applications and are completed with business connectivity solutions. This comprises the connection of third-party ERP and business software solutions, the connection to the SIX API platform via the Swiss Corporate API, as well as the support of current formats and standards, e.g. EBICS.

Customer Management
Today, bank clients have a wide variety of requirements for their bank: for example, triggering a payment via e-banking, querying the current mortgage interest rates via the mobile app, paying for their morning coffee at the train station with a mobile payment solution or withdrawing cash in London, possibly even via a QR code via the mobile app. All of these business cases are entered and managed in a central data storage. And finally, this helps in advising the client even better with a holistic approach.

Customer management does not mean presenting the current data in a nice way. Under customer management, we understand summarising, analysing and making available again accordingly prepared data from any systems and applications in a central data storage. Already today, banks have a great deal of information about their clients: How is their liquidity, do they make many withdrawals abroad, via which channels do they contact the bank, do they trade with securities or do they wish to have their own home in future? All of this information can be used to get a clear and detailed image of the client. It enables clients to be advised better, more efficiently and in a more targeted way via their preferred channel.

In addition, enhancements for existing products are planned. For example, the current pending task system is being further optimised, redesigned and significantly expanded. Pending tasks are becoming increasingly important for advisory and banking. A current analysis shows that, on average, advisors need to have up to 250 pending tasks under control. With the expansion of the pending task system to a pending task management, it will be possible to manage, categorise and prioritise pending tasks more efficiently and more effectively in future.
A sound is a physical vibration we can perceive with our human senses. The zeros and ones set the tone in the Finnova Banking Software; static and dynamic, own or third-party data from the software is used, changed or regenerated again and again. Likewise, it needs to be reinterpreted time and again. It represents both the basis and the trigger for the many parameters and the control. The functional, data-related orchestration only becomes possible with it.
FINNOVA CORE SUITE

The Core Suite ensures the management of master data (consistency, up-to-dateness, clarity), and secure, reliable, high-performance order processing. By nature, the Core Suite is data-centric, requiring high efficiency, processing speed and capacity.

payments

The Finnova Payment Transactions (ZV) module is designed for efficiency and automation. It supports standards and procedures established in Switzerland and internationally (incl. SEPA), and the structured and efficient entry and processing of payment orders. As a matter of course, client and interbank payments are supported in the current XML format according to ISO 20022. As a result of the full integration of electronic channels into the Finnova Payment Transactions module, optimal processing of client payment orders can take place and electronic account statement information can be provided quickly and as needed. Innovative market developments such as peer-to-peer payments or person-to-merchant payments (e.g. Twint or WIR Pay) are seamlessly integrated into the Finnova ZV application via the Finnova Payment Solution Adapter, and offer private or business clients a broad spectrum of payment options.

In cross-border international payment transactions, it is possible to achieve a high degree of automation with the bank-specific entry of multi-level payment channels at final beneficiary bank/currency level for the execution of client payments, which minimises the time and effort for manual post-processing jobs and saves costs.

A flexible set of rules is provided for outgoing payments in the payment transactions application in order to ensure the check of bank-internal cut-off times for the execution of payment orders. If the defined cut-off time is exceeded, the execution date is set to the next possible bank working day. If back office employees are required to intervene in the processing, they are supported by smart processes (automatic triggering or processing of returns, inquiries, order duplication, reverse processing or SWIFT, SIC or SEPA cancellation requests). The banks’ requirements of scalable and cost-effective processing of payment transactions are paramount. Depending on the bank’s operating model, the Payment Transactions application can either be an integral part of the Finnova Banking Software or it supports the modular connection to a BPO provider.

Data Quality Framework

The “Finnova Data Quality Framework” service package of Finnova Services shows where problems lie. Together with the customer, a tailor-made concept for the implementation of cleanup jobs within the customer’s own client master data is developed, and possible enrichment and migration scenarios are analysed. Using a detailed plan of measures, the identified optimisation plans can be implemented transparently. With this package, we support customer requirements in the areas of client master standardisation and data deletion, and help them with the implementation of a client life cycle concept.

ZV Quality Check

With the ZV Quality Check of Finnova Services, our consultants screen the parameterisation of the Finnova Banking Software in the Payment Transactions module. We conduct interviews with the users in order to gain insight into their work processes. We create a comprehensive report from these findings, which assesses the quality of the parameterisation and contains optimisation proposals to facilitate the day-to-day work.
Payment transaction processes can be adapted to bank-specific requirements. The predefined workflows guarantee the highest level of security and reproducibility. In addition to the manual entry of payment orders, various ZV scanning systems are supported. Orders from the E-Banking application enter directly into the Payment Transactions application without redundant storage. Standing orders and cash management rules at account level are directly entered and managed in the Finnova ZV application. Both the bank and the client can edit standing orders and the cash management set of rules in the E-Banking application. In order to support banks in the fight against fraud, the originator profile can be checked by clients before the execution of payment orders. In the case of incoming payments, the bank can choose from a extensive set of criteria whether the credit entry should be made immediately or not.

With beneficiary matching, which can be extended to phonetic similarity, both the greatest possible security during allocation and a high degree of automation are achieved. Naturally, it is possible to perform a check with regard to politically exposed persons and embargoed countries. Furthermore, payments can be checked in real time using analytical methods (transaction check, connections, pattern identification, (learning) algorithms) with the Finnova Compliance Filter, which is part of the Finnova Analytical Framework. Processed payment orders are immediately posted, the notifications are created for the clients, and the documents are stored in the electronic archive.

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Blockchain

Blockchain and cryptocurrencies are topics that we are actively pursuing on our technology radar. A disruptive effect underscores the technology, in particular for the financial services sector, which will fundamentally change the role of banks. What does blockchain mean exactly and how will this technology change how we deal with money and capital investments in future? How is Finnova positioned in relation to this topic and in which form will the concepts influence our future service offering?

What is blockchain?

Blockchain is a technology that interlinks transactions of a digitally representable value and saves them in immutable chain of blocks, the so-called ledger. This immutability is ensured by a consensus for the insertion of a new block, by a distributed network in which each participant has a copy of the ledger, and by cryptographic procedure. The most well-known consensus protocol is the proof of work, in which a participant designated as a miner solves a moderately difficult calculation task.

What does blockchain signify for the financial services sector?

If I wish to ensure the ownership rights for a good or the validity of a contract, I need an officially authorised intermediary that all parties involved trust. In the financial services sector, these are banks, for example, and notaries in the case of contracts. These intermediaries make transactions tamper-proof. Blockchain now provides a technology to make such transactions immutable and thus tamper-proof without intermediaries. The first application was the bitcoin currency. In addition to trading with cryptocurrencies, numerous applications in the area of corporate and trade financing, client onboarding, insurance, real estate, protection against money laundering, or also in the areas of audit and regulatory compliance and identity management stand out.

Blockchain at Finnova: Fields of action

From the numerous fields of action, Finnova identifies one strategy suitable for the Community, is developing the first service offerings with blockchain and is testing these together with partners for possible business models. The specific fields of action are:

- A prototype should sound out the opportunities of new financing options through tokenisation. Shareholdings are thereby exchangeable without a central trading platform.
- In consent management, contracts between end clients, banks and service providers are concluded digitally.
- Our Core Suite will be extended in the coming months for trading and payment with cryptocurrencies. This includes the easy and safe custody of private keys and the guided purchase and sale of cryptocurrencies.

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Financing
Loan Advisory
The loan system is characterised by a high degree of flexibility when mapping various loan constellations that can be fully processed, from the loan advisory discussion and the opening of the loan order to the posting of capital and interest. The Loan Advisory module enables the entry of all loan products such as loans, overdraft facility, Libor mortgage, Lombard loan, fixed advance, cash loan, leasing or contract bond. In principle, financing can take the form of a credit line or an individual loan. In addition, collateral can be assigned, amortisations can be determined, and execution accounts and client-specific conditions (debit interest, credit commissions) can be assigned. Loan transactions are supported by procedural organisation stages and by the periodic processing of interest, amortisations, fixed annuities (for loans, cash loans and leasing) and collateral.

At this point, we would like to refer to the support in self-service: the extension of a mortgage can be carried out by clients themselves, if desired, via e-banking.

Loan processing and credit management
The loan system contains the master data management of individual loans and credit lines as well as collateral in Swiss francs and foreign currencies. The application manages pledged assets, such as account balances, custody accounts, portfolio collateral, guarantees, insurances and all other collateral. Mortgage collateral is generated and updated from the Real Estate application. All loan-relevant data is displayed in an overview screen with drilldown functionality. The module allows the portfolio status with all loan-relevant data to be printed. The screens for the management of client information (income, assets, liabilities, balance sheet ratios, taxes, debt enforcement, exceptions from the commercial register) as well as client contacts and pending tasks can be directly called. The entire credit management process is supported by the workflow.

Limits
With its Limits module, the Finnova Banking Software offers the possibility of managing and administering different limits such as counterparty, nostro, credit or card limits. Changes are updated online and have a direct impact on the calculation of the available balance. Limits can be directly entered and automatically updated via the Loans application. The Limits module enables the definition of simple and complex limits, for example if several accounts show an amount as the initial value. All Finnova applications that provide current balances, like for the account query, take into account the fixed limits in the calculation of the available balance.

Competences
The regulation of competences within the bank is governed via the Competences module. This module determines for all other modules which employees are allowed to deal with and/or authorise which business cases up to what amount. With the definition of the competences, it is controlled who receives, further processes or concludes which pending tasks in the workflow.

Collateral
The Collateral module manages all securities as collateral in the Finnova application, from real estate liens to portfolio, account and custody account balances through to securities and retirement assets. This module also makes it possible to take into account insurance policies, guarantees and other collateral such as unsecured lines.

Real Estate
In addition to comprehensive and detailed master data for real estate and mortgage notes, the Real Estate module allows the connection of digital images. With the Finnova Banking Software, even complex ownership structures can be recorded and all data for the detailed appraisal of a property is provided. Hedonic pricing models are also integrated. The module creates a variety of documents, like appraisal reports for the land register office. These and other documents to be created frequently, such as registration and deregistration in the register of mortgage holders, can be printed by means of a simple mouse click.

In addition to owner-occupied property (single family house, multi-family residence, condominium ownership), the Real Estate module also enables the management of other properties such as industrial and commercial properties, hotels, restaurants, sports facilities, etc. Thanks to the versatile connection possibilities, even complex residential developments can be fully mapped, for instance, multi-family residences with condominium ownership and co-ownership of the underground car park. The module enables individual levels of detailing: the more precise the data, the more comprehensive the appraisal report. Mortgage notes entered in the system are used as collateral in the Loans application.

Mortgage Bond Bank
As an interface, the Mortgage Bond Bank module enables the digital reporting of pledged properties such as real estate or real estate compounds to the mortgage bond bank. A mortgage bond property is only transmitted if all required fields are filled in completely and the conditions for repledging have been met. The corresponding information can be parameterised by the bank according to its needs. The individual data has to be entered in the master applications Real Estate, Loans and Client Master and is transferred into the Mortgage Bond Bank module using the ‘Update’ function. Data that cannot be maintained in the master applications is updated in the Mortgage Bond Bank module.

Investment Management
The Portfolio Management System (PMS) module integrated into the Core Suite optimally supports activities in discretionary asset management and advisory. In the PMS, allocation structures (trees) adapted to bank-specific client strategies, which serve as a basis for the various strategies, tactics, benchmarks and model portfolios, can be determined in any desired depth. Customised investment proposals in advisory and efficient bulk processing in asset management are also offered.

The ’Global Order’ functionality enables the periodic restructuring of mandates in a very efficient manner. Both dynamic and static investment models can be implemented. A global restructuring can take place, dependently or independently of model portfolios, for all investments in the portfolio, for individual segments or only for individual securities. Using the ‘Cash Management’ function, cash holdings for mandates can be managed separately from global restructuring processes. A seamless transition of the generated stock exchange and foreign exchange orders for execution into the downstream modules is guaranteed. Bank- and client-specific investment guidelines and preferences can be easily maintained via the ‘Investment restrictions’ function and monitored in the pre-trade restriction check for an individual investment proposal, or within a bulk restructuring in asset management. The periodic post-trade check of investment restrictions in investment controlling is efficiently supported by checklists. Violations are directly reported to the mailbox of the user responsible for further processing.
Comprehensive configurable ad hoc analyses for asset allocation, asset development, performance calculation (TWR, MWR, before/after taxes/fees, etc.) and performance attribution facilitate the day-to-day business of client advisors, asset managers and portfolio controlling. A variety of key figures (Sharpe ratio, Treynor ratio, Jensen’s alpha, information ratio, VaR, volatility, PRC, etc.) are available for risk monitoring. The modular structure of the reporting enables the compilation and preparation of a targeted investment reporting, which allows not only the inclusion of ex-custody portfolios, but also a consolidation across all clients.

Furthermore, the PMS includes the configuration, management and calculation of composites according to the specifications of the Global Investment Performance Standards (GIPS). The periodic certification check is supported with detailed control reports.

**Investment Operations**

The Stock Exchange module controls the order workflow, from the creation to trading through to processing and posting. The orders can be entered as individual or list orders. Further order sources are E-Banking, Global Order, Corporate Actions, CSV import as well as an interface to third-party systems. Comprehensive check functions ensure compliance with regulatory requirements. The presence and validity of any contracts can be checked bank-specifically. All warnings from the checks are historized, as are the person and time of overrides. Orders from various sources (e.g. e-banking) can be treated differently in the process.

The flexible implementation of the FIX interface allows for a complete STP connection to any brokers, routing networks, or external trading platforms. Execution messages can also optionally be sent via SWIFT. Communication takes place in real time. Adjustments to the order data of the trade overview are updated and highlighted in the overview without a time delay with the aid of a messaging system.
SWIFT messages (MT566) are reconciled and can trigger au-
томатически processing within the Finnova application. Com-
munication System, Workflow, Competences, Limits, Foreign
For specific trading exchanges, the orders can be processed
semi-automatically or manually. For this purpose, the trader
interface offers profile support, reservation mechanisms and
tools to compensate for opposing client orders. Here, the pool-
ing functionality takes into account the individual cut-off times
for funds. The interfaces to the following modules ensure fully
automated processing within the Finnova application: Com-
nunication System, Workflow, Competences, Limits, Foreign
With Corporate Actions, it is possible to replicate cash and
securities flows of complex financial instruments in a modular
system. The corresponding components from the areas of se-
curities, cash, taxes and commissions are available for this pur-
pose. Here, the calculation, fraction treatment and assignment
(drawings) comply with the standards of international financial
The printing options allow for a comprehensive control of
dispatching, attachments and archiving. The text templates
pre-defined for the individual business cases can be freely
adjusted for each individual transaction, and also comprise
multi-page texts for pre-notifications, replies and settlements.
Thanks to these properties, all events can be mapped, from
dividends to invitations and general assemblies through to
splits and mergers.
Specific screens for the service centre allow for process-
ing of events across all tenants.
The Securities Master module contains comprehensive
securities data as well as listings, price data, international iden-
tification numbers and symbols, tax data, ratings and MiFID
data. In addition, it offers the possibility of entering structures
and relationships that are required, for example, for the secu-
rities composition of an index or basket.
For the opening of a security, entry of a valid identifier
is all that is needed to start the automated process. Within a
few minutes, all data of the desired security can be obtained
from the provider and supplemented on the basis of rules.
The module automatically registers and takes into account
standing instructions of clients with regard to selection events
(optional dividend, capital increase, invitation to the general
assembly, etc.). Restrictions can be individually defined per
event. Blocked custody account positions are identified and
the required actions are automatically triggered. Client advi-
sors are automatically informed about new settlements or
selection events of their clients.
Various selection options regarding holdings, stock ex-
change transactions, countries of residence at a certain point
in time, also retrospectively, and nationality are available for
class actions. With this, an authorisation for participation in a
class action can be displayed to the client in detail and with
indication of the relevant stock exchange transactions.
The Corporate Actions module is workflow-based and has
an integrated interface to the Foreign Exchange, Tax State-
ment and PMS modules. The events can be imported via VDF
or WM data feed or entered manually. The paying agent’s
payment and PMS modules. The events can be imported via VDF
Clients & Products

All product-specific and client-specific data and functions for the Client Master, Card Administration, Limits, Fees and Account Balancing modules, in particular, are fully integrated into the Core Suite. These functions provide the core of the master data management, the ‘golden record’ of a core banking system.

The parameterisable process management guarantees the banks an efficient and individual integration.

» Client Master

The Client Master module stores a wide range of client data. This includes information about persons, addresses, communication tools, details of the client relationship, the relationship between client master records or the financial situation of the client. As a special feature, the functionality of the module can be extended bank-specifically with additional fields. Advisors have the possibility of performing a filtered search for clients according to various criteria in the system and thus of managing them along the lines of their current task.

» Portfolio Balance Overview

The Portfolio Balance Overview module is able to create and edit many of a client’s account products. A client may have a number of accounts or custody accounts combined within one or more groups (portfolios).

» Anti-Money Laundering

The Anti-Money Laundering module fulfills all requirements in relation to the client master concerning the anti-money laundering ordinance.

» Card Administration

Different card types of a client can be managed, i.e. generated and processed, with the Card Administration module. A client can be assigned several cards with different limits, whether as a holder or an authorised representative. With the multi-account function, cards can be assigned to multiple accounts. The module comprises all business processes concerning cards, such as new orders, adjustments, geoblocking, ordering of replacement cards, card blocking, PIN reordering, complete renewal, and determining the field of application per account.

» Tariffs

Tariffs is a central module in the Finnova Banking Software and provides significant support for the modelling of bank products, i.e. tariffs, for very varied price components. The tariff scheme is applied for transaction-dependent and non-transaction-dependent transactions, such as for stock exchange transactions, for creation of the account balancing and when using other fees.

» Fees

Services which are not transaction-oriented are calculated and charged in the Fees module. The Fees module covers a variety of fee types. The fees incurred are generally calculated by a batch process triggered periodically. The user then has the possibility to check the calculated fees and to make corrections, if necessary. Calculations can be performed for one or more time periods. Fees are then cumulated and ultimately charged. The user can view the fees incurred in the system at any time, and select the level of detail. The fees list includes, for example:

- Package fees
- Credit fee
- All-in-one fee
- Retrocessions
- Custody account fee
- Chargeable withdrawals
- Document fee

» Limits

The ‘Limits’ module is provided for the real-time monitoring of external limits (client’s limits) and internal limits (nostro limits) and monitors limits from the bank’s perspective. The focus is on the following business events:

- Definition of limits
- Determination of withdrawal options
- Management of amount notices

» Customer Relationship Management

The CRM module in the Core Suite provides advisors with comprehensive information and tools that define which products are tailored to the specific prerequisites and needs of a client. These parameters can be determined in detail and individually, which enables the establishment of a product, advisory and sales process that is tailored to the client’s needs. Various structured evaluations of the client profile and portfolio make it possible to ascertain which bank-internal products suit a client best. It is also possible to evaluate the sales potential of a certain product and to implement a sales campaign based on this.

The CRM module regulates the management of pending tasks and notes; it contains the client history and coordinates the client process with figures, data and facts. Thanks to a frequency of contact that can be individually determined, each client is regularly supported according to his or her needs. The module allows banks to implement care standards, which makes it easier to form individual, sustainable client relationships. In the future, the Advisor Workbench (part of the Client Engagement Suite) will support advisors with their day-to-day tasks, with a significant proportion of functionalities coming from the area Clients & Products.
Tax

Finnova offers a comprehensive and integrated tax solution. In principle, there are two types of tax reporting: tax data that banks must deliver to the authorities in the context of regulatory reporting requirements, for instance, on the basis of agreements such as FATCA and AEOI (regulatory tax reporting) and tax statements for clients (individual tax statements).

Banks have many obligations to comply with regulatory tax reporting. A fully integrated solution is provided in the context of the automatic exchange of information (AEOI) and FATCA. The respective indicia search run, the classification of bank clients in terms of reporting requirements, and the creation of the consolidated reporting file for the tax authorities are part of this in-house development. Reporting can take place on an aggregate basis at account or client level. A correction mechanism exists for reporting to the FTA. The tax identification number (TIN) process enables audit-compliant documentation for unsuccessful obtaining of the TIN as well as annual pending task creation for repeat efforts to obtain information. Process control takes place via user-friendly input screens (GUIs).

Tax statements for clients in accordance with Swiss law are created directly from the Core Suite with all necessary data. For the purpose of flexibility, there is a separate data warehouse. It is possible to modify tax-relevant information and to enter rates and additional transactions. The Finnova application creates, prints and archives tax statements. The tax statement can be created at client level or on the basis of the portfolio in the standard. Tax statements are made available online for e-banking clients. If desired, key figures for the calculation of settlement fees can be made available to bank clients.

Naturally, the Core Suite also enables the creation of the Swiss tax statement in electronic form. The electronically readable PDF417 barcode provides banks with partially automated processing without media disruption, from the bank (creation) to the clients (tax return) to the tax authorities (assessment).

German bank clients are provided with a functionality for creating the tax statement in accordance with German tax legislation in the Finnova system up to and including the 2017 assessment period. For the 2018 assessment period, or as of 01.01.2019, it is possible to obtain tax statements for Germany – and other countries if desired – from third-party providers. Finnova prepares consistent, high-quality data and makes it available to third-party providers for the generation of tax statements for the countries offered. In order to protect sensitive client data, address enrichment, printing, calculation of fees, dispatch, and archiving of the tax statement take place in the Finnova Banking Software.

The ‘Tax profile overview’ screen consolidates all tax-relevant topics of the bank clients. Compliance managers or client advisors can thus see at a glance which reporting obligations exist for their clients or which tax statements are generated for them.
MUSIC IS
LANGUAGE

AND EMOTION
AT THE SAME TIME

Just as language uses grammar, syntax and pragmatics, the key, measure and notes define the framework in music. In banking, it is the information from data, rules and handling processes that contribute to sustainable control of success. The framework is provided by the management sciences, compliance and 'good governance'. The regulator and the bank management act together at various levels, similar to the role of an organiser and a conductor.
analytical tools for clarifying various use cases. It pools analyses and reports and in addition, its functionalities cover the ever-increasing compliance requirements in the banking sector. Furthermore, it provides rules of the supervisory authority.

The Management Suite addresses needs in the area of integrated bank management, such as financial and company accounting, risk management, compliance, legal reporting and data analytics.

Financial Accounting & Controlling
Postings from the business case modules – such as Loans, Payment Transactions and Stock Exchange – are uniformly processed and managed via the centrally available Accounting System application. Postings can also be imported into the Finnova Banking Software via interfaces.

Balance sheets and income statements can be manually adjusted retroactively by creating supplementary entries. These changes are documented to make them auditable. The so-called balance sheet cut-off date defines bank-specifically (per financial accounting location) up until when such postings should be permitted in a previous month.

In principle, the balance sheet and income statement are available online. Day-end processing (DEP) is performed. Of course, multiple balance sheet structures can be used. The accounts and items can be assigned to one or more structures for determining income. The balance sheet and income statement are based on the Swiss accounting standards and rules of the supervisory authority.

In the Accounting module, various evaluations can be triggered automatically using rules entered with recurring events, or on an ad-hoc basis. Alongside the ordinary balance sheet and income statement, the most important list types include the turnover and average balance sheet, structuring by domicile or the foreign exchange status. The VAT turnover and input tax journals are also prepared. These can be supplemented with manual corrections, if required.

Via various interfaces, the Finnova Banking Software provides third-party systems for processing jobs in the area of company accounting.

Risk & Compliance
The extensive risk management and simulation include the elements of Asset & Liability Management (ALM), own securities management and liquidity management, as well as the loan portfolio for an entire bank. Regarding risk control, Finnova currently draws on various third-party solutions via interfaces. The duty of information and investigation of financial institutions is at the heart of the FinSA provisions, allowing bank end clients to make informed investment decisions.

This requires a holistic view of things and processes. Finnova offers a regulations compliant solution with consistent and efficient processes.

Finnova Control – Net Cash Flow
The Net Cash Flow module calculates the inflows and outflows of business volume that are relevant to liquidity, client assets, client receivables and off-balance sheet positions of a bank over a defined period. It provides information about whether the business volume has increased or decreased on both the assets and liabilities side of the balance sheet and where exactly the inflows and outflows occurred. This module not only supports the bank in the fulfillment of regulatory requirements, but also delivers important key figures for strategic management to the bank management. The calculated figures can also be used for targeted personnel management. Finnova Services is developing solutions for the consistent determination of overhead costs and profitability. On this basis, we offer interest banks customised services solutions for effective bank management.

Finnova Control – Profitability
The Profitability module determines the key figures of the contribution margin accounting for the statement of a bank’s profit or loss at client, product and organisational unit level. On the income side, both income from interest-bearing transactions (including interest margin calculation) and fees and commissions are taken into account. On the expenditure side, the corresponding interest and commission expenditure as well as the incurred costs are taken into account. The Profitability module is the basis of a multi-level contribution margin accounting. Thanks to a high variability in the organisation of key figures while taking into account the individuality of the bank, it can be optimally served with a tailor-made solution. The result the bank obtains is a calculation of client and product profitability and a profit centre accounting.
FinSA and regulatory outlook

New regulations are primarily associated with additional bureaucracy and expenses. However, if handled correctly, they can also contribute to the standardisation and industrialisation of processes in the bank. At best, the optimised processes anticipate technological change with the associated new products and services in the bank portfolio.

Finnova adheres to these guiding principles when implementing new laws and provisions – and FinSA is a good example of this. Our endeavour is to make the end-to-end processes concerned as independent of channels and service-related as possible. The master data storage in the Finnova system ensures consistency here. This way, roughly the same K&E and risk profiling of the client should apply, both in the creation of the investment proposal, the entry of the transaction by the client advisor during a telephone advisory, independent trading in e-banking and also in the case of the involvement of the robo-advisor in the future.

It is of great importance to ensure the compliant documentation of processes as well as the complete audit trail, for instance in the linking of the investment proposal with the consultation protocol and the resultant transactions. The processes concerned need to not only be compliant, but also implemented in a manner that is as efficient and automated as possible, both to reduce compliance risks and to relieve the front office. Examples of this are the automated pre-trade checks according to various aspects or the reference and display of the basic information sheet.

While the large regulatory wave appears to be subsiding somewhat, the compliance departments will not run out of work for the foreseeable future. Whether in the case of the small bank regime, in the case of changes to deposit insurance, the revision of the data protection law or future topics such as sustainable finance – Finnova is on the ball and ensures ‘smarter banking’.

Analytics outlook: Understand your customer

Following successful internal and external proofs of concept in the areas of sales optimisation as well as processing and modelling of external data, Finnova is currently increasingly concentrating on the further development of the areas of fraud detection and prevention as well as analytical CRM.

The focus is on topics such as real-time analysis of internal and external data across clients and counterparties, their relationships, behaviour and transactions, as well as identification of new, as yet unknown, suspicious or promising behaviour patterns. As a result, the originally compliance-based term ‘know your customer’ gains a completely new meaning and develops in the direction of a comprehensive ‘understand your customer’ approach.

The protection of clients, the integrity of the bank, and the optimisation of sales campaigns, client satisfaction and maintaining the client base are all at the heart of this important functionality. These functionalities work with the client master for large databases and data streams, making client risk-based profiling and analyses of behaviour possible. Upcoming further developments of the existing basic functionalities focus on possibilities for modelling, particularly in the areas of credit risks and analytical CRM.

The expansion of the Finnova Analytical Framework will extend the possibilities for data analytics in the future. This is based on structured and unstructured data and enables in-depth knowledge at an as yet unattained level.
‘The Sounds of Smarter Banking’ is the result of a software score that continues to be further composed. Finnova uses own and third-party applications and functions in equal measure in order to make them available to its customer banks. The perfect implementation of sounds and the harmonious blend of various instruments are an expression of what we call ‘smarter banking’. Our maxim is to optimally integrate various applications with various requirements and to make them available to the financial institutions for high-performance use.

PEOPLE & TECHNOLOGY

MUSIC CONNECTS
The central objective of the Finnova Open Platform is to support banks’ individual digitalisation strategies. This part of the Finnova Banking Software is an enabler for open ecosystems – in whichever specialist topics – and the response to digital excellence in the understanding of end-to-end processes. The various solution components of the Open Platform support the specific implementation of integration projects and complement each other perfectly. In this way, the consistent opening up of the Finnova Banking Software reaches a new level. Finnova thereby provides suitable responses to digital trends and actively builds on next-generation banking.

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Consistently digitalised and industrialised banking will be possible in future if solutions can be built, orchestrated and operated to be compatible with XaaS. The various product groups of the Open Platform with their solution components are aimed at different stakeholders. These bring along their specific needs and requirement with regard to customised developments, the integration of third-party solutions, the comprehensive orchestration of client processes, and flexible, efficient and scalable operation.

In future, Finnova aspires to gradually provide certain functionalities of the Finnova Banking Software as services as well. The Finnova Open Platform forms the basis for this. The SaaS offer will then be further established and gradually developed in the coming years.

Solution Integration

Solution integration provides all the necessary tools for a secure and efficient integration of third-party products. With the products included, banks can seamlessly connect new solutions of third-party providers with the Finnova Banking Software and also each other.

Solution integration makes the Solution Integration Framework (SIF) available for this. The SIF consists of the Solution Integration Engine, which provides the necessary tool for a company-wide integration layer, and API Management. This offers the necessary tools (i.e. API Gateway and Registry) for the administration and lifecycle management of interfaces/APIs. FIL Integration Services (FIL IS) and FIL Business Service Adapters (FIL BSA) continue to function as interfaces.

As before, these can be operated as a JCS job on a Gamma environment or newly via the Solution Integration Engine on an Omega environment. The interfaces are managed and controlled by the API Management.

Front office integration

We build so-called FIL business service adapters that enable third-party systems to be connected to the Finnova Banking Software in a customer-specific and future-proof way. We are happy to assemble tailor-made implementation projects for the connection of third-party systems. We offer support in the analysis, integration design and specification of the required interfaces and accompany the implementation project. Finnova Services guarantees the release-readiness of the business service adapters for future releases of the Finnova Banking Software, as well as the compatibility with the new Finnova Integration Services, all within the established maintenance and support services.

Finnova Business Solutions as a Service – keep it smart and simple

Finnova Business Solutions as a Service (BSS) is offered by our Application Management in Seewen/SZ. Based on its long-standing experience in the operation of Finnova platforms, Finnova offers everything from a single source with BSS, from the infrastructure with the Finnova Core and various non-core systems through to BPO, allowing customers to focus completely on their main business. Finnova would be happy to provide you with an offer for acquiring BSS.
Open Banking and Finnova

At the latest since the introduction of the second EU Payment Services Directive (PSD2), everyone has been talking about open banking. Although the directive is not binding for the Swiss financial centre, Finnova is addressing the possible effects and opportunities of open banking in Switzerland.

Open banking is a concept that allows for the secure and real-time exchange of client, product and transaction data, as well as payment orders via open application interfaces (open APIs) – always with the aim of enabling a better client experience, more transparency and more innovation in the financial sector. For this, open banking relies on banks sharing their interfaces with third parties. The highest premise for this exchange is the agreement of the client.

In principle, open banking benefits consumers, but also promotes innovations and new fields of competition between banks and non-banks. As we understand it, open banking consists of much more than the PSD2 directive (with account information and payment trigger) in Europe stipulates. A great innovation potential exists in the numerous further applications.

We are actively shaping the topic of open banking together with banks, manufacturers, platform providers and also various sector organisations. We are working on the following topics for this:

- Development of a concept for Consent & Preference Management for the mapping of rules as to which third-party provider has access to which accounts with which use cases, and how this can all be determined by the client
- Conceptual development of bases for cooperation in the open banking ecosystem and validation of these bases using specific ideas
- Continuous expansion of our API Roadmap (FIL Integration Services/Business Service Adapter and Open (Banking) APIs)

As part of the Open Platform, Finnova customers will be able to automate their business processes efficiently and flexibly on the basis of the Finnova Business Process Framework (BPF). Processes can be comprehensively controlled, managed and adjusted from start to finish, thus enabling cross-channel customer journeys. The BPF supports the automation of end-to-end banking as well as the consistency of processes across the various solutions involved.

Finnova understands the term ‘information orchestration’ as meaning the orchestration of processes, documents and pending tasks across various channels with a consolidated view of all client interactions of a certain role or person.

The Finnova Business Process Framework (BPF) is available as part of the Finnova Open Platform. It enables Finnova customers and partners to efficiently and flexibly automate and monitor their business processes. The Open Platform links the client channels, Finnova applications, partner applications and customised solutions with the Finnova Core. The BPF supports the automation of end-to-end banking – it links clients with bank advisors and partners, thus enabling cross-channel experiences. The focus here is on client interaction and the visibility of the current status, both for the bank client and the bank advisor.

The interplay of the various channels and solutions is illustrated well by the example of client onboarding. Prospects initiate the client opening process themselves in the bank’s portal. During the client opening, partner solutions for self- or video identification are managed via the BPF. The opening in the Core Suite occurs either fully automatically or can be post-processed in advance via the process dashboard in the client advisor’s Advisor Workbench. The documents necessary in the process are compiled and prepared in the respective process step with the orchestration of the document management system (DMS) and are then made available to the client in e-banking or in the portal, and to the bank in the archive.

The interplay of Open Platform, BPF and Finnova Integration Layer will enable the orchestration of processes, documents and pending tasks across various systems and partner solutions in the future. This results in efficient, centrally managed processes, with which client interaction can be consistently designed and monitored.
Master Data Management
Master data management enables the central provision and aggregation of bank data in an Operational Data Store (ODS). The ODS ensures that third-party systems are supplied with data from the Core Suite in a central, timely and needs-oriented manner. Depending on the requirements, it can be directly connected or a copy can be provided for it. Thanks to the flexible architecture, the solution can be conveniently developed and extended to an ODS for further systems.

Runtime Environment
For the IT integration of systems, Finnova provides tools and frameworks developed in-house for more efficient technical implementation and operation. Partner companies, providers and users in the Finnova ecosystem should benefit from it. Omega defines a uniform operating concept for the Open Platform component and the new Finnova products of the Client Engagement Suite. This should ensure easy operation when using different solutions. The container-based operating environment allows for the shortening of deployment cycles and ensures scalability. The bank’s capacity for action thus remains intact, and it gains in agility.

The requirements for setting up an operating platform on the basis of an OpenShift cluster provide the operators and Application Management with a framework to be able to derive maximum benefit from the advantages. At the same time, Omega platform services are made available, which enable a consistent single sign-on application access between the Open Platform and the self-service and advisory applications of the Client Engagement Suite.

Finnova integration box
In order to enable the rapid growth of the Finnova ecosystem, we provide interested customers and partners with integration boxes (dedicated Finnova cloud environments). This allows, for example, for proofs of concept or entire development cycles of third-party products to be completed cost-effectively. The Community software can thus be consistently tested and the feasibility of innovation projects can be checked early on within the ecosystem. Various stages of expansion, service levels and runtimes of the integration boxes – with or without simultaneous consulting mandate – are available to banks, partners or third-party software manufacturers. Specific processing jobs, e.g. a DEP or portfolio restructuring, can be set up there. Furthermore, the test data and standard parameterisations present in the integration box can be adjusted and extended at any time.
LICENCE AND PRICE MODEL

Standard functions
Finnova concludes new contracts for the standard functionalities of the Finnova Banking Software (= Core Suite) in the rental model. This feeds our maintenance and enhancement budget, from which the maintenance of the software and some of the change requests can be implemented. Licensing for these contracts occurs on the basis of a combination of FTE (full-time equivalent) and the balance sheet total of the bank.

Additional functions
The additional functions cover specific business requirements, which the banks request in accordance with their individual business model. They are divided into options and FIL Integration Services.

Functions that, for example, need to be developed by Finnova due to regulatory or legal provisions (tax, compliance and market infrastructure requirements) and that exceed the maintenance and enhancement budget are implemented as fee-based licence extensions. These functions are mandatory for the banks so that the overwhelming majority of the Finnova Community can operate their banking business in Switzerland in compliance with regulations. In addition to the licence fees, a maintenance fee can also be charged here.

Customised solutions
With the products of the Open Platform and the offer of Finnova Services, Finnova enables the development and connection/integration of customised solutions. Custom requirements of individual banks can thus be effectively implemented.
THE SOUNDS OF SMARter BANKING
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