Accelerate to the future

Innovation & Technology | Christian Bornfeld
16 November 2018
We are committed to

- Modernising our IT landscape without large-scale re-platforming; competitive digital offering and solid roadmap in place

- Reducing the IT spend while increasing competitiveness; further simplification of IT landscape and adjustments to delivery model as key levers for efficiency

- Evolving client offerings by reinventing client journeys and further leveraging partnerships
Two strategic pillars strongly tied to innovation and technology

Build a future-proof bank

- Sustain a high level of employee engagement
- Develop, attract and retain key skills in areas like sustainability, innovation, digitalisation and analytics
- Continue consolidation, rationalisation and digitalisation of products, processes and platforms
- Strengthen data management capabilities as enabler for regulatory agenda and client offerings
- Increase cost and capital efficiency as well as agility and learning in order to reduce time-to-market
- Evolve our partnership, vendor and utility landscape to reflect the future industry dynamics

Reinvent the customer experience

- Extend our lead in digital advisory and sales
- Enhance the customer experience – anytime, anywhere on any device
- Leverage advanced analytics and AI to increase relevance and proactivity in customer experience
- Innovate and enable new business models that extend beyond traditional banking
- Address opportunities and threats associated with Open Banking
- Retain the trust of clients through continued focus on cyber security and privacy
Solid base for reaching our ambitions

Modernised IT platform

- Large-scale decommissioning and re-platforming achieved
- Agile way of working adopted for all change activities
- No large-scale core system replacement needed; step-wise rejuvenation plan established

Digital focus

- 55% reduction in paper documents sent to customers over 6 years
- Strong digital offering in the retail market with award winning apps, e.g. Tikkie and Grip
- Digitalisation roadmap in place for Commercial and Private Banking

Innovation enablers

- Key building blocks in place: Group Innovation, Digital Impact Fund, developer portal and partnerships
- Strong innovation culture and knowledge on key technologies like: AI, Block chain and Cloud
- Multiple learnings from our own challenger banks
Multiple levers to improve focus and IT cost efficiency

Historic distribution of IT spend
Full-year IT costs avg. 2015-2017

- Share of IT spend for change activities historically higher than peers
- Maintained flat IT run spend since 2015 despite strong increase of transaction volumes
- IT change spend is not capitalised which gives us more flexibility to adjust our IT spend as amortisation is limited

Key levers to increase focus and IT cost efficiency

**Demand: Consolidate and focus**
- Adopt shared platforms across business lines, geographies and subsidiaries
- Further rationalise IT application landscape based on focussed client value propositions
- Reduce IT investment in non-strategic areas

**Productivity: Automation and shift to cloud**
- From Agile to DevOps with integrated teams and a higher degree of automation
- Continue the shift to a hybrid cloud delivery model for IT applications
- Optimise our off-shore delivery model

**Supply: Standardise and right-source**
- Standardised technology platforms and tools
- Evolve partnerships to reflect cloud computing
- Consolidate and optimise vendor landscape

<table>
<thead>
<tr>
<th>Change Costs 45%</th>
<th>Run Costs 55%</th>
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<tbody>
<tr>
<td>EUR 1.5 bn</td>
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Reducing IT spend while remaining fit for the future

IT is a critical enabler in decreasing the overall cost/income ratio. IT spend as share of income will decrease over the coming years. Decrease is enabled by delivering required capacity for less spend, combined with increased focus. Clear prioritisation in delivery of regulatory and strategic priorities.

European IT Benchmarking in Banking (EITBB) 2017. C/I Ratio: operating expenses as a percentage of operating income. IT C/I Ratio: operating IT expenses as a percentage of operating income.

Right-sizing the IT spend

- Continuously manage the balance of efficient and sufficient IT investments
- IT is a critical enabler in decreasing the overall cost/income ratio
- IT spend as share of income will decrease over the coming years
- Decrease is enabled by delivering required capacity for less spend, combined with increased focus
- Clear prioritisation in delivery of regulatory and strategic priorities
Achieving our ambitions by moving to the sweet spot

<table>
<thead>
<tr>
<th>Leading indicators</th>
<th>IT C/I Ratio ‘sweet spot’ of 12-13%</th>
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<tbody>
<tr>
<td>Reduction in number of applications since 2014 (accumulated)</td>
<td>IT C/I Ratio(^1) in %</td>
</tr>
<tr>
<td>1,900 2018</td>
<td>12-13% 2017</td>
</tr>
<tr>
<td>2,000 2019</td>
<td>~16% 2018</td>
</tr>
<tr>
<td>2,200 2022</td>
<td></td>
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<tr>
<td>Number of teams with DevOps capabilities</td>
<td></td>
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<tr>
<td>60 2018</td>
<td></td>
</tr>
<tr>
<td>200 2019</td>
<td></td>
</tr>
<tr>
<td>400 2020</td>
<td></td>
</tr>
<tr>
<td>Cloud delivery models split (%)</td>
<td></td>
</tr>
<tr>
<td>100% 2017</td>
<td>100% Private 2022</td>
</tr>
<tr>
<td>97% 2018</td>
<td>30% Public</td>
</tr>
</tbody>
</table>

- Focused effort over several years provides good starting point
- Ambition to hit ‘sweet spot’ by gradually reducing IT spend as share of operating income
- Next steps in IT rejuvenation will be conducted step-wise through multiple levers

IT C/I Ratio: IT expenses as a percentage of operating income
Including SaaS applications
Two parallel approaches to reinvent the customer experience

Extend our strong position step-by-step

- Sharpen value proposition for key client segments, allowing us to reduce complexity
- Reduce client hassle by removing the need for paper and physical signatures
- Decrease processing time and increase conversion rates on key processes
- Further improve client access through digital channels, e.g. video meetings and chatbots
- Establish a proactive dialogue based on predictive data models

Create new offerings and experiences

- ‘Zoom out’ to identify key customer experience points and new business opportunities
- Establish new partnerships both within and outside the financial sector
- Address the threats and opportunities related to Open Banking by providing APIs
- Develop challenger propositions to experiment with brand-neutral offerings
- Engage with regulators to ensure alignment and level playing field in new types of offerings

Common capabilities (examples)

- Online On-boarding
- Users & clients
- Digital identity
- Voice of client & analytics
- Video & chat
- Track & trace

Key focus areas (examples)

- Energy transition
- Urbanisation & future of work
- Ownership, access, usage
- Privacy & trust
- AI
- Block chain
Realising my entrepreneurial dream

Two-pronged approach
1) Step-by-step approach to extend our position in the areas in which we currently excel
2) Extending into new offerings and experiences

Current initiatives
- Selected set of customer journeys is being mapped with a broad sample of clients within focus segments
- Multiple partnerships being explored to unlock business potential in line with strategic identity
Leveraging on partners

Digital channels and agents
AI & security
Aggregation

Distribution
Digital and Personal Banking

Production
API based financial services

Community platforms (open, curated or composed)

APIs

Data, Analytics, Privacy & automation

Clients
Partners
Bigtech / Fintech
Peers
Challengers

Utility services

ATMs
Cash Handling
KYC
IT infrastructure

Effect of Open Banking

Impact of Open Banking

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Effect of Open Banking
Learning by experimenting with challenger banks and impact fund

**ABN AMRO challenger banks**

- ABN AMRO challenger banks
- peer-to-peer payment requests
- fast and efficient SME lending
- future asset management
- peer-to-peer payment requests
- FX and multi-currency payments
- future asset management
- peer-to-peer payment requests
- fast and efficient SME lending

**Key learnings**

- A new proposition can be built and brought to market in less than a year
- Agile practices combined with DevOps capabilities, cloud technologies and Fintech solutions is highly efficient
- Both proposition and timing need to be right
- Client acquisition is expensive and association with a trusted brand like ABN AMRO is key
- Scale-up of operational processes as well as risk and compliance functions is expensive in a stand-alone setup

**Extracting value from challenger banks**

- New stand-alone propositions complement or replace part of the ABN AMRO offering
- Scale-up by redeploying solution under the main ABN AMRO brand
- Continuously evolve the challenger set-up to ensure return on investment

**Complemented by Digital Impact Fund investments**
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