Today’s agenda:

✓ Lessons learnt from benchmark study
✓ Case for the Core Banking Platform replacement?
✓ What is Core Banking Platform?
✓ The journey
✓ Investment case
A bit about me first

Startups, Consulting, Banking
Core banking at Commonwealth Bank of Australia, CBA

**FACTS AND FIGURES**

- 5 Year Programme
- $1.3Bn AUD expenditure (approx. EUR 850m)
- SAP and Accenture along with a number of other vendors and system integrators
- CBA was in the driver seat
- CEO was the executive sponsor and chaired the Executive Steering Committee
- Scope: customer data, term deposits, savings, transactions, loans, payments etc
- Aggressive delivery with two releases in parallel
- Product by product migration approach with a regional pilot and phased rollout

**CRITICAL SUCCESS FACTORS**

- CBA in the lead (retained programme accountability and design authority)
- Very strong internal delivery capability built up over time
- CEO was executive sponsor – helped with prioritisation over other initiatives
- Iterative delivery of scope (deliver success early and often)
- Limit platform customisation to a minimum
- Focus on people – look after them to keep it sustainable (e.g. mandatory programme shutdown over Christmas)
How is Nordea applying learnings?

✓ Simplification programme has the highest priority after critical compliance work
✓ Nordea in the lead with strong governance anchored with Board and GEM
✓ Allow room for the complexity in our planning (4 platforms to 1 is hard)
✓ Initial simplification by drastic reduction of account products
✓ Align products and processes across the Nordics (reduce local variations)
✓ Model bank approach (adopt standard package from Temenos across the Nordics)
✓ Incremental & frequent delivery using agile principles to de-risk delivery
✓ Hire experienced transformation specialists into Nordea
✓ People management: actively rotate programme staff back to the line to manage sustainability and anchor change strongly in the bank
✓ Migration first approach – prioritise migrating the legacy bank
✓ Prepare the organisation for the change: early and regular engagement with frontline customer facing teams to prepare for aftermath of migrations
Case for the Core Banking Platform replacement?
Banking: an industry in transition

Mobile – distribution separated from manufacturing

Social Media – new banking media

Big Data – deep personalisation of banking services

Cloud – profitability at a lower scale, unbundling of banking

A digital revolution
Banking customers: Same needs as before but changing behavior

**CHANGING CUSTOMER EXPECTATIONS**

- **Impatient & empowered** - 24/7 availability and immediate delivery
- **Knowledgeable** - Specialised and tailored advise that complements the research we have done ourselves
- **Integrated & connected** – Integrated into my process and connected/compared with peers
- **Require relevance** - Personalised products, services and interaction

**...AND CHANGING CUSTOMER BEHAVIOR**

- Are becoming less loyal
- Use several channels in combination
- Use digital channels more intensively
- Use digital channels to enforce:
  - Personalisation
  - Network building
  - Co-creation
Also Nordea’s customers are changing their behavior

**Relationship banking is turning digital fast**

- **Transactions (Millions)**
  - **Branches**
  - **Mobile**
  - **Netbank**

- **Q3/10**
  - Branches: 60
  - Mobile: 22
  - Netbank: 3

- **Q3/15**
  - Branches: 22
  - Mobile: 3
  - Netbank: 3

**Online advisory meetings Share**

- Dec 2014: 3%
- Dec 2015: 14%

**End-to-end digital response required**

- Digital response required
- Front-end solutions will not suffice
- Automated end-to-end processes across the full value chain is a must
- Consistency and endurance in execution to unlock benefits

**Ability to execute vs. Level of digital response**

- Level of digital response
- Ability to execute
Fintechs exploiting regulatory arbitrage, high costs, high friction

- Lending: LendingClub, OnDeck, Funding Circle
- Automated financial management: wealthfront, nutmeg, Betterment
- FX: the currency cloud, TransferWise
- Corporate banking: ethereum, rippleLabs, traxpay
- Neobanks: fidor BANK, NUMBER26
- Payments: Square, Pay, venmo
Surge in new operational regulations

Balance sheet regulations
- Structural reforms for banking
- Banking union
- NSFR
- TLAC
- Shadow banking
- Investor compensation
- Living wills
- Deposit guarantee
- Capital requirements
- Leverage ratio
- Recovery and resolution
- Solvency 2
- Fundamental review of the trading book

Operational regulations
- MiFID II
- EMIR
- PRIPs
- SEPA
- MAD
- FATCA
- Data protection
- Transparency Directive
- Dodd-Frank
- FTT
- Benchmark regulations

Machinery room
- Payment package
- Corporate governance
- Long-term financing
- MMFs
- PSD II

Products
- AIFMD
- UCITS
- Prospectus Directive
- Bank account
- Securities legislation
- Margin for derivatives
- IORP II
- Securities legislation
IT complexity in large legacy banks

Complex, risky, expensive & slow – hinders compelling customer experience

Source: BCG
What is Core Banking Platform?
One building block in the Simplification Programme

- **Initial simplification**
  - Simplification of products, data and processes

- **Simplification compliance**
  - Focus all development activities towards supporting simplification

- **Core Banking Platform (CBP)**
  - Customer information, savings, deposits, transaction and loan products in all business areas

- **New Payment Platform (NePP)**
  - Domestic, international and SEPA payments for all business areas

- **Group Common Data (GCD)**
  - Consolidate the existing data warehouses into one to meet both regulatory requirements and changing customer demand

- **Simplification by cluster**
  - Simplify the system landscape and end-to-end processes outside CBP, NePP and GCD

- **Legal Structure Programme**
  - Merger of Norwegian, Danish and Finnish subsidiary banks to parent company to create a more efficient structure that decreases administrative complexity
The Core Banking Platform, CBP

A single Nordic platform that delivers the core functions of banking, i.e. product management, taking deposits, making loans and linking customers to front, middle and back office functions.

CBP program will replace the old banking platforms, reduce IT complexity and also transform the related processes, products, governance and culture.
What is Core Banking Platform?

Easy tailoring
Savings & deposit products
Lending products
Customer data
Transaction banking
One standard IT platform
Product & service delivery
Simplified product portfolio
Automated & digital
Relationship pricing
Compliance made easier
Improved relationships
Much faster development of Internet & Mobile
Reduces risk
Improved product management

- Much faster development of Internet & Mobile
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- Improved relationships
- Much faster development of Internet & Mobile
- Improved product management
CBP enables our four strategic capabilities…

Relationship banking

Four strategic capabilities

Key activities

Value to customers

Know, advice, service and stand by

Agility
Competence
Resilience
Scale

Simplification activities
Other key activities

Know, advice, service and stand by
...shaping the future relationship bank

1. **Agility**
   - Build the ‘engine’ for faster reaction to customer needs

2. **Competence**
   - Reduce operational risk due to complex and old IT landscape

3. **Resilience**
   - Quickly respond to regulatory requirements

4A. **Scale**
   - Improve operations cost efficiency

4B. **Scale**
   - Improve IT cost efficiency

**Great customer experiences**

"Easy to deal with, relevant and competent, anywhere and anytime, where the personal and digital relationship makes Nordea my safe and trusted partner"
The benefits of a new and simplified core

WHAT CBP ENABLES

Channel-neutral customer experience

One user interface for core banking services

Straight through processing and real-time banking

Task automation

Enhanced product tailoring

New services and products created more rapidly
CBP value for product development

WHAT CBP ENABLES

One Nordic way

Elevated product capabilities

Increased tailoring & targeting

Quick adaptation to market changes
The journey
## Comprehensive due-diligence and preparation phase

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<tbody>
<tr>
<td><strong>Pre-study phase</strong></td>
<td><strong>Start</strong></td>
<td><strong>Phase I</strong></td>
<td><strong>Final vendor + SI selection &amp; board approval</strong></td>
<td><strong>Phase 2</strong></td>
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<tr>
<td><strong>Validation of transformation journey, selection process &amp; mobilisation with McKinsey / Bain</strong></td>
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<td><strong>Software demos</strong></td>
<td><strong>Contract negotiations</strong></td>
<td><strong>High level programme delivery approach and plan development</strong></td>
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<td><strong>Reference calls with other banks (CBA, ABN, ING etc) to validate roadmap &amp; vendor ecosystem</strong></td>
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<td><strong>Gaps identification in vendor solution</strong></td>
<td><strong>Vendor engagement model development</strong></td>
<td><strong>Migration strategy and plan development</strong></td>
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<td><strong>Market insights from research firms (Forrester, Gartner, ovum)</strong></td>
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<td><strong>Customer reference Visits</strong></td>
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<td><strong>Examination of desired Nordic processes against Temenos model bank</strong></td>
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<td><strong>Vendor due diligence and risk reviews</strong></td>
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<td><strong>Scalability &amp; performance testing</strong></td>
<td></td>
<td><strong>Temenos initial system build including Nordea model bank</strong></td>
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<td><strong>Legal contracting review and input</strong></td>
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<td><strong>Proof of concept</strong></td>
<td></td>
<td><strong>CBP programme pilot defined and kicked-off</strong></td>
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<td><strong>Solution deep-dives with vendors</strong></td>
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<td><strong>Programme resource on-boarding and training</strong></td>
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<td><strong>Initial simplification Ph II (reduction of products)</strong></td>
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**SIMPLIFICATION PROGRAMME ANNOUNCED**

- RFP process (incl. demos, workshops)
- Initial simplification Ph I (reduction of products)
# Current CBP high level delivery and migration plan

## Milestones

**2015**
- SV / SI selected
- Contract signed
- Business case + migration strategy agreed
- First version of model bank implemented

**2020**
- Country migrations done
- Decommissioning done
- CBP implementation done

## Key activities

### Prep.

### Pilot

- Deposits
- Loans
- Mortgages
- Trans. accounts
- Other products

### Data cleansing and decommissioning
Current CBP high level delivery and migration plan (A closer look at deposits delivery)

Key pre-requisites:
- Testing complete
- Mock migrations runs completed & exit criteria met
- Business & technical deployment readiness checklist completed
- Data cleansing activities completed
- Go/No Go decisions established
- Dress rehearsals completed

Customer data load completed

New account opening available for staff, friends & family

Expand new accounts opening to all customers

Go/No Go decision

Stabilisation Period 1

Migrate wave 1

Migrate wave 2

Migrate wave 3

Key operative milestones for banking

Limited new sales

Full new sales

Migration starts

Migration ends

Deposits
Investment case
2016-2018: Transforming for the future

Group total expenses development

“One Nordea”…

…more efficient with simpler structure & decreased complexity…

…enabling 2019-2022 cost reductions

- Execution of transformation agenda
- Investments in Core Banking Platform
- Key activities to manage transition efficiently
## IT savings: expected to materialise through CBP impact on nine key cost drivers

<table>
<thead>
<tr>
<th>COST DRIVER</th>
<th>CBP IMPACT DESCRIPTION</th>
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</table>
| Application services         | **Number of applications**  
|                              | • Replacement of legacy applications by CBP rationalises landscape and lowers maintenance efforts                                                                                                                |
|                              | **Number of incidents**     
|                              | • Replacement of legacy applications by CBP increases stability and usability of systems, decreasing number of incidents                                                                                           |
|                              | **License fees**            
|                              | • Decommissioning of vendor-provided legacy applications cancels corresponding license fees                                                                                                                       |
| Development                  | **Sourcing of projects lifecycle**  
|                              | • Outsourcing of core package developments to CBP vendor decreases cost of specific parts of IT projects lifecycle                                                                                            |
|                              | **Complexity of integration** 
|                              | • Standardised integration patterns and rationalisation of IT landscape in CBP scope simplifies integration with surroundings                                                                                   |
| Infrastructure               | **Number of physical devices**  
|                              | • Decommissioning of legacy applications enables decommissioning of dedicated supporting physical devices                                                                                                  |
|                              | **Resources consumption**   
|                              | • Decommissioning of legacy applications reduces direct consumption of storage space and processing power                                                                                                    |
| Staff                        | **Number of end-users**     
|                              | • Decrease in IT services volume driven by business workforce reduction through operational efficiency gain                                                                                                   |
|                              | **IT management workforce** 
|                              | • Reduction of overall IT workload allows for lighter and leaner IT management layer                                                                                                                               |
## Business savings: expected to materialise through CBP impact on eight key cost drivers

<table>
<thead>
<tr>
<th>COST DRIVER</th>
<th>CBP IMPACT DESCRIPTION</th>
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<tbody>
<tr>
<td><strong>Efficiency</strong></td>
<td></td>
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<tr>
<td>Straight through processing</td>
<td>• Consolidation of IT landscape and improved systems integration allows for increased straight through processing</td>
</tr>
<tr>
<td>Automation</td>
<td>• CBP features replacing manual processes allow for increased share of automated process steps</td>
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<tr>
<td>Digitalisation</td>
<td>• Faster and less expensive digitalisation of customer facing processes and channel integration (e.g. self-service)</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td></td>
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<tr>
<td>Business intelligence</td>
<td>• CBP provides improved business intelligence and allows for more rapid and error-free processing (e.g. credit decisions)</td>
</tr>
<tr>
<td>Product parameterisation</td>
<td>• Centralised product factory system of CBP facilitates the development and maintenance of products</td>
</tr>
<tr>
<td>Data quality</td>
<td>• CBP consolidates data sources and increases data quality through standardisation</td>
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<tr>
<td><strong>Staff</strong></td>
<td></td>
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<tr>
<td>Focus on business issues</td>
<td>• User-friendliness of CBP requires less technical capabilities and allows users to focus more on business related issues</td>
</tr>
<tr>
<td>Business management workforce</td>
<td>• Reduction of overall workload in the business units allows for lighter and leaner management layer</td>
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## CBP enables further benefits

<table>
<thead>
<tr>
<th>BENEFIT</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>Improve time-to-market</td>
<td>• Shorter time to issue new banking products on the market</td>
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<tr>
<td>Enable shift to self-service</td>
<td>• Workload rebalancing from Nordea staff to self-directed customers</td>
</tr>
<tr>
<td>Replace obsolete technologies</td>
<td>• End-of-life technologies of current IT landscape replaced by core banking platform</td>
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<tr>
<td>Address IT flexibility issues</td>
<td>• Reduction of knowledge gaps within IT, supported by proper workforce planning for the future</td>
</tr>
<tr>
<td>Enable re-focus of operational expertise</td>
<td>• Switch of required operational expertise from systems to customers</td>
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<tr>
<td>Reduction in operational risks and/or impacts</td>
<td>• Lower effort required to mitigate operational risks and/or reduced amount of losses</td>
</tr>
<tr>
<td>Shift to digitalisation</td>
<td>• Overall shift to digitalisation in back-office affecting processes not only related to the core</td>
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### Investment in Core simplification

DISTRIBUTION OF CAPITALISED VS NON-CAPITALISED INVESTMENTS, EURM

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th></th>
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<tbody>
<tr>
<td>Capitalisation</td>
<td>~180</td>
<td>~200</td>
<td>~200</td>
<td>~90%</td>
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<tr>
<td>Total</td>
<td>~200</td>
<td>~225</td>
<td>~225</td>
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~90% of total investments are capitalised

Simplification programme cornerstone in achieving best-in-class C/I ratio
In summary

✔ Learnings from CBA and other banks applied in the programme

✔ Digitalisation is changing the world - fast
  - Banking customers expectations and behavior are changing

✔ CBP is one building block in Simplification Programme
  - A single Nordic platform replacing old country specific banking platforms
  - CBP enables our strategic capabilities – shaping the future relationship bank

✔ The journey entails comprehensive due-diligence, preparation phase and migration plan

✔ CBP enables IT and business savings along with other benefits