dbAccess ESG Engagement Days

Viktoriya Borysova, Head of Group Sustainability
Dr. Antje Stobbe, Head of Stakeholder Management / SRI

Frankfurt, 9/10 October 2018
Agenda

1  Strategy, targets and governance

2  Sustainability: Our approach

3  ESG in our business

4  Technology

5  Our staff

6  Appendix
Deutsche Bank Group: Shifting towards a more stable revenue base

Our strategic priorities

1. Delivering on PCB and DWS
   PCB and DWS to execute on communicated strategies

2. Re-shaping CIB
   Corporate & Investment Bank to adapt to changed market conditions and focus on core strengths

3. Reducing cost
   Cut costs further through a series of tactical and strategic measures

4. Shifting towards more stable revenue profile
   By 2021, ~65% of revenues are expected to come from stable businesses of PCB, DWS and GTB
Clearly defined near-term targets

<table>
<thead>
<tr>
<th>Description</th>
<th>Target/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-tax return on tangible equity</td>
<td>&gt;4% in 2019</td>
</tr>
<tr>
<td>Adjusted costs</td>
<td>€ 23bn in 2018</td>
</tr>
<tr>
<td></td>
<td>€ 22bn in 2019</td>
</tr>
<tr>
<td>Employees (Full-time equivalent, end of period)</td>
<td>&lt;93,000 in 2018</td>
</tr>
<tr>
<td></td>
<td>&lt;90,000 in 2019</td>
</tr>
<tr>
<td>Common Equity Tier 1 capital ratio</td>
<td>&gt;13%</td>
</tr>
</tbody>
</table>
Deutsche Bank Management Board

Christian Sewing
Chief Executive Officer

Garth Ritchie
President – Head of Corporate & Investment Bank

Karl von Rohr
President – Chief Administrative Officer

Stuart Lewis
Chief Risk Officer

Sylvie Matherat
Chief Regulatory Officer

James von Moltke
Chief Financial Officer

Nicolas Moreau
Chief Executive Officer and Chairman of the Managing Directors of DWS

Werner Steinmüller
Chief Executive Officer Asia Pacific

Frank Strauß
Head of Private & Commercial Bank
Agenda

1. Strategy, targets and governance
2. Sustainability: Our approach
3. ESG in our business
4. Technology
5. Our staff
6. Appendix
Global developments impacting Deutsche Bank

- EU Action Plan on Sustainable Finance
- OECD Guidelines for Multinational Enterprises
- Modern Slavery Act

Strategic implications:
- Embedding environmental and social responsibility
- Financing sustainable economic development
- Constantly improving ESG transparency and reporting
- Making use of and adapting to technological change
- Managing the impact for our workforce

- Regulatory scrutiny
- Investor demands
- International standards
- Future of work
- Demographic shift
- Digitalization
- Mobility
- Climate Change
Our purpose is to create a positive impact for our clients, our employees, our investors and our communities

| Environmental and social responsibility | – Looking at the dimensions People and Planet beyond Profit has been integral to how we understand and embed sustainability across our business  
– Sustainable Performance is a key value: we are committed to generating sustainable value by responsibly balancing risks and returns and by putting long-term success over short-term gain  
– This also means that we commit to balancing economic success with our environmental and social responsibility |
| Human Resources | – We are working in partnership to create an environment where people can thrive and are enabled to deliver sustainable organizational performance |
| Technology | – Deutsche Bank sees itself as a technology-driven company that can gain market share with new, cutting-edge ideas. The ambition is to be a leader in the area of digitalization  
– We are making investments into digital technology across all businesses to enhance the client experience, harness the power of data, and strengthen efficiency and controls by increasing automation  
– We are also collaborating with external partners such as start-ups, FinTechs, and technology specialists worldwide to discover and implement innovative solutions for our clients |
Sustainability concept: Development and milestones

Signatories/members of the
- 1992 UNEP FI
- 2000 UN Global Compact
- 2002 UN GRI
- 2008 UN PRI

One of the first banks with commitment to carbon neutrality (started 2007, neutral since 2012)

- 2013 Strengthening of the governance structure for management of ES topics
  - Since 2013 Participation in the Thun Group of banks on the topic of Human Rights

- 2015 Signed Paris Pledge for Action
  - 2015 Human Rights Statement disclosed for the first time
  - 2016 Environmental and Social Policy Framework disclosed for the first time
  - 2016 Strengthened climate change commitments (e.g. Coal Policy)

- 2018 Established Group-wide Sustainability Council
  - Ongoing Active participation in regulatory discussions (EU Action Plan)
Governance structure

Management Board

- **Non-Financial Steering Group**
  - Co-Chaired by Head of Group Sustainability & Head of Group Financial Disclosure and Reporting
- **Sustainability Council**
  - Chaired by Global Head of Communications & CSR
- **Group Reputational Risk Committee**
  - Chaired by Chief Risk Officer

Supervisory Board

- **Integrity Committee**
  - Topics covered in 2017:
    - Governance
    - Culture
    - Environmental issues
  - Examples:
    - Climate Change Strategy
    - Climate related investors’ requests
    - Fossil-fuel related exposure

**Group Sustainability**

- Co-development and implementation of Group-wide sustainability strategy, aiming at integrating environmental and social dimensions of sustainability from a risk and opportunities perspective into the bank’s core business
- Promoting bank-wide cross-divisional/functional collaboration on all dimensions of sustainability
- Target-group oriented transparency on sustainability topics

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(1) ES: environmental and social considerations in deal due diligence
Deep dive: Sustainability Council

- Main advisory body to the Management Board on sustainability topics
- Purpose: Propose Deutsche Bank’s strategic approach on policies, procedures, support of initiatives & other actions on current and emerging sustainability topics (e.g. climate change)
- Chair: Deutsche Bank Global Head of Communications & CSR
- Members: Senior business leaders from the three business divisions including coverage and product areas as well as key infrastructure units; all members nominated by the Management Board

Structure and composition

<table>
<thead>
<tr>
<th>Management Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB Sustainability Council</td>
</tr>
<tr>
<td>CIB</td>
</tr>
</tbody>
</table>

Members are senior representatives nominated by the Board

Various ESG working groups on demand
Embedding environmental and social responsibility

Deutsche Bank’s Environmental and Social (ES) Policy Framework

- Defines consistent standards for the identification, assessment and management of reputational risk matters
- Details Deutsche Bank’s guidelines for dealing with ES risks including criteria for mandatory referral to Group Sustainability and to the Regional Reputational Risk Committees
- Provides detailed guidance on the industry sector specific analysis of ES risks including “Dos and Don’ts”

Transactions/clients reviewed under the ES Policy Framework in 2017

- In 2017, DB continued training on the applications of the ES Policy Framework (50 sessions for approximately 900 Corporate Finance employees)
- These measures contributed to a decline in referrals to the sustainability team from the business divisions (from 727 in 2016 to 595 in 2017)
- In 2017 eight transactions based on ES matters have been reviewed by the various Reputational Risk Committees (2016: 7; 2015: 10)
- Industry spread reflects adequately the industry areas addressed under the ES Policy Framework
## 2017/18 highlights

<table>
<thead>
<tr>
<th>Climate change</th>
<th>Deutsche Bank’s Coal Policy strengthened</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- No new lending for greenfield thermal coal mines / power stations and since 2018 to related infrastructure</td>
</tr>
<tr>
<td></td>
<td>- Gradually reduce our exposure to the thermal mining sector</td>
</tr>
<tr>
<td></td>
<td>- Currently achieved reduction already well below our target (target: 20% reduction by 2020 relative to Dec 2016; June 2018: well below reduction target)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Human Rights</th>
<th>Ensure effective human rights due diligence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Human Rights Statement disclosed for the first time in 2015</td>
</tr>
<tr>
<td></td>
<td>- The revised Deutsche Bank Code of Business Conduct and Ethics now includes a section on sustainability and human rights</td>
</tr>
<tr>
<td></td>
<td>- Specific ES criteria including modern slavery and human trafficking to be included into our vendor certification process (by the end of 2018)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Deforestation</th>
<th>Agriculture Policy revised and strengthened</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Since 2017 Deutsche Bank expects clients to formally demonstrate their public commitment to the ‘No Deforestation, No Peat, No Exploitation’ standard</td>
</tr>
<tr>
<td></td>
<td>- Deutsche Bank plans to become a member of the Roundtable on Sustainable Palm Oil (RSPO) by end 2018</td>
</tr>
<tr>
<td></td>
<td>- As a minimum, clients must provide a certification plan in accordance with the RSPO (for palm oil) or similar certifications for areas like timber or soy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oil &amp; Gas</th>
<th>Revising Deutsche Bank’s due diligence processes for the oil and gas sector (in process)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Topics to be covered: oil sands / arctic drilling and ultra-deep water drilling</td>
</tr>
</tbody>
</table>
Managing climate change risk

Potential impact of climate-related risks on our business

- Non-financial risks to our offices, staff, and processes in locations that may be affected by physical climate-related risk
- Credit and market risks of exposures to counterparties and assets that could be impacted by transition risk

Deutsche Bank framework

- Developing internal policies and governance, e.g. revision of Deutsche Bank’s coal policy
- Develop approach to risk assessment (incl. scenario analysis), management and disclosure of climate risks
- Participate in industry working groups

Managing physical climate risk

- Embedded in wider approach to business continuity and crisis management, credit and market risk assessment and controls relating to financial exposures
- Non-Financial Risk Management comprises in-house intelligence team analysing country and city-specific risks to assets and operations (meteorological, climatological, hydrological, geophysical risks)
- Quantitative analysis, qualitative reporting, geospatial intelligence
- Results inform strategic location planning and scenarios for crisis management

Managing transition risk

- Transition risk driven by policy, technology, and market changes needed to facilitate the transition to a low-carbon economy
- Industries most affected: Oil & gas, utilities, metals & mining, automotive, transportation
- Dedicated risk strategies and concentration risk thresholds at industry-portfolio level (credit and market risk exposure)
- Feed into assessment of Counterparty Probability of Default, playing a key role in counterparty risk appetite
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## Promoting ESG research and awareness

<table>
<thead>
<tr>
<th>α-DIG</th>
<th>ESG in Company Research</th>
<th>Deutsche Carbon Alignment Framework (DeCAF)</th>
<th>DWS ESG Engine and Research</th>
<th>CIO Insights</th>
</tr>
</thead>
</table>
| - Interactive data provision tool  
- Uses text mining strategies, Big Data and Artificial Intelligence to provide data-driven solutions to quantify the materiality of ESG issues and other company intangibles  
- Identifies thematics across companies and sectors (> 5,000 companies)  
- Provides investors with actionable insights to identify "hidden" risks and opportunities | - Concept integrating ESG factors into company research – starting with EuroStoxx50 case study  
- Offers investors a range of ESG indicators that can be adapted to individual needs  
- **Differentiated approach to ESG:**  
  - ESG rating for each company comprising two elements: a measure for risk and one for opportunity  
  - Opportunity ratio indicating ratio of structural risks vs. opportunities | - DeCAF helps our sector analysts to analyze potential shifts in industry value chains  
- It seeks to identify positive opportunities for "green" growth and the value in carbon-based cashflows, as well as the risks of “green” bubbles and stranded high carbon assets and processes  
- Published sector reports on Oil, Utilities, Mining  
- Regular updates that highlight relevant Deutsche Bank research and global transition progress | - **DWS ESG Engine** is a proprietary software to analyze corporate and sovereign ESG quality to identify true ESG leaders and laggards  
- Integrates data from multiple ESG providers for ESG integration complemented with ESG expertise from our own analysts (ESG made part of the CIO View)(1)  
- **ESG thematic research** team publishes on key material ESG trends and controversies: Reports include climate risk, tobacco and the global microfinance sector | - The CIO Insights series supports dialogue with clients on trend topics  
- CIO launched new ESG thought leadership publications in 2017 and early 2018  
- WM wants to help clients better understand ESG – its importance today and potential future investment implications  
- Also, selected CIO representatives are involved into discussions and working groups to the extent bank policies allow in order to help shape any future regulatory framework |

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(1) [https://www.youtube.com/watch?v=hufHAYI_euo](https://www.youtube.com/watch?v=hufHAYI_euo)

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Deutsche Bank  
Investor Relations  
Viktoriya Borysova / Antje Stobbe  
10 October 2018
Three ESG growth levers for CIB

Supporting corporates, governments and FIs in issuing Green Bonds
- Enabled clients to issue more than €10 billion in green bonds in 2017
- Expanding the market by providing access to first-time issuers from new geographies
- Driving the definition of a market standard: Green Bond Principles

Facilitating renewable energy projects
- Being a top European private-sector project financier of clean energy
- Arranged approximately €2.2 billion in renewable energy project finance in 2017
- Financing the entire project life cycle and enable issuers to place in the capital markets

Enabling investor access to ESG
- Launching products tracking ESG indices’ returns for quantitative stock selection
- Implementing ESG investment factors in research for institutional investors
- Establishing a center of competence for our ESG-focused institutional sales capabilities
- Supporting social funds raising €300 million for microfinance in 2017

2017 – Project Finance Renewables

<table>
<thead>
<tr>
<th>Rank</th>
<th>Bond arranger</th>
<th>Amount (USDm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Citigroup</td>
<td>1,125</td>
</tr>
<tr>
<td>2</td>
<td>Goldman Sachs</td>
<td>854</td>
</tr>
<tr>
<td>3</td>
<td>Deutsche Bank</td>
<td>357</td>
</tr>
<tr>
<td>4</td>
<td>HSBC</td>
<td>270</td>
</tr>
<tr>
<td>5</td>
<td>Intesa San Paolo</td>
<td>270</td>
</tr>
</tbody>
</table>

(1) Source: IJ Global, Project Finance Europe (January 2018)
## ESG in our Private & Commercial Bank

### Private Wealth Management

#### Enhancing our Wealth Discretionary solutions
- We already have a strong ESG franchise in Germany and an active offering in Italy
- Expanding Wealth Discretionary strategies globally with a dedicated ESG overlay for HNWI and UHNWI
- Double digit AuM growth YoY within discretionary portfolio solutions with an increased focus to allow for higher future growth

#### Expanding our Advisory fund offering
- Three-pronged approach to fund universe: ESG, impact investment, and themed investment mandates
- An expanded fund offering will enable ESG multi-asset exposure
- Increased number of ESG funds in Advisory over last 18 months; AuM growth rate rose significantly within same period

### Private and Commercial Bank

#### ESG campaign started
- ESG campaign started in March 2018 with large-scale conferences, regional meetings

#### Product universe increased
- Increased product universe for ESG solutions
- ESG solutions cover all risk profiles within advisory process
- Since launch in March 2018 gross inflows of approx. +10% in Multi Asset Funds using ESG criteria
DWS: Product range and worldwide activities

### Active and Passive

<table>
<thead>
<tr>
<th>Fund</th>
<th>Launched / converted</th>
<th>AuM € m per June 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deutsche ESG European Equities</td>
<td>2001</td>
<td>140</td>
</tr>
<tr>
<td>DWS Stiftungsfonds</td>
<td>2002</td>
<td>1,866</td>
</tr>
<tr>
<td>DB Platinum CROCI World ESG</td>
<td>2015</td>
<td>35</td>
</tr>
<tr>
<td>DWS Invest ESG Global Corporate Bonds</td>
<td>2017</td>
<td>88</td>
</tr>
<tr>
<td>DWS Invest ESG Equity Income</td>
<td>2017</td>
<td>92</td>
</tr>
<tr>
<td>Xtrackers II ESG EUR Corporate Bonds UCITS ETF</td>
<td>2017</td>
<td>69</td>
</tr>
<tr>
<td>DWS Invest ESG Euro Bonds (Short)</td>
<td>2017</td>
<td>2,528</td>
</tr>
<tr>
<td>DeAWM Fixed Maturity FlexInvest ESG 2021</td>
<td>2017</td>
<td>27</td>
</tr>
<tr>
<td>Xtrackers ESG MSCI Japan UCITS ETF</td>
<td>2018</td>
<td>6</td>
</tr>
<tr>
<td>Xtrackers ESG MSCI World UCITS ETF</td>
<td>2018</td>
<td>26</td>
</tr>
<tr>
<td>Xtrackers ESG MSCI USA UCITS ETF</td>
<td>2018</td>
<td>6</td>
</tr>
<tr>
<td>Xtrackers ESG MSCI Europe UCITS ETF</td>
<td>2018</td>
<td>6</td>
</tr>
<tr>
<td>DWS ESG Multi Asset Dynamic</td>
<td>2005 / 2018</td>
<td>193</td>
</tr>
<tr>
<td>DWS ESG Euro Bonds (Medium)</td>
<td>2018</td>
<td>177</td>
</tr>
<tr>
<td>DWS ESG Euro Bonds (Long)</td>
<td>2018</td>
<td>50</td>
</tr>
<tr>
<td>Managed Accounts with Institutional Clients</td>
<td></td>
<td>9,444</td>
</tr>
<tr>
<td>White Label incl Deutsche Bank / Deutsche Oppenheim Family Office</td>
<td></td>
<td>3,184</td>
</tr>
</tbody>
</table>

**Total Active and Passive / liquid** 17,937

### Sustainable Investments and Real Estate

<table>
<thead>
<tr>
<th>Fund</th>
<th>Launched</th>
<th>Vol. € m per June 2018</th>
<th>Sustainable Development Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa Agriculture and Trade Investment Fund (AATIF)</td>
<td>2011</td>
<td>109</td>
<td>122</td>
</tr>
<tr>
<td>Essential Capital Consortium</td>
<td>2014</td>
<td>30</td>
<td>58</td>
</tr>
<tr>
<td>European Energy Efficiency Fund (EEEF)</td>
<td>2011</td>
<td>122</td>
<td>320</td>
</tr>
<tr>
<td>Global Commercial Microfinance Consortium II</td>
<td>2012</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Microcredit Development Fund</td>
<td>1997</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Total Sustainable Investment &amp; Microfinance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments in green buildings within real estate funds / accounts (per Dec 2017)</td>
<td></td>
<td>9,430</td>
<td></td>
</tr>
</tbody>
</table>

**Total Alternatives / illiquid** 9,750

- **Active:** Retail and institutional funds, including screened, best-in-class, and themed funds for institutional clients
- **Passive:** Exchange traded funds, products or mandates
- **Sustainable/impact/alternative investments:** PE or debt funds focused on sustainable/impact investing, incl. public–private “blended finance” funds with environmental or social objectives
- **ESG Real Estate Investments:** Certified green-labeled buildings (Energy Star, LEED, BREEAM, etc.)

- **Institutional clients:** Passive Equity Mandate of Dutch Pension fund onboarded in Q4 (€ 1,500 m)
- **Closed-end fund:** China Clean Energy Fund launched in July in partnership with Apple Inc. and a selected group of Apple’s suppliers to invest in climate solutions in China
- **DWS is the first asset manager to create an ESG Money Market Fund in the U.S.**

Note: For more information on the DWS ESG Capability please see [here](#).
The DWS ESG-Engine

- ESG Engine: partnering with a range of leading external data providers to offer a unique wealth of highly specialised experience
- The ability to process, integrate, combine and analyze multiple data sources is one of the ESG Engine’s key strengths and differentiators. Coverage and flexibility have the capacity to deliver cutting-edge solutions
- Data and ratings from ESG Engine are available to all DWS’s investment professionals – portfolio managers and research analysts – within traditional asset classes (i.e. Active and Passive)
- Drawing on expertise of multiple ESG data providers and the 360° perspective, ESG Engine produces aggregated rankings and derives from these our proprietary SynRatings
- In this year’s PRI assessment the “Strategy & Governance” module has been awarded with the highest A+ score which is above the peer group median

For further information please refer to https://dws.com/solutions/esg/esg-engine/

(1) The DWS ESG sovereign rating is derived from data that includes the Freedom House 2018 freedom scores, available at freedomhouse.org as of September 2018
(2) I.e. issuers with at least one rating
(3) I.e. issuers with at least one rating
### Action Plan on Sustainable Finance: Deutsche Bank’s position

#### Highlights

- The European Commission’s Action Plan on Sustainable Finance was published on 8 March 2018 with a focus on:
  a. reorienting capital flows towards sustainable investments
  b. managing financial risks stemming from climate change and
  c. fostering transparency and long-termism
- The Commission is proposing a set of 10 legislative and non-legislative actions to be kicked-off during 2018 and 2019

#### Topics

<table>
<thead>
<tr>
<th>Topics</th>
<th>Current legislative proposals</th>
<th>Deutsche Bank position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability Taxonomy</td>
<td>Development of a coherent taxonomy for environmentally sustainable economic assets to create transparency and certainty regarding which assets are “green” or “sustainable” in order to drive the development of this nascent market</td>
<td>We support the development of a flexible and usable sustainability taxonomy</td>
</tr>
<tr>
<td>Disclosure Obligations</td>
<td>Clarification of institutional investors' and asset managers' duties on sustainability to increase transparency for end-investors, including transparency on strategy and climate-related exposures</td>
<td>We welcome the proposals introducing a level playing field for sustainability disclosures</td>
</tr>
<tr>
<td>Suitability assessment</td>
<td>Requirements for firms to include environmental, social and governance (ESG) factors in their suitability assessments for investment products they recommend to clients</td>
<td>We welcome the proposal but sustainability taxonomy needs to be finalised first to avoid fragmentation</td>
</tr>
<tr>
<td>Low-carbon benchmarks</td>
<td>Introduction of new classes of low carbon and positive carbon impact benchmarks</td>
<td>We are supportive of the development of a flexible approach for low carbon and positive carbon impact benchmarks</td>
</tr>
</tbody>
</table>


Deutsche Bank: Achieving carbon neutrality

- We achieved our target to make our business operations carbon neutral by the end of 2012
- We maintained carbon neutrality for our operations in 2017
- Management Board approval in place to keep carbon neutrality in the future
- Invested in energy efficiency projects to reduce energy consumption, and purchased renewable electricity (in 2017: 81%)
- Bought and retired Verified Emission Reductions (VERs) to offset our unavoidable residual Greenhouse Gas emissions (GHGs) (2017: 250,000 VER)
- Simultaneously, overall GHG emissions steadily reduced in recent years

Our path to carbon neutrality

![Graph showing the reduction in GHG emissions from 2007 to 2017](image)

- **Reduction measures**: Emissions from energy use and HFCs, Emissions from business travel, Renewables (avoided emissions from renewables), Verified emission reductions.
- **Gross GHG emissions**
- **Reduction objective**: Reduction objectives for various years are shown as percentages.

(1) Reduction objective
(2) Hydrofluorocarbons
Transparency
Non-financial reporting & Sustainability Ratings

- The NFR includes the bank’s mandatory **Non-Financial Statement** and voluntary ESG related disclosures
- Deutsche Bank is a core UN GRI supporter. The 2017 NFR is compiled in accordance with the **UN GRI Standards, core option**
- Since 2015, Deutsche Bank has gradually extended the scope of the **limited assurance** by KPMG to cover the overall report content
- Since 2017, Deutsche Bank’s CFO acts as the main sponsor for the NFR

**ROBECOSAM**
Rating of 100+ banks worldwide. Deutsche Bank is among the top 10%

<table>
<thead>
<tr>
<th>Dimension</th>
<th>2017</th>
<th>2016</th>
<th>Industry average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>62</td>
<td>47</td>
<td>35</td>
</tr>
<tr>
<td>Environmental</td>
<td>83</td>
<td>35</td>
<td>32</td>
</tr>
<tr>
<td>Social</td>
<td>68</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

Deutsche Bank is also assessed by:

**MSCI**, **CDP**, **imug**, **vigeo-eiris**, **FTSE4Good**

Source: (1) Sustainalytics, Sep 2017; (2) RobecoSAM AG, Sep 2017; (3) oekom Research AG, Feb 2017
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Technology presents many opportunities to better serve our customers and the markets we operate in:

- Embracing open banking to offer third party products via digital platforms
- Operating industry leading technology platforms
- Participating in consortia with banking and industry peers
- Carrying out proof-of-concept testing of emerging technologies
- Placing code into open-source to drive standards and benefit from external developer expertise
- Operating innovation labs to solve business challenges with external providers of technology solutions, such as FinTech companies
- Strengthening data analytics and science capabilities
- Partnering with accelerators and universities to foster research and development
From research to development: Deutsche Bank’s Innovation Network

## Research

**Innovation Labs**
- Deutsche Bank Labs Berlin
- Deutsche Bank Labs London
- Deutsche Bank Labs Palo Alto
- Deutsche Bank Labs New York

**Massachusetts Institute of Technology (MIT)**

**Plug and Play Accelerator Frankfurt**

## Development

**Digital Factory Frankfurt**

**Technology Centres**
- Bucharest
- Cary (US)
- Moscow & St. Petersburg
- Pune

**Data Lab Dublin**
- The Hive

**Hackathons**

**Quartier Zukunft Berlin**

**Factory Berlin**
Example: Cloud Computing

The aim is to move the majority of our applications to a cloud environment and away from expensive and inflexible physical servers.

Applications running in our cloud environment reduce cost as they share the underlying infrastructure and provide a consistent platform where controls and security patching can be implemented in a single place. To support progress, the bank has formed a Public Cloud Council and Centre of Excellence.

Example: Fabric
- Deutsche Bank launched a new application hosting platform called Fabric with benefits of cloud computing
- Allows developers to deploy applications in minutes rather than months
- All infrastructure controls are built into the services, including security, compliance and performance management
- It means we are building applications in the same way as the best software companies in the world do
- We ensure this environment has all the necessary security controls

Example: SWIFT gpi
- Deutsche Bank is one of the first 30 banks to support SWIFT’s Global Payment Innovation (SWIFT gpi), an industry-wide initiative that connects every party in the payment chain via a cloud solution, allowing others in the chain to identify the status of a payment in the process
- The SWIFT gpi Service in GTB has significantly improved international payments for our clients
- This has gone live in 2017 for USD and EUR transactions and is integrated into Deutsche Bank’s Cash Inquiry App on the Autobahn platform
## Example: dbAPI and Open Banking

Open Banking (also known as API Banking) is the opening of our systems and solutions to third parties through structured and secure Application Programming Interfaces (APIs)

This enables clients, partners, FinTechs, and even competitors to easily integrate with and build new solutions around Deutsche Bank systems & services.

We see Open Banking and API technology as an important area to focus on, not only to ensure regulatory compliance, but also to explore the business potential of this evolution.

<table>
<thead>
<tr>
<th>PCB: Multi-bank aggregation</th>
<th>dbAPI</th>
<th>Deposit market-place: ZinsMarkt</th>
<th>GTB: Open Banking platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Deutsche Bank mobile banking app uses APIs from other banks to show customers details from their accounts at other financial institutions</td>
<td>The developer portal developer.db.com is the hub for market facing APIs providing bank data and services (including PSD2)</td>
<td>ZinsMarkt is an online deposit marketplace</td>
<td>Our Global Transaction Bank (GTB) recently acquired a FinTech startup, Quantiguous Solutions, in India, to accelerate the development of the bank’s Open Banking platform</td>
</tr>
<tr>
<td>This provides customers with one view of their finances</td>
<td>Third parties can use bank data to build new apps and services, enrich existing apps or improve digital processes</td>
<td>Customers may access deposit products from selected other banks</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>This enables us to help match client liquidity with banks’ funding needs</td>
<td></td>
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</tbody>
</table>
Distributed Ledger Technology (DLT), also known as blockchain, has a potential to dramatically impact how much of business is done.

The ability to share records securely across a network, together with the capability for automatic execution of economic instructions offers great potential for us to better serve our clients, often at reduced cost and with improved transparency.

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**R3 Consortium**
- Deutsche Bank is part of the R3 consortium of tech & finance companies testing where and how to apply DLT.
- Example tests include digital identification, capital markets, Syndicated Loan servicing and settlement.

**Utility Settlement Coin**
- We were one of the first banks to participate in the Utility Settlement Coin (USC), a blockchain-based approach for clearing and settling financial transactions between banks, with reduced risk and faster execution.

**we.trade**
- Deutsche Bank is a founding member of we.trade, a platform for trade finance that allows small and medium-size enterprises to manage, track, and secure domestic and international transactions.

**KYC**
- We recently presented proofs of concept with IBM and R3 on how banks can reduce costs and operational risks by using a joint platform for “Know Your Customer” (KYC) analysis.
- This platform uses blockchain technology.
Examples: Machine Learning, Artificial Intelligence and Robotic Process Automation

Machine Learning (ML), Artificial Intelligence (AI) and Robotic Process Automation (RPA) offer significant opportunities for the bank. Use cases vary from improving client services to process automation and financial crime detection.

<table>
<thead>
<tr>
<th>Machine Learning and AI</th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>AI is used across divisions:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Anti-Financial Crime: Transaction surveillance and insider threat detection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- CIB: Intelligent document recognition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PCB: Natural language processing to help respond quicker to client requests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- DWS Trading: Natural Language Processing for automated securities lending, by reading thousands of broker requests per day</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- DWS Trading: Machine Learning algorithms for trade matching and confirmations, by interpreting broker confirmations, converting them to machine readable format, structured data and matching off with the corresponding internal trade</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Robotic Process Automation</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB: Our digital portfolio manager ROBIN offers portfolio management for retail investors. ROBIN combines algorithms with our Chief Investment Officer’s market opinions and invests and manages clients’ portfolios digitally</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWS: Our digital asset management platform WISE provides investment robo advice. This allows our customers and other market participants to access the combined knowledge and research of over 600 fund managers and analysts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robotics is used to automate manual processes in Know-Your-Client processing, employee trading pre-clearance and online banking</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Agenda

1. Strategy, targets and governance
2. Sustainability: Our approach
3. ESG in our business
4. Technology
5. Our staff
6. Appendix
Development of Deutsche Bank’s employer brand

- An employee value proposition is about defining the essence of your company – how it is unique and what it stands for
- It encompasses the central reason that people are proud and motivated to work there, such as the inspiring vision or distinctive culture
- When integrated into all aspects of a business a strong employee value proposition will help to retain top performers and attract the best external talent

Deutsche Bank Employer Brand Maturity Model

- Rationalising creative spend on recruitment marketing
- Hiring good people for less
- On-boarding employees more effectively
- Building brand awareness & equity internally and externally
- Enhancing pulling power
- Reducing unwanted attrition (and re-hire)
- Ensure cultural fit of new hires
- Improving employee engagement
- Enhancing communication and change management effectiveness

Cost benefits

Performance benefits
Lifelong Learning: Prerequisite for continuous change

We are striving for the next evolution phase of digital learning
- Our talent development strategy is about creating one clearly understandable offering for all employees and managers
- Across the suite, face to face learning is complemented by just in time resources and materials
- We are continually innovating our simulation activities

Enhancement to the learning management system by introducing a new digital ‘all employee’ learning offering

- Implemented 3k+ new learning objects
- Increased the annual reach for self-driven learning from 15% per annum to ~23% in 6 months and growing
- Over 100k objects have been accessed so far
- 49 Virtual Classroom courses are available to all across the globe and can be delivered in any local language
- New Navigator tool introduced a more personal and tailored learning experience
Sustainable training approach: Reaching more employees at lower cost

Training attendance

<table>
<thead>
<tr>
<th>Year</th>
<th>Governance &amp; Compliance (in '000)</th>
<th>Non-regulatory related trainings (in '000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>204</td>
<td>703</td>
</tr>
<tr>
<td>2016</td>
<td>242</td>
<td>935</td>
</tr>
<tr>
<td>2017</td>
<td>257</td>
<td>1,131</td>
</tr>
</tbody>
</table>

Training expenses

<table>
<thead>
<tr>
<th>Year</th>
<th>Training expenses (in € m)</th>
<th>Training expenses per FTE (in €)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>920</td>
<td>97</td>
</tr>
<tr>
<td>2016</td>
<td>770</td>
<td>106</td>
</tr>
<tr>
<td>2017</td>
<td>760</td>
<td>93</td>
</tr>
</tbody>
</table>
Internal Mobility: Career possibilities for employees

Deutsche Bank Internal Mobility function

- Enables internal sourcing and supports cross divisional mobility
- Focuses on the enablers of an open and transparent jobs platform, while allowing for individual support of key talent
- Retention patterns, succession needs and commercial realities drive the engagement of the internal sourcing function with the relevant talent segments
- Made up of both permanent employees and Recruitment Process Outsourcing (RPO) services; thus allows flexibility with regard to resource planning
- Employees are expected to drive their career progression enabled by online tools and established frameworks

Increasing cost efficiency and performance

- Enhanced performance: Internal transfers are more likely to perform better than external candidates due to their knowledge of Deutsche Bank
- Higher and longer retention: Evidence suggests employees who move internally are more likely to remain at DB longer
- Cost efficiency: Avoids recruitment and severance costs

Tools

- Cross-divisional branding and communication
- Internal Mobility consultants
- Technology (Connect2Job)
The future of work: How we are responding

<table>
<thead>
<tr>
<th>Millenials: New generation, new expectation</th>
<th>Organisation of the future: built for speed, agility, transparency</th>
</tr>
</thead>
</table>
| – Millenials will move from 40% of our workforce today to 72% by 2025: working styles and career paths will be redefined
– In future, portfolio careers will be the norm
– Working from home or in shared offices will be standard practice
– Employers will need to ensure work flexibility, work-life balance and investment in training & development
– Freelance, consultancy and interim roles are increasing as a preferred form of employment year on year | Moving from… | Moving to… |
|                                            | hierarchical structures | agile network, fueled by collaboration |
|                                            | a structure based on functions | structure based on work and projects |
|                                            | clearly defined roles and job titles | teams & deliverables defined, but roles and job titles changing regularly |
|                                            | advancement through promotion | advancement through experience and multifunctional leadership assignments |
|                                            | process based environments | projects based/evolving processes |

<table>
<thead>
<tr>
<th>Our response</th>
<th>Flexible working</th>
<th>Flexible benefits</th>
<th>Managed mobility</th>
<th>Workday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rapidly increasing offering of flexible working arrangements for employees supported by innovative technology to enable a healthy family and work life balance</td>
<td>Continuous optimization of the employee benefits portfolio to increase usage flexibility for satisfying the needs of different employee generations in the workforce</td>
<td>Building relationships, understanding employees’ career aspirations and moving employees around Deutsche Bank to ensure they are ready for future leadership roles</td>
<td>Implementation of a modern, cloud-based Human Capital Management platform to enable employees and managers to manage all personal and career related aspects in a intuitive, state-of-the-art online platform which provides transparency and easy mobile access</td>
</tr>
</tbody>
</table>
Diversity & Inclusion: Creating an inclusive culture
Embedding D&I sustainably across the organization

Four overlapping and reinforcing perspectives

Deutsche Bank Group
- Management Board interactions
- Regulatory requirements
- Group policies

Leaders
- Behavioral change
- Culture of inclusion
- Leader actions

Employee experience
- What’s it like to work at Deutsche Bank
- Employee resource groups engagement

Markets
- Thought leadership push and pull
- Business / client / society interactions
- Brand

Our approach

- Assigning responsibility for more women in management positions to divisional management and monitoring accordingly
- Embedding gender diversity scope into relevant policies and procedures, including senior management succession
- Providing specific training to talented women at all levels of the organization

Gender diversity\(^{(1)}\)

- Thought leadership: E.g. early adopter of UN Standards of Conduct for Business to tackle discrimination against LGBTQI
- Active support of equal rights for members of the LGBTQI community globally
- Recognition, e.g. perfect score in the Human Rights Campaign’s Corporate Equality Index for the 15th consecutive year

LGBTQI

- Regional support / global coordination of various Employee Resource Groups
- Taking an active part in the regional / local discussion to foster diversity and inclusion
- Being an active member / supporter of relevant organizations and research institutes

Regional initiatives (examples)

(1) All to the extend legally permissible worldwide
Diversity & Inclusion: Gender diversity

Implementing German gender quota legislation at Deutsche Bank AG

<table>
<thead>
<tr>
<th>In %</th>
<th>December 31, 2017 status</th>
<th>December 31, 2020 target</th>
<th>June 30, 2022 target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women on the Supervisory Board</td>
<td>35.0</td>
<td>30.0*</td>
<td>-</td>
</tr>
<tr>
<td>Women on the Management Board</td>
<td>16.7 (2)</td>
<td>-</td>
<td>20.0**</td>
</tr>
<tr>
<td>First level below the Management Board</td>
<td>18.0</td>
<td>20.0</td>
<td>-</td>
</tr>
<tr>
<td>Second level below the Management Board</td>
<td>19.6</td>
<td>25.0</td>
<td>-</td>
</tr>
</tbody>
</table>

* Legal requirement
** At an overall size of eight to 12 members, this corresponds to two women on the Management Board

Working towards our voluntary Deutsche Bank Group goals to accelerate female leadership

Ratio of women in management positions in % at year end
- Female Managing Directors and Directors
- Female Officers

Supportive measures include a range of global and divisional specific talent acceleration and manager awareness activities across hierarchies such as:
- Accomplished Top Leaders Advancement Strategy (ATLAS) acceleration program for female Managing Directors
- Women Global Leaders (WGL) module that was embedded within the Director Acceleration Program
- Divisional and / or regional cross-divisional / cross-company mentoring programs for more junior women
- Wider platform initiatives such as MysteryCoffee, JobShadowing, ReverseMentoring, or Managing Director Open Office support more gender diversity as well
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DWS Responsible Investment Organization
CIO for Responsible Investments

Chief Investment Officer DWS

Chief Investment Officer for Responsible Investments

CIO Office for Responsible Investments
- Sustainability Office
- ESG Thematic Research Team
- ESG Engine & Solutions Team
- Corporate Governance Centre

A dedicated ESG team supports all business divisions of DWS
- Active
  - Head of ESG Integration
- Passive
  - ESG Coordinator
- Alternatives
  - Head of ESG Strategy, Alternatives
- Global Client Group
  - ESG Coordinator(s)

- Head of Responsible Investments (who reports into the CEO of DWS) hosts the Responsible Investment Leadership Team
- DWS Coverage organization has established Responsible Investment Champions organized regionally and along distribution / client channels
- Comprehensive global ESG “gatekeeper” structure across Active along asset classes
Deutsche Bank’s CSR initiatives make a #PositiveImpact on >2 million lives every year

Our corporate social responsibility mission

Enabling communities and economies to prosper

### Education

**Born to Be**
The Deutsche Bank engagement programme

- **Our Born to Be programme helps young people reach their full potential**
- **1.2m** Young people reached through Born to Be
- **3.9m** beneficiaries since 2014 and **5m target for 2020**

### Enterprise

**Made for Good**
The Deutsche Bank enterprise programme for social good

- **214k** People reached through Made for Good
- **20k** enterprise target for 2020

### In the community

**We provide local support for communities and society’s most disadvantaged**

- **693k** People benefited from our projects around the world
- **4m** beneficiaries target for 2020
- **Community development and regeneration**
- **Disaster relief**
- **Homelessness**
- **Basic welfare needs and provision**
- **Corporate memberships**

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**Giving and volunteering**

- **17.5k** Employees volunteered
- **236,000hrs** Invested to support social projects

**PlusYou**
Deutsche Bank’s volunteering and giving community
Cautionary statements

This presentation contains forward-looking statements. Forward-looking statements are statements that are not historical facts; they include statements about our beliefs and expectations and the assumptions underlying them. These statements are based on plans, estimates and projections as they are currently available to the management of Deutsche Bank. Forward-looking statements therefore speak only as of the date they are made, and we undertake no obligation to update publicly any of them in light of new information or future events.

By their very nature, forward-looking statements involve risks and uncertainties. A number of important factors could therefore cause actual results to differ materially from those contained in any forward-looking statement. Such factors include the conditions in the financial markets in Germany, in Europe, in the United States and elsewhere from which we derive a substantial portion of our revenues and in which we hold a substantial portion of our assets, the development of asset prices and market volatility, potential defaults of borrowers or trading counterparties, the implementation of our strategic initiatives, the reliability of our risk management policies, procedures and methods, and other risks referenced in our filings with the U.S. Securities and Exchange Commission. Such factors are described in detail in our SEC Form 20-F of 16 March 2018 under the heading “Risk Factors.” Copies of this document are readily available upon request or can be downloaded from www.db.com/ir.

This presentation also contains non-IFRS financial measures. For a reconciliation to directly comparable figures reported under IFRS, to the extent such reconciliation is not provided in this presentation, refer to the Q2 2018 Financial Data Supplement, which is available at www.db.com/ir.