

## Press Release

For business editors  
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### **Commerzbank and Fraunhofer whitepaper: Big Data, Blockchain, Internet of Things and Artificial Intelligence set to revolutionise trade and supply chain finance**

- **Whitepaper sees trade and supply chain finance industries at a turning point**
- **Report identifies building blocks of the new trade finance ecosystems**

**LONDON & FRANKFURT:** A new industry report titled *Relevant Advanced Technologies for Trade and Supply Chain Finance* launched by Commerzbank, in partnership with the Fraunhofer Institute for Material Flow and Logistics (IML), reveals that the trade and supply chain finance industries are at a turning point, with emerging technologies and the increasing volume of accessible data setting in motion the rapid evolution of new ecosystems.

Combining the expertise of application-oriented scientists from Fraunhofer IML with trade finance specialists at Commerzbank, the paper underpins the bank's commitment to shape the trade finance business of the future. The joint research effort shows that digital advancements are pushing the development of improved business models to meet the need for increased operational efficiency and alignment with more complex sustainability goals.

The report identifies the key innovations that are forming the building blocks of the new trade finance ecosystems, including:

#### **Big data and Artificial Intelligence (AI)**

As one of the world's most data-intensive industries, trade and supply chain finance is transforming at a rapid pace with the ability to share and process vast volumes of complex information. Big data has been highlighted as an "indispensable" source of technological innovation but can only be effective if implemented in tandem with other technologies.

"Big data analytics can help financial institutions to leverage the wealth of trade data stored in multiple databases across different geographies along the supply chain [...] by identifying data trends and flagging anomalies, banks can detect fraud at an early stage," states the whitepaper.

With global data set to grow by 500% between 2018 and 2025<sup>1</sup>, the report explains that effectively processing this mass of information will be a main challenge for banks and trade participants, but also enables AI and machine learning solutions to automate decision-making processes and forecast trends in risk management, financial analytics, and portfolio management.

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<sup>1</sup> Reinsel, D., J. Gantz, and J. Rydning 2018. *The Digitization of the World. From Edge to Core.* USA

**Blockchain, Distributed Ledger Technology (DLT), and smart contracts**

The report looks at the growing opportunities for businesses in the form of B2B platforms, which can reduce boundaries, improve transparency, and support automation. It predicts that these platforms will profoundly alter the way in which international trade is undertaken. One such example is the blockchain-enabled, distributed trade network Marco Polo. Developed by an international consortium including Commerzbank significantly increases speed and transparency of trade business by automatically matching digital trade data.

Furthermore, the whitepaper also explains that DLT and blockchain technology could reduce trade finance operating costs by 50 to 80% and improve turnaround times three- to four-fold. The barriers removed could lead to more than US\$1 trillion in new trade over the next decade.<sup>2</sup>

**Internet of Things (IoT) and sensorics**

By 2030, the number of internet-connected objects will reach more than 125 billion, according to a preliminary forecast by the American Bankers Association. The networking of each object opens new revenue opportunities in novel demands on payment and finance flows.

One application scenario in supply chain finance arises through the creation of automated payment solutions triggered by sensor data. By linking the physical and financial supply chain using IoT, it is possible to design fully automated order processing along the entire supply chain.

“Supporting Germany’s trade corridors is in Commerzbank’s DNA,” comments Nikolaus Giesbert, Divisional Board Member at Commerzbank, “and we finance around 30% of Germany’s foreign trade. That is why it is vital we have our finger on the pulse of the latest technological advances in trade finance and deliver enhanced solutions to our clients. We very much value our partnership with Fraunhofer and hope this whitepaper serves as a catalyst to drive further discussion and action across the industry.”

Prof Dr Michael Henke from Fraunhofer IML in Dortmund adds: “The trick to reach the plateau of productivity quickly is to combine all the technologies we have in our hands today. That’s what we are doing in our collaboration with Commerzbank, where we’re consistently integrating the financial flow with the material- and information flow.”

This whitepaper is the most comprehensive body of research currently available looking at the trade and supply chain finance sector and comes at a pivotal time for trade participants. It is the culmination of a long-standing partnership between Commerzbank and the prestigious research organisation Fraunhofer IML.

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<sup>2</sup> World Economic Forum. 2018. *The Global Financial and Monetary System in 2030*. Geneva.

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**About Commerzbank**

Commerzbank is the leading bank for the German Mittelstand and a strong partner for around 30,000 corporate client groups and around 11 million private and small-business customers in Germany. The Bank's two Business Segments – Private and Small-Business Customers and Corporate Clients – offer a comprehensive portfolio of financial services. Commerzbank transacts approximately 30 per cent of Germany's foreign trade and is present internationally in almost 40 countries in the corporate clients' business. The Bank focusses on the German Mittelstand, large corporates, and institutional clients. As part of its international business, Commerzbank supports clients with German connectivity and companies operating in selected future-oriented industries. Following the integration of Comdirect, private and small-business customers benefit from the services offered by one of Germany's most advanced online banks combined with personal advisory support on site. Its Polish subsidiary mBank S.A. is an innovative digital bank that serves approximately 5.5 million private and corporate customers, predominantly in Poland, but also in the Czech Republic and Slovakia. In 2020, Commerzbank generated gross revenues of some €8.2 billion with almost 48,000 employees.

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**Disclaimer and Forward-Looking Statement**

This release contains forward-looking statements. Forward-looking statements are statements that are not historical facts. In this release, these statements concern inter alia the expected future business of Commerzbank, efficiency gains and expected synergies, expected growth prospects and other opportunities for an increase in value of Commerzbank as well as expected future financial results, restructuring costs and other financial developments and information. These forward-looking statements are based on the management's current plans, expectations, estimates and projections. They are subject to a number of assumptions and involve known and unknown risks, uncertainties and other factors that may cause actual results and developments to differ materially from any future results and developments expressed or implied by such forward-looking statements. Such factors include the conditions in the financial markets in Germany, in Europe, in the USA and other regions from which Commerzbank derives a substantial portion of its revenues and in which Commerzbank holds a substantial portion of its assets, the development of asset prices and market volatility, especially due to the ongoing European debt crisis, potential defaults of borrowers or trading counterparties, the implementation of its strategic initiatives to improve its business model, the reliability of its risk management policies, procedures and methods, risks arising as a result of regulatory change and other risks. Forward-looking statements therefore speak only as of the date they are made. Commerzbank has no obligation to update or release any revisions to the forward-looking statements contained in this release to reflect events or circumstances after the date of this release.