

How AI could drive growth in European telecoms

Telecom companies have a good track record with automating services. AI offers an opening for automating customer service, as well as new opportunities for capex optimisation. In addition to cost-saving possibilities, there could be also opportunities for telecoms on the revenue side



AI's dual ability to reduce costs and enhance revenue opportunities makes it an important opportunity for telecom operators

A multitude of applications

Recent artificial intelligence (AI) developments have jumpstarted change in many sectors of the economy. The telecom sector is no exception, where much of the initial impact has been seen in customer service. However, AI is now increasingly being used for network efficiency, predictive maintenance, and smarter capital expenditure (capex) strategies. This transition is very welcome as telecom operators face increasing pressure to improve margins and reduce operational costs. The dual role of AI in enhancing operational efficiency while unlocking cost reductions makes it an essential tool for European telecom operators.

Customer service

Customer service is perhaps the most well-known use case of generative AI in recent years. This is

no different for telecoms; European telecom operators are already making significant strides forward with implementing AI for customer service. Generative AI for customer service enables not only cost savings but also the personalisation of services, as AI systems process large volumes of customer data. This allows operators to offer hyper-personalised services. By analysing user behaviour, AI can suggest tailored plans, add-ons, and solutions that meet individual needs. Swisscom, for instance, uses AI analytics to predict customer preferences and deliver tailored offerings (e.g., for their mobile subscription plans). In addition, offering personalised service also enables cross- and upselling by telecoms. This is where AI's predictive analytics come in handy.

AI-driven capex optimisation

Capital expenditure remains a significant challenge for telecom operators, especially as the creditworthiness of telecoms has [decreased over recent decades](#). In 2024, capex by European telecoms was roughly €50 billion. As 5G and fibre rollouts continue, capex expenditures will remain significant over the coming years and AI could aid telecoms with optimising these costs.

Firstly, we believe that AI will help with predictive maintenance. Traditionally, operators rely on periodic maintenance schedules, which can lead to either overspending or unexpected downtime. AI-driven predictive maintenance solves this issue by analysing real-time data from network equipment. Deutsche Telekom, for example, uses AI to predict hardware failures before they occur. By leveraging machine learning algorithms, operators can replace equipment only when necessary, significantly reducing maintenance costs and downtime.

Secondly, AI can aid telecoms with more efficient planning of network expansions. Through machine learning models traffic patterns, user behaviour, and infrastructure performance can be analysed to identify areas that require investment. This, in turn, ensures smarter capex allocation.

The future of AI in telecom

AI's dual ability to reduce costs and enhance revenue opportunities makes it an important opportunity for telecom operators. European operators with a clear AI strategy – like Deutsche Telekom and Swisscom – are well-positioned to lead this transformation. As AI adoption scales up, telecom companies could improve their bottom lines and create innovative services that redefine customer experiences. In a rapidly evolving digital landscape, AI is more than just a tool for cost reduction – it could be one of the foundations for smarter networks and sustainable growth.

Author

Diederik Stadig

Sector Economist, TMT & Healthcare

diederik.stadig@ing.com

Jan Frederik Slijkerman

Senior Sector Strategist, TMT

jan.frederik.slijkerman@ing.com

Disclaimer

This publication has been prepared by the Economic and Financial Analysis Division of ING Bank N.V. ("ING") solely for information purposes without regard to any particular user's investment objectives, financial situation, or means. *ING forms part of ING Group (being for this purpose ING Group N.V. and its subsidiary and affiliated companies)*. The information in the publication is not an investment recommendation and it is not investment, legal or tax advice or an offer or solicitation to purchase or sell any financial instrument. Reasonable care has been taken to ensure that this publication is not untrue or misleading when published, but ING does not represent that it is accurate or complete. ING does not accept any liability for any direct, indirect or consequential loss arising from any use of this publication. Unless otherwise stated, any views, forecasts, or estimates are solely those of the author(s), as of the date of the publication and are subject to change without notice.

The distribution of this publication may be restricted by law or regulation in different jurisdictions and persons into whose possession this publication comes should inform themselves about, and observe, such restrictions.

Copyright and database rights protection exists in this report and it may not be reproduced, distributed or published by any person for any purpose without the prior express consent of ING. All rights are reserved. ING Bank N.V. is authorised by the Dutch Central Bank and supervised by the European Central Bank (ECB), the Dutch Central Bank (DNB) and the Dutch Authority for the Financial Markets (AFM). ING Bank N.V. is incorporated in the Netherlands (Trade Register no. 33031431 Amsterdam). In the United Kingdom this information is approved and/or communicated by ING Bank N.V., London Branch. ING Bank N.V., London Branch is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. ING Bank N.V., London branch is registered in England (Registration number BR000341) at 8-10 Moorgate, London EC2 6DA. For US Investors: Any person wishing to discuss this report or effect transactions in any security discussed herein should contact ING Financial Markets LLC, which is a member of the NYSE, FINRA and SIPC and part of ING, and which has accepted responsibility for the distribution of this report in the United States under applicable requirements.

Additional information is available on request. For more information about ING Group, please visit www.ing.com.