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AI and analytics: worldwide forecast 2018–2022

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About this report

This report provides forecasts for communications service provider (CSP) spending on telecoms-specific AI and analytics software systems. It provides details of how spending will vary by delivery type, service type and region across different sub-segments. The report also provides recommendations for how vendors and CSPs can approach the changing demands of telecoms analytics software.

The report is based on several sources, including:

- Analysys Mason's research from the past year
- interviews with CSPs and vendors worldwide.

GEOGRAPHICAL COVERAGE	SUB-SEGMENT COVERAGE
- Worldwide - Central and Eastern Europe - Developed Asia–Pacific - Emerging Asia–Pacific - Latin America - Middle East and North Africa - North America - Sub-Saharan Africa - Western Europe	- Business analytics - Revenue assurance - Network analytics

KEY QUESTIONS ANSWERED IN THIS REPORT

- What is the overall size of the telecoms artificial intelligence (AI) and analytics software market and what will be the key drivers of growth in the next 5 years?
- How will spending vary across different sub-segments of the analytics software market?
- How will spending vary across different regions and service types?
- What are the major drivers and inhibitors that will affect growth rates of CSP spending on analytics systems?
- What is the impact of software-as-a-service (SaaS) solutions?
- Will AI have any impact in the next 5 years?

WHO SHOULD READ THIS REPORT

- Vendor strategy teams that need to understand how spending is shifting from best-of-breed point solutions to telecoms AI ecosystems-based approaches.
- Product management teams responsible for feature functionality and geographical focus, and product marketing teams responsible for growth.
- CSPs that are planning a rationalisation of point solutions and are executing their digital transformation journeys, and want to ensure that they remain up to date.
- Professional services vendors that want to understand the growth opportunities over the next 5 years.

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Three key trends expected during 2018–2022

1

The scope of what is considered to be AI is spreading to include much of the analytics market as well digital interactions with the real world.

The scope of AI and analytics is dictated by the data available. The digitalisation of the real world with IoT sensor data and data derived from the understanding of human interactions will enable the scope for AI to continue to grow.

The use of image recognition, for instance, enables facial recognition to be used for security and can help engineers to identify device components that require fixing.

2

As-as-service delivery models are increasingly being used, not only for full applications, but for API-based calls for specific functions.

CSPs are increasingly using SaaS-based models, although data security continues to present challenges.

SaaS-based applications for data analysis, combined with big-data storage, provide CSPs with on-demand capability for transient project needs. Hosted AI/analytics tools act as a good reason to not shift data back in-house for analysis, which encourages the use of IaaS services.

3

The development of an in-house ecosystem is shifting analytics capabilities to internal CSP teams.

New tools are helping to democratise data analysis, thereby shifting the workloads from a few highly skilled data scientists to business-oriented staff members. The deployment of new tools combined with access to data and compute resources is enabling teams to develop insights into new aspects of their operations.

In-house teams should provide unique company insights upon which to build differentiated capabilities.

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Recommendations for CSPs

1

CSPs should take control of in-house analytics capabilities to support their business and operational processes and to enable them to optimise their assets.

Every CSP has a unique set of data built from their networks, systems and services, and has a unique environment in which they operate. In order to optimise their systems, CSPs must use their own data and build their own insights. Every process is a potential candidate for optimisation with AI, and CSPs are best-positioned to achieve this optimisation themselves using in-house skills and their own data, rather than generic applications.

2

CSPs should adopt SaaS-based solutions where there is a cost justification for doing so, as factors such as security and latency will diminish over the forecast period.

SaaS-based tools will increasingly be part of every aspect of CSP IT infrastructure. Concerns over security and latency are diminishing in all but the most extreme use cases. The use of SaaS-based tools can therefore be justified based on savings of operational or capital costs. Further advantages can be gained from the wider ecosystem of partners that is available when using SaaS-based tools.

3

All AI and analytics capabilities rely on the underlying data. CSPs should provide a consolidated view of their data to the whole enterprise to enable analytics tools to get a complete and reliable data set for analysis.

Data is ultimately a resource that will enable CSPs to build the most-efficient operational processes. This data needs to be made available to the whole enterprise, and must be rationalised and governed to maintain its accuracy and consistency so that increasingly low-cost tools can extract insights. The ability to provide access to the data to all including business functions will determine the operational effectiveness of a CSP.

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Recommendations for vendors

1 **Vendors need to ensure that the time to value for CSPs is fast, and should provide tools that deliver both applications and the ability to build capabilities.**

Vendors should alter their business models to enable CSPs to provide a dual-speed go-to-market deployment model, where applications provide an out-of-the-box experience, but the underlying ecosystem or platform also allows CSPs to develop their own capabilities. The development of a marketplace for some of these in-house-built capabilities should be a goal for leading vendors.

2 **Machine learning and deep learning capabilities should be used instead of recoding and upgrading traditional applications.**

ML and DL technologies can be used to update the logic that has been coded into applications to reflect changes and to optimise a specific installation. The use of AI in applications with a limited data set and narrow set of outcomes is already providing this type of capability; an example of which is the understanding of individual preferences within phone camera applications. This technology can be applied to customer interactions with CSPs.

3 **Vendors should consider adopting similar models to those used by OTT players in order to gather industry-wide data with which they can refine their applications and services.**

AI and analytics vendors will be given access to the data of many customers by shifting to a SaaS-based service delivery model. They can use this data to better understand how to address industry needs. Placing a greater emphasis on data gathering will, in the longer term, provide vendors with the ability to better understand how to address their customers' needs.

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Contents

Executive summary

Recommendations

Forecast

Market drivers and inhibitors

Business environment

Market definition

About the author and Analysys Mason

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About the author

Justin van der Lande (Principal Analyst) leads the *AI and Analytics* research programme, which is part of Analysys Mason's Telecoms Software and Networks research stream. He specialises in business intelligence and analytics tools, which are used in all telecoms business processes and systems. In addition, Justin provides technical expertise for Analysys Mason in consultancy and bespoke large-scale custom research projects. He has more than 20 years' experience in the communications industry in software development, marketing and research. He has held senior positions at NCR/AT&T, Micromuse (IBM), Granite Systems (Telcordia) and at the TM Forum. Justin holds a BSc in Management Science and Computer Studies from the University of Wales.

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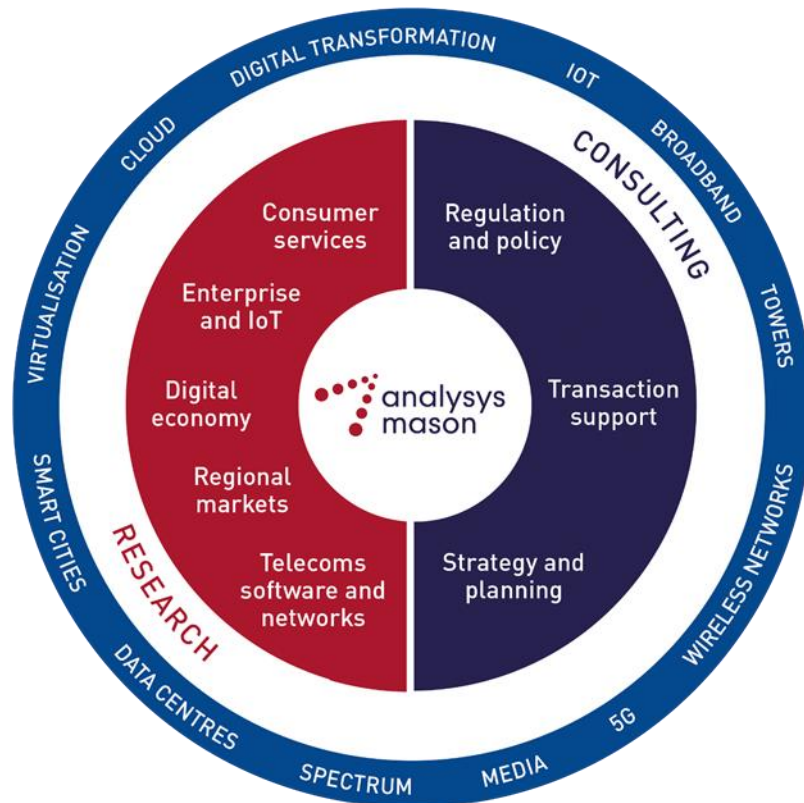
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