



**Accelerating the
Sustainability agenda**

How can AI help paint Media & Telecom greener?

Authors: Marcin Remarczyk, Manoj Chawla, Kunal Godbole, Gargi Kumari



Executive Summary

The Media and Telecom sectors touch more than 5 billion people daily across the global. By 2040, these industries will close in on Agriculture as the second largest sector in emissions. With escalating impact of climate-related events, projected to cost businesses US \$1.3 trillion by 2026¹, the 'E' in the 'Environmental, Social and Governance' has become of paramount importance.

While there is a growing acknowledgement that aligning with net zero goals will promote business performance, progress towards the goal is still on a slow trajectory. Cognizant's Deep Green² survey indicates a shifting mindset when it comes to investment in sustainability initiatives and projects growth up to 350% in the European Union (EU), including the United Kingdom (UK), between 2018 and 2030.

However, the journey to net zero is marked by challenges emphasizing the need not only for new ways of thinking but also for innovative technology. A robust approach such as the 3E approach will help navigate towards a net zero future leveraging for example AI. AI has demonstrated that it has the potential to create greener product design, to enable a circular economy model, and to enhance performance tracking. This paper explores how AI aided by the 3E approach emerges as a strategic solution to propel Media and Telecom on their roadmaps to a sustainable future amidst pressing challenges in translating intent into action.



SECTION 1:

Media and Telecom should accelerate focus on the “E” in ESG

In a world scuffled with accelerated greenhouse gas (GHG) emissions, extreme weather events, loss of biodiversity and depleting non-renewable energy, the ‘E’ in ESG has taken centre stage, demanding to become the most essential component of a company’s DNA.

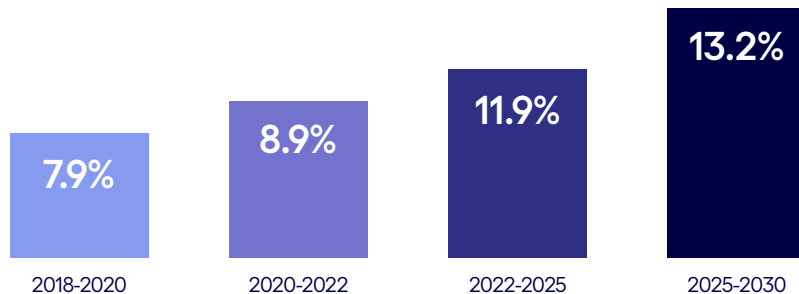
Currently, 80%¹ of the world’s largest companies are reporting exposure to physical, or market transition risks associated with climate change. Cognizant’s Deep Green survey² for the Media and Telecom sectors suggests that improved business performance is a top driver for C-suite executives, with growing conviction that improved revenue growth should be in alignment with doing the right thing in the eyes of customers, investors, suppliers, partners as well as current & future employees.

Media & Telecom industries are massive CO² emitters

The Telecom industry contributes approximately 4%³ of global CO² emissions, comparable to the aviation industry and by 2040, Telecom sector alone will account for a staggering 14%⁴ of the overall environmental carbon footprint. The Media industry is not too far behind either – Video Streaming industry alone contributes to 2%⁵ of total GHG emissions and a single box office movie, with a production budget of US \$70M, will require 20M trees annually⁶ to absorb the humongous amount of CO² emissions released.

In an era when transparency, accountability and responsibility not only matter but are of paramount importance, these industries are rapidly striving to align their business value with the sustainability agenda. The number of firms expecting a positive financial impact from improving environmental sustainability will increase by 100%², in the next two years. Becoming a net zero business is highly attractive to investors and shareholders but also to current and perspective employees, customers, regulators and the wider public. In EU countries, sustainability spending will increase in the Media and Telecom sectors by 3.5 times between 2018 and up until 2030 and is expected to see a year-over-year growth of over 12% between 2025 and 2030.

Q. Has your company's spend on environmental sustainability changed over the following periods, or will it change?



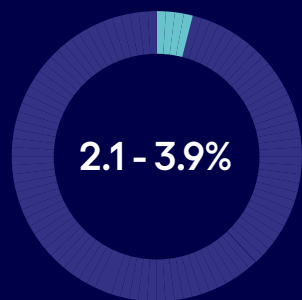
Annual percent increase in sustainability spend

Despite lofty net zero targets, the pace of action is slow

While these industries are doubling down efforts in hitting the elusive net zero goal, the commitment to achieving that by 2040 stands at only 36% for firms in Continental Europe and 51% for those in the UK². The entire Telecom industry must reduce its carbon emissions by 45% in the next ten years⁴ to meet the goals of the **Paris Climate Agreement**²⁸. Likewise, among the world's top 30 advertisers⁷, 29 have pledged to make all ads net zero by 2030, but the ad tech supply chain is incredibly complex, causing significant carbon accounting errors for Scope 1, 2 and 3⁸ emissions.

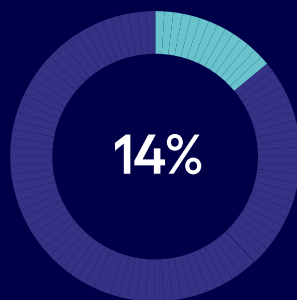
As Harvard Business Review aptly states⁹, *“Being green is no longer a cost of doing business; it is a catalyst for innovation, new market opportunity, and wealth creation.”* If businesses do not take active measures towards net zero, they risk facing new regulatory, legal, reputational, and technological risks. These risks can affect operating profits by as much as 60%¹.

Lack of speedy action would make Media and Telecom companies the 2nd largest sectors¹⁰ for GHG emissions by 2040, with Telecom experiencing a fivefold increase in global carbon footprint.



2023²

1.2 - 2.2 GtCO₂e² of 56 overall³



2040⁴

9.1 GtCO₂e⁴ of 65 overall³

5x

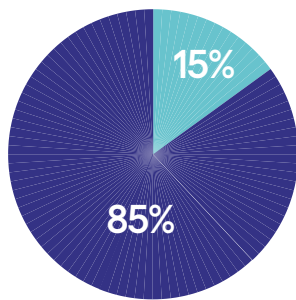
Global Carbon Footprint growth for **Telecom** alone

The biggest barrier is solving the complex Scope 3 emissions

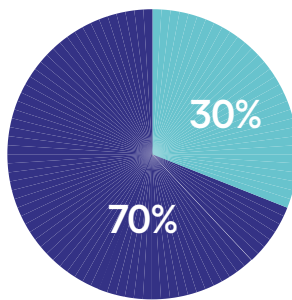
Scope 3 emissions contributes a larger portion of the overall GHG emissions i.e. 70% for Media and advertising companies and 85% for Telecom. The value chain across both these sectors is highly intertwined with complexities attributed by partners and suppliers. The focus at this moment from our survey respondents tends to be more towards Scope 1 and Scope 2, namely more than 70% across both these sectors. At this stage, Scope 3 emissions continue to be a 'mystery box'.

For all the noise and sentiment around Scope 3 emissions, companies are struggling to translate intent into action. Scope 3 emissions account for 11.4 times more than Scope 1 and 2 emissions; however, they only make up about 15% of reduction targets¹³, further underlining the lack of attention to upstream impacts.

GHG Makeup of a Telecom Firm



GHG Makeup of a Media Firm



Technology will help accelerate the journey towards net zero

How Media and Telecom choose to operate sustainably, augmented by use of emerging technologies such as AI to reduce both the consumption of energy, material (waste) and overall carbon footprint, will decide how green their future growth will be.





SECTION 2:

Time is of essence in the net zero race

The climate clock is ticking in the race to net zero and businesses cannot afford to lay low, particularly when financial performance of industries will be directly linked to their decarbonization trajectory.

Sustainable corporations perform better financially

Cognizant's Deep Green Survey² indicates an increased consensus among top executives on sustainability's impact on key performance indicators such as improved brand reputation, talent attraction, customer loyalty, satisfaction, and retention. The NYU Sustainable Market Share Index¹⁴ found that sustainable products grew 2.7x faster than non-sustainable products, garnering a six-year CAGR of 7.3% compared to 2.8% for their non-sustainable counterparts.

The *Amazing Spider-Man 2* was awarded the Green Seal¹⁵ for making their end-to-end operations sustainable, that included redirecting waste from landfills, donating food to local shelters, eliminating the usage of single use plastics, ultimately saving up to US \$400,000 in their production budgets¹⁶. Telefonica SA established an ambitious climate action plan, whereby 100% of their energy is targeted to come from renewable sources by 2030. This led to the launch of an energy efficiency programme, underlining 1574 projects, which has avoided 4 MtCO₂e emissions and recurring savings by more than €2.2 billion¹⁷.

The risk of not doing anything is costlier and irreversible

Failure to commit to net zero exacerbates the adverse risks posed by climate change on businesses totaling US \$1.3 trillion by 2026¹, due to increased operational costs, supply chain disruptions, infrastructure damage, and sudden shifts in consumer demand while also affecting people, society, and the overall biodiversity. There is also increasing pressure from consumers and investors for businesses to commit to net zero¹⁸. Regulatory compliance is not an immediate concern for the top executives from Media and Telecom but forthcoming regulatory pressures on mandatory disclosure will pose a risk. Last year, the EU released its Corporate and Social Responsibility Directive (CSRD)¹⁹, which introduced more detailed reporting requirements for EU companies and non-EU companies with substantial business in the region. Furthermore, investors show a greater degree of confidence and funding support for organisations that have mature sustainability plans²⁰.

The slow route to net zero can be attributed to several systemic challenges that require radical business renaissance. The Deep Green Survey² established that sustainability leaders at Media and Telecom companies are grappled with misalignment of incentives, lack of strategic sustainability roadmaps and poor value chain engagement.

We see a growing demand for CSO role to achieve sustainability targets, however the accountability for net zero outcomes needs to be evenly shared. Rather than strategy creators (usually the CEO) and budget approvers (CEOs and CFOs) equally taking ownership for the strategy's success, it's the CSOs and senior managers whose performance is measured against meeting sustainability targets, leading to imbalance of overall power structure. This in conjunction with the lack of talent with appropriate skills pose a significant challenge in translating strategies into meaningful actions. Furthermore, limited reporting capabilities and lack of data visibility context hinder budget allocation and offer little to no support for managers and workforce to keep their motivations alive in implementing net zero plans.





SECTION 3:

Way forward: the 3E approach for Media and Telecom to navigate towards a net zero future

The Opportunity: sector needs to fast track their movement towards meeting the net zero objectives in areas of:

- 1. Sustainability embedded in business strategy** requires financial commitment by increase in annual budget directed towards sustainability objectives. This commitment is further augmented by strategic clarity on sustainability roadmap, fostering alignment between various business units. Additionally, it encompasses cultural aspects including employee engagement, cultivation of specialised talent dedicated to sustainability initiatives.
- 2. Minimise the complexity to achieve scope 3 goals:** It requires addressing scope 3 emissions from upstream and downstream activities in companies value chain where organisations have limited control, is largest in emissions and most difficult to measure exacerbated by dependency on suppliers, partners alignment with your net zero ambitions. It requires measuring progress and generating insights for effective decision making and a feedback loop responding to shifting concerns from stakeholders and regulations.

The Way Forward

Emerging technologies like AI has the potential to leverage large data sets from internal and external sources within organisations to transform Media and Telecom sector. The game changing aspect of AI is to create custom applications, enterprise automation capabilities, smart solutions to develop sustainable products and revenue streams. It has the potential to transform basic business functions such as regulatory and business reporting, new product creation, marketing could all look very different.



The 3E Approach

AI has the potential to help the industry with the **3E approach - Enable, Engage and Embed** sustainability into the organisation. Improved product design, circular economy initiatives and performance tracking are the areas where AI can revolutionise Media and Telecom industry to meet their sustainability goals.

ENABLE IT

Foster a *'rethink-how-we-operate'* mindset within businesses through a data driven approach that facilitates decarbonization of their own operations.

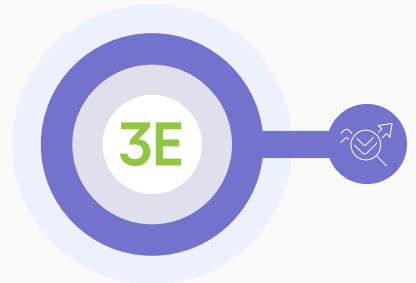
Establish Data Foundation (data as an enabler): It involves ensuring data availability and implementing a robust data governance structure encompassing, privacy, compliance, and data model. It includes identifying required data flows and establishing corresponding business processes. Additionally, it entails setting up performance metrics to assess progress and aid internal business decision making particularly in operations and supply chain.



ENGAGE IT

Engage in entirely new collaborative ways within and across value chain is the key sustainability commitment to fix scope 3.

Expansion of influence: By 2025, top sustainability initiatives will require a greater level of data sharing and more sophisticated analytics². Building upon the established data foundation platform is pivotal, not only for expanding the reach of sustainability initiatives upstream and downstream but also to unify fragmented climate data. This requires defining data models, training, aggregation and tracking further enriched by usage data of products and services from innovative business models such as XaaS. Identifying system opportunities to accelerate integration with extensive climate data repositories, IoT sensors, public data sets and collaborating with diverse stakeholders - partners, suppliers, distributors, communities, customers and even competitors (co-opetition). This collaborative data sharing approach unlocks substantial value, allowing businesses to gain greater rewards, by leveraging unified and shared data network to extend their reach, enhance visibility and amplify their influence throughout the value chain.



EMBED IT

Aligning AI led solutions with sustainability goals involves embedding data across the value chain, and augmenting sustainability strategy with data strategy at all levels including culture, strategy development, risk management, core business processes. This synergistic approach ensures AI is not only leveraged for operational efficiency but also becomes a driving force in advancing sustainability objectives throughout the organisation.

AI powered platform is the key: facilitating measurement of scope 3 data throughout the value chain spanning partners, suppliers, and customer product usage. These platforms enable pathways to measure and forecast emissions comprehensively, utilising vast internal and external data to simulate decarbonisation scenarios. This not only empowers executives with informed decision making but also automates emissions disclosure requests through AI driven reports and dashboard. The platform accelerates communication of sustainability insights, drafting of reports covering aspects like waste generation, carbon footprint across the value chain and identifies areas of improvement and emerging risks.





SECTION 4:

AI driven net zero future in Media and Telecom

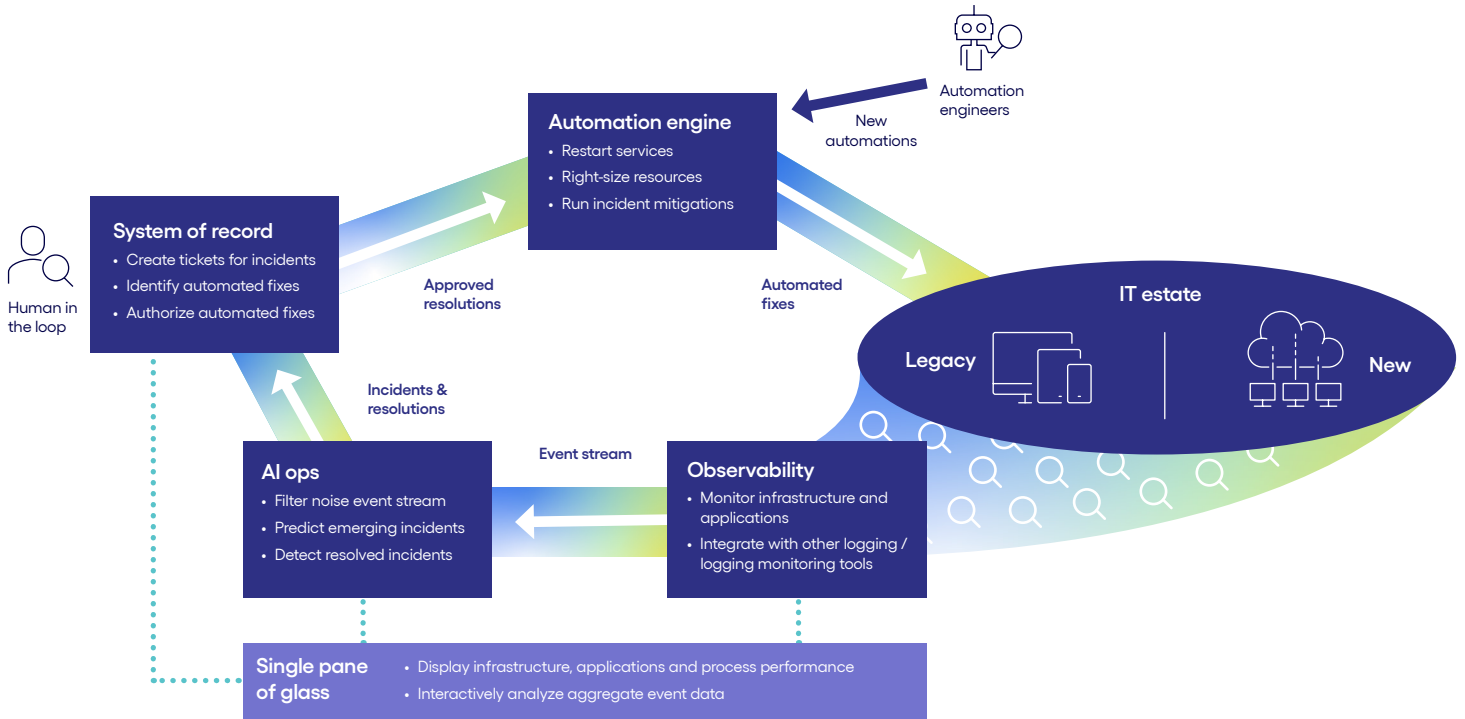
The 3E approach, powered by AI, fast tracks the organisation's journey towards net zero goals in the following areas, with tangible examples illustrating the application of AI in sustainability.

Greener product design

Innovation enabled through AI in designing and creating energy efficient products and services spanning across network infrastructure, data centres, electronic devices, and content creation services (Ads, music, movies). This has the potential to significantly reduce carbon footprint.

Cognizant partnered with Service Now²¹ to accelerate adoption of AI driven automation augmented by Cognizant Neuro[®] suite of AI platform to solve complex problems, automate operations enabling pathways to net zero future.

Cognizant Neuro® IT Operations, a proactive AI response across the IT ops estate with scale and predictability



Moving from using Technology for sustainability to using Technology sustainably: involves offering sustainable technology offerings for the same products or services. Many hyperscalers such as Microsoft²², is prioritising energy efficiency through AI driven optimisation. Green future networks where AI plays a pivotal role in minimising energy consumption while maintaining optimal network performance by dynamically allocating resources when needed based on traffic patterns.

CO² abatement factor: Telecom & sustainable agriculture where Agriculture¹⁰ today is 2nd largest industry contributor of GHG emissions globally. Telia²³ (Swedish telco) & Ekobot developed field robot system using AI, IoT, 5G. Uses real time data providing business intelligence to farmers to enable efficient, sustainable farming by automation, precision mechanical weed control, crop monitoring.

Circular economy

Leverage AI to improve effectiveness of circularity principles - reuse, remanufacture, refurbishment, recyclability. Extend circularity not only to the design of devices, equipment but also to the software including aspects such as software architecture, application development by considering longevity, repairability, upgradability, durability, dematerialisation in the design. Adapt innovative business models such as Product as a service to encourage return of devices to its producer, facilitating reuse, refurbishment and remanufacture. AI can play a critical role in establishing robust data pathways between manufacturers, telecom service providers, recyclers, and end customers in this circular economy framework.

Innovative opportunities in transition to circular business model enabled by AI such as Microsoft²² has taken a significant step by launching zero waste sustainability initiatives to facilitate reuse and recycling of servers and hardware within its data centre.

AI powered virtual production studios²⁴, events²⁵ reduce material waste associated with travel, use of product props, emissions from film and TV productions by AI enabled content creation, marketing, smart logistics, immersive experience, virtual locations, energy & waste management.

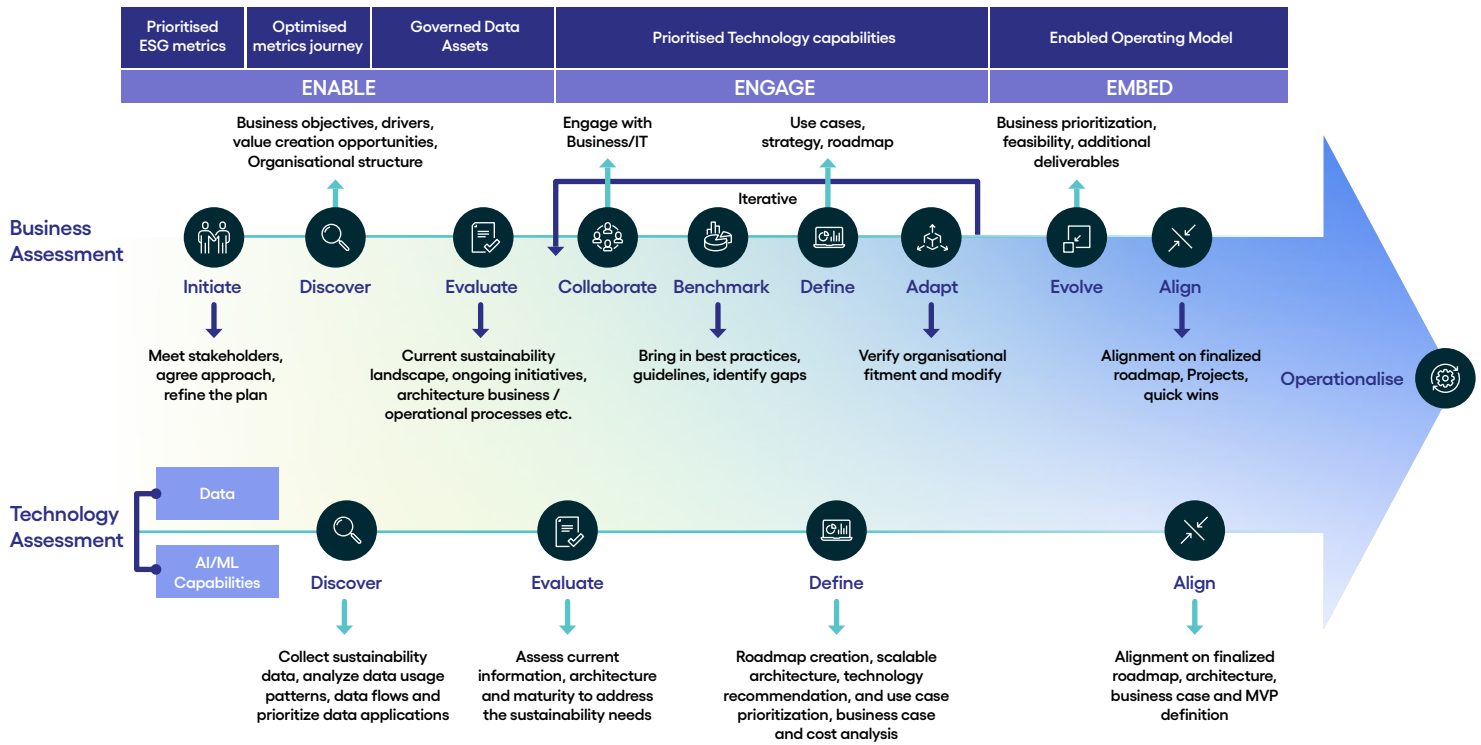
Performance tracking

Use AI powered solutions to overcome sustainability reporting challenges and addressing double materiality problem to seamlessly measure financial and non-financial dimensions in sustainable reporting. This includes reporting not only on the impact of environmental factors but also on the impact of company's activities on the environment. Leverage AI to optimise Scope 1-3 emissions by implementing ESG reporting tools that harnesses data both from external climate reporting repositories and internal enterprise data and improve supply chain resiliency.

Cognizant collaborated with AT&T²⁶ in its Connected climate initiative to help reduce 1 giga tonne of CO² emissions. Similarly, new venture Scope3²⁷ represents emissions generated in a company's supply chain to use as a "universal currency" to advertisers, AdTech companies, publishers.

Final word

How do we start: Detailed Assessment of current business and technology landscape through 3E Approach to meet the sustainability objectives



The Media and Telecom sector holds the power to affect positive change among businesses, people, communities, and economies through its influence on resources, knowledge, and resiliency it promises.

We recommend the 3E approach for Media and Telecom industry to navigate towards a Sustainable future. The 3E Approach using AI, offers a path not just to turn the looming sustainability challenge into a business opportunity but also establish a competitive advantage in the marketplace.

The 3E powered by AI is a process led approach to operationalise the organisational capabilities required to be built based on a systematic assessment of business and technology landscape designed to meet the sustainability objectives.

To learn more, visit the [CMT](#) and [Sustainability Services](#) sections of our website or [contact us](#)

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World Headquarters

300 Frank W. Burr Blvd.
Suite 36, 6th Floor
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Toll Free: +1 888 937 3277

European Headquarters

1 Kingdom Street
Paddington Central
London W2 6BD England
Phone: +44 (0) 20 7297 7600

India Operations Headquarters

#5/535 Old Mahabalipuram Road
Okkiyam Pettai, Thoraiakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000

APAC Headquarters

1 Fusionopolis Link, Level 5
NEXUS@One-North, North Tower
Singapore 138542
Phone: +65 6812 4000
Email: inquiry@cognizant.com

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