

OFFERING OVERVIEW

Infosys Sustainability Delivers a Wide Range of ESG Capabilities

**Solutions Bring ESG Metrics and ESG Enablement
Capabilities to Global Organizations**



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EXECUTIVE SUMMARY

This offering overview examines the environmental, social, and governance (ESG) solutions and offerings from Infosys. Growing interest in supporting a wide range of United Nations Sustainable Development Goals (SDGs) has led to new frameworks that address areas from climate change to employee compensation. Early adopters should use this report to identify the market trends and forces shaping the future of ESG solutions as well as the best-practice recommendations.

This report identifies key differentiators, examines functional capabilities, considers the offerings' strengths and weaknesses, and provides best-practice recommendations. Technology buyers should use this report to evaluate Infosys for implementation.

Business Themes

| | | |
|---|--|---|
|  New C-Suite |  Digital Safety and Privacy |  Technology Optimization |
|  Data to Decisions |  Future of Work | |

ABOUT INFOSYS SUSTAINABILITY

Overview

Infosys sustainability solutions showcase a culture of “practice what you preach.” Four guiding principles include making a positive impact on the triple bottom line of people, planet, and prosperity; attracting a new wave of sustainability-minded stakeholders; improving ESG metrics to become more attractive to investors and lenders; and securing resiliency in uncertain times. Infosys’ sustainability journey includes a six-phased approach that covers sustainability planning, growth planning, optimization of the digital and physical assets and of the supply chain, an offsets strategy, and the development of a sustainability-first culture. This overview examines each of these phases through four distinct lenses: culture, data, financial, and technology (see Figure 1).

Infosys

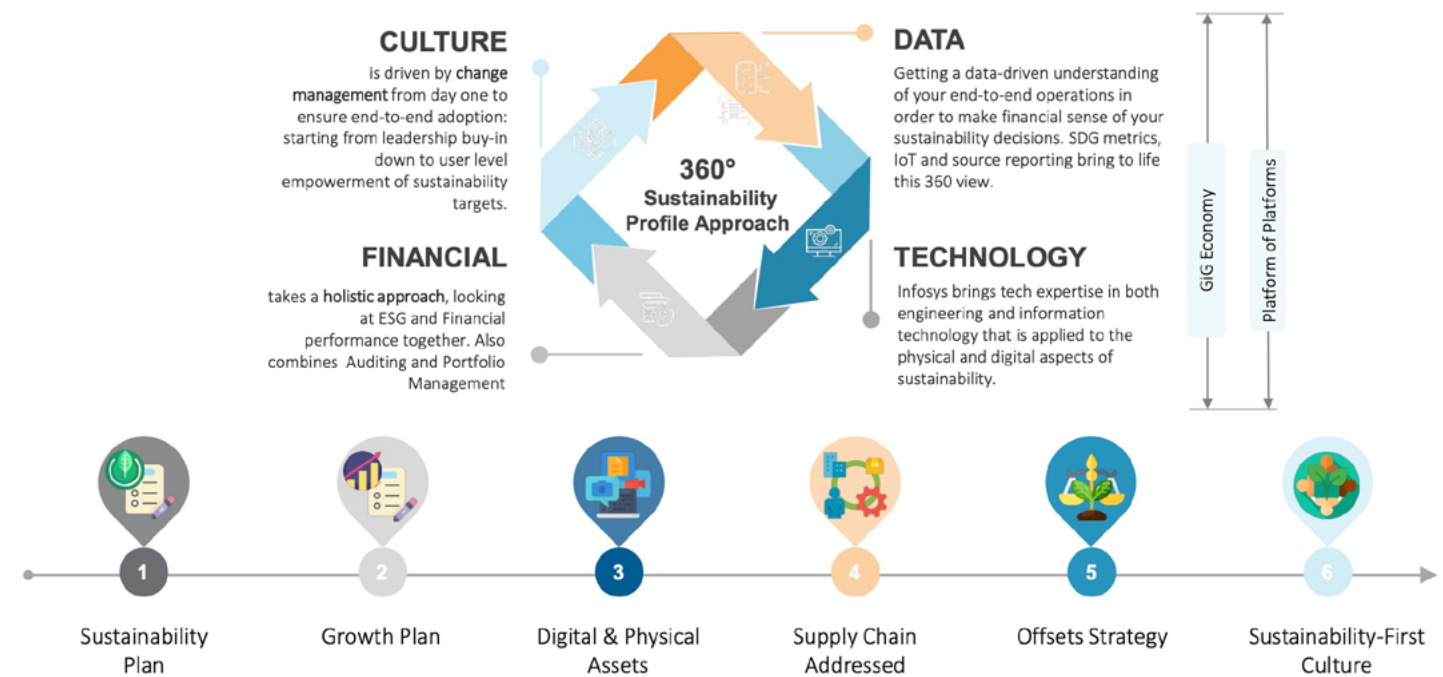
- **Company:** Infosys
- **Headquarters:** Bengaluru, India
- **Founded:** 1981
- **Type:** Public
- **2021 Revenue:** \$13.561 billion
- **No. of Employees:** 259,619
- **Website:** infosys.com
- **Twitter:** @infosys

Market Segment

In 2015 all 193 United Nations (U.N.) member states adopted the 2030 Agenda for Sustainable Development—a framework that “provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.” One milestone was a collection of **17 Sustainable Development Goals (SDGs)** designed to fight and end all forms of poverty, inequality, and climate change. The intent was for all countries—from the poorest to the richest—to take action, protect the planet, and promote economic prosperity while ending poverty. Each country was expected to participate, with national frameworks and review at the global level. Although these SDGs are not legally binding, many activist investors have decided to incorporate the goals in their reporting requirements, and many organizations have begun efforts to shift corporate social responsibility (CSR) programs into ESG programs.

With the 193 U.N. member states all creating their own frameworks and thousands of asset managers and investors applying their own unique approach, the overall ESG efforts require a level of standards

Figure 1. Infosys Provides a Six-Phased Approach to Sustainability



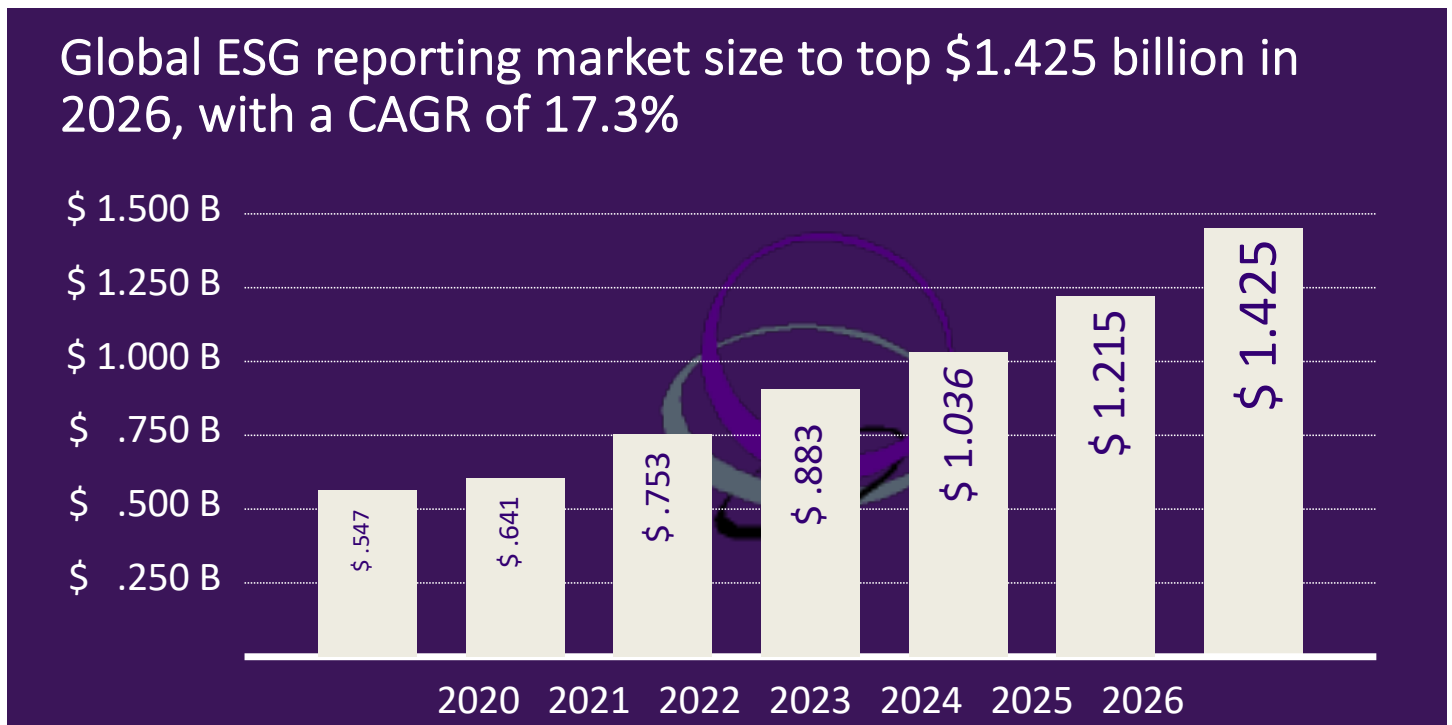
Source: Infosys

definition, data collection, data harmonization, and reporting. This, in turn, has created massive opportunities for technology providers and system integrators able to develop solutions to address these challenges.

An onslaught of massive regulations expected by governments around the world has added to this complexity, creating two massive markets—one for ESG metrics reporting and a bigger one for ESG enablement and solutions.

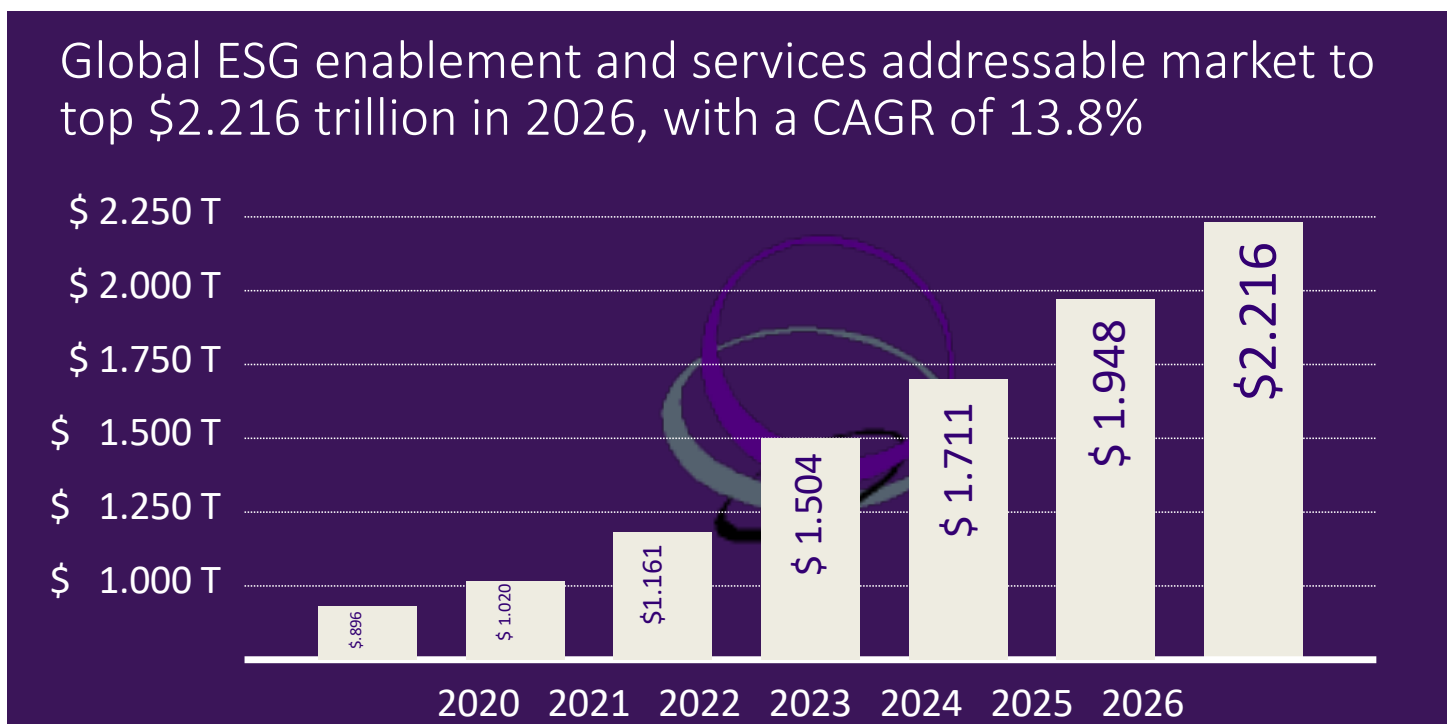
Constellation forecasts that the market size for ESG metrics reporting will be \$1.425 billion by 2026, with a compound annual growth rate (CAGR) of 17.3% (see Figure 2). Constellation expects that the ESG enablement and solutions market for the same period will reach well over \$2.216 trillion (see Figure 3). Constellation breaks down these software offerings and solutions into the three ESG buckets: environment, social, and governance.

Figure 2. ESG Metric Reporting Market Forecasted to Achieve \$1.425 Billion by 2026



Source: Constellation Research

Figure 3. ESG Enablement and Services Addressable Market Tops \$2.2 Trillion by 2026



Source: Constellation Research

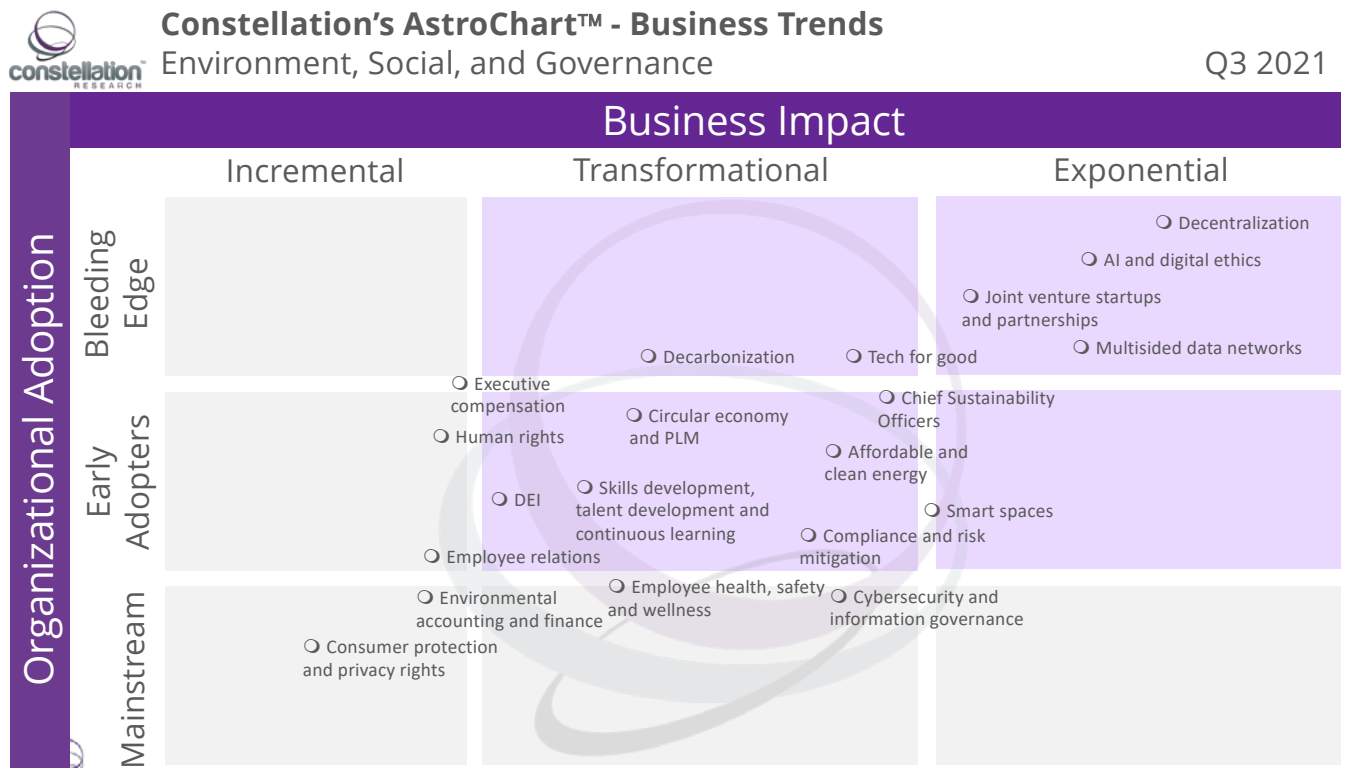
Market Trends

From extreme weather to privacy, cybersecurity threats to regulatory pressure, and demographic shifts to changing social norms, the ESG market has never been so dynamic or so volatile. Board-level members must navigate rising pressure from investors and asset managers along with the hodgepodge of complexity from a deluge of regulatory requirements. Consequently, new initiatives for achieving ESGs present an opportunity for improving regulatory compliance, operational efficiency, revenue growth, market differentiation, and impact on the organization's brand.

The latest Constellation AstroChart™ identifies 20 significant business trends and ranks them by business impact and organizational adoption (see Figure 4).

Constellation sees the following seven market trends in ESG taking place in 2022 and beyond:

Figure 4. Constellation's AstroChart™: Trends in ESGs Show Business Impact and Organizational Adoption



Source: Constellation Research, Inc.

- 1. Investor and regulatory pressure shifts voluntary reporting to mandatory reporting.** Demographic shifts in leadership and a movement away from the classic shareholder capitalism championed by economist Milton Friedman have set organizations and boards onto a conflicting path of ESG reporting with a new class of activist and woke investors. The oncoming regulatory onslaught from political and financial forces has increased, pushing organizations into a stakeholder capitalism model. Risks from ESG exposure and the ability to manage these risks can no longer be ignored, given the external pressures from asset managers, politicians, activist groups, and millennials to address ESGs.
- 2. Artificial intelligence (AI) and machine learning (ML) improve data collection and reporting.** Regulators will seek new approaches for extracting data by using AI and ML techniques to reduce the reliance on voluntary reporting. Analysis and reporting will feed larger datasets to identify temporal trends, analyze new patterns, and provide insights into outcomes. Organizations will use automation and AI to drive efficiencies in data collection and reporting.
- 3. Quality and standardization of data continue to improve, with greater global cooperation.** Activist asset managers such as BlackRock's Larry Fink are applying pressure on companies to disclose their data in areas such as greenhouse gas (GHG) emissions, their progress toward a net-zero world in which the greenhouse gas produced is no more than the amount removed, and board and management diversity. Although there is resistance from legendary investors such as Warren Buffet, who has shown that he has accomplished more by action than by regulatory fiat, developments from many international and regional policy agencies such as the IFRS Foundation with its proposal on sustainability reporting, the EU with its Sustainability Disclosures Regulation, and the U.K.'s Sustainability Reporting Guidance are creating improved harmonization and standardization of reporting.
- 4. The rise of the chief sustainability officer.** As boards create mandates for ESG initiatives, a new role has emerged among early adopters. Enter the chief sustainability officer, whose C-suite role designs, implements, manages, and reports on ESG objectives. CSOs communicate risks and opportunities to the board. The position must also report the impact on the bottom line of all projects. Among the key areas of responsibility are regulatory compliance; establishing internal processes and controls

for ESG reporting; supporting a circular economy; and improving waste management, supply chain resilience, and recycling efforts.

- 5. Organizations expand push for net-zero commitments.** The U.N. estimates that by the end of 2021, 65% of the global CO2 emitters and 70% of the world's economies will have made commitments to reach a net-zero-emissions or carbon neutrality goal. Although not all countries will achieve a target by 2030, at least there is progress in commitments. Even China, which represents more than 30% of global CO2 emissions and derives 85% of its energy consumption from fossil fuels, has made commitments to halt its CO2 rise by 2030 and become carbon neutral by 2060.
- 6. Human rights and resilient supply chains take center stage.** China's recent boycotts of Western companies for calling out human rights violations demonstrate the need for resilient supply chains. From worker passport confiscation and prison labor in manufacturing to child labor and poor health and safety conditions, organizations are collaborating to address these issues at the geopolitical level. Leaders around the world are beginning to take action, even at the risk of being shut out of markets such as China.
- 7. Quotas shift from diversity, equity, and inclusion (DEI) to true outcomes-based DEIs.** Although many organizations focus on fulfilling quotas for representation, forward-thinking leaders are building out long-term pipelines to ensure that candidates perform to established expectations and standards. These organizations realize that this is a longer pipe of attracting qualified candidates and that numbers alone are not enough. Organizations can achieve and maintain high standards by addressing performance gaps via coaching and continuous learning in parallel with DEI initiatives.

Partnerships and Alliances

Infosys has crafted partnerships for strategic technology, innovation, proprietary tools and platforms, and patents and intellectual property (IP).

Strategic Technology Partners

- Amazon Web Services
- Dassault Systèmes
- Enablon
- HP Enterprise
- ICONICS
- Microsoft
- PTC
- SAP

Innovation Partners

- Arizona State University Sustainable Urban Systems Lab
- Ellen MacArthur Foundation
- MIT Blue Technology Barometer
- World Economic Forum

Proprietary Tools and Platforms

- Amazon Rainforest Blockchain Solution
- Eco Watch

Patents and IP

- Radiflux
- Retroshade
- RoboCleaner

FUNCTIONAL CAPABILITIES

Infosys Sustainability has seven primary offerings:

1. Carbon Offset Advisory

Carbon Offset Advisory delivers strategic analysis, advisory, and guidance on carbon offset programs. Infosys provides advice, tactical recommendations, and turnkey outsourcing options.

No matter how aggressive or effective a firm's decarbonization and energy management programs are, there will always be carbon and emissions that cannot be completely removed. The options for offsetting those emissions are either to buy carbon credits or to initiate programs to remove, reduce, or sequester an equal volume of carbon. Within Infosys' own enterprisewide ESG program, the firm has developed several community-based offset programs. These programs were aimed at local communities in India, where air quality, water quality, and rural life all posed significant challenges. Infosys provided clean-burning cookstoves, biogas generators, and electrification programs that directly removed carbon emissions, freed women and children to attend schools instead of gathering fuel wood, and improved residents' quality of life. These programs achieve comparable offsets to carbon credits, but do so with more-predictable costs, and with a measurable and immediate positive impact on people's lives.

2. Decarbonization

Decarbonization includes an end-to-end approach that encompasses smart metering, central command centers, and predictive analytics. Internet of Things (IoT) sensors and data sources gather ESG metrics on operations, energy use and waste, emissions, and resource use and waste. AI- and ML-based analytics identify solutions that will reduce overall energy and resource intake by optimizing facilities, machinery, and operations. Decarbonization also encompasses the transition from fossil fuels to renewables.

For a large consumer packaged goods company, Infosys smart systems were able to reduce energy consumption by 20% via real-time analytics and optimization. For a major producer of generic

pharmaceuticals, Infosys monitoring, dashboards, and optimized operating models delivered a 30% improvement on HVAC chiller operations.

3. ESG Data and Analytics

ESG Data and Analytics encompasses the analysis of the business needs for ESG data (compliance, strategy, evaluation); the definition of critical KPIs and metrics; the gathering and validation of those metrics from internal, external, manual, and automated sources; and the harmonization, analysis, and reporting of the results. Infosys is able to work with installed reporting systems, but notably also has a purpose-built platform called EcoWatch, powered by Microsoft Business Applications, to significantly speed the ingestion, configuration, and reporting of ESG metrics. Configurable rules and analytics, defined by industry vertical and by client, enable tremendous flexibility and ensure comprehensive coverage. The live system is able to deliver analysis in any ESG reporting framework—to any device at any time.

4. ESG Finance

ESG Finance focuses on gathering and analyzing ESG data to inform and execute financial risk assessments. The offering includes advice on strategy and execution, reporting, and marketing.

Some client examples include Infosys delivering a real-world “early-warning” mechanism to identify risks in an investment portfolio based on ESG metrics, and working with a major U.S. asset manager to formalize its investment analysis approach for ESG factors.

5. Smart Spaces

Smart Spaces works with clients to maximize the efficiency and effectiveness of new and retrofitted buildings and facilities. Smart building-management solutions track and manage embedded emissions, energy and resource use, and supplemental material transport. Intelligent systems, enabled via advanced sensors and monitors, apply machine learning to recognize usage patterns and automate system controls, drive down support costs, and identify cost efficiencies. Smart Spaces also extends to employee use, occupancy, and work patterns, enabling a wide variety of improvements in work efficiency, movement, collaboration, safety, and satisfaction.

Within Infosys' own network of sprawling campuses in India, Smart Spaces programs have helped reduce per capita power use by 55%, and water use by 64%. Infosys has developed and retrofitted more than 26 million square feet of buildings to LEED Platinum standards and has developed 60-megawatt solar fields to help transition from fossil fuels. For clients, the firm has implemented comprehensive energy and resource efficiency programs that have consistently reduced energy use by 20% or more, and has developed comprehensive employee- and resident-facing systems such as occupancy-based cleaning alerts, employee safety tracking, wayfinding solutions, intelligent room booking, ride-sharing programs, and flexible space planning.

6. Sustainability Design Advisory

Sustainability Design Advisory provides a focused, limited engagement to assess an organization's overall ESG initiatives, with Infosys analyzing current-state readiness for sustainability initiatives across technology, data, and organization. The limited engagement applies a design-thinking approach to identify highest-value opportunities for crafting a rollup.

7. PLM Circularity

PLM Circularity is fundamentally about reducing or eliminating waste: zero waste to landfill; reduction of single-use materials; waste treatment; designing waste out of production; and designing and building for repair, renewal, remanufacturing, and recycling. Because waste is an issue throughout the entire value chain, PLM Circularity is inherently a very broad field.

Infosys has deep experience working with clients across various industries to identify and remove waste in operations and manufacturing. For a major auto manufacturer, the implementation of IoT sensors and ML analytics within a single step in its production process identified machinery failure patterns and enabled predictive maintenance schedules. The result was savings of \$4 million per year in reduced maintenance costs and repairs. For consumer products firms, Infosys PLM Circularity solutions digitize the processes of designing, prototyping, and testing products, and resulted in 60% reduction in material use, 20% increase in sales effectiveness, and 30% reduction in time to market. Infosys teams help clients understand their operations at an ever-deeper level to identify the specific operations that are the least efficient and then develop tools and systems to reimagine how work and products can be delivered in new, more efficient ways.

ANALYSIS AND OBSERVATIONS

Buyer Challenges

Leaders seeking ESG solutions across the board have often had a plethora of challenges in selecting solutions and partners to assist with implementation. In fact, most leaders face the following:

- 1. Massive market fragmentation of solutions.** Solutions must be sourced and integrated from multiple vendors. Few vendors offer a comprehensive suite of solutions. The current market is composed of best-of-breed solutions.
- 2. Ever-changing reporting standards.** Organizations must manage multiple standards across multiple regions. The lack of reporting standards hampers efforts to assess progress.
- 3. Incomplete functionality leads to massive customization.** Many solutions lack end-to-end process and journey support. A patchwork of integrations and user interfaces hampers efforts, operational efficiency, and automation.
- 4. Lack of resources for implementation and operations.** Most organizations lack the internal talent to deploy solutions. Leaders must augment internal staff with system integrators and external consultants.
- 5. Unclear return on investment (ROI) and impact on bottom line.** Poor data quality keeps leaders from gauging accurate and timely outcomes from their ESG initiatives. Organizations seek better analytics, automation, and AI capabilities. Although the shift to stakeholder capitalism is a swing of the pendulum at this moment, many shareholders expect bottom-line results that reflect a shareholder capitalism sentiment. The mantra “No margin, no mission,” espoused by Sister Irene Kraus of the Daughters of Charity, still rings true.

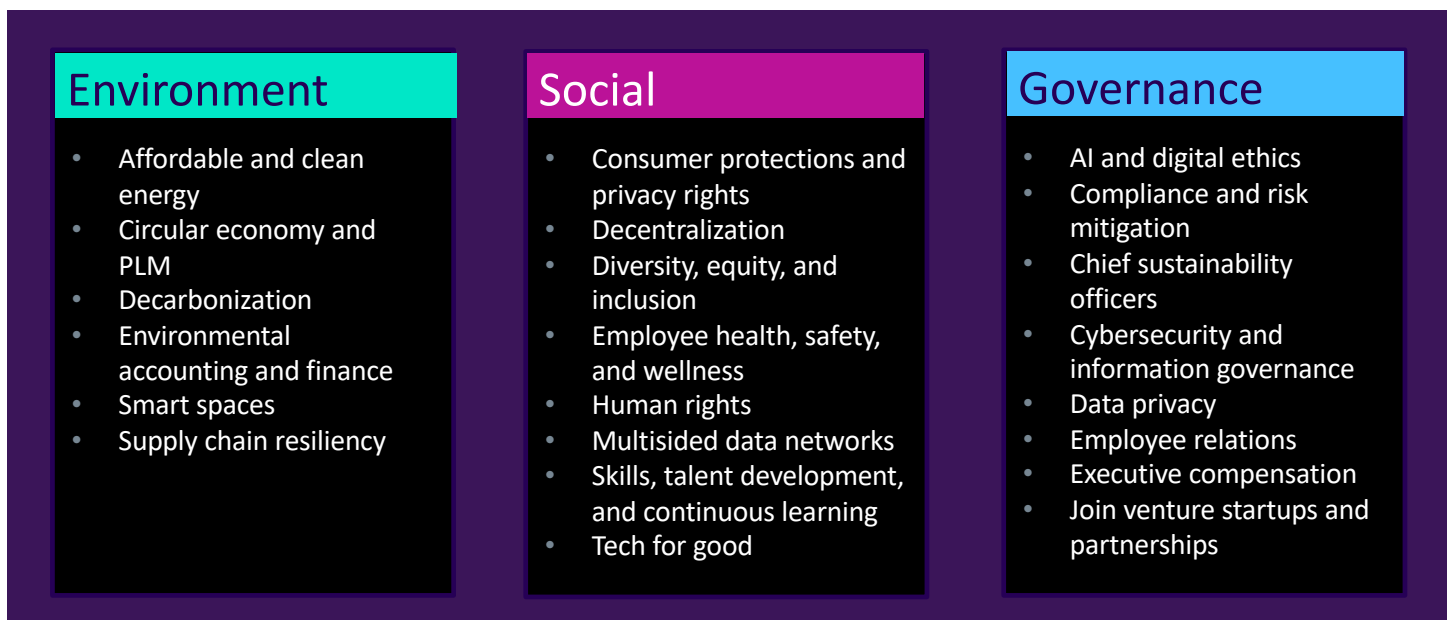
Selection Criteria

Buyers seek solutions in the three key areas of environment, social, and governance (see Figure 5).

Strengths

- **Strong heritage in sustainability.** Infosys started on the path to sustainability in 2008 and achieved carbon neutrality across Scopes 1, 2, and 3 in 2020. Via comprehensive technical, social, and policy efforts, the firm has reduced per capita energy use by 55% and reduced water use by 64% over that time. It has converted 50% of all power used to renewables, and has implemented wide-reaching community-based carbon offset programs to both reduce total carbon and help rural families in India. With its sustainability practice, Infosys is applying this broad experience to developing solutions for customers.
- **Full-suite approach.** Infosys delivers both the ESG metric analysis and reporting and enterprisewide solutions to significantly impact all three pillars of ESG initiatives.

Figure 5. ESG Solution Buyers Seek Three Major Categories of Solutions



Source: Constellation Research, Inc.

- **Broad swath of solutions.** Infosys has seven primary ESG offerings that can impact virtually all aspects of most enterprises: Sustainability Design Advisory, ESG Data and Analytics, Smart Spaces, Decarbonization, ESG Financial, PLM Circularity, and Carbon Offset Advisory.
- **Defined industry focus.** Infosys sustainability practice offerings focus primarily on financial services; services, utilities, resources, and energy (SURE); consumer packaged goods and retail; and the built environment and infrastructure across all industries.
- **End-to-end provider.** Infosys can deliver platforms, IP, and solutions; apply its consulting services; deliver on system integration; achieve data management and harmonization; and provide reporting and analytics.
- **Rich partner ecosystem.** Partnerships include strategic technology, innovation, proprietary tools and platforms, and patents and IP partners.

Weaknesses

- **Need for governance solutions.** Due to its deep focus on technology and innovation, Infosys provides many technology-related offerings in the environmental and social pillars. Currently, the offerings do not focus on governance or policy solutions.
- **Opportunities for DEI advisory.** Infosys has built internal capabilities for DEI that could be shared with customers. Internal solutions could be packaged for external offerings.

Figure 6. SWOT Diagram



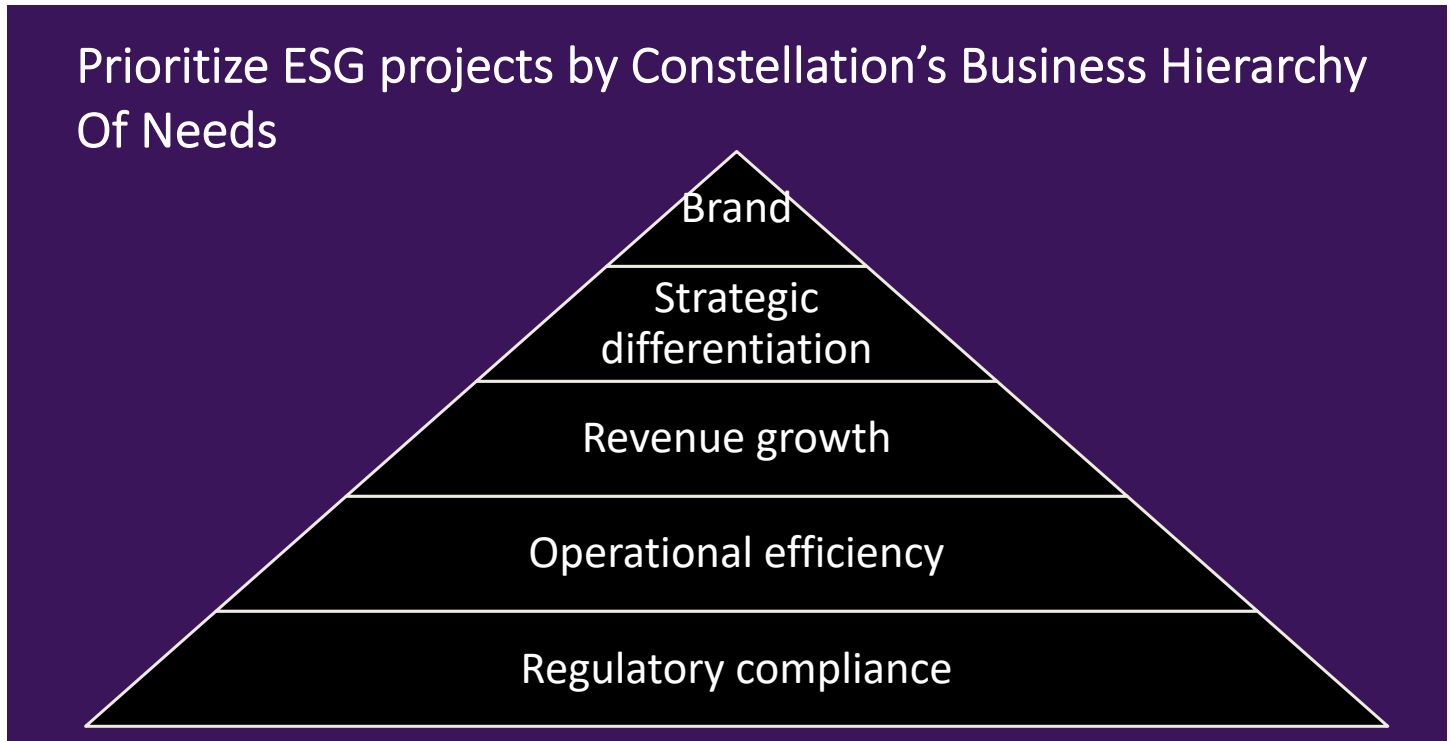
Source: Constellation Research

RECOMMENDATIONS

Constellation recommends that buyers seeking ESG solutions consider taking the following actions:

- 1. Align ESG priorities along the Constellation business hierarchy of needs.** Although Abraham Maslow's hierarchy-of-needs theory explains what would drive and motivate individuals, applying the same model to organizations yields a powerful framework for business prioritization (see Figure 7). Why? Today's next-gen C-level executives face an onslaught of business priorities that must address the organization's basic needs, from regulatory compliance to higher-level needs that include management of the brand. The business hierarchy of needs uses a framework analogous to Maslow's. Using the framework makes it possible to align business priorities and related projects with its five levels: brand, strategic differentiation, revenue growth, operational efficiency, and regulatory compliance.
- 2. Seek partners you can trust for implementation.** Finding the right service provider and talent is paramount to success. Many ESG skills require specialists to train existing teams. Procure implementation resources prior to or simultaneously with vendor selection.
- 3. Focus on analytics, automation, and AI.** Analytics provide the key metrics and answers to business questions. Automation improves not only the collection of data and insights but also the

Figure 7. Prioritize ESG Projects According to Constellation’s Business Hierarchy of Needs



Source: Constellation Research, Inc

operational efficiency of workflows. Spend time capturing insights that can grow AI capabilities over time to build the tribal knowledge required for AI to be successful. Focus on high-volume repeatable processes and rich sources of data.

4. **Reduce the number of best-of-breed solutions.** Over time, suites trump best-of-breed solutions. Reducing the number of best-of-breed solutions will help drive down the cost of integration, customization, and training. Take the time to identify the business processes impacted by technology and understand what end-to-end flows can be delivered via microservices and APIs.
5. **Track before-and-after gains or losses in key metrics.** Deploy rich before-state metrics. Study the longitudinal data for any anomalies, trends, and patterns to gauge the ROI of ESG investments. Identify any correlations between investments and ROI.

When to Consider Infosys Sustainability

Based on conversations with Infosys customers and partners, Constellation suggests organizations that meet the following requirements consider this firm for their short list:

- Organizations seeking a longer-term full-suite approach
- Prospects and customers who require ESG reporting metric solutions
- Prospects and customers seeking to start with decarbonization and circular economy for ESG enablement solutions
- Infosys customers with an existing relationship

RELATED RESEARCH

R. “Ray” Wang, “Big Idea: ESG Solutions Address the Impending ESG Imperative,” Constellation Research, September 27, 2021. constellationr.com/blog-news/big-idea-esg-solutions-address-impending-esg-imperative, 2021

R “Ray” Wang, “Trends: Seven Trends for ESG Solutions,” Constellation Research, 2021.

“AstroChart™—Business Trends in ESGs, 2021,” Constellation Research, 2021.

ANALYST BIO

R “Ray” Wang

Founder and Principal Analyst

R “Ray” Wang is founder, chairman, and principal analyst of Constellation Research Inc. and author of the popular enterprise software blog, A Software Insider’s Point of View. He previously was a founding partner and research analyst for enterprise strategy at Altimeter Group.

A background in emerging business and technology trends, enterprise apps strategy, technology selection, and contract negotiations enables Wang to provide clients and readers with the bridge between business leadership and technology adoption. Wang has been recognized by the prestigious Institute of Industry Analyst Relations (IIAR) as Analyst of the Year, and in 2009 he was recognized as one of the most important analysts for enterprise, SMB, and software. In 2010 Wang was recognized on the ARInsights Power 100 List of Industry Analysts and named one of the top influential leaders in the CRM Magazine Market Awards.

Wang graduated from Johns Hopkins University with a B.A. in natural sciences and public health. His graduate training includes a master’s degree from Johns Hopkins University in health policy and management and health finance and management.

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ABOUT CONSTELLATION RESEARCH

Constellation Research is an award-winning, Silicon Valley–based research and advisory firm that helps organizations navigate the challenges of digital disruption through business model transformation and the judicious application of disruptive technologies. Unlike the legacy analyst firms, Constellation Research is disrupting how research is accessed, what topics are covered, and how clients can partner with a research firm to achieve success. Over 350 clients have joined from an ecosystem of buyers, partners, solution providers, C-suite, boards of directors, and vendor clients. Our mission is to identify, validate, and share insights with our clients.

Organizational Highlights

- Named Institute of Industry Analyst Relations (IIAR) New Analyst Firm of the Year in 2011 and #1 Independent Analyst Firm for 2014 and 2015.
- Experienced research team with an average of 25 years of practitioner, management, and industry experience.
- Organizers of the Constellation Connected Enterprise—an innovation summit and best practices knowledge-sharing retreat for business leaders.
- Founders of Constellation Executive Network, a membership organization for digital leaders seeking to learn from market leaders and fast followers.



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