SUSTAINABLEIT.ORG

The Sustainable IT Maturity Model©

V2.1 (*Sustainable IT Playbook*)

Introduction

The Sustainable IT Maturity Model© was developed by Niklas Sundberg for publication in *The Sustainable IT Playbook* first edition (Packt 2022) and expanded by SustainableIT.org. Version 2.1 is incorporated into the book's second edition (Packt 2026).

It is a maturity assessment framework to guide IT leaders in developing a sustainable IT practice. It should be used to identify baselines for IT team capabilities, characteristics and conditions. It should also be used for determining gaps between current and desired states and setting targets for improvement. The accompanying Excel file includes expanded maturity-level definitions unique to each capability.

In collaboration with Deloitte, SustainableIT created and hosts an ongoing free maturity assessment based on this model, which can be accessed here: https://members.sustainableit.org/assessment-mfe#/

Sustainable IT Maturity Model©: 11 sustainable IT capabilities

PEOPLE

Awareness and commitment	**Corporate and functional appreciation for IT's sustainability relevance and willingness to invest in tech-driven approaches**
IT strategy and roles	**IT's plan and responsibilities for technology-driven sustainability in the function and enterprise**
Resources	**Assets available to IT to pursue technology-driven sustainability, including expertise, labor, and technologies**
Change mgmt. and training	**IT's people-centric efforts to facilitate sustainability transformation and a sustainability-oriented culture**

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11 sustainable IT capabilities – continued

PROCESS

	**Governance**	**The IT organization's approach, authority, and accountability for driving sustainability through technology**
	**Data processes and tools**	**Resources and procedures that facilitate data's use in sustainability governance**
	**Performance measurement**	**The use of metrics for targeting goals, tracking progress, and reporting technology-driven transformation impact**
	**Procurement**	**The application of sustainability criteria and requirements to the enterprise technology procurement process**

TECH

	**Enterprise architecture**	**Technology infrastructure design guidelines and standards for sustainability**
	**Infrastructure management (environmental)**	**Design and governance of enterprise technology to achieve and maintain environmental sustainability**
	**Infrastructure management (social and gov.)**	**Design and governance of enterprise technology to achieve and maintain social and governance sustainability**

Maturity model levels – generic definitions

The maturity model has five levels of maturity. These are their generic descriptions:

Level Definitions:

1. **Beginning** - Capability is completely undeveloped, lacking or very limited.
2. **Unstructured** - Capability is present but limited in application, scale, thoroughness and consistency.
3. **Defined** - Capability is fully defined it its role and usage, consistently applied within IT but is not automated or operationalized at the enterprise level.
4. **Managed** - Well-established capability is routinely managed, automated and operationalized across the broader organization.
5. **Optimized** - Capability is established at its most effective and efficient level across the largest applicable scope, which may span beyond the enterprise to the larger value chain or industry sector.

Sustainability maturity levels – Composite descriptions

Beginning – Sustainable IT is not on the agenda. There are a few or no specified processes for managing your sustainable IT practice. There is a lack of defined or formalized sustainable IT metrics; things are followed up on an ad hoc basis at best. There is also a lack of awareness and understanding within IT and across the entire organization. Sustainable IT is primarily viewed as a cost.
The right approach is left up to individuals, divisions, functions, and departments; therefore, there is limited repeatability. There are no documented processes, policies, or standards for managing sustainable IT practices or determining who has what responsibilities. Each activity is carried out independently, without applying learnings from previous actions.

Unstructured – Sustainable IT starts to be seen as an area of influence. Processes are established within teams or IT functions, but there is little consistency across the organization. Sustainability actions may be repeatable although they have not been formally defined. No current baseline or target state has been determined. No clear objectives and key results have been defined or agreed upon. Awareness and understanding are maturing within the IT function and across the enterprise. However, sustainable IT practices are primarily viewed as a compliance requirement rather than an enabler. There is some association of IT's actions and goals to the enterprise-wide sustainability plan, but nothing formalized has been implemented. The sustainability plan is rarely or not mentioned in enterprise sustainability reports and is not part of formalized reporting.

Defined – Sustainable IT is defined and is starting to be viewed as an enabler. Processes are established, and a central organization for coordination or decision-making exists. A set of guidelines, policies, and procedures exists, and minimal rework is required. Clear objectives and key results are defined, and sustainable IT is driven as a strategic initiative. A current baseline and a target state have been established, agreed upon, and communicated. A plan exists, and steps are taken to close the current baseline and target state commitment gap—mature awareness and understanding within the IT function and the enterprise. Sustainable IT is now connected to the overall sustainability plan. The comprehensive sustainability plan is mentioned in sustainability reports and is part of the formalized reporting.

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Sustainability maturity levels – Composite definitions continued

Managed – Sustainable IT is embedded in the overall IT delivery. Sustainable IT is a critical enabler and a source of innovation for new sustainable products and solutions. A set of measures exists to determine gaps in processes and to find out whether performance is secure or adjustment is needed. The current baseline and target state are tracked and reported on in a standardized way. A multi-year plan exists, and significant progress has been made from the initial baseline to the target state. There are learning paths in place to raise awareness and skill levels. There is maturing agility throughout the organization in response to changes in the desired business outcome and value.
Sustainability actions are embedded in IT processes and lifecycles such as software design, procurement, and IT asset management. Repeated actions such as sustainability data collection and distribution are automated. Sustainability has also been incorporated into the enterprise architecture stack.
Sustainable IT is now fully integrated into the overall sustainability plan. Through fully embedded comprehensive sustainability reporting, minor adjustments are being made to improve performance and transparency.

Optimized – Sustainability by design has been fully embedded into the overall IT delivery. Sustainable IT has become a competitive advantage and contributes significantly to the organization's financial performance through new and improved revenue streams. There is solid, sustained executive support, and compensation is tied to sustainability goals. Limitations are known, and there is clear accountability and responsibility for continuous improvement. The gaps between the current baseline and target state have been closed, and a new ambitious target state has been set out—strong awareness and understanding within the IT function and the enterprise. There is high agility throughout the organization in response to changes in the desired business outcome and value.

People capability descriptions across five levels of maturity

PEOPLE	Beginning	Unstructured	Defined	Managed	Optimized
Awareness & Commitment	• Limited awareness of IT sustainability challenge & opportunity • No formal IT executive commitment • No formal IT goals	• Some recognition of sustainability materiality to IT • Modest executive support • Isolated IT sustainability goals	• IT seen as sustainability player • IT executive commitment in place • IT objectives defined & linked to ESG goals	• IT recognized broadly as sust. enabler or driver • Strong stakeholder support • ESG targets road-mapped, monitored, & reported • Up to date on regulations, tools, & standards	• Tech-driven sustainability seen as competitive edge • Executives fully engaged • Sustainability fully embedded in IT operating model • Ongoing awareness campaigns
IT Strategy & Role	• No IT sustainability strategy • IT sustainability responsibilities undefined • IT typically not involved in enterprise sustainability strategy	• Strategy exists but is not broadly known or consistently applied • IT responsible for sustainability initiatives within function • Sporadic support of enterprise sustainability initiatives	• Technology strategy defined & applied to large initiatives • Clearly defined expectations for IT ESG responsibility • Formalized role in enterprise sustainability	• Regular IT sust. strategy reviews, leveraging architecture review boards • Regular performance assessment • IT & enterprise sustainability strategies formally aligned	• IT & enterprise strategies are unified • IT has enterprise leadership role in sustainability • IT strategy success promoted to influence ICT & business industries
Resources	• No IT staff with responsibility for sustainability initiatives • Staff sustainability skills lacking • No external entities engaged • No specific funding for IT sustainability programs	• Some IT staff involved with sustainability responsibility • Third-party partners leveraged to understand sustainability trends • Ad hoc, self-funded investment	• Sustainability team & SMEs in place with clear ongoing responsibilities • Partners identified & leveraged for acceleration, scaling, & insights • Ongoing funding secured	• IT sustainability organization well managed & staffed • Expertise broad & deep • Vendors/partners integrated into transformation • Transformation fully budgeted	• Integrated teams of experts deployed across IT • Long-term partners embedded in ongoing operations • Investment embedded in enterprise business planning
Change Mgmt., Culture, & Training	• No formal change management for sustainability initiatives • No standard technology sustainability training offered • No sustainability mindset or culture in IT	• Change management practices inconsistently applied • Sustainability training ad hoc • Passion for sustainability in isolated pockets of the organization	• Change management processes defined to facilitate transformation • Employees incentivized & recognized for sustainability achievements • Formal sustainability training	• Change mgmt. spans IT, business functions, & suppliers • IT sustainability education incorporated into on-boarding & training • Enterprise values & promotes tech-centric sustainability	• Sustainability change management routinely embedded in tech projects • Ongoing, up-to-date training • Tech sustainability leveraged for hiring, retention, customer loyalty, & new business

Process capability descriptions across five levels of maturity

PROCESS	Beginning	Unstructured	Defined	Managed	Optimized
Governance	• No formal IT sustainability governance • No goals, baselines, or targets • No vendor requirements • No IT ESG standards (i.e., topics for disclosure, metrics)	• Limited, ad hoc IT sustainability governance • Some IT goals & targets • Criteria applied to some vendors • IT ESG standards introduced but not broadly applied	• Sustainability gov. defined across IT lifecycle, EA • Baselines & targets set • Sustainability criteria defined & applied to major vendors • ESG standard metrics defined & adopted	• Sust. embedded in business transformation governance • Baselines, targets, & progress consistently monitored & managed • Primary vendors engaged in IT sust. governance	• IT/enterprise sustainability governance unified • New, more ambitious targets • Full compliance with vendor criteria & standards • Enterprise standards synch with industry standards
Data Processes & Tools	• No processes to capture, measure, track, or report IT-specific sustainability data • No dedicated tool support (e.g., carbon accounting platform)	• Ad hoc, manual processes to capture & report required sustainability-related data • Limited tools • Most data is spend-based & includes proxy data	• Required datasets, sources, & processes clearly defined • Master data mgmt. applied • Tools embedded in critical steps in sustainability data lifecycle • Most data is activity-based	• Required data sets automatically obtained & considered reliable • Robust platform & tools automate sustainability data mgmt. lifecycle • Activity-based data is norm	• Enterprise-scale, data processes under continuous improvement • Best-in-industry tools, processes, & automation • Activity-based data in near real-time
Performance Measurement	• No IT metrics defined • No IT sustainability measurement • No reporting	• Limited metrics defined • Isolated measurement conducted • Reporting ad hoc or limited to specific initiatives	• Key IT metrics defined & mapped to strategic plan • Measurement program defined • IT metrics regularly reported	• IT performance metrics framework applied & regularly updated • Automated measurement • Suppliers integrated into metrics program	• Measurement goals & methods regularly refined & improved • Measurement & reporting automated • IT results integrated into enterprise reporting
Procurement	• No standard ESG criteria for vendors • Most IT vendors not assessed for sustainability • Procurement team lacks sustainability focus/expertise	• Vendor ESG standards exist but inconsistently applied • Some new vendors assessed for sustainability • Procurement team has limited sustainability focus	• ESG criteria defined & applied consistently to core vendors • Sustainability is a standard sourcing decision factor for IT & central procurement functions	• Criteria consistently applied across all major suppliers • Vendor sustainability performance reviewed & updated annually • Vendor assessment results integrated into IT reporting	• Vendor ESG criteria meet or exceed industry standards • All core vendors meet or exceed sustainability criteria • Procurement team manages process enterprise-wide

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Technology capability descriptions across five levels of maturity

TECHNOLOGY	Beginning	Unstructured	Defined	Managed	Optimized
Enterprise Architecture	• No sustainable architecture vision, strategy, or standards (e.g., energy efficiency, net-zero carbon, accessibility, inclusive design, highly resilient)	• Sustainable architecture model envisioned but little progress made • App. rationalization & tech modernization underway • Limited adoption of as-a-service architecture	• Migration to sustainable architecture mapped • Sustainability factors defined for architecture patterns • Future-state sustainable architecture fully defined • ESG standards applied	• Migration to sustainable EA well along & managed • EA sust. standards managed & applied enterprise-wide • Arch review board verifies solution sustainability & responsible AI	• All new & legacy systems conform to sustainable model • Sustainable architecture standards are industry leading • EA linked to positive outcomes & business KPIs
Infrastructure Management --- Environment	• IT asset management nonexistent or unreliable • Limited infrastructure power monitoring • Sustainability not a factor in hardware lifecycle & data management policies	• Asset management is inconsistent • Power consumption monitoring for some infrastructure • Hardware & data sust. goals inconsistently applied to device & data management	• IT assets regularly monitored & updated • DCs managed for power, water consumption & emissions • Device lifecycle guidelines fully implemented	• Automated DC energy & emissions measurement • Cloud compute managed for energy & emissions • Most hardware green-certified • Lifecycle planning prioritizes circularity for all IT assets	• Most infrastructure powered by renewable or low-carbon energy • Full hardware circularity (zero landfill) • Infrastructure powered by renewable energy
Infrastructure Management --- Social & Governance	• Accessibility & inclusive design are not priority factors • Vendors not assessed on social criteria • GenAI banned outright or used without responsible governance	• Data ethics policies defined but not uniformly applied • Accessibility & inclusive design inconsistently applied • AI governance is inconsistent • Vendor social vetting inconsistent	• Data ethics uniformly applied • Accessibility compliance integrated into infra. mgmt. • AI social principles defined & embedded in governance • Core vendors assessed routinely	• Inclusivity & accessibility policies keep pace with evolving user base • Social principles embedded in AI platforms & systems • All vendors assessed & monitored on social criteria	• Ethical standards applied across data value chain • Vendor social policies regularly updated • Responsible AI governance is industry leading

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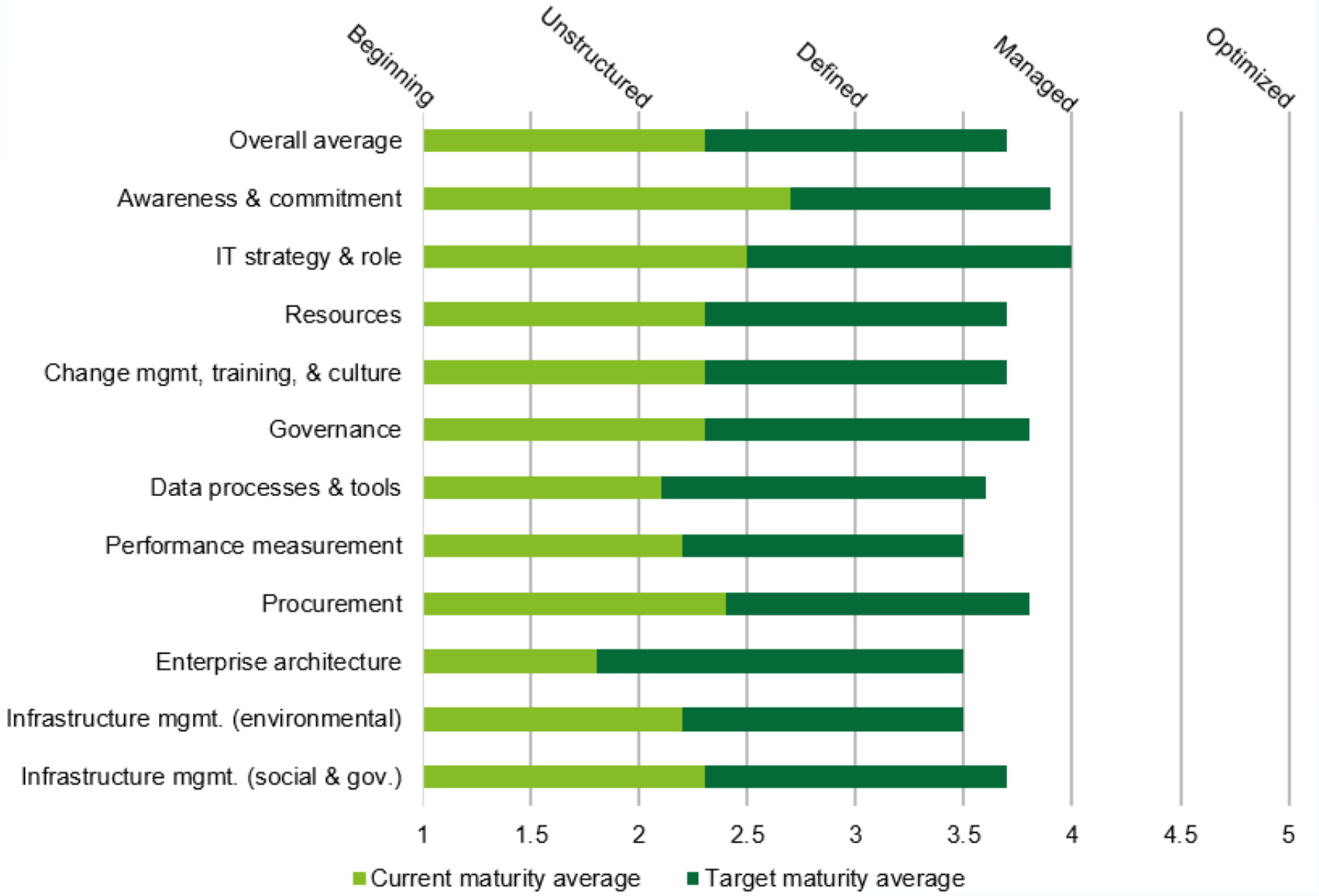
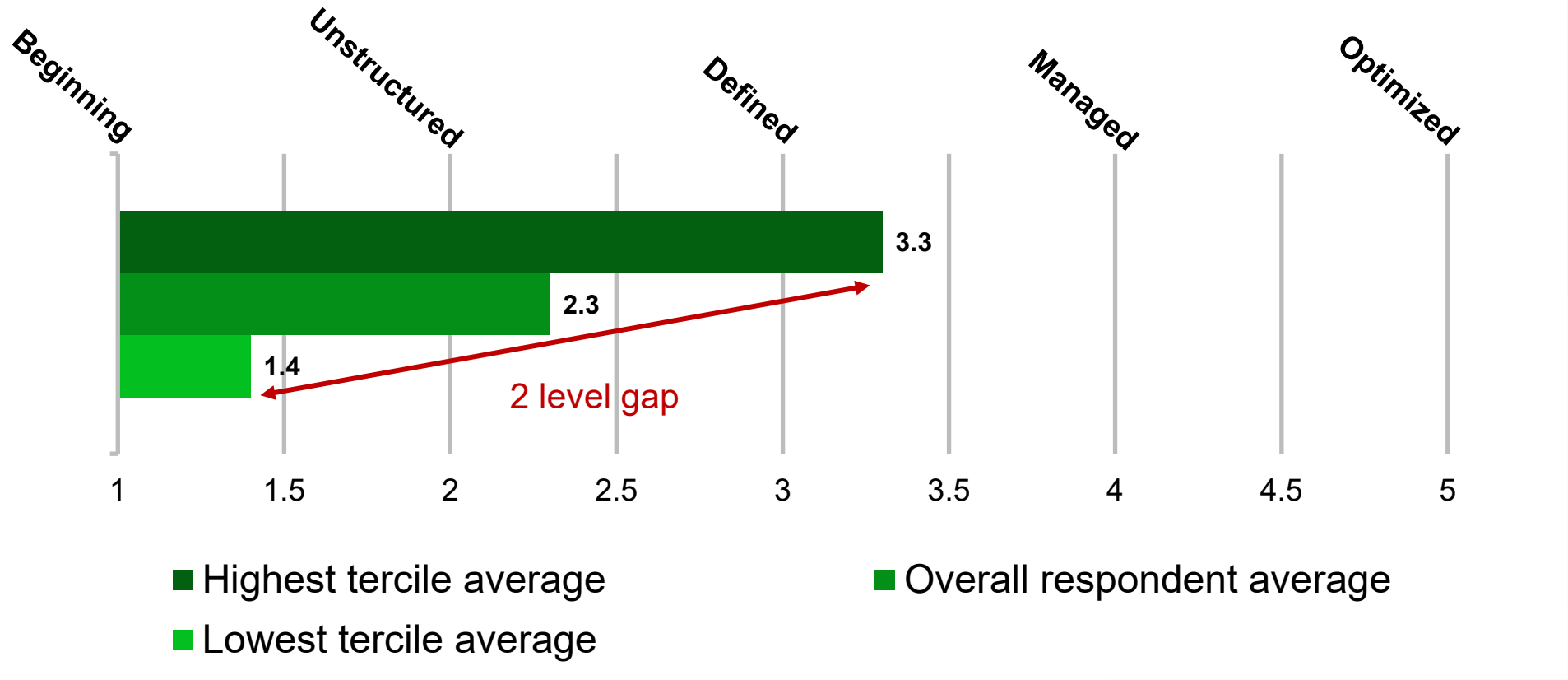
Current results from maturity benchmark assessment



Link to Live Assessment

Highest vs. lowest maturity averages and differentiators

Top tercile respondent maturity level is 2 levels higher than lowest tercile



High maturity correlations – Top-third vs. bottom-third

Main differentiators

- ✓ Have been on the journey an average of **2 years** longer
- ✓ **2X rate** of sustainability tool adoption
- ✓ **Primary drivers** are strategic business value; culture/core business model; transformation of markets/industry versus compliance and cost efficiency

Highest impact actions

1. Sustainability training/education programs
2. Sustainability technology/tool adoption
3. Dedicated budgets/funding
4. Dedicated staffing
5. Regulatory guidance
6. Tech vendor engagement

Source: IT Sustainability Maturity Survey, September 2026

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Advancing Global Sustainability through Technology Leadership

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