



MALK
Sustainability Partners

White Paper

Drivers of Sustainability Initiatives for Software Providers

*While Software Companies Have
Comparatively Small Environmental
Footprints, They See Great Importance in
Unlocking Value through Sustainability*



Introduction

At the heart of the innovation economy are software companies, whose total market value is expected to exceed \$450 billion in 2013.¹ Software providers have grown to be amongst the largest and most competitive private sector organizations; the United States alone is home to over 45 software companies with annual revenues of over \$1 billion. These companies span a range of product types from producers of off-the shelf products such as Adobe to application service providers like Salesforce.com or companies like Oracle which offer a mix of software, consulting, and hardware services.

Across this range, leading software companies are at the forefront of innovating for a more sustainable world. For example, Facebook, in response to advocacy from Greenpeace, has committed to powering all of its operations with renewable power. Other initiatives are outward-facing; Cisco Systems's Connected Urban Development initiative transcends the scope of Cisco's direct operations in advocating embedding information technology into urban infrastructure for a more sustainable world.

The world's largest software and IT companies have good reasons to take sustainability seriously: 1) they must respond to the close scrutiny of the public and 2) they stand to benefit from new markets for their products that enable a greener world. However, a company does not need \$40 billion in annual revenue to play in this space. Many software players in what we define as the top middle market, with \$1 to 10 billion top lines, have built robust programs aligned with their corporate missions.

In developing this whitepaper, Malk Sustainability Partners (MSP) researched current industry best practices, drew on our own professional experiences, and interviewed leading IT companies in the top middle market with strong environmental platforms: Adobe, Autodesk, Juniper Networks, and Teradata. Adobe and Autodesk generate the vast majority of their revenue from their software products while Juniper and Teradata sell a mix of software solutions, network hardware, and other solutions.


Our conversations focused on:

- Primary drivers of sustainability at the respondents' companies;
- Most relevant environmental issues for the industry to collectively address; and
- Advice and practices which industry peers just starting to develop environmental strategies should consider.

The findings detailed below illustrate why software and, more broadly, information technology companies in the top middle market need to address sustainability, as well as the benefits they can expect to derive from doing so. This paper is not intended as a detailed overview of how these companies have structured their programs, but rather to showcase why these companies have prioritized environmental sustainability as a strategic issue. Companies beginning to consider whether environmental sustainability is relevant to their operations will find these results valuable.

¹DataMonitor – Abstract from Global Software Industry Guide

Overview of Respondents

Respondent	Corporate Highlights	Sustainability Highlight
	<p>Adobe Systems Inc. provides a range of solutions which support digital media development, document management, enterprise information management, and web analytics.</p> <p>Adobe has revenues of over \$4.2 billion and is headquartered in San Jose, California.</p>	<p>Adobe sets the global standard in green facilities. The company has 5 US Green Building Council (USGBC) LEED Platinum buildings and has made significant investments in energy generation at its San Jose headquarters including 20 Windspire® wind turbines, the installation of a 200 KW Bloom Energy fuel cell, and extensive data center virtualization initiatives.</p>
	<p>Autodesk Inc. provides software and service solutions to customers in the fields of architecture, engineering, construction, manufacturing, digital media, and entertainment.</p> <p>Autodesk has revenues of approximately \$2 billion and is headquartered in San Rafael, California.</p>	<p>Autodesk has invested significantly in products and tools which help its customers to design a more sustainable world. These offerings include the Eco Materials Adviser in Autodesk Innovator, which helps clients to spec more sustainable materials into products to extensive collaboration as well as support of environmental initiatives such as the USGBC, American Council on Renewable Energy, and Biomimicry Institute.</p>
	<p>Juniper Networks Inc. designs, develops, and sells products and services that provide network infrastructure for service providers, corporations, governments, research institutions, and public sector organizations.</p> <p>Juniper has revenues of roughly \$4.5 billion and is headquartered in Sunnyvale, California.</p>	<p>Juniper Networks believes in efficiency across its own operations as well as promoting a more efficient world. The company has made a commitment for all new facilities to be built in compliance with the USGBC LEED Gold standard. As a purveyor of energy efficient networking equipment, Juniper Networks is also a major advocate of next generation infrastructure such as smart grids..</p>
	<p>Teradata Corporation provides analytic data solutions including data warehousing solutions that include software, hardware, and related business consulting services.</p> <p>Teradata has revenues of approximately \$2.6 billion and is headquartered in Dayton, Ohio.</p>	<p>In addition to sustainable facilities efforts and energy efficient products, Teradata has focused on sustainability across its supply chain. The Teradata Supplier Code of Conduct and Vendor Managed Inventory programs build on EICC standards to encourage sustainability across the company's supply chain.</p>

Drivers of Sustainability Initiatives

Each responding company has dedicated time and resources to building substantive environmental sustainability initiatives and has derived significant market benefit from these investments. In the interests of encouraging peer companies to consider a similar focus on the environment, program managers at Adobe, Autodesk, Juniper Networks, and Teradata spoke with the MSP team about the key drivers of sustainability within their organizations. The three most commonly cited drivers behind these efforts were:

- Meeting growing customer and shareholder expectations;
- Capturing or creating new market opportunities; and
- Realizing cost savings through facilities energy efficiency.

These drivers are explored in more detail below.

Meeting Customer and Shareholder Expectations

Software and other IT companies, particularly those who sell to large corporate clients and public institutions, must be prepared to address

questions about their corporate environmental management practices including carbon footprint, energy efficiency of products, and sustainability across the supply chain. Providing strong answers to client questions can help to win business.

“In 2008 our executive team began to receive questions from customers about Teradata’s environmental initiatives and how our company was managing sustainability as a company,” shared **Alan Lord, Sustainability Program Manager for Teradata**, “sharing values around sustainability with our clients strengthens important relationships and helps us to win RFPs.”

Lynelle Cameron, Director of Sustainability at Autodesk, noted similar customer interest in



Drivers of Sustainability Initiatives (continued)

sustainability performance. "Some of our larger customers ask about Autodesk's inclusion in sustainability indices such as the Dow Jones Sustainability Index and FTSE4Good. Our consistent inclusion in these indices reflects our commitment to helping our customers design a better world and supports our share price."

As major downstream clients place increasing scrutiny on the sustainability performance of software and service providers, a comprehensive environmental program will grow even more important to winning and retaining business as well as meeting shareholder demands.

Capturing or Creating New Market Opportunities

From providing the infrastructure of a smarter planet to powering the innovation of more sustainable products, software providers are positioned to profit from creating offerings which meet rapidly growing demand in the clean economy.

"Autodesk's corporate vision is to imagine, design, and create a better world," continued Cameron. "Our environmental initiatives, from providing software to clean technology innovators to developing design tools such as the Eco Materials Adviser, support a transition to a more sustainable world. They also help to grow Autodesk's top line revenue."

"Juniper Networks collaborates with our corporate neighbors in Sunnyvale to make the city more sustainable," said **Juniper Networks Senior Director of Environmental, Health, Safety and Security, Brad Minnis**. "Along with companies like Yahoo and Lockheed Martin, we are currently exploring

the development of a local smart grid." Providing the infrastructure to successfully roll out a smart grid in its hometown will position Juniper to support the implementation of next generation electrical transmission infrastructure in other markets as well.

The global smart grid market is expected to reach approximately \$57 billion by 2016 and capturing market share in a segment growing at 13% per year is highly desirable for technology providers.² Capturing such markets, from designing greener products to supplying the products for more energy efficient societies, is incentivizing software and IT companies to integrate sustainability into their product strategy.



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*-Lynelle Cameron,
Director of Sustainability at Autodesk*

² Lucintel, Growth Opportunities in Global Smart Grid Market 2011-2016: Trends, Forecast, and Market Share Analysis, December 2011

Drivers of Sustainability Initiatives (continued)

Realizing Cost Savings through Energy Efficiency

At Malk Sustainability Partners, we have consistently seen that cost savings through resource saving initiatives ranging from facilities retro-commissioning to server virtualization are a major driver of client interest in sustainability. The respondents in this study also noted savings as a driver of their environmental initiatives.

“Adobe began seriously considering our energy footprint during the California energy crisis in the year 2000,” recalled **Mike Bangs, Director of Global Facilities for Adobe**. “We began with simple things like turning off excess lighting and easily hit an initial energy saving target of 10%. Over time we increased this focus on efficiency and have realized significant savings with very little investment.”

Today, Adobe is a global leader in green operating practices and has benefited from substantial cost savings at its 5 USGBC LEED platinum facilities (the highest achievable certification in green building). The company has reduced its electricity usage by 35% and natural gas consumption by 41% along with significant reductions in water use, waste generation, and CO2 footprint. Efficiency initiatives are saving Adobe \$1.2 million annually, equating to an ROI of 121% with an average payback of 9.5 months for green facilities improvements.³

Other Factors

Beyond meeting customer expectations, innovating for a sustainable future, and simply saving money, the study participants noted other drivers behind their substantive corporate environmental strategies. These included attracting and retaining top engineering talent and satisfying management interest.

Software companies are only as successful as they are innovative. As a result, drawing top graduates from leading universities as well as accomplished mid-career engineers is crucial to growing the top line. This is why leading software companies like Google offer famous perks from free laundry machines to a rock climbing wall (not to mention monetary compensation). According to our respondents, employee passion about the environment is an important incentive for their firms to invest in sustainability initiatives.

Another major driver in some cases is management interest. Software and, more broadly, technology is a visionary space and prominent executives in these industries have prioritized environmental stewardship in their companies' operations and products. Great examples of management choosing to take a leadership role on this issue include Paul Jacobs and Qualcomm's focus on sustainability across its products and operations as well as Hans Vestberg at Ericsson, who sees an energy efficient networked society as an important growth opportunity for his company.

There are a range of reasons why software companies see sustainability as important to corporate strategy. Beyond citing why their own companies' focus on this issue, the respondents in our survey also cited environmental issues where they see cross-industry collaboration as critical.



³USGBC Case Study: Adobe's "Greenest Office in America" Sets the Bar for Corporate Environmentalism

Critical Cross-Industry Issues to Consider

Beyond benefiting from environmental strategies focused on their own operations, our survey respondents cited two major cross-industry issues where collaboration will facilitate a more sustainable world:

- Energy Efficient Data Transmission
- Supply Chain Transparency

Energy Efficient Data Transmission

Data centers are extremely energy intensive infrastructure. In the US alone, spending on electricity to power data centers topped \$7.4 billion in 2011.⁴ For software companies, data centers represent the most resource intensive infrastructure associated with operations and improving the efficiency of these facilities both within their own walls and for their customers is a high priority environmental issue.

“The most important area for cross-industry collaboration is creating a consistent standard for IT energy efficiency,” noted Juniper Networks’ Brad Minnis. “For example, a lot of companies use power usage efficiency as the metric for data center energy performance. However, this does not account for the amount of data that the facility is processing. We need to work toward standards which measure energy consumed based on the amount of data processed.”

Data center energy management has also been a recurring focus of Malk Sustainability Partners

work, particularly through our collaboration with the Global e-Sustainability Initiative (GeSI). As the leading industry consortium for the information and communications technology (ICT) industry, GeSI has a major work stream dedicated to advancing energy efficiency standards for ICT equipment. Such standardization is critical as the world becomes ever more connected.



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Brad Minnis, Juniper Networks’

⁴Energy Star Data Center Efficiency Initiatives, http://www.energystar.gov/index.cfm?c=prod_development.server_efficiency”

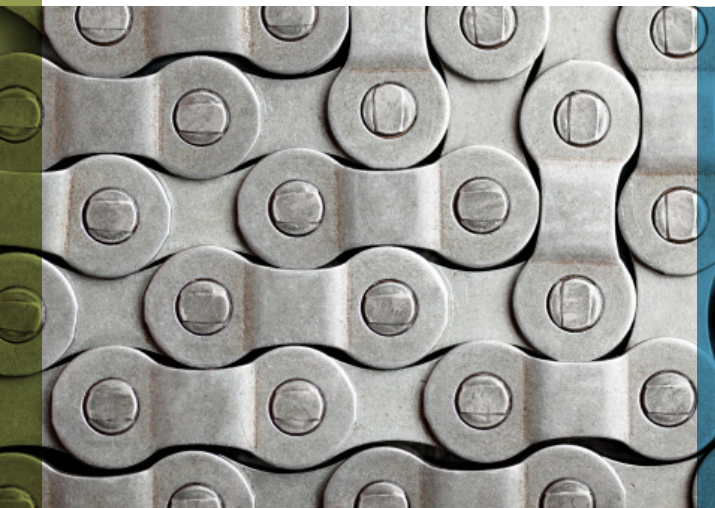
Critical Cross-Industry Issues to Consider (continued)

Supply Chain Transparency

As noted above, software companies are receiving inquiries from customers about their sustainability practices. In responding to these requests, companies need to look upstream at the sustainability of their own supply chains. The challenges Apple is facing related to its supplier practices (most notably its relationship with controversial Chinese manufacturer Foxconn Group) demonstrate why it is important for software and IT companies to closely monitor their suppliers and engage where appropriate.

“Supply chain transparency is an important area for collaboration across the software and broader IT industry,” said Alan Lord of Teradata. “This is an issue which any one company can’t address alone and I would be interested in sitting down with our peers to work on it”.

Initiatives have emerged to address supply chain concerns for software companies and the IT industry including the Electronics Industry Citizenship Coalition (EICC). The EICC is an important forum to advance social and environmental responsibility across the electronics supply chain and is supported by software companies including Adobe and Microsoft.







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Alan Lord, Teradata

Advice to Industry Peers Beginning to Consider Sustainability

Having asked our participants about the drivers of their own sustainability programs and the issues where they see a need for cross-industry collaboration, the Malk Sustainability Partners team asked these experienced environmental program managers what advice they had to offer to peers just beginning to consider how these issues relate to their own organizations. The responses were:

Respondent	Advice
	<p>Mike Bangs</p> <p>“Look at your power bill; you’ll be surprised by the tremendous amount of money that can be saved through simple changes. Just ask me, we’ve done 135 projects in the last 10 years.”</p>
	<p>Lynelle Preston Cameron</p> <p>“Start with a materiality assessment; look at impacts across your operations to determine where you should take action. More broadly, you should also ask why you are undertaking these activities. Is it reputation? Employees? A belief in a better future? The why cannot be underestimated.”</p>
	<p>Brad Minnis</p> <p>“Speak with your customers and shareholders to learn about how they consider this issue. As for action items, start with little things which demonstrate that you can save money through environmental initiatives and build from there.”</p>
	<p>Alan Lord</p> <p>“Secure management support; without it you’re just building a little club house. Leadership at the top of the company drives the program for success, they enable you to obtain internal talent to move forward with the program. I also suggest reaching out to your industry peers.”</p>

Finally, as Mike Bangs concluded, “Don’t wait for a mandate, just do it!”

What's Next?



Adobe, Autodesk, Juniper Networks, and Teradata are not the only software companies which have made sustainability a core element of corporate strategy. Other great examples include CA Technologies, which offers a substantial ecoSoftware product suite to help its clients manage their energy use and environmental footprint, and Symantec, which has made carbon footprint management an operational priority.

Understanding what environmental issues are most relevant to your company and how sustainability should fit into corporate strategy can be challenging. Likewise, it takes time and finesse to identify and properly address the sustainability expectations of your customers and shareholders while determining where an increasing global focus on sustainability presents risks or opportunities for your company.

Malk Sustainability Partners specializes in partnering with companies to unlock value through sustainability. We build and implement profitable environmental strategies which align with our clients' corporate missions while helping to preserve the planet. If you are interested in exploring what sustainability could mean for your company, we encourage you to contact us to schedule a complimentary 30 minute Sustainability Strategy Consultation.

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This report was developed by MSP Partner Zach Goldman with MSP Analyst Topaz Simply.

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For more information is at www.malksp.com.



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