

Green Business: How Businesses are Reducing their Carbon Footprint and the Technologies they are Using

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Webcast July 23, 2008

Industry
Insights
IDC Companies



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 - Deborah Stark, Director of Marketing at dstark@idc.com

Highlights of IDC's Insights Research Coverage

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- Consumer Banking and Credit
- Corporate Banking
- Insurance
- Payments
- Capital Markets
- Risk Management
- European Banking
- European Insurance
- Asia/Pacific Banking
- Asia/Pacific Insurance
- Asia/Pacific Risk Management
- Asia/Pacific IT Benchmarking
- Canadian Financial Services
- IT Spending Guides
 - Brazil
 - Asia/Pacific, Europe and North America
 - Banking, Insurance and Capital Markets
- FinTech DNA Data 'n Analytics
- Financial Services Training – Sales Enablement

- Supply Chain Strategies
- Product Life-Cycle Strategies
- IT Strategies
- Emerging Agenda
- Worldwide Manufacturing IT Spending Guide
- European Services
 - CIO Strategies
 - Supply Chain
 - Product Life-Cycle
 - IT Opportunities
 - CPG
 - High Tech
 - Process
 - Mfg
 - Auto & Discrete
- Asia/Pacific Services
 - Supply Chain
 - Product Life-Cycle
 - IT Opportunities

- Business Customer Strategies
- Customer Operations Strategies
- Distributed Energy Strategies
- Energy Delivery Strategies
- Energy Downstream Strategies
- Energy Upstream Strategies
- Energy Wholesale Strategies
- European Utilities IT Opportunities and Strategies
- European Renewable Energy Strategies
- Industry Insights IT Management Service
- Load Analysis Strategies
- Renewable Energy Strategies
- Residential Customer Strategies
- Worldwide Oil and Gas Industry IT Spending Guide
- Worldwide Utility Industry IT Budget Guide
- Worldwide Utility Industry IT Spending Guide

- Providers
 - Healthcare Provider IT Strategies
 - IT Opportunity and Leading Indicators: Healthcare
 - Worldwide Healthcare IT Spending Guide
 - European IT Opportunity: Healthcare
- Payers
 - Healthcare Payer IT Strategies
 - IT Opportunity and Leading Indicators: Healthcare
 - Worldwide Healthcare IT Spending Guide
 - European IT Opportunity: Healthcare
- Life Science
 - Clinical Development Strategy and Technology
 - Life Science Business Systems Strategy
 - IT Opportunity and Leading Indicators: Life Sciences
 - Worldwide Life Science IT Spending Guide

- Partnering Profiles
- Tech Indicators & CSI Metrics
- US Spending Guides
 - LOB
 - Federal Gov IT
 - Education IT
 - State & Local IT
- Tech Decision Support
 - Asia/Pacific
 - Canadian
 - European
 - US Infrastructure Optimization
 - US Risk and Protection
 - US Technology Sourcing
- IT Opportunities
 - Asia/Pacific
 - Canada
 - US
 - Europe

- Retail Supply Chain, Demand Planning, and Merchandising Strategies
- Retail IT Infrastructure Strategies
- Retail Store, Channel, and Consumer Strategies
- Next Generation Retailing
- Strategic Retailing
 - Europe
 - Asia Pacific
- IT Opportunities
 - Retail and Wholesale
 - Transportation
- Worldwide Retail IT Spending Guide

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Today's Panelists



Meredith Whalen
GVP/GM
Industry Insights



Kim Knickle
Director
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Leslie Hand
Director
Global Retail
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Rick Nicholson
Vice President
Energy Insights



Patricia McGinnis
Director
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Insights

Discussion Topics

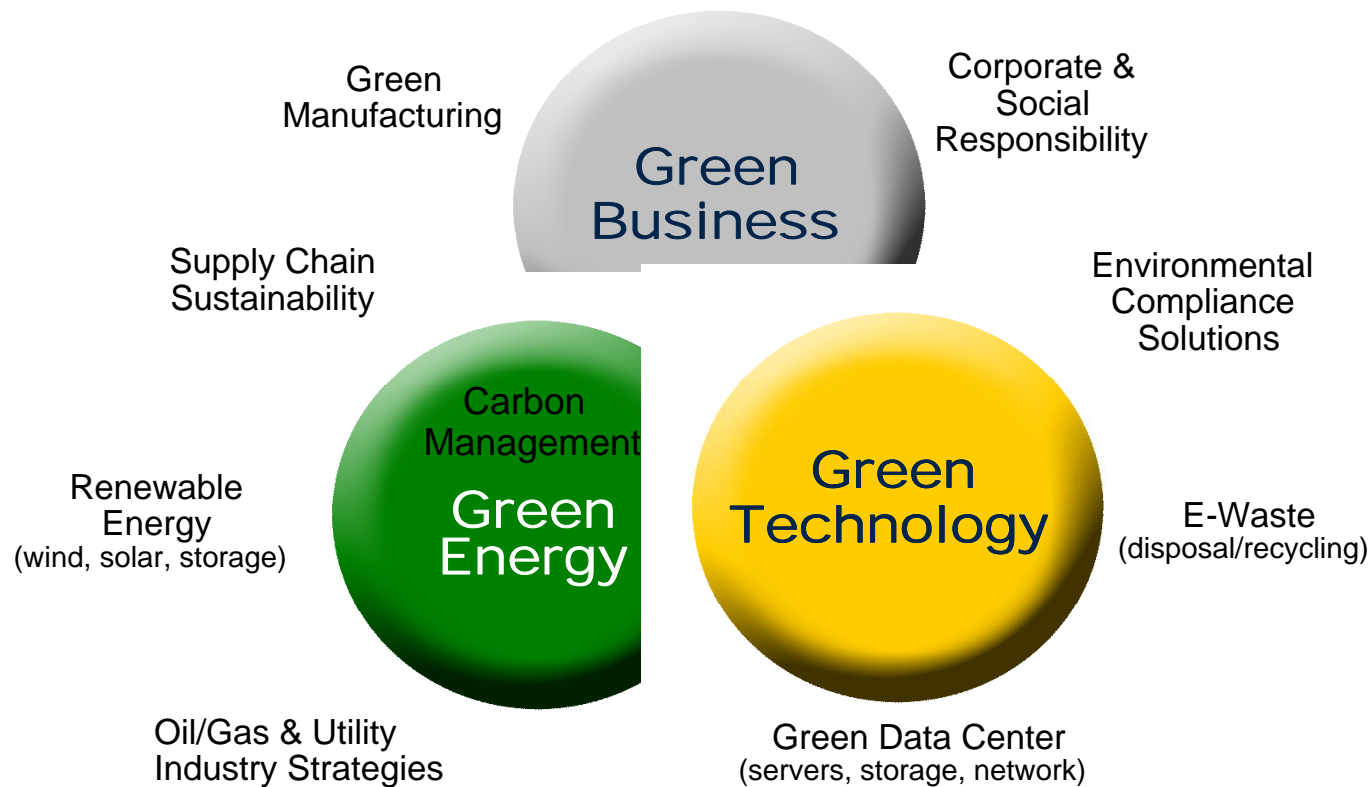


Meredith Whalen
GVP/GM
Industry Insights

- Frame the Issue
- How Businesses are Becoming Green
- Technologies Leveraged in Green Business
- Essential Guidance
- Live Q&A



Scope of Today's Discussion



What is Green Business?



Kim Knickle

Stages of Maturity

Resource Allocation



Time

How Does Green Energy Fit In?



Rick Nicholson

“The technological advances needed to stabilize carbon-dioxide emissions – have been seriously underestimated”

Roger Pielke, Tom Wigley and Christopher Green, Nature, April 3, 2008



- Reducing energy-related carbon-dioxide emissions depends on reducing both:
 - Carbon intensity (CO₂ emissions per unit of energy)
 - Energy intensity (energy consumption per unit of GDP)
- Reducing carbon intensity can be achieved by replacing high-carbon energy sources with low/no-carbon energy sources – the supply side of the equation
- Reducing energy intensity requires improvements in energy efficiency – the often overlooked demand side
- Both approaches require technology innovation and investment

Green Manufacturers



Kim Knickle

- Taking Steps to Reduce Carbon Footprint
 - Material Selection
 - Sourcing Policies
 - Resource consumption and emission
 - End of life postponement and management
 - Customer demand and fulfillment



Retail Green IT Strategy



Leslie Hand

SPECIAL SECTION
2008 SUPERMARKET BENCHMARK STUDY
 BY SCOTT LANGDOO AND LESLIE HAND, IDC GLOBAL RETAIL INSIGHTS

2nd Annual Supermarket Tech Trends Study Uncovers Pathways to Transformation and Insight into Marketplace and Consumer Shifts

Never has a retail industry segment seen as much consistent operational turbulence, competitive pressures and consumer shifts as food retailers have in the last half decade. It was only this time last year that it appeared traditional grocers were seeing success in their brand differentiation strategies as they battled megaproducts and an upswing of micro-specialty and organic food retailers all chasing an increasing share of the consumer's wallet.

Fast forward to today: rocket-propelled fuel price increases, a mortgage and credit market meltdown, and rising commodity costs have dampened down on consumer confidence from all sides. These external economic forces, coupled with traditional as well as new competitive players like Tesco, are putting intense pressure on food retailers to identify and execute merchandising and technology strategies that will help them respond, compete or, in some cases, just survive.

To see just how dramatic these shifts are, *AS News* partnered with IDC's Global Retail Insights to develop the second annual supermarket benchmark study. The objective is to not only compare key metrics to last year's survey, but to proactively gauge grocers thinking about an expanding set of advanced retail technologies that could impact the store, merchandising and supply chain operations – as well as the overall consumer shopping experience.

Major Findings and Methodology
 The comprehensive survey gathered a wide range of input from supermarket executives covering all functional process areas. The resulting analysis identified a number of important high-level findings, including:

- Economically-driven economic and consumer shifts will force some grocers to practice radical retooling strategies above and beyond incremental.
- Merchandising mix continues to shift, including a big expansion of private label offerings.
- The divide between grocery retailers who embrace advanced technology and those who do not on the floor appears to be widening.
- Business talent and social responsibility are driving expansion of green investments in green IT and sustainability initiatives.

Just over 10 major IT and business leaders from U.S.-based supermarket chains were surveyed. From under half of respondents cover store chains with over \$1 billion in annual sales. Nearly one half of total sales. The survey was conducted in April and May 2008.

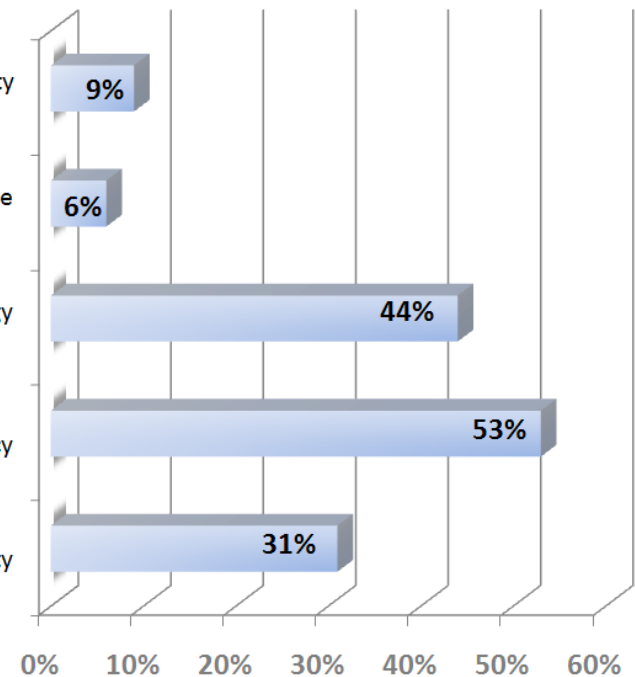
Essency: Has Impact, But IT Services
 While food retailers continue to experience fierce hyper-competition and continued operating margins they are often thought of as being more resilient to declines in consumer confidence. In fact, 65% of grocers in the study stated that their comparable sales were up, one of those exactly half were up in last 12 months. This is nearly identical to the findings in last year's study.

However, the remaining 35% of grocers in last year's study were an even less in comparable sales. This year nearly 4% of respondents had declining

Research Partner: Global Retail Insights
Title Sponsor: WINCOR NIXDORF
Supporting Sponsors: EPSON, KLEENEX, CONNECT3

Describe your current strategy surrounding sustainability or "Green IT"

- Have a comprehensive, corporate-led sustainability strategy with defined measurements 9%
- Have supplier compliance requirements that involve packaging and other sustainability metrics 6%
- Are working on data center and HQ-level energy efficiency 44%
- Are working on store-level energy efficiency 53%
- No sustainability 31%



Green Energy Producers



Rick Nicholson

Steps Energy Companies are Taking to Reduce their Carbon Footprint

- Reducing emissions at power generation plants and refineries via pollution control equipment, use of alternative fuels (substituting natural gas for oil), making plants more efficient
- Developing or acquiring clean/renewable generation such as wind, solar and nuclear
- Acquiring carbon emissions credits by participating in carbon trading markets
- Developing climate-neutral products and services that complement development of renewable generation
- Investing in research and development for clean technologies such as:
 - Clean coal generation and carbon sequestration
 - Vehicle-to-Grid (V2G) integration

Green Financial Institutions



Patricia McGinnis

Steps Financial Institutions are Taking to Reduce Carbon Footprint

- Constructing LEED-certified branch offices
- Replacing travel with video tools, remote monitoring tools
- Reducing paper usage: e-bills, e-statements, e-payments, etc.
- Customer education and rewards for “green” products (credit cards, mortgages, home and auto insurance, etc.)
- Supporting the development of markets for “carbon credits” and “carbon offsets”

Leveraging IT in Green Business



Meredith Whalen

Financial	Accounting of carbon credits, settlement carbon emission credits, offsets or renewable energy credits
Reporting and Analytics	Aggregations from environmental management systems and asset management applications, supplier scorecards, internal sustainability or green scorecards
Real estate development and construction	Incorporating Energy Star and LEED requirements into building design, site and materials selection
Video and Teleconferencing Tools	Reduce travel by personnel, improve customer service across widely distributed branch or agency networks

Leveraging IT in Green Manufacturing



Kim Knickle

Transportation management	Evaluations based on environmental impact ex. trade-off between fuel consumption and arrival time, fleet optimization, profitable proximity
Procurement and supplier relationship management	In-depth details on recycling-friendly materials, processes, or packaging Supplier environmental scorecards and new RFPs
Manufacturing execution systems	Production-line efficiencies, including energy efficiencies in conveying and sorting Transition to fulfillment execution to manage operations
Product life-cycle management	Guidelines for design for compliance and the environment to make trade-offs in the product life cycle Green design

Leveraging IT in Green Retail



Leslie Hand

Transportation management	Systems to optimize loads, routes, backhauls and fuel Consumption
Environment Management Systems	Systems to measure and manage an organizations environmental impacts and facilitate increasing operating efficiency - Power Management, Energy Usage, Refrigerant Tracking
Real Estate Development and Construction	Incorporating Energy Star and LEED requirements into building design, site and materials selection
Procurement and supplier relationship management	IT Procurement and EOL RFP considerations Supplier scorecards and new RFPs

Leveraging IT in Green Energy



Rick Nicholson

Environmental health & safety (EH&S)	Monitoring, assembling data, calculating estimates and producing compliance and corporate responsibility reports for existing plants and assets
Energy trading & risk management	Trading of carbon credits associated with power plants, refineries, and renewable generation portfolios in both voluntary and mandatory carbon trading markets
Smart metering and in-home displays	Two-way communication of time-based energy consumption data between consumers and energy providers to enable demand response and energy efficiency programs
Intelligent grid	Grid sensors, real-time communications and advanced analytics to enable interconnection of wind and solar generation resources as well as plug in hybrid electric vehicles

Leveraging IT in Green Financial Services



Patricia McGinnis

Video and Teleconferencing Tools	Reduce travel by personnel, improve customer service across widely distributed branch or agency networks
Internet-Based Delivery Channels	Save paper, mailing, and customer travel, for both retail and wholesale clients: online banking, electronic invoicing and bill payment, trade services, and more
Risk Assessment and Investment Management	Developing models and indices for measurement of corporate exposures to “green” risks; driving responsible investment in both debt and equity markets
Enterprise Content Management and Workflow	Enabling knowledge workers to be more efficient with paperless access to process-related content, including reference material, legal documentation, etc.

Essential Guidance

For Manufacturers

- Consider sustainability across five categories: material selection, sourcing, resource consumption and emissions, end-of-life management, and fulfillment.
- Focus on IT that supports sustainability programs; manufacturing execution systems for the production stage, supply chain applications for the distribution stage, and product life-cycle management applications for the use and disposal stages.

For Retailers

- Focus on measuring, managing and reducing energy consumption by leveraging environment management systems, by building Energy star or LEED certified stores and by leveraging best practices in supply chain and transportation management.
- Develop a strategy to enable consumer sustainability starting with EOL product recycling, product carbon ratings, reduced waste shopping experiences (example - emailed receipt options)

For Energy Providers

- Focus on energy efficiency for utility customers, carbon sequestration, increased refinery or generator efficiency and clean generation to reduce carbon emissions
- Ensure role-based access to data, analytic tools and dashboards to support employees in achieving corporate goals and business unit objectives for carbon management and sustainability

For Financial Institutions

- Extend existing risk assessment review processes (for both products and business processes) to incorporate sustainability analyses and measurements of resource consumption.
- Examine product offerings and key customer segments to understand which customers will value carbon neutrality, and how process improvements, credits or offsets can be incorporated into customer value propositions.

A Call to Action for CIOs

7 Reasons a CIO Needs to be Involved in Sustainability Efforts

1. If you can't measure it, you can't manage it
2. Information is essential to knowing what to change
3. Sustainability requires a cross-company perspective
4. Sustainability requires a value chain perspective
5. Supporting sustainability will require IT
6. IT supports executing for change
7. There's business risk in climate change

Additional Questions ?



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Related Research:

Facing the Carbon Footprint: Applying Information Technology to Emissions Strategy

Rising Energy Prices Are Fueling Business Customer Investment in Energy Efficiency

How Green Is Your Financial Institution's House?

Can Financial Institutions Grow Green Products and Services?

IDC Green IT Forum: Real Reasons to Increase Sustainability on the Retailer Priority List

Making Sustainability Real

Sustainability 1Q08 Update: Introduction and Going Green and IT's Role Making Sustainability Real

Upcoming Webcasts....

- Fuel Your Business Analytics Engine: Improve Your Mileage Using Unstructured Data
 - July 24, 2008
- Manufacturing and Supply Chain IT Outsourcing: The Life Science Buyer's Guide to Vendor Selection
 - July 29, 2008
- In-Home Displays Spike Interest in Energy Usage and Efficiency
 - July 30, 2008
- The Perfect GPS to Weather the Storm: U.S. Gov PC Infrastructure Optimization ROI Tool & LoB Spending Guide
 - Aug 6, 2008
- Beyond the Traditional Short List: Up & Coming Insurance Technology Firms Class of 2008
 - Aug 7, 2008
- Corporate Payments and Financial Supply Chain: Which Banks are Best
 - Aug 21, 2008

**Thank you for your time
today. We look forward to
hearing from you.**

General Information email: insights@idc.com

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