



accenture

High performance. Delivered.

Unlocking the opportunity for sustainable chemical industry

Milan, December 15th 2011





Agenda

- Accenture practice and experience at glance
- Global Trends
- Accenture view on sustainability
- Chemical Industry insights
- Chemical Industry and the sustainability

Accenture support a large number of chemical companies combining high performance with business sustainability



Accenture practice and experience at glance

Accenture key numbers

- ~240,000 employees in 120 countries
- \$25,5 billion in net revenues (FY11)
- ~4,000 clients across industries and governments
- Serve 94 of the Fortune Global 100
- All of our top 100 clients have been clients for 5+ yrs
- Accenture business model can cover all business layers:



Chemical Industry Practice

- +30 years experiences in working with leading chemical companies
- ~2,700 skilled professional working with chemical clients in 52 countries
- Involvement with the key chemical associations: *American Chemistry Council (ACC)*; *Société de Chimie Industrielle*; *European Petrochemical Association*; *European Chemical Industry Council (CEPIC)*

Selected Accenture Chemical Clients



Sustainability Practice

- +2,500 consultant worldwide
- +800 projects in sustainability in the last 3 years
- Key player in sustainability efforts around the world delivering transformational sustainability projects
- Sustainability relationship with:



Sustainability major Chemical Clients



In Accenture's view four global mega-trends will shape the world economy in the upcoming years



Global Trends (1/2)

Accenture's New waves of growth

'New Waves of growth' - 2011

- Accenture Multi-Polar World (MPW) series investigate since 2007 the key global trends affecting global industries and organizations
- "New Waves of Growth", Accenture's most recent multi-polar world publication, highlights four driving trends that leading organisations must address as they drive for growth

The Silver Economy

- Third-age learning
- Experiential goods and services
- Health services and wellness products
- Connected health
- Lifelong finance
- Age-inclusive consumer goods

The Resource Economy

- Intelligent energy and cities
- Green infrastructure
- Food and agribusiness
- Alternative energy sources
- Eco-ethical products
- Waste, water and land mgmt
- Eco-consultancy
- Carbon finance

The Multi-technology future

- Core technologies
- Ancillary technologies and services
- Convergent technologies
- Technology-enabled business models

The Emerging market surge

- Low-cost business models
- The "southern surge" in financial
- Services
- Infrastructure development
- Citizen services
- International knowledge exchange
- The global middle class

- These trends have significant implications for all leading organisations;
- We believe that factoring these trends into company strategy will future-proof some elements of strategic roadmap for Sustainability Value Capture (SVC)

The WBCSD highlights how some sectors, key end markets of the chemicals sector, will play a key role in achieving the Vision 2050¹⁾



Global Trends (2/2)

World Business Council for Sustainable Development Vision 2050

World Business Council for Sustainable Development – Pathway toward a sustainable 2050

Excerpt

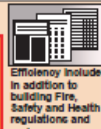
BUILDINGS - Energy efficient and comfortable living and working spaces

Tough energy efficiency regulations begin

Approx. 40% of emissions are building related



Required to be on track for a sustainable 2050
Energy Efficiency (Buildings and Appliances)
 - Implementation of mandatory minimum efficiency performance standards
 - Revisit international standards periodically to ensure continuous improvement
 - No delays in legislation of strong regulations and enforcement is the most cost-effective policy
Key Areas of International Collaboration:
 - Common standards set to discourage trade in sub-efficient appliances.



Programmes launched to develop requisite skills and capacity in the construction sector, to monitor and record the implementation of energy efficiency, and to increase awareness among school children



OECD countries introduce tough efficiency regulations for existing buildings, appliances and vehicles. Critical success element is wide public acceptance

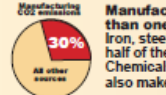


Mainstream learnings from first experiment of zero-carbon, low waste buildings and communities

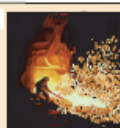
Government purchase coordinated around world produce new markets for efficient products and government sponsor retrofitting programmes in public buildings around the world expedite new markets for efficient products

MATERIALS - Closed-loop society

Accounting standards begin



Manufacturing emits more than one-third of all CO2. Iron, steel & cement account for half of these emissions. Chemicals and petrochemicals also make significant contributions



Required to be on track for a sustainable 2050
 Global business and governments agree on a set of indicators & rules for accounting about resources, energy and materials. These rules establish the true cost of primary and secondary materials.

Global business begins to reduce product sizes, avoid waste in packaging & increase product lifetime



Validation of storage applications of industrial-application Carbon Capture and Storage for industrial applications is complete



Required to be on track for a sustainable 2050
 New landfill legislation begins to set standards for recycling and reuse



Faster, leaner production processes becoming the norm. Business model innovation by reviewing value chains, redesigning products and services, and re-engineering processes

Required to be on track for a sustainable 2050
 Industrial-application Carbon Storage
 - Develop legal and regulatory frameworks
 - R&D to reduce capture storage integrity, monitor
 - Greater public awareness

AGRICULTURE - Feed 9 Billion People by 2050

Doubling & tripling of yields

Required to be on track for a sustainable 2050
 To feed 9 billion people by 2050, food, feed, fibre, and fuel output must increase two-fold, growing 2% annually without increasing the negative environmental impact and if possible not use any more land for agriculture.

Assumption: Better use of freshwater. Most efficient way of increasing the efficiency of water use in agriculture is through increasing yields and requires extracting the maximum yield per drop.



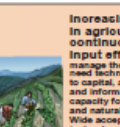
Required to be on track for a sustainable 2050
 Asian, Pacific water efficiency doubles



Russia & Ukraine triple wheat yield via professionalization of farming

With the successful completion of the WTO Doha round, large agricultural subsidies are discontinued boosting production in Latin America, Eastern Europe and Africa

2nd generation biofuels hit market. Cellulosics converted into biofuels greatly improves fuel efficiency, frees up cropland, alleviates food/fuel conflict, and diminishes carbon footprint



Increasing knowledge in agriculture continuously optimizes input efficiency. Farmers manage the landscape, and need technical support, access to capital, access to markets and information to build capacity for higher productivity and natural resource efficiency. Wide acceptance of existing technology.

Required to be on track for a sustainable 2050
 Freer trade in agricultural products, in order to maximize production of food and agricultural products on a global scale

Big risk
 Trade protectionism continues to thwart increased food production

Much greater public sector research and development to increase crop yields - reversing trend in recent years
 Strong growth in investment in Africa's agricultural infrastructure

The Chemical sector is a key enabler in fostering sustainable development through the injection of more sustainable products in key industries' supply chains

Source: WBCSD;

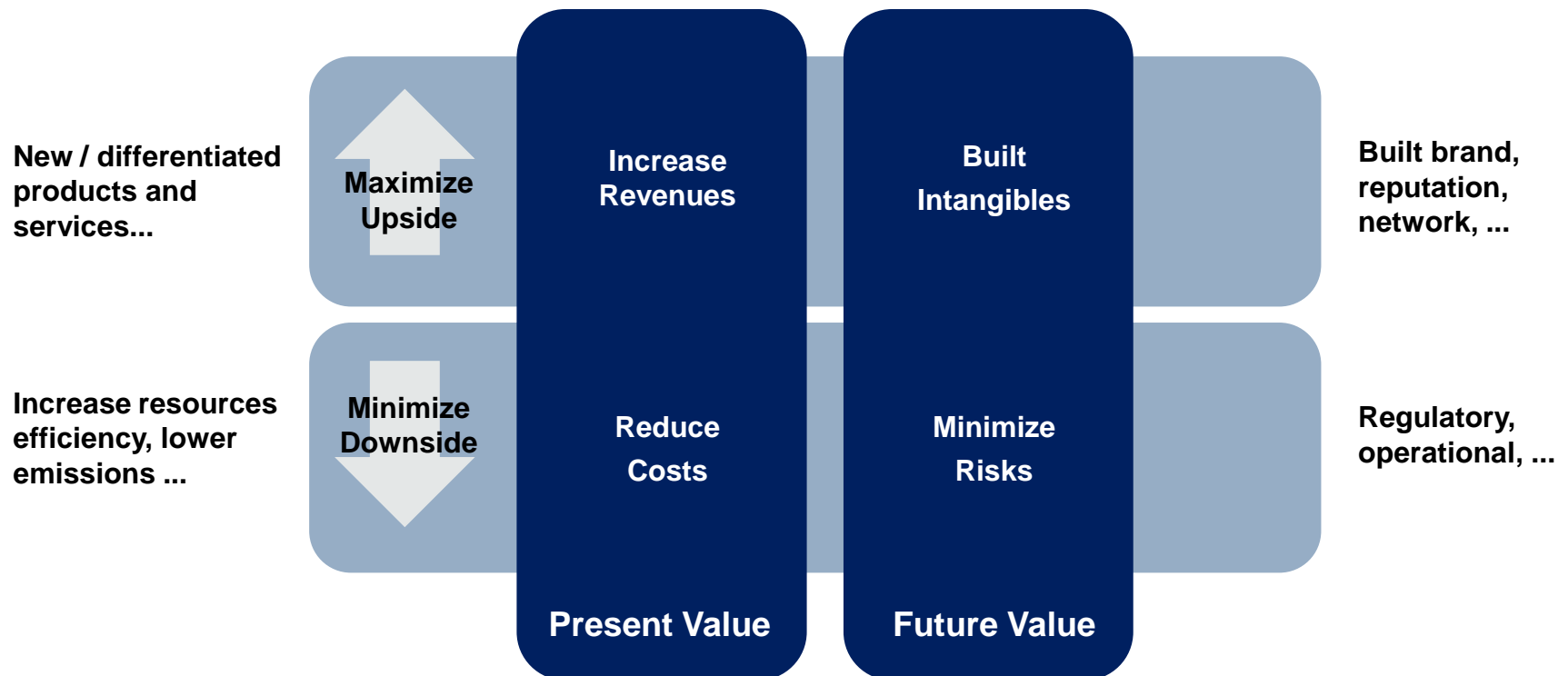
Note: 1) Accenture is a member of the coalition of some 200 companies from all sectors and regions who contributed to the development of the WBCSD Vision 2050

For that reasons Sustainability must be considered as a strong way for value generation



Accenture view on sustainability

Sustainability is the way a company or organization creates value for its shareholders and society by reducing negative impacts and enhancing positive impacts on social, environmental and economic issues and stakeholders to:



Leading players are addressing key sustainability trends to identify innovation growth clusters and extract additional value from their product portfolio



Chemical Industry insights

Mega trends

Growth clusters/Emerging business areas



- BASF has focused on four mega-trends:
 - Growing and ageing population
 - Urbanization
 - Energy demand and climate protection
 - Globalization and developing markets

- BASF has identified five growth clusters (each targeting multiple applications):
 - Energy management, Nanotechnology, White Biotechnology, Plant Biotechnology, Raw Material Change



- Dow Corning has identified three key mega trends relevant to its business:
 - Urbanization
 - Renewable energy
 - Aging population

- Accordingly the Company has decided to focus its growth on:
 - Construction
 - Photovoltaic
 - Personal care



- DSM has identified four trends:
 - Climate and Energy
 - Health and Wellness
 - Functionality and Performance
 - Emerging economies

- DSM has defined four “Emerging Business Areas”:
 - Biomedical Materials, Personalized Nutrition, Specialty Packaging, White Biotechnology

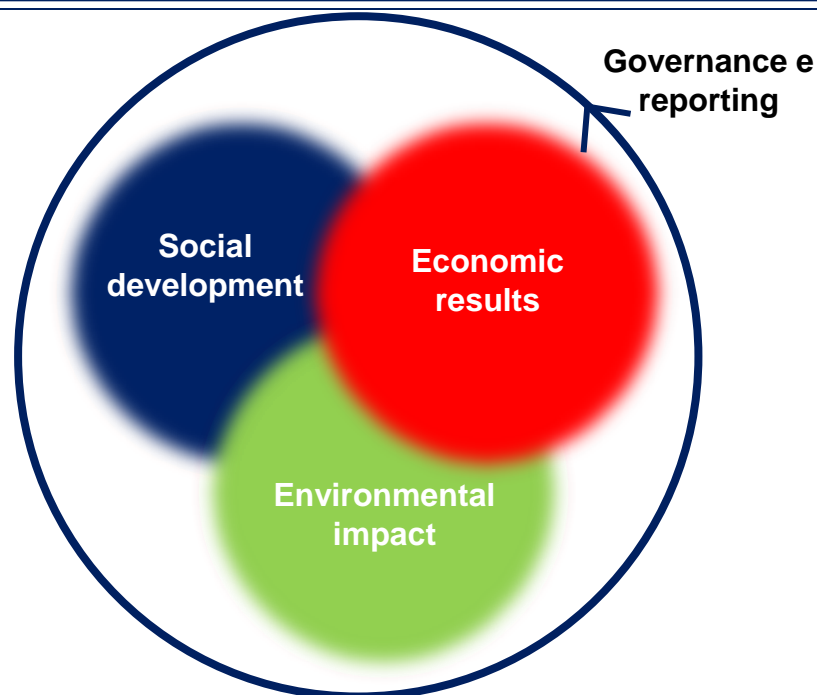
There is broad agreement among leading chemicals about the most important trends

Italian Chemical Industry has the opportunity to address the emerging Sustainability challenges harmonizing them with all business decision



Chemical Industry and the sustainability

Paradigm of sustainability



Companies able to create long-term value must manage economic results, social development and environmental impacts guaranteeing efficient governance and accurate reporting to the community

Hot topics for the Italian company

- **Energy cost** is source of economic disadvantage towards European players. Since long time Italian chemical companies have focused their effort to improve industrial processes to reduce energy cost impacts
- **Safety** is always an important target mainly due to big injures and accidents occurred in the past
- **Regulatory compliance (e.g., REACH, CLP-GHS, etc.)**, that manages the market of substances and chemical products, can be an operational risk but even an opportunity to take advantages
- **Emissions reduction** faced in indirect way, all along companies tried to minimize disbursement (i.e.; sanctions or penalty actions) without considering as an opportunity
- **Reporting and communication** are not managed in a structured and constant approach

Attachments



- Accenture Sustainability Services

Our Sustainability services cover all aspects of business from Strategy to Operations



Large spectrum of services in the Sustainability area

Accenture Sustainability Services			
Sustainability Strategy	Operational Excellence		Emissions Management
Sustainability Policy & Regulation	Sustainable Consumption	Sustainable Supply Chain	Climate & Energy Management Services
Sustainability Strategy & Journey Management	Trust & Stakeholder Management Services	Sustainable Talent, Organization & Learning	Clean Energy Solutions
Innovation & New Businesses	Sustainability Performance & Risk Management	Environmental, Health & Safety Management	Carbon Markets & Carbon Trading
City Growth & Strategy Management	Green Six Sigma	Green IT	Water & Waste Management Services
Intelligent Infrastructure			
Intelligent Transport	Smart Building Solutions	Smart Grid Services	Infrastructure Analytics Services
City IT & Communication Network Solutions	Waste, Water & Recycling Solutions	Interactive eServices	

“Accenture has not been focusing on just leveraging existing capabilities to serve Clients on sustainability issues but has intended [...] to innovate dedicated and integrated service offerings [...]. Today it can refer to a very appealing sustainability service portfolio, including 23 branded offerings [...].”

Source: Forrester Research

We are a leader in our knowledge of sustainability and its implications for business having developed a suite of research into sustainability imperatives



Selected Thought leadership

Institute of High Performance Business

- A New Era of Sustainability – CEO Global Compact
- Compatible aims: Sustainability and High Performance
- The Cancun Concepts: Pragmatic recommendations from industry for effective carbon policy negotiations at COP16 and beyond

Sustainability Thought Leadership

- Optimizing Sustainability Performance Management: A review of findings from Accenture's 2011 Sustainability Performance Driving value from integrated sustainability
- Sustainability Strategy for High Performance in the Chemicals Industry
- Water scarcity & management
- Management Survey
- Can business do well by doing good ?

Carbon Management & Strategy Thought Leadership

- Seizing the Opportunities in the Low-Carbon Economy: Emissions Trading and Risk Management Capabilities for High Performance in Energy-Intensive Industries
- Climate Change and Health: Framing the Issues
- Carbon Capture and Storage: Actions to achieve high performance in a low-carbon economy
- Seizing Opportunities – Managing Threats – A low-carbon future
- To Copenhagen and Beyond – A pragmatic approach to mitigating climate change
- Carbon Disclosure Project – The Case for City Disclosure
- Supply chain decarbonization

Non-Exhaustive





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