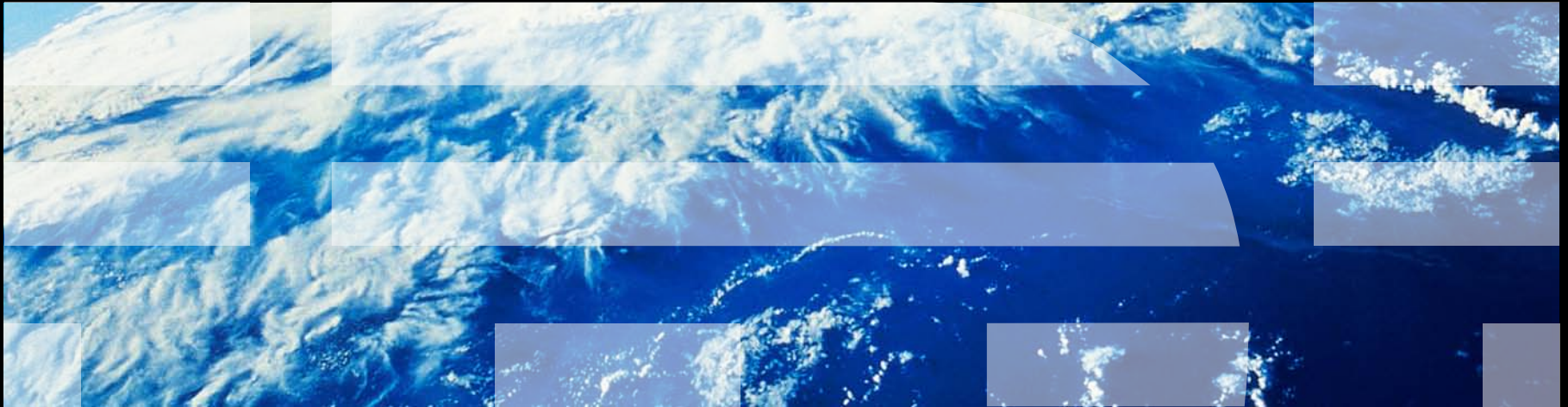


Sustainability on a Smarter Planet



A globally integrated world creates new *interwoven issues*.

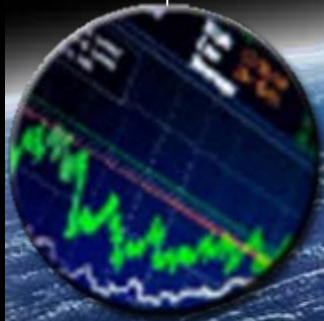
On going pressures to reduce cost.

Urban growth straining both new and existing infrastructures.

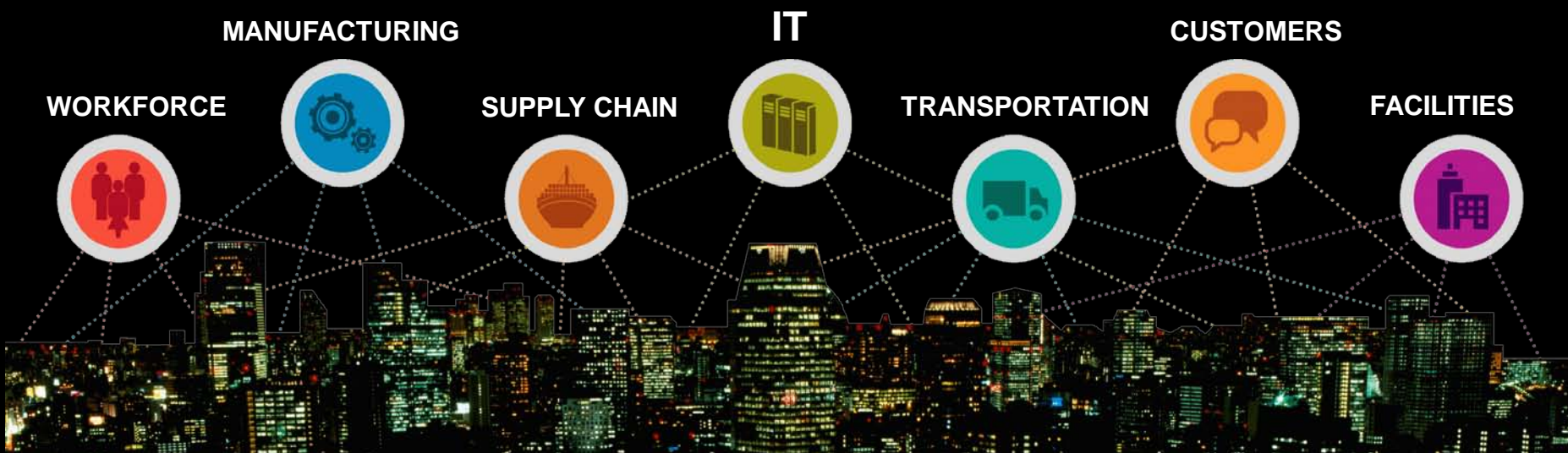
Increasingly empowered people demand better managed and eco-efficient workplace.

Energy shortfalls combined with volatility in price.

Buildings have new connectivity, communication and security imperatives.



To realize the benefits of sustainability, an organization must take a systemic view of its *value chain*....



Uncovering unexpected areas of cost...

10,855 liters

Water required over the product lifecycle of a pair of jeans.

6.6 billion

Number of new trees needed to clear CO₂ emitted by data centers each year.

\$46 billion

Value of the carbon offset purchases by 20 countries in order to meet emissions reduction targets in 2008.



Uncovering unexpected areas of cost and *opportunity*.

20 million gallons saved

In water during chip manufacturing process each year by IBM's Burlington FAB. Resulted in \$3 million annual savings.

74% less energy

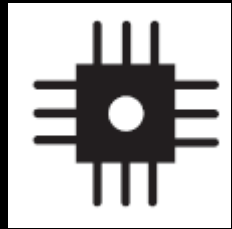
By implementing a green data center, Care2, a global online community, cut costs, improved performance, and promoted its sustainability to attract new members.

2,400 tons avoided

UK retailer Tesco avoided an estimated 2,400 tons of CO² emissions by importing wines in bulk and bottling them in lighter weight glass.



Something profound is happening....



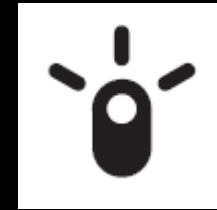
INSTRUMENTED

We now have the ability to measure, sense and see the exact condition of practically everything.



INTERCONNECTED

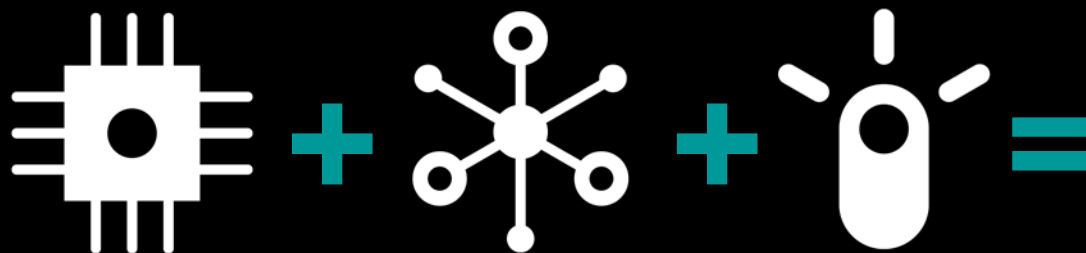
People, systems and objects can communicate and interact with each other in entirely new ways.



INTELLIGENT

We can respond to changes quickly and accurately, and get better results by predicting and optimizing for future events.





An opportunity for smarter organizations to find the value in “sustainability”.

Lower costs while overcoming operational barriers.

Strengthen reputations while meeting regulations.

Create products, services and workplaces that give rise to new opportunities.

To achieve these benefits, organizations *need*:

1 Green infrastructures 2 Sustainable solutions 3 Smarter Buildings 4 Intelligent Systems

Take out cost and improve the efficiency of IT and other infrastructure.

Enable readiness with regulatory compliance.

Increase organizational efficiency, abating impact of processes, products and people.

Create ability to measure, monitor, improve and report on processes.

Be more cost effective by reducing energy and operating costs.

Communicate in real-time with supporting infrastructure

Ongoing environmental responsibility.

Use predictive analytics for water management.

Optimize power grid ; control two-way flow of energy from power plant to plug.

Optimized transportation systems.

Smart products.



IBM Green Infrastructure is an instrumented and interconnected system enabled by intelligent energy management.

1

IT Equipment



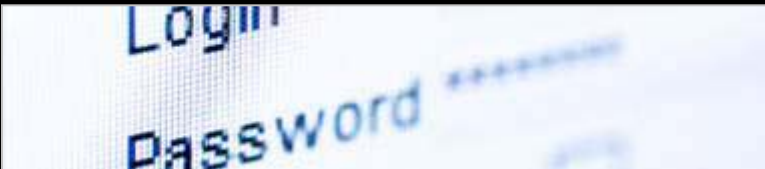
- Energy efficient hardware
- Virtualization and consolidation
- Active energy management
- Tiered storage

Data Center



- Accurate thermal and energy usage assessments
- Extend life of existing infrastructure
- Rationalize infrastructures across company
- Design flexibility into new data center infrastructure

Applications and Data



- Lifecycle management, retention, archiving of data
- Optimization of application servers
- Application performance monitoring
- Data deduplication, compression and clean up

Energy Management



- IT management dashboard
- Intelligent Building Management System interface
- Threshold controls
- Optimize assets for energy efficiency
- Track and verify energy efficiency

Let's work together to drive real progress in your business.
IBM contributes with the entire portfolio:

IBM's own global transformational
experience

IBM Research

Deep Research Capabilities
Green and Business Analytics Research

IBM Services

Global Business Services has the consulting
expertise to bring together business and
operational requirements
Global Technology Services has the operational
and integration best practices

IBM Technology

IBM Systems hardware leadership
IBM Software solid base for integration

Partner Ecosystem



www.ibm.com/smarterplanet

Questions?

Thank you for your attention!

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