Theodor Borangiu, University Relations Manager, IBM Romania

IBM Academic Initiative

Building skills for a smarter planet

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The IBM Academic Initiative

Our mission

- Partner with academic institutions to better educate millions of students for a smarter planet and more competitive IT workforce

Our offerings

- No-charge access to IBM technology & tools (*thousands* of software titles)
- No-charge access to course materials and curriculum (*hundreds* of modules)
- Skills enhancement supported by a worldwide community of IBM volunteers

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Have you visited us lately?

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WILL BE INSTRUMENTED, INTERCONNECTED, INTELLIGENT.
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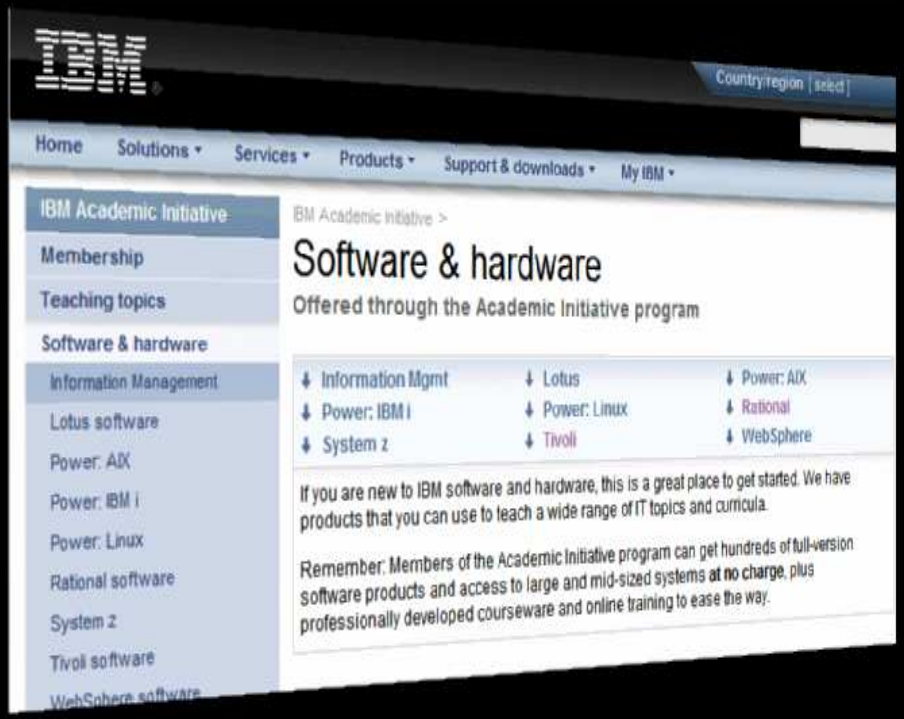
Benefits and Offerings include….no-charge Software



- **IBM Software**
  Access to ***thousands*** of full-function, leading-edge software applications available for faculty to download at no charge.

  Faculty can:
- Make copies of the software for their students;
- Install the software on lab machines their students access; and
- Make the software available on a private network their students can access

- **Virtual Computing**
- SOA Sandbox
- System Z Sandbox
- Remote access to large and mid-range systems
- On-demand demos
- Rational Developer Sandbox for System i

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INNOV8 V2.0 – A Serious Game

- **INNOV8 V2** is an interactive, 3-D business simulator designed to teach the fundamentals of business process management and bridge the gap in understanding between business leaders and IT teams in an organization.

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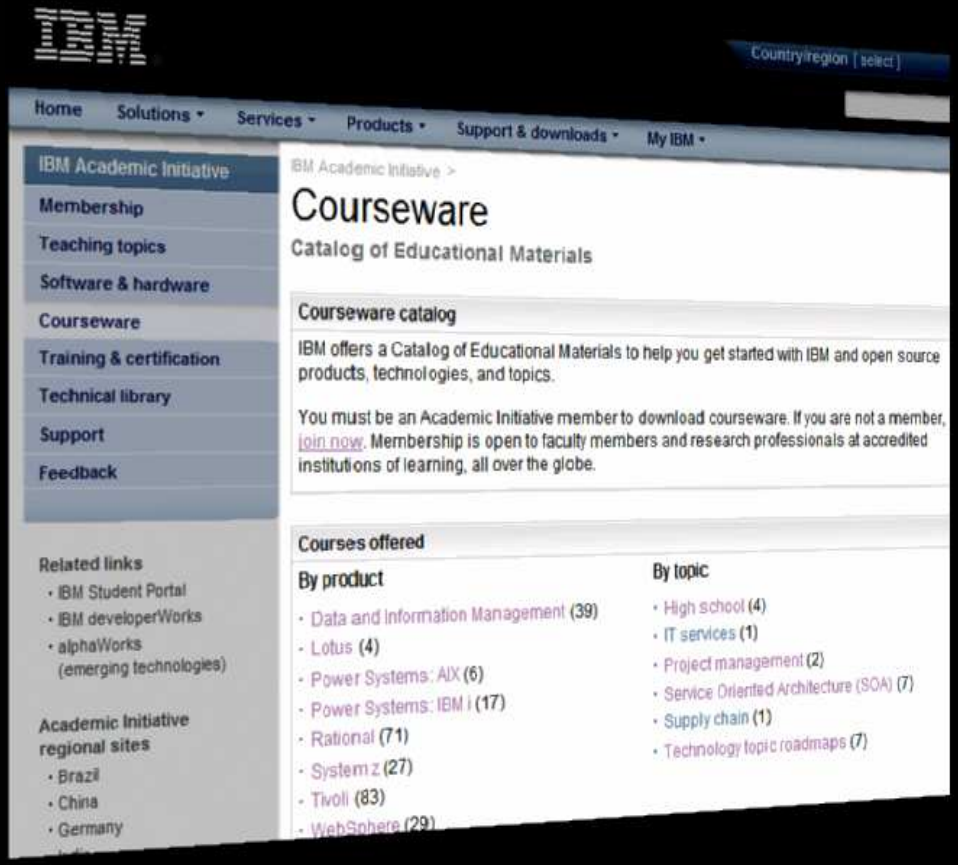
Courseware Repository

…hundreds of industry-leading courses, all at no charge



- **IBM Courseware**
  More than 250 no-charge course modules created by IBM to help clients get the most from their IT investment. Faculty can use them to enrich their students' classroom experience.

- Covering topics such as:
  - Software Development Lifecycle
  - Business Process Modeling and SOA
  - Enterprise Systems
  - Data Management
  - Social Networking and Collaboration
  - I/T Service Management/Monitoring
  - Service Science
  - ….and much more……

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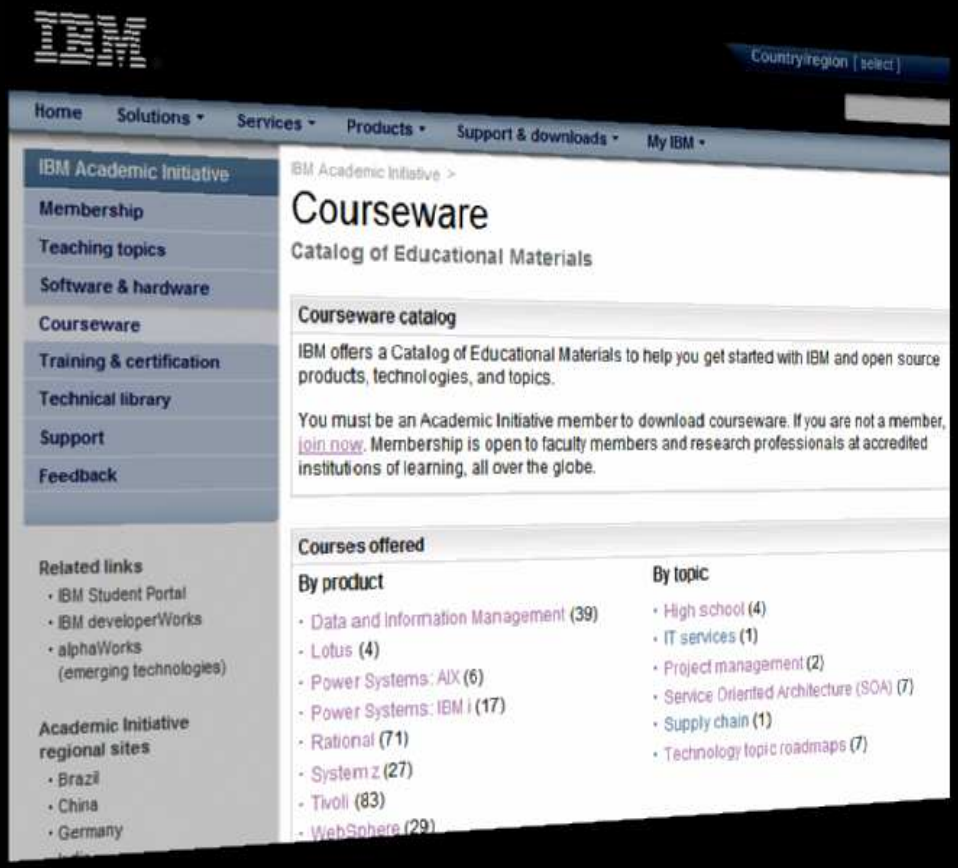
Courseware Mapping and Technology Roadmaps



- **ACM Courseware Mapping** provides mapping between IBM products and technologies and Association for Computing Machinery (ACM) recommended courses. Guides are available for Computer Science and Information Systems courses. Find it on our Courseware Repository page.
- **Technology Topic Roadmaps** provide information on key topics and recommendations on how to teach them.
  - Teaching Business Process Modeling
  - Teaching with Innov8
  - Teaching Enterprise Systems
  - Teaching Rational Team Concert
  - Teaching WebSphere sMash
  - Teaching WebSphere Application Server Community Edition

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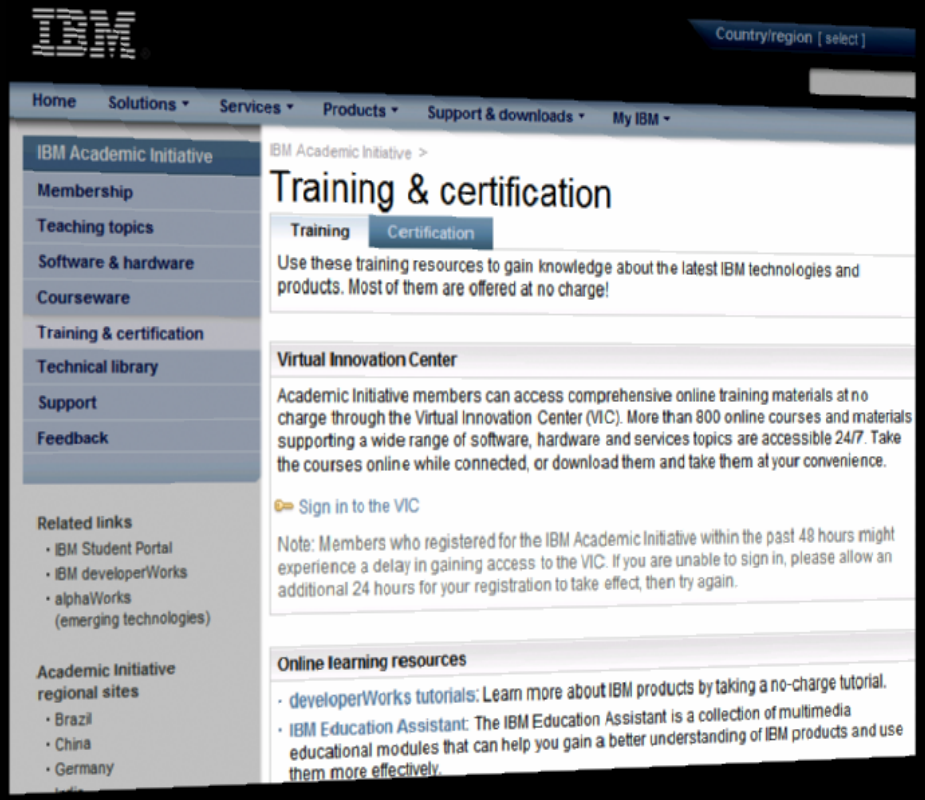
Classroom and Virtual Training



- **IBM Virtual Innovation Center (VIC)** offers comprehensive online training materials on more than 800 online courses supporting a wide range of software, hardware and services topics. The VIC is accessible 24 hours per day, 7 days per week. View the courses online, or download them for off-line study.

- **IBM Innovation Centers** offer a wide range of technical workshops taught by IT architects and brand experts. Academic Initiative members may attend these workshops at no charge on a space-available basis. Go on-line and find the IBM Innovation Center nearest you!

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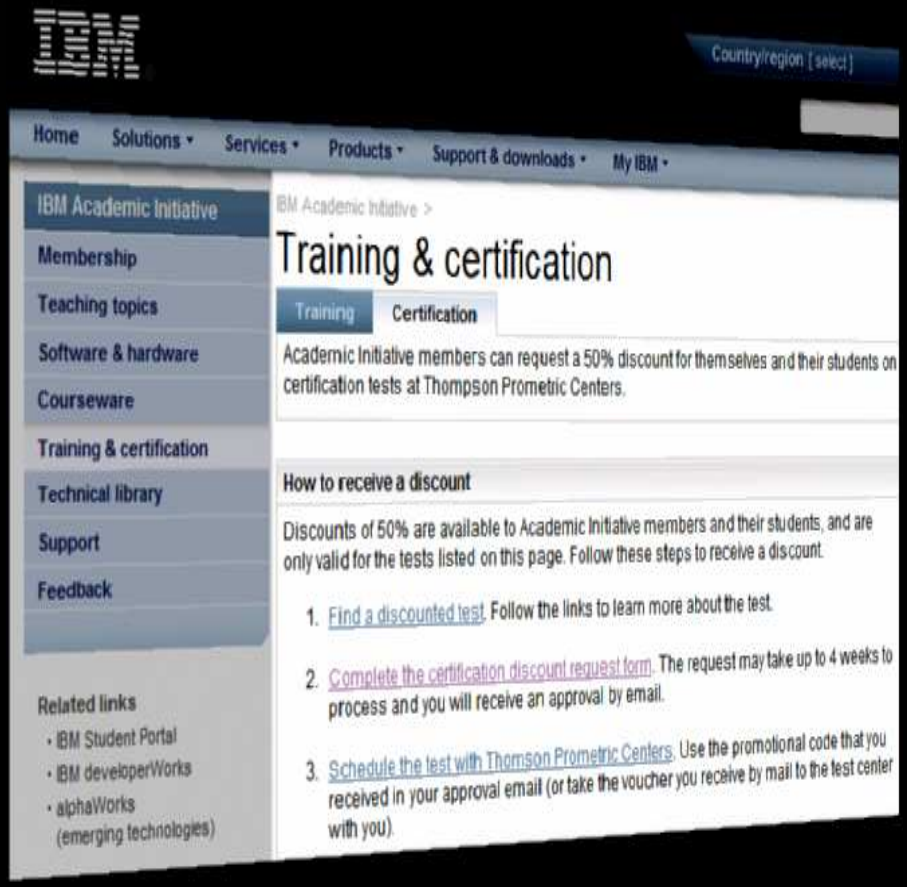
IBM Certification Exam Discounts



- **50% Discount for Faculty & Students**
  Faculty and students can obtain 50% discounts on IBM Certification Exams offered through Thompson Prometric test centers around the world.

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Student Offerings

- **Student Opportunity System** allows your students to post their resumes to a database that IBM customers and partners around the world can access to find students with skills needed in the IT industry.

- **Learning Resources** provide easy to use learning roadmaps with links to a wide variety of available online resources on key technologies.
- Topics include
  - Database Technology: DB2 Express-C
  - Enterprise Systems: System z - Introduction to the Mainframe
  - Service Science, Management and Engineering
  - Team-based Development: Jazz and Rational Team Concert
  - Web 2.0 Technology: WebSphere sMash and Lotus Mashups
  - Web Server Technology: WebSphere Application Server Community Edition

- **My developerWorks** professional network and knowledge base portal

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Something meaningful is happening…

"Every human being, company, organization, city, nation, natural system and man-made system is becoming ***interconnected, instrumented and intelligent.*** *This is leading to new savings and efficiency—but perhaps as important, new possibilities for progress."*

The world is flatter.

The world is smaller.

The world is getting smarter.

Because it can.

Because it must.

Because we want it to.

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Global market forces are impacting us all

- Access to capital and credit crunch
- Economic downturn and future uncertainty
- Volatile oil prices and energy shortfalls
- Information explosion and risk/opportunity growth
- Globalization and emerging economies
- New customer demands and business models

The economy isn't the only force shaping the competitive landscape …

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U.S. companies and retailers lose $40 billion annually due to inefficient supply chains.

In North America, up to 22 percent of total port volume is empty containers. The Port of Jersey has 100,000 empty containers sitting in storage – worth nearly $200 million.

$11.5B worth of produce is wasted in India because of outdated post-harvest infrastructure

Congested roadways cost $78 billion annually in the form of 4.2 billion lost hours and 2.9 billion gallons of wasted gas.

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smarter planet

Smarter is a **vision** of how the world works — how every person, business, organization, government, natural system, and man-made system interacts.

Each interaction represents a chance to do something **better**, more efficiently, more productively.

But more than that, as the systems of the planet become smart, we have a chance to open up meaningful new **possibilities** for progress.

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smarter planet

Our world is becoming

INSTRUMENTED

Our world is becoming

INTERCONNECTED

Virtually all things, processes and ways of working are becoming

INTELLIGENT

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What do we mean by “smarter planet”?

New Intelligence: Flexibly and efficiently linking complex data together using context-sensitive, adaptive information seeking tools.

Smart Work: Adapting legacy solutions into formal business operation models to increase productivity and rapidly respond to changes in business processes.

Green and Beyond: Optimizing data center infrastructures for energy and space efficiency using advanced metrology techniques and physics-based modeling.

Dynamic Infrastructure: Delivering complex enterprise class applications to end users efficiently and effectively via the network.

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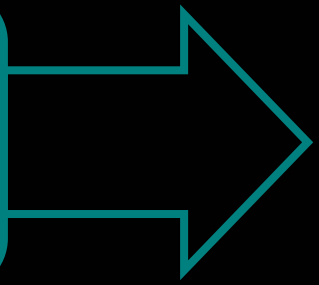
Enterprise data is projected to explode at 57 percent CAGR* through 2010.

Managers spend 2 hours a day searching for information – 50 percent of what they find is useless and 42 percent of them accidentally use the wrong data.

How can we take advantage of the wealth of information available in real time from a multitude of sources to make more intelligent choices?



New Intelligence

* Compounded Annual Growth Rate

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Examples of New Intelligence Solutions

SMART INVENTORY MANAGEMENT

Elie Tahari uses an intelligent infrastructure to anticipate and respond to consumer demands

"We rely on the consolidated views from the BI system to keep us on track. Managers can anticipate problems by drilling down to find out what could throw a garment off schedule. That ability to manage by exception enables us to avoid delays."
-- CTO, Elie Tahari

What's smart?
- Security-rich, open platform
- Reliable and scalable
- Business intelligence delivered via email or Web

Smarter Business Outcomes
- Inventory management now driven by customer needs and stronger inventory forecasting
- Delivered significant competitive advantage

SMART HEALTHCARE

Sainte-Justine Hospital uses intelligent research to saves lives

Fact: There are an estimated 100,000 deaths a year from medical errors.

What's smart?
- Analytic-driven transformation of clinical research process for pediatric cancer study
- Real-time access to a vast and continually updated reservoir of clinical and genomic information

Smarter Business Outcomes
- Expected 90 percent reduction in time required to gather research
- A seamless flow of information that helps improve pediatric cancer

SMART INSURANCE

Irish Life uses intelligent, real-time customer care and insight

"We now manage our customer information as an asset; the opportunities for innovation and optimization are endless. We can respond to the dynamics of our business twice as fast…"
Noel Garry, Executive Manager, Irish Life and Permanent

What's smart?
- A single, complete and accurate record of customers, accessible to all reps in real time
- Seamless information integration after multiple mergers and acquisitions
- Deployed, trusted data assets as re-usable, shared services

Smarter Business Outcomes
- Integration reduces duplicate, conflicting views of client base by 30 percent
- Unified cross-sell/up-sell analysis creates new growth opportunities
- Providing enhanced services drives loyalty higher than industry norms

SMART MEDIA

Impire AG uses intelligent, real-time sports event information for new business opportunities

"Increasingly, we're depending on Information On Demand to meet the needs of sports fans and media consumers. IBM will be there to help us develop and deliver innovative products that maximize the value we add to the viewers' experiences."
-- COO, IMPIRE AG

What's smart?
- Real-time sports updates and event statistics analysis
- Integration and analysis of historical and current sports event data for new game insights

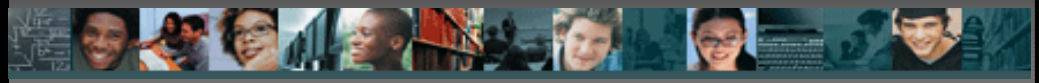
Smarter Business Outcomes
- Sports event play information available faster than live broadcasts
- Doubled productivity, increased revenues and grew market share

How the Academic Initiative Supports Education in New Intelligence

IBM Software for New Intelligence

- *IBM DB2 V9*
- *IBM DB2 Express-C*
- *IBM DB2 Connect*
- *Informix Dynamic Server*
- *IBM DB2 Data Warehouse*
- *Informix SQL*
- *..and much more!....*

Academic Initiative Related New Intelligence Learning Resources



- *More than 40 course modules supporting New Intelligence topics*
- *Student QuickStart kit for DB2 Express C*
- *developerWorks trials and demos*
- *DB2, DB2 Express C, and DB2 for z/OS Community Spaces within developerWorks for learning and networking*
- *Smarter planet Community Space*

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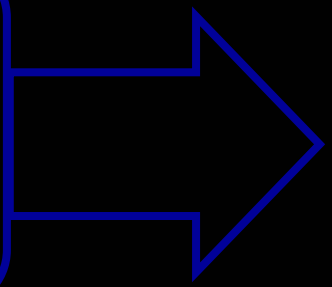
98 percent of CEOs plan business model changes.

Gap between CEOs who expect change and those who have the ability to handle change has widened sharply – nearly 3X.

How can I work smarter supported by flexible and dynamic processes modeled for the new way people buy, live & work?



Smart Work

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Examples of Smart Work Solutions

SMART AUTO LEASING

UBench transforms industry efficiency with automated wireless communication

"We had a unique vision of how we could transform the entire auto leasing process"

What's smart?
- In-car wireless devices notify service facilities of problems in real time

Smarter Business Outcomes
- 35% reduction in leasing companies' administrative costs
- 50% reduction in insurance companies' adjustment costs

SMART RETAIL

Moosejaw connects customers in new, innovative ways

Fact: In two years there will be an estimated 2 billion people on the Web.

What's smart?
- Dynamic applications
- Connected customers
- Cross-channel experience
- Bridges online, social and in-store experiences

Smarter Business Outcomes
- Increase conversion rates
- Increase customer satisfaction

SMART SUPPLY CHAIN

Yansha combines dynamic supply chain and ERP to compete in an increasingly deregulated market

Fact: China's retail market is forecasted to reach $1.4 trillion by 2012 – second largest behind US

What's Smart?
- Integrated SCM and ERP
- Agile business model supplying value-based supplier pricing

Smarter Business Outcomes
- Order lead time reduction from 2.5 days to 4.5 hours
- Order acknowledgement improvement from 80 percent to 99 percent
- 50 percent revenue increase in supplier information service
- Order error rate drop from 9 to 1 percent
- ROI achieved in nine months

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How the Academic Initiative Supports Education in Smart Work

IBM Software for Smart Work

- *Innov8 V2.0*
- *WebSphere Business Modeler*
- *WebSphere Application Server Community Edition (WAS CE)*
- *WebSphere Portal*
- *WebSphere Enterprise Service Bus*
- *WebSphere Commerce*
- *Rational Developer and Test software for SOA Construction and Quality*
- *Rational and Telelogic family of products*
- *Tivoli Composite applications for SOA*
- *…..and much more!....*

Academic Initiative Related Smart Work Learning Resources

- *More than 30 course modules supporting Smart Work-related topics*
- *Technology Teaching Roadmaps for Business Process Modeling, SOA, WebSphere sMash and WAS CE*
- *Student QuickStart kits for WAS CE and sMash*
- *developerWorks trials and demos*
- *SOA Sandbox*
- *SOA Development and Best Practices Community Space within developerWorks for learning and networking*
- *Smarter planet Community Space*

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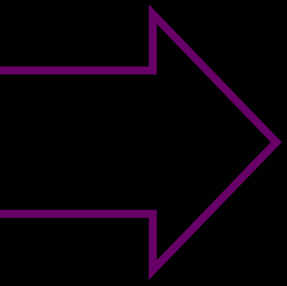
While 83% of CEOs expect substantial change within their enterprises, only 61% feel confident in their ability to manage change.

This "change gap" challenges CIOs to transform highly distributed, fragmented, labor-intensive infrastructures that have data, assets, applications and hardware resources operating in silos.

How do we create an infrastructure that drives down cost, is intelligent and secure, and is just as dynamic as today's business climate ?



Dynamic Infrastructure

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How the Academic Initiative Supports Education in Dynamic Infrastructure

IBM Software for Smart Work

- *Tivoli Family of software (100s of titles), including Maximo, NetCool and others*
- *Remote access to mainframe and mid-range hardware system*
- *…..and much more!....*

Academic Initiative: Related Dynamic Infrastructure Learning Resources

- *More than 80 course modules supporting Dynamic Infrastructure topics*
- *Mainframe and Enterprise Computing topics, including access to IBM-facilitated summer camps for enhanced learning*
- *Technology Teaching Roadmaps for Enterprise Systems*
- *Student QuickStart kits for Enterprise Systems, Power Systems and Introduction to the Mainframe*
- *z/OS-focused community spaces within developerWorks for networking and support*
- *'Cloud Computing Central ' on developerWorks*
- *Smarter Planet Community Space*

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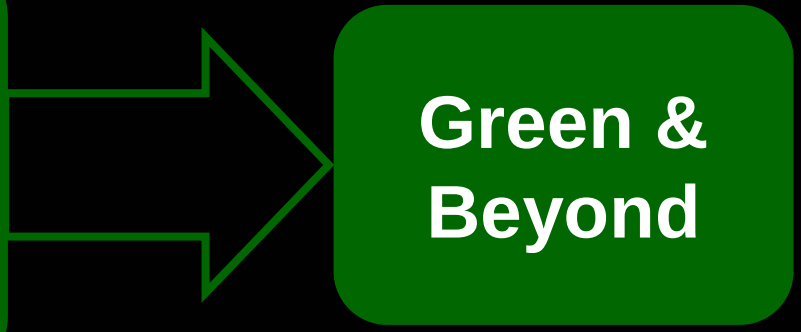
corporation

80 percent of CEOs view sustainability as impacting brand value. 82% expect climate change regulation within 5 years.

Information technology energy use is growing 12X overall demand; data centers alone consumed 180 billion kWh in 2007, and this usage will double in the next 2 to 4 years.

A typical carrot has traveled 1,600 miles, a potato 1,200 miles, a chuck roast 600 miles.

How do we drive greater efficiencies, compete more effectively, and respond more quickly by taking action now on energy, the environment, and sustainability.



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How the IBM Academic Initiative Supports Education for Green and Beyond

IBM Software for Green and Beyond

- *Lotus technologies, including Quickr, Forms and Forms Turbo*
- *DB2, DB2 Express-C*
- *WebSphere Business Modeler and Innov8*
- *Rational, Telelogic and Tivoli software*
- *Filenet, IBM Content Collector*
- *Remote access to mainframe and mid-range hardware system*
- *…..and much more!....*

Academic Initiative: Related Green and Beyond Learning Resources

- *A variety of course modules supporting Green and Beyond topics*
- *Mainframe and Enterprise Computing modules, and access to IBM-facilitated summer camps for enhanced learning*
- *Technology Teaching Roadmaps for Enterprise Systems*
- *Student QuickStart kits for Enterprise Systems, Power Systems and Introduction to the Mainframe*
- *Social Software, Social Tools and z/OS-focused community spaces within developerWorks for learning and networking*
- *'Cloud Computing Central' on developerWorks*
- *Smarter Planet Community Space*

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Let’s build a smarter planet

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