



Real Estate & Facility Management for Smarter Building

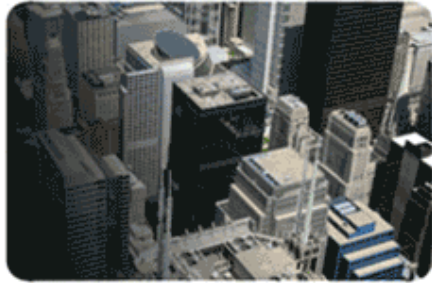
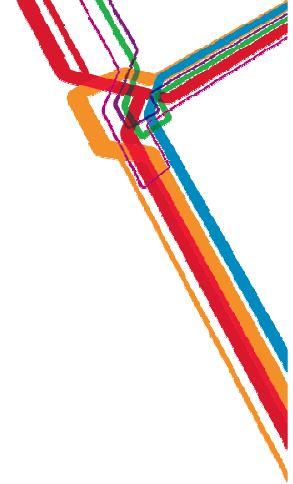
*Angelo Alessandrini - IBM Europe
Enterprise Asset Management Tiger Team*

PCTY2012

Pulse Comes to You

Optimizing the World's Infrastructure
[May 15^o 2012, Rome]

Real estate assets are a cornerstone to success



20%

of an organizations income statement are real estate and facilities expenses



35%

of an organizations balance sheet assets are real estate and facilities



48%

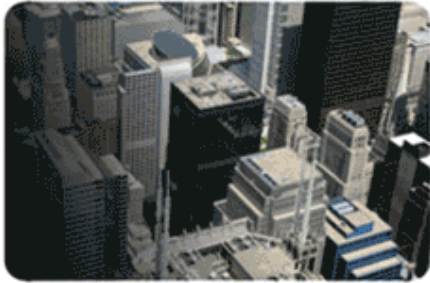
of an organizations greenhouse gas emissions are produced by buildings

¹ Source: CFO Research Services

² Source: NACORE

³ Source: US Energy Information Administration

TRIRIGA improves performance in three key areas



Improves Real Estate Operations

- Pre-built business applications
- Automated workflow processes
- Critical action alerts



Increases Return on Real Estate and Facility Assets

- Pre-built performance metrics
- Embedded industry benchmarks
- Multi-dimensional analysis



Reduces Energy Use and Carbon Emissions

- Award winning energy and environmental software
- Energy, Water, Waste and Carbon tracking
- Environmental investment analysis

Customers validate TRIRIGA's value proposition



One of the largest and most admired companies in the world improves financial performance with TRIRIGA.

Goals: Implement TRIRIGA to centralize global real estate and services operations for a portfolio of more than 340 million square feet at a corporate level.

Results: Improved operational processes and performance management resulted in reported real estate cost savings of \$925 million within first four years.

NOKIA

The world's leading manufacturer of mobile devices improves facility utilization with TRIRIGA.

Goals: Implement TRIRIGA to transform an ad-hoc workplace organization to a centralized performance-driven workplace organization.

Results: Increased space utilization reduced a global real estate portfolio of 17 million square feet by more than 17% and annual occupancy costs by €500M.

BC hydro 

One of North America's leading providers of renewable energy improves operational performance with TRIRIGA.

Goals: Implement TRIRIGA to replace eleven disparate systems into a single "One Hydro" view of more than 189,000 locations and more than 266,000 agreements.

Results: Standardized processes across province reduced project cycle time and service delivery costs to improve operational performance.

TRIRIGA adds unique capabilities to achieve Tivoli's strategic initiatives

- Aligns with IBM initiatives for a Smarter Planet and Smarter Buildings



INSTRUMENTED



INTERCONNECTED



INTELLIGENT

- Extends Maximo's Enterprise Asset Management offering within Facilities Infrastructure

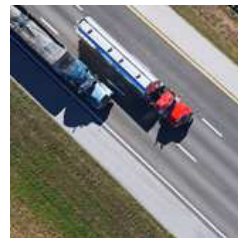
Production Infrastructure



Facilities Infrastructure



Transportation Infrastructure



Technology Infrastructure



Communications Infrastructure



Operational Performance

Improves the efficiency of real estate and facility management functions



Financial Performance

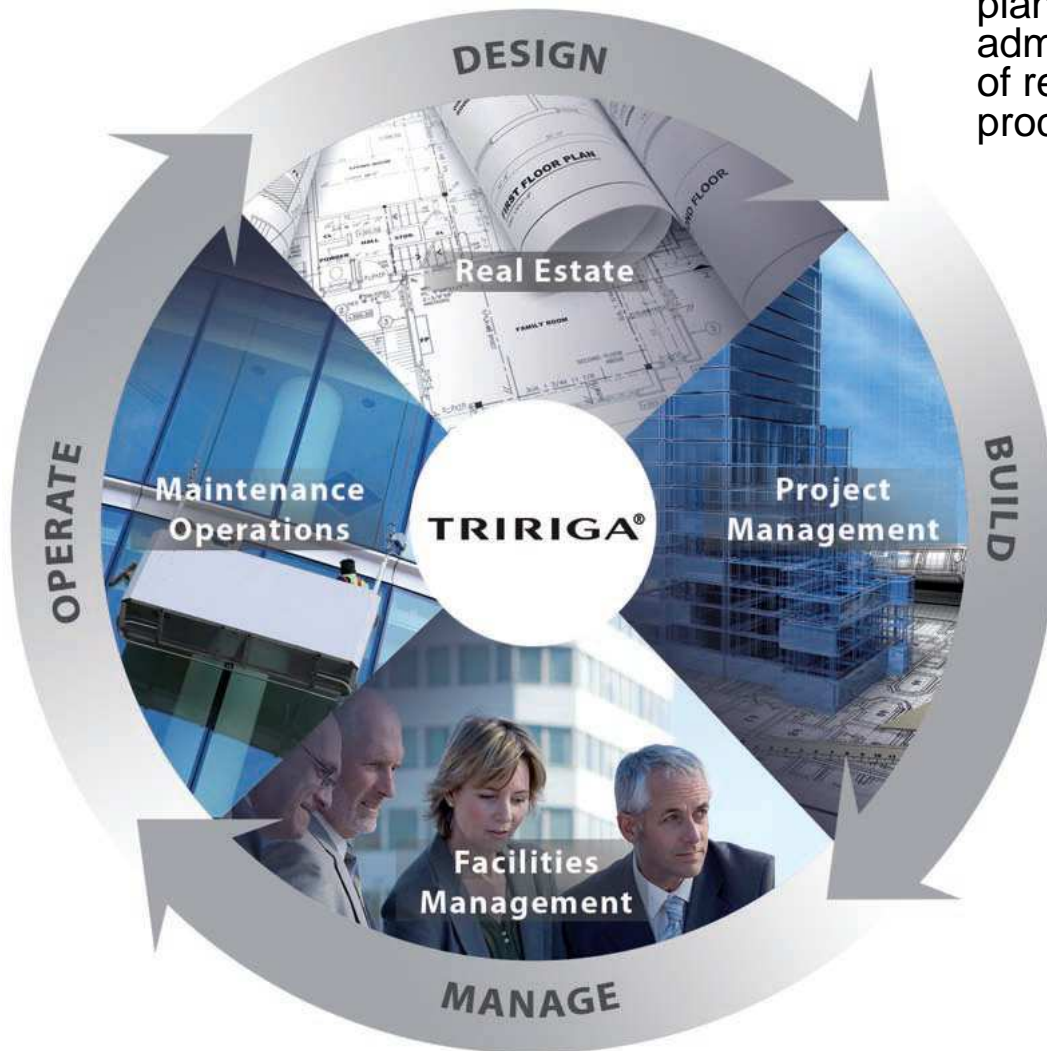
Increases financial return on real estate and facility assets



Environmental Performance

Reduces energy consumption and greenhouse gas emissions of buildings and facilities

Organizational success requires both the right strategy and operational effectiveness.



- **TRIRIGA Real Estate** improves portfolio planning, transaction management and contract administration functions through the integration of real estate data, documents and automated processes.
- **TRIRIGA Projects** provides complete enterprise-wide project management including all the required tools to ensure efficient, cost-effective delivery of projects such as new construction and renovations.
- **TRIRIGA Facilities** provides integrated CAD tools, employee self-service, automated move management and space chargeback processes to improve overall facility effectiveness.
- **TRIRIGA Operations** provides self-service and automated routing capabilities to improve the effectiveness and efficiency of preventive and corrective maintenance, while TRIRIGA Facility Assessment prioritizes investments for capital projects and remodels.

Key Value Propositions



IWMS Areas

RE Portfolio Management



Understand real estate requirements due to expansion or M&A Activities

Visibility to lease/rental transactions events can allow opportunities to secure below market rates or vacate under-performing locations

Incorporate demographics into real estate location decisions

Capital Projects



Ability to identify priorities for funding

Understand project risks and financial benefits of potential investments for better decision making

View performance metrics

Understand payback periods and annual savings

Improve project delivery by accelerating schedules

Accurate costing information by connecting to RSMeans

Space Management



Understand and Improve facility utilization by geography, location, and organization

Implement a mobility strategy

Track locks and keys

Implement streamlined move, add, change processes

Capture paper CAD based documentation in an electronic repository for better access

Operations



Reduce response times to repair requests

Reduce inspection violations

Minimize lost productivity resulting from facility downtime

Improve funding visibility for better funding decisions

Maximize maintenance staff utilization

Contain maintenance costs

Increase the frequency of deficiency reporting

Energy & Environmental Sustainability



Uncover viable environmental projects

Provide data to assist in project prioritization - concrete analysis of financial and environmental benefits

Focus on long-term planning analytics to identify trends and enable comparisons over time

Track financial and environmental progress of the projects against defined targets.

TRIRIGA Workplace Enterprise-Class apps

Role-based Applications

TRIRIGA Real Estate



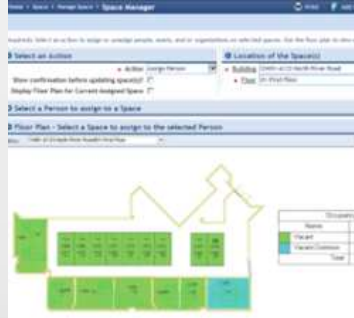
- Portfolio Planning
- Site Selection
- Transaction Management
- Lease Administration
- Lease Accounting
- AR Tenant Tracking
- Payment Processing
- Client Requests

TRIRIGA Projects



- Program Management
- Fund Management
- Scope Management
- Cost Management
- Schedule Management
- Resource Management
- Quality Management
- Vendor Engagement
- Procurement

TRIRIGA Facilities



- Space Management
- Space Chargeback
- Space Requests
- Strategic Planning
- Move Management
- Reservation Management
- Personnel Provisioning
- CAD Management

TRIRIGA Operations



- Contact Center
- Service Management
- Warranty Management
- Preventive Maintenance
- Facility Assessment
- Security/Key Management
- Inventory Management
- Capital Planning
- Resource Planning

TRIRIGA Environmental

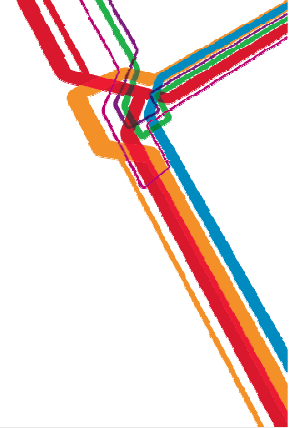


- CO2 Emission Tracking
- Utility Tracking
- Waste Disposal
- Water Consumption
- Green Opportunities Tracking
- LEED/BREEAM Certification
- Energy Star Integration

TRIRIGA Core Components

- | | | | | |
|---------------|----------------|-----------|-----------------------|-----------------|
| Geographies | People | Receiving | Customer Self Service | Reporting |
| Locations | Specifications | Invoicing | News | WPM Metrics |
| Organizations | Assets | Requests | Graphics | GIS Mapping |
| Vendors | Contracts | Tasks | Document Management | GANTT Schedules |

Use TRIRIGA Real Estate™ to understand, analyze and deliver your real estate strategy



	Status Quo	Scenario A	Scenario B
Value	6.8	5.7	1.1
Delta	49	45	4
Value	24	28	4
Value	\$0.00	\$1,827,650.00	\$1,827,650.00
Value	0	40	40
Value	\$14.06	\$11.96	\$2.10
Value	244027	36425	207602
Value	223916	32876	191000
Value	49.3	86.7	37.4
Value	\$14.06	\$11.96	\$2.10
Value	\$3,423.41	\$3,625.18	\$201.77

ALIGN

Forecasts and metrics to streamline understanding of strategic business drivers

ANALYZE

Scenario modeling and comparative analysis to generate high yield plans

IMPROVE

Integrated lease accounting and project management to drive efficient plan implementation

Smarter Building: a real example

In IBM we use our own technology to manage the facility

IBM Rome SW Executive Briefing Center is **SMARTER** :

Manage DataCenter Space

Asset mgmt and tracking

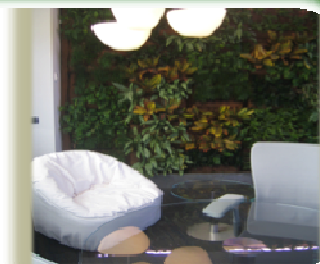
Monitor Energy Consumption

Prevent alarms / Lower operational costs



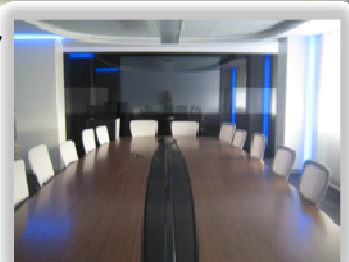
Green Wall mgmt:

Optimize environment parameters for a better plants lifecycle



Control CO₂ ,Humidity & temperature

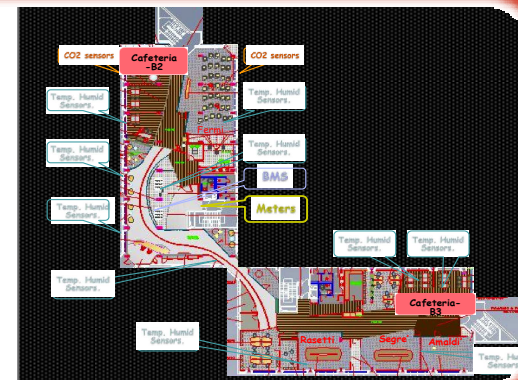
Detect Asset Status and location



Facility control with Smart Devices

Advanced analytics

Monitor quality of EBC business services



Industry analysts validate TRIRIGA's leadership



Gartner

“TRIRIGA’s strong sustainability module, TRIRIGA Real Estate Environmental Sustainability (TREES) and its early promotion of FASB changes that will have a profound effect on the real estate industry are two examples of why it is the leading vendor on “Completeness of Vision” (X axis) in the Gartner Magic Quadrant for Integrated Workplace Management Systems.”

Rob Schafer, Research Director - Integrated Workplace Management Systems, 2011

 **AMR Research**

“Our Clean Technology Award winner, TRIRIGA, has developed enterprise-class sustainability software that provides a virtually unique platform for tracking energy usage in a broad real estate portfolio.”

Dr. Stephen Stokes, Managing Vice President of Sustainability, 2009

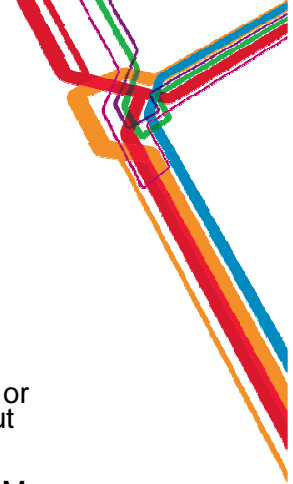
 **iwmsnews**
INTELLIGENT WORKPLACE MANAGEMENT

“TRIRIGA is the dominant leader in terms of vision on the Integrated Workplace Management Systems Market”

“TRIRIGA’s Corporate Strategy is thorough and extremely professional”

Steven Hanks, CEO, 2009

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