IBM SolutionsConnect 2013

L'IBM TechSoftware nouvelle génération

28, 29 et 30 août

IBM Client Center Paris

#solconnect13

Découvir la solution de gestion des actifs métier (Enterprise Asset Management) - MAXIMO

Jean-Marie Desaunay – Smarter Infrastructures Architect

Agenda

- Impact and Value of Enterprise Asset Management (EAM)
- Enterprise Asset Management Capabilities
- Focusing on 3 key performance domains of asset Management
  - Helath, Security and environment
  - Resources scheduling
  - Mobility

EAM: Enabling the world's smarter infrastructure

Businesses depend upon infrastructure to meet their goals

$447 Billion is spent globally on maintenance

People depend on infrastructure to live their lives and pursue their dreams

Rail will support 4.8 trillion passengers growing 4.8% annually by 2020 globally

Societies depend upon infrastructure to care for its citizens

In the last 100 years, water use has been growing twice as fast as the population

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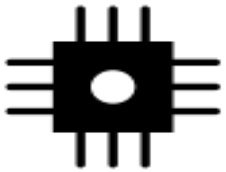
Consider how our world is changing: Our world is becoming more…



INSTRUMENTED

- **By 2010, 30 billion** embedded RFID tags in our daily life, communicating across the entire ecosystem
- **1/2 of all sensors** in transportation, facilities & production equipment are smart sensors (e.g. robots, kiosks, meters, PDAs, appliances, cameras, smart phones, biometric devices, turnstiles or the Web.
- By 2010, **12% of new cars** will ship with embedded telematics.

INTERCONNECTED

- **1/3 of the world's population** is utilizing the Web by 2011
- **4B mobile subscribers** globally at the end of 2008
- The **interconnection of people and things**—customers, drivers, employees, roads, aircraft, airports, cargo, suppliers—creates the ability to improve performance and **quicker decision making**

INTELLIGENT

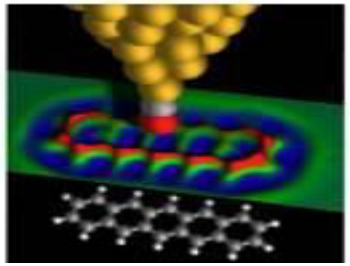
- **15 petabytes of new information** generated every day..
  (8x more than the information in all U.S. libraries)
- An average company of 1,000 employees spends $5.3 million a year to **find information** stored on its servers.
- Sophisticated **analytic systems** enable patterns to be recognized, relationships to be drawn and **continuous decision making** and in near **real time to drive smarter outcomes**.

The world is getting smarter

Smart traffic systems

Smart oil&gas technologies

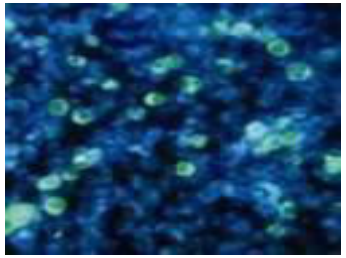
Smart food systems



Smart healthcare

Smart energy management

Smart retail



Smart water management

Smart supply chains

Smart manufacturing

Smart buildings

Smart cities

Smart regions

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In this smarter world, we need to manage our infrastructure

An infrastructure that is **instrumented, interconnected** and **intelligent.**
An infrastructure that brings together **business and IT** to create new possibilities.
An infrastructure that is more **dynamic**

Transportation Infrastructure

+

Facilities Infrastructure

+

Production Infrastructure

+

Technology Infrastructure

+

Communications Infrastructure

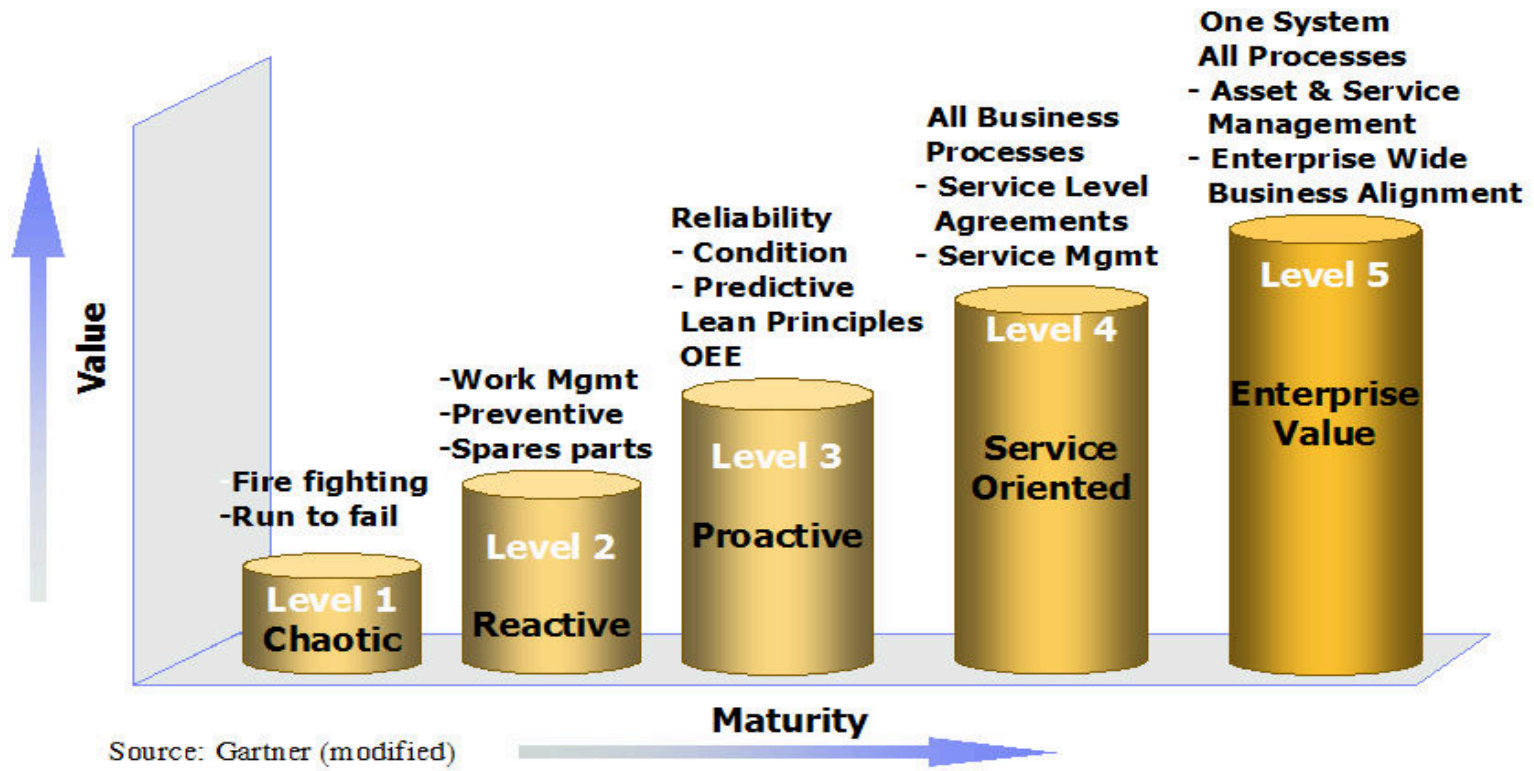
SERVICE-ORIENTED…

- Rapid service deployment
- Reusable service components
- Secure and reliable processes

AND SERVICE-MANAGED

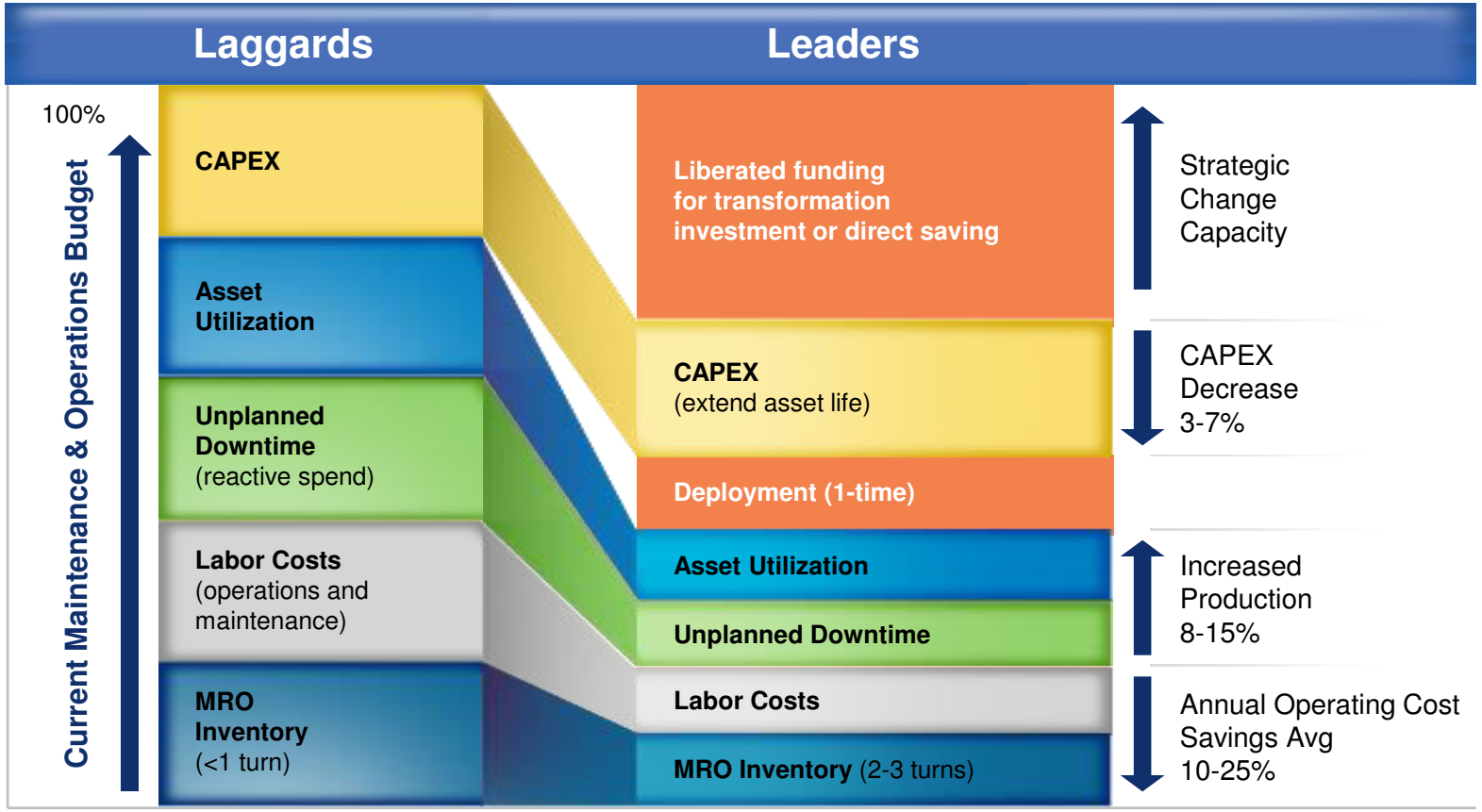
- Integrated management across all assets
- Service visibility, control, and automation
- Manage complex, rapid changes

Objective: Increase Performance and Decrease Costs In Asset Management …



Enterprise Asset Management is critical in asset intensive organizations

- Contributes to the bottom line
- Asset performance creates saleable capacity or reliability
- Inhibitors to success:
  - Too much investment in Inventory
  - Labor spent on non Value Add Activity
  - Resulting Downtime impacts availability



Industry Leaders Use EAM as a Competitive Advantage

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What Assets Do You Depend On?

Manufacturing

Tools

Plants

Valves

Support Equip

Robotics

Health

Safety & Survival Gear

Milling

Machinery

Assembly

Energy

Turbines

Reactors

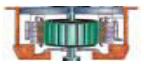
Fire Suppression

Ventilation

Offshore

Boilers

Drilling


Generators

Wind Turbines

Solar

Transportation

Trains / Rolling Stock

Ships

Trucks

Buses

Aircraft

Military

Space

Navigation

Avionics

Engines

Facilities

Buildings

Campus

HVAC

Lighting

Keys Mgmt

Escalators

IT Assets

ATM / POS

Desktop

Mobile

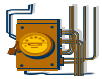
Servers

Utilities

Cabling

Power Transmission

Water Distribution


Meters & Measurement

Waste & Treatment

Linear

Rails

Roads

Pipelines

Bridges

Life Sciences

Calibrated Equip

Medical Supplies

Compressed Cylinders

Pharmaceuticals

Lab Equipment

Comm

Microwave & Satellite

Fiber Optics

Wire

Poles

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Asset Performance and Supporting Processes

Solution Architecture

Asset Mgt. - Processes

Service Management

- Contract-Management
- Service Level Agreements

Maintenance Engineering

- Maintenance Programms
- Document Management

Maintenance planning

- Configuration Management
- Document Management

Maintenance operations

- Reactive / TPM
- Preventive / TPM
- Condition based
- Predictive

Parts & Tool Management

- Spareparts Mgmt.
- Warranty Mgmt.
- Tools- & Asset Management

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IBM Maximo for Service Provider

IBM maximo IBM Maximo Asset Management

IBM Maximo Service Desk

IBM Technical Document Management und Delivery

Data Analysis SPSS

Process Optimization ILOG

Inventory Optimization DIOS

Business Intelligence, Data Warehouse, Reporting & Dashboards COGNOS

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Maximo Solutions

Maximo Asset Management

Core Solutions

Stand-alone solutions for asset, facility and real estate management.

Industry Solutions

Industry-specific capabilities for the unique requirements of asset-intensive industries.

- **Maximo** for Transportation
- **Maximo** for Life Sciences
- **Maximo** for Nuclear
- **Maximo** for Utilities
- **Maximo** for Oil & Gas
- **Maximo** for Government

Add-on Solutions

Additional options, used with core or industry solutions, provide deeper functionality for specific needs.

- **Maximo** Scheduler
- **Maximo** Linear Asset Manager
- **Maximo** Archiving
- **Maximo** Calibration
- **Maximo** Spatial
- **Maximo** Service Provider
- **Maximo** Health, Safety & Environment Mgr
- **Maximo** Asset Conf. Manager
- **Maximo** Anywhere
- **Maximo** Everyplace

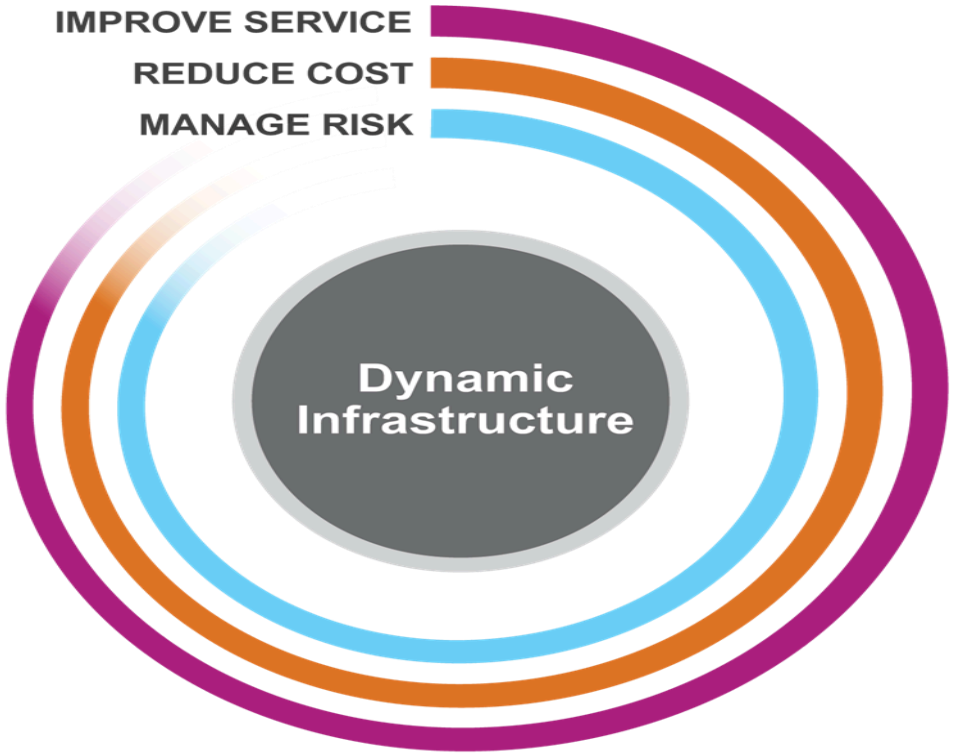
Integration Adapters

Commercially-supported integration to other enterprise and 3rd party systems.

- **Maximo** Adapter for SAP
- **Maximo** Adapter for Oracle
- **Maximo** Adapter for Primavera
- **Maximo** Adapter for MS Project

Asset Management h*elps improve service, reduce cost and manage risk by*

- ✓ Managing assets through all the stages of their lifecycle
- ✓ Managing all asset classes in a single system – Production, Facilities, Transportation, Infrastructure, Technology, Communications
- ✓ Supporting converged assets as they become intelligent and interconnected
- ✓ Applying deep industry specific solutions



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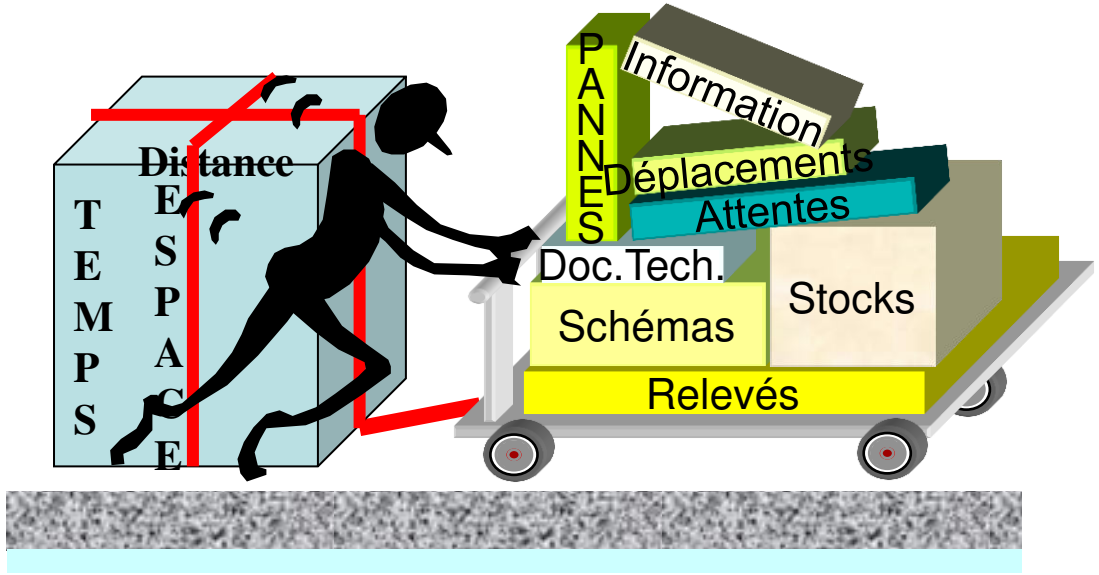
Three Questions …

- Do you feel safe and comfortable ?
- Did you get to this room easily and on time ?
- Did you get all the information you needed on this event and will exchange and network with your colleagues ?

What do our customer try to avoid …???

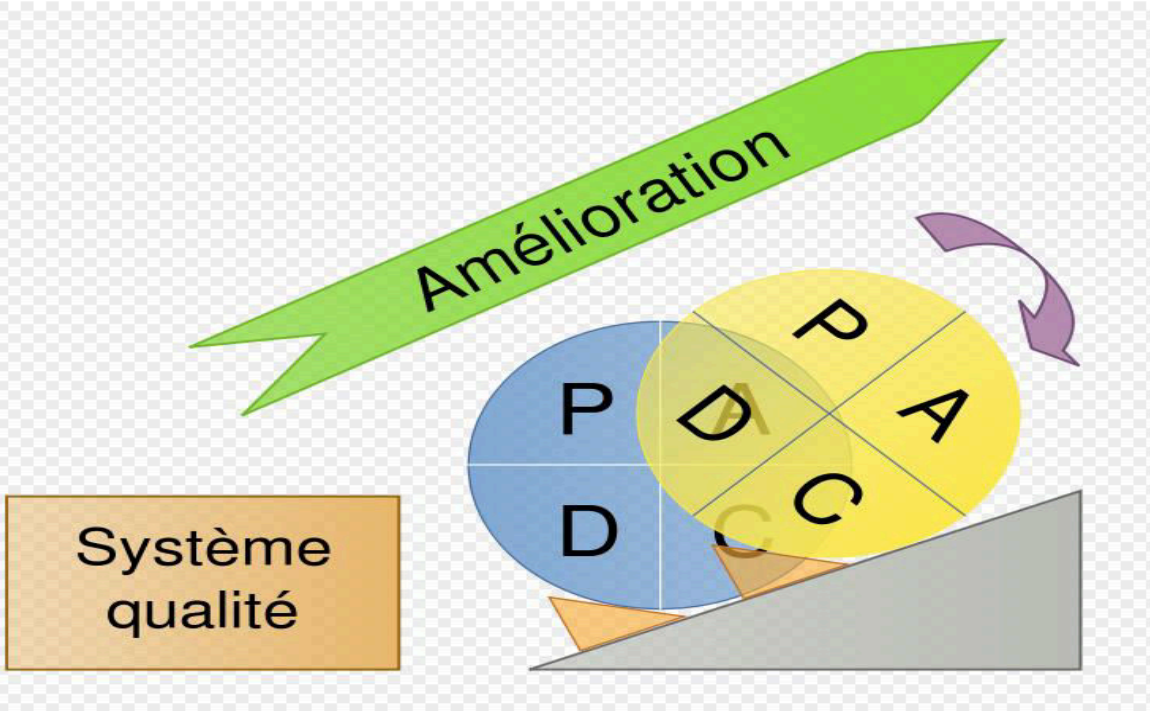
Disasters

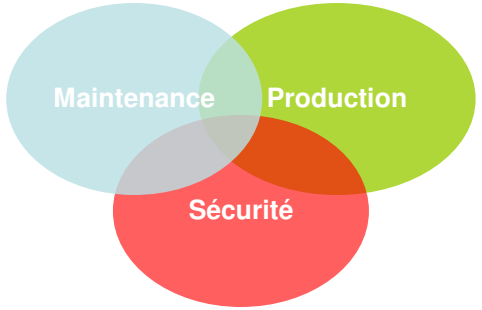
Lack of coordination
& Scheduling



Lack of Mobility
& Flexibility

Maximo HSE (Health, Safety & Environment)

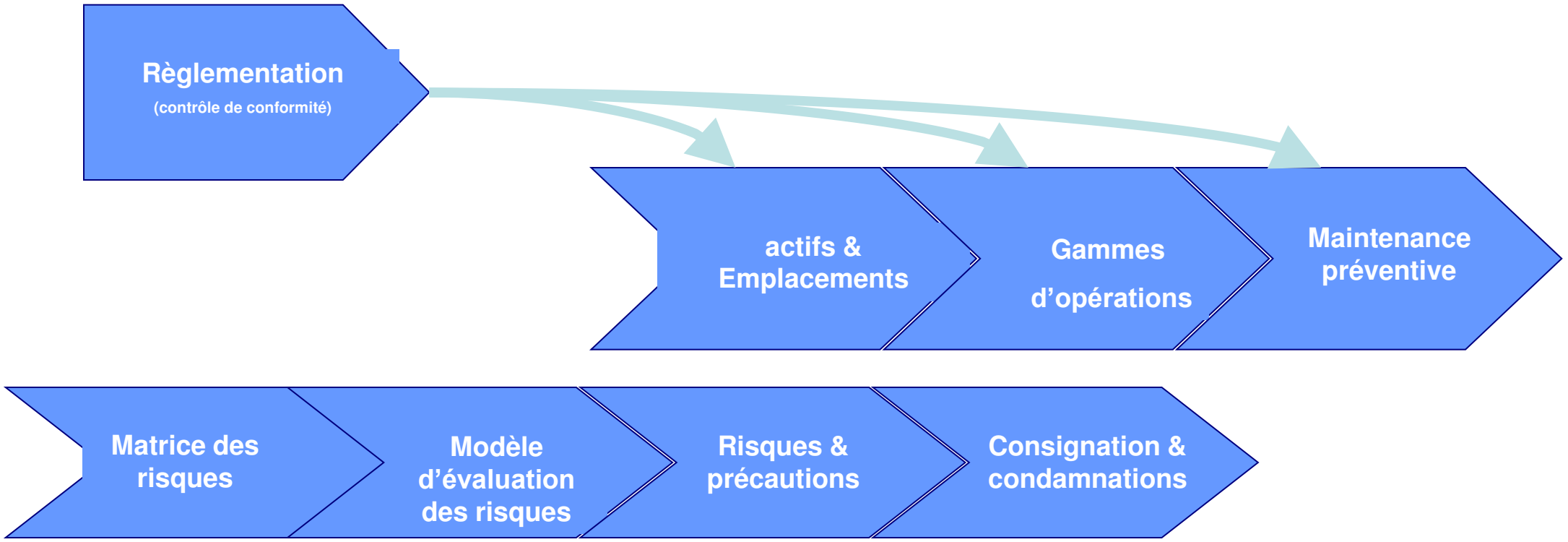




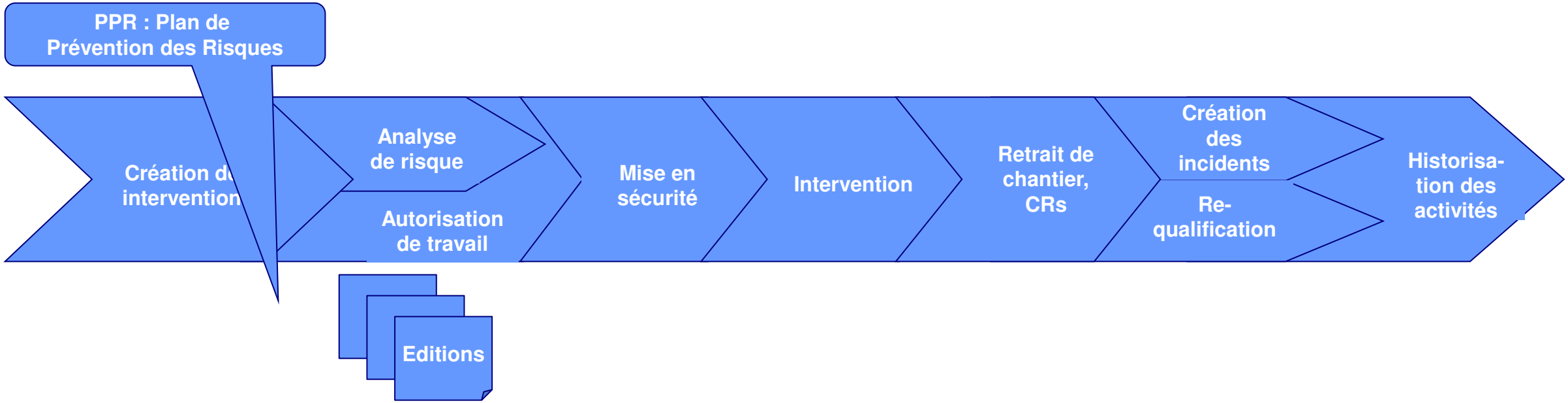
- **P**lan : Prévoir, préparer, planifier
- **D**o : Exécuter, réaliser, mettre en œuvre
- **C**heck : Contrôler, vérifier
- **A**ct (ou **A**djust): Améliorer, ajuster, réagir

Roue de Deming dessinée par Christophe.moustier disponible sur Wikipedia

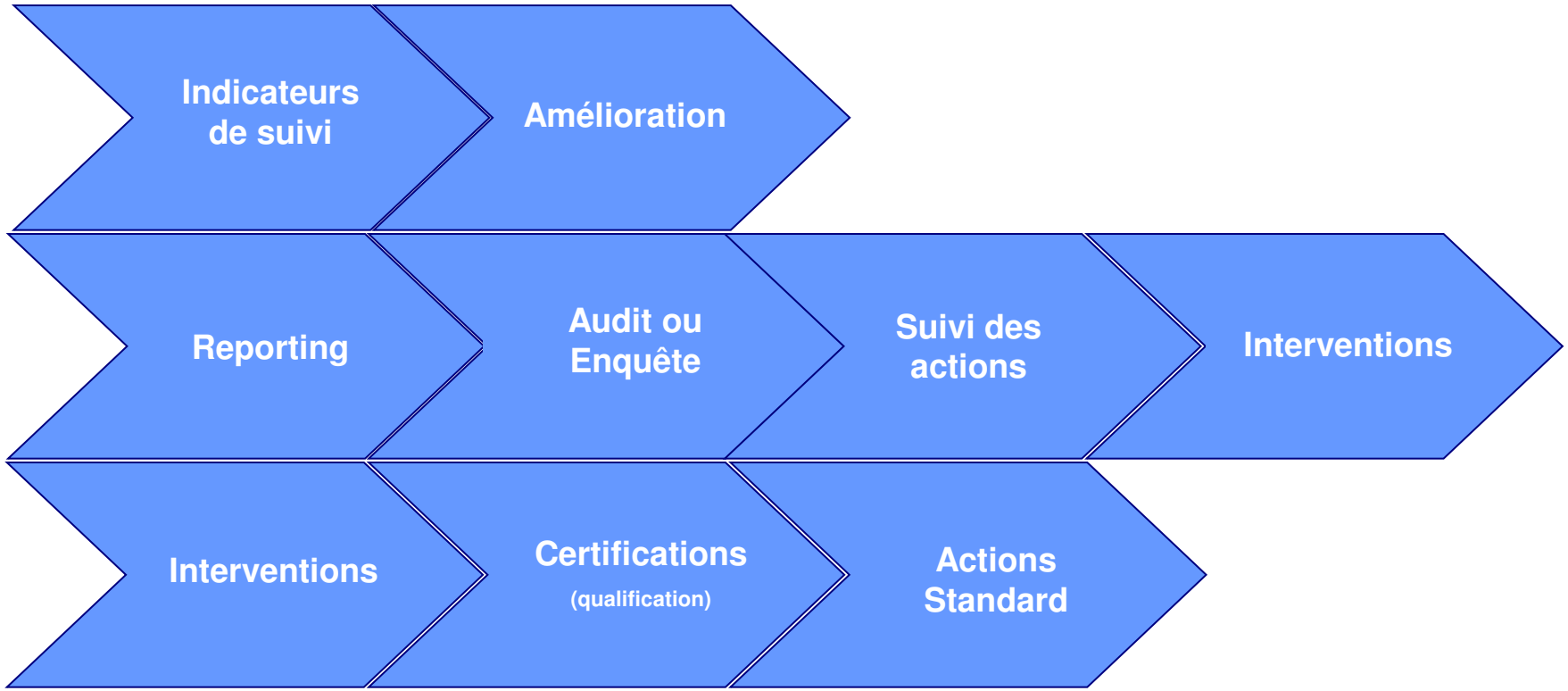
Maximo HSE : « Plan » : Prévoir



Maximo HSE : Le « Do » : Executer



Maximo HSE : Le « Check » : Vérifier



Le « Adjust » : Améliorer

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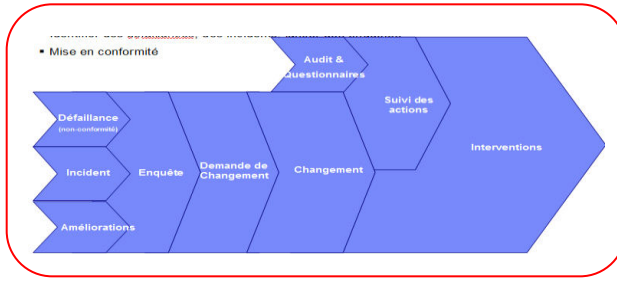
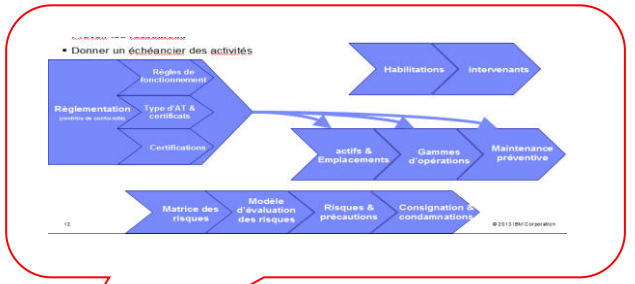
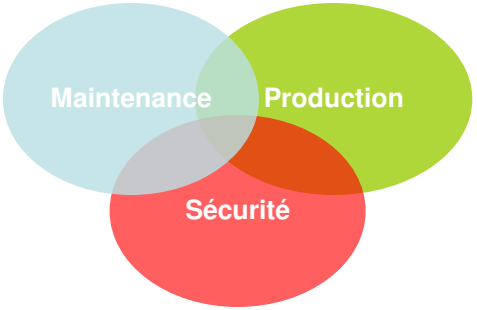
Maximo HS&E

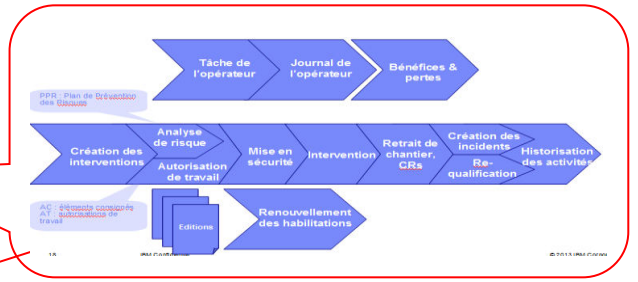


Maximo HS&E

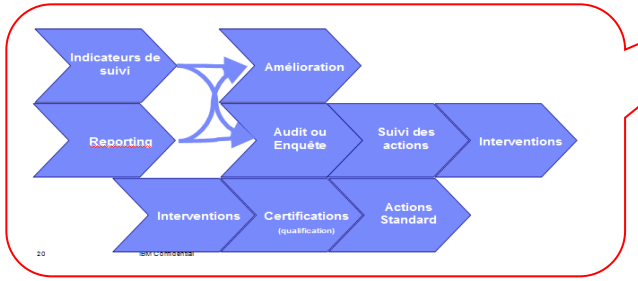




Maximo HS&E



Maximo HS&E



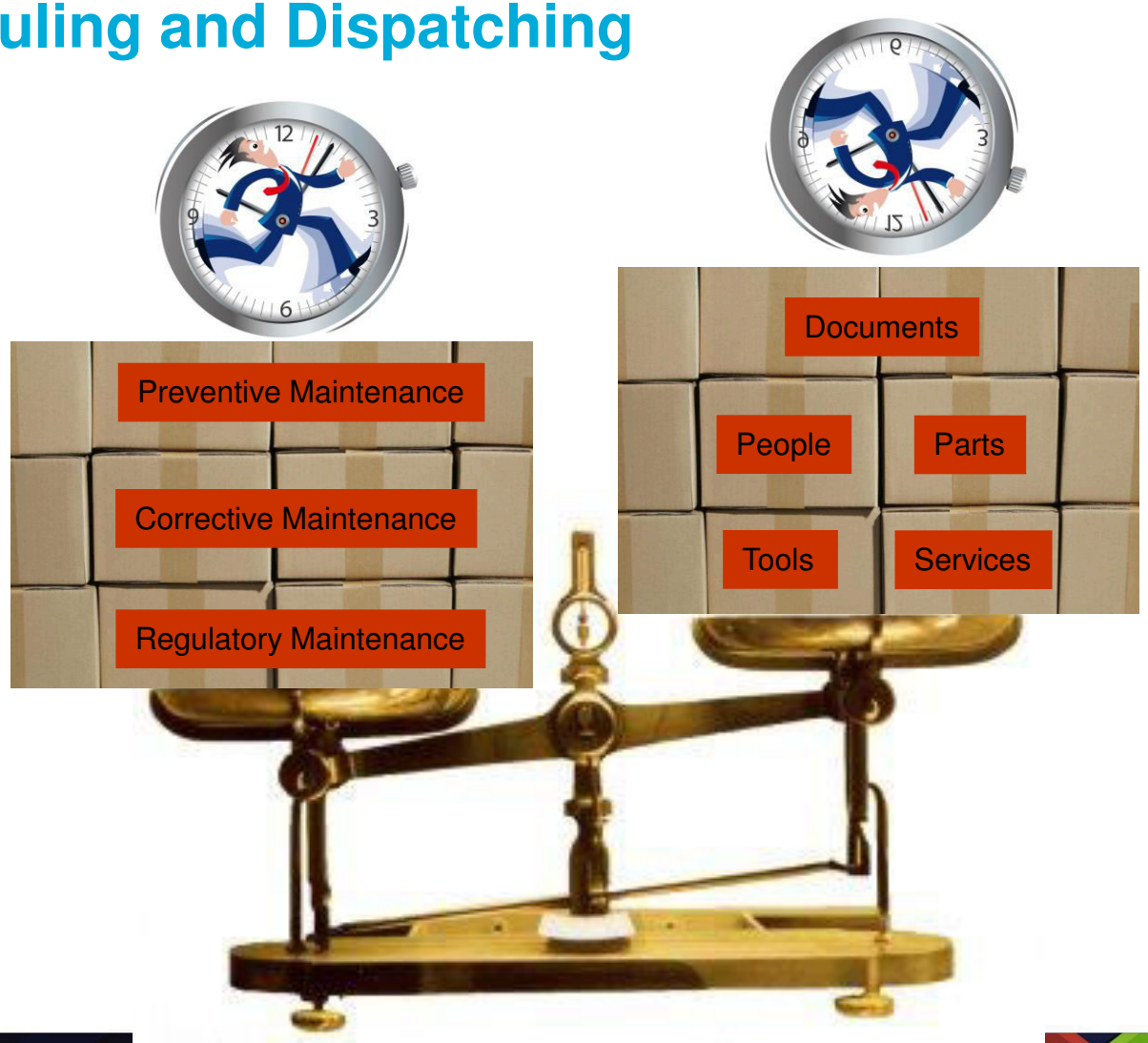
Agir | Planifier

Vérifier | Faire

Qualité

Amélioration continue

Maximo Scheduling and Dispatching



Target users..

Scheduler/Planner

- Defines and adjusts labor/crew availability along with resource leveling
- Capacity Planning
- Assigns work orders to resources
- Continuously optimizes the schedule as the operational environment changes
- Sequence and route work assignments based on geography

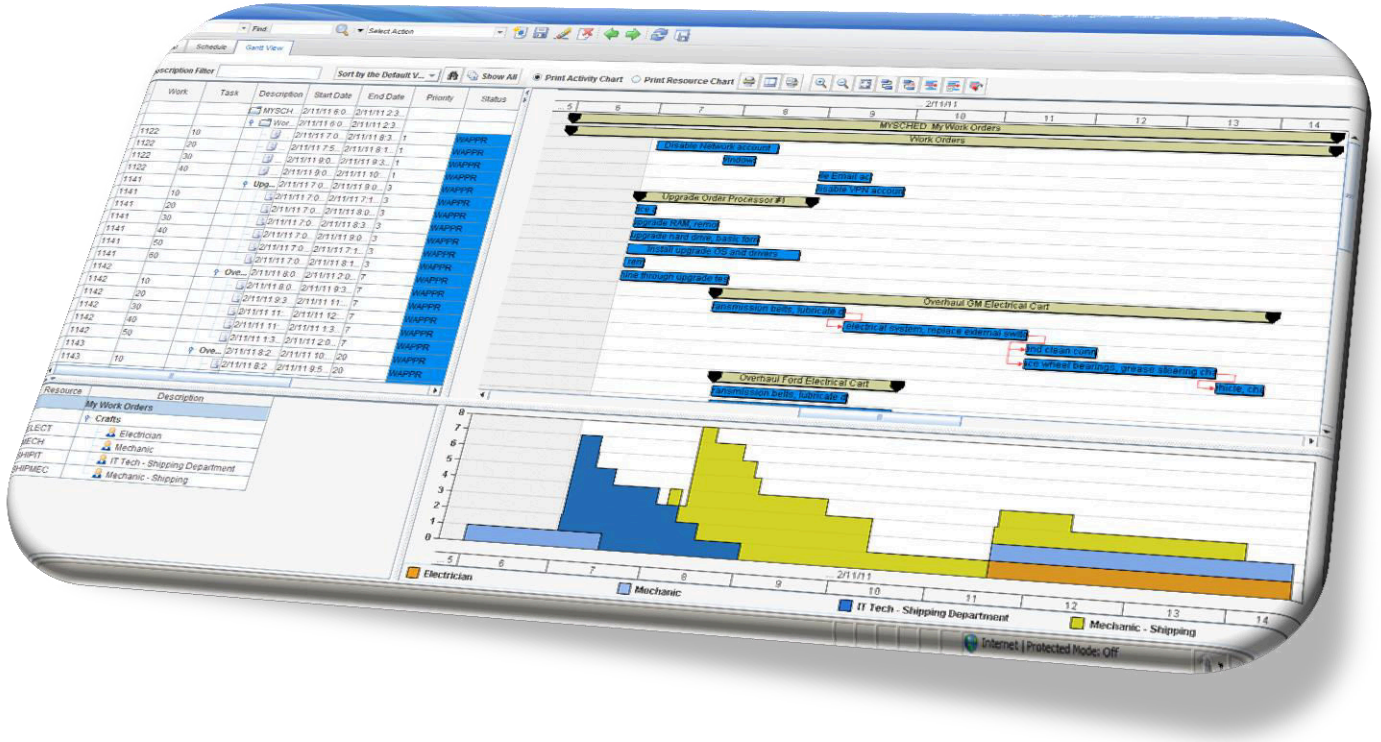
Dispatcher

- Monitor field resources and work order progress and status
- Monitor the location of field resources compared to open orders
- Enter status and complete work orders on behalf of technicians who don't have mobile devices
- Sequence and route ongoing work assignments based on geography and optimization

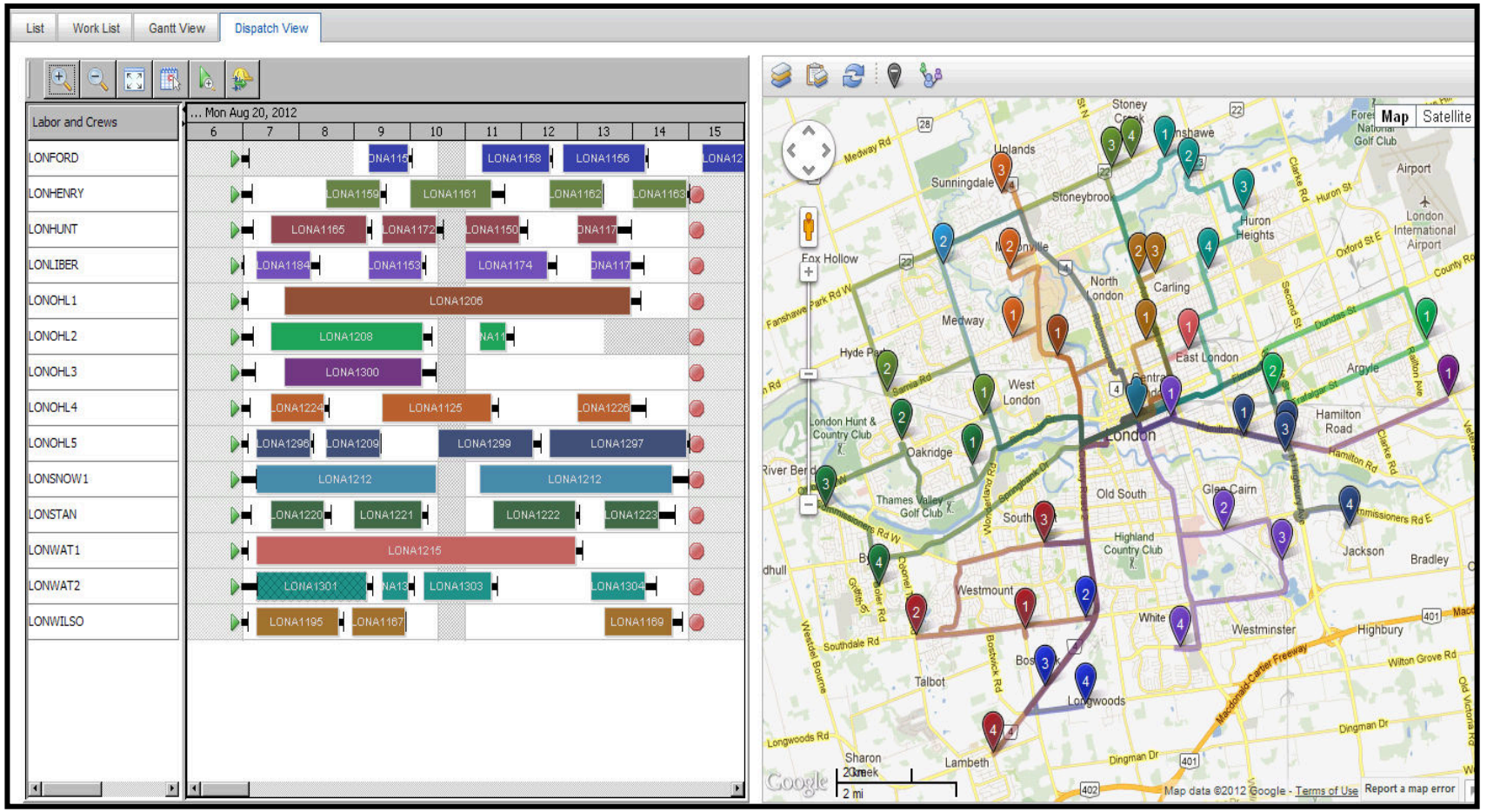
Field Technician

- Supervisor approves and assigns work on mobile devices
- Receive work orders in the field and provide real time status updates to dispatch
- Complete, edit and approve work orders on mobile devices along with viewing work on a map with optimal driving directions
- Notify dispatch of potentially dangerous situations, incomplete work

Maximo Scheduling



Maximo Graphical and Geographical assignement

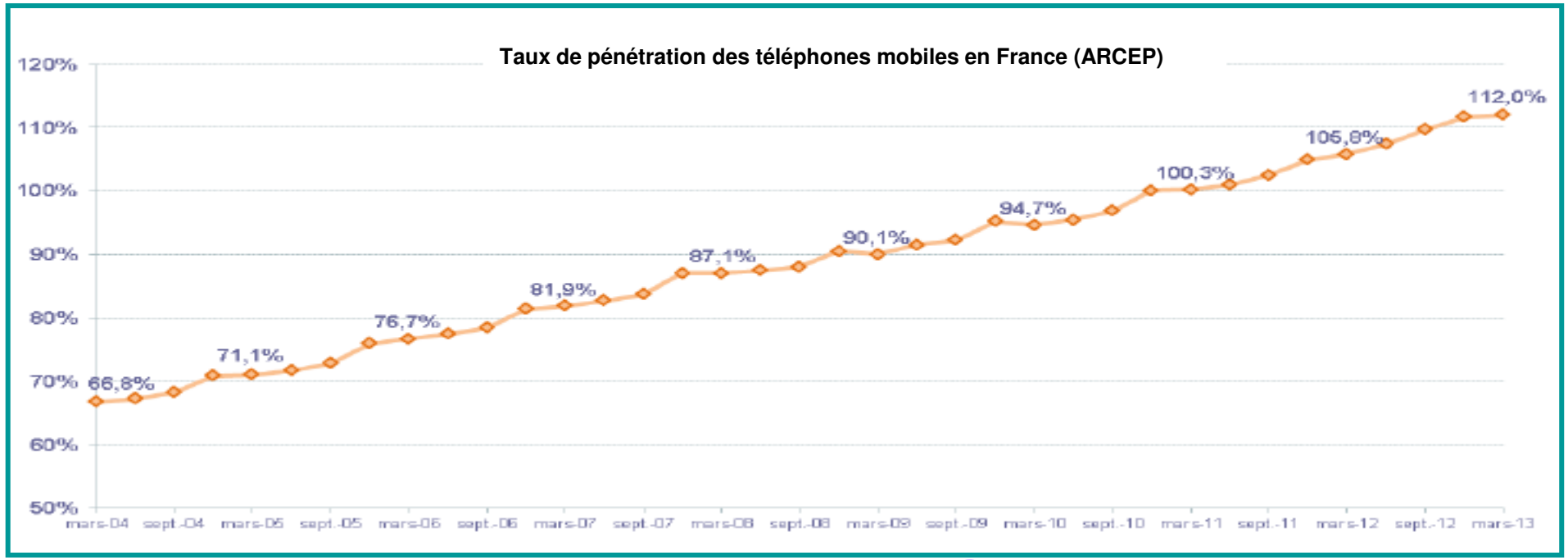


Maximo Scheduling : The right balance à the right time

- Completing planned work without overtime.
- Responding quickly to emergency situations.
- Making the most productive use of the mobile field workforce.
- Making and keeping customer commitments.
- Providing technicians easy access to the information they need.
- Reducing travel time
- Optimizing resources and costs.

Maximo Anywhere : The power of Maximo in your hand !!

Un constat … Une question …



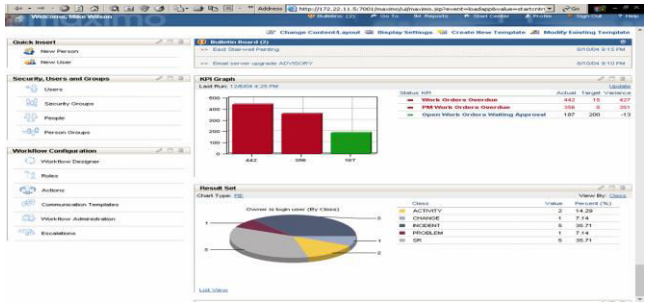
Pourquoi ?

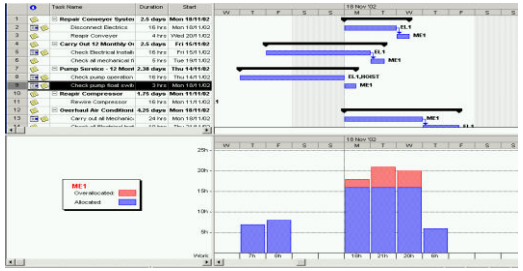
Les raisons du succès

- Lien virtuel
- Instantané
- Permanent
- Facile
- Sure
- Robuste
- Rentable

→ Ces critères s'appliquent aussi dans le cadre de la gestion des processus métiers et tout particulièrement dans le cadre de la gestion du cycle de vie et de l'exploitation des actifs

Maximo Anywhere : Who will benefit ?





Manager

Décider

Coordinateur,

Acheteur

Organiser

Techniciens

Magasiniers

Intervenir

Instrumenté, Intelligent, Interconnecté

olconnect13

Identifier

Donc, …

- La mobilité est un fait incontournable de nos jours parce que :
  - Le métier le demande,
  - Notre technologie le permet,
  - Les bénéfices sont très importants
  - Toutes les tailles d'organisations en profitent

- La mobilité n'est pas une solution isolée, elle doit s'intégrer et non pas s'interfacer :
  - Avec des référentiels
  - Dans un processus
  - Au sein d'une architecture

- La mobilité doit être le prolongement sur le terrain des fonctions centrales
  - En assurant la permanence du lien
  - La facilité d'utilisation
  - L'unicité de l'information

- La mobilité optimise
  - La qualité des données
  - L'exhaustivité des données

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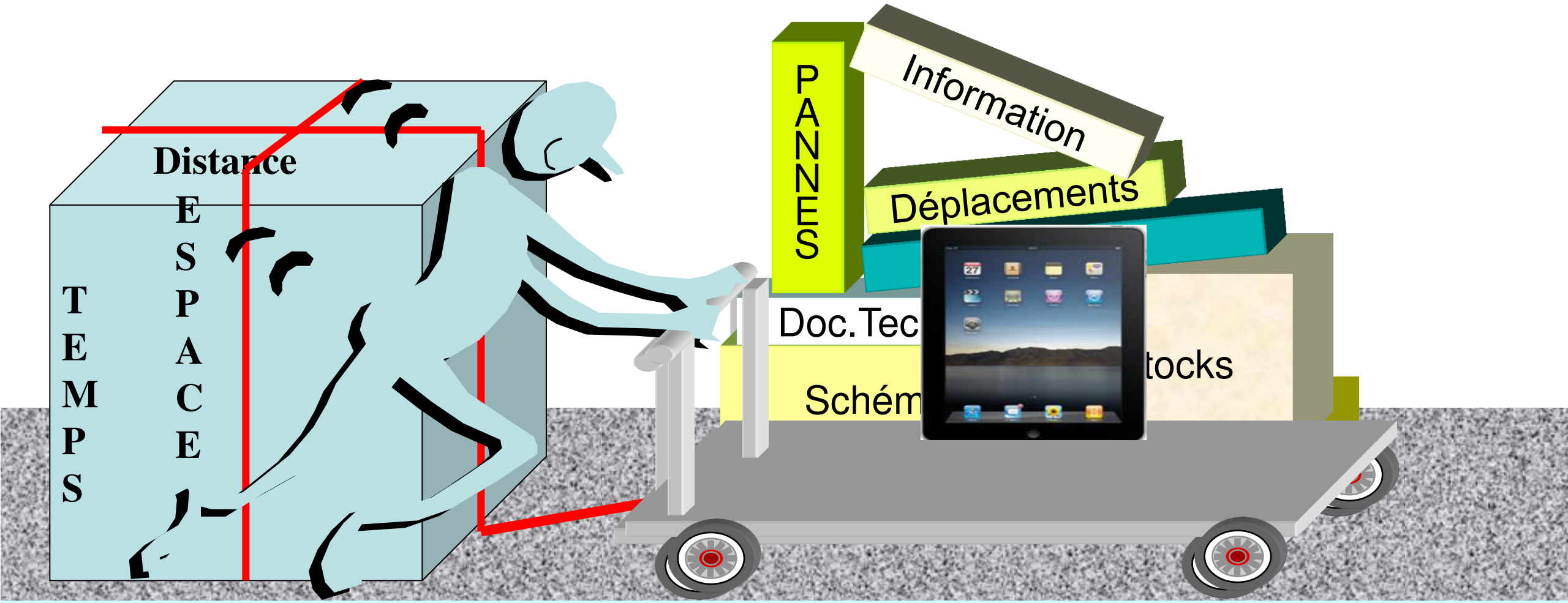
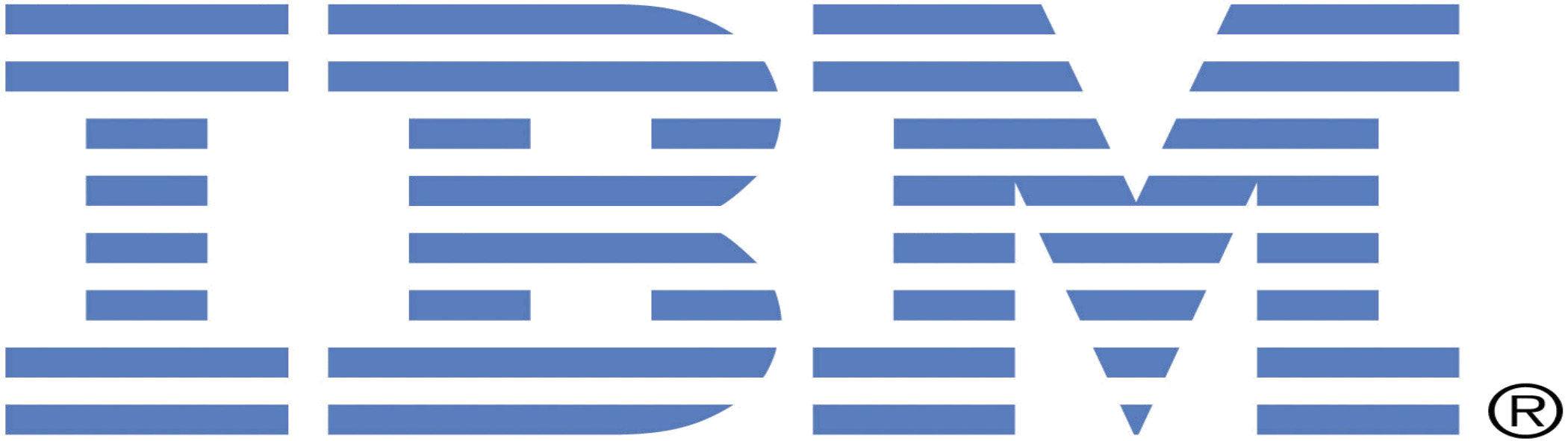
N’attendez plus !!
Mobile ‘isez’ vos Techniciens avec IBM Maximo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