*ZERO MANAGEMENT*tm

BUSINESS AND TECHNOLOGY
IN THE NEW MILLENNIUM

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THE CEO'S NIGHTMARE
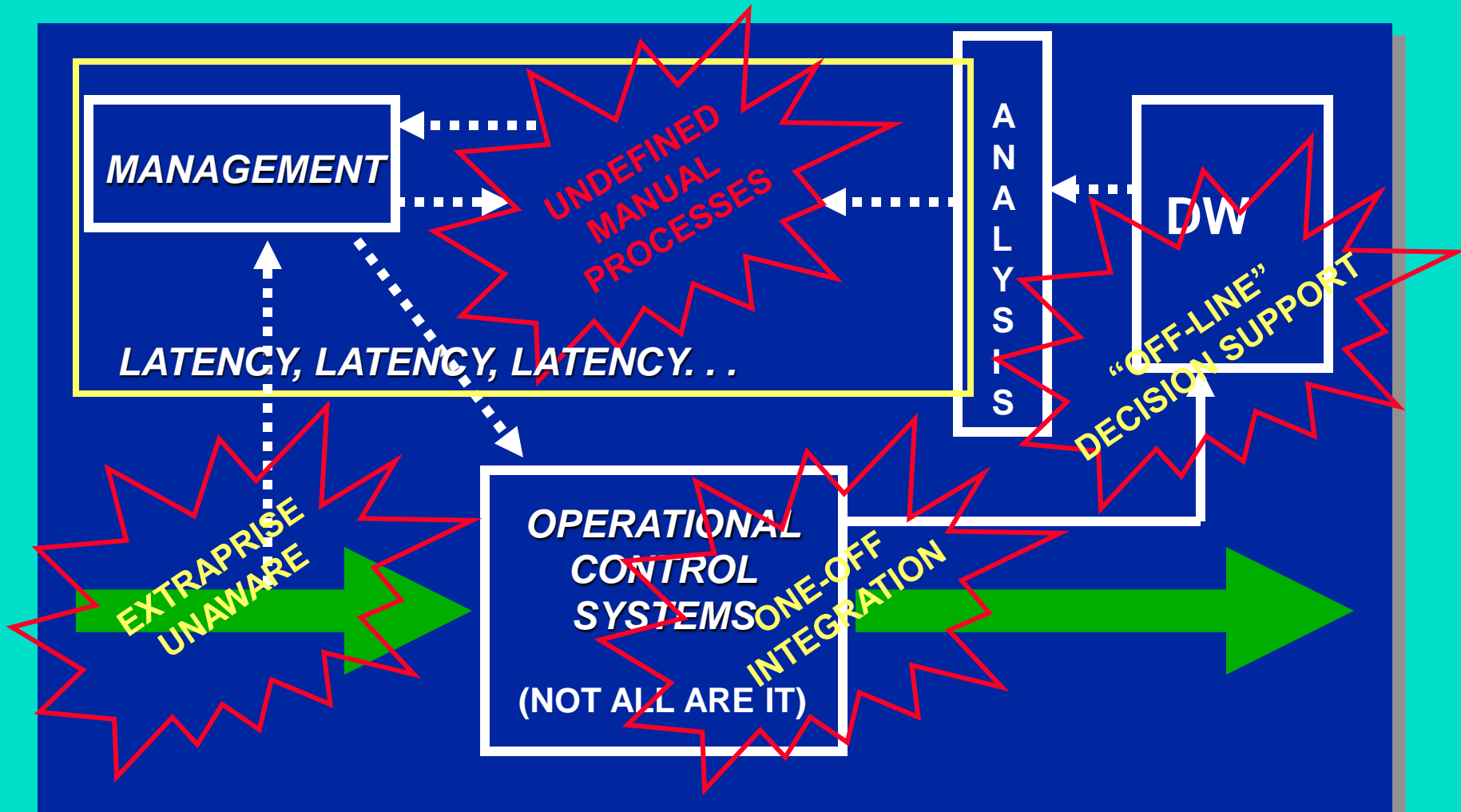
TODAY: EVERYTHING IS CHANGING

- E-BUSINESS, THE EVOLVING EXTRAPRISE, GLOBALIZATION, DISINTERMEDIATION, VERY SHORT TERM AND HIGH PROFIT OPPORTUNITIES, AND SO ON

- I.T. IS TOO OFTEN A SOURCE OF DELAY

- MOST TECHNOLOGY MARKETS ARE IN A SLUMP

- BUSINESS HAS NO SOLUTION AND NO ACE IN THE HOLE

TOMORROW: MORE & FASTER UNPREDICTABLE CHANGE

"...predictability is dead... the business world's future is unpredictable, unknowable, chaotic." -- *The Power of Corporate Kinetics*, Fradette and Michaud (Deloitte Consulting)

TODAY'S APPROACH
MANAGEMENT AND INTEGRATION

MANAGEMENT

UNDEFINED MANUAL PROCESSES

A N A L Y S I S

DW

LATENCY, LATENCY, LATENCY. . .

"OFF-LINE" DECISION SUPPORT

EXTRAPRISE UNAWARE

OPERATIONAL CONTROL SYSTEMS

ONE-OFF INTEGRATION

(NOT ALL ARE IT)

THE PROBLEM
EFFICIENT = HARD TO CHANGE

BUSINESS NEEDS A WAY TO...

- **RESPOND TO RAPID CHANGE**
- **IDENTIFY AND SEIZE THE BEST OPPORTUNITIES**
- **RETAIN AND USE ASSETS**
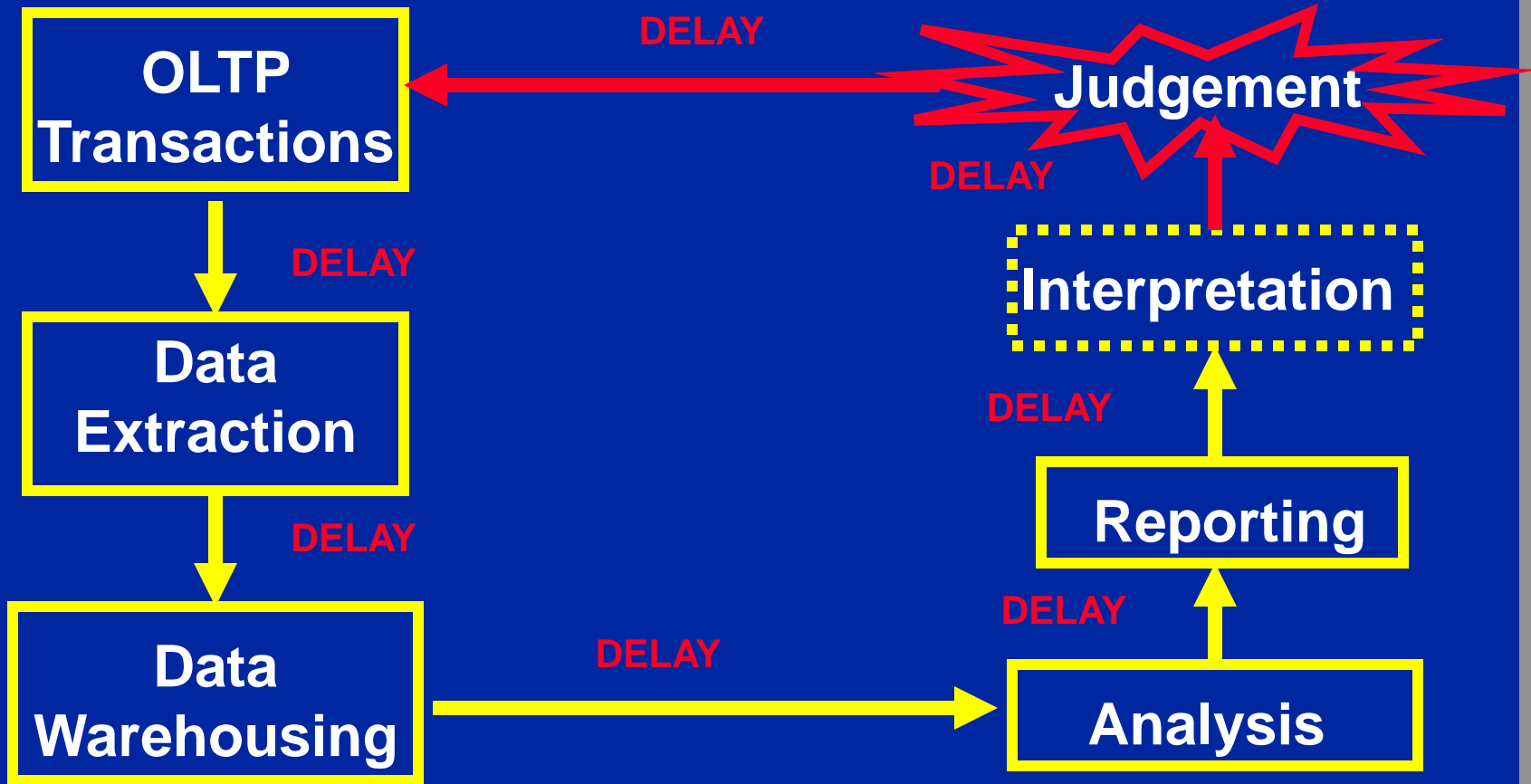- **UNDERSTAND SUCCESS VS. FAILURE**

I.T. NEEDS A WAY TO...

- **SUPPORT AND ALIGN WITH BUSINESS OBJECTIVES**
- **REPLACE OLD TECHNOLOGIES EFFICIENTLY**
- **INTEGRATE TECHNOLOGIES QUICKLY AND FLEXIBLY**

"We finally learned how to integrate ERP, so don't change anything." to paraphrase Peter Dunning

SUPPORTING THE JUDGEMENT
TODAY'S DSS APPROACH

OLTP Transactions

DELAY

Judgement

DELAY

Data Extraction

DELAY

Interpretation

DELAY

Data Warehousing

DELAY

Reporting

DELAY

Analysis

A NEW MILLENNIUM REQUIREMENT
OPPORTUNITY MANAGEMENT

- **Success Will Depend on the Ability To . . .**
  - IDENTIFY, "ANALYZE", & SEIZE *APPROPRIATE* OPPORTUNITIES
  - USE A REVOLUTIONARY OPPORTUNITY - CAPABILITY - RISK MODEL
    - » *LIMITED BENEFIT OF COST CONTAINMENT & ZERO LATENCY*
  - RESPOND TO AN OPPORTUNITY WINDOW REDUCED FROM MONTHS TO HOURS

- **Fast Reaction and Rapid Change Ability Are Key**

CONCLUSION

Business Survival Requires Business Agility

THE SOLUTION
ENABLE AGILITY!

BUSINESS - FROM HINDSIGHT TO FORESIGHT

- *ZERO MANAGEMENT: A NEW BUSINESS STRATEGY*
  - » **RAPID RESPONSE, KNOWLEDGE-BASED DECISIONS**
  - » **DIRECT DECISION EXECUTION**
  - » **OPPORTUNITY MANAGEMENT**
  - » **MANAGEMENT OF DISTRIBUTED BUSINESS INTERESTS**
  - » **EMPOWERMENT**

I.T. - FROM COST CENTER TO VALUE CENTER

- *ZERO MANAGEMENT: A NEW I.T. FRAMEWORK*
  - » **SUPPORT RAPID INTEGRATION AND *CHANGE***
  - » **DELIVER BUSINESS VALUE FAST (HIGH ROI)**
  - » **MANAGED COMPLEXITY**
  - » **AUTOMATIC ALIGNMENT**

A POWERFUL NEW MARKET
IF WE DO IT RIGHT...

- **INCREASE SOFTWARE VERSION UPTAKE**
  - **PROCESS ENABLED, RULES-BASED, EVENT-DRIVEN**

- **NEW TYPES OF SOFTWARE**
  - **DECISION CAPTURE AND MANAGEMENT**
  - **BUSINESS INTELLIGENCE _AND CONTROL_**
  - **ACTIVE BUSINESS KNOWLEDGE MODELS**
  - **SMART, SELF-INTEGRATING APPLICATIONS AND MIDDLEWARE**
  - **OLDM - HIGHLY INTEGRATED DSS AND OLTP**
  - **ACTIVE, INCREMENTAL DATA WAREHOUSE SUPPORT**

- **RENEWED HARDWARE DEMAND**
  - **SERVERS, COMMUNICATIONS, CLIENTS, STORAGE**

ZERO MANAGEMENT_{tm}
THE CONCEPT

☆ **A Business Effectiveness Goal for Business Agility**

  – **A RALLYING CRY LIKE *ZERO DEFECTS* AND QUALITY CONTROL**

🕐 **Reduce *Traditional* Management Authority Structure to Zero**

  – **ENABLE AUTONOMY, OWNERSHIP, AND DISTRIBUTION**

🕐 **Reduce *Traditional* Management <u>Processes</u> to Zero**

  – **TRADITIONAL ANALYSIS, DECISION CYCLE DOESN'T WORK**

  – **ENABLE FAST CYCLE TIMES FOR MANAGEMENT**

  – **AVOID THE DEADLY "MEMO-MEDIATED MANAGEMENT"**

  – **AVOID REACTIVE MANUAL DECISIONS**

  – **ENABLE PROACTIVE DECISION RULES!**
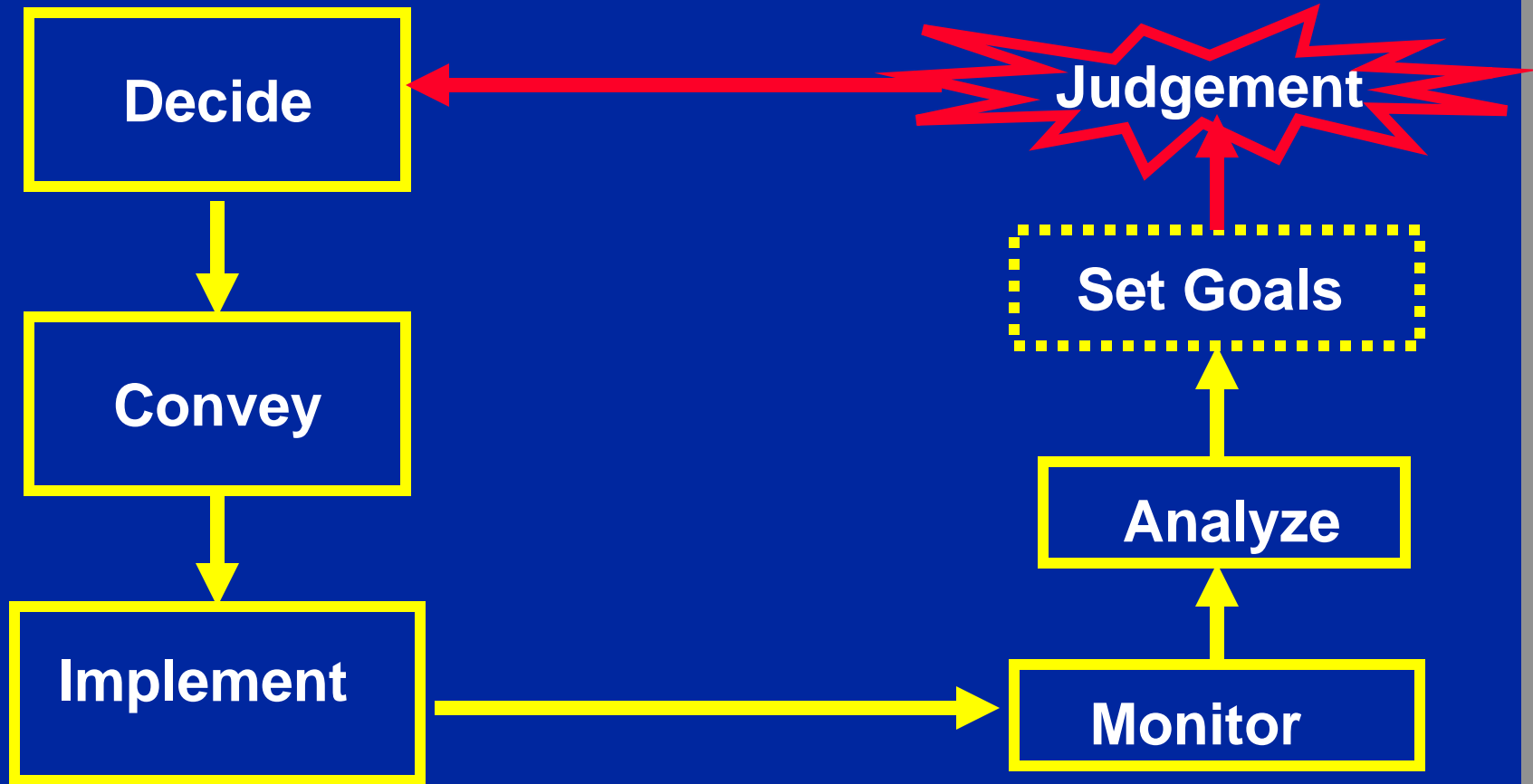
ZERO MANAGEMENT'S BUSINESS VISION

- **Technology Enabled for Business People**
- **Make Every Business Process _Real_**
  - ESPECIALLY THE DECISION PROCESS
  - VIEW AT MULTIPLE FUNCTIONAL LEVELS (EXTRAPRISE TOO!)
  - EVERY INTERACTION ACCESSIBLE AND CONTROLLED ONLINE
  - EVERY STATUS ACCESSIBLE ONLINE
- **Capture and Improve Decision & Process Efficiency**
  - INNOVATION
  - TRANSFORMATION
- **Capture Decision & Process Knowledge and History**
- **Enhanced, Dynamic Business Management**
  - _THROUGHOUT THE ENTERPRISE, ACROSS THE EXTRAPRISE!_

ZERO MANAGEMENT_{tm}
HOW IT WAS DEVELOPED

- **Identify Archetypal Business Management Process**
- **Redefine For New Properties**
  - INDEPENDENCE FROM MANAGEMENT STYLE
  - SCALABILITY
  - ARBITRARY COMPOSITION
  - AGILITY
  - MAXIMUM INDEPENDENCE
  - ROBUSTNESS
  - CORRECTNESS
- **Translate Into Familiar**
  - BUSINESS SCENARIOS
  - MANAGEMENT STYLES
- **Explain Resulting Principles**

ARCHETYPE BUSINESS PROCESS
(SOMEWHAT SIMPLIFIED)

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┌─────────────┐                              ╔═══════════════╗
│   Decide    │ ◄─────────────────────────── ║  Judgement    ║
└─────────────┘                              ╚═══════════════╝
       │                                            ▲
       ▼                                     ┌┄┄┄┄┄┄┄┄┄┄┄┄┄┐
┌─────────────┐                              ┊  Set Goals  ┊
│   Convey    │                              └┄┄┄┄┄┄┄┄┄┄┄┄┄┘
└─────────────┘                                    ▲
       │                                     ┌─────────────┐
       ▼                                     │   Analyze   │
┌─────────────┐                              └─────────────┘
│  Implement  │ ──────────────────────►      ┌─────────────┐
└─────────────┘                              │   Monitor   │
                                             └─────────────┘
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ZERO MANAGEMENT_{tm}
KEY PRINCIPLES

- **Respond Rapidly**
  - **VIA ANTICIPATORY *OPPORTUNITY MODEL***
- **Anticipate *Short Term* Changes**
- **React With Many Coordinated *Small* Decisions**
  - **MINIMIZE IMPACT OF INDIVIDUAL ERRORS**
- **Apply Over *Short Interval***
- **Capture Knowledge Assets**
  - **EVERY DECISION IMPLEMENTED AS A RULE**
  - **PERFORMANCE MEASURES IDENTIFIED**
- **Controlled Empowerment**
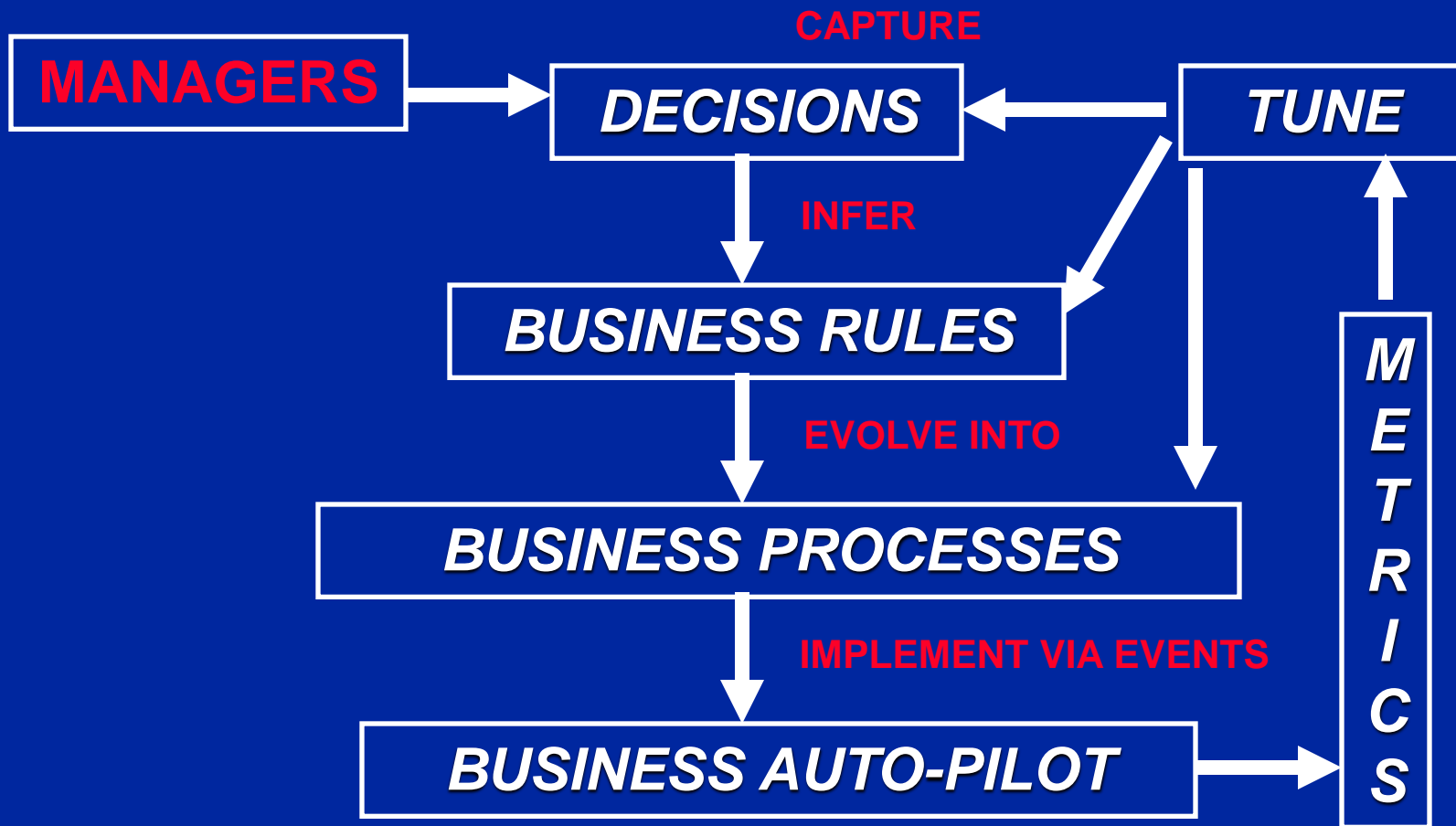 - **DISSEMINATE DECISION RULE SYSTEMS, *NOT* AUTHORITY *PER SE***

Result:

Minimum Risk, Maximum Leverage

ZERO MANAGEMENT'S TECHNOLOGY VALUE

- **Help I.T. Reduce Costs**
  - REMOVE CONCEPTUAL BARRIERS TO ACCEPTANCE
  - REMOVE COST BARRIERS TO ACCEPTANCE
    - » *TIME TO DEPLOYMENT AND INITIAL R.O.I.*
    - » *INTERNAL I.T. AND EXTERNAL I.T. COSTS*

- **Specific Cost Reductions**
  - INCORPORATES AND LEVERAGES DIRECT APPLICATION-TO-APPLICATION INTEGRATION EFFORTS
  - INCORPORATES COMPONENT APPROACHES
  - MINIMIZES COST BARRIERS TO INTEGRATION
  - APPLICABLE TO MONOLITHIC ("LEGACY") APPLICATIONS AS WELL AS NEWER COMPONENTS
  - INTEGRATES WITH MANUAL PROCESSES

ZERO MANAGEMENT$_{tm}$
KEY PRINCIPLES: DECISIONS

MANAGERS → **DECISIONS**

CAPTURE

DECISIONS ← **TUNE**

INFER

BUSINESS RULES

EVOLVE INTO

BUSINESS PROCESSES

IMPLEMENT VIA EVENTS

BUSINESS AUTO-PILOT → **METRICS**

ZERO MANAGEMENT_{tm}
KEY PRINCIPLES: DECISIONS

- **Anatomy of a Management Decision**
  - **TRIGGERED BY A SET OF CONDITIONS**
  - **IMPLIES AN ACTION TO BE TAKEN**
  - **A DECISION CHANGES THE "STATE" OF THE BUSINESS**
  - **DECISIONS ARE PARTIALLY ORDERED IN TIME**
  - **A DECISION IS ONE BRANCH POINT IN A PROCESS**
- **Relationship to Business Rules**
  - **A RULE CONSISTS OF TWO PARTS: CONDITIONS AND ACTIONS**
  - **CONDITIONS AND ACTIONS MAY BE PARAMETERIZED**
  - **AN IMPLEMENTATION OF A BUSINESS RULE IS A DECISION**
- **Relationship to Process Models**
  - **A NETWORK OF BUSINESS RULES**
  - **ACTIVITIES TRANSITION THE STATE OF A BUSINESS**

DECISIONS AND BUSINESS RULES

- **Decision**
  - SEND THE ORDER TO HONG KONG FOR PACKAGING AND DO NOT SEND IT TO MILANO OR CHICAGO
  - CONDITION: ORDER ENTRY IS COMPLETE AND CUSTOMER ADDRESS IS IN PACIFIC RIM
    - » THE "WHY"
  - ACTION: SEND THE ORDER TO HONG KONG FOR PACKAGING

- **Business Rule**
  - IF CONDITION, THEN ACTION
  - IF *ORDER ENTRY IS {COMPLETE } AND CUSTOMER ADDRESS IS IN {PACIFIC RIM}*

  THEN *SEND THE ORDER TO {HONG KONG} FOR PACKAGING*

  IF ➝●➝ *THEN*

ZERO MANAGEMENT_{tm}
KEY PRINCIPLES: PROCESSES

- **Process Management**
  - AN IMPROVEMENT OVER WORKFLOW
  - TYPICALLY REPRESENTED AS A DIRECTED GRAPH
    - » *ARROWS IMPLY DIRECTION IN TIME*
    - » *BRANCH NODES (MULTIPLE OUTPUTS) ARE DECISIONS*

- **Enable the Business Manager**
  - CAPTURE DECISIONS AS DECISION RULES AND PROCESSES
    - » *REPEATABLE AND AUTOMATABLE PROCESS MODEL*
    - » *INFERENCING AND RULE DISCOVERY*
  - INTELLIGENT, <u>CONTINUOUS</u> IMPROVEMENT OF PROCESS
    - » *AD-HOC CONDITIONING OF PROCESS BRANCHES*
    - » *RESPOND TO BUSINESS ERRORS VIA NEW PROCESS FLOWS*
    - » *NOT INVESTMENT HEAVY BPR!*

BUSINESS PROCESS MODEL
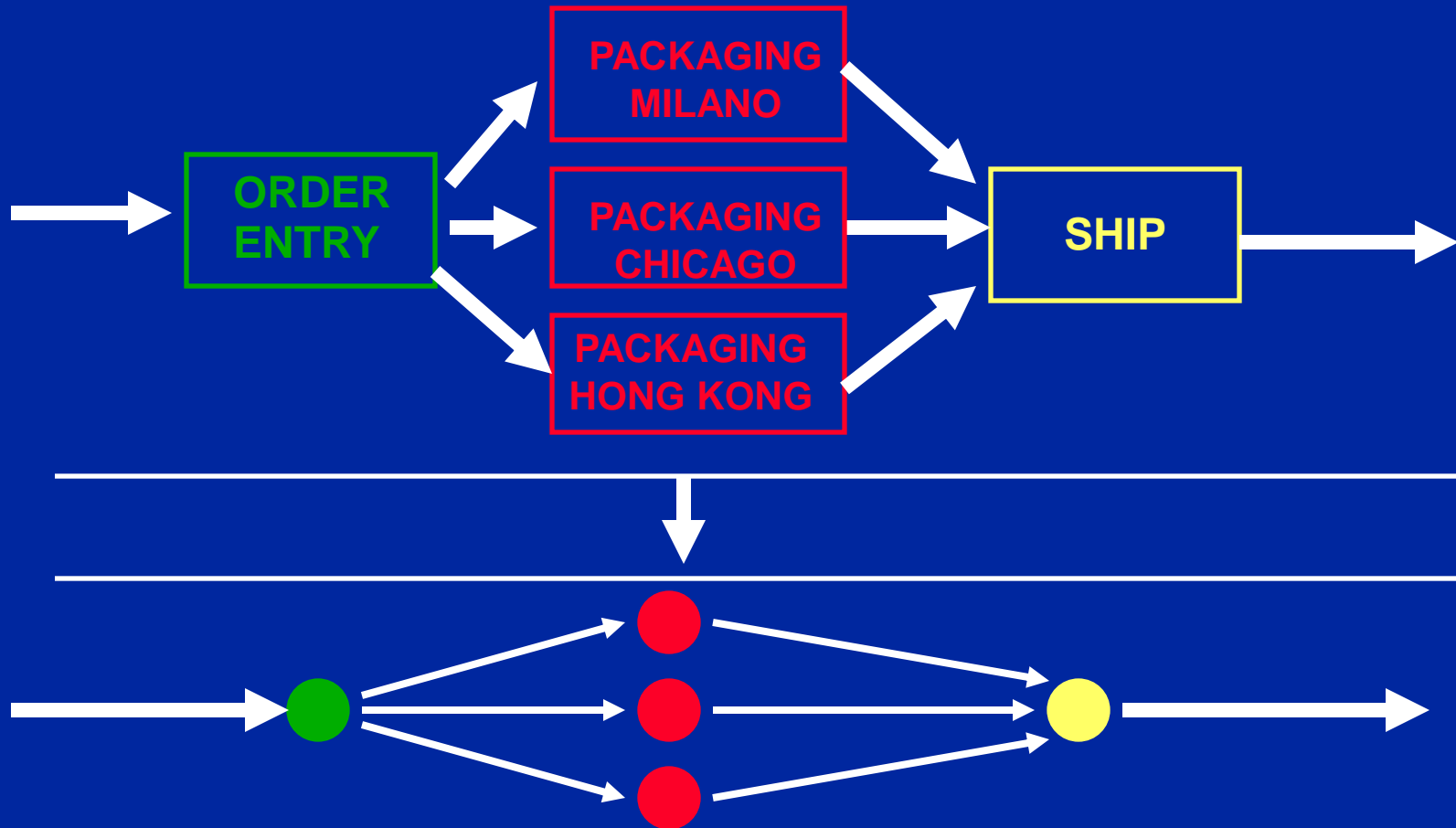
ZERO MANAGEMENT_{tm}
KEY PRINCIPLES: PROCESSES

- **Process: Abstract, Connected Set of State Transitions**
  - » **NODE:** *TRANSFORMATION OF CONDITIONS TO ACTIONS*
  - » **ARC HEAD:** *PARTICULAR CONDITIONS (EVENTS)*
  - » **ARC TAIL:** *PARTICULAR ACTIONS*
  - » *ARCS CARRY STATE INFORMATION (DATA)*
  - – **COMPLETENESS:** *EVERY ACTION A CONDITION FOR SOME NODE*
  - – **PROCESSES CAN BE VERY ABSTRACT OR VERY DETAILED**
  - – **SEMANTICS**
    - » *FAN IN/FAN OUT DETERMINES THE "DEGREE" OF A NODE*
    - » *FAN IN/FAN OUT DETERMINES THE "DEGREE" OF AN ENTIRE PROCESS DIAGRAM (EXCLUDING SINKS AND SOURCES)*
    - » *THE CONDITIONS AND ACTIONS OF A NODE OR DIAGRAM (EXCLUDING SINKS AND SOURCES) DETERMINE ITS "TYPE"*
  - – **SUBSTITUTION:** *A NODE CAN BE REPLACED BY A DIAGRAM OF THE SAME DEGREE AND TYPE*
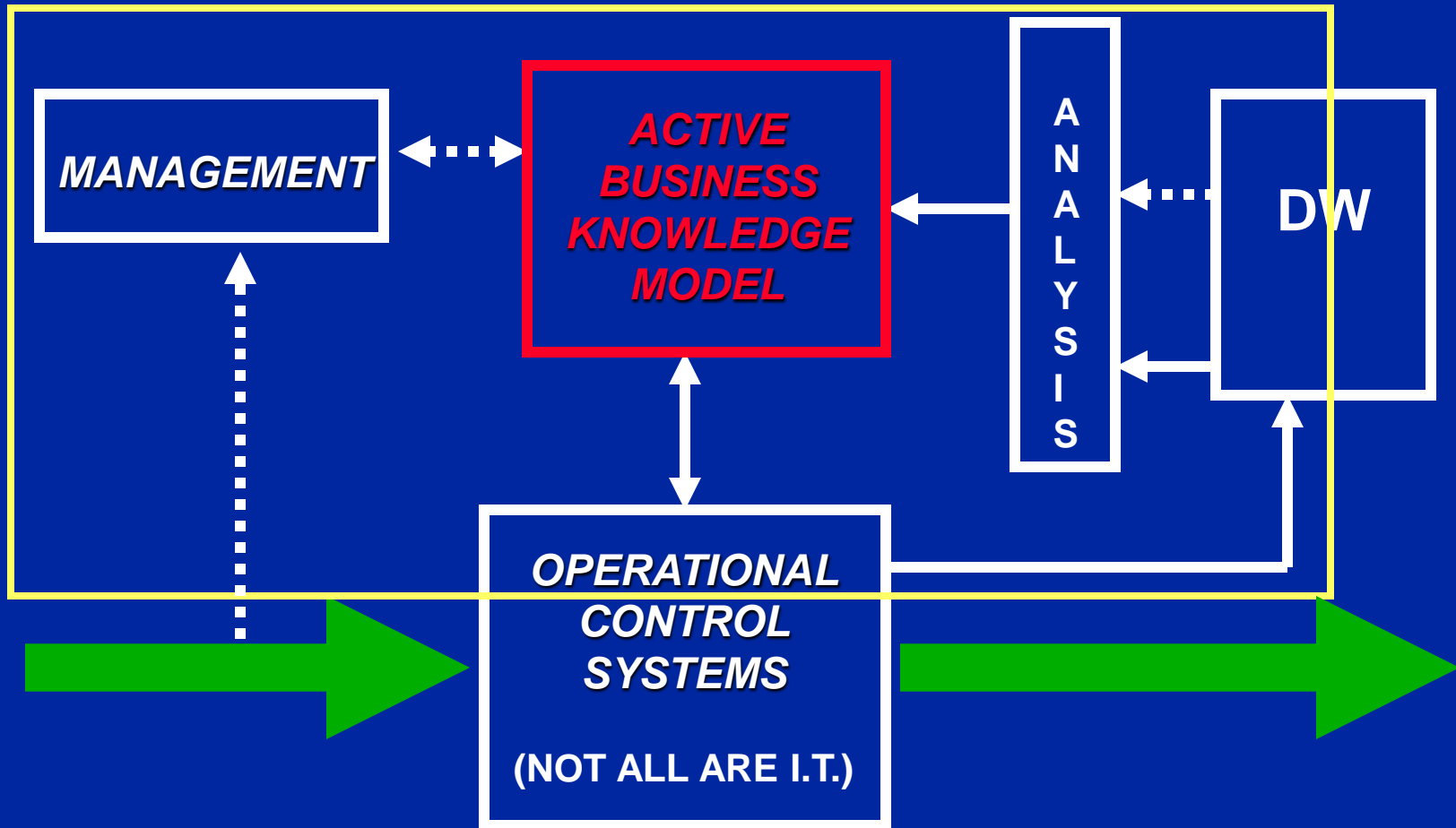
BUSINESS PROCESS INDEPENDENCE
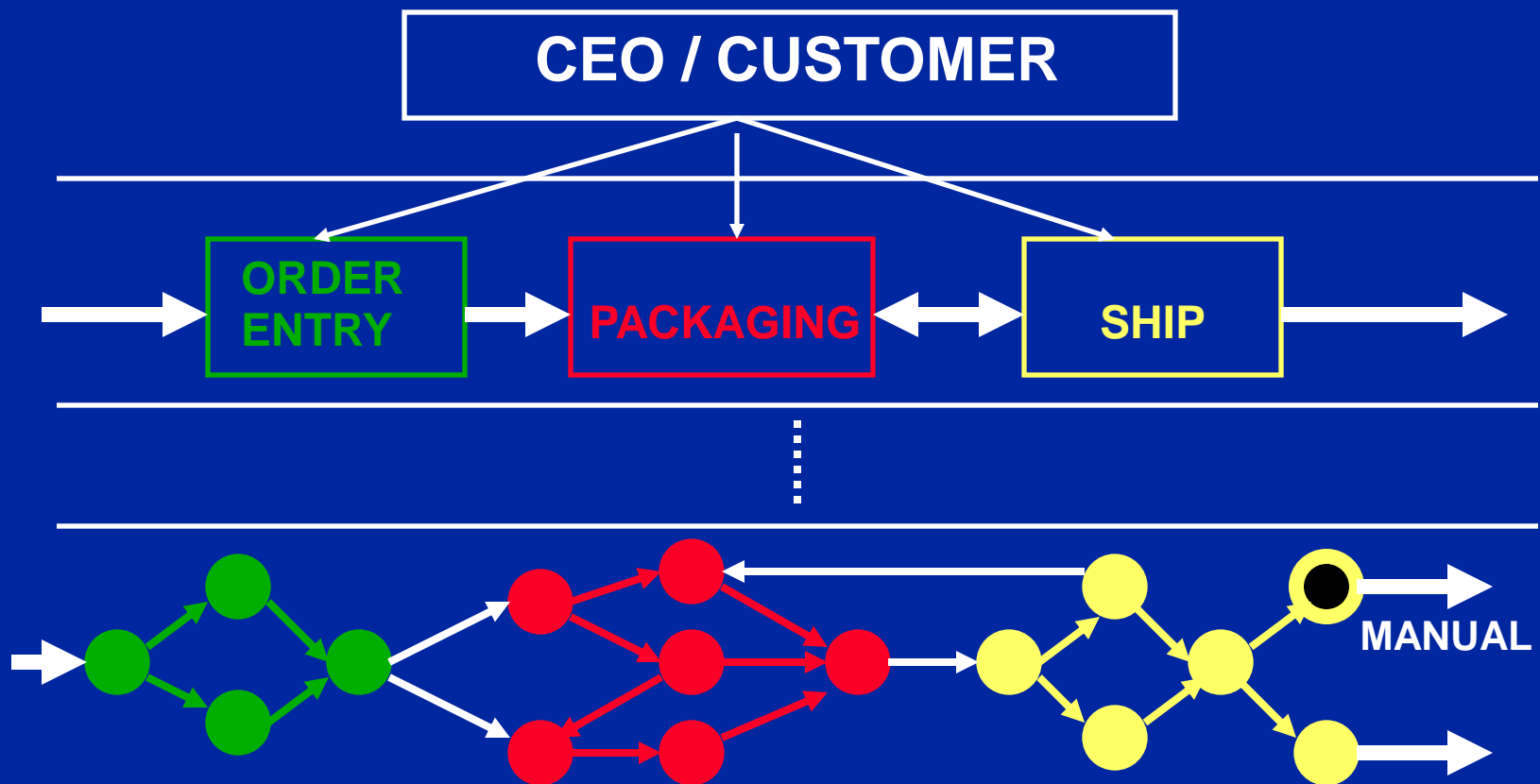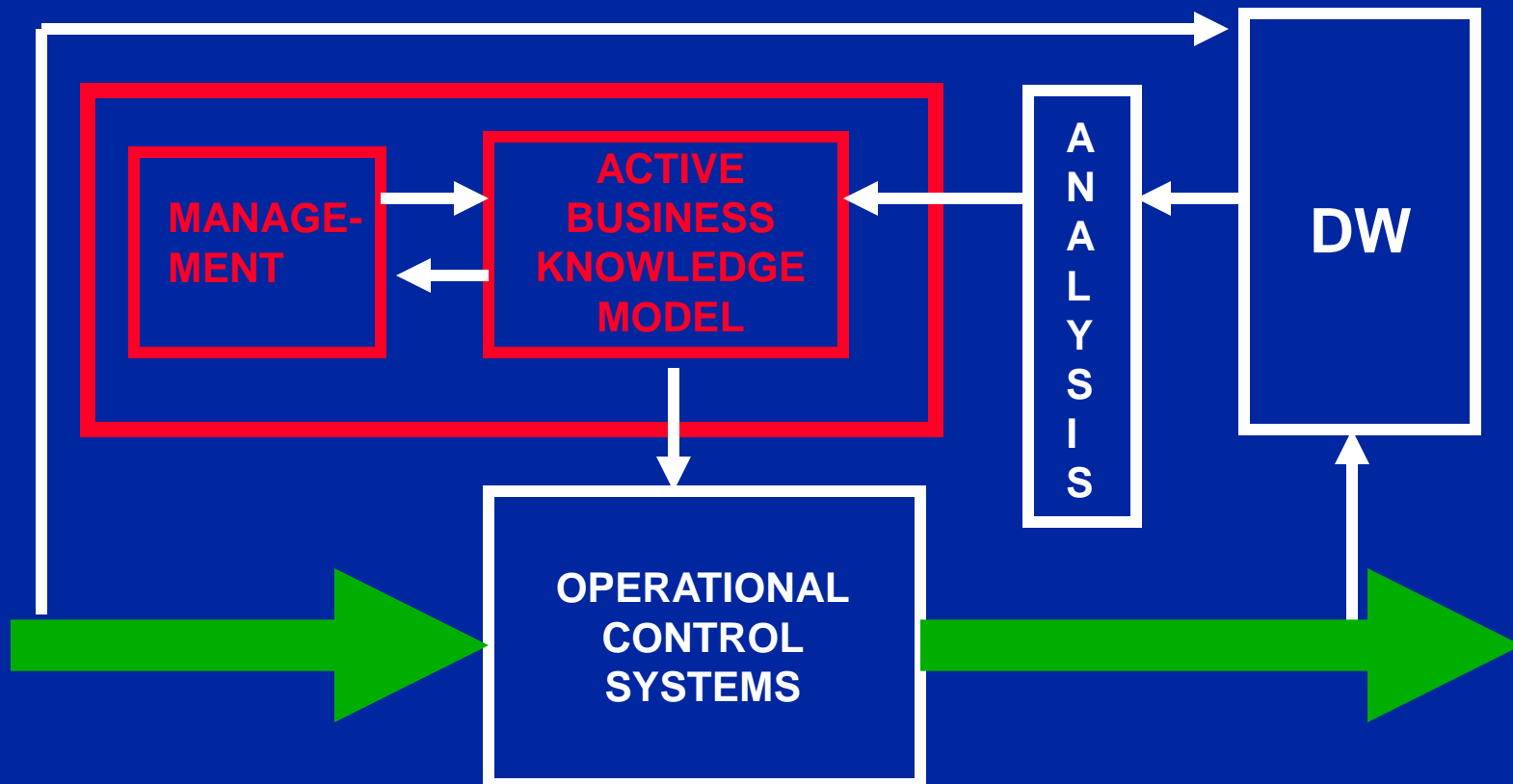
BUSINESS PROCESS INDEPENDENCE
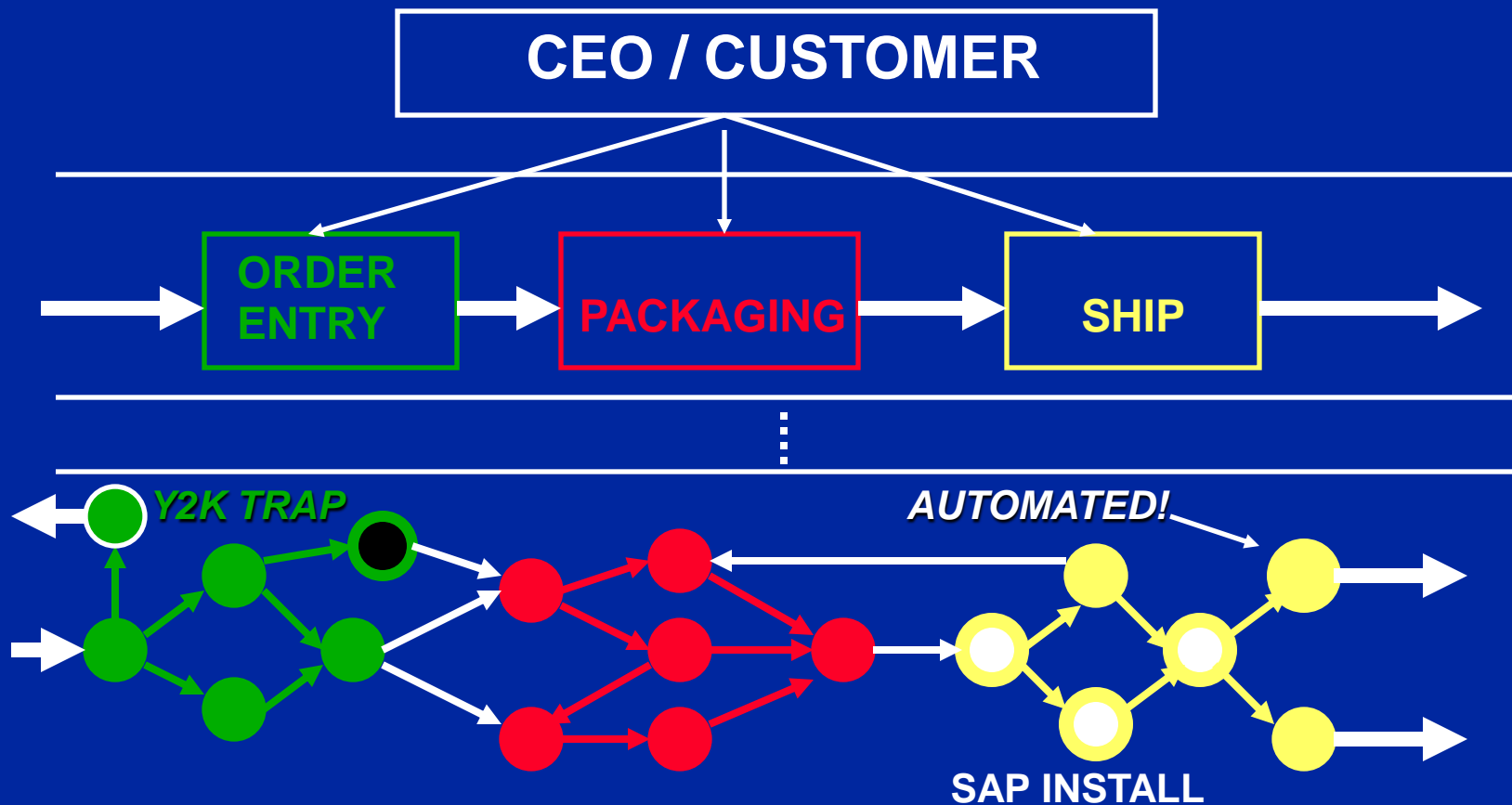
CEO / CUSTOMER

ORDER ENTRY

PACKAGING

SHIP

Y2K TRAP

AUTOMATED!

SAP INSTALL

ZERO MANAGEMENT_{tm} TECHNOLOGY
OLDM, DECISION & PROCESS MANAGEMENT

ZERO MANAGEMENT_{tm} TECHNOLOGY
## OLDM, DECISION & PROCESS MANAGEMENT

ZERO MANAGEMENT_{tm}
TECHNOLOGY CHARACTERISTICS

- **Vertical** Process Integration
  - TOP DOWN MANAGEMENT "HIERARCHY"
  - PROCESS INDEPENDENCE
  - PROVIDES EVENT AND DATA CONTEXT
  - DYNAMIC CONTROL
  - I.T. SUPPORTS THE PROCESS BACKBONE

- **Horizontal** Data Integration
  - ACTIVITY TO ACTIVITY
  - APPLICATION TO APPLICATION
  - PROCESS ENGINE DATA TRANSFER
  - BUSINESS TRANSACTION INTERFACES
  - I.T. OWNS THE BOTTOM LEVEL OF THE PROCESS HIERARCHY
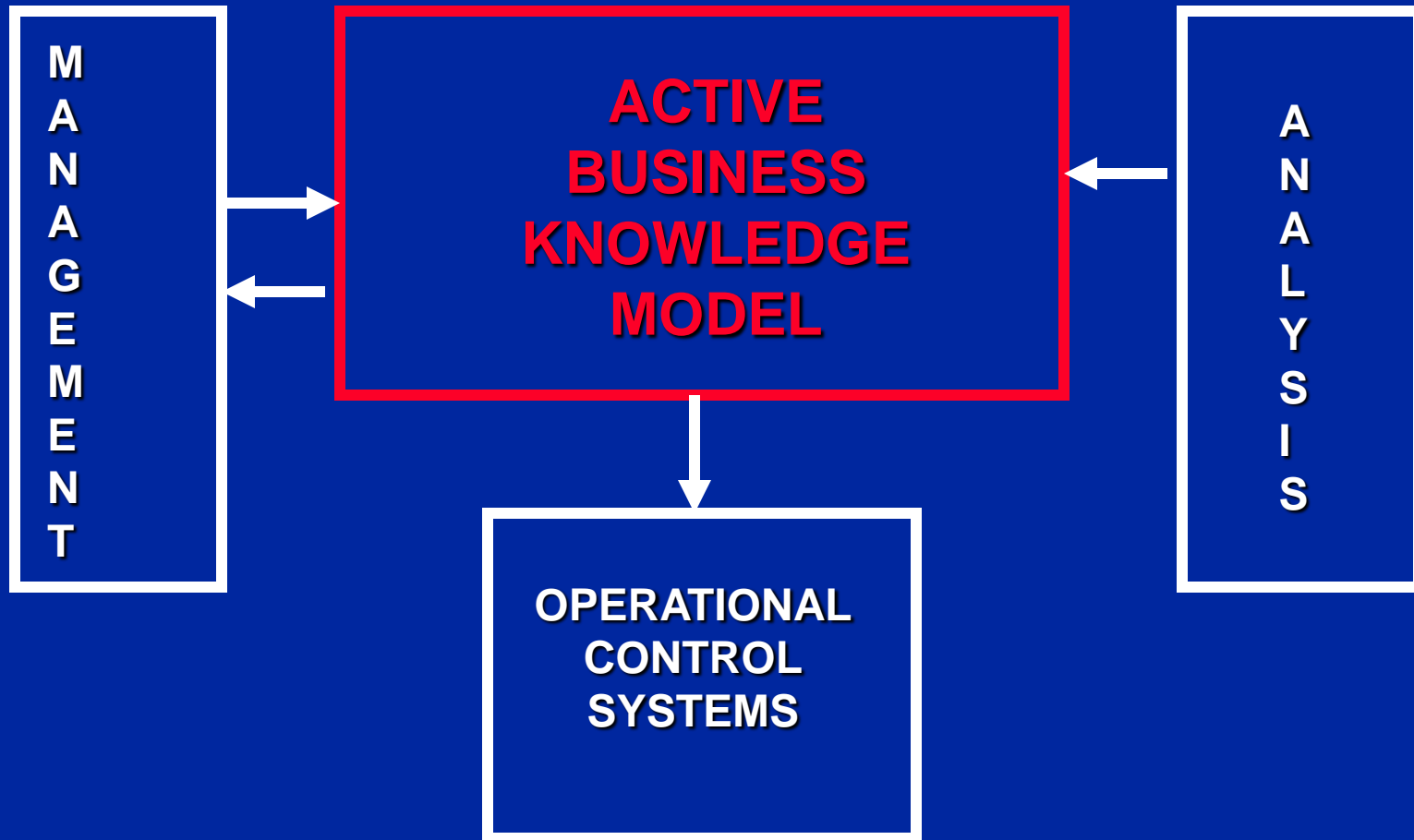 - FACILITIES
    » *REPLICATION, TRANSFORMATION, CLEANSING*
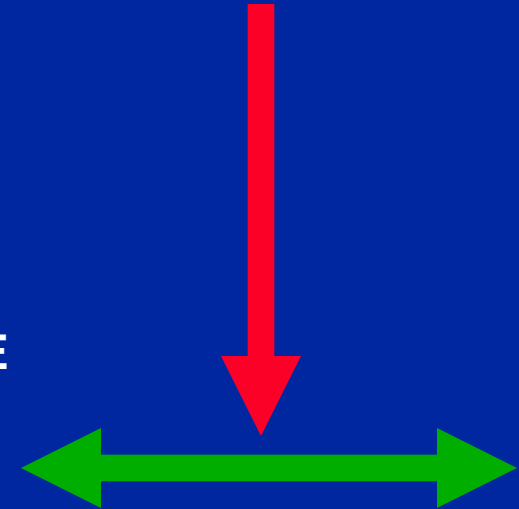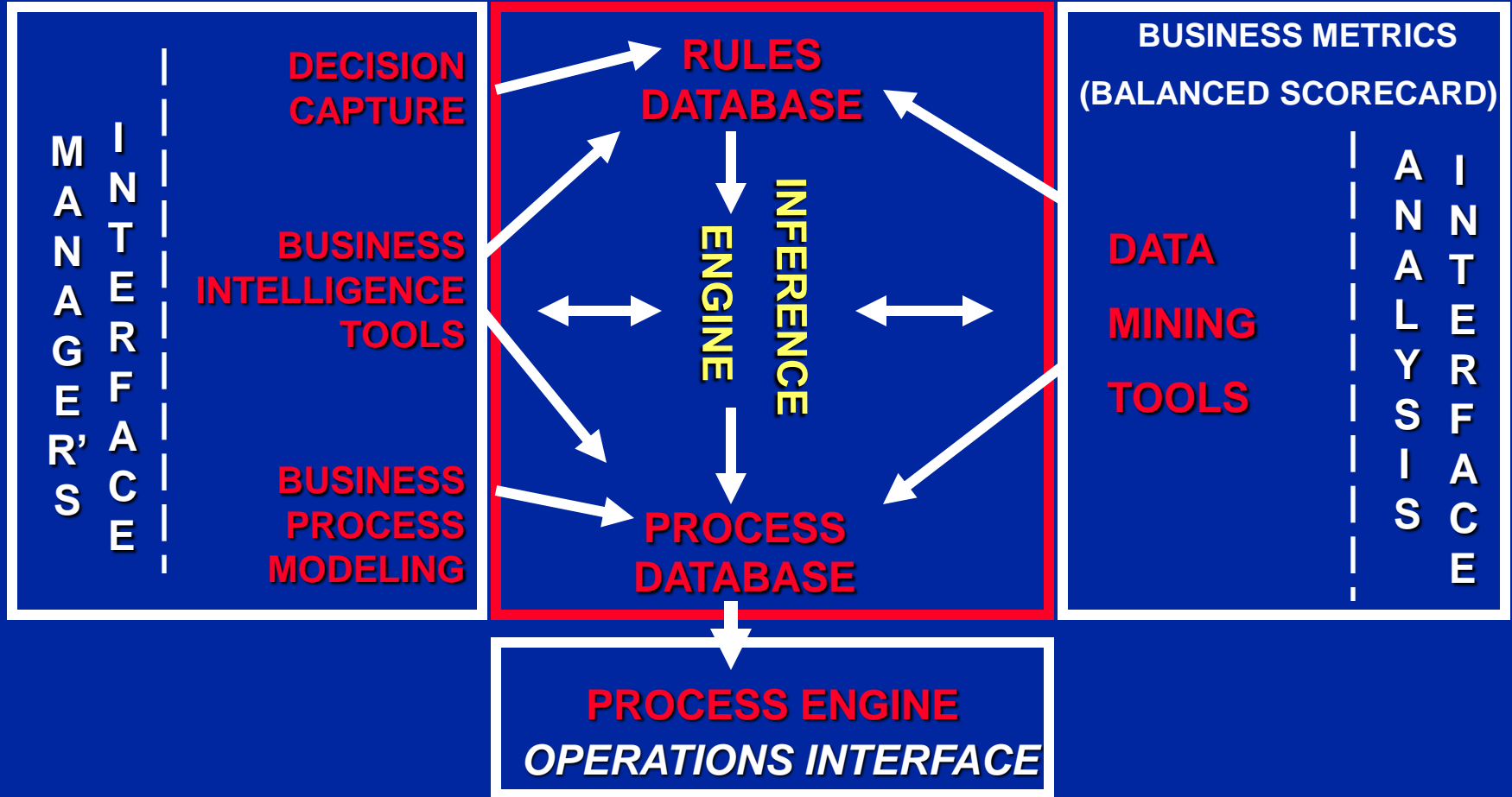
ZERO MANAGEMENT_{tm}
TECHNOLOGY CHARACTERISTICS

- **Business Event Driven**
  - PROCESS MECHANISM "UNDERSTANDS" EVENTS

- **Process Enabled**
  - CONTROL IMPLEMENTED VIA PROCESS
    - » *INITIATION, TERMINATION, STATUS,...*

- **Rule Based**
  - FLEXIBLE AND DYNAMICALLY MAINTAINABLE
  - CAN BE DRIVEN FROM ACTIVE BUSINESS KNOWLEDGE MODEL

- **Scalable**
  - PLATFORM EXTENSIBLE
    - » *HIERARCHICAL ARCHITECTURE*
    - » *OBJECTS CAN SPAN HARDWARE*
  - NO SOFTWARE LIMITATIONS
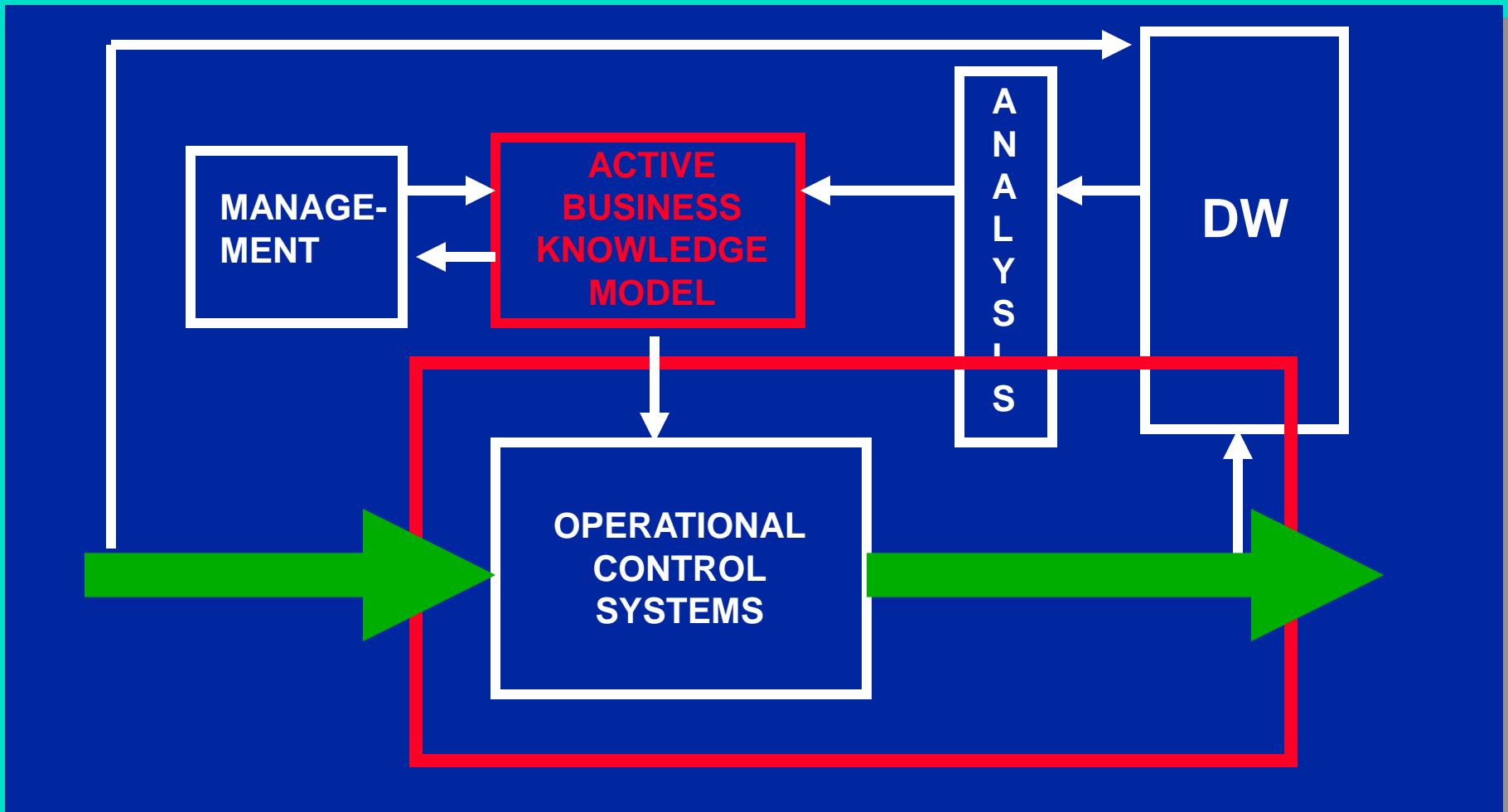
ZERO MANAGEMENT'S
ACTIVE BUSINESS KNOWLEDGE MODEL

**MANAGEMENT** → **ACTIVE BUSINESS KNOWLEDGE MODEL** ← **ANALYSIS**

ACTIVE BUSINESS KNOWLEDGE MODEL → **OPERATIONAL CONTROL SYSTEMS**

ZERO MANAGEMENT'S
ACTIVE BUSINESS KNOWLEDGE MODEL

MANAGER'S INTERFACE

DECISION CAPTURE

BUSINESS INTELLIGENCE TOOLS

BUSINESS PROCESS MODELING

RULES DATABASE

INFERENCE ENGINE

PROCESS DATABASE

BUSINESS METRICS

(BALANCED SCORECARD)

DATA MINING TOOLS

ANALYSIS INTERFACE

PROCESS ENGINE
OPERATIONS INTERFACE

ZERO MANAGEMENT_{tm} TECHNOLOGY
MANUAL AND SOFTWARE SYSTEMS

MANAGE-MENT

ACTIVE BUSINESS KNOWLEDGE MODEL

ANALYSIS

DW

OPERATIONAL CONTROL SYSTEMS

ZERO MANAGEMENT'S
ENTERPRISE APPLICATION INTEGRATION
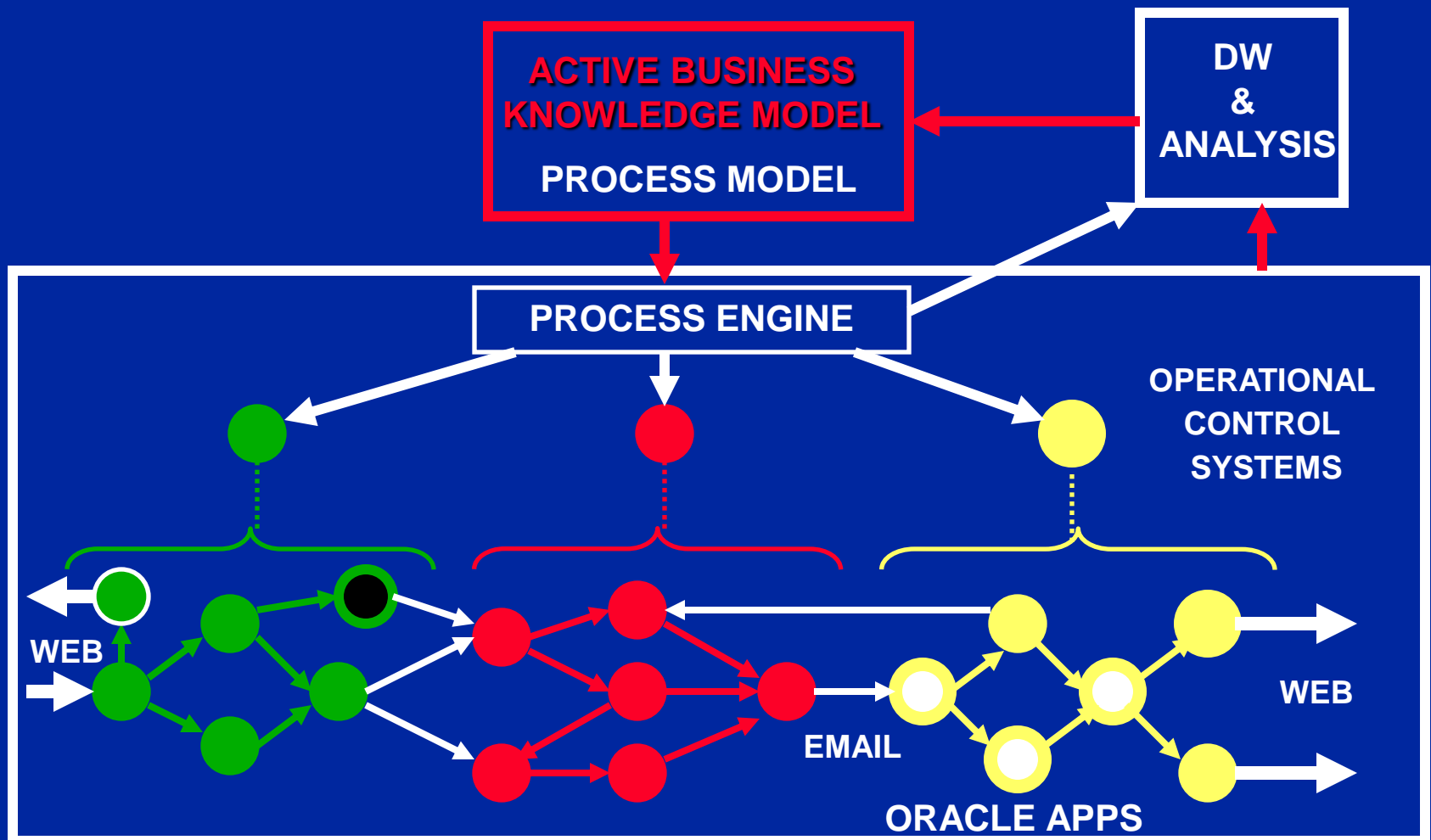
DELIVERING ZERO MANAGEMENT

THE PLAN
PR AND EDUCATION

- **CEO AND CIO BREAKFASTS**

- **BOOKS AND ARTICLES**

- **WEB SITE**

- **CONFERENCES**
  - **BUSINESS AGILITY CONFERENCE IN 1999**
  - **ENTERPRISE APPLICATION INTEGRATION (DCI)**

- **KEYNOTES**

- **PRESS RELEASES**

- **POINT SOLUTION CASE STUDIES**

- **PUBLICIZE BUSINESS DIRECTION COMMITMENTS**

ZERO MANAGEMENT *COUNCIL*

- **A HIGH PROFILE, NON-PROFIT ADVISORY COUNCIL**
  - FOLLOW THE SQL ACCESS GROUP "MODEL"
  - LEADERS IN BUSINESS AND TECHNOLOGY
- **IDENTIFY PROBLEMS AND EVALUATE SOLUTIONS**
- **PUBLISH GUIDELINES AND STANDARDS**
  - BUSINESS / TECHNOLOGY DIRECTORY
  - BUSINESS STRATEGIES WHITE PAPER
    - » *1ST VERSION, TARGET FEB.'99*
  - I.T. FRAMEWORK AND ROADMAP
    - » *1ST DRAFT, TARGET MAR.'99*
- **DEMONSTRATIONS & PRODUCT CERTIFICATION**

# ZERO MANAGEMENT *TECHNOLOGY LAB*

- **MEMBERS FUND AND BENEFIT MOST**

- **AUDIT PRODUCTS FOR VENDORS**
  - **RECOMMEND IMPROVEMENTS**

- **TEST INTEGRATION OF SOFTWARE PRODUCTS:**
  - **APPLICATIONS, TOOLS, SERVERS, AND MIDDLEWARE PRODUCTS**

- **BUILD PROTOTYPE SYSTEMS**

- **DEVELOP "COMPLIANCE" STANDARDS**
  - **PROCESS ENABLEMENT PROTOCOLS**
  - **RULES PROTOCOLS**
  - **EVENT PROTOCOLS**

ACTION ITEMS
LEADING THE CHARGE

- **ENDORSEMENT**

  - **AN OPEN MEMO ON THE IMPORTANCE OF THIS AGENDA**

  - **YOUR COMPANY'S PUBLIC COMMITMENT TO THE CONCEPT**

  - **CHARTER ADVISORY COUNCIL MEMBER**

  - **SUGGEST OTHER MEMBERS**
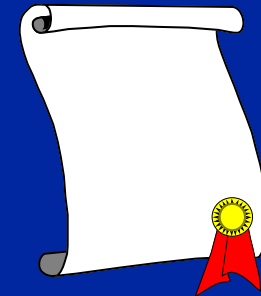
- **PROMOTE THE EFFORT**

  - **INCORPORATE INTO PRESENTATIONS AND INTERVIEWS**

  - **FUND AN BREAKFAST FORUM**

  - **AUTHORIZE SUPPORT FROM P/R AGENCY**

ACTION ITEMS
LEADING THE CHARGE

- **SUPPORT THE TECHNOLOGY LAB**

  - **CO-FUNDING COMMITMENT**

  - **TECHNICAL SUPPORT AND PRODUCTS**

- **EDUCATE YOUR MANAGERS**

  - **IN HOUSE PRESENTATIONS**

- **ENABLE YOUR PRODUCTS**

- **USE ZERO MANAGEMENT AS IT MATURES**

BIOGRAPHY

David McGoveran is an international management and technology consultant. He is president of Alternative Technologies (Boulder Creek, CA), specialists in solving difficult relational applications problems since 1981. He has authored numerous articles and co-authored several books. He is the Conference Chair of DCI's Integrating Enterprise Applications Conferences and is completing <u>Zero Management: Business in the New Millennium</u>.