

# Global New Product Development

## Implementing Successful Transformational Change

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# Topic Outline

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Snapshot of Carestream Health Inc.

Globalization –The forcing function

Insights for setting up a successful transformation

Learnings Summary

An overview of the Carestream Health project will be presented later in the conference.

# Carestream Health – Who We Are

An independent company with a proven track record and \$2.5 billion in revenue

A world leader in:

- Medical imaging ... digital and film
- Healthcare information solutions
- Dental imaging and dental practice management software
- Molecular imaging
- Non-destructive testing



# Who We Are

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Approximately 7,300 employees serve customers in more than 150 countries worldwide

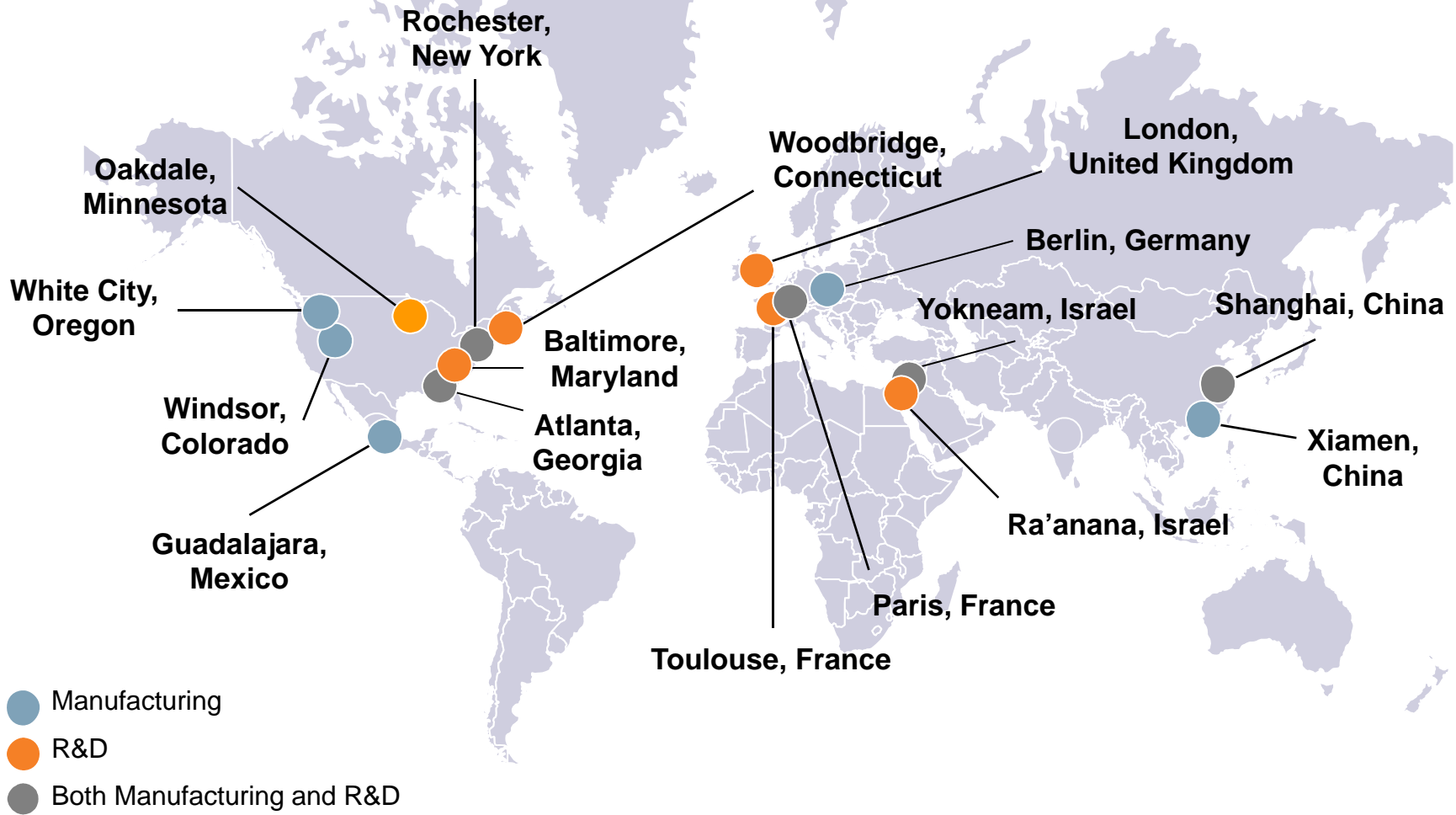
We hold more than 1,000 patents for technology and intellectual property

Our products are at work in 90 percent of hospitals worldwide



# Who We Are

A **global company** with Manufacturing and R&D locations around the world



# The Globalization Challenge

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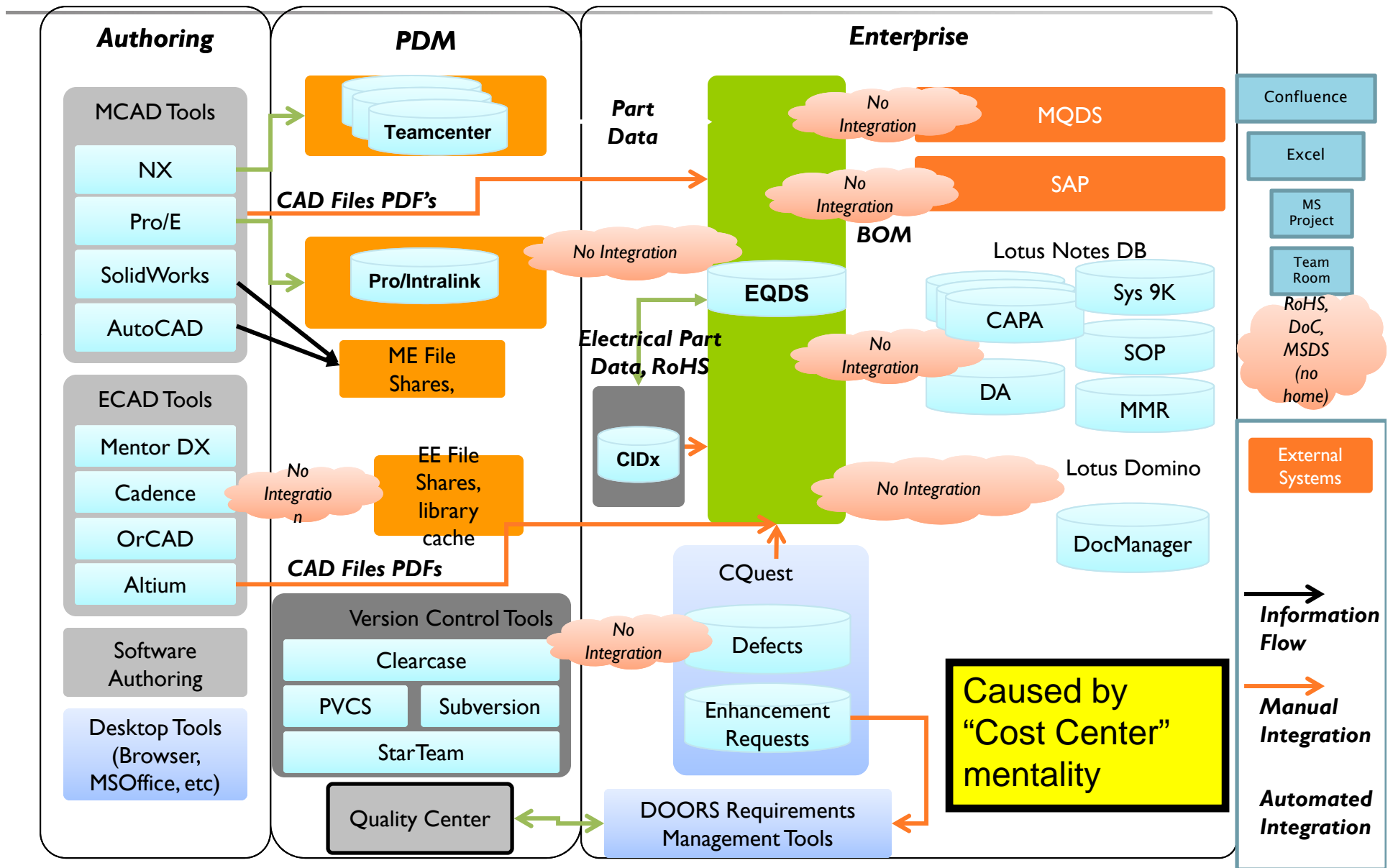
Globalization was required to meet the business needs of our company

- Needed a balanced cost structure
- Desired access to global talent pools
- Required deeper understanding of emerging markets

## Business Challenges

- Legacy Systems were outdated and not easily scalable
- Lack of adequate IT investment resulted in non integrated point solutions
- Collaboration became more difficult via e-mail, uncontrolled data with partners
- IT Infrastructure and networks were performing poorly in some parts of the world
- Complexity in the organization increased as projects decentralized
- Knowledge workers time was being drained communicating globally
- Productivity of NPD remained roughly flat

# Legacy-Point Solutions lacking proper architecture and investment



# Demands on NPD Workers Are Increasing

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- Project teams are split across several locations
- Platform development is adding complexity in software and hardware
- Iterative methods are desired for software and require fast information transfer
- Daily builds are a common expectation for software
- Fast cycles are required for prototyping hardware
- Design for manufacturability is critical as ties to supplier base become weaker
- Teams must leverage historical data to improve planning, compare reliability, and drive improvements
- Engineers are pushed to do deeper analysis to ensure product quality while coordinating many sources of information
- Requests for metrics and historical data comparisons are ever increasing and are taking longer to produce

# Our future success required

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- A Leadership organization stepping up to create awareness, develop strategy and drive change to improve operations
- Architectural awareness and maturity in design of enterprise systems
- Careful integration strategies between applications- PLM-ERP-ALM
- A master-data strategy - removal of duplicate data sources and multiple manual data entry points
- Closed-loop processes with traceability across the process space
- Product/HW systems optimized for access and collaboration
- SW systems optimized for fast cycles and traceability
- Retention of all forms of Intellectual Property, internal and external, to retain “business flexibility”
- Tight integration and traceability across requirements, project management and engineering change control to meet regulatory requirements

# Hitting the target- Its not just a simple arrow anymore

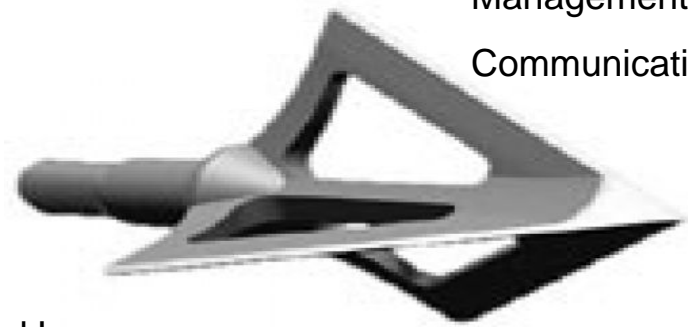
Technology Driven →

Performance Driven

People

Change Management

Communications



Process

Closed Loop  
Standard  
Inclusive  
End to end

Technology

Global Applications  
Architecture  
Infrastructure  
Master Data

Global Leadership

Strategy  
Awareness  
Leading multi-Cultural Change

Co-located and Focused



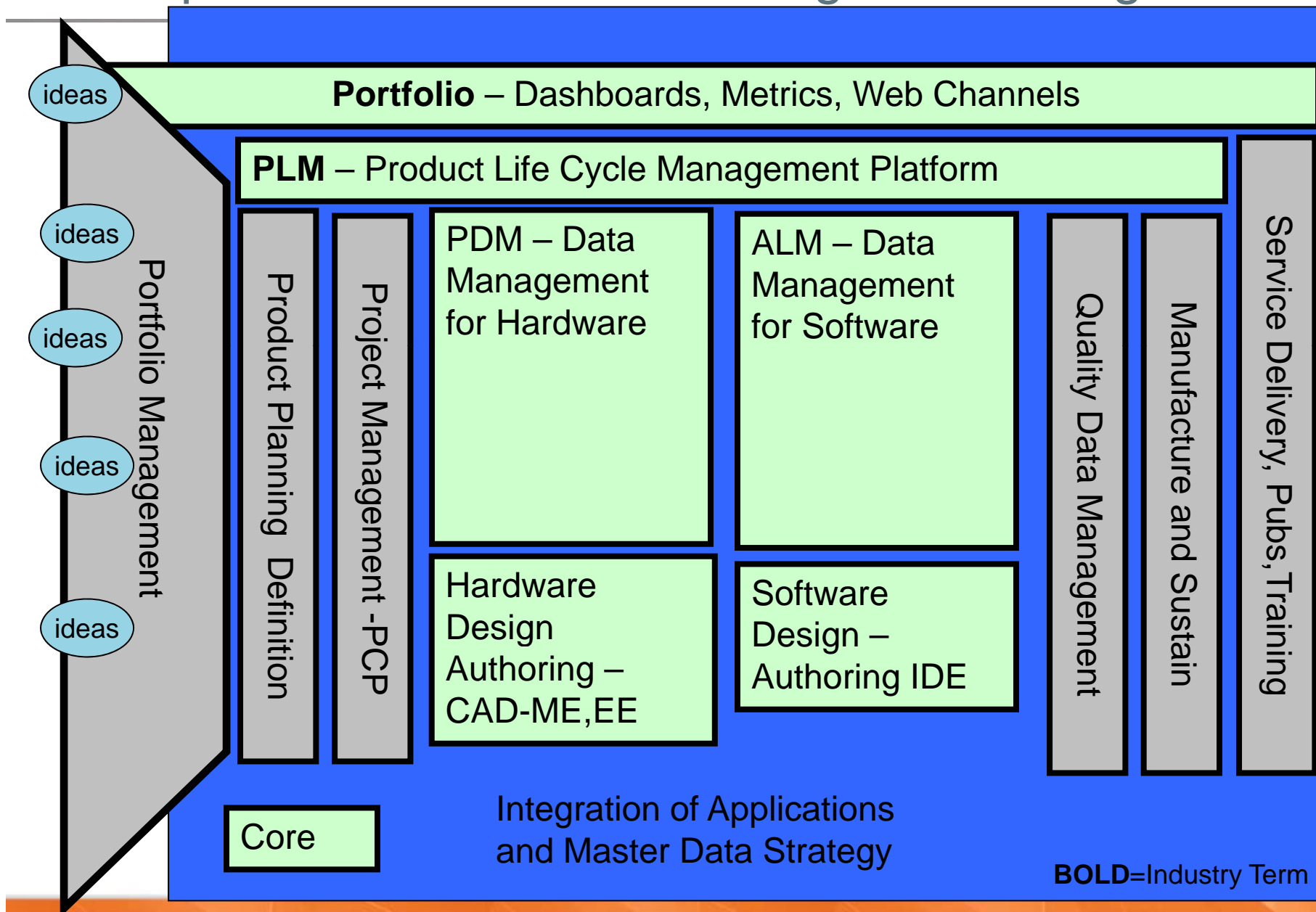
Global and Distributed

# Considerations required for Enterprise Transformation

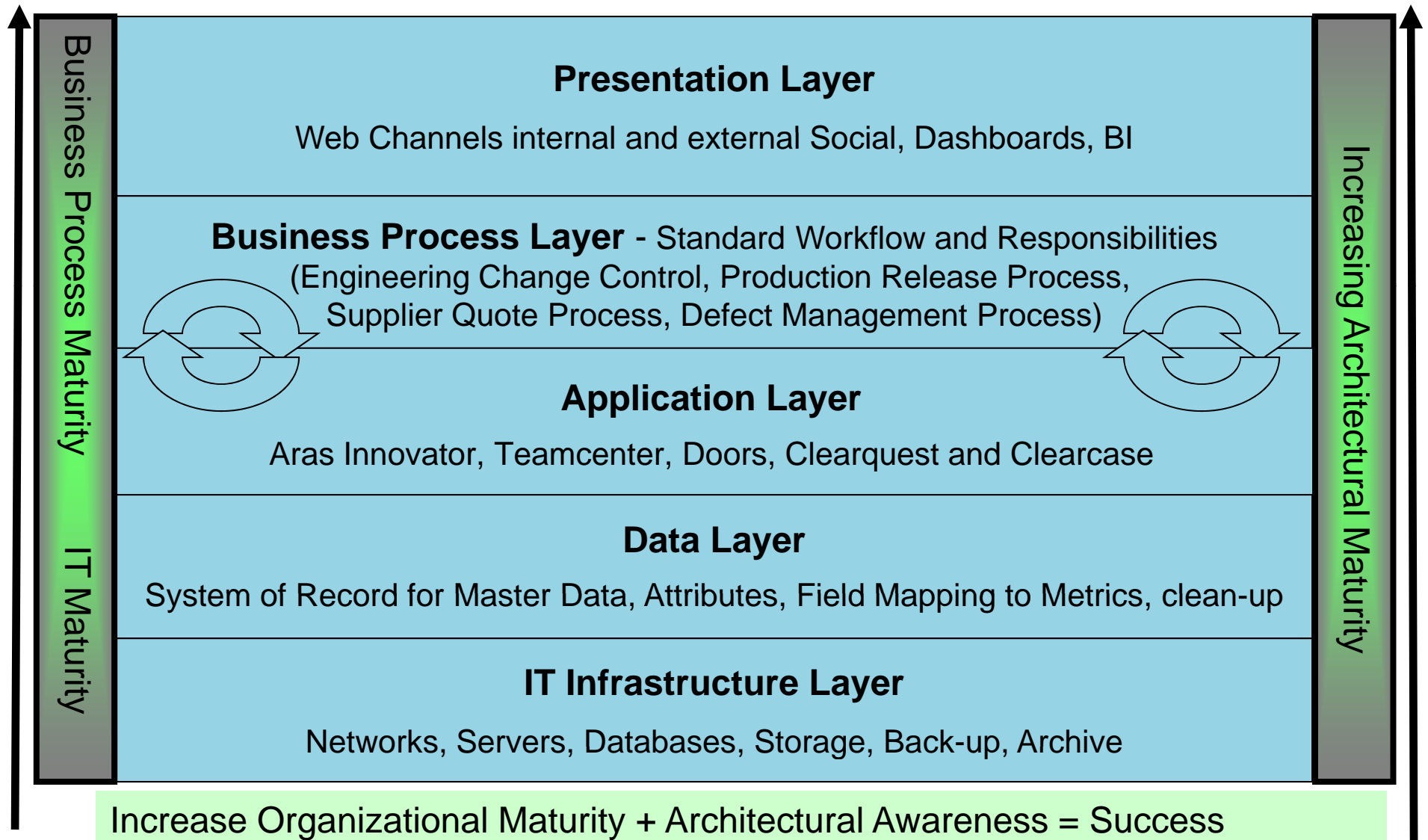
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- Complete view of New Product Development  
“building blocks”
- Appreciation of the complexity in the “layers”
- Architectural orientation and familiarity with industry technology
- Process understanding and balance
- Training
- Reporting structure and governance
- Ubiquitous platforms
- Complete teams designed for success

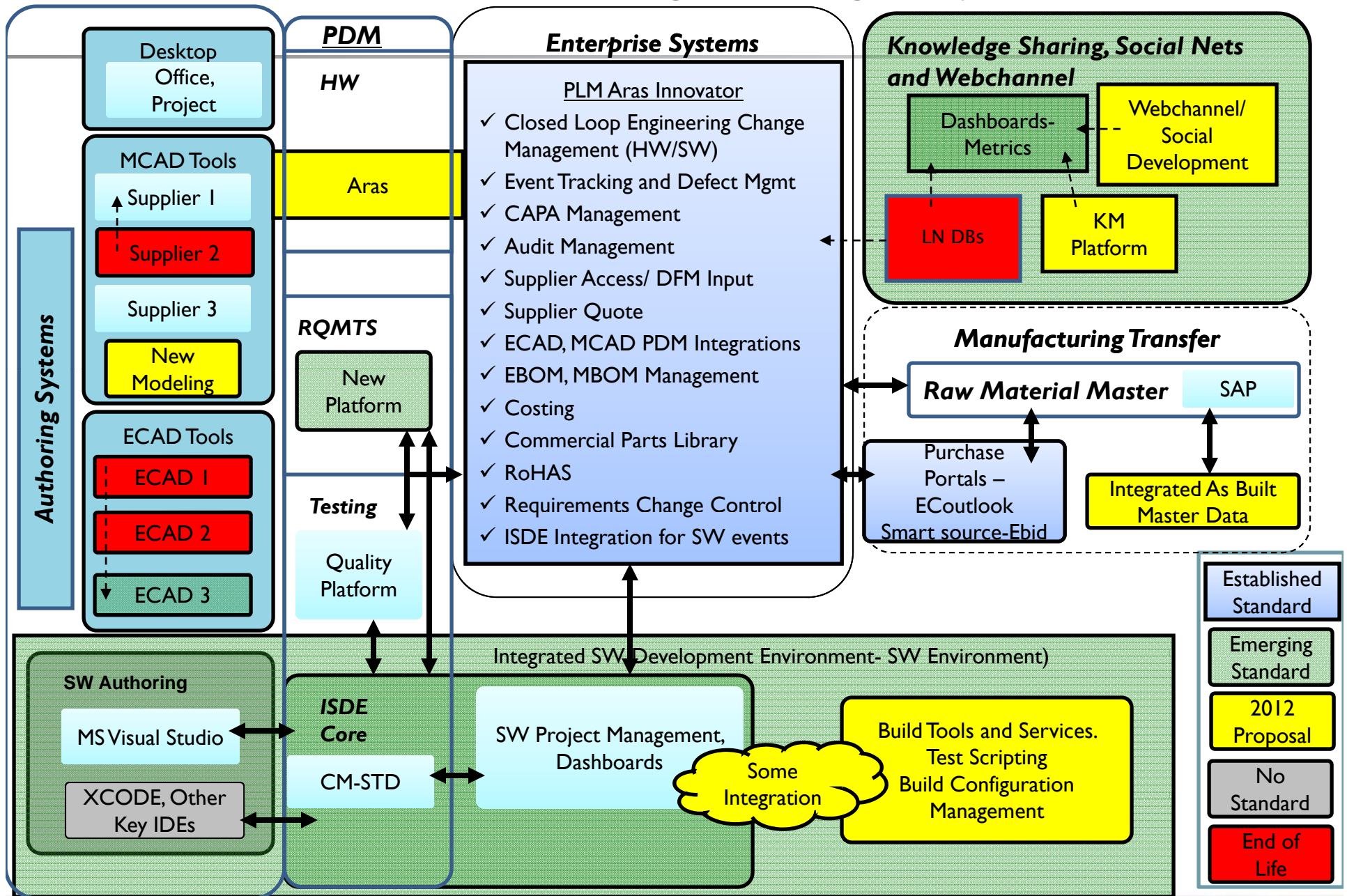
# Complete View – Understanding the Building Blocks



# Appreciate the Complexity in each “Block”



# Architectural Orientation and Strategic Planning Ability



# Business Process Development- Low Level Architecture → Swim Lanes PLI Initiative

PLI Engineering Change Request (ECR) Process

## Key Points

Drives deeper “use case” discussions

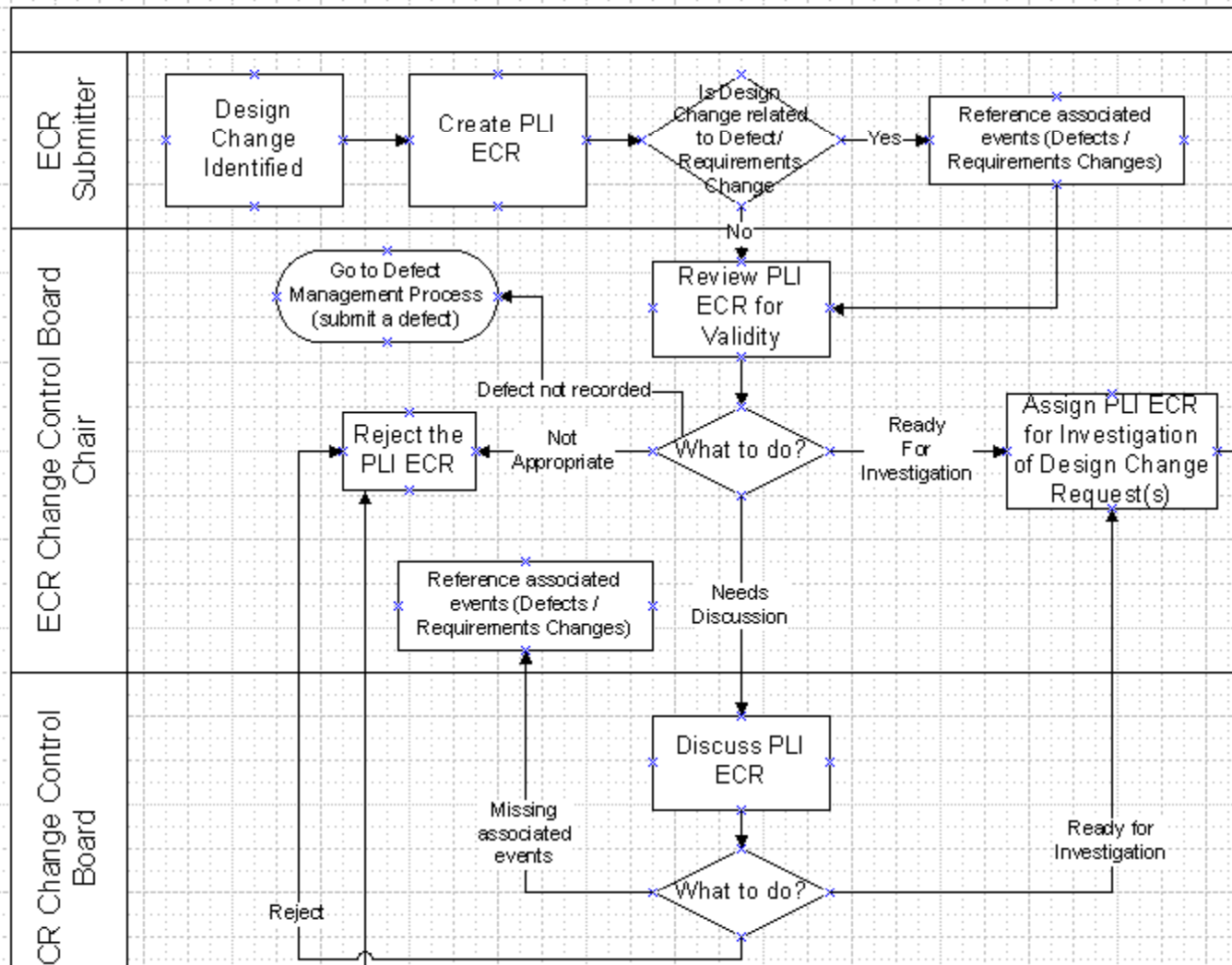
Refines functional requirement understanding

Concentrates people on future state and consistency vs current state, holding on to today

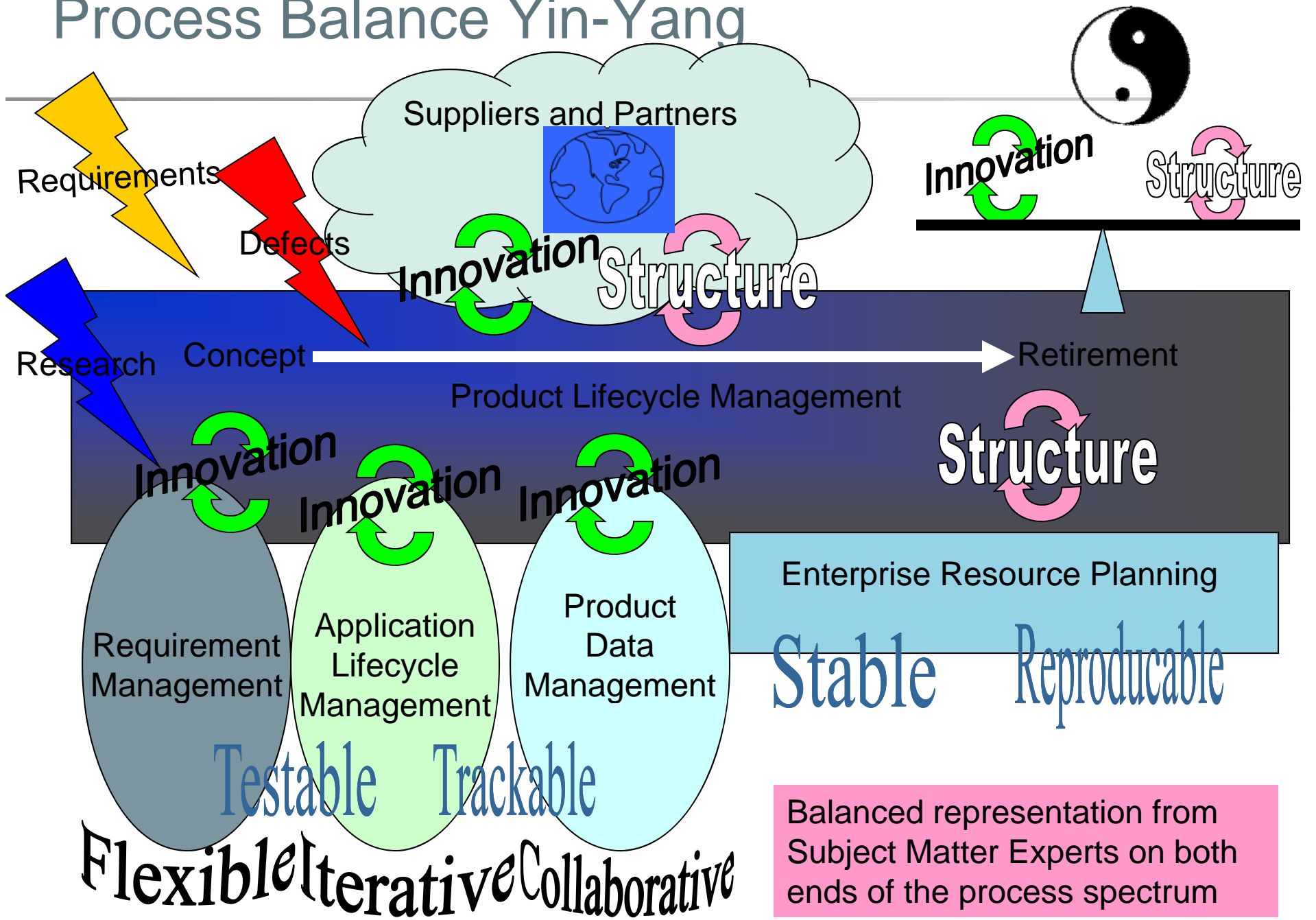
**Swim Lanes Organization Independent**

Focuses training development on process not button clicks

Focuses test plans for validation on key workflow performance



# Process Balance Yin-Yang



# Training

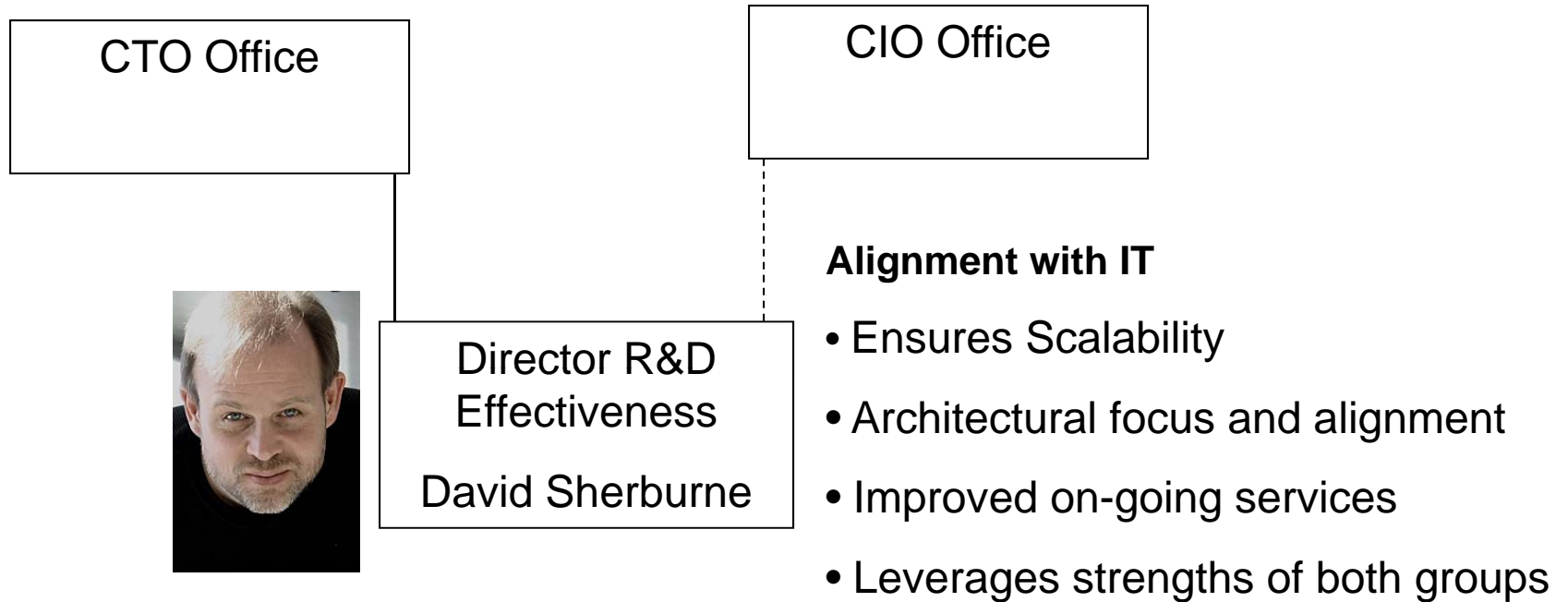
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- Technology and Process are complex, skimping on training leads to inefficiency and slow adoption
- Train in the context of business process not Technology “button clicks”
- Carefully identify the roles that require training and target information
- Evaluate self paced training, it’s the hardest to deliver but most flexible for users



# Reporting Structure and Governance

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## Business Structure

- Sponsors
- Subject Matter Experts
- Middle Managers
- Finance



# Choose “Ubiquitous” Platforms and “Real” Partners

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- Platforms must scale globally
- Provide a cost model in line with business benefit
- Allow web access with solid security
- Enable flexible configuration and integration
- Deliver user performance globally
- Allow for growth over time
- “Real” partners provide a strategic relationship
  - ✓ Share in risk
  - ✓ Offer flexible terms in line with business needs
  - ✓ Partner during implementation
  - ✓ Keep costs in line with benefits

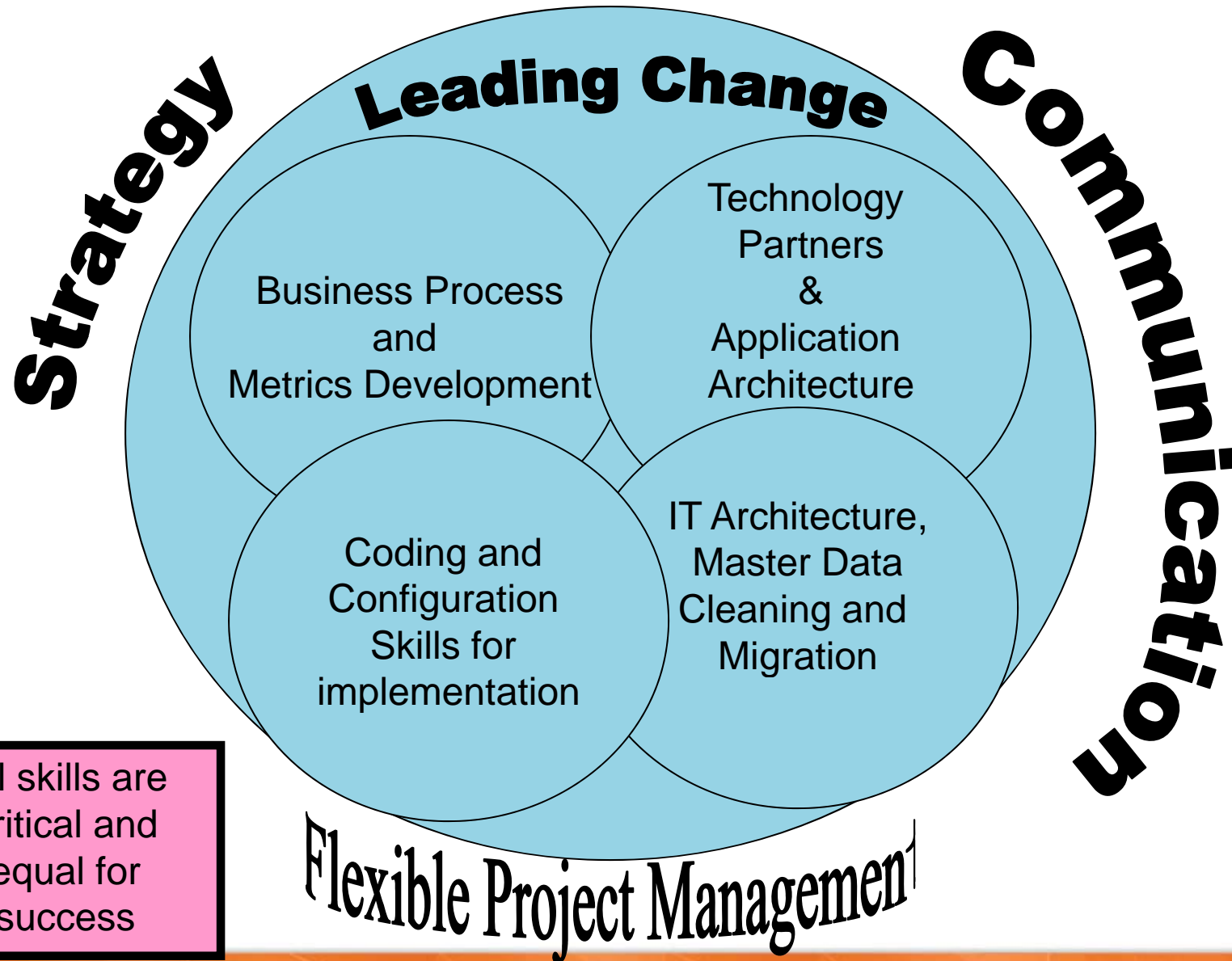
# Aras “Attitude” and Advantages

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- Cost model allowed global scale
- Flexible architecture enabled rapid development 50% easier than other platforms
- Web based, scalable cost model... key to ubiquitous access
- Ties to MS Sharepoint, which is being evaluated for the enterprise
- Good Technical Partnership – Anti-virus performance, E-Signature help
- Some risk but balanced with High Value
- Community concept, that we hope to better leverage

# Complete Teams = Successful Results

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All skills are critical and equal for success

# Learnings to Date

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- Mindfully consider the elements required for success...
- Carefully craft your team, leadership awareness, project management, and communications skills
- Set project governance and decision rights formally
- Determine your internal critical mass and match with implementation partner development speed
- Ensure business-process work leads and requirements follow
- Work in parallel with master data modeling and migration tests
- Train in context of the business process not in context of the tool
- Get involvement of Subject Matter Experts early and often. Cover all disciplines and phases of the lifecycle.... Balance....
- Turn user interface prototypes early, fast and review the implementation approach taken carefully
- Prioritize architecture and code reviews highly; easily skipped
- Verify and Validate functionality using business-process diagrams as basis

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