



What's **In³** All About? And Relevance to MMF

THE *Open* GROUP

Background

- ❑ Interoperability is an issue for most organizations
 - However interoperability is a big issue
 - Interoperability has many meanings
- ❑ Therefore we need to understand what is really meant by this requirement
 - Use business scenarios
- ❑ The following is our understanding of the interoperability requirement

Business Scenarios

- ❑ A Business Scenario describes:
 - Business process, application or set of applications
 - The business and technology environment
 - The relevant people and computing components
 - The desired outcome of proper execution
- ❑ A good Business Scenario
 - Is “S.M.A.R.T.”
 - Enable the supply side to better understand the needs of the buy side
 - Support the business case for the vendors

What Is Meant by Interoperability

- A useful working definition of interoperability
 - The ability of two or more entities or components to exchange information and to use the information that has been exchanged *“to meet a defined mission or objective”*

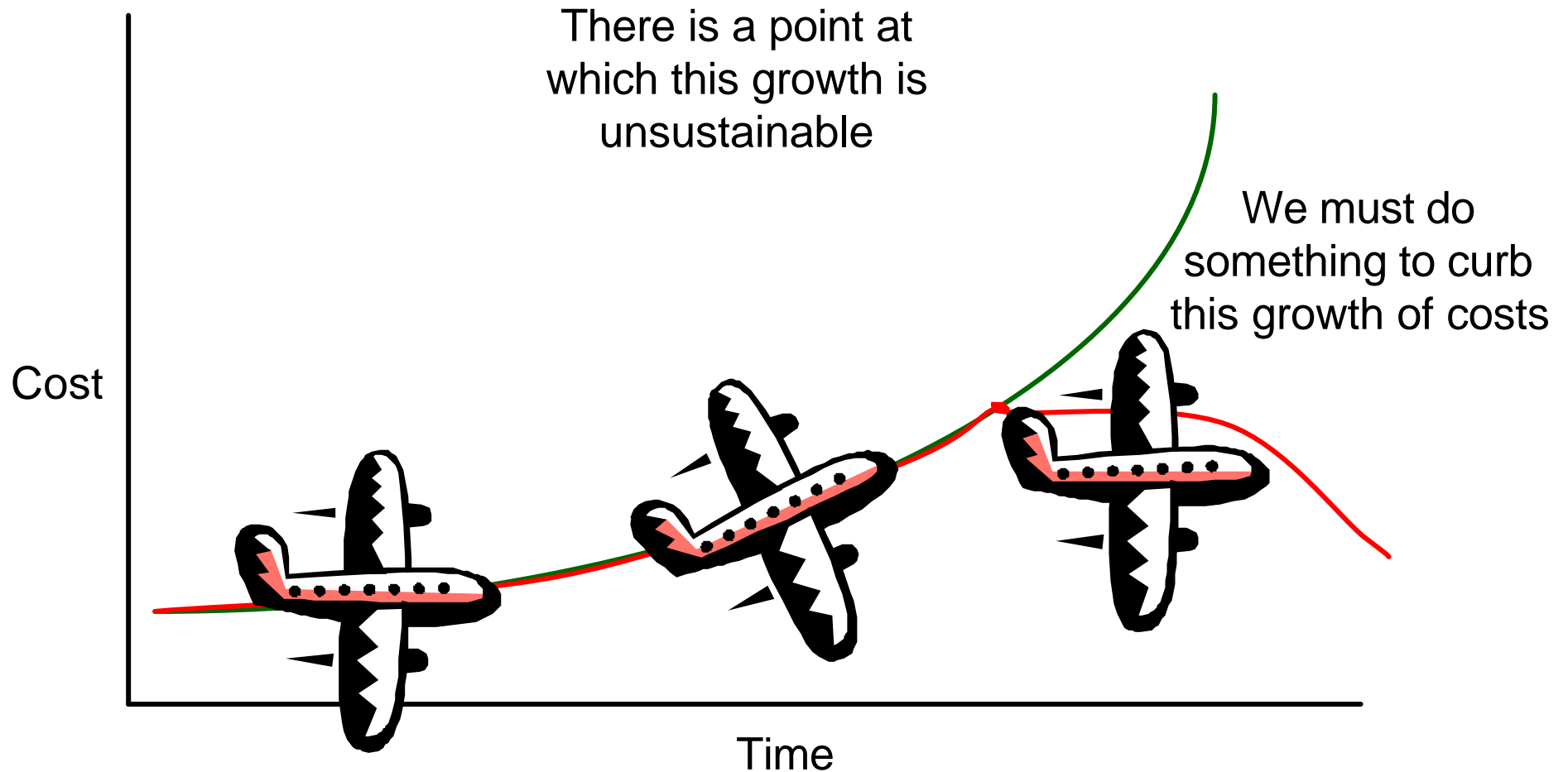
Customer Problem Statement

- “I could run my business better if I could gain operational efficiencies improving
 - **the many different business processes of the enterprise**
 - both internal, and
 - spanning the key interactions with suppliers, customers, and partners using
 - **integrated information, and integrated access to that information.**“

Pain Points

- ❑ Lack of effectiveness of business operations
- ❑ Lost opportunity to add value to the business
- ❑ Increasing IT costs
- ❑ Lack of effectiveness of IT
- ❑ Reduced management control
- ❑ Increased operational risk

The Criticality of IT Costs



How Important...

- Not having an "Integrated Information Infrastructure" where systems interoperate, i.e. easily exchange information and use that information to improve operations, is causing organizations real pain
 - 100s of millions in lost opportunities
 - Billions are said to be spent to make systems interoperate or to recover from mistakes
 - *The risks are not only financial but deal with lost lives*
 - *Hospitals, 911/999 systems, Critical infrastructure, Air Traffic Control...*

* respondents to survey taken at conference

Forecasts

- ❑ Gartner Dataquest forecasts Worldwide End-User IT Spending will grow from \$2.7 US *trillion* in 2001 to greater than \$3.0 US *trillion* in 2002 and \$3.4 US *trillion* in 2003
- ❑ The worldwide integration services market, is expected to grow at a 25% compounded annual growth rate between 2001 and 2005 to \$116.5 US *billion* according to IDC
- ❑ Recent CIO magazine survey says companies spend over 35% on integrating systems and processes

Shared Problems

Manufacturing Co 1

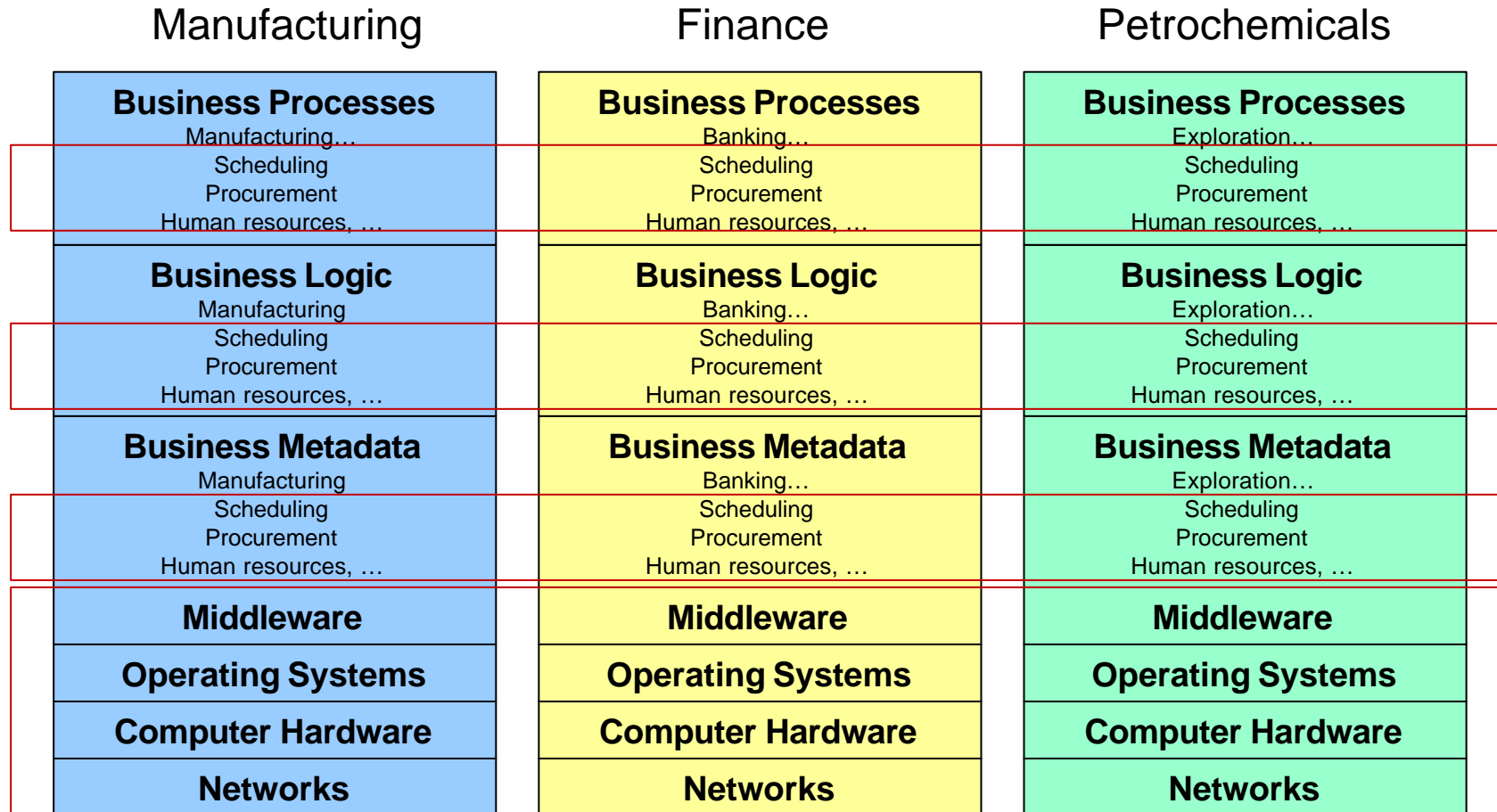
Manufacturing Co 2

Manufacturing Co 3

<p>Business Processes Manufacturing Process X...</p> <p>Scheduling Procurement Human resources, ...</p>	<p>Business Processes Manufacturing Process Y...</p> <p>Scheduling Procurement Human resources, ...</p>	<p>Business Processes Manufacturing Process Z...</p> <p>Scheduling Procurement Human resources, ...</p>
<p>Business Logic Manufacturing Logic for X</p> <p>Scheduling Procurement Human resources, ...</p>	<p>Business Logic Manufacturing Logic for Y</p> <p>Scheduling Procurement Human resources, ...</p>	<p>Business Logic Manufacturing Logic for Z</p> <p>Scheduling Procurement Human resources, ...</p>
<p>Business Metadata Manufacturing Metadata for X</p> <p>Scheduling Procurement Human resources, ...</p>	<p>Business Metadata Manufacturing Metadata for Y</p> <p>Scheduling Procurement Human resources, ...</p>	<p>Business Metadata Manufacturing Metadata for Z</p> <p>Scheduling Procurement Human resources, ...</p>
Middleware	Middleware	Middleware
Operating Systems	Operating Systems	Operating Systems
Computer Hardware	Computer Hardware	Computer Hardware
Networks	Networks	Networks

Common problems

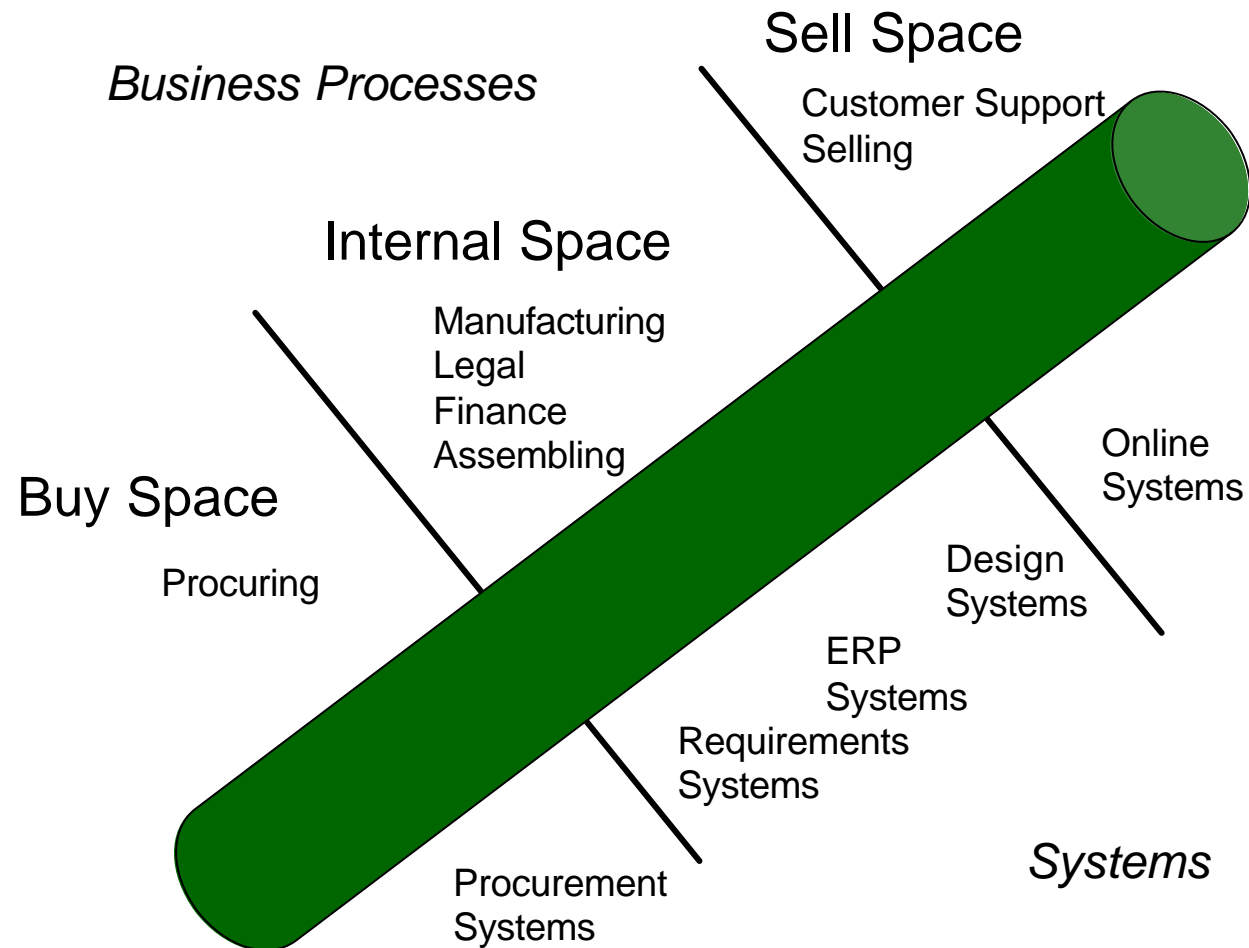
Shared Problems across Industries



Common problems

Problems from ...

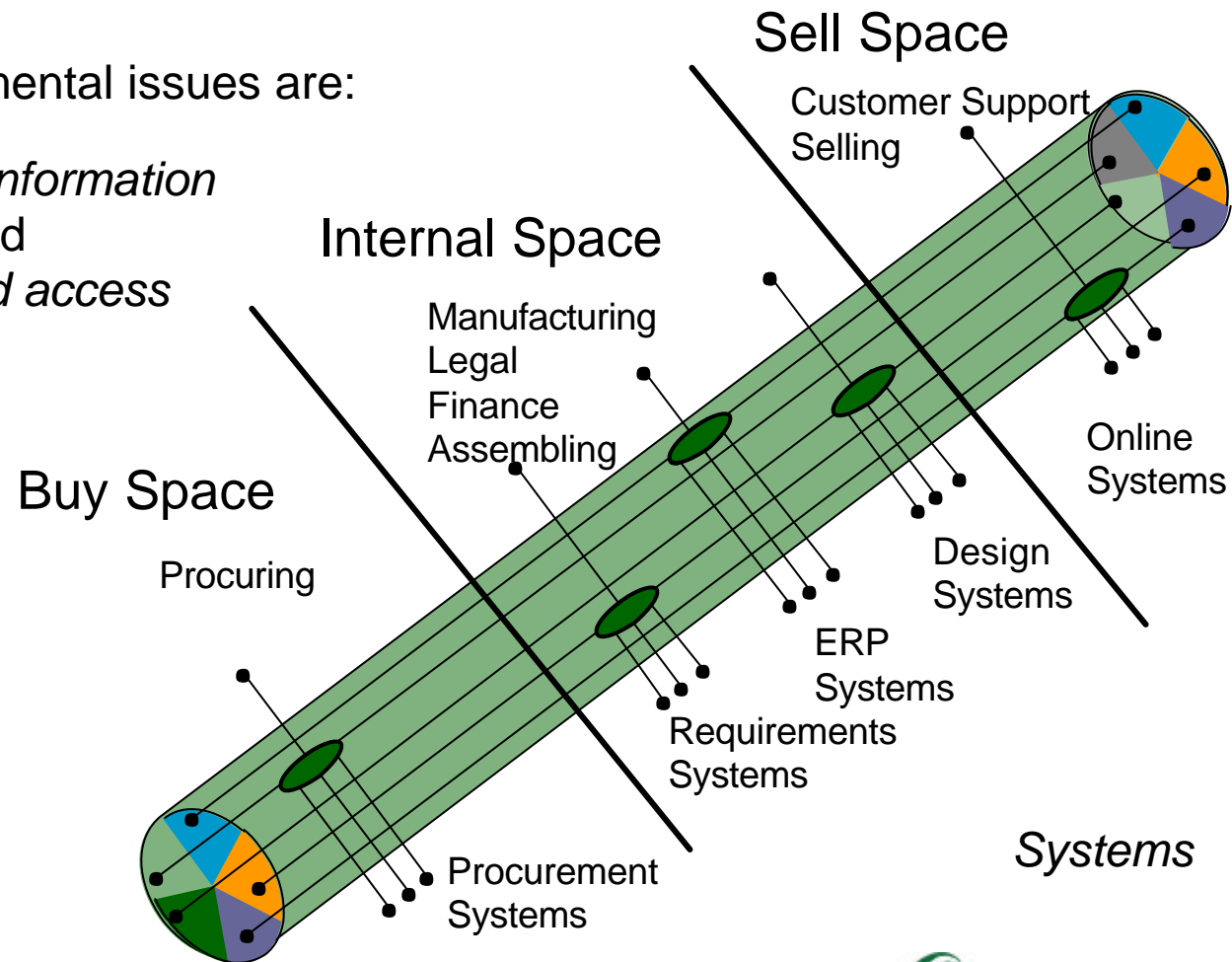
*Need to integrate
and optimize
business
processes*



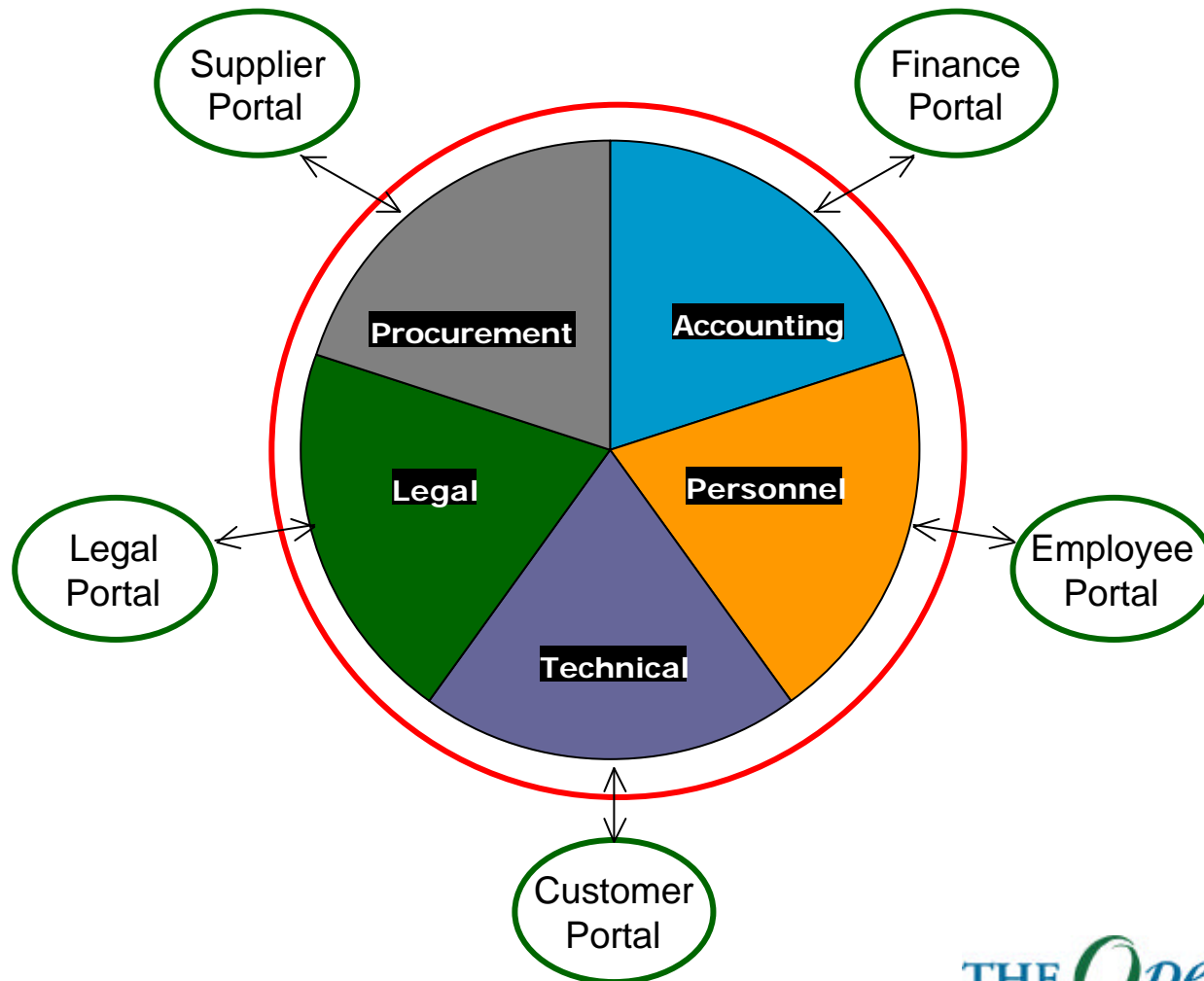
Problems from ...

However fundamental issues are:

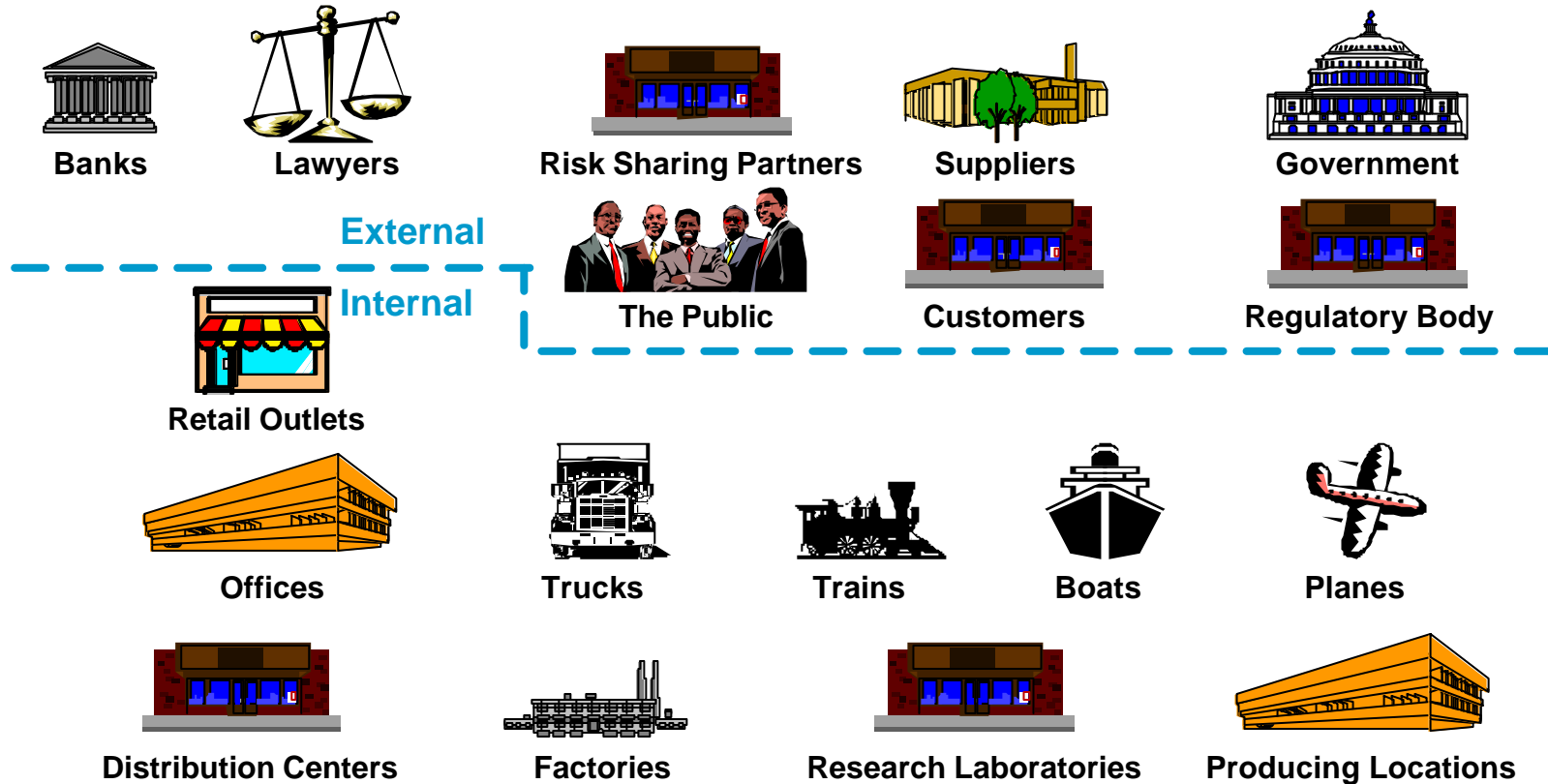
*Integrated information
and
Integrated access*



Need for Integrated Access



Business Environment



Business Environment

(product lifecycle)

- ❑ Internal processes include processes like:
 - Product definition
 - Manufacturing process design and definition
 - Inbound logistics
 - Workflow / shop floor logistics
 - Outbound logistics (fulfillment/delivery)
 - Maintenance, and
 - Discontinuance

Success is measured in terms of process efficiency and accuracy!

Examples of Human Actors

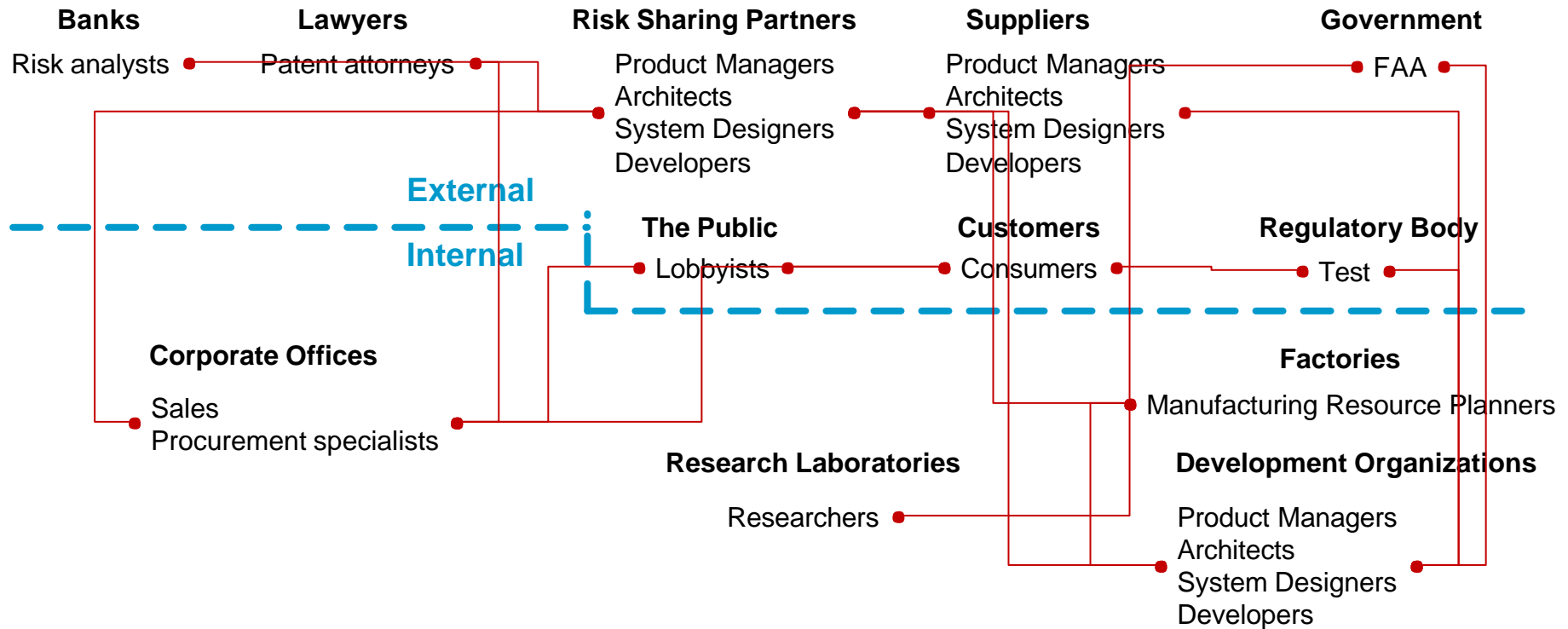
- ❑ Clerks
- ❑ Analysts
- ❑ Engineers
- ❑ Materials acquisition and procurement specialists
- ❑ Shipping and delivery personnel
- ❑ Researchers
- ❑ Security specialists
- ❑ Suppliers
- ❑ Shop floor workers and technicians

People executing processes are **always** in the value chain!

Business Environment

Consider a "Product Lifecycle" Example

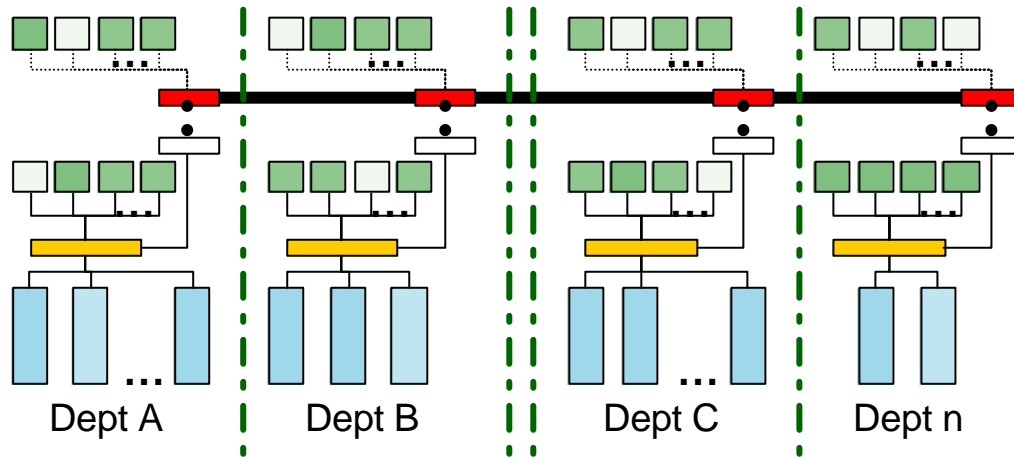
Simple question, what is the impact of offering internet connectivity on an airplane or in a car?



Many people must get engaged, and involves access to much information that requires integration!

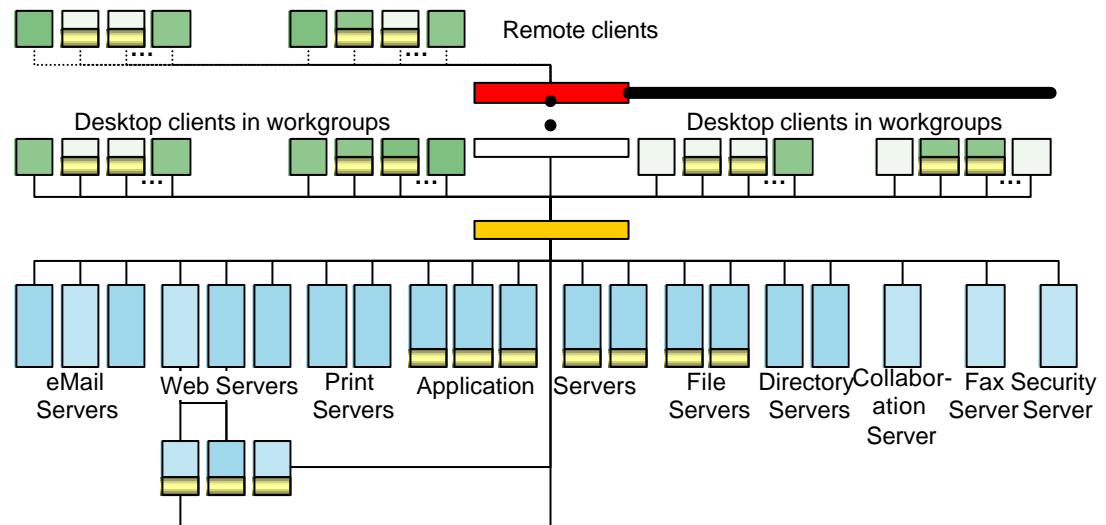
Technology Environment

Network View



- ❑ Highly complex
- ❑ Heterogeneous
- ❑ 1000s of systems
- ❑ Information throughout
- ❑ Need for some level of information sharing

- ❑ Too much information that just can't be easily accessed and managed!



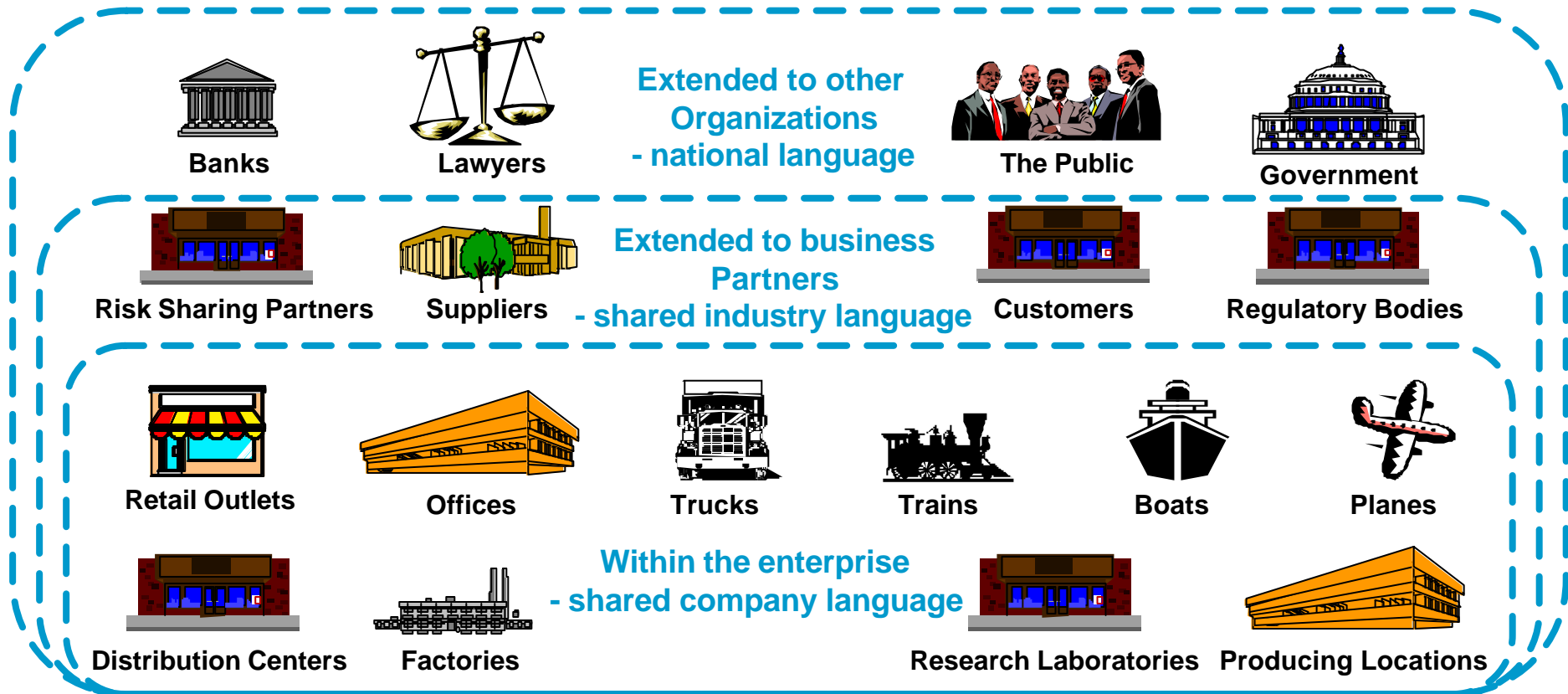
Objectives and Measures

- ❑ Improve business productivity and effectiveness of business operations
 - Improve select process performance metrics
 - Revenue growth
- ❑ Shorter cycles to return on IT investment
 - % of procurements against standards
 - Spend on customizations
- ❑ Improve effectiveness of information technology organization
 - Asset utilization
 - Cycle time for rolling out upgrades
- ❑ Improve service
- ❑ Improve management efficacy
- ❑ Reduce risk

So What Is In3?

- ❑ An ***Integrated Information Infrastructure*** is a desired state for an enterprise's infrastructure specific to the needs of the organization
 - It has standard components that provide services in a customer's extended enterprise that
 - Combine multiple sources of information
 - Deliver information to the places where that information is needed and
 - In the right context for the people or computer components using that information

Extending the Reach



So What Must One Do...

	Information	Infrastructure
Business	<ul style="list-style-type: none">□ Understand business processes and information<ul style="list-style-type: none">▪ Prioritize and Assess□ Create/adapt policies and best practices<ul style="list-style-type: none">▪ General management guidelines▪ Use, management, and security policy	<ul style="list-style-type: none">□ Identify and prioritize business information flow□ Identify sources of information□ Assess mechanisms for information flow□ Register sources and destinations of information□ Develop business architecture
Technical	<ul style="list-style-type: none">□ Research<ul style="list-style-type: none">▪ Security services▪ Information services▪ Brokerage services▪ Integrated access services▪ ...	<ul style="list-style-type: none">□ Plan, develop, test and deploy<ul style="list-style-type: none">▪ Security services▪ Information services▪ Brokerage services▪ Integrated access services▪ ...

One Would Have a Lot to Do

- ❑ Takes Time
- ❑ Costs Money
- ❑ Judged on quality and results

Option 1 - Go it Alone

- ❑ Longer elapsed time
- ❑ High costs
- ❑ Unpredictable quality
- ❑ No lasting guarantee
- ❑ High risk

Option 2 - Leverage

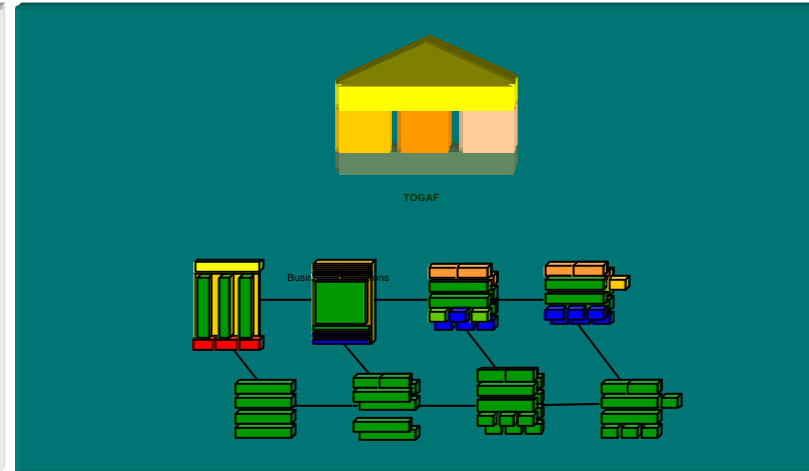
- ❑ Shorter elapsed time
- ❑ Greater industry investment
- ❑ Lower organization costs
- ❑ Safety in numbers
- ❑ Safety in certified standard products
- ❑ Shared risk

So What Can You Do In The Open Group?

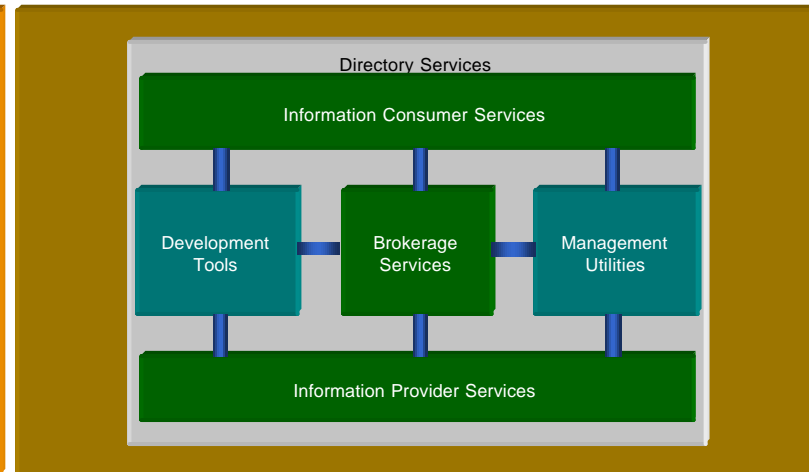
Information

Infrastructure

Business

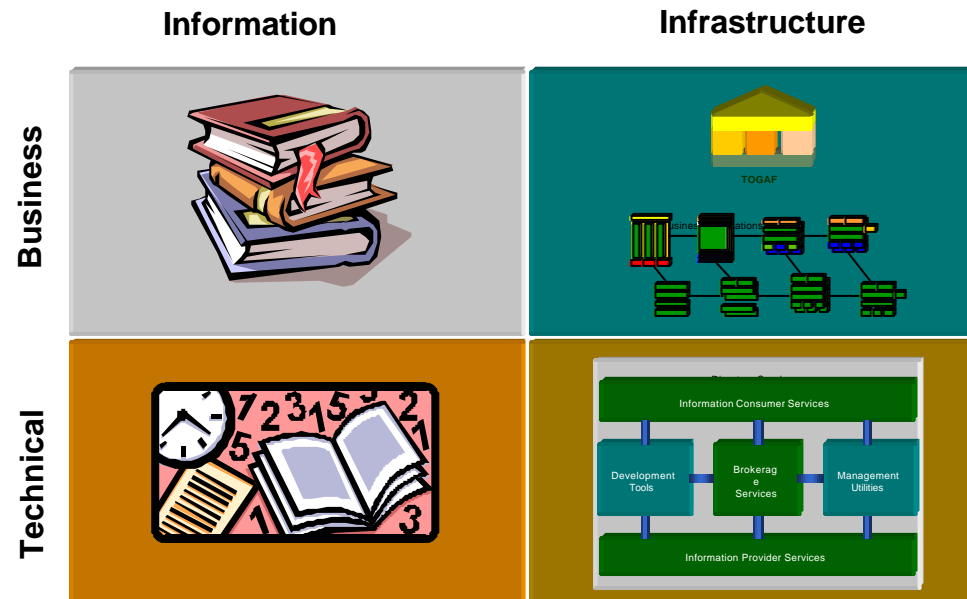


Technical

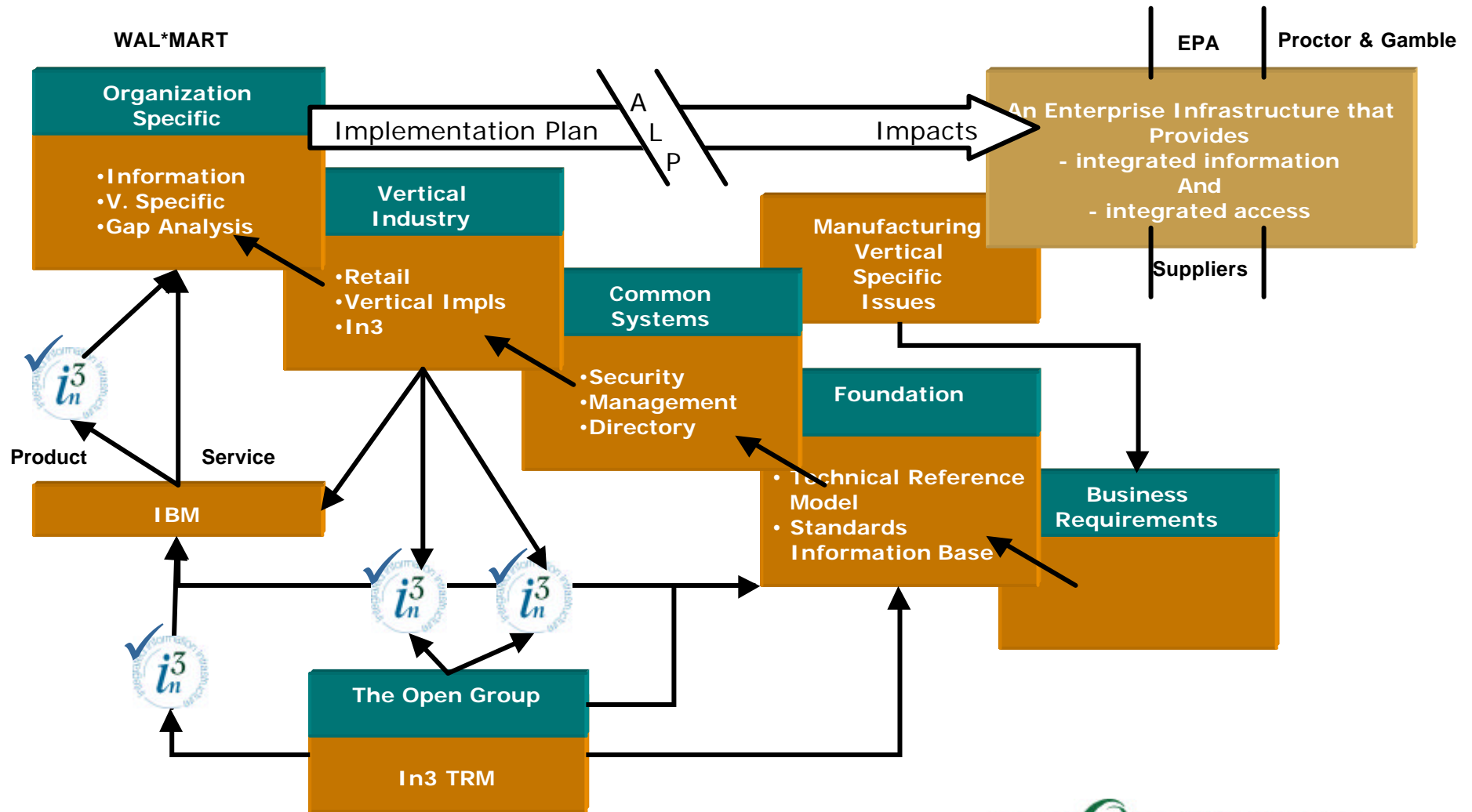


What Else Can We Do?

- ❑ Communicate to CxO levels on the importance of the issue
- ❑ Muster support from major customer and vendor organizations
- ❑ Bring the right organizations together; OASIS, OMG, W3C, IETF, ...



How



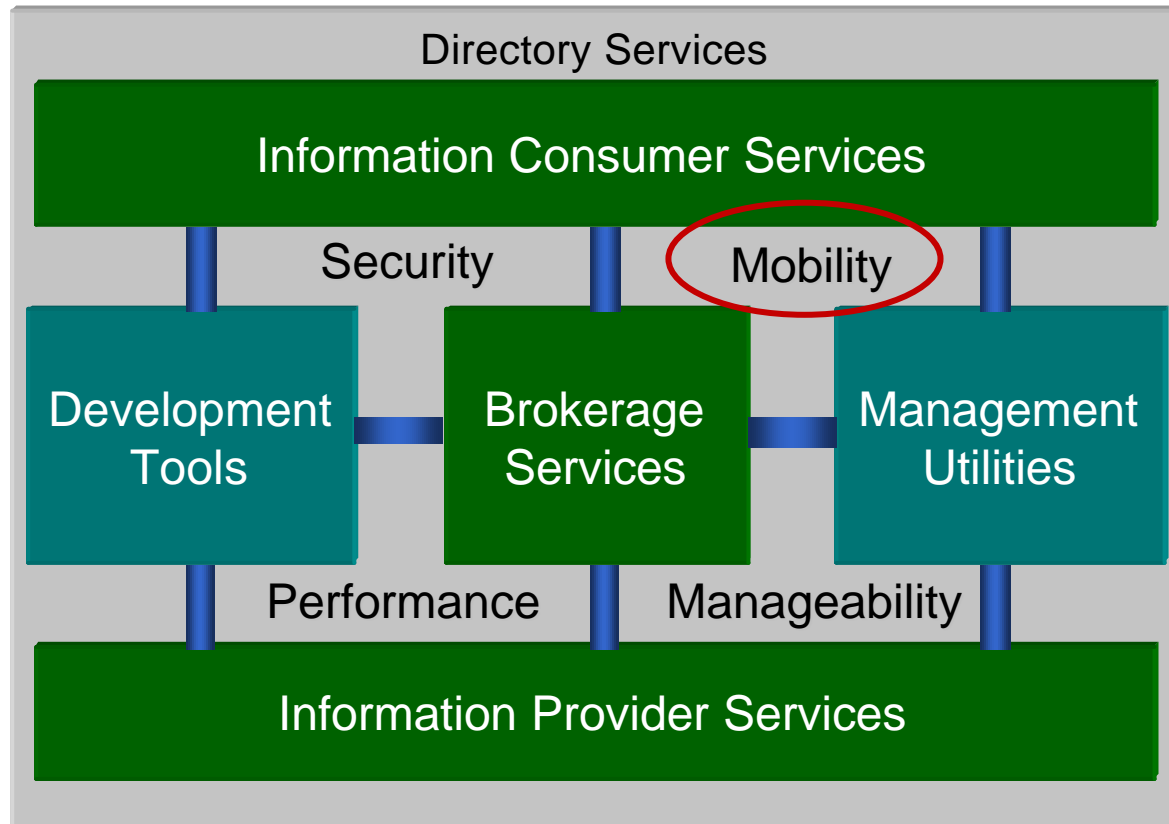
Notes on Architecture Models

- ❑ It is not intended to
 - Create an enterprise architecture that everyone must adopt
- ❑ But rather
 - Establish a technical reference model that could be used in conjunction with something like TOGAF to build one's architecture for one's Integrated Information Infrastructure

A Level 1 Model

(front view)

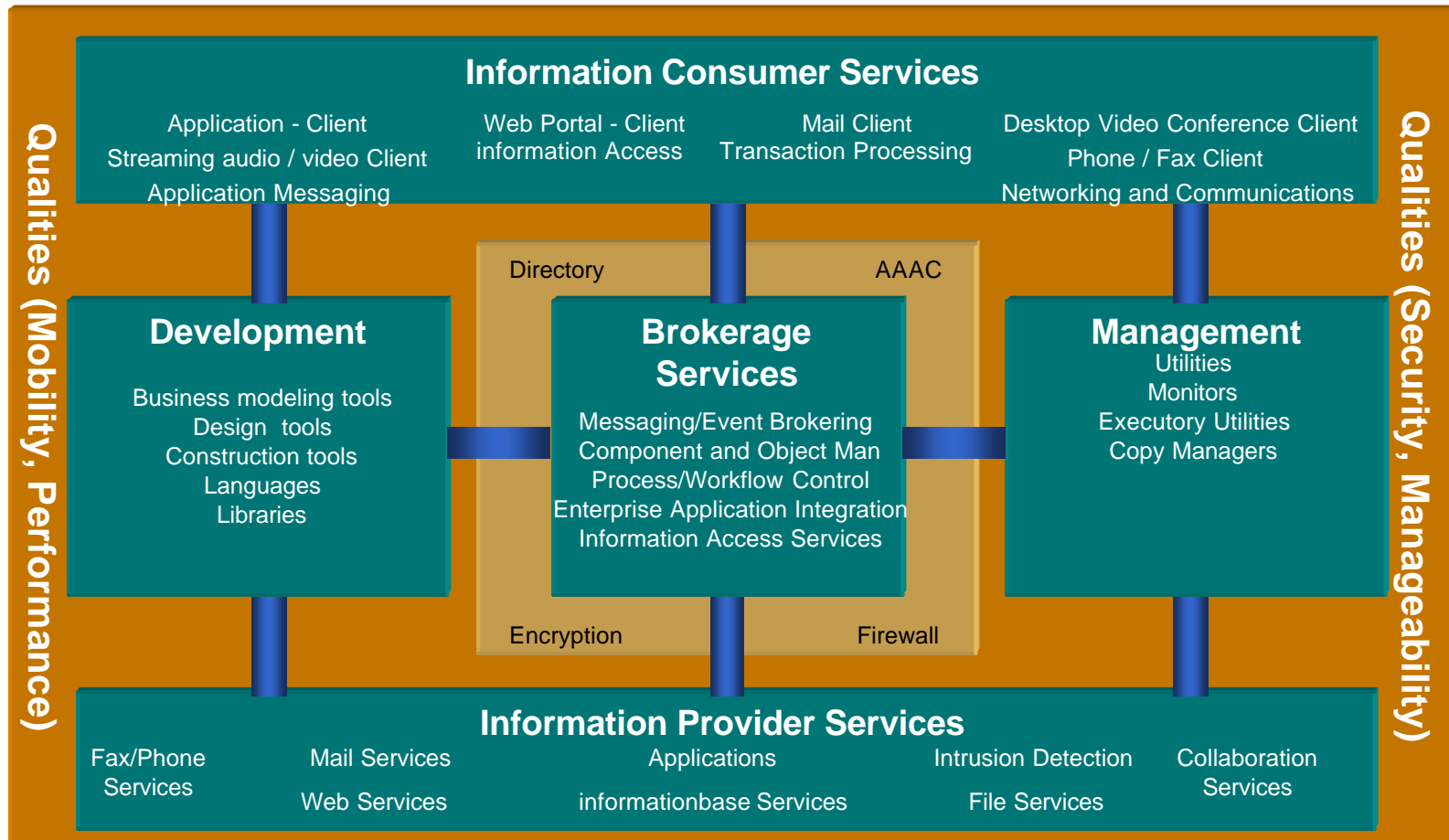
None of this is cast in concrete!



■ Classes of Interfaces - formats and protocols ...

A Level 2 Model

None of this is cast in concrete!



■ Classes of Interfaces - formats and protocols ...

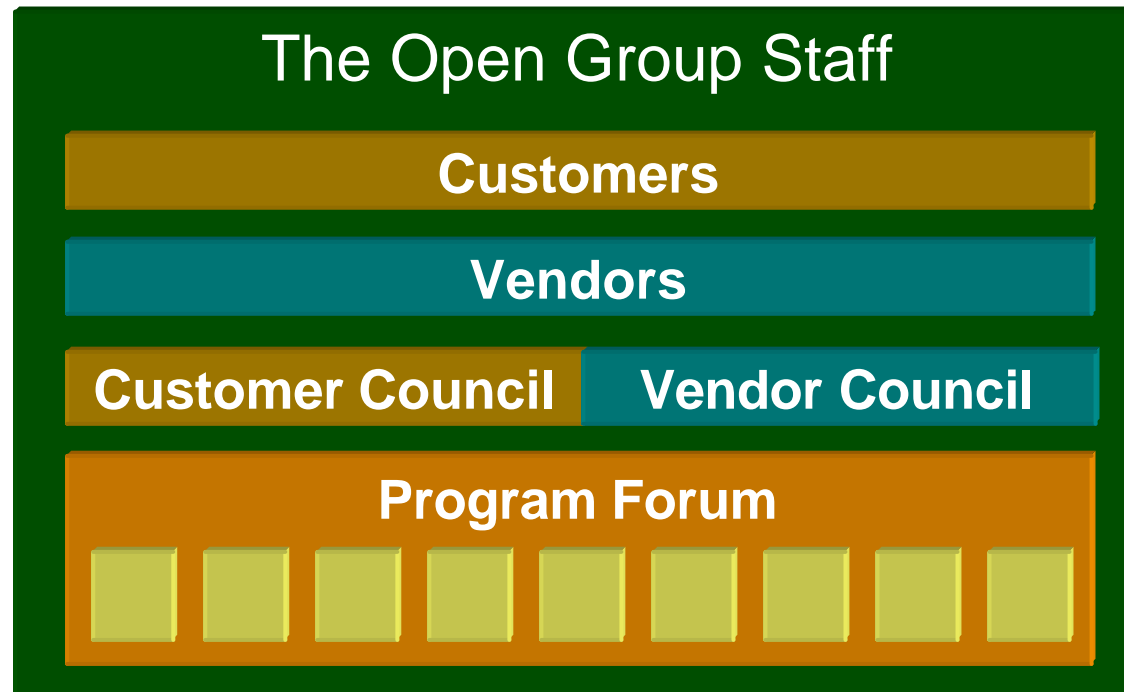
What's the Difference?

- ❑ There are many efforts going on in this space,
 - Global Grid, Global Information Utility, Internet Operating System, etc...
- ❑ Most of these efforts either focus on a particular aspect, or a particular technology
- ❑ The Open Group
 - Is looking at whole problem, bringing together all the parts and pieces
 - Best practices and technology standards
 - Well equipped to be the certification authority: to ensure that the pieces and parts have lasting guaranteed value to the enterprise

Won't it be nice when...

- ❑ The Open Group membership announces the availability of the following profiles that represent collections of standards that can be used to produce products that are certified to interoperate as specified.
- ❑ These profiles represent major building blocks necessary for companies to build their Integrated Information Infrastructures which is estimated to save companies *billions* per year and improve operational efficiencies.

We All Have Parts to Play



We can and will succeed!
Together we're better.