THE Open GROUP

NCR

Visual Enterprise Architecture Planning

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The Open Group Conference

Hotel Marienlyst, Helsingor, near Copenhagen, Denmark
26-27 April 1999 (extending to 30 April for Open Group members)

Agenda

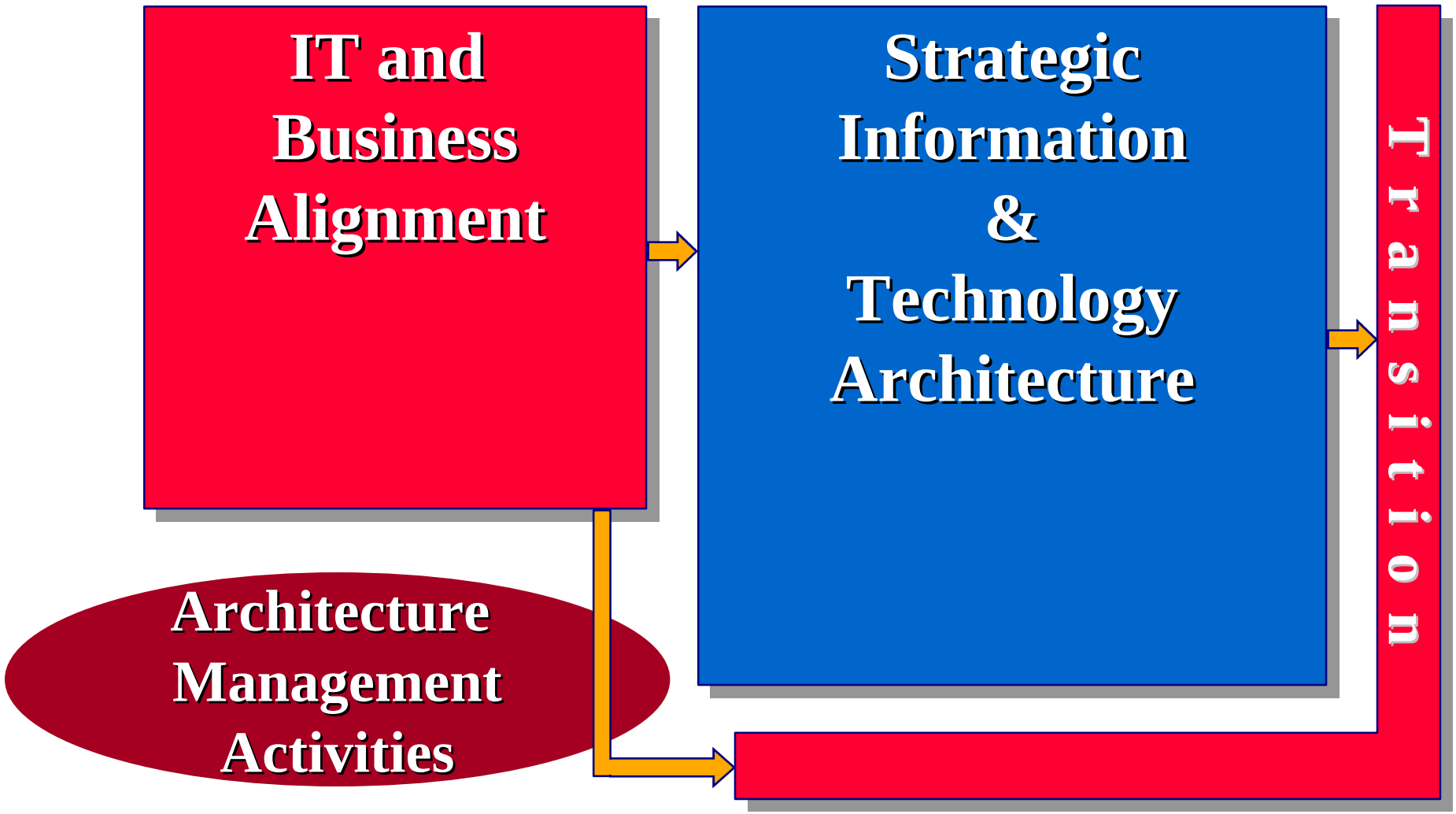
- Why IT Architecture planning and IT & Business Alignment
- The Elements of IT Architecture planning
- NCR's GITP and TOGAF
- Problems with traditional IT Architecture planning
- Visual Enterprise Architecture Planning
- **Demo**

CIO and Senior IS Management Issues

Issue	1997	1996
Aligning IS and Corporate Goals	1	1
Organizing and Utilizing Data	2	3
Instituting Cross-Functional Systems	3	2
Using I/T for Competitive Breakthroughs	4	13
Integrating Systems	5	16
Capitalizing on Advances in I/T	5	15

Source: CSC Survey of Critical IS issues

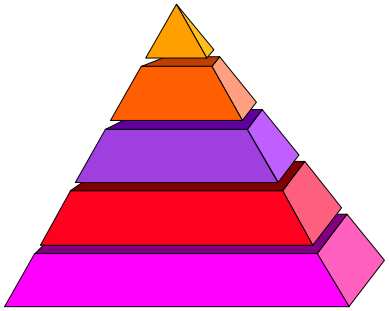
Traditional Architecture Planning



Traditional Architecture Planning

IT and Business Alignment

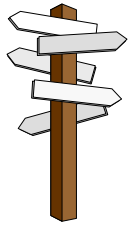
Business Strategies



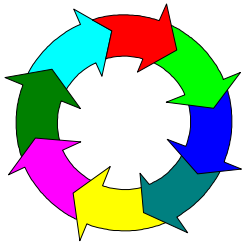
Vision
Goals
Environmental Analysis
Objectives
Strategies
Critical Success Factors

Business Questions

IT Principles



Business Process Model



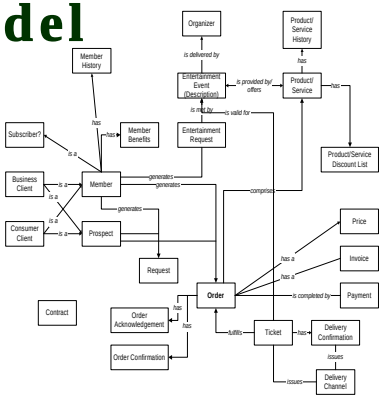
Processes
Users / Locations

Action

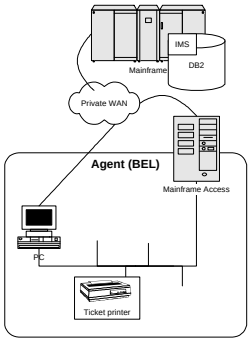
Traditional Architecture Planning

Strategic Information & Technology Architecture

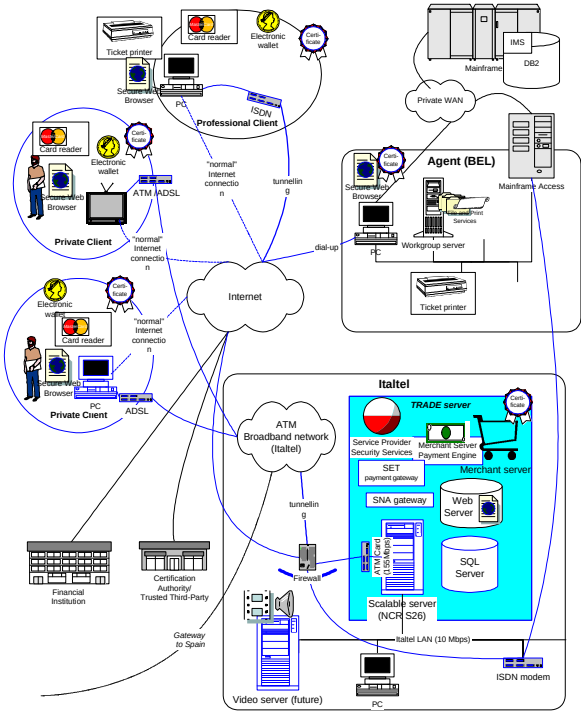
Data / Information Model



Current Environment



Future Target Architecture



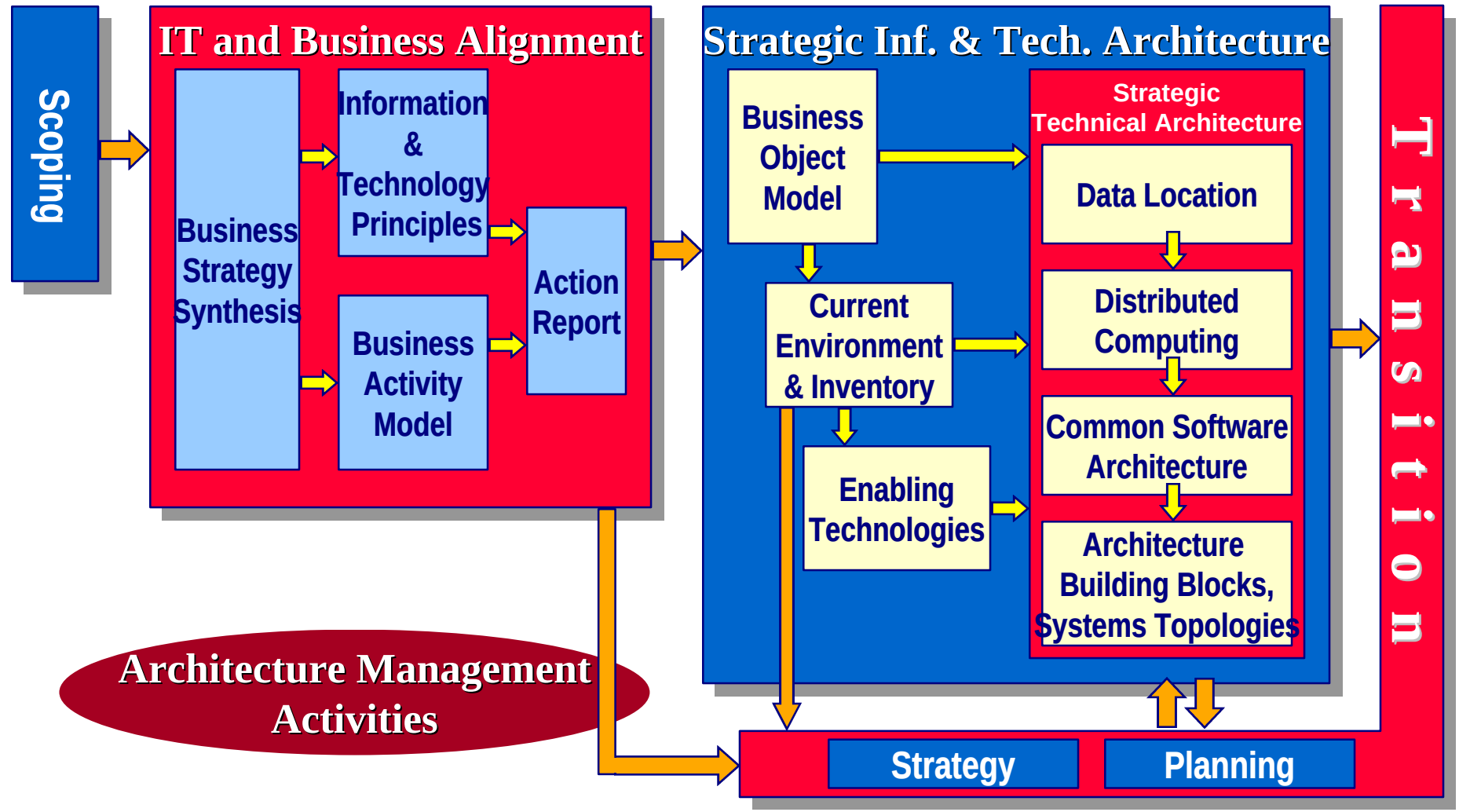
Applications

Data

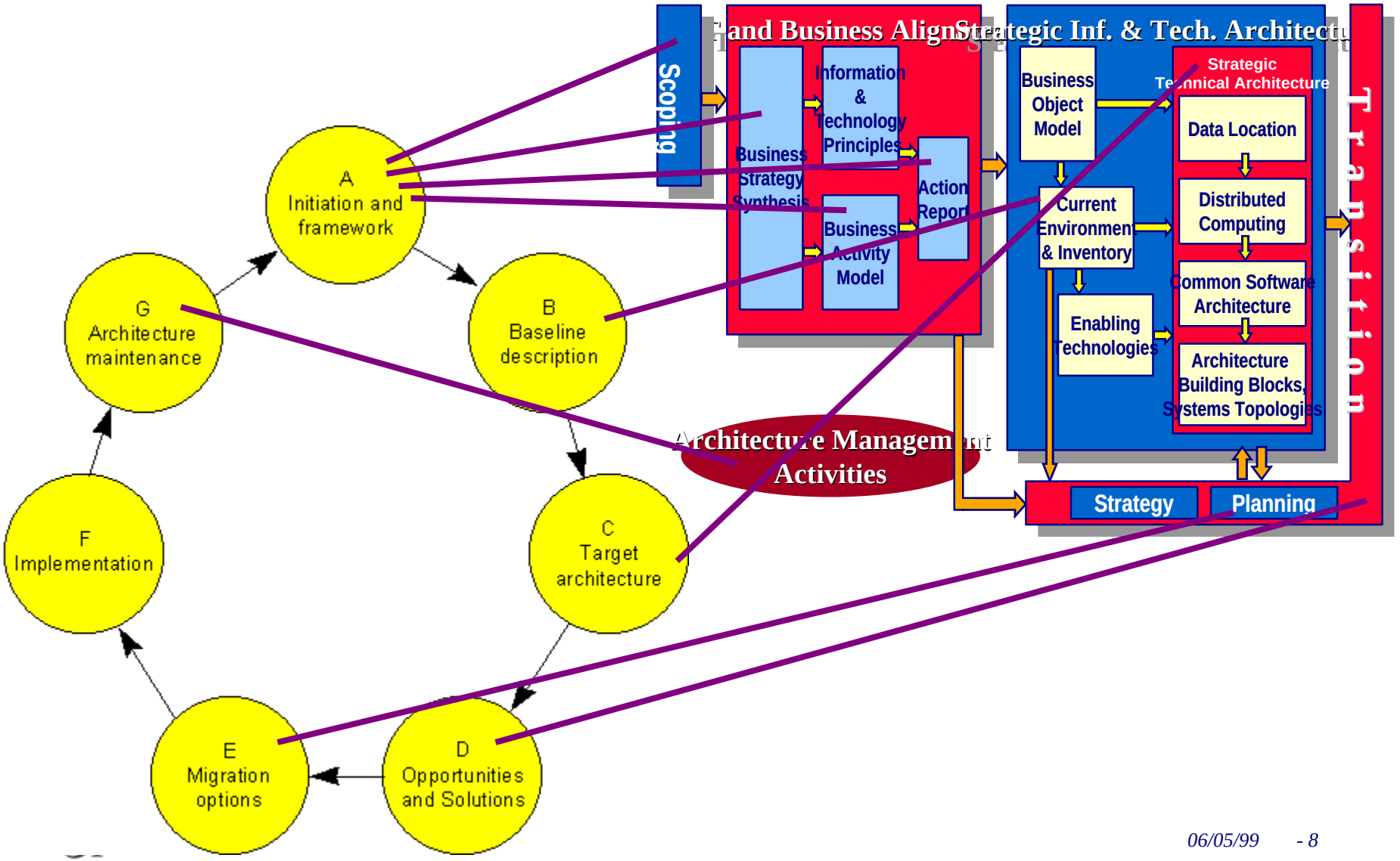
Technology

- Components
- System Profiles
- Topologies

NCR's GITP (Global IT Planning) Method



NCR GITP Complies to TOGAF Architecture Development Method



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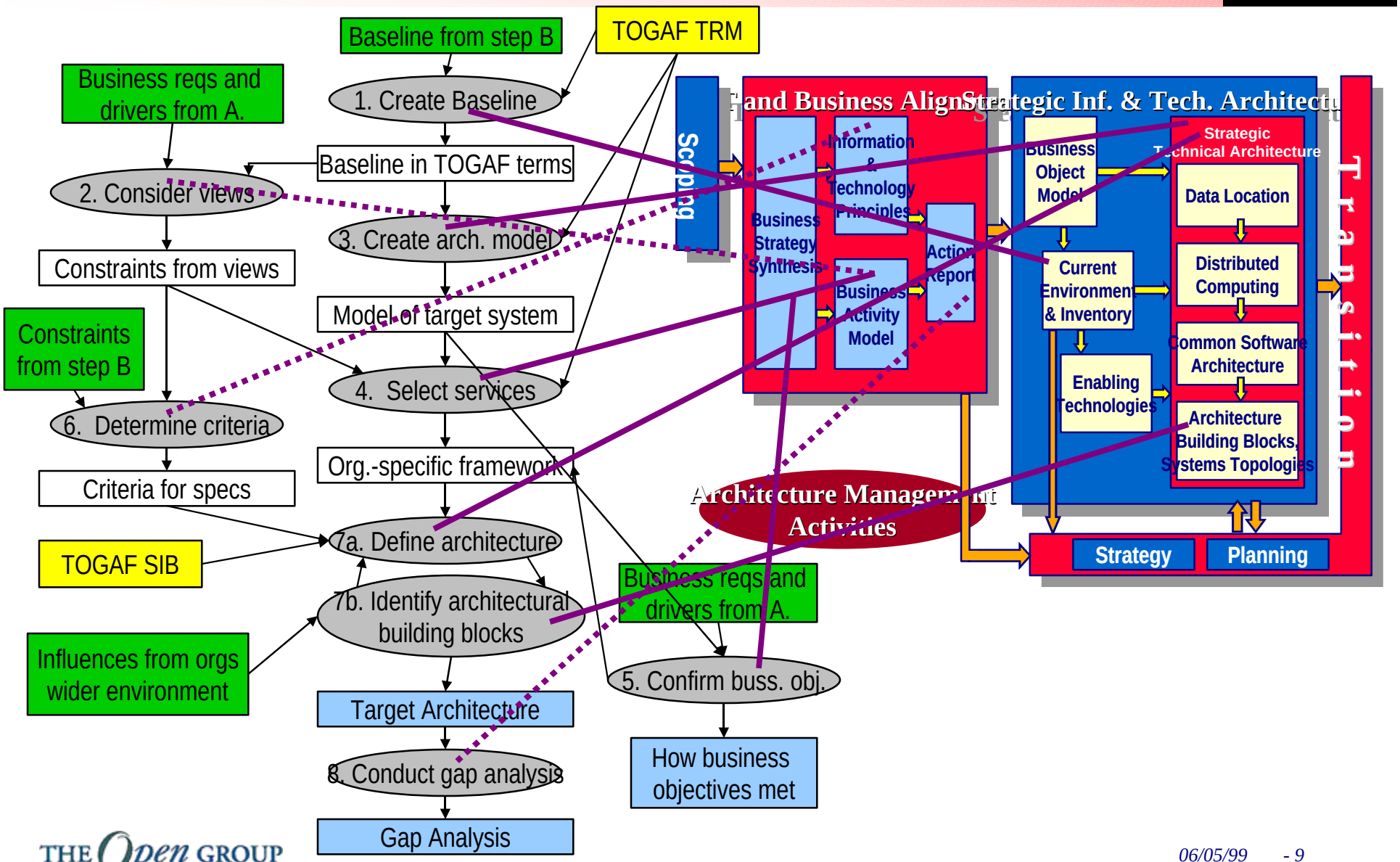


Differences between NCR GITP and TOGAF ADM

- GITP has:
  - More details on Business Strategies - strategies, objectives, critical success factors
  - More on Business Activity models and user / location models
  - Business Object Modelling and a data distribution scheme
  - Application Architecture: an “external view” (computing elements) and an “internal view” (the data and functionality structure of proposed applications)
- TOGAF ADM has:
  - More on project management structures
  - Gap analysis - how does the proposed technology architecture meet the business needs

Conclusion:

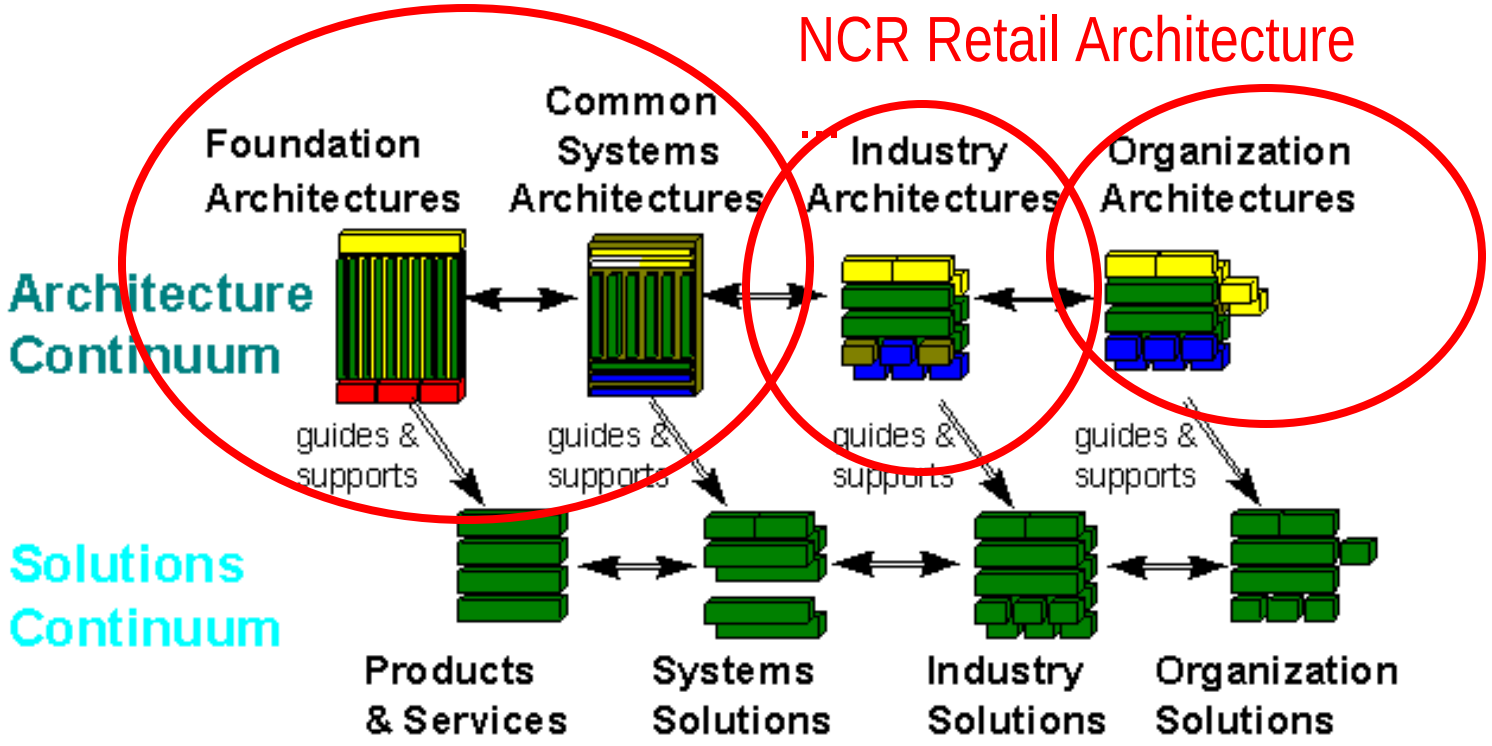
TOGAF provides an excellent framework for technology planning, capturing state-of-the-are approaches found in most IT planning methods.

GITP is in accordance with the TOGAF approach to technology planning, and goes further in also incorporating the application and database aspects.

NCR's GITP in the TOGAF Context

NCR Open Cooperative Computing Architecture
Technology Position Papers

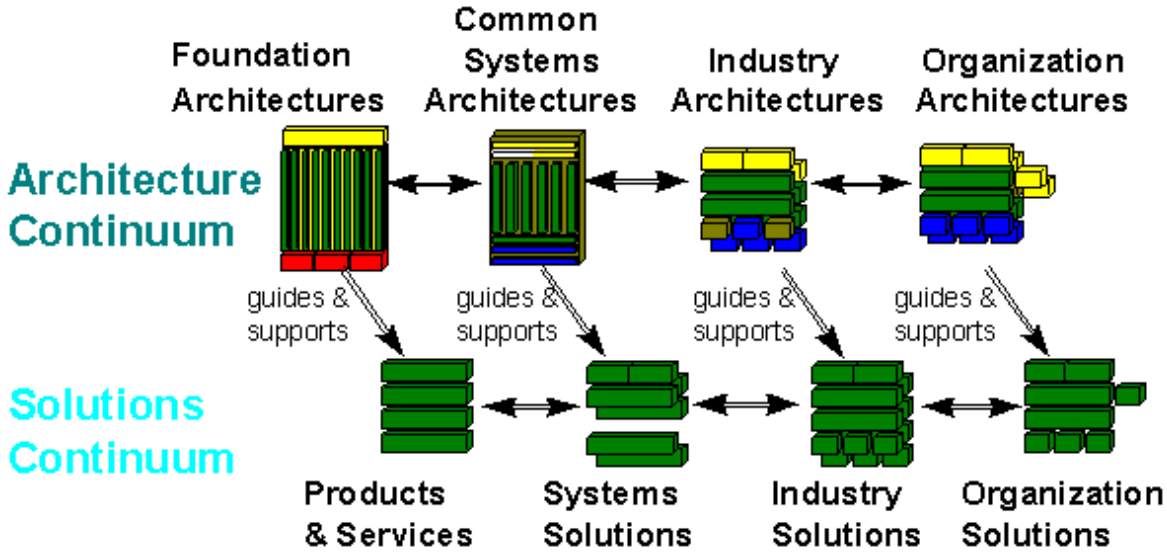
NCR Banking Architecture
NCR Retail Architecture
...



Result of an NCR GITP engagement

NCR's Experiences with an "Architecture Continuum"

- The concept and structure works!
- Foundation for viable, efficient IT Consulting service
- Predefined Common Systems and Industry Architectures and Architecture Building Blocks helps
  - Speeds up delivery of Customer-specific Architectures
  - Helps in planning the Solutions Continuum, developing and selecting compliant NCR and 3rd party products

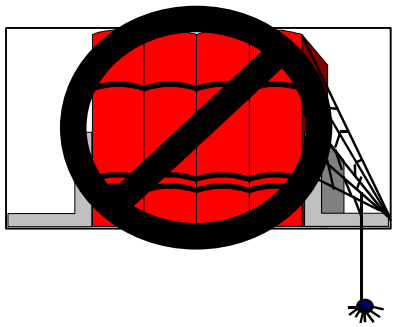


Using Visual Tools to Make the Architecture Development and Maintenance more Efficient

New Demands to Strategic IT Architecture Planning

The traditional paper-based approach meant

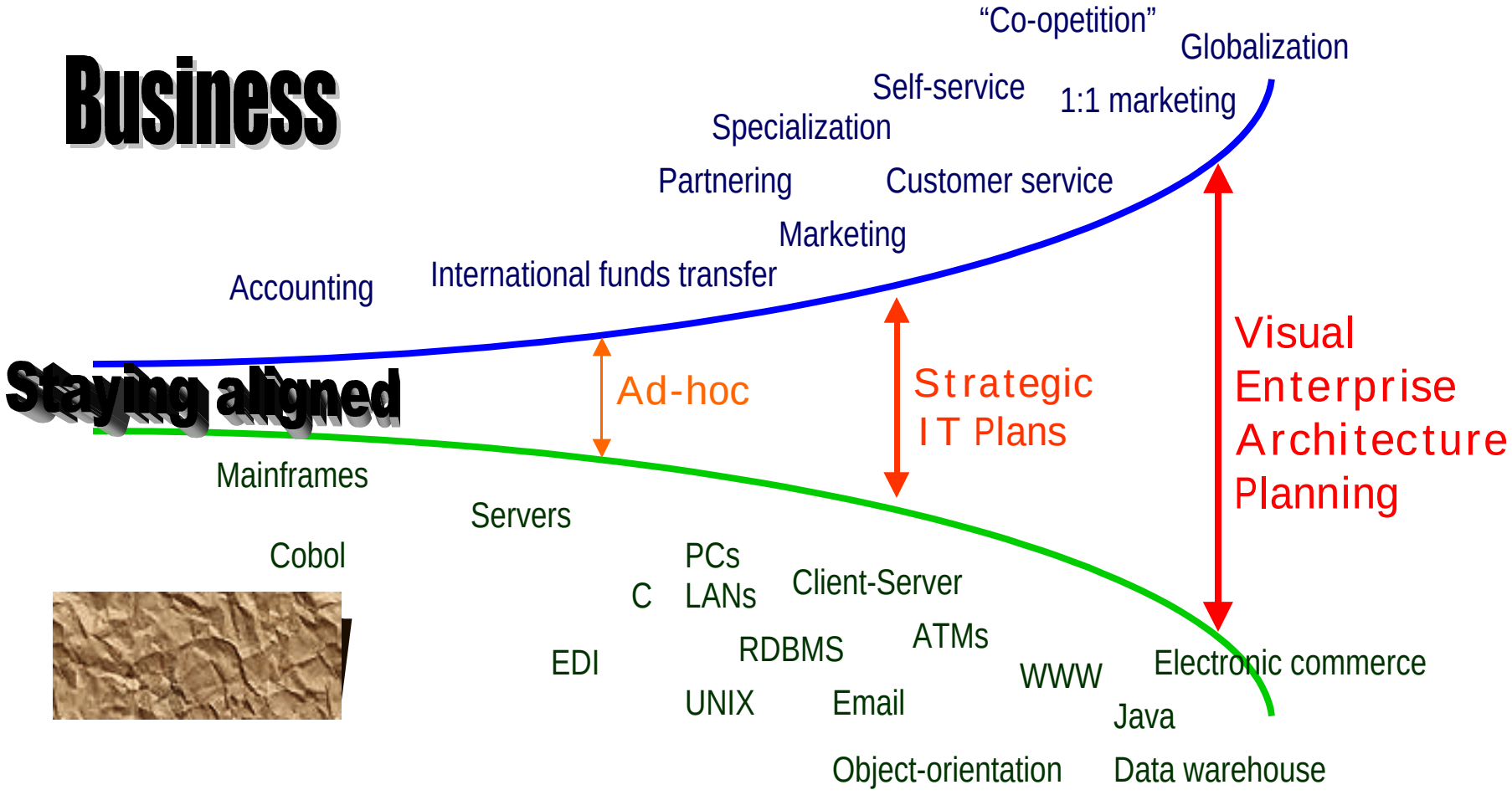
- Thorough, correct (and expensive) IT plans that are
  - … difficult to maintain and keep relevant,
  - … hard to keep aligned with evolving business needs,
  - …an obstacle to continuous knowledge capturing and sharing.
- … and therefore often suffers from the "IT Plan Gathering Dust" syndrome



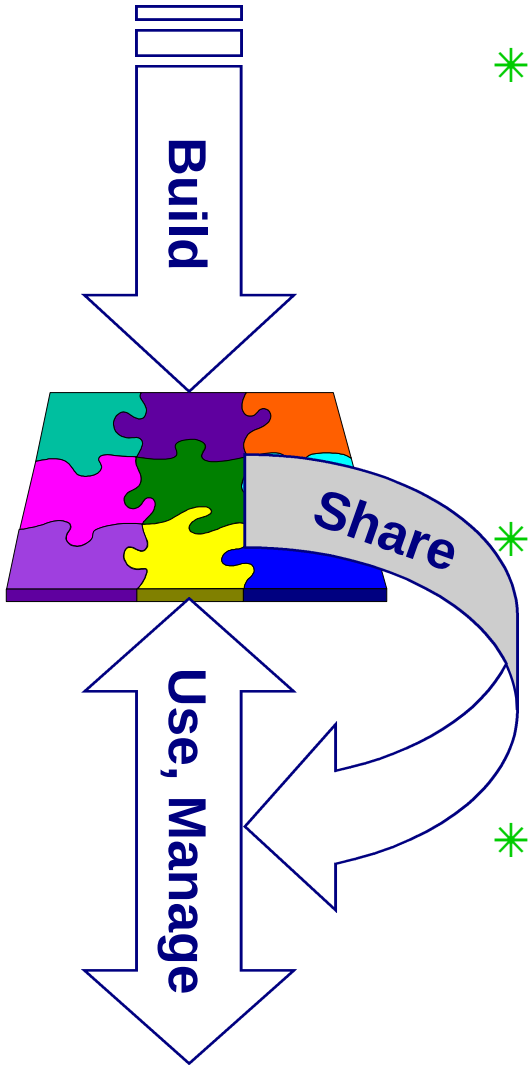
A better approach should …

- Provide flexible, iterative incorporation of existing work
  - Technology policies
  - Business process models
  - Data models
  - Existing IT environment
- Ensure continuous alignment with business
  - Manage effect of changed business priorities
  - "What-if" analysis
- Publicize the strategic IT direction
- Maintain the IT plan operational and up-to-date

Business and IT Changes Requires Effective IT Architecture Management

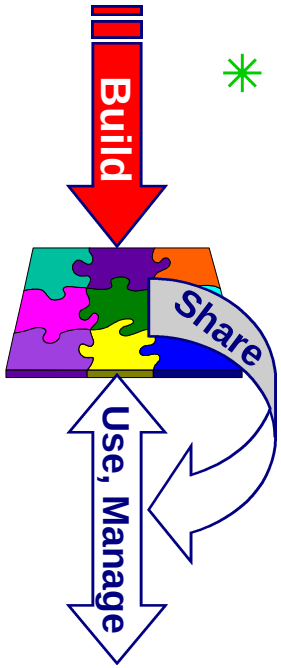


Old Approach

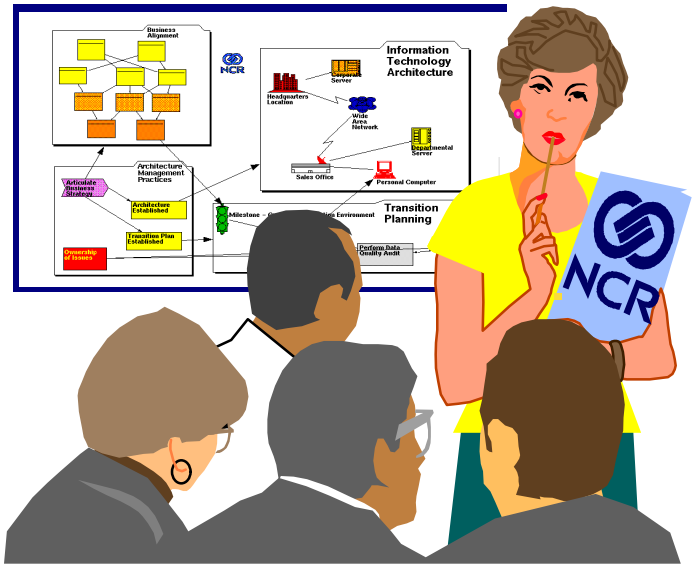


- Build
  - Traditional "paper-ware" – difficult to keep consistent
  - Often "start from scratch", not leveraging existing work
  - Method predefined
  - Chronological method (as opposed to interactive where knowledge can be continuously captured)
  - Difficult to visualize progress and use in interviews, etc.
- Share
  - Paper binders – difficult to disperse in organization
  - Difficult to navigate
  - Difficult to provide feed-back
- Use, Manage
  - Difficult to maintain and keep relevant
  - Hard to keep aligned with evolving business needs
  - One target architecture – a large effort to see consequences of changed assumptions

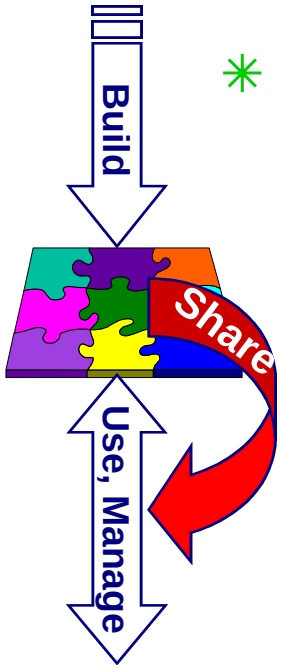
The Ideal IT Planning



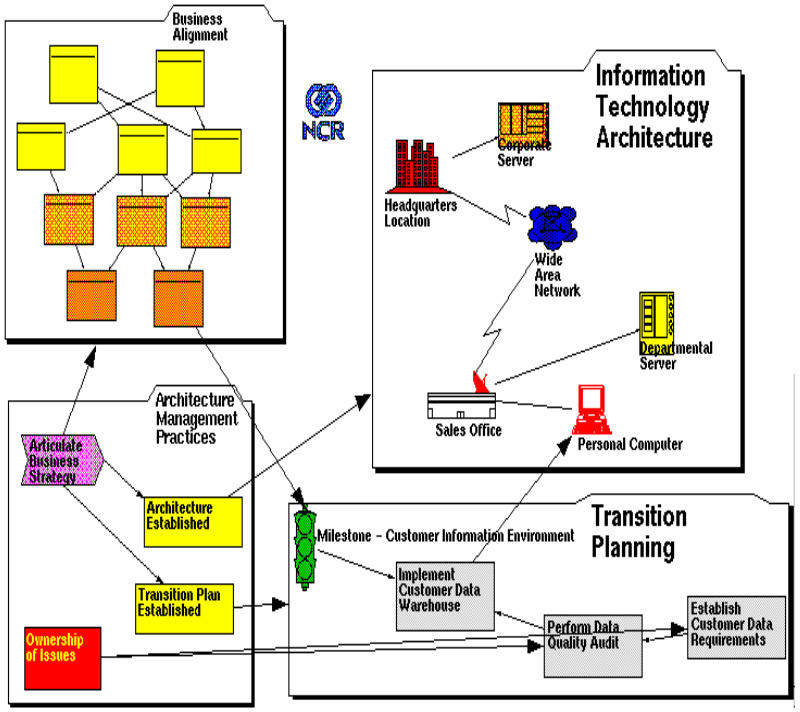
- Build
  - Iterative, incremental, flexible
  - Incorporate and leverage existing pieces
  - Holistic, consistent, rigorous method
  - Freedom of choice of architecture methods (predefined, but also others)
  - Visualization as a help in the creation process



The Ideal IT Planning



- Share
  - Promote strategic IT plan to organization
  - Accessible to stakeholders (e.g. Intranet access)
  - Visible, visual
  - Easy navigation, selected views
  - Architecture management framework / discipline



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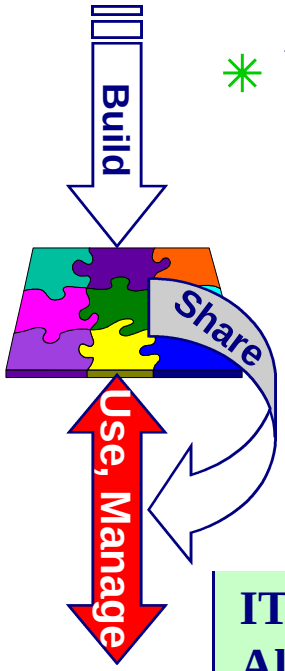
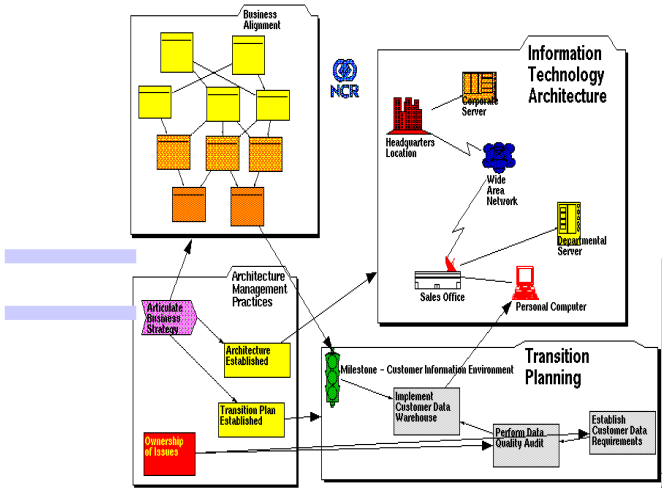
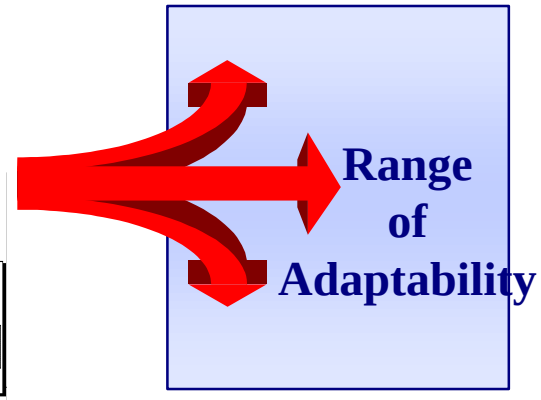
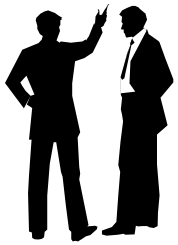


- Use, manage
  - Demonstrate and maintain alignment of IT to business
  - Foundation for decisions on IT projects
  - Test and verify a variety of future scenarios (CAAD), based on changed business and technology requirements
  - Drive down costs and increase speed of maintenance

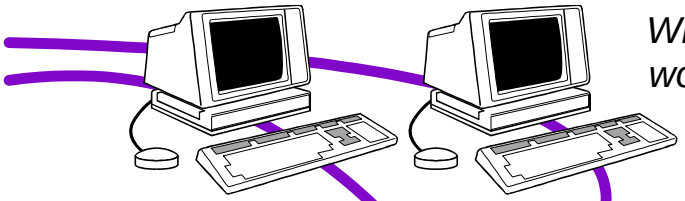




The VEAP Tool

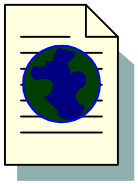


Experienced architects still needed



Windows NT workstations

Web export



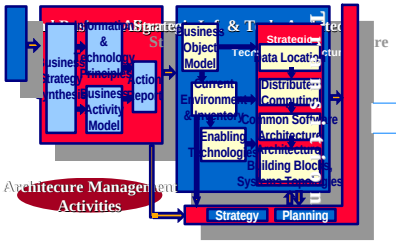
Web Intranet output
(HTML + Metis Meta Language)

Customer Architecture

NCR Banking Model

NCR Retail Model

NCR Telco Model



GITP Specific Objects & Rules (The GITP Architecture Method)

Customer Specific Architecture Method

GEM development language

General Objects

Database

Demo