# IT Optimering

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Jens Cajus Pedersen – IT Consulting DK

IBM Integrated Technology Services

Cajus@dk.ibm.com

# IBM's IT optimerings metode adresserer en række forskellige udfordringer

- **Reducering af IT-omkostninger**
  - IT-organisationen er under pres for at nedbringe omkostningerne til IT

- **Stadigt stigende arbejdsmængder og højere servicekrav fra forretningsorganisationen**
  - IT-organisationen modtager stadigt stigende arbejdsmængder og højere krav til den leverede service fra forretningsorganisationen

- **Øgning af effektiviteten i IT-organisationen**
  - IT-organisationen er under pres for at øge effektiviteten for at kunne følge med stigende arbejdsmængder – uden yderligere ressourcer

- **Ikke-standardiseret IT-infrastruktur**
  - Manglende standardisering i IT-infrastruktur medfører øgede omkostninger til drift

- **Nøgleressourcer**
  - Stor afhængighed af specifikke personer der typisk har en indgående viden om virksomhedens IT-systemer og deres sammenhænge, eller som besidder viden og ekspertise der er kritisk for driften af virksomhedens IT-systemer

- **For få ressourcer**
  - Allokeringen af ressourcer til IT-organisationen følger ikke den stigende arbejdsmængde

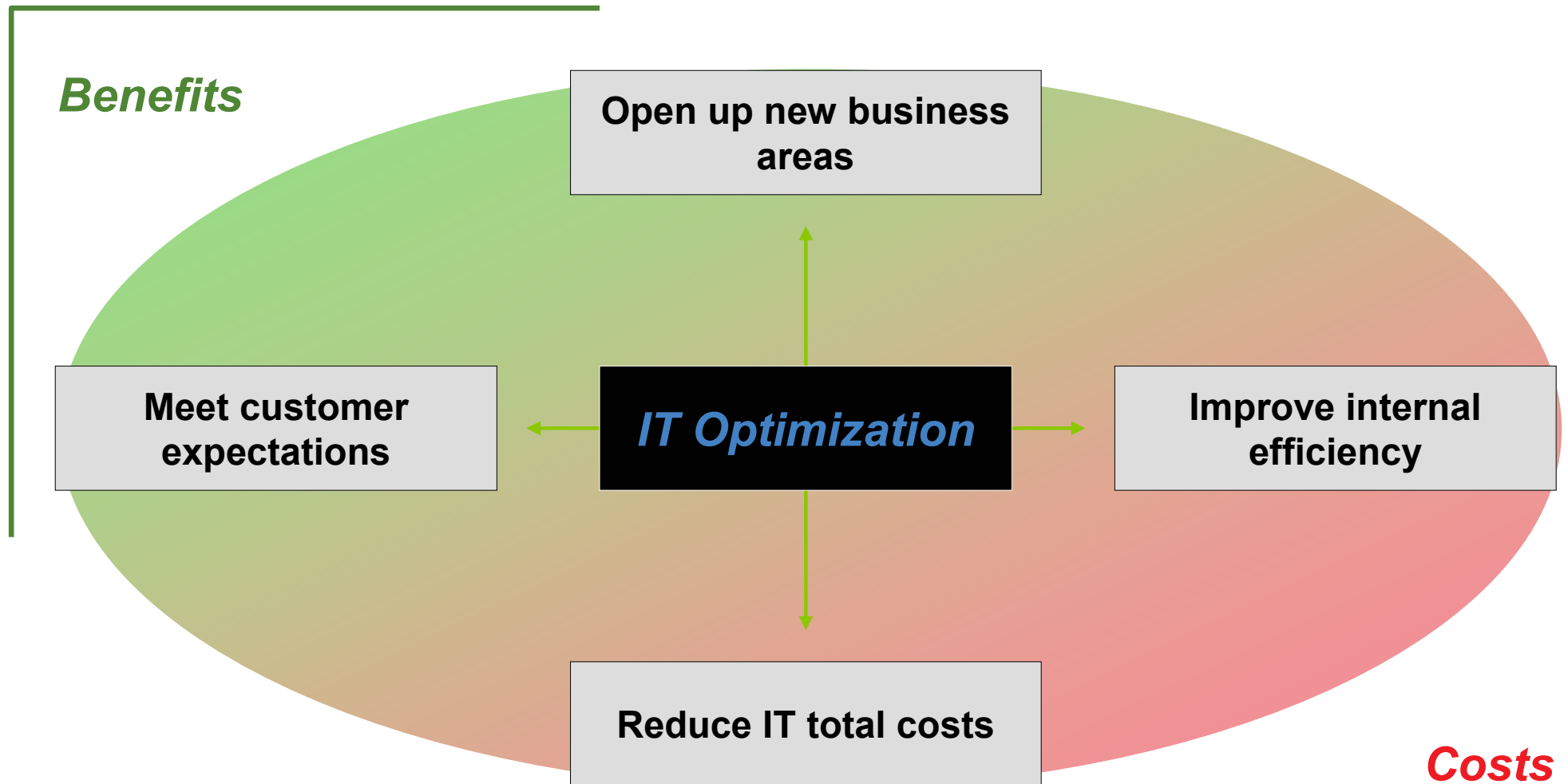# IBM's IT optimerings metode adresserer en række forskellige udfordringer

- **Manglende struktur på arbejdet**
  - Der er ingen procedurer for hvordan arbejdet i IT-organisationen udføres og ingen erfaringsdokumentering. Der er ikke implementeret værktøjer til at understøtte processerne

- **Vanskeligheder med korrekt prioritering af opgaver og projekter**
  - Manglende overblik over hvilke systemer der er vigtigst for forretningen, medfører at prioritering af opgaver og projekter ikke sker i forhold til deres vigtighed.

- **Manglende dokumentation af hvilket arbejde IT-organisationen udfører**
  - Problemer med at dokumentere arbejdsmængden og bredden af arbejdsopgaver i IT-afdelingen

- **Applikationsportefølje i vækst uden overblik over de ressource- og omkostningsmæssige konsekvenser**
  - IT-organisationen mangler overblik over hvilke omkostninger, der er knyttet til driften af forretningsorganisationens applikationer

- **Manglende overblik over samt dokumentation af IT-infrastruktur**
  - Viden omkring den samlede IT-infrastruktur er placeret hos nøgleressourcer eller er spredt bredt ud i IT-organisationen.

- **Manglende overblik over sikkerhed**
  - Er IT-infrastrukturen sikker?
  - Lever virksomheden op til forretningsmæssige og sikkerhedsmæssige krav ?
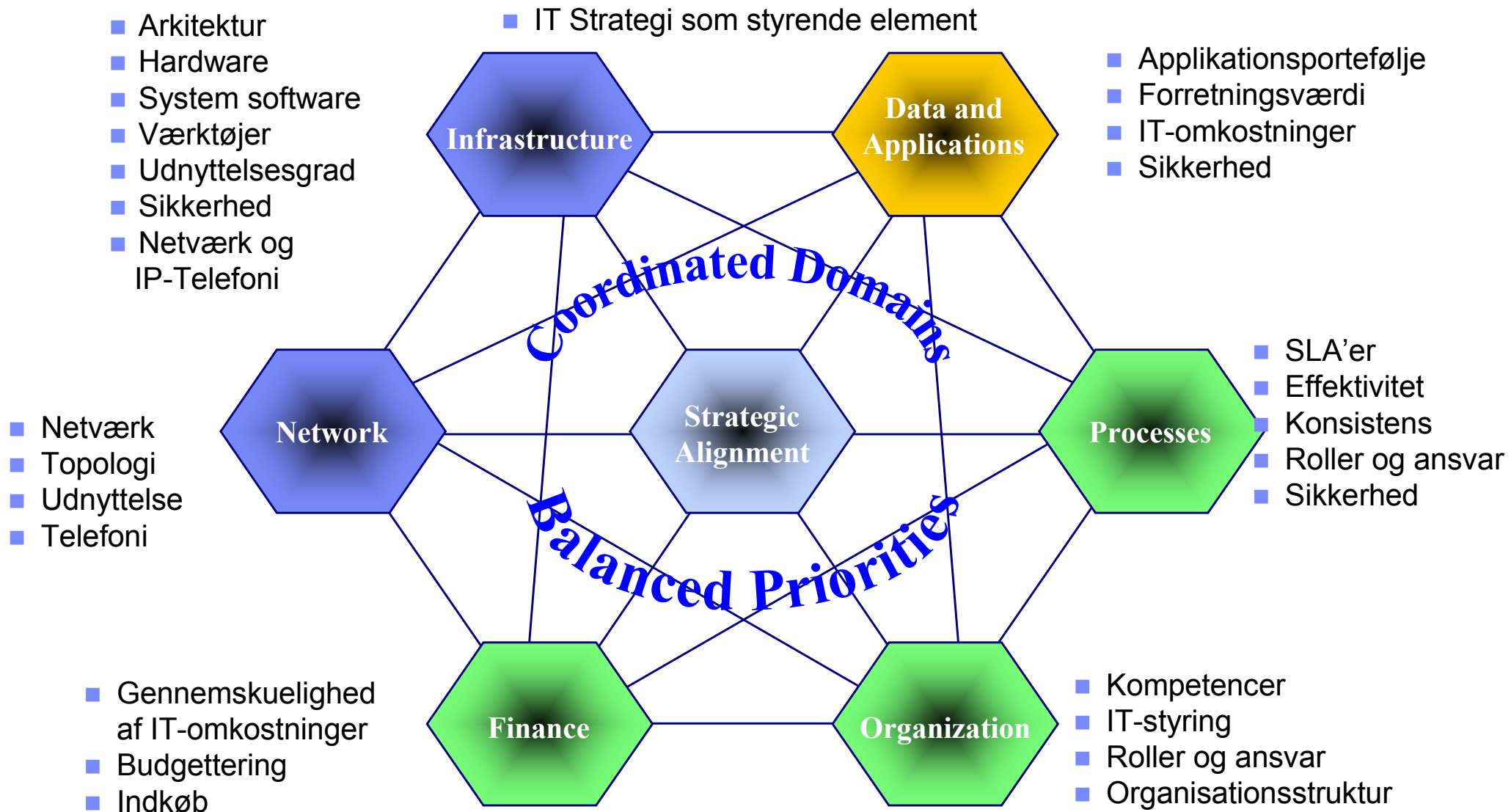
# ITO potentielle besparelser

For at kunne opnå de potentielle fordele ved en IT optimering vil visse initielle investeringer ofte være nødvendige. Værdien af optimeringen kan bestemmes ud fra Return On Investment (ROI).
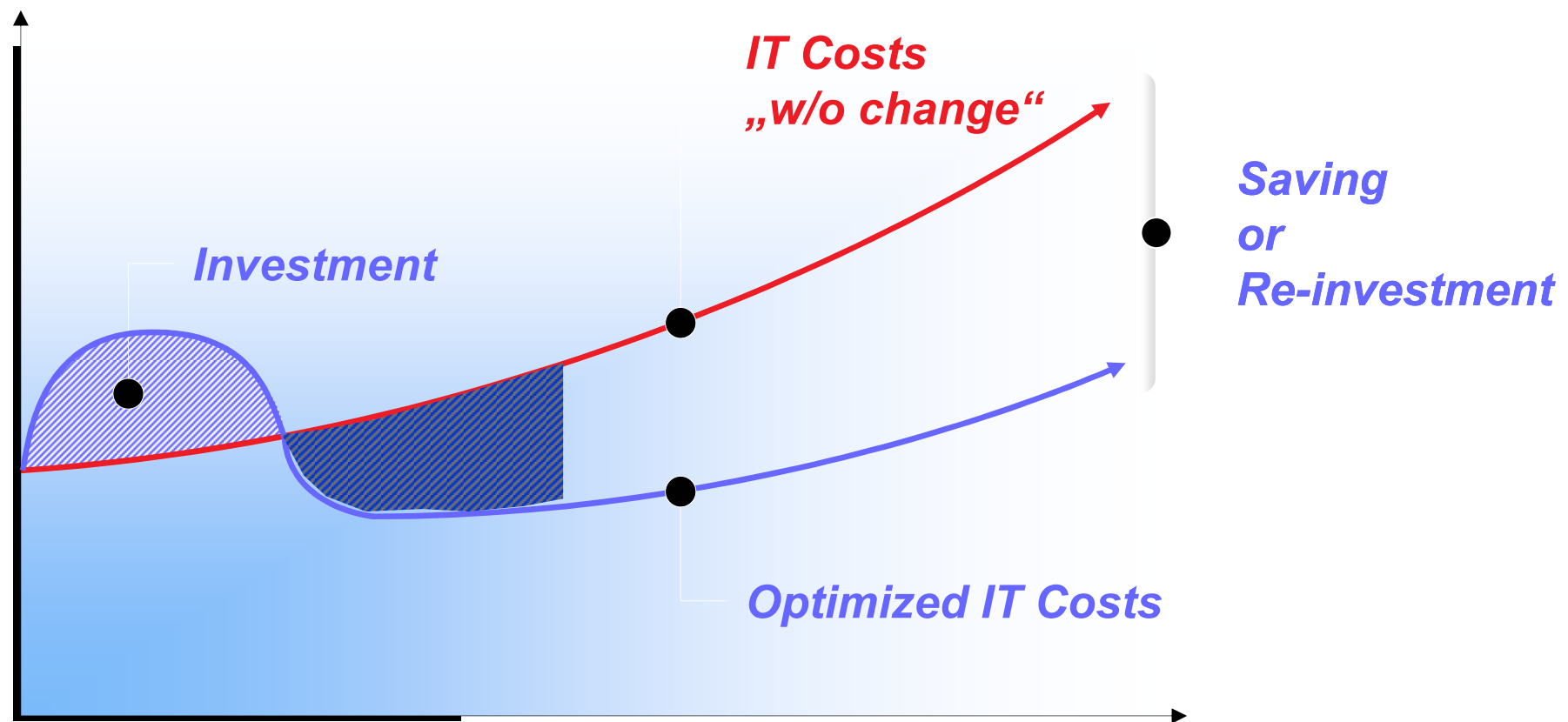
# Udfordringen for en IT Optimering er at løse konflikten mellem IT omkostninger og værdien for forretningen

*Benefits*

**Open up new business areas**

**Meet customer expectations**

**IT Optimization**

**Improve internal efficiency**

**Reduce IT total costs**

*Costs*

# Et IT Optimerings projekt vil evaluere et antal forbundne domæner for at identificere potentielle optimerings initiativer

- Arkitektur
- Hardware
- System software
- Værktøjer
- Udnyttelsesgrad
- Sikkerhed
- Netværk og IP-Telefoni

- IT Strategi som styrende element

- Applikationsportefølje
- Forretningsværdi
- IT-omkostninger
- Sikkerhed

**Infrastructure**

**Data and Applications**

*Coordinated Domains*

**Strategic Alignment**

- Netværk
- Topologi
- Udnyttelse
- Telefoni

**Network**

- SLA'er
- Effektivitet
- Konsistens
- Roller og ansvar
- Sikkerhed

**Processes**

*Balanced Priorities*

- Gennemskuelighed af IT-omkostninger
- Budgettering
- Indkøb

**Finance**

**Organization**

- Kompetencer
- IT-styring
- Roller og ansvar
- Organisationsstruktur

# A determination of whether or not IT goals, objectives, and measurements are supportive of the business goals and objectives is provided within the strategic alignment domain
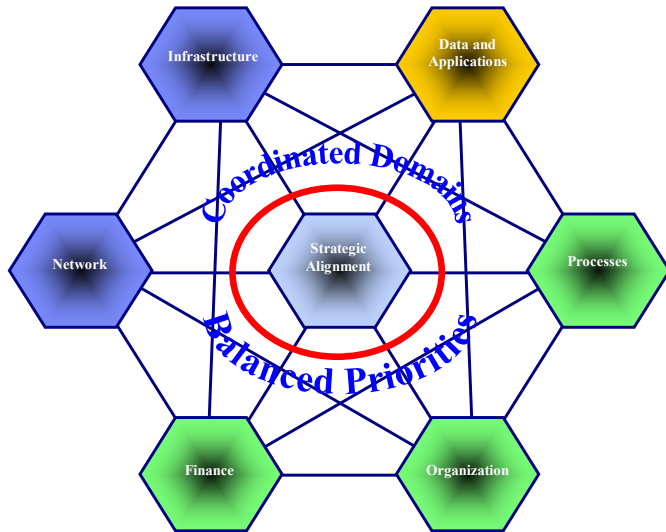


## Key Activities

- Document relevant business strategies and requirements

- Document relevant IT strategies and requirements

- Document relevant IT operating plans

- Document relevant IT service delivery commitments

- Document relevant management practices and policies

## Factors to Consider

- Business Strategies
- User Population Demographics
- Business Unit Mission
- IT Position within Enterprise
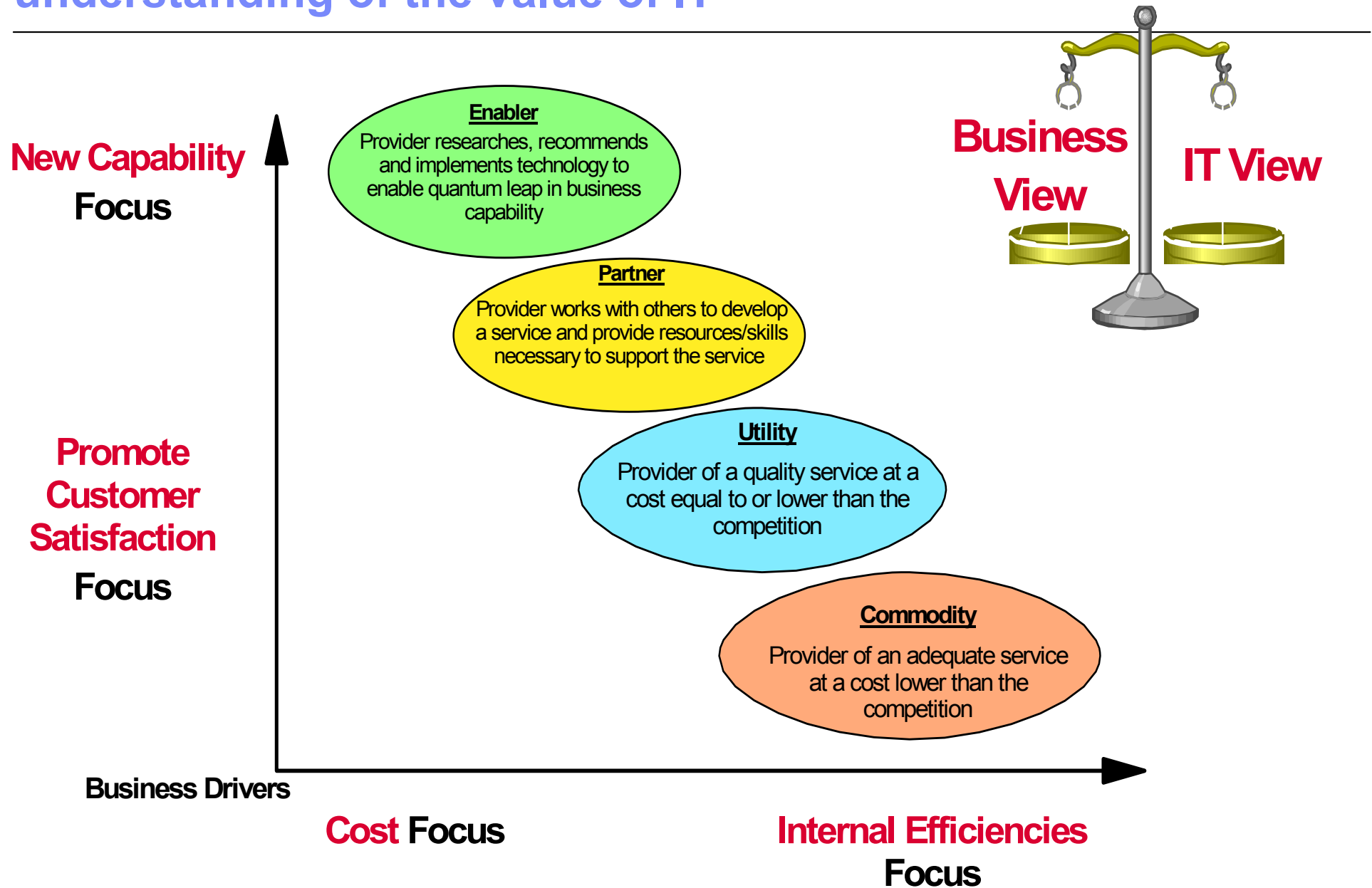- Current Service Providers Profile
- IT Directions

## Assessment Techniques

- "Balanced Scorecard" Analysis
- Customer Surveys
- Functional Analysis of Business against Technology
- Budgetary Mapping
- Strength-Weakness-Opportunity-Threat (SWOT) Analysis
- IT Measurements Review
- Analysis of Stakeholder Perceptions and Expectations

## Possible Solution Paths

- IT Investments Process
- Relationship Management Strategy
- Requirements Management Strategy
- Management Metrics System
- Technology Refresh Strategy
- Technology Deployment Approach
- Service Delivery Model

# IT Optimization starts by establishing a shared understanding of the value of IT

**New Capability**
**Focus**

**Enabler**
Provider researches, recommends and implements technology to enable quantum leap in business capability

**Partner**
Provider works with others to develop a service and provide resources/skills necessary to support the service

**Promote Customer Satisfaction**
**Focus**

**Utility**
Provider of a quality service at a cost equal to or lower than the competition

**Commodity**
Provider of an adequate service at a cost lower than the competition

**Business View**     **IT View**

Business Drivers

**Cost Focus**     **Internal Efficiencies Focus**

# Implementation of your technology infrastructure (mainframe, midrange, desktop, printers, storage, facilities) is assessed at a high level to determine if these technologies are fully and optimally utilized
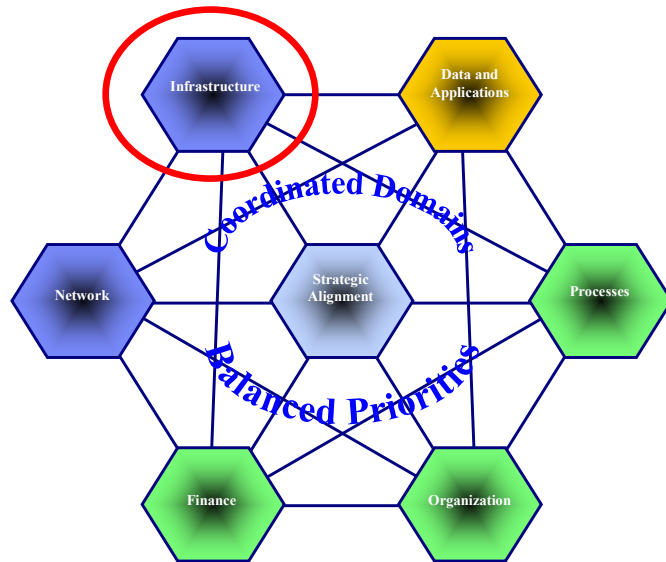


## Key Activities

- Analyze current IT environment
  - Current processing install base and utilization
  - Current storage install base and utilization
  - Current operating systems install base
  - Current operations and production control environment
  - Current facilities environment

- Analyze projected IT environment
  - Proposed processing requirements
  - Proposed IT plans

- Analyze current service level commitments and service level attainment

## Factors to Consider

- Technology Usage Efficiency (Processors, Operating Systems, Storage, Output and Media)
- Disaster Recovery / Security
- Technology Currency
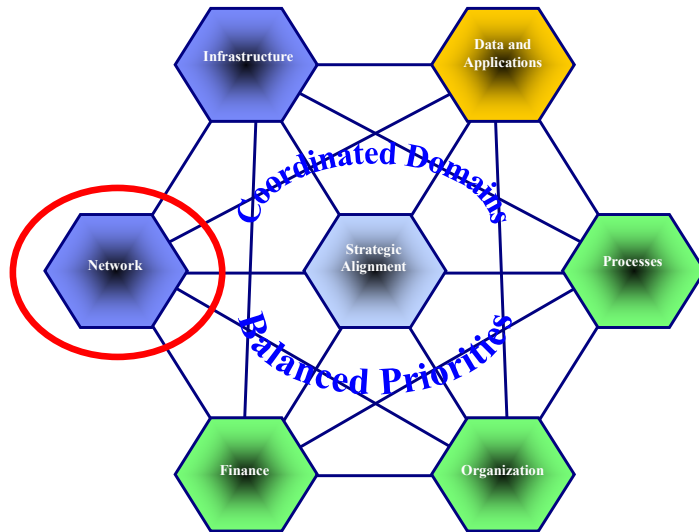- Physical Facilities
- Existing Automation

## Assessment Techniques

- Server Consolidation Analysis
- Restructure and Consolidation Feasibility
- Storage Management and Implementation Analysis
- Business Continuity and Recovery Study
- Capacity and Utilization Trending
- Performance and Testing Simulation
- Technology Convergence Review

## Possible Solution Paths

- IT Architecture and Direction
- Server Consolidation Strategy
- Data Center Consolidation Strategy
- SAN / NAS Implementation Approach
- Self-Recovery and Rapid-Recovery Framework
- Automation Strategy
- eBusiness-on-Demand Solutions

# Implementation of your network infrastructure (Wan, Lan, and Voice) is assessed at a high level to determine if these technologies are fully and optimally utilized



Hexagon diagram: Infrastructure, Data and Applications, Network (circled), Strategic Alignment, Processes, Finance, Organization — with "Coordinated Domains" and "Balanced Priorities" labels.

## Key Activities

- Analyze current IT environment
  - Current WAN topography
  - Current LAN topography
  - Current Voice environment
  - Current Dial environment
  - Current Remote Access environment
  - Current Systems and Software supporting the Network
- Analyze projected IT environment
  - Proposed processing requirements
  - Proposed IT plans
- Analyze current service level commitments and service level attainment

## Factors to Consider

- Technology Usage Efficiency (Processors, Operating Systems, Storage, Output and Media)
- Disaster Recovery / Security
- Technology Currency
- Physical Facilities
- Existing Automation

## Assessment Techniques

- Network Consolidation Analysis
- Network Restructure Feasibility
- Business Continuity and Recovery Study
- Capacity and Utilization Trending
- Performance and Testing Simulation
- Technology Convergence Review

## Possible Solution Paths

- IT Architecture and Direction
- Network Consolidation Strategy
- Self-Recovery and Rapid-Recovery Framework
- Automation Strategy
- eBusiness-on-Demand Solutions

# Within the infrastructure and network domain, we explore a variety of options to achieve optimization objectives through improved productivity and leveraged economies of scale
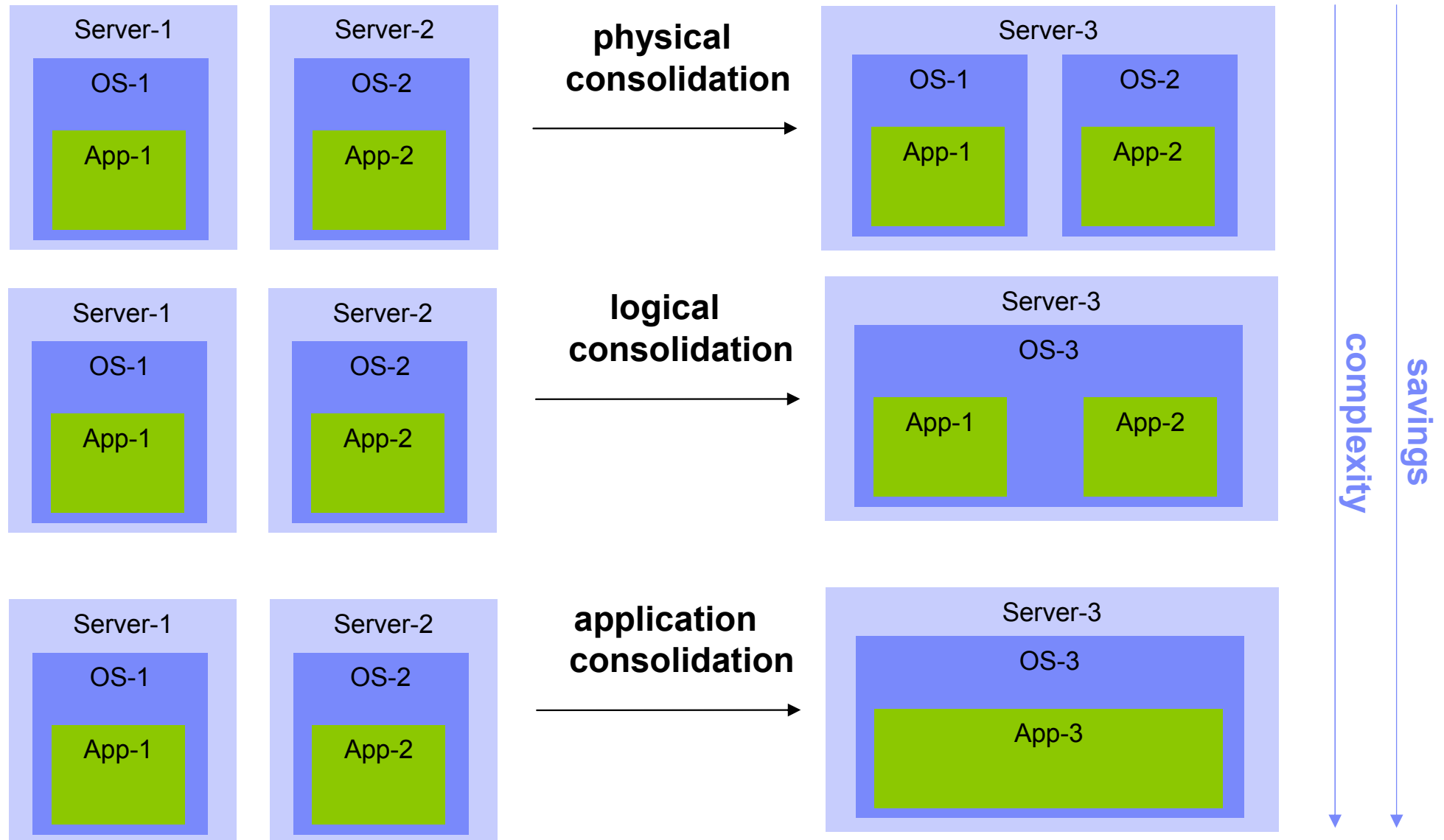
# In the process domain, we utilize IT process assessment techniques to quickly understand which processes require the most attention, in a priority sequence
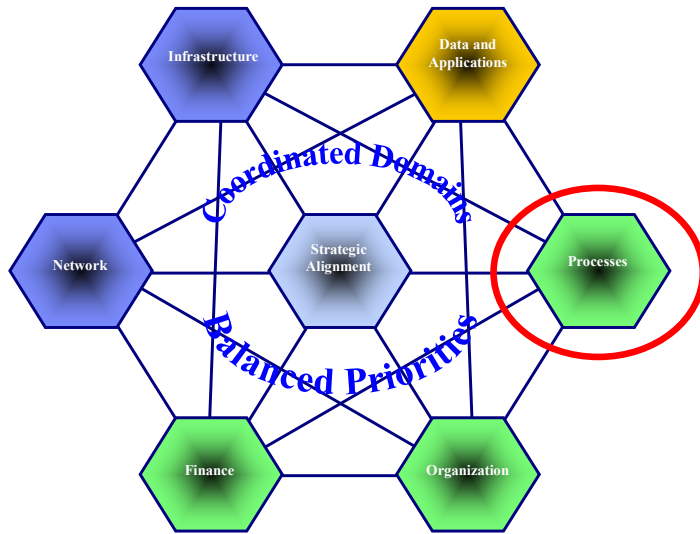


## Key Activities

- The following service delivery processes are typically in scope for this assessment (compare against ITIL and/or IBM IT Process Model):
    - Existing application development processes
    - Enable Service Delivery Requirements
    - Manage Problems and Administer Change
    - Provide Operational Support to Customers
    - Manage IT Inventory and Assets
    - Manage Availability
- Interviews with senior level and line IT managers
- A process assessment workshop with line managers that in aggregate, can provide and end-to-end view of the processes used to manage IT

## Factors to Consider

- Service Level Attainment
- Customer Satisfaction
- Process Maturity
- Predictability of Process Results
- Scalability
- Process Implementation Pervasiveness
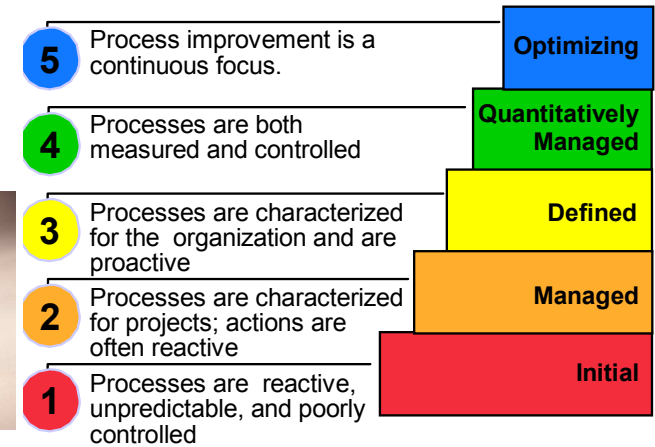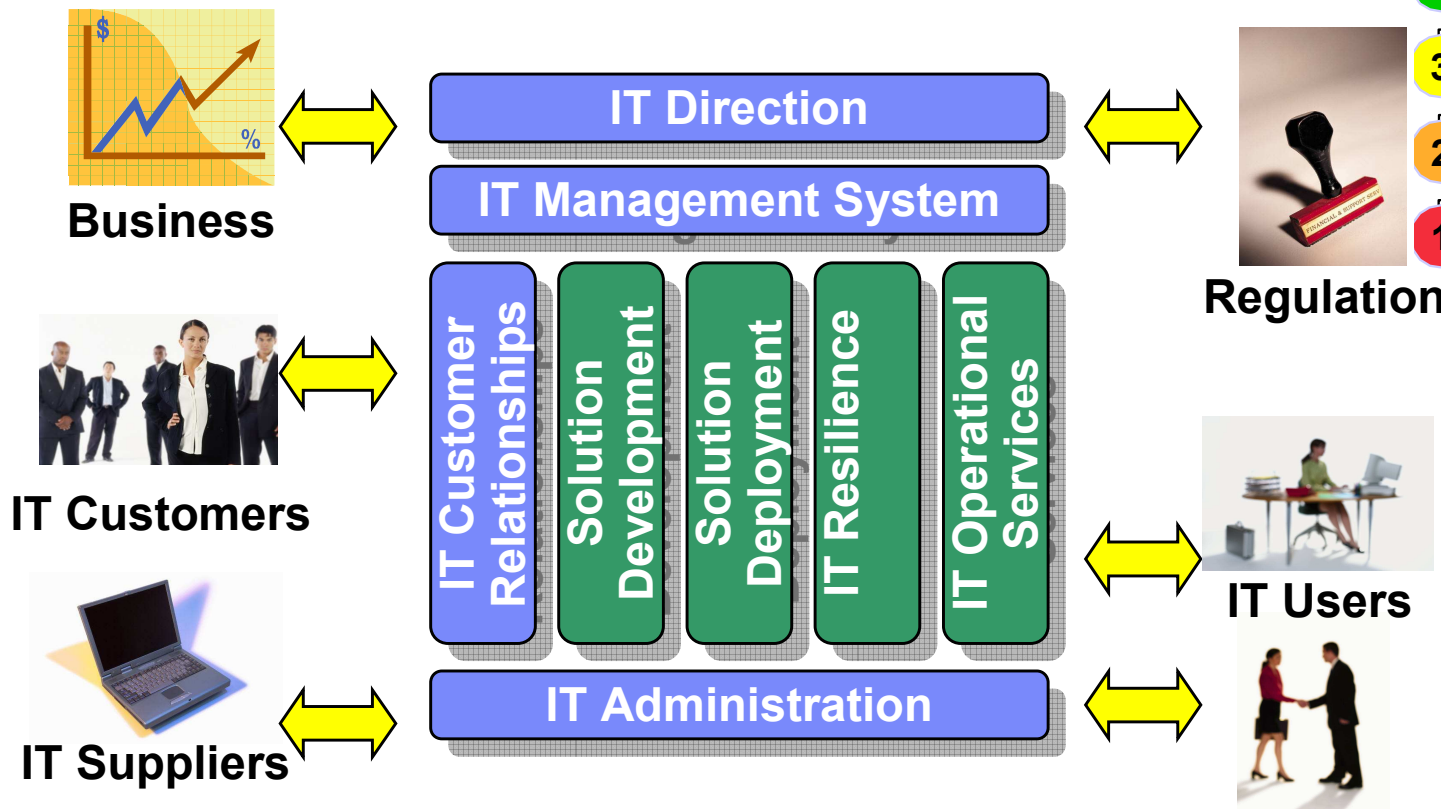- Roles and Responsibilities

## Assessment Techniques

- Analysis against IBM's IT Process Model and/or ITIL
- SEI Capability and Maturity Assessment
- PAT (Process Analysis Technique)
- Best Practices/Benchmarks Comparisons
- Process Support Tools Analysis
- Process Flow Mapping against Process Roles
- Statistical Analysis of In-Process and End-of-Process Results

## Possible Solution Paths

- Process Development and Deployment Strategy
- Formalization of Process Models
- Process Streamlining and Realignment
- Definition of Process-Based Job Functions
- Prioritization of Critical Processes
- Functional Specifications and Selection of Process Support Tools

# Our approach to the process domain will leverage proven tools and techniques to identify actionable optimization opportunity areas

**IBM Process Reference Model for IT og ITIL**

**Business**

**IT Customers**

**IT Suppliers**

**IT Direction**

**IT Management System**

IT Customer Relationships | Solution Development | Solution Deployment | IT Resilience | IT Operational Services

**IT Administration**

**Regulation**

**5** — Process improvement is a continuous focus. — **Optimizing**

**4** — Processes are both measured and controlled — **Quantitatively Managed**

**3** — Processes are characterized for the organization and are proactive — **Defined**

**2** — Processes are characterized for projects; actions are often reactive — **Managed**

**1** — Processes are reactive, unpredictable, and poorly controlled — **Initial**

**IT Users**

# THE PRM-IT MODEL:
# Processes – core ITIL alignment

## IT Management System

IT Management System Framework
IT Management System Design,
    Development and Implementation
IT Management System Operation
IT Management System Evaluation

## IT Customer Relationships

Stakeholder Requirements
    Management
Service Marketing and Sales
**Service Level Management**
Customer Satisfaction
    Management

## IT Direction

IT Strategy
IT Research and Innovation
Architecture Management
Risk Management
IT Portfolio Management
Project Management

## Solution Development

Solution Requirements
Solution Analysis and Design
Solution Build
Solution Test
Solution Acceptance

## Solution Deployment

**Change Management**
**Release Management**
**Configuration Management**

## IT Operational Services

Service Execution
Data and Storage Management
Event Management
User Contact Management
**Incident Management**
**Problem Management**

## IT Resilience

Compliance Management
Security Management
**Availability Management**
**Capacity Management**
Facility Management
**IT Service Continuity**
    **Management**

## IT Administration

**Financial Management**
Asset Management
Supplier Relationship Management
Service Pricing and
    Contract Administration
Workforce Management
Knowledge Management
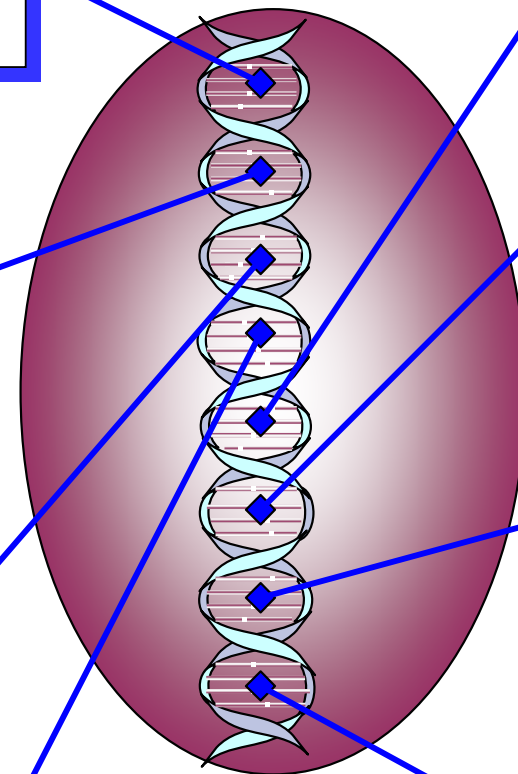
**Core Alignment Process**

# In the organization domain, we evaluate the organizational structure and model, roles and responsibilities, governance processes and then identify skill needs and gaps
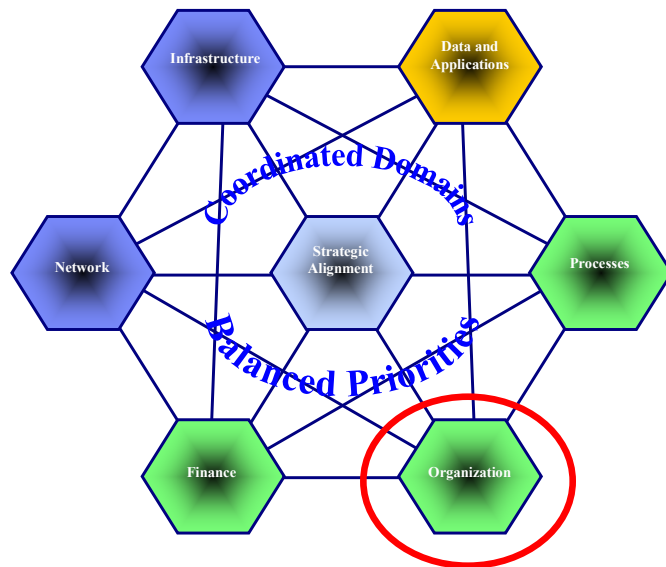


## Key Activities

- Understand current IT organization structure, staffing levels, roles & responsibilities and management system processes

- Evaluate implications of HR processes and procedures on IT

- Survey of executive management to assess organization readiness for change

- Determine consistency with Business and IT Strategy

- Compare to industry best practices

## Factors to Consider

- Management and Functional Alignment

- FTE Allocation

- Shift Coverage

- Skills Level and Balance

- Historical Success of Change Implementation

- Customer Perceptions of IT Organization

## Assessment Techniques

- FTE Parsing and Comparisons to Industry Averages

- Workflow Analysis across Functional Boundaries

- Skills Profile and Fulfillment Assessment

- Staffing Analysis against "Zero-Base Planning" Approach

- Matrix Management Effectiveness Analysis

- Organizational Change Readiness Assessment

## Possible Solution Paths

- Staffing Level Re-Balancing Plan

- Skills Development, Retention, and Attrition Strategy

- Re-Alignment into Process-Based Competency Model

- "Virtual Team" Deployment

- Behavior-Based Change Initiatives

- Measurement-Based Change Initiative

- Options for Supplemental Resources

# A benchmarking approach is taken to evaluate the financial domain, with an additional IT accounting look at internal financial processes
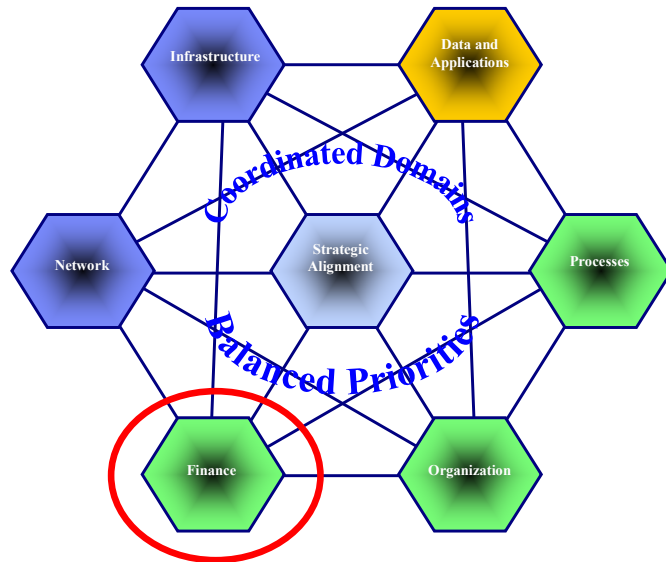


## Key Activities

- Understand IT budget and investment process
- Perform financial baselines
- Evaluate cross-charge processes and tools
- Support implementation of labor claiming and planning processes and tools
- Evaluate asset accounting processes and tools
- Compare to industry data

## Factors to Consider

- Contractual Terms and Conditions
- Charge-Back Algorithms
- Financial Base Case against Platforms and Support Functions
- IT Financial Ratios against Enterprise Performance
- Asset Deployment Practices

## Assessment Techniques

- Best Practices Comparisons
- Budget Line Item Parsing and Categorization
- Contract Reviews
- Asset Management Analysis
- Validation of Cost Allocation Coverage
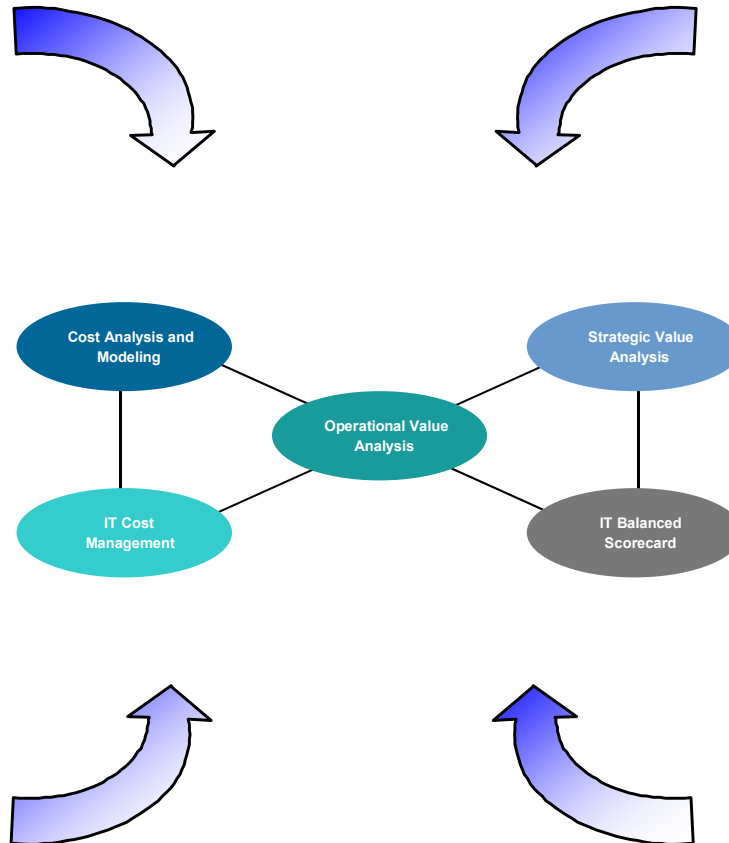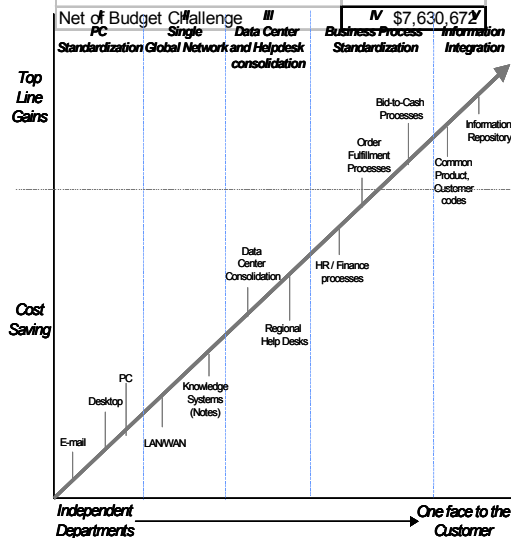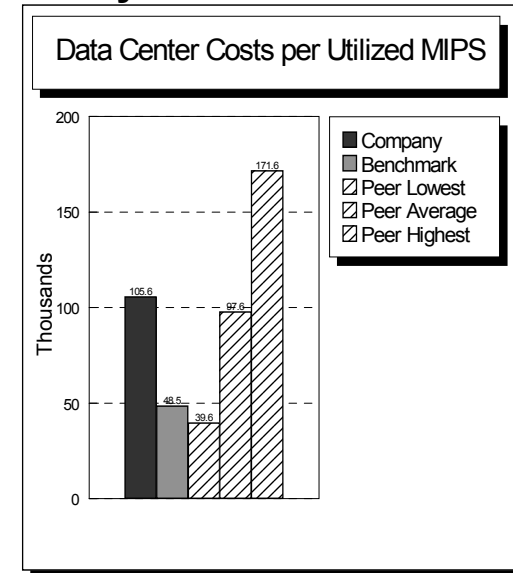- Total Cost of Ownership Analysis

## Possible Solution Paths

- Enterprise-Wide Contract Renegotiation
- Utility-Based Service Fees plus Activity-Based Allocations
- Self-Funding Model for Future Investments
- Cost Reduction Initiatives for Other Domains
- Asset Deployment Optimization Strategy
- Cost-Favorable Sourcing Options

# Our approach to the finance domain will leverage proven tools and techniques to identify actionable optimization opportunity areas

**Compare to Industry Data**

## IT Spend & Baseline

| Company Cost Profile | In Profile |
|---|---|
| Mainframe | $35,814,713 |
| Midrange - Unix | $25,556,787 |
| Midrange – AS/400 | $3,369,410 |
| NT - Server, Network, Desktop | $34,394,004 |
| Help Desk | $2,455,000 |
| Applications Development | $43,770,183 |
| All Other | $2,756,460 |
| Total | $148,116,557 |
| ADDITIONAL ITEMS FOR TOTAL SPEND | |
| Salary Contra | $15,727,887 |
| Other Revenue | $26,088,425 |
| Other Capital | $28,972,113 |
| Capitalized Professional Services | $12,800,000 |
| Total | $83,588,425 |
| | |
| Grand Total | $231,704,982 |
| | |
| Net of Budget Challenge | $7,630,672 |

### Data Center Costs per Utilized MIPS

Legend:
- Company
- Benchmark
- Peer Lowest
- Peer Average
- Peer Highest

Values (Thousands): 105.6, 48.5, 39.6, 97.6, 171.6

**Cost Reduction Opportunity Identification**

Cost Reduction chart labels:
- Top Line Gains
- Cost Saving
- Independent Departments → One face to the Customer
- I PC Standardization
- II Single Global Network
- III Data Center and Helpdesk consolidation
- IV Business Process Standardization
- V Information Integration
- Bid-to-Cash Processes
- Information Repository
- Order Fulfillment Processes
- Common Product, Customer codes
- Data Center Consolidation
- HR / Finance processes
- Regional Help Desks
- Knowledge Systems (Notes)
- PC
- Desktop
- E-mail
- LAN/WAN

Center diagram:
- Cost Analysis and Modeling
- Strategic Value Analysis
- Operational Value Analysis
- IT Cost Management
- IT Balanced Scorecard

### Benefits Summary

**ACME plc**

| | Annual Savings Client | Total Savings Client |
|---|---|---|
| **Procurement** | | |
| Centralised purchasing | $ 195,833 | $ 979,167 |
| Volume software licence agreements | $ 167,500 | $ 502,500 |
| Standardisation | $ - | $ - |
| Consolidation to servers | $ - | $ - |
| | $ 363,333 | $ 1,481,667 |
| **License & Contract Management** | | |
| Software License Compliance | $ 67,000 | $ 335,000 |
| Software License Optimisation | $ 134,000 | $ 670,000 |
| Return of leased assets | $ - | $ - |
| Warranty Maintenance Reconciliation | $ 33,500 | $ 167,500 |
| | $ 234,500 | $ 1,172,500 |
| **Operational Efficiencies** | | |
| Utilisation of unused assets | $ 39,167 | $ 195,833 |
| Avoidance of theft | $ 29,750 | $ 148,750 |
| Annual audit/inventory costs | $ 100,500 | $ 502,500 |
| Service (Help) Desk efficiency | $ 67,000 | $ 335,000 |
| More Efficient Moves, Adds and Changes | $ 54,000 | $ 270,000 |
| | $ 290,417 | $ 1,452,083 |
| | | |
| **TOTAL** | $ 888,250 | $ 4,106,250 |

**Benefits Summary – Asset Accounting**

# Within the Data and Applications domain, we follow the Application Portfolio Management (APM) approach
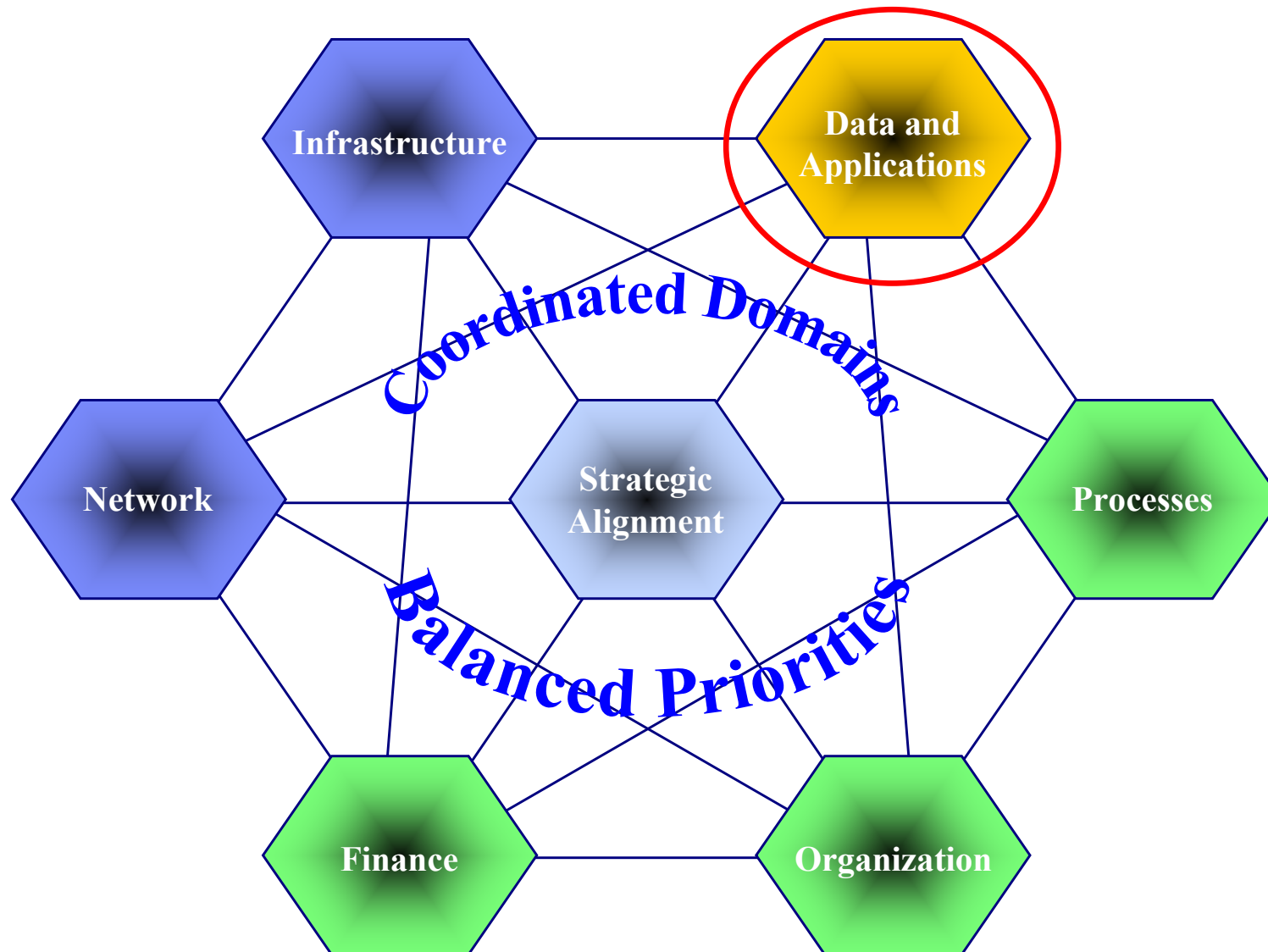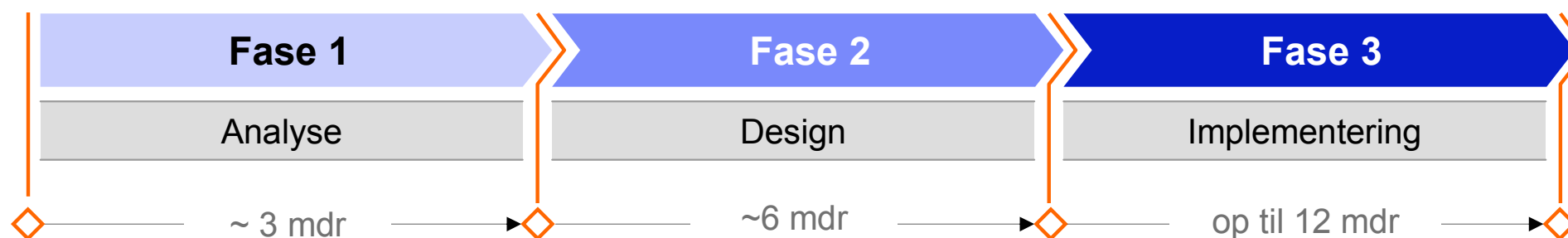
# IBM Application Portfolio Management Services (APM) help IT align applications with strategic enterprise priorities, increase performance and leverage scarce resources

## Assessment

**Business Strategy**
- Strategic goals
- Operational priorities
- Marketing strategies

**Transformation Opportunities** →

**Portfolio Attributes**
- Application qualities
- Technical objectives
- Financial performance

## Transformation Management

**Manage Projects**
- Define portfolio goals
- Plan and develop projects
- Deploy operational implementations

**Continuous Alignment** →

**Manage Application Portfolio**
- Monitor triggers
- Manage priorities
- Track progress

*(Central diagram: Application Portfolio Management cycle — Assess, Plan, Align, Manage)*

## Focus Areas

**Value Proposition**

- Reduces overall application expenditures
- Aligns application spending with business objectives
- Delivers most desired functionality faster
- Balances maintenance versus new development and package implementation
- Supports ongoing business process transformation
- Exploits new technology more quickly
- Supports technology -based innovation

# Examples of other results in previous engagements

| Customer | Type of engagement | Savings and other results |
|---|---|---|
| **Telia Sonera** | Data Center Consolidation and Efficiency improvement | Improved quality of service, savings of operations cost, |
| **ING Group (banking, insurance)** | Consolidation and platform operation Unix, Tandem, AS/400, Intel applications. | 30% of the operator costs |
| **Air Liquide** | Full consolidation, redcution of sites from 18 to | 15% of total infrastructure budget identified |
| **Air Canada** | Full consolidation | 30% av total infrastrukturbudget |
| **BNP Paribas** | Merger synergies planning, applications, infrastructure and operation. 6000 servers. | 250 million Euros of annual savings |
| **Tarkett Sommers** | Full consolidation | 25% of total infrastructure budget |
| **IBM** | Full Consolidation – infrastructure and application, zseries, Unix, Intel | 2 BUSD world wide, 272 centres in Europe |

# Hvordan forløber et IT optimerings projekt ?

| Fase 1 | Fase 2 | Fase 3 |
|---|---|---|
| Analyse | Design | Implementering |
| ~ 3 mdr | ~6 mdr | op til 12 mdr |

**Fase 1 – Analyse**
- Etabler guiding principles Udfør dataindsamling (interviews og dokumentation)
- Beskriv nuværende IT-arkitektur
- Beskriv nuværende nøgleprocesser
- Beskriv nuværende kompetencer
- Identificer fremtidige krav til IT
- Udfør "gap"-analyse på nuværende kontra fremtidig IT

**Fase 2 – Design**
- Detaljeret design for optimerings initiativer
- Arkitektur og standarder
- Forandringsledelse
- Projektplanlægning

**Fase 3 – Implementering**
- Forskellige transitionprojekter
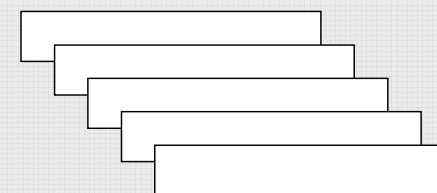
**Typisk forløb af et ITO projekt**

# Hvad koster en IT optimerings analyse og hvad får jeg for de penge?

- Resultatet er en let tilgængelig rapport i præsentationsformat som beskriver resultaterne fra analysen af optimeringsmuligheder samt præsenterer løsningsalternativer.

- Rapporten er henvendt til IT-afdelingen og kan danne grundlag for at træffe en beslutning om den fortsatte IT-drift i virksomheden.

- Analysen kan skræddersys så den behandler de IT-optimeringsområder, der er af speciel interesse for IT-organisationen

- Projektet er bygget op omkring IBM's IT-optimeringsmetode, hvilket sikrer professionel kvalitet, struktur og styring af både projekt og rapport.

- En IT optimerings analyse koster fra ca. 100.000 DKK ekskl. moms.

# IT Optimerings workshop - en hurtig genvej til vurdering af potentielle optimeringsmuligheder baseret på spørgeskemaer.

**M1**

**Evaluering og forberedelse af workshop**

**W1**

**Dokumentation af resultater fra workshop**

**M2**

*Fra 30.000 Dkr*

**Workshop indhold**
- Værktøjsunderstøttet IT optimerings vurdering
- Gennemgang af IT Optimerings-metoden
- Besvarelse af omfattende spørgeskemaer gennem en IBM faciliteret dialog

**Workshop resultat**
- Fælles forståelse af en lang række IT mæssige områder
- Potentielle omkostningsbesparende og effektiviserende tiltag
- Eventuelle yderligere planlægningsaktiviteter
- Rapport i præsentations format

**Tidsforbrug**
- Forberedelse - IBM

- Workshop – 8 timer for IBM og virksom-hedens team

- Efterbehandling og dokumentation - IBM

# Eksempler på skærmbilleder fra ITO workshop værktøjet

# Ved spørgsmål eller behov for yderligere information venligst kontakt Jens Cajus Pedersen

**For yderligere spørgsmål venligst kontakt:**

Jens Cajus Pedersen

Afdelingsleder – IT Consulting

IBM Danmark A/S

Nymøllevej 91

2800 Lyngby

tlf +45 4523 4360

mobil +45 2880 4360

e-mail cajus@dk.ibm.com