
Business Case for EA: A Case Study

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1. Who we are, what we do

2. Drivers for EA

- External
- Internal

3. Strategy for Implementation

Business case, culture, governance

4. Are We Winning?



Chronology

- **July 2003: Problem Definition**
- **December 2003: EA Recommendations approved in principle**
- **April 2004: Implementing Recommendations**
- **2003 – Police Service project for EA starts**
- **April 2004 – TVP participating**



1. Who we are, what we do



Largest non-metropolitan force.....



From hills to inner cities (via the motorway).....



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Our staff

- **4000 officers, 3000 support staff**
- **140 I.T. personnel**
 - Radio, Data, Voice, Information Systems
- **140 locations**
 - 3000 workstations, LANs/WAN
- **£Multi-million I.T. budget**



What We Do.....

- Routine patrol, incident response
- Major and minor crime investigation
- Forensics
- Intelligence and surveillance
- Arrest and custody, Criminal Justice processes
- Counter-terrorism
- VIP protection
- Firearms licencing
- Traffic
- Public order etc etc



Our Customers....

- **2.2 million residents**
- **6 million visitors**
- **(1 million sheep)**
- **24 Hour Service**



What we do....

- 90,000 emergency calls
- 100,000 “immediate response” incidents
- 1.4 million other calls
- 200,000 crimes



2. Drivers for EA



External Context

- **Compliance and Regulation**
 - Freedom of Information Act
 - Climbie, Soham Cases
 - Local Accountability, Central Performance Monitoring
- **Agility**
 - Initiative Overload
 - “Ministerial Imperatives”



Internal Context

- **High Workload**
- **Exponential Growth leading to Dis-Integrated Information Systems**
- **Complex Business Change Programme requiring *Integrated* Information Systems**



Workload

- Last Year,
- New Central Call Handling Systems: 150 locations down to 4
- New Digital radio system – 4000 officers, 700 vehicles
- Workflow-based Crime and Incident Management
- Roll out Windows 2000 to 3000 workstations
- Many new applications and enhancements



Dis-Integration...

- **Few, but common entities:**
- **Many Event-based Information Systems – Mainly Packages**
- **“What do we know about?.....”**
 - 35 Oxford Road?
 - Billy The Burglar?



Business Change 2003 - 2007

- **Complex programme to improve performance and visibility**
- **Too many solutions-led projects e.g. “mobile data”**
- **Scope creep – boundary and management re-structure**



The Moment of Truth....

- **Enterprise Architecture is the answer, but.....**
- **What about business case?**
- **What about implementation?**



3. Strategy for Implementation



The Missing Bits...

- **I.T. Strategy**
- **Establishment of I.T. Principles**
- **Establishment of “Technical Reference Model” and compliance regime**
- **Recommendations for management change**



Strategic I.T. Principles

- “Based on” [= plagiarised from] TOGAF Architecture Principles
- Basic bye-laws for enterprise management, e.g.
 - Corporate Vs Departmental
 - Strategic Vs Tactical
 - Requirements Vs Solutions
 - Corporate Responsibility for Data
- Assert the *intention* to manage complexity



EA Implementation Strategy

- **Business Case – Easy!**
 - Cost of duplicate information
 - Cross-project audit identified areas of commonality, duplication and redundancy, e.g. different projects with the same objectives
 - Data quality helps saves lives and reduce crime.....



EA Implementation Strategy

- **People Case –difficult!**
 - It doesn't apply to what I do"
 - "Nice idea, but there isn't enough time"
 - "Nice idea but there aren't enough people"
 - "The business doesn't know what it wants"
 - "By the time I've planned it, I could have done it"
- **And that's just the I.T. Managers...**

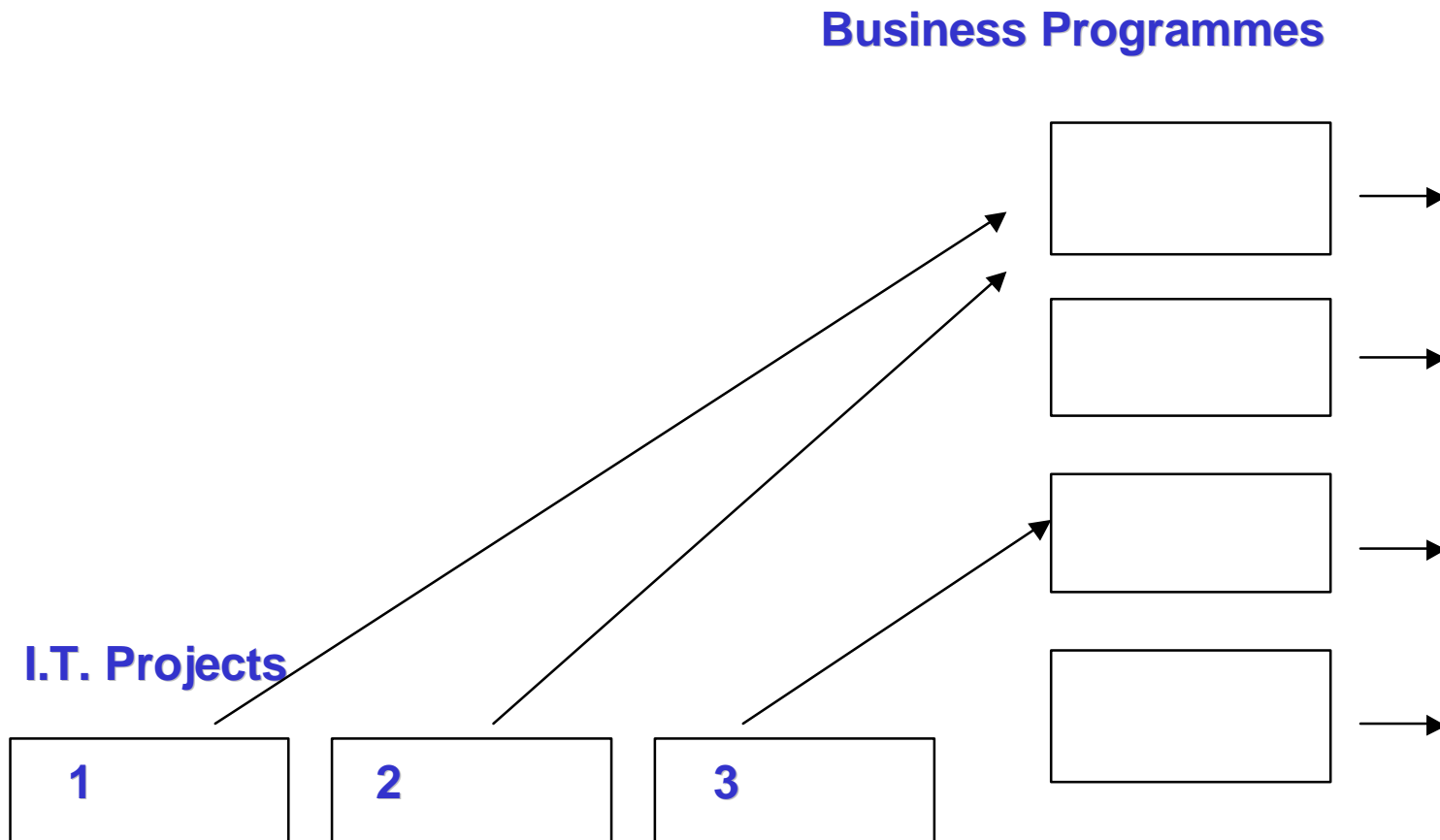


EA Implementation Strategy

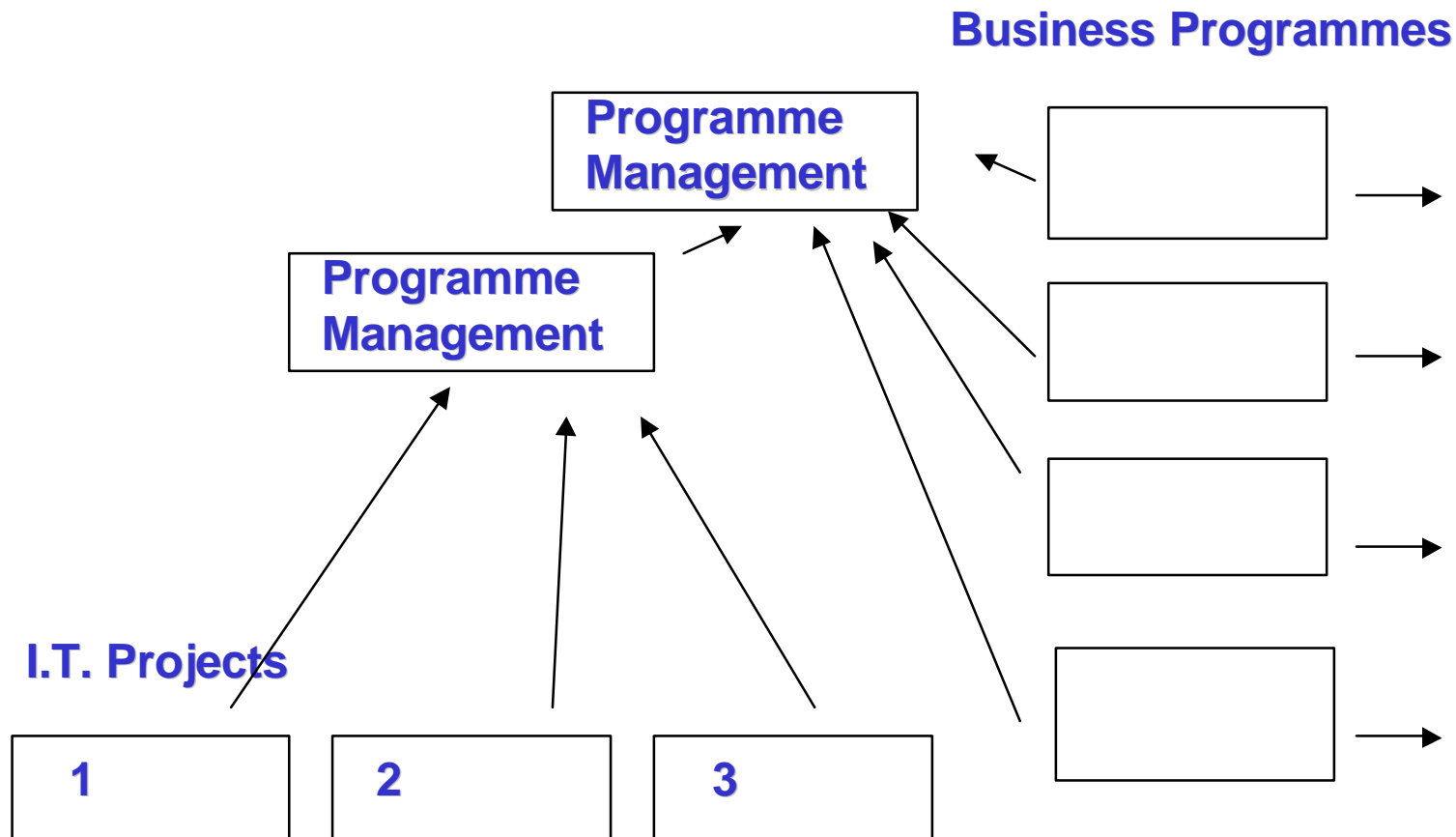
- **Governance Case – hardest!**
 - Demonstrating that corporate control is lacking upsets people, but it must be done
 - Need to deal with short-termism
 - I.T Function needs to be in partnership with business direction, not a sub-contractor



The Governance Problem..



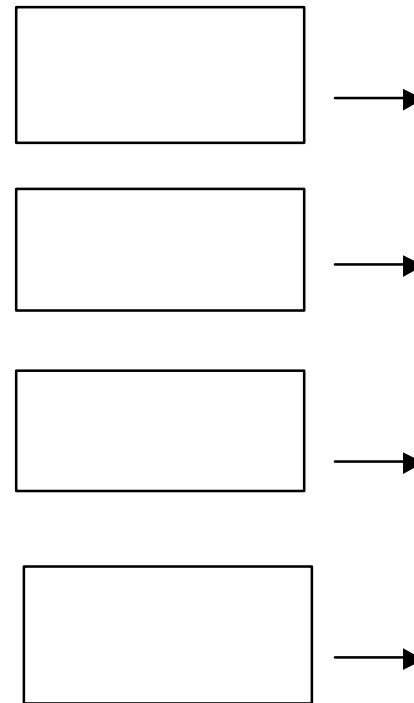
Cost and Time managed, *not* Scope and Dependencies



I.T. Strategy Recommendation

“Strategic Direction,
Technical Design Authorities”
[Architecture Practice]

Business Programmes



I.T. Projects



Logical conclusion?

“Strategic Direction,
Technical Design Authorities”
[Architecture Practice]

Programmes

“Business Design
Authority”

Enterprise Architecture model

I.T. Projects

1

2

3



**Meanwhile, in another part
of the forest.....**

- **PITO (Police Information Technology Organisation)**
- **Strategy for *National* business/I.T. Alignment**
- **PSEAF**
- **Strong card to play internally**



Project Objectives

- Propose and agree a shared EA 'Metaframework' for Police Service, based on Zachman - a way of organizing and aligning architecture work products (artifacts)
- Identify where gaps exist currently at national level
- Make recommendations for populating and implementing the Metaframework

EA is essential to meeting Police Service Objectives

– **INTEGRATION**

- More effective policing through improved information flows
- 'Join-up' the Police Service and the Criminal Justice System

– **AGILITY**

- Respond to change in environment (e.g. legislation, patterns of crime)

– **EFFICIENCY & COST REDUCTION**

- Avoid duplication of IT and re-keying of information

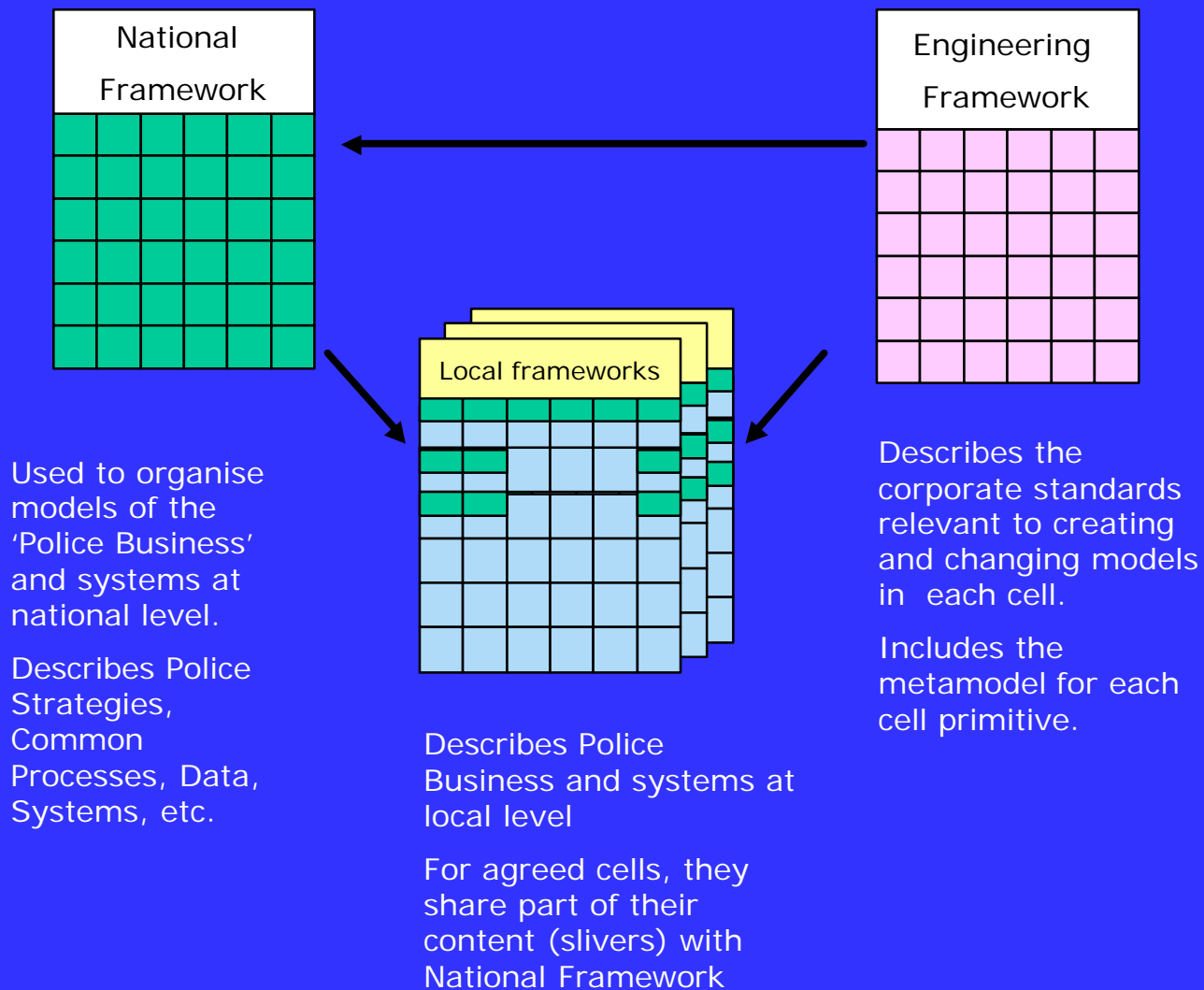
– **MANAGING COMPLEXITY**

- Avoid systems entropy







– **ALIGNMENT**

- IT change aligned to Police Service Objectives

Recommended framework structure to support 'Enterprise Engineering'



Using the Framework to manage initiatives

	DATA <i>What</i>	FUNCTION <i>How</i>	NETWORK <i>Where</i>	PEOPLE <i>Who</i>	TIME <i>When</i>	MOTIVATION <i>Why</i>	
SCOPE (CONTEXTUAL) <i>Planner</i>	Row 1: Identify Scope of Business impacted by Initiative						SCOPE (CONTEXTUAL) <i>Planner</i>
ENTERPRISE MODEL (CONCEPTUAL) <i>Owner</i>	Row 2: Change/build models to reflect how business will operate						ENTERPRISE MODEL (CONCEPTUAL) <i>Owner</i>
SYSTEM MODEL (LOGICAL) <i>Designer</i>	Row 3: Define information storage and processing requirements, from enterprise perspective						SYSTEM MODEL (LOGICAL) <i>Designer</i>
TECHNOLOGY MODEL (PHYSICAL) <i>Builder</i>	Row 4: Identify and execute most effective and efficient way of delivering 'technology' solutions (databases, components, infrastructure, etc)						TECHNOLOGY MODEL (PHYSICAL) <i>Builder</i>
DETAILED REPRESENTATIONS (OUT-OF-CONTEXT) <i>Sub-Contractor</i>	e.g. Data Definition  Ent = Field Reln = Address	e.g. Program  Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESENTATIONS (OUT-OF-CONTEXT) <i>Sub-</i>
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	

EA Implementation Strategy....

- Obtain internal Buy-in
- Identify Business *problems* where EA can make a difference
- Governance discussions with Senior Management Team



Are We Winning?

- **Recruiting:**
 - Management positions
 - Re-alignment of existing staff
- **Internal Implementation**
 - Toolset acquisition to demonstrate capability to senior management team,
 - Establishing internal processes
- **Negotiating management changes**
- **Working With PITO**



“Nowadays, they think computers can solve crimes....”



“I wish that was all they had to do.....”

