How to implement ECM?

Global best practices for implementing ECM
using the open methodology MIKE2

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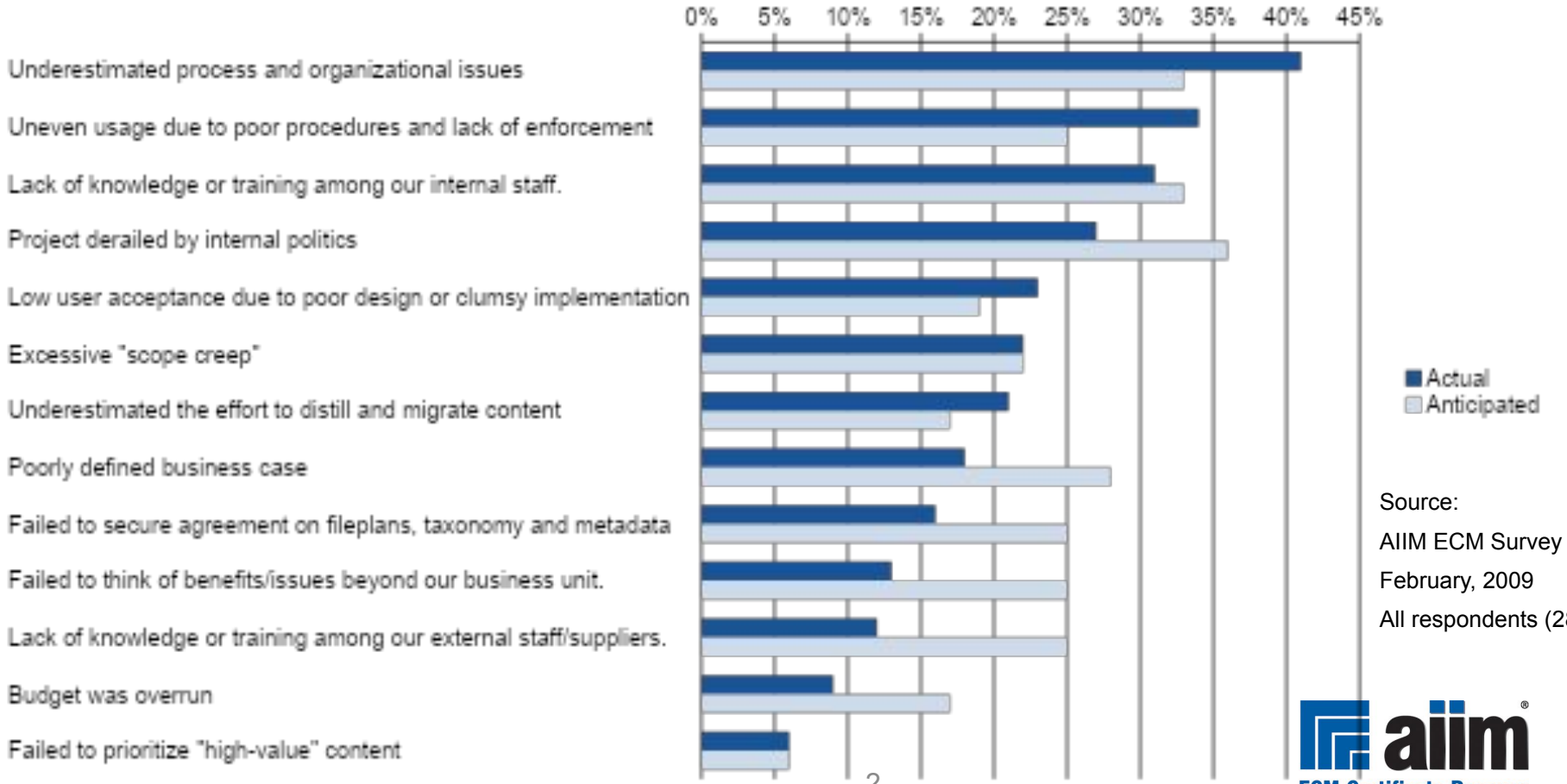
Implementation

Which 3 of these typical problems have affected your organization's document or records management implementation?



Source:
AIIM ECM Survey
February, 2009
All respondents (284)

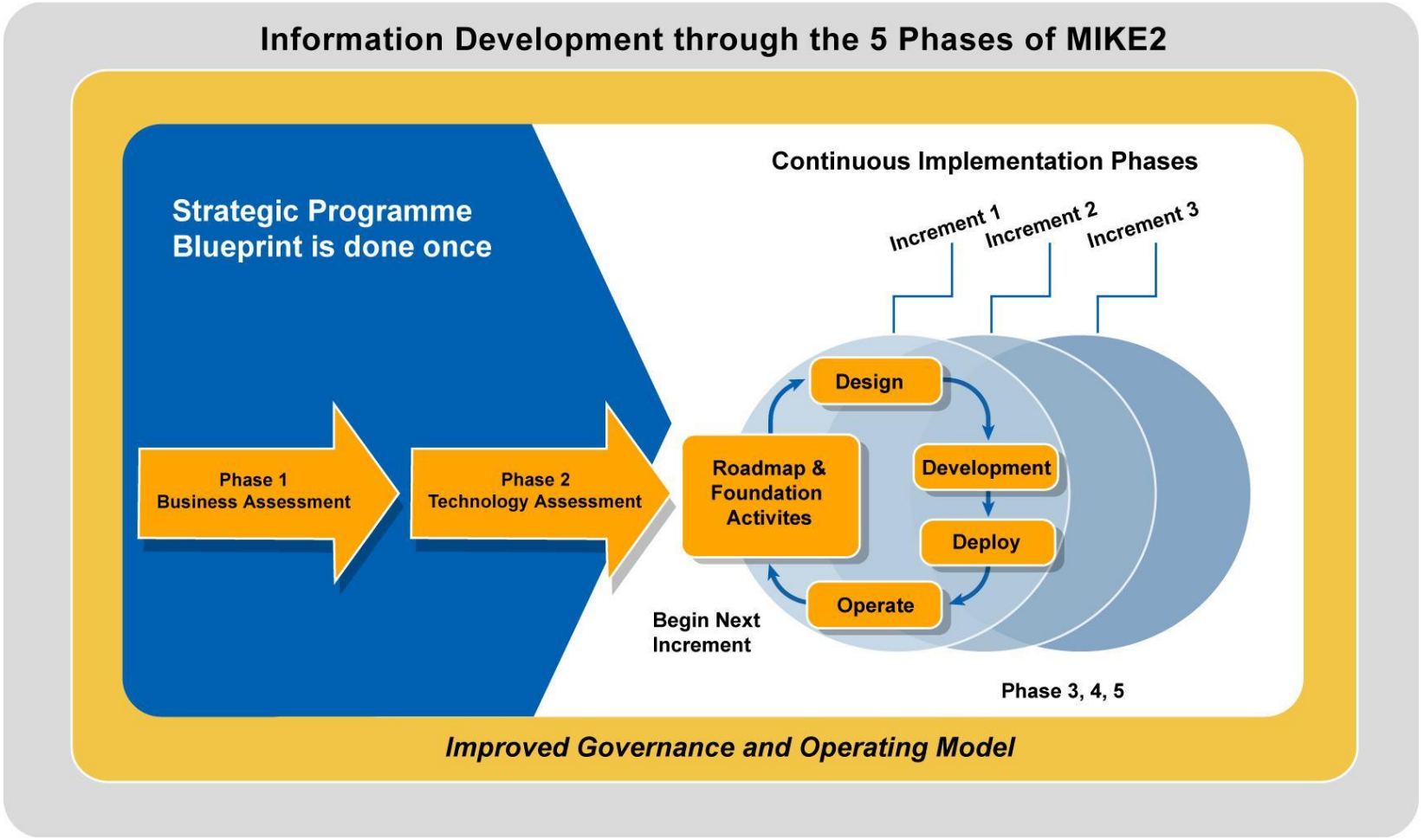
The MIKE2 Methodology

- **"MIKE2 (Method for an Integrated Knowledge Environment) is an Open Source methodology for Enterprise Information Management"**
  - Source: mike2.openmethodology.org
  - Developed by BearingPoint, released as Open Source under Creative Commons
- **Meant to be repeatable and deliver working systems quickly, following trends in manufacturing and commercial software development**
  - Continuous improvement (Lean)
  - Repeating implementation cycles (Agile)

MIKE2 Phases (description)

- Phase 1 - Business assessment
- Phase 2 - Technology assessment
- Phase 3 - Information management roadmap
- Phase 4 - Design increment
- Phase 5 - Incremental development, testing, deployment and improvement

MIKE2 Phase 1



Source: http://mike2.openmethodology.org

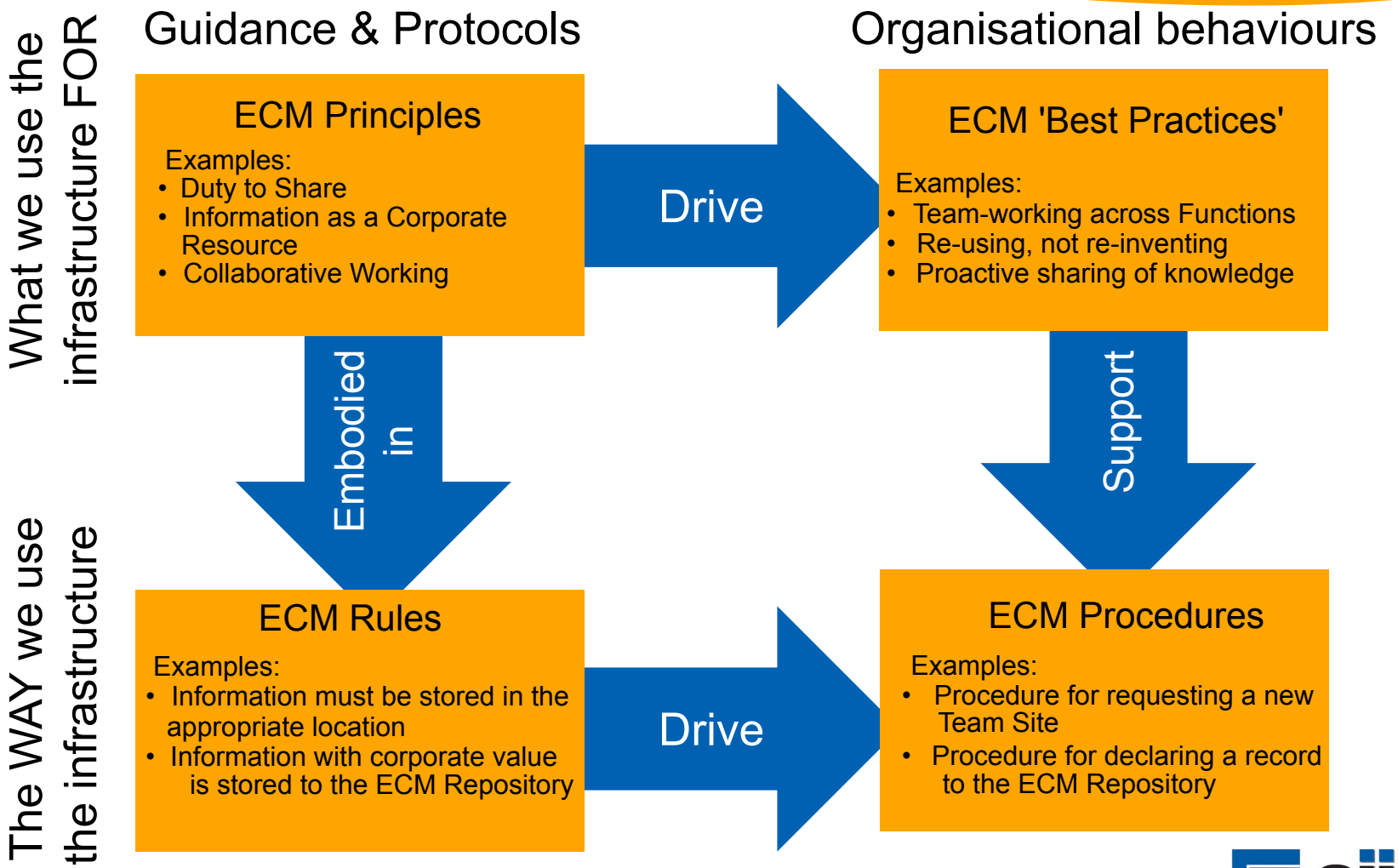
Conduct initial direction setting with sponsor

- **Sponsor needs to provide insights**
- **Difficult or impossible to do everything at once**
  - Scale of change
  - Nature of the impact to the organisation
  - Cost
- **Scope can be defined across a number of dimensions**
  - Geographic
  - Organisational
  - Legacy content
  - Information types
  - Information classes
  - Timescales
- **Prioritisation is key**

Programme charter: Overall approach

- **Should be developed in 3 stages**
  - Current-state
  - The environment
  - The principles & the future-state
- **Future-state**
  - Produce initial model
  - Identify and consult stakeholders across the organisation
  - Review and revise
- **Environment: Develop high-level descriptions of**
  - Organisational behaviours
  - ECM support organisation structure
  - ECM processes & instruments

Defining organisational behaviours



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Organisational QuickScan for information development

- **Analyses current-state of organisation across multiple facets to identify the baseline for the organisation**
  - Aids in planning what it will take to get to the future-state vision

- **Assessments**
  - Application portfolio and functionality
  - Information flow
  - Information delivery
  - Information maturity and infrastructure maturity
  - Economic value of information
  - Information processes
  - People skills and organisational structure

Strategic business requirements

- **Establishes the overall set of strategic business requirements (business case) that translate into high level information requirements**
- **Forms the basis for scoping the programme**
  - Strategic business vision
  - Strategic critical success factors (CSFs)
  - Strategic key performance indicators (KPIs)
  - Strategic success measures
  - Strategic change drivers

Strategic business vision

- **Defines what organisation wishes to achieve in the Future-State**
- **Done by interviewing executives via scripts to capture**
  - Business objectives
  - Competitive forces of concern
  - Differentiation and positioning statements
  - Major customers, buying habits and cycles
  - Major suppliers and incentives
  - Major competitors, substitutes and discriminators
  - Industry and historical supply chains
  - Success factors

Business blueprint

- **Key deliverable of MIKE2**
- **Final strategic analysis and synthesis of business assessment work**
  - Completes and formalises the business vision
- **Completion of business blueprint results in**
  - Prioritised requirements
  - Programme plan
  - Business case
  - Programme blueprint

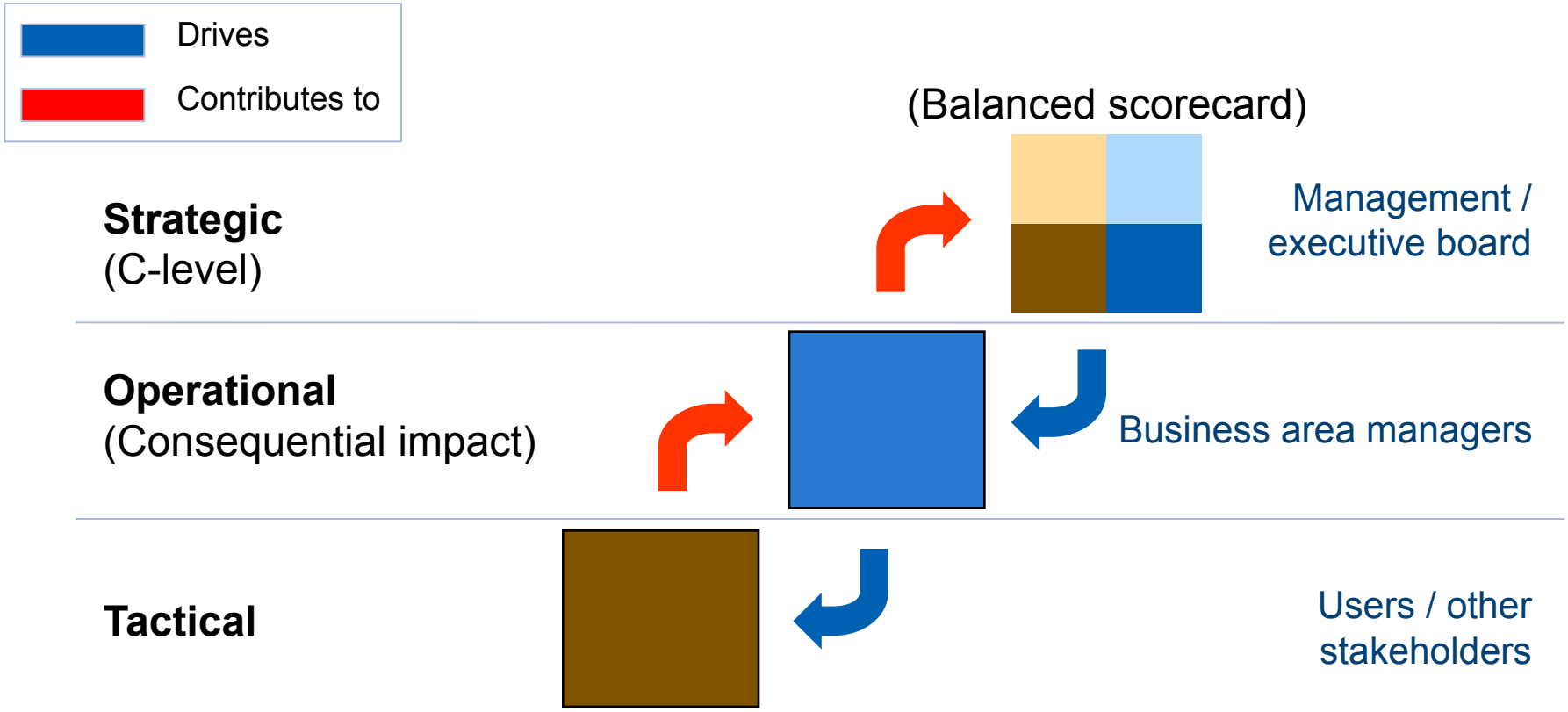
Eat the elephant one bite at a time

- **Go for specific projects, one at a time**
- **Each project addresses portion of ECM producing business value**
  - Start with something nutritious, not small and convenient
- **Produce business case for each of these projects separately**

Prioritise requirements

- **Refines the strategic information requirements**
  - Determines the sequence of projects
  - Strategic vs. tactical
  - Within scope and outside of scope
- **Ranking done via group workshops with executives who provided initial feedback**
  - With guidance of sponsor and stakeholders as appropriate
  - Focus is on business requirements, not technology requirements
- **Results in a list of work opportunities for the project**

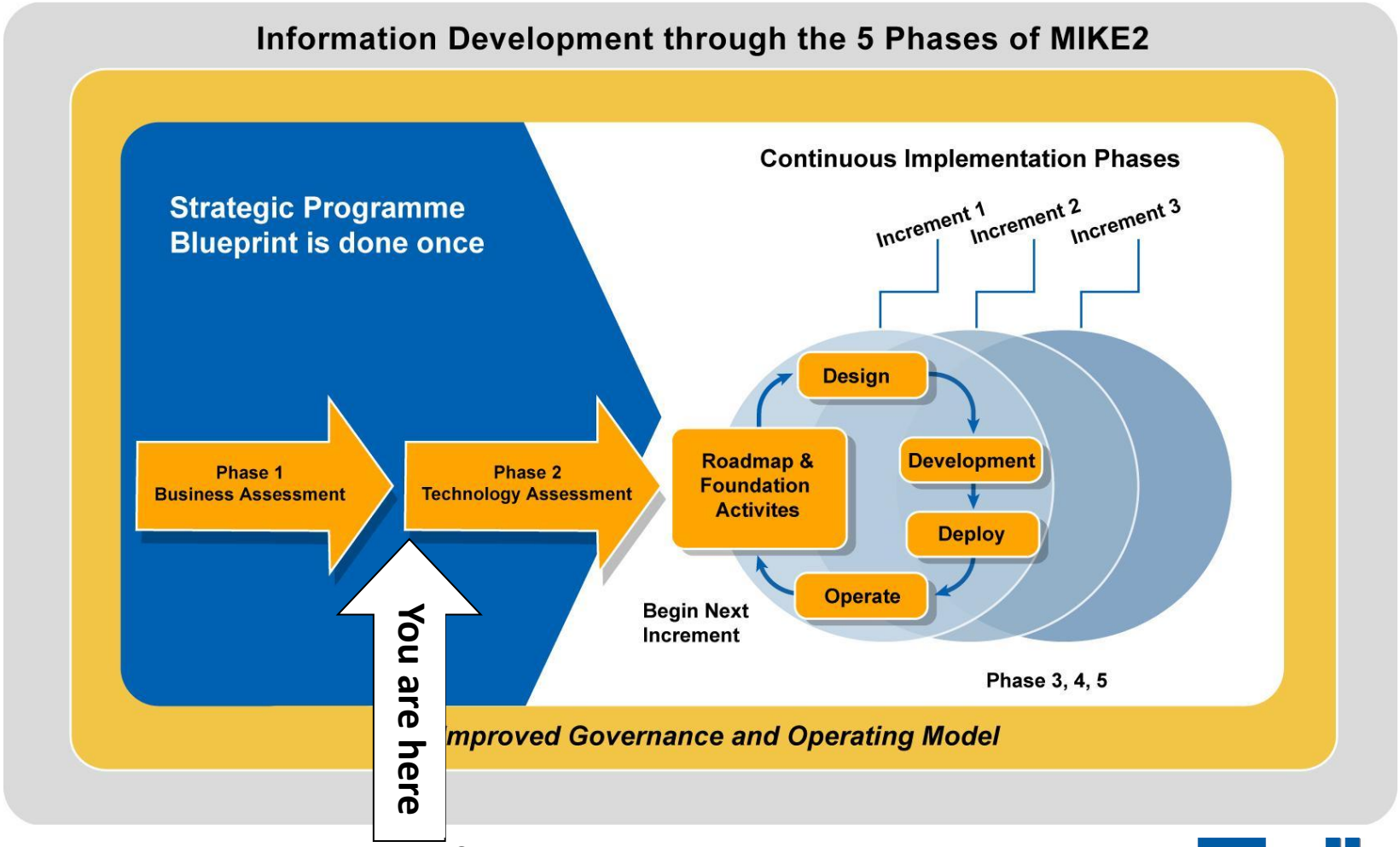
Linking tactics to strategy



Business blueprint components

- **Arranged in key sections**
  - Executive summary
  - High-level programme plan
  - Business case
    - Strategic case
    - Economic case
    - Funding case
    - Commercial case
    - Project management case
  - Future-state conceptual architecture
  - Appendix

MIKE2 Phase 2



Source: http://mike2.openmethodology.org

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Technology assessment

- **Concentrates on the technical aspects of your strategy**
- **Technology blueprint**
  - Strategically ties the business requirements developed in Phase 1 to a logical and physical information architecture
- **Completes the "strategic programme blueprint"**
  - Defines the overall programme delivery plan that provides the starting point for the continuous implementation phase
  - Refines the business requirements through ECM
  - Defines the technology architecture
  - Puts standards and technical infrastructure in place to support the software development process

Business drives technology

- **Phase 1 and 2 parallelism**
- **Phase 1 deliverables must be completed before phase 2 can be completed**
  - Specifically, phase 2 requires the following from phase 1 before a full infrastructure can be prescribed:
    - Business vision
    - High-level business case
    - High-level information processes
    - Scope of key systems

How to produce requirements: Overview

- **5 main stages**
  - 1. Plan
  - 2. Gather
  - 3. Analyse
  - 4. Document
  - 5. Agree
- **Some stages are iterative and parts of entire process can be iterative**

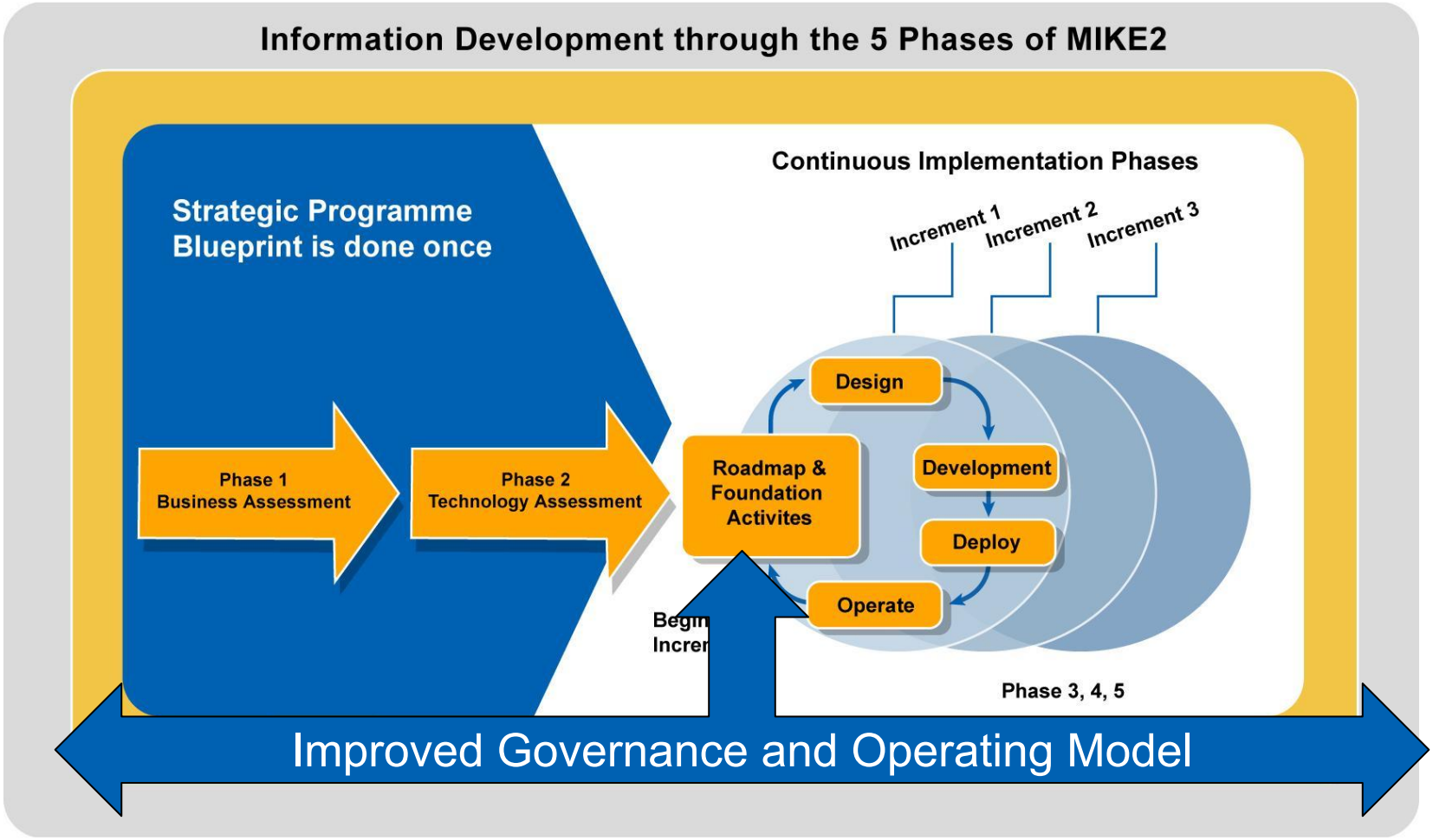
•Plan

•Gather
•Analyse
•Document
•Agree

Conduct gap analysis of current-state and future-state

- **Identify key gaps between current-state architecture and future-state**
  - Where will new capabilities be needed?
  - What are those requirements?
- **Becomes basis for RFP and vendor selection**

MIKE2 Governance model



Source: http://mike2.openmethodology.org

Why information governance?

- **Accountability for organisation's information assets**
- **Good governance**
  - Ensures compliance with regulations and legislation
  - Enables productivity improvements
  - Enables organisation to respond to change and new opportunities
  - Helps information exchange with customers, partners and providers
- **Sustains good information management practices**

An information governance framework (IGF)

- **A sound IGF includes**

•Policies
•Processes
•People

•Tools & technology

•Standards
•Audit

The role of ECM in information governance

- **ECM environment is**
  - Key tool for Information Governance
  - Repository for corporate memory
- **ECM systems depend on creation and maintenance of 'Content Management Instruments', including:**
  - Reference data (taxonomy, thesaurus, etc.)
  - Metadata standard for information, including documents, records, and websites etc.
  - Security and access classification scheme
  - Disposition schedules

Continuous improvement

Compliance Framework

Detect

- Audit
- Ombudsperson
- Monitoring

- Respond
- Prevent
- Detect

Respond

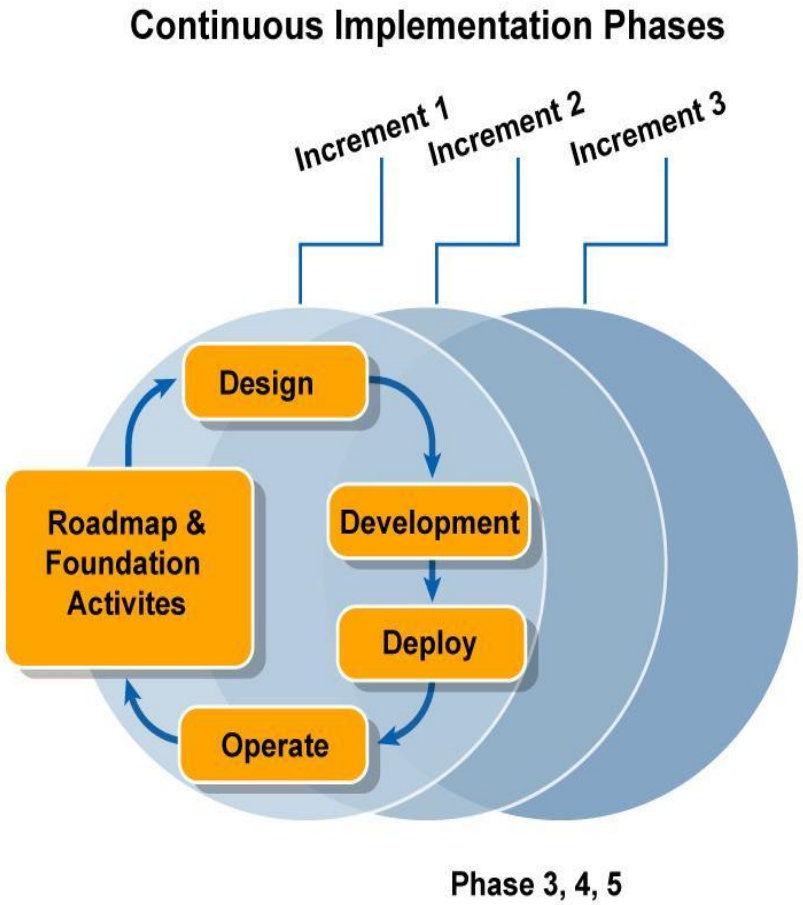
- Investigation
- Communication
- Improvements
- Employee discipline

Prevent

- Risk assessments
- Training
- Policies & procedures
- Executive commitment

MIKE2 Phase 3 Roadmap

- **Roadmap**



Project roadmap overview

- **Project roadmap is the guide for the entire project**
  - In each iteration of phase 3-5 however, it is the restricted guide for the requirements and level of detail involved in a SINGLE iteration
- **Tasks**
  - Define overall release functionality
  - Identify and prioritise project risks
  - Identify infrastructure dependencies
  - Identify design dependencies
  - Define acceptance procedures
  - Define detailed project plan

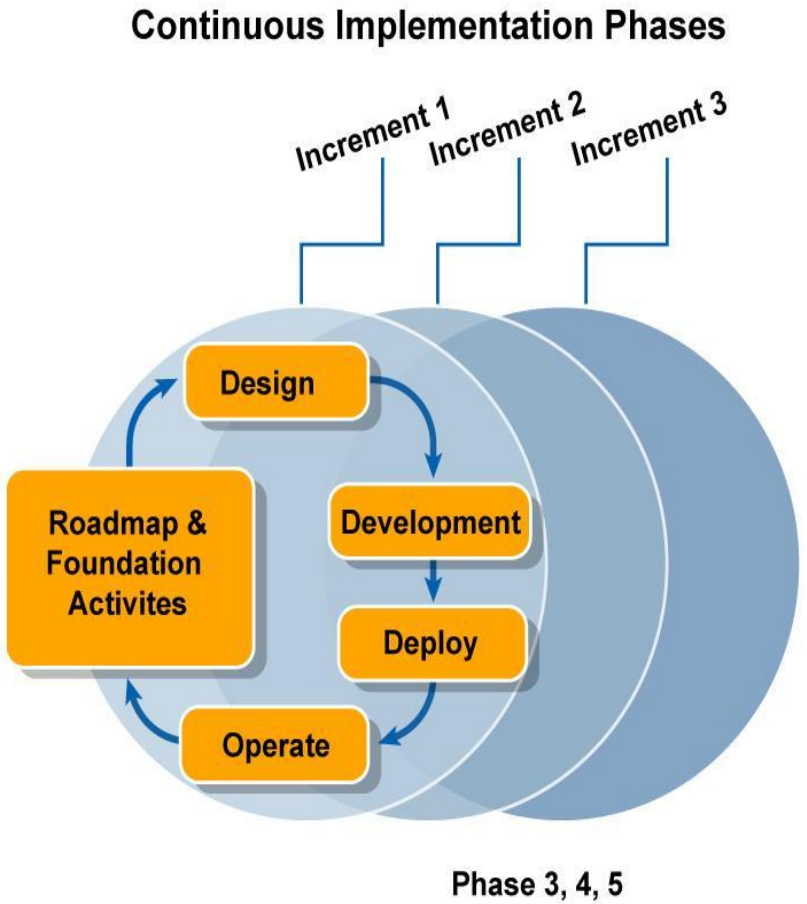
Identify and prioritise project risks

With each iteration, re-examine risks for iteration and project as a whole

Risk	Likelihood	Severity	Mitigation
There is a risk to schedule and quality as developers are unfamiliar with proposed technology for the project	Medium	Severe	Have two key developers undergo training. Have a third party specialising in this technology review high level designs before coding starts. Prototype first two function points before the remainder of the code is developed.

MIKE2 Phase 3 Foundation activities

- Software development readiness
- Enterprise information architecture
- Taxonomy design
- Metadata development
- Solution architecture definition/revision
- Prototype the solution architecture



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Foundation activities (1)

- Focused on ensuring that the environment is ready and that basic solution decisions have been made
- Important to establish at the beginning of each design, develop, deploy increment
- Primarily focused on understanding information issues, resolving these problems and defining target content models
- If not conducted first, other subsequent implementation work is likely to fail

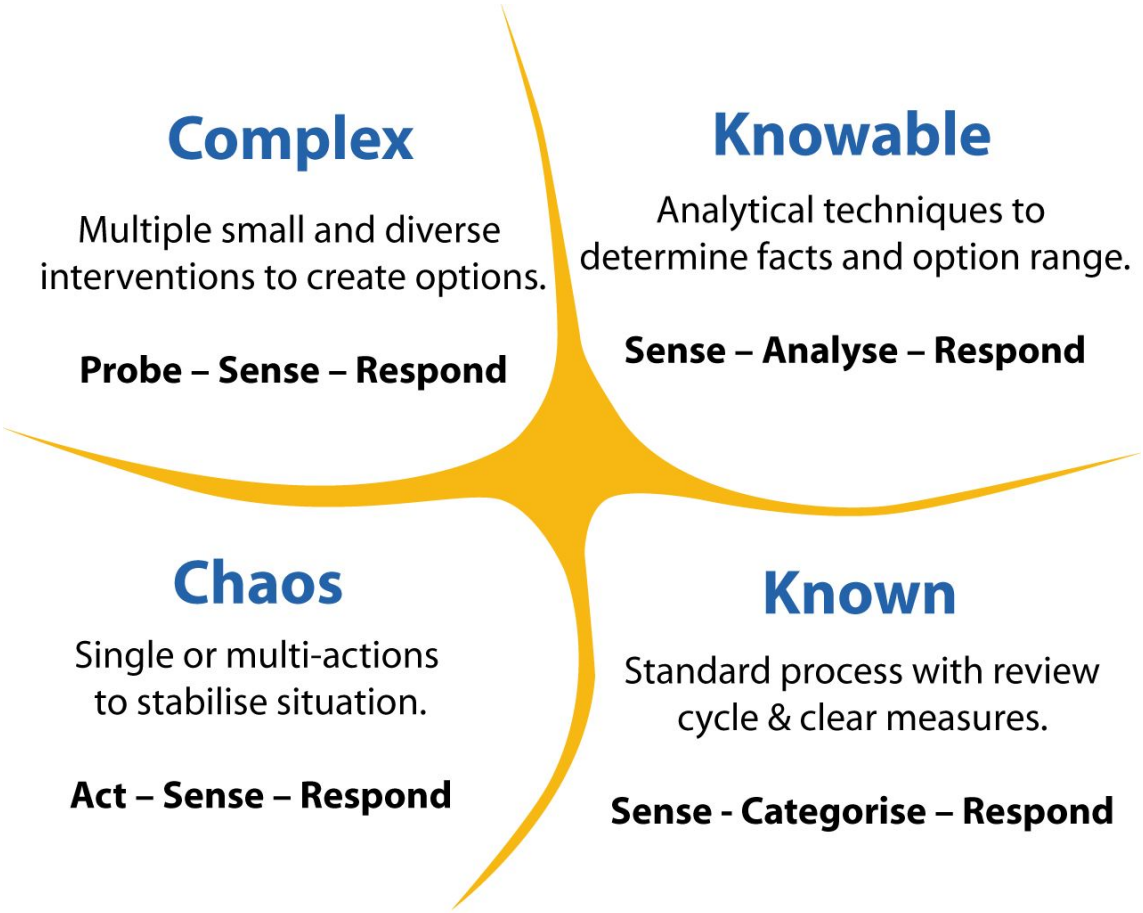
Source: http://mike2.openmethodology.org

Foundation activities (2)

- Technical and design foundations
- Iterative
- Risk assessment and management

Taxonomic needs assessment

Cynefin framework



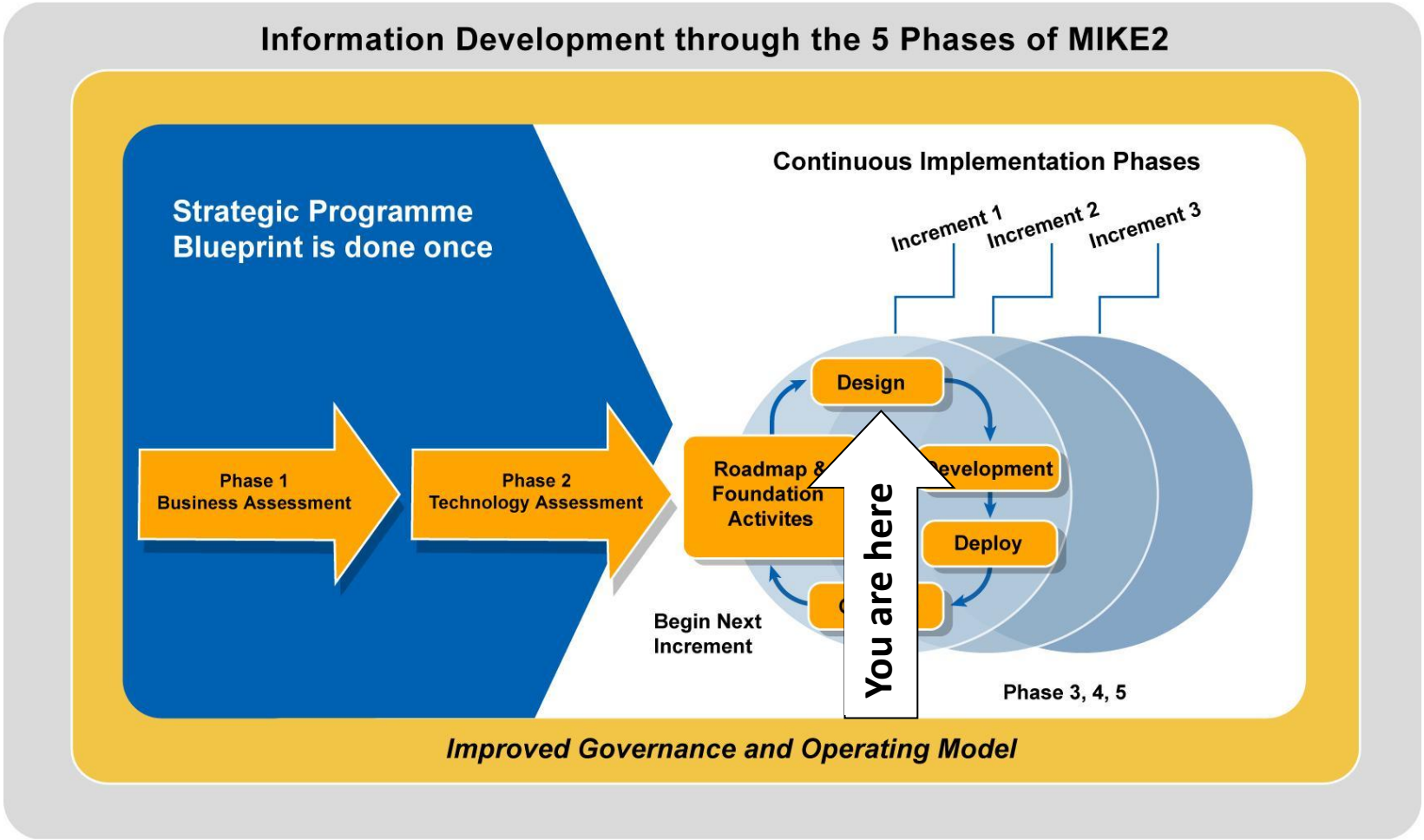
Source: Dave Snowden

Developing a taxonomy

- Identify stakeholders

- Define purpose
- Determine approach
- Collect information
- Develop scheme
- Pilot scheme
- Deploy scheme
- Gather feedback

MIKE2 Phase 4



Source: http://mike2.openmethodology.org

Identify training and administration guide requirements

- **Used to estimate training needs**
  - Varies depending on complexity of the system, amount of change to the organisation required and ability of users to absorb the material
- **Questions answered**
  - What is the nature of the audience and the contexts they will be using the ECM environment?
  - Who will need the documentation, at what level, when and why?
- **Typical targets for training**
  - Departmental users
  - System operators
  - Management

Develop outlines for operational manuals

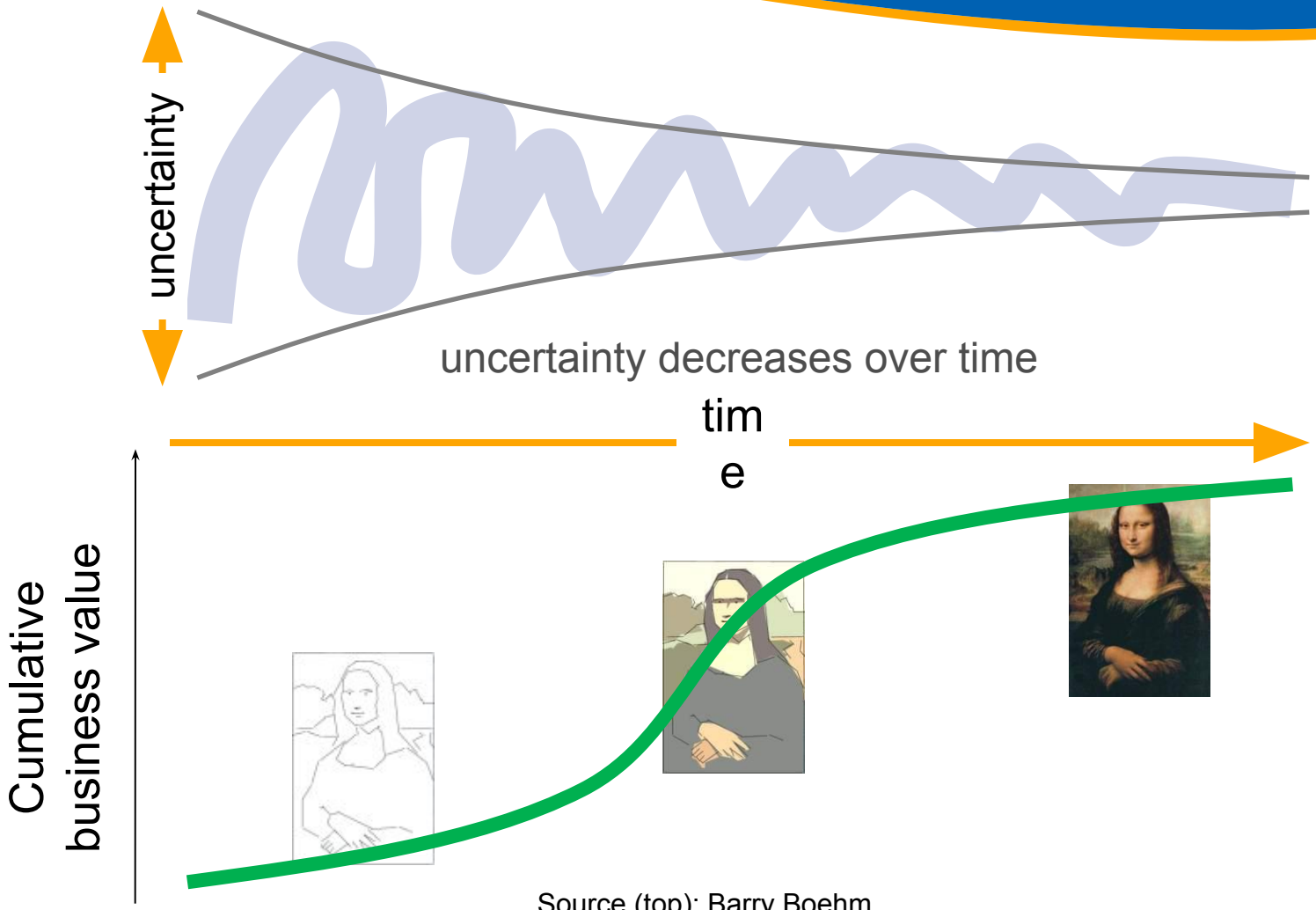
- **There will be multiple operational manuals, targeted at the specific audiences identified**
- **Typical examples**
  - User procedures manual – for specific business functions
  - Operations procedures manual – for technical operations
  - Desk procedures – how to do specific business jobs using the system
- **Tasks**

1. Examine existing operational manuals for corporate standards
2. Determine satisfaction with existing manuals
3. Based on identified requirements, build outline, vet with audience

Design backup and recovery procedures

- **If your solution is based on a single provider, single repository - in a word, simple - fairly straightforward**
  - Distributed, federated, integrated solutions exponentially more complex
  - Dirty secret of the ECM industry that backup and recovery is exceedingly difficult
    - Multiple repositories, integration paths, databases, indices, linkages between documents and repositories
- **Best approach**
  - Closely work with solution provider and/or integrators to design and verify backup and recovery will actually work

Business value of prototyping



Source (top): Barry Boehm

Source (bottom): Jeff Patton, www.agileproductdesign.com

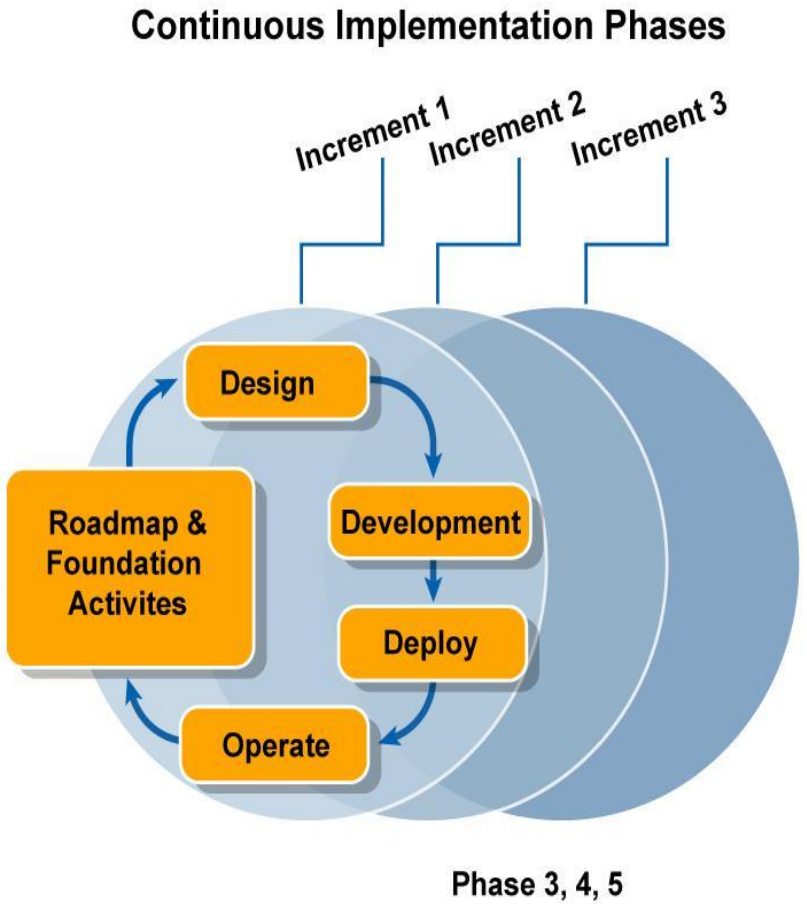
All users have raised expectations

Source: NetFlix

Source: Apple iTunes Music Store

MIKE2 Phase 5

- **Develop**
  - Testing
  - Training
- **Deploy**
- **Operate**
  - Ongoing improvement
- **Closeout**



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Develop user support documentation

- **Created to provide step-by-step documentation, with appropriate screenshots, to illustrate an entire process or task**
  - Supplements any automated processes implemented within the system
- **Keep in mind how documentation is intended to be used in YOUR environment**
  - Stand-alone reference manual
  - Basis for live or on-demand training
  - Develop at level of detail necessary for final use

Develop operations support guides

- **Introduction**
  - Document distribution list
  - Document change process
- **Application overview**
  - Production environment
  - Production architecture overview
  - Production environment components
  - Application servers
  - Web servers, etc.
- **Security**
  - Server security configurations
  - Security log reviews
  - Guidelines for access
  - Account administration
- **Data centre procedures**
  - Startup/shutdown
  - Job scheduling
  - Monitoring & logging
  - Load balancing
  - Problem management
  - Change management
  - Vendor management
  - Backup/restore procedures for application components
  - System maintenance
  - Print services
  - Failure
- **Appendix A - User account setup process & access rights**
- **Appendix B - Service level agreements**
- **Appendix C - Contact matrix**
- **Appendix D - Software versions list**

Source: http://mike2.openmethodology.org/wiki/Operations_Procedure_Outline_Deliverable_Template

Technology backplane development

- **Making this available as soon as possible is critical for the development of ECM system**
  - Provides “developer ready” environment to build and test system based on work done in foundation activities and design
    - Acquisition and training of developers was covered in phase 4
- **Tasks**
  - Implement target repository
  - Develop content interface components
  - Develop process/automation components
  - Develop metadata management integration
  - Develop infrastructure management processes

User testing

- **Pilots and model offices are popular approaches**
  - Refine design and implementation of new ecm-enabled environment by directly involving users
- **Pilot approach**
  - Trial of ‘draft’ proposed environment
    - Uses a small subset of users
    - Usually in their normal working environment
- **Model office approach**
  - More of a ‘laboratory’ environment - somewhat rare
  - Typically used to ‘get it right’, before moving to a pilot

Model offices & pilot: Benefits

- **Technical evaluation**
  1. Functional testing
  2. System integration testing (SIT)
  3. End-to-end testing (E2E)
  4. Stress and volume testing (SVT)
- **Functionality evaluation**
  - Does it do all that is specified and required?
- **Finalise environment**
  - Ensure all aspects of environment are defined
  - Establish and ‘freeze’ a configuration for roll-out
- **Training development**
  - Develop and assess training materials and methods
  - Train the trainers, help desk staff, floor-walkers
    etc.

Production deployment

- **Post-pilot and/or model office work, the environment finally reaches a deployment-ready state**
- **Final steps for deployment involved finalising how the solution will be deployed technically for production use**
- **Tasks**

1. Define distribution and installation method
2. Deploy baseline production environment
3. Deploy software to production

Deploy software to production

- **Solution is ready to be released into production, with final evaluation and launch of the solution to the target communities**
- **Production and operation procedures should be up and running alongside the infrastructure itself**

Evaluation and launch

- Post technical deployment is the final evaluation, scheduled launch and post-launch verification and support
- Transfers operations and support from the development/project team to operations personnel for solution moving forward
- Contingency plans for any issues in final testing and launch should be in place and ready to activate, should any severe issues be identified
- Validates that system is truly ready for rollout

Training feedback loop

- **Collect feedback**
  - At the time
  - And later
- **Review, learn and improve**

•Review

•Learn

•Improve

Importance of change readiness assessment

- **Organisational change will always appear threatening**
  - People think of job security
  - Some enterprises more freely disseminate information regarding change and strategy than others
- **You need to assess your enterprise's readiness to change**
  - Readiness of management and the workers affected by the change
  - How technology is used (or not) within the organisation
- **QuickScans and early assessments of Phase 1 provide diagnostic tools, while this module is focused on enabling necessary change**

Best practices for implementing change

- **Change needs to be managed, but there are many different methods for this**
  - However, these methods share common themes
- **Most important theme: change occurs in the context of the enterprise's natural and recognised capabilities**
- **All successful models**
  - Address all elements of change
  - Provide a process for introducing change
  - Address critical success factors

Creating user “wins”

- **Early wins create a “Yes” environment**
  - Wins should be promoted widely
- **Leverage existing and new “super users”**
- **Wins should be clear cut**
  - Not open to interpretation
- **Wins should bring benefits to all**
- **Wins should appear to come easily**
- **Even a big bang approach can be delivered via a series of smaller wins…**

AIIM ECM Specialist and Master Program - learn how to impl. ECM

ECM
Enterprise Content Management
Learn how to take control of your information assets.

E2.0
Enterprise 2.0
Learn best practices for using Web 2.0 technologies to improve collaboration across the enterprise.

Search/IOA
Information Organization & Access
Learn how to optimize findability and enterprise search.

BPM
Business Process Management
Learn how to improve your business processes.

ERM
Electronic Records Management
Learn how to take control of your electronic records.

Email
Email Management
Learn best practices for managing your corporate email.

www.aiim.org/training