

Prudent use of Business Architecture for Patient-empowering Health and Social Care



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BCS Health Scotland Conference

Empowering Patients to gain more from eHealth

Scottish Health Service Centre, Edinburgh

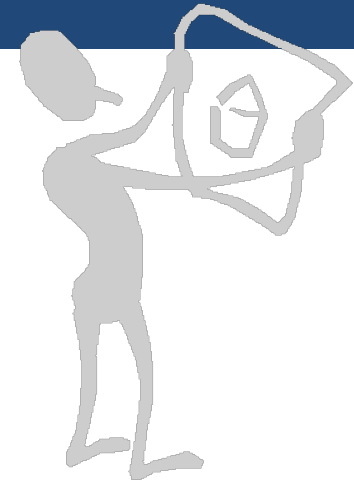
21st and 22nd Sept 2009



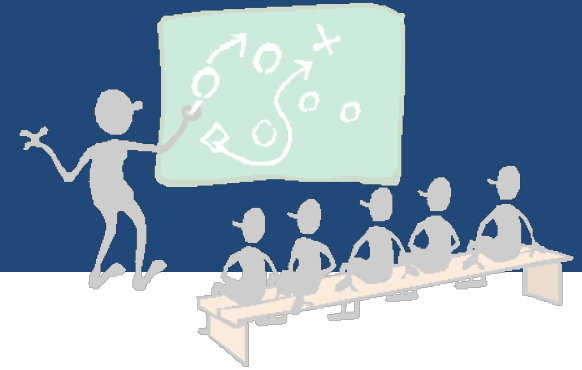
BCS Health Scotland conference, 21 – 22 September 2009, SHSC, Edinburgh
“Empowering Patients to gain more from eHealth”
www.scotland.bcs.org.uk

Agenda

- Introduction
 - *Speaker & Organisation*
 - *Audience & Organisations*
- The Architecture Context
 - *What constitutes Architecture*
 - *What does Business Architecture do*
- The role of Health and Social Care Services
 - *Who is NH(S)S for*
 - *What is business of NH(S)S*
- Empowering the Patient
 - *Who are patients*
 - *How are they empowered*
 - *How can NH(S)S Business Empower Patients*
- Using Business Architecture-led approach prudently
 - *Architecture Cycle*
 - *Role of Architecture Development*
 - *Role of Architecture-based Governance*
 - *Value of Architecture review*
 - *Value of Architecture Maturity*



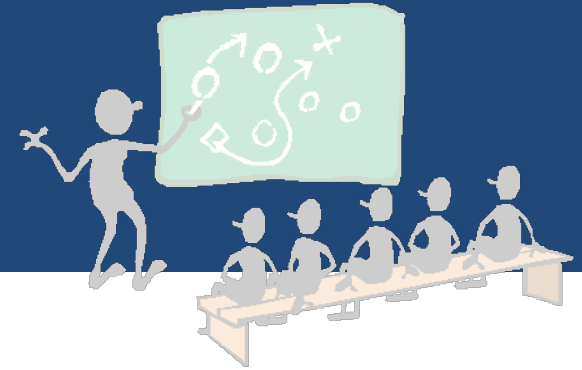
The Speaker



- Enterprise Architecture & System Engineering
 - Chief / Lead / Principal / Practitioner
 - Strategist
 - Mentor
 - Auditor
- Health-related Background
 - An EA & SE 'elder' on the NPfIT-Spine
 - Member, UK Faculty of Health Informatics
 - Author, Faculty Paper on Enterprise Architecture and its Value to NHS
 - Chair/anchor of workshop teams/working groups
 - Chair, Panel at HC2009
 - Member, Electronic Health Record Technical Advisory Group
 - Member, Relevant eSpace communities
- Chair, IASA Editorial Board
- Columnist - Masterbuilder's Craft
 - Syndicated as leader column for IASA
- Architecture Assessment Background
 - Designer and Lead Appraiser for the first ARC-compliant (thus PII-supported and objective) EA Maturity Appraisal
 - Developed first completely objective (PII-based) EA-appraisal framework
 - Developed benchmarkable EA-appraisal framework
 - Regular speaker on the subject
 - CMMI Technology Conference and User Group
 - Open Group Architecture Practitioners Conferences
 - EA Summits
- Visiting Faculty with the IBM Rational University, mentor to IBM staff consultants
 - Similar credentials in context of TOGAF and CMMI
- Author/co-author / Editor of a couple of dozen works including
 - Book
 - Advances in Government Enterprise Architecture [ISBN: 978-1-60566-068-4]
 - The Rational Edge cover feature
 - Estimating use-case driven iterative development for "fixed-cost" projects
 - Other Articles and Proprietary Papers



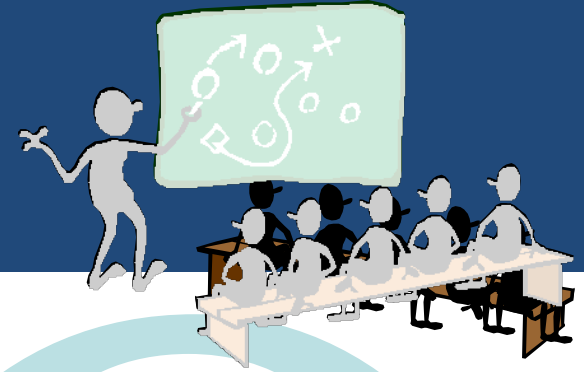
Speaker's Organisation



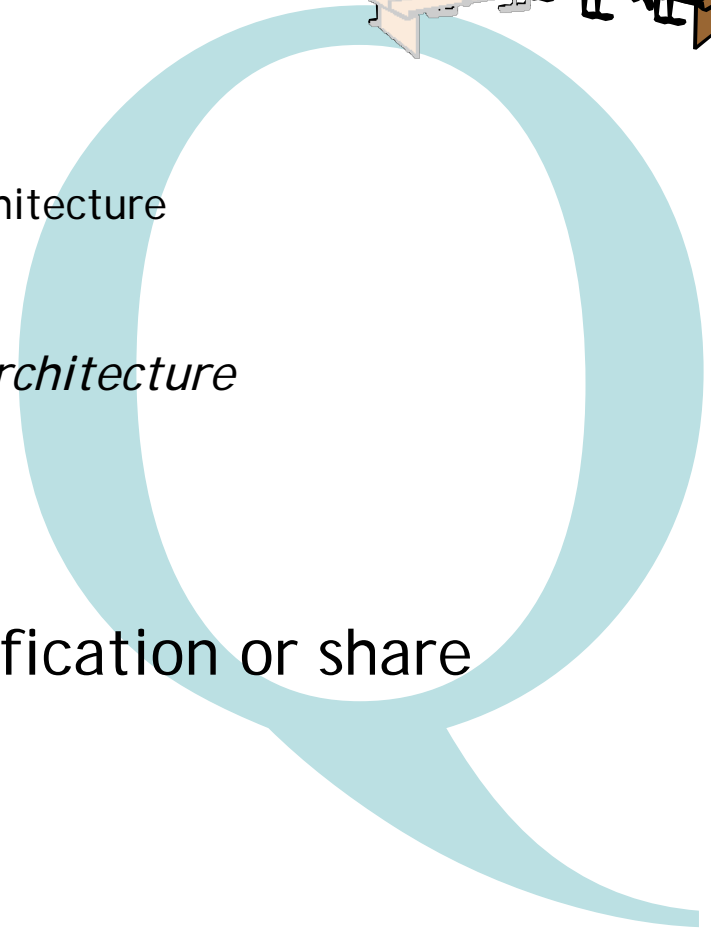
- Strategic Research
 - *Research and productising of innovations of long term value*
 - *Sirona initiative*
 - Collective, independent assessment of 'quality of healthy living'
- Consulting
- Audits/assessments
- Masterclasses
- Mentoring



The Audience

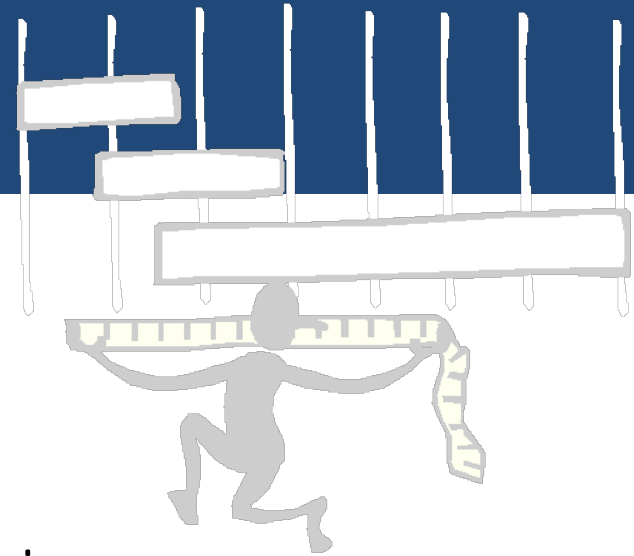


- Who among you
 - *Are Enterprise Architects*
 - Specialise in Business Strategy & Architecture
 - *Understand Architecture*
 - *Manage Architecture*
 - *Work for organisation that “does” Architecture*
 - *Manage Architects*
 - *Have assessed EA*
 - *Are looking to assess EA*
- You can interrupt to seek clarification or share thought



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The Architecture Context

- What Constitutes Architecture?
- What does Business Architecture do?

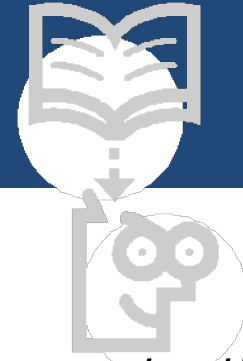


Literally, Architecture is

- The craft/output of the master-builder (archi-tekton)
- However a better definition emerges working backwards from the ANSI definition of IT Architecture, and generalising it to 'architecture of a thing' ...



IT Architecture



- ANSI/IEEE Standard 1471-2000
 - *The fundamental organization of a system, its components, their relationships to each other and the environment and the principles governing its design and evolution*



Architecture

- Generalising on the ANSI definition we get the following back-definition
- Architecture of a «a thing»
 - *The fundamental organization of «a thing», its components, their relationships to each other and the environment and the principles governing its design and evolution*
- This fits with etymology and generally understood sense of the term
 - *Organisation and integration of constituents of «a thing» that make «a thing» fit for purpose, by design*



This applies well to Business Architecture

- The fundamental organisation of the business, its components, their relationships to each other and the environment and the principles governing its design and evolution
- Organisation and integration of constituents of the business that make the business fit for purpose, by design



Business Architecture therefore emerges...

- Working progressively on
 - *What is purpose of the business*
 - *How the users of the business interact with it to derive results of value to them*
 - *Are users fixed / widening / narrowing? What are the implications*
 - *Is the scope and purpose of the business changing? How? What implications does this have to the demonstrable results of value?*
 - *Is the way the user of the business able to interact with the business changing?*
 - *Does the business have a design? Is the business engineered?*
 - *Do constituents of the business have well defined goals?*
 - *Where the constituents do not provide service of value to user of the business, do they provide such service to the frontline constitutions that directly contributes to the functionality and/or operational quality of the output of the business?*



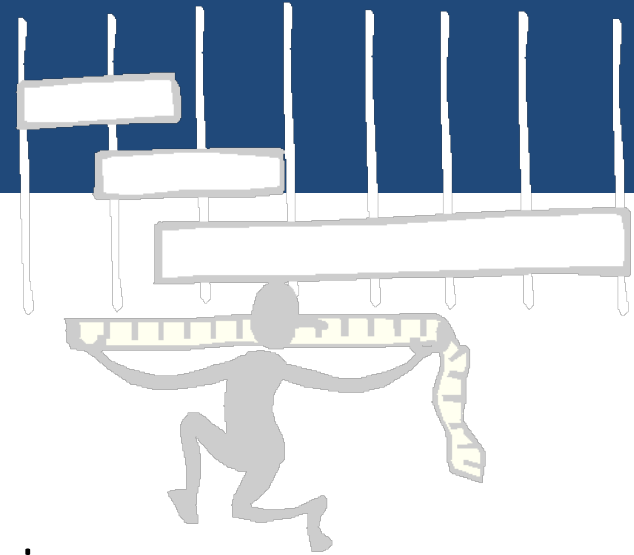
...After exploring basic Business Architecture definition

- Is the definition clear, without
 - *Accidental redundant work by constituents*
 - Different from redundancy by design
 - *Circular dependencies*
 - *Undefined / ad-hoc / not audit-trailed functionality*
- Can the orchestration / integration be performed differently with improved resilience, service quality and functional diversity?
 - *This may mean reengineering and / or automation, but it does not need to*
 - We can not begin with a 'Program for IT' and then start defining business as an afterthought



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Health & Social Care and the Patient...

- Can Health and Social Care be addressed separately?
 - [See history](#)
- What is NHS for?
 - *To cure? To prevent? To maximise possibilities in life?*
 - *Can any of these functions depend on or take precedence over others? E.g.*
 - Can NHS do better promoting and investing in healthy living and reducing need for active health and social care?
 - Can NHS invest more in social care and reduce need for active health care?
 - Where are the borders / responsibility hand-over between social opportunities, social care, health education and health care?
 - Who can best serve as 'business architects'?



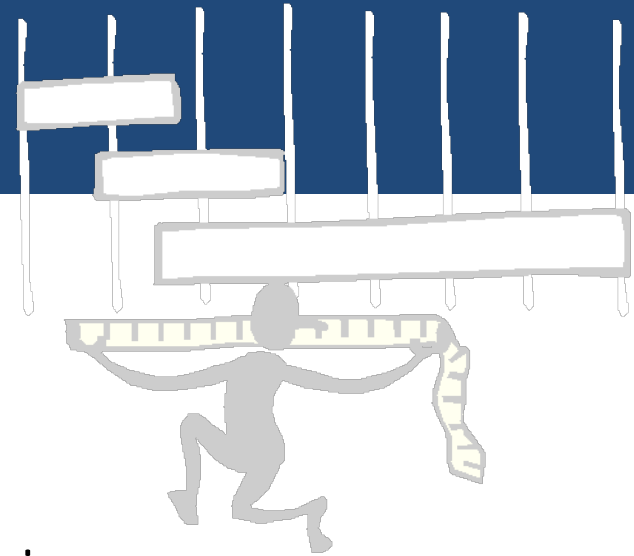
...the Patient

- What is the definition?
 - *One who endures maladies?*
 - *One who just endures?*
 - *All denizens? After all, it is health service, not cure service*
- Unless we know who the patient is, we can not become patient-centric, nor empower the patient effectively
- While the ill need cure, how can the healthy get a fair deal for their contribution to NHS resources?
 - *Can they get back their contribution through better and healthier living facilities?*
 - *Can the healthy inspire the not-so-healthy to improve their overall quality of life?*
 - *What are the ultimate indicators of healthy, long-term fulfilling living?*



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Basic Architecture Cycle

- The Master Builder (MB) 'conceives organisation and integration of constituents' so the whole is fit for purpose
 - *MB 'develops' architecture*
- MB (usually) articulates its concepts through a set of abstractions / models
 - *MB creates 'architecture artefacts'*
- The builders build according to MB's plans
 - *Builders 'implement' architecture / 'comply with' architecture*
- MB oversees builders fidelity to its plans
 - *Architect 'provides governance' to implementation*



Architecture Development

- After establishing the purpose of the business and the principles that it stands for, architecture blueprint emerges (usually in iterations)
- While this is being implemented, further architectural development may happen
 - *Improvements based on feedback*
 - *Changes for changing scope*
 - *Changes to improve ways of working, efficiency and integrity*
- Architecture development should involve ambassador users, but should not be slave to their wants and objectively assess their needs



Architecture Implementation Governance...

- The architects should then be available to discuss the architecture with developers (a.k.a. evangelise)
 - *In Business Architecture context the 'developer' may be called project officer, administrator, etc*
 - The relationship is essentially the same - master-builder and builder
- Typically the implementers should get to understand and critic the architecture
 - *Their informed consent is important to implementation success*



...Architecture Implementation Governance

- The architect should then spare some time to govern the implementation
 - *Full compliance is the best result-where the implementer implements all and just what was specified*
 - *However, the following results too may be acceptable in certain cases*
 - Compliant (the implementer does not go beyond the specification, though not everything specified is implemented)
 - Conformant (everything specified is implemented, though there may be additional unspecified implementation)



Independent Architecture Reviews

- Are important
- Should preferably include at least
 - *An independent peer of the architect*
 - *An independent peer of the implementer*
 - *An ambassador user*
 - This need not necessarily be specific administrator, but should be a person capable of deriving benefit from the implementation and perhaps mentor the user community



Architecture Maturity

- Benchmark are developing that gives good understanding of the amount and complexity of transformation that a setup can safely handle in one program (or parallel programs with concurrency points)
 - *Benchmark for EA Maturity (BEAM) has been the pioneer*

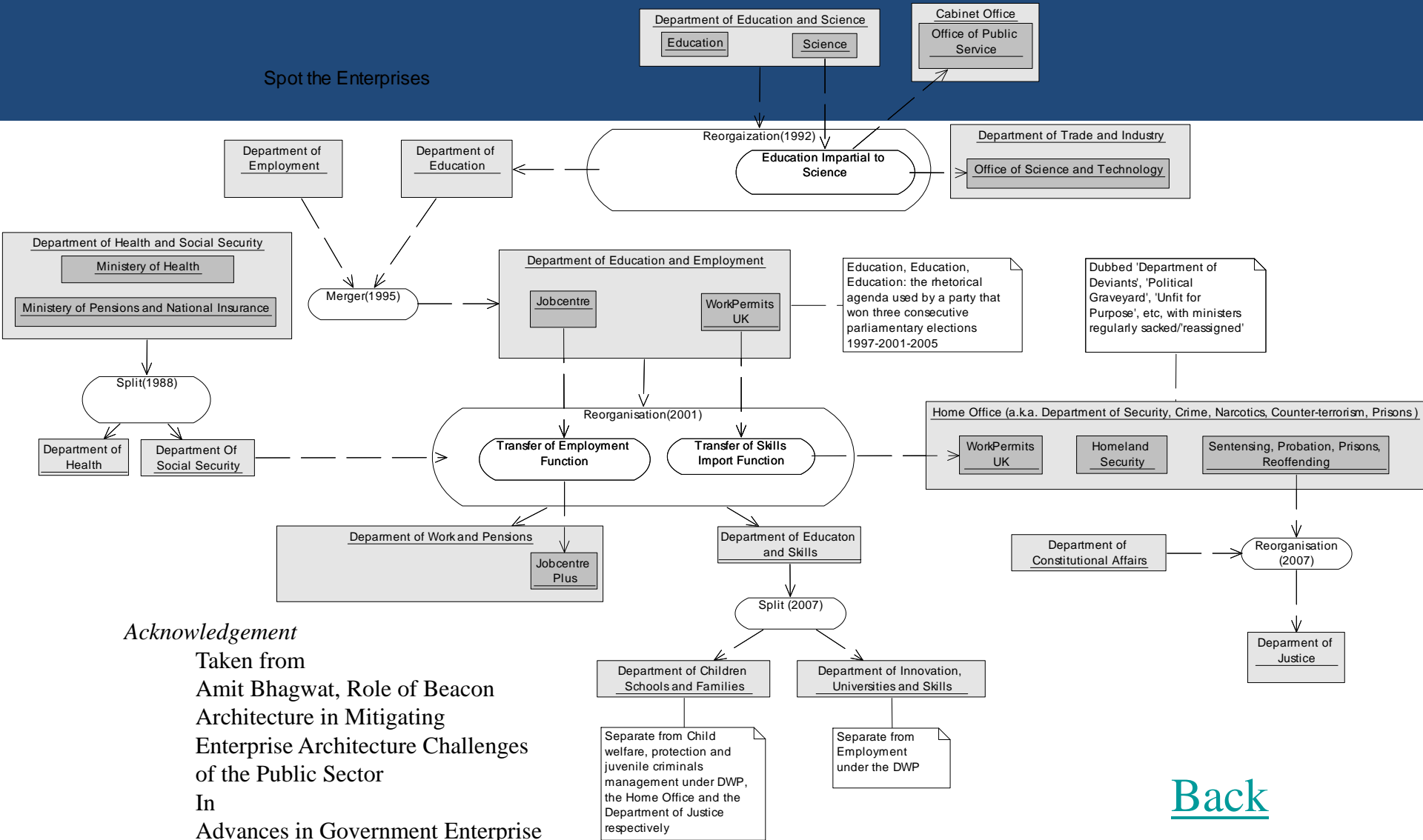


Thanks

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Acknowledgement

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