This presentation provides a story about the formation of an EA team in Australian Higher Education sector. Every story will be different, this is ours. Interpret what you need from this story and apply the ideas, concepts and processes to your organisation.
EA certainly started within IT at CSU. So this is perhaps also a short sub-story about the recent history of IT at the University. There were numerous phases in our journey, perhaps they were maturity or change points for us. We had not really even investigated EA until early 2005 but were probably undertaking various aspects of it in an adhoc non-integrative fashion for years.

The more we learned about EA and practiced it, the more we appreciated what it was (and that it wasn’t a silver bullet!). Importance references from the knowledge management angle follow. But more recently we seem to be settling upon the final point.

“Knowledge Enabling the Organisation” Open Engineering Inc 1999
“The Physics of Knowledge Management” Zachman International
EA isn't just about documentation, we heard a lot of stories about documenting everything first and we certainly didn't fall for that, EA had to help us engineer the change into something. And of course you can't just rely on models and documents to be followed, it all needed to be wrapped into a service.

**EA at CSU**

- Provision of ‘As-Is’ and ‘To-Be’ Enterprise Information (Enterprise Models are corporate knowledge – this is **infrastructure**)

- Provision of strategic advice and continuous improvement to assist in changing the organisation towards the ‘To-Be’ (This is a **service**)

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In 2005 the Division of IT was structured in technical groups – Service Desk, Applications, Networks and Communications, Desktop Services. Each had their own managers and optimised their teams to suit a Divisional plan. There was no enterprise architecture. However ‘architecture’ had been used a lot in technology designs and the like but never with the enterprise aspect that we now know.

We commenced a significant ‘EA’ project. Our pain at the time was integrating off the shelf systems with our data. We eventually implemented a Master Data Management system but the key point here is that our project was actually and Enterprise Data Architecture project and not EA. However, it triggered us to look at enterprise data models and hence investigating what EA really was.

We ended up attending John Zachman seminar on EA and soon realised that EA is far bigger than what we thought it was. At the same time the Senior Executive team at CSU wanted to embark upon a business process improvement initiative (BPI). Our early experiences and investigations with EA put us in the box seat for this work. We could explain how it all tied things together. Process was one part of EA. We put our hand up to work closely with our Organisational Development team to take on this project. The project morphed into WPI (work process improvement), and it was this project and trust given to us that has driven EA at CSU and significant work since.
The business process improvement initiative became ‘Work Process Improvement’ (WPI) and in developing the methodology to apply across the organisation, we trialled it within IT along with numerous other EA principles based around Zachman.

This review led us to really understanding IT at a more fundamental level than we had before. We applied Burlton’s methods and reviewed our stakeholders, which drove a process model, an IT specific data model of how things fitted together, events, strategies and services. It really made us look at our organisational structure from a new angle.
About the same time Gartner was talking about process alignment of your IT organisation. With our first process model in front of us, we realised what we had to do. With our work in architecture so far, we also knew that this was no project, we needed to dedicate people to this. So in late 2005 and early 2006 we restructured the Division. Previously technical teams had been grouped under Directors, now the Directors were responsible for core processes. One of these was Architecture and Liaison – hence an EA team was born.
The new team had to be multi-disciplinary. There was no point having a virtual team where people came from other places and were responding to different directors. This is the team we established.

These people were senior people in IT, cream of the crop, donated from departments within IT, taken out of their everyday jobs, and dedicated to EA and EA related initiatives. They did not have to worry about day-to-day production issues. We kicked off with a contract Business process architect as by this stage we had DEST grant funding to support the WPI project.

We also formed liaison roles within the team (business relationship positions). Liaisons collect information for architecture and disseminate it back to the business. In effect they are liaisons first and architects second, while Architects are architects first and liaison second.

### 2006 Team

- Director
- EA - Information
- EA - Infrastructure *(What it sits on)*
- EA - Integration *(How it’s shared)*
- EA - Application *(How we manipulate and present it)*
- EA - *Business Process*
- Liaison - L&T

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Very Early Experiences

- Obvious multi-disciplinary benefits
- Passion
- Greater understanding of EA
- Early models and roadmaps
- Balancing act

It became clear in weeks that this was going to work – we just had to work out who we were, what we supposed to do. It was a juggling act between 3 things. We had to balance it because we started from nothing, the rest of the Division had no idea what we did (let alone the University), so it was hard work even communicating the role let alone doing things.

The pleasure in it was to have the group come together. People who had worked together as peers in different teams started truly appreciating the others views because they were in a team that has to work together.

Feedback was interesting and included:-

- These are business issues - why is IT doing this?
- Who’s got the time to take people out and think long term like this when there’s so much to do now?
- When is it going to be finished?

- Wow, this is really good
- You’re preaching to the converted
- Ohhh, so this is what you’ve been trying to say all these years
- Gee, that’s really complicated isn’t it
- You mean MIT is the same as CSU?
- Appreciate all that, but I think you should have done roles first
- How long are you going to be here for?
Our first job was to get some sort of a strategy in place. The text books don’t really give you too many tips on how you go about these things. It really depends on your situation. This is the basic philosophy we came up with. We had heard lots or stories about people documenting away their architecture – there was no way we were going to do this. We would not have survived. There was also a lot of things already going on that we had been working on and thought were important but couldn’t really justify it so we needed to make sure of that too (at this stage we had been working hard on data and just started on process).

We had to be pragmatic and this was our approach.

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**EA Strategy V1.0**

- Don’t build architecture for architecture’s sake - prioritise it for best benefit
- So trap what’s going on – CSU & Industry
- Put them on the table and weigh up common, best benefits (ALIGN IT)

- … *then* do something about it
As we worked through our first strategy, we kept track of what we did and documented it for others to follow through on in the future. You’ll notice the maturity of our IT process model as we worked through our EA Strategy V1.0. It helped us described what we did and how it fitted in with the other processes of the Division. We used this as a communication tool.
This is more detail on the strategy. It is really a process that must occur all the time, but if you do it right, you should have some big fundamental architectural things you have to work on that should stand the test of time.

The list was about 300 things that are going on that we’ve got to do something with / worry about such as:- approved projects, un-approved projects, unsuccessful project bids, interviews, committee decisions, working party outputs, rumours, innuendo, things we knew about, things we had heard about, strategic plans, vendors, sector, technology trends, …
We had a day long workshop. Our approach at this time was to assume that the list was a manifestation of the strategy (we didn’t have a decent portfolio management system in place then but can now say we’ve even influence that). We took each item on the list and grouped them in numerous ways to assist us in establishing themes (eg all these things point towards a lack of federated identity management and these things mean we need a portfolio management approach to projects). From these themes we worked out the actions that would be required to address the themes, and therefore the list and therefore the EA strategy.

Our actions have stood the test of time (if they don’t, you’ve got the wrong ones). Our work reconfirmed a lot of work we were already doing (justification) but one problem is that you will find big issues, these are very long term issues, how you approach them is critical – you can’t be seen as a blocker because of them.
With respect to the ‘actions’, roadmaps became important for us early on – in effect, very practical strategic documents. They are not implementation plans! That’s an operational/project problem.

Everyone has a current situation “As-Is”. From an IT perspective, this is more akin to configuration management in ITIL. Architecture really steps in when you start to look into the future. Ensuring that you don’t create new complexity, ensuring you have strategies all the way to eliminate bad things, introduce good things. Legacy starts the day you turn it on, you will always have legacy, get over that fact. It can only be managed and guided and coordinated in a long term way – so a roadmap is critical. Roadmaps are the hub for your models, strategy, policy etc.

In reality you might just pick one aspect – say your data centre or your network – that’s fine to start. We aren’t happy with ours, we’re starting to document what we’ve got “As-Is” (conceptually first), then we know what would be ideal “To-Be”. And there’s a few steps we’re going to have to take along the way. A variety of strategy comes in place because you can’t go straight from a to b in a project – it relies on too much other stuff. Some strategies may just say that every project from now on must …, all new applications must …,

Our tips and tricks regarding roadmaps are provided in the slide and an example on the next slide for our data centres.
Through our first 12 months as a team we came up against a lot of issues (still do really!)

Enterprise shock syndrome is a term coined – to highlight that architects can be easily scared off because of the scale and complexity of the problem when they realise what has to be done. You need to pick the right people who don’t need instantaneous results and can be in it for the long haul towards the big picture. It is very easy to give up because of the scale of the enterprise – particularly a University. No-one will pat you on the back.

Affirmation – noone in the Australian sector was doing what we were doing. An EA team was not heard of, we relied heavily on people in other sectors and Gartner to support us. Internally it became obvious that no other departments in the University had set themselves up with an architecture type group. Human resources’ WorkForce Planning team was perhaps the closest to what we were doing. We often had comments about ‘who’s got time to look so long term when there’s work to be done now’ it didn’t help morale too much.

The first symposium we held for the sector made us feel a lot better

Taking numerous senior staff away from ‘operations’ gave us other issues. The political balance had to be maintained, the other thing was that instant gratification of giving the staff back would not have made one bit of difference. The big picture was to solve this for the operations people. We had a lot of guilt, being relatively free from critical incidents and production stops but the pressure of justifying ourselves

A key to survival was to communicate the role to the business and to IT itself. The director spent a lot of time explaining the role of the team and providing
How do we know its working?

- MIT / Educommons data & domain models looking similar / identical
- Corporates – VW, GM, … doing the same
- When someone in another Division
  - Has our models on the table when we come into their office
  - says “this isn't an IT problem, you've just exposed it for all of us”
  - Asks IT to facilitate business meetings around data issues
- Other departments asking us about sharing applications
- When we get asked about using our models wrt strategic planning, organisational restructures, continuous improvement initiatives

In those early days we tried to collect all the positive feedback we could to justify ourselves – these were some observations at the end of the first year
By the end of 2008 the full EA team was almost nearly formed. Each architect is effectively a manager responsible for their ‘discipline’ or portfolio. Notable inclusions from the original team are records, research liaison and an enterprise resource analyst.

The teams focus through 2008 has been to build upon earlier work and the foundation information provided by the WPI program. The team has now reached a stage where it can extend the application of Enterprise Architecture to:

- Support effective decision making in initiatives portfolio management and ICT investment at the enterprise level.
- The effective use of EA in project management, the vehicle for change.
- The definition of an applications portfolio that will support the business architecture and contribute to the enterprise architecture roadmap.
The following pages provide the details of what we said EA would do for us way back when. This was early on in our efforts and we have always come back to revisit them. They are a bit like promises that we’d like to make sure we keep. It certainly isn’t an ROI (although we are working on this) but it gives you an idea of the impacts we believe that it has made.

Each year we ticked off each point to see if we had made a difference. Three years in we believe that we can almost put a tick to each point. It isn’t perfect, and some are more obvious than others, but we feel that it really has made a difference in all these aspects.

The strange thing is that we first thought EA was going to get IT out of trouble and perhaps IT has been the least or last beneficiary of EA. The things we said it would do for IT have taken a lot longer to flow through. EA hasn’t changed the world – it isn’t a panacea, but it does make a difference – it needs hard work and persistence.
University

- Identification of high level business process improvements
- A plan for present and future system initiatives *
- Organisational wide consensus for future goals and business functions *
- A model of CSU ‘as-is’ and ‘should be’
- A communication, induction & alignment tool
- Who’s doing what
- Duplication, opportunities for clean up, competency centres, new agreements etc
- Who’s impacted by what goals
- UNDERSTANDING

* Source – Pinnacle Business Group
Faculties and Divisions

• Faculties and Divisions
• Better appreciation of where they fit and their interactions
• Their own understanding, alignment & planning spin offs (many independent of IT)
DIT

- Where systems are concentrated and where they aren’t – quick pickings
- Better understanding of business
- Better aligned systems & technology
- Less complexity
- Less applications
- Less project changes
- Less coding more engineering
- Less bottleneck
- Real portfolio mgmt
How else could you go about it? Process would be a key driver for us on reflection.

If you don’t have an EA team now, or need to build communication channels into other areas of your University (faculty or otherwise), perhaps the easiest way to start is to take the higher ed reference model and start a conversation about it. Is this what we do? What would we call this instead? How are we structured to support this? What applications support that process? How good are we at doing that?

Talking to people from other Universities who haven't done this yet – it is clear they don’t understand the language of their core business – engagement and interaction and therefore alignment of their services with teaching and research is going to struggle.