

What makes a supplier happy?

The good, the bad and the ugly

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A bit of history

- Arkivum started in 2011 as a spin out from the University of Southampton
- Data safeguarding and digital preservation as a hosted solution
- Delivered as a fully managed service
- Grown to 100 clients over the last 6 years
- Higher education, heritage, healthcare, life sciences, financial services, construction and more
- Experience of all sorts of procurement exercises and approaches in that time

Never trust[®] anyone over 20.



20



30



40

Trust, transparency and exit plans

- Data integrity guarantee – *in the contract*
- Data escrow and exit plan – *from the outset*
- Insurance backing – *covers the real cost of data loss*
- ISO27001 – *external audit*
- Transparency – *talk to our staff, see your data*



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Trust, transparency and exit plans

Vendors: we *do* want your services
....but we don't trust you



Trust, transparency and exit plans

DPC member requirements:

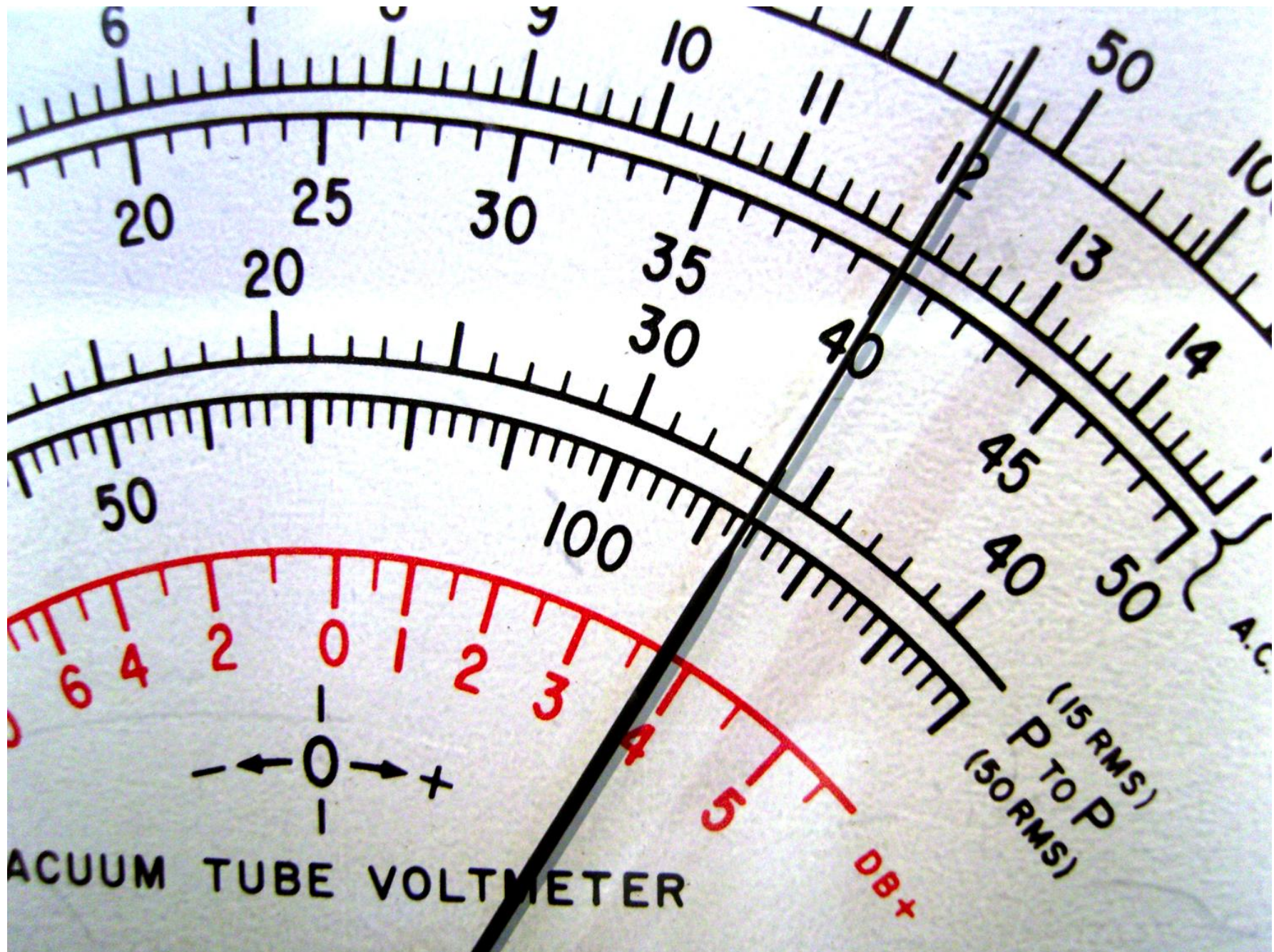
- Genuine exit strategy
- Simple checks on quality and completeness

Tell us more and we'll provide what you need:

- More transparency?
- What sort of exit strategy?
- Do we need to pass a preservation driving test?
- More access to reference customers?
- Interoperability between vendors?
- Certification?
- Audit criteria?
- Inspections and spot checks?

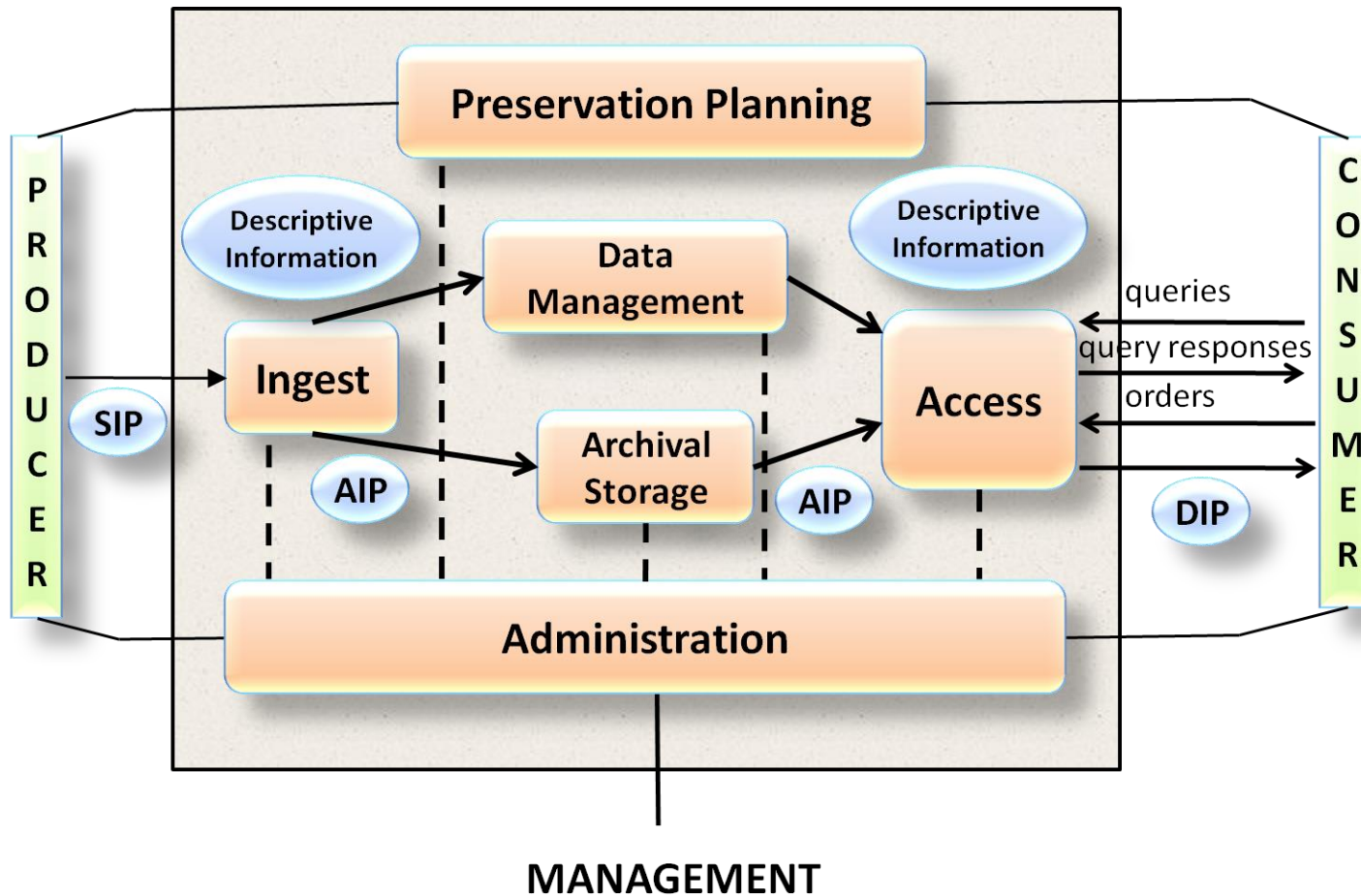


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Formal certification and compliance



The Consultative Committee for Space Data Systems

Recommendation for Space Data System Practices

**AUDIT AND
CERTIFICATION OF
TRUSTWORTHY DIGITAL
REPOSITORIES**

Simple assessment and collaboration



Guidance on Cloud Storage and Digital Preservation

**How Cloud Storage can address the needs
of public archives in the UK**

Table 1: Version 1 of the Levels of Digital Preservation

	Level 1 (Protect your data)	Level 2 (Know your data)	Level 3 (Monitor your data)	Level 4 (Repair your data)
Storage and Geographic Location	<ul style="list-style-type: none"> - Two complete copies that are not collocated - For data on heterogeneous media (optical discs, hard drives, etc.) get the content off the medium and into your storage system 	<ul style="list-style-type: none"> - At least three complete copies - At least one copy in a different geographic location - Document your storage system(s) and storage media and what you need to use them 	<ul style="list-style-type: none"> - At least one copy in a geographic location with a different disaster threat - Obsolescence monitoring process for your storage system(s) and media 	<ul style="list-style-type: none"> - At least three copies in geographic locations with different disaster threats - Have a comprehensive plan in place that will keep files and metadata on currently accessible media or systems
File Fixity and Data Integrity	<ul style="list-style-type: none"> - Check file fixity on ingest if it has been provided with the content - Create fixity info if it wasn't provided with the content 	<ul style="list-style-type: none"> - Check fixity on all ingests - Use write-blockers when working with original media - Virus-check high risk content 	<ul style="list-style-type: none"> - Check fixity of content at fixed intervals - Maintain logs of fixity info; supply audit on demand - Ability to detect corrupt data - Virus-check all content 	<ul style="list-style-type: none"> - Check fixity of all content in response to specific events or activities - Ability to replace/repair corrupted data - Ensure no one person has write access to all copies
Information Security	<ul style="list-style-type: none"> - Identify who has read, write, move and delete authorization to individual files - Restrict who has those authorizations to individual files 	<ul style="list-style-type: none"> - Document access restrictions for content 	<ul style="list-style-type: none"> - Maintain logs of who performed what actions on files, including deletions and preservation actions 	<ul style="list-style-type: none"> - Perform audit of logs
Metadata	<ul style="list-style-type: none"> - Inventory of content and its storage location - Ensure backup and non-collocation of inventory 	<ul style="list-style-type: none"> - Store administrative metadata - Store transformative metadata and log events 	<ul style="list-style-type: none"> - Store standard technical and descriptive metadata 	<ul style="list-style-type: none"> - Store standard preservation metadata
File Formats	<ul style="list-style-type: none"> - When you can give input into the creation of digital files encourage use of a limited set of known open formats and codecs 	<ul style="list-style-type: none"> - Inventory of file formats in use 	<ul style="list-style-type: none"> - Monitor file format obsolescence issues 	<ul style="list-style-type: none"> - Perform format migrations, emulation and similar activities as needed



Procurement frameworks

"A procurement framework is an agreement put in place with a provider or range of providers that enables buyers to place orders for services without running lengthy full tendering exercises."

"Procurement framework agreements are OJEU compliant, removing the need to independently undertake a full European Union (OJEU) procurement process, as this has already been done as part of setting up the framework."

Procurement frameworks

Benefits (customers)

- Faster and lower cost procurement process
- Fewer decisions to make, predefined options (price, functionality, terms)
- Independent due-diligence done up-front by the framework provider
- Customers work together as a group/community rather than in isolation

Benefits (suppliers)

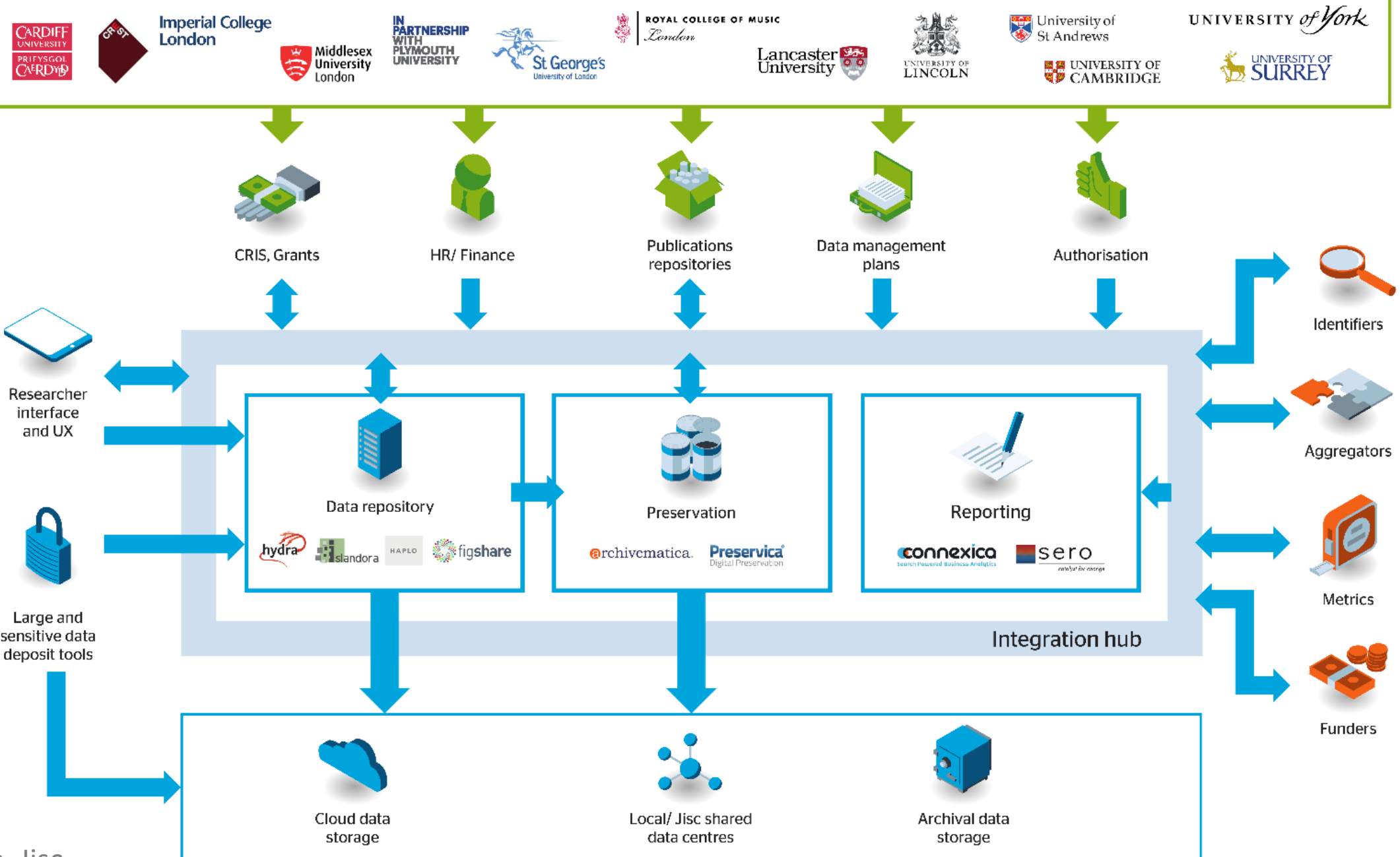
- Vendor only has to go through the pain of an OJEU process once
- Evidence of a market
- Adds credibility to vendor offering
- Easier to access the market
- Speed of sale
- Limited or no negotiation of customer specific terms

Framework agreements: Jisc data archiving

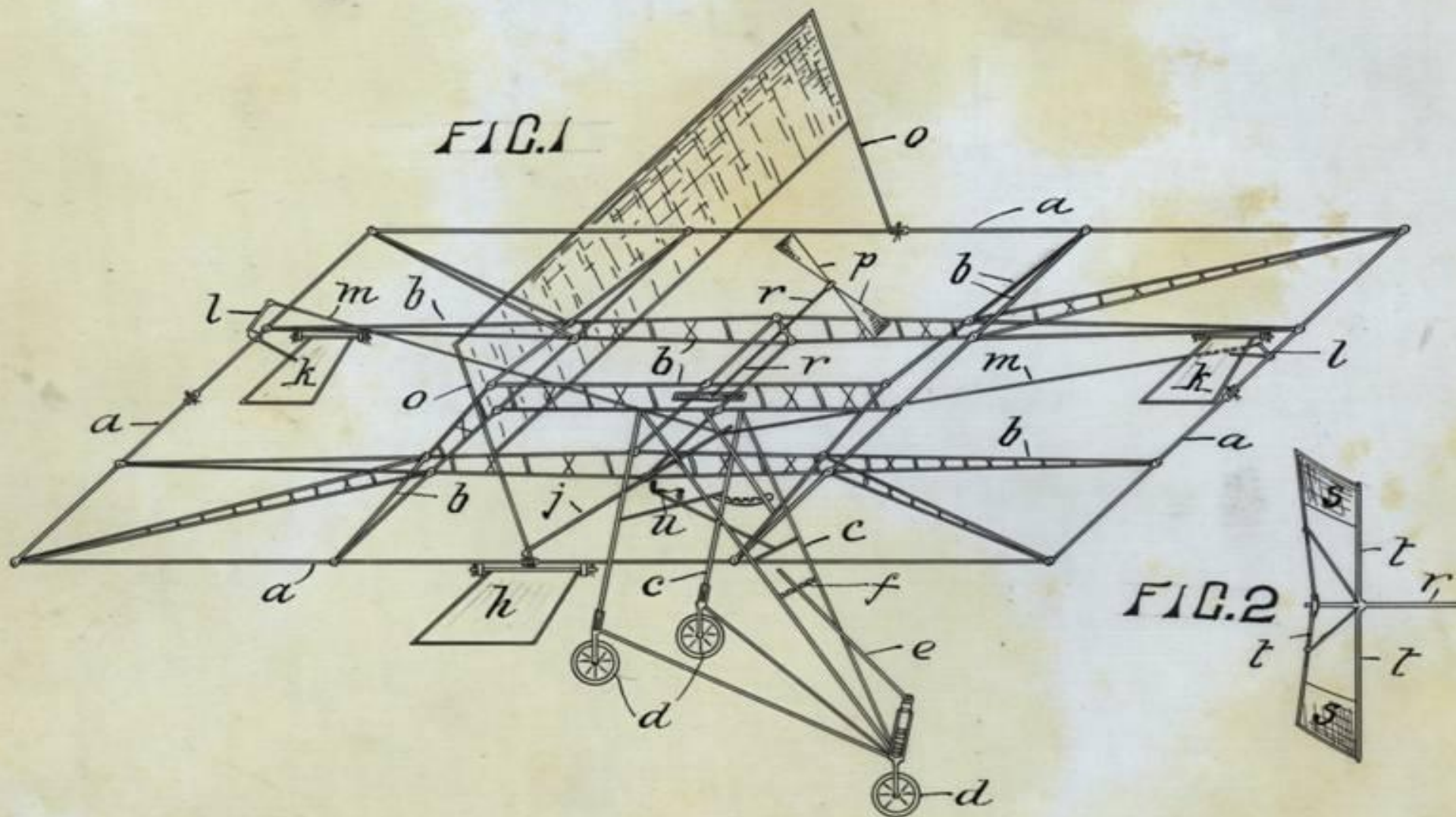
Tape archiving as a hosted service for organisations connected to JANET

- Criteria set by JANET in consultation with the community
- Competitive process
- Evaluation done by independent experts
- Predefined prices that can only ever go down!
- No need for OJEU 😊
- Customers can get up and running within weeks
- 30 Universities and rising...

Pilots



9/4/16



Henry Hughes

Proof of Concepts

"Proof of concept (POC) is a realization of a certain method or idea in order to demonstrate its feasibility, or a demonstration in principle with the aim of verifying that some concept or theory has practical potential. A proof of concept is usually small and may or may not be complete."

Benefits

- Rapid and shared-understanding of what's really needed
- Evidence that stuff actually works or is possible in the real world
- Hands-on is a great way to get to the essential requirements
- Low cost, low risk – especially trying something out in the cloud

Proof of Concepts: Archivematica

Hosted digital preservation and archiving built upon open source

- Initial small-scale pilot by University of York and National Library of Wales
- MoMA, Tate
- Norfolk, Westminster

BTW, it provides the ultimate exit-plan

- Open source software
- Data escrow
- Export of configuration and databases
- Independent community of developers and users
- Public roadmap



Exactly



ownCloud



Archivematica



Archive

Package & transfer

Preserve and Store



CC: <https://goo.gl/images/mevgJD>



Unrealistic Expectations



This is what I want:

- Geographic redundancy and no data loss
- High level of security
- Lower costs than in-house
- Instant access to all my data
- Exit plan
- Response to a 100 page ITT
- Onsite demos and workshops as part of procurement

This is what I currently do:

- Buy servers from PC World
- Put them in the cleaning cupboard
- Hope they don't go wrong!
- Set budget at £2k per year



BANTs not PANTs

Budget

Authority

Need

Timescale

Procrastination

Ambiguity

Nice conversations

Time sails by



CC: <https://goo.gl/images/LSRu9o>

Requirements

Define

Articulate – in context

Engage early

Collaborate

Steal from us! We've done it lots of times before...

Partnering



Consortia:
With each other



joint solutions:
With a group of suppliers



Frameworks / supplier lists:
With the DPC
With JISC, TNA...





CC: <https://goo.gl/images/7UqnUc>



Positive feedback loop

Organisations need:

- Sustainable, very long term solutions – reconciliation with proprietary tools?
- Predictable costs
- Guidance & support
- Commitment

Suppliers need:

- Sustainable, very long term solutions
- Predictable costs
- Guidance & support
- Commitment

WE OFFER 3 KINDS OF SERVICES

GOOD - CHEAP - FAST

BUT YOU CAN PICK ONLY TWO

GOOD & CHEAP

WON'T BE FAST

FAST & GOOD

WON'T BE CHEAP

CHEAP & FAST

WON'T BE GOOD

Money!

Who has the money for preservation?

Which department is responsible for it?

Who has the ability to allocate budget for the next 5 decades?

How do we solve that?

- **Don't "boil the ocean"**
- **Be the internal advocate**
- **Capital projects: how do I make my supplier work for me every day?**
- **POCs - start small but have a long term plan**
- **Consortia**
- ***Do something...***



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Procurement works best when...

Use pre-market / soft market tests wisely

Avoid unnecessary bureaucracy

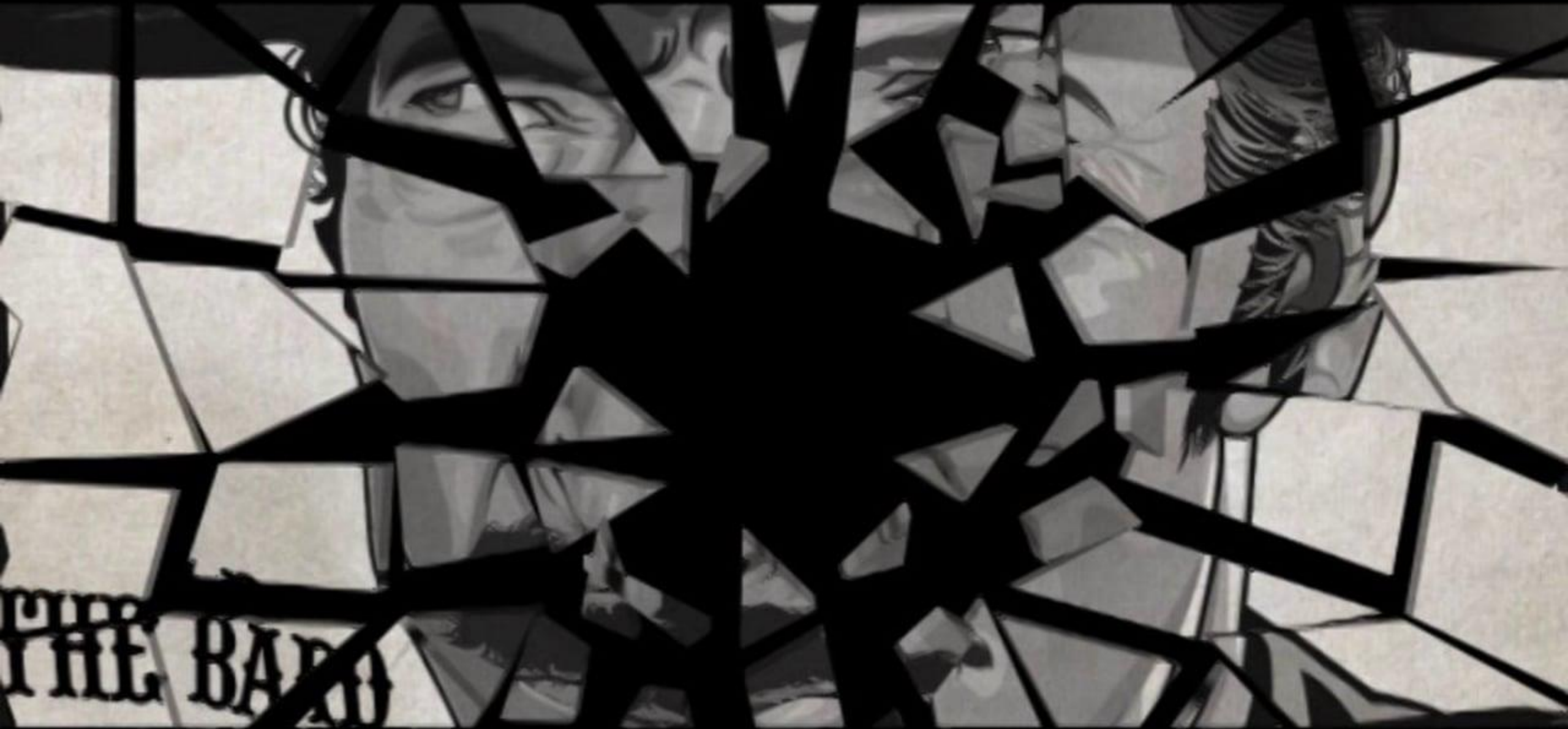
Proportional buying process

Engage early - in and outside of your organisation

Know what you want BUT be open to the unknown unknowns

Don't be a box ticker

Procurement process is just the beginning



Thank you

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Every bit archived