

EBU **TECHNICAL**



Asset Management and SOA @ EBU

EBU PMC Seminar
27-29 January 2009

Jean-Pierre Evain
European Broadcasting Union



MAM and SOA @ EBU: A follow-up from IBC

The EBU and several members have met key players at IBC 2007 and 2008

- Asset Management providers and manufacturers:
 - Adobe, Ardendo, Avid, Blue Order, Cisco, Dalet, IBM, S4M, Silex Media, etc.

Several questions were identified

- Broadcasters:
 - How could MAM be characterised ?
 - What are key selection criteria, features?
- Industry:
 - Could the EBU help in defining best practice workflows?
- All:
 - What role will Service Oriented Architecture (SOA) play in the future?

Action plan

- Share knowledge on Asset Management and SOA (since may 2008)
- Start EBU project on file-based production and SOA-like architectures (now!)
- Establish a network between broadcasters and the industry (to be continued)



Market needs: a summary from May 2008

The audio-visual landscape is changing

- More delivery platforms (broadcast, mobile, IPTV), more competition
- Consumption habits and viewer expectations are evolving

The business challenge

- Need for rationalisation and be present on a variety of platforms
- Adapt content to the specific needs (usability, availability, etc.)
- Control production costs (“produce once, publish many?”), share resources

The technical challenge : ‘*start small, think big!*’ (E-L. Green, SVT)

- Adapt to business needs and rationalise platform independent production
- Combine the best of breed of available tools from different providers
- Maximise reuse of well defined common resources by similar ‘roles’ having similar ‘needs’ across different production units
- Support ‘modularity’, ‘scalability’ for upgrade and customisation
- Modularise functions for more ‘agile’ workflow orchestration



SOA and broadcasting architectures

The SOA proposal:

- A solution to combine heterogeneous functional tools
 - legacy and new equipment / tools from different manufacturers,
 - software platforms, asset management tools
 - in-house developments
- A better management of metadata collected through well defined interfaces and contributing to each broadcaster's data model
- Modularity and scalability, a box of tools exposed as 'services'
- Flexible workflow management through 'service' invocation possibly across production units
- Easier maintenance and higher ability to upgrading

SOA makes sense in a file-based production environment

SOA has the potential of a standard if implemented according to common rules

- But 'what is' and 'what means' SOA compliance?

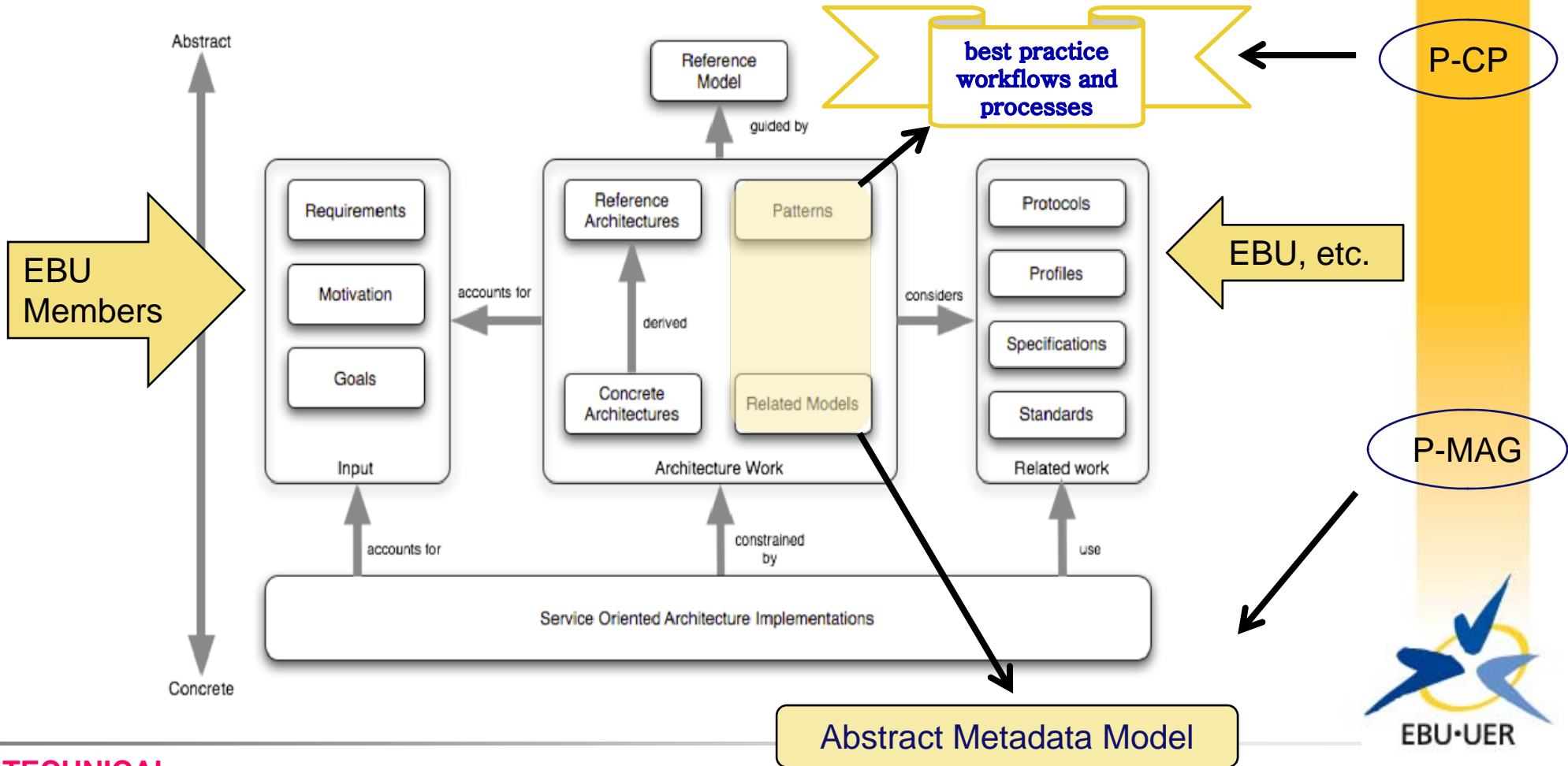


SOA: definitions and compliance, step 1 – the process

The OASIS Reference Model:

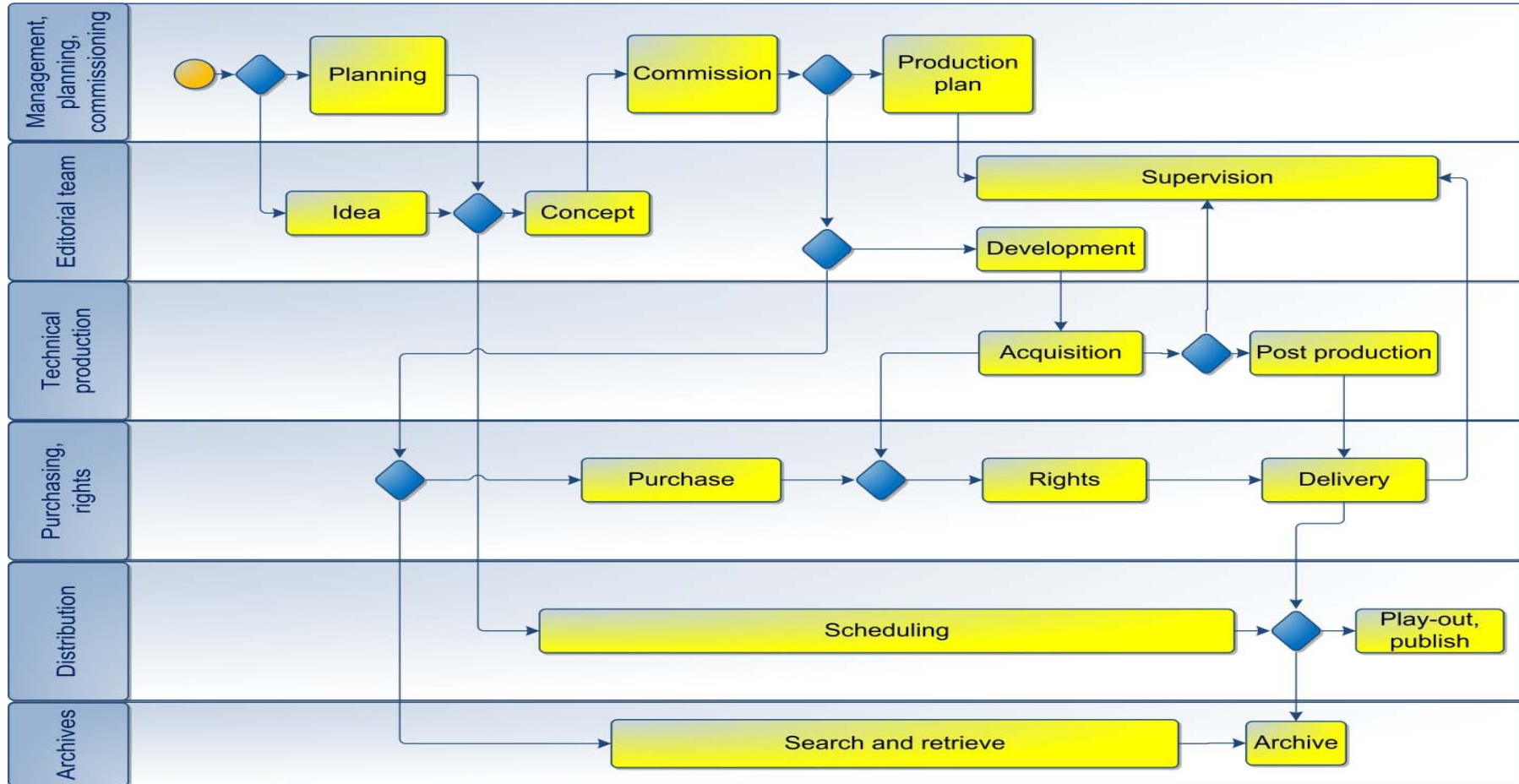
"an architecture paradigm for organising and utilising distributed capabilities that may be under the control of different ownership domains..."

This means different tools from different providers or in-house development!



SOA compliance, step 2 – defining business patterns

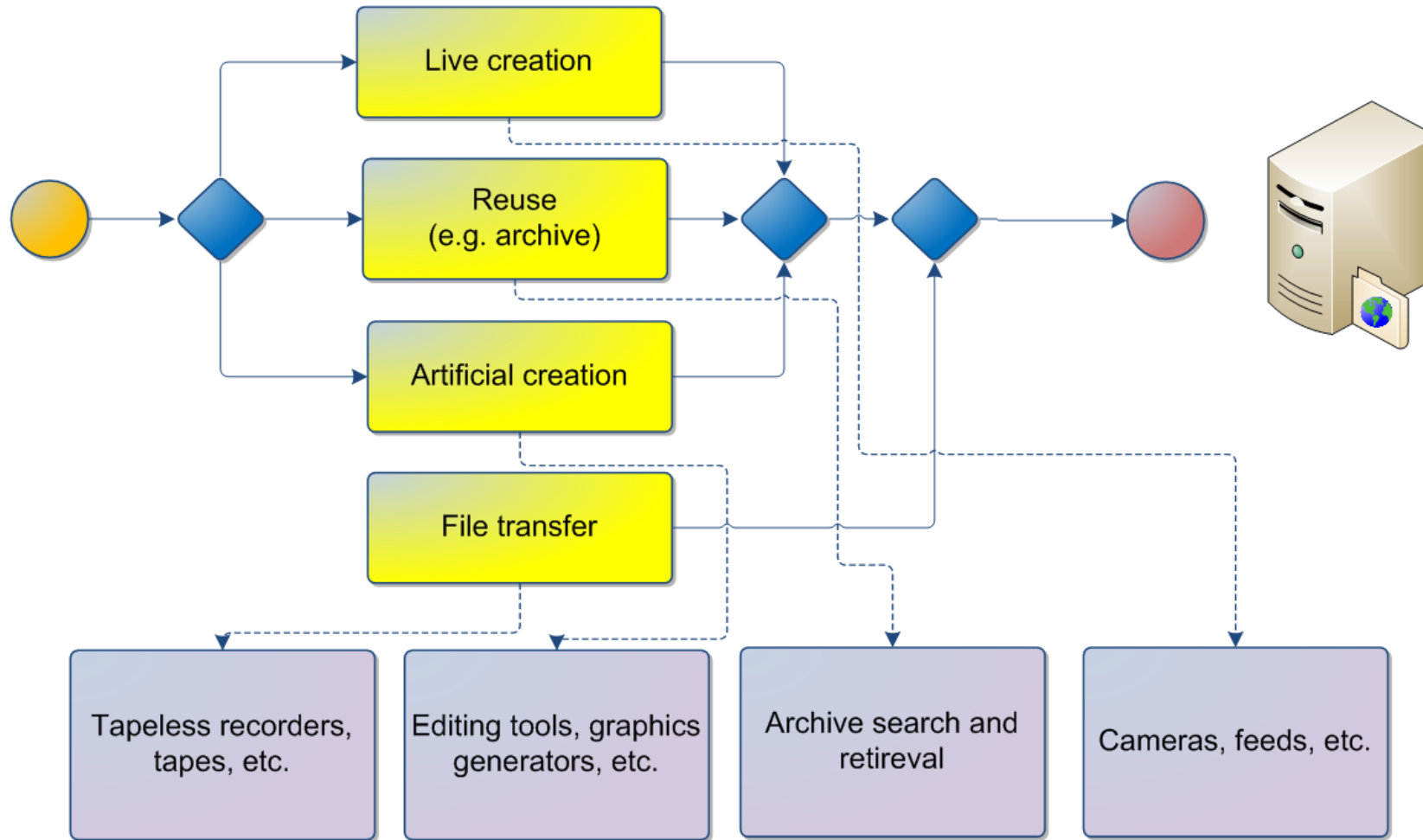
Simplified overall broadcasting production model



Detailed business patterns for 'News' and 'Drama' almost completed !

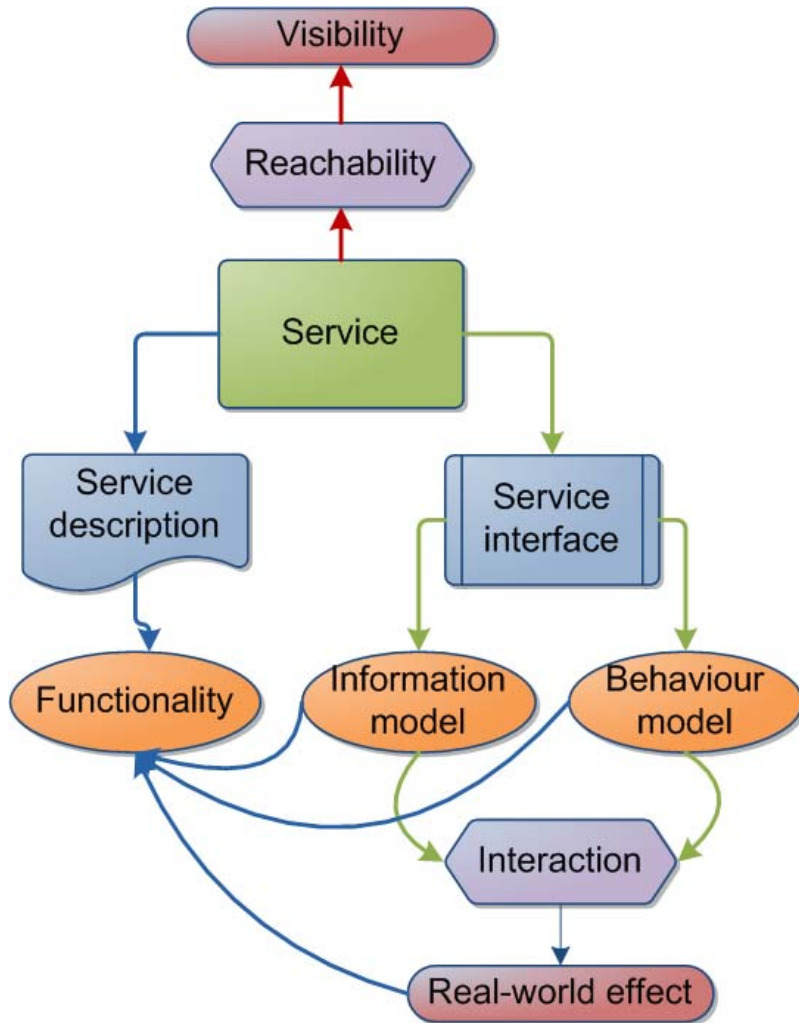


Example of a more detailed process analysis



Content Acquisition

SOA compliance, step 3 – the web services

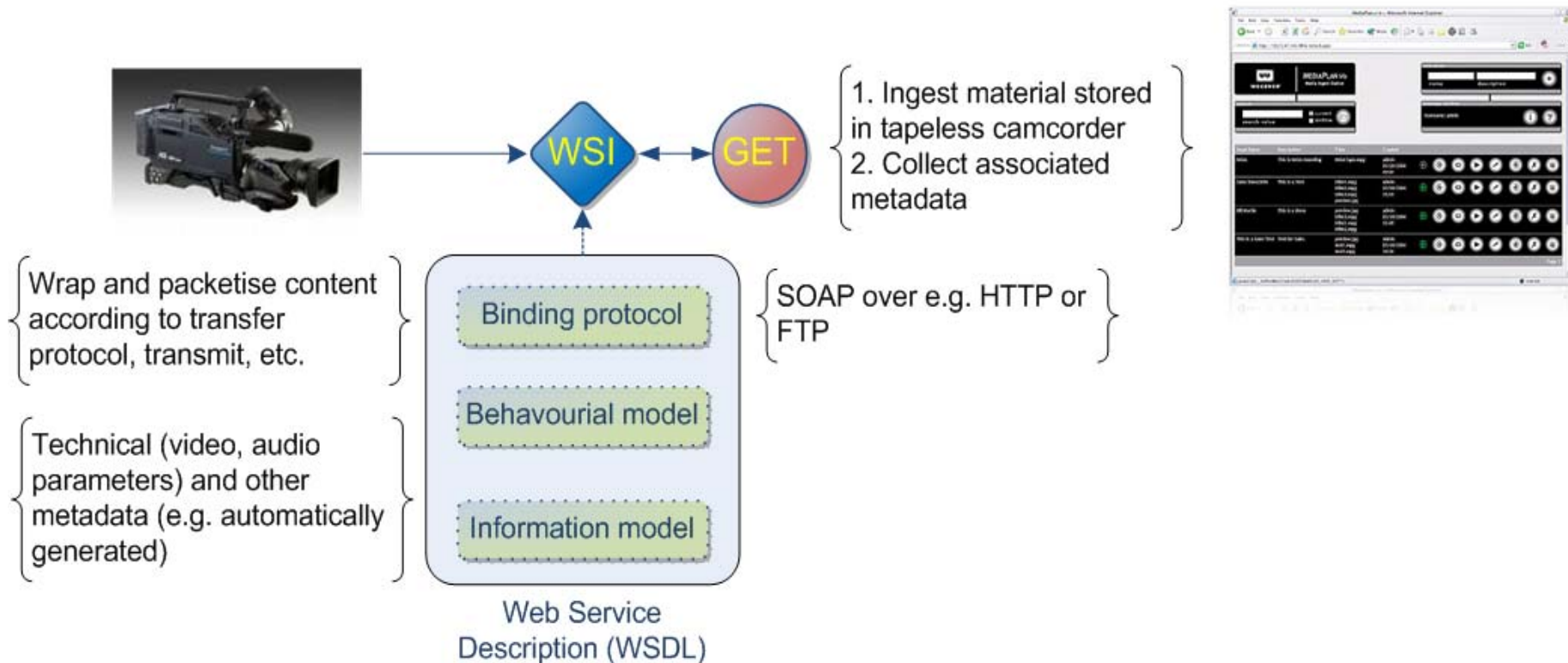


1. Visibility, Reachability and Description – 3 essential features to discover available resources and their functionalities
2. The Service interface is the communication element through which services will be activated (with or without parameters) and through which information (metadata and states) will be returned
3. The behaviour model is a representation of the functionality
4. The information model concerns metadata and system parameters
5. The real world effect is the actual process and expected results

Compliance will require the agreement of common web service description rules and formats!

'Ingest', a typical example of function eligible as "web service"

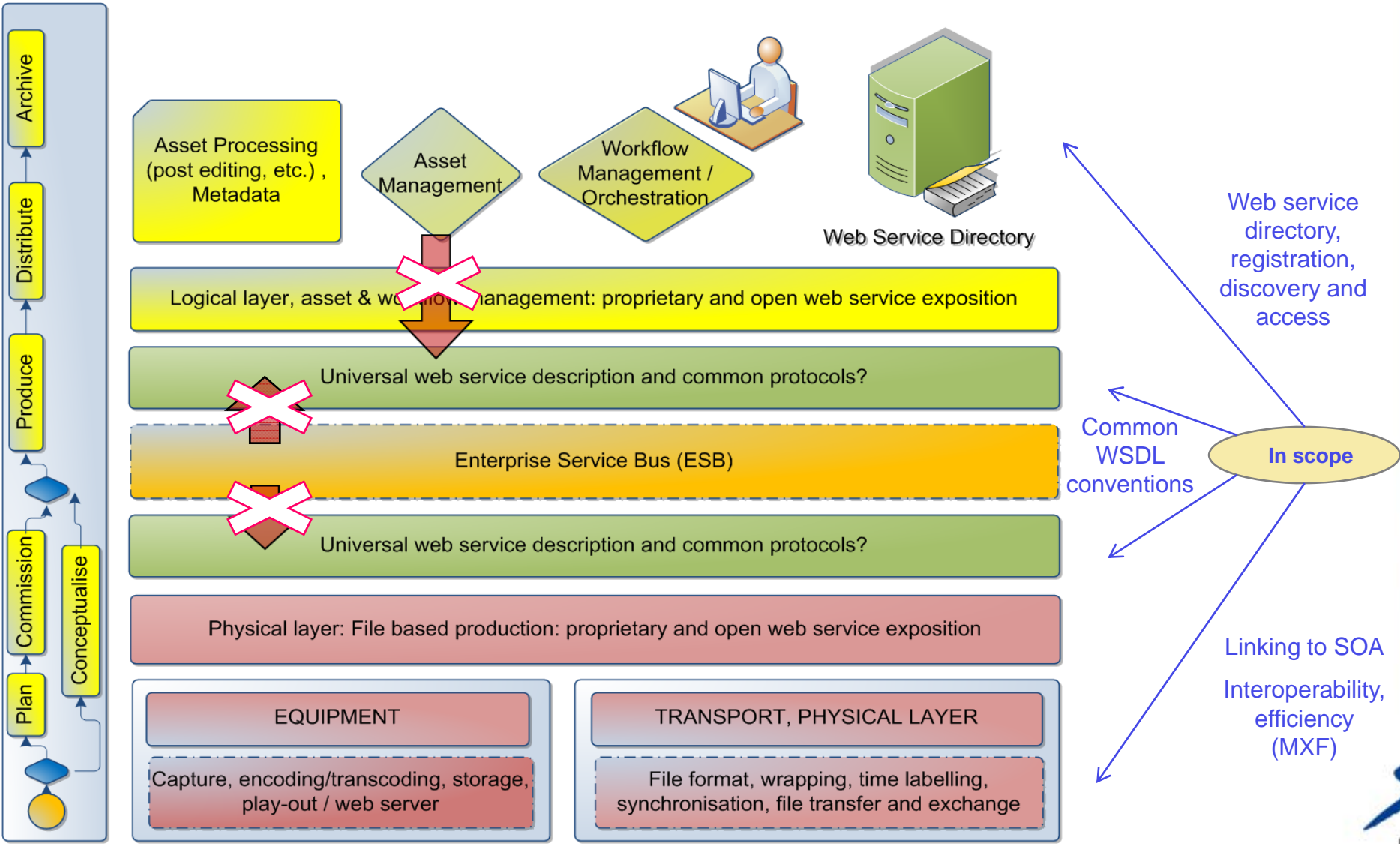
Web service definition: "a mechanism to enable access via internet protocols to processes via an interface described using predefined rules and procedures".



Reusability is a key criteria for a function /process to become a 'web service' !



A quick overview of the EBU scope



Service description, discovery and use: plug & play?

1. Investigate possible solutions for a common abstract WDSL

- Recommend a preferred protocol for WS access (<binding> definition and SOAP parameters)
- Recommend a common approach to describe the operations / functions available through the web service (<portType>)
- Recommend common rules and formats for message exchange (<message>) and common datatypes (<types>)
- Harmonise service localisation and associated network definitions
- Support mapping to publicly defined or more abstract WS interfaces from different MAM providers or manufacturers

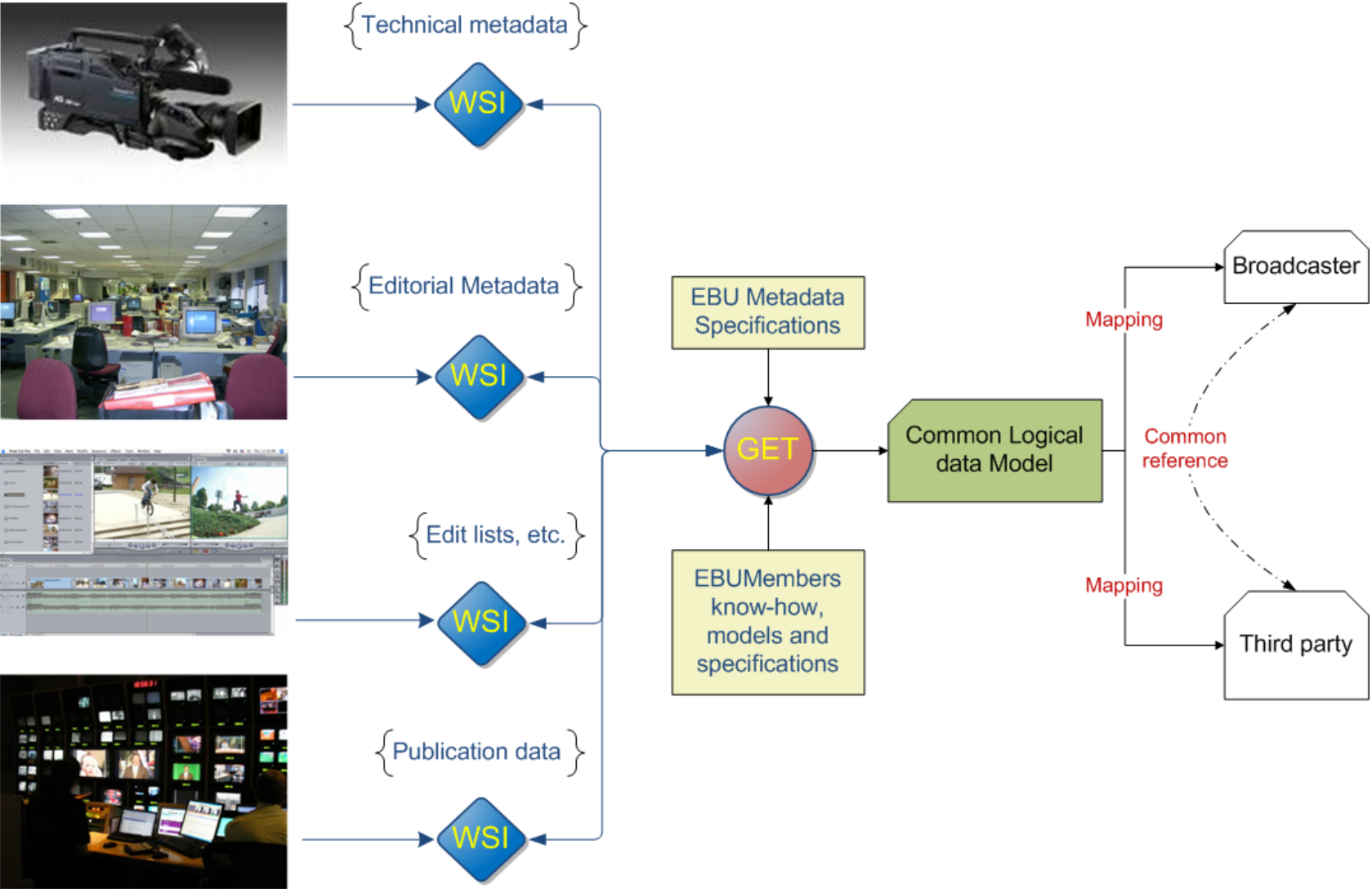
2. Register services in a common directory (adapting and restricting the UDDI concepts to production)

- Provide harmonised WS description about functionalities, requested parameters and expected effects
- Provide localisation information
- Support additional profiling (contextualisation) and access information

Towards more agile workflow orchestration...



An unexpected potential bonus: A metadata logical reference model



Conclusions

- File based tape-less production is becoming a reality but issues still need to be addressed through additional rules and guidelines
- Tape-less production is a trigger to develop new architectures and improve asset and workflow management, giving more control to broadcasters
 - You have the know-how, manage production your way !
 - Get what you need and not only what is 'available'!
 - Take the best from the different providers !
 - Give your metadata its strategic dimension !
- Will Service Based production fulfil its promises ?
 - Watch this space, we'll challenge the concepts (such as 'claimed' flexibility) !
- The goal:
 - Implement the 'plug and play' and 'content and service discovery' concepts in production
- Collaboration with the industry and other interest groups will be continued.



EBU TECHNICAL



Thank you

evain@ebu.ch

