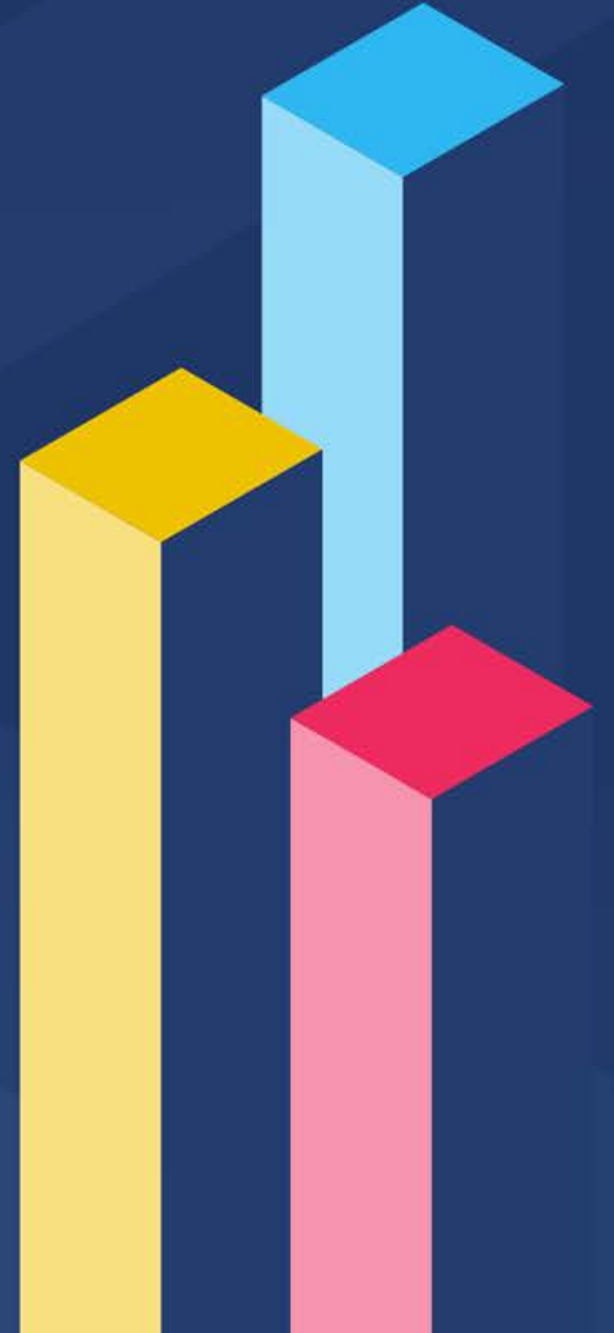




digital production partnership

The Business Benefits of IMF: To a global production system

ANDY QUESTED AND ANDY WILSON



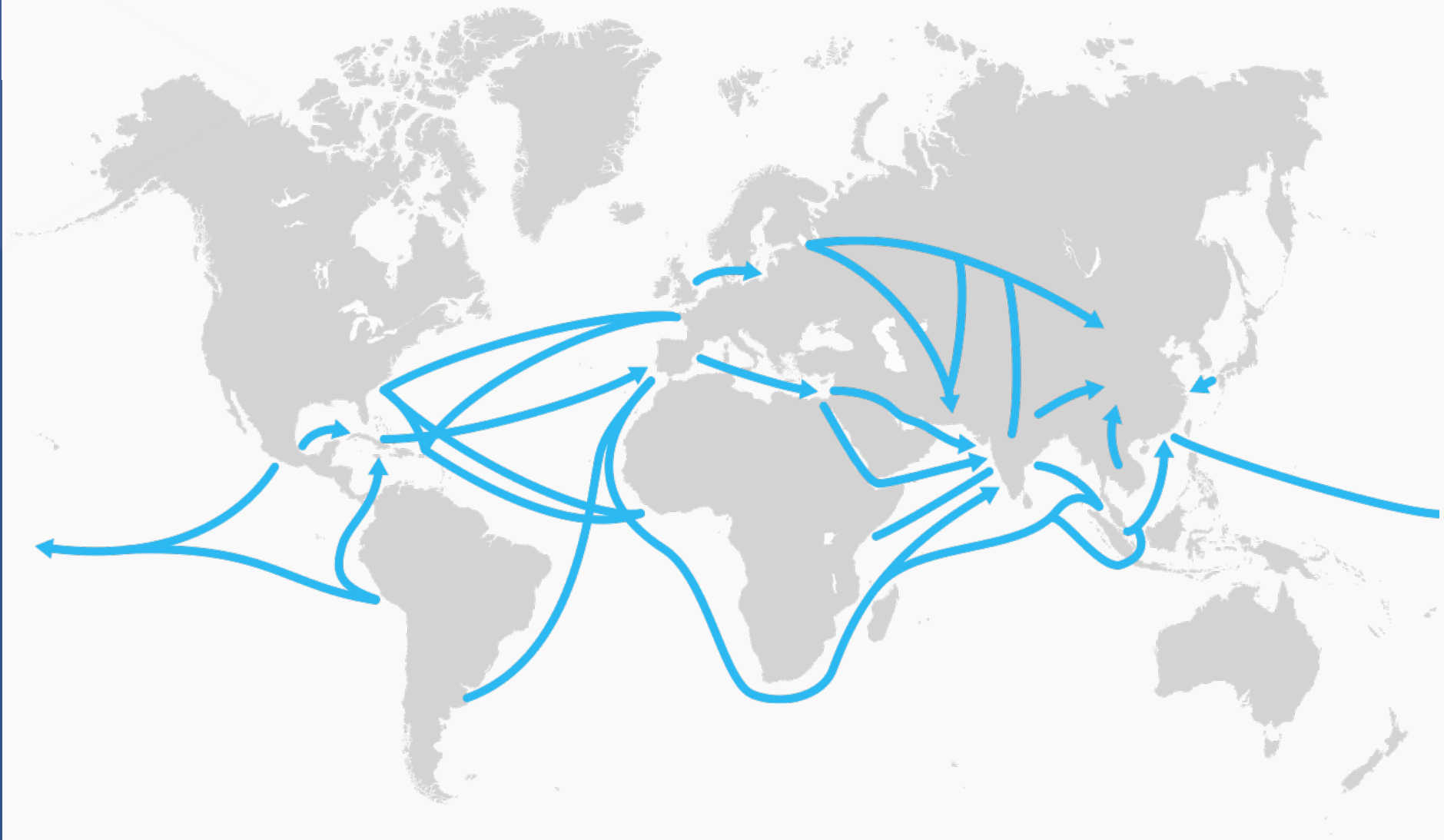
The shipping container



It's all about
the container



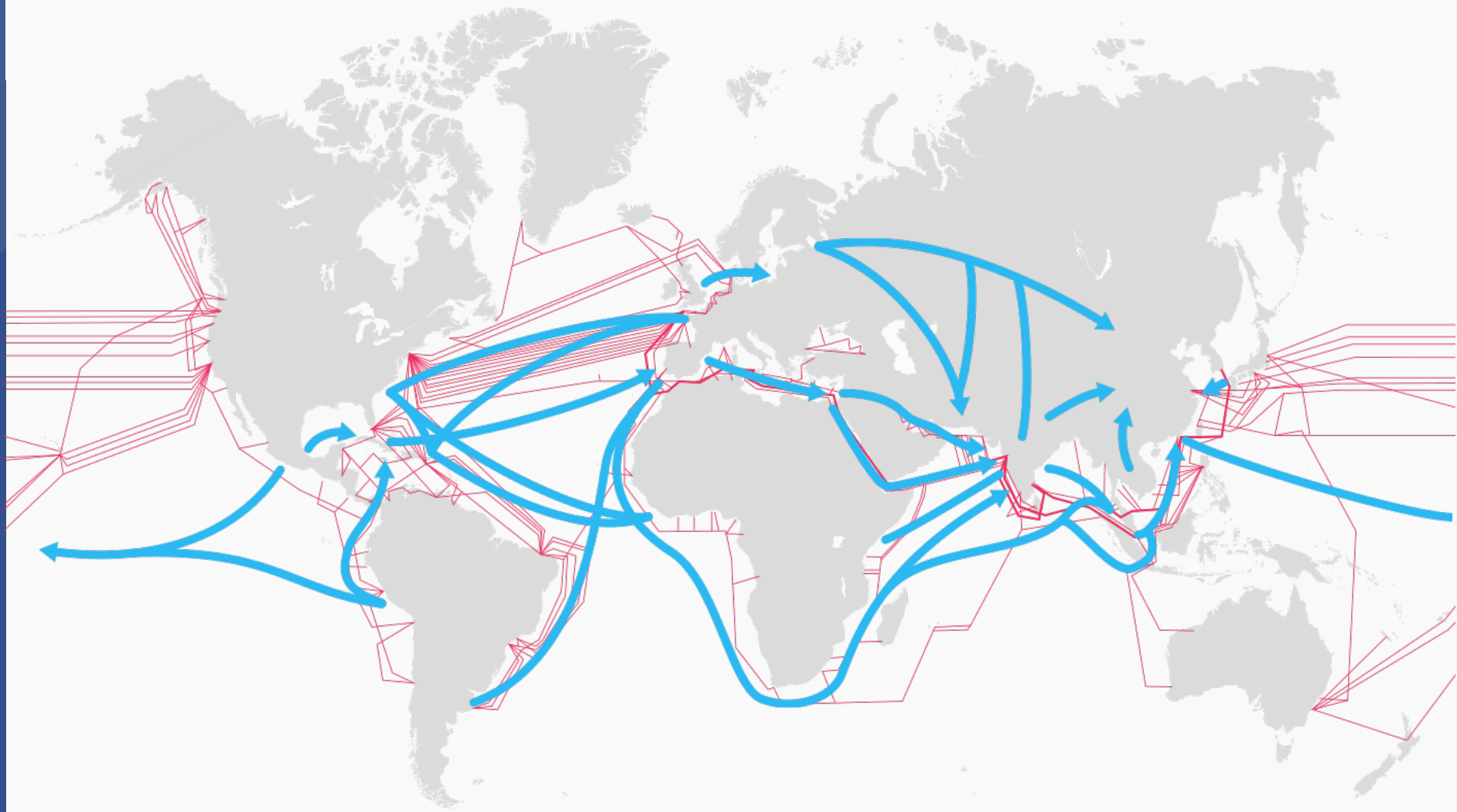
1800



The shipping container



2018



Online players



2005

a pivotal year





NETFLIX

hulu

TV changed...

| Rank | Brand | Score |
|------|-----------------------|-------|
| 1 | Aldi | 18.1 |
| 2 | Lidl | 14.5 |
| 3 | Netflix | 14.0 |
| 4 | BBC iPlayer | 13.2 |
| 5 | MoneySavingExpert.com | 12.6 |
| 6 | Yorkshire Tea | 11.0 |
| 7 | IKEA | 10.5 |
| 8 | Marks & Spencer | 10.2 |
| 9 | PayPal | 10.1 |
| 10 | Premier Inn | 9.4 |

It's still all
about the
container



The background features a dark blue vertical bar on the left side. To its right, there are several overlapping, semi-transparent geometric shapes in various shades of blue and white, creating a modern, architectural feel.

New commissioning routes

A new
manifesto
for delivery:

New [global] deliverables

Versions. And lots of them.

Doctor Who outputs



DOCTOR WHO

50TH ANNIVERSARY

For Television distribution

2D HD VERSIONS

- ✓ 1080P/25 (50i-psf)
- ✓ 1080P/24 (24/1.001i-psf)
- ✓ 1080P/29.97 (59.94i-psf)

3D HD VERSIONS

- ✓ Left/Right Eye 1080P/25
- ✓ Left/Right Eye 1080P/24

LANGUAGE TV VERSIONS

English • Spanish • Latin Spanish • French • Italian

For Cinema distribution

2D AND 3D DCP 24 FPS VERSIONS FOR



Argentina



Ireland



Peru



Australia



Iceland



Russia



Brazil



Japan



Sweden



Canada



Kazakhstan



Spain



Columbia



Mexico



Ukraine



Denmark



New Zealand



Uruguay



Ecuador



Norway



UK... and



Germany



Panama



USA

STORAGE OVERVIEW

- Each version 77 minutes duration

TV Versions 31 ProRes 27 MB/s files

= 124GB each ▶ **4TB**

Cinema Versions 75 DCP 2K @ 192MB/s files

= 890GB each ▶ **67TB**

Total storage requirement ▶ **70TB**

- But over 90% of the material is duplicated many times
- There must be a better way!

IMF for Broadcast & Online Specification

IMF Specifications Partners



- Working together on a new strand of documents – **Specifications**
- IMF for Broadcast and Online is the **Pilot Project**

The business requirements

**Business
requirements**

**DISTINCT USE CASES FOR HIGH VALUE
GLOBAL CONTENT DISTRIBUTION**

Sales

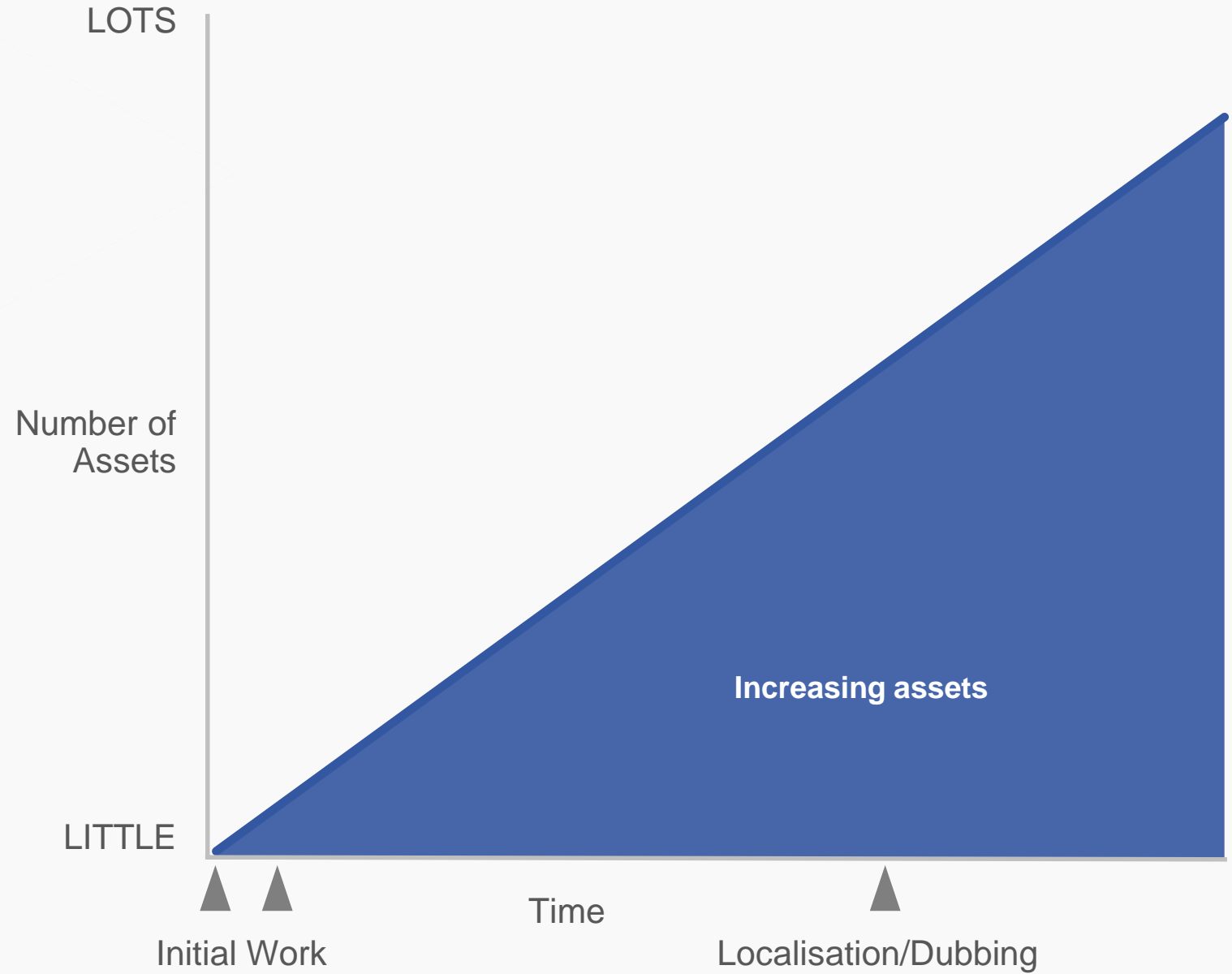
Acquisition

Archive

The problem

Problem 1:

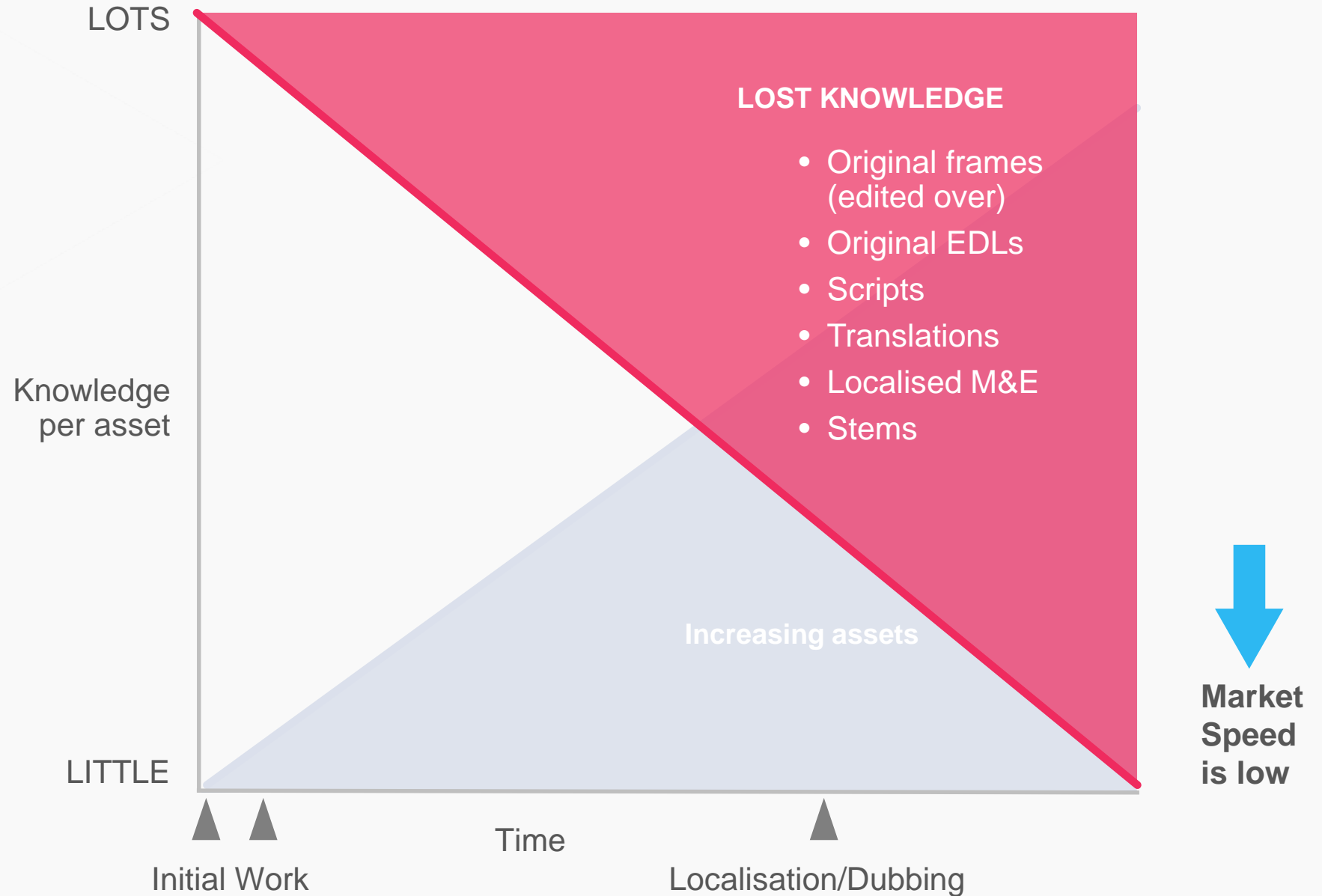
Not fast



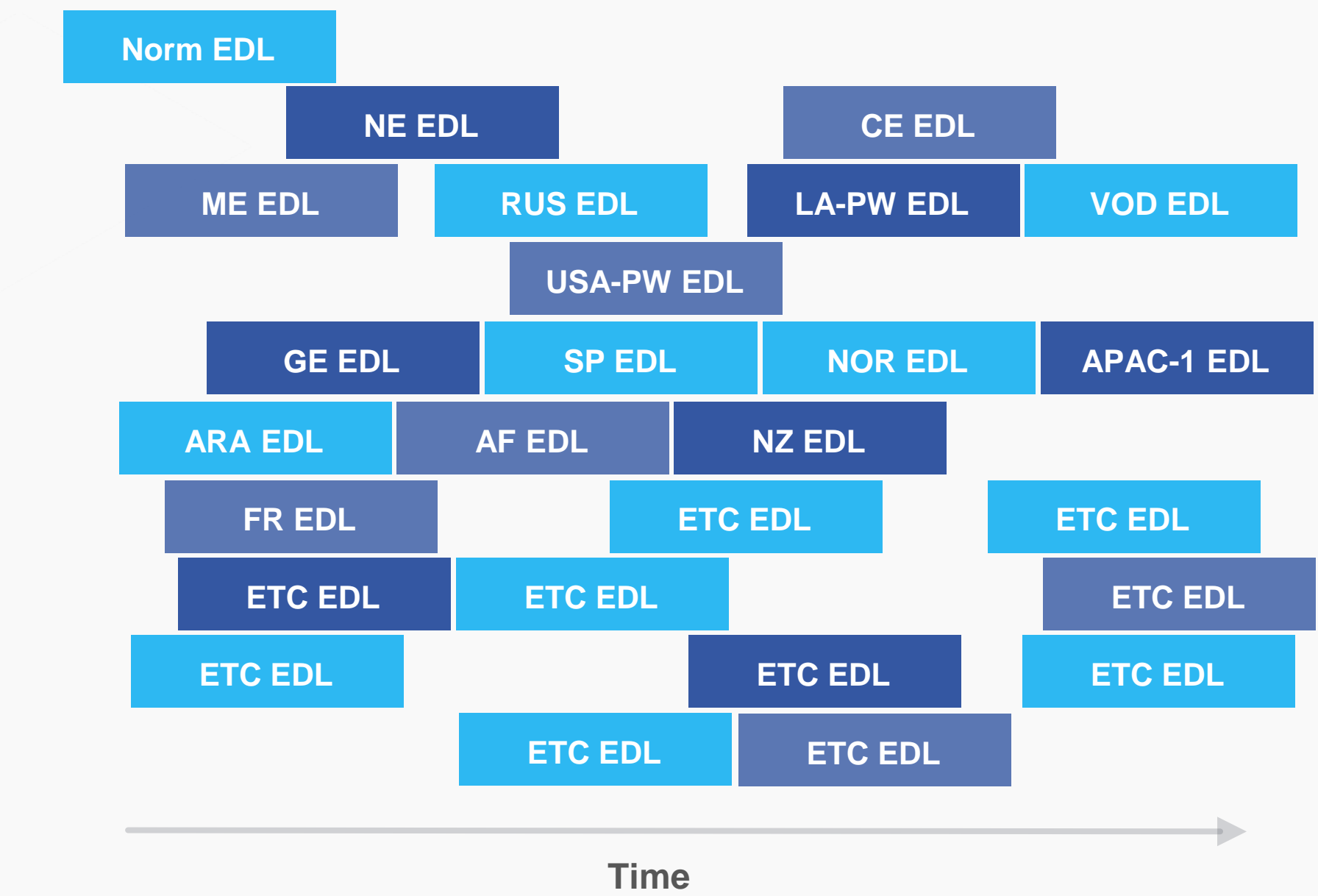
Problem 1: Not fast

CONSEQUENCES

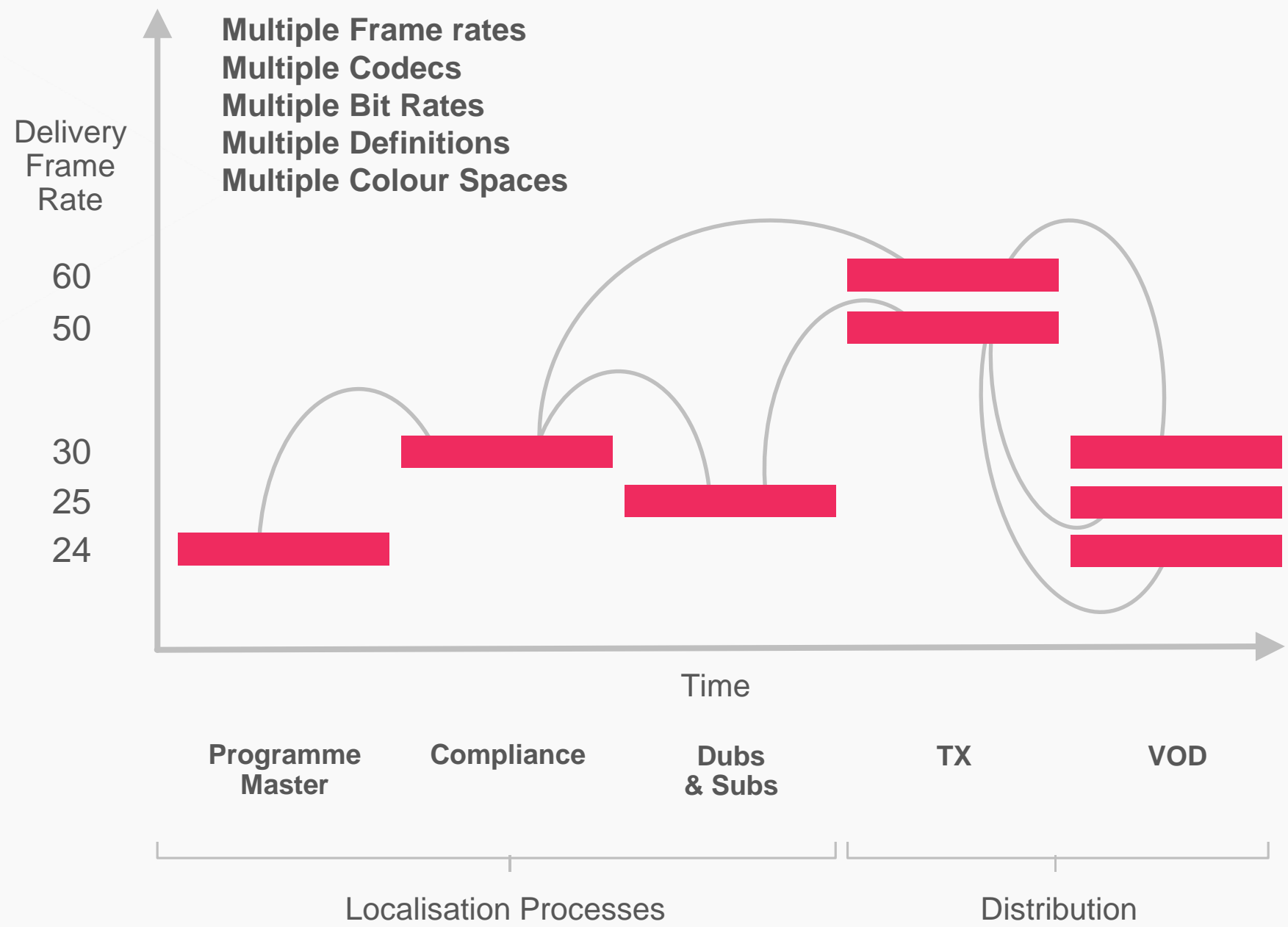
- Too slow
- No systematic storage of knowledge of process information



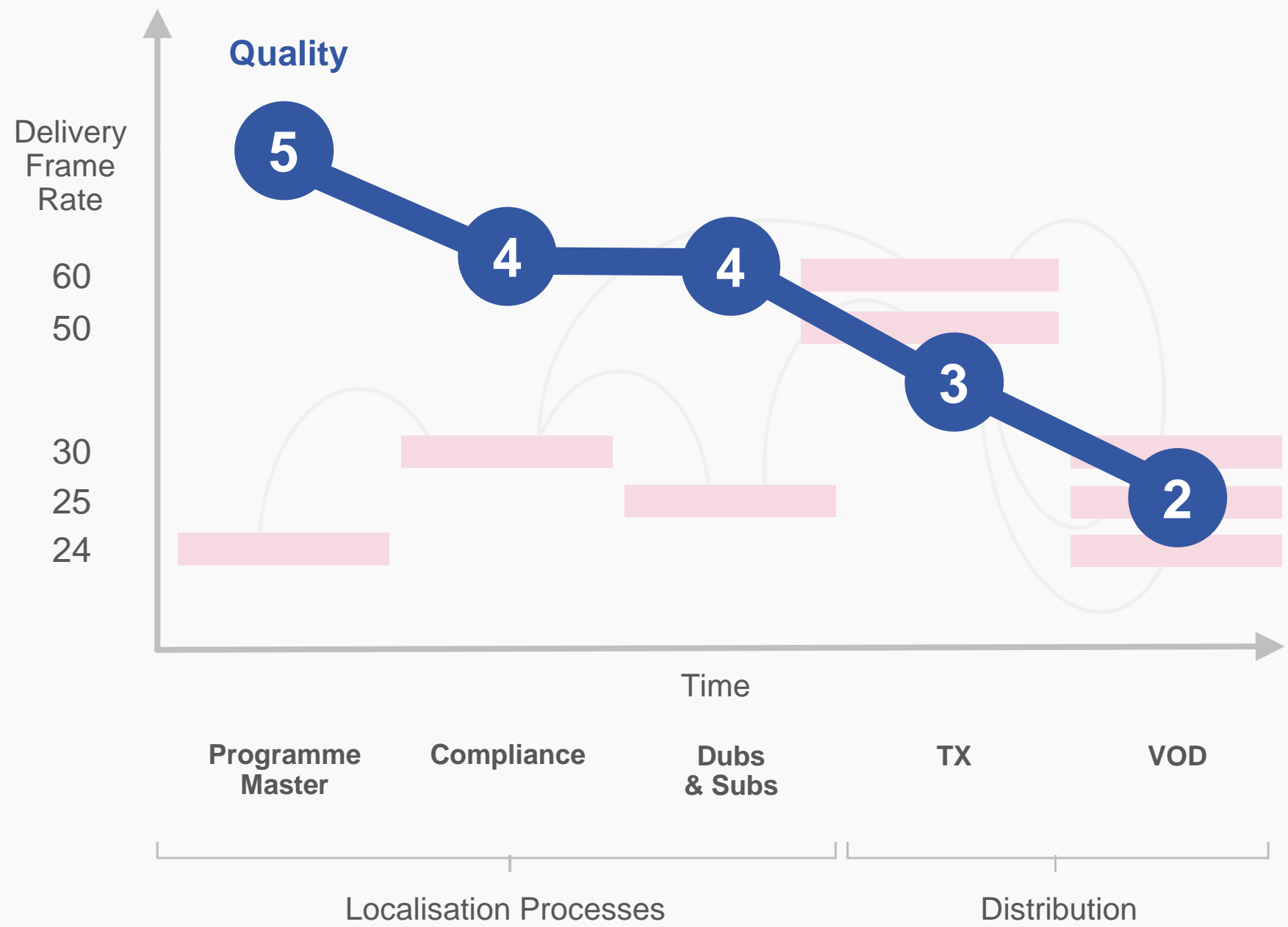
Problem 1:
Not fast



Problem 2:
Loss of Quality



Problem 2:
Loss of Quality



So we're
looking for...

Something that can
(This becomes the essence of IMF)

- Minimise or eliminate duplication – lighter and leaner
- Retain Process Knowledge – faster and more agile
- Preserve Mastering Quality end-to-end
- Lighter + Better + Faster == Cheaper

And a great balance between Efficiency and Agility

Why IMF works for TV and Online Mastering

The new broadcast model

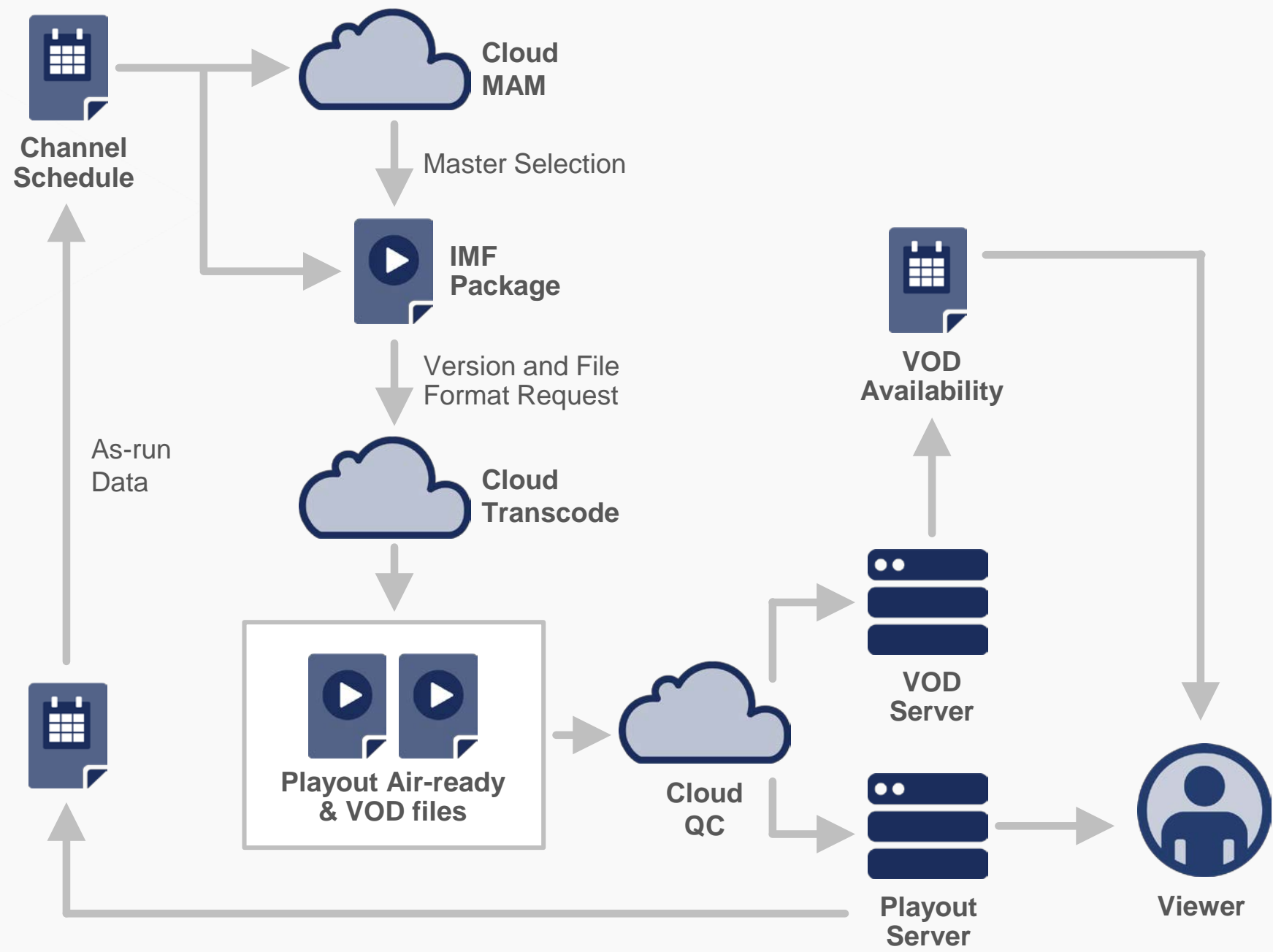
One format for many destinations

- Single format for business to business exchange of content
- No need to retain multiple master files
- Simple control and versioning capabilities
- New versions can be created from a simple CPL/OPL change

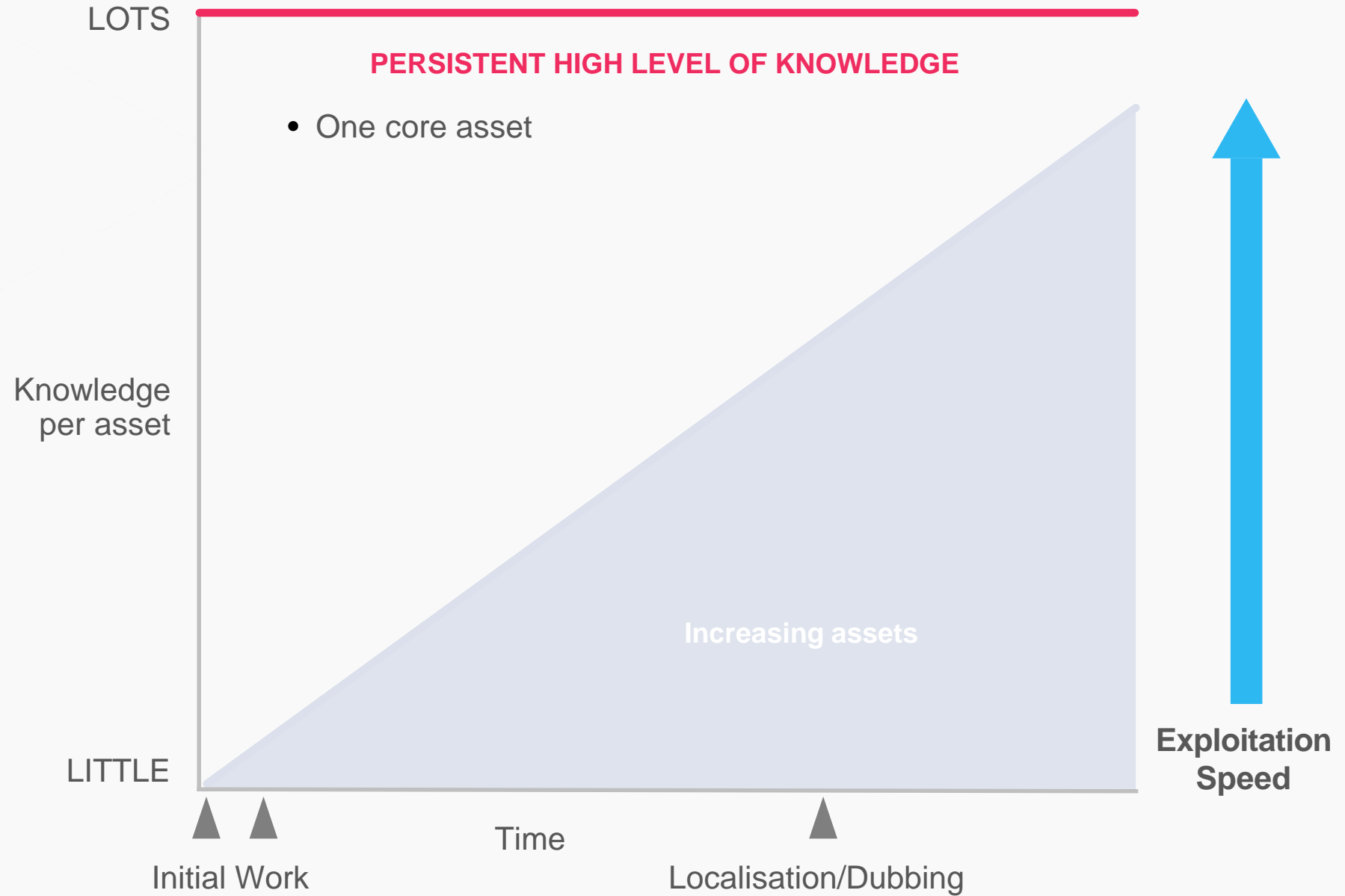
Future proof Digital Asset

- Fulfills the needs of a high quality mastering format
- IMF has flexibility to be modified as additional requirements are identified
- SD, HD, UHD and SUHD are catered for

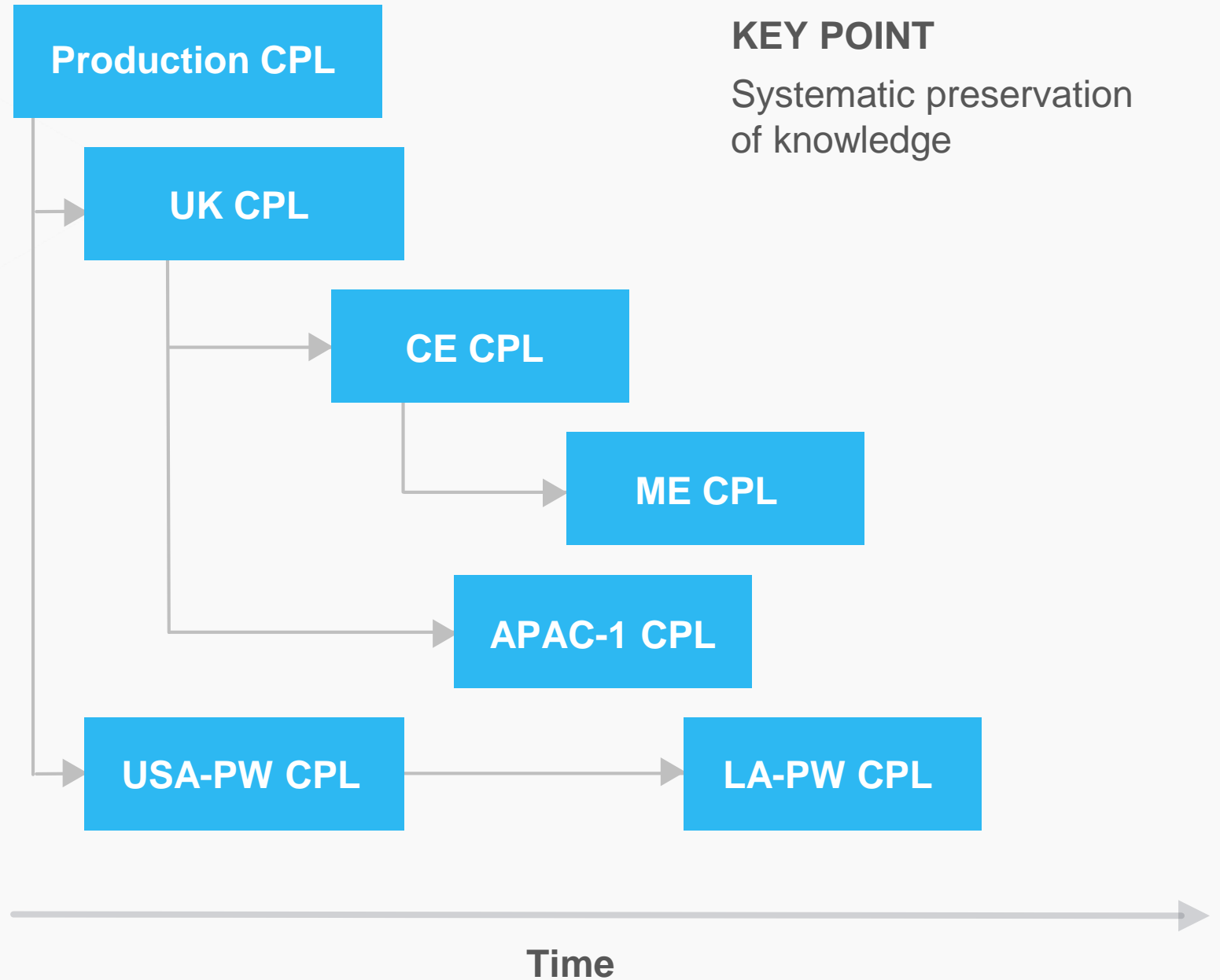
The new broadcast model



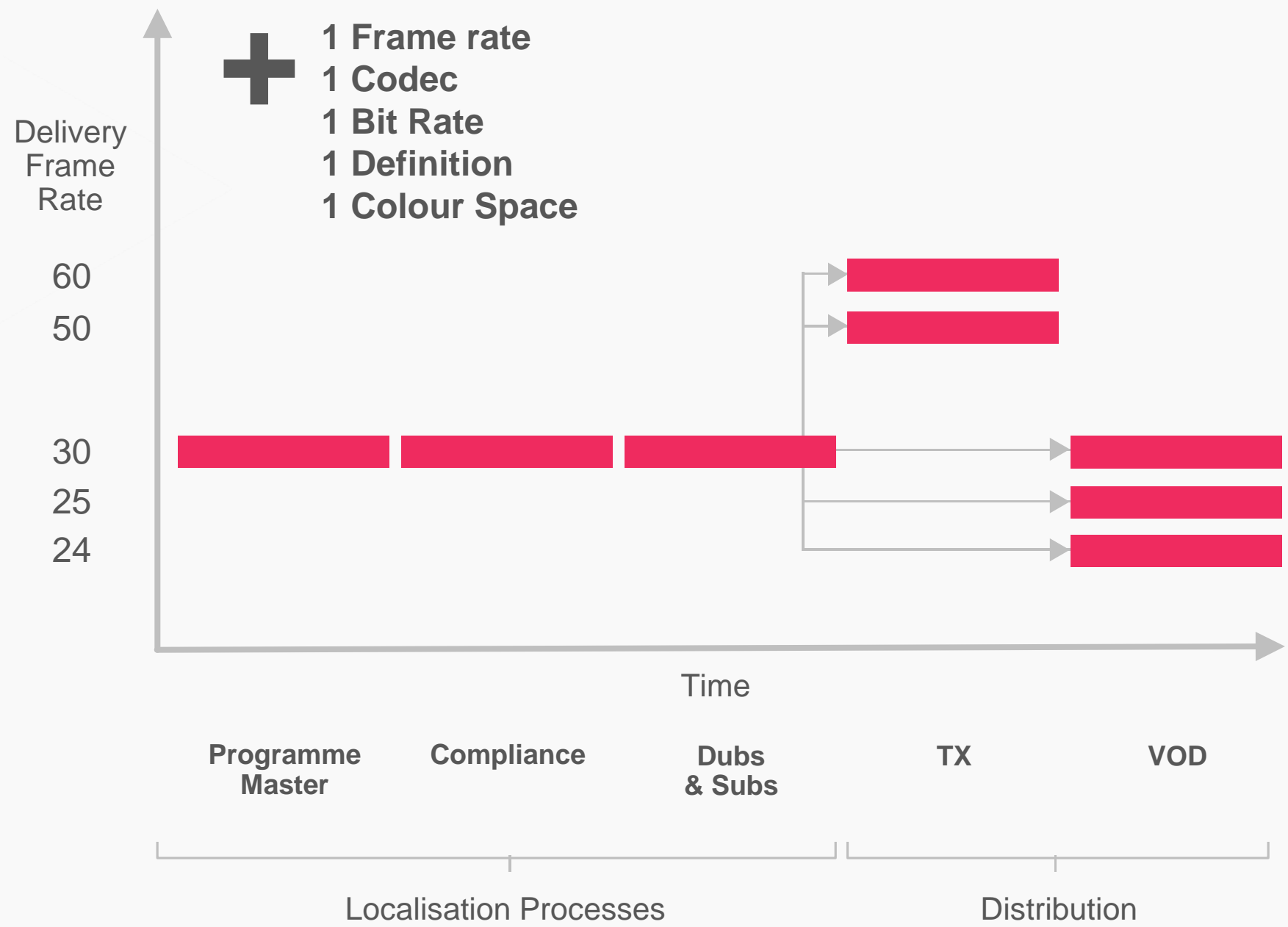
Problem 1: Knowledge Preservation



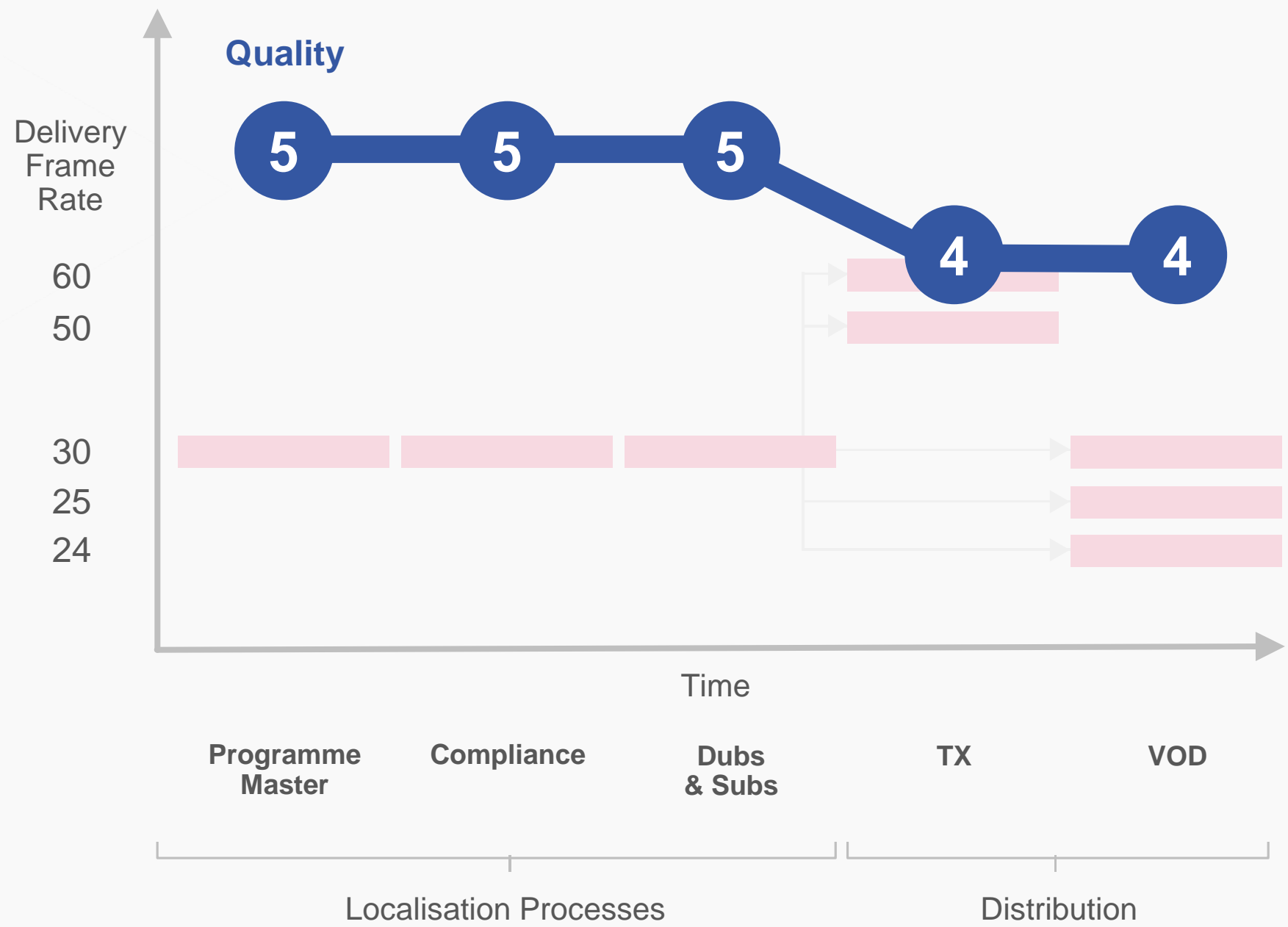
Problem 1: Knowledge Preservable



Problem 2:
Much better



Problem 2:
Much better



The business benefits

IMF Benefits

IMF delivers cost efficiencies in content creation, distribution and storage

- Automation of the content supply chain
- Eliminates the unnecessary creation of multiple versions
- Enables greater workflow efficiencies, especially for global exchange
- Reduces QC costs as only the core asset needs to be tested
- Reduces archive storage requirements for multiple versions
- Hollywood, broadcast & OTT platforms are gaining economies of scale through IMF adoption

IMF Benefits

What if we don't adopt IMF?

- Traditional workflows will continue to be labour intensive
- Storage requirements & associated infrastructure costs will continue to increase
- Increased cost, whilst maintaining price position, will impact bottom line & business growth

DPP Roadmap to IMF Implementation

Phased approach



PHASE 1 – BY APRIL 2018

**CPL based with
J2K and ProRes**



PHASE 2 – BY END 2018

**OPL, H.264 and Accessibility
(Signing and AD)**

Next steps

- Ensuring **all parts of the industry are in a position to deliver** to current needs
- **Publish the specification** with SMPTE
- **Guiding the industry** as to the needs of Broadcasters and Online for the future
- Understanding the industries needs for alternate output formats and moving to standardise these
- **DPP implementers strand** to support broadcasters and productions

Next steps





digital production partnership

The Business Benefits of IMF

