EIDR ANNUAL MEMBERSHIP MEETING

Wednesday, January 24, 2018

Agenda

9:00 a.m. – 9:30 a.m.	Arrival & Continental Breakfast
9:30 a.m. – 9:35 a.m.	**Executive Director Update** Will Kreth, Executive Director, EIDR • Welcome and Membership 2018 Update
9:35 a.m. – 9:55 a.m.	**Introductory speaker** – Cameron Crosby – Wave Seven • The "Upside Down World" of Metadata • Discussion of EIDR 3.0 member survey responses
9:55 a.m. – 10:05 a.m.	Will Kreth, Executive Director, EIDR • 2018 EIDR Ready initiative
10:05 a.m. – 10:25 a.m.	**Board member roundtable –** ***EIDR Year Eight*** *– (The Road to* ***EIDR 3.0****)* • Moderator: Kip Welch (MovieLabs), Bill Kotzman (Google), Ellen Goodridge (Sony Pictures), Scott Maddux (TiVo), Jeff Stevens (Warner Bros.)
10:25 a.m. – 10:40 a.m.	**NEW: The Data-Driven story of the EIDR Registry – Stats, Metrics & Analytics** • Richard Kroon and Clint Richmond – EIDR
10:40 a.m. – 11:00 a.m.	**OBID Trial Updates – CIMM / Kantar Media / SMPTE** • Tristan de Kerautem – Kantar • Paul Mears – Copperline Media

Agenda (cont.)

11:00 a.m. – 11:15 a.m.	**Morning Break**
11:15 a.m. - 11:30 a.m.	**Viaplay (Sweden) presentation** • Introduction: Francois Modarresse – EIDR • Jacob Radell – Viaplay
11:30 p.m. – 11:45 p.m.	**Sony / RedBee Media *(formerly FYI Television)* use case** • Introduction: Clint Richmond – EIDR • Kellie (Nolan) DuRose - Sony • Scott Phillips – Red Bee Media
11:45 p.m. – 12:10 p.m	**CITWF Project & Global Archive presentation** • Richard Kroon – EIDR
12:10 p.m. – 12:25 p.m	**IMF Update Presentation** • David Deelo – Sony • Lucas Carboni - Fox
12:25 p.m. – 1:30 p.m.	**Networking Lunch**

Agenda (cont.)

12:25 p.m. – 1:30 p.m.	**Networking Lunch**
1:30 p.m. – 1:45 p.m.	**2017 Breakout Sessions Review** • 2017 Use Case Progress Report • (Google "Round Trip" data effort) • Jason Pena – Google • 2018 Breakout Session Introductions
1:45 p.m. – 3:15 p.m.	**2018 Breakout Sessions -** (assisted by Cameron Crosby & Wave Seven) • **Digital Supply Chain/Workflow Optimization** – (led by Jason Pena - Google) • **Audience Measurement Optimization** – (led by Paul Mears – Copperline Media)
3:15 p.m. – 3:25 p.m.	**Afternoon Break**
3:25 p.m. – 3:50 p.m.	**2018 Breakout Sessions Read-out with all Members**
3:50 p.m. – 4:00 p.m.	**Closing Remarks** • Will Kreth, Executive Director, EIDR
4:00 p.m. – 5:30 p.m.	**Reception – On Site**

Welcome – Will Kreth – Executive Director - EIDR

- 2018 scale of EIDR - by the numbers:
  - 6 countries represented at today's event
  - Member organizations from 11 countries using the EIDR Registry
  - Over 100 Member Companies and Industry Partner Organizations
  - Over 500 member company participants
  - Over 35% of the membership is international (~30% from Europe)
  - Ownzone is our newest EIDR Member
  - Vuulr is newest member of EIDR from Asia (Singapore)

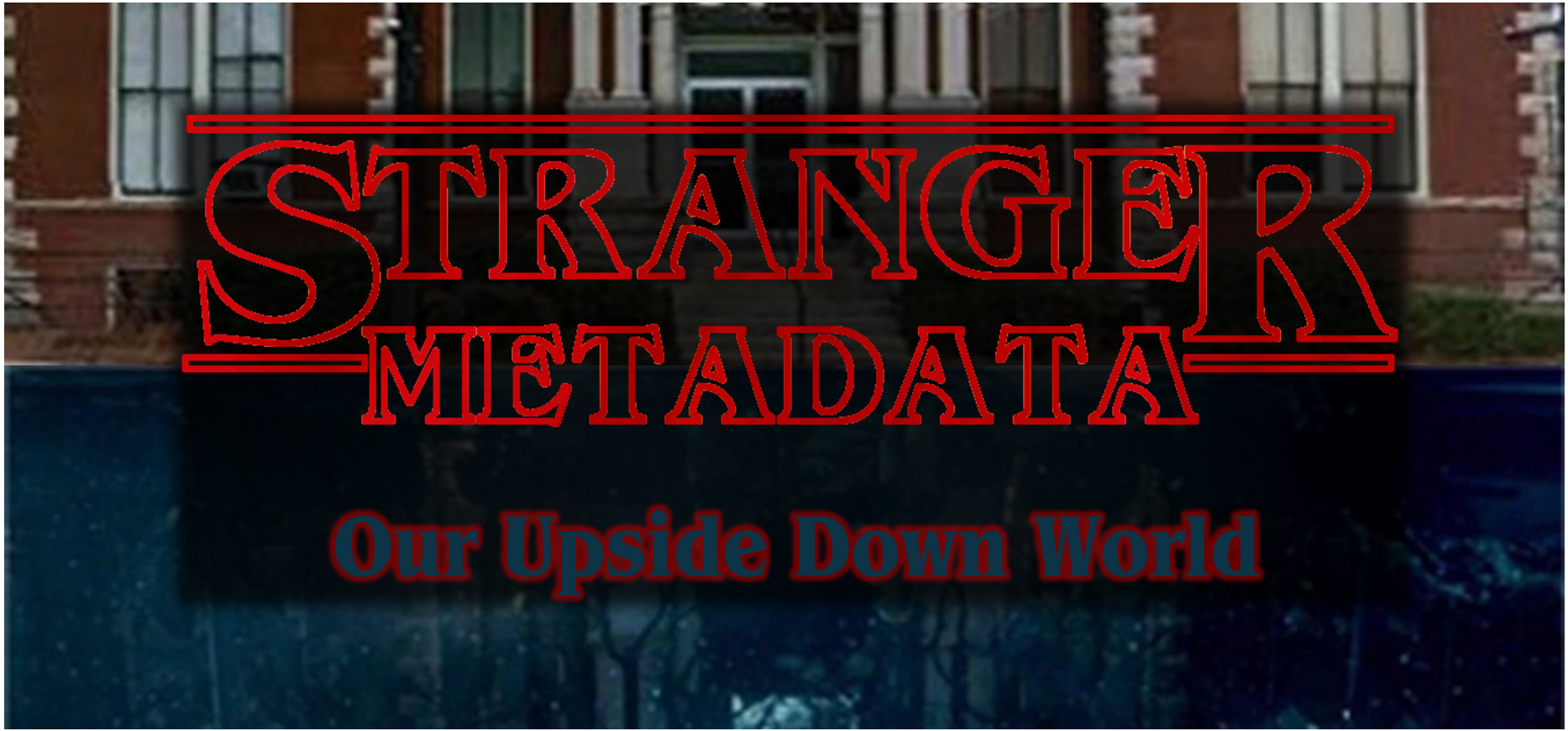
Discussion of EIDR 3.0 member survey responses

Cameron Crosby

STRANGER THINGS 2
NETFLIX
A NETFLIX ORIGINAL SERIES
OCT 27

How our world looks to an outsider...

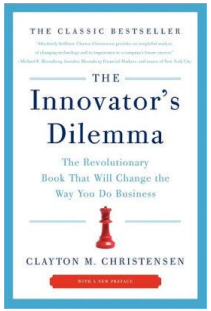
What it really looks like to a Metadata Specialist...



waveseven

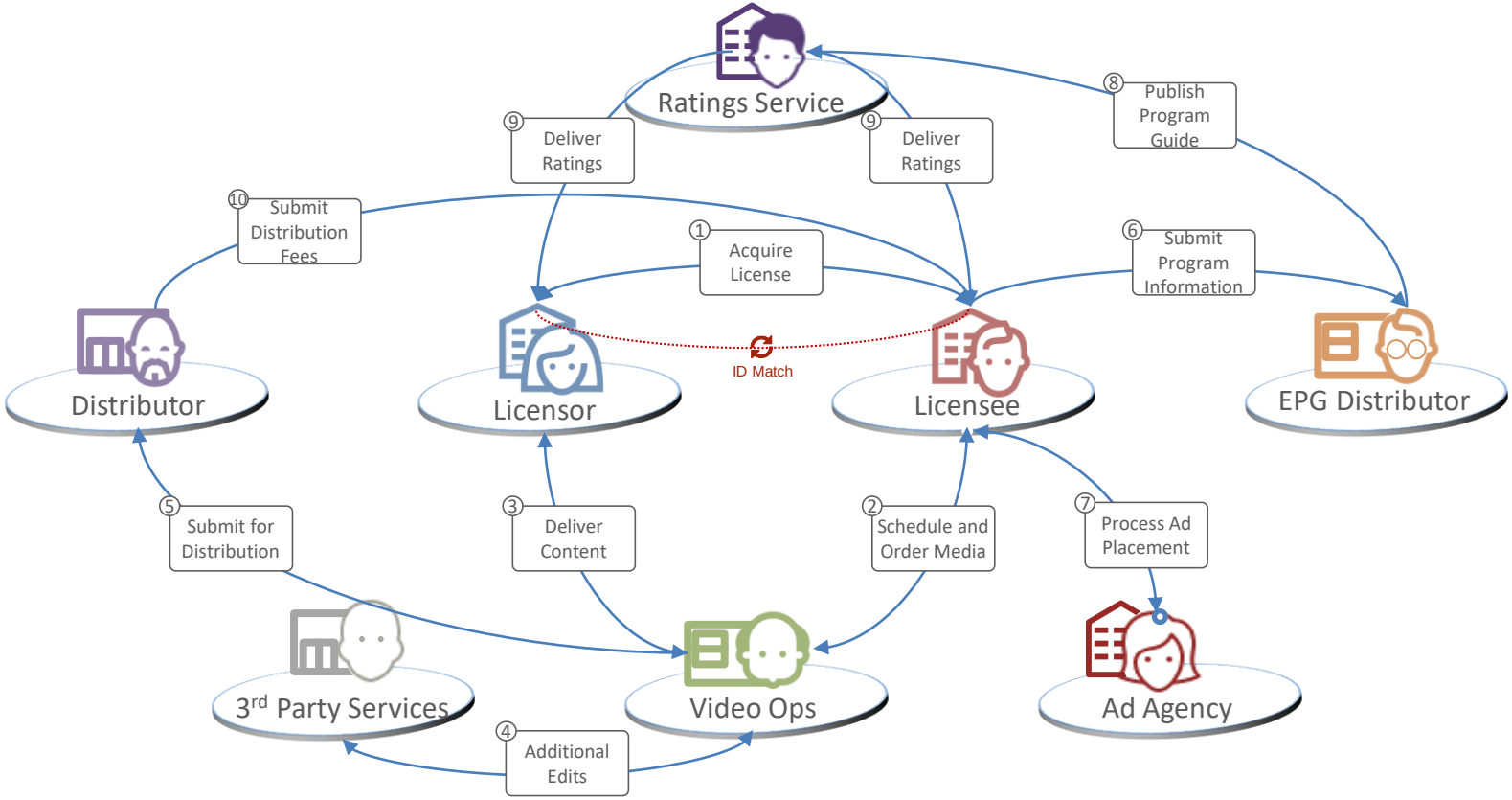
The Problem with Legacy Ecosystems*

- In the spirt of the "Industrialist's Dilemma": systems may be well established, BUT are…
  - Extremely difficult to change
  - Constrained by their existing value chains
  - Can't adapt to changing performance metrics
  - Often conflict with digital business models
  - Built on patchwork vs. singular data models
- This is "Not a story about big data. It's a story about small data"

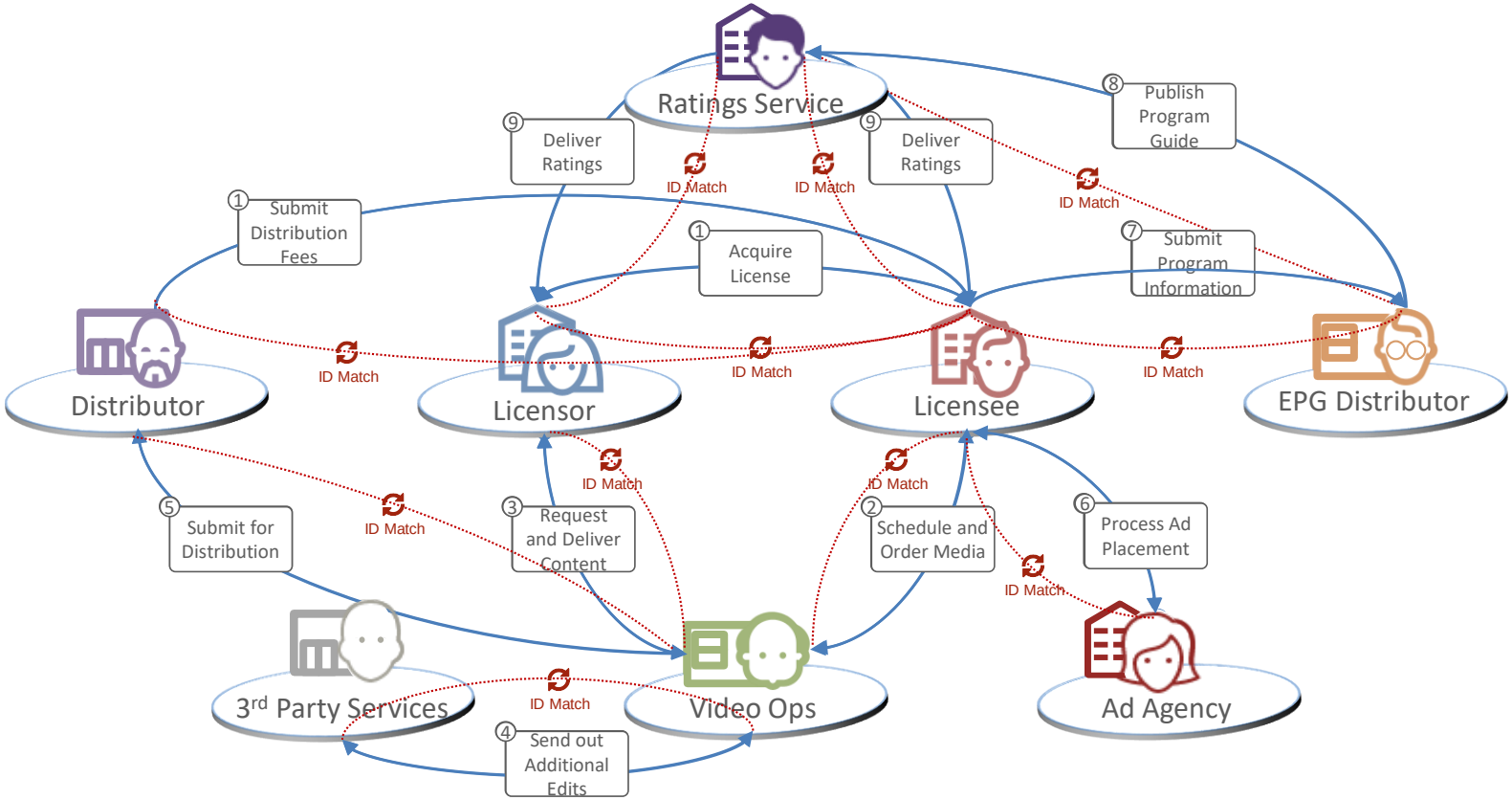


Harvard Business Review *11/16 Maxwell Wessel, Aaron Levie, Robert Siegel

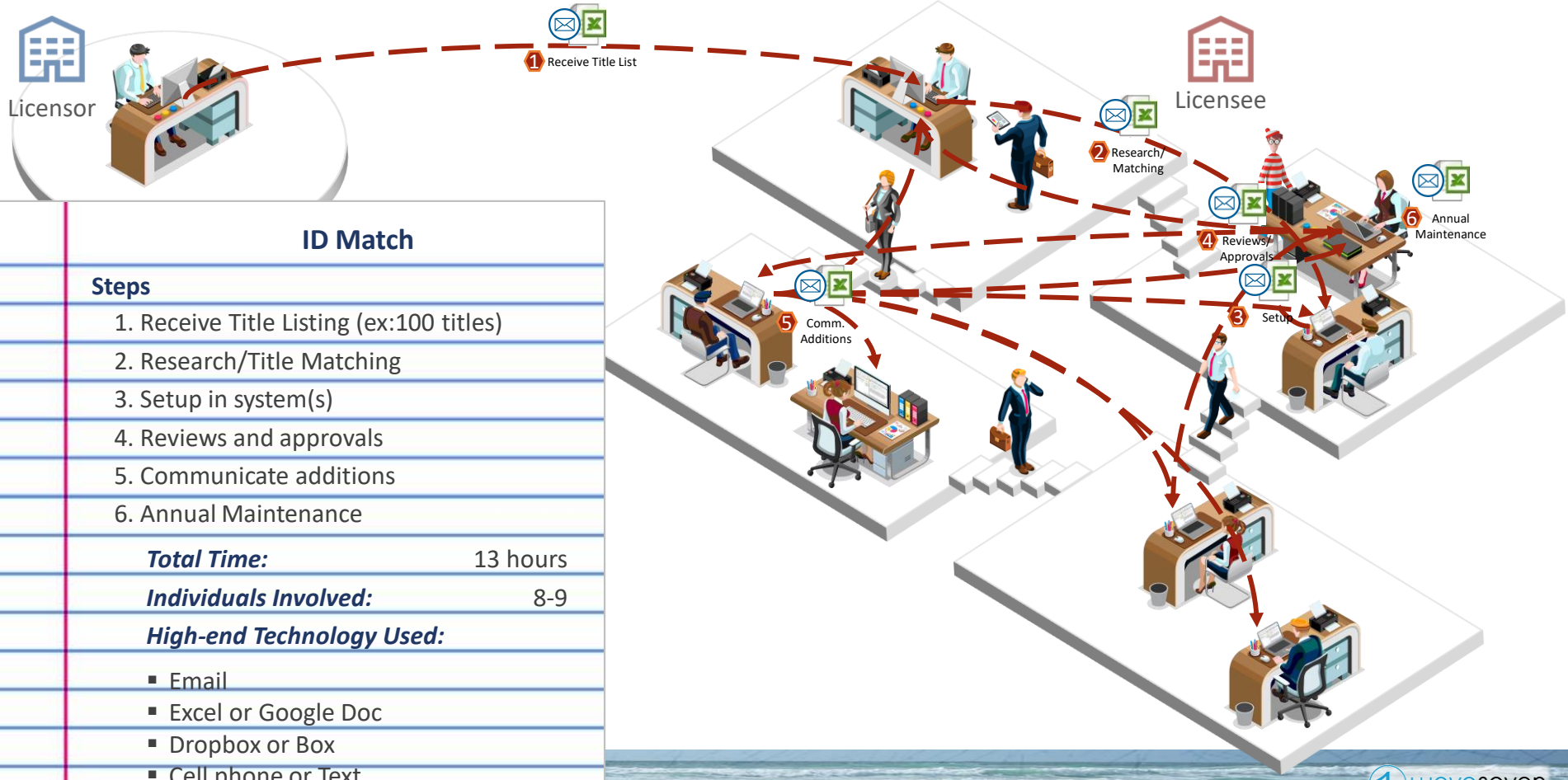
The Broadcast Small Data Challenge: "Product" Identification



The Broadcast Supply Chain Challenge: "Product" Identification



Typical ID Match Process



ID Match

Steps

1. Receive Title Listing (ex:100 titles)
2. Research/Title Matching
3. Setup in system(s)
4. Reviews and approvals
5. Communicate additions
6. Annual Maintenance

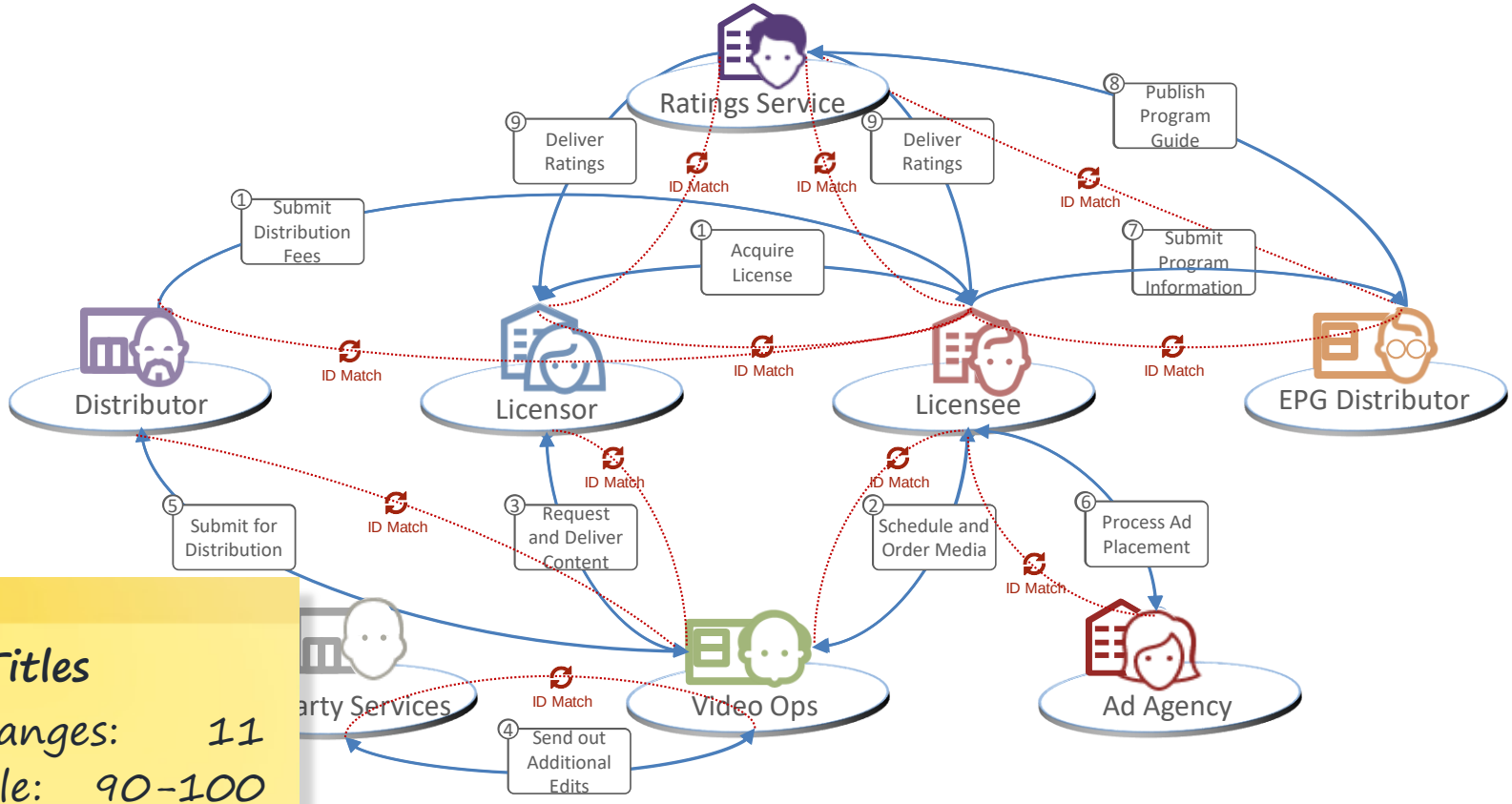
Total Time: 13 hours

Individuals Involved: 8-9

High-end Technology Used:

- Email
- Excel or Google Doc
- Dropbox or Box
- Cell phone or Text

ID Matching: Overall Impact to the Media Supply Chain



100 Titles

Exchanges: 11

People: 90-100

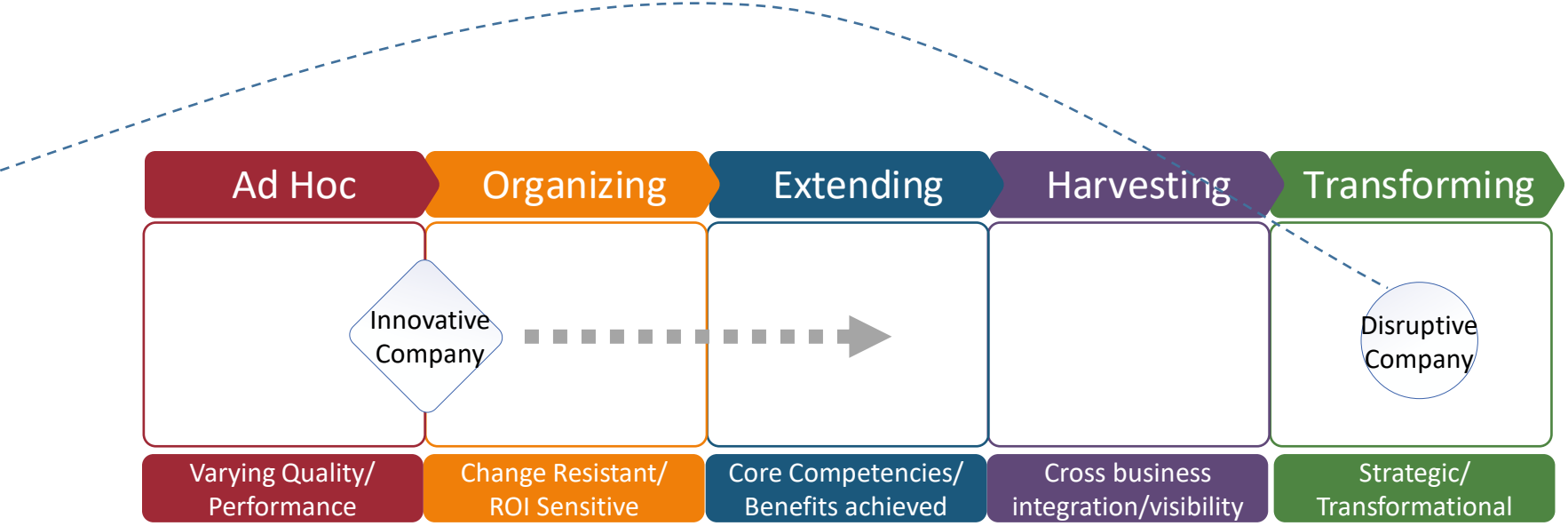
Time: +200 hours

Metadata Maturity Scale

State	Ad Hoc	Organizing	Extending	Harvesting	Transforming
Standards	▪ Some standards by org., sys., or process ▪ "We are unique"	▪ Initial introduction of standards (e.g., EIDR)	▪ Core metadata standardized ▪ Round-trip process support	▪ Support budgeting, forecasting, greenlight ▪ Support historical, catalog	▪ Revisit and rethink the model ▪ Find new dimensions not tapped (e.g., talent)
Governance	▪ Data "fiefdoms" ▪ Reliance on data experts ▪ "data chasing content"	▪ Project based governance ▪ Select data control	▪ Formal org. and processes ▪ SLAs, quality expectation	▪ Beyond transaction to analytic support	▪ Innovation partner ▪ Industry leadership
Systems	▪ Redundant data stores ▪ One off integration solutions	▪ Select system adoption ▪ Initial data mgt. tools/repositories	▪ Master data management ▪ Metadata Bus/Pub Sub	▪ Beyond integration to analytics ▪ Big data support	▪ Templates for new systems, products, organizations
Business Perspective	Varying Quality/ Performance	Change Resistant/ ROI Sensitive	Core Competencies/ Benefits achieved	Cross business integration/visibility	Strategic/ Transformational

Metadata Maturity Scale:

- **Where are you?**
- **What is the risk of doing nothing?**

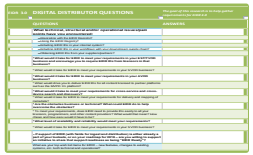
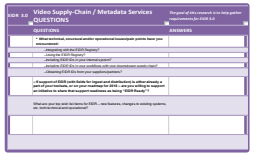
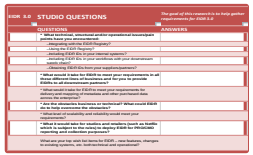


Member Survey Findings

Member Survey Introduction

- Research: Business & Technical Requirements
  - We sent out a survey to research key questions, held 1:1 conversations with the EIDR Board and EIDR members /projected attendees – via F2Fmtgs., phone and email.
  - Pre-work to gain insights and feedback to questions
    - *What does success with EIDR mean for your company?*
    - *What's working / what isn't / what would you change?*
  - Responses came back from Viaplay, ITV, Warner Bros., Lionsgate, Netflix, DECE-UltraViolet, Paramount, Google, Apple, PBS, and Showtime

EIDR 3.0 Questionnaire

	Group	Submitted
	Broadcaster	4
	Digital Distributor	2
	Video Supply-Chain / Metadata Services	1
	Studios	3

EIDR 3.0 Feedback: Functional Capability

Broadcaster

Bulk update for release dates, episode titles and distribution numbers

Update several profiles for matching, allowing customers to choose which to use

Studios

Compilation EIDR registration within UI

More streamlined process for De-Dup

Registration of Abstract and Edit EIDR in one call

EIDR 3.0 Feedback: Functional Capability

Studios

"UI Feature improvements:
1. Show the episode number in listings
2. Sort the episode list by episode number

Provide ability to setup compositions and compilations through the UI

Strong deduplication process needed

Notifications e.g., when the de-dup is completed

EIDR 3.0 Feedback: Technical Capability

Broadcaster

A browser-based toolkit which avoids the requirement to install and configure locally

Tools for virtualized dev environments - web based (e.g., AWS) test environments

More focus on performance and stability/up-time

Video Supply-Chain / Metadata Services

Ability to do simple API queries/ lookups without needing credentials.

EIDR 3.0 Feedback: Technical Capability

Studios

- Allow users to customize fields showing the relationship of abstract with edits
- Challenges in pulling large volumes of EIDR data - need scaling of production server
- Provide a complete data dump of EIDR records on a monthly basis
- Allow for a priority or criticality to be assigned to a token for faster resolution

EIDR 3.0 Feedback: Actual Usage Issues

Broadcaster

Challenges with the use of prefix and the parameter "/" in the EIDR-ID structure

Requiring all content to be registered is challenging: e.g., weather, teleshopping, etc.

Digital Distributor

Issues with the robustness and accuracy of the data

Any party can register IDs, sometimes resulting in poorer quality data → higher cost

EIDR 3.0 Feedback: Actual Usage Issues

Studios

Two of the same edits by two different rights holders receive same EIDR

Non-API route creates title exceptions – today's data won't match tomorrow's

Need changes to Best Practice for Performance level EIDRs

EIDR 3.0 Feedback: Adoption

Broadcaster

Need to urge Content Providers to start adding EIDR-IDs to deals

Desire for greater adoption of EIDR by external platforms that we license content to.

Digital Distributor

Need consistent, global adoption across sectors (music, marketing, etc.)

EIDR would have to be commonly used among partners globally to be required

With other standards: e.g., IMF, Media Manifest, Avails - could automate fulfillment

EIDR 3.0 Feedback: Adoption

Studios

All clients need to return EIDR IDs, not just global clients

Requirement that retailers adopt EIDR in reporting back to content creators

Amend GAAP policies, contract obligations or govt. rules requiring EIDR

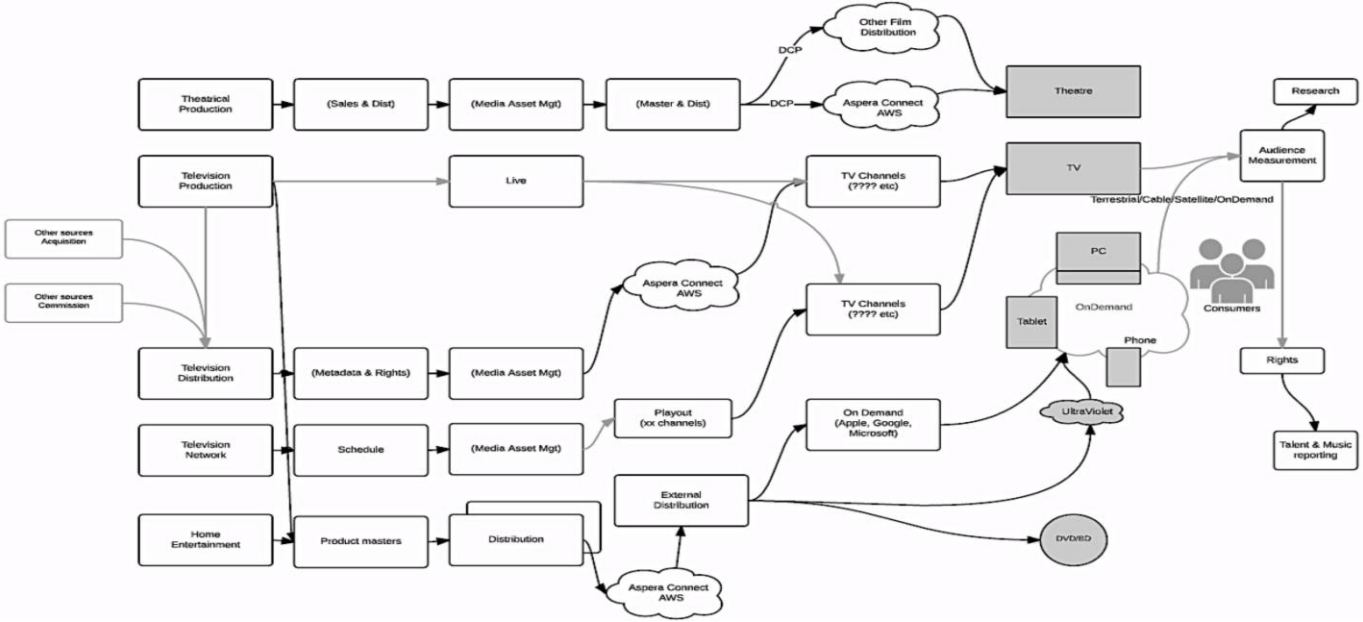
EIDR 3.0 Feedback: Positive Notes

Broadcaster		EIDR can prevent duplication of title entry and help facilitate a better workflow
Digital Distributor		10% of coordinator time is spent title matching, which would be reduced with EIDR
Video Supply-Chain / Metadata Services		Our goal is 100% EIDR
Studios		Next step is to empower our finance/accounting with roundtrip

EIDR Ready Initiative

Situation: Metadata Supply-Chain

- From green-light or deal memo to window or broadcast, there are many steps in the supply-chain of a television or theatrical title



Situation: M&E Supply-Chain Vendor Areas

- The M&E space has dozens of vendors who support the ecosystem with tools-sets, UIs and databases for:

• *Title / ID management*	• *Avails*
• *Production*	• *Windowing /Scheduling*
• *Editing*	• *Dynamic Ad Insertion*
• *Rights Management*	• *Broadcast Operations*
• *Royalties Tracking*	• *Marketing Automation*
• *MDM systems / Archives*	• *Audience Measurement*
• *DAM systems*	• *Analytics & Reporting*
• *Anti-piracy*	• *Quality Control*

STATUS: Supply-Chain Vendor Support for EIDR

- Some of these vendors *already* support the ingest and trafficking of EIDR IDs in their tools, systems and UIs

SintecMedia
FilmTrack
viaccess·orca
mediamorph
CADENT TECHNOLOGY
RSG MEDIA
Vobile
rightsline

However…

- Informal research has revealed that Managers, Directors and VPs at media companies don't know which Vendor systems / toolsets / databases support EIDR IDs today.

Further…

- The supply-chain is fragmented, as EIDR ID UI and database support (as well as EIDR ID trafficking) is not yet ubiquitous among the vendor community.

And EIDR is foundational in the future of M&E Supply-Chain Automation!

Solution: EIDR Ready

- **EIDR Ready** is a new, dynamic **branding** campaign to
  - **Raise awareness** of vendor application, UI and toolset support for EIDR across the M&E ecosystem
  - **Work with developers** to make it easy to integrate EIDR support in their tools
  - **Drive demand** for EIDR **non**-members ***"on the fence"*** about EIDR
  - **Increase usage** of EIDR in M&E companies not fully-integrated with globally-unique IDs in their production workflows

Potential "EIDR Ready" supply-chain vendors

- FilmTrack
- Sintec
- MediaMorph
- Ooyala
- Adobe
- Viaplay
- Orchestra Networks
- Viaccess-Orca
- Cadent
- RSG Media
- Riversand
- Wide Orbit
- Vobile
- RightsLine
- Vubiquity

- Aspera
- Microsoft
- Workday
- Oracle
- Broadview
- Comcast Tech Solutions
- SAP
- FotoKem
- Deluxe
- BrightCove
- IBM/Clearleap
- RapidCue
- SeaChange
- Avid
- TECXIPIO

- Premiere Digital
- V2 Solutions
- iNDEMAND
- Variety Insight
- S&P Global
- Common Sense Media
- Bindinc
- The Title Registry
- RedBee Media / FYI
- OpenText
- Technicolor
- Meyers Pro-Track
- OneVigor / PitchBlue
- OpenText
- Ownzones

Partial list

EIDR Ready – Segmentation

- **EIDR Ready** for:
  - *Content Management*
  - *Rights Management*
  - *Measurement & Reporting*
  - *Service Providers*
  - *Automation*
  - *Tool Developers*

End Goals and the Path Forward

- **End Goals:**
  - To deliver a vendor branding / “badging” campaign that will drive awareness and adoption of EIDR across the M&E ecosystem.
  - To work with developers to integrate support for the EIDR API within vendor tools and feature-sets
- **Steps to that Goal:**
  - **Obtain vendor support**
    - Socialize concept at EIDR annual member mtg., CIMM Summit and EIDR EU member meetings (Jan-Mar)
  - **Target: Press Release – NAB 2018 (April 7-12)**
  - **More than a “logo”**
    - “EIDR Ready” will
      - » Elevate awareness about EIDR support in vendor products and connect-the-dots for tech
      - » Work with developers to integrate with EIDR APIs into product roadmaps

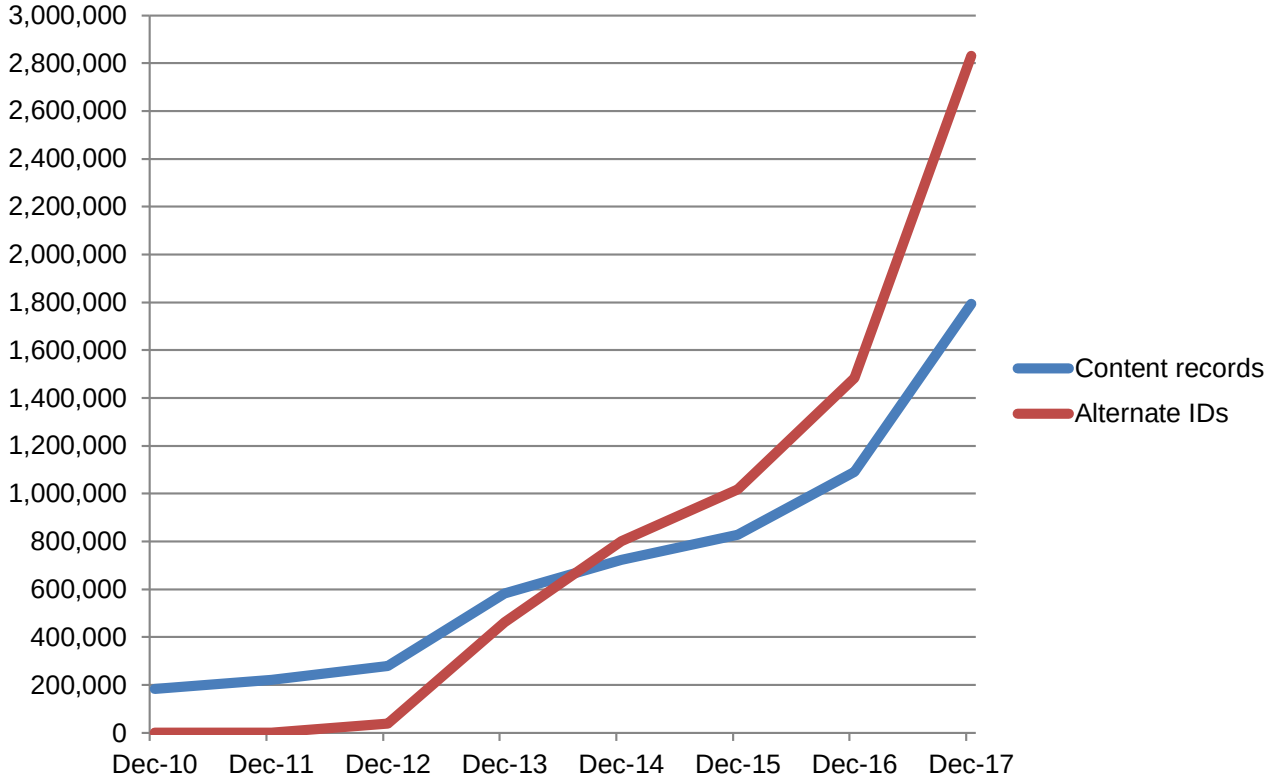
EIDR Year Eight – *(The Road to **EIDR 3.0**)*

- **Board member roundtable**
  - *Kip Welch (MovieLabs), Bill Kotzman (Google), Ellen Goodridge (Sony Pictures), Scott Maddux (TiVo), Jeff Stevens (Warner Bros.)*

The Data-Driven story of the EIDR Registry – *Stats, Metrics & Analytics*

- Clint Richmond – Director of Operations
- Richard Kroon – Director of Engineering

Alternate IDs in EIDR



2017 Database Overview

- 1.8 million content records
- Largest annual increase in the number of records (700K)
  - Movies increased 76%
  - Shorts including early cinema grew almost 10x
  - Episodes grew almost 300K (56%)

2017 Activity Overview

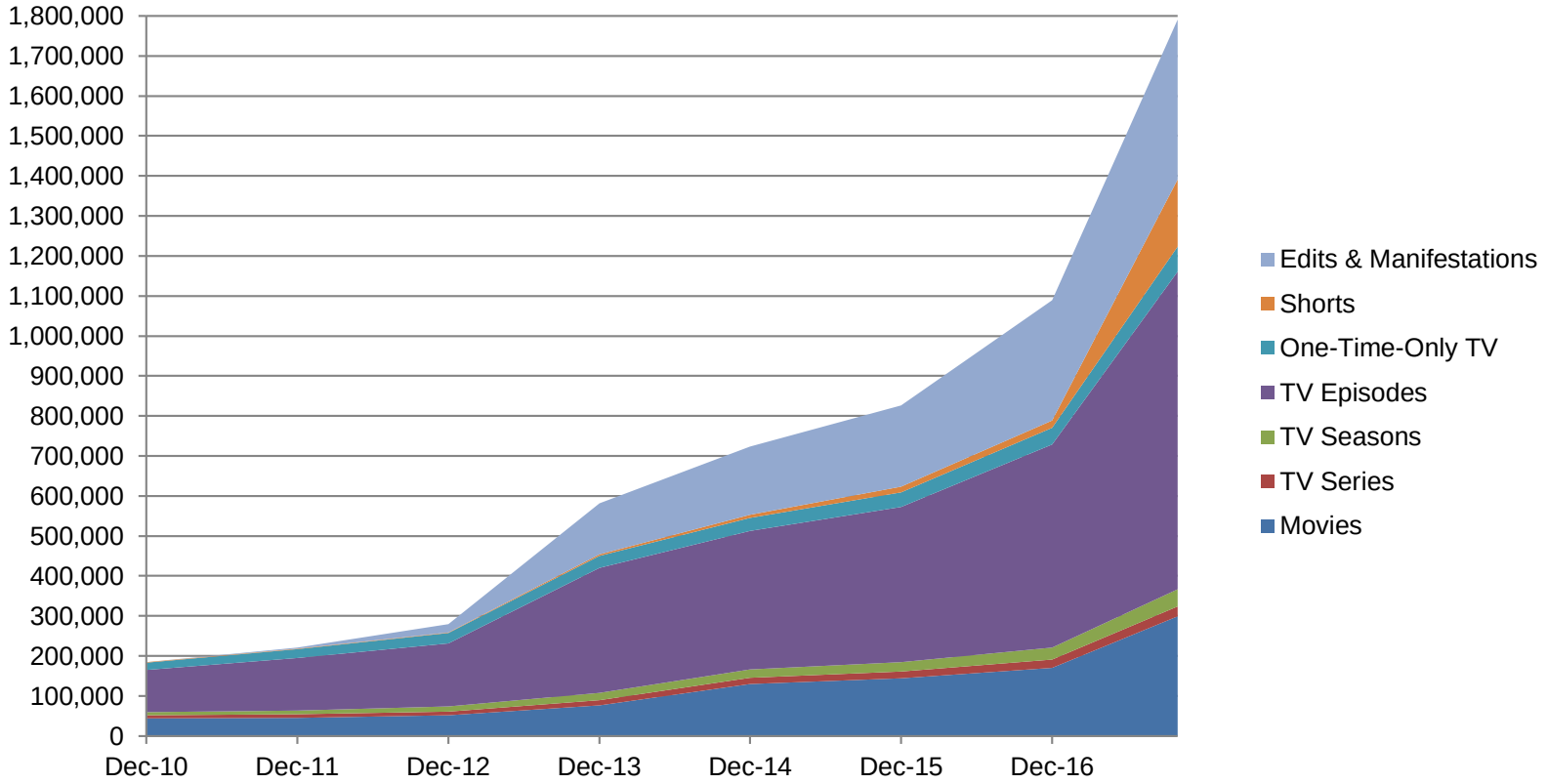
- Top 3 registrants are European organizations:
  - Two, very large, new catalog projects (AlloCiné & CITWF) both over 200K records
  - ITV over 100K in 2017
- Alternate ID's
  - 1.3 million added in 2017 (89% increase)
  - More than doubled the number of Alt. ID Types

Top Catalogs for EIDR

Company	2017
TiVo	443
AlloCiné	393
CITWF^	290
Sony	262
IMDb	249
Media-Press*	239
ISAN	188
ITV	159
Baseline*	113
Warner	102
Flixster- Rotten Tomatoes^	95
Viaplay*	67
Disney*	57
AV Observatory^	55
NBCU	53
Google^	50

* Some or all Alt. IDs are *not* present in EIDR.
^ Primarily a film catalog.

Content Database Overview



Monthly Operations Summary

Category`	2017	2016	2015	2014	2013
Total records	**1,793,101**	**1,090,840**	**826,914**	**723,709**	**581,798**
Original/title-level content:					
Movies	298,411	169,626	143,556	130,137	75,800
Shorts	168,871	18,292	14,999	7,919	3,039
One-Time-Only TV	61,867	41,170	36,290	32,323	29,709
Series	25,977	21,189	16,855	14,881	13,409
Seasons	42,150	30,549	24,374	20,804	18,082
Episodes	794,280	507,826	387,467	346,458	313,328
Edits	382,533	285,119	187,971	161,389	121,513
Manifestations	17,339	15,936	14,734	9,576	6,866

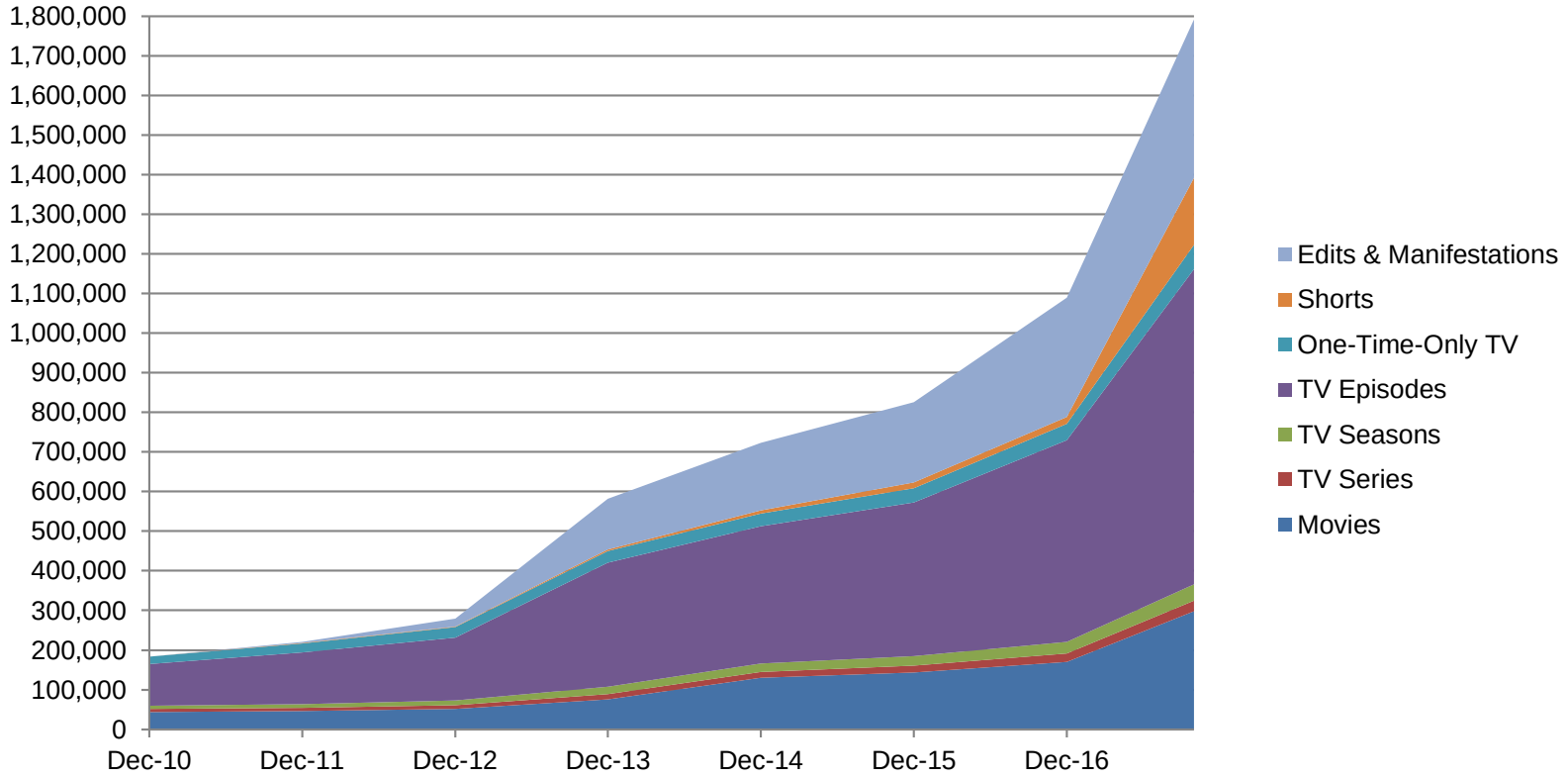
Overview of Alternate IDs in EIDR

- 2.8 million Alternate IDs in EIDR
  - 88% of all records have one or more Alternate IDs
  - *Pulp Fiction* and *Gladiator* each have 32 Alt. IDs
- 85+ Alternate ID types:
  - From consumer sites (e.g., portals, streaming), non-commercial (archives and governmental) and proprietary
  - From Asia, Europe, and North and South America
  - 50+ are publicly resolvable

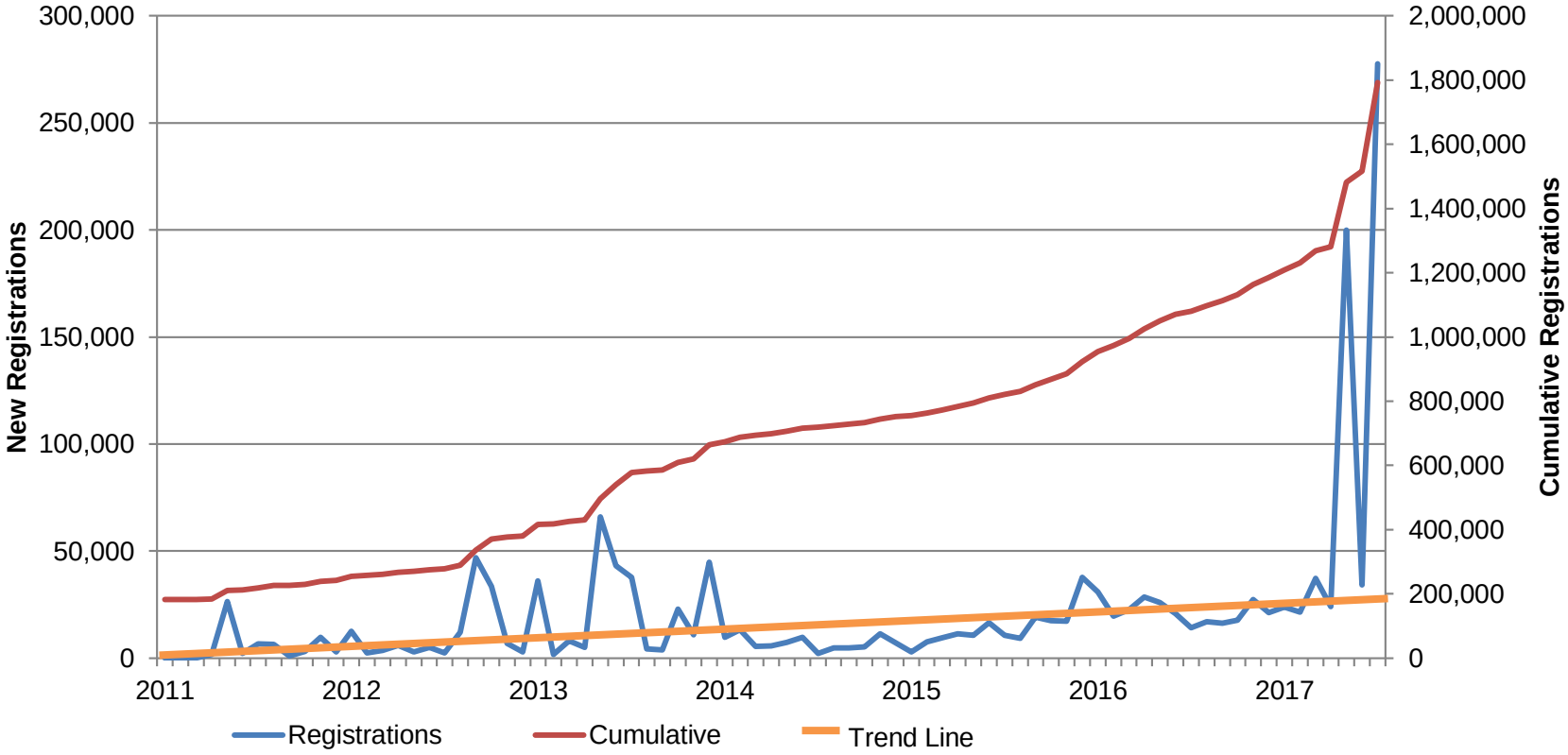
Representative Non-Commercial Alternate IDs in EIDR

Representative Consumer Alternate IDs in EIDR

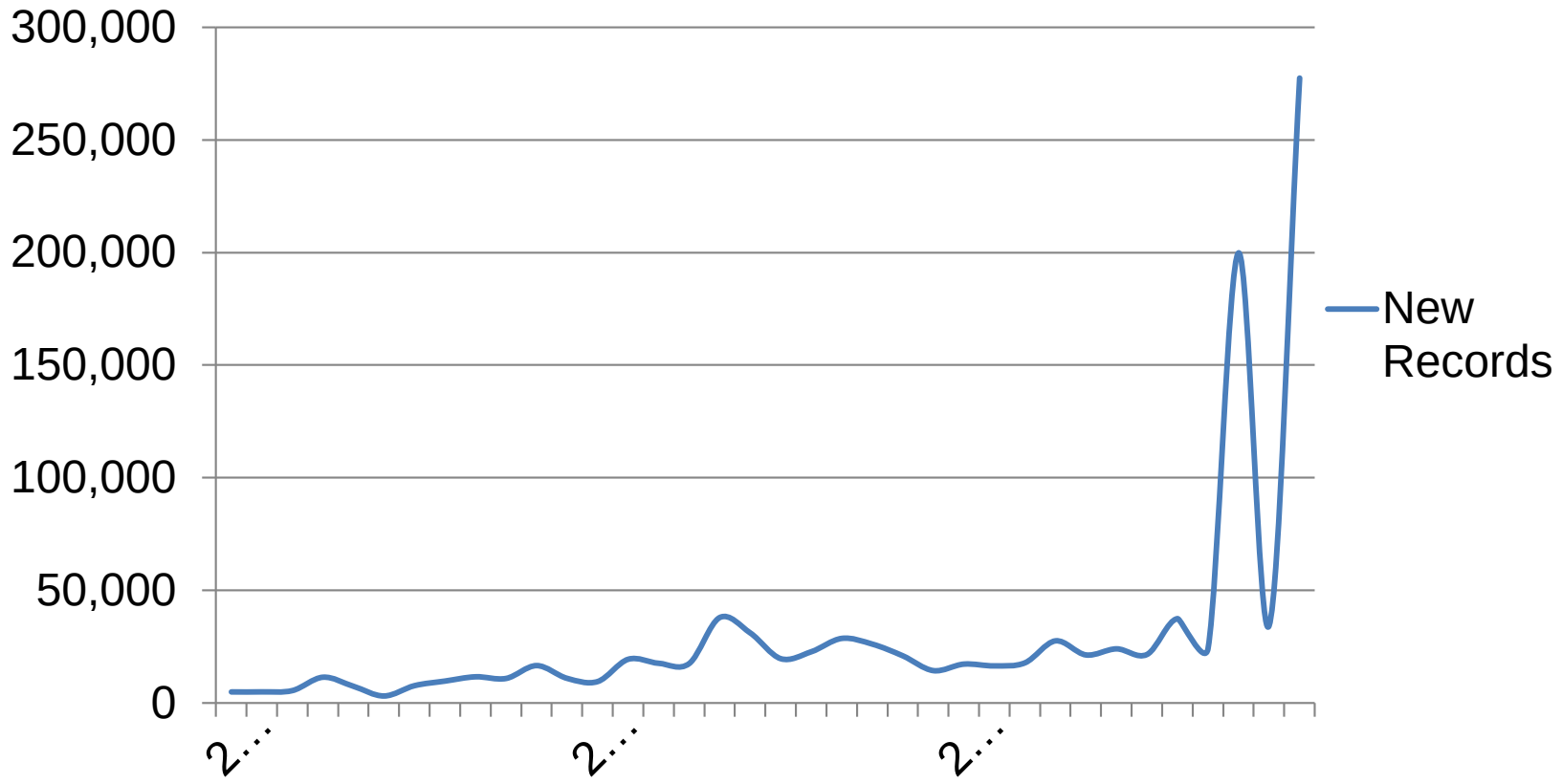
Total Records in the Registry



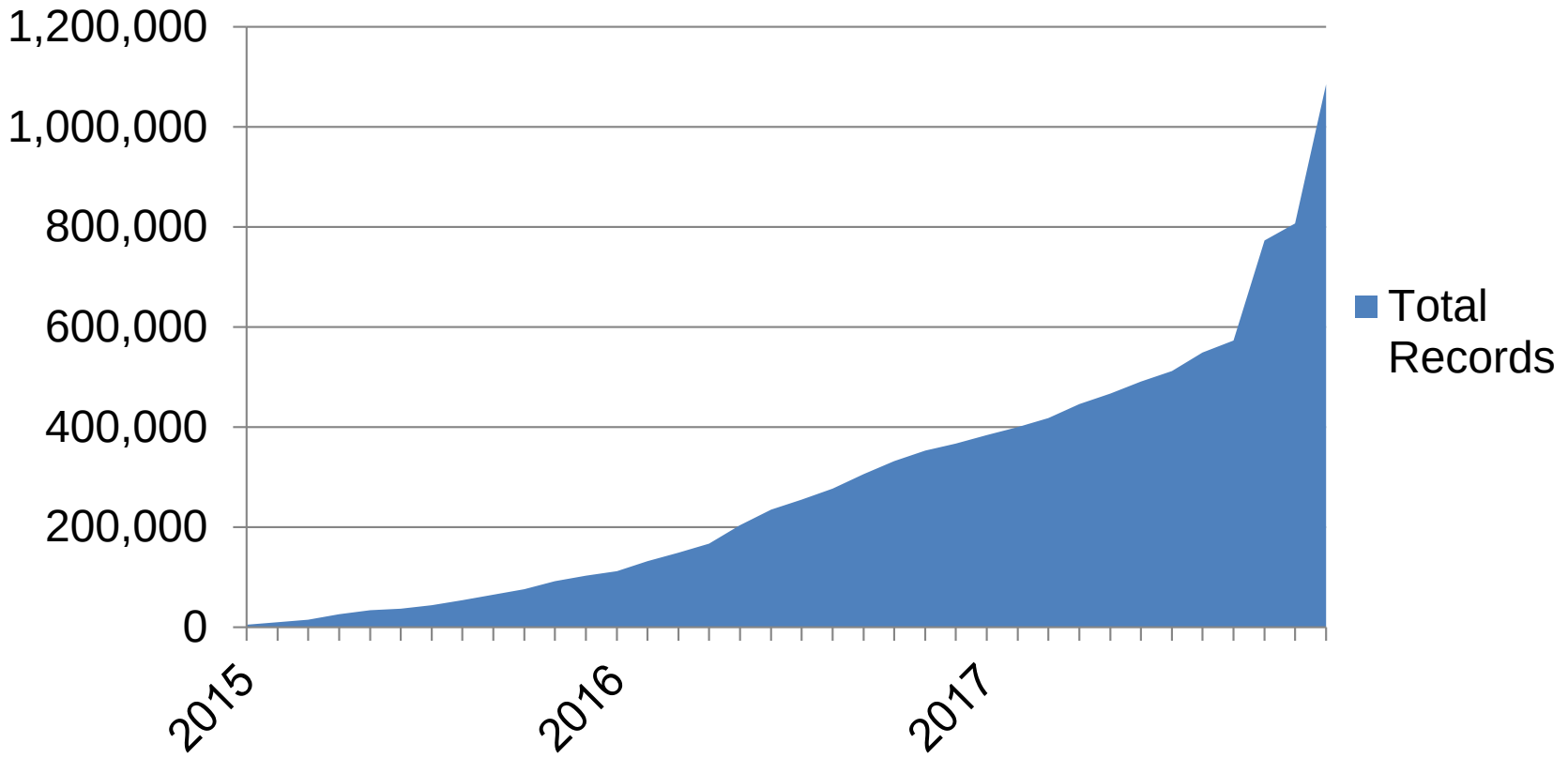
New Registrations per Month



Registry Activity 2015-2017



Registry Activity 2015-2017



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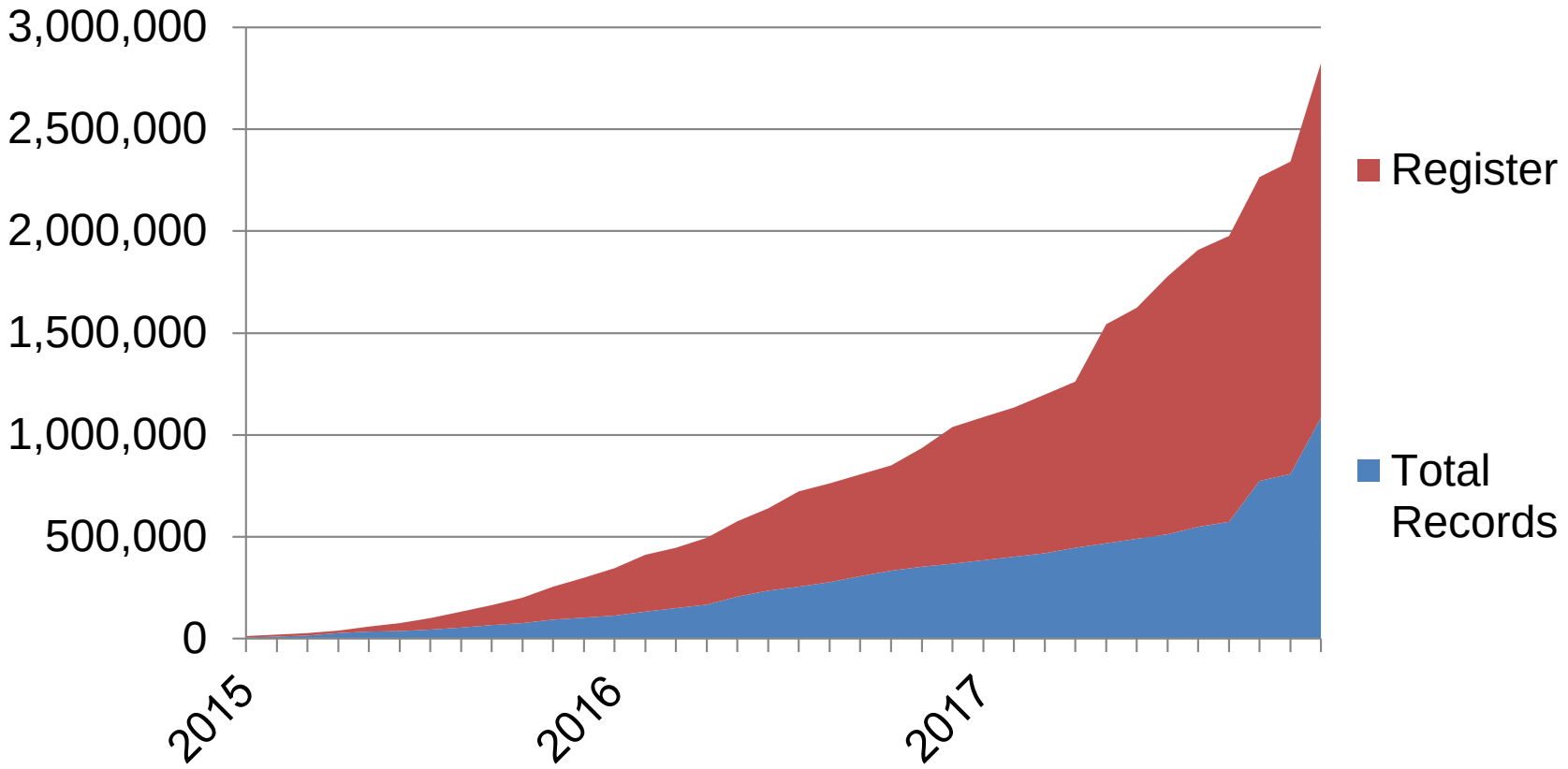
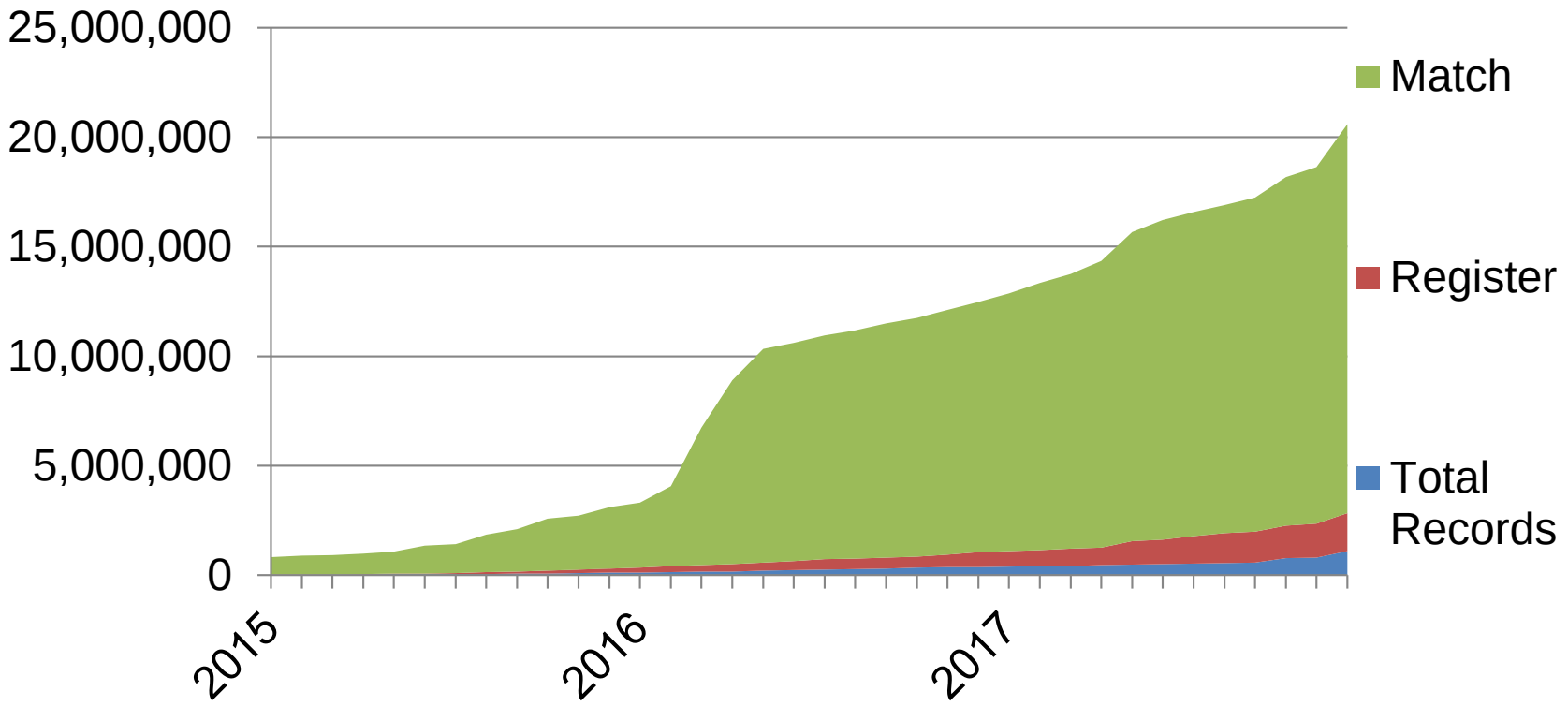


Registry Activity 2015-2017



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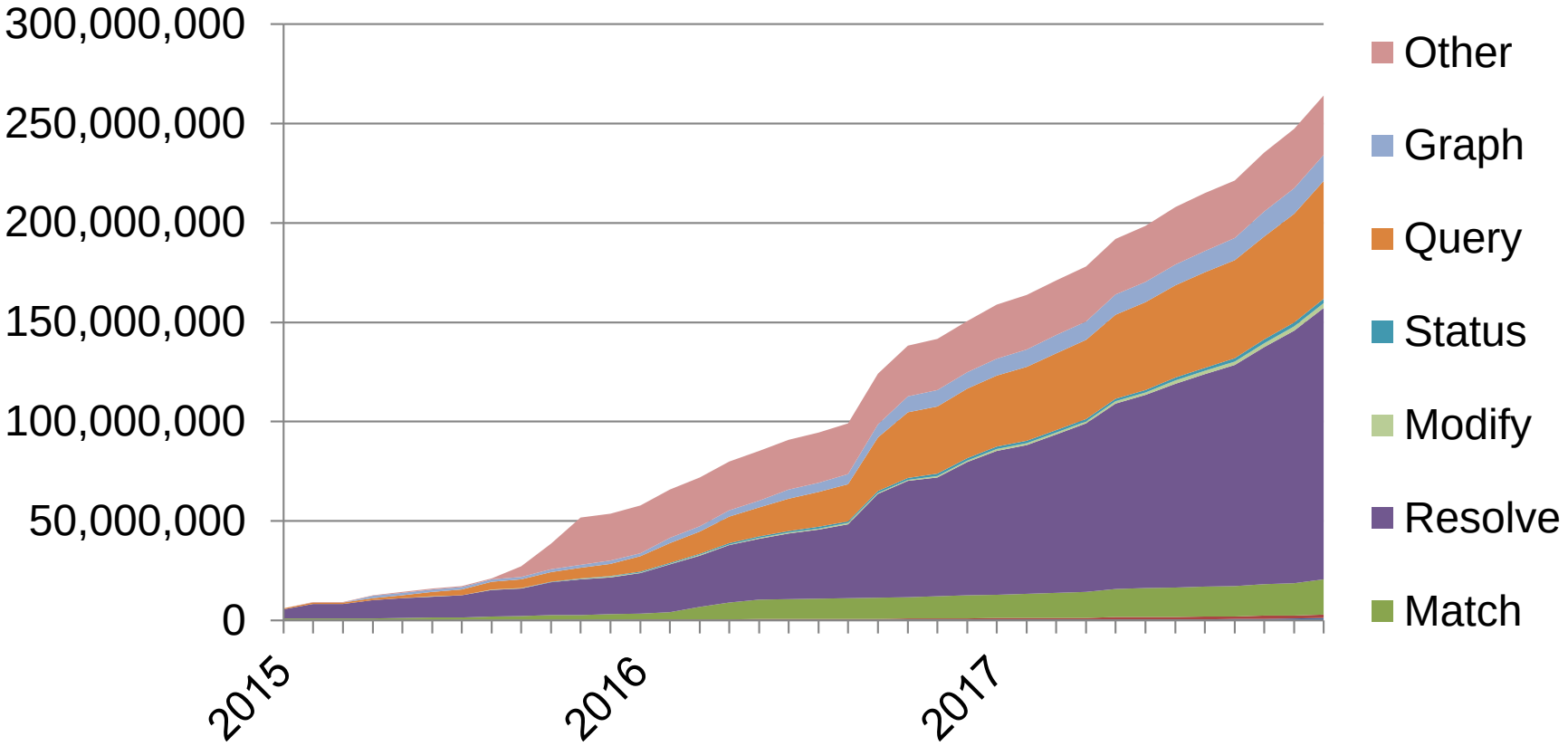
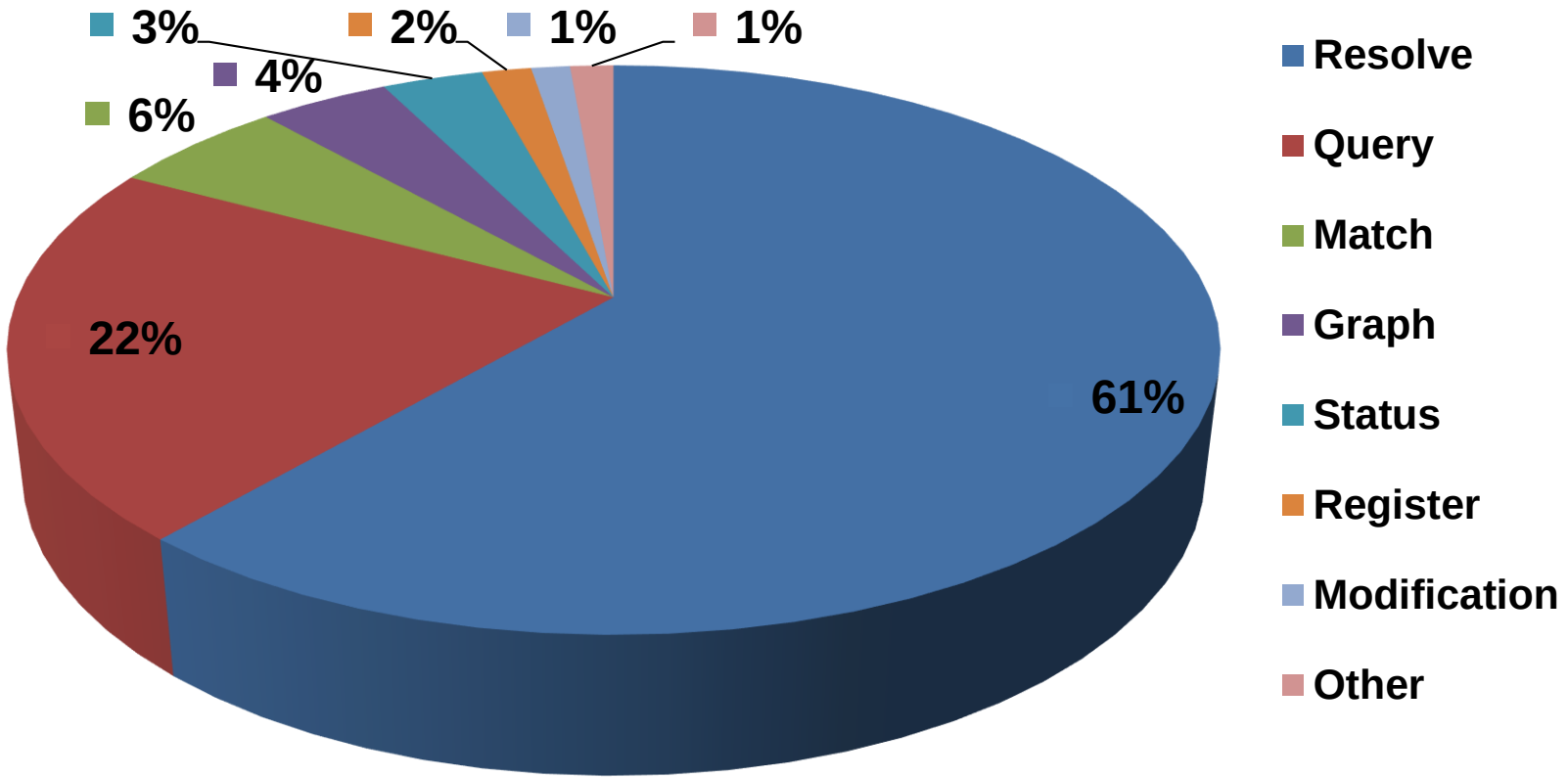


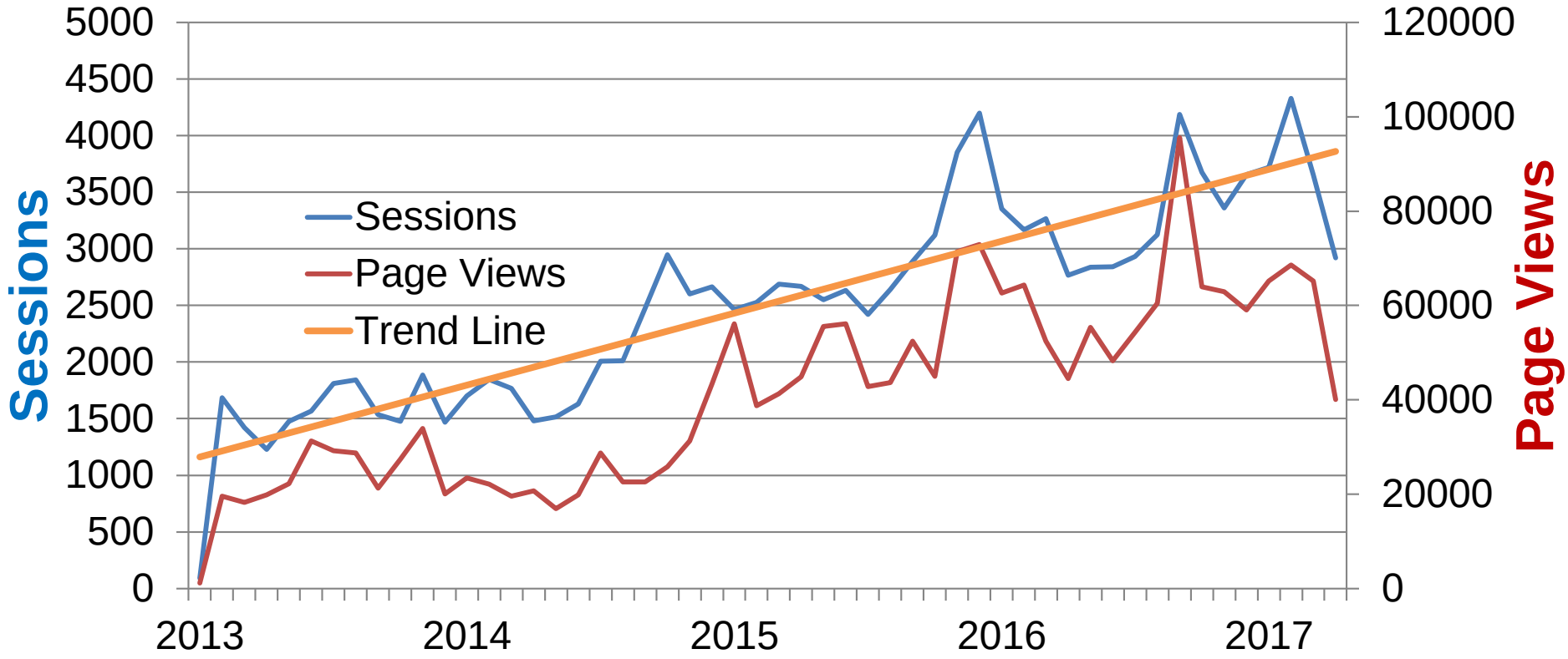
New Record Registrations Represent 0.4% of all Registry API Calls

Over 260 million API calls since 2015

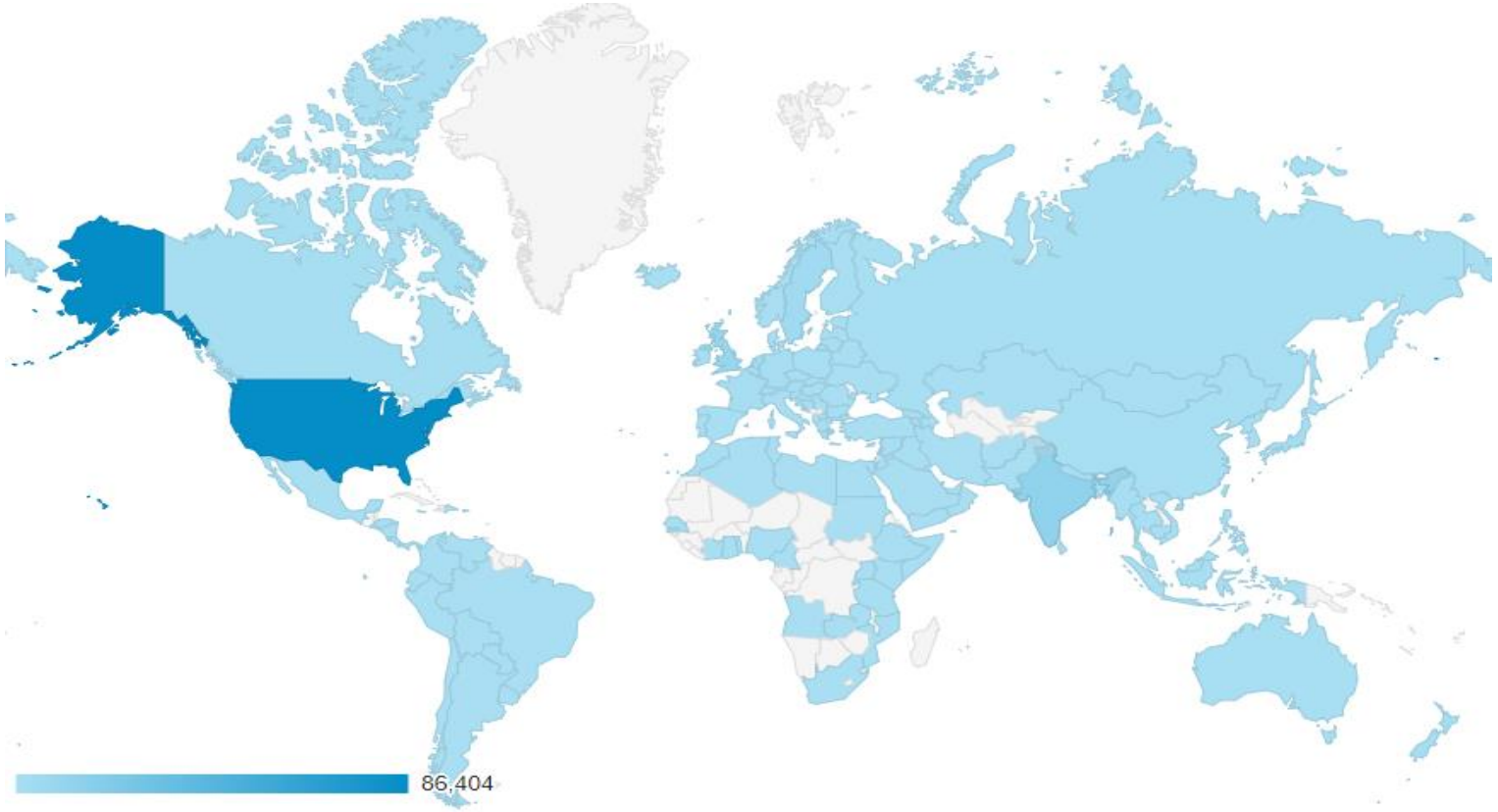
API Calls by Type for 2017



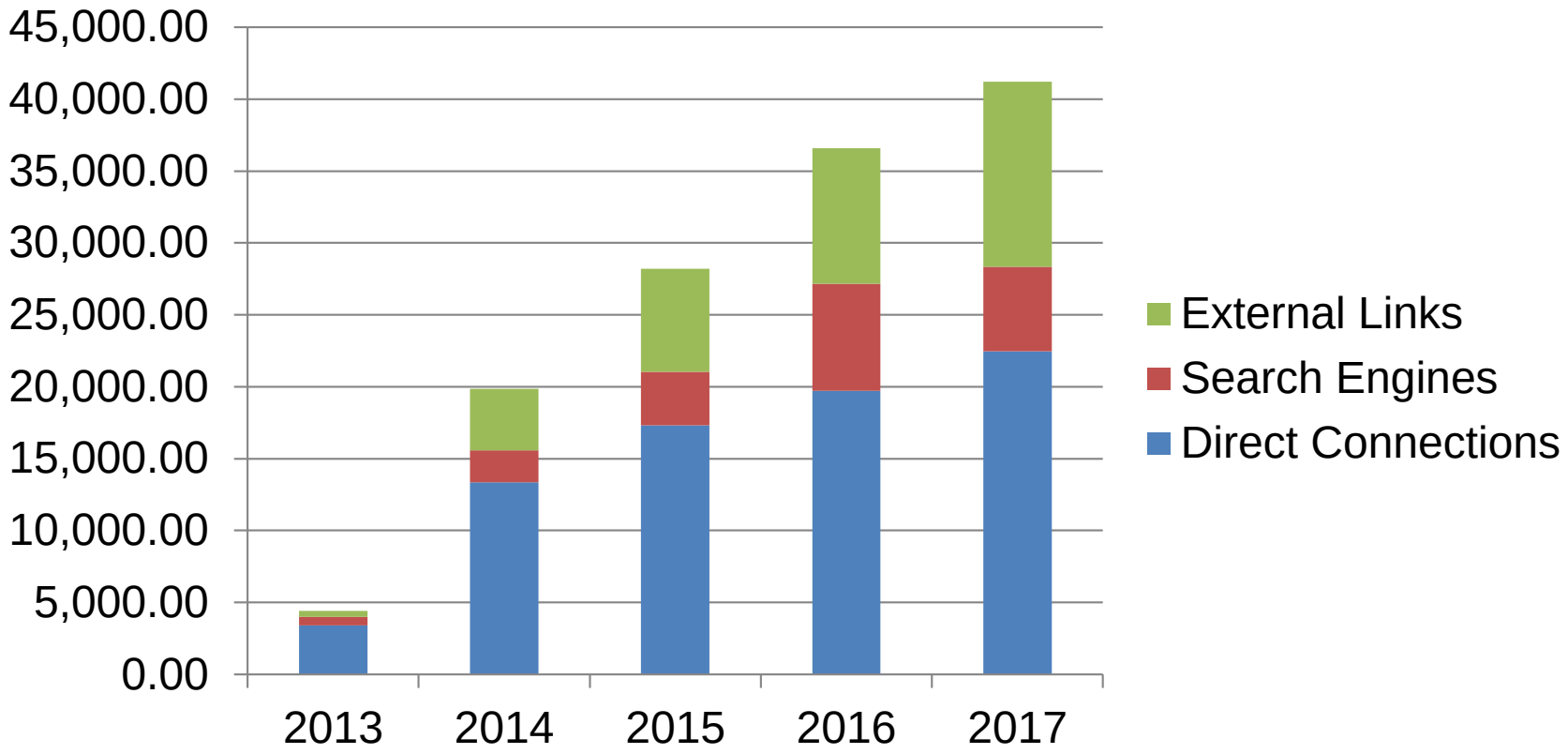
Web UI Usage Over Time



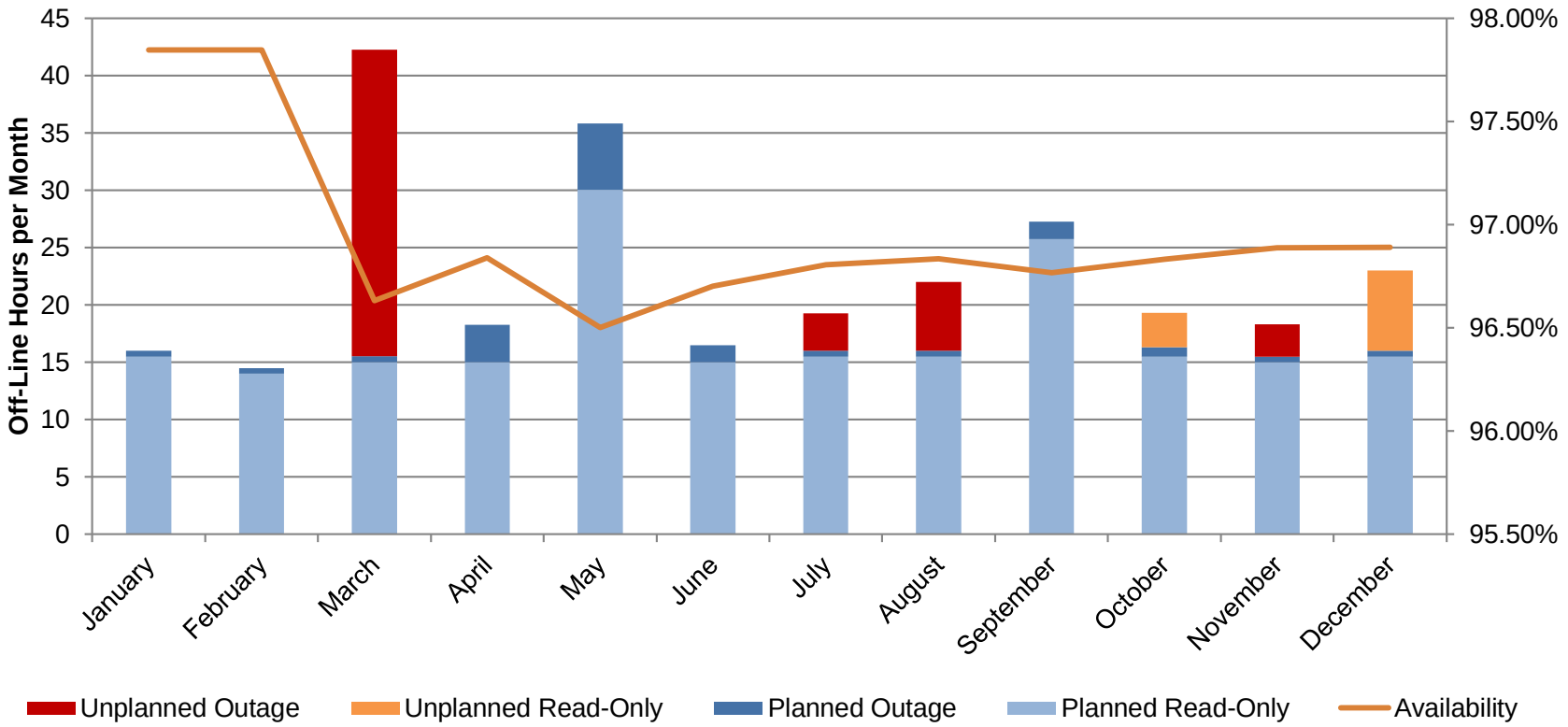
Web UI Reach 2013-2017



Web UI Sessions by Referral Source



EIDR Service Availability 2017



OBID Trial Updates – CIMM / Kantar Media / SMPTE

Tristan de Kerautem – Kantar Media
Paul Mears – Copperline Media

Open Watermarking of EIDR Identifiers

Paul Mears – President, CEO – Copperline Media
Tristan de Kerautem – Global Product Marketing Manager – Kantar Media

EIDR
Ad-ID
KANTAR MEDIA
Copperline Media
cimm

Overview

What Are Audio Watermarks?

- Audio watermarks are identifiers injected into an audio signal that are inaudible to the human ear but can be recovered by digital signal processing
- There are several audio watermarking technologies deployed today
  - DVSI
  - Kantar Media
  - Nielsen
  - Verance
- Each has their specific application strengths

Benefits of Audio Watermarks

An open standard for ID-to-asset binding can enable a wide array of capabilities:

Increased speed, transparency and accountability in video content and advertising measurement

Improved media workflow automation within and between M&E entities

Fewer barriers to deploying **cross-platform dynamic ad insertion**

Enablement of new **anti-piracy and copyright protection tools and methods for video and music**

Triggering **surveys, quizzes or coupons on mobile devices**

Standardized **tracking of assets and audience measurement across media platforms**

Accelerated **digital content locker adoption and complete long-tail content monetization**

Improved **automated content recognition and detection**

Better **second-screen integration** and improved **multi-screen content discovery**

On-the-fly **media asset assembly**

Reduced **asset storage and transmission costs**

Simplified and **less-costly media reconciliation**

Open Watermarks Standard

- CIMM worked with the Society of Motion Picture Television Engineers (SMPTE) to develop a specification for most use cases of audio watermarking and selected a technology provider based upon extensive tests
- Kantar Media Technology was selected
- Open Binding of Identifiers (OBID) – standardized technology used to identify **content and ads** via an open common method
  - Carries Ad-ID and EIDR identifiers
- OBID-TLC (Time Labels to Content) – standardized technology used to identify **content and ad distribution** via and open and common method
  - Includes a unique distributor identifier and a time/date stamp of when the content is aired

Open Watermarks Standard

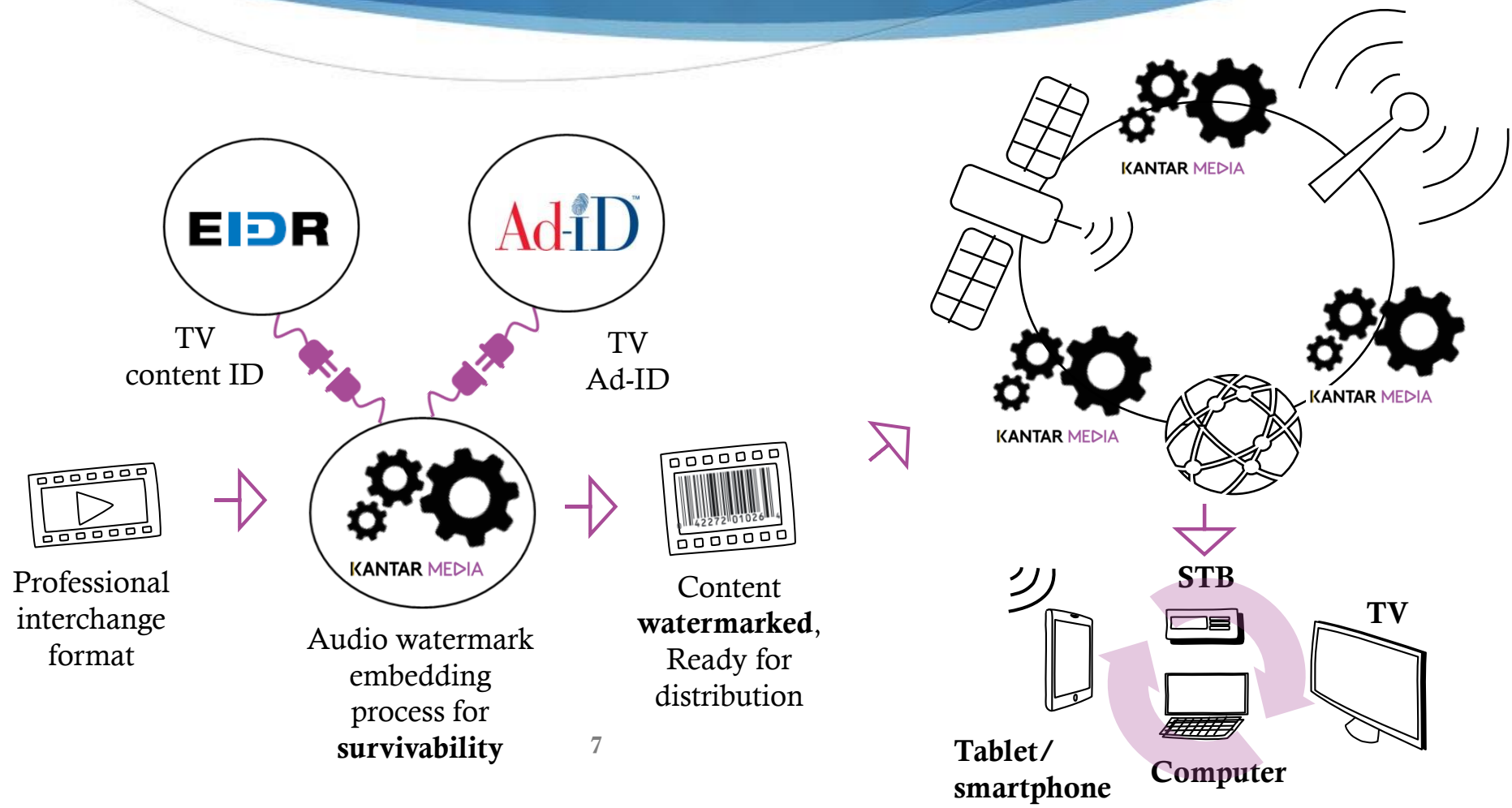
- CIMM worked with the Society of Motion Picture Television Engineers (SMPTE) to develop a specification for most use cases of audio watermarking and selected a technology provider based upon extensive tests
  - Suitable for detection via microphone, a hardwired connection, or as a software object embedded in a consumer device
- Kantar Media Technology was selected
- The audio watermarking technology does not interfere with:
  - Nielsen
  - Anti-piracy watermarks
  - New ATSC 3.0 (VP1) watermark

Open Watermarks Standard

OBID and OBID-TLC

- Open Binding of Identifiers (OBID) – standardized technology used to identify **content and ads** via an open common method
  - Carries Ad-ID and EIDR identifiers
- OBID-TLC (Time Labels to Content) – standardized technology used to identify **content and ad distribution** via and open and common method
  - Includes a unique distributor identifier and a time/date stamp of when the content is aired

How Does That Work?



Proof of Concept Objective

Prove the Value of the Technology

- Demonstrate the value of binding EIDR into CIMM member's video content
- Demonstrate the value of Ad-ID to track ads through the broadcast workflow
- Show how audio watermarking and other toolsets can be utilized for tracking content and ads through cross platform content identification
- Document and address key use cases

Test Plan

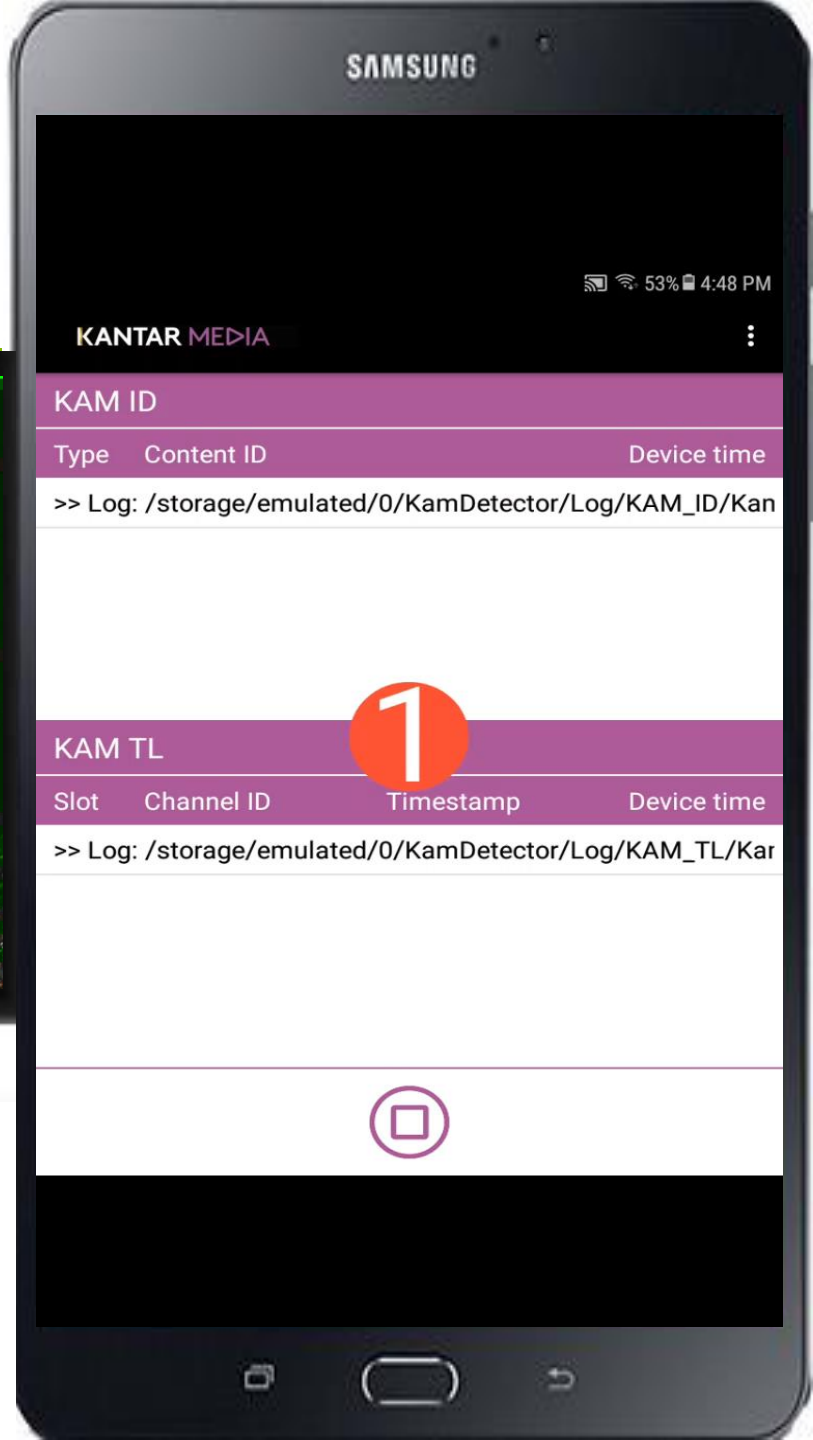
- Demonstrate acoustic detection of EIDR and Ad-ID OBID watermarks inserted with the Kantar Media file based watermarking tool
  - 7 ads
  - Fox content
  - ABC B-roll
- Demonstrate insertion and acoustic detection of OBID-TLC watermarks using the real-time watermark embedder
- Provide feedback on the installation, configuration, and operation of the real-time OBID-TLC embedder
- Provide a test result file of resolved EIDR and Ad-ID data collected from the test content

Test Overview

- Content was assembled/played back in a linear fashion

- When content was played back through the real-time embedder it was captured into a file containing OBID and OBID-TLC codes
- Capture the detection of EIDRs and Ad-IDs on an Android tablet detection tablet

SAMSUNG


SAMSUNG
53% 4:48 PM
KANTAR MEDIA
KAM ID
Type
Content ID
Device time
>> Log: /storage/emulated/0/KamDetector/Log/KAM_ID/Kan
1
KAM TL
Slot
Channel ID
Timestamp
Device time
>> Log: /storage/emulated/0/KamDetector/Log/KAM_TL/Kar

Conclusions

- The phase 1 lab tests of the technology are complete and were successful
- Standardization of the technology through SMPTE is nearly complete
- Adaption of the open technology will foster innovation of new media products, whether it be audience measurement, cross platform measurement, interactive services, content tracking, second screen applications, and more.
- CIMM and its partners will be hosting workshops and lab tests in the future
  - Looking for input on these workshops and lab tests
  - Interested in ideas for new innovative applications

Thank you!

For more information, contact:

paul.mears@copperlinemedia.com
tristan.dekerautem@kantarmedia.com

EIDR
Ad-ID
KANTAR MEDIA
Copperline Media
cimm

Morning Break

- Break (15 min)

Viaplay (Sweden) presentation

Introduction: Francois Modarresse – EIDR

Jacob Radell – Viaplay

European Member Introduction

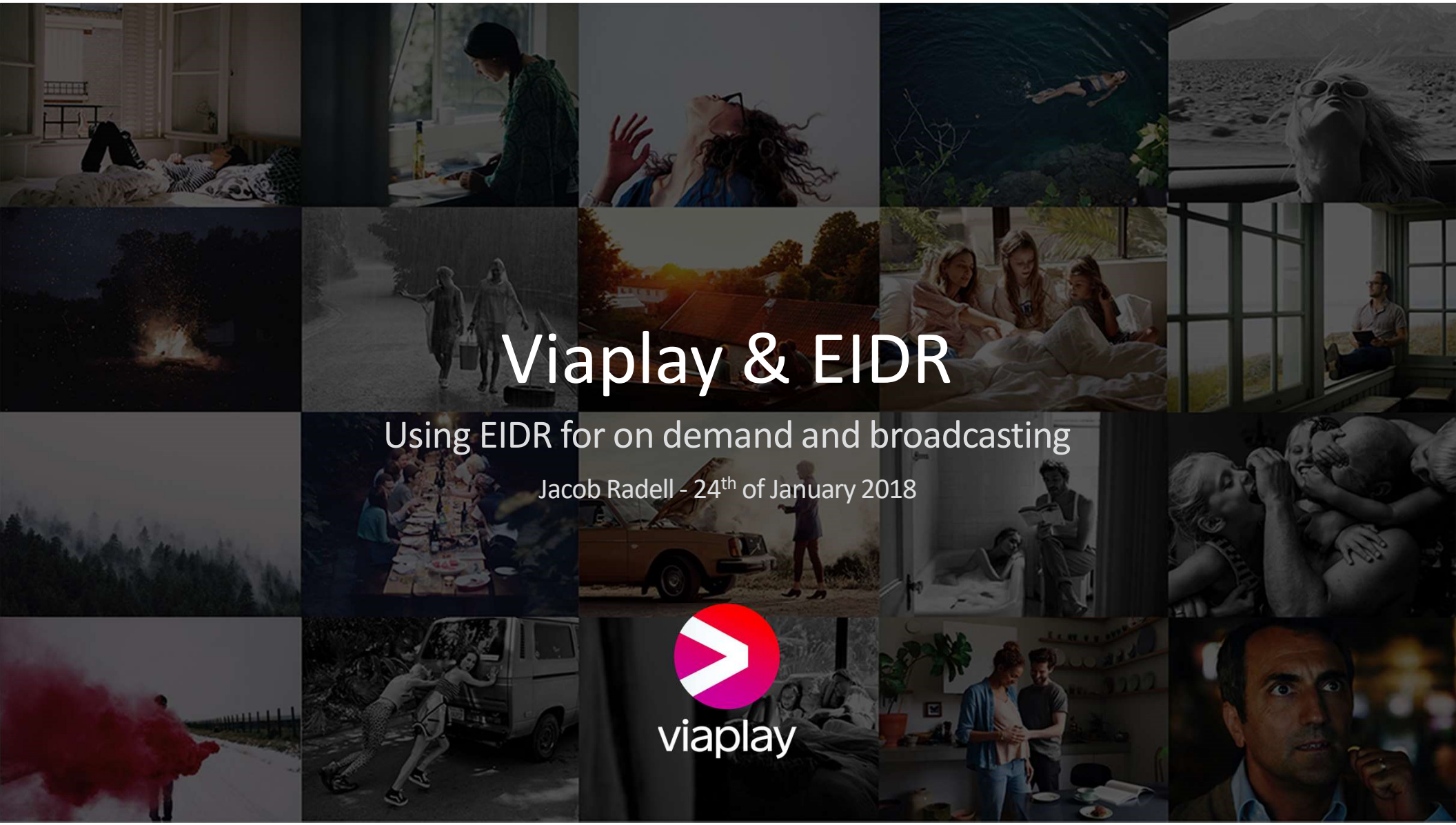
Francois Modarresse

International Biz Dev Consultant

fmodarresse@eidr.org

+1 650.888.5502

Viaplay



Viaplay & EIDR

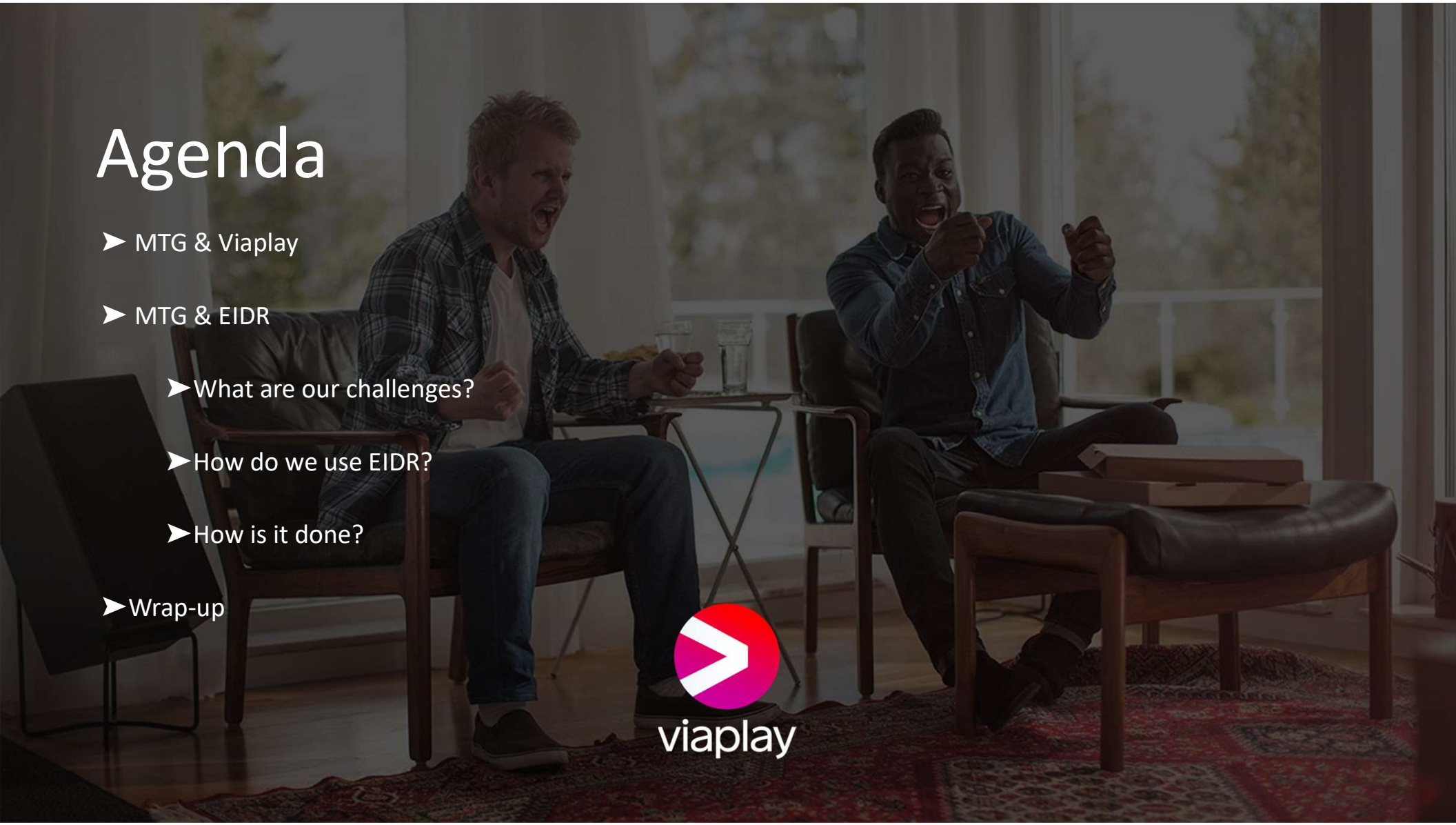
Using EIDR for on demand and broadcasting

Jacob Radell - 24th of January 2018

viaplay

Agenda

- MTG & Viaplay
- MTG & EIDR
  - What are our challenges?
  - How do we use EIDR?
  - How is it done?
- Wrap-up



Modern Times Group (MTG)

An international entertainment disruptor

Free/Pay Linear TV & Radio

Video on Demand

Gaming, E-sports & Multi Channel Networks

How do we utilize content rights?

Internal Usage

SVOD, TVOD & Electronic Sell Through

viaplay

AVOD & Catch-Up

viafree

Linear TV (Free/Pay)

External Usage

Linear tableau, catch-up, sublicensed content & 3rd party SVOD

COM HEM

CONNECT TV smartare kabel-TV

TDC

Telia

Get Hverdagsmagi

telenor

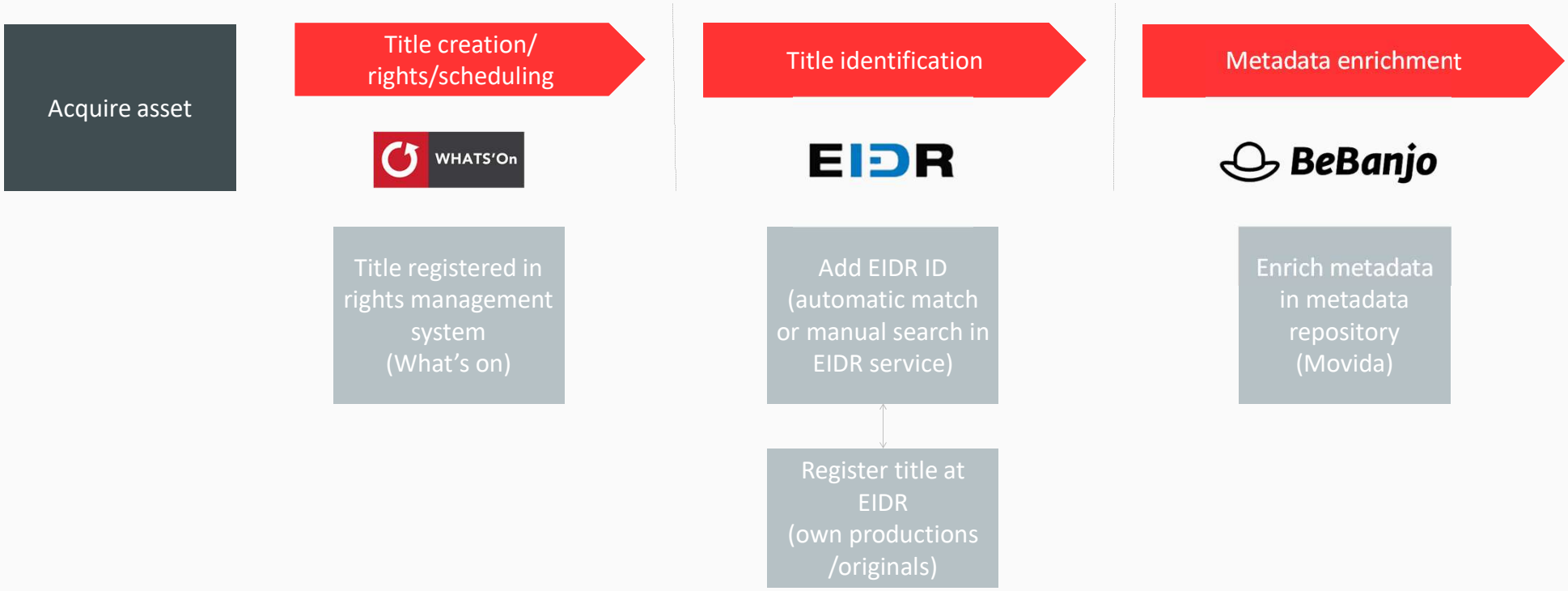
DNA

Stofa:

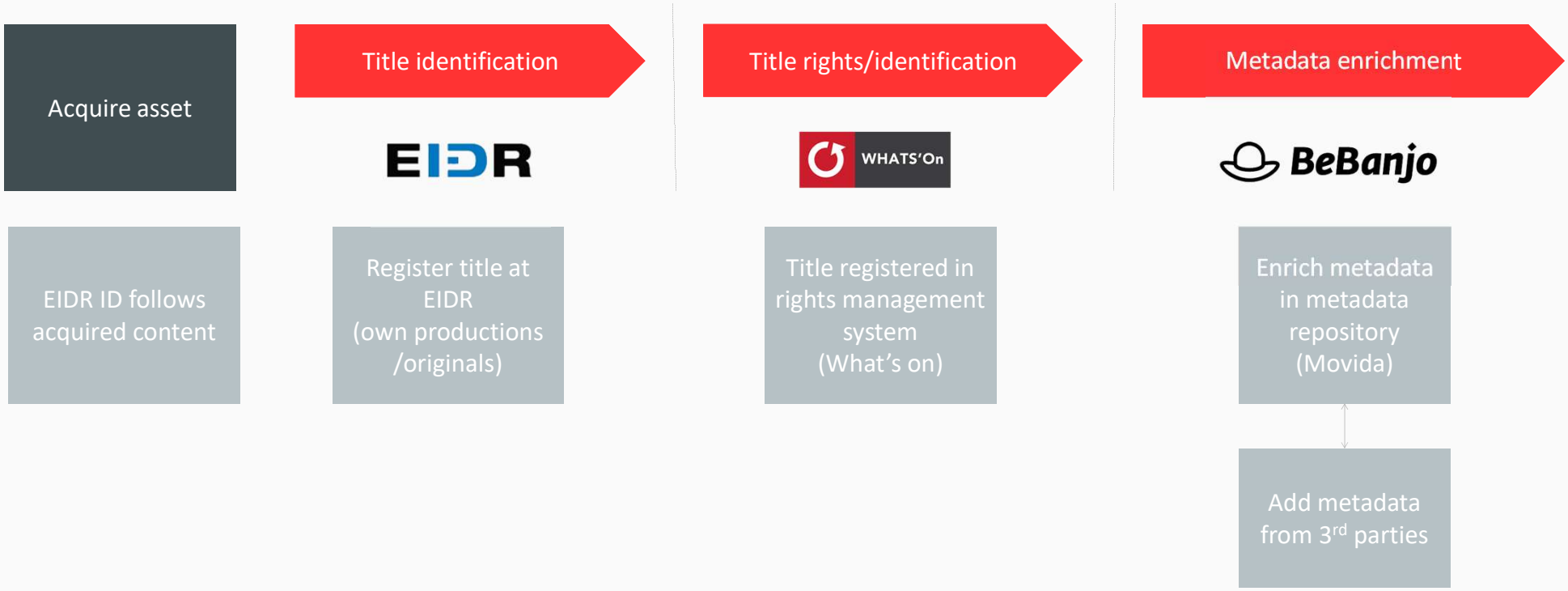
Value of using EIDR

Launching EIDR	One ID per asset		
Short Term	Automatization	Oversight	
Long Term	Enable BI	Collect metadata from 3rd parties	Storage management

Current process for new content

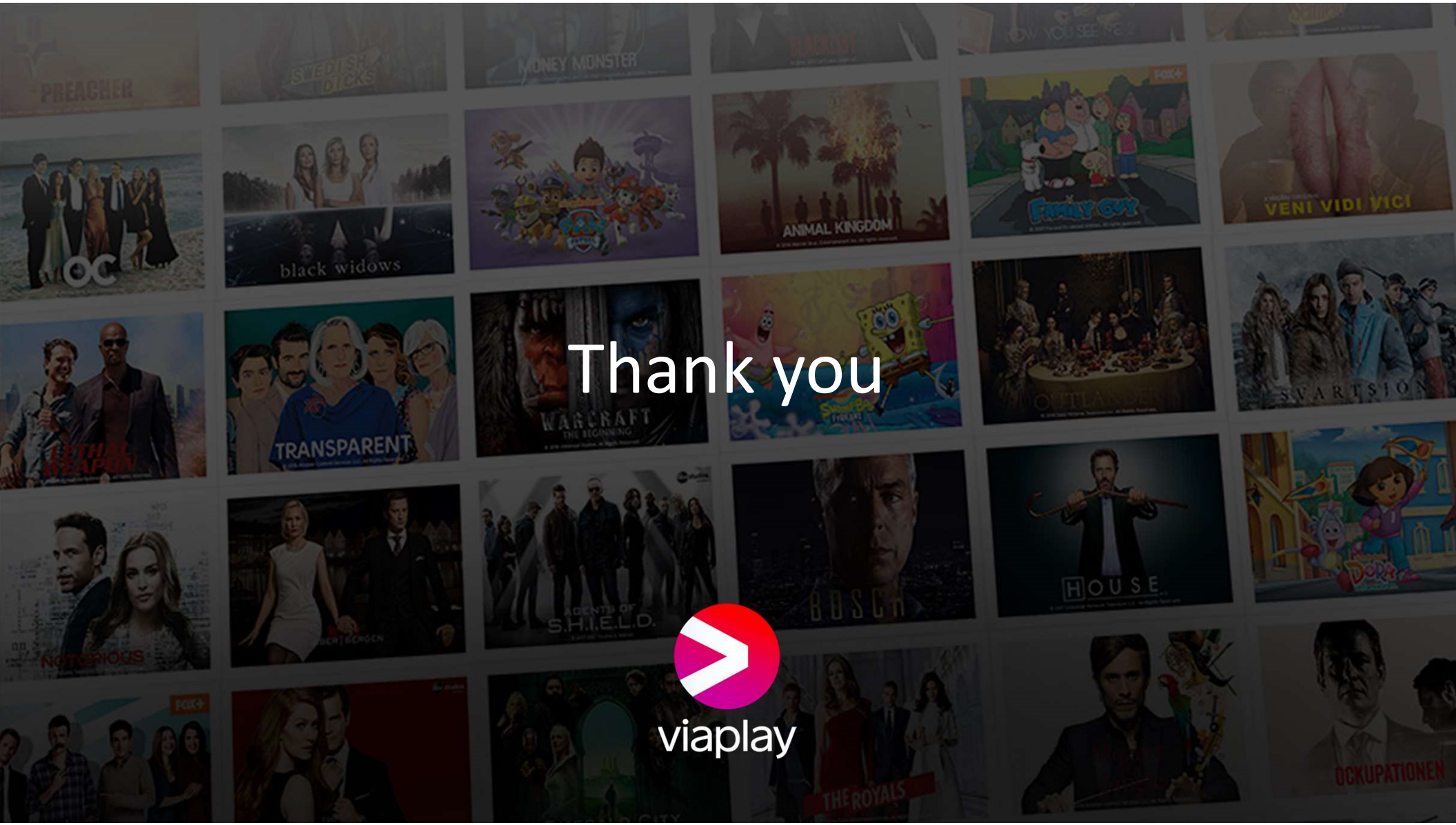


Future process for new content



Wrap-up

- **Oversight**
  - One ID per asset = oversight of all platforms and distribution methods
- **Automatization**
  - Reduce manual labour, mainly for scheduling
- **Long term effects**
  - Automatically collect metadata from 3rd parties
  - Storage management
  - Enable BI


Thank you
viaplay

Use Case: Sony / RedBee Media

(formerly FYI Television)

Introduction: Clint Richmond – EIDR

Kellie DuRose - Sony

Scott Phillips – Red Bee Media

RED BEE MEDIA and SONY USE CASE

EIDR Annual Membership Meeting

January 24, 2018

Agenda

- RBM PRODUCT AND SERVICES PORTFOLIO
- SONY DATA REQUIREMENTS
- INTEGRATION AND MATCHING SERVICES
- VALUE TO SONY PICTURES ENTERTAINMENT

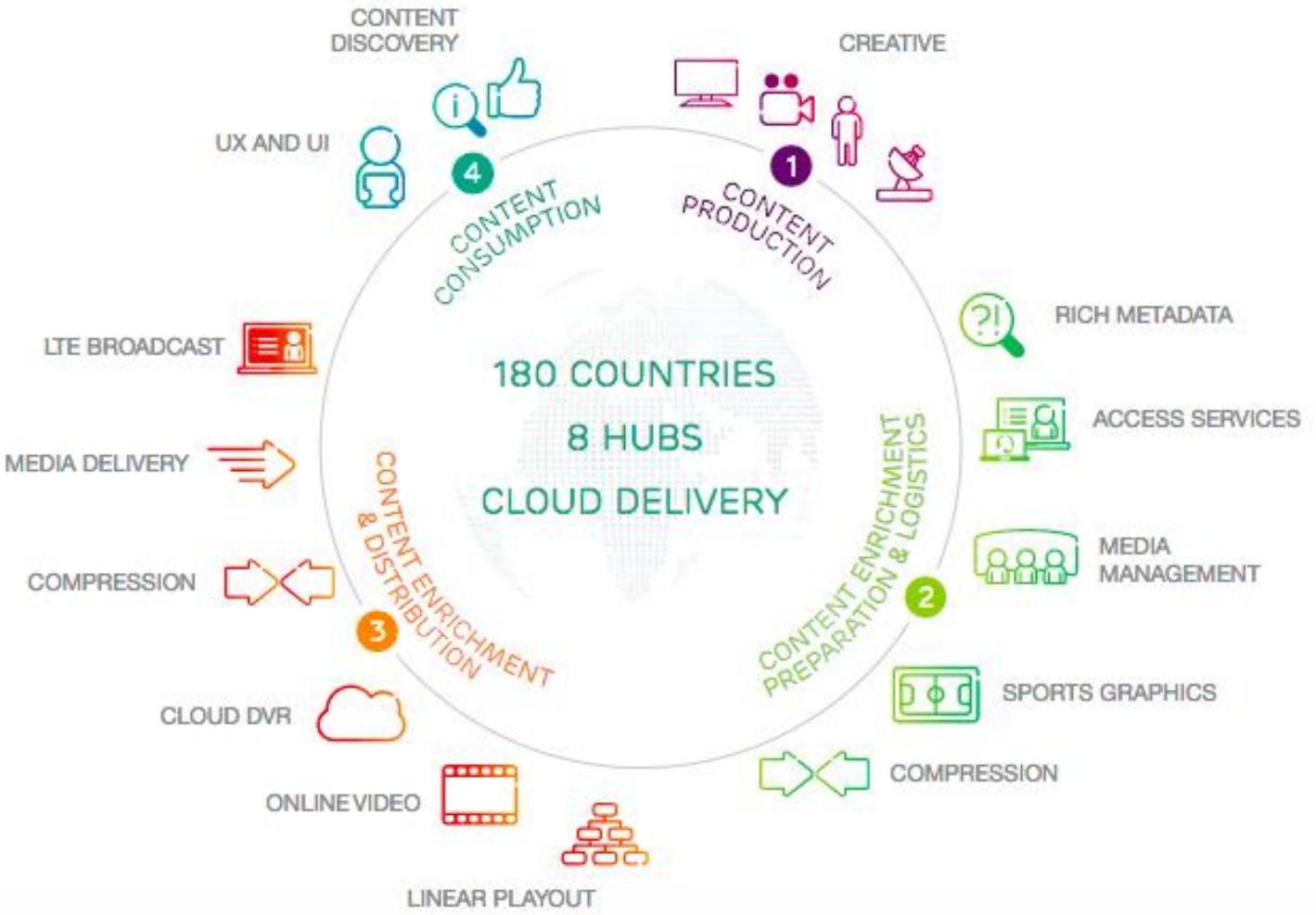
RED BEE MEDIA PORTFOLIO

Overview of our Value Chain

Red Bee Media services cover the complete media value chain from content production to content consumption and includes creative, content discovery, media management, sports graphics, access services, playout and online video services.

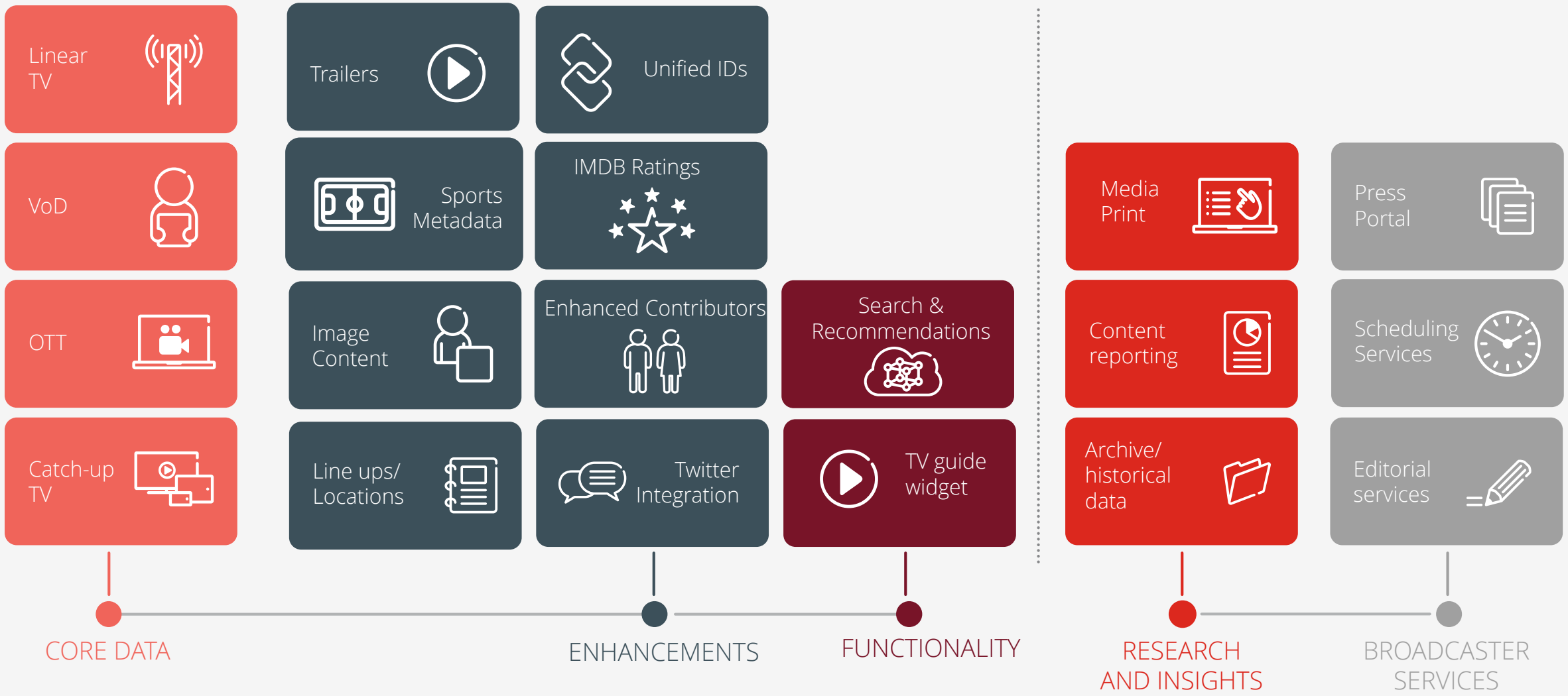
These capabilities are complemented by Ericsson Media products, which include various areas of compression, media delivery and online video.

Ericsson and Red Bee Media operate in 180 countries including our eight broadcast production centers around the world, supported by a growing cloud-based capabilities. This means that we can deliver content to where ever there's an audience, and in the process, pass on the benefits of scale to our clients.



CONTENT DISCOVERY PORTFOLIO

Overview of Services



PRODUCTION
COVERAGE
INTEGRATION
DELIVERY

RED BEE

PART OF ERICSSON

- More than 14,000 channels sourced across North America and Europe
- Direct integration with major broadcaster's scheduling systems
- 270 editorial staff who have relationships with broadcasters
- Efficient ingest, manipulation and validation of data
- Metadata and external ID mapping services
- Flexible delivery integrations with app providers' through data feeds and API
- Seamless integration with Ericsson's MediaRoom and MediaFirst platforms

RED BEE MEDIA CONTENT DISCOVERY

ENRICHED METADATA COVERAGE

Austria
Finland
Italy
Spain
Belgium
France
Luxembourg
Sweden
Canada
Germany
Netherlands
Switzerland
Cyprus
Greece
Norway
Turkey
Czech Republic
Hungary
Poland
UK
Denmark
Ireland
Slovakia
USA

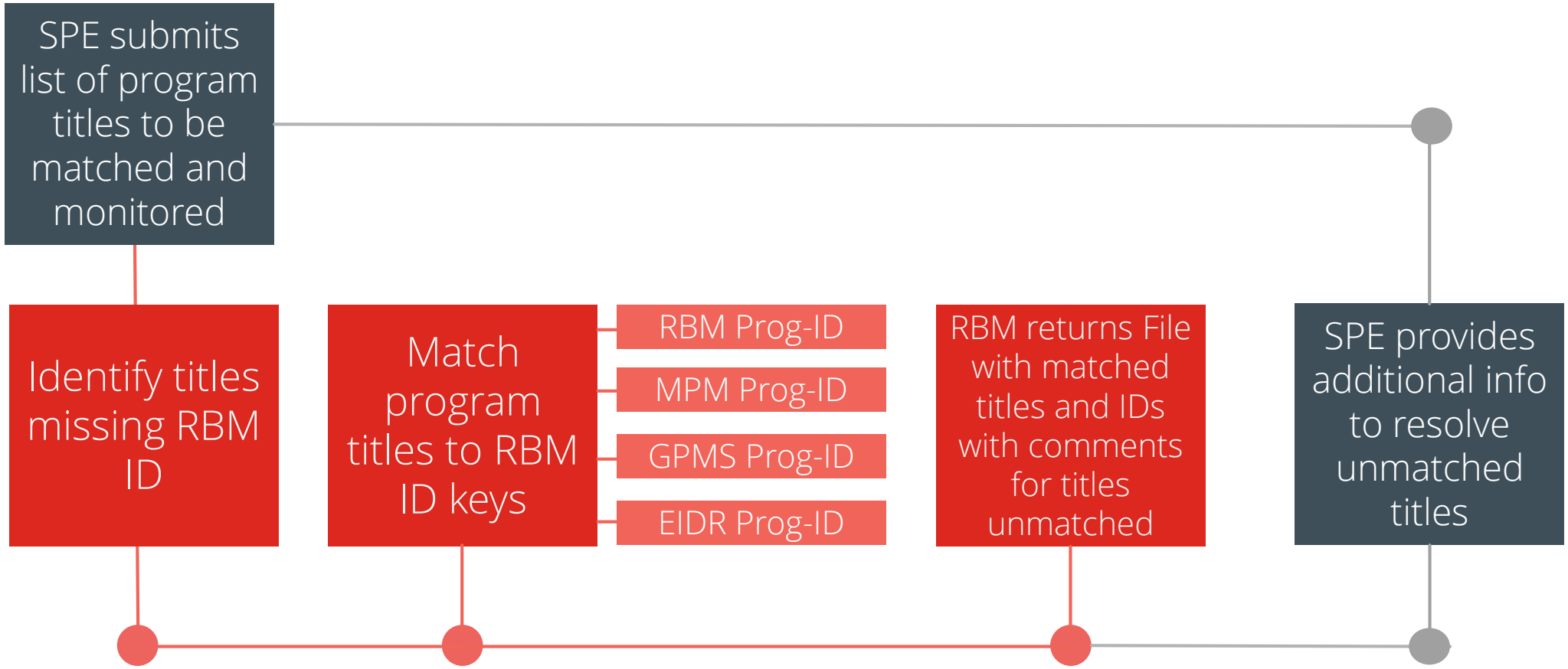
RED BEE MEDIA CONTENT DISCOVERY

SONY's Data Requirements

- SPE Residual group requires data that will track air dates for a specific set of program titles on channels in multiple U.S. markets
- SPT Research wants to receive all titles that FYI tracks, including titles that have been title matched by RBM to SPE internal IDs.
- The data should include the superset of fields provided to SPE Residual and should include advance schedule data (14 days) and all schedule data and archive data back to Q3, 2013.
- Provide delta feeds for all updates to data going back to Q3, 2013
- Match program titles provided by SPE Residual and Sony Research to RBM program library
- Match RBM ID keys to Sony's internal ID keys (GPMS and MPM) and populate the appropriate ID fields in the provided data
- Match provided Sony program titles to EIDR IDs

RED BEE MEDIA CONTENT DISCOVERY

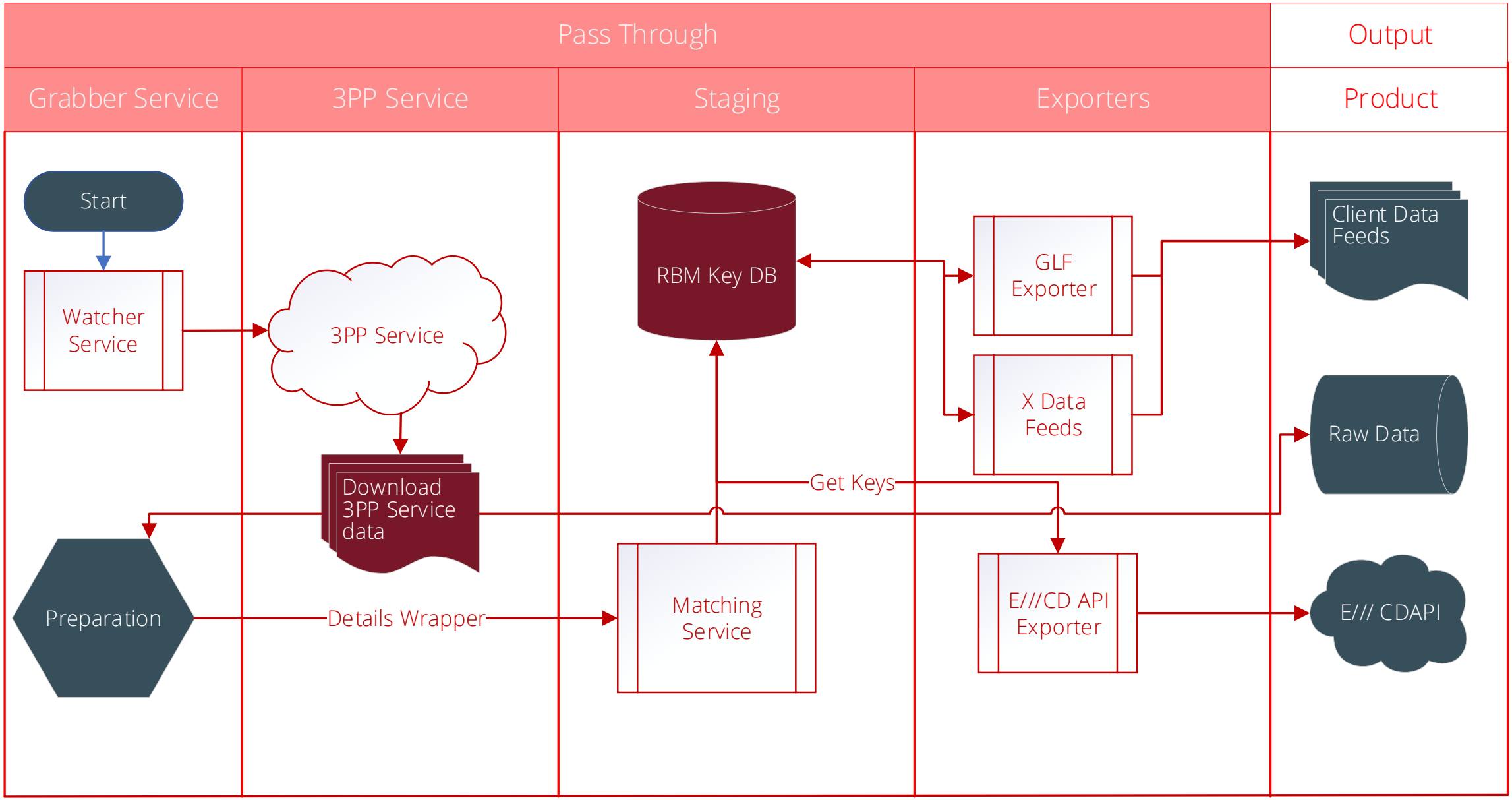
Program Title Matching Service Data Flow



DATA ELEMENTS REQUIRED FOR MATCHING

REQUIREMENT	DATA ELEMENT
Must have	Client Internal ID
Must have	Program Title (Parent Level if series)
Must have	Episode Title (as applicable)
Must have	Program's initial release date or original air date
Must have	Season and episode number
Must have	Cast member(s) (minimum 1)
Nice to have	Synopsis
Nice to have	Program Type (e.g. feature film, TV series, made TV movie)
Nice to have	Run Time
Nice to have	Crew member(s) (e.g. director, writer, producer
Nice to have	Syndication company, distribution company(ies) or production studio(s)
Nice to have	Other external, 3PP ID keys

EXTERNAL DATA INTEGRATION SERVICE



Thank you!

CITWF Project & Global Archive presentation

Richard Kroon – EIDR

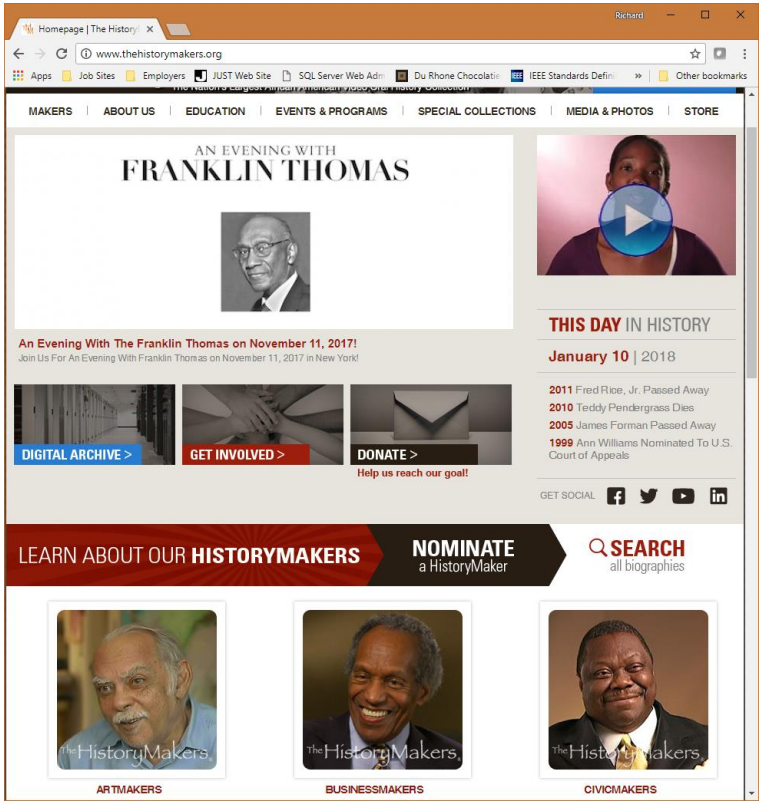
Works of Cultural Significance

Expanding EIDR's Coverage of Non-Commercial Works

The HistoryMakers

First person accounts of the African American experience, from President Barack Obama to the oldest living black cowboy, that help educate and enlighten millions worldwide by providing a more inclusive record of American history.

- **Library of Congress** prepared the records from their catalog data and submitted them in an Excel spreadsheet
- **EIDR Staff** registered the records using the BMR tool (Bulk Match & Register)
- The recordings from the HistoryMakers library were registered as a Season-less Series with 2,699 Episodes
  - 10.5240/4DEA-6B41-DAC7-3019-A761-H



Complete Index to World Film

CITWF provides extensive coverage of early cinema plus European, Asian, and Latin American cinema and OTO TV, all with full data provenance.

- **Guinness World Record:** World's largest published film database.
- **Screen Digest:** Puts any other film reference book or internet database to shame.
- **John Walker, Editor of *Halliwells*:** The most accurate guide to international films, their directors and casts.
- **Martin Glanville, *Viewfinder BUFVC*:** The Complete Index to World Film is a monumental resource.
- **Susan Oka, Academy of Motion Pictures Arts and Sciences Library:** This resource is strong in foreign film and shorts titles, areas in which it is particularly hard to find information.

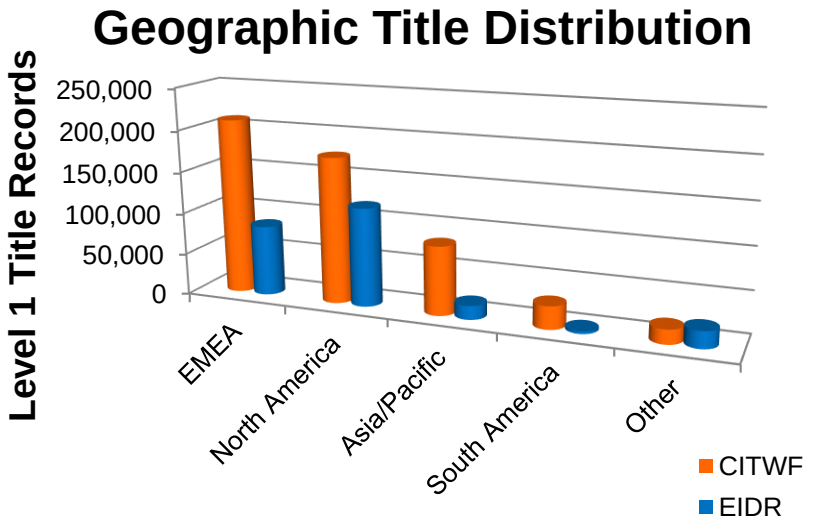
CITWF Project

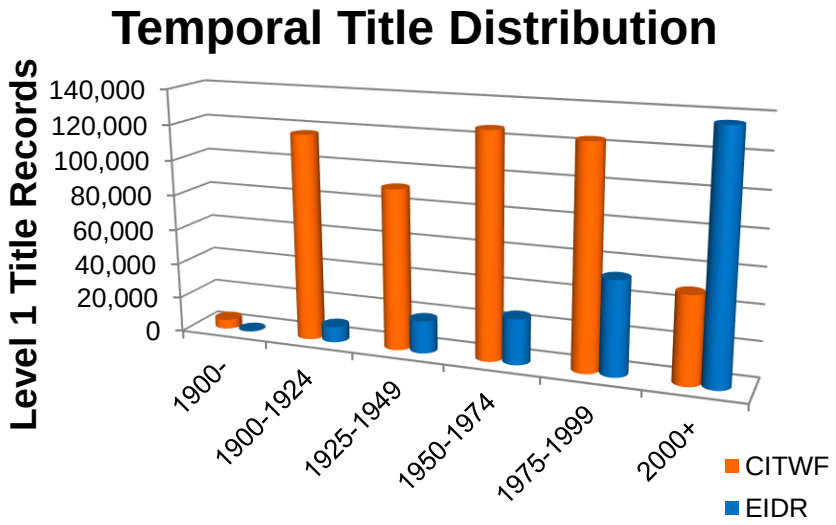
For this initial match and register project:

- **CITWF** provided a SQL Server data dump and data dictionary.
- **The Title Registrar (TTR)**
  - Converted the CITWF data into registerable records
  - Conformed CITWF data to EIDR best practices
  - Matched the CITWF records to IMDb data to fill data gaps
  - Used their own custom sparse data matching service to match against their EIDR mirror
  - Used EIDR's Match API to match against EIDR
  - Combined TTR and EIDR match results to more accurately identify matched and gap records for registration
  - Excluded records requiring manual review or data augmentation.
- **TTR** Registered CITWF gap records using EIDR's Register API
- **EIDR Staff** added CITWF Alt IDs to Matched records in bulk using the Alt ID Tool

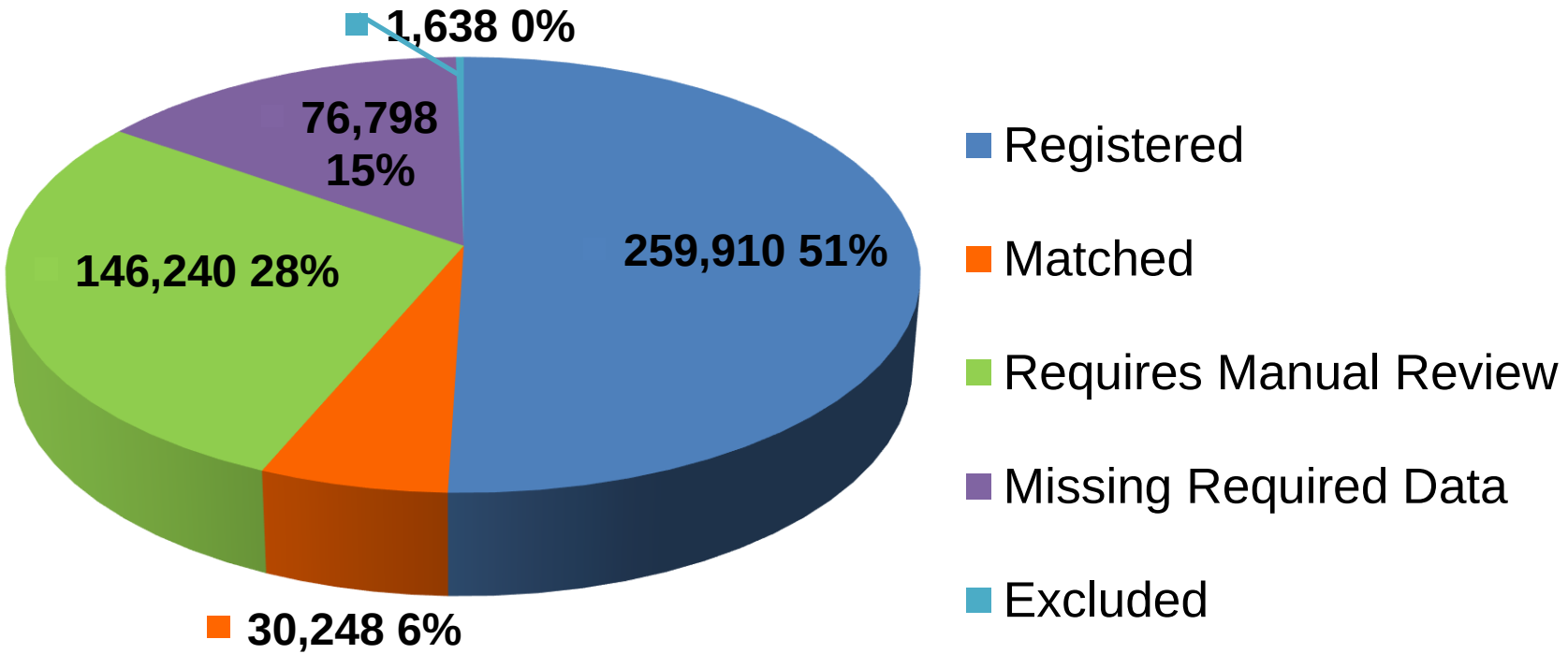
Comparing CITWF to EIDR

- EIDR has more total records, but CITWF has more root title records
  - Mostly movies, but also shorts, supplemental, and stand-alone TV
  - More works from early cinema and the Studio Era than contemporary releases

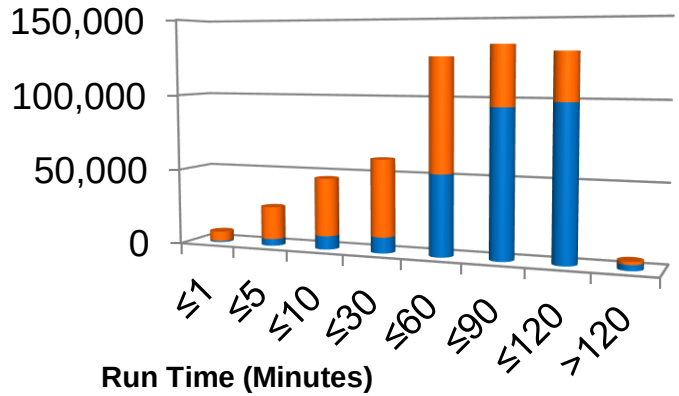


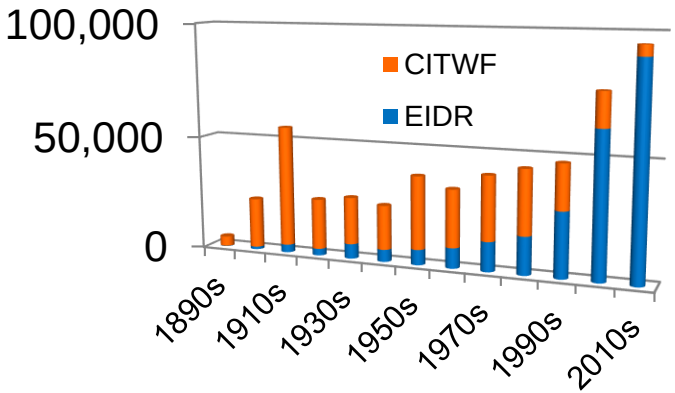


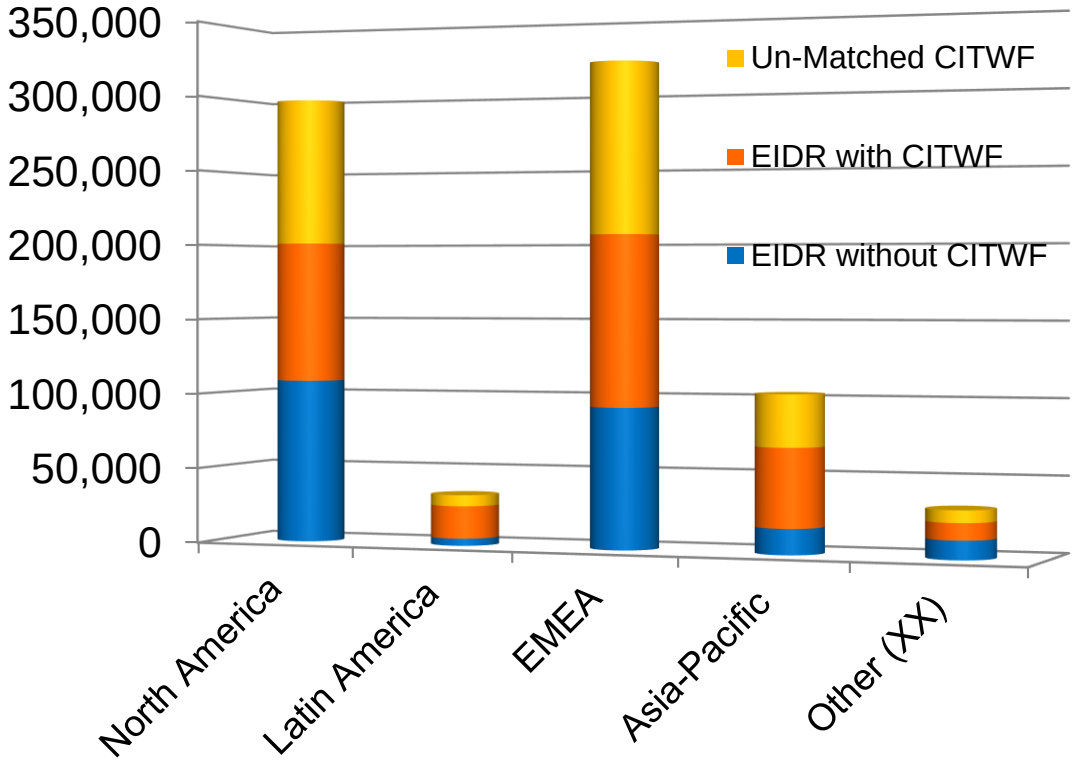
CITWF Coverage, Phase I



EIDR, CITWF, and Phase II





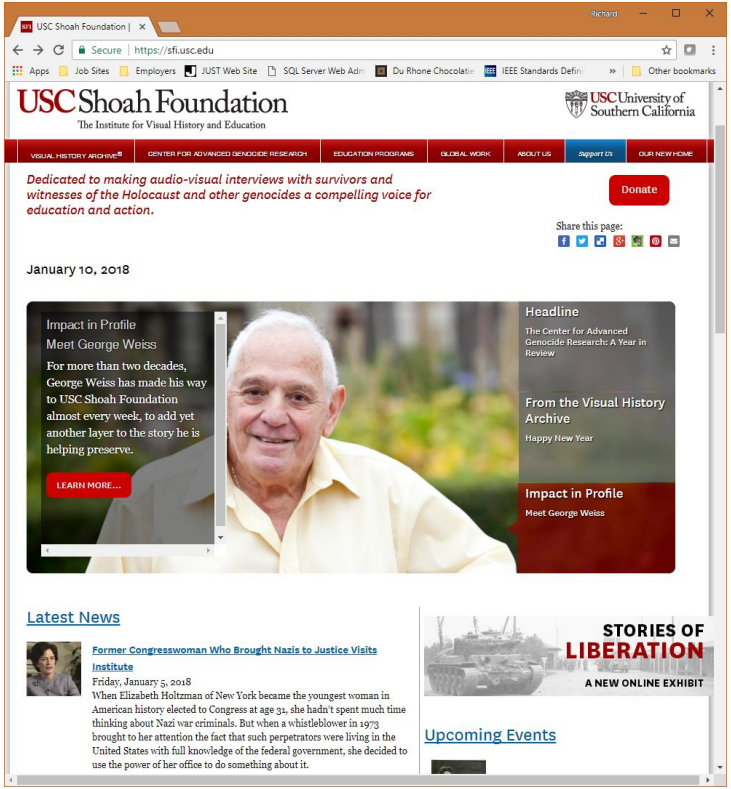


Shoah Foundation

Creates, archives, and catalogs first-person accounts of the Holocaust and other genocides to help overcome prejudice, intolerance, and hatred – and the suffering they cause.

- The Shoah collection contains more than 115,000 hours of first-person testimonies recorded in 62 counties and 41 languages
  - ≈49,000 testimonies from the Holocaust
  - ≈5,000 testimonies from other genocides including the 1994 Rwandan Tutsi Genocide, 1937 Nanjing Massacre, Armenian Genocide during World War I, and Guatemalan Genocide
- The EIDR registration project will begin with Shoah's direct holdings
- Next, Shoah will reach out to other Archives to register their holdings
- Later, Shoah will register works that include clips from their holdings, adding Compilation data to link the records
- Shoah may use EIDR+ to tag related assets

To minimize demands on EIDR staff, TTR will manage the project, providing tools and support for Shoah



EIDR and Archives

Presentations from the Association of Moving Image Archivists

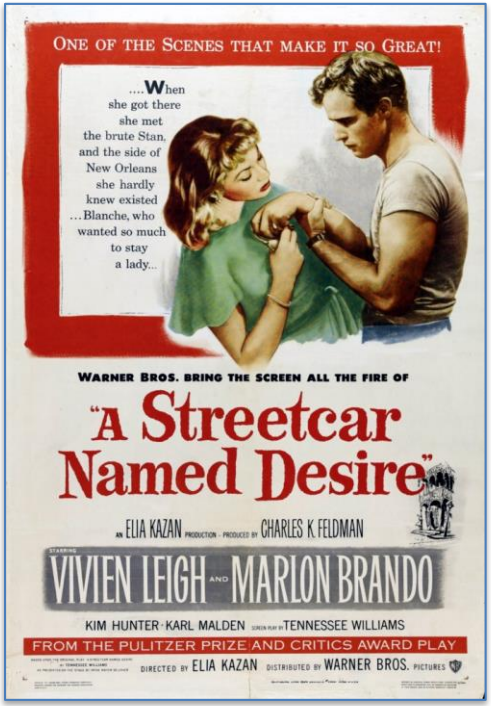
Streamlining Metadata Workflows with Curated Content Identifiers

Excerpts from an AMIA conference presentation by:

Andrea Leigh
Library of Congress

Challenge: reconciling titles

LC control no.:	n 84224024
LCCN Permalink:	https://lccn.loc.gov/n84224024
Descriptive conventions:	rda
Uniform title heading:	Streetcar named Desire (Motion picture)
See also:	Film director: Kazan, Elia
	Film producer: Feldman, Charles K., 1904-1968
	Screenwriter: Williams, Tennessee, 1911-1983
	Screenwriter: Saul, Oscar
	Motion picture adaptation of (work): Williams, Tennessee, 1911-1983. Streetcar named Desire
Other standard no.:	http://www.imdb.com/title/tt0044081 uri
	http://www.allmovie.com/movie/v47311 uri
	http://www.afi.com/members/catalog/DetailView.aspx?s=&Movie=53428 uri
	204095917 viaf
	http://viaf.org/viaf/204095917 uri
	http://catalogue.bnf.fr/ark:/12148/cb14515516r uri
	http://d-nb.info/gnd/4140956-5 uri
	http://www.wikidata.org/entity/Q212129 uri
	https://www.freebase.com/m/097zcz uri



Curated Content Identifier

- Entertainment Identifier Registry (EIDR)
  - Goal: end to end automation
  - Production, ingest, track, report, reconciliation
  - Single ID from start to finish

EIDR is the media dial tone

EIDR & the Library of Congress

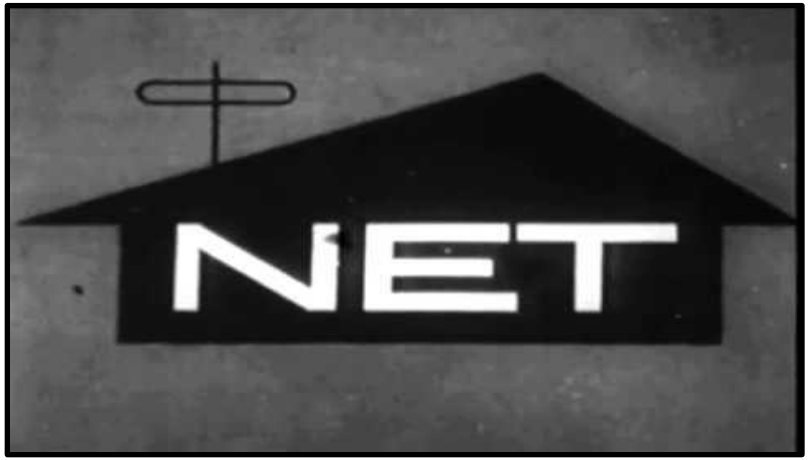
Watergate Hearings

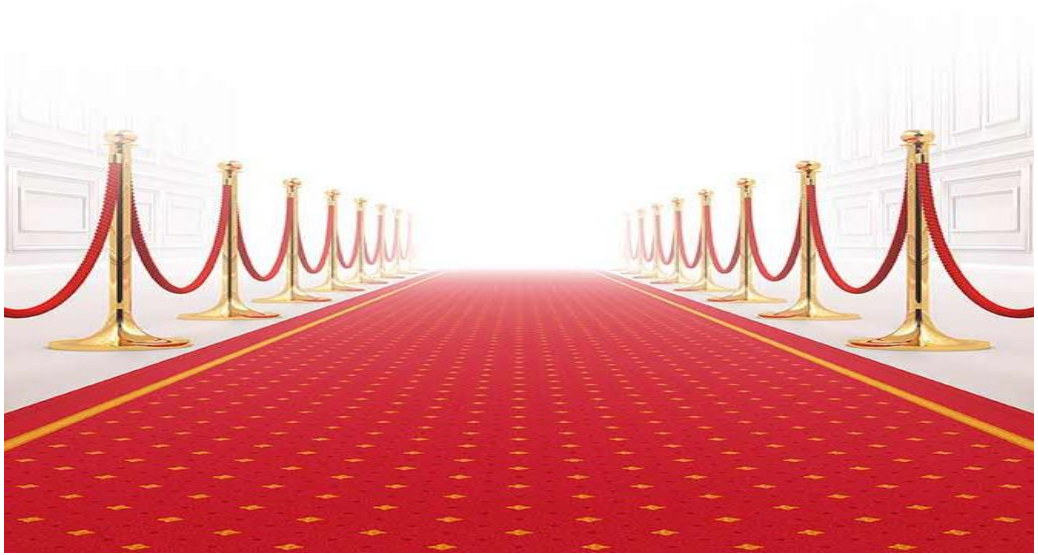
How the public references the event

United States. Congress. Senate. Select Committee on Presidential Campaign Activities.

Gavel-to-Gavel: The Watergate Scandal and Public Television
http://americanarchive.org/exhibits/Watergate/

EIDR & the Library of Congress





EIDR

Is a transition to more efficiently share, track, and reconcile works through various supply chains

Unique Identifiers in the BFI Filmography

Excerpts from an AMIA Conference presentation by:

Stephen McConnachie
@mcnatch

Head of Data
BFI Collections & Information

UK lead body for film:

production
exhibition
education

The collections

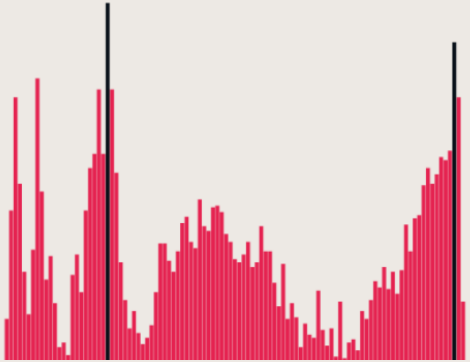
BFI National Archive
+
BFI Reuben Library

- BFI founded in 1933
- BFI National Archive > 1935
- National Film Theatre > 1951
- London Film festival > 1957
- MFB + Sight & Sound > 1934
- Funds British feature films (20%)
- Restores British film + TV works
- Publishes DVD + Blu-ray

- 40,000 fiction films
- 130,000 non-fiction films
- 780,000 television programmes
- 21,000 unpublished scripts
- 28,000 press books
- 19,000 film posters
- 600 special collections
- 1.6 million photographs
- 5,000 designs
- 45,000 library books

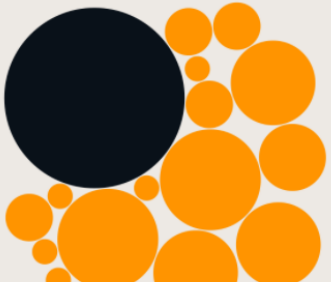
How many credited roles have there been in British feature films, and what is the gender balance?

In which years were most British feature films released?



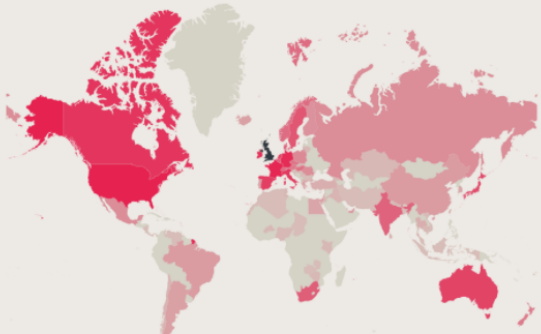
Which subjects feature in the Horror genre?

Who is the most prolific female director?



What are the highest grossing British films of the 21st century?

Which countries have co-produced British feature films?



Persistent unique identifiers…

Why?

1. Deduplication of legacy records
2. Data improvement to a baseline standard
3. Peer review by community of practice
4. Internal data ecosystem + workflows
5. External data exchange + interoperability
6. Linked Open Data entity matching + harvesting

Persistent unique identifiers… EIDR vs ISAN

1. Business model – membership v single record
2. Registration – large batch API v small batch agent
3. Registration mandate – data holder v rights holder
4. Critical mass – digital supply chain v state agency
5. Governance: ‘Hollywood’ v ISO

Benefits of EIDR registration

So far

1. Linked Open Data cloud – IMDb, Wikidata, etc.
2. Data exchange with peers – ITV, BBFC, etc.
3. BFI Filmography uniquely persistently identified

Persistent unique identifiers…

What's next?

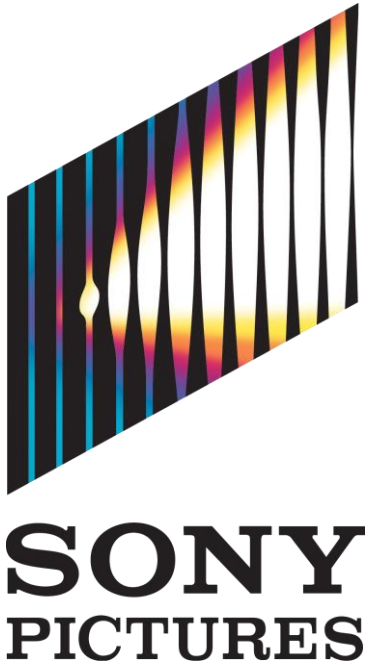
1. Continue Filmography registration, to infinity
2. Persons – ISNI registration, in phases
3. LoD potential – harvesting, forward paths
4. Data exchange – collecting peers + industry
5. Cross reference with other filmographies e.g. - AFI
6. Build EIDRs into BFI data ecosystem + workflows

Archives Are People Too

- EIDR is gaining traction with the Archive and Cultural Preservation communities
  - They face many of the same challenges as commercial interests
  - EIDR offers many of the same benefits and facilitates many of the same solutions
- We can learn from each other
  - Sharing expertise and increased collaboration will help both Cultural and Commercial interests achieve their independent goals
- Curated, persistent, unique identifiers increase the value of individual assets and workflows to which they're attached
  - Reduced Costs
  - Increased Bandwidth and Velocity
  - New Opportunities via the Network Effect and Linked Open Data

IMF Update Presentation

David Deelo – Sony
Lucas Carboni - Fox



EIDR in IMF

David Deelo

Director of Engineering & Technology
Sony Pictures Entertainment, GMS

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Overview

- IMF For Distribution Mastering
- CPL Formatting
- System Layout
- Unique Identifiers

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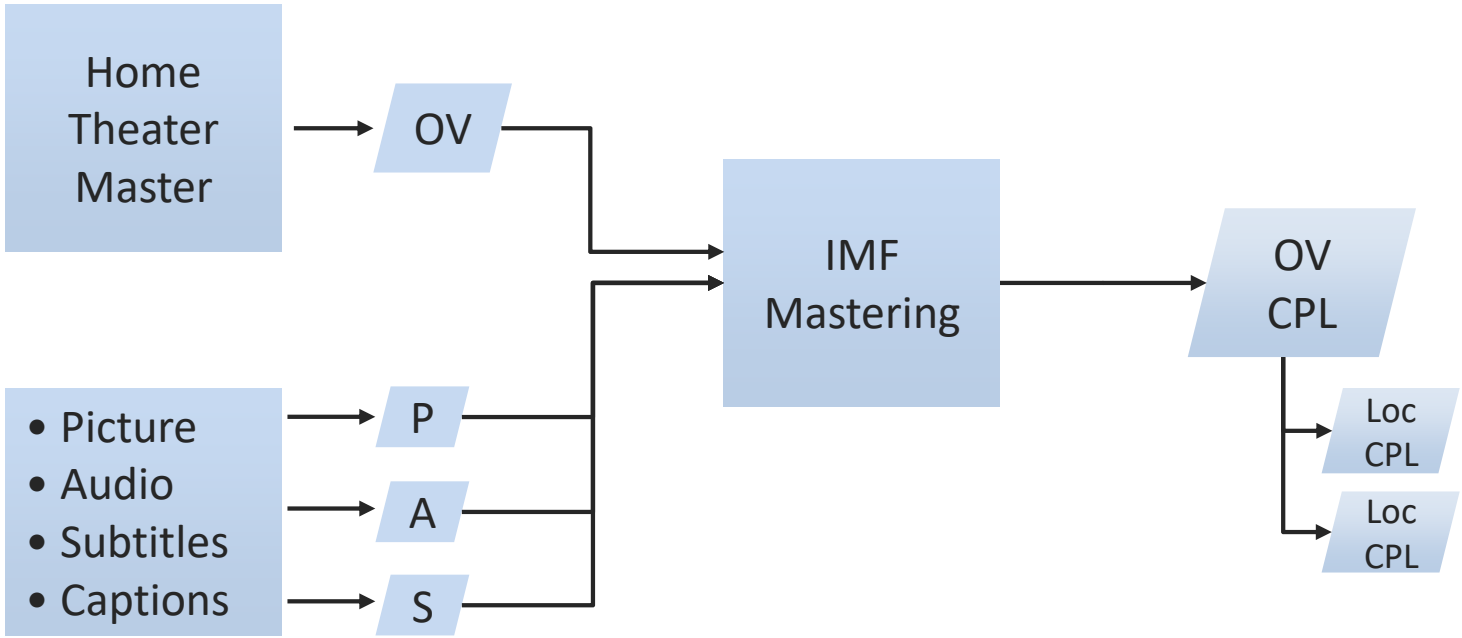
IMF For Distribution Mastering



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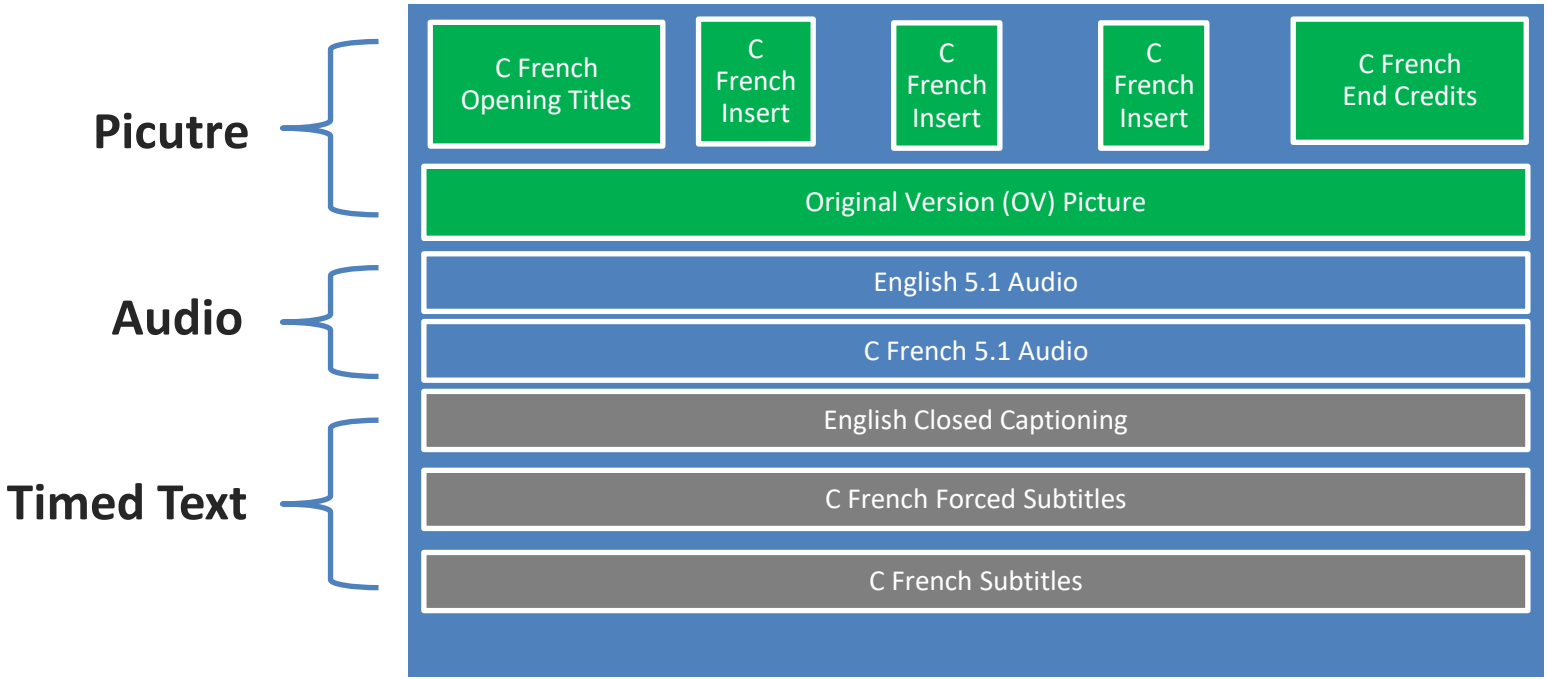
CPL Formatting



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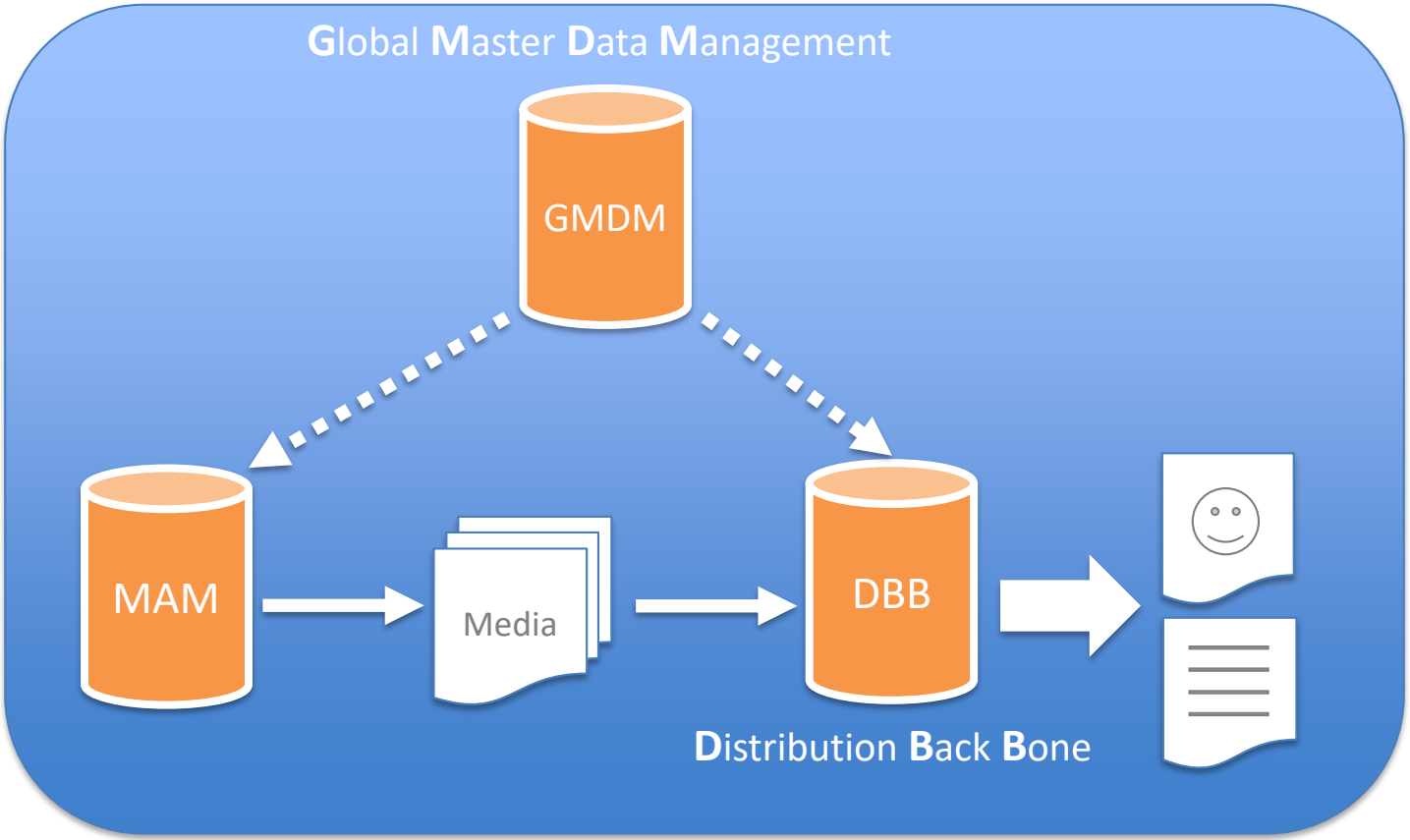
System Layout



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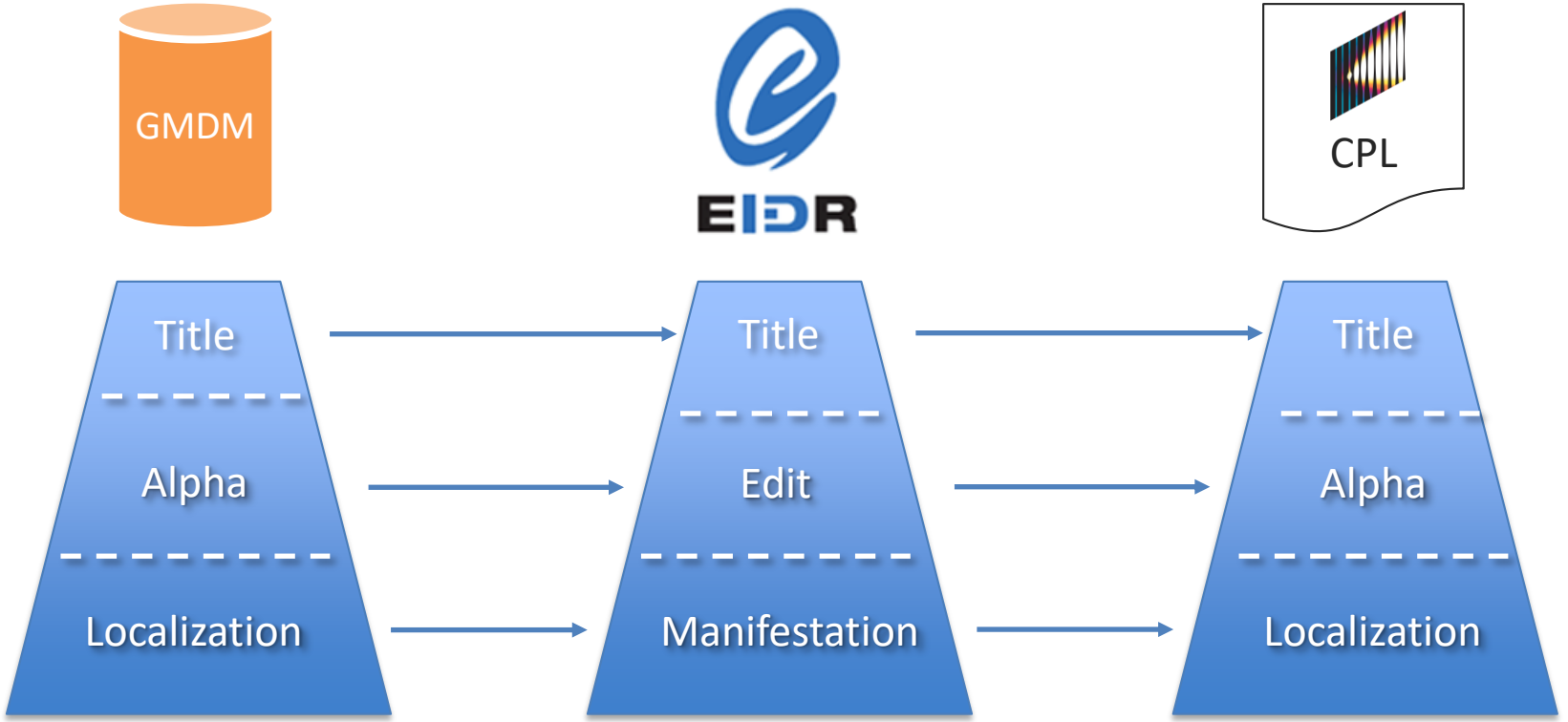
Unique Identifiers



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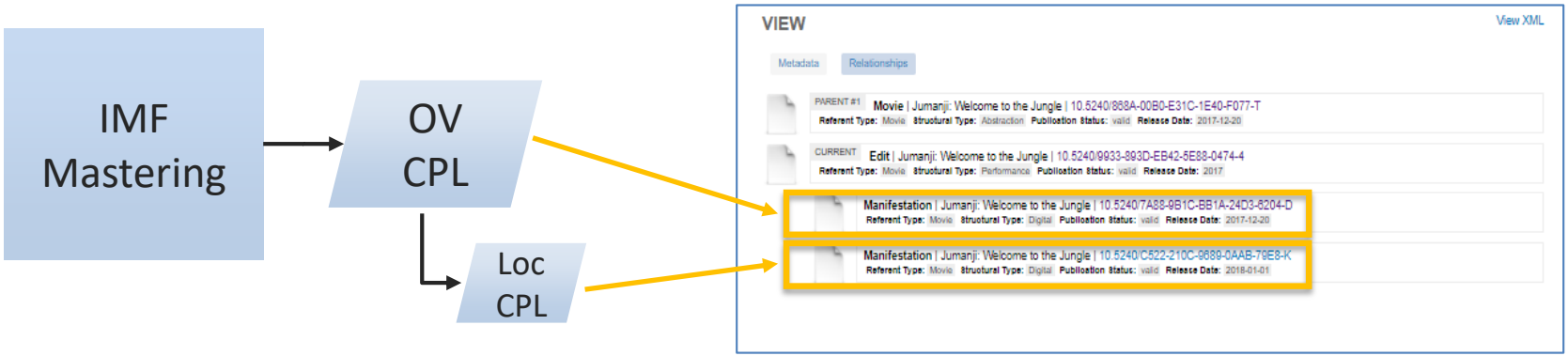
Unique Identifiers



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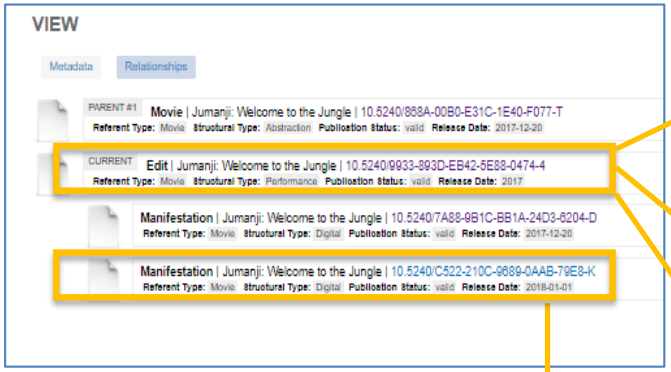
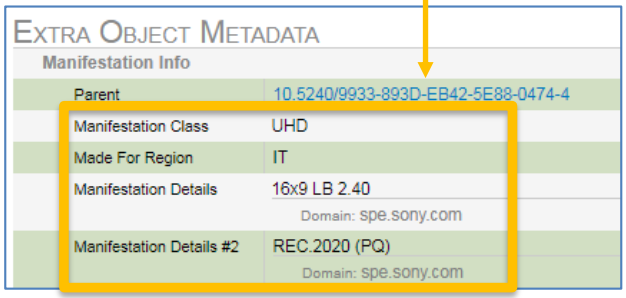
Unique Identifiers





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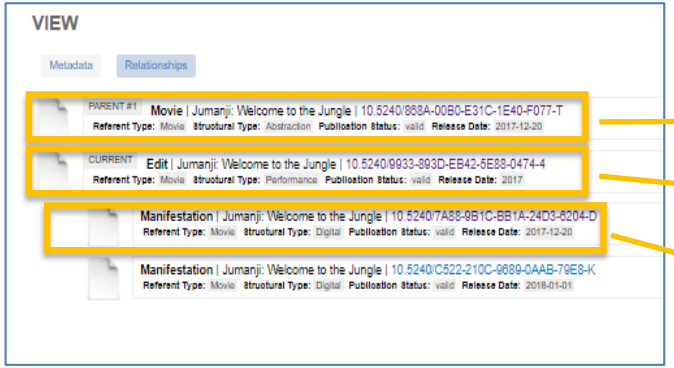
Unique Identifiers

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Questions

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Networking Lunch

- Lunch (1hr.)

2017 Breakout Sessions Review

2017 Use Case Progress Report
(Google “Round Trip” data effort)
Jason Pena – Google
2018 Breakout Session Introductions

2018 Breakout Sessions -

(assisted by Cameron Crosby & Wave Seven)

Digital Supply Chain/Workflow Optimization

(led by Jason Pena - Google)

Audience Measurement Optimization

(led by Paul Mears – Copperline Media)

Guided Breakout Sessions

Takeaways, Next Steps, & Closing

2018 Breakout Sessions Read-out with all Members

Closing Remarks
Will Kreth, Executive Director, EIDR

Reception – On Site