

Records Alchemy

Transforming Records to Meet Impossible Expectations

Expectations Change

Archives Nationales
.....
The People's Records



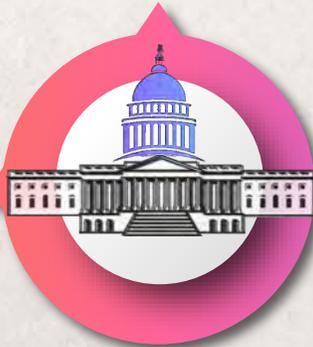
1794

1934



.....
NARA
.....
The People's Documents

FOIA
.....
Access & Privacy



1966

1997



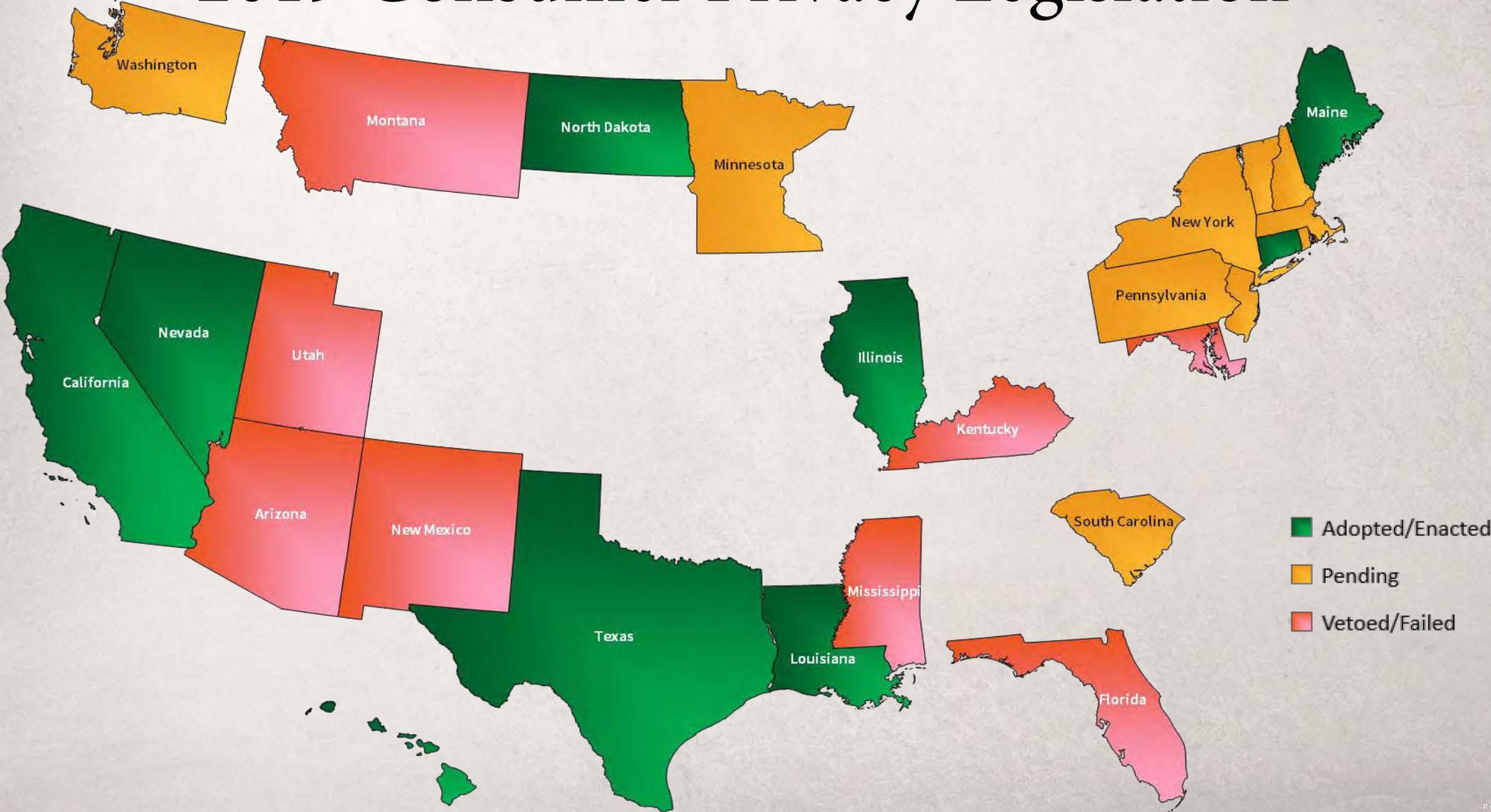
.....
ERM
.....
Data-Driven Records

Right to Privacy
.....
Data-Driven Retention

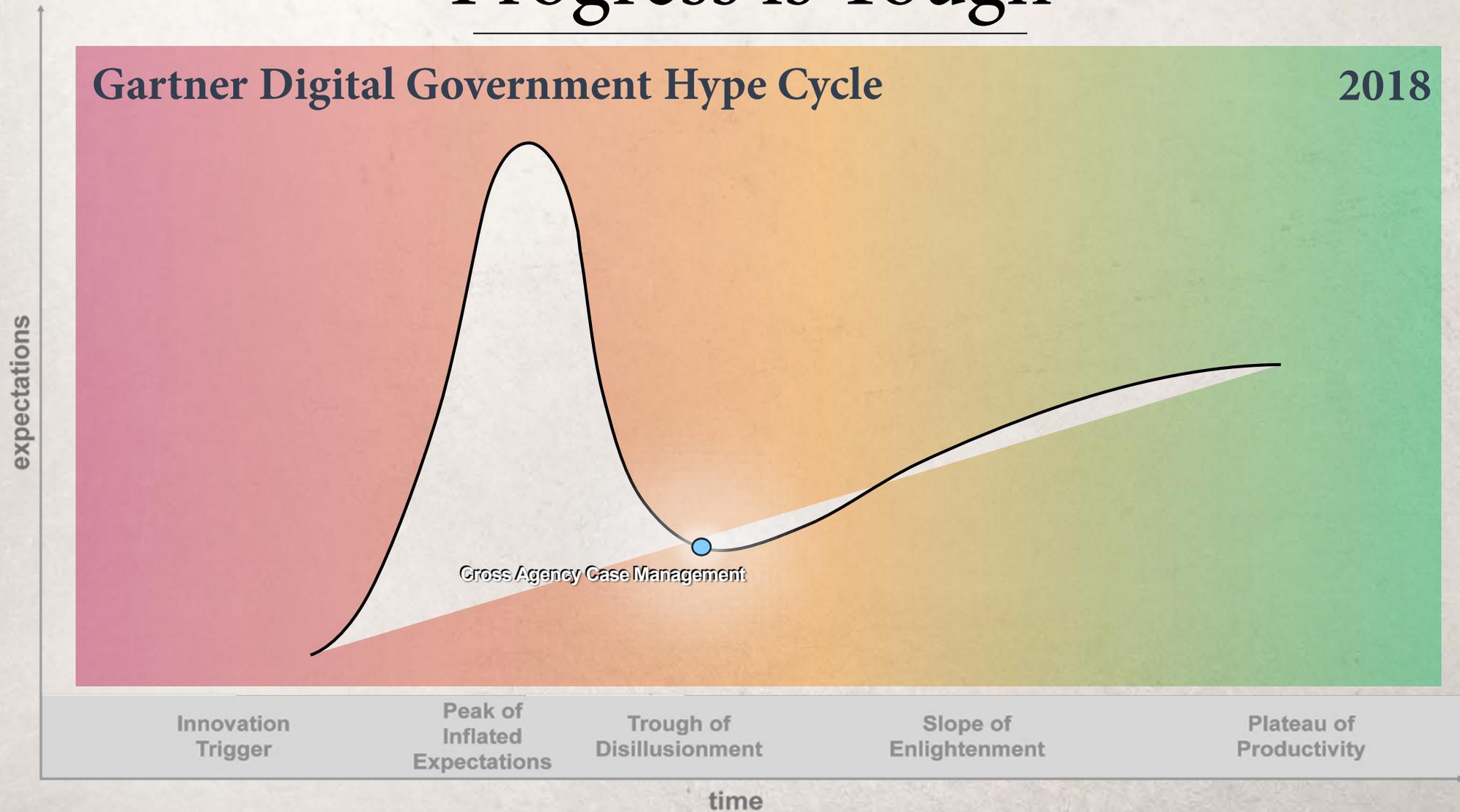


2018

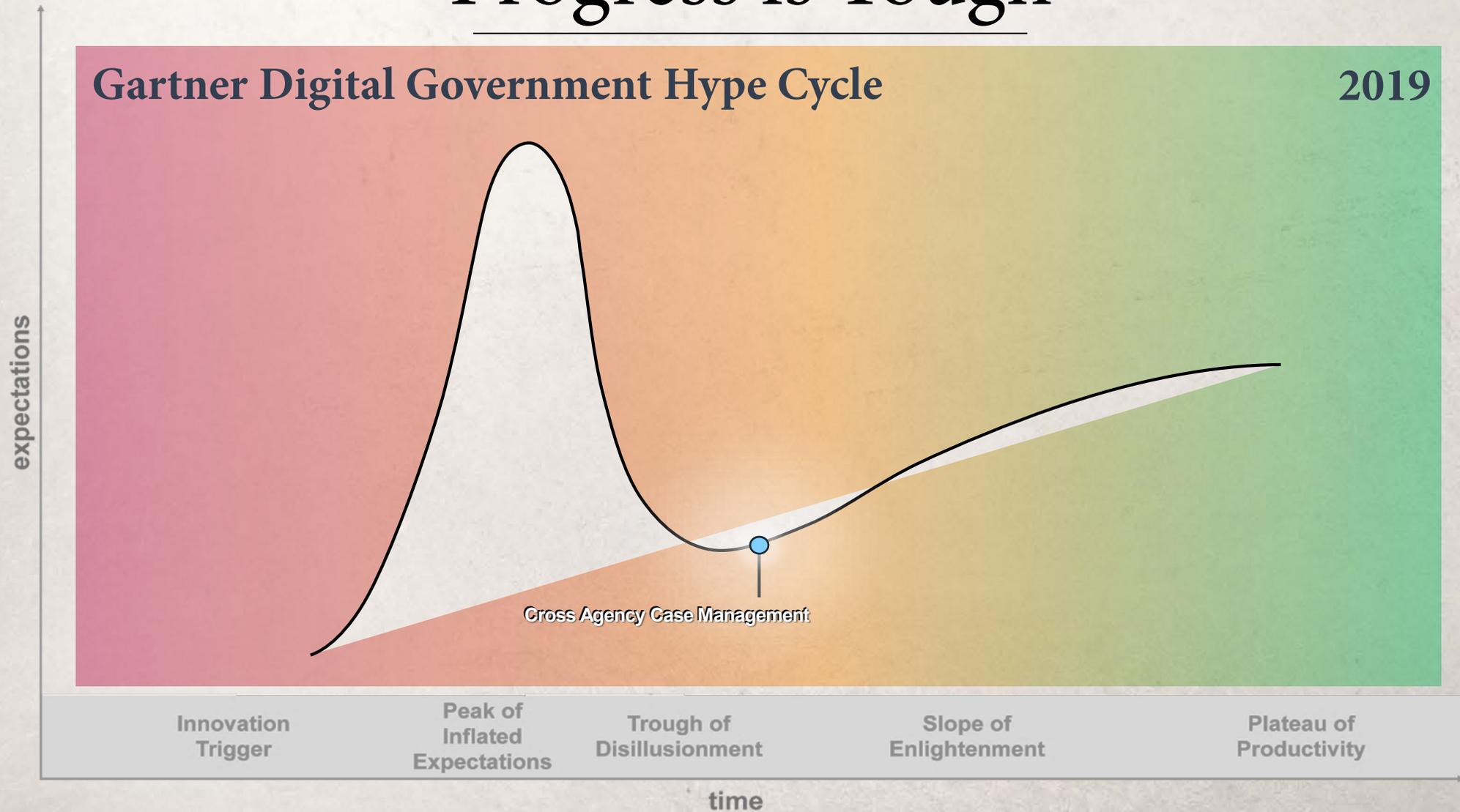
2019 Consumer Privacy Legislation



Progress is Tough



Progress is Tough



~~Where will we put it?~~

How will we find it?

Expectations Now

All **ConocoPhillips Applications** for **Air Quality Division Permits** for a *Jack-Up Drill Rig Operating Facility*

Any and all **agency** documents and audio recordings from **investigations** involving **Michael Hubbard**

George Washington Bridge Operation logs from January & February 2008

Invoices and **reports** related to **Contract EPC08007** between **Neptune and Company** and the **JEA Office**



George Washington
Bridge

ConocoPhillips
Jack-Up Drill Rig Operating Facility

Michael Hubbard
Neptune and Company

Permits

investigations

Contract

Operation

reports

Invoices

Applications

logs

audio recordings

documents

agency

Air Quality Division

JEA Office

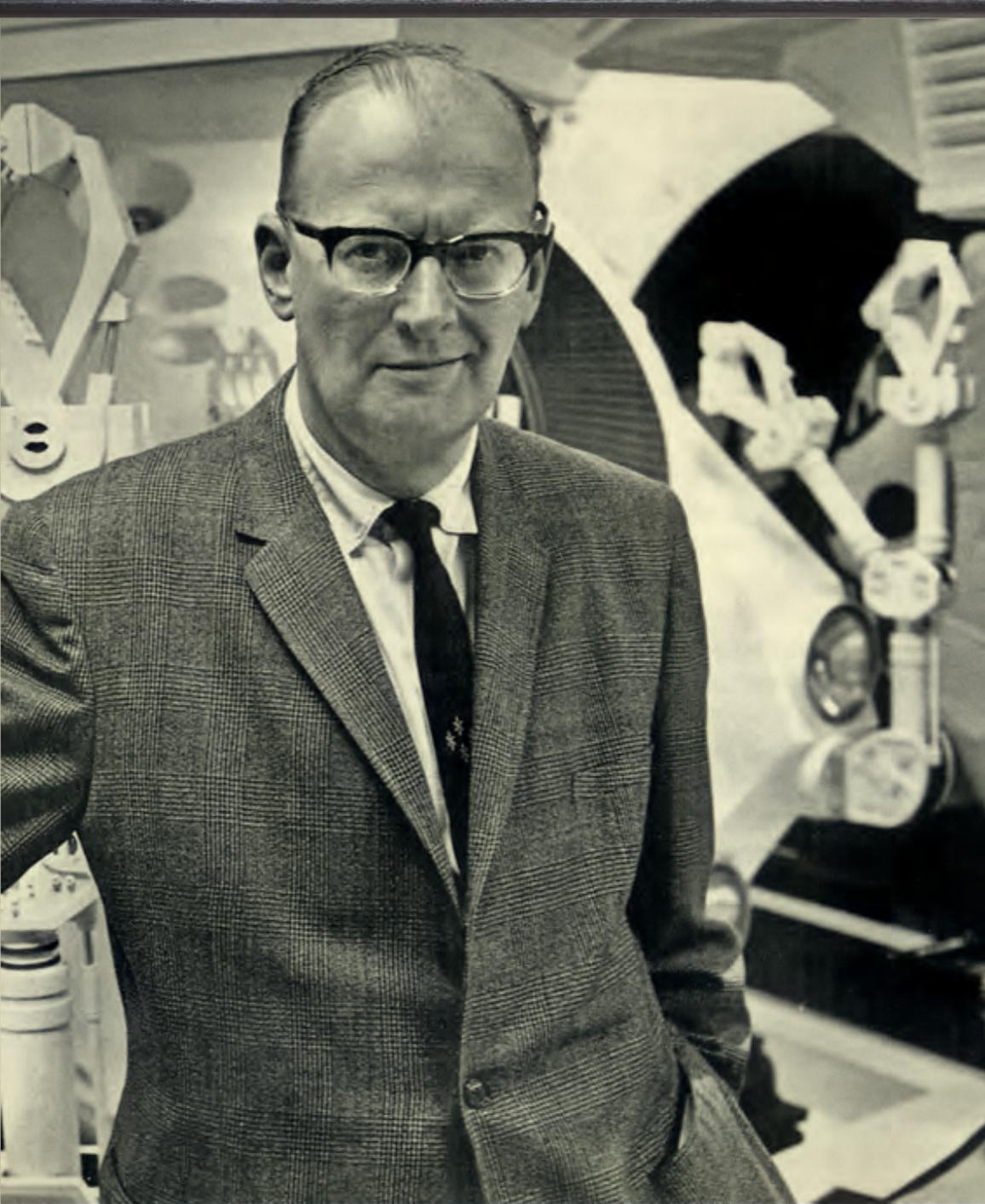
January & February 2008



alchemy **noun**

al·che·my | \ 'al-kə-mē  \

: a power or process that changes or transforms something in a mysterious or impressive way



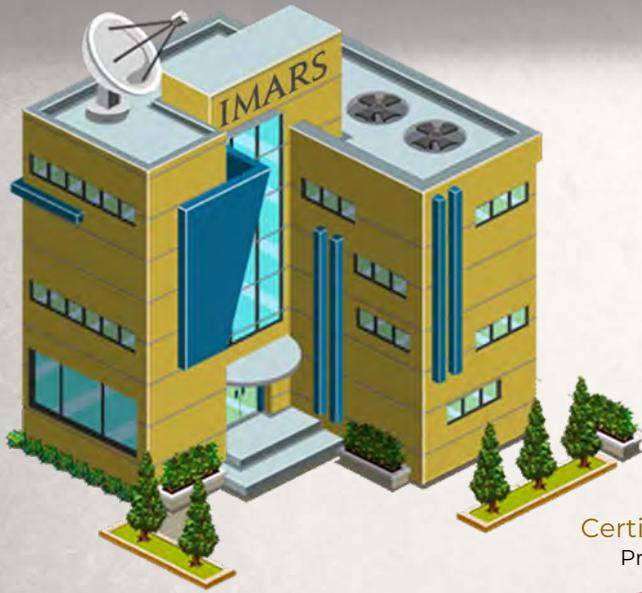
Any sufficiently
advanced technology is
indistinguishable from magic.

Arthur C. Clarke

IMARS

Interplanetary Movements and Relocation Service

The story, all names, characters and incidents portrayed in this production are fictitious. No identification with actual persons, places, buildings and products is intended or should be inferred.



Occupational Licensee
Customer, Vendor



Crew Candidate
Customer



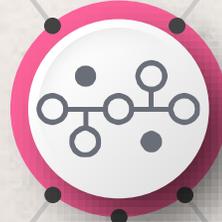
Dependent
Customer



Certification
Process



Research
Project



Development
Process



Grant Funding Request



Research Report



Reimbursement



Medical Evaluation



Member Contract



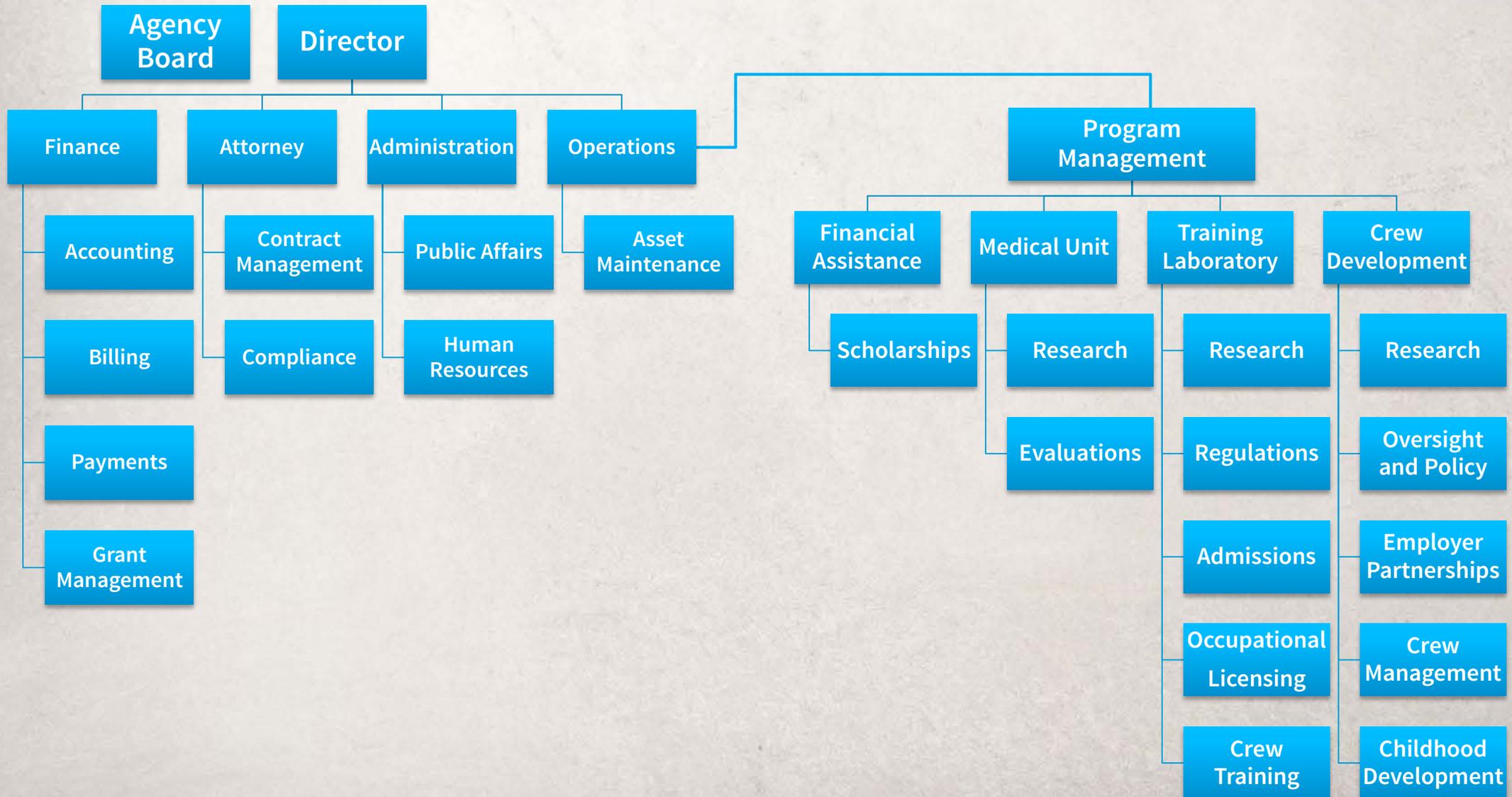


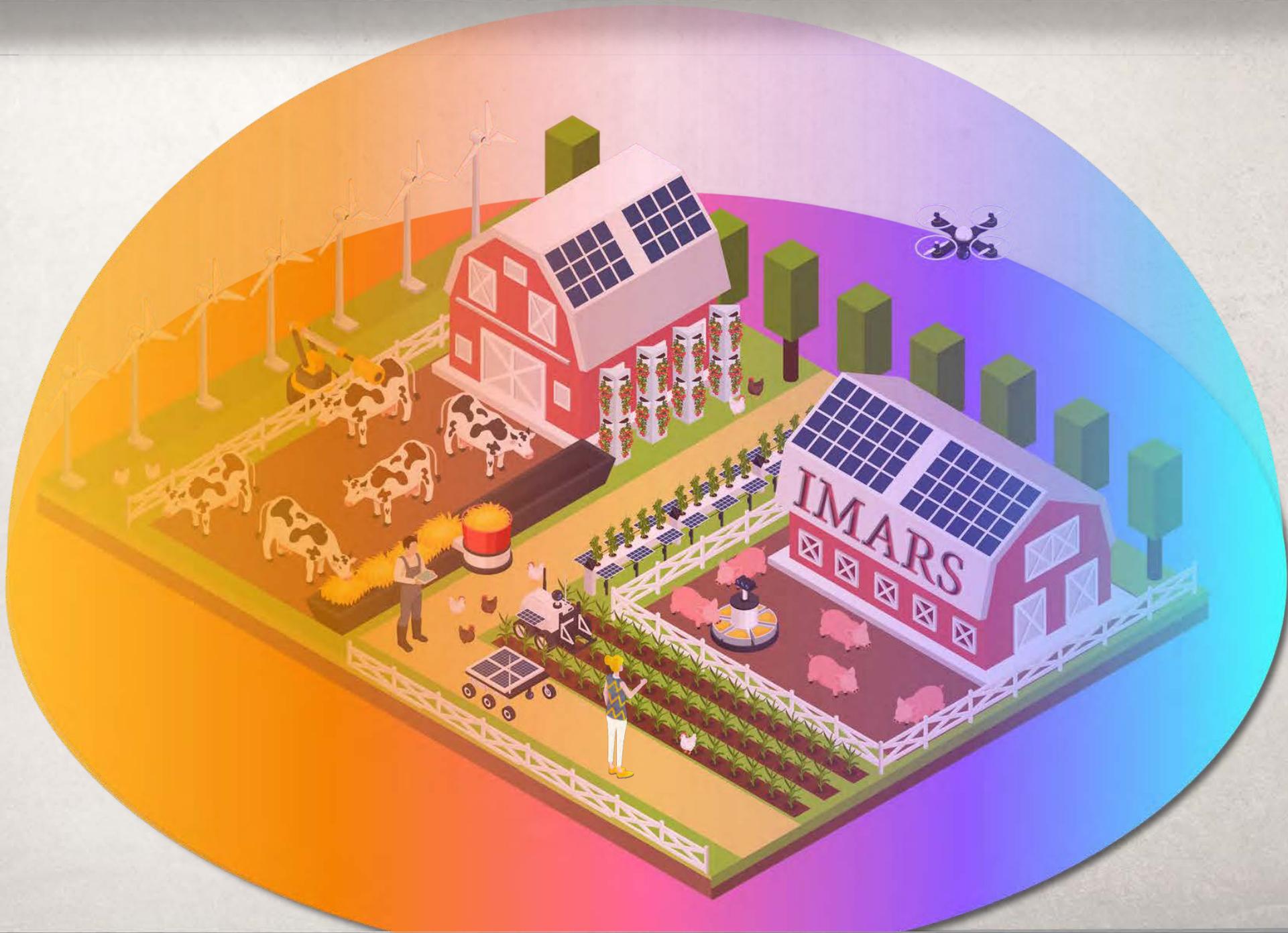
Account ID	Account-Party ID	Customers.Full Name	Customers.	Crew Development	Legal	Financial	Financial Assistance	Medical Unit	Legal	Training Laboratory	Financial	Agency Board	Legal	Administration
22002	22002-1-234301	Albert X Aye	Candidate	3		2	4		2	10		1	5	
	22002-2-234115	Antoinette A Aye	Spouse	5	2			6		7	2			
	22002-3-100395	Aaron A Aye	Child	3										
	22002-3-100433	Addison A Aye	Child	3										





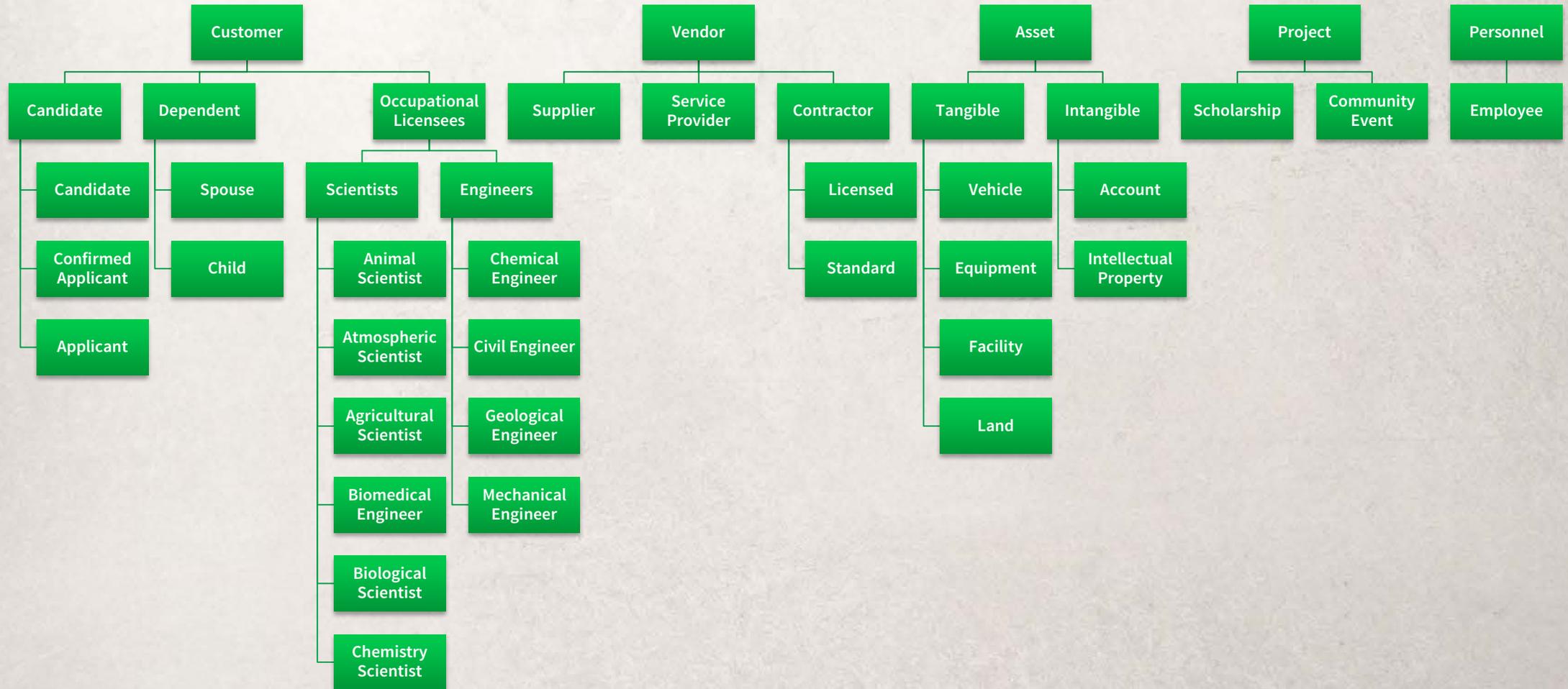
Organization





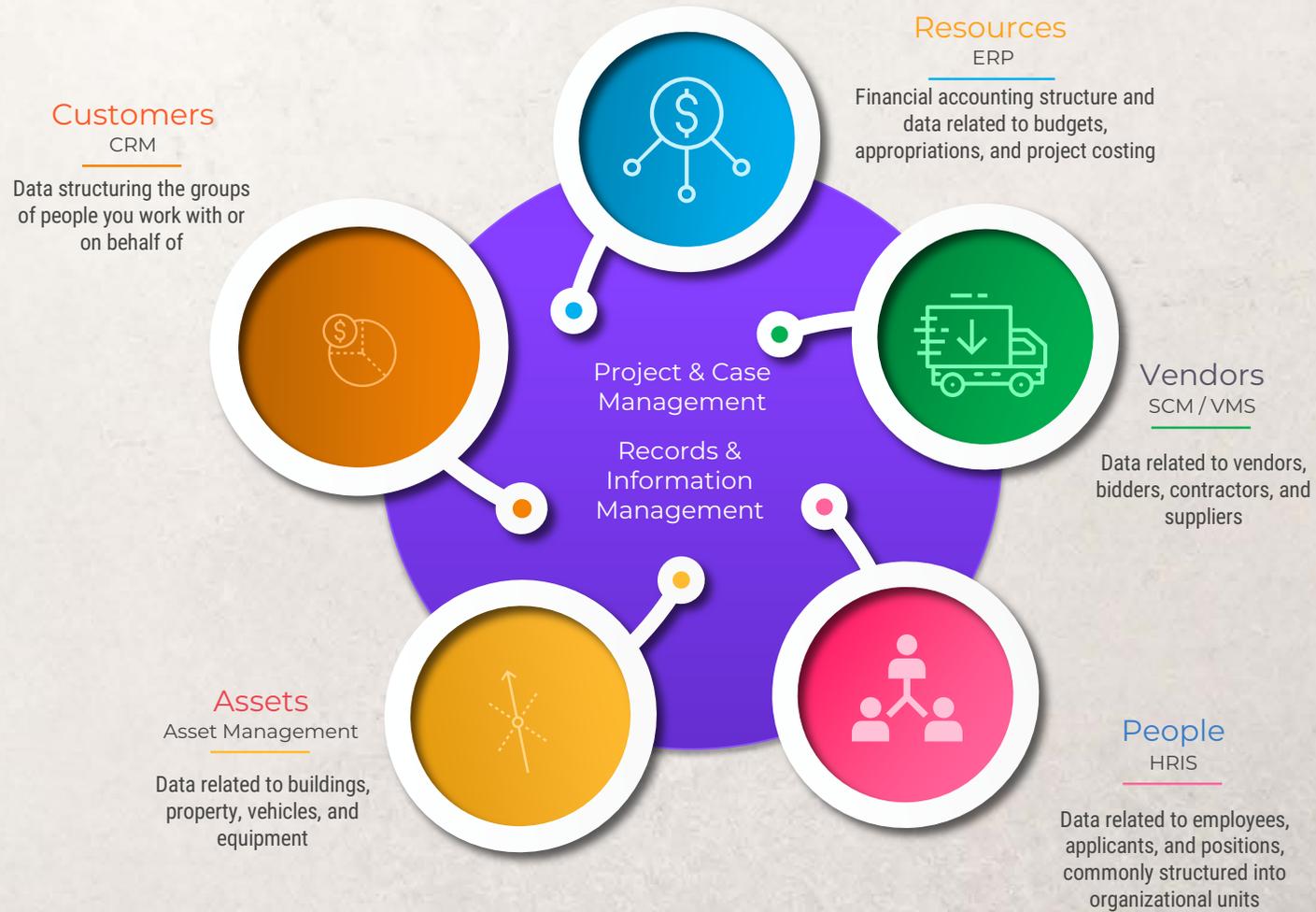
Case Type	Department	Subject	Process Name	Process Description
Qualification	Training Laboratory	Licensed Contractor	Contract Approval	Contract approved to do research project
	Financial Assistance	Licensed Contractor	Determination	Grant Funding awarded for project to begin
	Medical Unit	Licensed Contractor, Candidates	Clearance	Clearance from medical unit for participants
	Training Laboratory	Licensed Contractor, Candidates	Evaluation	Reports on research progress
	Training Laboratory	Licensed Contractor, Candidates	Disbursement	Invoices disbursements to pay for the research activities

Record Subjects



Case Type	Department	Subject	Process Name	Process Description
Research Project	Training Laboratory	Licensed Contractor	Contract Approval	Contract approved to do research project
	Financial Assistance	Licensed Contractor	Determination	Grant Funding awarded for project to begin
	Medical Unit	Licensed Contractor, Candidates	Clearance	Clearance from medical unit for participants
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Enterprise Management Systems





Program
Manager

Licensee ID 22999-0-234030
Grant ID # FY-28-005AN-S
Public notice regarding
a grant award for Bovine
Hydration to Zelma Zee



Finance

Grant ID # FY-28-005AN-S
PO # 2308
- Public notice regarding
a grant award for Bovine
Hydration to Zelma Zee



Public
Affairs

Public Notices from last 30
days
- Grant ID # FY-28-005AN-S
Public notice regarding
a grant award for Bovine
Hydration to Zelma Zee



Legal

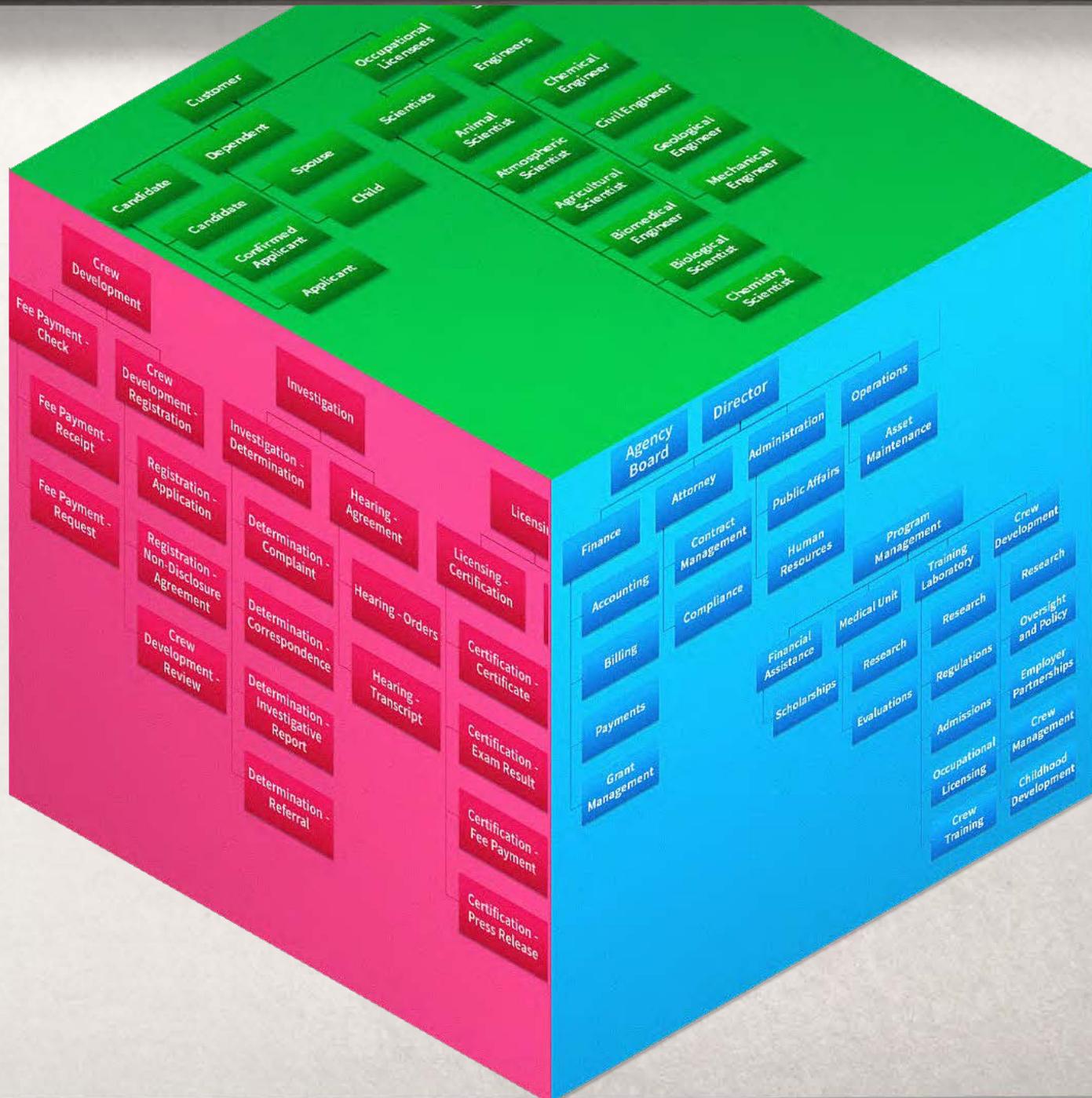
Grant ID # AS-FY29-084
Contract ID 028.2B.432
- Public notice regarding
a grant award for Bovine
Hydration to Zelma Zee

**Case Type /
Major
Process**

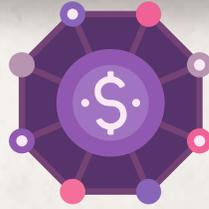
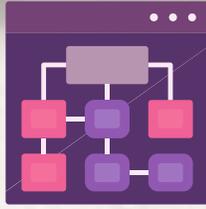
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Activities







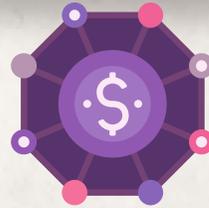
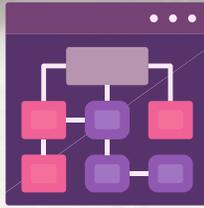


License #22999-0-234004
Licensed Contractor Zelma Zee
License Date: 8/15/2025
License End Date:





FY-28-005AN-S
Bovine Hydration
Contract Date: 2/15/2028
Project Start Date: 2/23/2028
End Date



FY-28-005AN-S

Bovine Hydration

Contract Date: 2/15/2028

Project Start Date: 2/23/2028

End Date

*Training Lab
Research*

License #22999-0-234004

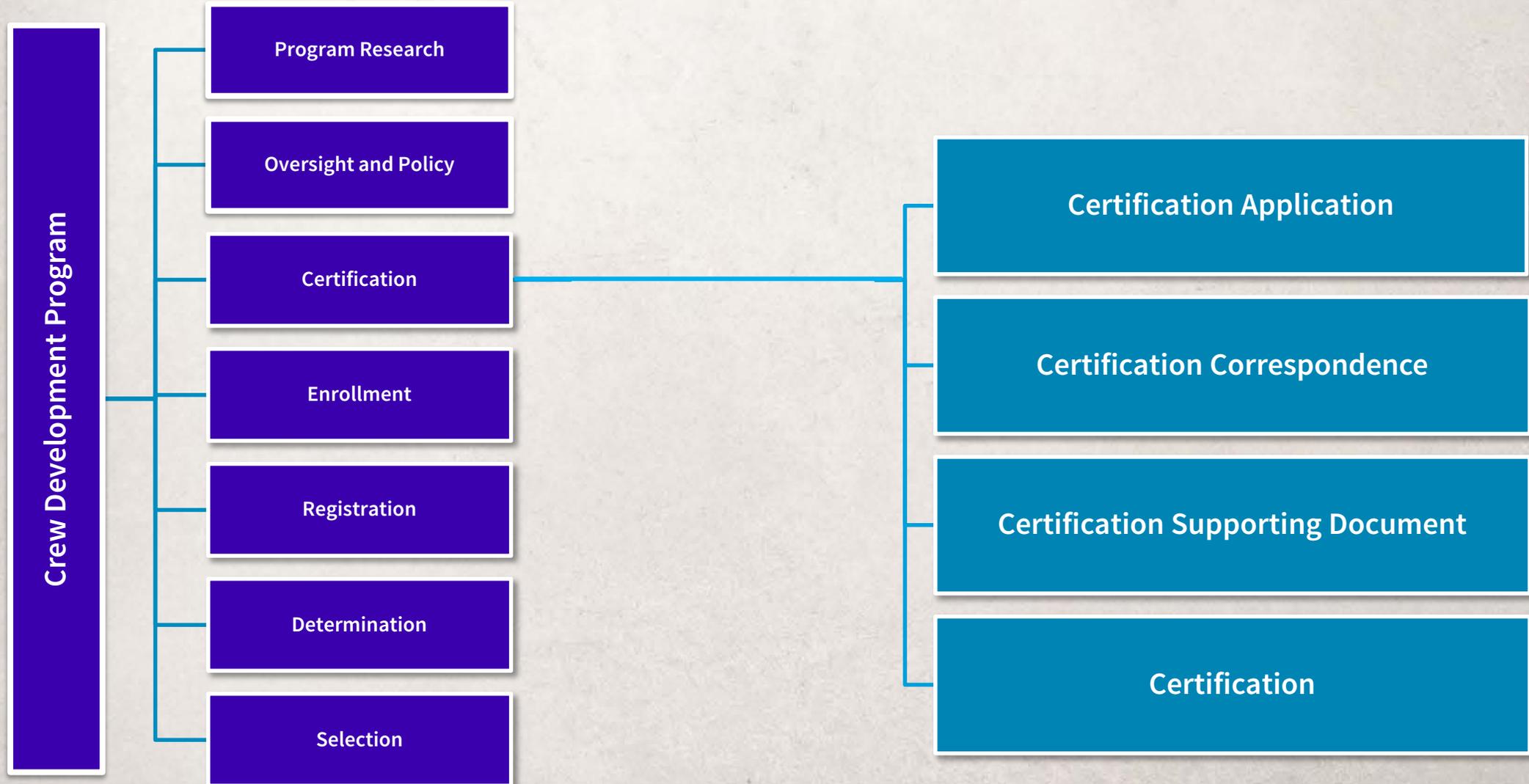
Licensed Contractor Zelma Zee

License Date: 8/15/2025

License End Date:

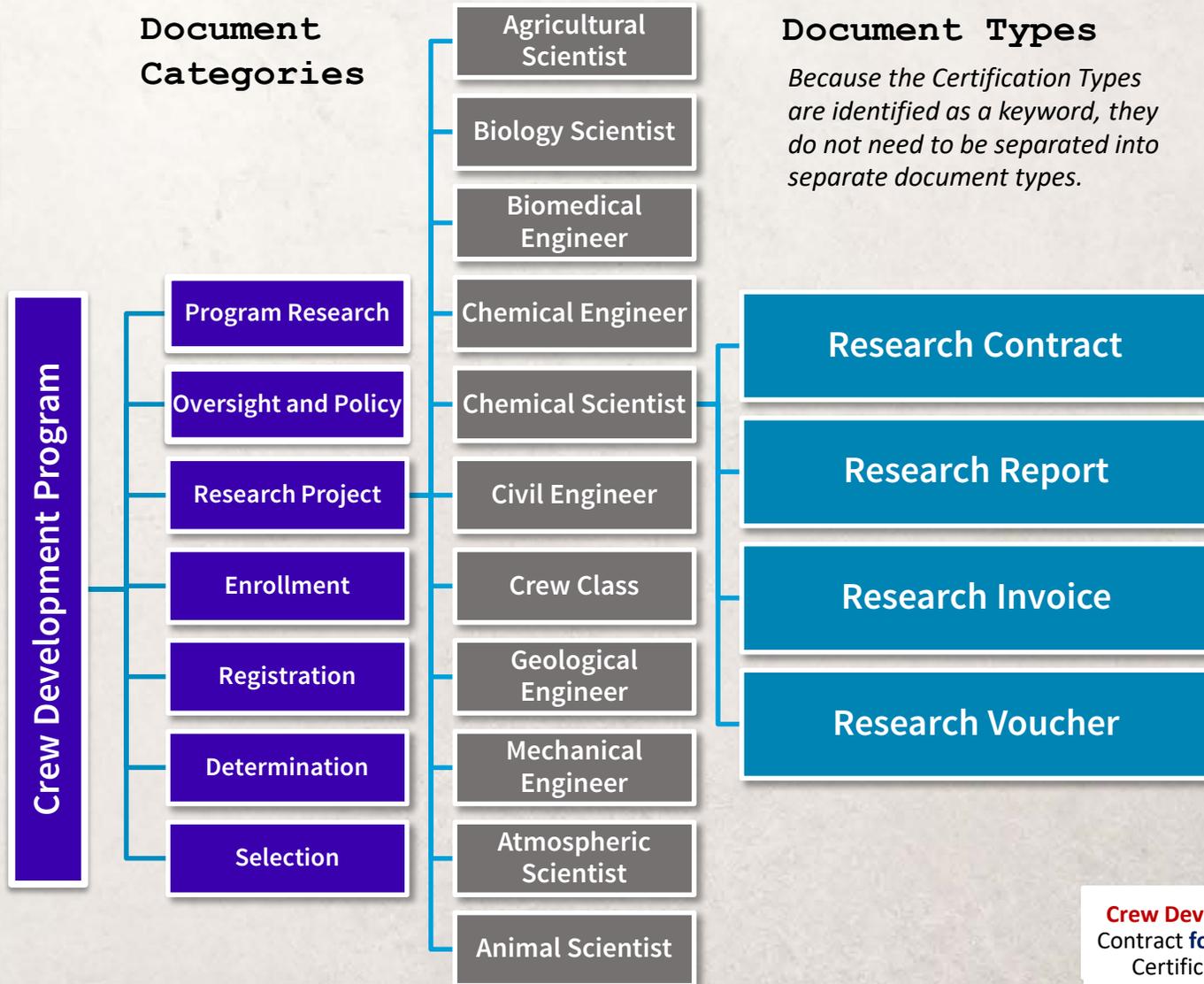


IMARS Crew Development Program Content Structure



IMARS Crew Development Program Content Structure

Functional
Datasets



Document Types

Because the Certification Types are identified as a keyword, they do not need to be separated into separate document types.

Document "Names"

Document "Names" become thought of as combinations of indexing values. This is handled different ways in different systems.

Crew Development – Animal Scientist Research Project
Contract for **Zelda Zinker** – Application Date 08/02/2019 –
Certification #55555 – Active – Expires 08/02/2025

Agency Board

Board Meeting

CD-2 - Board Meeting Record

- Agency Board Employer Affidavit
- Agency Board Employer Exhibits
- Agency Board Employer Minutes
- Agency Board Employer Public Comments
- Agency Board Employer Public Notice
- Agency Board Employer Request

Hearing

NC-2 - Hearing Record

- Agency Board Candidate Agreement
- Agency Board Candidate Orders

Crew Development

Admittance

CD-19 - Admittance Record

- Crew Development Candidate Letter
- Crew Development Candidate Orders
- Crew Development Spouse Letter
- Crew Development Spouse Orders

Application

CD-3 - Application Record

- Crew Development Candidate Application
- Crew Development Candidate Character Statement
- Crew Development Candidate Non-Disclosure Agreement

Determination

CD-1 - Determination Record

- Crew Development Employer Application
- Crew Development Employer Contract
- Crew Development Employer Non-Disclosure Agreement
- Crew Development Employer Supporting Documents
- Crew Development Employer Waiver

NC-1 - Determination Record

- Crew Development Candidate Complaint
- Crew Development Candidate Correspondence
- Crew Development Candidate Investigative Report
- Crew Development Candidate Referral
- Crew Development Candidate Supporting Documents

Disbursement

CD-14 - Disbursement Record

- Crew Development Candidate Approval
- Crew Development Candidate Correspondence
- Crew Development Candidate Voucher

Fee Payment

CD-5 - Fee Payment Record

- Crew Development Candidate Check
- Crew Development Candidate Receipt

CD-9 - Fee Payment Record

- Crew Development Candidate Check
- Crew Development Candidate Correspondence
- Crew Development Candidate Receipt
- Crew Development Candidate Request

Contract

CD-6 - Contract Record

- Crew Development Candidate Addendum
- Crew Development Candidate Contract
- Crew Development Candidate Signature Page
- Crew Development Spouse Addendum
- Crew Development Spouse Contract
- Crew Development Spouse Signature Page

But what about the
technology?

Template Based

??

_____ ("Effective Date"), by and between _____ ("Landscaper") and _____ ("Customer"), collectively the "Parties."

1. Landscaping Services. Customer wishes to obtain the Landscaper's services to perform the following work.

("Services").

The Services are to be performed at the following address:

("Property").

Landscaper agrees to furnish the labor, materials, and supplies necessary to perform the Services in accordance with the terms and conditions contained in this Contract. Upon completion of the Services, Landscaper will remove all materials, supplies, and other debris.

2. Changes in the Services. Customer may request reasonable changes to the Services described in Section 1. Any changes to the Services must be in writing and signed by both Landscaper and Customer. Customer agrees

??

MENT

_____ day of _____

BETWEEN: _____ (the "Independent Contractor"), a company organized and existing under the laws of the State of _____, with its head office located at:

AND: iatuolead.com (the "Company"), a company organized and existing under the laws of the State of Tennessee.

RECITALS

Independent Contractor is engaged in providing Internet Marketing services, its Employer Tax I.D. Number or Social Security Number is _____, and its Business License Number is _____ (if applicable). Independent Contractor has complied with all Federal, State, and local laws regarding business permits, sales permits, licenses, reporting requirements, tax withholding requirements, and other legal requirements of any kind that may be required to carry out said business and the Scope of Work which is to be performed as an Independent Contractor pursuant to this Agreement. Independent Contractor is or remains open to conducting similar tasks or activities for clients other than the Company and holds themselves out to the public to be a separate business entity.

Company desires to engage and contract for the services of the Independent Contractor to perform certain tasks as set forth below. Independent Contractor desires to enter into this Agreement and perform as an independent contractor for the company and is willing to do so on the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the above recitals and the mutual promises and conditions contained in this Agreement, the Parties agree as follows:

1. TERMS

This Agreement shall be effective commencing this _____ Day of _____, 20____ and shall continue until terminated at the completion of the Scope of Work or by either party as otherwise provided herein.

2. STATUS OF INDEPENDENT CONTRACTOR

This Agreement does not constitute a hiring by either party. It is the parties intentions that Independent Contractor shall have an independent contractor status and not be an employee for any purposes.

??

Sample Team-DP-COM-0035-5

OWNER AND CONTRACTOR

_____ (the "Owner") and _____ (the "Contractor"),

with the General Conditions of the Contract

Wednesday, 13 February 2019, 12:00:00 am

BY AND BETWEEN

California Highway Infrastructure Projects

hereinafter called the "Owner"

AND

Sitemate Construction Services

hereinafter called the "Contractor"

WITNESSETH

That the Owner and Contractor undertake and agree as follows:

ARTICLE A-1 THE WORK

The Contractor shall:

(a) Perform all the Work required by the Contract Documents for the 405-Freeway Upgrades project. (See Tender Form for Description) which have been signed in triplicate by both the parties.

(b) Do and fulfil everything indicated by this Agreement, and

(c) Commence the Work by the 15th day of June, 2019, and substantially perform the Work of this Contract as certified by the Engineer/Architect by the 15th day of October, 2019.

(d) The "Engineer/Architect" is the person designated as such from time to time by the Owner.

Template Based

??

East Repair Inc.
1912 Harvest Lane
New York, NY 12210

??

LOGO

US-001

BILL TO
John Smith
2 Court Square
New York, NY 12210

SHIP TO
John Smith
3787 Pineview Drive
Cambridge, MA 12210

11/02/2019
2312/2019
26/02/2019

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
1	Front and rear brake cables	100.00	100.00
2	New set of pedal arms	15.00	30.00
3	Labor 3hrs	5.00	15.00
		Subtotal	145.00
		Sales Tax 6.25%	9.06
		TOTAL	\$154.06

Thank you

TERMS & CONDITIONS

Payment is due within 15 days
Please make checks payable to: East Repair Inc.

PO Box 441, Burlington, KY, 41005
 affordablelawn@gmail.com
 859-802-9987

Affordable Lawn Care

Bill To: Kate L.
2317 Broadway, Redwood City, CA
94063

Date: 08/01/2016
Terms: NET 30
Due Date: 08/31/2016

Description	Quantity	Rate	Amount
Mowing service for July, 2016. Includes turf mowing, edging, trimming, blowing off surface areas. Pick up and removal of small trash/debris.	1	\$120.00	\$120.00

* Powered by Invoice2go - ** Visit <https://invoice2go.com> to learn more

Thank you for your business!

The referral to friends and family is the best compliment you can give.

Subtotal	\$120.00
Discount (\$)	\$0.00
Sales Tax (7.5%)	\$9.00
Total	\$129.00
Paid	\$0.00

Balance Due \$129.00

1/1

PO Box 441, Burlington, KY, 41005
 affordablelawn@gmail.com
 859-802-9987

Jean Photo Studio

Good People Store
+61-2-4355-13231
Suite 102 / 38 Washington Dr
Rhodes 2314 VIC

Invoice # 44149
Date Aug 15, 2018
Due date Aug 22, 2018

Item	Hours	Price	Amount
Website design Website renewal, Wordpress and mobile version	1	\$2,700.00	\$2,700.00
Logo Design 3 basic design and 3 revision	1	\$1,200.00	\$1,200.00
Search Engine Optimisation We will charge \$999 after 3 months	1	\$500.00	\$500.00
Google AdWords Setup \$100 after 3 months	1	\$500.00	\$500.00
Animated Video	1	\$2,400.00	\$2,400.00
		Subtotal	\$7,300.00
		GST Includ(10%)	\$663.64
		Total	\$7,963.64
		Paid on Mar 03, 2017	\$490.00
		Amount Due	\$6,810.00

By signing this document, the customer agrees to the services and conditions described in this document.

Jean Photo Studio

Aug 17, 2018

Good People Store

Aug 17, 2018

Auto-Classification Tools

	Requires Data	Requires Structure
Template Based		

Albert	Aye	Candidate	22002-1-234301	1-234-034-0923	Crew Development	79920
Antoinette	Aye	Spouse	22002-2-234115	1-234-289-2958	Crew Development	79920
Aaron	Aye	Child	22002-3-100395	1-234-025-2304	Crew Development	79920
Addison	Aye	Child	22002-3-100433		Crew Development	79920
Angella	Auston	Candidate	22003-1-234201	1-928-023-1203	Training Laboratory	76939
Alec	Auston	Spouse	22003-2-234368	1-928-023-3049	Training Laboratory	76939
Ahmet	Auston	Child	22003-3-100465		Medical Unit	76939
Alonzo	Alleyne	Candidate	22004-1-234354	1-203-018-1308	Medical Unit	75642
Alberta	Alleyne	Spouse	22004-2-234002	1-203-018-1338	Medical Unit	75642
Aldo	Alleyne	Child	22004-3-100334		Training Laboratory	75642
Aiden	Alleyne	Child	22004-3-100366		Training Laboratory	75642

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Albert
Antoinette
Aaron
Addison
Angella
Alec
Ahmet
Alonzo
Alberta
Aldo
Aiden

Aye
Aye
Aye
Aye
Auston
Auston
Auston
Alleyne
Alleyne
Alleyne
Alleyne

Candidate
Spouse
Child
Child
Candidate
Spouse
Child
Candidate
Spouse
Child
Child

22002-1-234301
22002-2-234115
22002-3-100395
22002-3-100433
22003-1-234201
22003-2-234368
22003-3-100465
22004-1-234354
22004-2-234002
22004-3-100334
22004-3-100366

1-234-034-0923
1-234-289-2958
1-234-025-2304

1-928-023-1203
1-928-023-3049

1-203-018-1308
1-203-018-1338

Crew Development
Crew Development
Crew Development
Crew Development
Training Laboratory
Training Laboratory
Medical Unit
Medical Unit
Medical Unit
Training Laboratory
Training Laboratory

79920
79920
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Pattern Recognition

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Regular Expression

"US ZIP Code", "\d{5}([\ -]\d{4})?"

Datasets

Albert	Aye	Candidate	22002-1-234301	1-234-034-0923	Crew Development	79920
Antoinette	Aye	Spouse	22002-2-234115	1-234-289-2958	Crew Development	79920
Aaron	Aye	Child	22002-3-100395	1-234-025-2304	Crew Development	79920
Addison	Aye	Child	22002-3-100433		Crew Development	79920
Angella	Auston	Candidate	22003-1-234201	1-928-023-1203	Training Laboratory	76939
Alec	Auston	Spouse	22003-2-234368	1-928-023-3049	Training Laboratory	76939
Ahmet	Auston	Child	22003-3-100465		Medical Unit	76939
Alonzo	Alleyne	Candidate	22004-1-234354	1-203-018-1308	Medical Unit	75642
Alberta	Alleyne	Spouse	22004-2-234002	1-203-018-1338	Medical Unit	75642
Aldo	Alleyne	Child	22004-3-100334		Training Laboratory	75642
Aiden	Alleyne	Child	22004-3-100366		Training Laboratory	75642



Library

...\CUSTOMERTYPE.CSV

Data Integration

Albert	Aye	Candidate	22002-1-234301	1-234-034-0923	Crew Development	79920
Antoinette	Aye	Spouse	22002-2-234115	1-234-289-2958	Crew Development	79920
Aaron	Aye	Child	22002-3-100395	1-234-025-2304	Crew Development	79920
Addison	Aye	Child	22002-3-100433		Crew Development	79920
Angella	Auston	Candidate	22003-1-234201	1-928-023-1203	Training Laboratory	76939
Alec	Auston	Spouse	22003-2-234368	1-928-023-3049	Training Laboratory	76939
Ahmet	Auston	Child	22003-3-100465		Medical Unit	76939
Alonzo	Alleyne	Candidate	22004-1-234354	1-203-018-1308	Medical Unit	75642
Alberta	Alleyne	Spouse	22004-2-234002	1-203-018-1338	Medical Unit	75642
Aldo	Alleyne	Child	22004-3-100334		Training Laboratory	75642
Aiden	Alleyne	Child	22004-3-100366		Training Laboratory	75642



DATA INTEGRATION

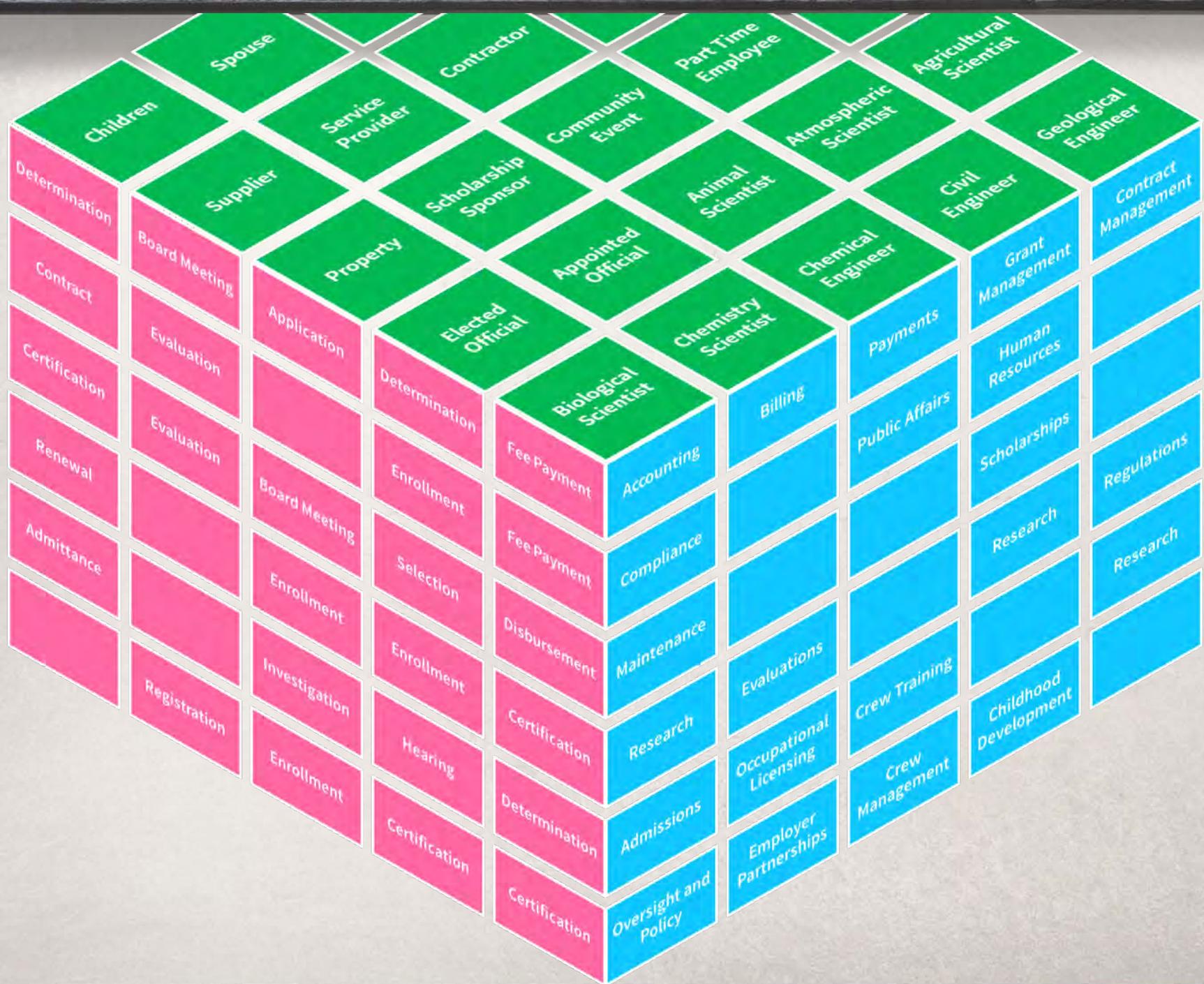
...\CUSTOMERTYPE.CSV

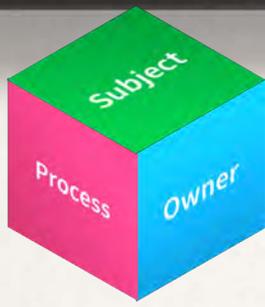
Auto-Classification Tools

	Requires Data	Requires Structure
Template Based	✓	✓
Supervised Learning	✓	✓

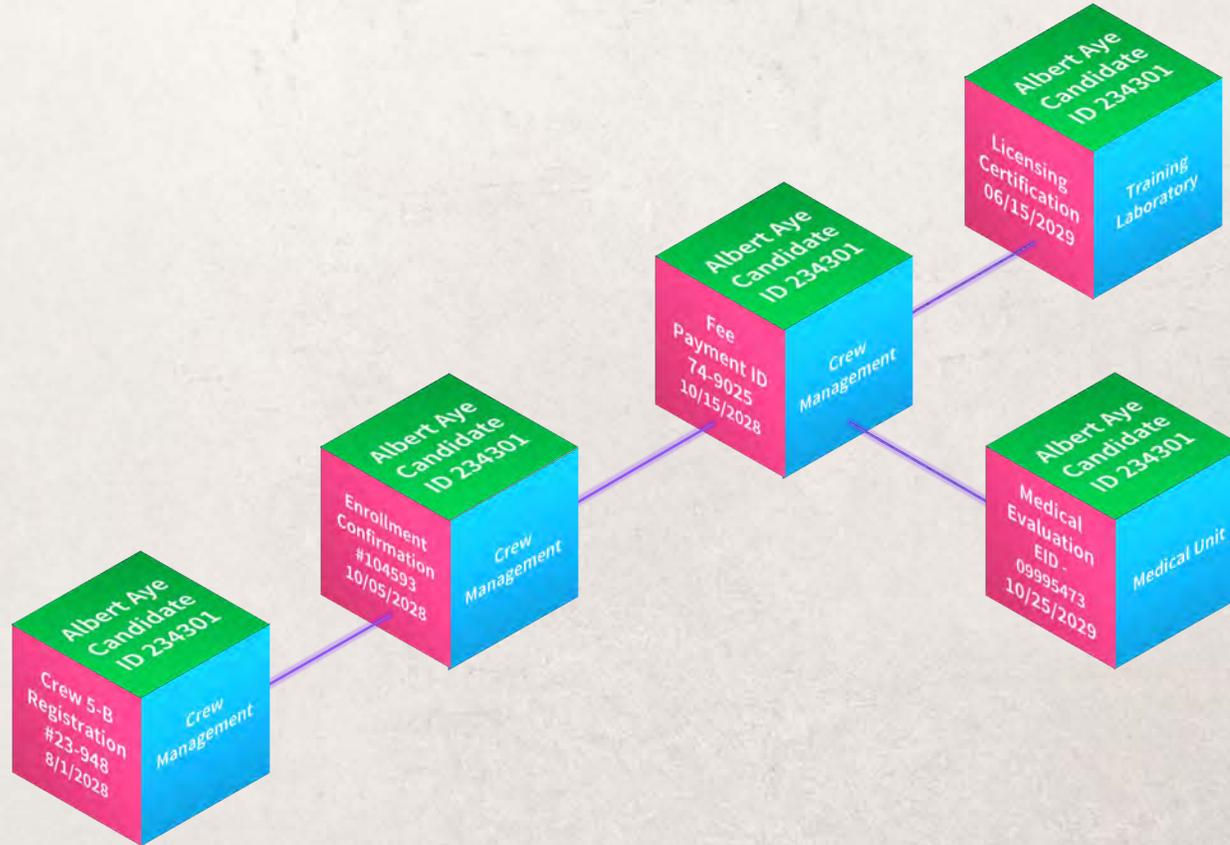
Auto-Classification Tools

	Requires Data	Requires Structure
Template Based	✓	✓
Supervised Learning	✓	✓
Unsupervised Learning	✓	✓





Are You Missing One?



Not All Documents Are Records

Category	Approach	Example Definition
End Record	Each End Record is stored in a way that a Case Date and/or Activity Date is associated	Action/Decision A document that records an action or decision; this document may serve as a financial or legal instrument, or evidence of a completed process.
		End Product A document that does not record an action or a decision, but is an end product or deliverable, such as brochures or public meeting agendas.
Supporting Document	Supporting Documents are available in a Dropdown list	Supporting Document Any internal or external document that impacts, justifies, or supports an end record, usually these would not be sufficient to provide alone as end records.
		Initiating Document A document that starts a new process, such as an application, request, or notice.
Report	Report Type Dropdown list	Report Any internal or external document that summarizes, analyzes, or provides evidence of one or multiple end records, without impact to any specific case.
Correspondence	Correspondence Document Type <i>No Dropdown</i>	Correspondence Any internal or external document that communicates information regarding a case file, but does not impact or support the outcome, and does not summarize or prove the action or decision.
Non-Record content	Generally not kept beyond Administrative Value	Administrative A document created solely for the purpose of internally managing a case file, such as a coversheet, routing slip, internal checklist, or summary page. It does not have unique information that impacts a business decision.
		Reference A document that guides the process of a case file but does not change between cases instances, such as Federal guidelines or technical standards.

The Value of Taxonomy

Subject

Case

Activity

Owner

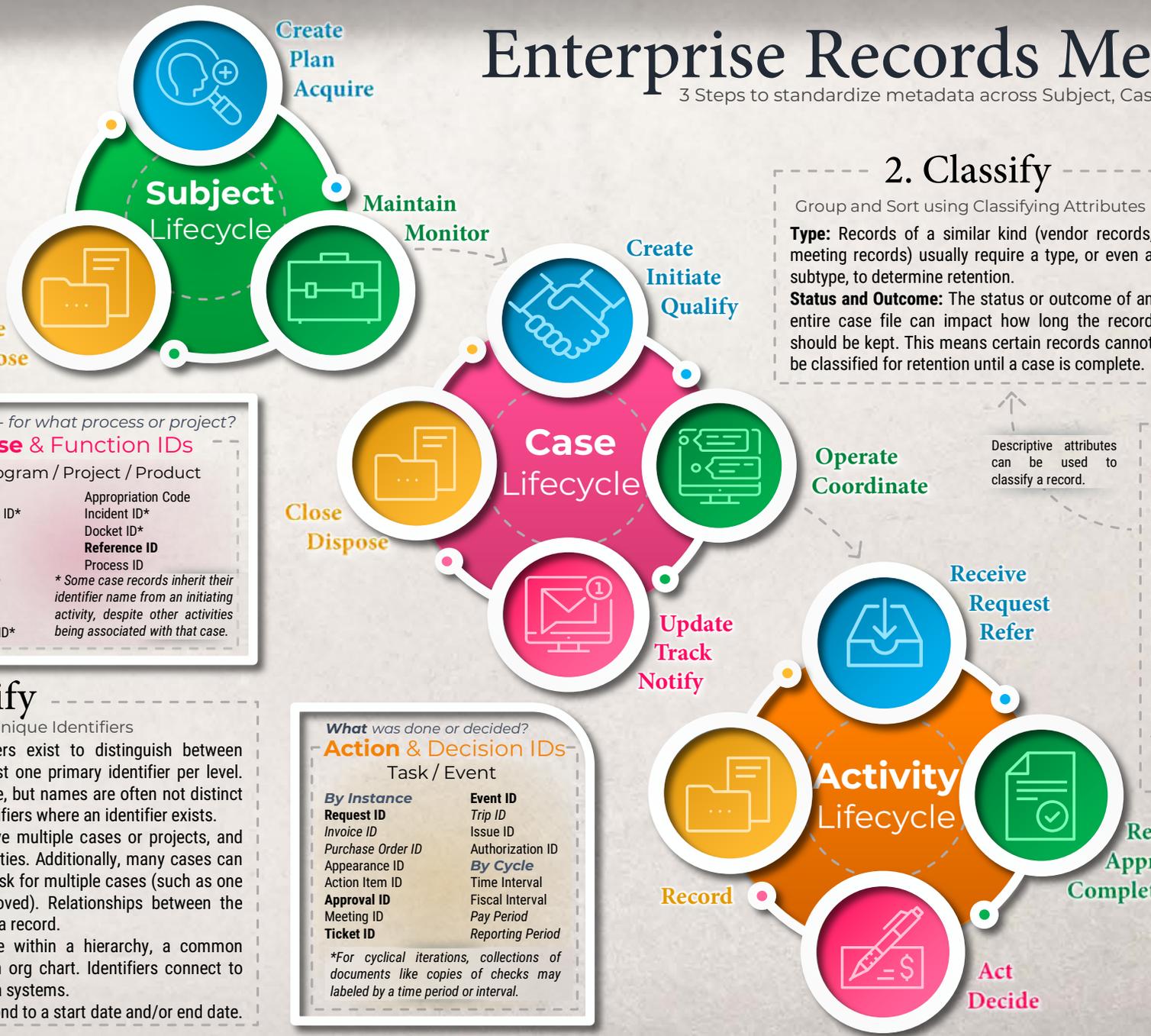
Format

Time



Enterprise Records Metadata Model

3 Steps to standardize metadata across Subject, Case, and Activity Records



Who or what is this record about?

Subject & Entity IDs

Account / Party / Resource

Customer ID	Employee ID
Vendor ID	Account ID
Contractor ID	Fund ID
Asset ID	Entity ID
Park ID	Provider ID
Facility ID	Agency ID
Equipment ID	Subject ID
Serial #	
VIN #	Org Unit ID
System ID	Applicant ID

Close
Dispose

Subject Lifecycle

Maintain
Monitor



Close
Dispose

Case Lifecycle

Create
Initiate
Qualify



Operate
Coordinate

Update
Track
Notify



Record



Activity Lifecycle

Receive
Request
Refer



Review
Approve
Complete



Act
Decide



Locate

Address/Region/Geotag		
Location ID	Polygon	Property ID
Tax Parcel ID	Coordinates	Address ID

Locations are generally an attribute of a subject - or for subjects operating in multiple places, an attribute of a case or activity.

Classifying a record can determine relevant descriptive attributes.

2. Classify

Group and Sort using Classifying Attributes

Type: Records of a similar kind (vendor records, meeting records) usually require a type, or even a subtype, to determine retention.

Status and Outcome: The status or outcome of an entire case file can impact how long the record should be kept. This means certain records cannot be classified for retention until a case is complete.

3. Describe

Qualify, Quantify, and Reference

To assist in retrieving and managing records, certain attributes may be helpful to include as metadata. These should be intentionally limited to only what data is needed to retrieve or filter records, or facilitate automation that has business value, particularly when initially implementing a solution.

Qualify: A qualifying attribute is a characteristic or property of a process instance or document. They are generally text fields, but may be numbers, i.e. codes.

Eligibility Status	Topic	Document Format	System
NAICS Code	File name	Method Received	Owner

Quantify: Quantifiable attributes are data elements that can be calculated or measured across records.

Date Recieved	# of Discrepancies	% Complete	Days Late
Weight	Total Cost Amount	Fiscal Year	Score

Descriptive attributes can be used to classify a record.

1. Identify

Index and Connect using Unique Identifiers

Distinguish: At each level, unique identifiers exist to distinguish between instances of a record type - usually with just one primary identifier per level. Identifiers usually correspond to a **name** value, but names are often not distinct alone and should not be used in place of identifiers where an identifier exists.

Relate: A single subject or account may have multiple cases or projects, and each case or project may have multiple activities. Additionally, many cases can have multiple subjects, and an activity be a task for multiple cases (such as one meeting where multiple contracts are approved). Relationships between the identifiers in source data provides context for a record.

Structure: Many identifiers indicate a place within a hierarchy, a common example being the organizational units in an org chart. Identifiers connect to parent and child levels within their source data systems.

Date: An instance at any level should correspond to a start date and/or end date.

Why - for what process or project?

Case & Function IDs

Program / Project / Product

Project ID	Appropriation Code
Application ID*	Incident ID*
Case ID	Docket ID*
Product ID	Reference ID
Policy ID	Process ID
License ID	* Some case records inherit their identifier name from an initiating activity, despite other activities being associated with that case.
Tracking #	
Service ID	
Encounter ID*	

What was done or decided?

Action & Decision IDs

Task / Event

By Instance	Event ID
Request ID	Trip ID
Invoice ID	Issue ID
Purchase Order ID	Authorization ID
Appearance ID	By Cycle
Action Item ID	Time Interval
Approval ID	Fiscal Interval
Meeting ID	Pay Period
Ticket ID	Reporting Period

*For cyclical iterations, collections of documents like copies of checks may be labeled by a time period or interval.

Transforming Records Management



Techniques



1

Start with Terms

Establish a living terms and definitions governance document that defines what is meant by terms like grant, license, and agreement. This should be done from both a business use perspective (what terms should everyone use to speak a common language) and a technical perspective (for data governance and integration).



2

Standardize with Taxonomy

Data records in enterprise systems are already designed in terms of process domains, case structures, access groups, permission levels, and other retention and recovery requirements. Defining how the data in key systems connects with documents and records provides a framework of what requirements exist. Aligning content records to these requirements avoids conflicts in terms of how the information is described, and who can access or modify it. It also provides a way to standardize processes and consolidate records.



3

Sort with Types

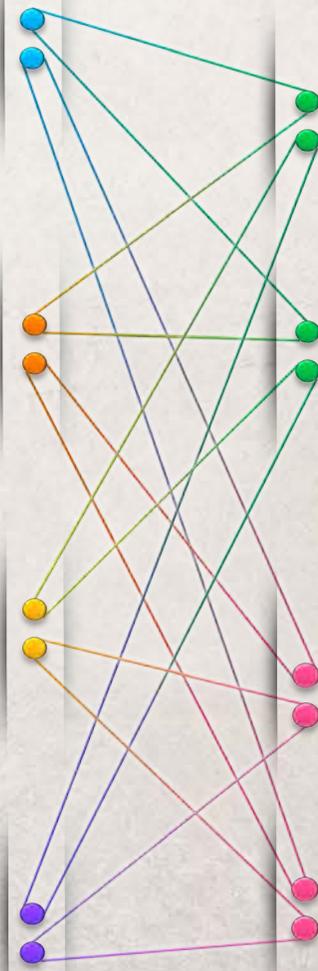
When possible, use data values reflecting what type of subject, case, activity or supporting document type that a document is, rather than creating multiple document types. This narrows the options where a document should go, and where it can be found, while still allowing ways to sort out records based on retention and access requirements.



4

Scale with Transfers

When documents are packaged and routed for referrals or approvals, that transfer of content information presents a good opportunity to capture several documents in a process at one time, with consistent metadata. Information on routing forms usually contain the data to label a set of attachments. It also enables capturing key data from different sides of a process for cross-agency case management.



Outcomes



Increase Value

Process Improvement & Digital Transformation

Because all processes begin with documents and end with records, Records and Information Management is a vital participant in efforts to transform processes and gain efficiencies.

Knowledge Management & Analytics

Records management has always been about preserving and organizing information. Metadata that is captured through or governed by records programs has more potential for accurate data analytics and performance metrics than spreadsheets, siloed data stores, and voluntary reporting.

Reduce Effort

Typing is the New Paper

Going forward, relying on manual data entry should be a last resort to labeling records. The more you are typing information that is already stored somewhere, the more unnecessary errors (and lost documents) can occur. The potential for error weakens the options for automating records retention. Instead, look for ways to connect or reuse data from source systems.

Double Copies Mean Double Work

One of the unforeseen problems of storing multiple copies of the same documents in different places, is multiple points of integrations that are then expected. There are some situations where this can't be avoided, but consolidating where possible avoids multiplying the effort to capture or configuration sprawl.

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