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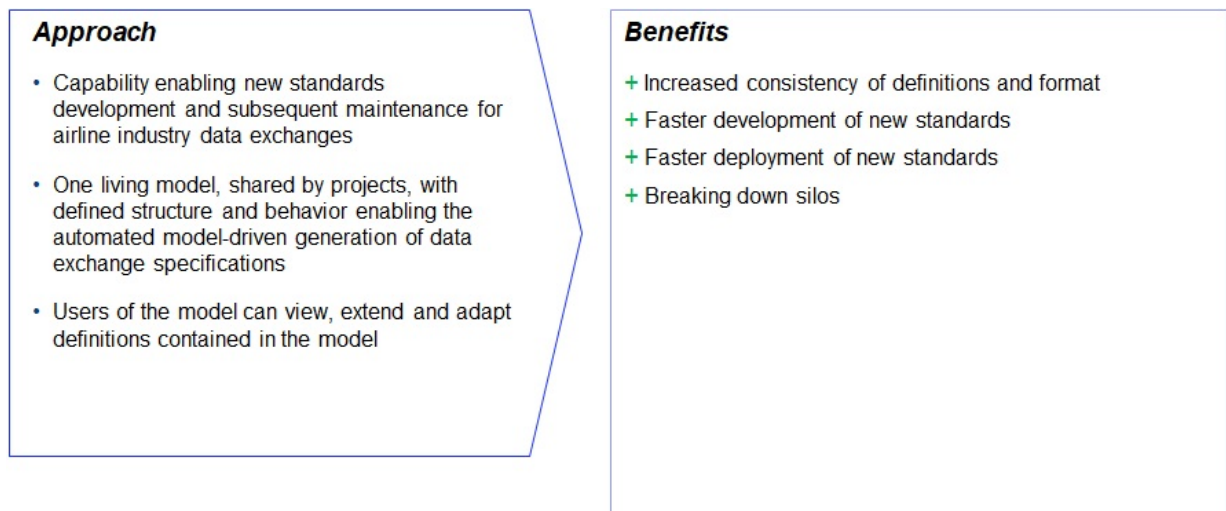
# About the AIDM

## Overview

IATA's Airline Industry Data Model (AIDM) is an infrastructure that see the upgrade of our messaging standards development capability.

It aims to become a single point of access to store structured information including:

- Industry-agreed vocabulary
- Data definitions and their relationships
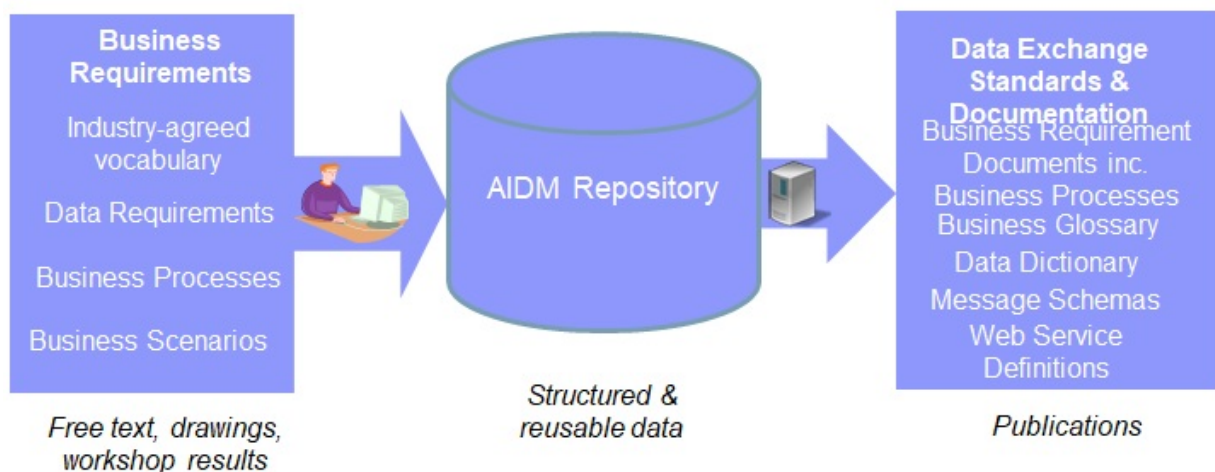- Related business requirements

Each message development project can easily leverage existing models developed by other standards groups to generate interoperable messaging standards faster and with higher quality.
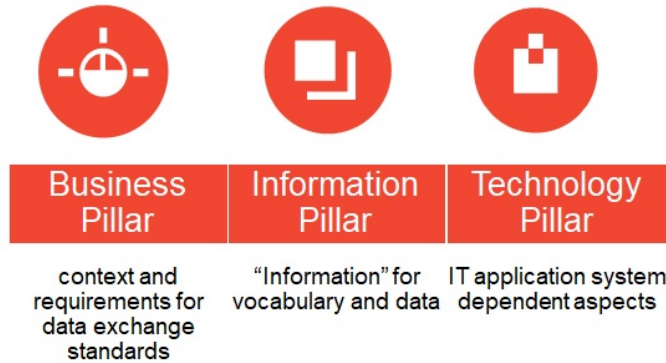
## What is the AIDM?

**Approach**

- Capability enabling new standards development and subsequent maintenance for airline industry data exchanges
- One living model, shared by projects, with defined structure and behavior enabling the automated model-driven generation of data exchange specifications
- Users of the model can view, extend and adapt definitions contained in the model

**Benefits**

+ Increased consistency of definitions and format
+ Faster development of new standards
+ Faster deployment of new standards
+ Breaking down silos

## The AIDM Process

All Information in one repository with rigorous structure and rich inputs and outputs

**Business Requirements**

Industry-agreed vocabulary

Data Requirements

Business Processes

Business Scenarios

*Free text, drawings, workshop results*

**AIDM Repository**

*Structured & reusable data*

**Data Exchange Standards & Documentation**

Business Requirement Documents inc.
Business Processes
Business Glossary
Data Dictionary
Message Schemas
Web Service Definitions

*Publications*

## Repository Partitioning

## Repository contents organized in 3 pillars

| Business Pillar | Information Pillar | Technology Pillar |
|---|---|---|
| context and requirements for data exchange standards | "Information" for vocabulary and data | IT application system dependent aspects |

- Different Pillars enabling to handle the big variety of contents, from business architecture to Information and Technology models, and their shared nature across many users, a rigorous internal organization of the repository.

## Also organized in 4 layers

Also organized in 4 layers from high level to detailed top to down as depicted in the chart below.

| | Business Pillar | Information Pillar | Technology Pillar | |
|---|---|---|---|---|
| Contextual Layer | Value chain, business processes, business scenarios | Terms, data entities, data relationships, data elements and attributes | Interfaces, messages as "seen" by the technology | *Inspired from Enterprise Architecture Frameworks* |
| Conceptual Layer | | | | |
| Logical Layer | | | | |
| Physical Layer | | | | |

- Different Layers to include 3 technology platform-independent layers at the higher levels, and the Physical, platform-specific layer(e.g. XSD-specific layer whose models are automatically generated from the previous layers.
- For a given pillar, it is suggested to model layers top-down, modelling high level before full detail, and platform-independent business models before platform-specifics
- Each model artifact will be located in a specific pillar and layer.

# AIDM Repository partitioning

**Models in the pillars and layers can be viewed through different "stakeholder views",**

- which filter elements meaningful to operational responsible of Airline Value Chain Primary Activities.

The choice of a stakeholder view is driving what and how to view,
not how the models are
transformed and generated.

**Showing the stakeholder
views on the left side,
the repository
can be visualized
as a cube.**
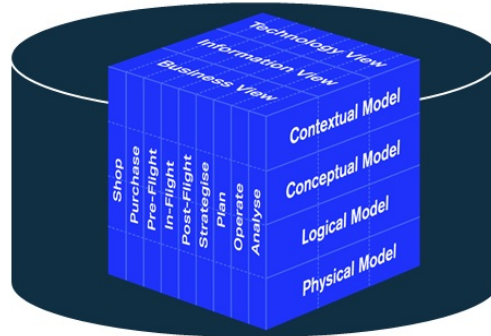


- the AIDM also needs to be able to offer differentiated views ( often diagrams ) to various stakeholders, introducing a 3rd dimension

# View the Models

## AIDM Navigator

AIDM can be navigating from the links below. The table consists of short names used for EA repository partition packages and modelling guideline document names

| | Business Pillar | Information Pillar | Technology pillar |
|---|---|---|---|
| **Contextual Layer** | **B1**<br><br>Value Chain, Participants Catalog | **I1**<br><br>Business Glossary, Information Domains, Subject Areas | |
| **Conceptual Layer** | **B2**<br><br>2nd+ Level Business Process, Business Messages | | |
| **Logical Layer** | **B3**<br><br>Use Cases, User Stories, Business Scenarios | **I3**<br><br>Logical Information Models (Data Entities & All Attributes) | **T3**<br><br>Sequence Diagrams, State Machine Diagrams, Logical Message Data Models |
| **Physical Layer** | | **I4**<br><br>XML Library Schema Model (complex types) | **T4**<br><br>Platform-specific Message Schema Models, WSDL diagrams |

# AIDM Getting Access to the Modeling Repository

## Before getting access, it is will be worthwhile understanding the following aspects :

The AIDM model resides in one central repository

The modeling tool used is "Enterprise Architect" (EA) from Sparx Systems,

The EA software needs to be installed on the user's workstation, in an MS Windows environment,

The AIDM repository is located on a server in the cloud, accessed from the work-station EA software through http,

For read-only users, Sparx offers a version called EA Lite, free of license. We recommend EA Lite for reviewers of AIDM who do not intend to create of modify models in EA,

Users intending to create or modify or export models in/from EA need to install the full EA product, requiring a license. Unless they already have a license, IATA will allocate one from a set of keys provided for free by Sparx, for the purpose of contributing to the AIDM.

## Steps to get access

1. Decide if you need update or read access,
2. If applicable (see above lines), get a license key from the AIDM Administrator,
3. Install EA on your workstation,
4. Get an EA user-id and connection info from the AIDM Administrator,
5. If looking at work in progress, get briefed on where to find what.

## Dowloading EA and getting a user-id

**To install EA :**

EA Lite can be downloaded and installed direclty from the Sparx web page :
http://www.sparxsystems.com, latest version 15.1
https://www.sparxsystems.com/products/ea/15.1/index.html
Note : installation takes about 1 hour, and requires admin rights to your workstation.
*Contact the AIDM Administrator to create a user-id (xxxxx) for you to access the repository with the activation code. Note that even with EA full, the user may have either update or read-only rights depending on your current needs.*
If you already have EA on your workstation (because it's used in your company) :
If you already have version 13.5 or higher, and Corporate Edition, then just use it to access the AIDM,
Otherwise you can either upgrade or have two versions of EA co-installed on the same workstation ; our AIDM Administrator can tell you how.

## To access the cloud repository :

1. On the EA Start Page : click on "Connect to Cloud"
2. On the Cloud Connection window : Name= <enter a name that has meaning to you; anything will do> URL= https://datamodel.iata.org ; ModelName= datamodel ; can leave UserName & Password empty
3. On the Login to EA Repository window : UserID=xxxxx; Password=12345
4. Inside EA: you may then want to change your password.

**Cloud Connection**

Name:
Cornu]

| Protocol: | Server: | Port: |
|---|---|---|
| https:// | datamodel.iata.org | 443 |

Model Name:
datamodel

[ OK ]  [ Cancel ]  [ Help ]

# Get involved

## Who uses the AIDM?

*Shorten and add to "About AIDM"*

The AIDM and associated methodology is used by all standards groups under the governance of IATA Passenger Standards Conference (PSC) in their pursuit of modern data exchange standards.

Since its initial release in early 2016, a number of industry projects have used the AIDM to deliver new messaging standards or align existing standards to the common concepts stored in the integrated model.

The AIDM can also be used by airline industry IT system developers leveraging AIDM contents as a starting point for data definitions while designing and implementing their companies' IT systems.

## What is in the AIDM?

*Remove and incorporate specific standards in introduction*

Many IATA data exchange standards are produced from the AIDM, including those for Baggage, Offers and Orders, Aircraft Load Control as well as Settlement with Orders, with several more in the pipeline.



Two facets of the AIDM

Structured repository — development Methodology for quality new standards
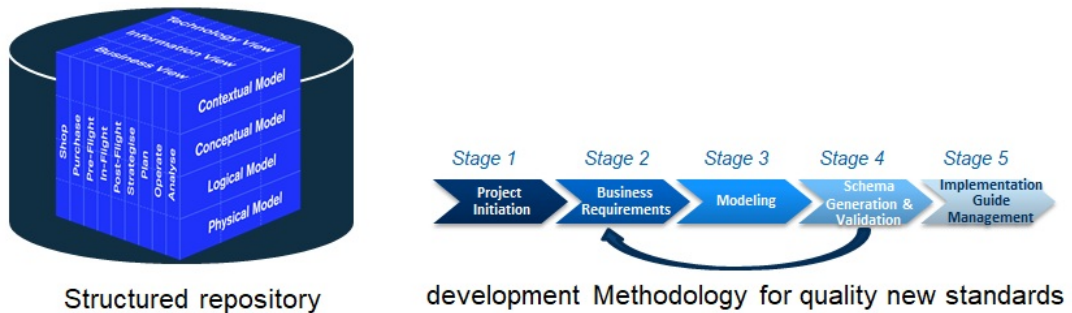
- To be agile in the development of standards and future-proof **whatever the technology needs are;**
- provide users with formally modeled requirements, data and technical specifications;
- maximize the re-use via platform-independent models'
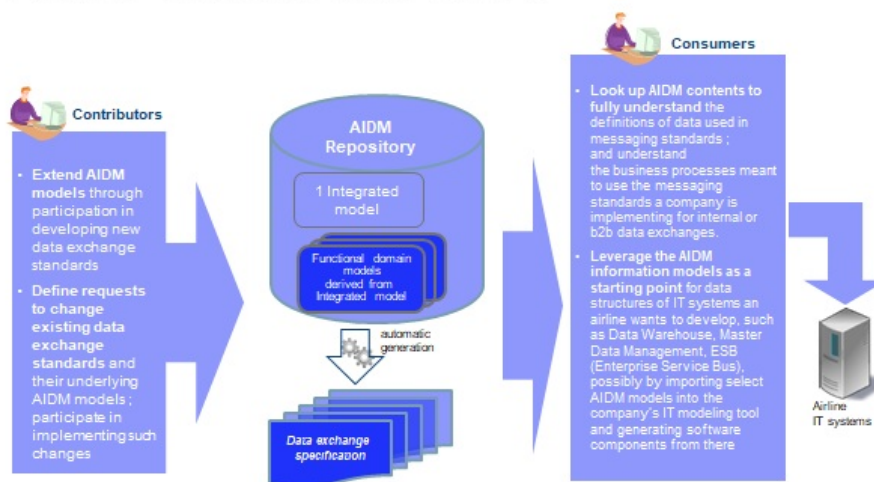- provide interoperability across the industry.

# All information in one repository with rigorous structure and rich inputs and outputs
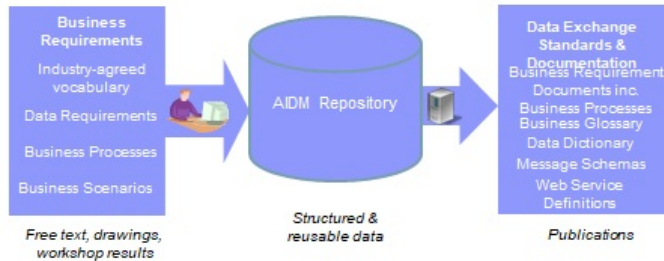
# AIDM Models and users

## Want to get involved?

*Expand to also link to SSW, ATSB, PSC activities - describe role of business Board*
We are keen to collect feedback about the industry methodology that is helping standards setting move into a modern age.

The AIDM and associate methodology is maintained by the Architecture and Technology Strategy Board (ATSB). If you are Data or Business Architect from IATA Member Airline or Strategic Partner and want to take part in integrating new models to the AIDM and evolving the modeling methodology, join your peers in ATSB groups on the IATA Standards Setting Workspace.

Alternatively, please contact the ATSB Secretary for more information.

# AIDM Modeling and Technology Standards

## AIDM Modeling Guidelines and Technology Standards Documentation

These files contain the latest technical standards and best practices endorsed by the Architecture and Technology Strategy Board for passenger standards development. Included standards and best practices:

| Standard | Description |
|---|---|
| AIDM Modeling Guidelines | *IATA rules and guidelines for the development of airline messaging standards in AIDM pillars (Business, Information, Technology) and layers 4 layers (Contextual, Conceptual, Logical, Physical). Separate guideline document do exist for each of the partitions defined by the pillar and layer.* |
| AIDM Methodology Process Charts | *IATA Process charts that graphically organize modelling guidelines into sequences of activities* |
| AIDM Manual Compliance Checklist | *IATA Checklist that AIDM models comply with modeling guidelines. The list is currently available for the Logical Information model (partition I3) only. Items needing a manual check in addition to automated checks done by the Validate tool are identified by showing a number in Excel column "Manual Checklist Item"* |
| IATA XML Best Practices | *IATA rules and guidelines for the production of XML schemas and messages* |
| IATA Open Air API Standards and Best Practices | *IATA rules and guidelines for the use of RESTful API technology in the airline industry, and an API ecosystem conformant to the standards* |
| Reference Communication Model | *The Systems and Communications Reference (SCR) is a multi-volume set of documents which describes the protocols, standards and implementation issues related to inter system communications for the airline and aeronautical communities. It is the definitive reference for airlines, vendors, travel partners, network service providers and others who wish to participate in such inter-system communication. * |

# AIDM Project and CR Templates

## Link to AIDM BRD and CR Templates documents per stage gate.

AIDM BRD and CR Templates

# AIDM Training Details

## Airline Industry Data Model (AIDM) Methodology and Tool (LIVE virtual classroom)

Learn Airline Industry Data Model (AIDM) rationale, concepts, structure and methodology. The AIDM enables the generation of interoperable and easy to use messaging standards, with consistent definitions and format of data exchanges and faster time to market for new or changed data exchange standards. AIDM is an integrated living model, developed with SPARX Systems Enterprise Architect (EA), a powerful visual modeling platform. In AIDM, all information is stored in one repository. Users of the model can view, extend and adapt definitions contained in the model. You will learn how to navigate the AIDM and find parts of the model you can leverage for designing and implementing your companies' IT systems or data exchange components, as well as how to influence and tune AIDM repository contents and messaging standards generated.

## AIDM Training Introduction video

To access AIDM introduction video:

- Extract zipped file **here** (in the extracted folder, you will see a folder name **"res"**. Open this folder and double click **"index.html"** file. The course will open in the browser)

## Virtual Course Content

Airline Industry Data Model (AIDM) Methodology and Tool (Virtual Classroom)

## Physical Course Content

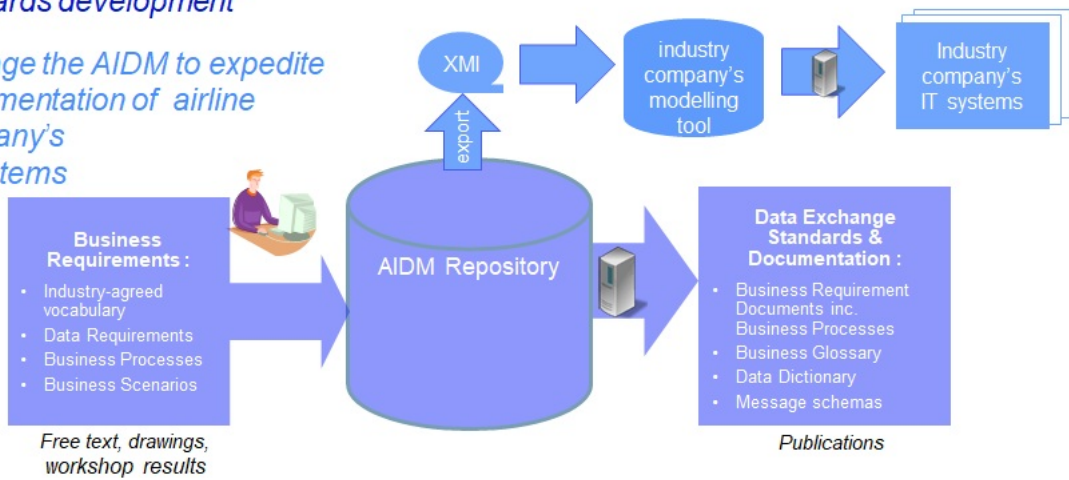Airline Industry Data Model (AIDM) Methodology and Tool (Classroom, 3 days)

# AIDM Backup - XMI file

## Link to the latest AIDM EA Export file for Release 22.1

[AIDM EA Export Release 22.1](https://cdn.document360.io/4b1f93b7-f7b8-4ebb-81be-c17af837a94f/Images/Documentation/22_1AIDM Export XMI file.zip)

# MCT Implementation

This page is used as a repository of documentation required for the implementation of MCT standards.

**Connection Building Filter (CBF) Test Files**

📄 Cirium_CBF_Test_Data.dat

📄 OAG_CBF_Test_Data.txt

# MCT Guides

### SSIM Chapter 8 - MCT Standards

Your browser does not support PDF.click here to download

### MCT User Guide

Your browser does not support PDF.click here to download

### MCT Technical Guide

Your browser does not support PDF.click here to download

### Submission Example Template

X carrier-submission-example-template.xlsx

### Connection Building Filter Submission Template (Effective November 2022)

X Connection-Building_Filter_Submission_Template.xlsx