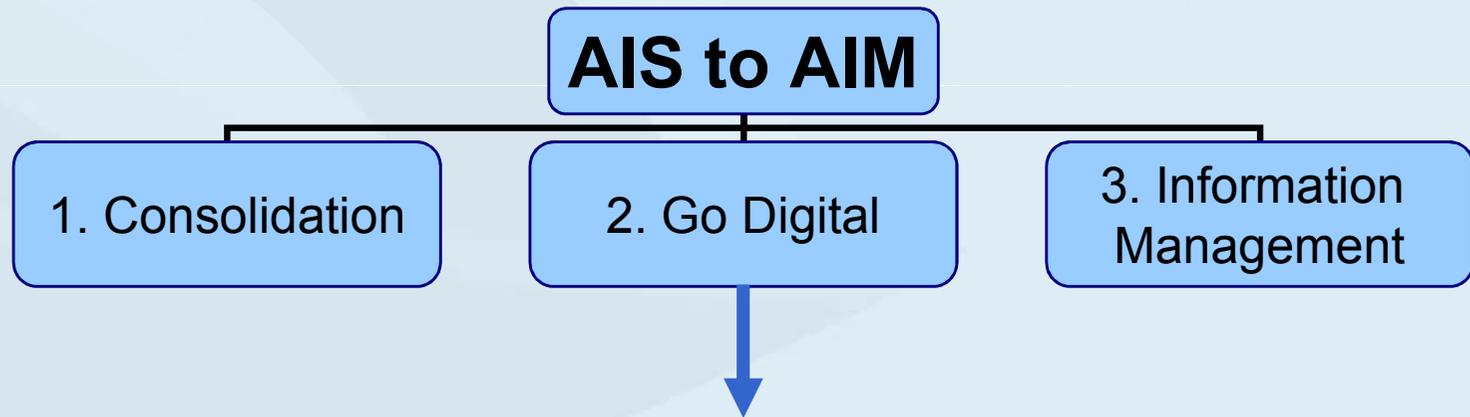
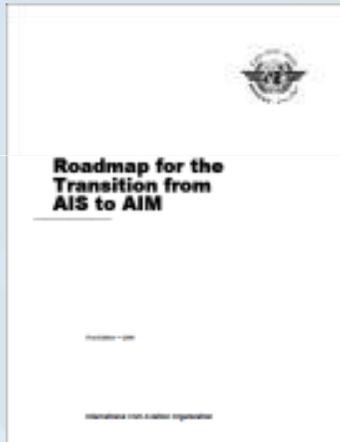


Transition from AIS to AIM

Roadmap Phase 3 – CHAIN and SLAs

Alexandre Petrovsky
Technical Assistant
EUROCONTROL

Roadmap for Transition from AIS to AIM Phase2

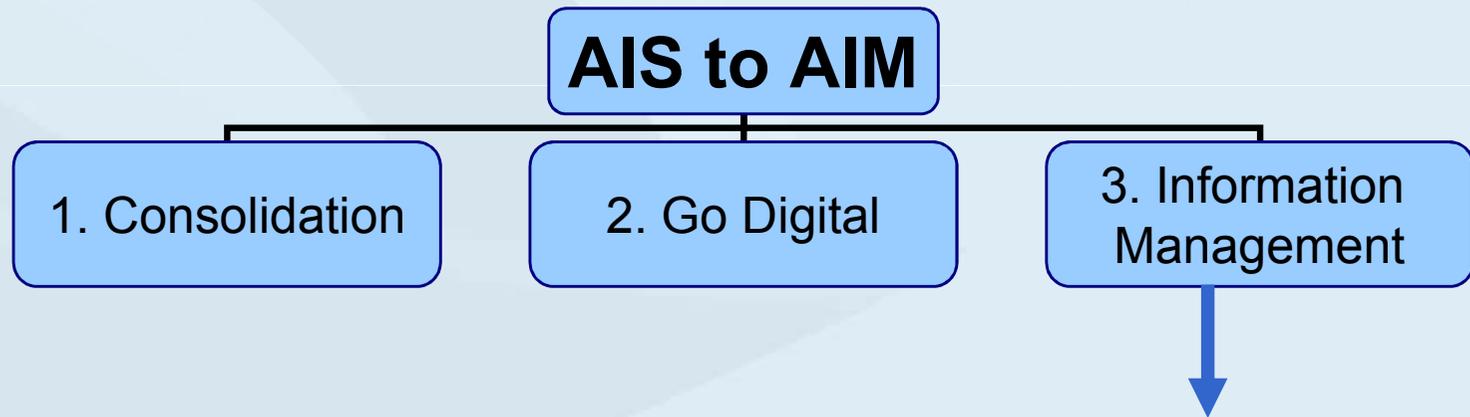
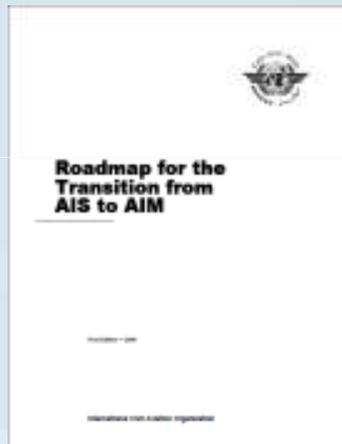


2. Go Digital

- P-01 — Data quality monitoring
- P-02 — Data integrity monitoring**
- P-06 — Integrated aeronautical information database
- P-07 — Unique identifiers
- P-08 — Aeronautical information conceptual model
- P-11 — Electronic AIP
- P-13 — Terrain
- P-14 — Obstacles
- 2 P-15 — Aerodrome mapping

Roadmap for Transition from AIS to AIM

Phase3



3. Information Management

- P-09 — Aeronautical data exchange
- P-10 — Communication networks
- P-12 — Aeronautical information briefing
- P-16 — Training
- P-18 — **Agreements with data originators**
- P-19 — Interoperability with meteorological products
- P-20 — Electronic aeronautical charts
- P-21 — Digital NOTAM

Role of data in ATM (before)

Navigation
technology



1933



1962



1982

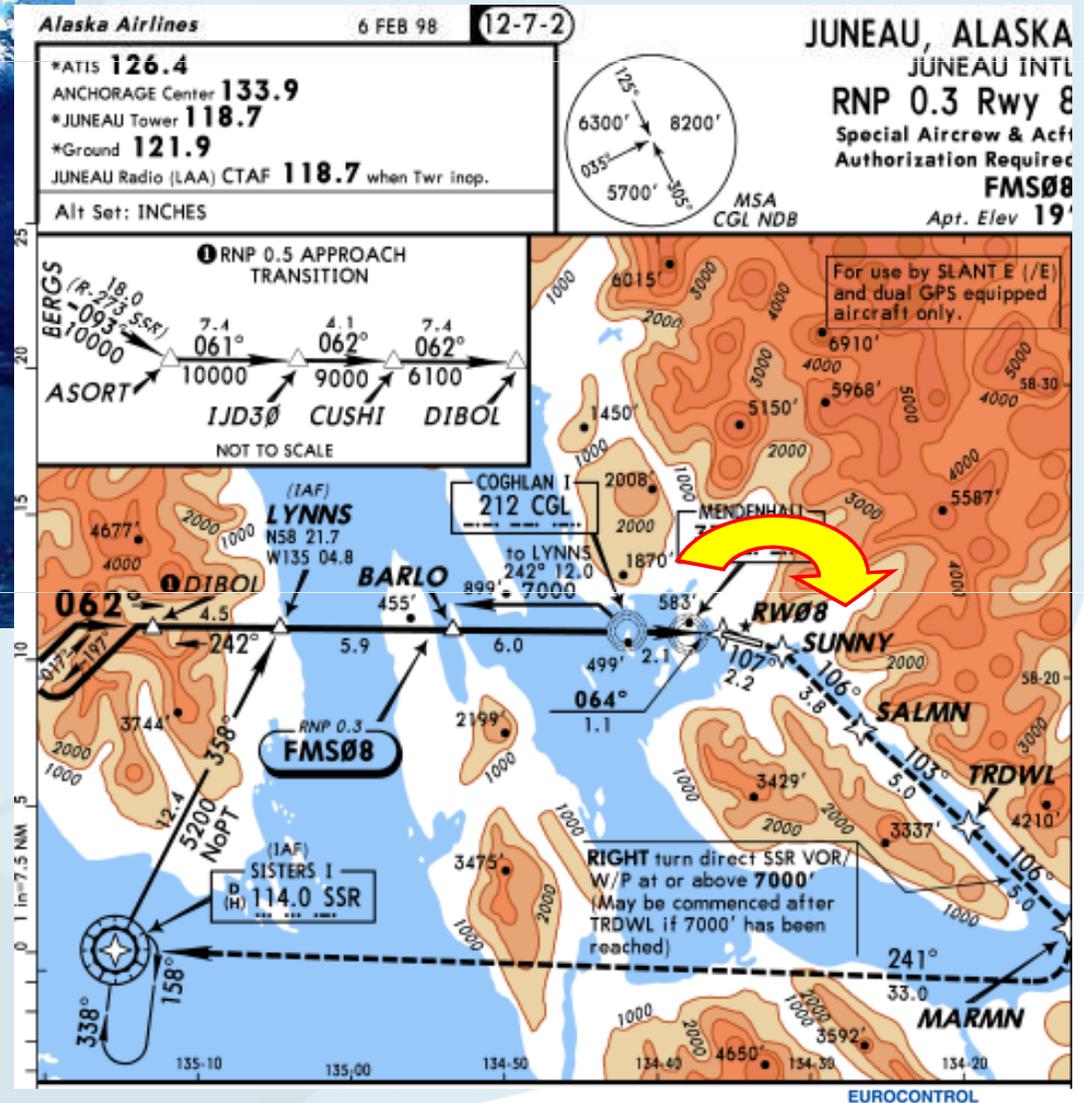
Aeronautical
Information



Role of data in ATM (now)

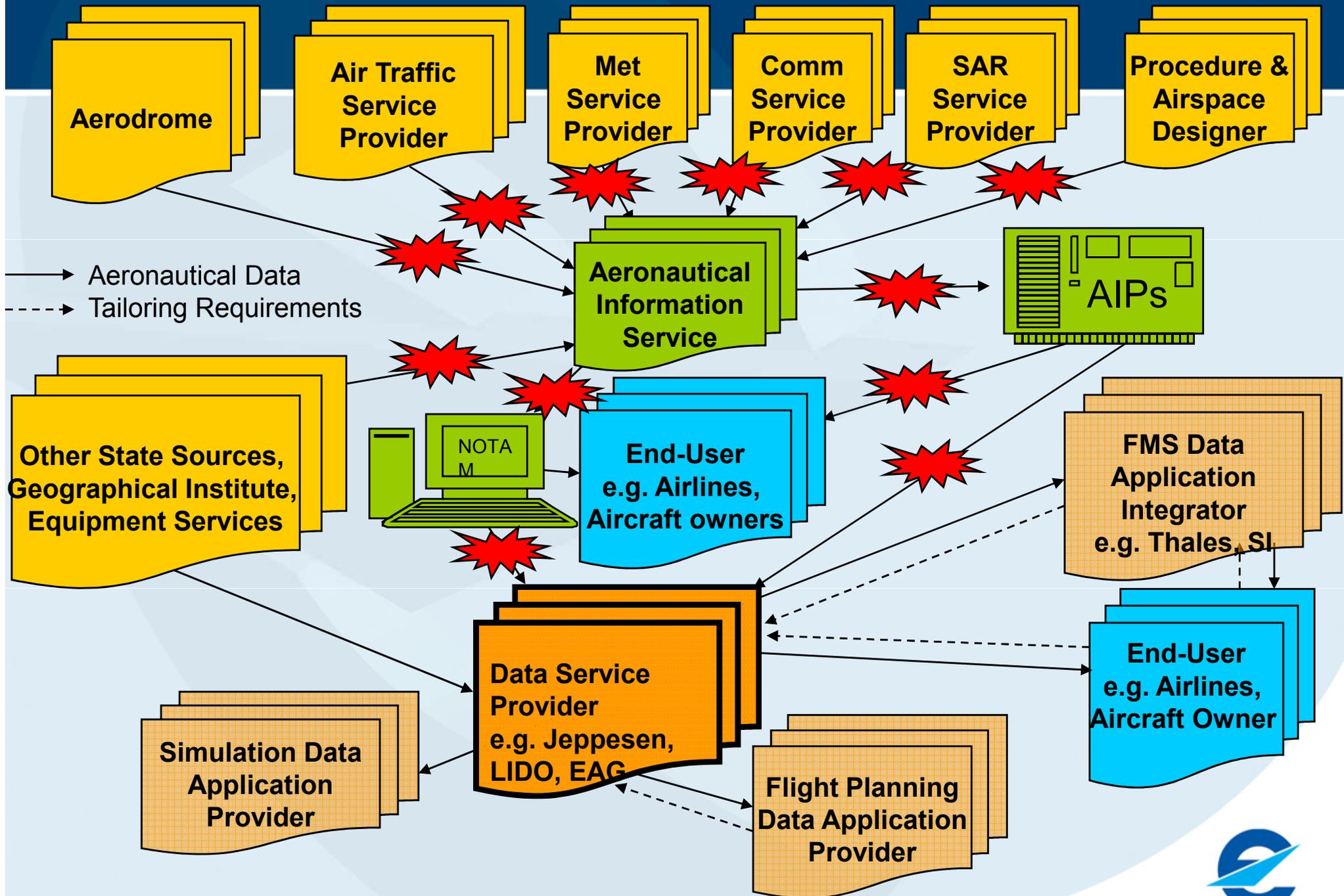


Relative accuracy is no longer sufficient

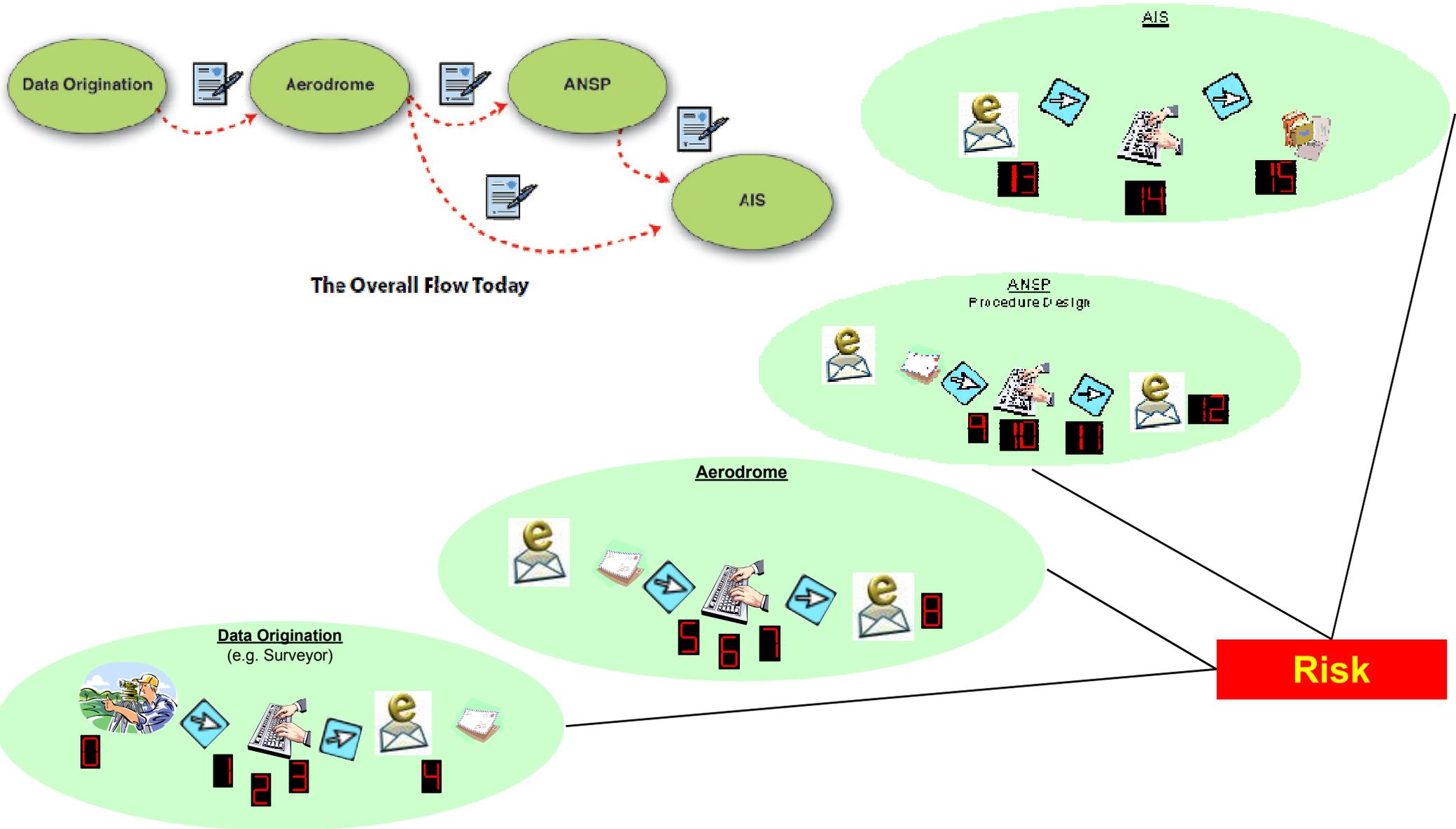


Satellite based RNAV procedures will gradually replace Conventional procedures.

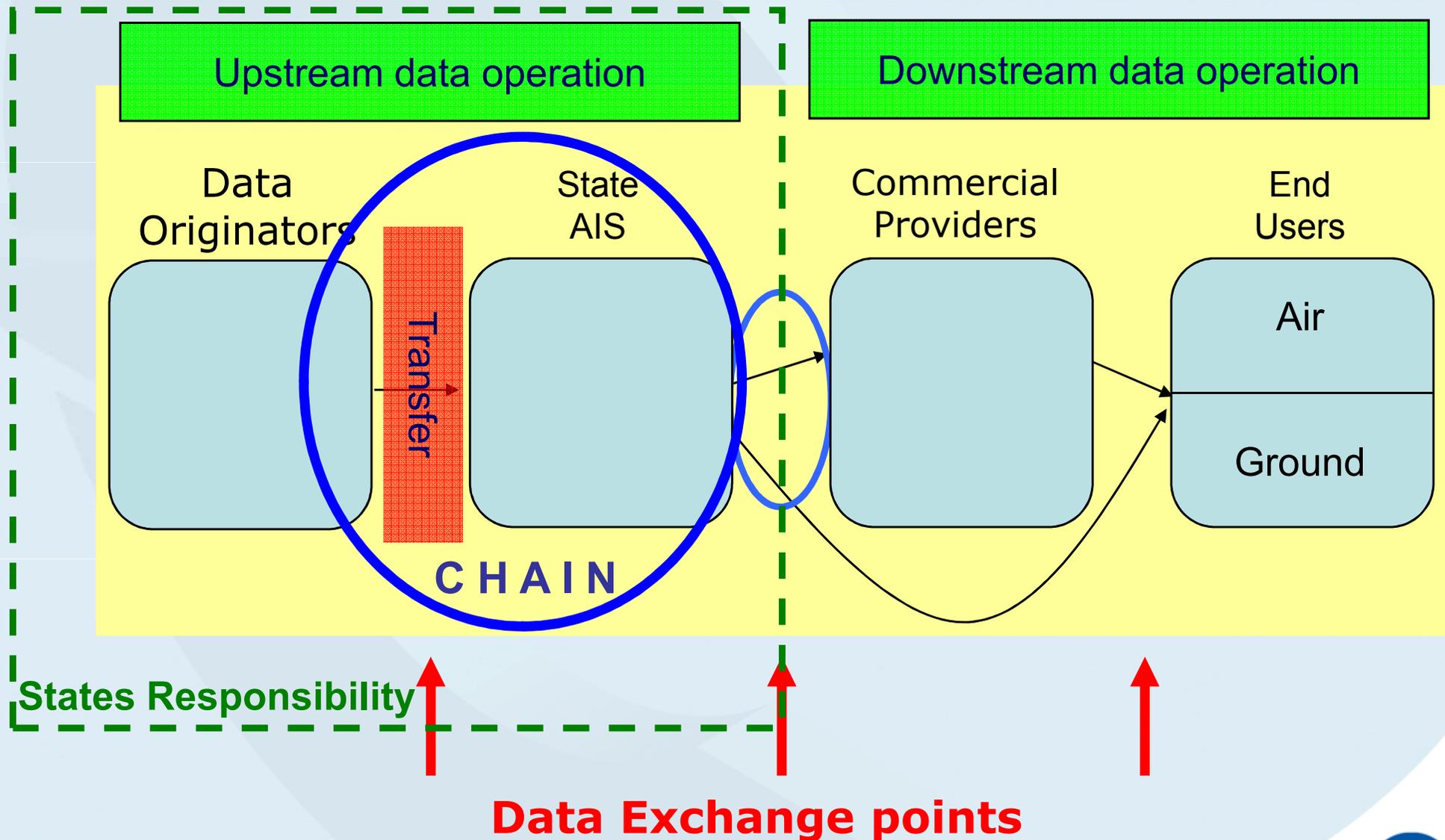
The Data Chain ref. DO-200A/ED76



The 'chained' problem...



CHAIN programme in data chain?



What are the main Issues?

- Repeated input at each function “media break”
 - Multiple checking
 - Multiple (re-)entry
 - Risk of error
 - Loss of integrity & audit trails
- Lack of interoperability
 - Data exchange
 - Data formats
 - Harmonised procedures & processes
- Inefficient, fragmented data supply chain

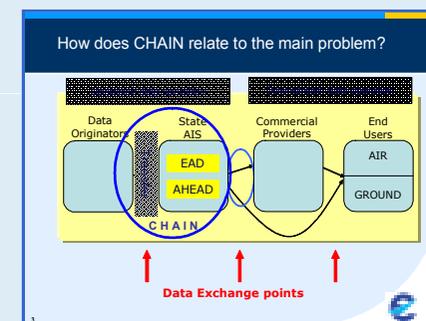
Safety
Impact ?

Inefficient Processes !

**Not just a problem of AIS/AIM
=> Duty of care for all actors!**

The Response CHAIN

- Objectives
 - **Support States** to establish system-wide traceable, auditable processes for:
 - **Improve accuracy and quality** of aeronautical navigational data with **focus on data integrity**;
 - **Enhance data management** by establishing common procedures/processes to enable interoperability;
 - **Enhance the transfer** of AI between origination & publication
- Scope
 - Critical & Essential navigational data
 - Point of Origination to point of Publication
 - = **Upstream data operation**
 - Out of scope:
 - NAV Domain work for Origination & Procedure Design
 - Tool creation.



CHAIN Deliverables Overview

Work package 1

Suite of CHAIN Guidelines

- Set of new Guidelines
- Compendium of Standards
- FAQ
- SLA package
- Standard Input Forms based on AIXM
- Process Validation & Assessment criteria
- Detailed data process mapping
- Data Integrity - Practical Guide
- Computer Based Training

Work package 2

Specifications

- Harmonised specifications in support of automated processes

Regulation

It may be useful to nominate Data Providers. It could also clearly identify the originators.

Annex

551-2004	Article 8(2)	Member States shall ensure that...	P	D	T	
	Article 10(2)	Air navigation agreements should...	C	P	D	T

4.3.2 Supplier

Where a State provides information to another State...

Arrangements for the provision of information should encompass all data originators such as Airports, Air Traffic Service Providers and other States AIS.

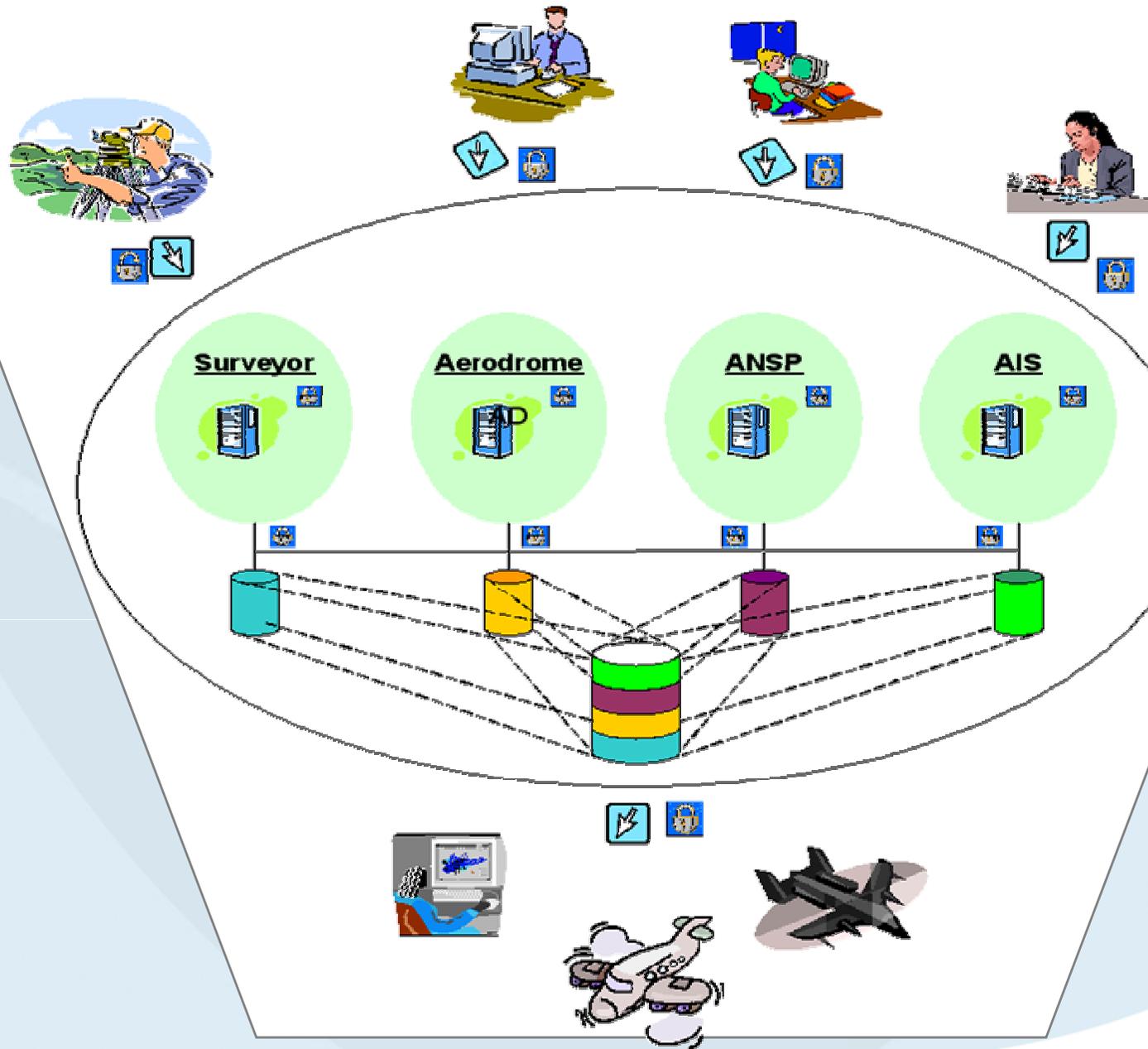
[CHAIN-0028-2140]

[CHAIN-0028-2150]

(a) Study on existing commercial of the shelf (COTS) work flow management solutions

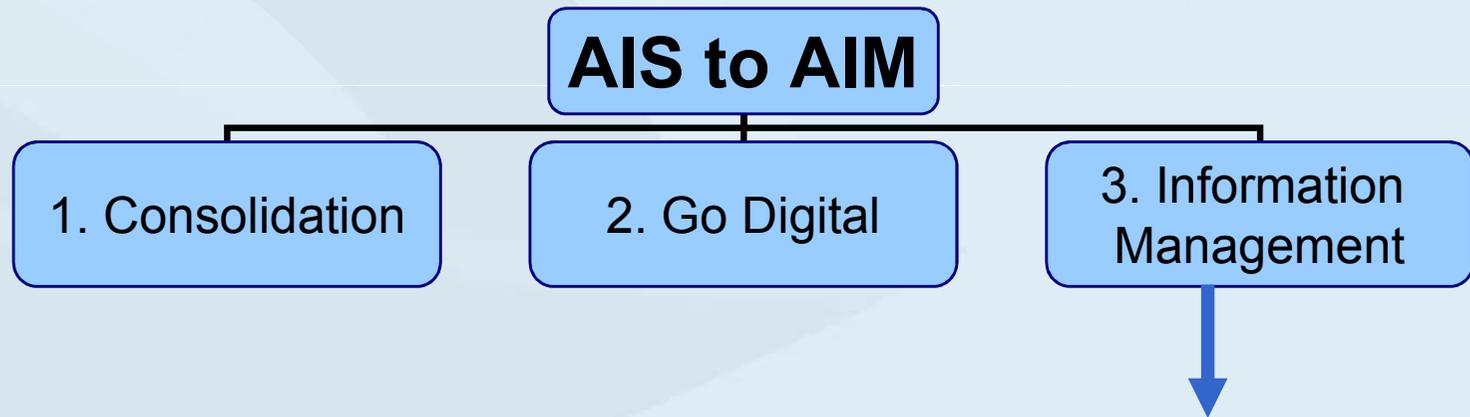
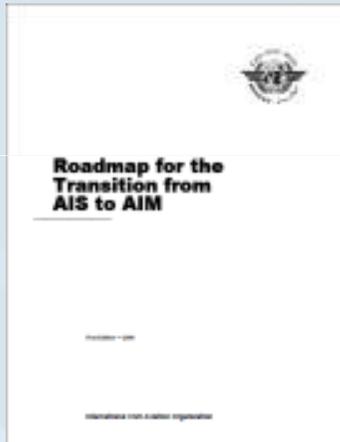
(b) Common specification in support of an automated data integrity process

CHAIN vision - System approach



Roadmap for Transition from AIS to AIM

Phase3



3. Information Management

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- P-21 — Digital NOTAM

What is an SLA ?

- An SLA is a **contract** between a service provider and its customers

“It is important to recognise that the SLA is a contract and that to not have a written SLA with an outside supplier is gross negligence.”

Reuters, November 2004

- SLA defines:
 - services to be provided
 - associated indicators
 - acceptable and unacceptable service levels
 - liabilities and responsibilities of the parties
 - actions to be taken in specific circumstances



What do we Get Out of a Service Level Agreement?

- Clarity of service and product
- Business focus
- Better communication
- Mutually agreed standard
- A process for gauging service effectiveness
- A guard against “expectation creep”

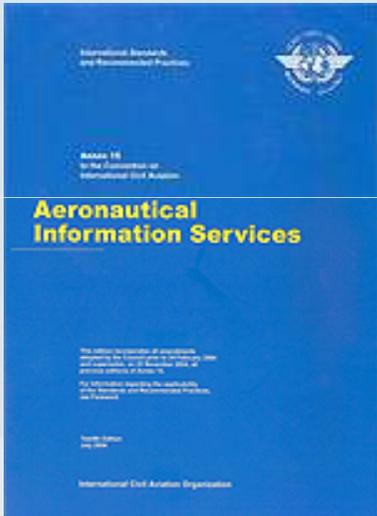


SLA everywhere

- SLAs are now very common.
- In the home:
 - Service contracts for domestic appliances;
 - Telephone provision by telecoms company;
 - Home delivery services.
- Are needed in the workplace:
 - Provision of data to the AIS;
 - Expected service provided by the print shop.



Applicable text – Annex 15



3.1.1.2 Each Contracting State shall take all necessary measures to ensure that the aeronautical information/data it provides relating to its own territory, as well as areas in which the State is responsible for air traffic services outside its territory, is adequate, of required quality and timely. This shall include arrangements for the timely provision of required information/data to the aeronautical information service by each of the State services associated with aircraft operations.

3.2.8 Contracting **States** shall ensure that the integrity of aeronautical data is maintained throughout the data process from survey/origin to distribution to the next intended user....

Applicable text – Annex 14



2.13.1 To ensure that aeronautical information services units obtain information to enable them to provide up-to date pre-flight information and to meet the need for in-flight information, ~~arrangements shall be made between aeronautical information services and aerodrome authorities responsible for aerodrome services...~~

2.13.2 ... To ensure timely provision of the information to the aeronautical information service, close coordination between those services concerned is therefore required.

2.13.4 The aerodrome services responsible for the provision of raw aeronautical information/data to the aeronautical information services shall do that while taking into account accuracy and integrity requirements for aeronautical data as specified in Appendix 5 to this Annex.

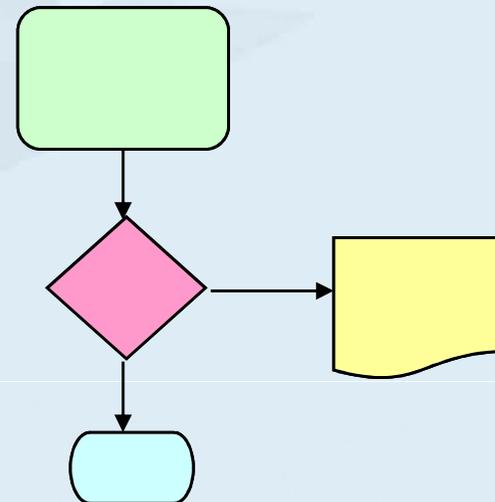
Service Level Agreements

- Two basic elements:

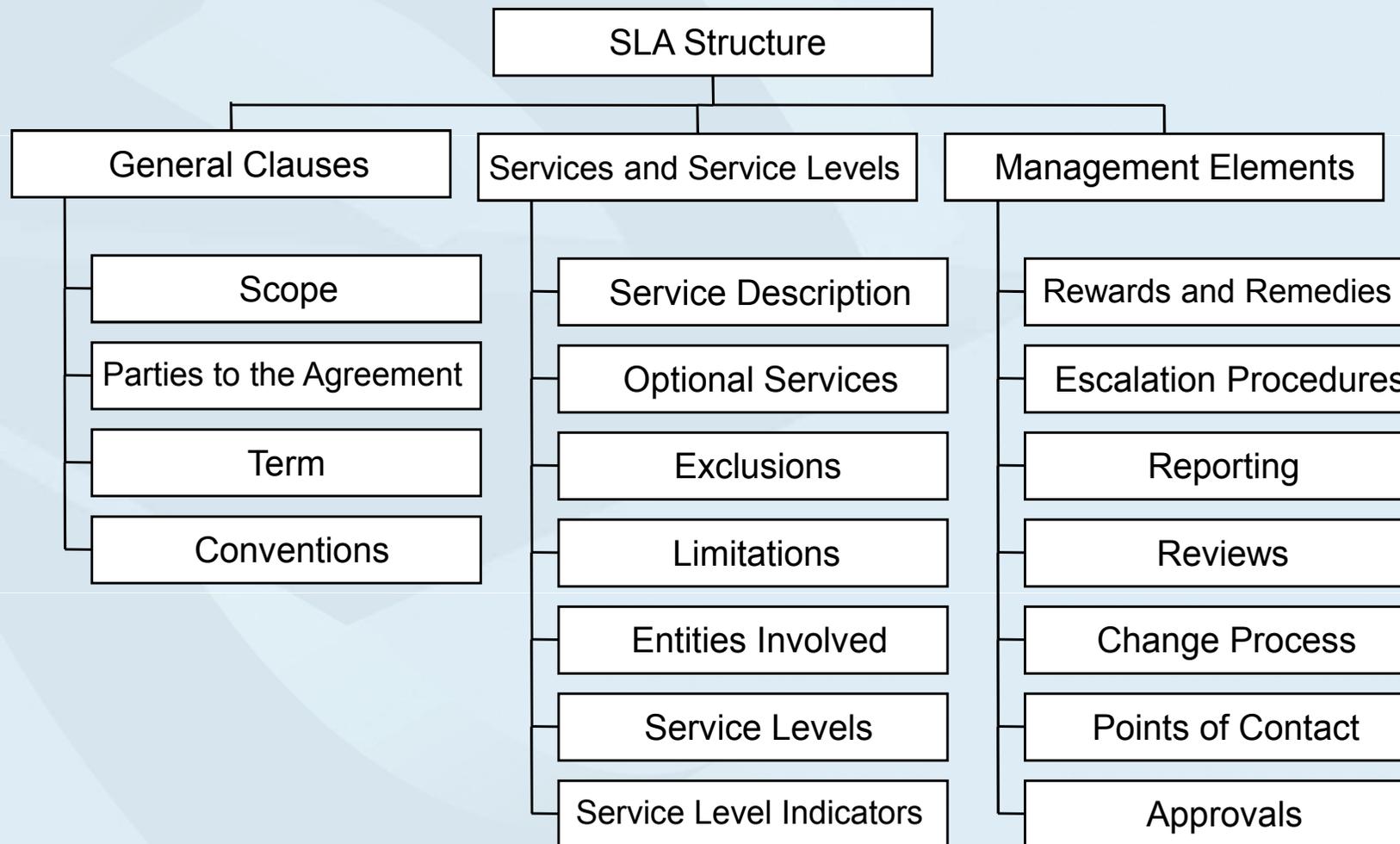
SLA document



SLA Process



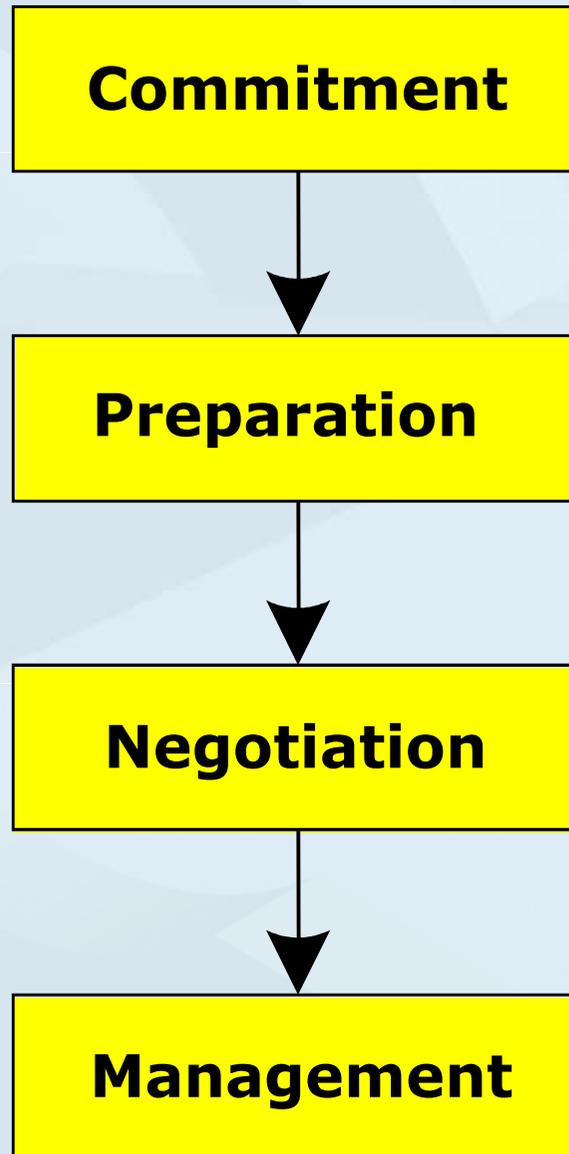
The high-level SLA Document



What is the SLA Process?

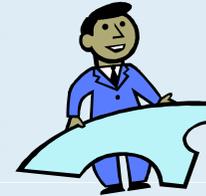
- How to create and maintain an SLA:
 - Forming the basis of an agreement;
 - How the agreement should be reached;
 - What should be included;
 - What should not be included.

The high-level SLA Process



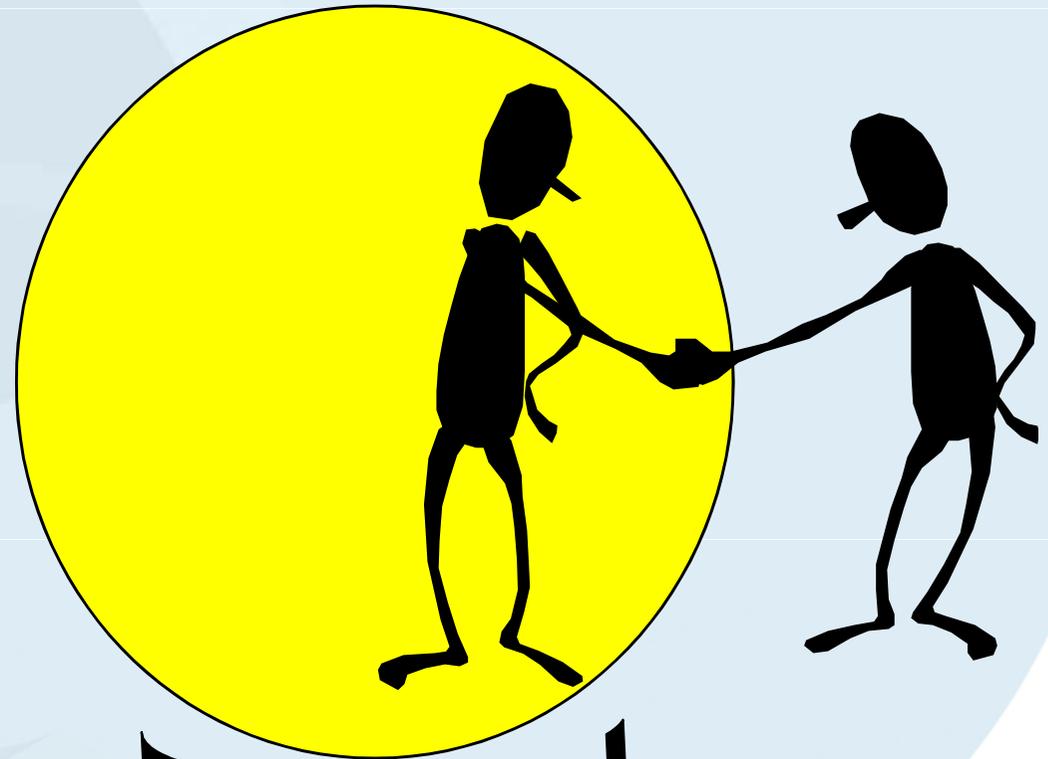
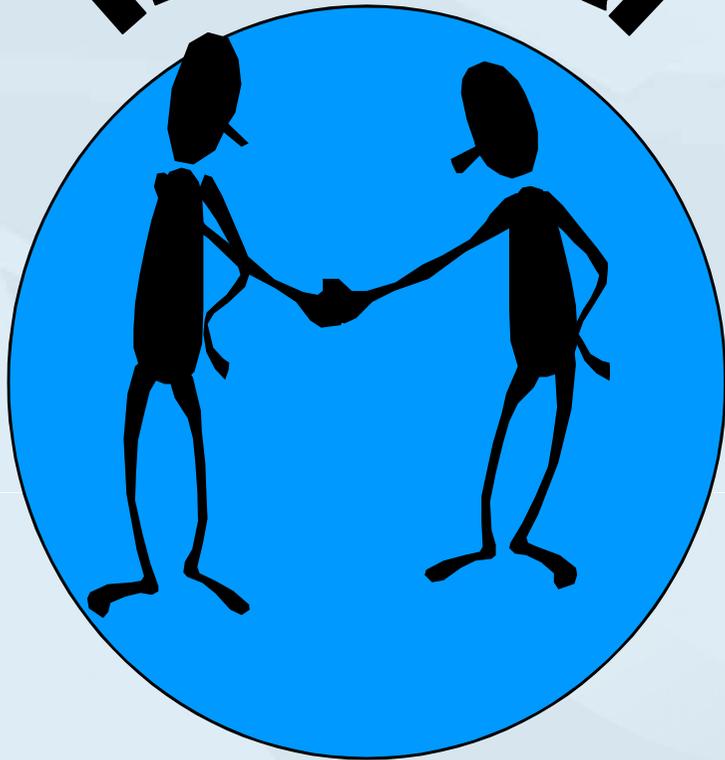
What are the Key Points?

- The SLA process is mostly concerned with communication between the parties:
 - So it is about people.
- The ability to execute the agreement and process efficiently and repeatedly.
- Technology plays a pivotal role:
 - But, beware of getting sidetracked with too much technology.



SLA Types by organisational structure

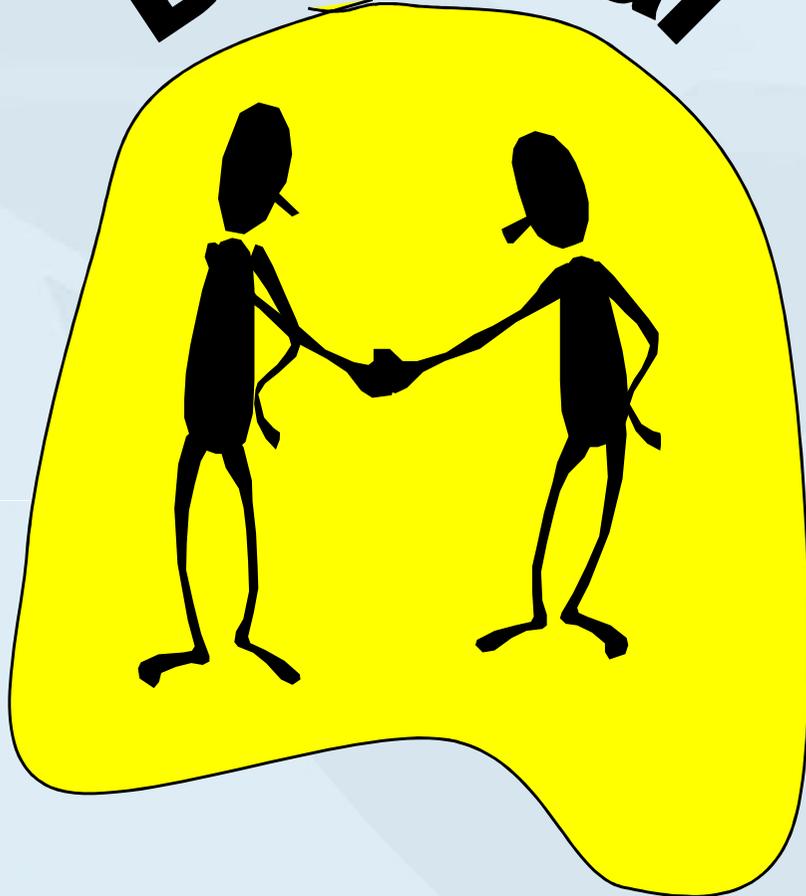
Internal



External

SLA Types by participants

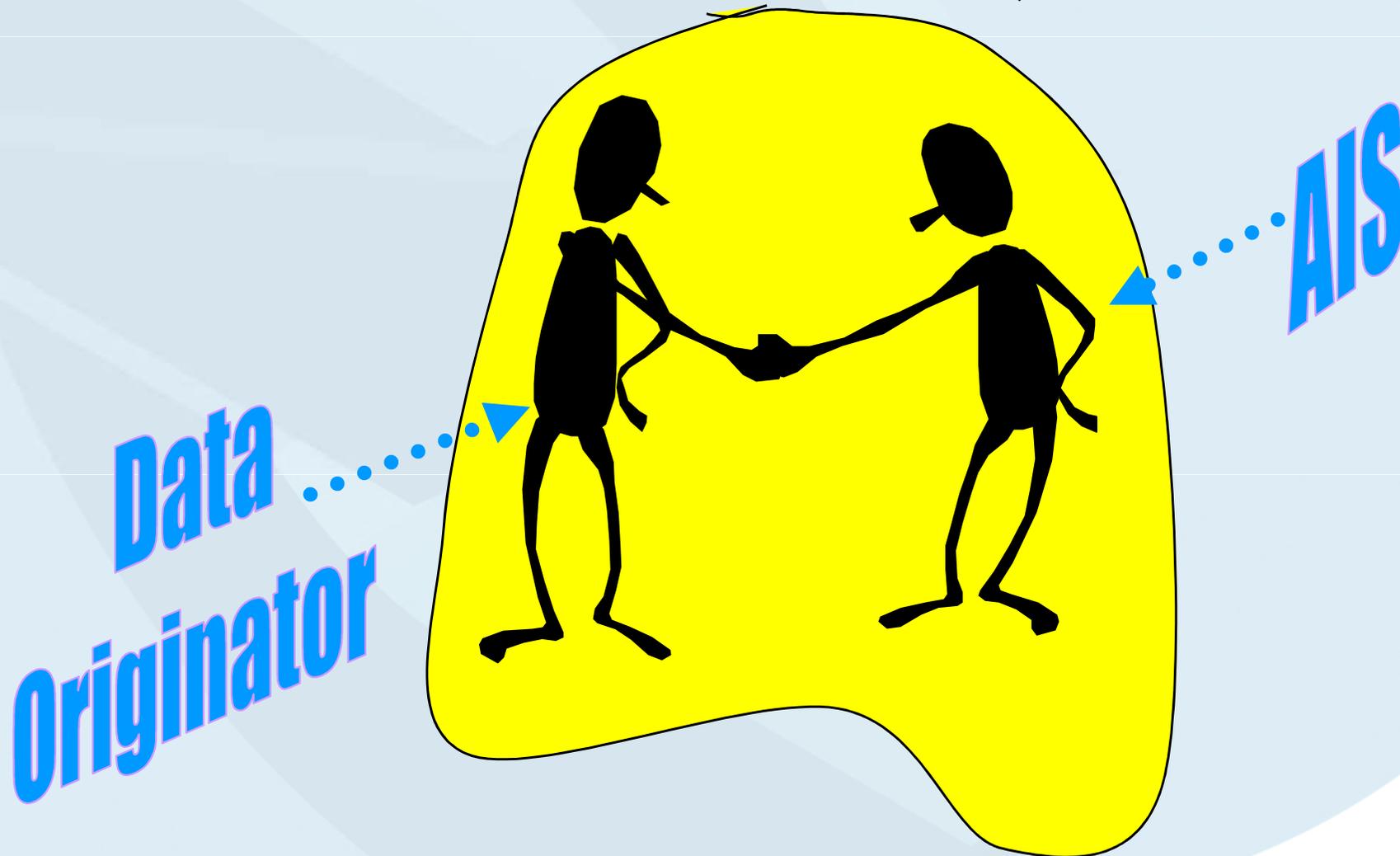
Bilateral



Trilateral

Participants I

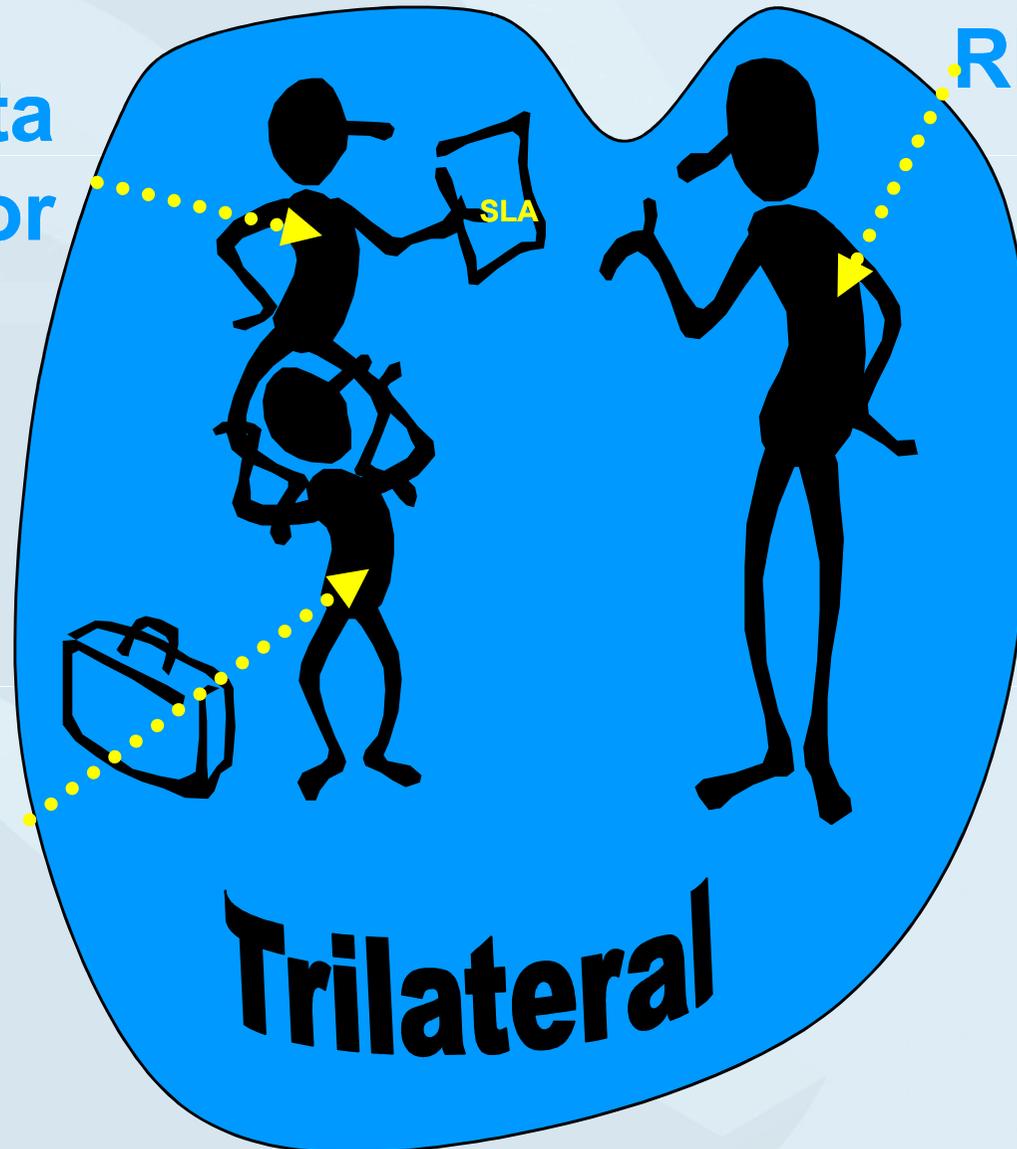
Bilateral



Participants II

Data
Originator

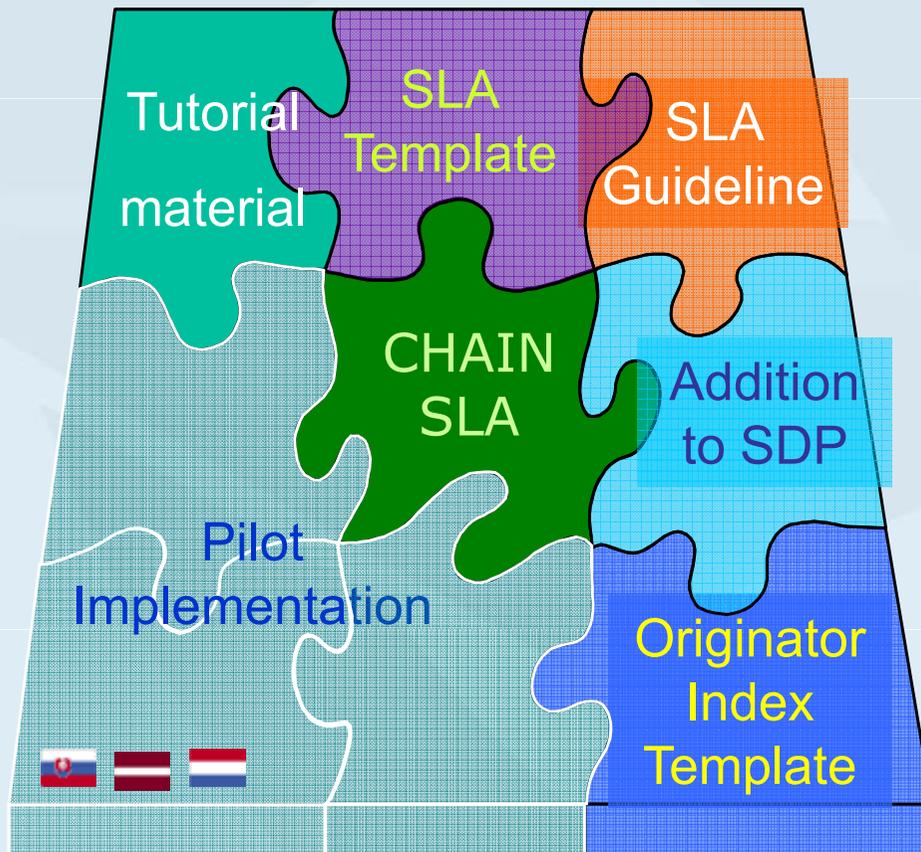
AIS



REGULATOR

- Enforce
- Control
- Facilitate

Service Level Agreement



- Originator Index template
- New Static Data Procedures
 - Originator <-> AIS = Input to AIS
- SLA guidelines
- SLA template
- Tutorial material
- Pilot implementation

Summary

- ICAO Requirements for arrangements between the AIS and Data Originators
- Bilateral or Trilateral types of SLA for AIS
- SLA structure: Document and Process
- SLAs are a crucial tool for driving business performance.
- Without an SLA with an internal or external provider, how can you effectively judge the supplier's performance?

...the best way to formalize, structure and organize the interaction between partners...

Related links



CHAIN – Data Integrity webpage

www.eurocontrol.int/aim/public/standard_page/qm_dataintegrity.html



CHAIN – Data Integrity Computer Based Training

EUROCONTROL training zone e-learning.eurocontrol.int

Registration required: *AIS/AIM interest*



EUROCONTROL