



SAAB



Create Applicability business rules in a civil aviation project

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Agenda

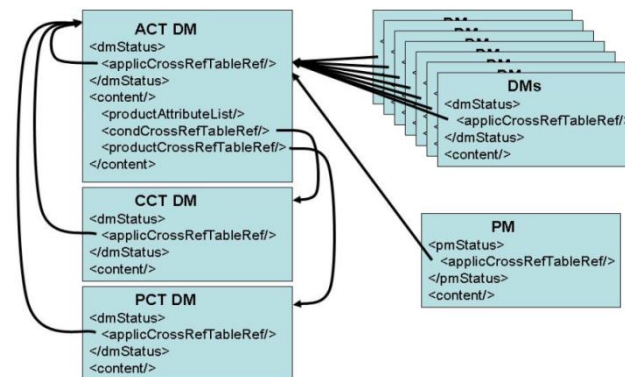
- Applicability Definition
- Applicability in S1000D
- Structure for applicability
- Planning
- Collect available product data
- Created the applicability business rules
- Summery

Applicability Definition

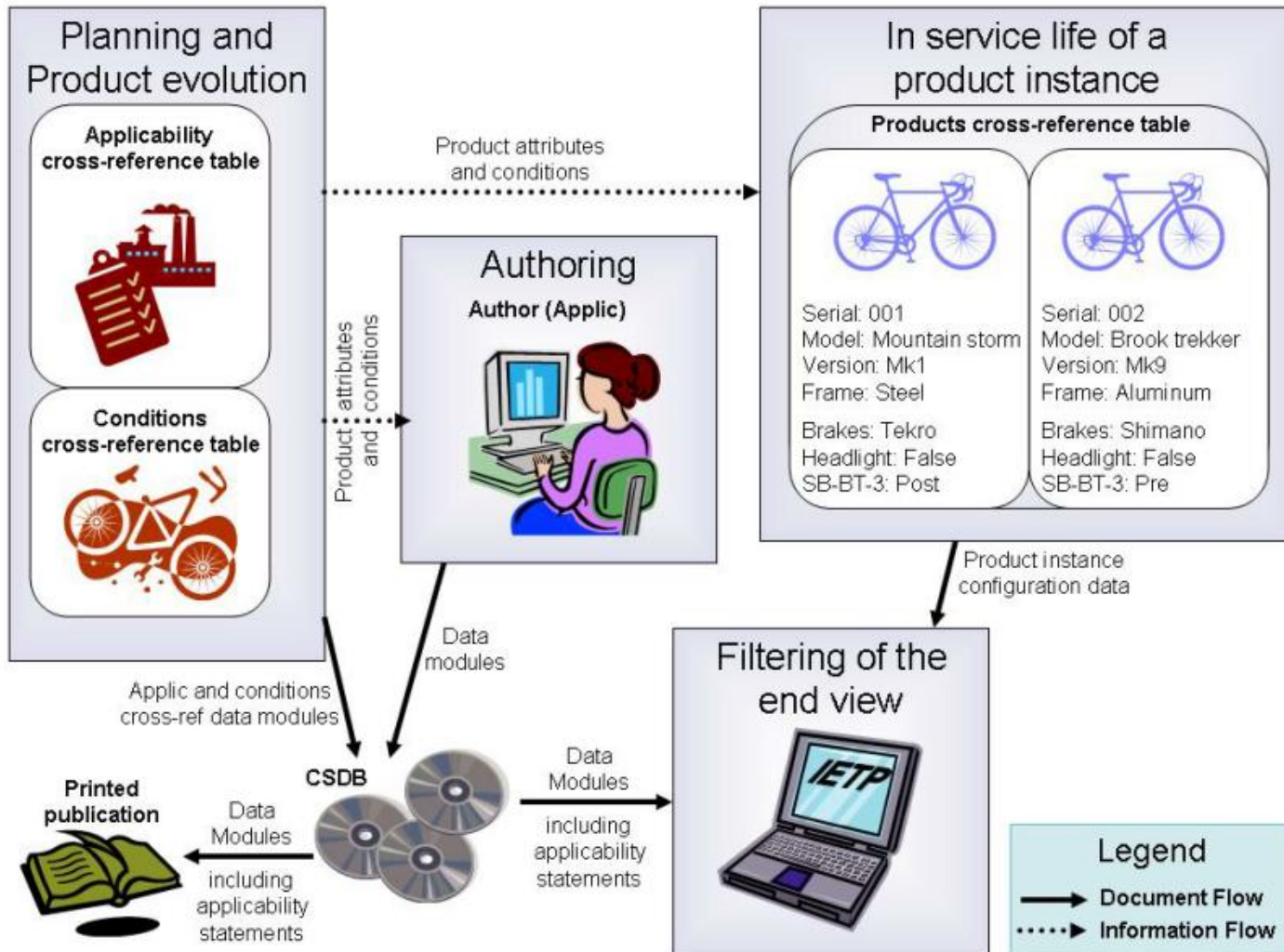
Applicability provides the mechanism to identify the context for which a data module or parts of a data module is valid. This context is usually associated with the physical configuration of the Product but can include other aspects such as tool availability and environmental conditions.

Applicability – S1000D (issue 4.0)

- Applicability cross-reference table (ACT)
 - Product attributes.
- Conditions cross-reference table (CCT)
 - declare and list any conditional that affect applicability as data
- Product cross-reference table (PCT)
 - repository for defining product instances with the associated product attributes and conditions



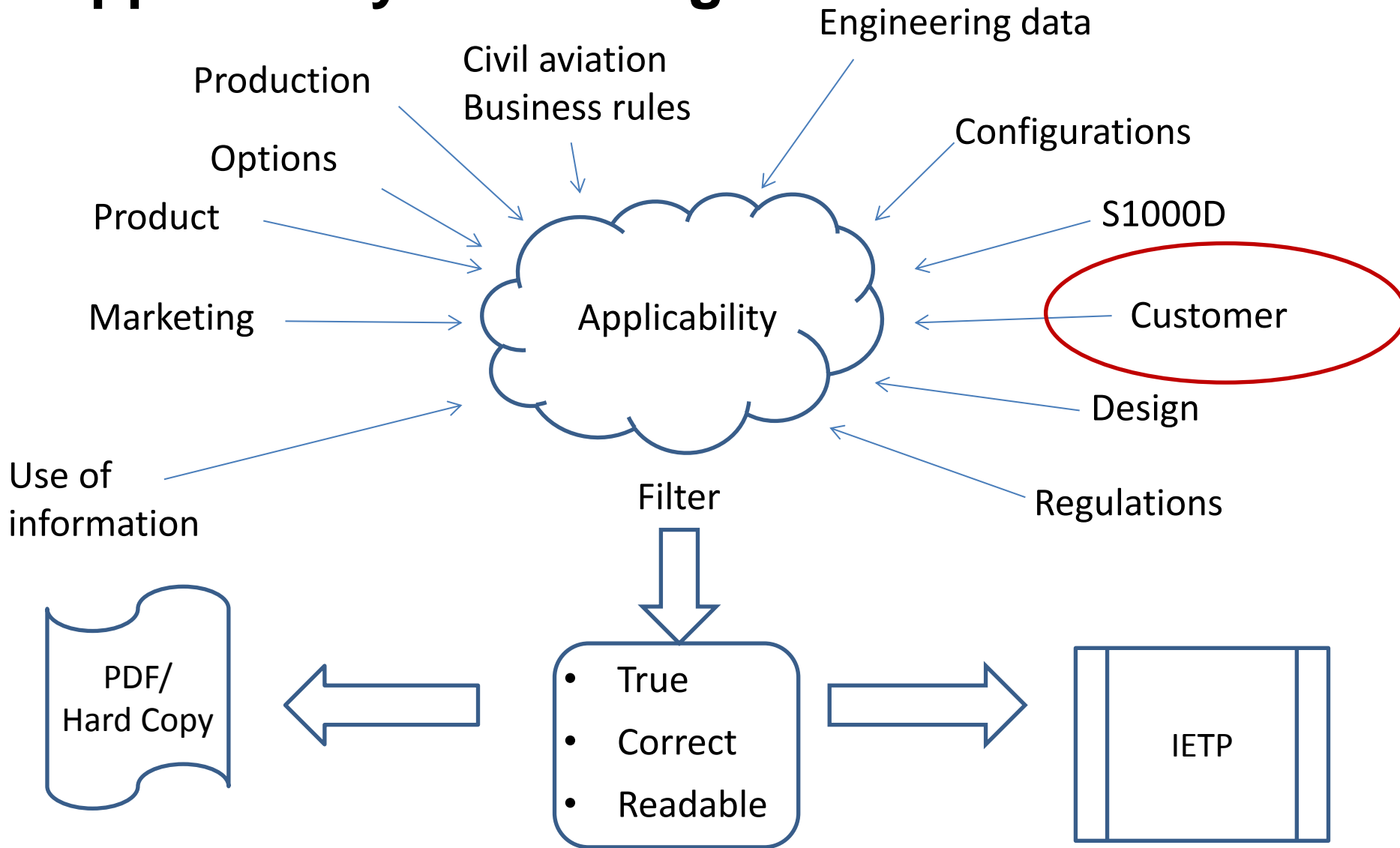
Applicability in context



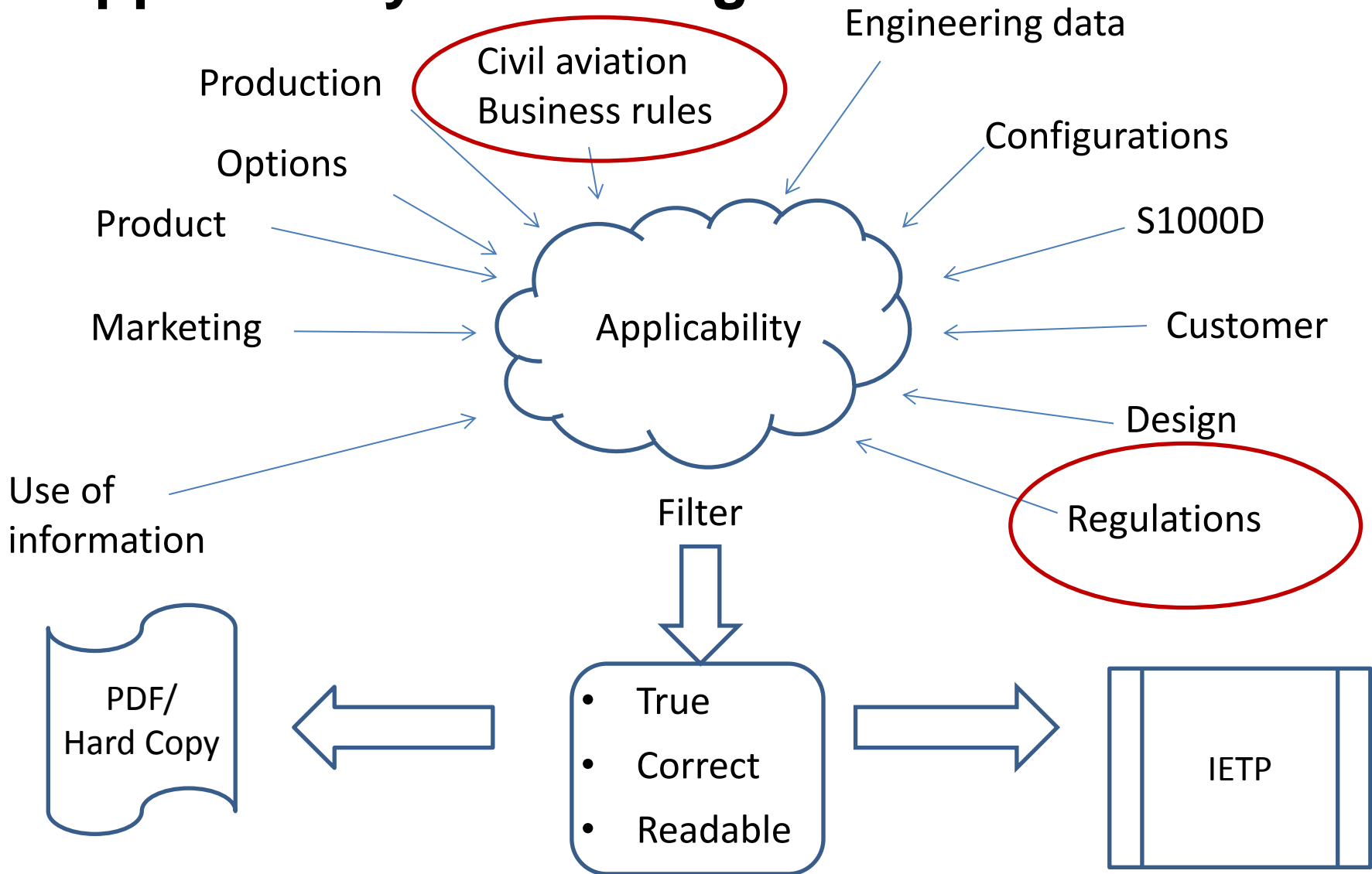
Structure of applicability

- The engineering data is always the master source for applicability information
- For technical author the applicability valid data source is the applicability values and expression stored and structured in the CSDB.
 - This applicability data is suitable to use for technical information
- Applicability is used when publish technical information
 - Screen
 - Hard Copy

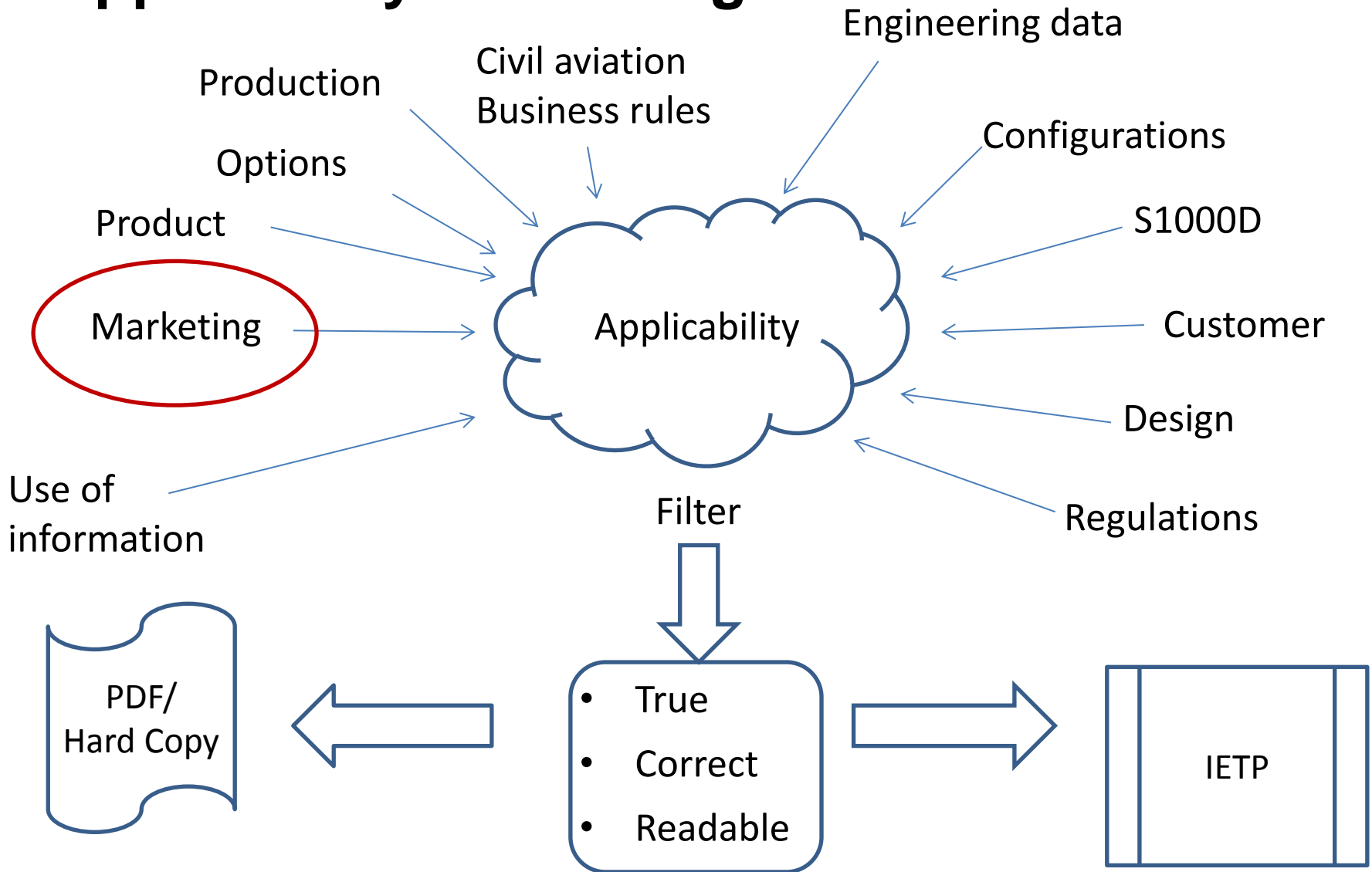
Applicability – Planning



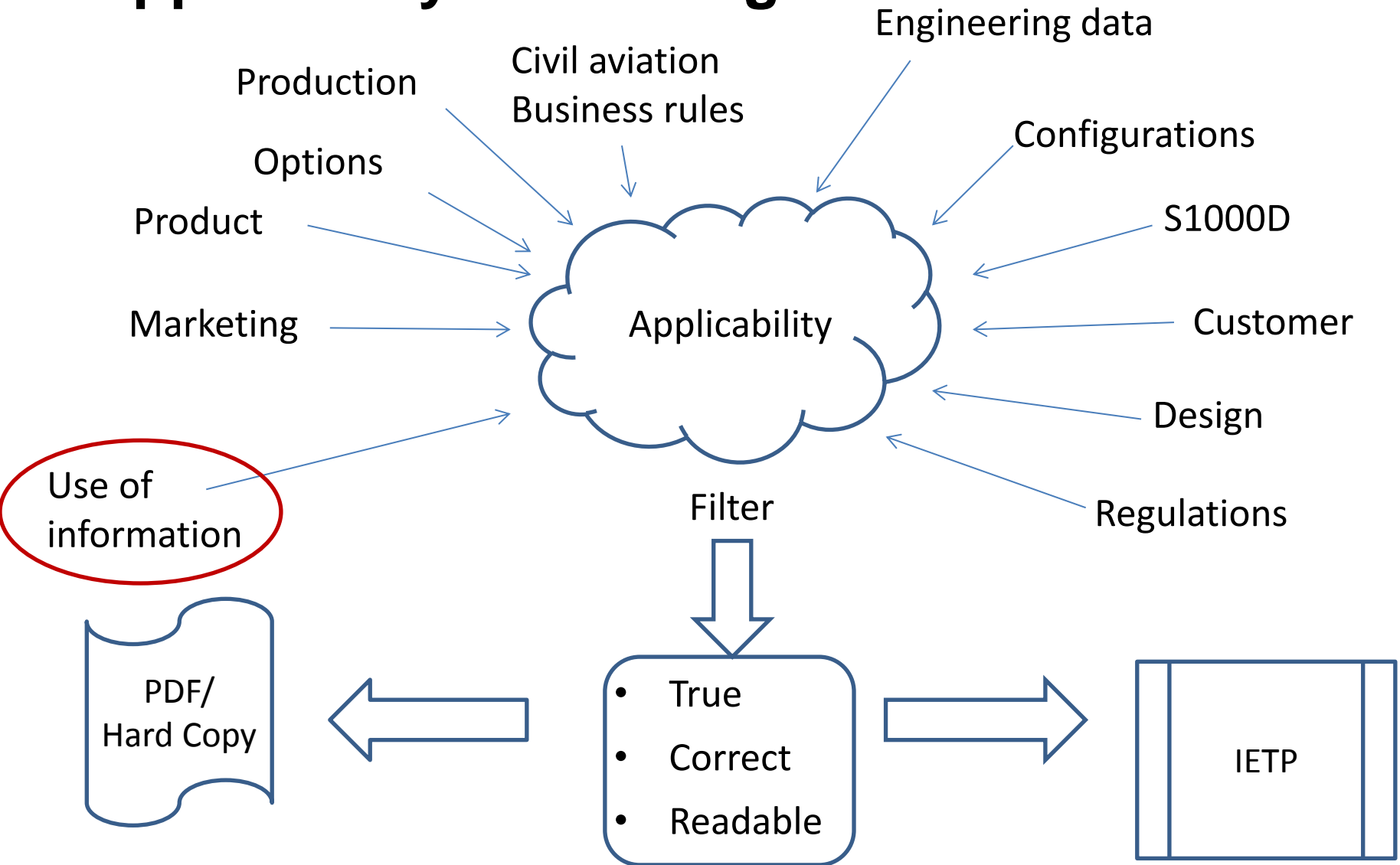
Applicability – Planning



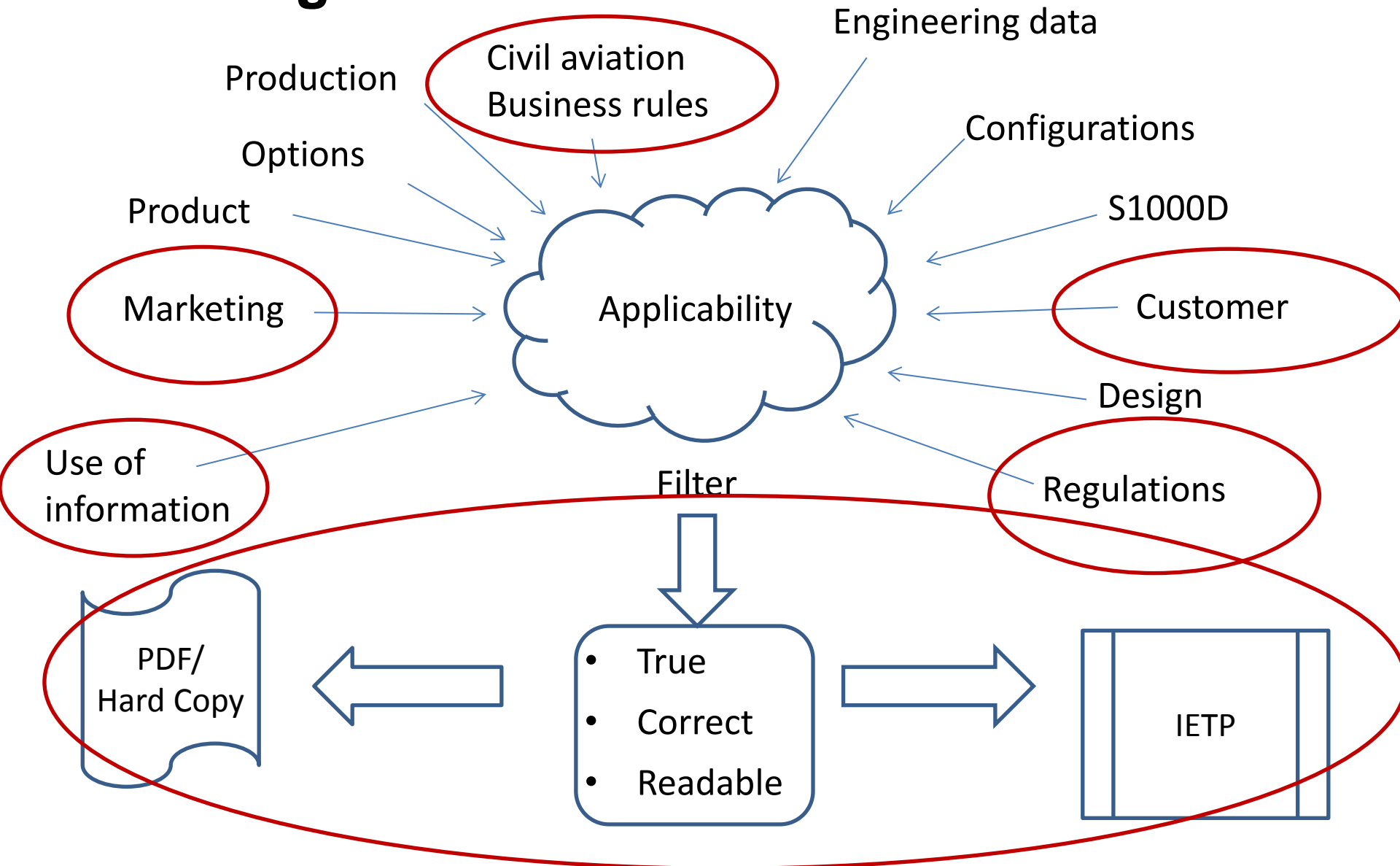
Applicability – Planning



Applicability – Planning



Planning

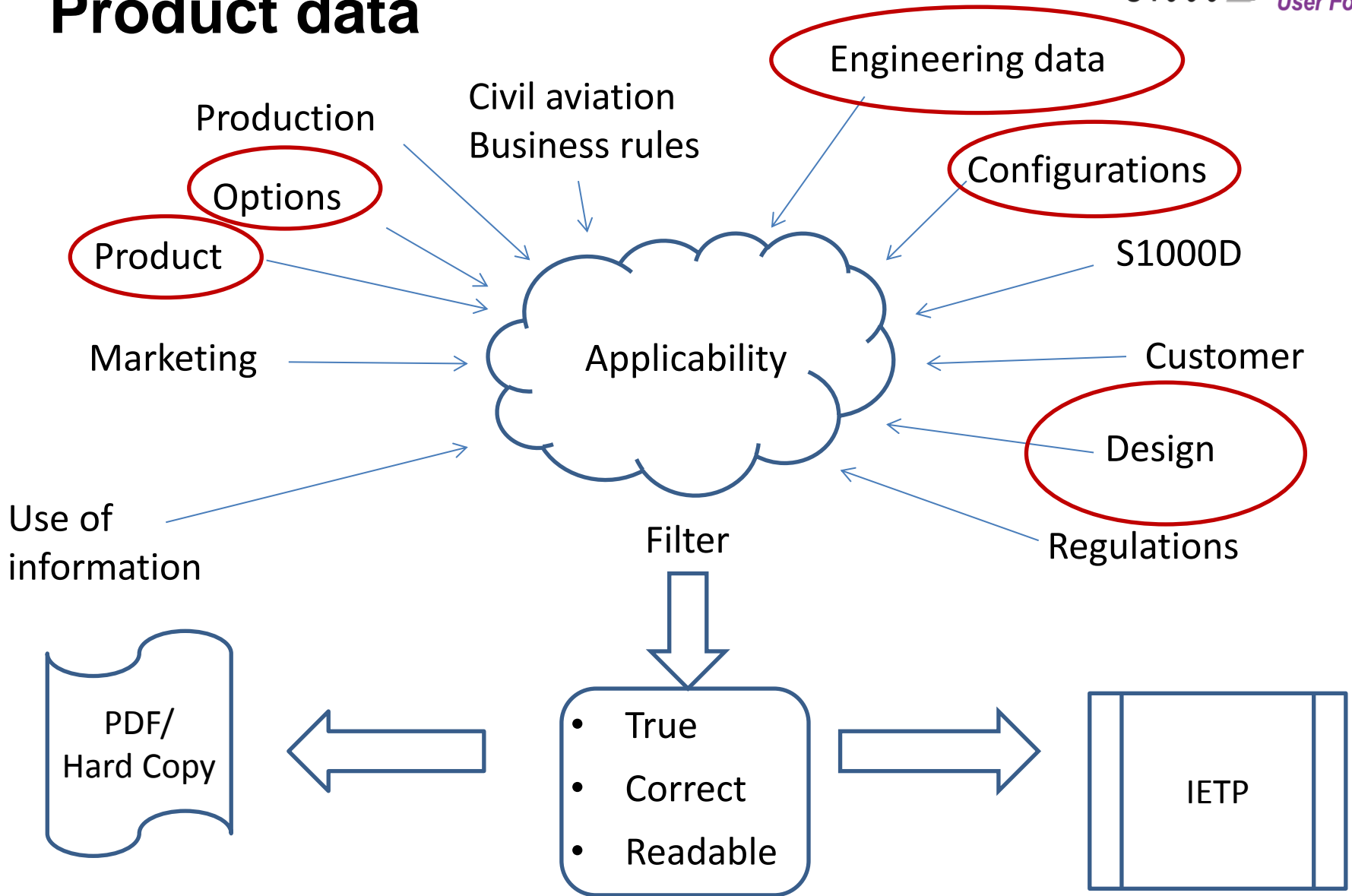


Summery for the planning for Applicability

- planning will give the project applicability concept requirements
- Have a strategy on how to publish the information and how the information will be used
- Start to plan on how to get the information to be **understandable** and **correct** after filtering/publishing
- Know what which requirements to fulfill according the regulations

- We have now the requirements list

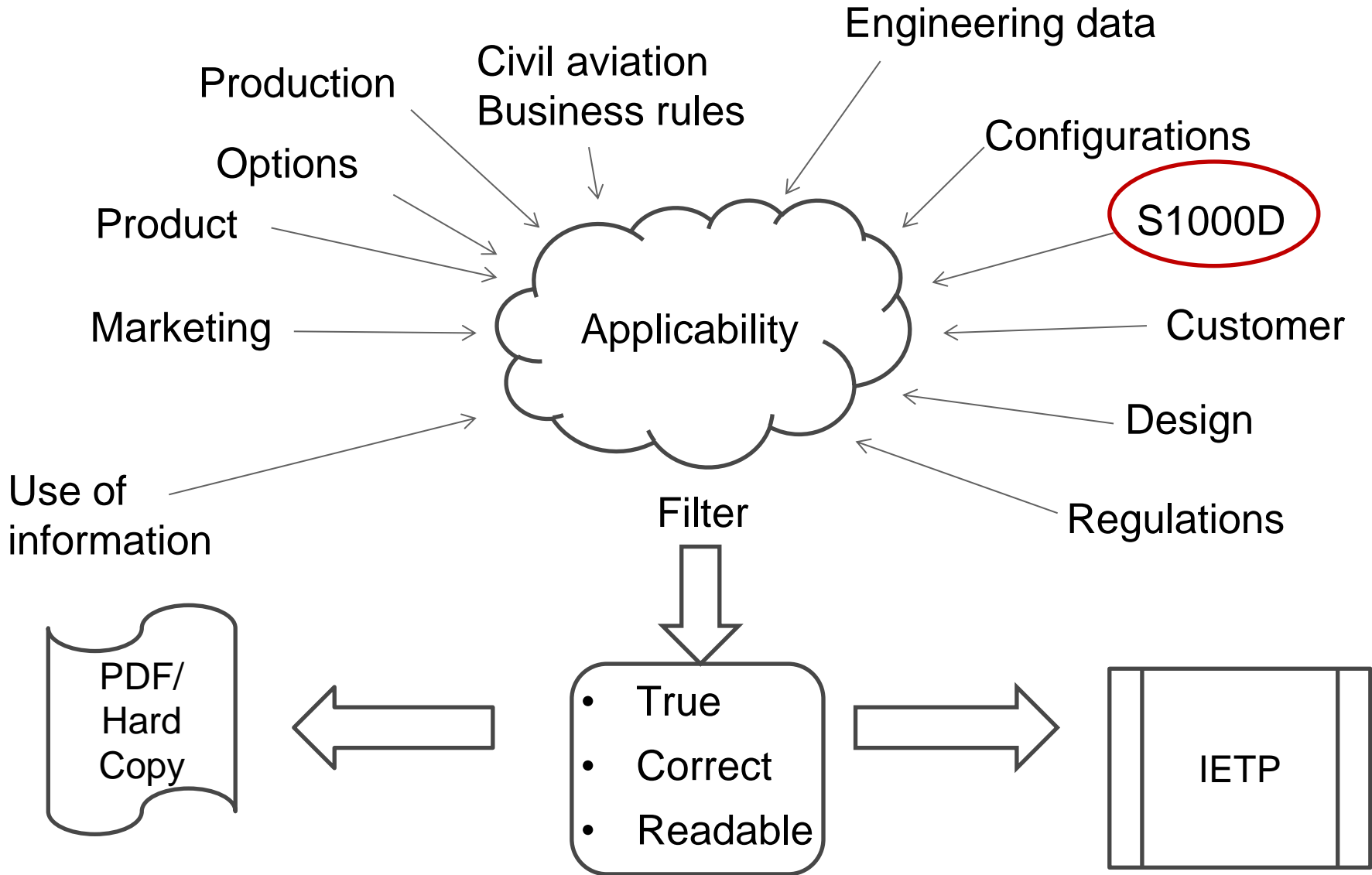
Product data



Summery Product

- decide where the data is suitable
 - Product attributes
 - Condition attributes
- Decide which attributes from engineering to use
- find the correct values
 - inherit from engineering
 - Create unique for technical information (understandable)
- Investigate use of "All"
 - Is model A and Model B = All
 - All = Model A and Model B and Model = X

Foundation



Summery S1000D

➤ Business Rules

- inc. partners requirements
- ACT allowed values and attributes
- CCT allowed attributes and required lists
- PCT configuration list structure
- the allowed mix of applicability expressions
- Writing rules for applicability

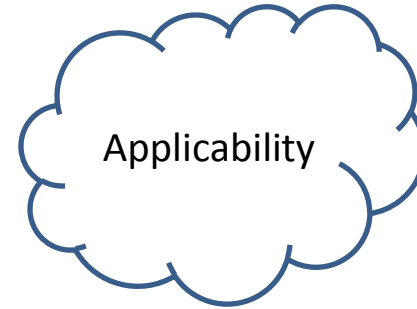
➤ BREX

➤ ACT file

➤ CCT file

➤ Process document how to create expressions

➤ User documentation hands-on



Investigation process

- start with the planning
- Create project requirement from the planning information
- investigate the product data and decide what to use and how
- Discuss with partners
- Test in the system (From planning to publishing)
- Test in the system
- Document (Business Rules Documentation)
- Create BREX

The applicability business rules

- Must support the requirement for the technical information
- Must specially support the minimal requirement for filtering the technical information
- support and guide the production of data (BREX control)
- Structure the production system (CSDB) Applicability configuration and settings
- How to handle partner information and legacy information

S1000D Business Rules – ACT

➤ Product attribute

- type/model something that give the high level Product definition
 - Model A and B
 - Model A
 - Model B
 - All (model A and B) requires to be stated in the BR
- Manufacturing Sequence number
 - 1, 2, ..., 100
- Option

S1000D Business Rules – CCT

- Service Bulletins
 - Pre
 - Post
- Environmental conditions
 - Winter
 - Summer
- Regulations
 - ETOPS
 - Yes
 - No
- Options

S1000D Business Rules – PCT

- Will give the information required configuration for each Product instance
 - As Planned?
 - As Build?
 - As Delivered?
 - As Maintained?
- Customer as a attribute?
- Registration No. as an attribute?

Summery

- Start in a top bottom
 - Get a concept - before starting looking at details
- One of the first decision to make "All" or not "All"
 - Master data module concept
- Hard copy
 - How to handle conditions
- Involve engineering
- Get a knowledge about the possibilities for electronic view (filtering)
- Only approved expressions for applicability should be used when authoring.
 - Need to be communicate with suppliers and partners
- Test and document the testing

Good Luck with the applicability concept

Questions?