

# DATA INTEGRITY : une perspective industrielle

# Introduction

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# ***Integritas, -atis***

- Etat de quelque chose qui a conservé sans altération ses qualités, son état originel

# Data

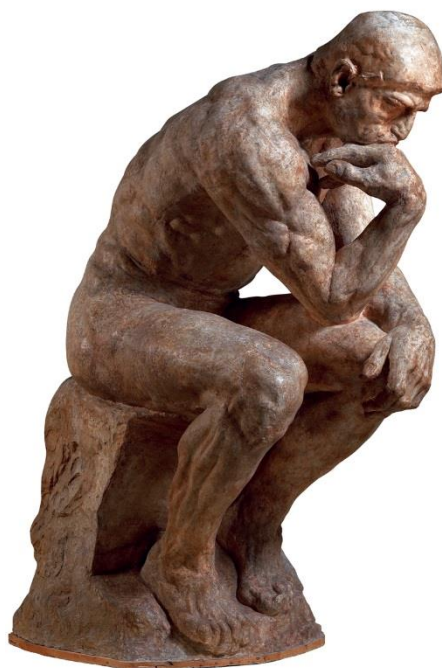


# Objectifs



# Simple

# CRITIQUE



**Quelle est votre principale préoccupation ?**



# L'inspection



2015/2016 – Data Integrity guidances

Augmentation des violations cGMP touchant à la **Data integrity**

- warning letters
- blocage des importations
- renforcement des contrôles
- sensibilisation

## Guidances sur le Data Integrity

clarifier leurs exigences vis-à-vis des Industriels qui

**« doivent mettre en œuvre des stratégies efficaces et significatives pour contrôler les risques autour de la Data integrity ».**

~~une nouvelle réglementation~~

mais la façon de penser actuelle des Agences

# Un réel enjeu en inspection

**FDA's Electronic Reading Room - Warning Letters**

Home | Food | Drugs | Medical Devices | Radiation-Emitting Products | Vaccines, Blood & Biologics | Animal & Veterinary | Cosmetics | Tobacco Products

**Warning Letters Search Results**

Search all warning letters  
data integrity  [Advanced Search](#)

Sort by:    No. of Letters Found: 244

Company	Letter Issued	Issuing Office	Subject	Response Letter Posted	Closeout Date
<a href="#">Aarti Drugs Limited</a>	07/30/2013	Center for Drug Evaluation and Research	CGMP/Finished Pharmaceuticals/Adulterated	No	
<a href="#">Accumed Inc.</a>	06/24/2009	New Jersey District Office	CGMP For Manufacturing, Processing, Packing, Storage & Holding/Adulterated	No	
<a href="#">ACS Dobfar</a>	07/21/2005	Center for Drug Evaluation and Research	Current Good Manufacturing Practice Regulation/Adulterated	No	
<a href="#">Adamson Analytical Laboratories Inc</a>	08/02/2016	Los Angeles District Office	CGMP/Finished Pharmaceuticals/Adulterated	No	
<a href="#">Advanced Interventional Pain Ctr IRB</a>	02/07/2014	Center for Devices and Radiological Health	Institutional Review Board (IRB)	No	

# Tendances en Inspection FDA

FDA a adressé **69**  
GMP *Warning Letters* en 2017

**12 / 20** USA

**33 / 49** hors USA

Sont liées à une déficience de Data  
Integrity

**65 %**

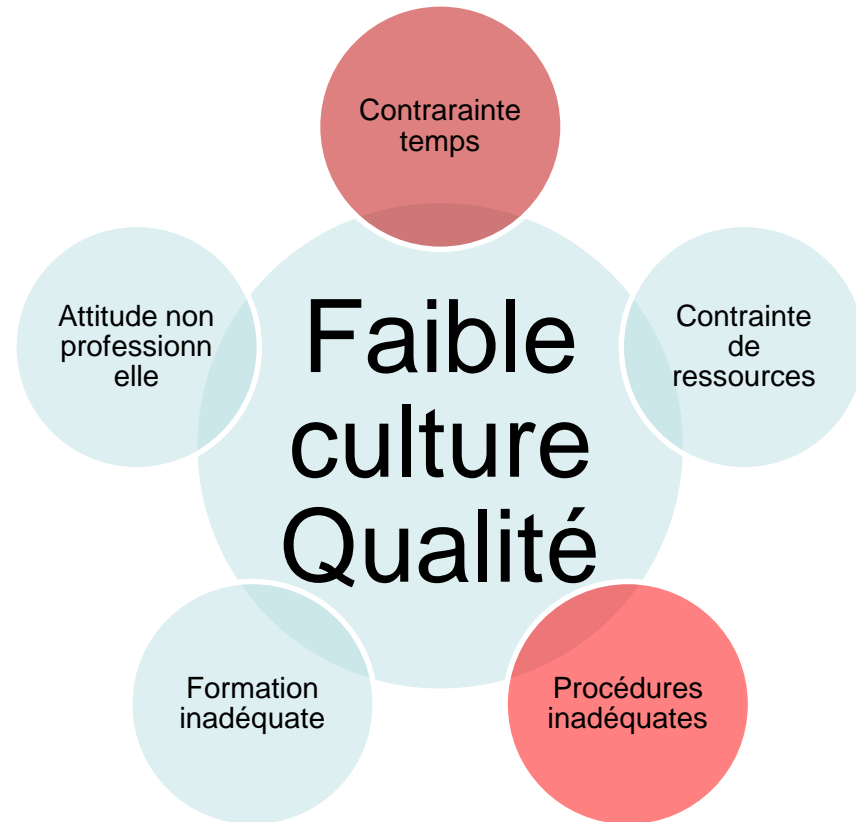
## Warning letters -Exemples

Date	Companie	Pays	Domaine	Raison
11.08.17	Bicooya Cosmetics Limited	USA	Drug product	<b>système qualité</b> n'assure pas l'intégrité des données de la qualité des médicaments
16.05.16	BBT Biotech GmbH	Germany	Drug product	<b>Audit trail</b> : pas suffisamment de <b>contrôles sur l'accès</b> ou les modifications des données
12.05.16	Tai Heng Industry Co., Ltd	China	API	<b>Pas suffisamment de contrôle</b> empêchant la manipulation et l'omission des données
03.03.16	Emcure Pharmaceuticals Limited	India	Drug product	Données d'enregistrements de laboratoire <b>incomplète, inexacte ou falsifiée</b>
02.03.16	Innovative Sterilization Technologies, LLC	USA	Medical Device	<b>Validation non documentée</b>
17.12.15	Sun Pharmaceuticals Industries Ltd	India	Drug	Manque <b>d'audit trail</b> et pas suffisamment de control sur le system
30.09.15	Merge Healthcare, Inc	USA	Software device	Manque de <b>validation</b>
28.09.15	Unimark Remedies Ltd	India	API	Manque de <b>contrôle d'accès</b> (identifiant et mot de passe unique) et données incomplètes
21.09.15	Genesis Biosystems, Inc.	USA	Medical Device	Manque de <b>validation</b>

<sup>[1]</sup> <http://www.ofnisystems.com/fda-warning-letters/>

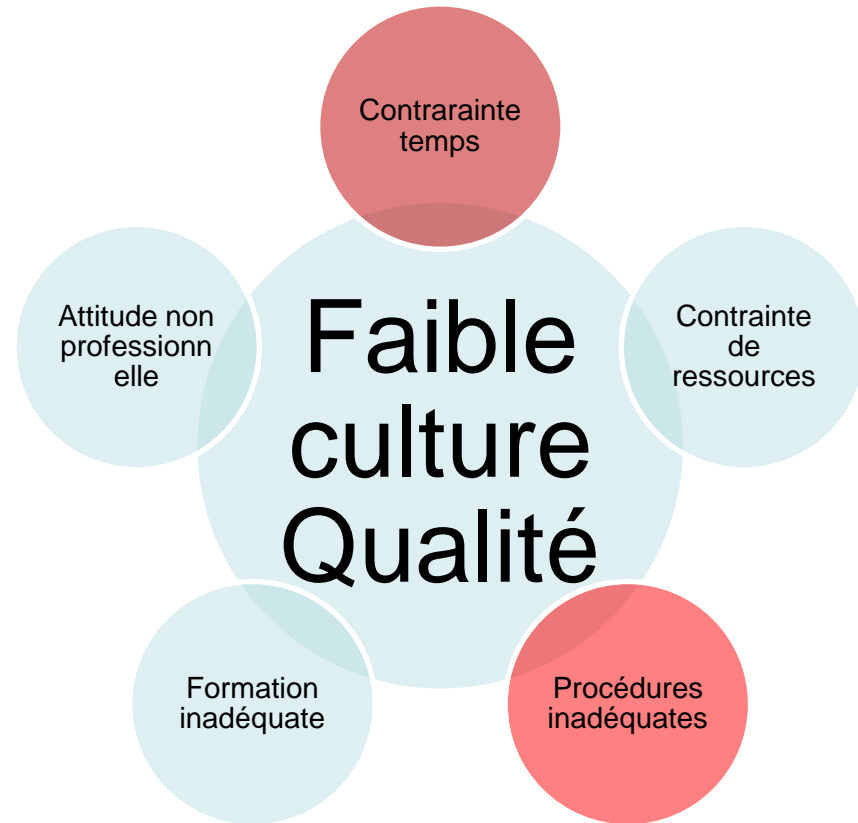
# Culture Qualité

Les écarts sur le Data integrity ont été identifiées et reliées par les auditeurs comme un résultat direct de **la faible culture qualité** dans les organisations



# Culture Qualité

*La culture  
qualité doit  
être promue à  
travers toute  
l'organisation*

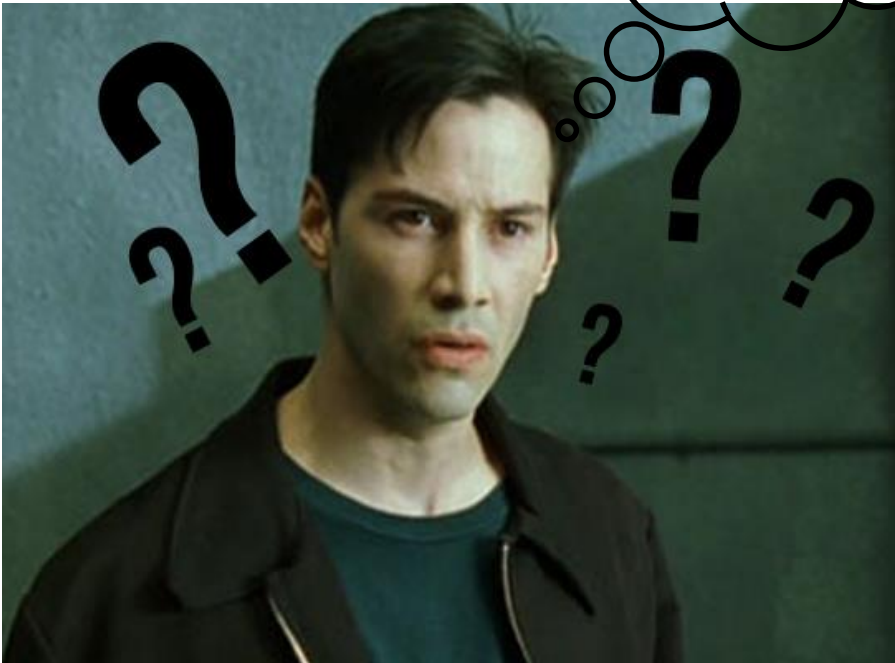






**Quelle est ma principale préoccupation ?**

# La Décision Qualité



Manufacturing formula - Processing instruction - Batch processing record		
Drago solution		Batch description <b>999205</b>
0.025 mg per dosage in 4.5 ml cartridges		Preparation size (ml) 80000
Batch production objective		Batch production record no. 0024-01
Manufacturer Company name Manufacturer of liquid form		Code number
Start of manufacture	Date of manufacture	End of manufacture
Number of pages according to batch no. 19	Inserted pages	Facilities
Total number of pages		
<b>1. Staff responsible for compiling the batch production instructions/record</b>		
_____		
Date	Signature	(- Name -)
<b>2. Head of production:</b> completion without according to instructions		
_____		
Date	Signature	(- Name -)
<b>3. Responsible project manager</b>		
Comments: _____		
Date	Signature	(- Name -)
<b>4. Manufacturing</b>		
Date _____		
Date	Signature	(- Name -)
<b>5. Head of production</b>		
Comments: accordance with section 4 of the Pharmaceutical Good Practices _____		
Date	Signature	(- Name -)
Comments: _____		
_____		
_____		
Page 1 of 19		

# Data Integrity : Définition



“The extent to which all data are **complete, consistent** and **accurate** throughout the data lifecycle”

MHRA\* GMP Data Integrity Definitions and Guidance for Industry March 2015



“The degree to which a collection of data is **complete, consistent** and **accurate** throughout the data lifecycle”

WHO Guidance on Good Data and Record Management Practices (draft version , 2015)



(IEEE\*) The degree to which a collection of data is **complete, consistent, and accurate**

FDA Glossary of Computerized System and Software Development Terminology, 1995

\* *Institute of Electrical and Electronics Engineers*



***enregistrements  
papier***

***enregistrements  
électroniques***

## Concept FDA : ALCOA

**Attributable**

**Legible**

**Contemporaneous**

**Original**

**Accurate**

- 1990 : Invention du concept par Dr Stan Woolen aux Etats-Unis (inspecteur FDA)
- Introduction de notion ALCOA dans les « Good Laboratory Practice » par la FDA (réf. : 21 CFR 58.130 Part c et e)

## Concept FDA : ALCOA

ATTRIBUABLE

**Qui** collecte, modifie  
ou manipule la  
donnée ?

**Qui** effectue une  
action et **quand** ?

La donnée est-elle  
**lisible**,  
**compréhensible**,  
**traçable** et permet-  
elle d'avoir une image  
claire du  
séquencement des  
étapes / évènements  
tout au long de son  
cycle de vie ?

Concept FDA :  
**ALCOA**

LEGIBLE

## Concept FDA : ALCOA

CONTEMPORANEOUS

La donnée est-elle  
enregistrée à  
**l'instant ou est-elle  
générée / observée ?**



## Concept FDA : ALCOA

L'information est-elle  
l'enregistrement  
original ou une  
copie conforme ?

ORIGINAL

## Concept FDA : ALCOA

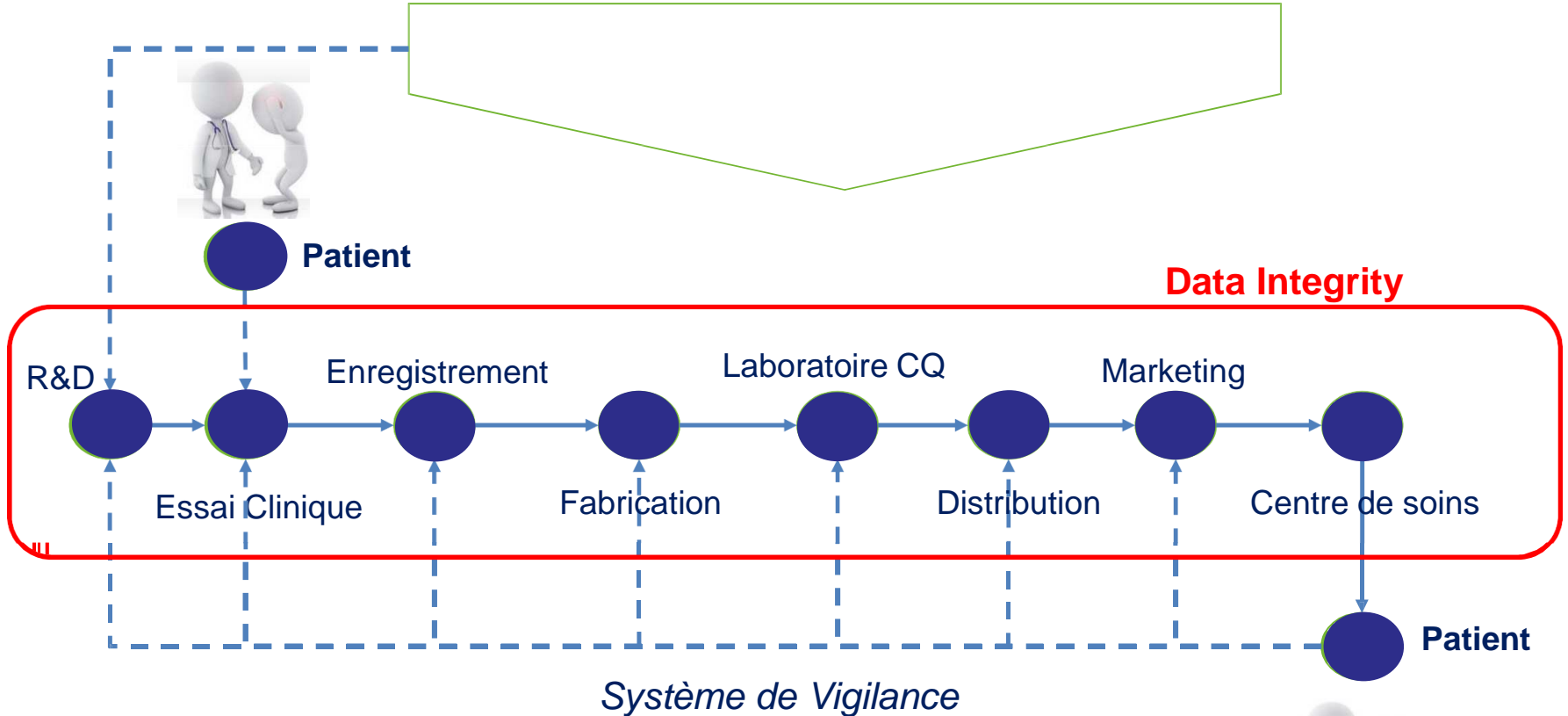
ACCURATE

Les données sont-elles exemptes d'erreurs?

La donnée est-elle **correcte, vraie, valide, fiable** ?

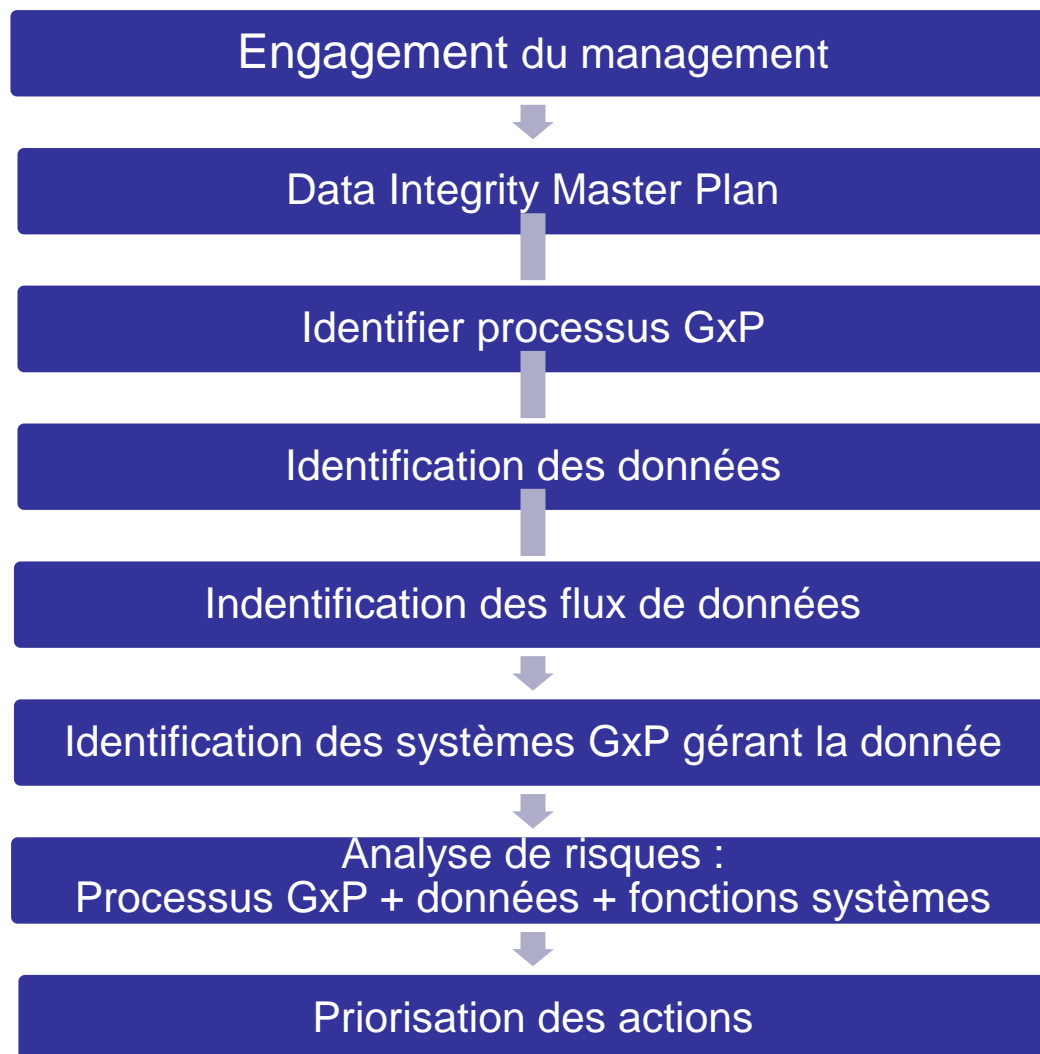
# Data Integrity et cycle de vie

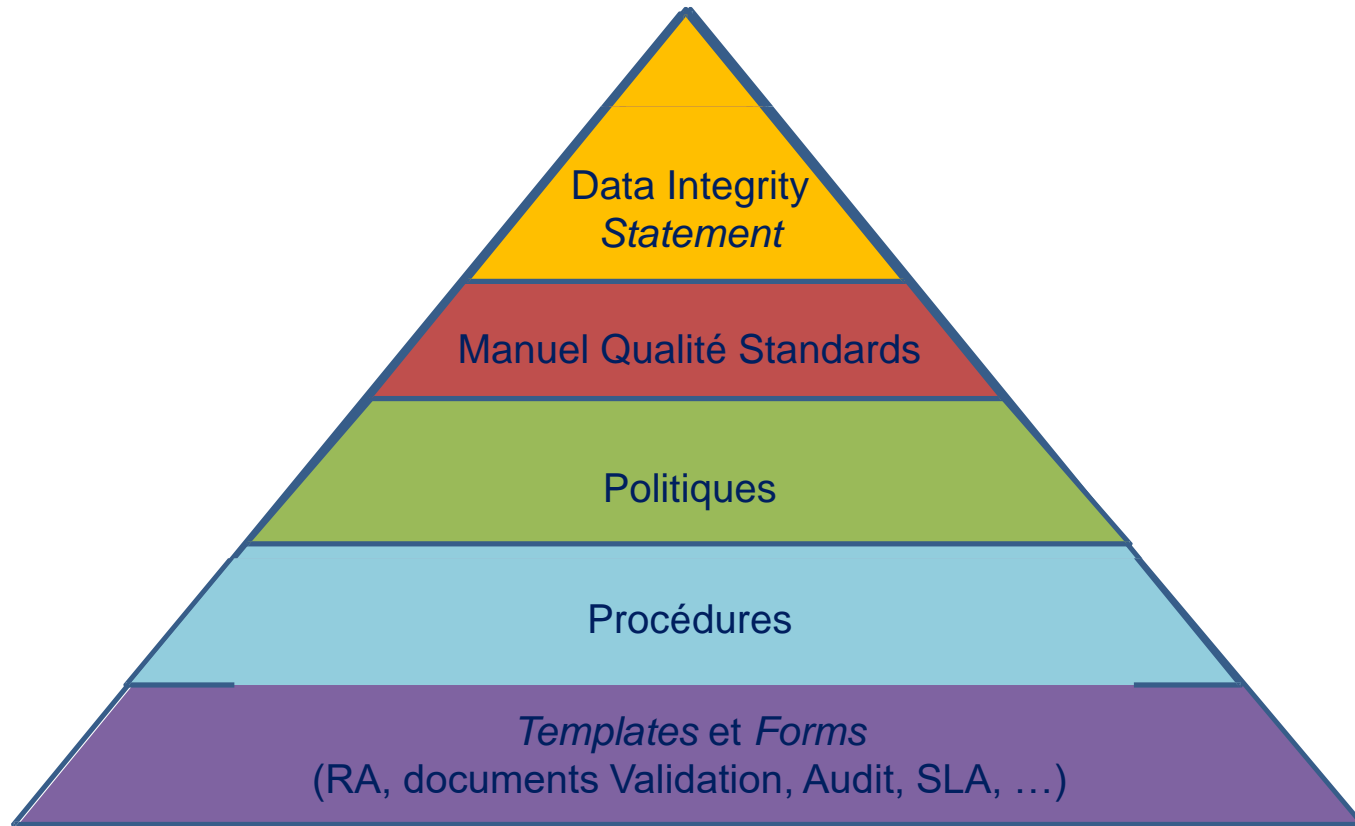
Environnement Externe Amélioration pour nouvelle maladie



# Déploiement d'une démarche de data integrity

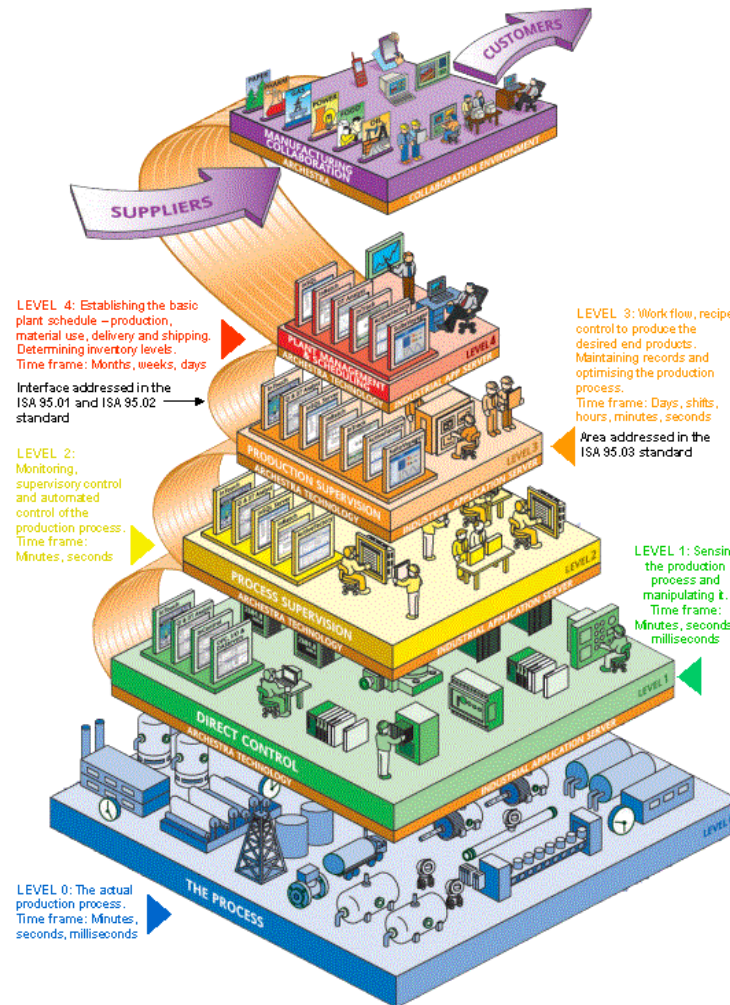
# Déployer le data integrity





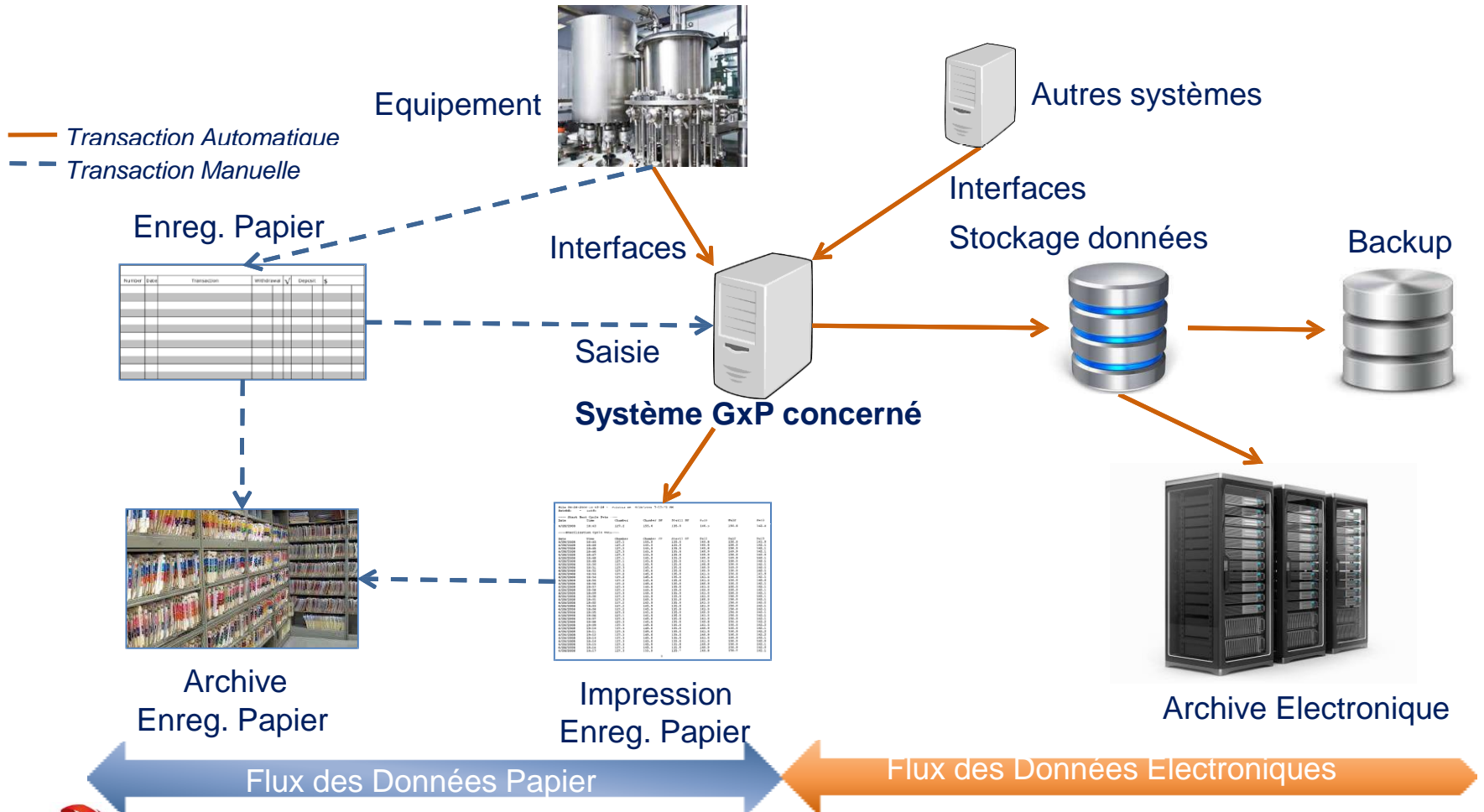


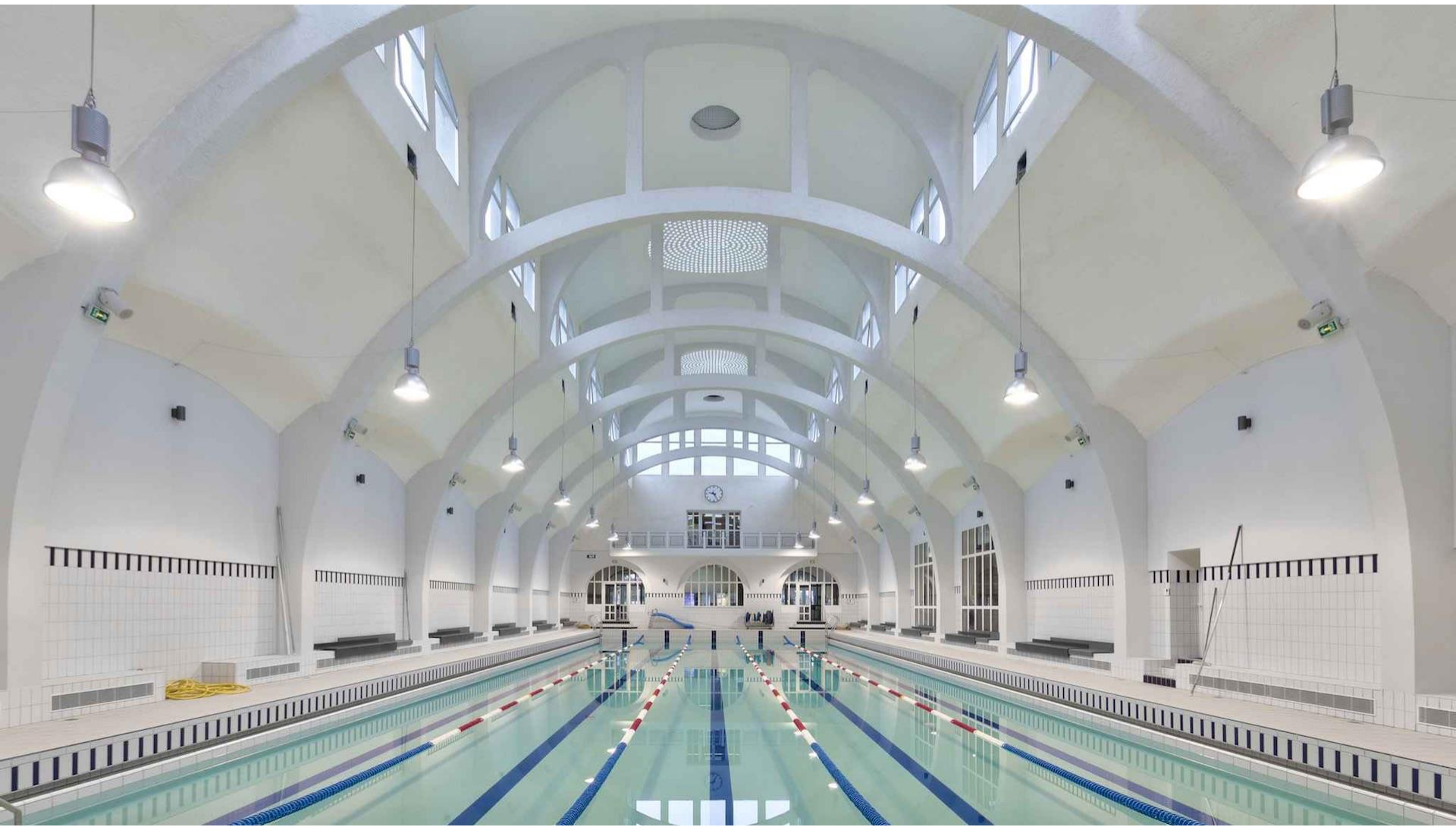
# Comprendre son flux data





# Identification des systèmes





# Analyse de risques

## USP <1058> (AIQ)

**A** Basic equipment that does not generate results or need calibrated.

**B** Equipment that generates results but does not need specialist calibration.

**C** Equipment that generates results and needs specialist calibration.



## GAMP 5

**1** Instrumentation with firmware.

**2** Instrumentation with firmware and pre-defined programs.

**3** Instrumentation with non-configurable, commercial off-the-shelf software.

**4** Instrumentation with configurable, commercial off-the-shelf software.

**5** Instrumentation with bespoke software.

# Analyse de risque

Instrument type	USP<1058> categorisation	GAMP5 categorisation	Data integrity risk
Balance	B	2	LOW
pH meter	B	2	LOW
FT-IR	C	3	MEDIUM
UV	C	3	MEDIUM
HPLC	C	4	HIGH
GC	C	4	HIGH

# Plan d'action

- **Validation** Systèmes informatisés supportant le Data Integrity
- **Qualification / Validation** des équipements générant des données
- **Mise en place de SOP's**
  - IT policies.
  - System administration (CDS access, roles and privileges).
  - Data management and storage.
  - Data acquisition and processing.
  - Data review and approval.
  - Date archiving and back-up.
  - **Monitoring anti-fraude**
- **Upgrade informatique**



# DATA INTEGRITY

## Exemples d'écarts

<b>6.2.2 short description, risk</b> <b>Data integrity at risk - prone to adulteration of validated systems and laboratory work stations and risk of loss of data.</b>	<b>Statistical category:</b> Laboratory System
<b>Observation:</b> <p>6.2.2.1 Work station PCs with installed <b>internet browsers</b> (e.g. Firefox and MS Explorer) and internet connection were observed. Hence, data integrity is at risk as it is prone to unauthorized program installation and adulteration of validated systems and laboratory work stations or risk of loss of data. The SOP XXX does not define <i>raw data</i> and internet browsers are not listed as software applications.</p> <p>6.2.2.2 For validated computerized laboratory systems the currently installed software <b>versions</b> are not documented (e.g. HPLC No. 13). This is prone to unauthorized program installation and adulteration of validated systems.</p> <p>6.2.2.3 Development testing specifications lacking document and <b>version</b> control.</p>	

# DATA INTEGRITY

## Exemples d'écarts

### 6.2.2 Quality Control Laboratory

**Statistical category:**  
Laboratory System

#### **Observation:**

A) No printer was available for the Brookfield Viscometer to record results. Values are read off the LCD display by eye and recorded in the documentation. **No secondary check** was performed to verify the observation.

# DATA INTEGRITY

## Exemples d'écarts

<b>6.2.2 short description, risk</b> <b>Data Integrity Issue</b>	<b>Statistical category:</b> Quality Systems
<b>Observation:</b> The balance calibration report XXX didn't content the weight tickets for the records of January and June 2016. This integration issue was the only one detected among the list of records reviewed during the audit.	

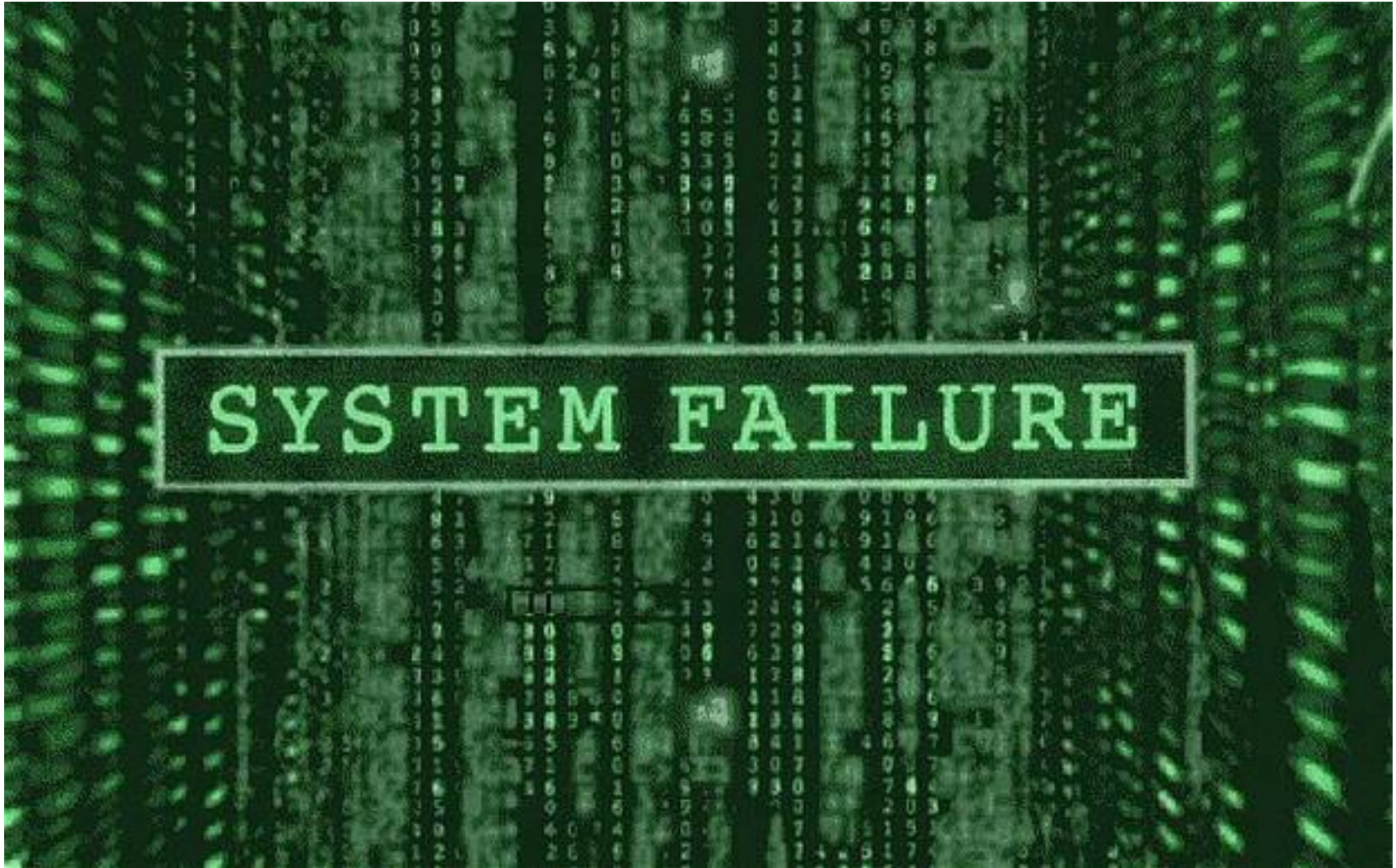




# Etes vous prêts ?

- Selectionner un **résultat (ou un enregistrement)**.
- Re-cr er la s quence des  v nements
- Essayer de connaitre et comprendre
  - **QUI** a r alis  l'analyse?
  - **QUEL**  quipement a  t  utilis  pour r alis  l'analyse ?
  - **QUAND** l'analyse a-t-elle  t  r alis e ?
  - **POURQUOI** l'analyse a  t  r alis e ?
  - **OU** la donn e  lectronique est elle stock e ?

Données c'est Données  
Reprendre c'est Voler



# Sources of Data Integrity Information



Data Integrity Guidance Document

[www.gov.uk/government/publications/good-manufacturing-practice-data-integrity-definitions](http://www.gov.uk/government/publications/good-manufacturing-practice-data-integrity-definitions)

Blog [www.mhrainspectorate.blog.gov.uk](http://www.mhrainspectorate.blog.gov.uk)



Warning Letters

[www.fda.gov/ICECI/EnforcementActions/WarningLetters](http://www.fda.gov/ICECI/EnforcementActions/WarningLetters) FDA

Voice Blog

[www.blogs.fda.gov](http://www.blogs.fda.gov)



Inspection tracker

[www.hc-sc.gc.ca/dhp-mps/pubs/compli-conform/tracker-suivi-eng.php](http://www.hc-sc.gc.ca/dhp-mps/pubs/compli-conform/tracker-suivi-eng.php)



World Health  
Organization

Data Integrity Guidance Document

[www.who.int/medicines/areas/quality\\_safety/quality\\_assurance/Guidance-on-good-data-management-practices\\_QAS15-624\\_16092015.pdf](http://www.who.int/medicines/areas/quality_safety/quality_assurance/Guidance-on-good-data-management-practices_QAS15-624_16092015.pdf)





# Sources of Data Integrity Information



Eudra GMP Data Base

<http://eudragmdp.ema.europa.eu/inspection/gmpc/searchGMPNonCompliance.do>



Connecting a World of  
Pharmaceutical Knowledge

Data Integrity Specialist Interest Group (SIG) and Body of Knowledge tool (for members only). iSpeak blog (free to access)

[www.blog.ispe.org](http://www.blog.ispe.org)



Data Integrity discussion group. Over 700 members.

Data integrity SME's regularly post information.

# Guidances Data Integrity



MHRA\* GMP Data Integrity Definitions and Guidance for Industry, July 2016

*\*Medicines & Healthcare products Regulatory Agency (UK)*



FDA\* Data Integrity and Compliance With CGMP Guidance for Industry (draft April 2016)

*\*Food and Drug Administration (US)*



PIC'S\* Good practise for Data management and Integrity in regulated GMP/GDP Environment (draft August 2016)

*\*Pharmaceutical Inspection Co-operation Scheme*



WHO\* Guidance on Good Data and Record Management Practices (draft Sept. 2015)

*\*World Health Organization (OMS)*



ISPE\* GPG Electronic Records and Data Integrity, (Draft June 2016)

*\*International Society for Pharmaceutical Engineering*



SOFAQ – 15 juin 2018

