



Defence Safety Inspectorate
Ministry of Defence
Netherlands

Methods of inspection

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27 april 2023



Program

- History of the Defence Safety Inspectorate
- Regulatory structures
- Management system norm
- Models used for determining level
- Example



- History of the Defence Safety Inspectorate





Action plan

2

Hoe pakke
dit aan?

Een veilige defensie- organisatie

Plan van aanpak ter verbetering van de veiligheid binnen Defensie

Implementing safety management





Defence safety inspectorate (2018)



Supervises the safety of 56000 employees



Is part of the ministry of defence

Is formerly instituted



The inspectorate employs 25 people (military and civilian)



Works independently and transparently





Approach and working methods

Incident investigation

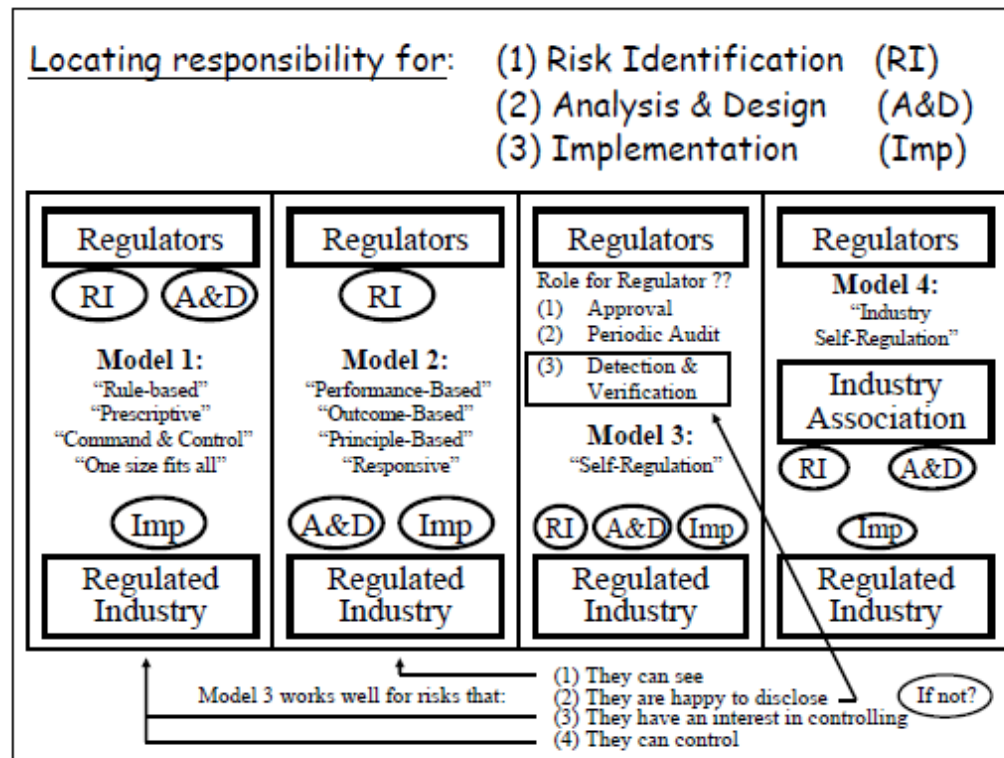
Theme-based supervision

Supervision on the safety management system





Regulatory structures

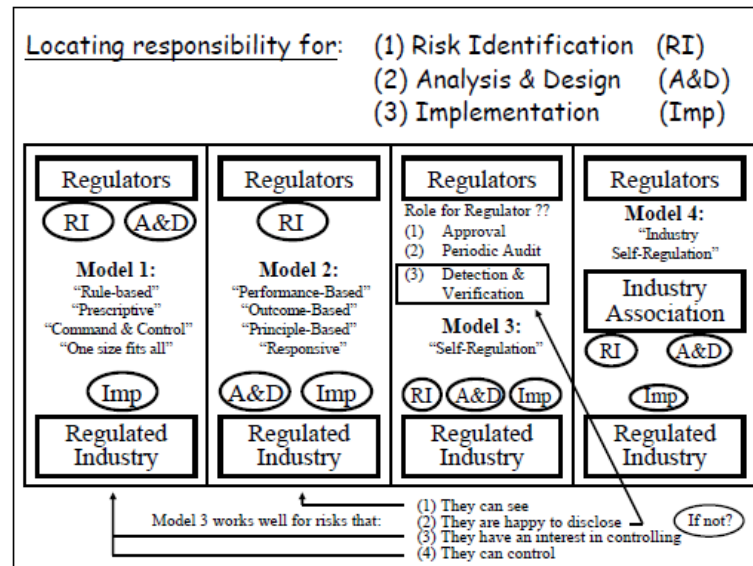


Fundamentals of regulatory design, Malcolm K. Sparrow



Policy Dutch Defence

Policy Dutch Defence



Adapting supervision

Compliance

Supervision of the system



Pre-conditions

- If they can see (the risks)
- If they are happy to disclose
- If they have an interest in controlling
- They can control



Better make sure!





737 max FINAL COMMITTEE REPORT

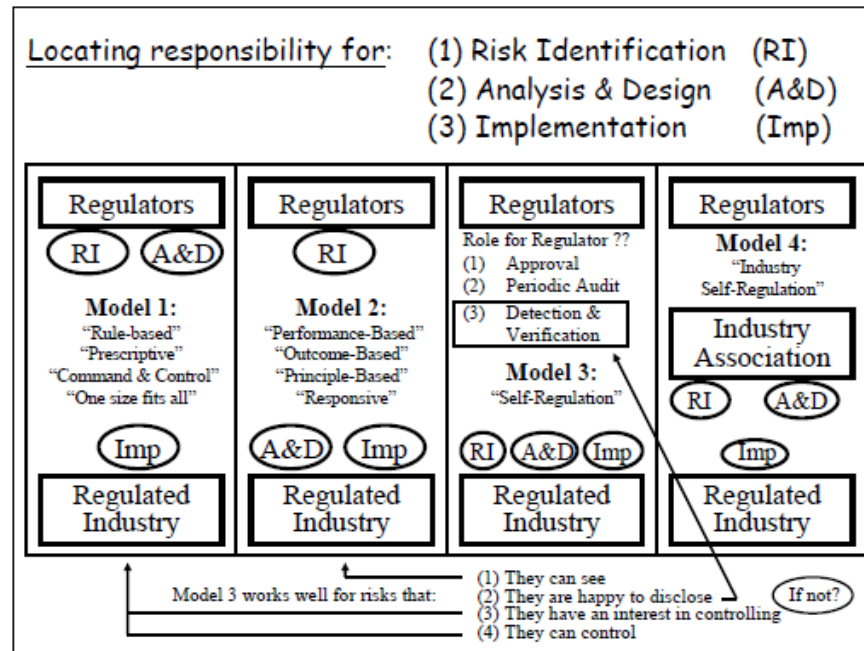
- 1) Production Pressures.
- 2) Faulty Design and Performance Assumptions.
- 3) Culture of Concealment
- 4) Conflicted Representation
- 5) Boeing's Influence Over the FAA's Oversight Structure

Not all of these instances violated FAA regulations or guidance. However, every one of them indicates that Boeing ARs are not communicating fundamentally important information about safety, certification or conformity-related issues to the FAA that could drastically enhance the agency's oversight functions and greatly improve its understanding of potential safety issues on aircraft it is obligated to certify as safe.



Inspecting a safety management system

Where are you?



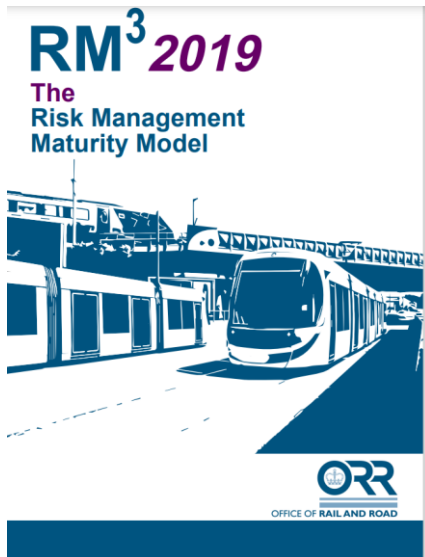


Management system: Iso Harmonised Structure

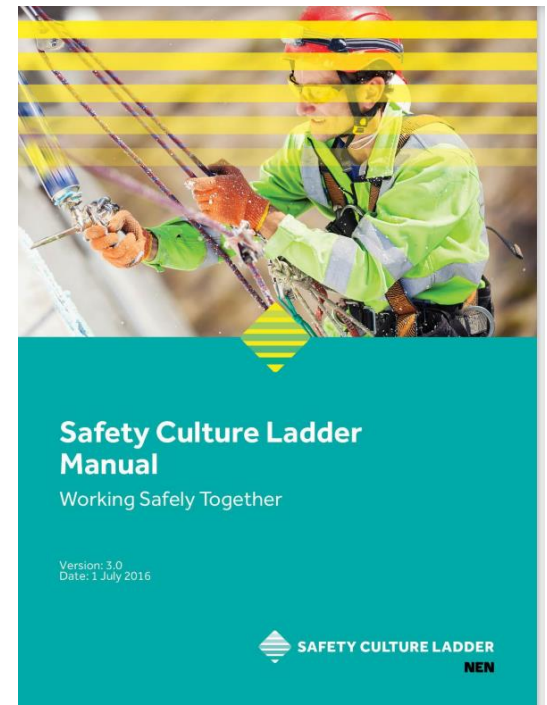
NR	Harmonised Structure Item
4.1	Understanding the organization and its context
4.2	Understanding the needs and expectations of interested parties
4.3	Determining the scope of the XXX management system
4.4	XXX management system
5.	Leadership
5.1	Leadership and commitment
5.2	XXX Policy
5.3	Roles, responsibilities and authorities
6.	Planning
6.1	Actions to address risks and opportunities
6.2	XXX objectives and planning to achieve them
6.3	Planning of changes
7.	Support
7.1	Resources
7.2	Competence
7.3	Awareness
7.4	Communication
7.5	Documented information
8	Operation
8.1	Operational planning and control
9	Performance evaluation
9.1	Monitoring, measurement, analysis, and evaluation
9.2	Internal audit
9.3	Management review
10	Improvement
10.1	Continual improvement
10.2	Nonconformity and corrective action



Scale...



ATM Safety Framework
Maturity Survey
Methodology for ANSPs





Safety Policy

SA2 Organisational and individual safety responsibilities

Objective	Initiating	Planning/ Initial Implementation	Implementing	Managing & Measuring	Continuous Improvement
		<i>All of Initiating plus:</i>	<i>All of Planning/Initial Implementation plus:</i>	<i>All of Implementation plus:</i>	<i>All of Managing & Measuring plus:</i>
2.1 An approved, clearly documented, and recognised system for the management of safety. Management structure, responsibilities, accountabilities and authorities are clearly defined and documented.	No formal designation of authorities, responsibilities or accountabilities for the management of safety exists.	Safety authorities, responsibilities, and accountabilities have been identified but not yet formalised. Line managers assume responsibility for safety.	Authorities, responsibilities, and accountabilities for the management of safety have been defined and documented. Delineation of responsibility for the development, oversight and implementation of the SMS is clearly understood. ²	Procedures are in place to address the need to review safety authorities, responsibilities, and accountabilities after any significant organisational change.	Safety authorities, responsibilities, and accountabilities are periodically reviewed to determine whether they are suitable and effective (i.e., continuous improvement of safety management).
2.2 A clearly defined safety management function that is independent of line management.	A safety management function has not yet been appointed to develop the SMS.	A safety management function has been appointed to develop and maintain the SMS.	The safety management function is independent of line management and develops and maintains an effective SMS. The safety manager has access to the resources required for the proper execution and maintenance of the SMS.	The highest organisational level recognises its role in the SMS and actively supports the development, implementation, maintenance, and promotion of the SMS throughout the organisation (including support departments).	There is clear evidence that the highest organisational level plays a proactive role in the continuous improvement of the SMS.

2- Line management is usually responsible for the implementation of procedures or practices which are required by the SMS, whilst specific responsibilities for the development and oversight of the SMS and the organisation's safety outcomes lie within safety departments, executive management and board committees depending on the structure and governance of the organisation.



Requirements

Harmonised structure

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Scale

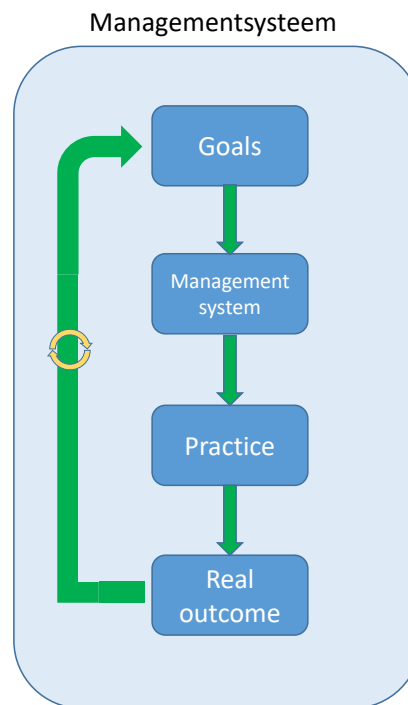
- 1
- 2
- 3
- 4
- 5



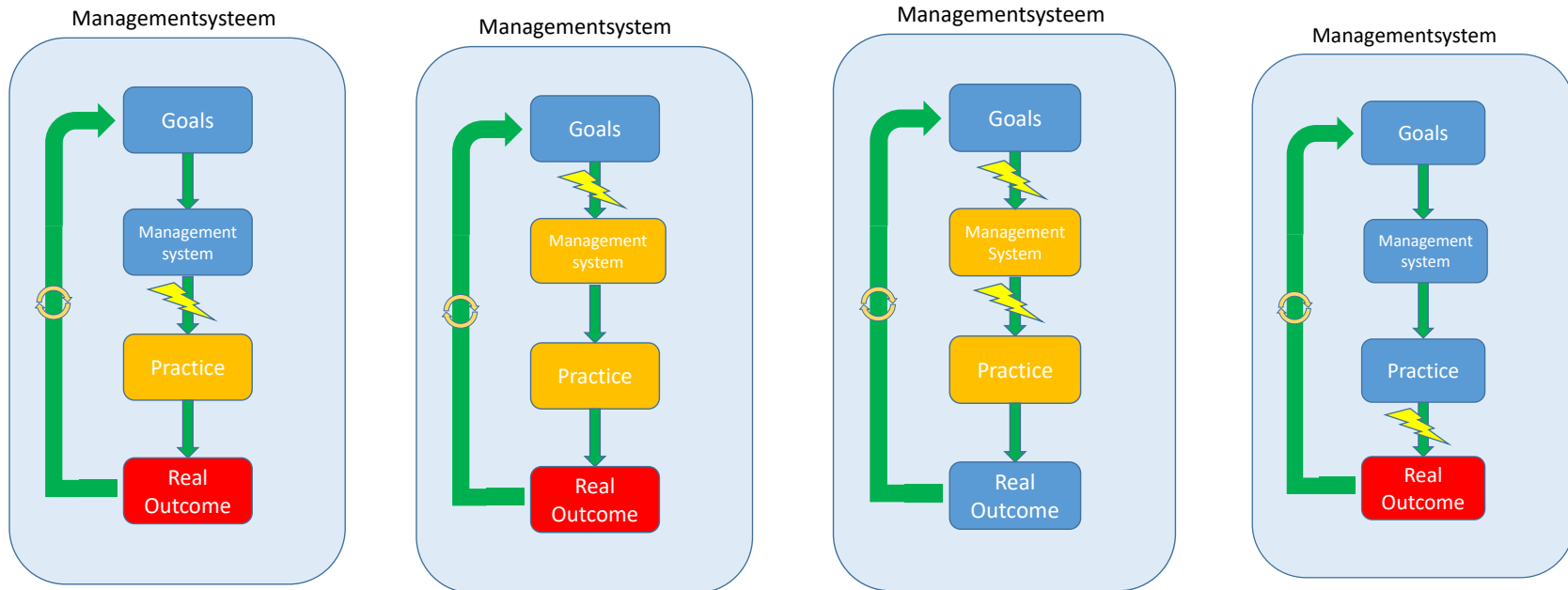
Where
are
you?



Models used for determining level



Decoupling

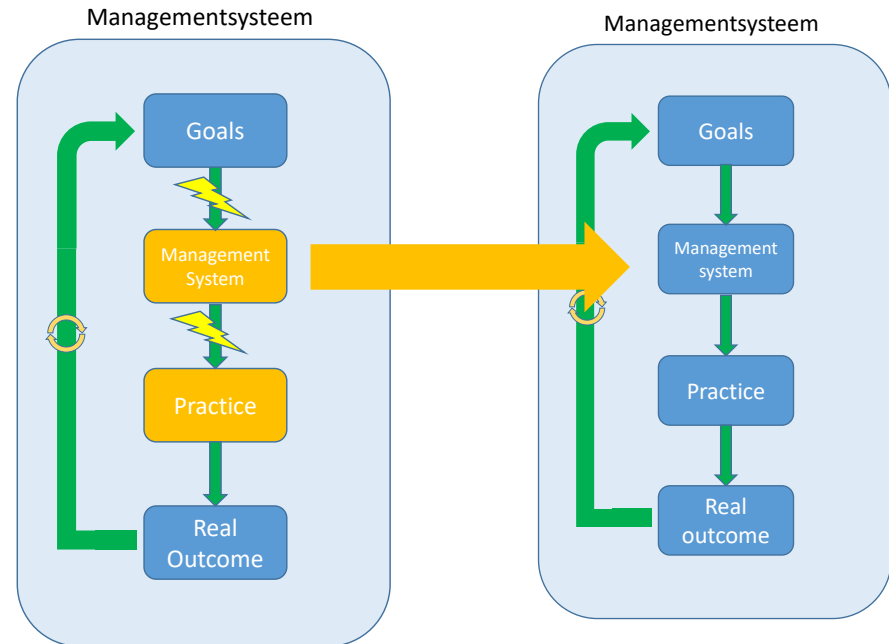


De- and Recoupling and Public Regulation, martin de Bree, Annemiek Stoopendaal

However

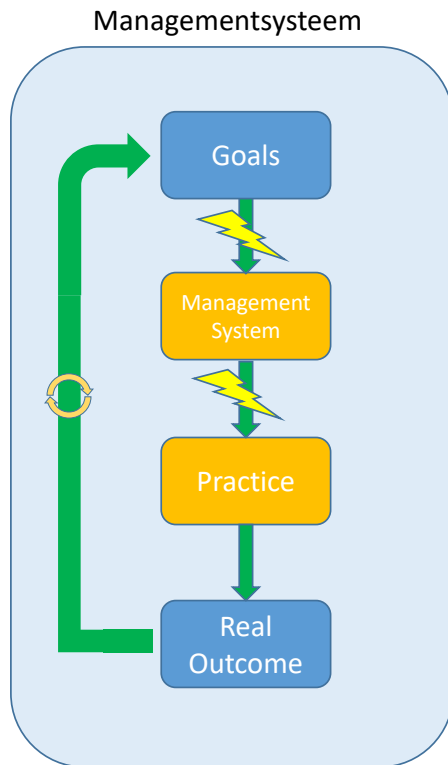
Models often leads to

- More rules
- Detailing procedures





Or ineffecient inspections

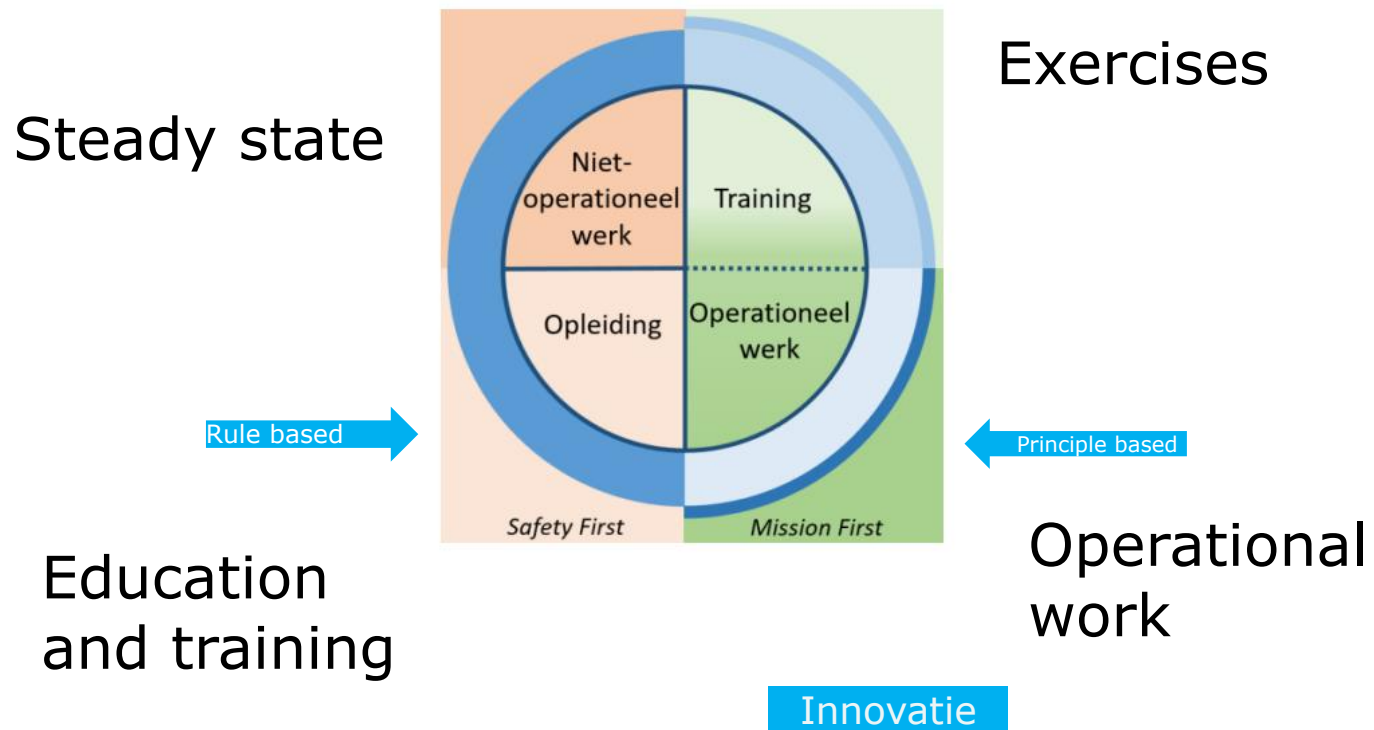


Trap

Better



Context Defence





Rule based →



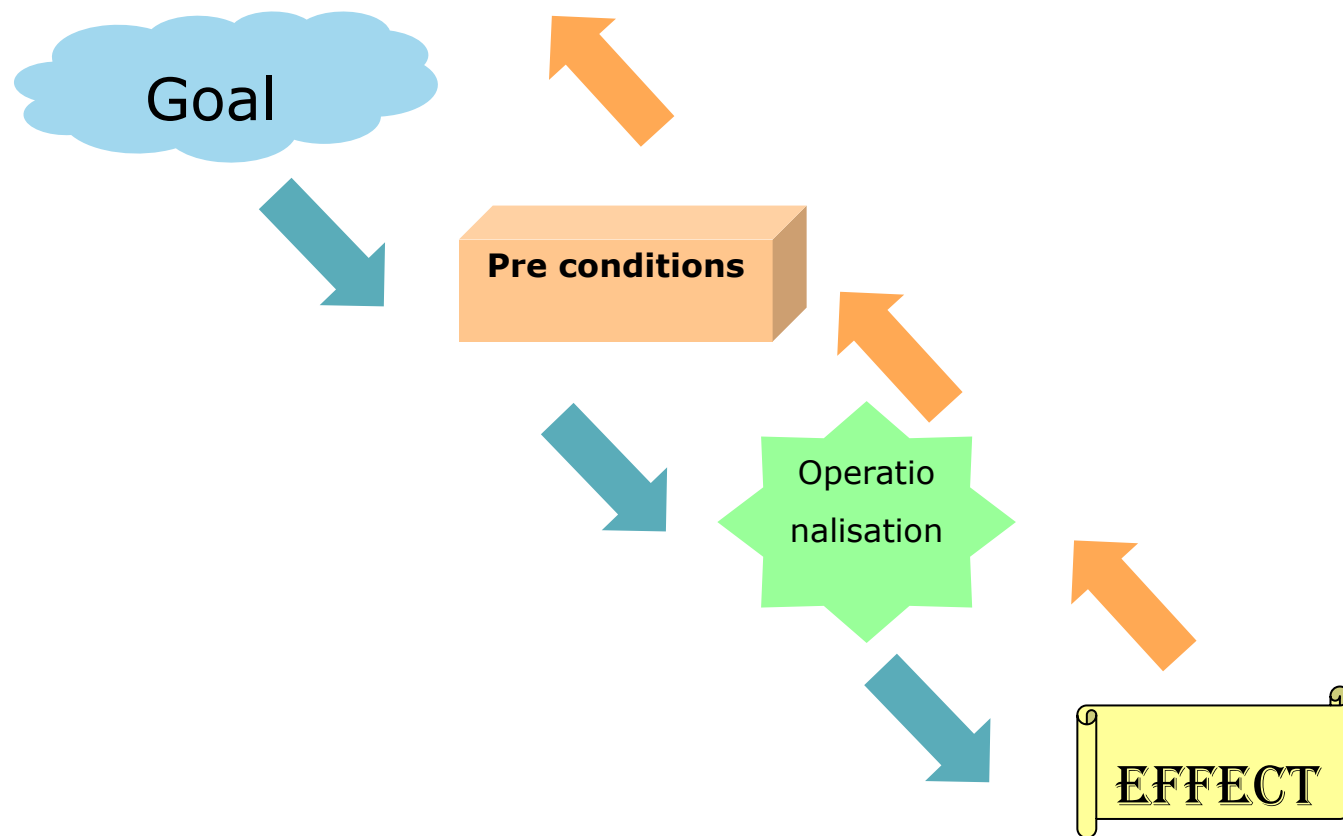
← Principle based

Risk assesment

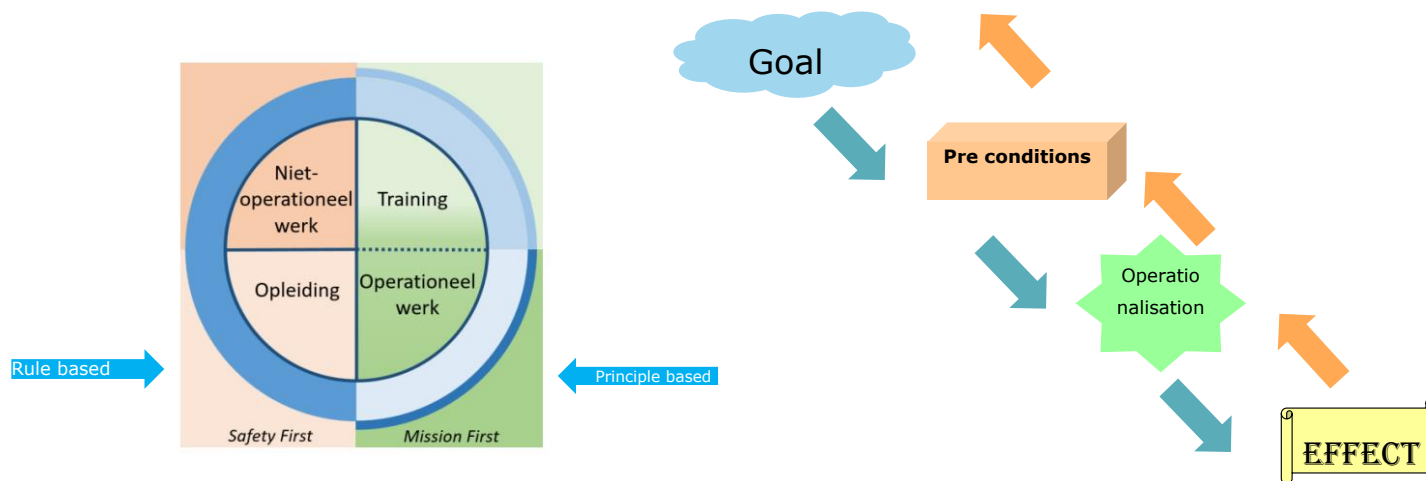
Innovatie



Other models



Especially here





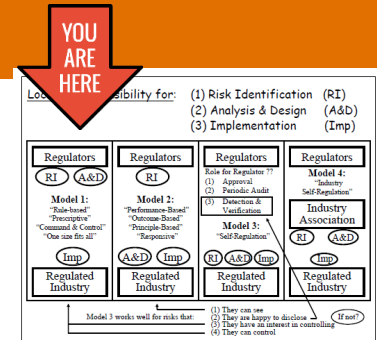
Procesmodel



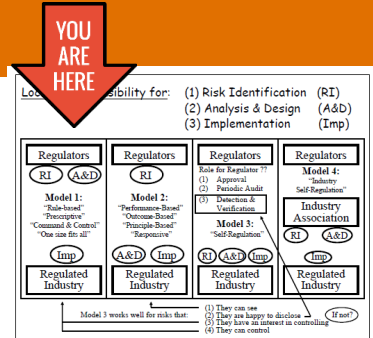


Classic inspections

Compliance
of the
output?



But still usefull: reality check!

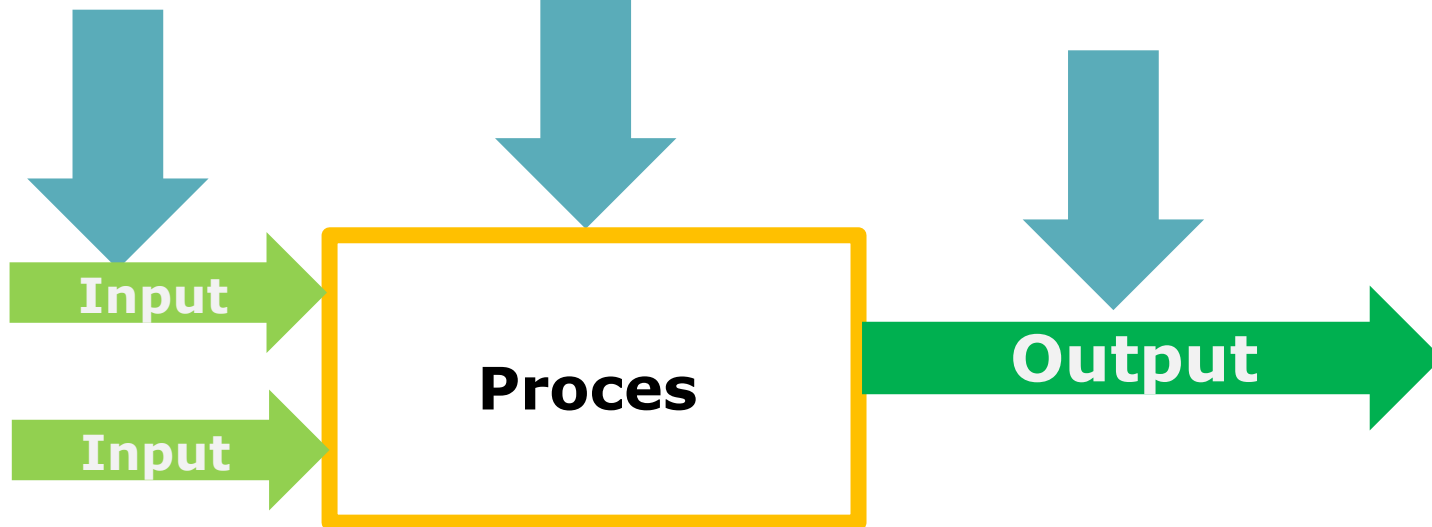


Proces control:

Adjusting the proces to compensate deviations in input and output

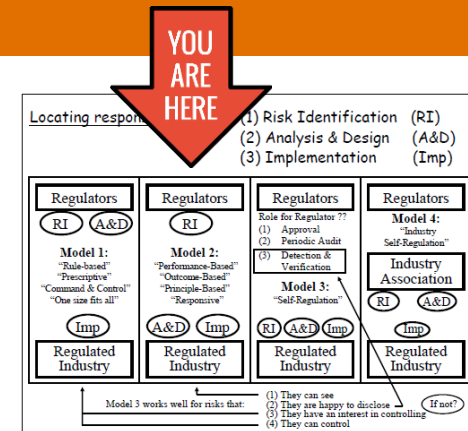
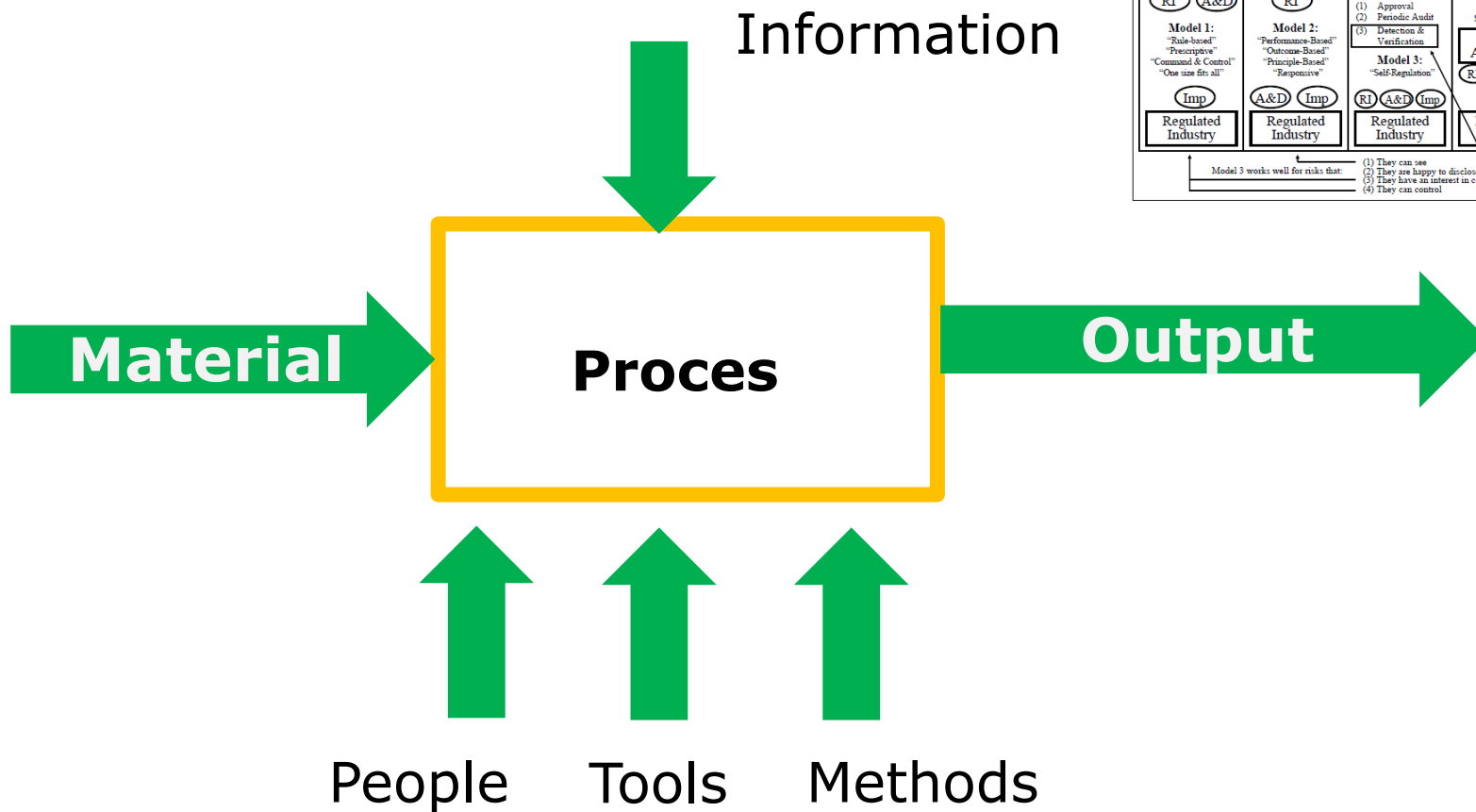
Input requirements

Output requirements



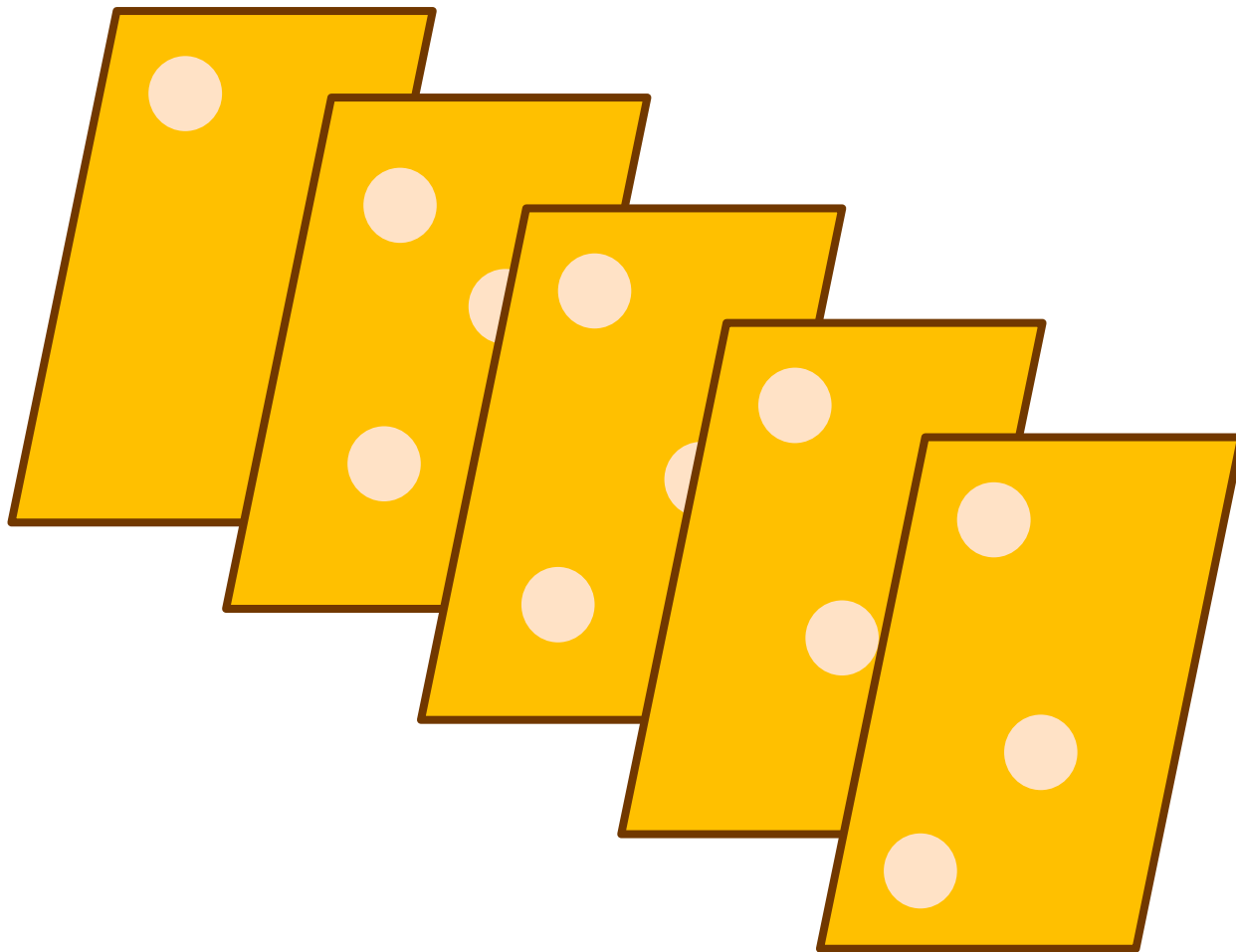


Pre-conditions



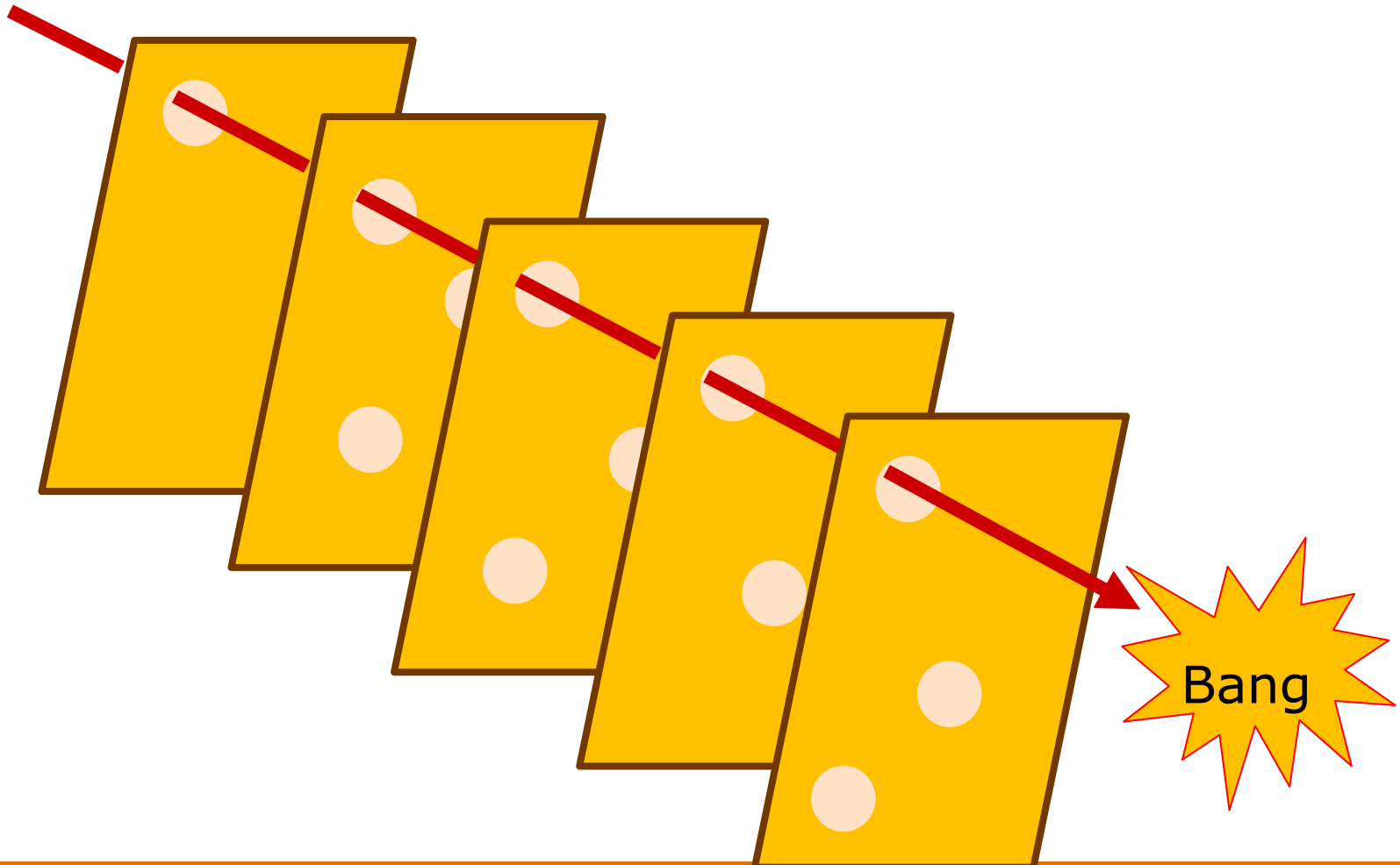


Reason:



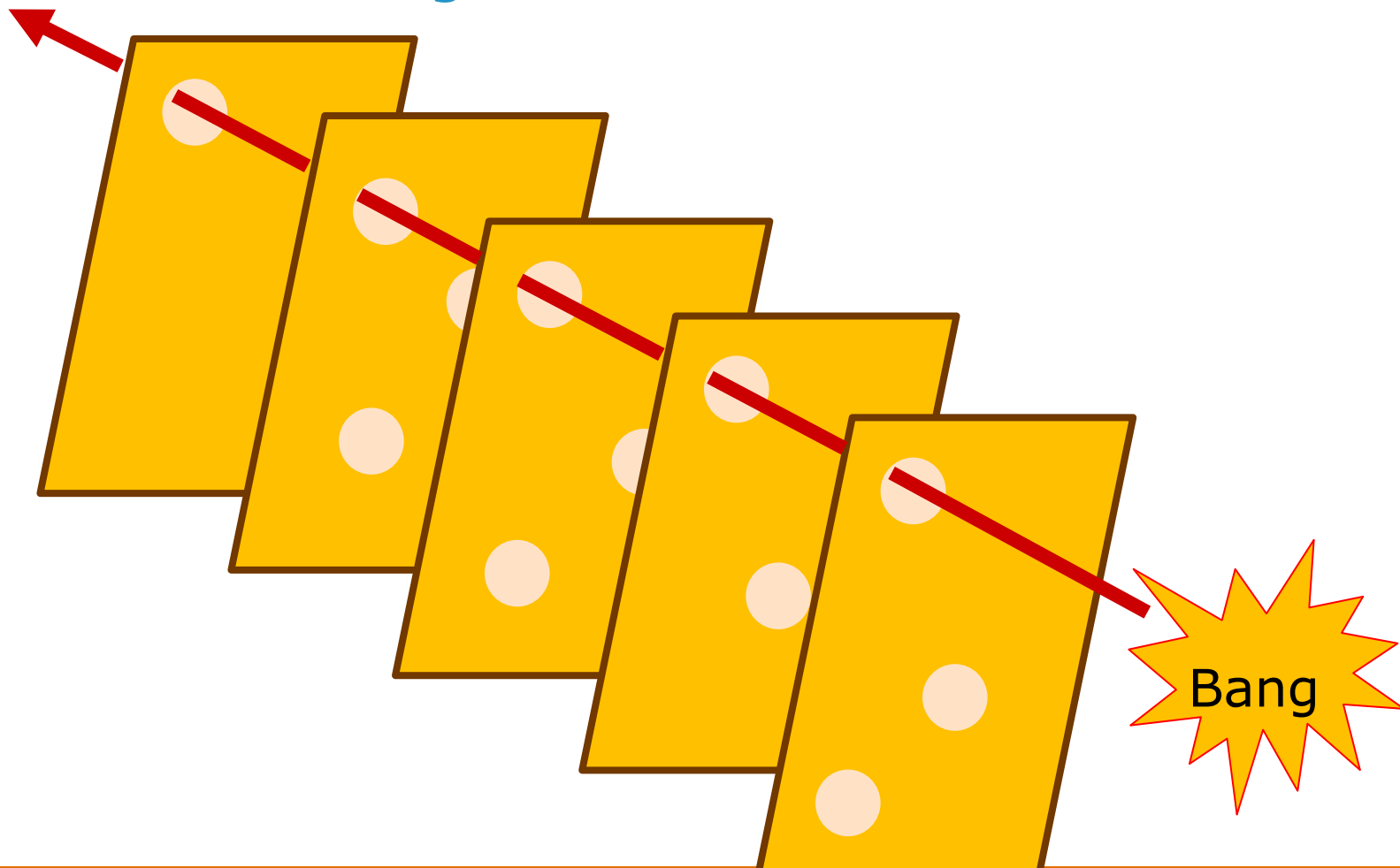


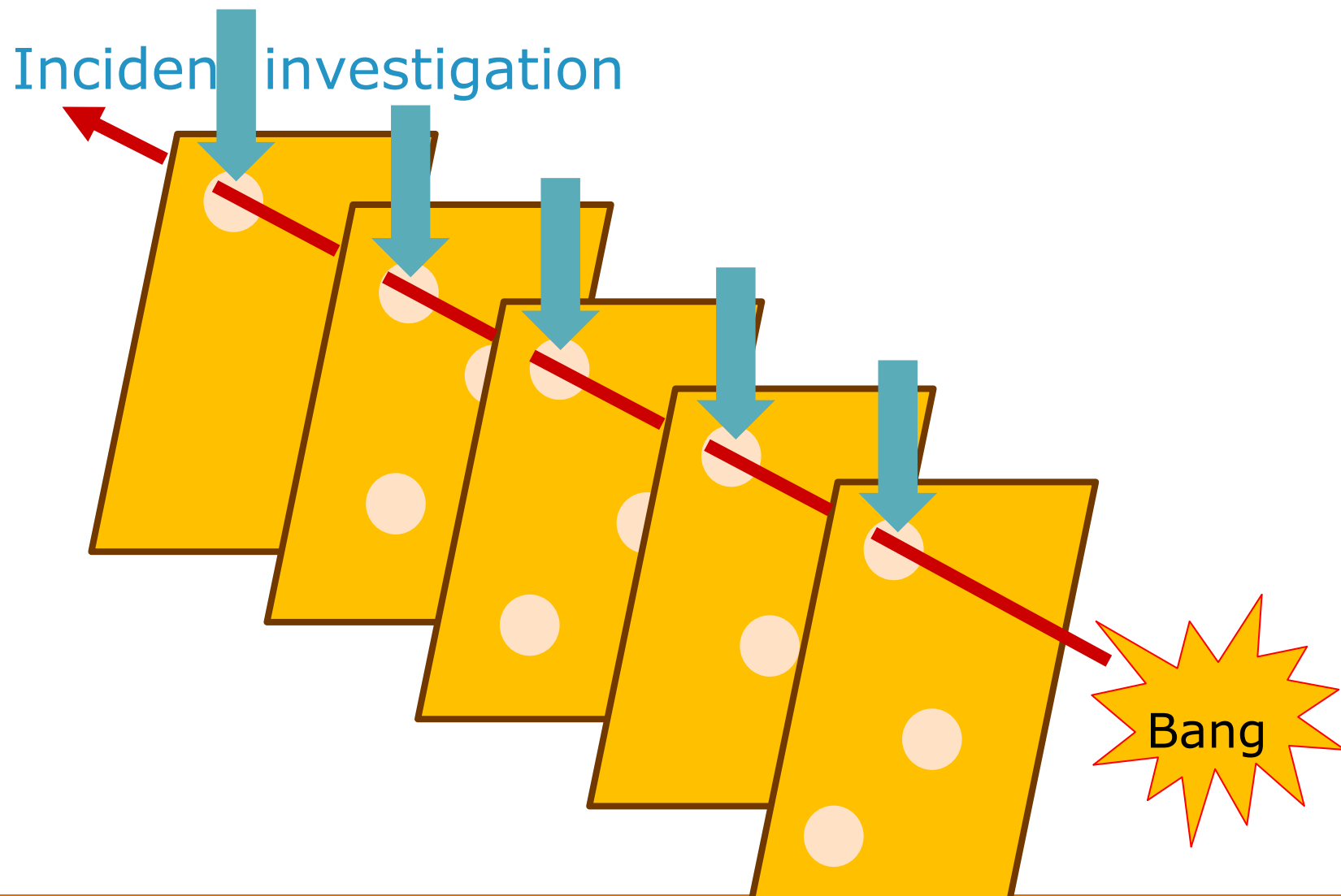
Reason:





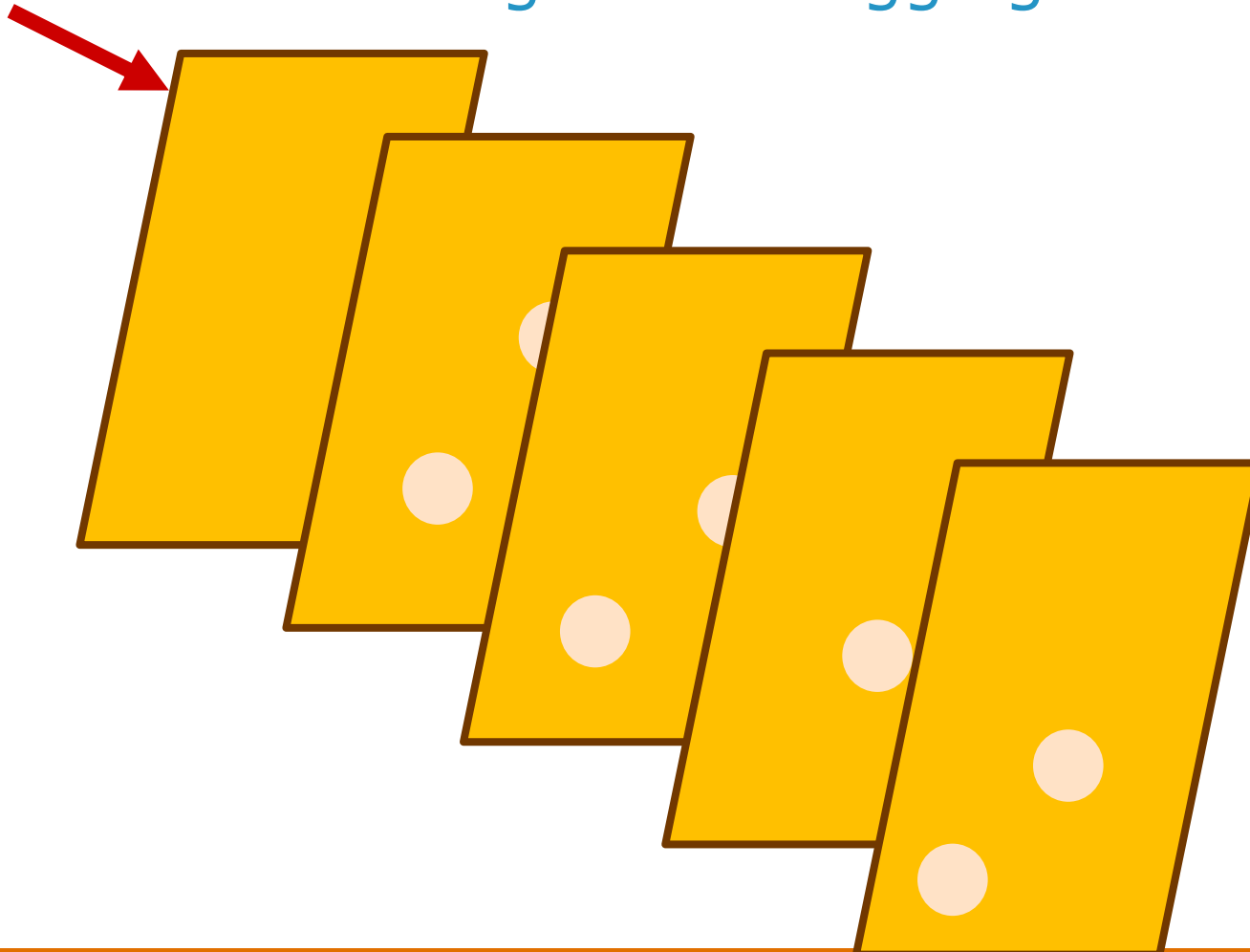
Incident investigation





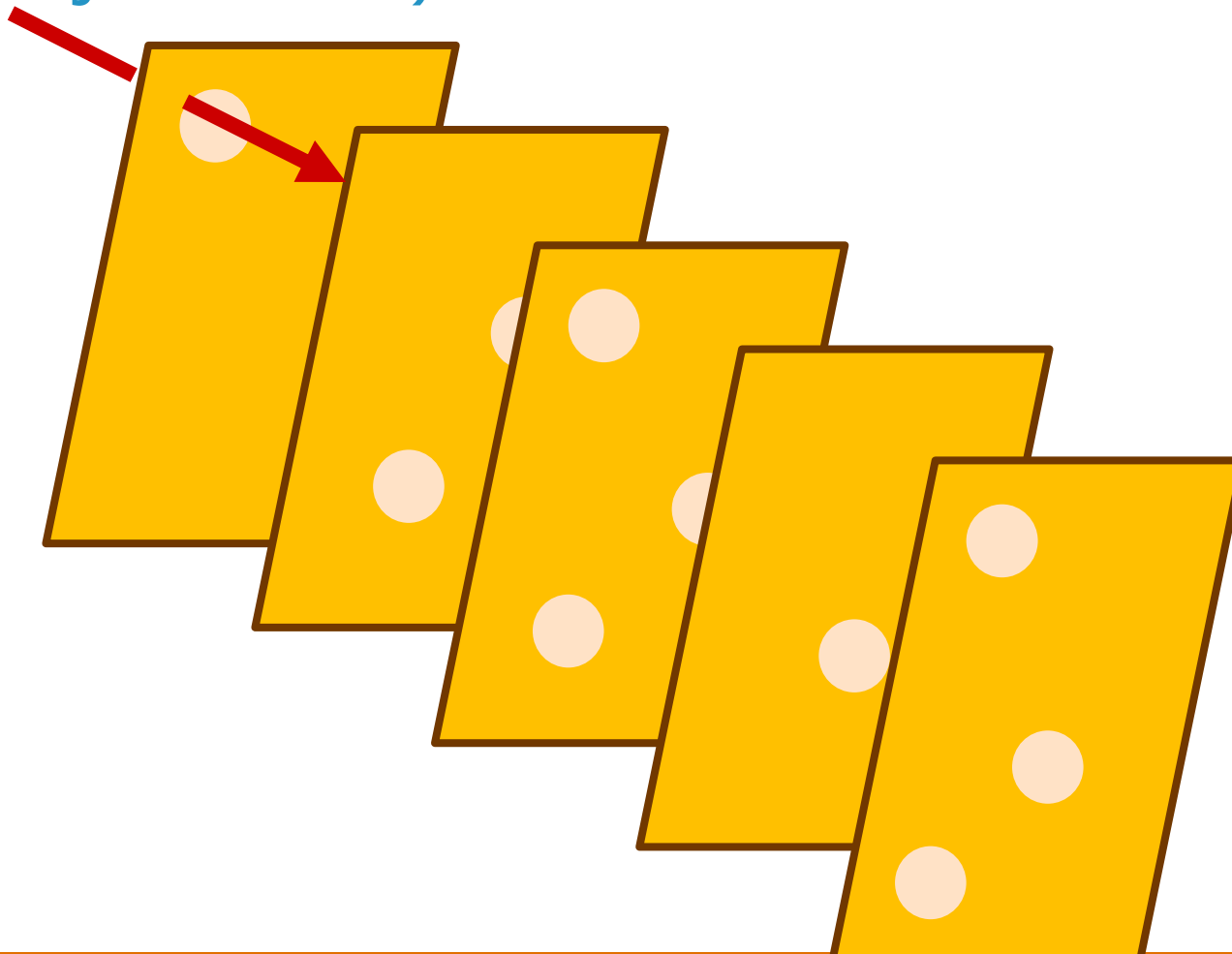


Incident investigation: Plugging the holes



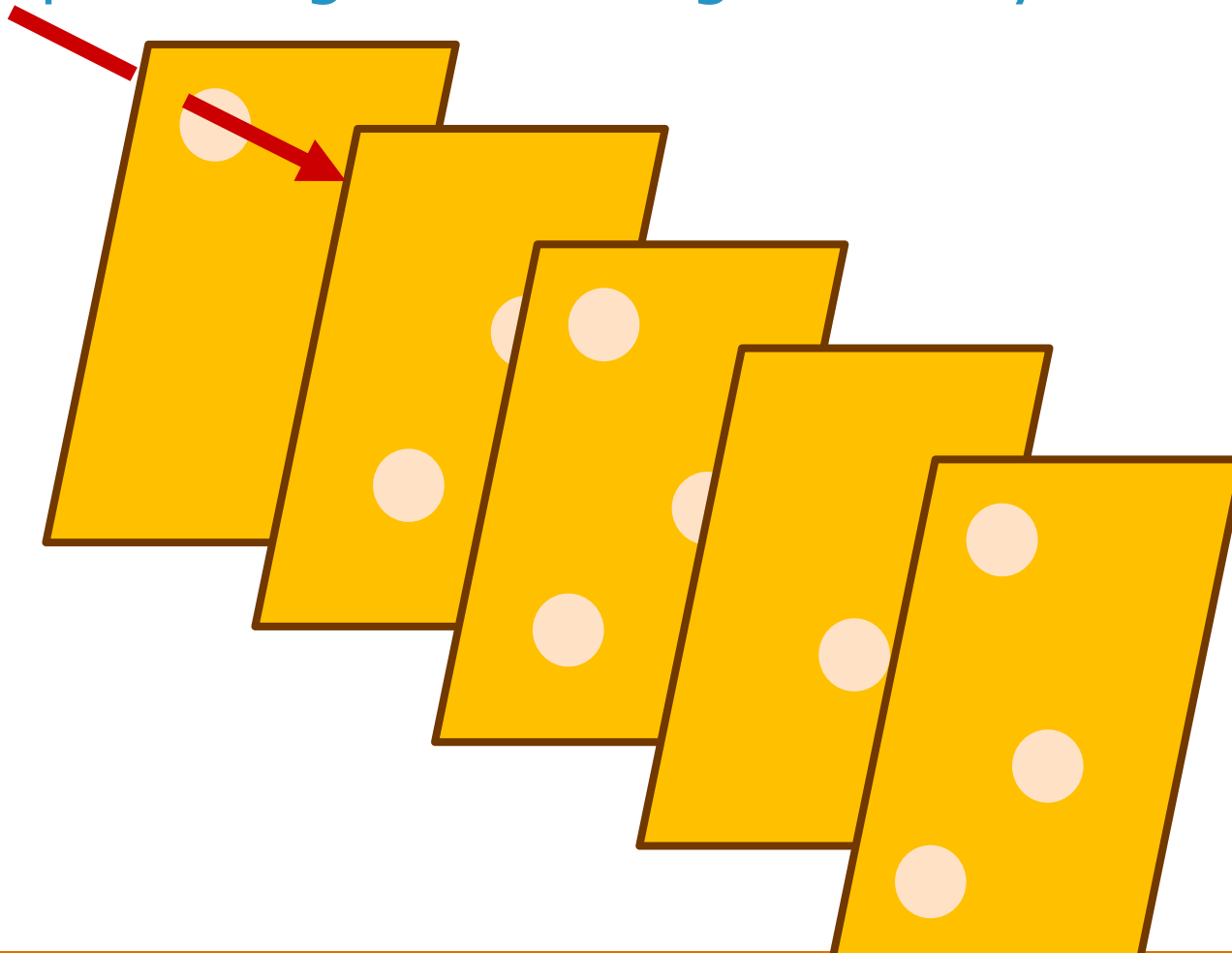


(or just a few)....



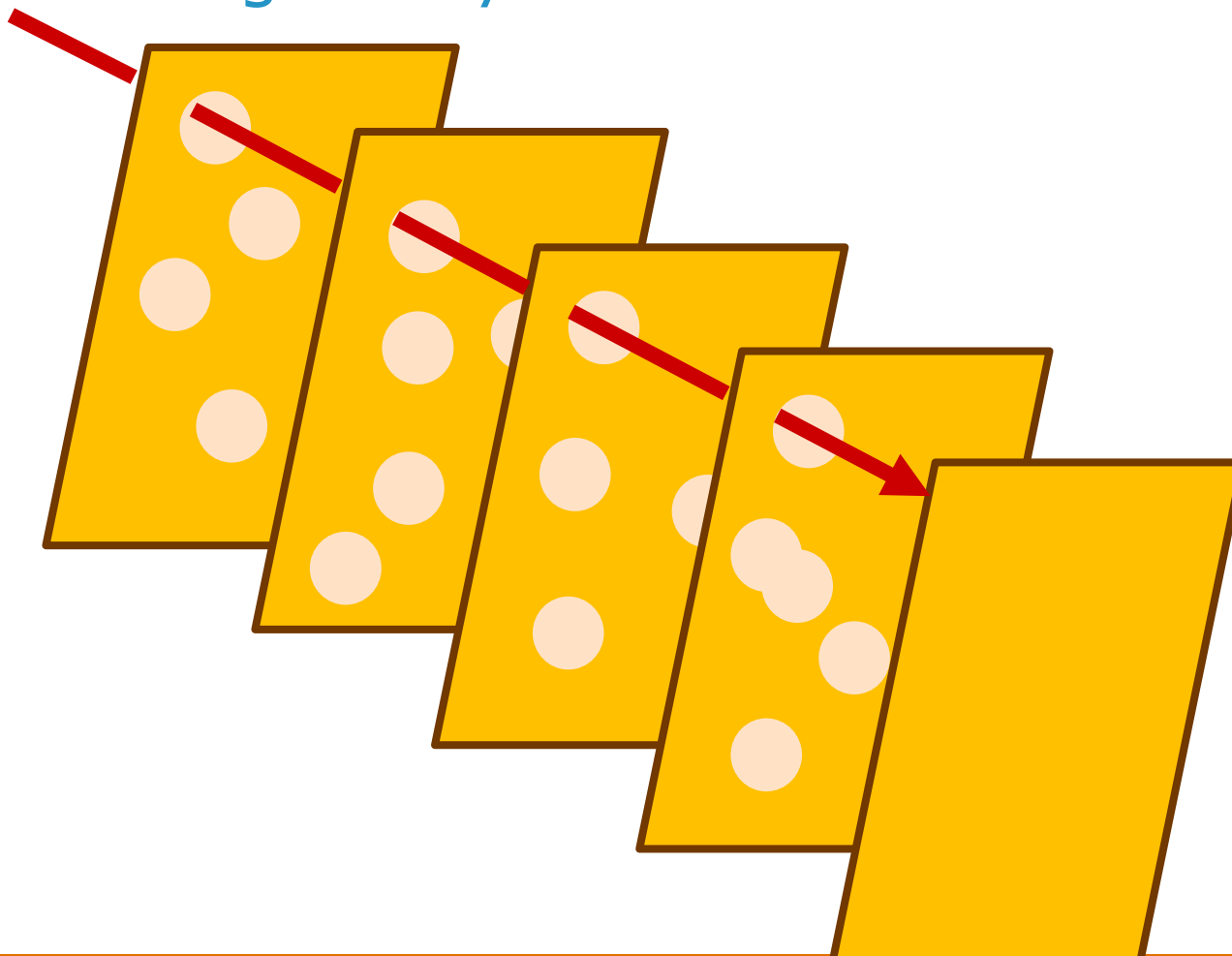


Supervising the management system

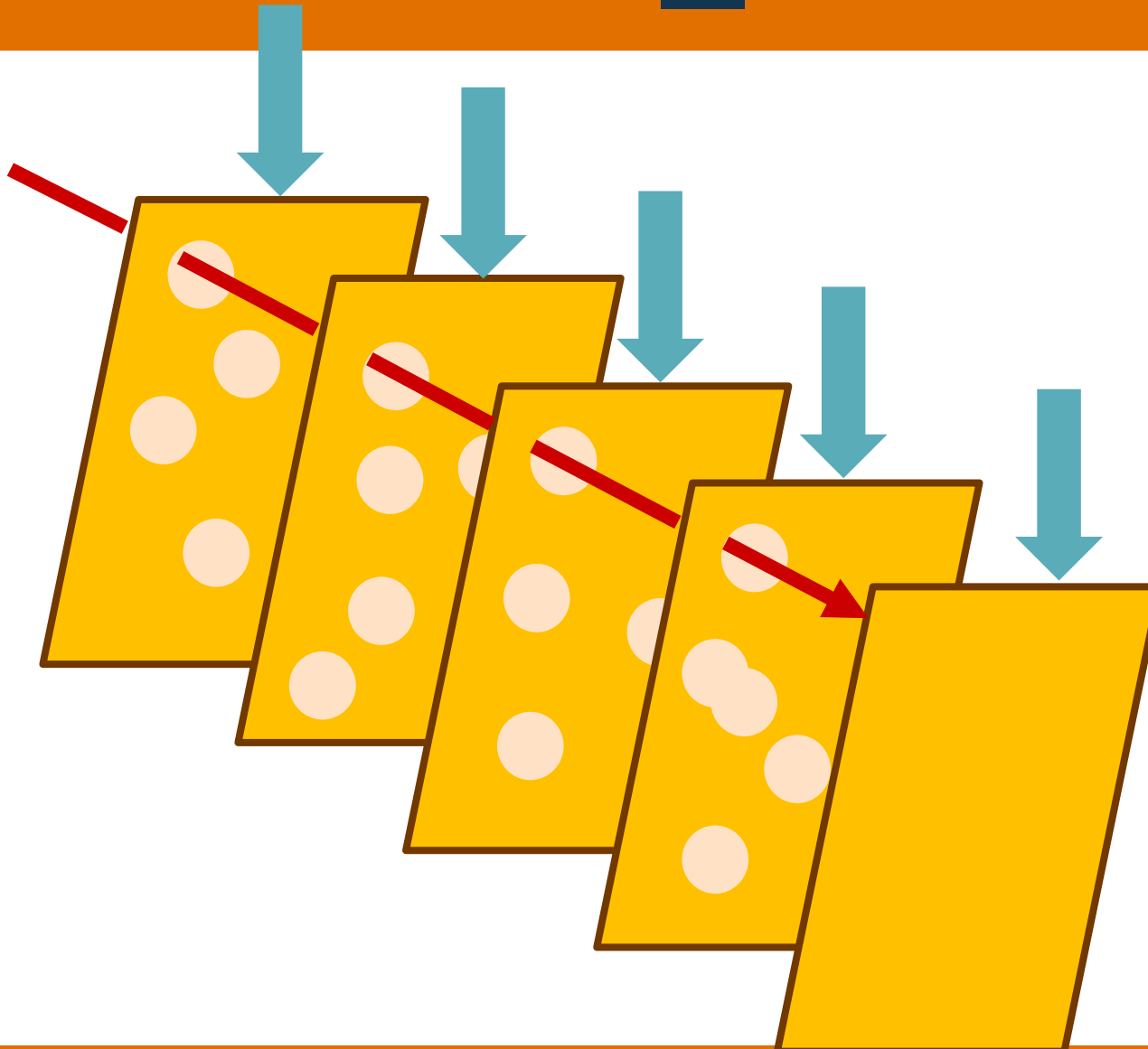


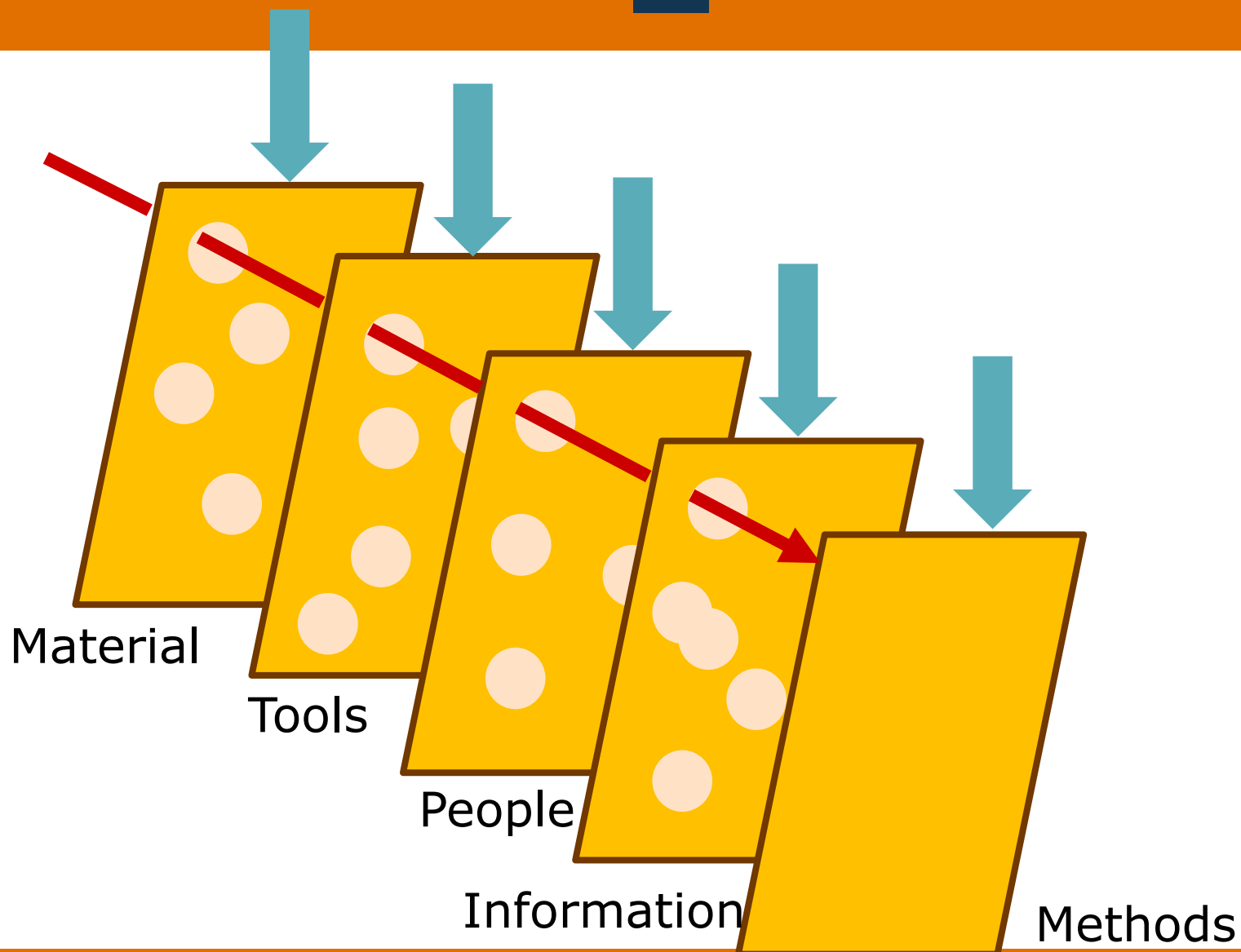


Assessing the system



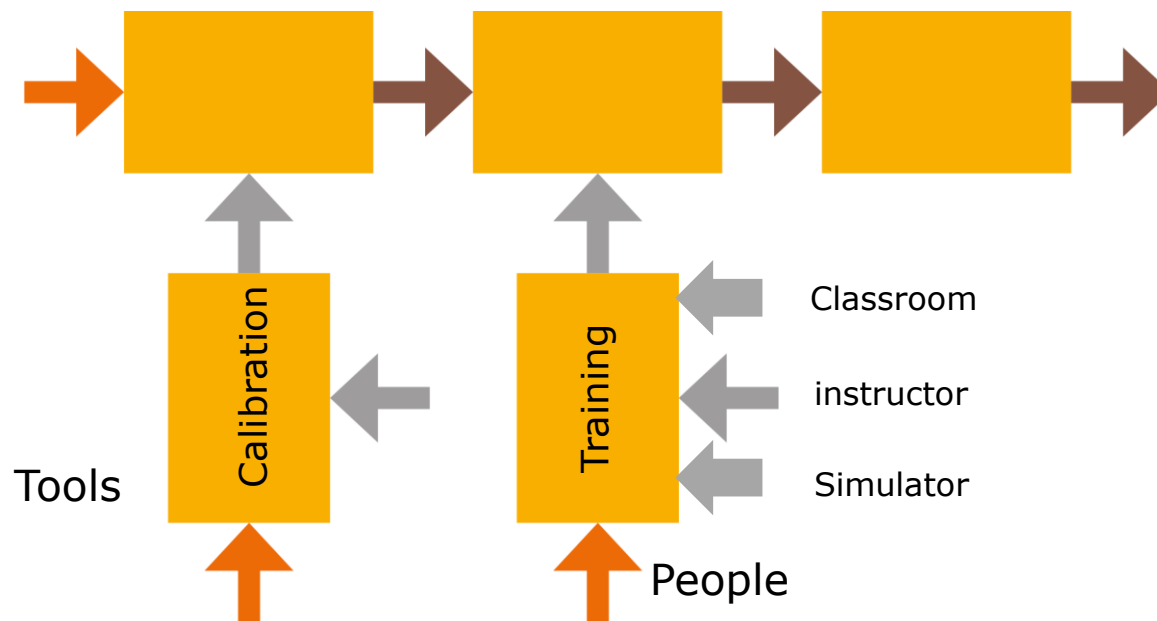
Are there many holes?

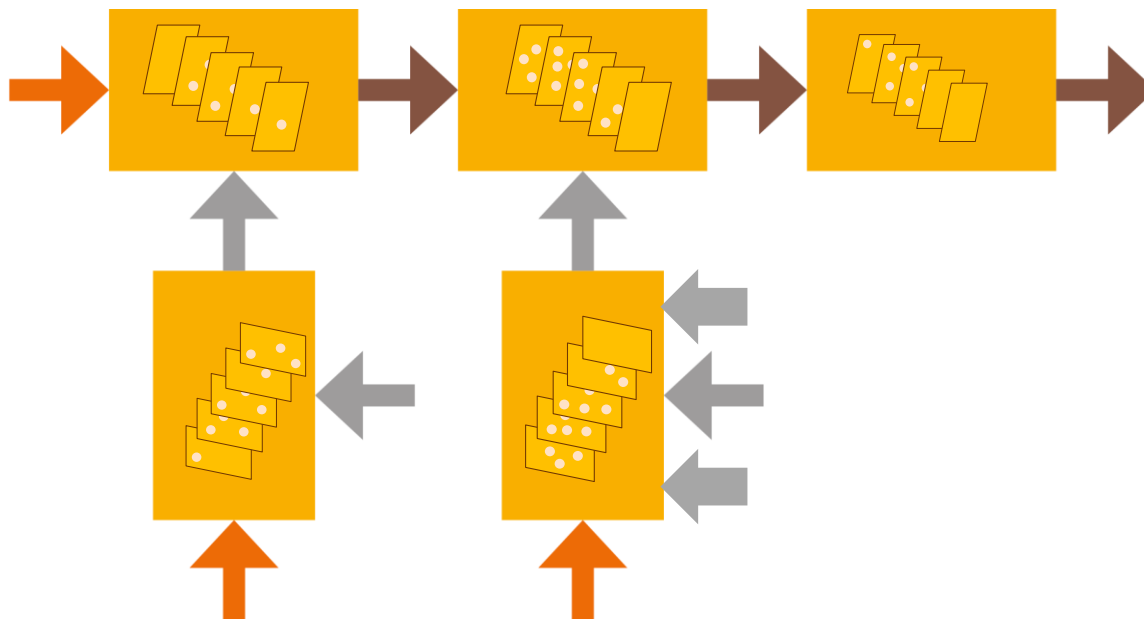


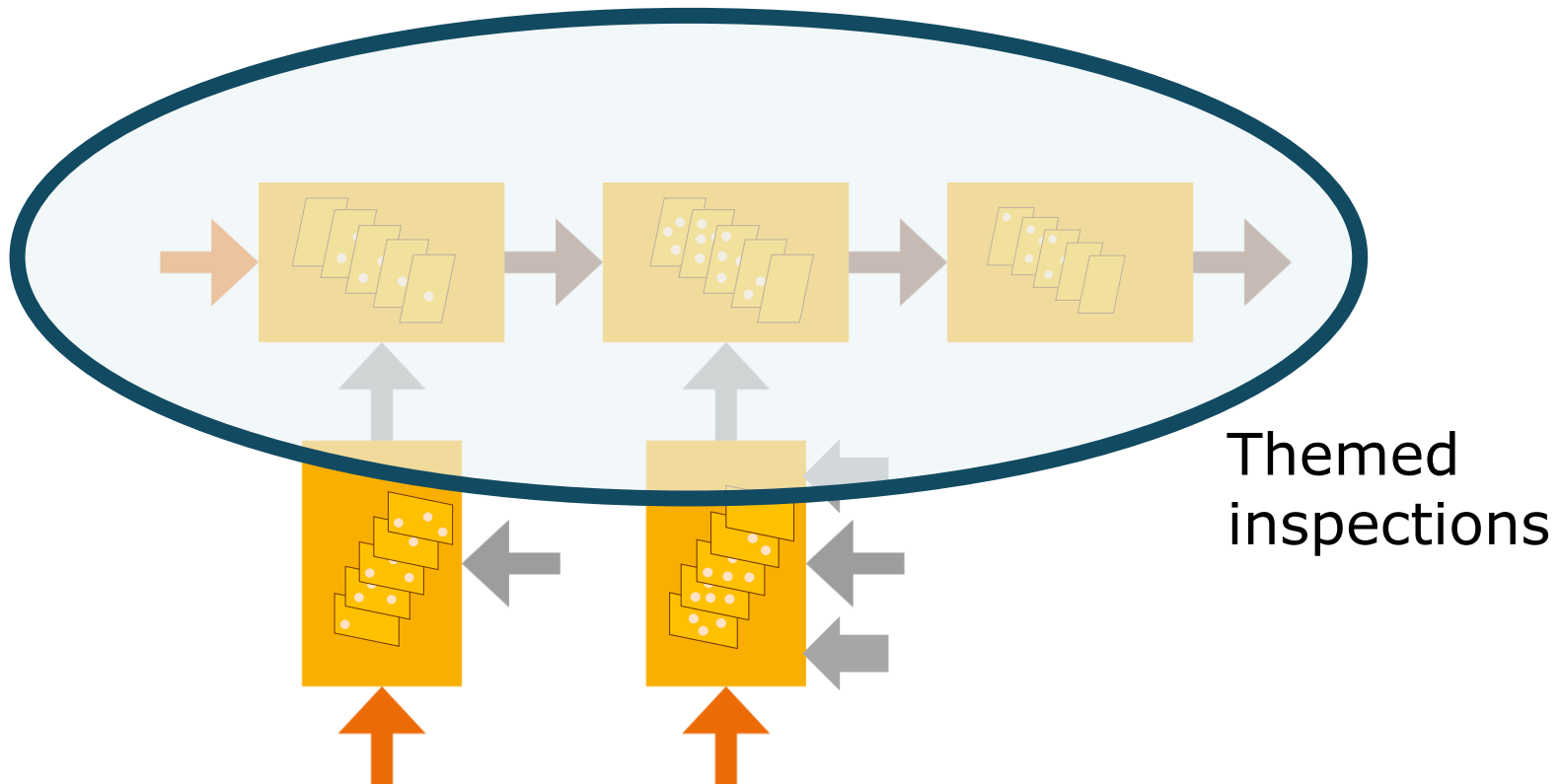




Processes are linked

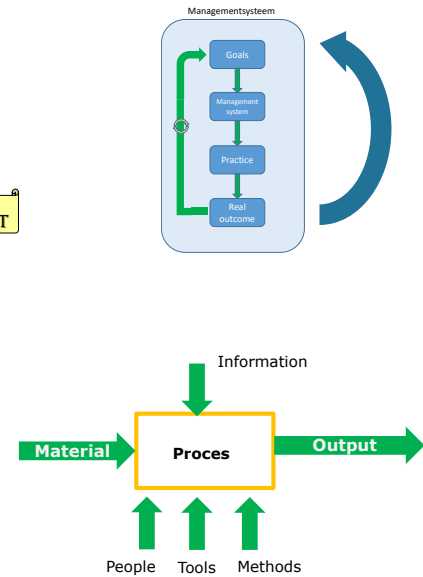
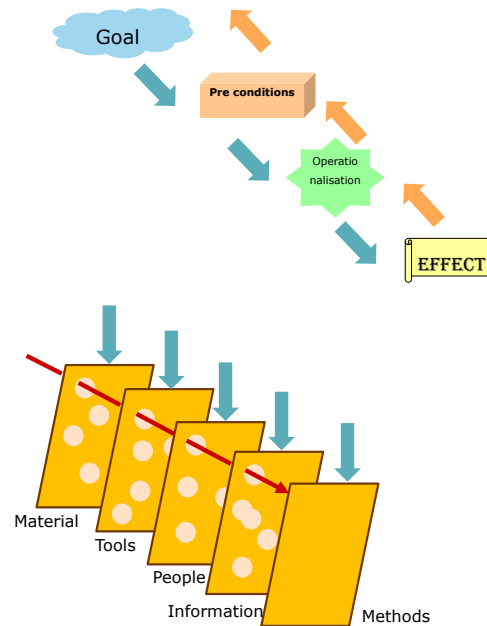
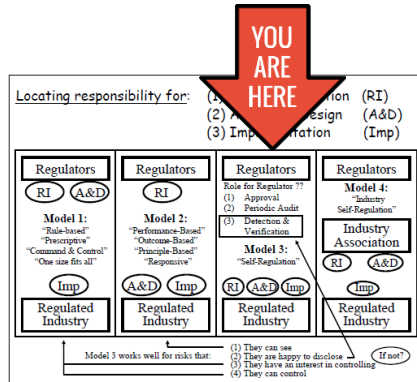








Supervising



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- 1
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Example Falcon Leap





Reality check





Proces

Chief of staff
Batalion Commander
Company commander
Planning and control
Head of Safety
Safety advisor
Etc.

Document review



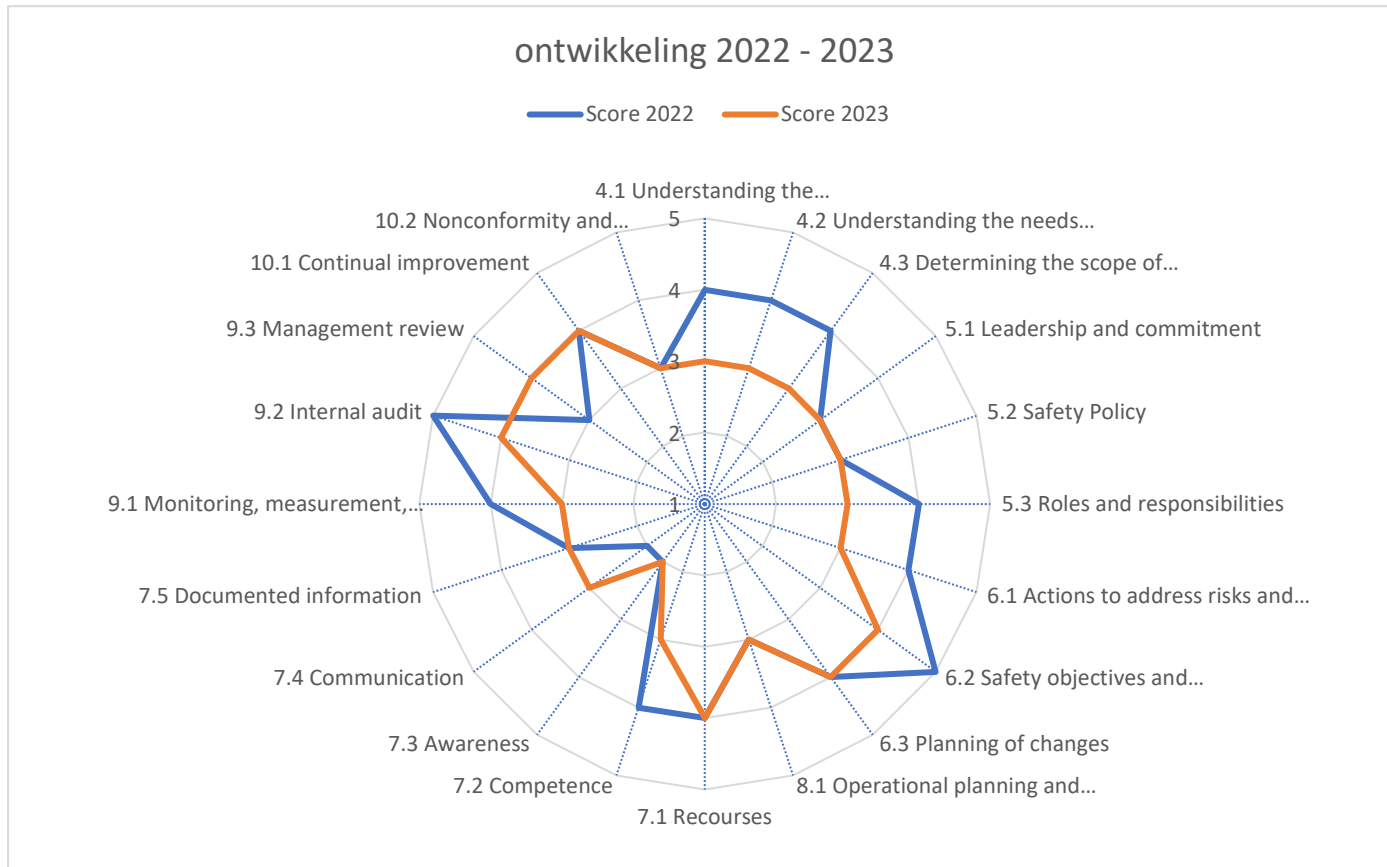


Current program

- 4 clusters:
 - Policy, leadership, and Safety organisation
 - Qualified personnel and adequate tools
 - Risk management
 - Incidents and internal reviews
- 2 visits a year/one cluster each visit
- 8 departments (army, navy, marine, HQ, defence staff, military police, support, material department)
- Internal report
- Action plan
- Yearly public report



Yearly report status SMS





Questions

