



Brilliance in engineering

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Mechatronic and mechanical solutions
Inspection maintenance and repair
Hoisting - & lifting tools, special machinery

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Machine safety:
Responsibilities of
manufacturer and owner

> Introduction



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BKL Engineering B.V.

- Est. 1983
- ± 50 employees
- Located in Nuenen (near Eindhoven)
- Multidisciplinary: Engineering/Production/Examination
- Expertise in lifting equipment
- Competence in special machines and modules
- **Precision fair stand: 123**



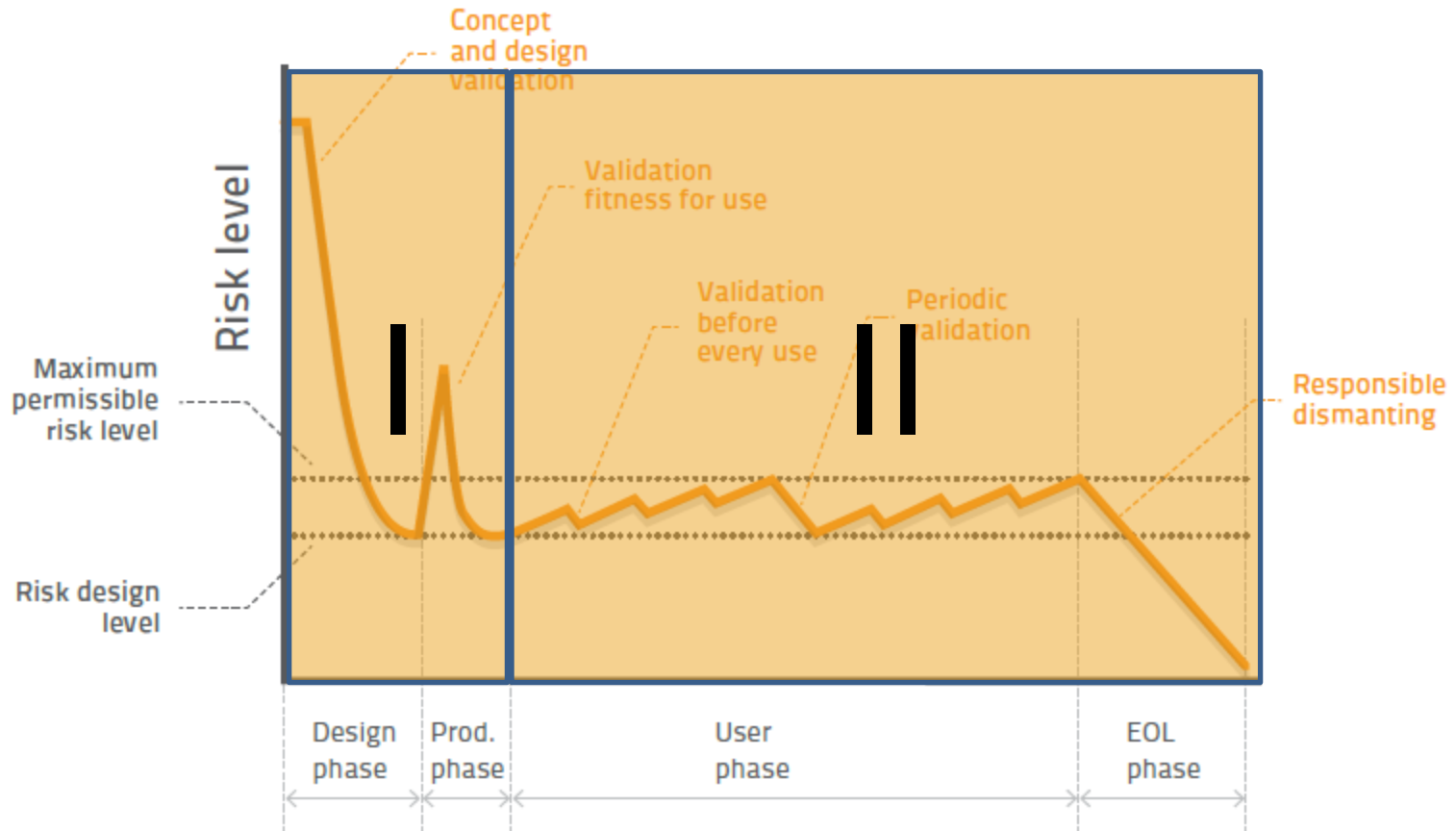
Subject:

‘Machine safety: Responsibilities of manufacturer, owner and user’.

Scope:

- Focus on machines as defined by the Machinery Directive
- Machine safety as regulated by:
 - Machinery Directive 2006/42/EC **and**
 - ‘Use of work equipment’ Directive 2009/104/EC

> BKL Life Cycle Risk Management





Why machine safety?

It is a legal obligation for the manufacturer to place safe machinery on the market.

It is a legal obligation for the employer to make available safe machinery to the workers.

But above all it is a moral obligation!!!

Unsafe machinery can cause lethal or serious injury and economical damage!



In machine safety two levels of responsibility can be distinguished:

- I. Manufacturing responsibilities;
- II. Owner/user responsibilities;

Let's dig deeper into this.

> Manufacturing responsibility





In short, the manufacturer has the responsibility to develop and produce a safe machine.

What is a 'safe machine'?

'Safe' is in accordance with the current 'acceptable safety level'.

How can the manufacturer comply to this 'acceptable safety level'?

The 'acceptable safety level' is described by harmonized standards.



The basis of a safe machine is an ongoing risk assessment, taking into account:

- Intended use and foreseeable misuse.

With the purpose of:

- Reducing risks to an 'acceptable' level.

Priority of risk reduction measures:

1. Risk reduction through design change.
2. Risk reduction through shielding.
3. Risk reduction through warning.



Once a design of a safe machine has been created it needs to be produced in accordance with the design.

Whoever produces the machine, the (legal) manufacturer is responsible for the safety level of the machine when placed on the market.

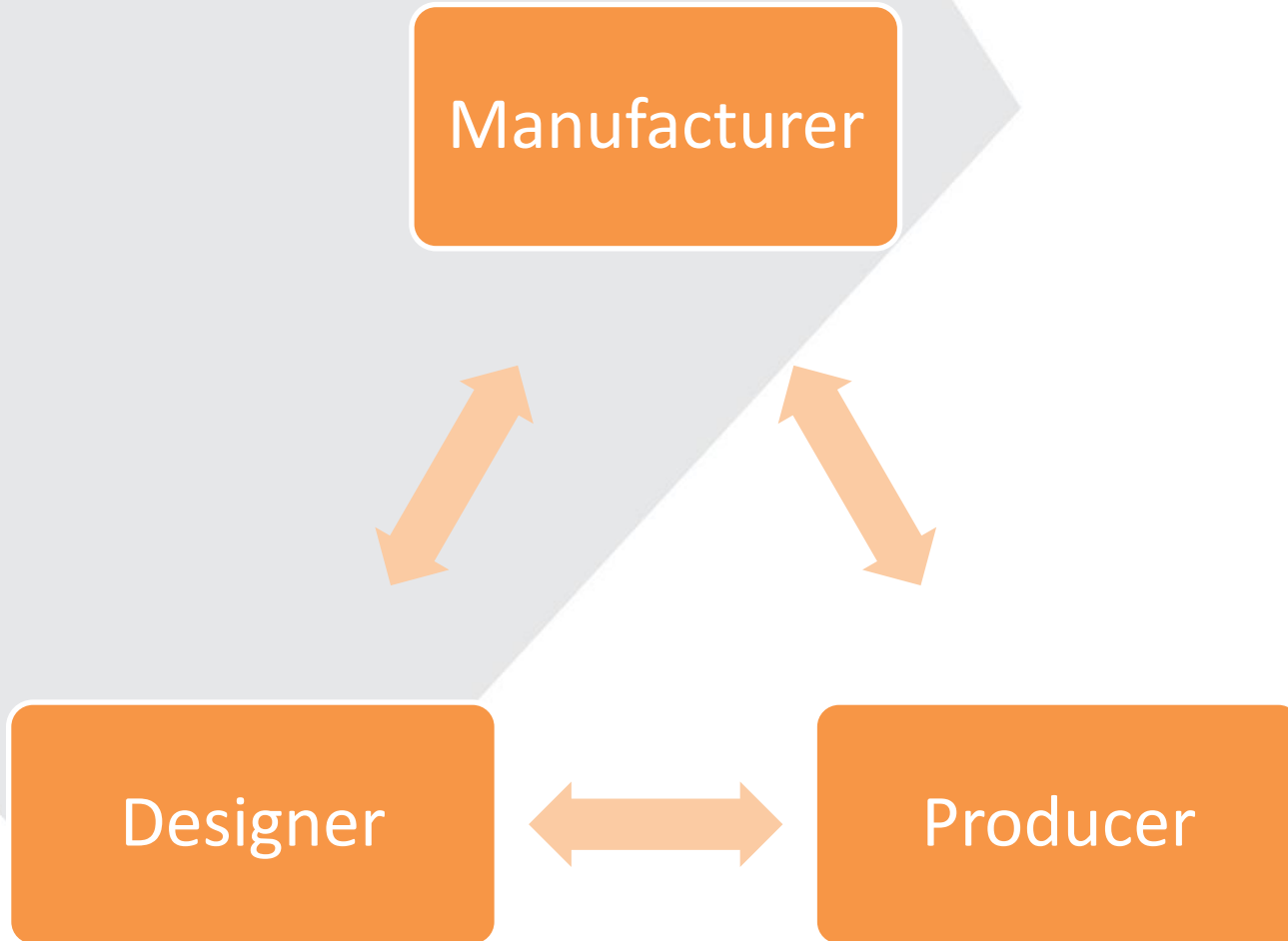
A (process) risk assessment is a valuable tool to support this responsibility.



Risk reduction measures during production can be:

- Capable supply base;
 - Correct delivery of parts and (sub)components.
- Capable employees supported by controlled processes;
 - Correct fabrication and assembly.
- Adequate tooling.

> Manufacturing responsibility





Once the manufacturer has produced the machine according to (the safety level of) the design he can mark the machine as being safe:



And issue a declaration of conformity with the applicable regulations and standards.

> Owner/user responsibility





> Owner/user responsibility

The owner of the machine has the responsibility to make available safe machinery to both himself and, if applicable, the users.

He has to:

- make sure that the machine is safe by design (Check the CE marking);
- make sure that the machine is operated in a way and under circumstances in accordance with instructions from the manufacturer;
- make sure that the safety level of the machine is maintained.



> Owner/user responsibility

As the owner of the machine is not expected to be an expert, for maintaining the safety level he has to comply with the instructions of the manufacturer.

In case activities to maintain the safety level of the machine are beyond his competences, the owner must hire a competent body with sufficient competences.

Please be aware that, at all times, the owner remains responsible for the safety level of the machine!!!



> Owner/user responsibility

The user of the machine is responsible for his own health and safety.

He has to:

- be critical about his working environment;
- ask for instructions when procedures are unclear;
- report unsafe machines and working circumstances.

As the user is not expected to be an expert this responsibility is limited!!!

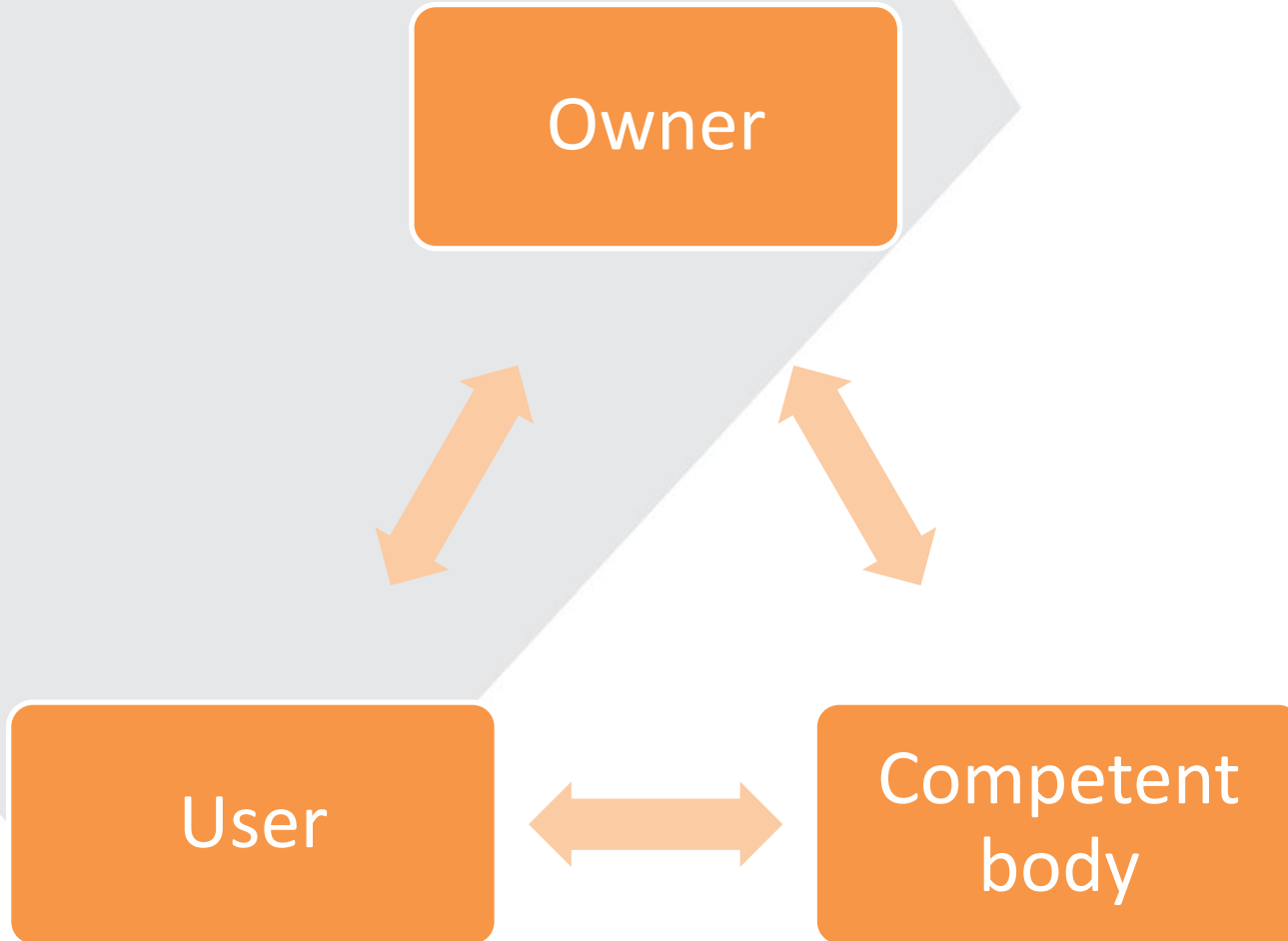


> Owner/user responsibility

Although a possible third party has limited formal responsibilities, it is still worth the while to look at them.

- A competent body acts by order of the owner of the machine.
- The owner of the machine is responsible for the definition of the activities and supply of the necessary specifications.
- The competent body is responsible for executing the activities to the best of his possibilities.

> Owner/user responsibility





> Making changes to the machine

Any changes that are being made to the machine, are being made under the responsibility of the owner.

The owner must ensure the safety level of the machine being acceptable after the change.

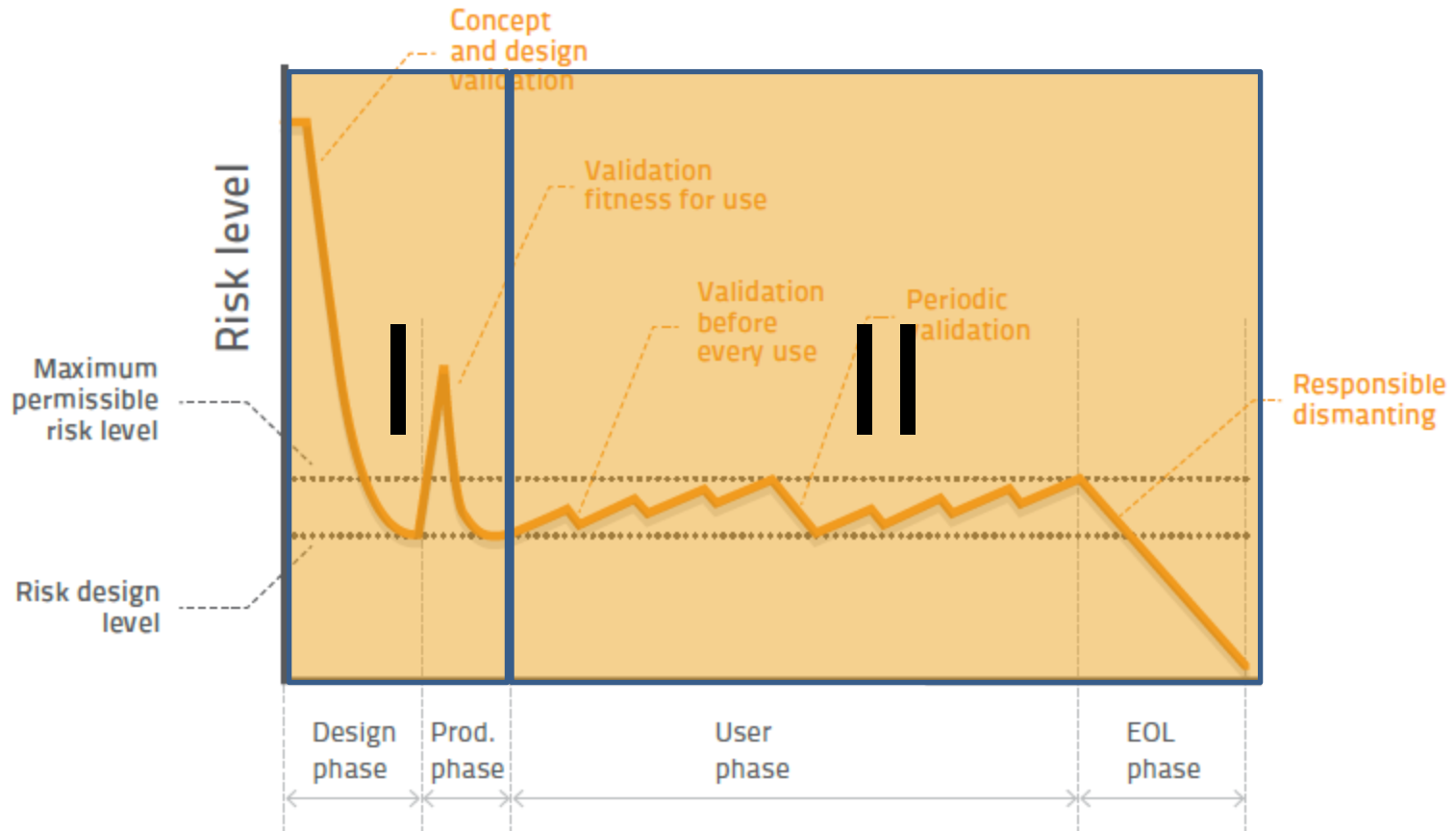
Again, a competent body (even the OEM), can be hired but the responsibility remains at the owner... Unless this competent body takes full responsibility by issuing a new CE marking. The owner must then again ensure the safety level before putting the machine into service.



In case of an incident the contribution of all parties to that incident will be investigated:

- Whether the user has followed instructions for use..
- Whether the owner has maintained the safety level.
- Whether the manufacturer has designed and produced a safe machine.

> BKL Life Cycle Risk Management



> Closure

