

KINDUNOS Safety Consultancy Ltd

Who are we?

KINDUNOS Safety Consultancy is specialised in safety investigations, project management and safety integrated design. KINDUNOS is established in 1990 in Gorinchem, the Netherlands. Its name is derived from the Greek word for hazard: Kindunos. Our focus is on providing feedback from accidents and safety analysis to design, development and operations in transport systems, infrastructure and organisations. The primary focus is on factors and processes which emerge before, during and after a safety critical event. Starting from a socio-technological design perspective, KINDUNOS operates on the divide between scientific methods and practice, combining accident investigations and system safety analysis approaches.

KINDUNOS intends to combine feedback from reality on a case based and evidence based level applying knowledge based engineering design, system change and transition management principles. KINDUNOS participates in several networks in safety investigations and forensic engineering, risk management, safety and reliability and resilience engineering.

Our concept: closing the feedback loops

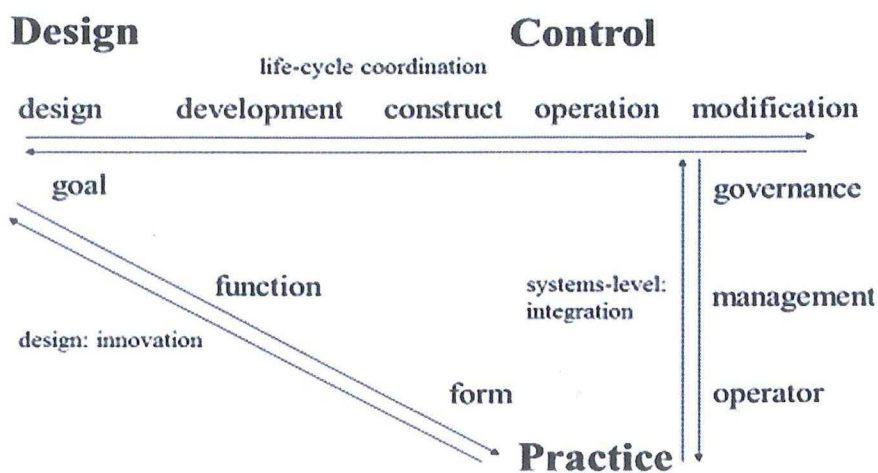
To integrate notions from these various perspectives, we have developed the DCP diagram, putting DESIGN, CONTROL and PRACTICE and their interrelations in a systemic context:

- The *systems life cycle* from design, through development, construct and operate to adaptation
- The *systems levels of control* from operator compliance, management control to governance oversight respectively at the micro, meso and macro system level
- The *engineering design cycle*, dealing with goal, function and form.

This DCP diagram provides a landscape which positions various methods, tools and techniques, enabling a navigation through the safety landscape, selecting analytic tools and solution domains.

The DCP diagram

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Creating pro-action and adaptation: safety interventions

To achieve proaction and adaptation, ESReDA developed the Safety Intervention Cube, creating new safety solutions. Such solutions are based on a next generation of safety investigation methods, modern safety analysis methods, such as STAMP, FRAM or Accimap and a New View on Human Error.

This ESReDA Cube is developed to serve the third of the three principal investigation phases:

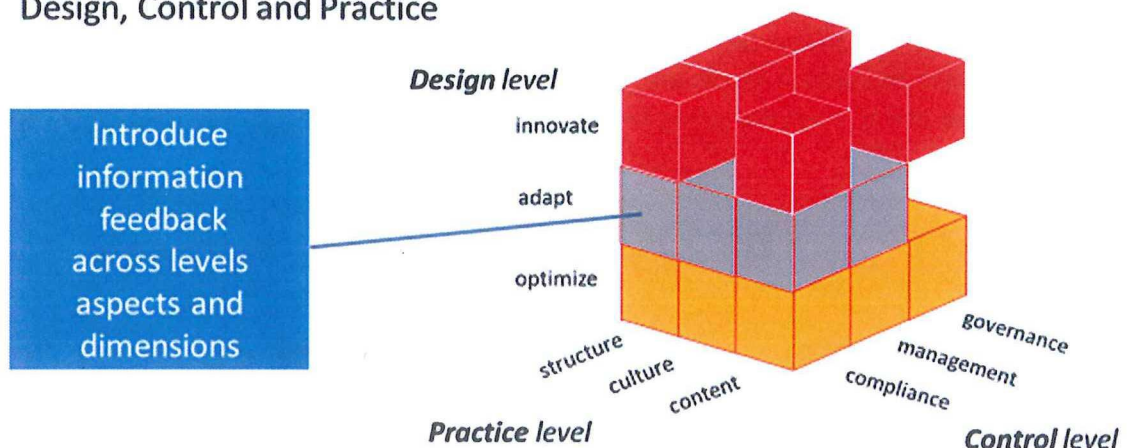
- *Investigative reconstruction*, based on forensic principles and techniques for collecting raw data. This phase makes the step from description to explanation of the event
- *Analytic interpretation*, mobilizing (multi-)disciplinary knowledge and sectoral, specific expertise enables the step from understanding the event to intervention in the system
- *Adaptive intervention*, based on input from the previous steps, applies engineering design and change management principles, enabling the transition to sustainable change and a feasible and credible safety enhancement.

The ESReDA Cube aims at bridging the gap between interpretation and intervention by application of engineering design principles, control strategies and control over the various aspects of operational processes in practice: their structure, culture and content.

The Cube aims at providing evidence and knowledge based solutions that enable:

- Elimination of learning barriers in both the event and the system
- Developing multiple solution spaces , dealing with optimization, adaptation and innovation
- Stimulating communication on participation of multiple indicators, factors, actors and aspects.
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The Safety Intervention Cube Design, Control and Practice



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For more information and contact

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