SFAIRP and SID

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Safety in Design Practice Forum #14, 07 May 2020

Unite against COVID-19

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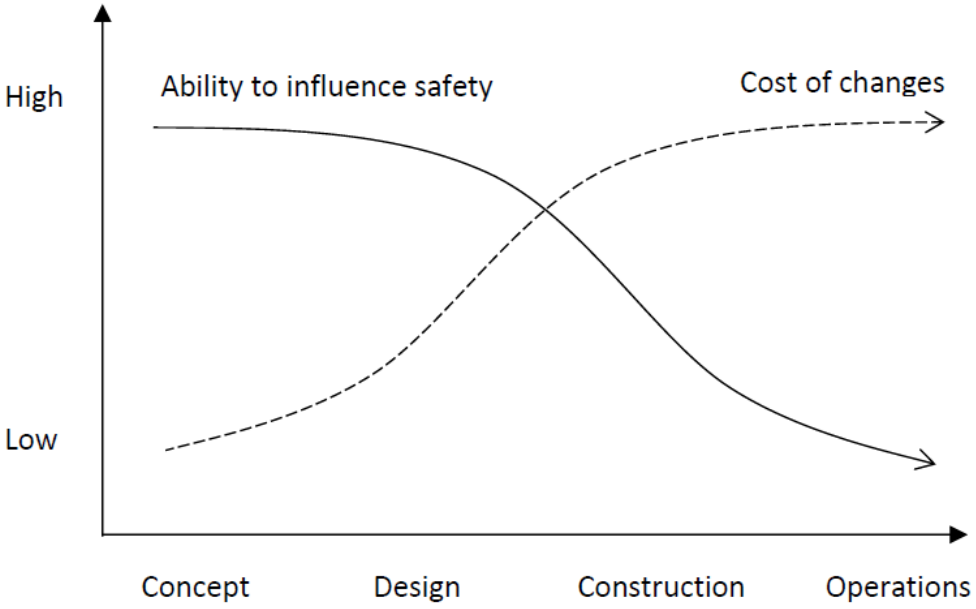
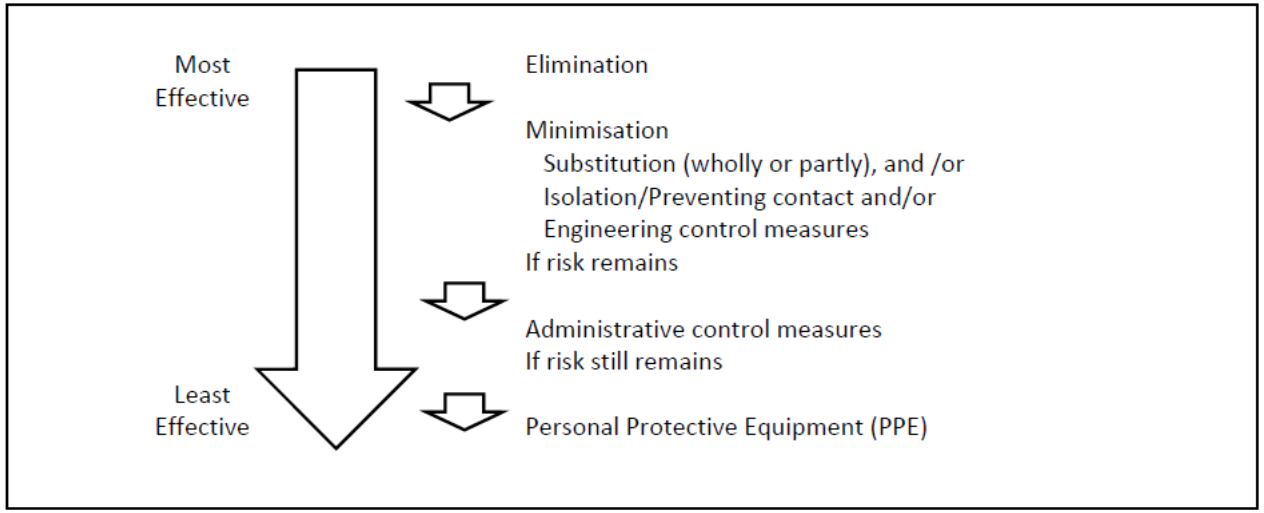
Overview

- Safety in Design context
- Common issues with Safety in Design (Q&A)
- Overview of HSWA ‘SFAIRP’ requirement
- Principles of SFAIRP
- SFAIRP applied to Safety in Design (Q&A)
- CRL / Link Alliance Process
- Challenges and Observations so far
- Summary

Safety in Design

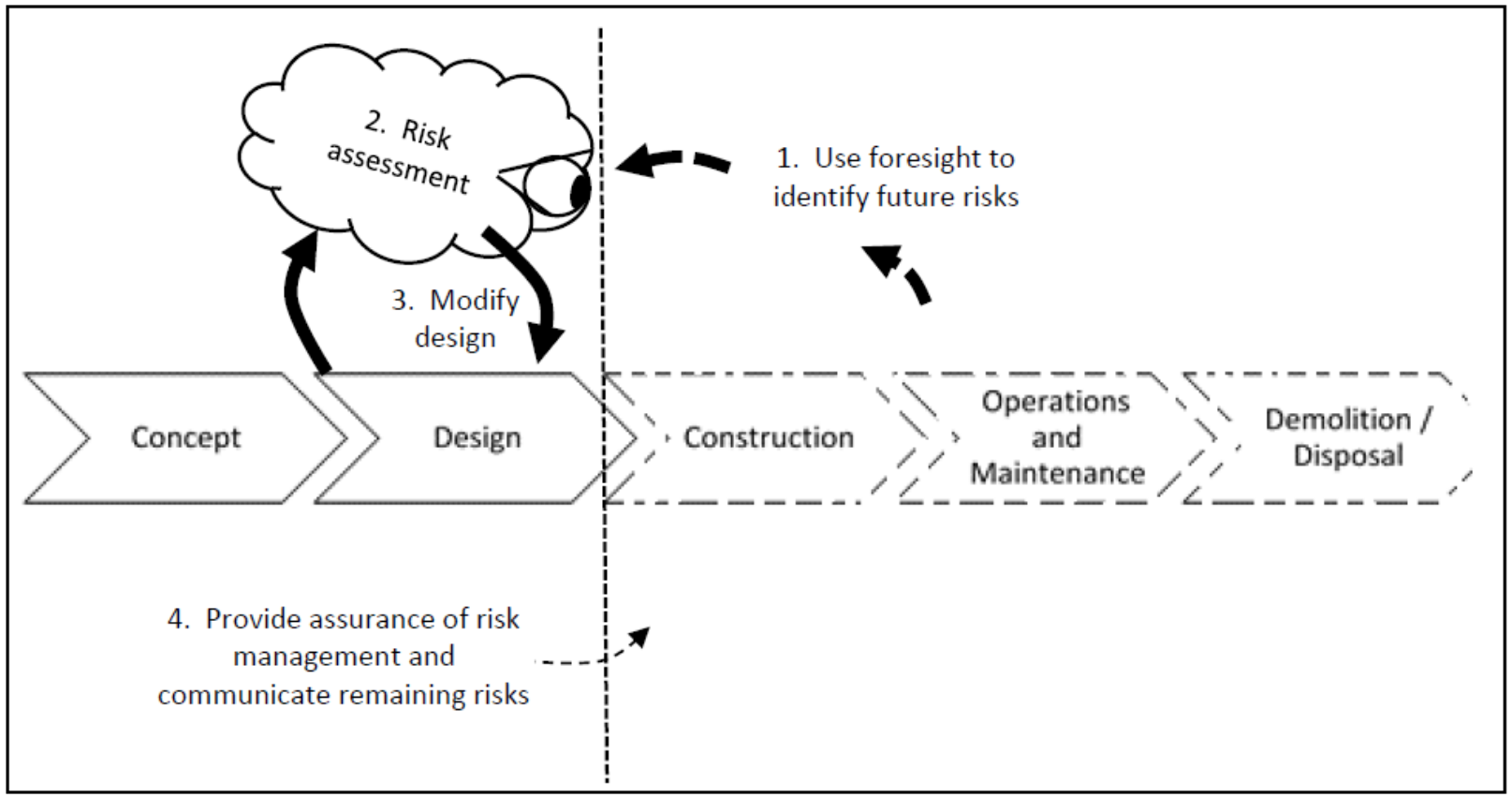


Cost of changes and opportunity to influence throughout a project lifecycle
(Zou & Sunindijo, 2015, p. 154)



Hierarchy of controls
(WorkSafe, 2018a, pp. 20–21)

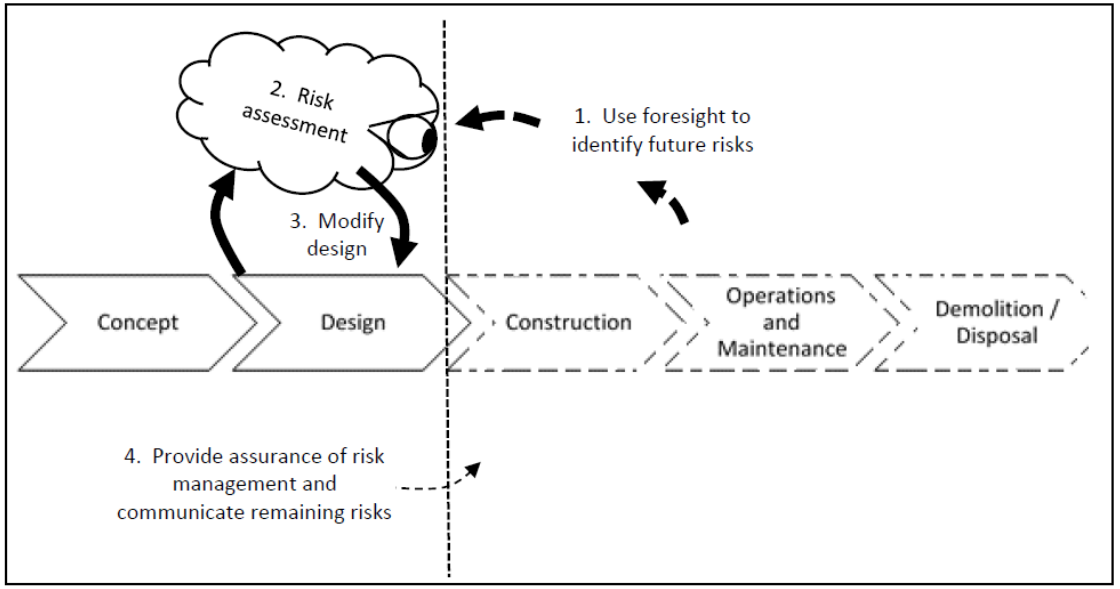
Safety in Design



Literature ideal model of Safety in Design

Common Issues with SiD – what do you think?

1. Limited foreseeability
   a) Complex work & complex hazards
   b) Work as imagined vs done
2. Common issues with risk assessment
   a) Judgement
   b) Simplification of complex risks
3. Issues with modifying design
   a) Defending the current design
   b) Time & Money
4. Issues with Communication
   a) Readability
   b) Communicating methods and administrative controls



Literature ideal model of Safety in Design

Health and Safety At Work Act

Health and Safety at Work Act 2015
Public Act 2015 No 70
Date of assent 4 September 2015
Commencement see section 2

(§) 39 – Duty of a PCBU who designs plant, substances, structures

- (2) The designer must, so far as is reasonably practicable, ensure that the plant, substance, or structure is designed to be without risks to the health and safety of persons…..

(§) 30 - Management of risks

- (a) to eliminate risks to health and safety, so far as is reasonably practicable; and
- (b) if it is not reasonably practicable to eliminate risks to health and safety, to minimise those risks so far as is reasonably practicable.

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So Far As Is Reasonably Practicable (SFAIRP)

(§) 22 - Reasonably practicable….means that which is, or was, at a particular time, reasonably able to be done in relation to ensuring health and safety, taking into account and weighing up all relevant matters, including—

(a) the likelihood of the hazard or the risk concerned occurring; and

(b) the degree of harm that might result from the hazard or risk; and

(c) what the person concerned knows, or ought reasonably to know, about—

(i) the hazard or risk; and

(ii) ways of eliminating or minimising the risk; and

(d) the availability and suitability of ways to eliminate or minimise the risk; and

(e) after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.

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Are the following compatible with SFAIRP?

- The risk is low, we don’t need to do anything
- That risk will never happen
- I’m out of time to make any changes
- It’s designed to code
- We don’t have the budget
- There are some more things we can do but don’t want to
- We’ve designed out the risk
- The client won’t pay for it
- We cant stop a determined person from hurting themselves
- My risks are ‘green’ my work is done.

General SFAIRP obligations:

- ‘Reasonable’ state of knowledge is required:
  - About the activities
  - About the hazards/risks
- Industry standard controls should always be applied
- Document what you know ‘at the time’
- Document ‘availability’ and ‘suitability’
- Only after assessing the ‘ways’ of controlling the risk, should cost be considered
- Only when cost is ‘grossly disproportionate’ to benefit, can you ‘not’ implement it
- Ongoing review because knowledge, costs, availability, and suitability change over time
- Officers of the PCBU hold accountability

Our solution: do them out of order

1. What are the activities that we know about?
2. What hazards have we identified?
3. Who is exposed, for how long?
4. What is the potential level of harm?
5. What have already done in the design to eliminate or minimise?
6. What changes can we make to the design, to eliminate or minimise?
7. Can we do those changes? Why not?
8. What is the likelihood of the harm if we don't do these things?
9. Lets weigh all this up, and have the responsible people decide.

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What else do we do?

- Declutter the SiD register
  - Write down those things we always do, but only once:
    - Design to code, competent designer, standard signage, etc.
    - Use competent contractor, Constructors assess risks, develop safe work method statements
  - Say ‘its OK’:
    - If you haven’t done anything to control a risk – leave it blank
    - If you cant think of what more you can do – leave it blank
  - List the barriers to doing more:
    - None – we will do it in the next design stage,
    - Cost, time, practicality, impact on operations, maintenance etc.
  - Escalate decision-making:
    - Gross disproportionality assessment is out of the hands of the designer with H&S/SA team
    - More time / money is now a ‘PCBU officer decision’

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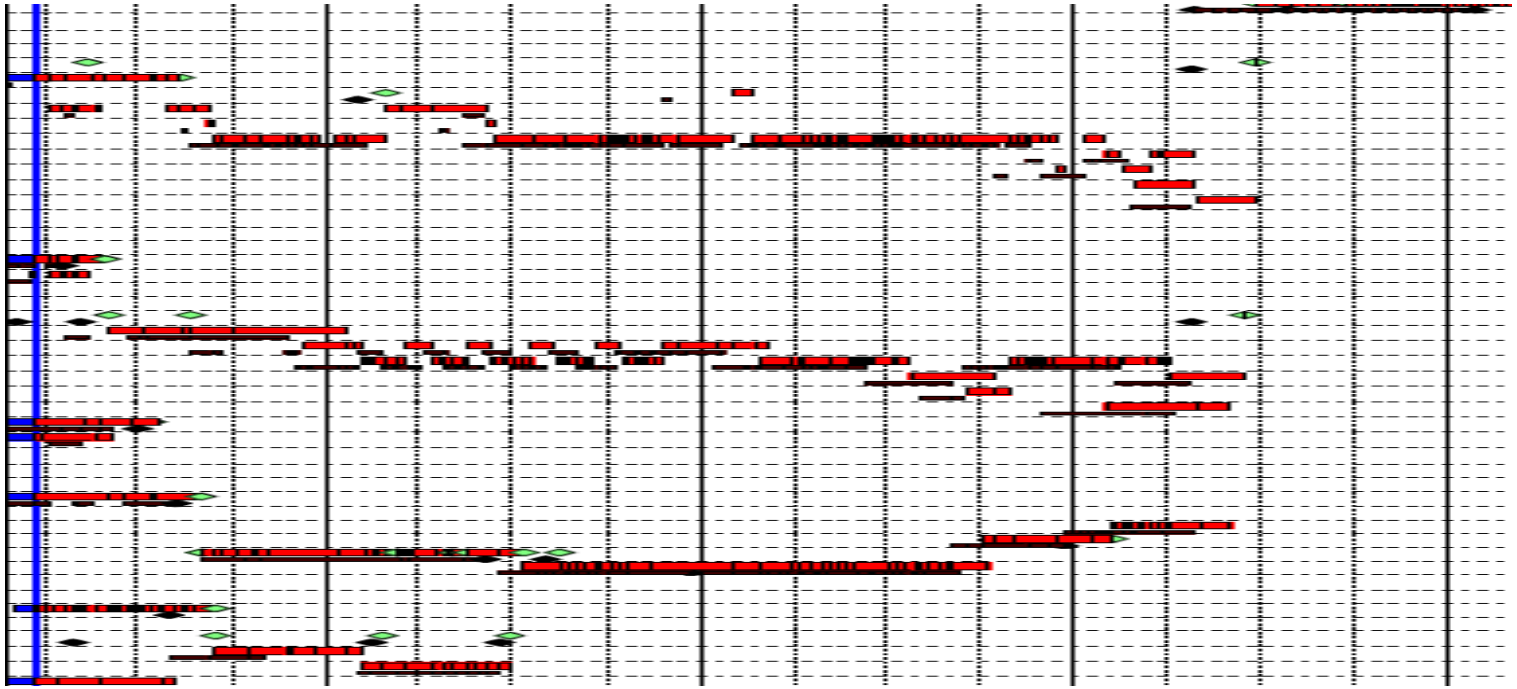
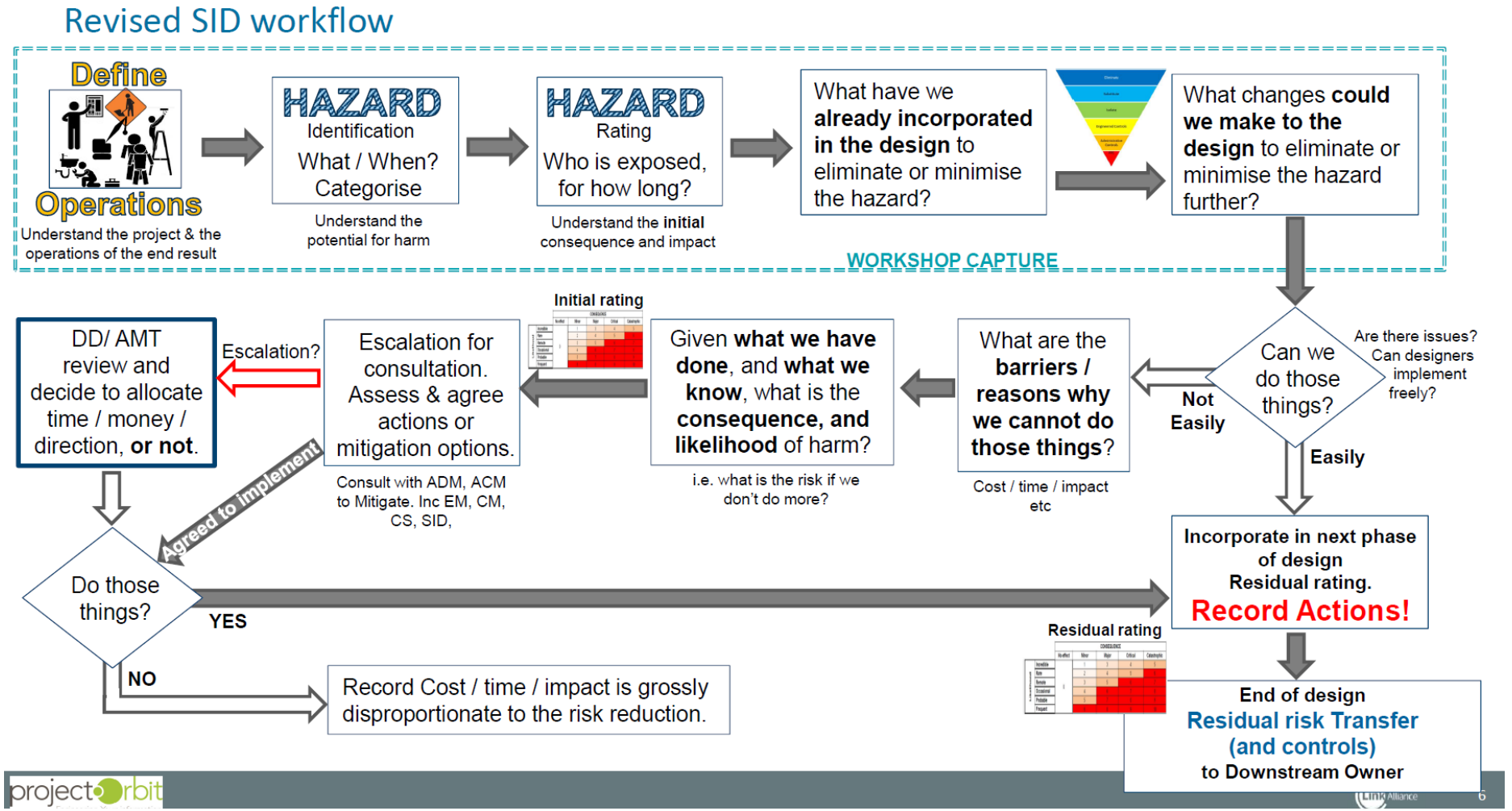
Focus changes as design evolves

Focus on big things in early stages

Focus on what is left at each future stage



Workshop / Process view



Credit: Andrew Richardson, Link Alliance

Observations so far

- Good:
  - Appetite to improve
  - More people coming equipped with hazards / risks
- Work in progress:
  - Engagement with downstream needs improvement
  - SiD seen as wasteful but necessary (box ticking) but getting better
  - Perception that ‘low’ risks don’t need action or recording
- Quality of outputs better achieve ‘ideals’:
  - What we know about activities & the hazards / risks
  - What have we done, what more can we do
  - Ownership of decisions at the right level
  - Clearer communication of residual hazards / risks downstream

Summary

- Revised approach to safety in design
- Incorporates ‘SFAIRP’ into the process
- Aims to overcome traditional problems with safety in design
- Seeing movement in the ‘right direction’
  - Identification of safety risks
  - Capture of decisions ‘what was known’
  - Focus on alterations to the design during design stages
- Is shared with industry:
  - Community of Safety Innovation
  - SiD practice forum
  - Welcome discussion & critique

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