



Breakout room 2

Auditing and Inspection

11 May 2021





Breakout room 2 facilitators



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- **Auditing and Inspection**



Let's get to know you in 30 seconds!



Agendas

- Introduction and problem statement
- Active industry discussion
- General vision of potential improvements





Introduction

- **This room aims to discuss the key considerations exist within the auditing and inspection for off-site construction logistics.**
- **We would like to hear your insights and discuss around the potential solutions.**
- **We will share the key findings from the internal research regarding potential improvements.**



Problem statement

- **Inspection and record keeping are carrying out on ad-hoc basis from company to company rather than united standardised approach at industry level. So there is a need for inspection protocols in the off-site construction industry.**
- **The same issue exist in internal auditing process for logistics operations and a there is a need for clear audit trail (better record keeping).**
- **There is a need for better characterisation of actions and loads expected during logistics and transportation activities with the aim of preventing potential damages in building components and assemblies.**

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Discussion



- How does the industry do internal quality inspection within different type of operations? Are there any common principles for stakeholders to follow for the same operation?
- How can the industry move from ad-hoc base to unified inspection approach?
- What are the industry expectation/needs that should be included in standardised inspection/auditing protocols?
- What are the current best practices that you have seen in the construction industry or any other sector?



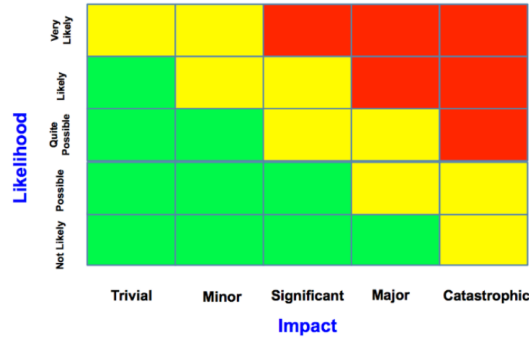
Potential improvements

- Report of best practices as well as lessons learned
- Risk-based assessment through failure mode and effect analysis
- Damage mitigation strategies, desktop analysis, experimental research and continuous monitoring
- Digital transformation



Report best practices

- Map out the optimal/best combination of off-site operators from designer to delivery and assembly
- Better estimation of logistics response costs and delay response costs via road network data
- Better logistics preparedness planning in case of emergency



Risk-based assessment

- Identify the most hazardous delivery routes
- Modelling and listing potential damages during handling
- Minimise likelihood of damages to units during transformation
- Improve the level of inspection at module's delivery point
- Saving operational costs and Improving the efficiency of loading



Damage mitigation strategies

- Establish corrective and preventative actions for handling and assembly
- Regular training to avoid damages due to poor judgments within lifting, handling and assembly
- Standardised site inspection to ensure the permitted variance of storing and assembly as per the pre-construction design



Digital Transformation

- Optimising the allocation of resources by applying digital tools from other sectors
- Tracking and recording non-conforming products for further investigation
- Supplier performance evaluation to raise the quality competition



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