



# **Building a Risk Based Inspection Model for Offshore Wind Turbine Foundations**

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13 March 2019

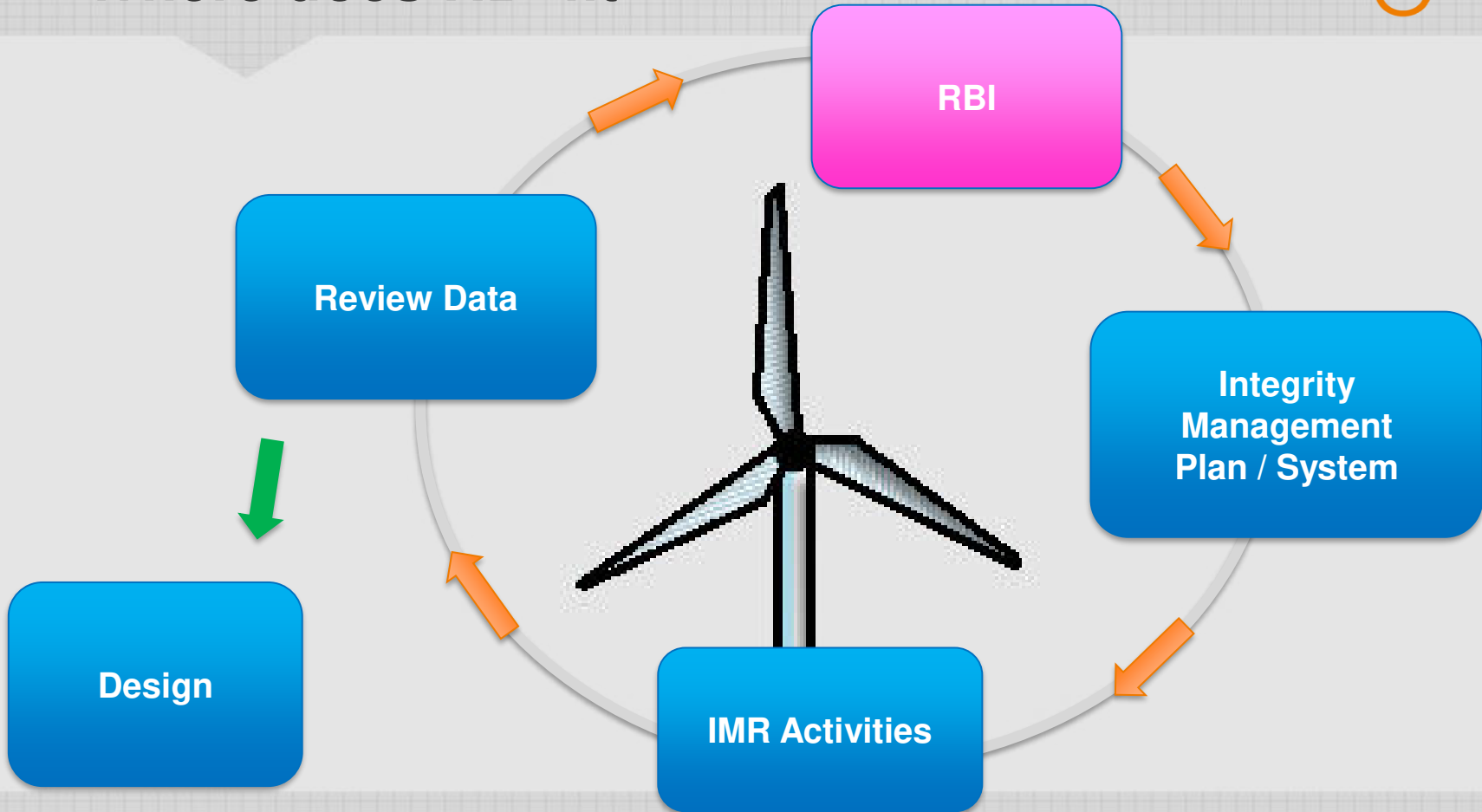
# Agenda



By Andy Dingley, edit Muhammad - This file was derived from: Barrow Offshore wind turbines.jpg, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=24119638>

Slide 2

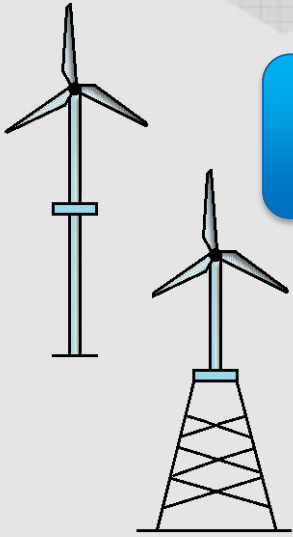
# Where does RBI fit







# Developing the RBI Model



**Define the  
system**

**Understand the  
failures**

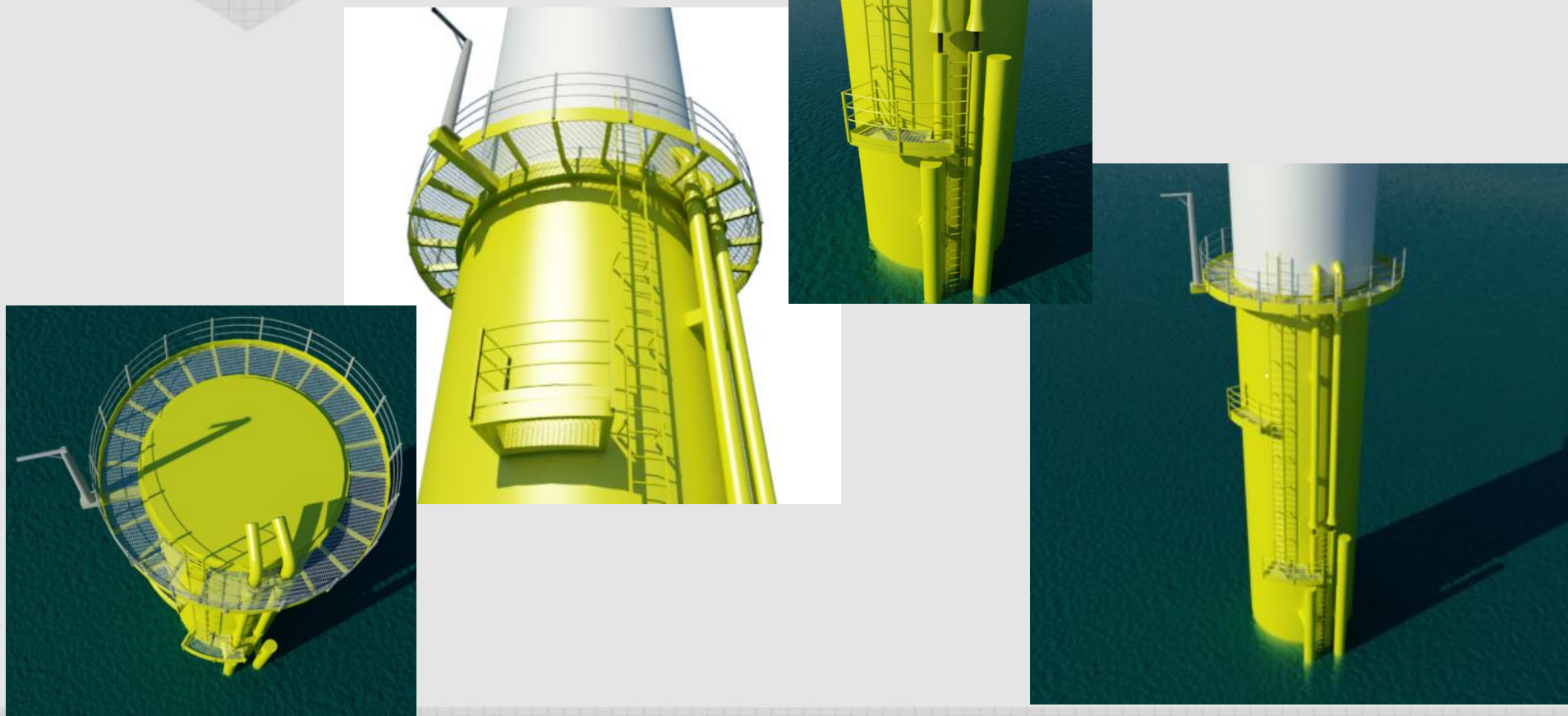
**Determine the  
mitigations**

**Risk Ranking**

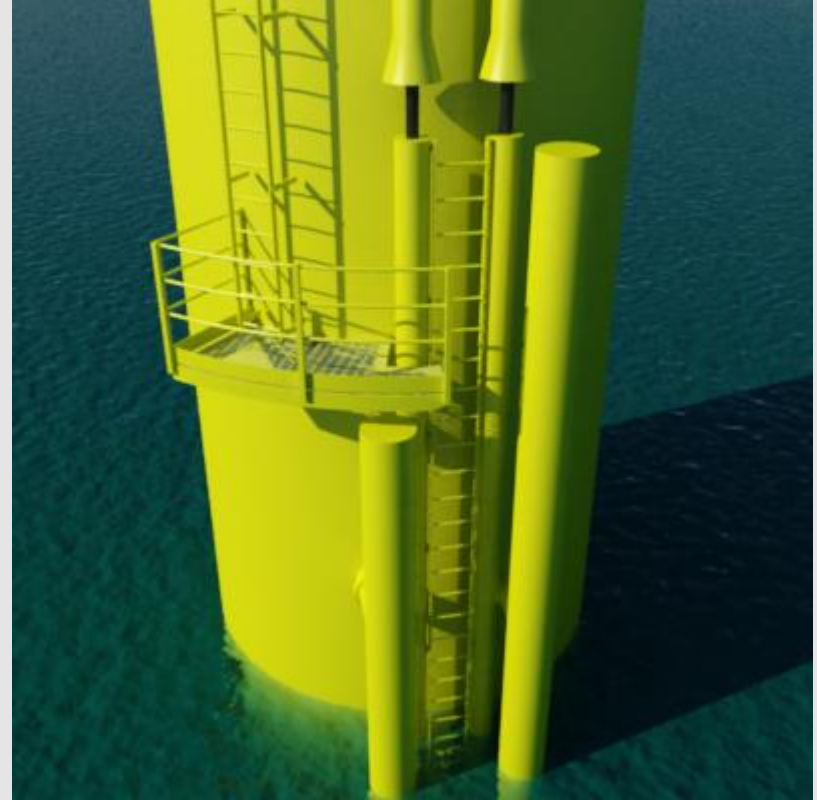
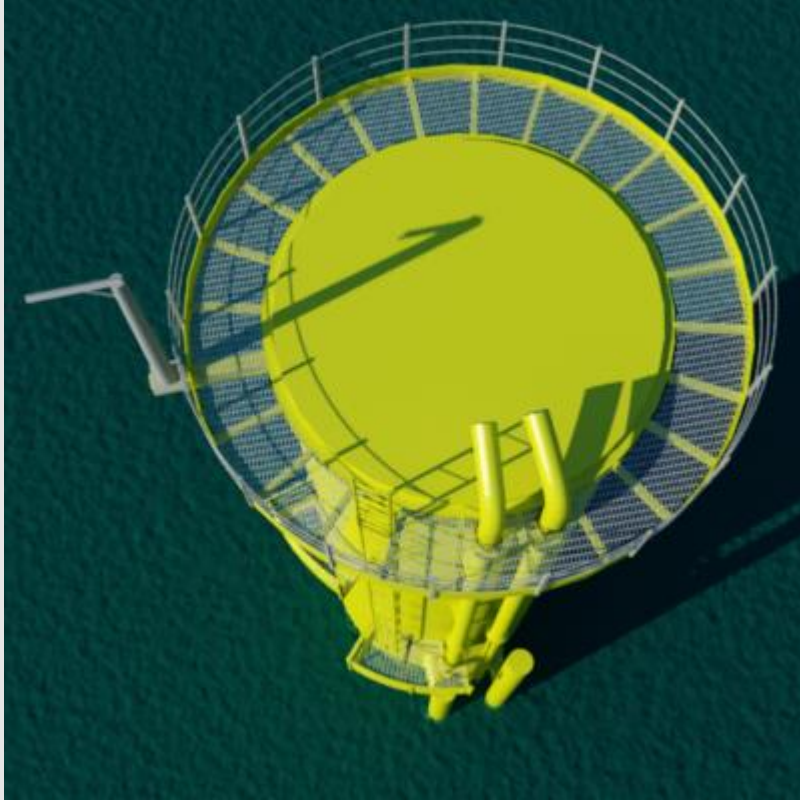
**Define the COF**

**Define the LOF**

# Wind Turbine



# RBI Model – Define the System



# RBI Model – Understand the Failures





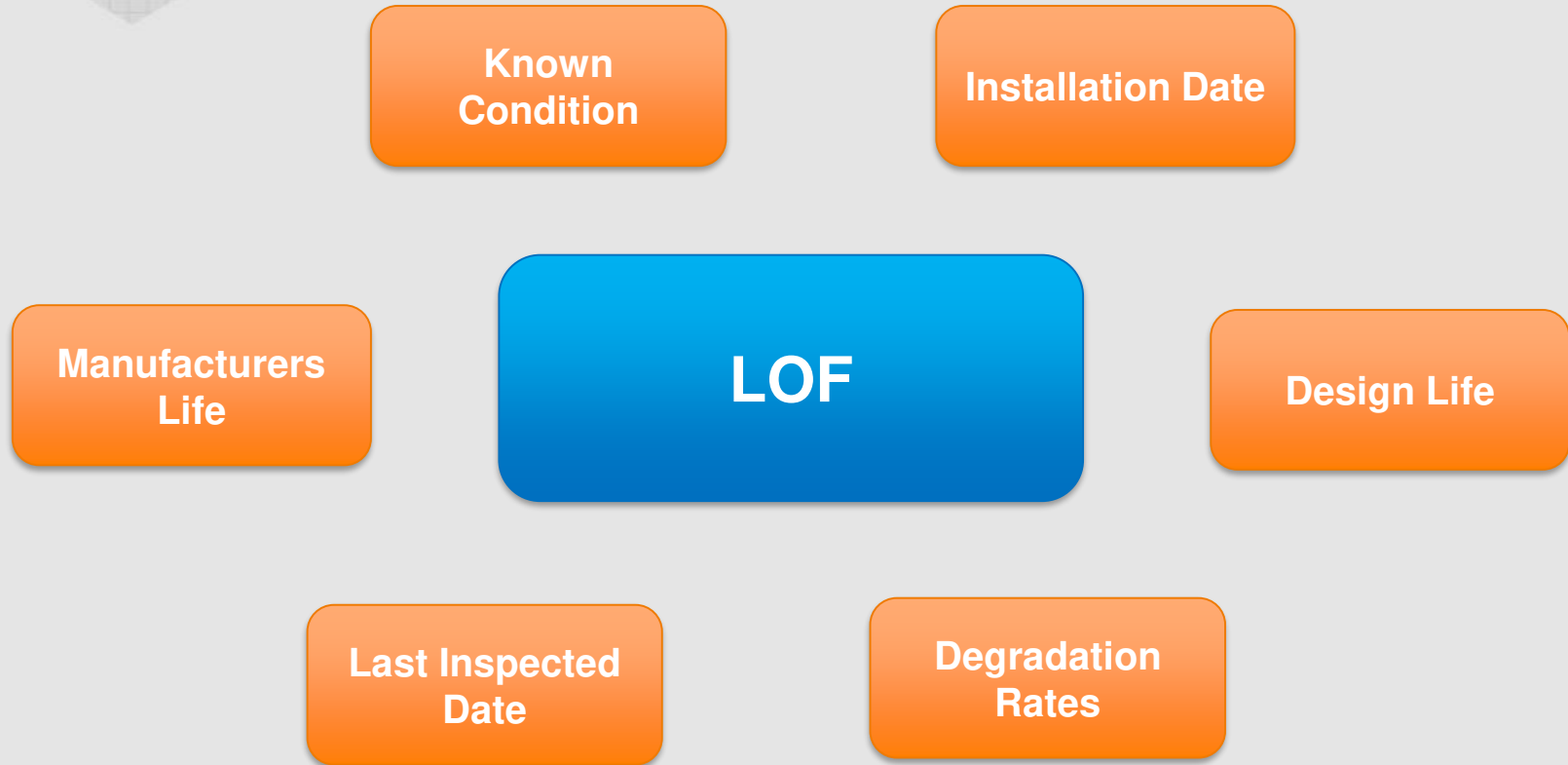
# RBI Model – Determine the Mitigations



# RBI Model – Define the COF



# RBI Model – Define the LOF



# RBI Model – Risk Ranking

- CoF and LoF together to get the risk score

Consequence	5	0.3	30	75	150	200	250	500
	4	0.25	25	50	75	100	125	250
	3	0.1	10	20	40	50	50	100
	2	0.05	5	10	15	20	40	50
	1	0.01	1	2	3	4	5	10
	0	0	0	0	0	0	0	0
Category		0.1	0.5	1	2	3	4	5
		Probability						



# RBI Implementation

[illegible]

# Challenges





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