Safe System for Universities

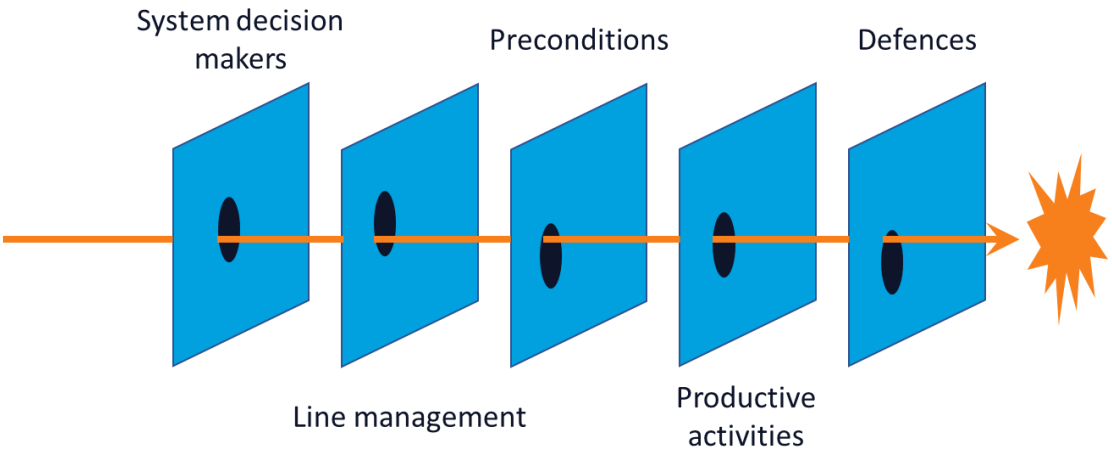
Module 1 Tutorial

Failure trajectory

Revision	Date	By	Revisions
1.0	8 Dec 2019	C Stokes	First release

Introduction:

Reason's model of failure trajectory (below) can be applied to any accident as a way of analysing the individual gaps within a system that can lead or have led to failure. Plotted against the corresponding barriers to failure, we can see where weaknesses within a system (known as gaps) are located and what measures can be taken in order to stop failure from occurring or reoccurring.



Instructions:

Students should review Module1, Snippet 3, *Human error and system failure* of Safe System for Universities before undertaking this activity.

Form into small groups and using a large sheet of paper, draw up Reason's model of failure trajectory so that lists can be made below each of the five barriers to failure.

Review one of the following accident descriptions, or a detailed description of any other accident or incident:

- Piper Alpha drilling platform explosion
- Tenerife airport disaster
- Princes Highway intersection crash

Using Reason's model, list out the system gaps that occurred at each stage along the trajectory to failure. Discuss each gap and consider the following:

- Why did the gap occur?

- What interventions could have been made to close each gap?
- For each gap: if it was closed, could failure still have occurred through a different pathway?