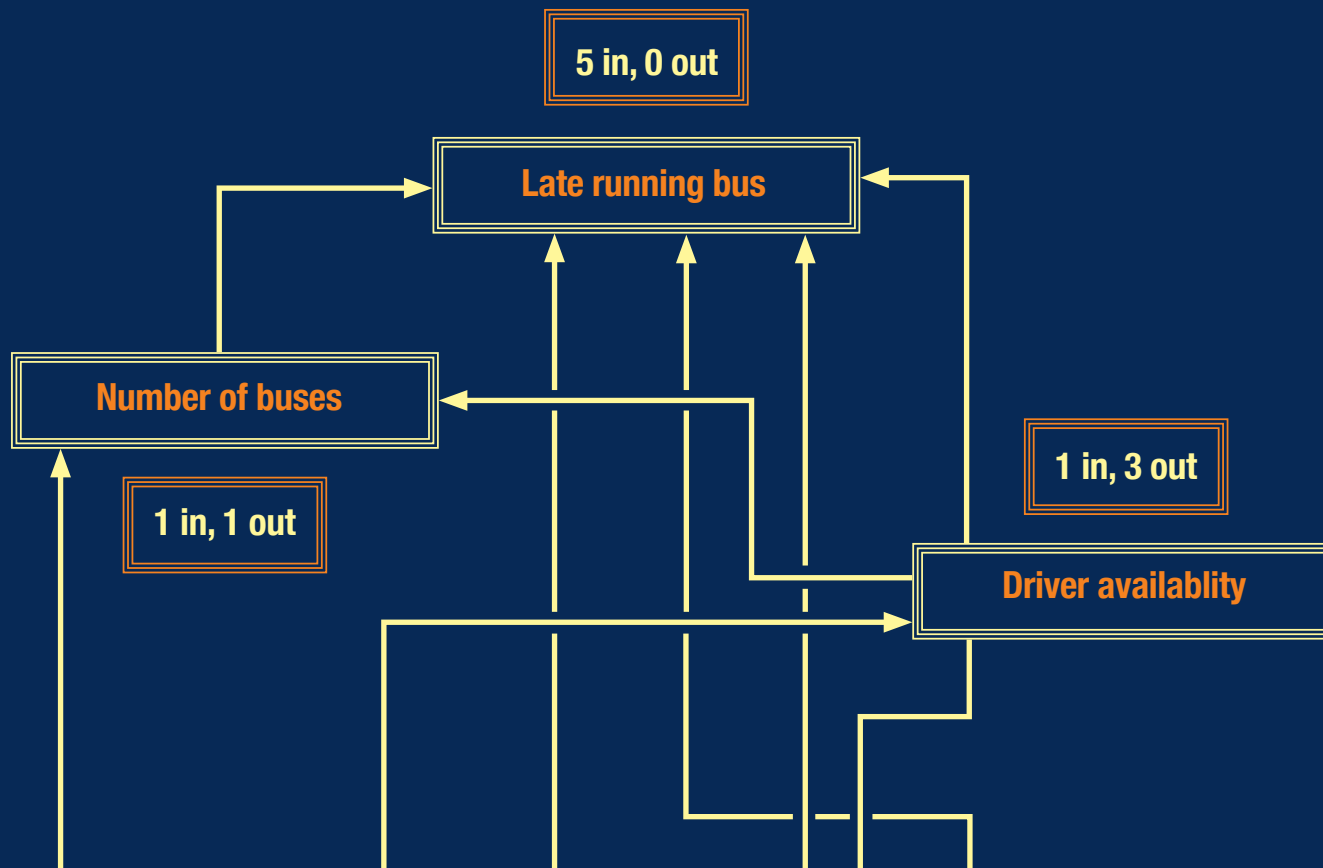


# INTERRELATIONSHIP DIAGRAM

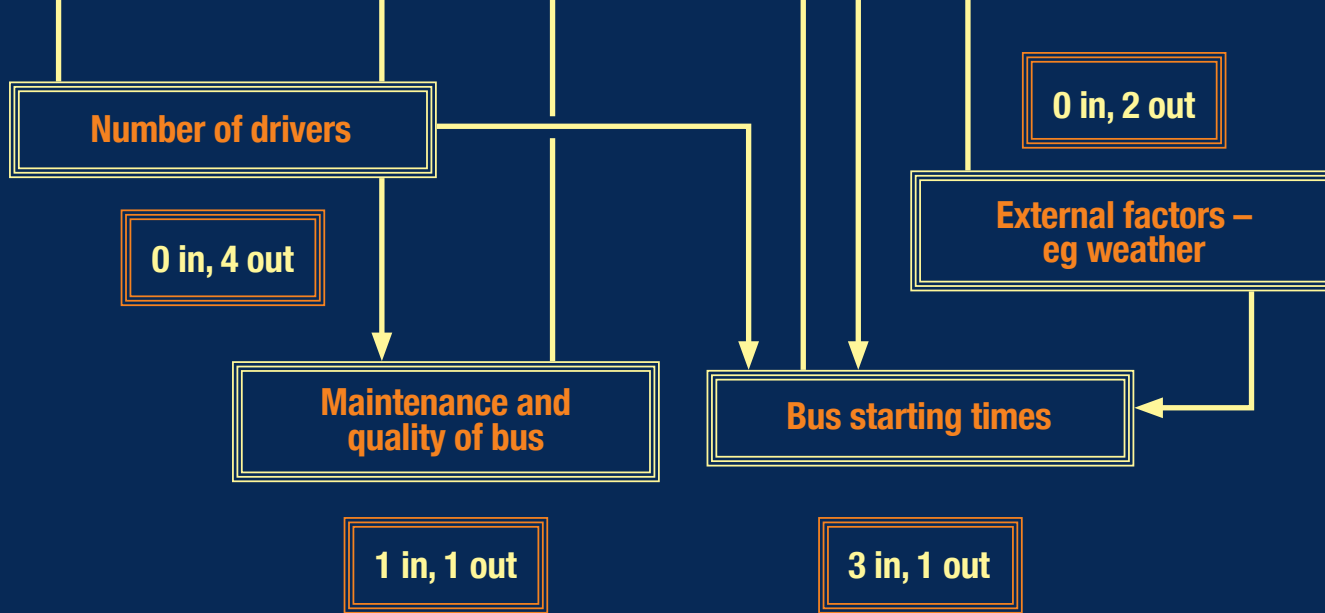


## WHAT IS IT?

An interrelationship diagram is a tool that helps simplify and visualise an otherwise complex and confusing situation, problem or process. Use this tool when you need to understand cause and effect relationships, to identify areas for potential improvement.

## WHEN AND HOW CAN I USE IT?

When a team is struggling to understand cause and effect in a complex process, an interrelationship diagram is a great way to map out and understand the different relationships between factors. In some situations, it can be an effective way to identify root cause.



## CASE STUDY

A bus company had an increase in complaints about late running buses. Although they had invested a lot of money into the project, they were still finding that buses are running late. As a result of this, they decided to produce an interrelationship diagram to understand the issues and identify where improvement can be made. From the chart, it is apparent that driver availability and the number of drivers were causing the most issues – shown by the factors having the most arrows leading out from them.

## DID YOU KNOW?

The interrelationship diagram was one of the seven new management and planning tools identified by the Union of Japanese Scientists and Engineers (JUSE) in the 1970s. It can be complementary to the Ishikawa/Fishbone diagram, as well as the Affinity diagram.

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## STEPS

1

Brainstorm issues that are related to the problem.

2

Arrange these issues/factors in a circle.

3

Identify relationships between pairs within the circle.

4

Draw an arrow from the influencing issue to the affected issue.

5

Count up the 'in' and 'out' arrows.

6

A high count of 'out' arrows indicates a driver/root cause, with the opposite indicating an outcome.