What is a trade study?
Trade studies are used to objectively evaluate the advantages and disadvantages of different products or approaches in order to select the most suited alternative consistent with cost, schedule, sustainment, and acceptable level of risk. The product of a trade study is a report with requirements, approach, schedule, supporting data, alternatives, evaluation methods and recommendations.

The general idea is to follow the steps below:

1) Define scope and purpose, (define the problem)
2) Identify objectives and requirements
3) Define Selection criteria
4) Define Success criteria
5) Set criteria and weights
6) Identify alternatives
7) Evaluate
8) Score
9) Document results
10) Decision