

# **'DEFINE' PACK**

This pack offers a series of questions you should be asking during the DEFINE stage of a problem or opportunity. The main aim is to get you to think about your situation in terms of how it is affected by TIME and SPACE. You may not be able to answer all of the questions. The important thing is that you ask them.

Print the sheets out, or fill them in electronically.  
If you need more space, make copies or use blank pieces of paper.

Although the pack gives you a structured way of communicating your situation to others it is up to you to use the sheets in a way that best suits the way you work.

Project Title

Date

Project Sponsor

Project Customer

Project Team

**Benefits**

Where are we trying to get to  
(what are the goals)?

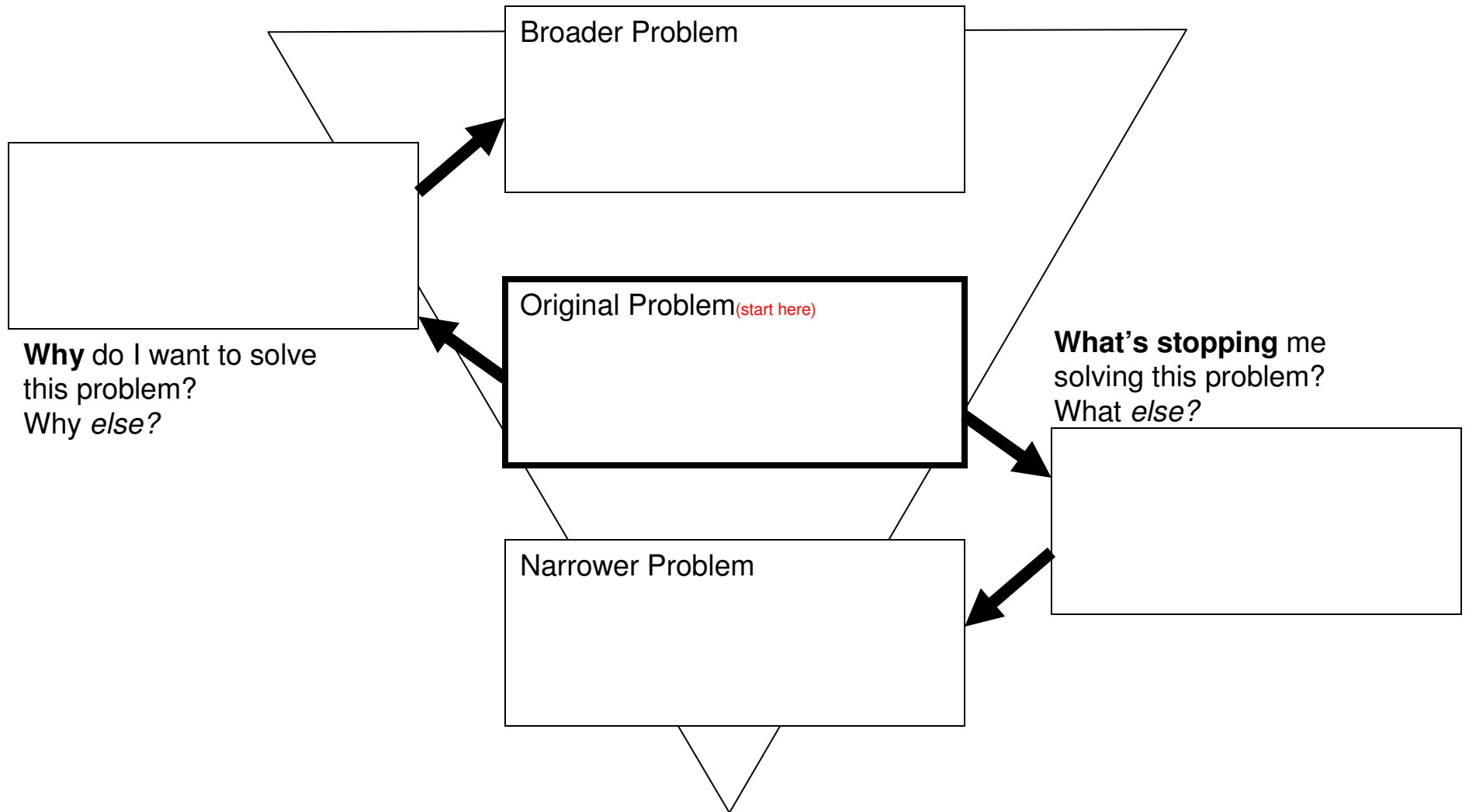
How will we know when we've  
got there (measures of success)?

Sponsor

Customer

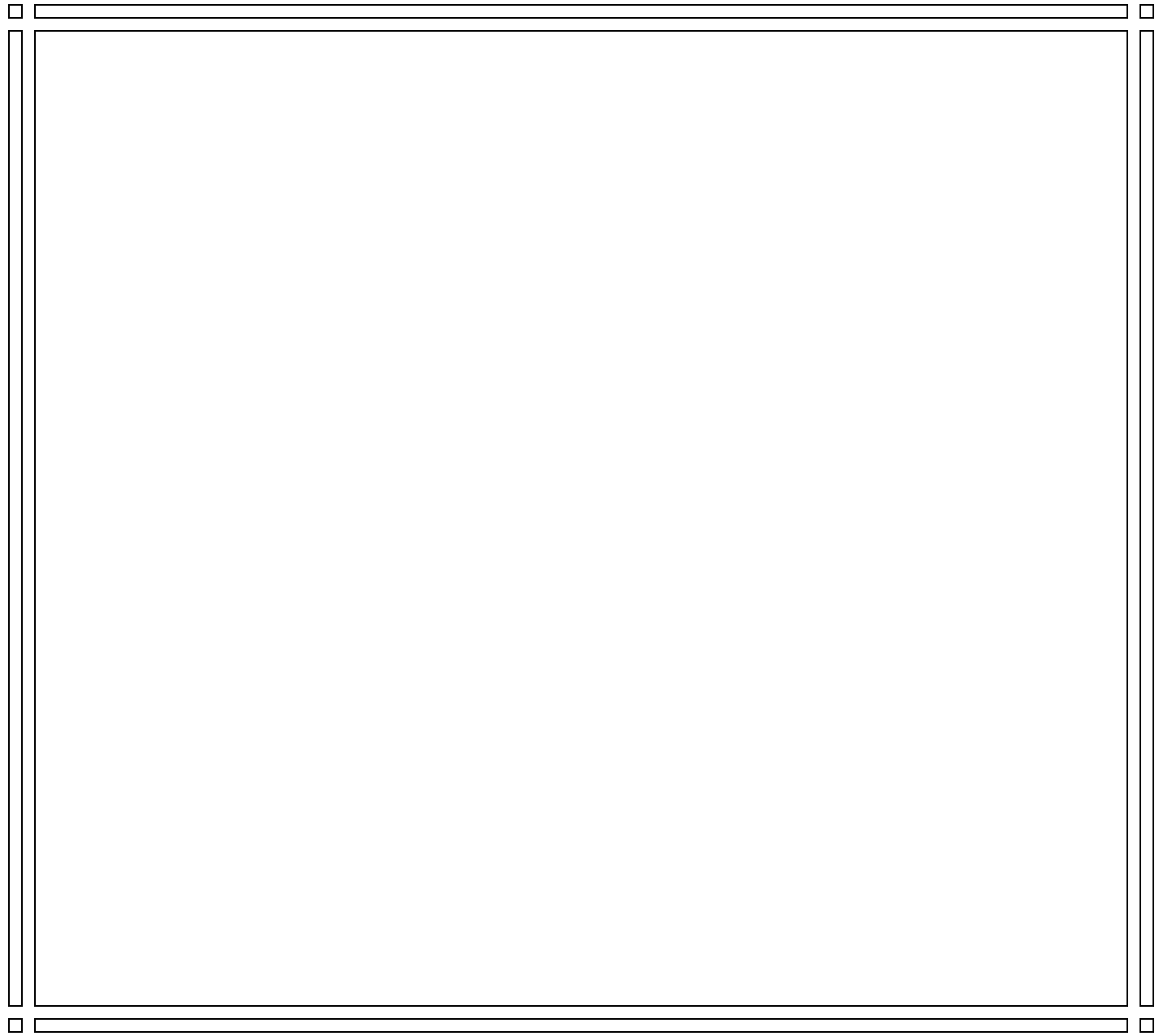
Team

# What Is The Problem?



(NB: procedure may be repeated to broaden or narrow the problem to more levels)  
The aim of this sheet is to get you to think about what your problem is, and at which level you are going to try and solve it

# What Is The Current System? (based on the level of problem you decided from the previous sheet)



## TYPES OF INTERACTION

Effective 

Missing 

Insufficient 

Excessive 

Harmful 

(Plot the current components in the system, then identify the **positive** functional relationships between the components, then identify the **negative** relationships)

**How does TIME affect the system?** (If there is a time either in the past or in the future (or both) where the functionality of the system is different, record those differences here)  
(The 'past' or the 'future' may mean less than a second or it might mean more than a decade)

Past (meaning?)

Future (meaning?)

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**Resources - Technical (Function, Substance, Field)** (Pay particular attention to the things that are not being used to their maximum effect, and negative things)

Past

Present

Future

Around the system

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System

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Within the system

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**Resources - Knowledge**

Past

Present

Future

Around the system  
(SPONSOR)

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System  
(including CUSTOMER)

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Within the system  
(TEAM)

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**Constraints - Technical (Function, Specification, Process, Tools)**

Past

Present

Future

Around the system

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System

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Within the system

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**Constraints** - Business (Time, Cost, Risk, Skills)

Past

Present

Future

Around the system  
(SPONSOR)

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System  
(including CUSTOMER)

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Within the system  
(TEAM)

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# Sore Point

What are we trying to improve?

What are the things that are stopping us?

Physical parameters - weight, linear dimensions, areas, volumes, shape

Performance parameters - speed, forces/loads, stresses, pressures, strength, use of energy, stability, duration of action, temperature, brightness, use of energy, power,

Efficiency Parameters - waste of energy, waste of substance, loss of information, waste of time, amount of substance

Manufacture Parameters - accuracy of measurement, accuracy of manufacture, manufacturability, device complexity, productivity, level of automation

'Ility Parameters - reliability, convenience of use, repairability, adaptability, harmful effects, control complexity

# Sore Point

What are you trying to improve?



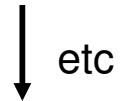
What gets worse/What's stopping you?



What  
Aspect?

What  
Aspect?

What  
Aspect?



**Sore Point** - Where/When are the potential or known bottlenecks and contradictions?

Past

Present

Future

Around the system

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System

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Within the system

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(It may be that the sore point exists in only one of these boxes)

# IDEALITY

(You should only use this sheet if your constraints allow you the freedom to think of clean-sheet of paper solutions to your problem)

What function are you trying to achieve?

What is the **Ideal Final Result (IFR)**?

(Achieving the function without any cost or harm.)

Think about the system solving the problem by it**SELF**)

What's stopping you from achieving the **IFR**?

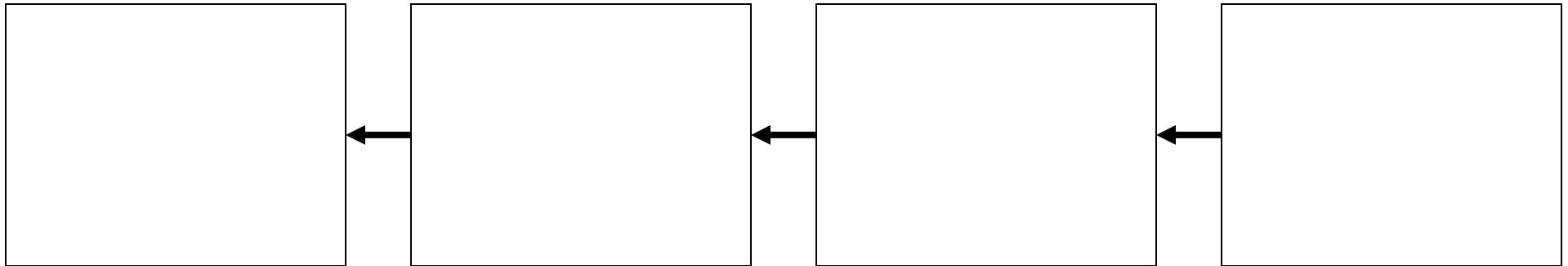
Why is it stopping you?

How could you make it go away?

How might you work back from the IFR to a practical solution?



**IFR** (start here)



(As you work back from the IFR solution, apply minimum compromise at each stage, and concentrate on conceptual solutions rather than specific ideas. The further back from the IFR you go, the more possible concepts there may be.)

# How Mature Is The Current System?

