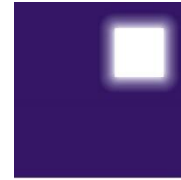


**CONSTRUCTING  
EXCELLENCE**  
IN NEW ZEALAND



**Construction  
Clients' Group**  
CONSTRUCTING EXCELLENCE



## Benchmarking Industry Outcomes

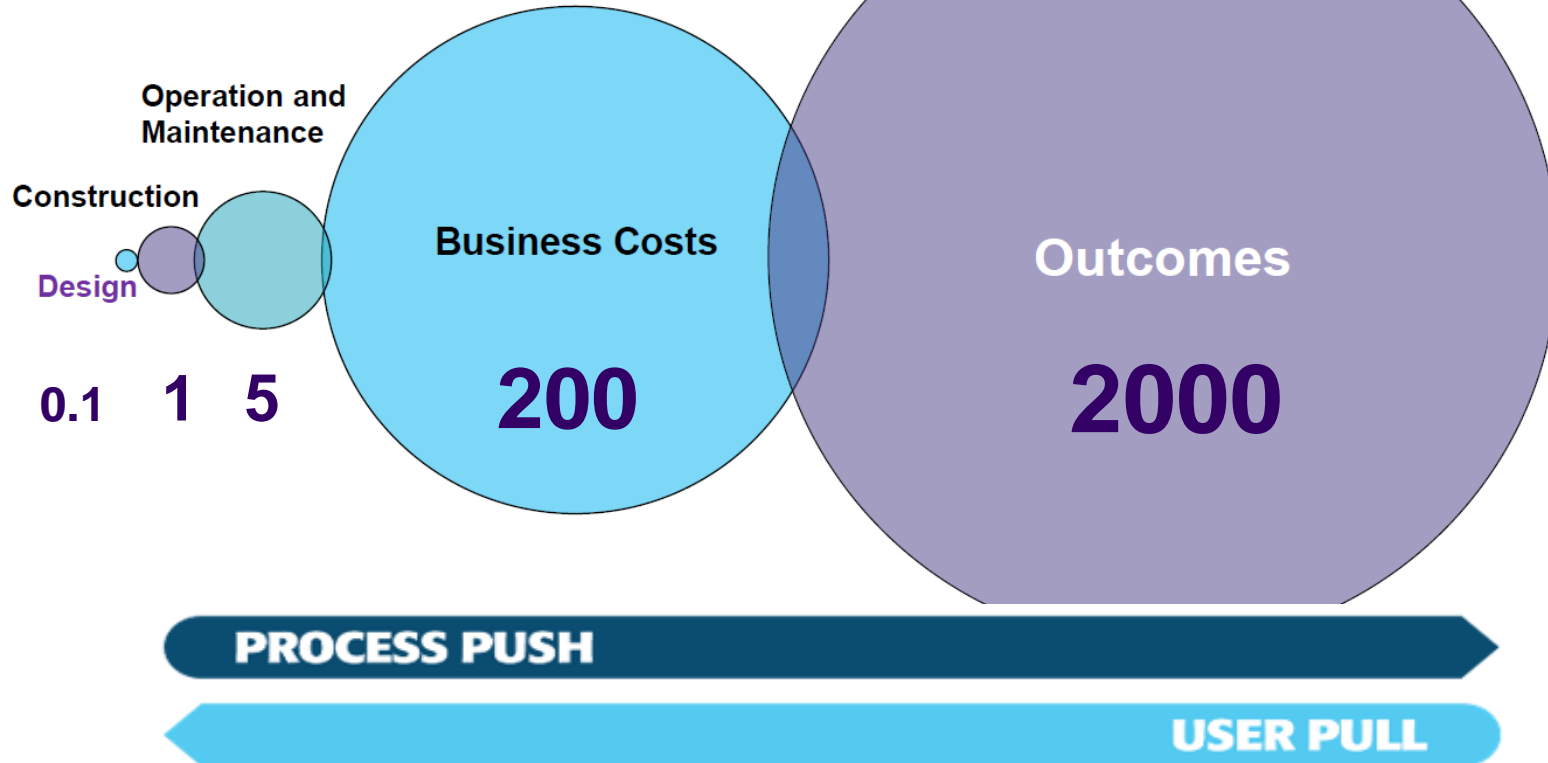
Construction Clients' Group, Wellington, September 2015



What are we all trying to achieve in the Built Environment?

# The real value of client outcomes (1-5-200)

The value of client outcomes far outweighs the project costs



# The real value of client outcomes (1-5-200)

## High quality buildings can...



Speed up recovery  
in hospital by

**27%\***



Improve learning  
in schools

**10%\***



Increase productivity  
in the workplace

**20%\***



Help reduce  
crime rates

**67%\***

*\* 'The value of good design: How building and spaces create economic and social value'  
Commission for Architecture and the Built Environment (CABE)*

# The real value of client outcomes (1-5-200)

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**“better quality buildings  
and public spaces improve  
the quality of people’s lives”**



**85% agree\***



# St Francis of Assisi Academy, Liverpool - sustainability delivering value

## Green values help academy top new league table

“A school which offers its pupils a green-focused education has won plaudits for having the best teaching standards in the country....”

*The*

*Independent*, 11 Jan 2007

The Academy of St Francis of Assisi	
Client	St. Francis of Assisi Academy Trust
Location	311
Construction start	2005
Completion date	December 2006
Project	Education
Contract value	£12 million
Project completion	18th June - Sept 2006
Project location	Sunderland, UK

The Academy of St Francis of Assisi is a 100% faith academy for 11-18 year old students in the Merseyside area of Liverpool. One of the Government's new 'Right to Education' academies, it was co-sponsored by the Roman Catholic Church and Church of England, with the DfES.

The building was designed to combine learning with a specific focus on the environment. The steel frame, solar panels, rainwater harvesting system, wind turbine, solar panels, and advanced sustainable materials, all contribute to the building's green credentials. The building also features a range of sustainable technologies to support green learning and reduce the carbon footprint of the building.

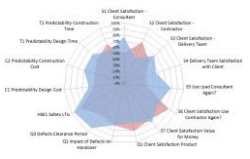
Key Features and Policy Review

The building has been designed to be a model of sustainable construction. It features a range of sustainable technologies, including solar panels, rainwater harvesting, wind turbine, and advanced sustainable materials. The building also features a range of sustainable technologies to support green learning and reduce the carbon footprint of the building.

“The excellent GCSE results and the fact that our students finished top of the national league tables for progress can rightly be attributed to the impact the building had on their studies”



# So what should we benchmark?



CCG International KPIs



## Peckham Library, UK, Stirling Prize Winner

- Replaced two existing libraries
- Cumulative use went up 3 times
- Book borrowing increased 8 times.





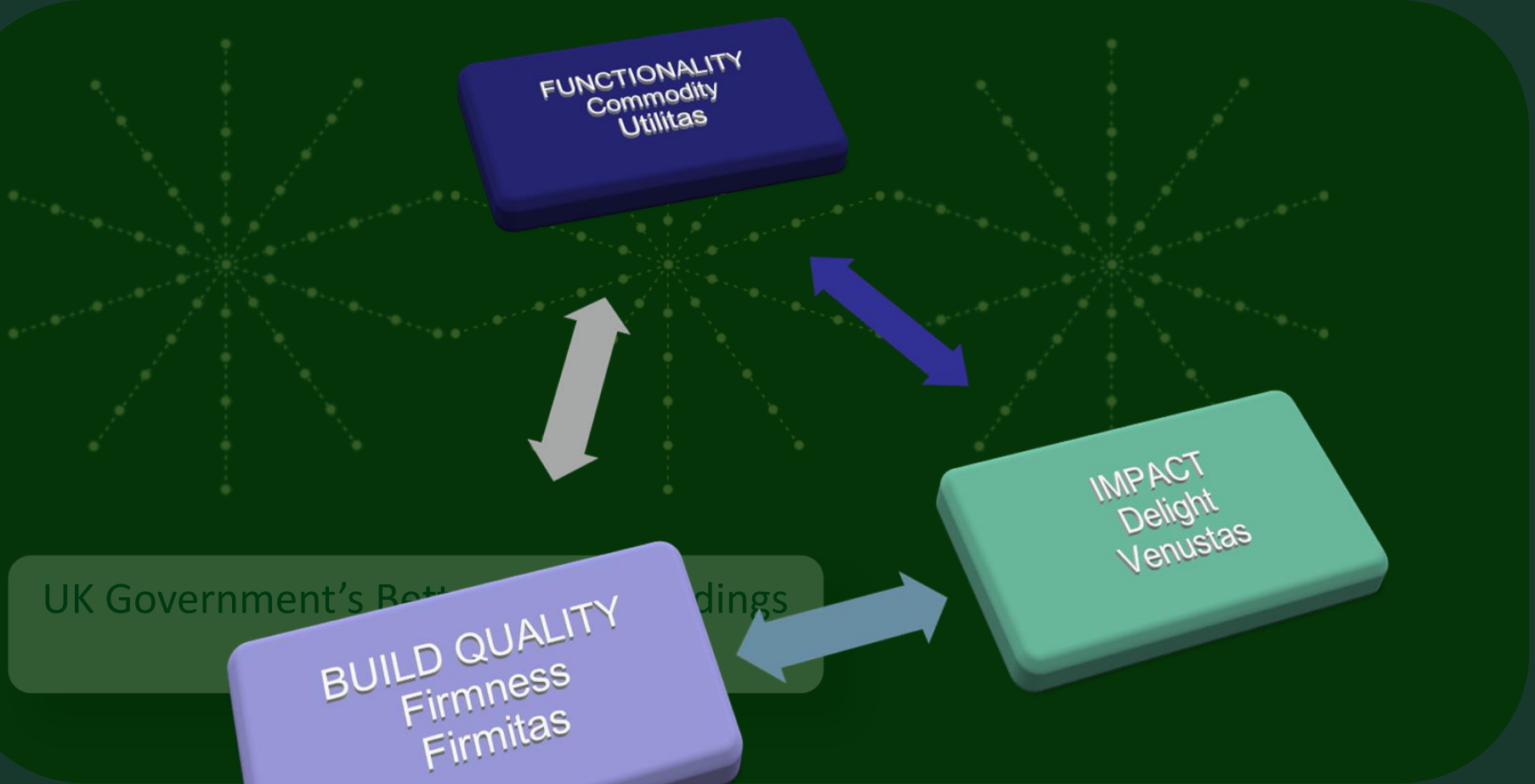
# CIC DESIGN QUALITY INDICATOR

**FUNCTIONALITY**  
Commodity  
Utilitas

**IMPACT**  
Delight  
Venustas

**BUILD QUALITY**  
Firmness  
Firmitas

UK Government's Better Buildings



Process  
Industry  
International  
Key  
Performance  
Indicators



Types of  
Measure  
we need

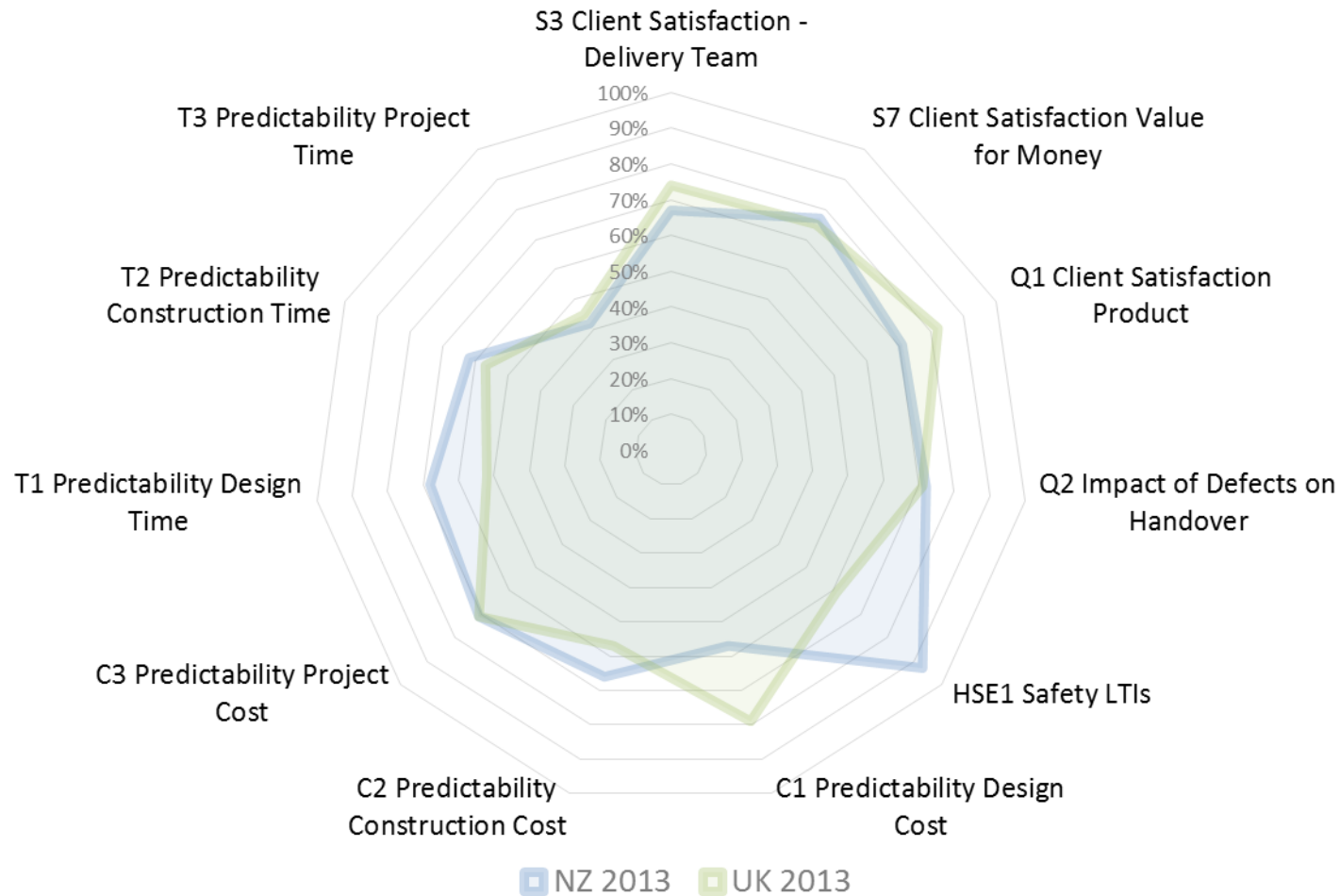
Product  
Outcomes  
Design Quality  
Indicators?  
Other?

Sustainability  
of Process *and* Product



# National Industry Performance: 2014 Report

## International Benchmark - UK



# 6 Project Key Result Areas (KRAs) Summary

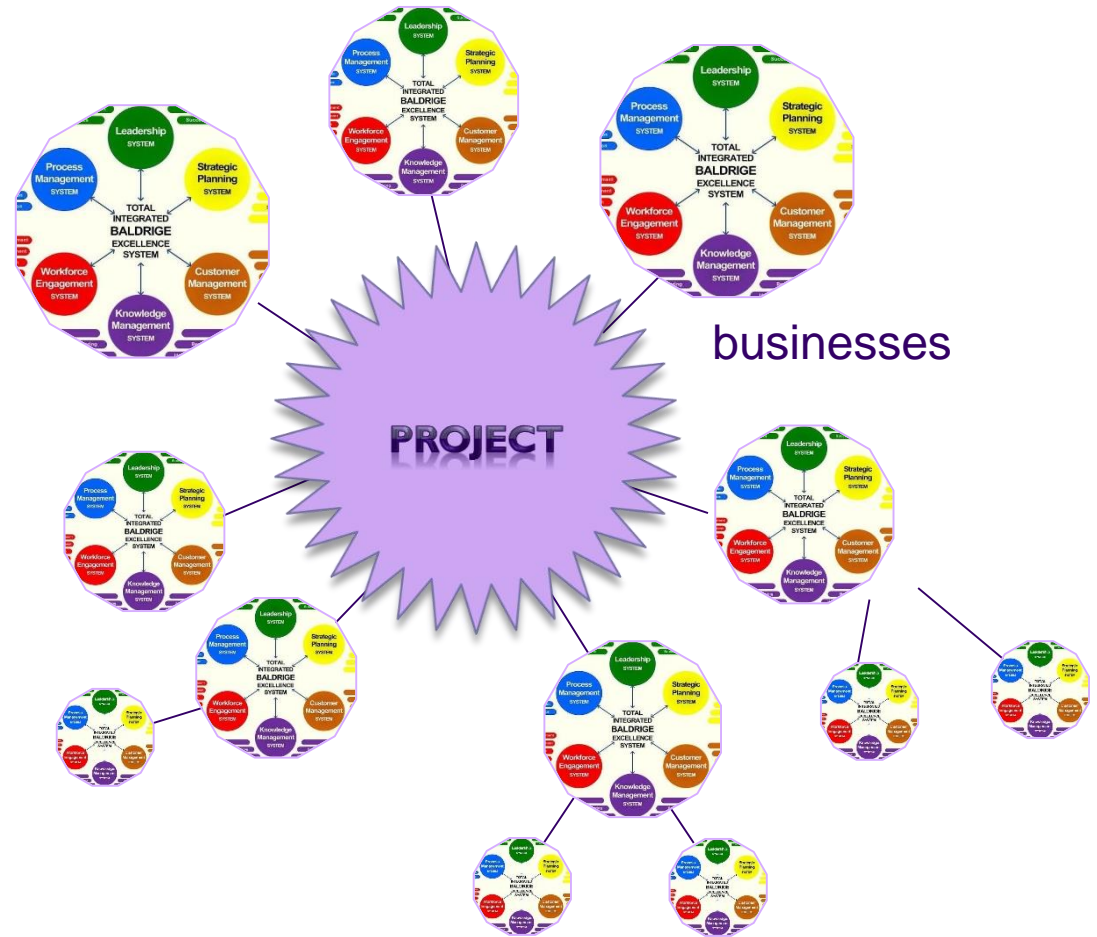
 <p><b>OPERATIONAL CONTINUITY</b></p> <p>OC 1 Operations Continuity OC3 Damage</p>	 <p><b>SAFETY</b></p> <p>HSE1 LTI HSE2 TRIFR</p>	 <p><b>SATISFACTION</b> Client Satisfaction</p> <p>S1 With Consultant S2 With Contractor S3 With Delivery Team S4 Delivery Team with client S5 Use Lead Consultant Again? S6 Use Contractor Again? S7 Value for Money</p>	 <p><b>TIME</b></p> <p>Time Predictability</p> <p>T1 Design Duration T1.1 Completion Date T2 Construction Duration T2.1 Completion Date T3 Project Duration</p>	 <p><b>COST</b></p> <p>Cost Predictability</p> <p>C1 Design Cost C2 Construction Cost C3 Project Cost</p>	 <p><b>QUALITY</b></p> <p>Q1 Quality of Product Q2 Defects at Handover Q3 Defects Clearance Period</p>
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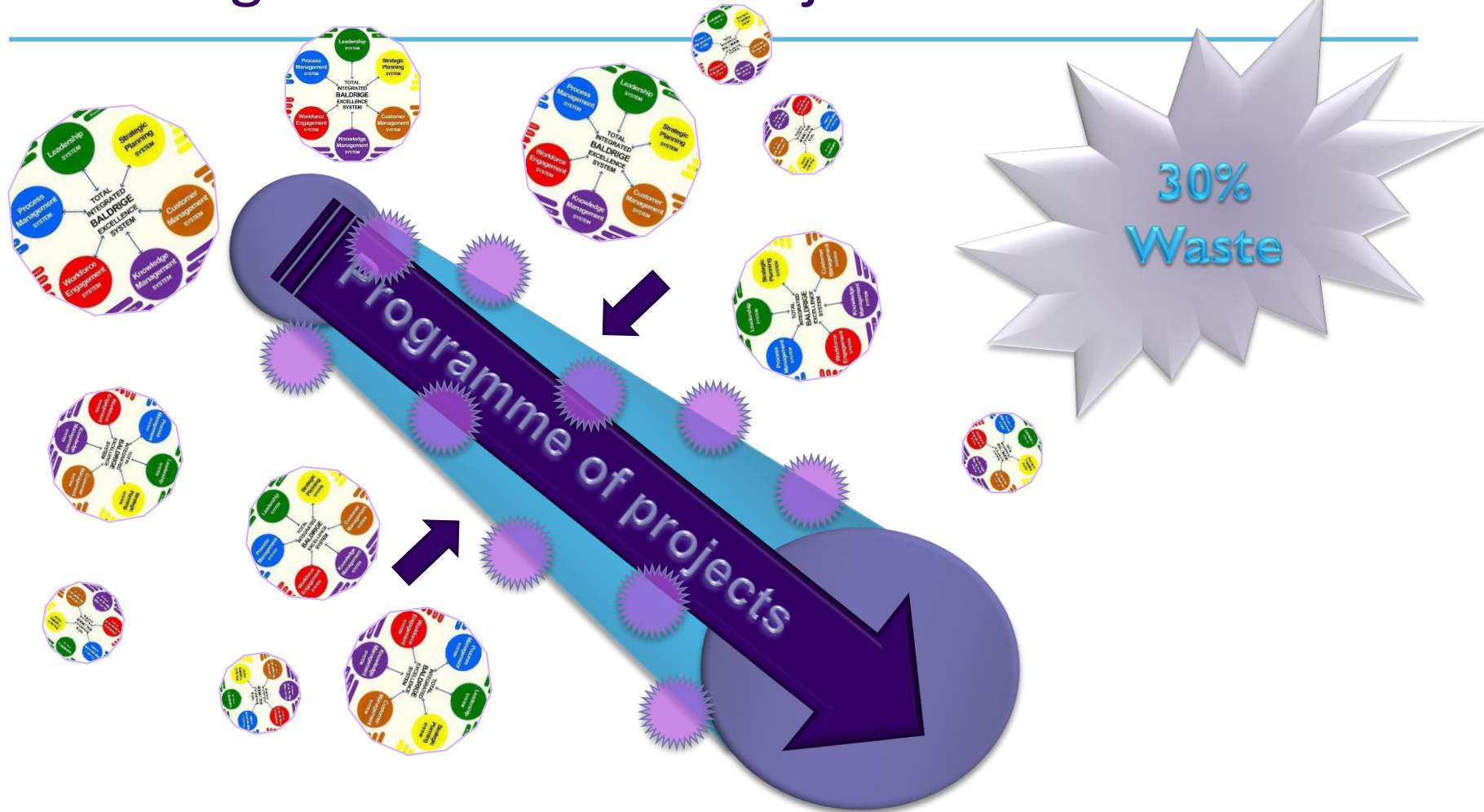


# Projects are created by lots of organisations! With lots of Stakeholders

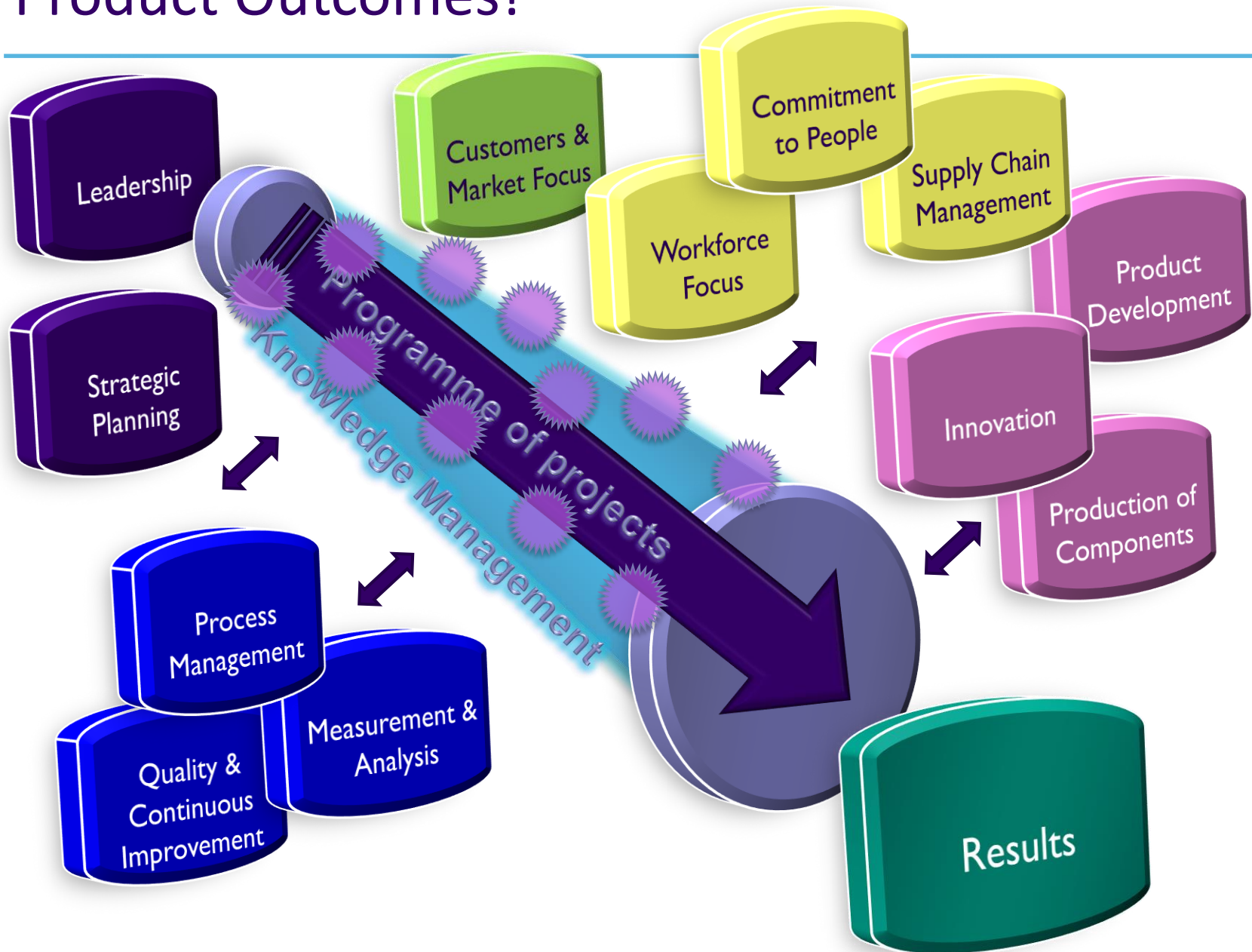
- ▶ Leadership
- ▶ Customers
- ▶ People
- ▶ Suppliers
- ▶ Processes
- ▶ Results



# Learning in a traditional Project Portfolio



# Product Team Integration – Focused on the Product Outcomes!



Efficiency

Fitness for Purpose

Cost in use

Visual Form

Effectiveness

Sustainability

Engineering Systems

Kerb Appeal

Net to Gross

Context



Aesthetics

Performance

Attention to detail

# What are we all trying to achieve in the Built Environment?

Robustness

Access

Space Standards

Location

Daylight

Flexibility

Functionality

Meaning

Comfort

Safety

Order

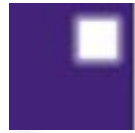
Innovation

Air Quality

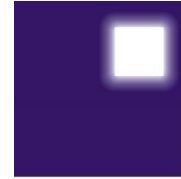
Finishes

Acoustics





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## Seven Steps to Delivering OUTCOME measures

# Defining & Developing a Measurement System

## The Performance Measurement process



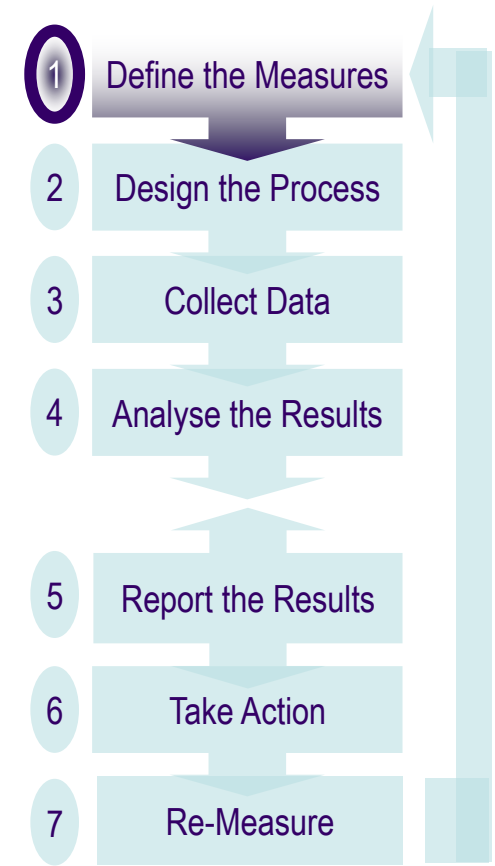
# Step 1 – Define the Measures

- i. Establish Stakeholders Wants and Needs (SWANs)
- ii. Define “Our Goals”
- iii. Map Success
- iv. Define the Measures



# Best Practice Principles - Define the Measures

- ▶ Think strategically – Align to Vision, Values and Goals
- ▶ Involve your stakeholders
- ▶ Start with a SWAN workshop
- ▶ Use Success Mapping

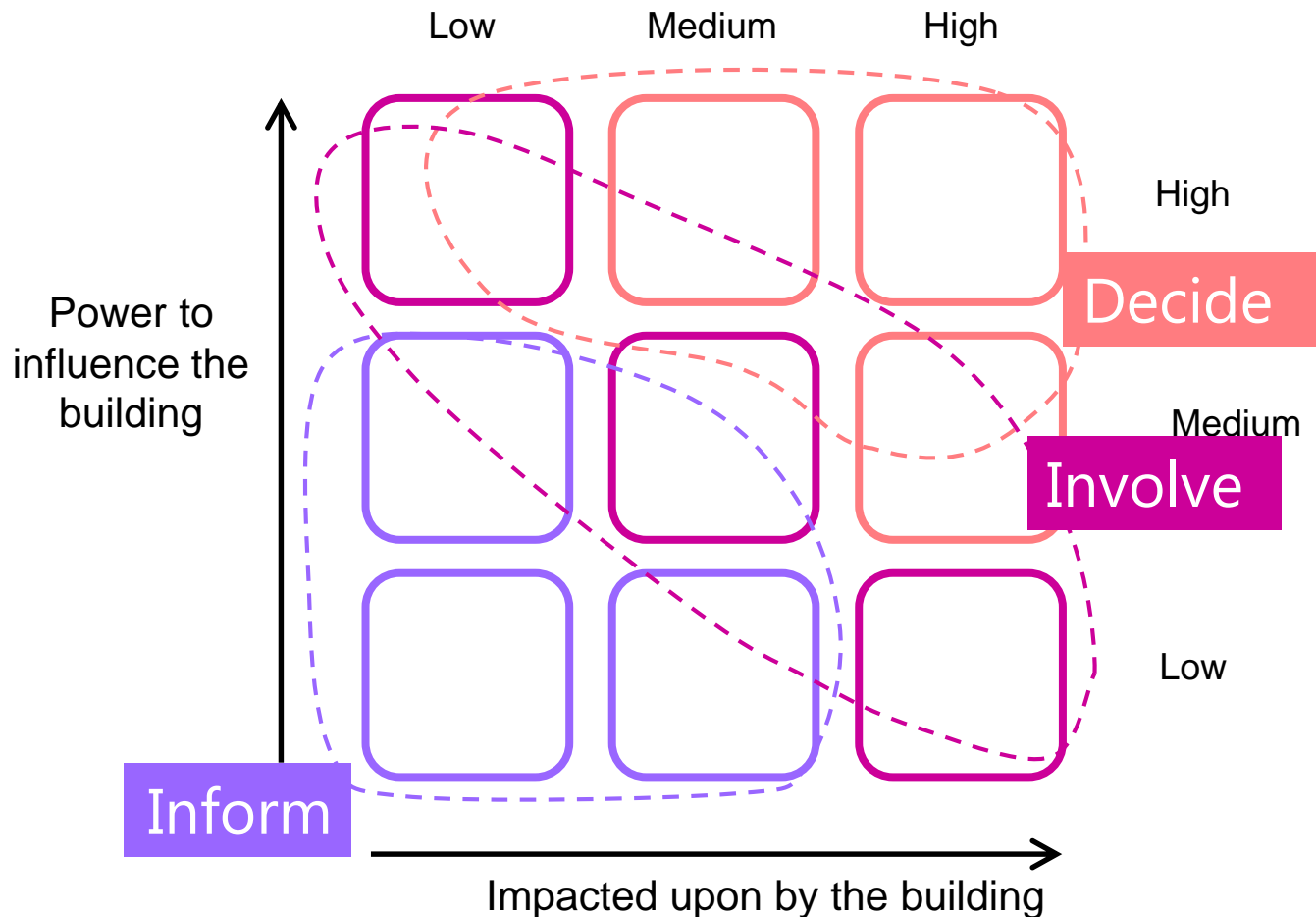




# Step 1 – Define the Measures

## i. Stakeholders Wants and Needs

### ► Stakeholder Analysis



## iv. Stakeholders Wants and Needs (SWANs)

- ▶ Brainstorm ALL our stakeholders
- ▶ On a Matrix (Measures/Stakeholders), list on post-it notes, the key Wants and Needs of each Stakeholder for each KPI.

MEASURES	STAKEHOLDERS			
	1	2	3	4
A				
B				
C				
D				

- ▶ 15 mins to brainstorm and post
- ▶ 15 mins to categorise and share

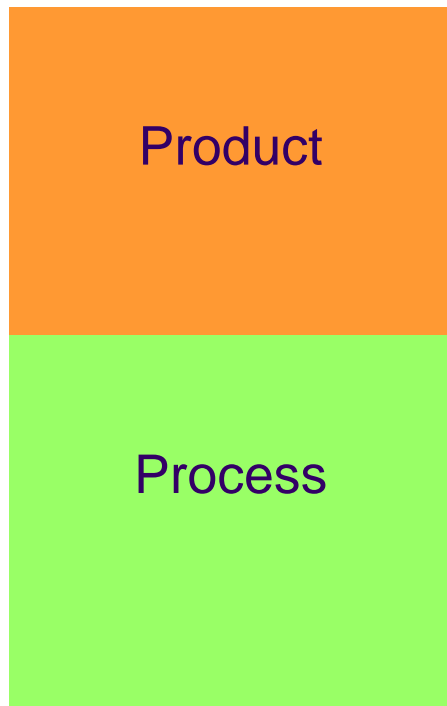


# Step 1 – Define the Measures

## i. Stakeholders Wants and Needs (SWANs)

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### Stakeholders Wants & Needs (SWANs)



### Recipients

Sponsors/End User  
Improvements in:

- Functional Performance
- Life-Cycle costs
- Stakeholder satisfaction
- Delivery in time/cost/quality
- Management of expectations
- Minimal disruption
- Speed of response

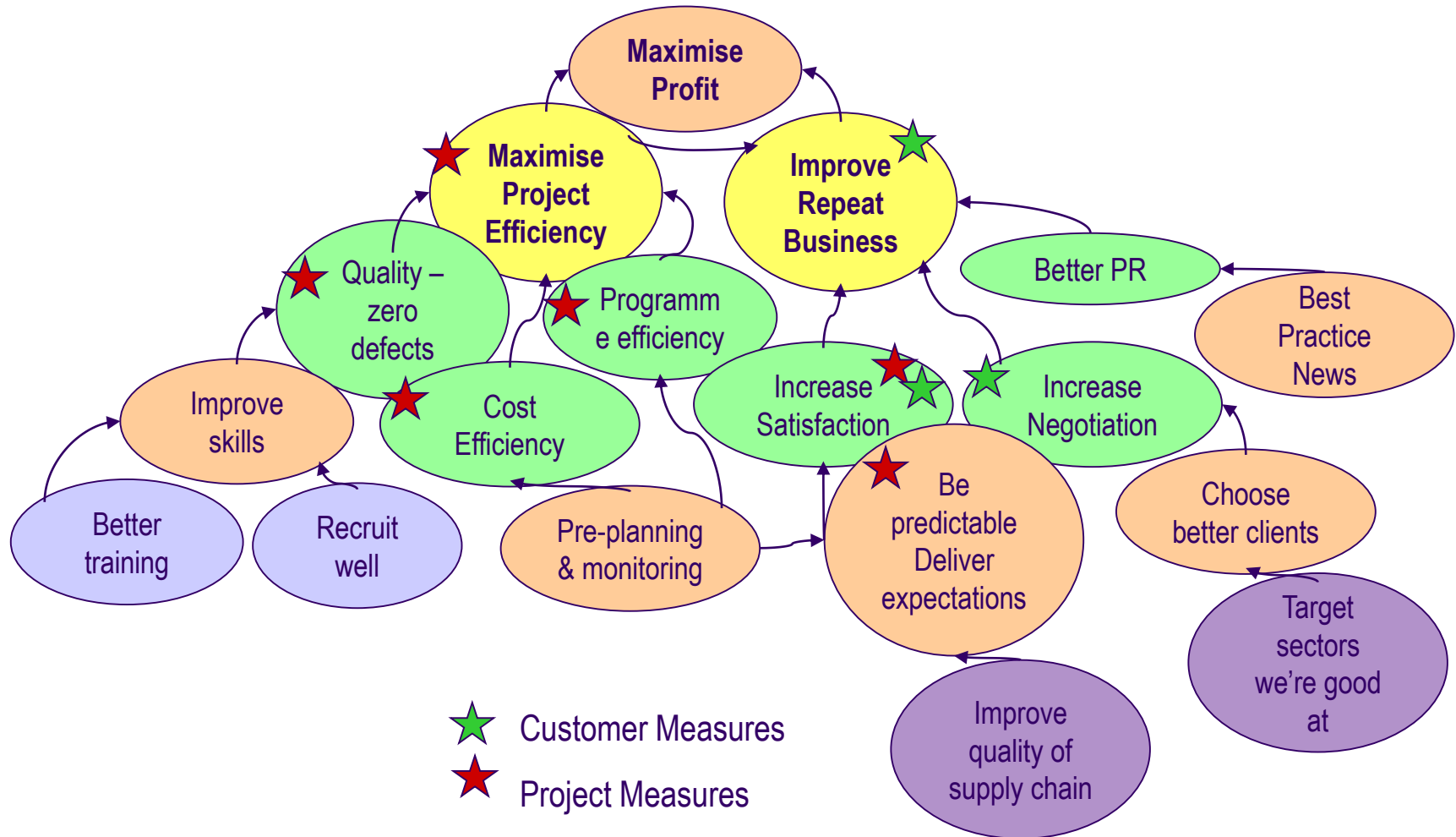
### Delivery Team

Designers/Contractors  
Improvements in:

- End user / sponsor involvement
- Ability to Standardise
- Stakeholder satisfaction
- Visibility of workload
- Earlier involvement
- Communication
- Feedback
- Profit

# Step 1 – Define the Measures

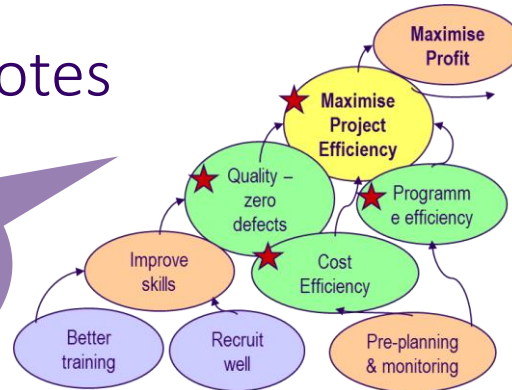
## iii. Mapping Success



## ii. Mapping Success

- ▶ In groups, create a Success Map for each of our Outcome 'Goals'
- ▶ From the top, build each bubble below with strategies of "how can we achieve" the bubble above
- ▶ Use Post-it Notes

Use the '5 How's'

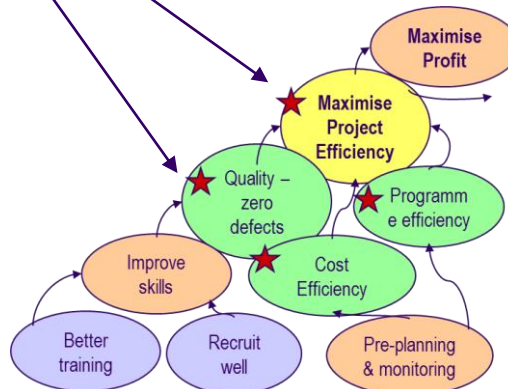


- ▶ 10 mins to brainstorm and post
- ▶ 5 mins to categorise and share

# Step 1 – Define the Measures

## iii. Define the Measures

- ▶ In groups, identify key LEAD and LAG measures which will help you to see if you are achieving the Goals
- ▶ Add 'Stars' to the bubbles to measure
- ▶ List your measures on a flip chart
- ▶ Codify



- ▶ 15 mins to brainstorm and post
- ▶ 15 mins to categorise and share



# Defining & Developing a Measurement System

## The Performance Measurement process



# Next Steps...

- ▶ Form a National Benchmarking **Steering Group**
- ▶ Upskill SG the members
  - ▶ DipMEEC Level 6
- ▶ Work through the Seven Steps to define **OUTCOME** measures
- ▶ Collect Data
- ▶ Publish

Define Using the Seven Steps

Product Outcomes  
Design Quality Indicators?  
Other?

Process Industry International Key Performance Indicators



Types of Measure we need

Sustainability of Process and Product

Update and collect 2014 Project Data

Partner with current players