Benefits Analysis Handbook

Contents

1 Document Control

Date	Version	Author	Change Details
20/05/2020	0.1	[redacted]	Initial Draft
14/10/2020	0.2	[redacted]	Restructured to match process
05/02/2021	0.3	[redacted]	Add/update content
21/04/2021	1.0	[redacted]	Release version
18/02/2022	1.1	[redacted]	Updated East to IT category mapping diagram

2 Introduction

Benefit management is applicable to process enhancements, service improvements, projects and programmes and should be aligned with the related business objectives. In this document, the text refers to projects but is equally applicable to process enhancements, service improvements and programmes. A benefit is an outcome that is perceived as positive by stakeholders and can be measured against success criteria. In contrast, a dis-benefit is an outcome that is perceived as negative by stakeholders and any decline resulting from the outcome must also be measurable. Therefore, references to benefits in this document can also generally apply to dis-benefits.

Benefits realisation is a fundamental part of any improvement activity. It is usually the driving force behind the project and benefits should be aligned to the [University's] Strategic Vision 2029.

The value of benefits identified are a key part of the [University's] Operating Model (KOM), the IT framework for projects and operations. It is important to ensure that benefits are identified at the beginning of the project and are tracked and measured to check that they have been realised and sustained both during the project (if applicable) and after it has gone live. If any benefits are identified later, they should be added and included in the process as for those identified at the start of the project.

As the benefits of a project are typically realised over time, managing them in this way provides clear, objective evidence of how the investment is performing. It also enables us to learn from successes and mistakes that may not have been picked up earlier in the project.

Accountability must be assigned to those responsible for managing the achievement of benefits and the 'realisation' period must be actively managed.

In Education and Student Services at the [University], benefits should be linked to the objectives in the EAST vision for *"Functionally aligned service excellence: staff working effectively together across [the university] to deliver excellent services for students."*

This document contains information to assist Business Analysts, Project / Programme Managers, and anyone with an interest in understanding the process, recognising different types of benefits, and the measures that can be used and the associated governance.

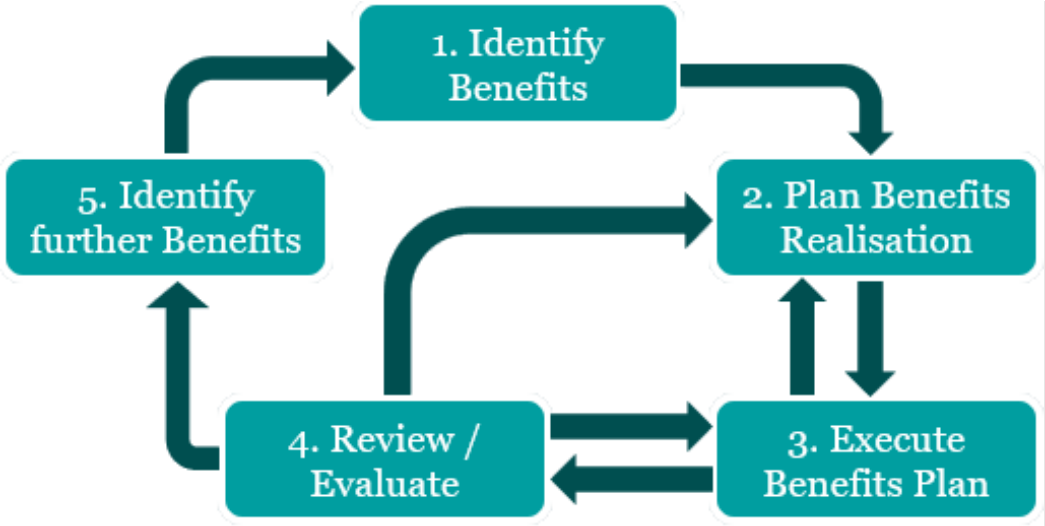
3 Benefit Objectives

It is important to know what our objectives are relating to benefits identification, realisation, and evaluation to establish what we are aiming to achieve.

The main benefit objectives are:

- Ensuring benefits are SMART
- Ensuring benefits have targets and a definition of success
- Ensuring benefits are aligned at programme-level
- Ensuring benefits are owned
- Ensuring benefits remain relevant – definitions are updated when changes are made to the programme / project (deliverables / requirements)
- Ensuring benefits are measured – baselines are captured, then in and after a project
- Ensuring benefit delivery is evidenced – can we prove what we say?
- Ensuring we demonstrate how benefits contribute to programme-level benefit targets
- Ensure benefits demonstrate a ROI
- Ensuring benefits are celebrated

4 Benefits Management Process

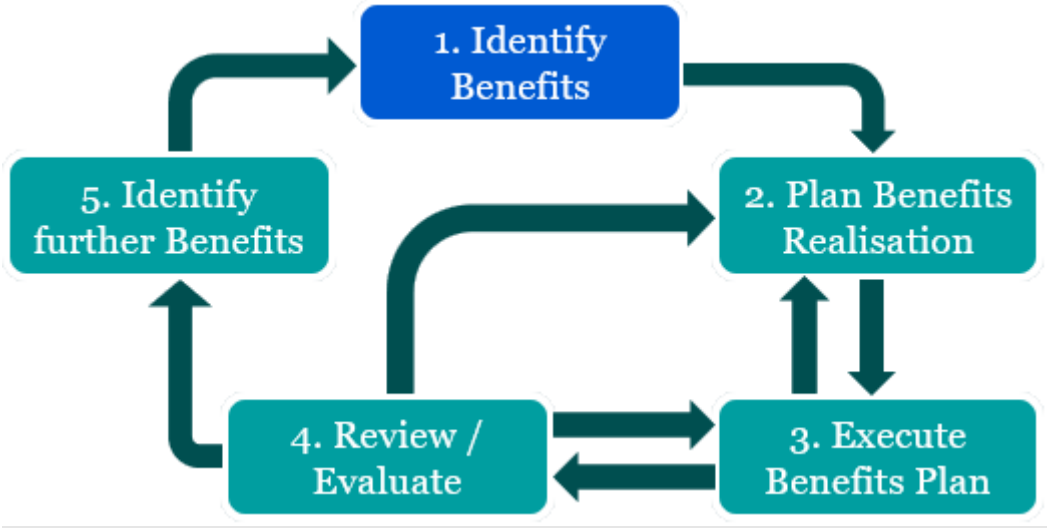


Benefits Management Process

Identifying potential and achievable benefits involves an iterative process of establishing objectives and business performance improvements that the technology / process improvement and associated changes in the project could deliver.

There are 5 main steps which will be explained in more detail in this document.

4.1 Identify Benefits



Identify Benefits

A benefit is an outcome from a project or programme or any improvement activity relating to the **business objectives** that **can be measured against success criteria**. It can be perceived as a positive outcome by stakeholders. It is important to have a clear understanding of the project objectives to be able to identify the benefits. To evaluate this success, it is also necessary to consider any dis-benefits that the changes may cause.

When identifying benefits, in addition to referring to the [University's] institutional objectives, it is useful to:

- consider previous projects that may be similar or linked in some way
- review any assumptions that have been made about the project
- look for 'hidden' benefits (that could be a result of something that is not obvious)
- consider dependencies with other benefits, projects, or activities

4.1.1 Types of Benefit

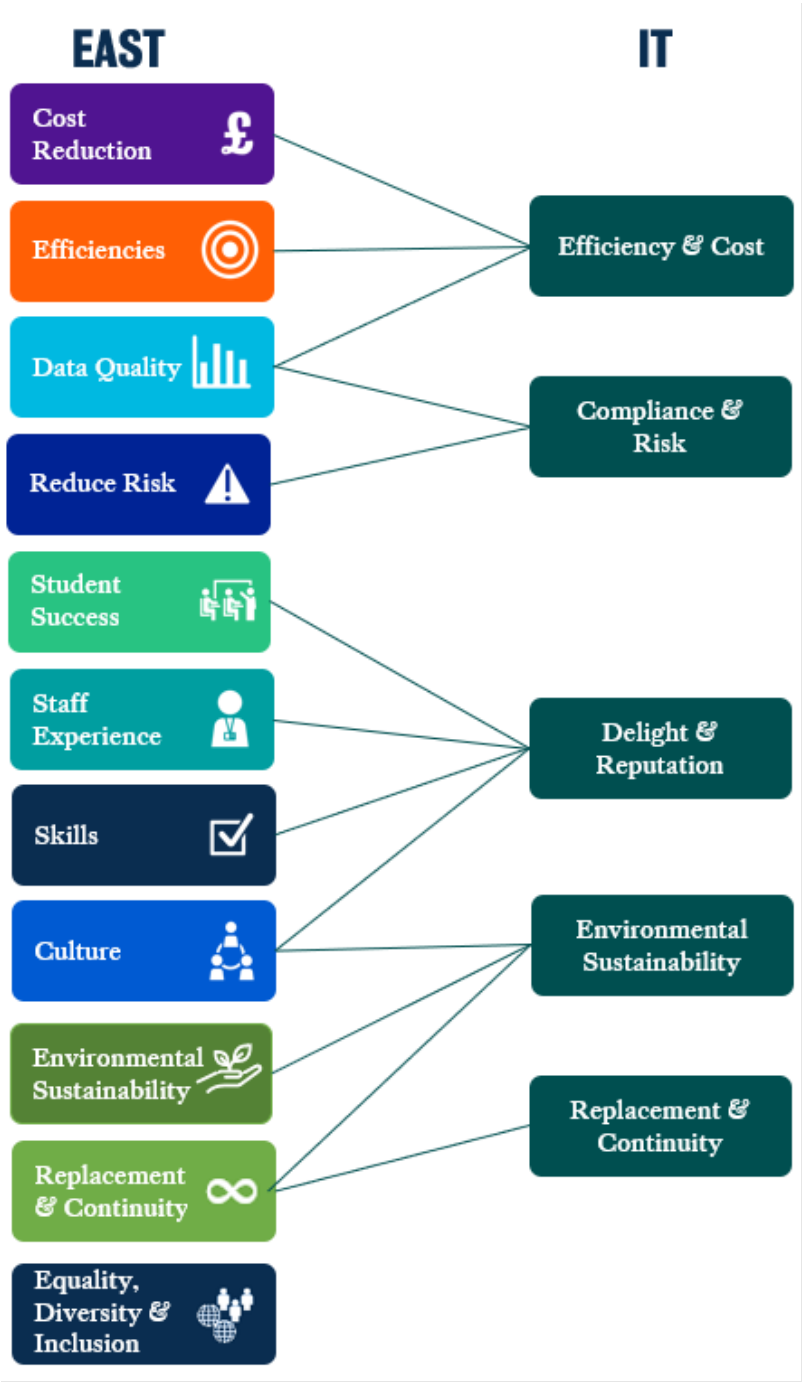
Understanding the categories and types of measurement will help with the identification of benefits that are appropriate for the project.

4.1.1.1 EAST & IT Benefit Categories

A Benefit Library has been created with detailed information relating to benefit categories.

The library contains numerous suggested benefits and how they may be measured. Reading through these might prompt the identification of additional benefits for your project. Understanding the expected benefit outcomes and potential ways to measure the data can provide an indication as to whether it is appropriate and feasible and help to identify stakeholders that should be involved.

The benefit categories used in EAST and IT differ slightly and can be mapped as below:



Mapping EAST & IT Benefit Categories

More information relating to the expected outcomes, measurement information and where baseline data may be obtained for each EAST category can be found in the Benefit Library.

4.1.1.2 Data Types and Measurement

To understand whether an outcome from a project is a benefit, it is useful to think in terms of how baseline and improvement measures can be formulated. Not all benefits are tangible, but that does not mean they are not measurable, it just means that they need to be measured in a different way.

Quantitative Data

Quantitative data are always numeric and are the result of counting or measuring attributes of a population. (A population in this sense refers to all the data).

Qualitative Data

Qualitative data are the result of categorisation or descriptive attributes of a population. Numeric values can be applied to measure these attributes.

Continuous Data

Continuous data is quantitative and can be broken down into (infinitely) smaller parts or may fluctuate continuously. Some examples of continuous data and potential categories are:

- Time
  - Process time (Hours, Minutes, Seconds)
    - EAST categories - Efficiencies, Cost Reduction, Student Success, Staff Experience
    - IT categories - Efficiency & Cost, Delight & Reputation
  - Down time (Hours, Minutes, Seconds)
    - EAST categories– Efficiencies, Cost Reduction, Student Success, Staff Experience
    - IT categories - Efficiency & Cost, Delight & Reputation
- Cost
  - Cost reduction (£)
    - EAST category - Cost Reduction
    - IT category – Efficiency & Cost

The following measure are also examples of continuous data although they are less likely to be applicable in [the University's] IT & EAST projects and programmes:

- Sound level (Decibels)
- Weight (Kilogrammes, Grammes, Stones, Pounds, Ounces)
- Height / length (Metres, Centimetres, Feet, Inches)
- Temperature (Degrees Celsius and Fahrenheit)

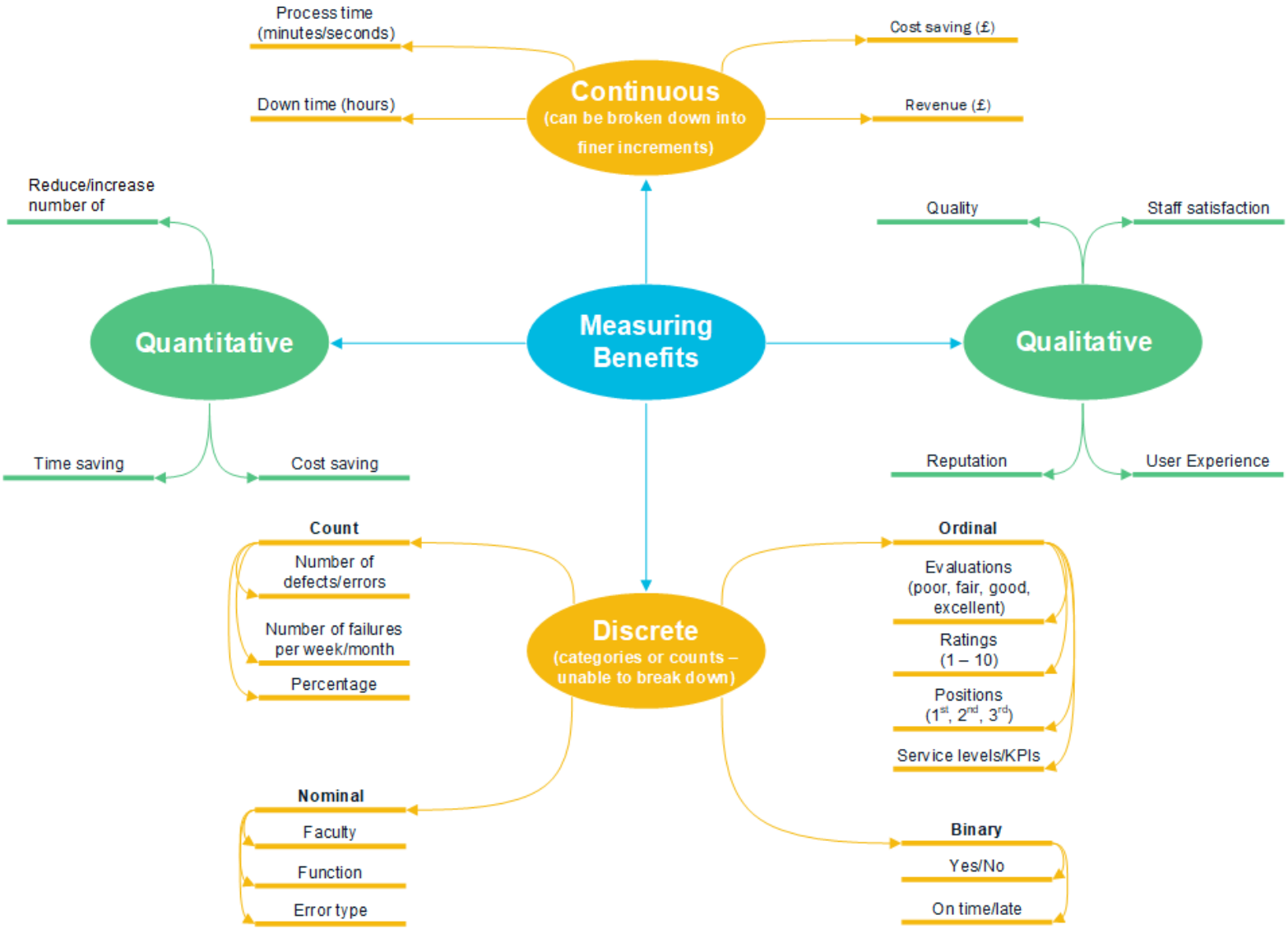
Discrete Data

Unlike continuous data, discrete data cannot be broken down into smaller parts. It can be quantitative or qualitative, however if quantitative data is used, it is only discrete if it is finite (reaches a limit). Some examples of discrete data are:

- Count
    - Number of… (E.g., full time UG students in the academic year)
    - Count of … (E.g., errors found in a document)
    - Percentage of… (E.g., full time UG students that in the academic year that attended all lectures)
- Ordinal
    - Evaluations (E.g., poor, fair, good, excellent)
    - Ratings (E.g., 1-10)
    - Positions (E.g., 1st, 2nd, 3rd)
    - Service Levels / KPIs

.

Types of Data for Measurement



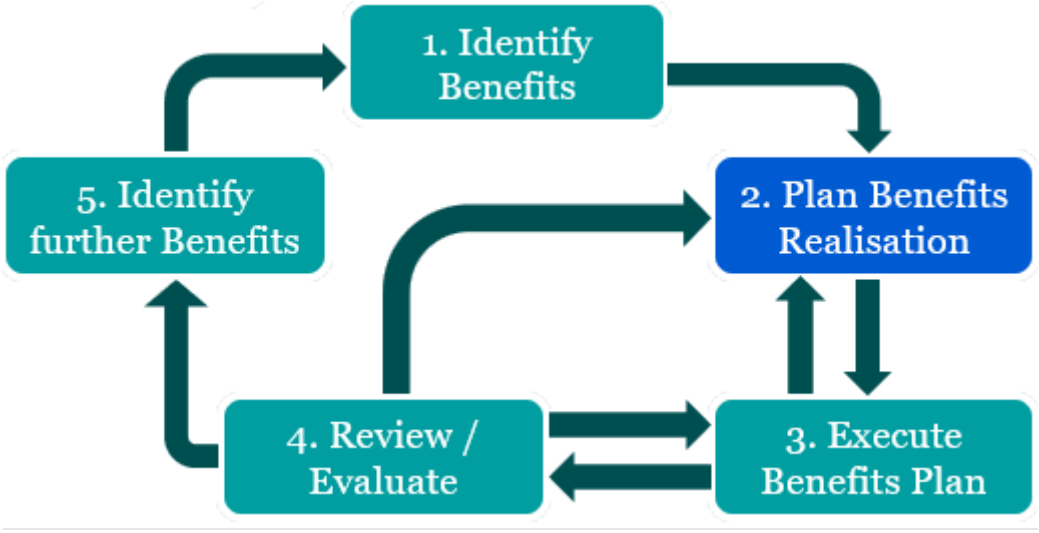
4.1.2 Service Improvements

While service improvements do not generally require the same scrutiny as projects and programmes, it is still important to identify, measure and review / evaluate benefits (See Review / Evaluate section). If we are not able to ascertain what the benefits are, it would be pertinent to question why we are making the change.

4.1.3 Education & Students KPIs

Institutional and departmental KPIs can be used to analyse benefits relating to improvement in productivity. Assessment can be made relating to current and future targets and clear evidence can be provided relating to progress towards the desired result. Using KPIs can ensure that what is intended to be measured is being measured and can help to gauge the levels of change in performance over time. (Useful for interim measurement milestones, particularly where a benefit is more likely to be fully realised later). Looking at the bigger picture, the cumulative effects of several improvement initiatives could contribute to overall KPIs.

4.2 Plan Benefits Realisation



Planning involves deciding how and when the benefits will be tracked, monitored, and managed and by whom. Key activities for each benefit and milestones are consolidated to provide a central resource to refer to as necessary. The BR1,2,3 document is an example of the benefit plan currently used in IT. (See Templates BR1,2,3, BR2, BR3 section). The plan should be a living document during the project and afterwards until the agreed end date.

Dates for when the benefits should accrue should be realistic and align with project milestones and deliverables.

It is important to determine how the benefits will be measured and what data is required to be able to do so. (See Data Types and Measurement section) for examples of data. There are suggested units of measurement and advice on how to take the measurements relating to benefit types in the Benefit Library).

4.2.1 Data Collection Planning

When planning how to collect data it is essential to make sure that it will be instrumental in determining the benefit outcome.

A record of how the data is collected should be kept in the benefit plan. This must be documented in such a way that ensures that measurements are repeatable e.g., the same person can record measurements in the same way at any given time. They should also be reproducible, e.g., different people are able to record measurements in the same way at any given time.

4.2.1.1 What to consider

Benefit Outcome

Record of the overarching benefit (or dis-benefit) that the data is being collected to evidence. Understanding the outcome should help to determine what data is required to 'prove' that the change has the desired effect.

Type of Data (discrete/continuous)

Identifying the type of data helps to determine how it can be measured. See Data Types and Measurement section for information about discrete and continuous data.

Stratification

Stratification relates to the way that the data can be grouped or sorted by different factors. It can be used to compare subgroups and can help to reveal patterns in the data that may not be visible at a higher level. E.g., Proportion of mitigating circumstance applications is higher in one faculty than others, a particular type of issue is more commonplace than others, there are more issues recorded on a Thursday than any other day of the week.

Some examples of stratification are:

- When - Daily, monthly, each semester, each year, shifts
- Who – Faculty, department, role, individual, supplier
- Where – Country, city, campus, building, room
- Level – All, high, mid, low
- Type of – Complaints, defects, issues

Some data might not be easily stratified, and it is not essential to do so. It will generally take more time and effort to collect data at a lower level, so it is not worth considering it if there is no likely extra value in doing so.

Operational Definition

- What - What is being measured? E.g., The amount of time (in minutes) it takes from when a library user places an order to when the resource is delivered. (Made available for them to collect).
- How – How will the measurements be taken?

E.g., Check ‘Order’ report for timestamp that an order is placed and check the ‘Confirmation’ report for the timestamp that the resource is supplied for each order number. Calculate the difference between the two times and convert to minutes.

Sampling

Sometimes it is not practical to measure all the data in which case a sample should be taken. To obtain a reasonable representation of the entire population of the data it is necessary to determine a suitable sampling method and size. (As explained below).

- What? – What is being sampled?
  E.g., Orders processed in a week.
- Where? – Where can the data be found? This could be on spreadsheets, reports, system interrogation etc. If the data is being collected via time and motion, the ‘where’ element may be manual timing in one or more areas / departments / faculties etc.
  E.g., Reports - orders and resources received.
- When? – When will the data be collected? This may be a period or frequency. Recording needs to be frequently enough to capture ‘good’ and ‘bad’ units of data. It is generally more useful to measure smaller samples at different times than one large sample.
  E.g., Sunday - Saturday w/c 07/02/2021 Monthly

- How many? – How many data points will be collected? Ensure that enough, representative data points are collected so that it is possible to draw conclusions about the rest of it

A ‘good’ sample is random, unbiased, and representative of the whole population.

Random

A random sample is one where every data point in the population has an equal chance of being selected.

Unbiased

An unbiased sample is one where the sampling method does not systematically favour any of the data selected over the rest. Any differences between the data in the sample and the population should only result from chance. E.g., In a population with 1000 UG students and 500 PGT students, a random sample of 60 could end up with 35 PGT and 25 UG by chance.

Representative

To gain a representative evaluation, minimum sample sizes (number of individual data points) should be 30 for continuous data and 60 for discrete data. The more data that can be collected, the more accurate the representation will be.

E.g., All orders (in one week) or a sample, 10 random orders from customers every day for 2 weeks.

4.2.2 Benefit Repository

There are plans to create a repository with useful data to assist with reports, measures etc., but this is not available at the time of writing.

Links to this data will be included in the Benefit Library The library can also be used to identify how benefits have been measured in the past. E.g., for E&S BPR.

It is possible to find datasets to support some benefits using reports in Power BI. This is particularly useful for student/course counts.

4.2.3 Ownership

All benefits identified must have an owner. The owner is responsible for tracking and delivering the benefits and ensuring that they are realised during and after the project.

Fraser et al. (2016) reported that “94% of highly mature organisations always formally identify person(s) accountable for achieving benefits versus 19% with low maturity.”

They go on to state that:

> Accountability increases the likelihood of realising the full benefits of a project. By bringing some clarity to ownership, expectations, and commitment—and by showing leadership—key people in the organisation can have a much greater impact on the project results. While not guaranteeing full results, it will help organisations move further along the benefits realisation path.

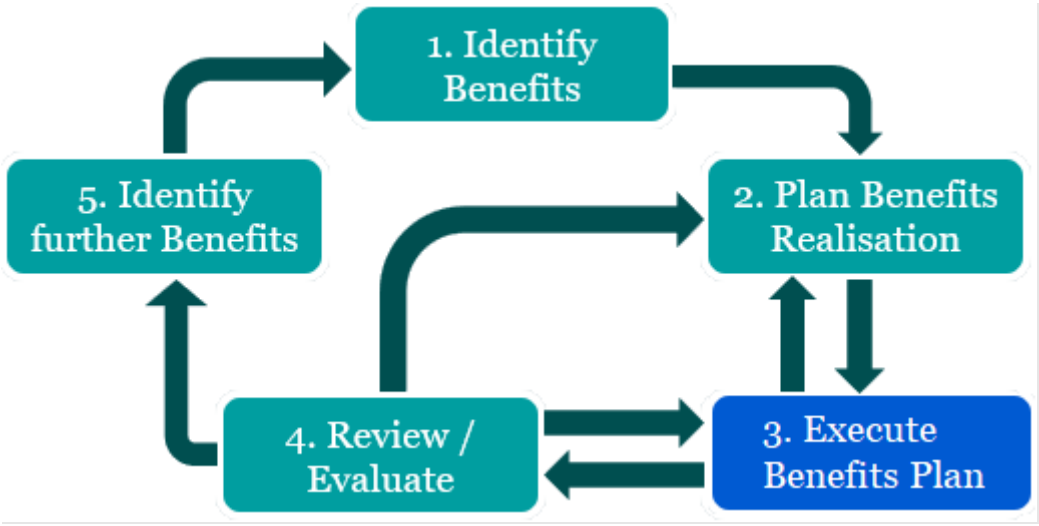
The benefits owner should be familiar with the project and the related processes and technology where applicable. They should be able to follow through the whole lifecycle and

should therefore be someone from the business area affected. It is useful if they are also part of the project team, but not mandatory. A project may require different owners for different benefits.

4.2.4 Communication

As for most aspects of a successful project or programme, communication is a key part of all stages in the Benefit Management Process. Although it is possible to identify and plan benefit realisation as the project progresses, earlier recognition and planning will allow more time for stakeholders' consideration in the remaining stages of the benefit management process. Identifying and communicating with appropriate stakeholders in the early stages of the project will help to establish a communication channel for later.

4.3 Execute Benefits Plan



4.3.1 Collecting Baseline Data

To be able to measure benefits it is essential to understand the current situation. It will not be possible to identify improvements if there is nothing to measure them against. (See the Data Collection Planning section for information about how to identify what baseline measures need to be captured and can help to ensure that the measures are repeatable and reproduceable for future measurement of the same benefits.)

The changes introduced by the project may mean that some of the future benefits may need to be measured in a different way, but the result should always be comparable to the baseline. E.g., For the baseline, times to complete a process in minutes are taken from a report and with the future changes the same report is not available. Providing the new measurements can be expressed in minutes from the same start and end points, then it does not matter if the data is collected in a different way (such as time and motion),

Estimates can be used as baseline data but are prone to inaccuracy and it is better to collect 'real 'data if possible.

Early planning and seeking opportunities to measure the data is vital as it can be difficult to obtain it retrospectively. It would be pertinent to check if it is possible to use tracking tools to pull data from systems or websites. This could provide useful data over time or for task completion time without increasing the workload for the business area being monitored. Data gathered retrospectively, e.g., time estimates, is better than nothing but should be acknowledged as such.

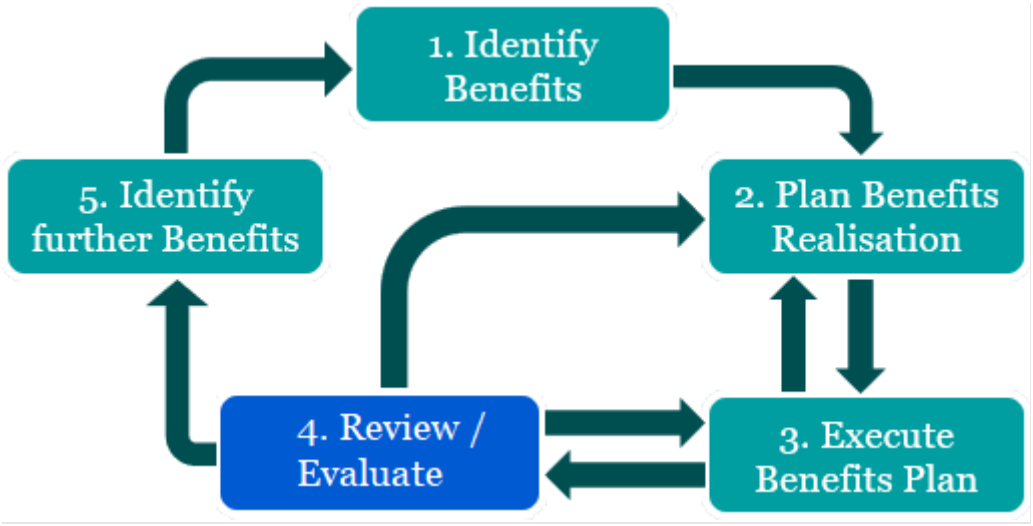
4.3.2 Execute the plan

As with all good plans, the benefits plan must be monitored and managed. Progress should be tracked, and any new benefits or dis-benefits should be captured as and when they are identified. Information from the plan is used for reporting to project/programme boards, so it is essential that it is kept up to date.

If an owner is not part of the project team, regular communication should be maintained, particularly if anything changes.

As many of the anticipated benefits are not likely to start materialising until after the project has ended, owners should establish appropriate arrangements to monitor, track and manage the benefits until the final benefit has been realised, which may be years later.

4.4 Review / Evaluate



4.4.1 Reviewing Benefits

As a project evolves it is possible that there could be changes that influence the existing benefits or new benefits may be identified. Some benefits may be realised before the end of the project lifecycle. Timing for review should be added to the plan, but the benefits should be reviewed ad hoc when changes that may affect them are made.

It may be necessary to change the way a benefit is measured, or the timelines may need to be altered. If the benefit owner is not part of the project team, it is important that they are kept up to date with changes to the project that may affect the benefits and they should be consulted prior to making changes to the benefits.

4.4.2 Evaluating Benefits

Measures should be taken at the relevant points in the project lifecycle to evaluate the benefits. Some benefits may be easier to measure and evaluate than others. Where there is a straightforward target such as ‘reduce printing from 10,000 copies to <2,000’, it is easy to determine if it has been achieved. For others there may be reasons why the measurement cannot be taken. Also, there is always a chance that the target is not achieved. This is a good reason why it is important to include review milestones in the plan.

If a benefit cannot be measured in the way as originally planned, it may be possible to re-evaluate the criteria and adjust. This can only be done if it can still be measured against the baseline and / or target.

If the target cannot be achieved, it may be possible to readjust it or it may be necessary to discount the benefit completely.

Any changes should only be made with consent from the benefit owner.

4.4.3 Communication

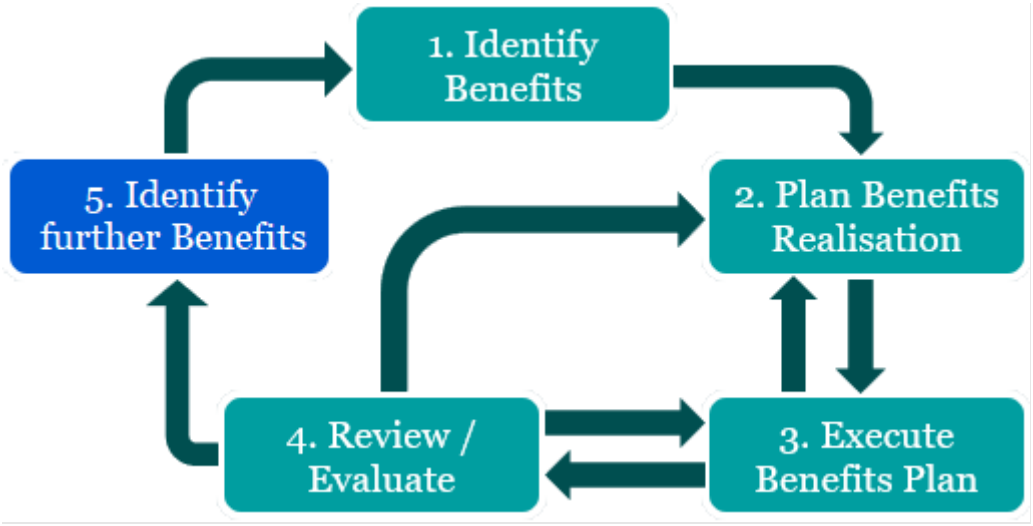
Open and honest communication is essential to facilitate successful changes made by the project. Senior Managers should encourage other groups of stakeholders and support should be maintained at a lower level by staff or managers that understand the business changes and are able to communicate with and motivate their peers.

4.4.4 Celebrating Success

As benefits are the core measure of a project's success, they play an important part in the overall outcome. Celebrating success encourages positivity and relationship building. It encourages people to connect with others and recognition of work completed can improve motivation for future projects.

A SharePoint site has been set up in Education and Students to showcase projects and to highlight the benefits. Celebrating Successful Change.

4.5 Identify further Benefits



Additional benefits (or dis-benefits) to those documented at the beginning of the project lifecycle may be identified during or after the end of the project and should be captured as and when they are discovered.

4.5.1 Continuous Improvement

To make the most of the benefits that a project can deliver, it is prudent to check to see if further improvements will deliver even greater benefits.

The end of a project does not necessarily symbolise the end of benefits identification. As new technology and processes evolve, new benefits may also come to light. These should be documented and measured accordingly.

New performance measures relating to the processes impacted by the benefits should be set and can be used to support the benefits identified in the project.

Lessons learned relating to benefits realisation should be recorded in a way that they can be used to inform future projects or activities.

5 Appendix

5.1 Templates BR1,2,3, BR2 & BR3

The BR1,2,3, BR2 and BR3 templates are used by IT to document benefits as part of the KOM.

Links to these documents are available on the Benefits page in the IT SharePoint site.

BR1,2,3

The BR1,2,3 is the main document that forms the plan for benefit realisation. It includes:

- descriptive information about the benefits
- information about owners and other stakeholders
- assumptions, dependencies, constraints & risks
- measurement details and timeline (baseline, intermediate and final)
- 5-year plan (Best Case, Worst Case and Achieved) – this is not usually completed

BR2

The BR2 is a high-level executive summary of the information in the BR1,2,3 document. It includes an extra section about embedding the benefits, which is essentially an account of the activities to ensure that new or changed working practices are properly embedded.

BR3

The BR3 is a post-implementation review which is created to convey post-project information about whether predicted benefits are being achieved to the sponsor and other interested parties.

5.2 Checklist

Action	Completed
Have you checked the Benefit Library to identify benefits you may not have thought of?	☐
Have you checked to see if your benefit exists in the Benefit Library? (If it is not there, it does not mean it is not valid. Please add any new benefits you have identified and add your name and short description of the edit you made to the 'Notes - edits made' column)	☐
Have you checked to see if there are any reports with relevant data in Power BI?	☐
Have you assigned Benefit Owner (s)?	☐
Have you set review dates?	☐
Have you set up communication channels for stakeholders?	☐
Have you considered disbenefits (they are equally as important)	☐
Are the benefit measures realistic?	☐
Are the benefit measures repeatable and reproduceable? (See Data Collection Planning in this document)	☐
Have you checked for dependencies with other benefits or improvement activities?	☐
Will the data required be accessible to those responsible for measuring it?	☐

5.3 Glossary

Term/Acronym	Meaning
BPR	Business Process Review
E&S	Education & Students Directorate
EAST	Education & Students Transformation
KOM	[The University's] Operating Model – IT framework for projects & operations
KPI	Key Performance Indicator - measurement to evaluate success of an activity
Population	All the data, the entire group that conclusions are being drawn about.
ROI	Return on Investment
SMART	Specific, Measurable, Achievable (Actionable), Relevant (Realistic), Timebound

6 References

Fraser, I., Korterud, K., Wood, M. and Curran-Morton, C. (2016) *Establishing benefits ownership and accountability*. PMI Thought Leadership Series. [pdf] Available at: https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/establish-benefits-ownership-accountability.pdf?v=c9d89be3-4d6c-4a07-adc8-1b09158c4492&sc_lang_temp=en-GB [Accessed 15 January 2021].

Lawrence, H.; Cairns, N.J. (2015). Best Practice Guide: Evidencing the Benefits of Business Process Improvement in Higher Education. UK: University of Strathclyde.