The OCR Guide to

Managing Projects

Version 1

OCR

This guide on managing projects has been produced by OCR to help you understand the skills and techniques you will need to develop, practise and use in progressing your career. This guide has not been written to accompany a specific qualification but focuses on project management skills that relate to many areas of both education and work environments. Other skills guides are available at www.ocr.org.uk.

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What is project management?

Project management means using a structured approach to achieve a specific goal or objective. This could be a product or a service, a piece of written work or an event, anything you can think of in fact. Project management is not limited by the nature of the final outcome; it can be used in any context.

A project is different from ongoing activities in that it occurs over a set period of time with a clear endpoint as its objective. It has a beginning, a middle and an end, after which the project is concluded and the output(s), resources and knowledge are taken onto other activities. For this reason, projects are said to have a lifecycle, with milestone events at the end of each stage or part of a stage that mark significant progress towards achieving the project's objective.

Projects are typically driven by the need to deliver the desired outcome, to the level of quality required, while meeting the limitations of cost, time and scope. Each of these factors is usually defined by the project stakeholders.

The stakeholders are those with responsibility for delivering the wider programme of work within which a project sits or have a formal interest in the project being completed successfully. So the stakeholders for a project to launch a new fashion line might be the owners of the fashion house, the retailers who sell the product, the representatives of the celebrity who is the face of the fashion house and the financial backers who have invested in the product.

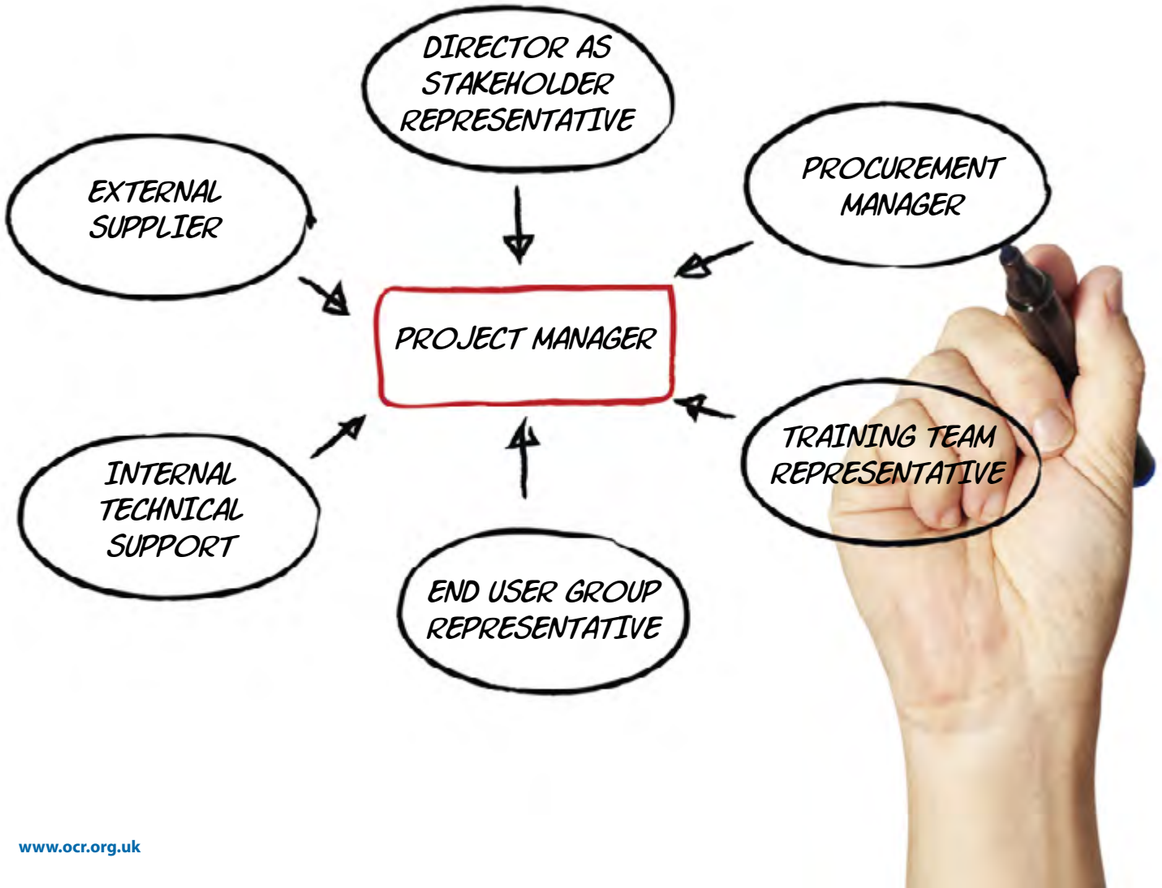
To successfully manage a project, you need to use a logical and organised approach to set out what you want to achieve, how you will know when you've achieved it and what is the most sensible way of getting there. This last point means thinking about the order in which you need to do things, the resources you will need and how you will make all of the activities happen in the right order and at the right time.

The project team

The project team is the group of people who will be working on the project. These might be colleagues within a workplace, other students in your class or people in other organisations. Their role might be big or small but if their input is required to deliver the project, then they are on the project team.

The key person on the project team is the project manager. They might not be the person with the most expertise or who will do the most work on the project; their responsibility is to organise and control the project itself and make sure everyone is doing their tasks to the agreed timescales. In a business context, the project manager's role can be to represent the client's needs and ensure that these are met over the course of the project. For this reason, and also to ensure that the project's stakeholders are kept informed, the project manager needs to have good communication skills.

An example of the project team structure for an IT project like rolling out tablet PCs to a team might look like this;



The interactions and activities of each member of the project team at different stages of the project will be different. Using the example on the previous page, can you suggest who might be involved in the different activities listed below?

Activity	Project team members involved
Project scoping – what is the project trying to achieve?	
Project constraints – what are the limitations (refer to the project management triangle on page 5)	
Getting quotes from suppliers	
Issuing contracts	
Getting the end users ready for rollout	
Resolving a problem around a delayed delivery date for the hardware	
Making sure what has been delivered is of good quality	
Making arrangements for ongoing support of the end users	
Closing down the project	

Getting the project team to work together effectively can be a challenge, so do have a look at the communications skills guide (available at www.ocr.org.uk) if you'd like more information on effective team working.

Project scoping

When managing a project, it is very important to have a clear definition of what you are trying to achieve and how you will know when you have successfully achieved it. Not having a clear definition could lead to confusion within the team on what you are trying to achieve or the finished outcome not being fit for purpose.

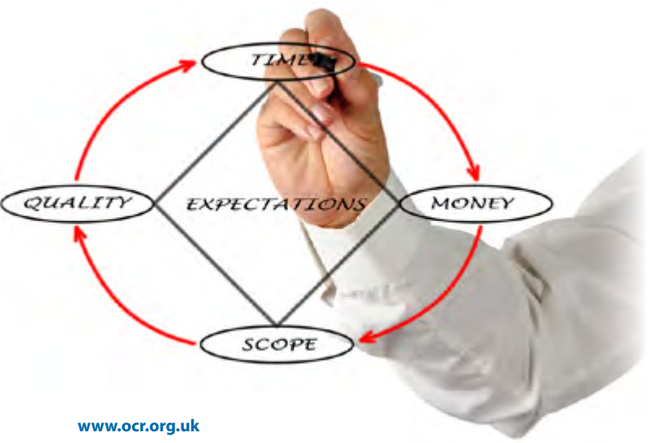
Project scoping is the stage of the project where you research what the product of the project should look and feel like, together with what will be delivered as part of the project (in scope) and what won't (out of scope). When defining a project, it can be useful to use the project management triangle to ensure that you are clear on what will be delivered by the project (scope), the maximum amount it can cost (budget), the time it will take and what level of quality should be achieved. A simple example of making a drink in an office is shown below.

Scope – To make a hot drink (tea or coffee) for the five people in the team before our meeting starts. This will include going to buy milk from the shop downstairs. Out of scope – Washing up dirty mugs as this takes too long or making filter coffee as the percolator is broken.

Budget – £0.50 to buy milk.

Time – The meeting starts in ten minutes and the team can't be late. It takes four minutes to get to the shop and back.

Quality – The beverages should be drinkable and reflect everyone's personal preference for milk and/or sugar. Drinks that reflects everyone's personal preference on strength would be nice but is not essential.



It is very important that the project's scope is as clearly defined as possible as anything that is not clear has the potential to cause confusion, misunderstanding and costly mistakes as the project progresses. So a project scope that reads;

'To deliver a new way of making sure that clients receive the right care while at the day centre.'

Might be interpreted by one person as meaning;

'To be friendlier, do more activities and talk to clients when they are at the day centre.'

Or by another person as;

'To have a process that logs clients' medication and personal care needs and ensure that these are met while they are at the day centre.'

While another person might assume that it meant;

'To undertake activities that mean that client satisfaction survey results are improved'.

Can you imagine how long it might take to unpick all of these assumptions once a project is underway and the expensive or time costly mistakes that might be made in the mean time? This is why it's really important to ask lots of questions at the early stages of a project and throughout to ensure that everyone is working to the original objective. Stick it up on the wall or set it as your screensaver if it helps!

You will have seen that you need to do thorough research in order to complete a project scoping exercise effectively. For more information on research, read OCR's research skills guide, which is available at www.ocr.org.uk.

Project planning and timescales means allowing enough time for each stage, looking at availability of resources (managing workloads/tasks) and thinking about external factors, like a submission deadline.

This can be a challenging exercise to complete as you might not know how long a particular piece of work might take and there are often lots of tasks to fit together. There are tools to help you though and often the best way of getting started is to break the project down into a list of all the tasks that are needed to deliver the project, so you can see what has to be done and start to group them into a logical order.

Once you have defined all of the tasks that are needed, you need to arrange them into a logical order. What are the most important elements that have to be completed and which are less important? What has to be completed first and which tasks require another task to be completed before they can start? Do the tasks fall into logical groups of common activities? Can any tasks be worked on at the same time? How long will each task take?

Then you need to think about the resources (people, materials and equipment) that are needed to complete each task. Who has the skills and knowledge to complete the task? Are they available to do the work? Do you need to buy in the services of someone from another company?

Once you have all of this raw information, you might like to use a project management tool to help you assemble it all into a plan.

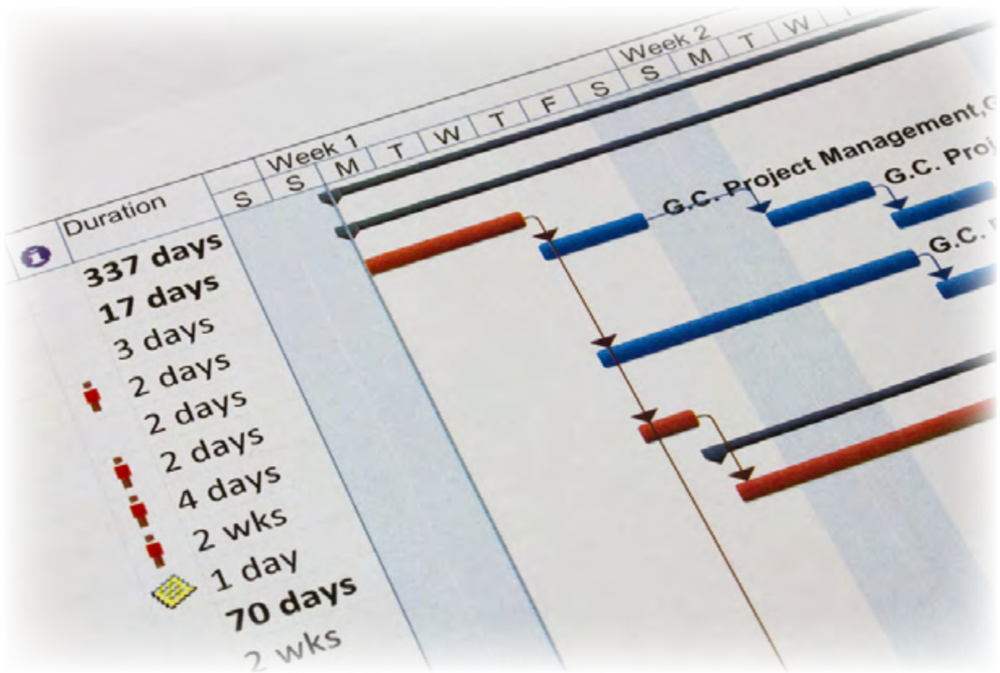
Project management tools

There are lots of project management tools available but none are essential; the important thing is to use the right tool for the job and the people involved. What is the simplest means of setting up and tracking the project effectively, so that everyone on the project team can access and understand it?

You might use a spreadsheet with the tasks listed in one column, followed by the person who is responsible for the task and the start and end date. You can use colour coding to help to identify tasks owned by different people or to mark when they have been completed.

The Microsoft Project (MSP) package will allow you to input the information mentioned above and help you to manage the project. The package has lots of useful functions but perhaps its most useful feature is the Gantt chart. Using the information entered, MSP will produce a Gantt chart to provide a visual representation of the project. A key feature is the grouping of the tasks into phases with the links between each task and phase shown, together with percentage completion figures for each task, as entered by the project manager. A Gantt chart can be a useful tracking and reporting tool if the information behind it is reviewed and updated regularly to ensure that it is an accurate representation of the project.

As well as tools, there are different project management methodologies that can be used to manage a project. Their use varies across different industries and each has its own advantages. Your job as project manager is to decide what type of tools and methodologies best suit the project that you are working on, bearing in mind the questions at the start of this section. Some different methodologies are explained on the next page.



Critical path analysis (CPA) is a way of processing the basic project information mentioned above, namely all the tasks that need to be completed, the shortest possible time each will take and the dependencies between the tasks.

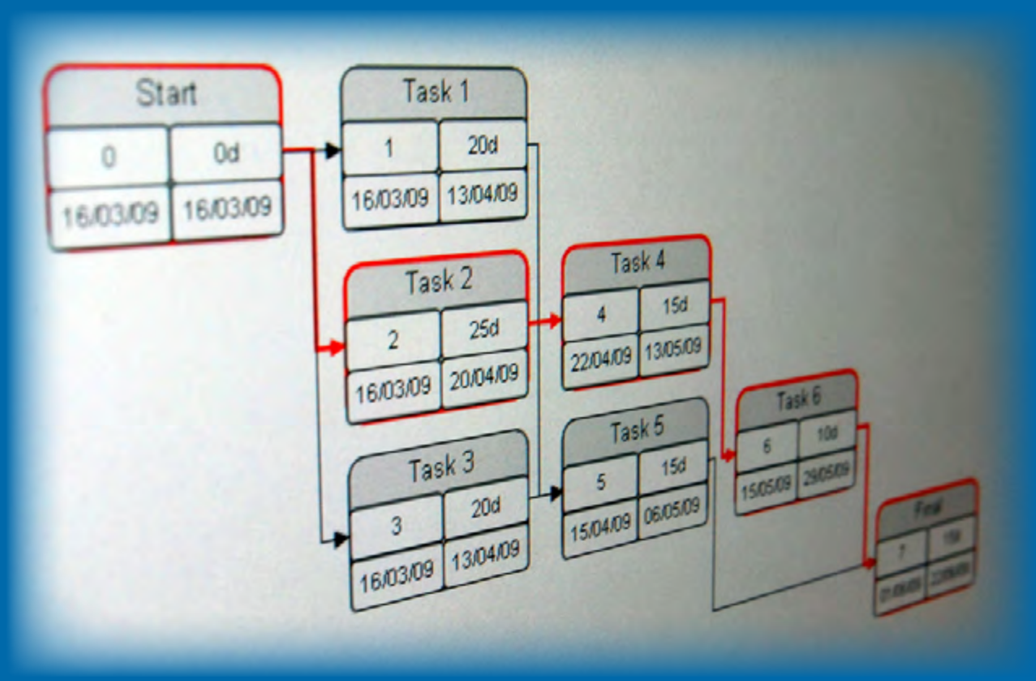
Dependencies means the essential links between one task and another, so in our drinks example, you could not pour the water into the tea cup until the kettle had boiled, so the first task is dependent upon the second task having been completed.

The critical path is then calculated by separating the tasks into those that are sequential, i.e. have to be completed in a sequence due to the dependencies that have been identified, and those that are float or parallel, i.e. have no dependencies and can be completed at any time within a stage of the project without impact on the final output. Critical path analysis is often presented on a circle and arrow diagram to visually represent each task and its dependencies.

CPA is useful as it has a strong focus on achieving the project's objective and is particularly effective for complex projects. However, its focus on the shortest time that each task will take is sometimes not realistic and replanning is required if a task overruns.

Another way of managing and presenting a project is a **work breakdown structure**, which uses a tree structure that subdivides the project down into the tasks and sub-tasks required to deliver a project. This facilitates resource and work package allocation but the breakdown of tasks can be taken to a micro-management level and result in a plan that is enormous and hard to use.

You might like to research other project management methodologies to expand your toolkit of project management techniques and resources. Have a look at PRINCE2 and Agile to get started and see what else you can find.



Quality assurance

We have already mentioned how quality is a key factor in the success of a project but what does this mean?

A good quality care plan has little in common with a good quality mobile phone at first glance but a general definition could be that both are fit for the purpose that they are intended for and meet their user's requirements.

When scoping a project, you need to be more specific than this in order to ensure that everyone shares the same understanding of what level of quality the project needs to achieve and the project is defined accordingly. So you need to ask lots of questions of all the stakeholders involved in the project and research what the end user (the person or people who will be using the product of the project) requirements are.

Cost, time and resources will place limitations on the level of quality that can be achieved but your objective should be to deliver the best quality outcome possible within the confines of these factors.

So how do you test the level of quality that has been achieved within the project? If you do not review the quality of the product until the very end of the project then there may not be time, budget or resources to address any problems and it will be harder to do this than if quality is reviewed and addressed as an ongoing part of the project. When planning your project, it is therefore sensible to build in quality review activities at the end of each milestone stage so issues can be identified and addressed before commencing the next stage.

It is also important to think about who is the best person to quality assure the project. An existing member of the project team who has already worked on the tasks in question might not be objective enough to critically assess their own work or that which they already have had sight of. You may have experienced this when reviewing your own writing, as it's hard to set aside the assumptions you made when first producing the work and look at it with fresh eyes. Therefore it is best practise to bring in a quality assurer who has not previously worked on the project to review the product against the original project brief and provide feedback to the team.

To help the quality assurer do their job, you might need to prepare a test plan so they can assess how the product performs against specific criteria. For more information on testing, have a look at our testing skills guide, which is available at www.ocr.org.uk.

Once the quality assurance checks have been completed, there may be some issues to deal with, where the quality of the product does not meet the desired level. Some issues may be simple to fix but others may require more time, budget and/or resources than are planned. In this instance it is important to communicate with the project team and stakeholders to make them aware of the situation, discuss options and ultimately seek a resolution with the approval of the stakeholders.

Reporting

We have just looked at communicating with the project team and stakeholders in exceptional circumstances to resolve an issue and this is a key part of managing a project successfully.

Communication can sometimes be forgotten when problems arise but it is more important than ever to keep everyone informed as promptly as possible. This is because the team needs to come together to solve the problem and stakeholders need to be aware that they may need to make decisions that change the project in some way in order to bring it back on track.

TIP

If you are having to report a problem, stick to the facts and avoid blame, as this is not helpful in resolving the issue. The time to look at what went wrong and how it could be avoided in future is at the end of the project, as part of a lessons learned exercise.

A report that is used when a problem arises can be called an exception report, as it is needed in exceptional circumstances, i.e. has not been anticipated in the project plan. This should have a very clear focus on what needs to be done to resolve the situation and the decisions and actions that are required to do this, as well as the impact on the project as a whole.

The other type of reporting that is key to project management is standard progress tracking reporting and recording of decisions. This is used to assess the progress of the project against the original plan and keep the project team and stakeholders informed of the project status. You might use your MSP plan to produce these reports or a template that you have produced for the project. The key thing to think about is what information does the audience need and what is the best way of presenting it?

Whatever type of reporting you choose to use, the content (what information is included and what is left out), frequency (how often it is sent out) and circulation (who receives it) should be agreed at the start of the project and stuck to.

Reporting can also take place in meetings with key stakeholders and/or members of the project team so there is an opportunity to discuss the progress of the project, any deviations from the plan and any risks or issues that have arisen.

A **risk** is a problem that might arise and affect the project but has not actually done so yet. It is hypothetical.

An **issue** is a 'live' problem, a risk that has materialised and is causing a problem that needs to be resolved in order to keep the project on track.

Live issues are recorded on the register so progress towards a resolution is recorded and it can be used as a reporting tool for the project team.

A project management tool that can help to manage risks and issues is a risks and issues register, where risks are listed and potential solutions identified so there is a plan in place if a risk becomes an issue.

A risks and issues register can be a key part of a lessons learned exercise at the end of a project as learning for future projects can be taken from the risks that did not materialise and the issues that did, together with how they were resolved.

When planning a project, it is important that the project team agrees on what type of meeting structure and schedule is appropriate to ensure that everyone can access the support they need to perform their roles. You will need to think about the geographic location of the project team members, the cost associated with attending meetings (billable hours and travel expenses for example) and who is needed for each meeting. Different meeting sub-teams or an agenda that allows team members to attend for the bits that are relevant to them might be more productive, as having everyone sitting in long meetings takes time away from completing actual project work.

When arranging meetings, think about using tele- or video-conferencing if facilities are available to save on travel costs and time.

When a project critical issue arises, a meeting may be required to get everyone together to focus on the problem and agree a resolution. Getting time in diaries can be difficult at short notice so the project manager will need to decide who absolutely has to be there and ask them to change plans accordingly (tele-conference in or cancel a prior arrangement) for a serious issue.

The ultimate aim of reporting is to ensure that, as far as possible, there are no surprises over the course of the project. Everyone who needs to be kept informed, has the right information at the right time and unforeseen circumstances are dealt with quickly and effectively.

Reporting also serves as a record of what has happened over the course of the project lifecycle, giving visibility of the decisions that have been made and the reasoning behind them. A good reporting structure that has been followed by all members of the project team can provide the basis for a lessons learned report, avoiding the need to spend time trying to remember what has happened over the course of the project. Key details from long and/or complex projects can easily be forgotten by the time the end of the project is reached so real-time reporting is important to ensure that this information is not lost.

Completing a project

As the project nears completion, it is important to not just focus on getting over the finish line but think about how the project's final outcome will be handed over.

The form that this might take will depend on the nature of the product but examples could be:

- The handover of a new drug regime from development and testing to delivery and use by patients.
- The handover of a customer service e-mail service from an in-house team to an outsourced function.
- The handover of a suite of e-learning materials from development to promotion and distribution.

Whatever the context, you will need to identify the relevant people, e.g. the end users, marketing team or other key stakeholders, obtain a representative and confirm the handover plan (which should be part of your project plan, but may need updating as project closure approaches) in advance of project completion.

It is in the interests of all members of the project team to make sure that the outcome of all their hard work goes on to have a useful purpose as an endorsement of their skills and efforts! Wouldn't you be disappointed if a piece of work you'd done was not fully appreciated or chucked in the bin?

Once a project has been completed and the project team have moved on to new activities, it can be tempting to consign the project to the past and not take the time to reflect on what has happened. But this is a big mistake as there is always learning that can be applied to future projects; saving time, cost or preventing issues from affecting the project. As a project manager, learning lessons from each project you do will help you to work more efficiently too.

When thinking about what has been learned from a project, it can be helpful to group action, decisions and events into one of two groups; what went well (WWW) and even better if (EBI). The WWW group covers positive and useful things that happened, either as a result of a deliberate action e.g. a regular meeting schedule or unintentionally e.g. getting help from a colleague not on the project team to proofread documents to check for clarity and errors. The EBI group covers things that could have been done more effectively.

As mentioned in the previous section, the reports you have completed over the course of the project can help you to recall the things that happened so you can pull out lessons learned from each stage. You might also like to use a lessons learned log over the course of the project, setting it up at the beginning to make a note of WWWs and EBIs as they happen.

At the end of the project and if possible, arrange a final meeting of the project team, including stakeholders, to get their views on what lessons can be learned from the project. The project manager needs to structure the meeting and keep everyone focussed, as it can be easy to get bogged down in detail and lose focus on the key learning.

Everyone will need to remember that the lessons learned exercise is not about blame but about identifying ways of doing things better in the future.

The lessons learned can be collated into a report based around the lessons learned log, with recommendations on how each WWW or EBI can be taken forwards. In order for the recommendations to be carried out, they must have an identified owner who is responsible for carrying out the recommendation. The senior stakeholder may take responsibility for the overall ownership of the lessons learned or they may be incorporated into a wider programme of quality improvement.

As a project manager, you may find it helpful to revisit lessons learned reports when you are planning a new endeavour to identify relevant points that can help you in planning and executing the project. Your career in itself is a project lifecycle of activities, learning and improvement!

CONTACT US

Staff at the OCR Customer Contact Centre are available to take your call between 8am and 5.30pm, Monday to Friday.

We're always delighted to answer questions and give advice.

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