

DClinSci Years 1&2

Where you are at
and where you are going ?

Comfort zone

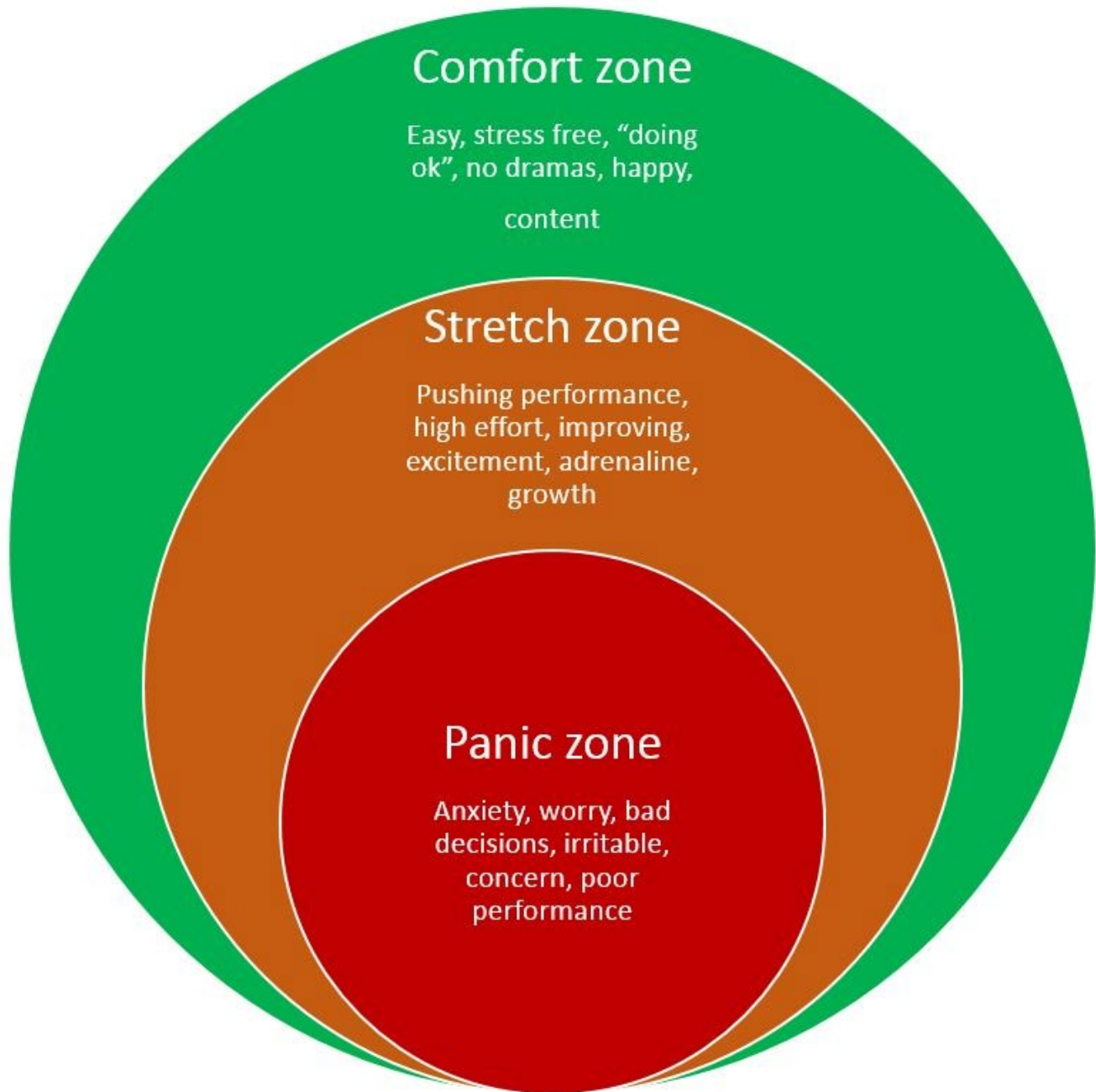
Easy, stress free, "doing
ok", no dramas, happy,
content

Stretch zone

Pushing performance,
high effort, improving,
excitement, adrenaline,
growth

Panic zone

Anxiety, worry, bad
decisions, irritable,
concern, poor
performance



DClinSci Clinical Bioinformatics Programme Structure

Year 1	Module A1: Professionalism and Professional Development in the Healthcare Environment (30 credits)		Module A2: Theoretical Foundations of Leadership (20 credits)	Module B1: Genomics Modules 1a(i) 1a(v) (10 credits)	Shared Module (B2) Integration of Specialist Scientific Software In and For Health and Social Care; Coding and Software Engineering; Data Management: Data Science (30 credits)			
Year 2	Module A3: Personal and Professional Development to Enhance Performance (30 credits)		Module A4: Leadership and Quality Improvement in the Clinical and Scientific Environment (20 credits)	Module A5: Research and Innovation in Health and Social Care (20 credits)		Module B3: Omics (10 credits)	Shared Module (B4) Applied Health Informatics; Translational Research for Clinical Diagnostics and Therapeutics; Debates and Controversies in Clinical Bioinformatics (30 credits)	
Year 3	Module B5 Infectious and Rare Diseases (20 credits)	Module B7: Teaching Learning and Assessment (20 credits)		Section C: Research, Development and Innovation (270 credits over Years 3-5)				
Year 4	Module B6 Optional modules: infection diseases, cancer genomics or rare diseases (30 credits)		Section C: Research, Development and Innovation (270 credits over Years 3-5)					
Year 5	Section C: Research, Development and Innovation (270 credits over Years 3-5)							

DClSci Physiological Sciences Programme Structure (ManMet)

Year 1	Module A1: Professionalism and Professional Development in the Healthcare Environment (30 credits)			Module A2: Theoretical Foundations of Leadership (20 credits)		Module B1: Advanced History Taking (15 Credits)		Specialist Units (20) VS = B2 (10) and B4 (10) CS and RSI = B2 (20)				
								Specialist Units (30) NP = B2 (15) and B4 (15)				
Year 2	Module A3: Personal and Professional Development to Enhance Performance (30 credits)			Module A4: Leadership and Quality Improvement in the Clinical and Scientific Environment (20 credits)		Module A5: Research and Innovation in Health and Social Care (20 credits)		Module B3: Therapeutics (10 credits)	Specialist Units (15) RSI = B4 (15) CS, NP and VS = B6 (15)	Module B5: Contemporary Issues in Healthcare Science (20 credits) [Physiological Sciences and Physical Sciences]		
Year 3	Specialist Units (15) CS = B8 (15) RSI = B6 (15) NP = B8 (15)			Module B7: Teaching Learning and Assessment (20 credits)		Section C: Research, Development and Innovation (270 credits over Years 3-5)						
	Specialist Units (20) VS = B8 (20)											
Year 4	Specialist Units (25) NP = B9 (25)					Section C: Research, Development and Innovation (270 credits over Years 3-5)						
	Specialist Units (30) VS = B9 (30)											
	Specialist Units (35) CS = B9 (15) and B10 (20); RSI = B8 (15) and B9 (20)											
Year 5	Section C: Research, Development and Innovation (270 credits over Years 3-5)											

DClinSci Life Sciences Programme Structure

Year 1	Module A1: Professionalism and Professional Development in the Healthcare Environment (30 credits)	Section B: Specialist Scientific Clinical Programme – FRCPATH Part 1 (75 credits)			
Year 2	Module A2: Theoretical Foundations of Leadership (20 credits)	Section B: Specialist Scientific Clinical Programme – FRCPATH Part 1 (75 credits)			
Year 3	Module A3: Personal and Professional Development to Enhance Performance (30 credits)	Module A4: Leadership and Quality Improvement in the Clinical and Scientific Environment (20 credits)	Section C: Research, Development and Innovation (270 credits over Years 3-5)		
Year 4	Module A5: Research and Innovation in Health and Social Care (20 credits)	Section C: Research, Development and Innovation (270 credits over Years 3-5)			
Year 5	Section C: Research, Development and Innovation (270 credits over Years 3-5)				

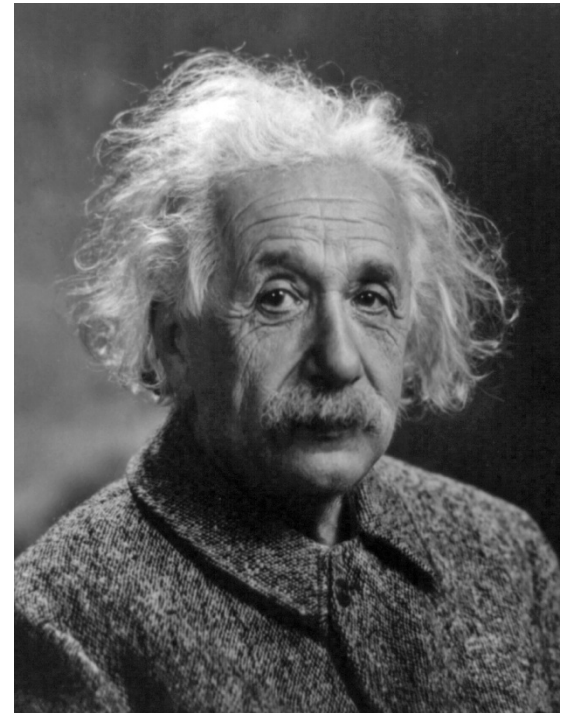
Section C Training Workshop Schedule

- Years 1 and 2
 - Induction - Introduction to Section C
 - Project Proposal Masterclass
- Year 3-start of third year (Sep/Oct).
 - How to write a literature review
 - How to give a lay talk
 - Section C academic and workplace supervisors meetings
- Years 4 and 5-January each year
 - How to write a thesis
 - How to write a paper
 - How to give a research talk
 - Section C academic and workplace supervisors meetings

What is a Research Idea?

If we knew what it was
we were doing,

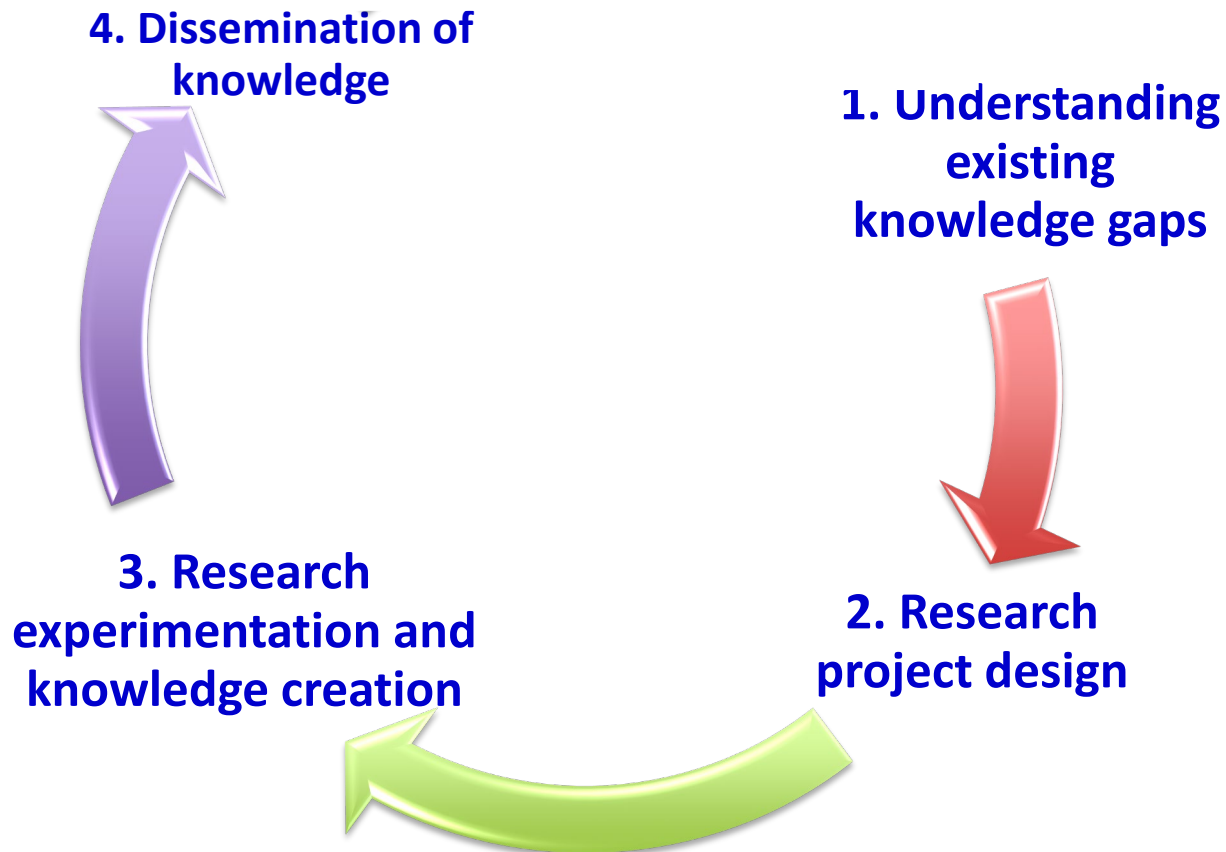
it wouldn't be called 'research,'
would it?



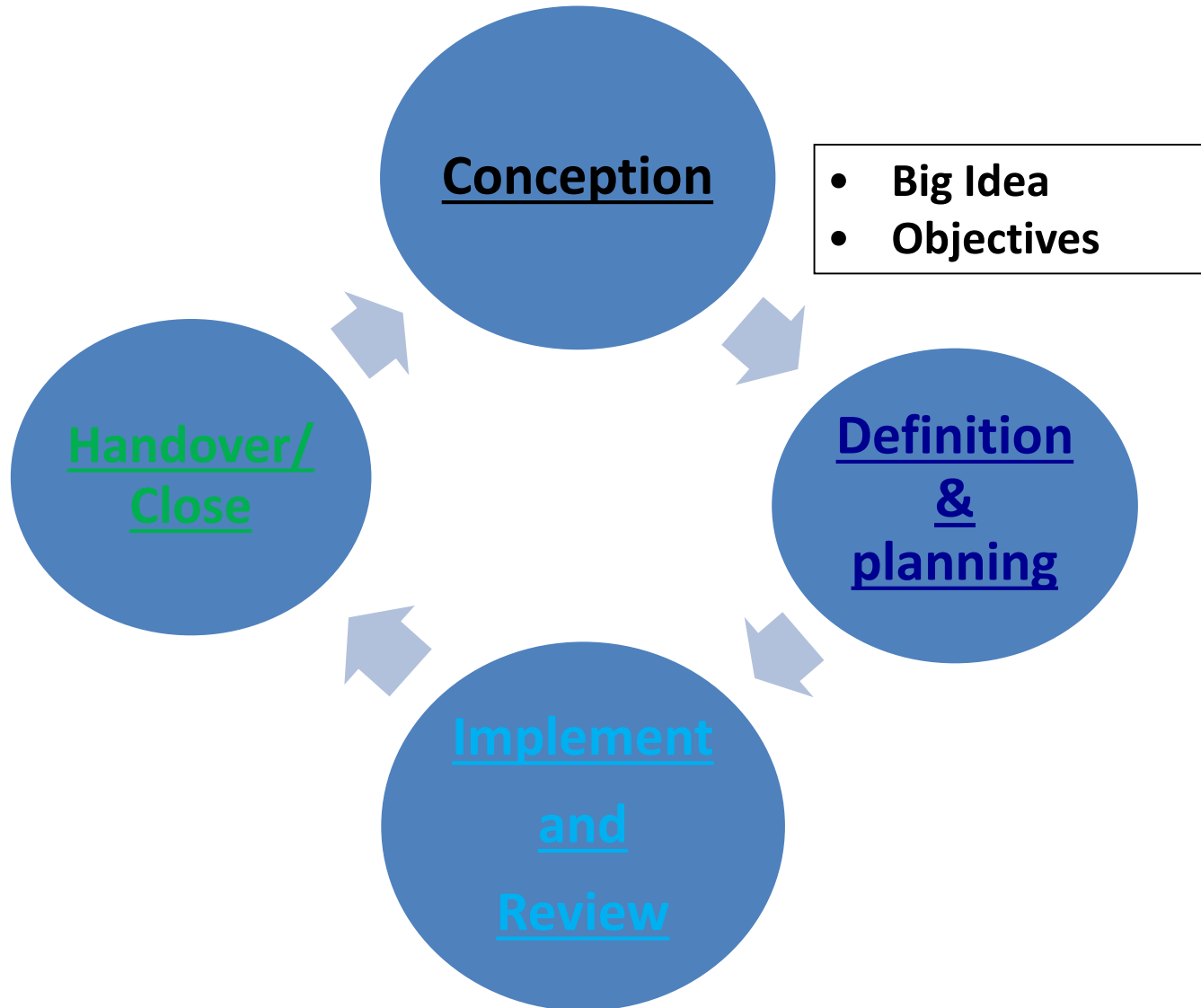
There is no Eureka moment!



How to Devise your Research Project



Tools for project management



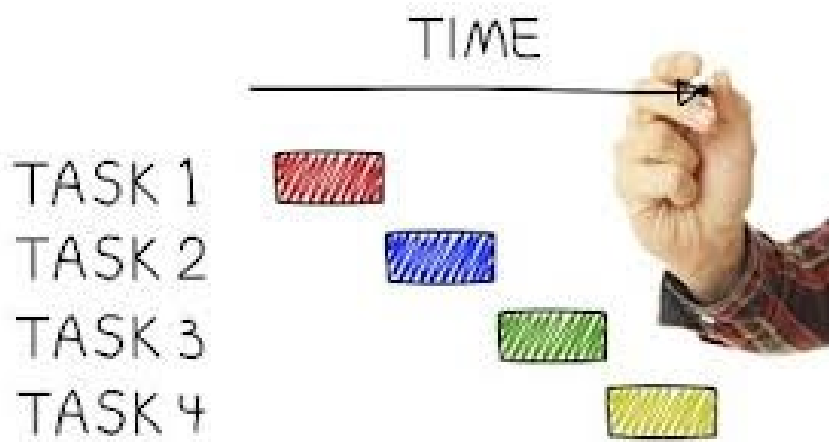
What is project management?



What might be the benefits to you ?
What might be the barriers for you?

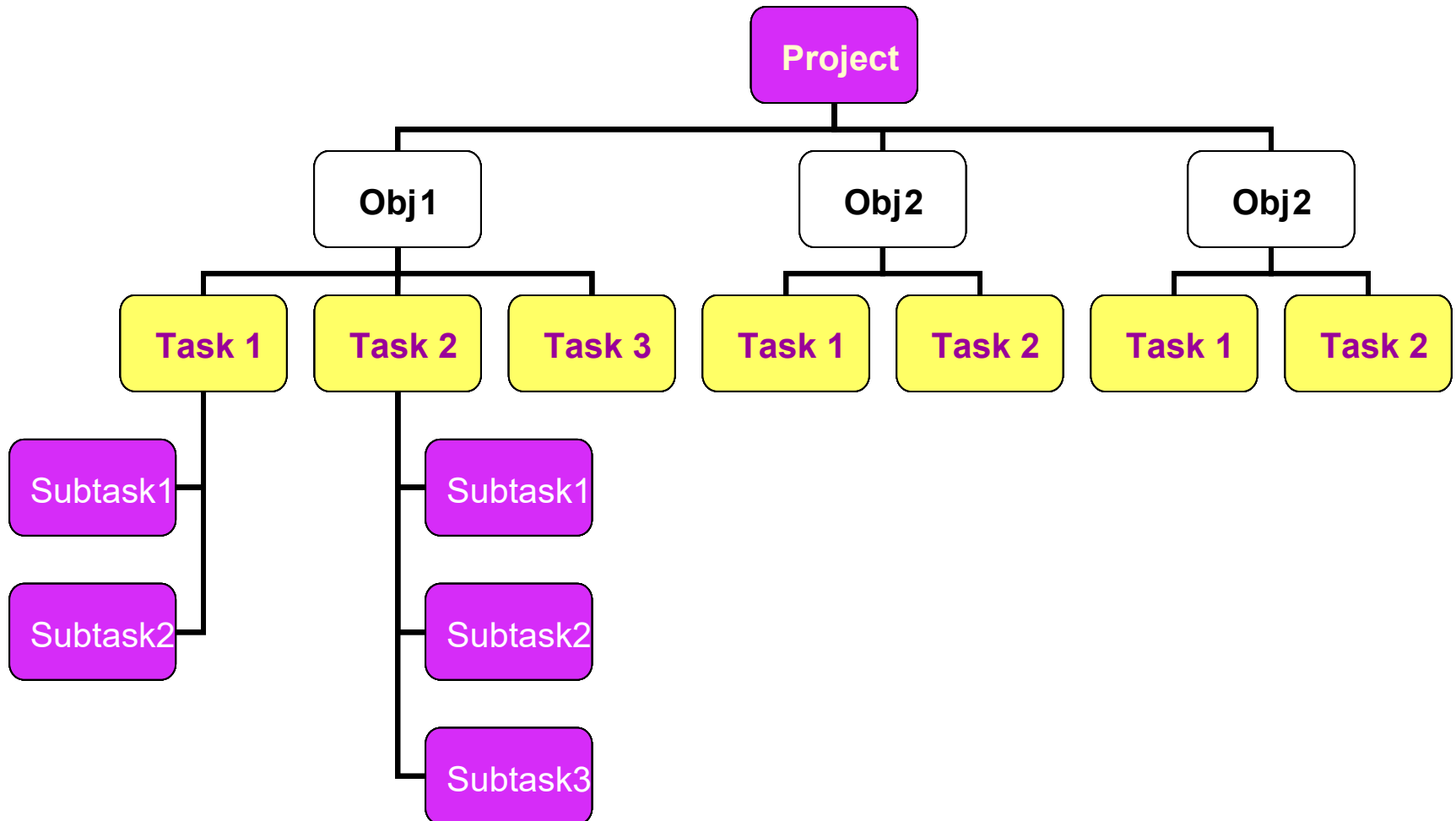
Identify the tasks

- Break the project down into tasks and sub-tasks
- Sub-tasks should be small enough chunks so that you can easily assess your progress



Drill Down

Identifying the tasks needed to complete your research project

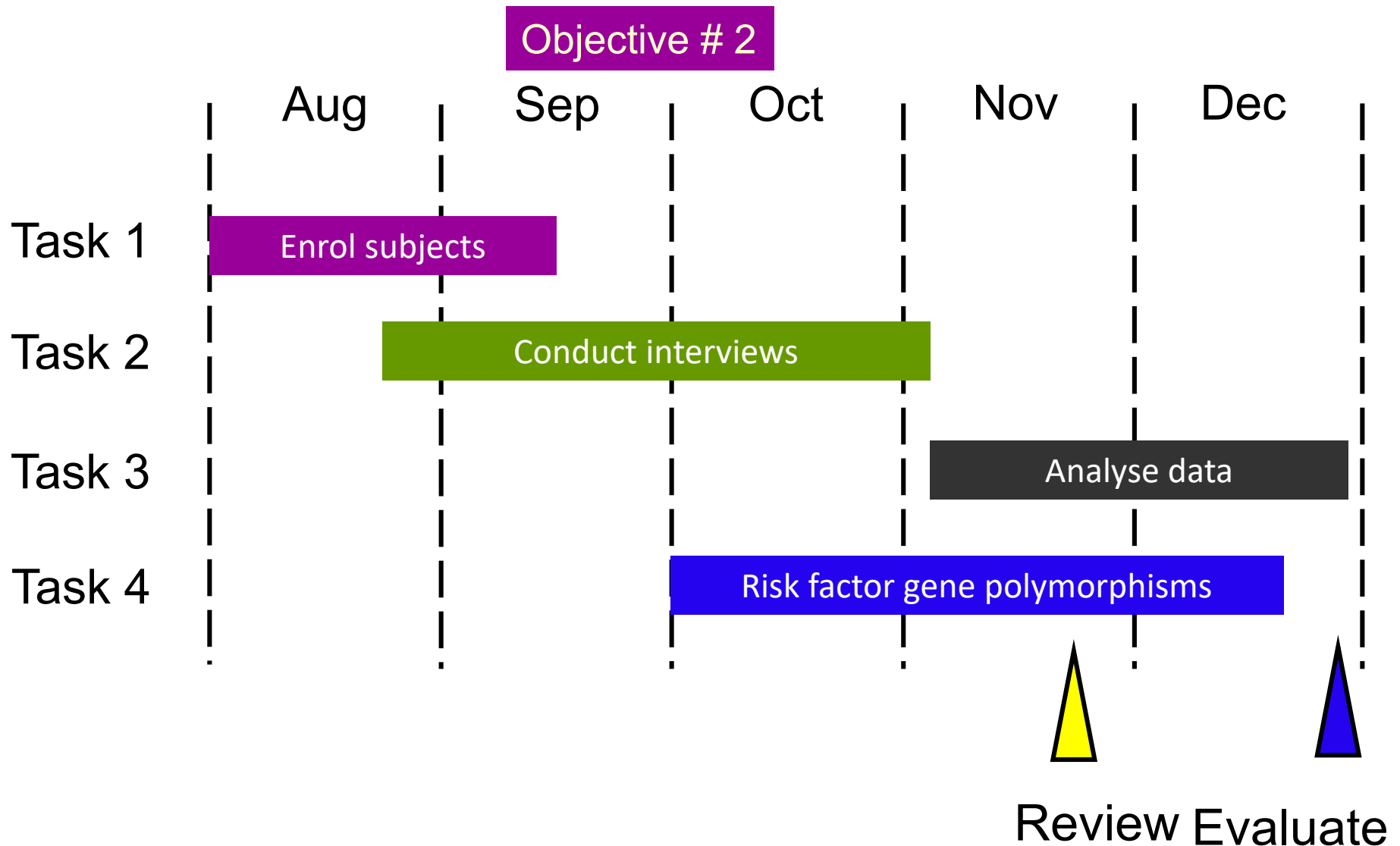


Gantt charts structure your project *and keep you on track*

1. Use list of tasks from the drill down
 2. Sequence list of project activities/tasks
 3. Determine interdependencies or relationships between activities
 4. Establish duration for each activity
 5. Determine the project duration (start and completion dates)
- Get feedback on your plan from key stakeholders

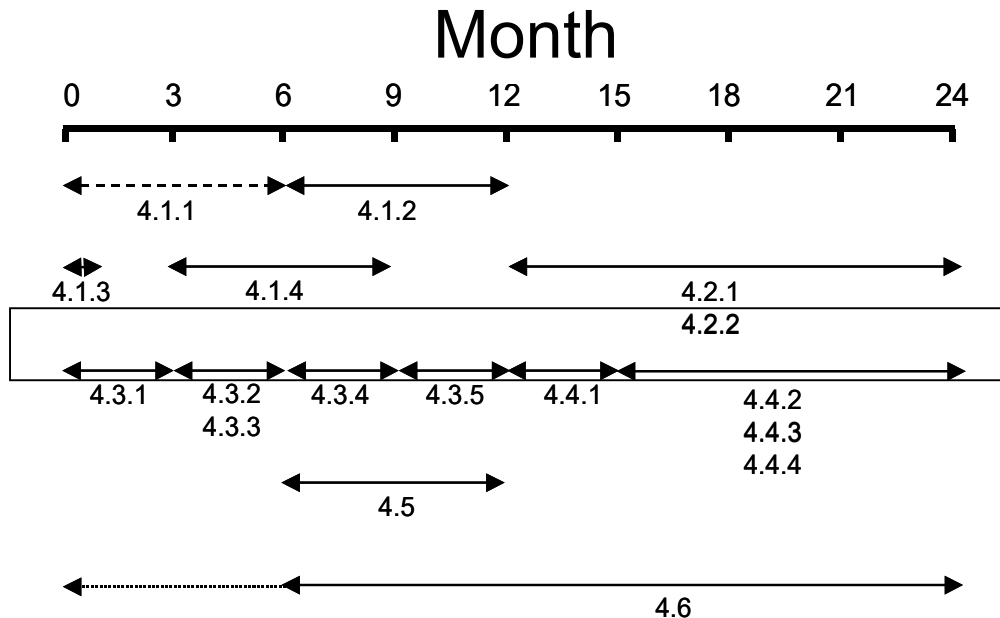
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Develop a project timeline - Gantt chart



Cancer Research UK - Development Grant

Timelines

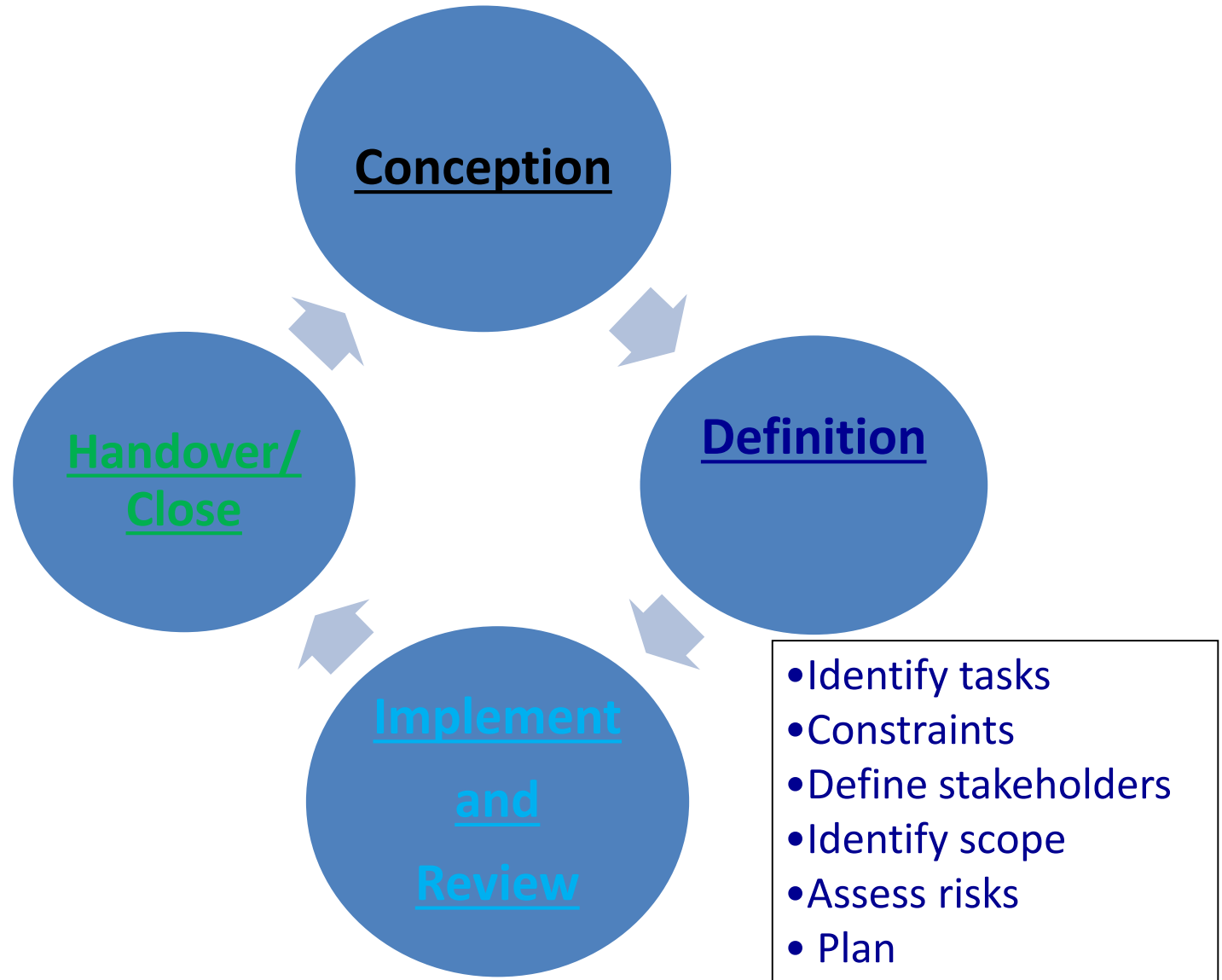


Milestones/Deliverables

- 4.1.1 Development of cell lines for rh opticin
- 4.1.2 Production and purification of rh opticin
- 4.1.3 Scale up of human adeno-opticin
- 4.1.4 Development of ELISA Assays
- 4.2.1 Proliferation/apoptosis studies
- 4.2.2 Migration, invasion and adhesion studies
- 4.3.1 Comparison of human/bovine adeno-opticin
- 4.3.2 Optimal single dose of (human) adeno-opticin
- 4.3.3 Histological and Western blot analyses
- 4.3.4 Multiple dosing with adeno-opticin
- 4.3.5 Adeno-opticin with HT1080 and MDA468 tumours
- 4.4.1 Pharmacokinetics (rh opticin)
- 4.4.2 Tumour growth delay studies (rh opticin)
- 4.4.3 Window chamber experiments
- 4.4.4 *In vivo* metastatic model
- 4.5. Immunogenicity studies
- 4.6. Determination of the biologically active sites in opticin

A detailed well designed project plan
is one of the sharpest tools available
to achieve success

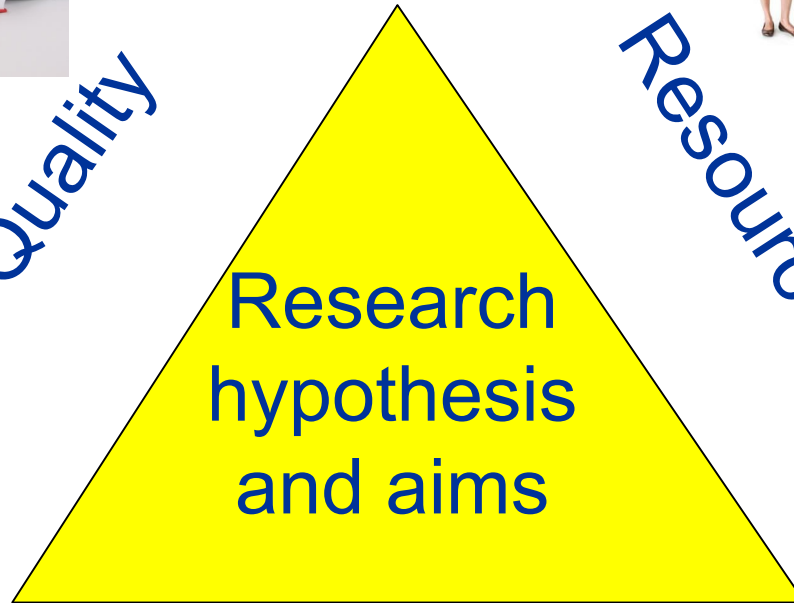
Tools for project management



Apply this to your research project



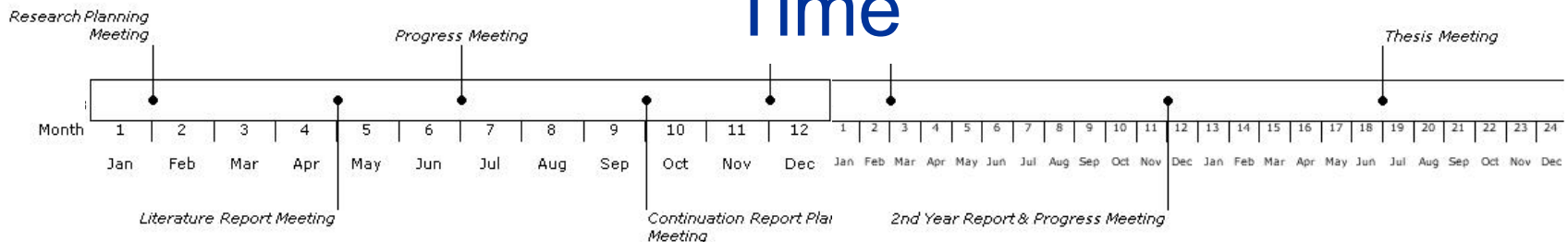
Quality



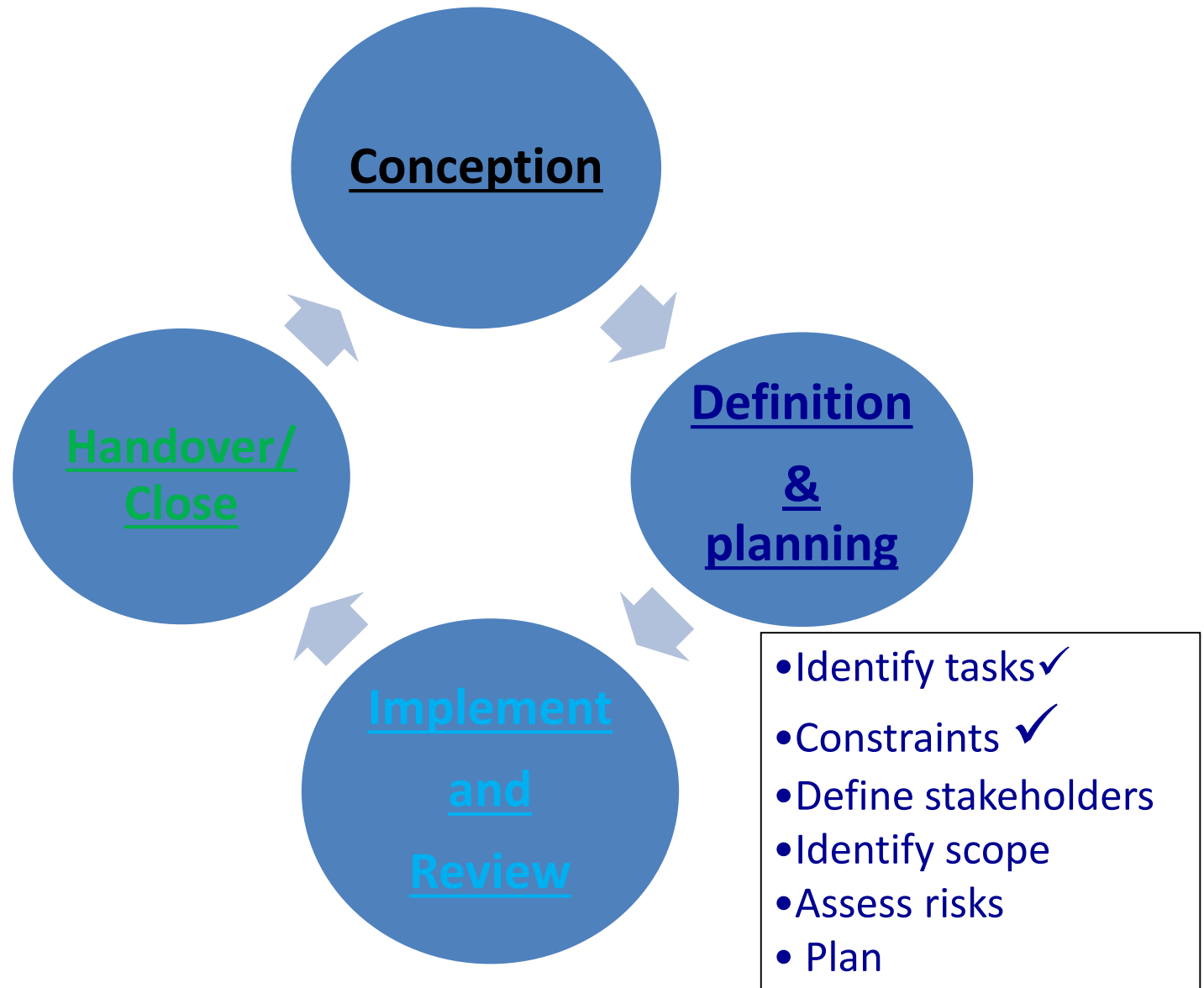
Resources



Time



Tools for project management



Engage all of the stakeholders

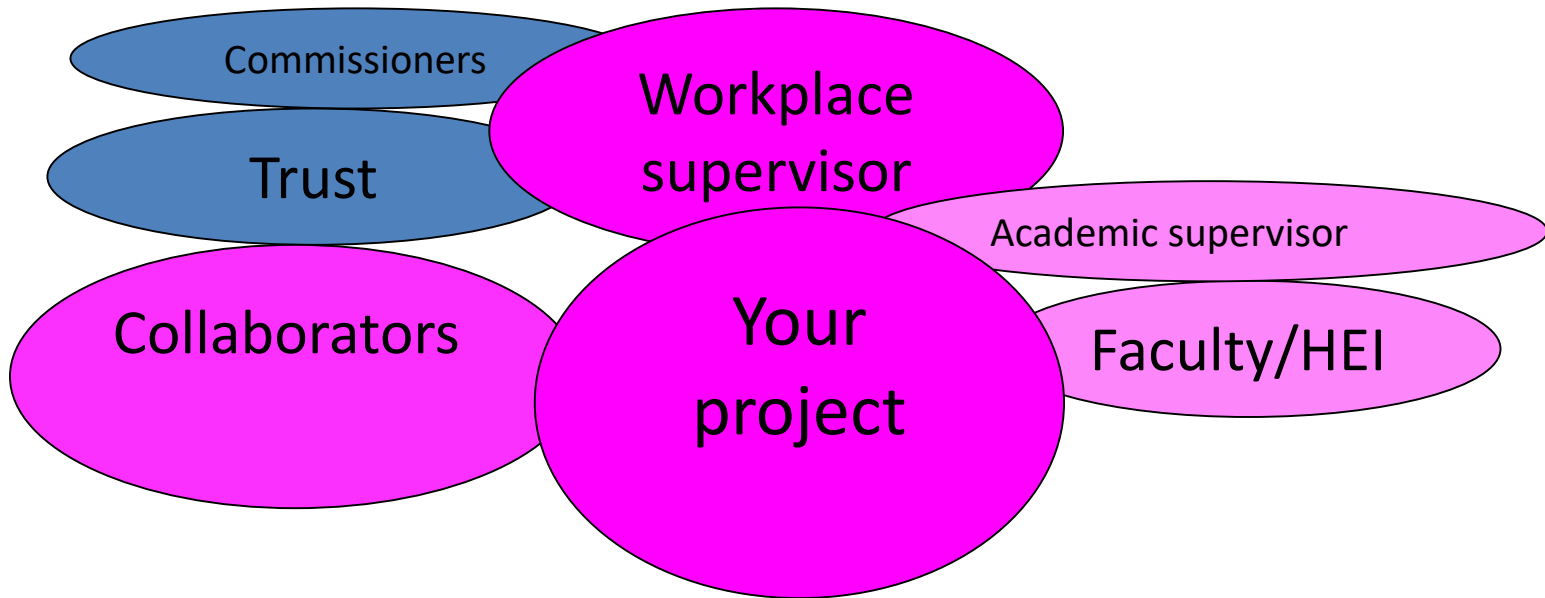


Engage all stakeholders in your research

Who will be affected?

Needed for support?

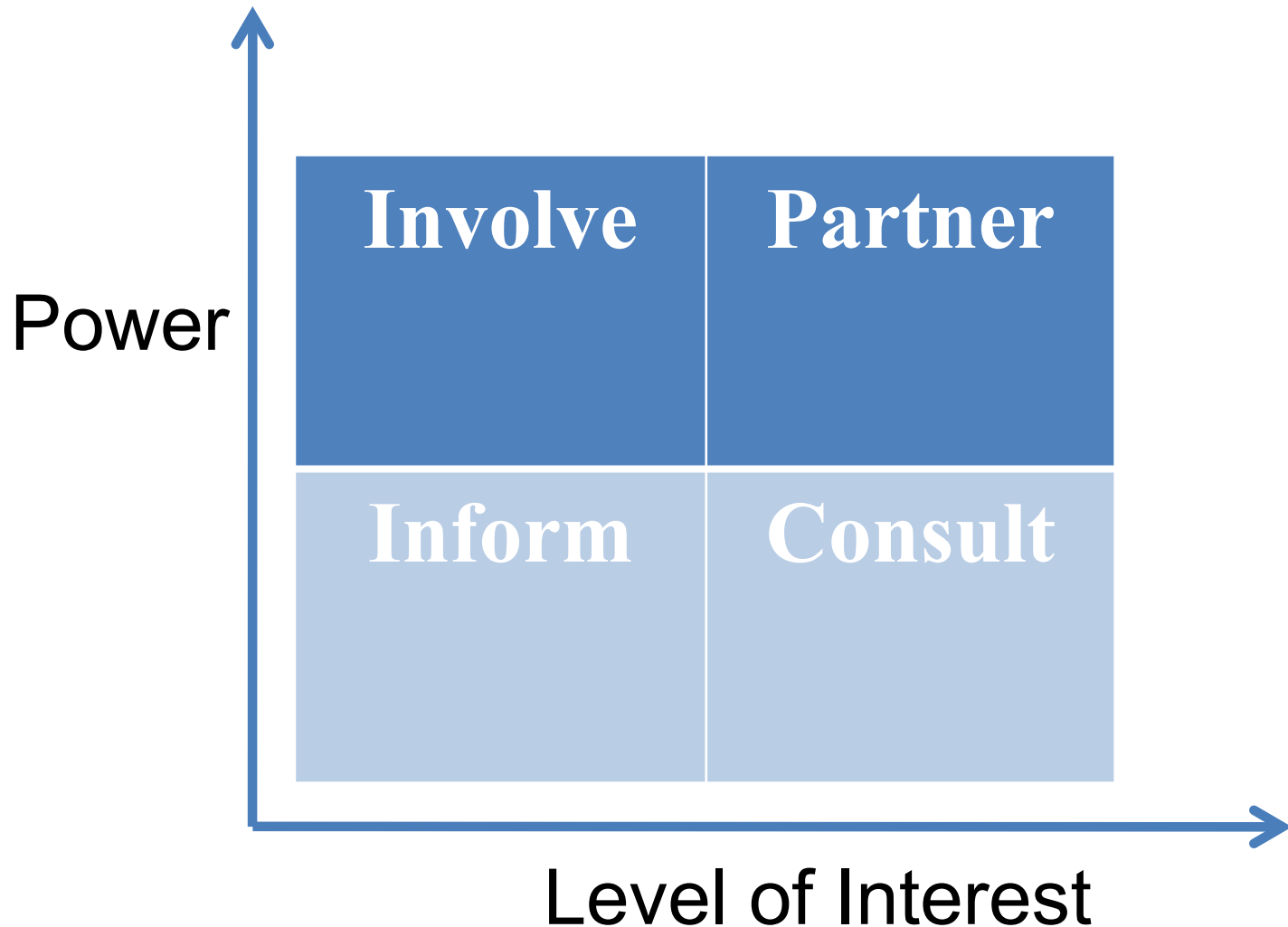
Interested in the outcomes?



How do you manage your stakeholders expectations?

Think about reporting and communication - help each to appreciate the value of the project throughout

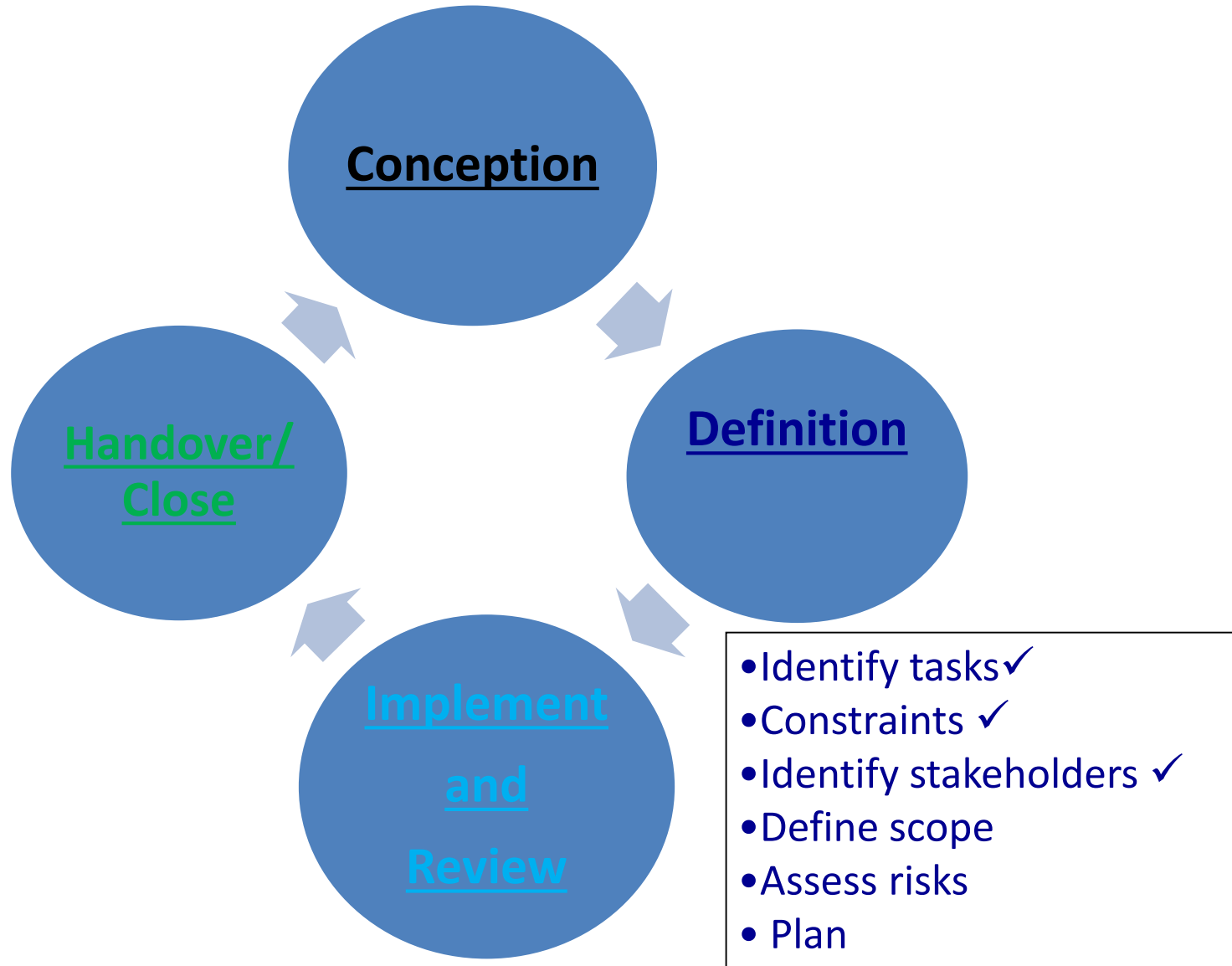
Engage all of the stakeholders



What do you need to know about stakeholders?

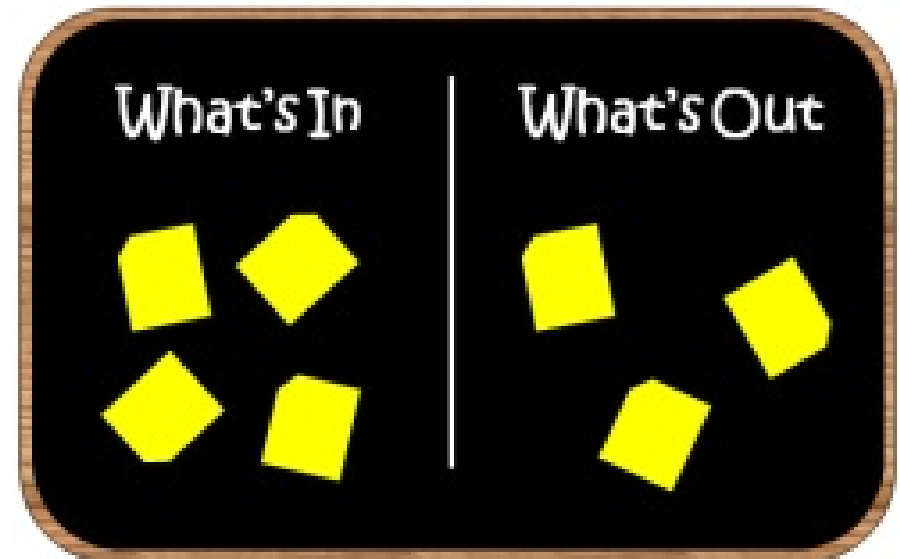
- Who are your stakeholders?
- What resources do they bring to the project?
- What do they expect in return?
- How much power does each stakeholder have?
- What's their level of interest?
- How are you going to engage them?
- How can you manage them?
- Are there potential conflicts between the interests of stakeholders?

Tools for project management



Clearly defining scope!

- Scope = what needs to be done
- Defines the boundaries of the project
- Confirms common understanding
- The scope should be agreed by all
- Get agreement up front

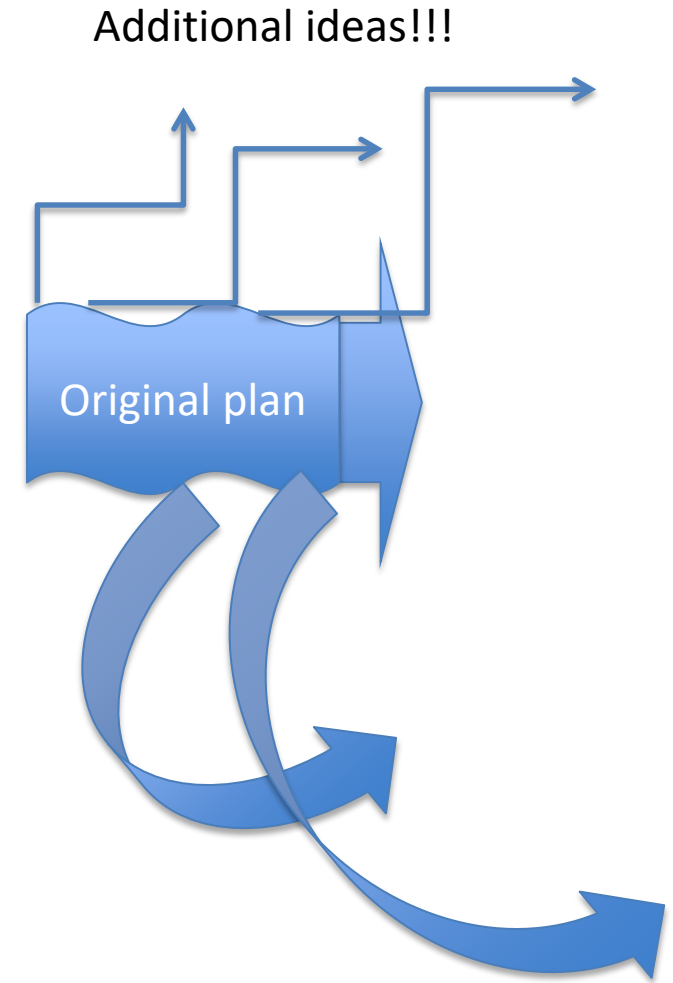


Beware scope creep

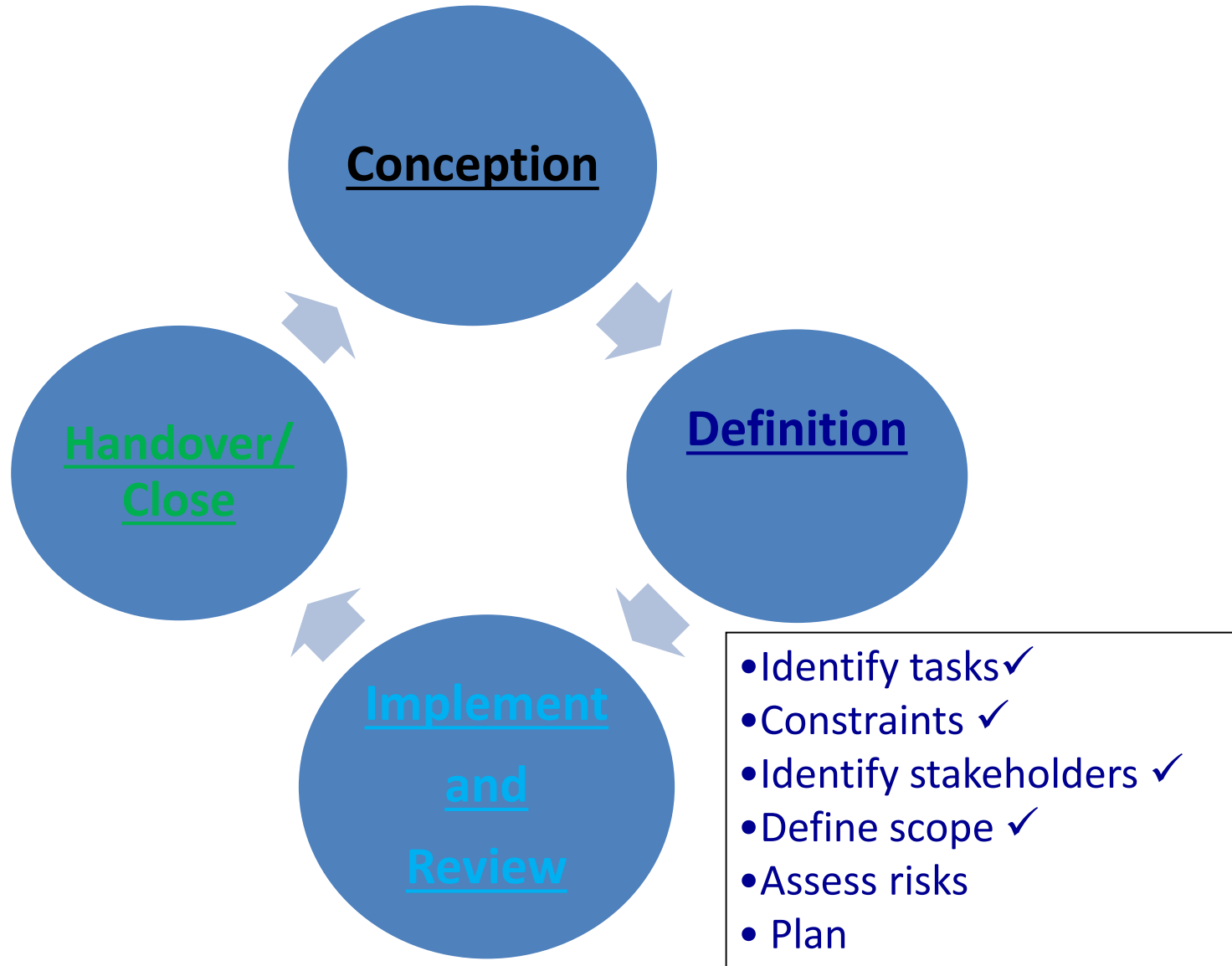
- Most common reason for projects delivering late/over budget

If you need to change the scope ensure that:

- Changes are beneficial to project
- Everybody is aware of
 - impact on schedule
 - outcomes of project



Tools for project management



The reality of research

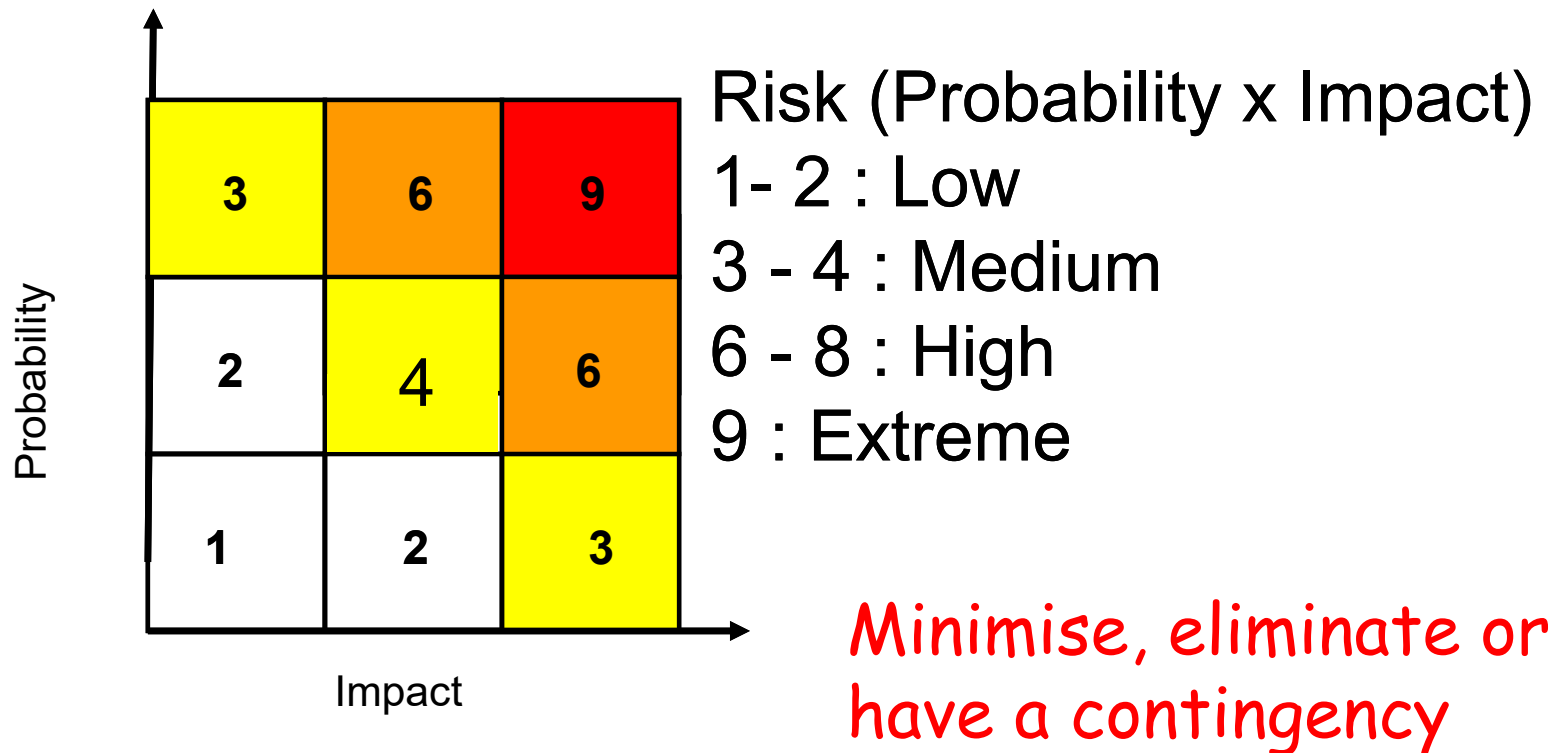
- Things go wrong!
- The direction of your research may change based on your results
- New data emerges from your research field



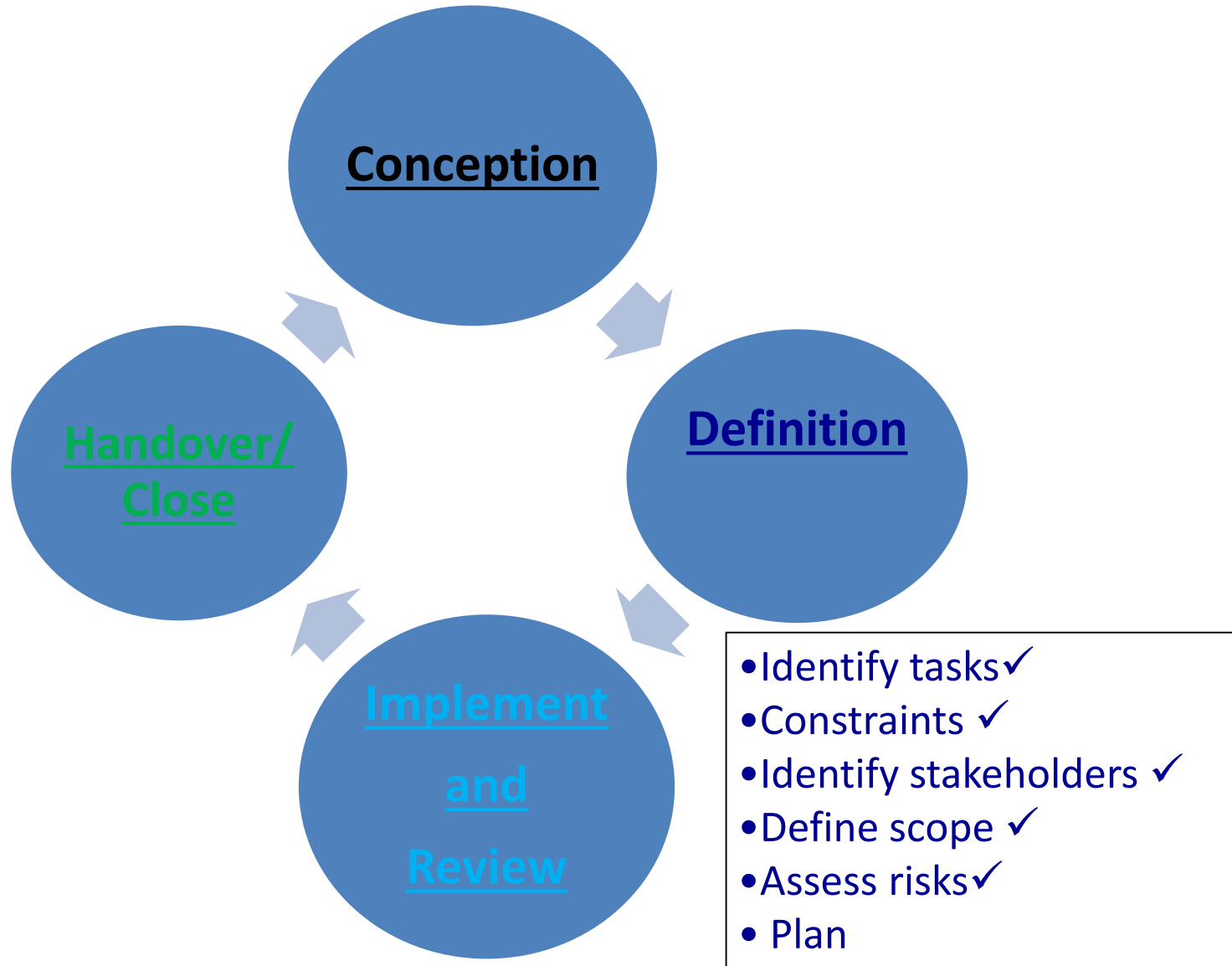
Your project plan must anticipate all of this and more...

Risk analysis: What could go wrong?

- Identify the risks then prioritise them
- Probability - how likely is it to happen
- Impact - how serious is it?



Tools for project management



Struggling to develop a plan?

This can suggest:

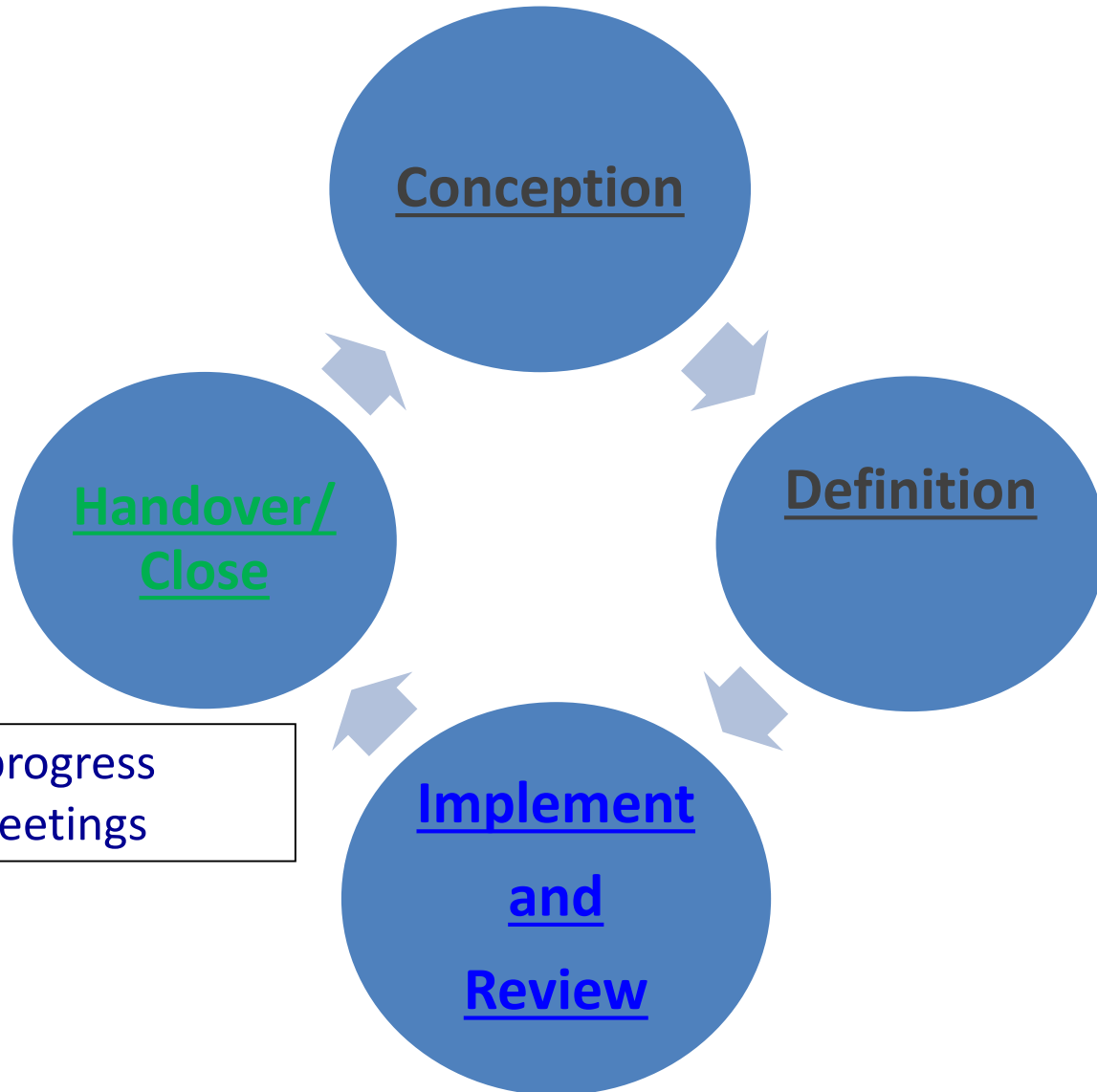
- Your project objectives are unclear
- You're unconvinced about the project
- The project is too large
- Unsure of your responsibilities
- Need additional support or experience

So

- *Increase resources and engage your whole team*



Tools for project management



- Monitor progress
- Review meetings

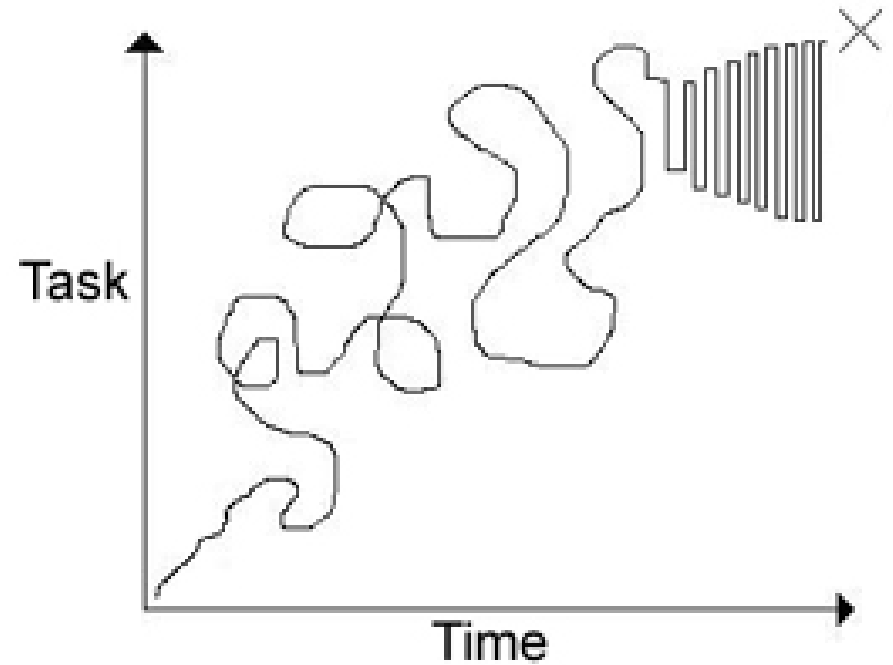
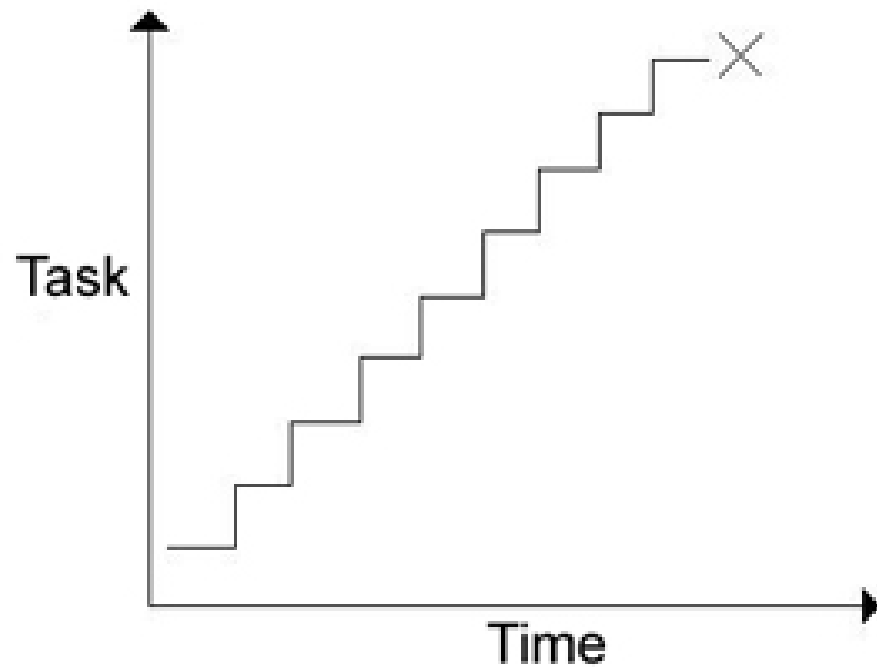
How will you monitor progress?

- Decide on an appropriate communication/monitoring system (type and frequency)
 - steering group meetings
 - regular project team meetings
 - weekly/monthly updates (paper or email)
- Are key milestones being met?
 - on time?
 - on budget?
 - is there a need to reassess plan?
- Constant communication and transparency even when things go wrong

Tips on monitoring

- Be systematic - evaluate against deadlines
- Identify tasks which are slipping
- Identify areas where additional resources might help
- Identify unexpected conflicts on resources (e.g. lab equipment / technicians)
- Identify critical activities and prioritise
- Update project plans when things change, and always work with latest version of the plan
- Most importantly **BE HONEST**

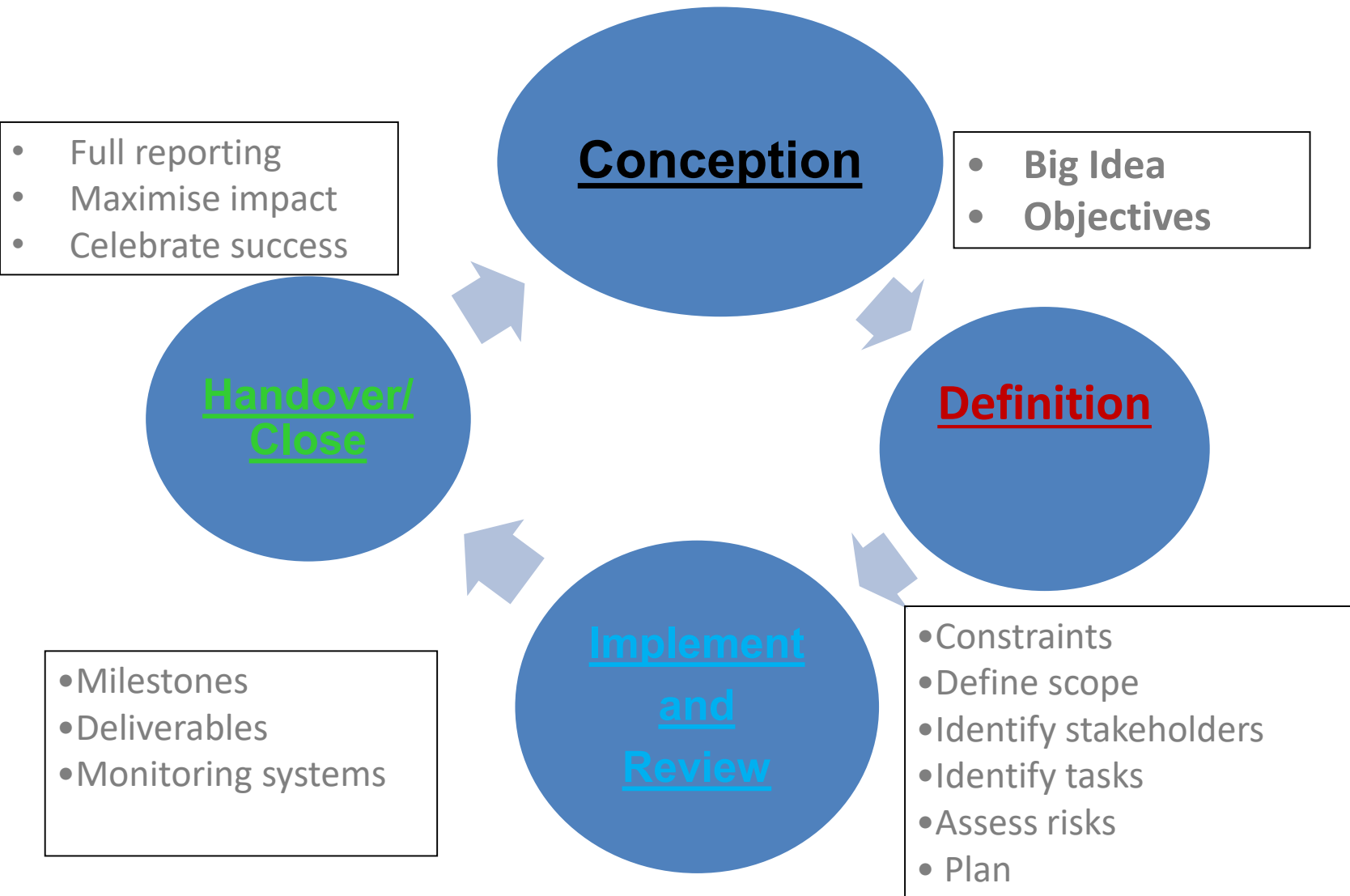
Are you a planner or a punter?



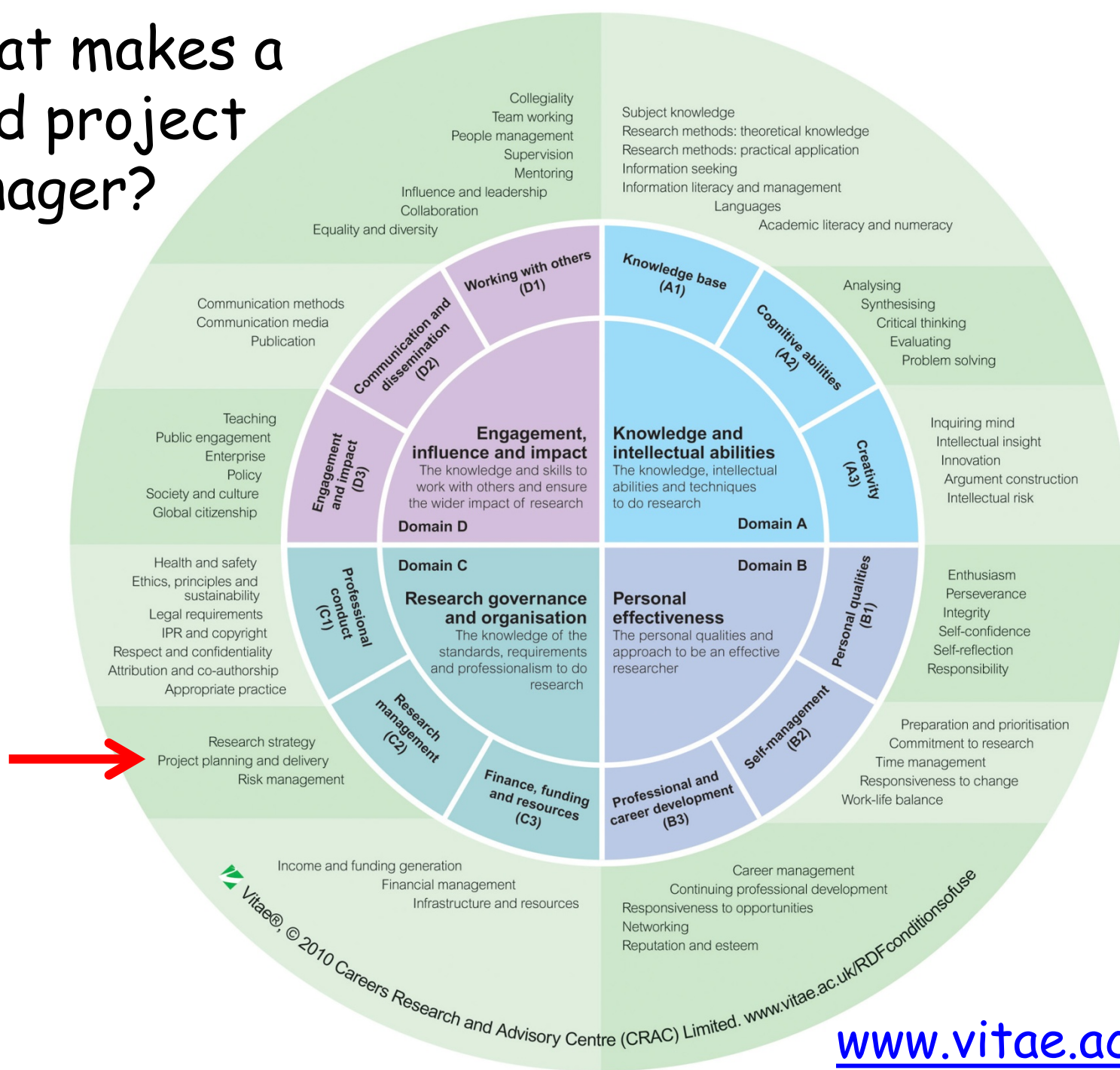
Summary: research project planning

- Project planning
 - should be a tool not a straightjacket
 - should be dynamic with regular, fixed reviews of progress
 - helps research team communication
 - checks on common understanding
 - Between you and stakeholders
(line manager, team, collaborators, funders)
 - helps to ensure research dissemination
 - Papers, presentations, Follow up funding

Phases in the project lifecycle



What makes a good project manager?



↓ Project planning and delivery

Uses project management techniques effectively to deliver timely results across a range of projects.

→ Phase 1

I apply effective project management through the setting of research goals, intermediate milestones and the prioritisation of activities.
I act on decisions agreed with my supervisor/line manager.
I deliver results.

→ Phase 2

I am able to independently define a manageable research project.
I understand project management cycles and am able to draw on a range of project management techniques and tools.
I allow for wider public access to and long-term preservation of research information/findings.
I manage problems and conflict.

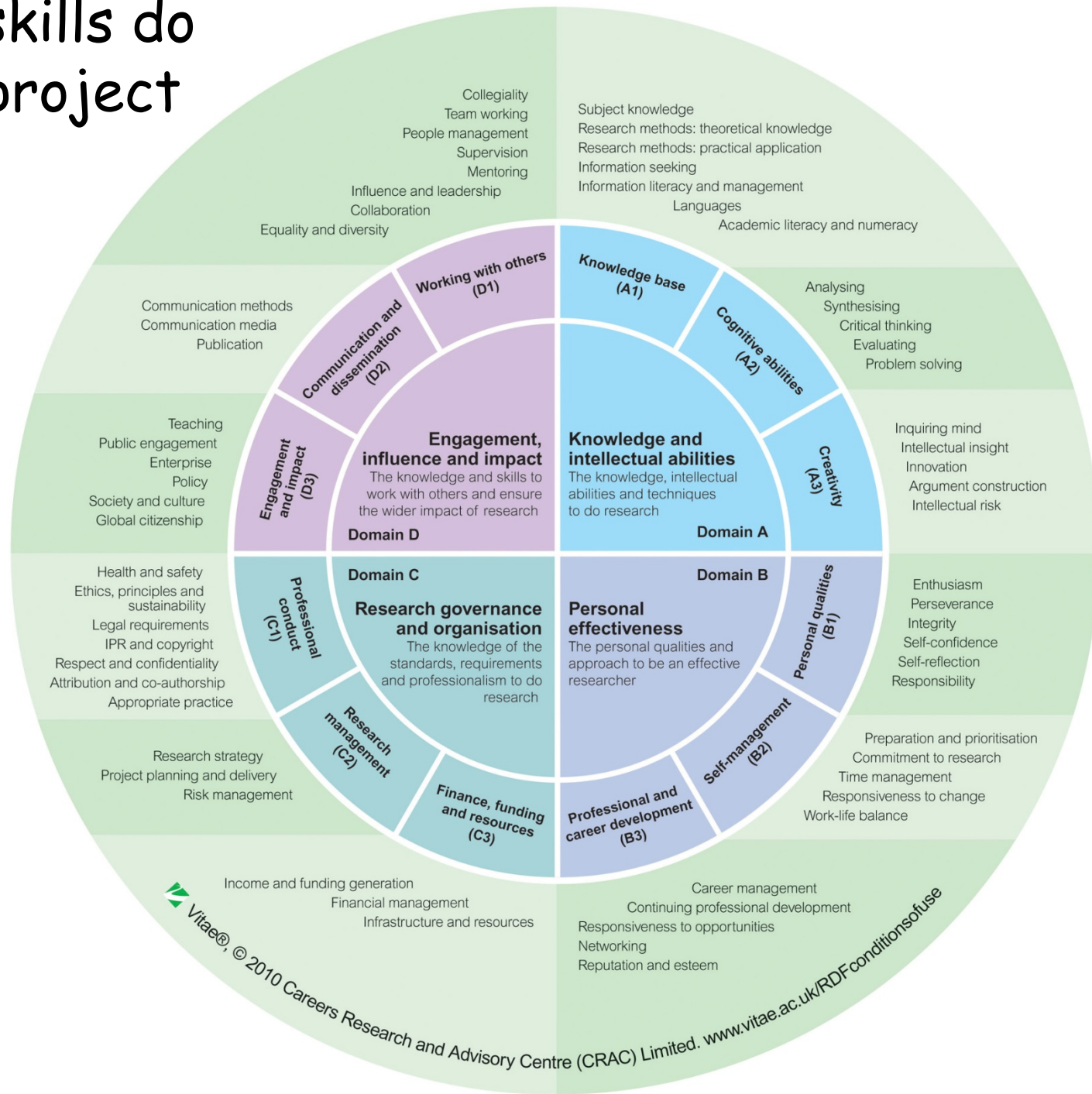
→ Phase 3

I am able to define large research projects, drawing up long-term plans for research.
I use a range of project management strategies.
I am able to clarify priorities, setting expectations and keeping the project on track.

→ Phase 4, 5

I effectively manage multiple research projects and both the research agenda and bureaucracy for various projects.
I am able to take unpopular but evidence-based appropriate decisions.

What other skills do you use as a project manager?



A project isn't successful until it's finished!



What one thing will you take away from today's session?