

How Much Time Do I Need to Create A New Laboratory?

You feel like you have done so much hard work:

The business case is approved; funding is in place; equipment selected; potential staff identified and properties shortlisted for your new laboratory.

How is it that you are still under immense pressure from investors, customers and staff alike who all want to know whether we can still achieve our deadline for being operational? Sound familiar?

This article identifies the factors which influence how long it will take and sets out how to find the critical path for getting there.

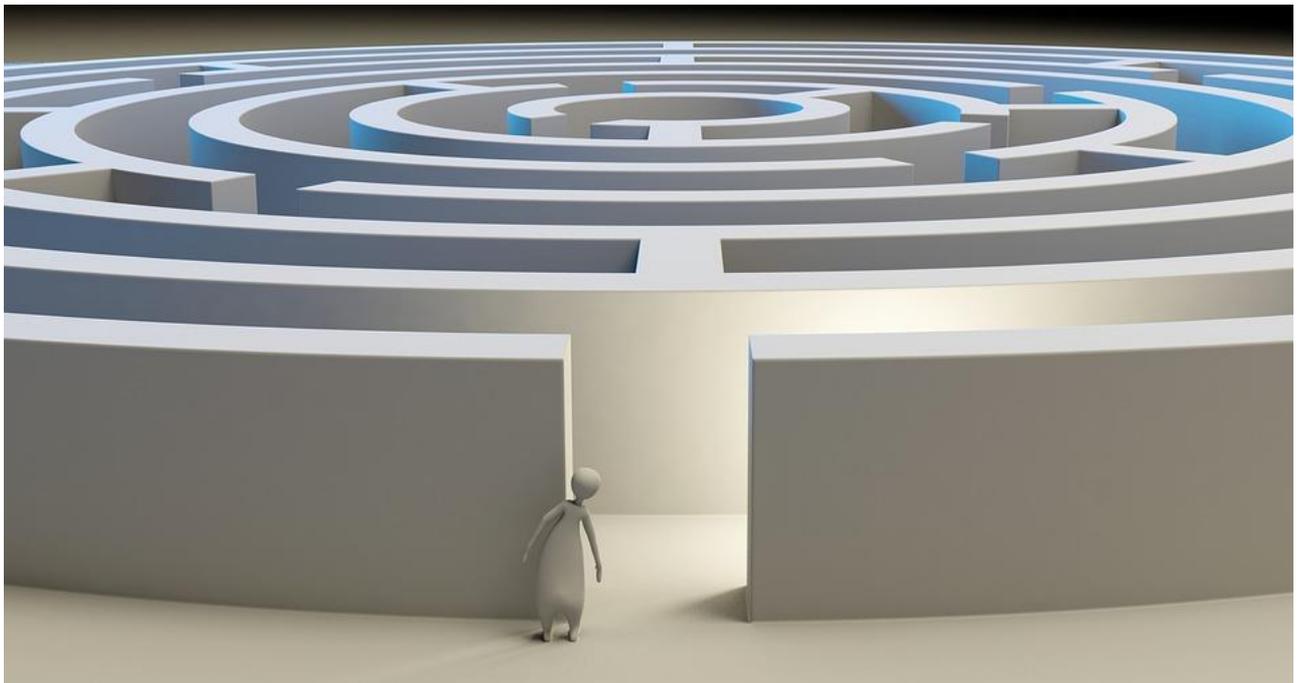


1) Select the Right Approach

Some people may be surprised to see this as the first item. Often clients delay the appointment of designers until the building is secured. Our previous article questions whether clients are given the opportunity to consider all building options and the risks in not testing the building's suitability before making such a major commitment.

To select the right approach, the client must first decide whether they prefer to appoint a team of specialist consultants who design the scheme and then tender the works to suitable contractors or alternatively they select companies which offer a 'turn key' design and build service.

The design and build approach has the benefit of reduced fees and timescales but puts more onus on the client ensuring the selected company are trustworthy and truly competent. At Bulb we successfully deliver projects developed using either procurement route with unique in-house expertise in both science and construction.



2) Defining the Brief

A crucial part of every project and often made more difficult when the project remains confidential to most members of the team. The management team need to invest adequate time to properly brief the design team who equally must demonstrate a proper process for the gathering & documenting the client brief. Failure on either side will waste time.

Ideally the lab users will be involved in the design process as early as possible. Their engagement in the design ensures a 'right first time' approach and avoids subsequent modification and the potential for the considerable uplift in cost associated with making changes whilst in occupation.

The brief will contain information which may have a significant impact on the building choice and the cost of the project. Once the brief is agreed, preliminary designs and costs can be developed for the client to understand at a very early stage the magnitude of the commitment they are making.

On occasion many months and considerable design fees are wasted when costs returned from tendering contractors far exceed any budget that was available. To rectify the situation, re-specifying the whole project at the appropriate level is required. However, with limited time available, more typically cuts may be made to sections of the scheme which unfortunately stand out as obvious cost cutting. At Bulb this failure is avoided using market tested costs during the preliminary stages.

From a programming perspective it is so important that the right investment of resource is made in the early stages of the process with the aim of the facility being delivered right first time.



3) Property Acquisition

No two buildings are the same in terms of the timescale from agreeing heads of terms to lease completion and thereby gaining access to the building.

More forward-thinking businesses or science park landlords have identified ways of accelerating the acquisition. For most buildings however, timeframes can depend on the number of parties involved & the expediency of the landlord's management process. An often-quoted average period from heads of terms to lease completion is six to eight weeks but this can vary considerably.

Clients do need to remember that to complete the lease on a building most landlords will require detailed specifications and engineering drawings relating to the proposed works.

For this to take place the client needs to have selected their preferred contractor (by whichever means), agreed the brief, developed a detailed scheme at an agreed cost and thereafter, instructed the specialist engineering companies to finalise the detailed drawings.

The Bulb team can help with realistic timelines and work with your property agent to identify a critical path for getting your facility operational.

4) Lab benching & Equipment

For laboratory fit out the cost and lead times for specialist equipment are considerable with often a limited choice of supplier available in the market. Even the laboratory benching can require 6-8 weeks manufacture time from approval of drawings.

Careful consideration needs to be given to how to manage the timely procurement and delivery of equipment at an appropriate time to suit the fit out works.

Often equipment needs to be imported and many clients choose to hold equipment in a storage facility so that they can be more easily be collected as and when required.

The early selection of specialist equipment is also key to being able to finalise the detailed design. Many items of equipment require consideration in terms of the available access, the equipment weight/size & whether any specialist supplies or servicing requirements exist.



5) Approvals

The degree to which approvals or compliance is needed will vary depending on the nature of the laboratory. The laboratory classification & the requirements for auditing or compliance need to be accounted for when programming.

The building may require a change of use application or planning approval if material changes are being made externally. This can take a minimum of 8 weeks. Landlord agreement to the license to alter (as outlined above) needs concluding before the lease completion & access is given for starting works.

Approved Inspectors or the Local Authority Building Control will be involved during the design process for compliance with the various Building Regulations. A final sign off by the inspector is needed before the client takes occupation.

6) Project Delivery

The programme for any project obviously depends on the scale and complexity of what is being done.

Laboratory projects do tend to take longer to design in detail than offices & can take some 30-50% longer to deliver than office projects, given the complexity.

It is strongly recommended to focus on agreeing as much detail as possible before any works commence. Any late changes to the engineering requirements for laboratory areas can have significant implications on cost control & programme.

A lead time needs to be agreed from receipt of order & the start of works on site. Typically, this might be two weeks, but some equipment may need pre-ordering earlier.

At Bulb we pride ourselves on delivering on time & to budget with no surprises on the way.

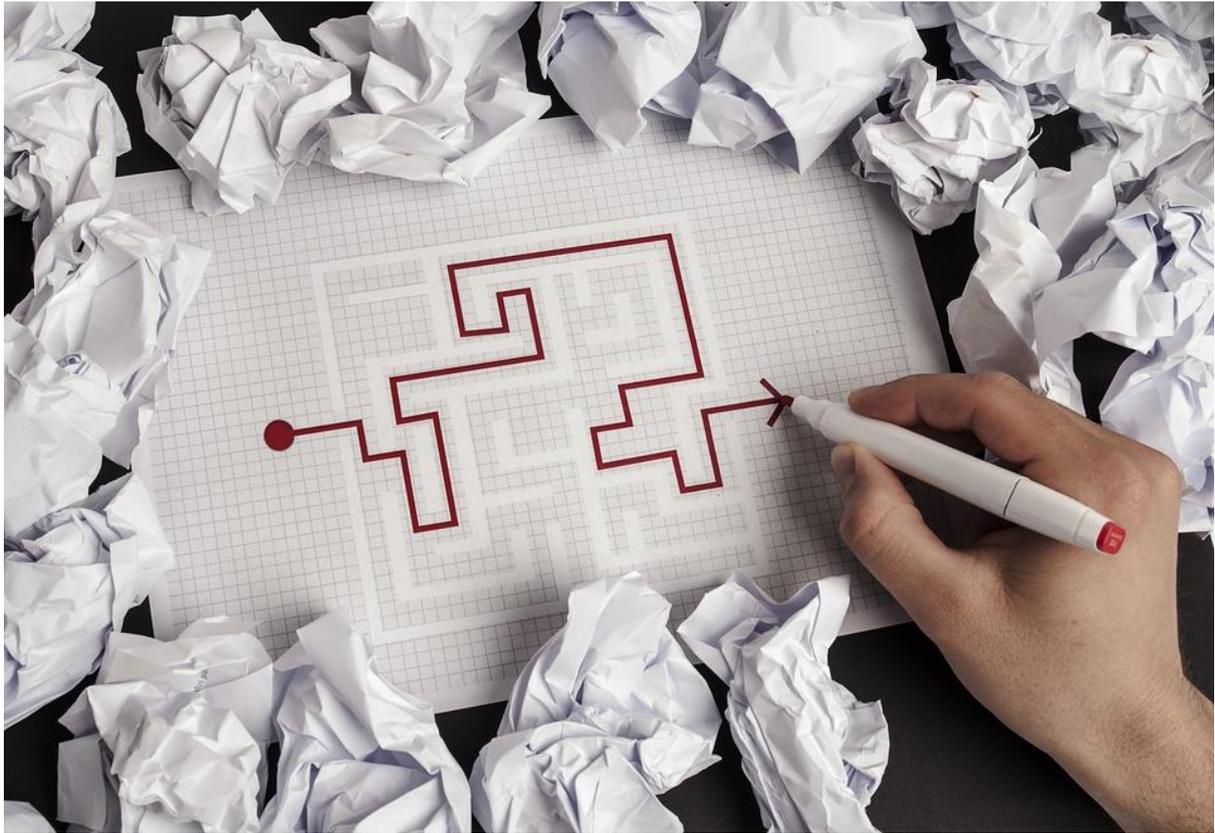
7) Relocation

Unlike most office relocations, a laboratory move can be very involved & need specialist input.

Valuable items of equipment may need decommissioning before moving and recommissioning on arrival. Specialist vehicles and handlers are required.

Significant quantities of supplies and consumables may also need labelling, re-packaging & distributing.

At Bulb we partner with specialist suppliers in order to provide a comprehensive & co-ordinated delivery mechanism for the new facility.



For a successful project to be achieved, each of the above factors needs to be scheduled on the programme and a critical path identified. They are not however sequential within the design and delivery process, and a careful co-ordination of all aspects needs to be undertaken before answering that inevitable question: – how much time do I need to create a laboratory?

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