ISSUE 1 / DESIGNING THE FUTURE OF SCIENCE

Getting the Brief Right

A strong brief can make the difference between a mediocre research space and an exceptional one.

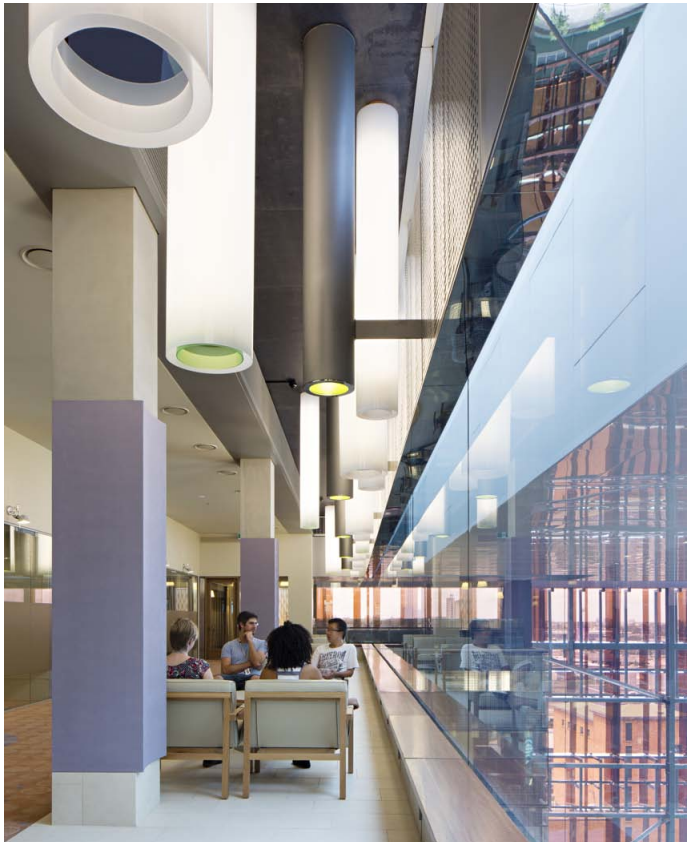
What is the most important thing you can do to ensure your research or laboratory space is a success?

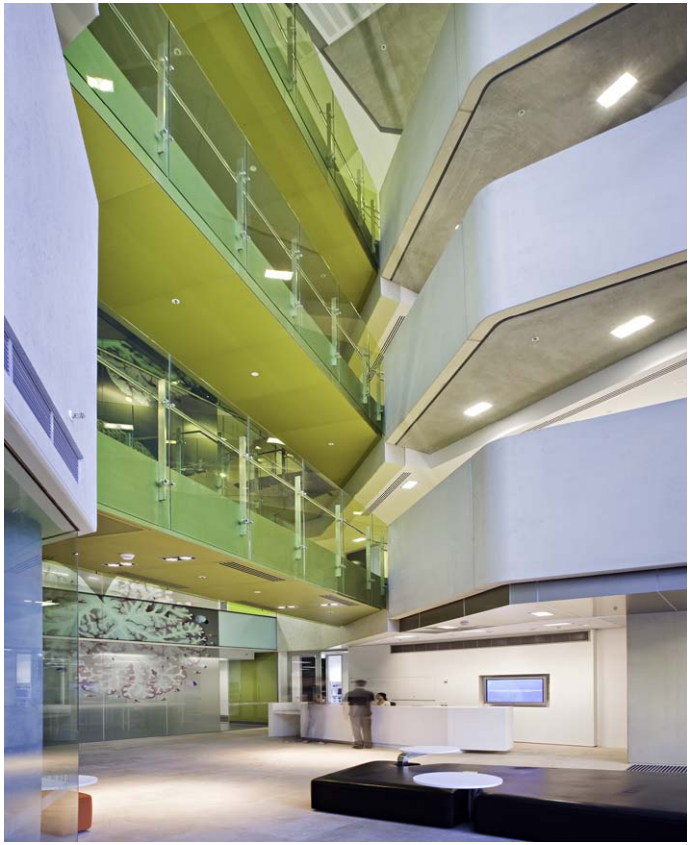
Get the briefing process right.

In this environment of competing stakeholder priorities, budget and time constraints, and strict health and safety regulation, an insightful brief can make the difference between a mediocre research space and an exceptional one.

There are as many variations on the types of briefing processes as there are clients. But which one will help you get the best value out of your investment and satisfy the needs of your organisation?

The recently completed Translational Research Institute, Wilson Architects + Donovan Hill Architects in Association, involved a complex brief to accommodate more than 650 researchers. The briefing process alone involved intensive consultation covering over six independent focus user groups, each containing representatives from the four main stakeholder occupants.





In this issue, we look at three examples where lessons are shared.

Translational Research Institute,

Wilson Architects + Donovan Hill Architects in Association

Maree Knight, Senior Operations Manager and Paul Turley, Facilities Manager and TRI Representative, both from Mater Research, discuss what they've learnt from the collaborative focused process for the award-winning Translational Research Institute.

UNSW Faculty of Medicine, Wallace Wurth Redevelopment

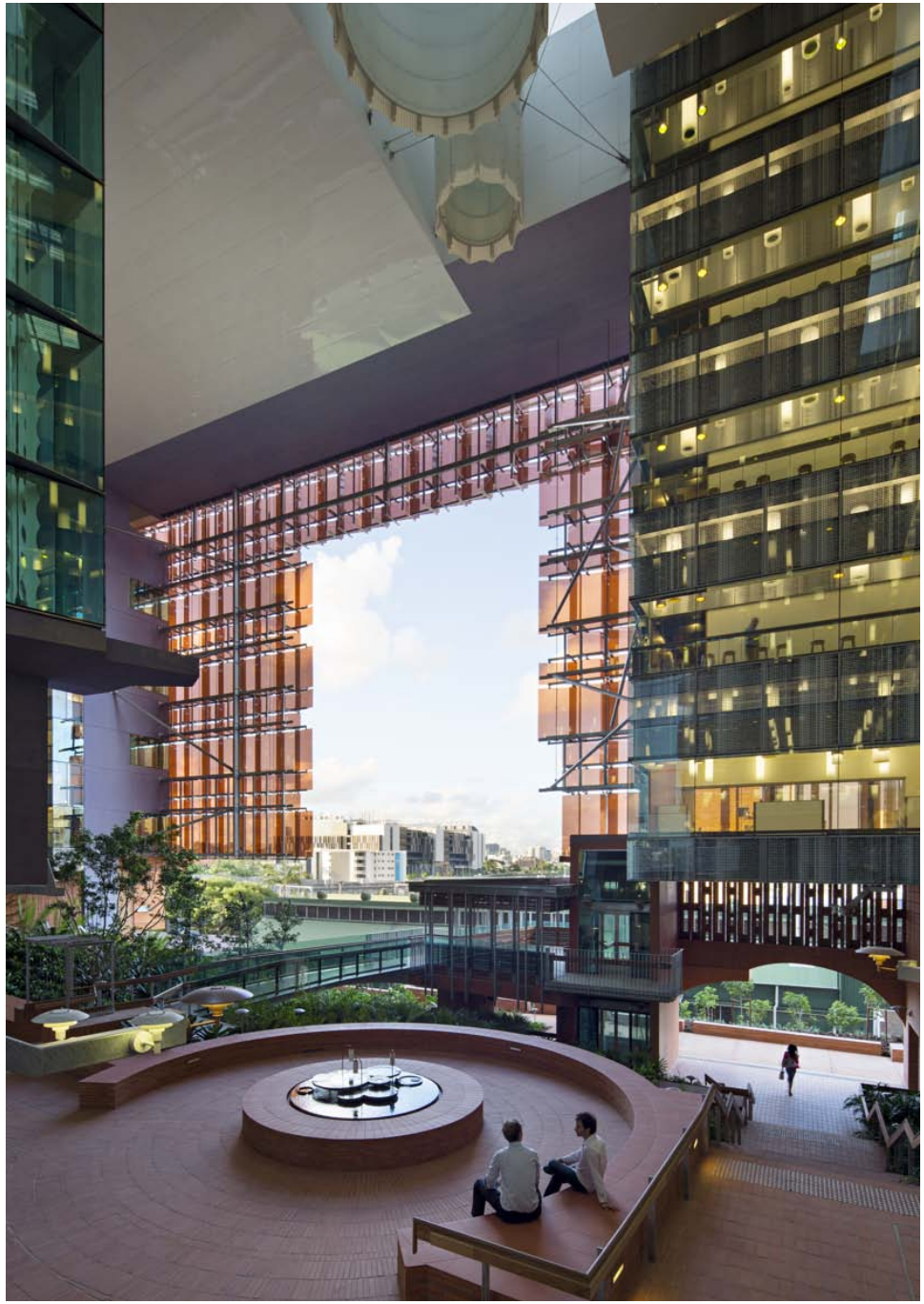
Lahznimmo Architects + Wilson Architects in Association

John Hunt, UNSW Deputy Head of School, School of Medical Sciences, shares his experience of the Wallace Wurth project, which focused on working with scientists and other stakeholders to develop the brief through consultation meetings.

Queensland Brain Institute,

John Wardle Architects + Wilson Architects in Association

We look at the Queensland Brain Institute, a project that started with a specific functional brief which required further development with the stakeholders, to consolidate the competition winning scheme into a rich community of research at the frontiers of discovery.



CASE STUDY

TRANSLATIONAL RESEARCH INSTITUTE

Princess Alexandra Hospital Campus, Brisbane

TRI is Australia's most comprehensive medical research and biopharmaceutical facility. It brings together four major research bodies with the aim of accelerating research and encouraging innovation in biomedical fields.

The TRI project began with a comprehensive brief covering laboratory and office facilities for 650 researchers, a clinical trials centre, a cell therapy unit, educational facilities, a biopharmaceutical manufacturing facility, administration and IT support, and shared common facilities for interaction and collaboration. The detailed brief had to satisfy four different organisations and many other stakeholders.

Wilson Architects + Donovan Hill Architects in Association

Make sure everyone has their say

Strong leadership is essential

Maree Knight

Senior Operations Manager, Mater Research.

We spoke to Maree Knight who has been part of the TRI project from the beginning.
Maree believes strong leadership is essential to make sure everyone has their say and to keep discussions balanced and on track. A great leader keeps the energy of the group positive, productive and focused, while making sure milestones are met.

Choose your experts carefully

— you will need them all the way through. 'Have you done this before?" is possibly the most important question you will ask in the whole process. Use your networks to find someone who has been through a similar experience. If you don't, you may end up with a laboratory that is compliant but not useful for the end user, or spending money on things that aren't really necessary. For hospital-related issues, always speak with the hospital staff who can guide you through the practical aspects of the design, and the inevitable complexities.

Adjacency and transparency between laboratory and write up space contributes strongly to researchers feeling part of their research team.

Spacious laboratory and write-up areas connected with light and views to other research spaces, hug the edge of the outdoor room with views back to the city.

Keep in mind it's a long process.

Your organisation needs the resources to staff the project over time and continuity of personnel is a common issue. You can't assume people will be there from start to finish over 5–6 year period. Maree says keeping a record of the work already done and the key points that need to be carried over at each stage is important. Make it clear there were good reasons for the design decisions already made and make the information accessible and obvious to new people.

Keeping the process on track requires some planning. User group meetings are fun but can be easily side-tracked by strong personalities or by tasks that are interesting but not high priorities. Make sure everyone knows what you need to achieve at each meeting. Addressing workflow issues is particularly important at this stage.

As the heart of the Institute, the Forum will play host to Institute functions, visiting lecturers and scientific conferences.

The Outdoor Room is the central meeting place for researchers from the various research groups.

It's difficult to manage large volumes of information when you're really busy.

Let the experts do their thing

There will be hectic periods where you will be dealing with what Maree describes as 'ridiculous' amounts of information. She says to handle it you need to 'let the experts do their thing'. There will also be periods of disengagement (e.g. when it's being built) when you'll need to remind yourself of the bigger purpose to stay motivated.

So, what does a good brief look like?

Make sure it is always kept up to date, and make it readable (short!). The brief needs to be flexible, but keep in mind that changing anything means implications and flow on effects for a range of areas. Objectives will change over time — when they do, feed the information back to stakeholders. Maree's final advice? — Remember to enjoy the experience.

Paul Turley,
Facilities Manager and TRI Representative, Mater Research.

We spoke to Paul Turley who has been part of the TRI project from the beginning like Maree.

After being in the building for one year, he spoke to us about how a good briefing process needs to prepare your organisation for the transition process to the new building.

Moving in can be a shock (a good one!) and a challenge to the existing culture, says Paul. Set expectations of what things will be like before you move in. A transition document explaining 'how this transition is going to work' is useful.

A lot of issues arise because people don't know how things work in the new building. They apply their old processes and are frustrated when the new facilities don't work for them.

'Sell' the building to user groups through training, workshops and demonstrations of how things work before and after you move in.

Develop an operations sheet — just a list of dot points is fine — that comes with the labs to explain the features and why it has been designed that way. Include workflows and workarounds so people can adapt to the new way of doing things.

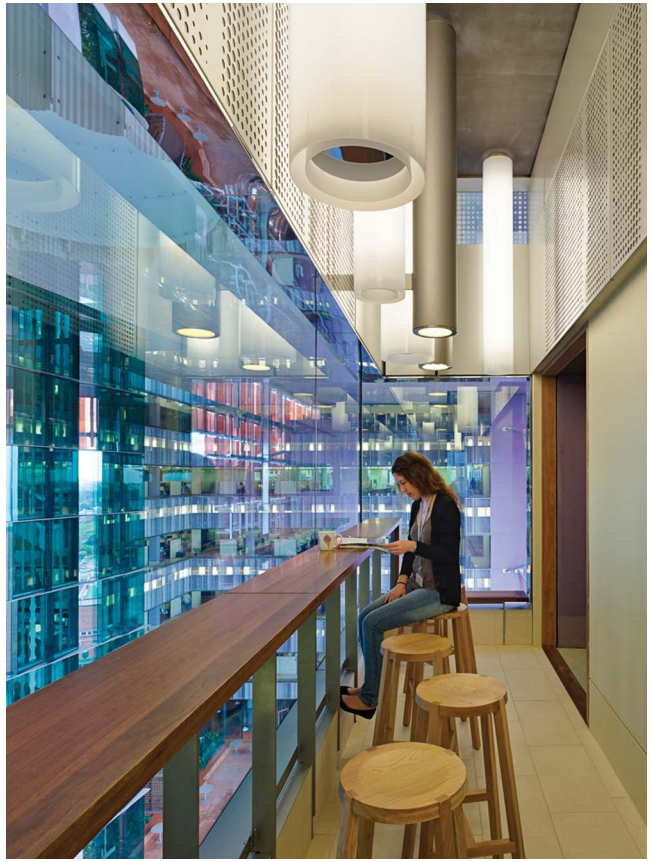
The planning strategy enables scientists to move throughout all laboratories across all floors without leaving the controlled environment.

The main glazed stair within the outdoor room enables physical connection between levels research floors. Visual connection between research levels reinforces connection with the larger institutional and public community.

Even though you've moved in, the consultation process continues.

Collaborations are key.

It's important to hear people out when they have complaints — often it's just a matter of explaining why things are the way they are. It's also essential to have someone in the operations area who knows about how and why the building was designed and how it works. At TRI, we've adapted our processes to fit the new environment. We find it easier if everyone does things the same way across our large building (e.g. operations are the same on every floor) because it means less paperwork.



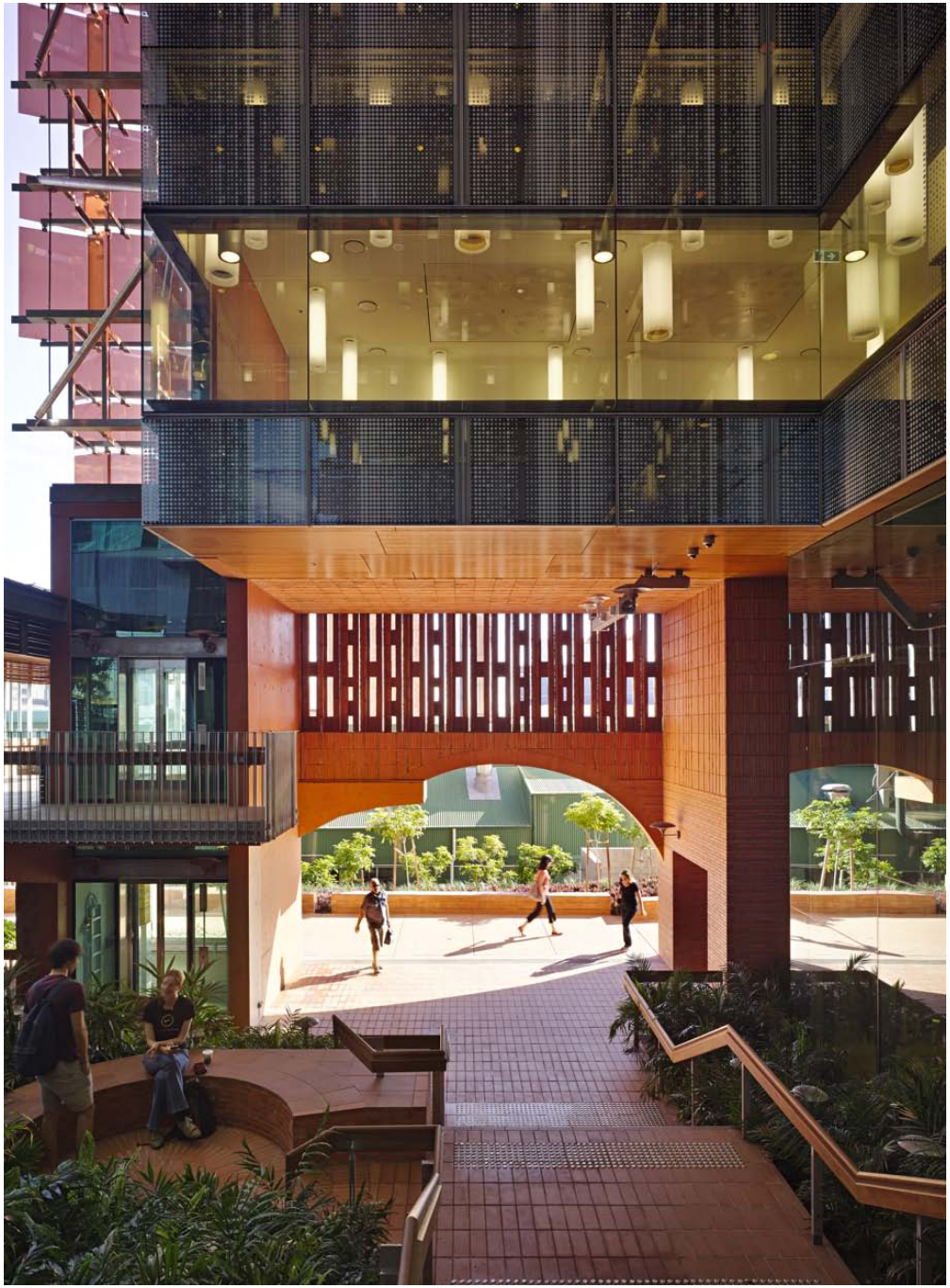
Communal refreshment nodes and meeting spaces are located and consolidated on the edge of the office spaces.

The level 2 entry level also houses the University of Queensland School of Medicine and School of Nursing and Midwifery.

The building is yours in the end and it will take some effort to make the vision a reality.

No building is perfect, says Paul. All new buildings have issues. There will be mistakes, and things that don't work, and things you missed. Adopt a no-blame policy and have a fund set up to pay for these things. Have the defects system ready to go as soon as you occupy the building ready to capture defects so you can work with architects and contractors to fix things as they come up.

The transition into the new building has had issues but it's important to concentrate on the big picture. The building is yours in the end and it will take some effort to make the vision a reality. You won't necessarily know how it will work in practice and you can't please everyone. But the process is worthwhile and the result is outstanding.



The differing settings, which are visibly expressed in the building, imply engagement across a wide spectrum of interactions.

Lahznimmo Architects + Wilson Architects in Association

CASE STUDY

SCHOOL OF MEDICINE, WALLACE WURTH REDEVELOPMENT

University of New South Wales

How do you design a research facility when there are no services or technical briefs?

This was the challenge of the UNSW Wallace Wurth Redevelopment and the Lowy Cancer Research Centre projects. The briefs for these projects were entirely derived through multiple meetings between the architects, steering committee and the end users.

Here, John Hunt, Deputy Head of School for the UNSW School of Medical Sciences during the briefing process for the UNSW Wallace Wurth redevelopment, shares what he's learnt about how to work with a relatively flexible process that is based largely on consultation.

'One issue that can arise when the boundaries of the brief are not set is that the project can grow too big for the resources that have been allocated. For example, the relatively modest UNSW School of Medical Sciences project became a much larger project including a major research institute, various labs, administrative offices and seminar space, staff accommodation and common areas, and teaching spaces.

John Hunt
Deputy Head of School,
UNSW School of Medical Sciences

A larger project means more stakeholders and more consultation. And this means you need a dedicated full-time Client Liaison Officer. It's also important to define the scope of the liaison role and to formally divide responsibility between stakeholders. Identify your content experts early on and give them a prominent role in speaking for their design groups.

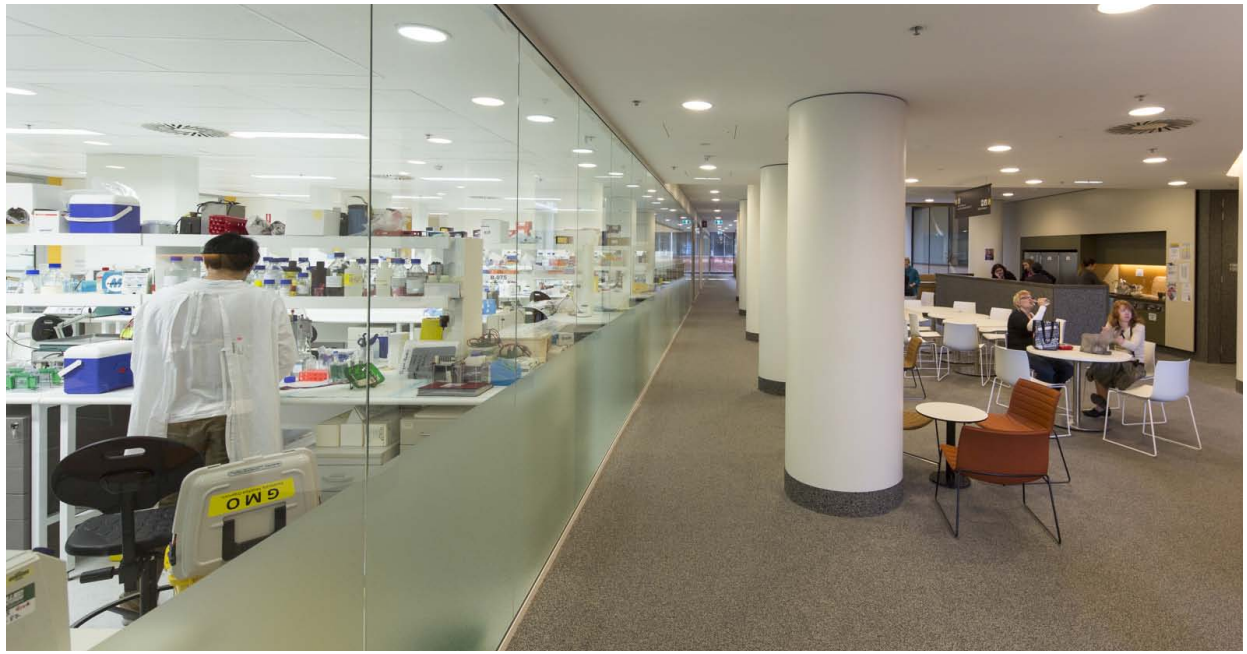
Although, everyone should have their say, the loudest voices are not always the most knowledgeable, so it's helpful to decide in advance who has the expertise and experience to make decisions about specific areas. It might be useful for a higher committee to choose who those people will be.

In hindsight, I could have made more use of the knowledgeable people around me but that was difficult with such a heavy workload. It's a good idea to make some time regularly just to think about the project rationally and be reflective, instead of always being reactive.

> The loudest voices are not always the most knowledgeable.

Decide in advance who has the expertise & experience to make decisions

One of the biggest problems with an undefined project is that it can easily result in a building you can't afford. Stakeholders can get carried away designing their 'dream' building. It's important to communicate the limits, explain the cost ramifications of ideas and let people know there is a budget.



The visible activities within the research laboratories are positioned directly adjacent to the open atrium and interaction areas.

Institute of Virology laboratory space

Another issue that is often overlooked is the impact on staff of renovating a building while it is still occupied. While this may be best for the project budget it is sometimes not worth the stress, lost productivity and drop in morale. Consider if there are other ways to complete the project.

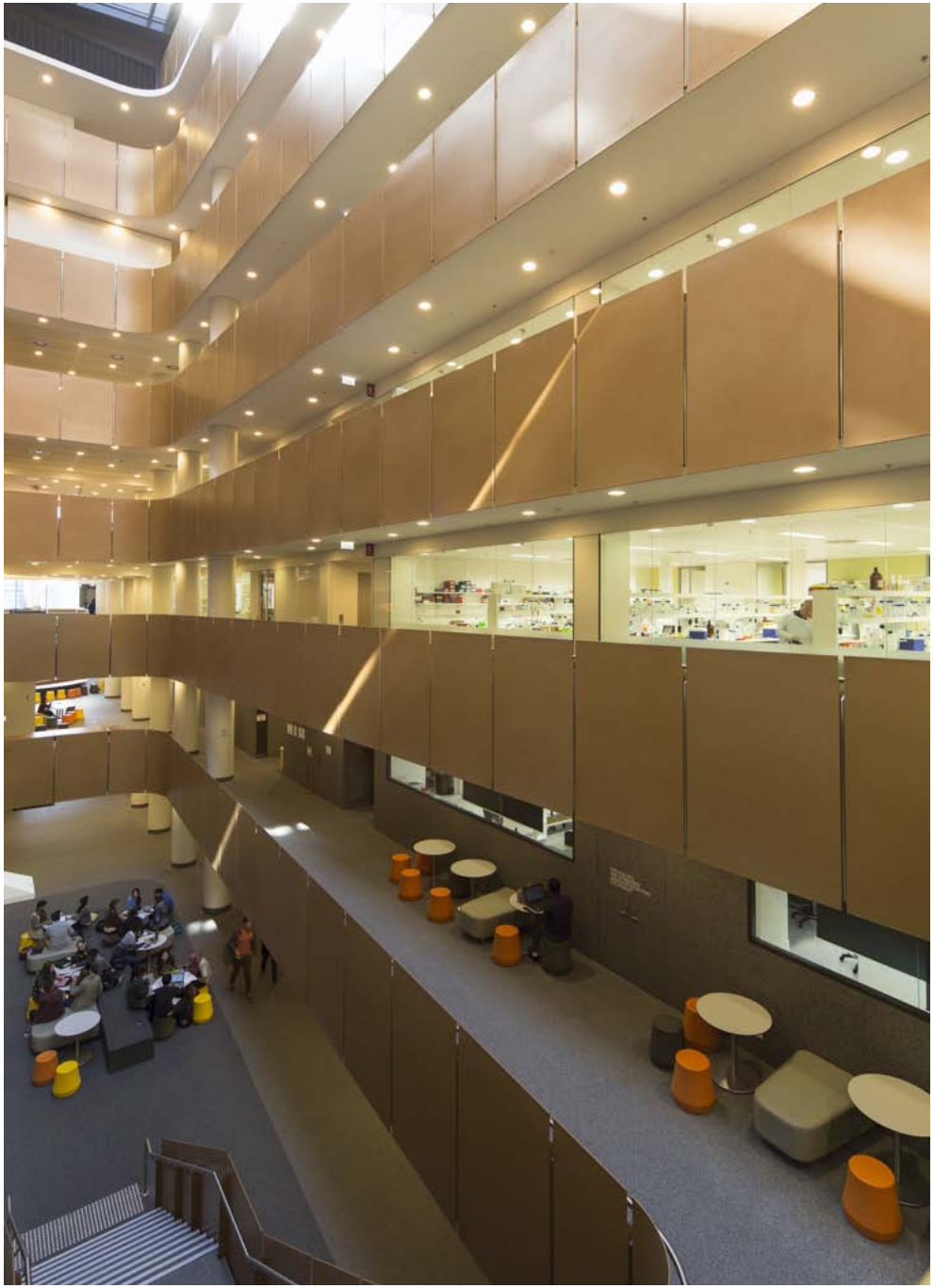
Now the renovation is complete, we are adapting to the new surroundings. Instead of 30 small lab groups, scattered all over the building in little burrows, there are now nine open plan laboratory groups, which means we've been able to implement new management techniques.

Instead of having 4–5 individual lab managers that don't talk to each other, we've got one for each floor. They're much more efficient at ordering and training and things like that.

Overall, everyone just loves it. They hated working in areas with no natural light, little caves with bad ventilation and no air conditioning. Everyone is delighted with the space, it's been a big change and after all the challenges and hard work, this is our reward.'

The combination of science, education and exposure to post graduate research academics, means students can visually witness the real life research happening above. This inspires future endeavours in research fields.

The evolution of the brief led to opportunities for visual engagement between students and researchers across the whole project.



Visual connection between teaching and learning spaces and the post graduate research spaces through the busy atrium of the UNSW Wallace Wurth Redevelopment.

John Wardle Architects + Wilson Architects in Association

CASE STUDY

QUEENSLAND BRAIN INSTITUTE

University of Queensland

QBI was one of the first lab-based projects in Australia to encourage interaction between scientists through a transparent design that connects research spaces and corridors. These buildings create a scientific community under one roof and set a benchmark for laboratories that enhance collaboration.

The QBI is an internationally competitive biotechnology research institute comprised of researchers, associated schools, centres, institutes and commercial bodies. Like all projects involving multiple users, the challenge was to balance the competing needs of stakeholders with the practicalities of designing a functional and flexible research space. QBI had a specific brief that required further development through workshops, and meetings with numerous user groups.

The combination of research and art work within a forum for discovery is opened up to the broader community.

QBI is an engaging facility focused on promoting human interaction, activated spaces and playful interventions of space.

The original detailed functional brief formed the basis for a design competition. Importantly, the overall vision for the project was clearly identified by the Director, Professor Perry Bartlett, who had clearly defined aspirations for the project.

> '…the Institute should convey a feeling of "cutting-edge research in a new frontier of discovery"…'
>
> **Professor Perry Bartlett, Director of QBI**

Thereafter, the progression of the competition winning scheme was consolidated through return briefing sessions typically involving the QBI stakeholder group and key users particular to key areas of the building. John Kelly, the Deputy Director (Operations) of QBI coordinated the briefing liaison process on behalf of the 288 researchers and 45 administration and support staff.

Having the right idea to start with proved to be formulative with key decisions able to be readily made based upon the right conceptual strategy for the building. Our consistent themes for the building highlighted our understanding of the need for researchers to be inspired by their setting as much as opportunities to discover.

Q&A

John Thong has been working in science and laboratory architecture for almost twenty years. Here he provides helpful tips about how to use a briefing process to make your project a success.

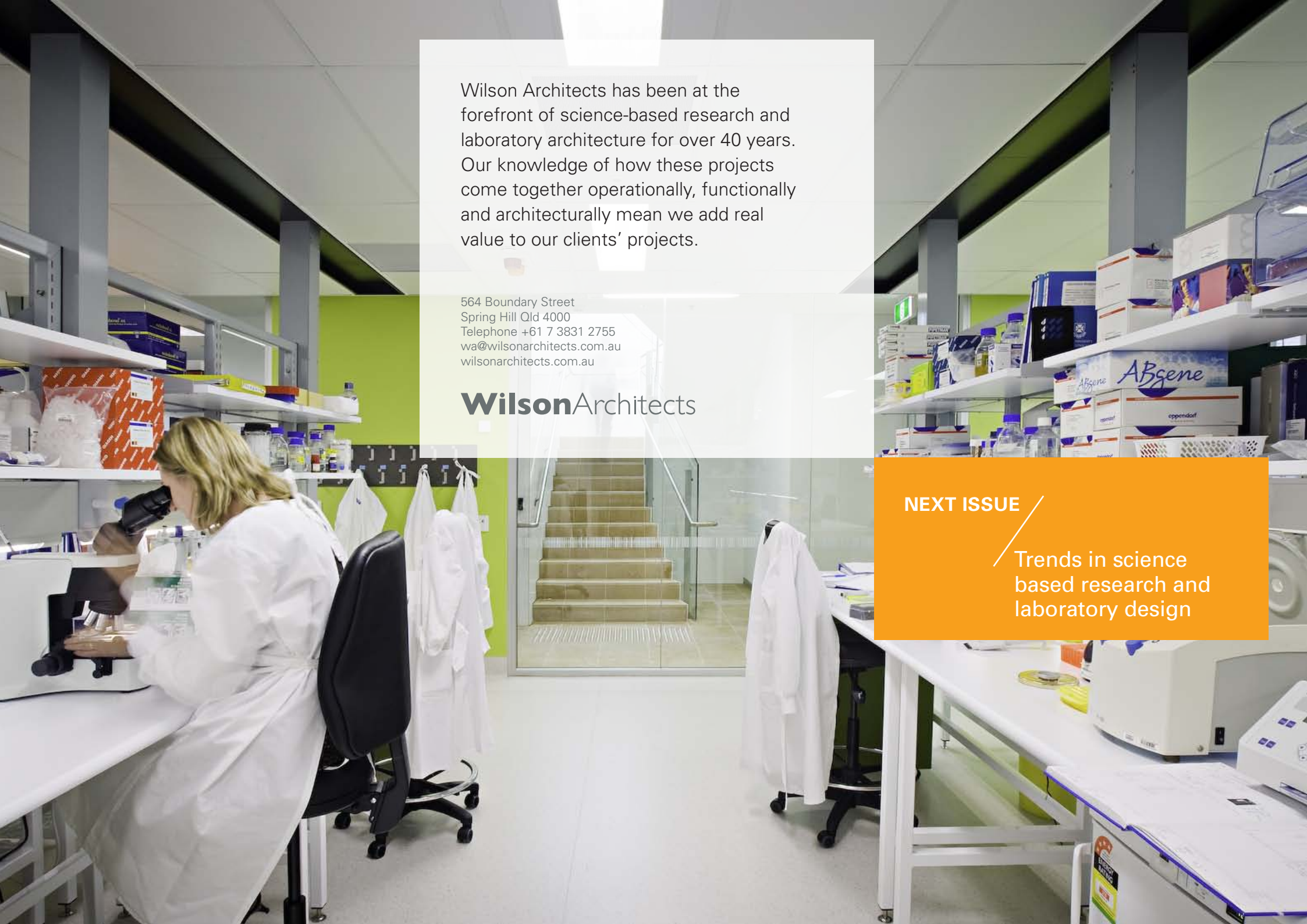
From your experience, what is the foundation of a successful project?
A great building starts from a strong concept. If your architect has the right idea for the building at the beginning (as early as competition or proposal stage), this will flow through to the plans and then to the built project. If the initial idea doesn't make sense then the building won't either. The best buildings I've worked on have ended up very close to their original design.

How can a complex project be kept on track?
Strong leadership from the client is essential to 'the vision' of the project. When the leaders are engaged and positive about the process this filters down to the individual users and leads to a more productive consultation process. Clear communication is also essential so stakeholders have a clear understanding of what they are getting.

What is the most common mistake you see clients make in the briefing process?
Clients often underestimate the importance of the liaison officer role. A good liaison officer is crucial to the smooth running of the project from start to finish. Often this person is asked to do the liaison on top of their current duties, which is just too much. It's a full-time job to coordinate and communicate with user groups, management, architects and other contractors. It really needs a dedicated person who has the time and resources they need to do the job properly.

The process can take years and involve many stakeholders with competing interests, how can you keep everyone engaged and motivated?
You need to give everyone the opportunity to have their say. Let them know they are being heard so they feel involved, and know that their contribution is valued. Also, as the design evolves you need to give regular feedback to all stakeholders so they know how and why things are changing. Let them see how the discussion about the building is evolving. This helps them understand why decisions that may impact on them are being made.

Given your years of experience with these kinds of projects, what is the most important part of the briefing process?
I think the user group meetings are probably the most important part — and one of the most interesting parts as well. It's only when we sit down and find out how people are working now and what their needs are, that we can begin to work out better ways to do things in the future. It's a really collaborative process where everyone has their say and ideas get thrown around. It's how we start turning the idea of the building into the living community it will eventually become.



Wilson Architects has been at the forefront of science-based research and laboratory architecture for over 40 years. Our knowledge of how these projects come together operationally, functionally and architecturally mean we add real value to our clients' projects.

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NEXT ISSUE

Trends in science based research and laboratory design