

# EMBEDDING INNOVATION FOR SCHOLARLY INFORMATION & RESEARCH FOR THE NEW GENERATION IN A TOP RESEARCH UNIVERSITY

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## ABSTRACT

Scholarly Information & Research (SIR) is part of an integrated Information Services (INS) division at Griffith University, one of the top ten research universities in Australia. SIR provides library services, publication support and eResearch services to over 43,000 students and staff onsite at five campuses and online. In 2011, senior managers embarked on an incremental business improvement program ("Turning a New Page") designed to embed innovation and integrate support for scholarly information & research alongside existing university library services. The focus is on the new generation of integrated services needed in three to five years for the new generation of users who use Scholarly Information & Research services at Griffith.

Existing services were unevenly delivered and resources unevenly distributed. An early outcome of the initiative is restructuring to aggregate similar capabilities in order to redistribute resources and provide a framework for developing our capability over time.

The concept is to reorganize existing teams to maximize our capacity to provide services and project support for ideas and thought experiments through to enterprise level services. Virtual teams will be formed and reformed as pilots and full-blown projects are proposed in order to bring operational expertise into the design and development efforts early. The lifecycle of projects will be considered and project management techniques applied as required.

Current teams are moving to an integrated structure with front of house academic services organized by discipline groups staffed by expert consultants for each area; library operations and library IT help desk services. Back of house services will be reorganized to include resource description; procurement; resource discovery and application support; and research development services.

This paper will report on this initiative including method and approach, and data and inputs that helped to develop the updated service offerings, delivery models and staffing structure, and progress to date.

**KEYWORDS:** WORKFORCE PLANNING, ERESEARCH, LIBRARY OPERATIONS, PROJECT MANAGEMENT, COMPREHENSIVE UNIVERSITY, INTEGRATED STRUCTURE

## INTRODUCTION: NEW SERVICES FOR NEW GENERATION OF USERS

Why are new services needed for a new generation? The “new generation” is really several generations who have lived, and will live, through a significant period of technological and telecommunications improvements affecting almost every person in every part of the world. “New” services are simply the core services relating to the discovery and creation of knowledge wrapped in profound new capabilities. It is the potential of those capabilities that are providing the fuel for what many see as a paradigm shift for higher education and information management. New opportunities are emerging to store, combine and mine data and information, at a scale and complexity not previously achieved. We are all part of a fantastic transition from local to global, from physical objects stored in cupboards to bits and bytes stored and backed up in resilient servers all around the globe. Our world has and is changing. Almost every aspect of life and certainly everything to do with information management, support for research and academic library services is affected.

This paper focuses on our local efforts at Griffith University to prepare delivering transformed services in a research-intensive multi-campus university. Our approach uses incremental business improvements. Our slogan is “slow is fast” as we work collaboratively to embed innovation in how we work. Our approach is to understand as deeply as possible what the new generation needs, and how to organize services and staff to deliver within the context of the University’s strategic aims. Linking support for research, including eResearch services, within an integrated structure that combines scholarly information and library services is the core innovation driving us. We are indeed “turning a new page,” albeit mostly a virtual one.

## BACKGROUND AND CONTEXT: GLOBAL TO LOCAL

In order to remain responsive and vital within their organisations, university libraries are faced with the challenge of managing the potential impact of external drivers. Information staff who support researchers and publication outputs are contending with challenges that affect all those who work in the higher education sector.

Major external drivers include:

- Global economic trends affecting higher education
- Changes implemented in 2012 to Australia’s funding for higher education (Australia. Dept. of Education, Employment and Workplace Relations, 2008)
- National emphasis on more--and better quality--research (Cutler, 2008)
- Information - scale, quantity, access and quality issues
- Scholarly information - inclusion of research data, open access, pricing models, sheer complexity
- Technology improvements – hardware, software, networking paradigms – all have radically progressed
- Modern library is everywhere all of the time - no longer a physical place with material that can only be accessed by one person at a time
- Clients who expect an individualized approach they can control in terms of features, personalization and ubiquitous availability

The context for any major improvement must be linked to the strategic aims and challenges of the organisation. For Griffith University, these include:

- Strategic focus on research excellence as evidenced by funding successes and league tables
- Stiff competition for students not only in our region, i.e. Southeast Queensland, but also nationally and internationally
- Continued growth of student numbers over an extended period
- For some areas, a continuing flat budget juxtaposed with a mandate to achieve
- Students and staff with high expectations, including resources and services available anywhere / any time, independent access and expert assistance

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The SIR portfolio now includes almost all units directly delivering Library services:

- Lending and Interlibrary Loan
- Acquisitions
- Expert academic consulting services targeted to higher degree research (HDR) students and academics
- Collection management
- Cataloguing

(Note: Information literacy is covered by the Learning and Teaching (L&T) portfolio. The SIR academic librarians collaborate with the L&T as there are many natural synergies, shared customers and handover points.)

SIR also includes three areas providing a range of research and INS support services:

- Library IT Help - front of house library and IT support and telephone contact centre
- Support for publications - institutional repository, national assessment exercises (Excellence in Research for Australia (ERA) and Higher Education Research Data Collection (HERDC))
- eResearch services – IT advice and assistance including research data management, high performance computing (HPC), application development, data analysis and visualisation, online surveys, data collections, and other web and database tools

As part of INS, SIR has a number of opportunities for change:

- Opportunity to align the portfolio with the University's strategic research goals has not been fully exploited
- Approach has tended to be responsive and opportunistic rather than strategic in its focus
- Demand from senior stakeholders for enhanced policy advice, especially in regard to emerging issues around research data and the publishing lifecycle
- Additional core funding is not likely near term, leaving our portfolio at risk if we don't update our services and articulate a clear value proposition

Functions within SIR are highly responsive to individual customers and specific customer groups but are not customer centric in the truest sense. At the same time staff and customers are concerned about the ability of the staffing profile to address projected growth regardless of service model. In short there is a driving imperative to transform in order to remain relevant and sustainable within the University. If what we provide is not relevant to the students and academics we are meant to serve, we will likely face funding cuts.

## HOLISTIC APPROACH

"Turning a New Page" (TNP) is the name for our holistic business improvement approach undertaken in mid-2011. The exercise was initiated to clarify the portfolio's purpose and business drivers, and to understand opportunities for service improvements. Because SIR's key identity is as a service provider, services should drive the structure of the organisation. Services are prioritised against the University's strategic aims as well as the INS divisional strategic plan and the University's Research Plan. TNP combines methods from best practices around continuous improvement, change management and business planning to achieve better alignment operationally and to prioritise potential improvements to services.

Our goal is to position the portfolio for where we want to be in next three to five years. This includes the detailed effort to analyze and re-engineer what we do and how we do it in order to achieve measurable and sustained business improvement. Most of this effort is alongside operational responsibilities with support from a consultant and project officer in the initial phase.

The overall approach is derived from classic change management theories including John Kotter's (1996) well known stages. The first step in SIR's approach uses business and strategic planning techniques to gather and review data, external benchmarks and information from a range of stakeholders in order to assess and understand our current position. This evidence is combined with workshops, surveys and structured interviews to confirm our purpose, strategic opportunities and possible improvement ideas. Clarity about what we want to achieve, including an analysis of key business benefits, then drives the specific operational improvements.

A key feature of TNP is an incremental approach of design and implementation. "Waves" of improvements are implemented for each unit within SIR over an extended period. Within each phase or "wave," the cycle repeats with deep analysis to identify, prioritise, and retire activities, and then determine how to organise units to deliver against the overall plan. Ultimately this approach is influencing a shared culture of positive continuous improvement to take root within the portfolio (O'Brien, 1990). An incremental implementation approach is not unique to SIR or to Griffith and has been deployed by other universities and in other sectors as well as described in organisational psychology and management (Schein, 2004; Senge, 2006).

In the SIR context, engagement of staff and stakeholders is a top priority. Activities in the first phase have been designed to engage as many individuals as early as possible. At the same time data, metrics, information and ideas are being collected from a variety of stakeholders especially students, academics, key partners, INS executives and managers, and SIR staff. The focus is how do we respond to current and latent demand to provide enhanced and consistent support for research throughout the institution. The entire range of services we deliver now and expect will be required over the three-five year time horizon is under review.

Simultaneously the team has initiated the detailed workforce planning required to shift what we do now to align ourselves to a future state. This includes scoping the labour requirements to deliver current ongoing services and proposed ones. We are working to understand our current skill gaps and future staff career pathways. As requirements are understood, new and updated roles can be created along with position descriptions, teams and reporting lines.

While deep engagement has been fostered and ideas and suggestions from every contributor are given serious attention, decision-making is based on a participative management approach. Decisions are being pushed to the operational level as far as possible but we are not seeking consensus or democratic votes to determine final decisions, particularly those hard calls involving reporting lines and team structures. In our environment it is expected that managers take responsibility for these decisions. Our approach is transparent, engaging and also definite.

As the phases proceed within each unit, the method for maximising engagement with each individual staff member includes a career dialogue exercise undertaken by line managers with each direct report. Key outputs include a shared understanding of the employee's aspirations and intentions with regard to future career development. Although usually individuals are very concerned about job security, a key risk for most organisations is the loss of talented staff and organisational knowledge. By investing effort to understand potential career decisions of staff, we hope to retain and redeploy staff. It is not an objective of the TNP initiative to make significant redundancies. The incremental business improvement approach allows management of turnover to the plan and delivers value for the investment of reskilling staff as we go.

The steps for each unit or team have the following sequence:

1. Strategic alignment reviewed, build on layers above and collaborate with other units
2. Inventory of services created, latent demand captured, analysis of data and further information gathered as required. External benchmarking compared where available
3. Analysis of skills, roles required and current and future capacity issues
4. Roles confirmed and position descriptions updated and implementation plans determined
5. Skill gaps reviewed, talent assessment for existing staff and individual pathways proposed

## CORE IDEA: UPDATED SERVICES VIA NEW DELIVERY MODEL

This section aims to outline and illustrate how our approach produced a new model that provides the environment and opportunities to embed and nurture innovation in our organisation. The “before” state of the organisation is illustrated by a traditional organisation chart in Figure 1. In this model, eResearch is siloed under one area and other scholarly information areas are each organized into their vertical units. Library IT Help and Lending are two separate units and although co-located, they each have separate staff and procedures. The Academic Services Group has already taken a first step of reorganizing staff according to how academic areas are organized (by Schools). They have also initiated new support services for researchers such as bibliometrics and advice for HDR students. A new role called Resource Discovery Specialist covering usability and discovery tools was on its own at the beginning of the TNP project.

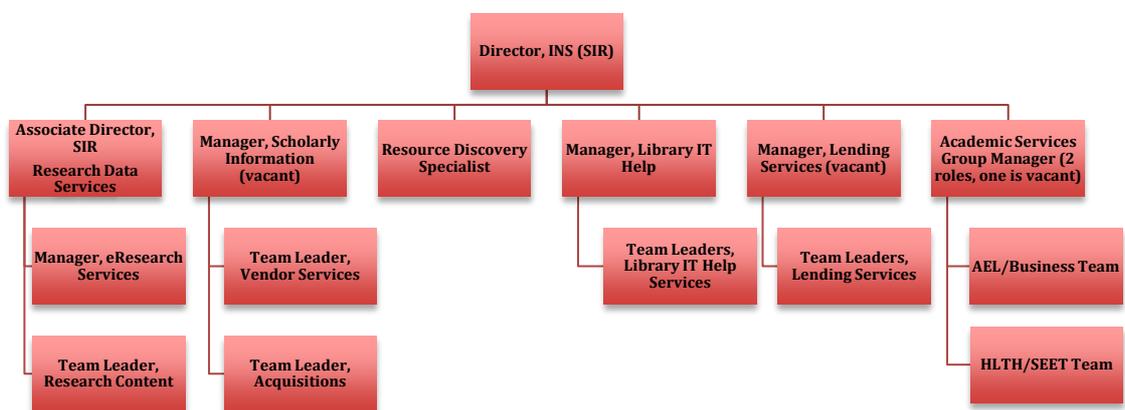


FIGURE 1: SIR Organisation chart, 2011

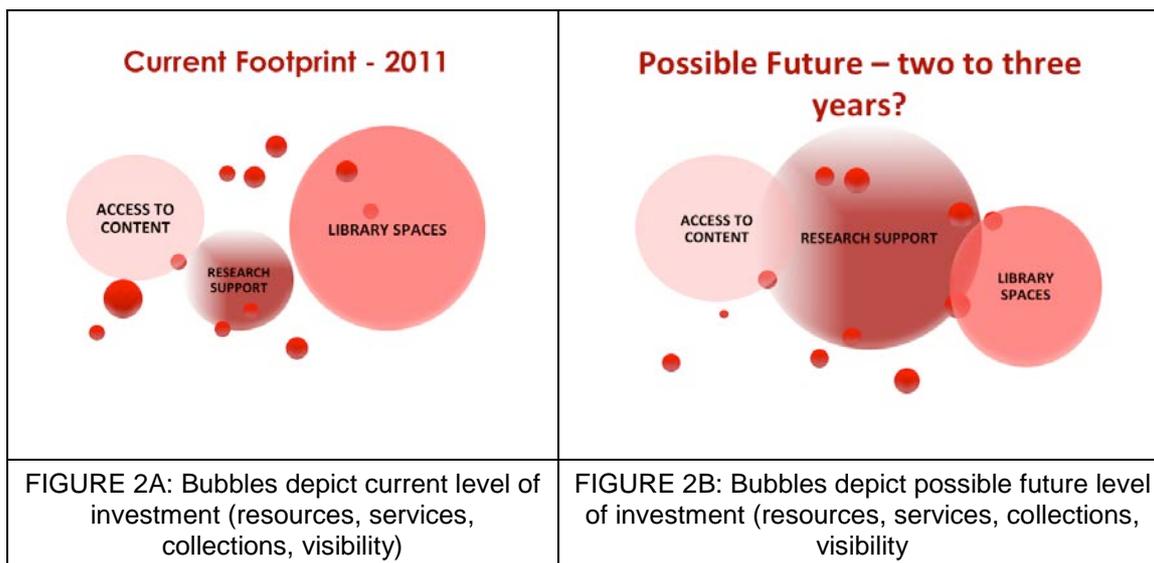
Throughout the exercise, one of the most difficult aspects is to stay true to the method. Figure 2A graphically depicts a visual process that, once agreed, has become a useful anchor. Rather than starting with roles and administrative structures, initial workshops addressed the portfolio’s purpose, priorities and core functions. The “bubbles” were created to spark discussion and provide a visual tool to compare ideas and possible options.

What is contained within the three bubbles? Content includes published literature related to the comprehensive programs offered by Griffith, our academic scholarly outputs and our published and unpublished research data. Access to this data is the key benefit that drives its collection and curation. Functions include procurement, description, discovery, development and support.

Support for research in the current footprint depicts the eResearch Services and a small portion of Academic Services. It is small and specialized with significant potential as the University seeks to maintain and develop its current position as a research intensive university.

The Library spaces area covers services at seven locations on five campuses. Two of those libraries provide space, amenities and book collections for over 20,000 students at each site. Three are very specialized and support the Queensland Conservatorium of Music, Griffith Film School and Griffith Health. The Logan campus provides library services for a smaller cohort and breadth of programs. Much work has already been done to provide self service solutions at all locations and more self service is planned.

Figure 2A depicts the current state by using several variables to “size” the bubbles including actual budget investment, service volumes, book vote budget and an estimate as to visibility within the University. Note the space between bubbles, which illustrates the level of collaboration and integration. Figure 2B illustrates the goal in the next two to three years to bring the bubbles together, maintain size and investment for the content area, grow the research support area and shrink library spaces to the extent feasible. These shapes are estimates and are being confirmed as evidence and information from working parties is added to the whole. Incremental changes year by year will shift the size of the bubbles and allow us to test both demand levels and service delivery models.



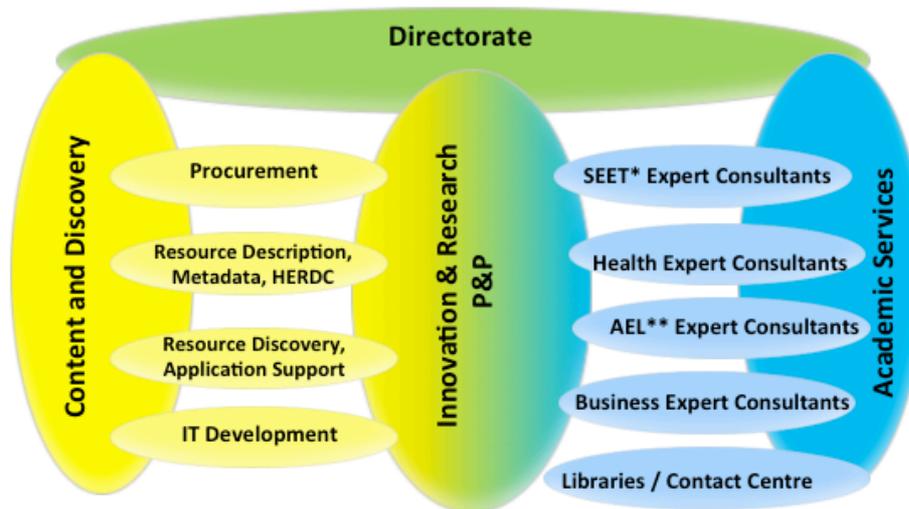
The services we provide now and in the future are evolving and several themes have emerged that have influenced the forecasted services required and opportunities to improve. As might be expected by looking at current levels of investment, SIR’s capacity to enhance the support for research within our university community is uneven. At times our performance is brilliant and world class and our service ethic is superb. However, concerns about our capacity to consistently deliver are coming from multiple sources.

The assumption that the new generation of users wants it all does seem to be correct, but it isn’t just the new generation. Senior academics want to do their work wherever they are located and to have consistent access to their information and research data. Latent demand is present and growing and it is clear we need to ramp up to be ready to provide support and infrastructure.

In the near term, physical library services are still important and must be provided in the Griffith context, in conjunction with a robust online offering of content and services. The distributed nature and complexity of Griffith’s campuses make this challenge especially daunting. Although many clients desire self-sufficiency, personal and direct human contact is still wanted by many of those same individuals. Blending excellent self-help with in-person services at the front desk or via expert consultants is a challenge SIR must meet in order to sustain the scale we are delivering.

A new structural model has emerged from the TNP effort that organizes functional areas in an integrated fashion combining areas with like functions. Figure 3 shows teams organized by Content and Discovery (back of house technical functions) and Academic Services (front of house client facing functions). The model adds a business development function to connect the two operational areas via projects. The teams are aggregated by like skills and functions. Rather than a sideline activity, new business development becomes a key investment and links front and back of house with robust program management for all areas supported by the portfolio.

## AGGREGATED UNITS WITH RESOURCES REDISTRIBUTED



\*SEET=Science, Environment, Engineering & Technology  
\*\*AEL=Arts, Education & Law

**FIGURE 3: PROPOSED FUNCTIONAL GROUPS, END OF STAGE 1**

Another benefit to this model includes a Google-like addition to existing position descriptions to allow flexibility for staff to participate and contribute to project teams. The goal is to make it easy for staff to volunteer and for managers to endorse participation in small projects and experiments.

Not only is our aim to organize and manage support for research in a more robust way but also to acknowledge a lifecycle approach to projects. Across a project's lifecycle, teams need to form and reform, from the funding application through to delivery of service and ongoing support. We intend to strengthen the process to identify whether the initiative is a thought experiment, a small or large custom solution, or truly an enterprise project. While we want to remain agile, we need deliberate decision gates requiring commitment earlier in order to plan for the lifecycle of all types of projects. In part this is to provide better customer service and to avoid budget shortfalls for experiments that invisibly become critical enterprise applications with no support or funding. It is about balancing perceptions in our user community and at the same time still encouraging thought experiments. Reskilling staff according to these projected commitments is a key strategy for how we can evolve and stay relevant.

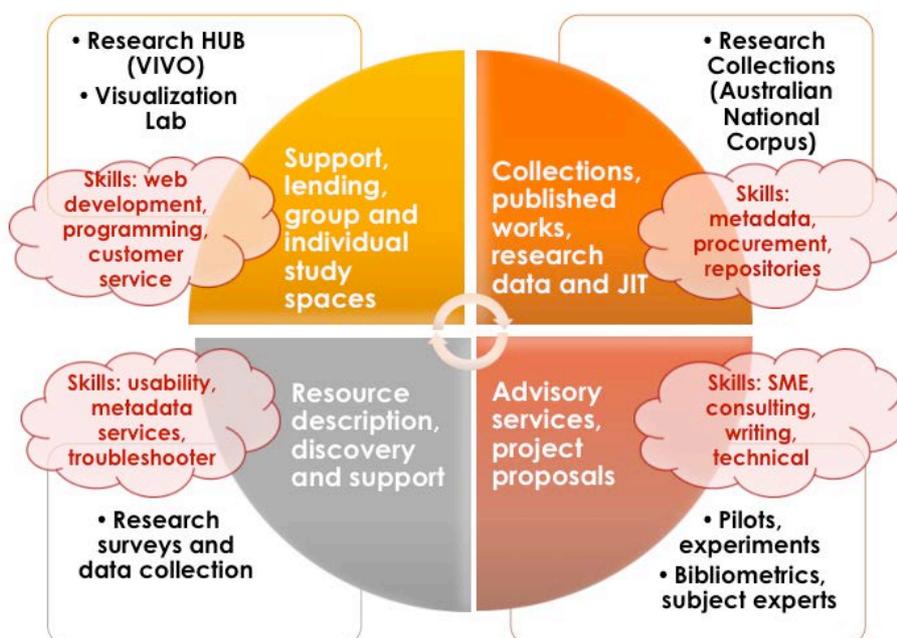
TNP will have completed three phases of investigation and planning work by the end of 2012. The full implementation of identified improvements will carry on incrementally. Once the improvements are clearly identified and it is clear they can be achieved within the current budget envelope, they will move forward to implementation. This rolling approach is being accomplished alongside operational roles at every level in the portfolio, providing the mechanism to implement improvements and still deliver services and projects.

Essentially, by the end of 2012, the senior management team will have achieved a new way of working with staff and achieved a move to transformational cultural change. This is already

reflected in the level of staff engagement and early improvements that have moved forward. Cultivating a culture of continuous learning supports and inspires innovation (O'Brien, 1990).

TNP has focused our attention on how to nurture and develop an operational state that invites innovation and seeks improvement. Change is incrementally progressed working with and led by the people already have in place. We have been fortunate to succeed with research infrastructure funding opportunities internally and externally that cultivate innovative ideas and experiments. These projects provide opportunities and real examples of the kind of work we expect to undertake in the future.

SIR's garden plan in Figure 3 graphically depicts functional strengths in an integrated structure with experiments and innovative projects on the outer corners. The skills we are building are depicted by clouds in the figure and represent a sample of the types of skills we think we need in the near term.



**FIGURE 3: SIR'S GARDEN BEDS - EMBEDDING INNOVATION**

## CONCLUSION

How do we see our efforts paying forward? Much as the master gardener has a plan that may take years to achieve in its fullness, we see our garden beds beginning to bloom and reaching maturity over a period of time. Already the teamwork and engagement achieved is demonstrating creative solutions and productive collaborations as illustrated in Figure 3.

Why have we used the comprehensive and holistic approach outlined in this paper? Three components make up the value proposition (Sparks, 2001; Sparks, 2007). The first involves the business value obtained. Improving the performance of individuals and teams adds value and keeps staff engaged. We often fail to appreciate the actual dollar value of good performance and staff morale. Supporting staff to engage in strategic work and equipping them to be ready for it is essential. If we really intend to support researchers and research students at Griffith University, we have to get the best value from the core funding we already have. We need to work innovatively, think creatively and open ourselves to new possibilities. Small successes will attract further demand and financial support. They already have: for 2012 we have secured almost \$2 million in project funds with more to be confirmed. A corollary to the business value involves talent management and succession planning. Talent is in demand in Australia and that

landscape seems unlikely to change for the next decade. It simply makes good sense to prepare the people we have for the work that is required wherever that is possible.

A second component of the value proposition is around delivering effective business improvements. Without a high level of engagement, most efforts fail or take many years to be realized in their entirety. If the actual return on investment were to be analyzed, in many situations there is a net loss not increased value. Finally, our approach seeks to minimize legal risk and human resources issues. Staff have undergone several change projects in recent years. Working to promote mutual respect between management and staff and to reduce difficulties relating to potential improvement plans manages risks and reduces potential costs.

Embedding innovation is a lofty idea. Who is to judge if it has been achieved? What criteria can be used to understand what is possible and whether we are nurturing an environment and ecosystem for innovation? Perhaps the most basic criteria are: (1) the generation of ideas, (2) investment in opportunities, and (3) celebrating successful results.

Early in 2012, the SIR senior management team engaged in a separate although related strategic exercise using a classic business article describing Merlin's birth in the future (Smith, 1994). One result of TNP was that our team had built our capacity and readiness for a strategic exercise and found we were able to look ahead to 2030 quite easily. It was not difficult to imagine the world 18 years ahead and how people might live and work. While funding models and delivery mechanisms cannot be confidently known with respect to higher education and learning, we could envision what kinds of outputs and tools might be needed and developed to support research. In turning a new page, we are preparing for that future state, honing our capabilities and changing our organisational culture.

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