A Library to Drive Research Excellence

An Evaluation of the Teagasc Library Service, December 2017

Dr Bríd McGrath & Michael Foley

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Executive Summary

Teagasc library has traditionally provided information resources and support to researchers, but there is also a demand for services from the education and advisory services, and the Teagasc colleges also require library services for staff and students.

While cut-backs have reduced staffing and physical libraries, Teagasc has maintained a significant investment in current journals and databases, and the library has expanded research support services, including a repository of Teagasc publications and bibliometric analysis in line with international best practice. Limited staffing has, however, affected the efficiency and effectiveness of services, including ease of use of the library webpage, purchasing, control and currency of bookstock, timeliness of inter-library loans and document supply, and maintenance of the physical library space at local sites. It is clear from focus groups and an online survey that there is a very high level of satisfaction with the librarian's work and great appreciation of her management of the limited resources. It is also clear, however, that the level of satisfaction with the service provided, especially with the bookstock and physical space, is moderate among researchers and low among education staff.

Comparator libraries in Ireland and abroad either have higher budgets and / or are able to avail of consortium agreements to provide a wider range of journals and higher levels of stock. They all have much higher book budgets and, most significantly, much higher staffing levels enabling them to provide a higher level of services and increased research support.

Recommendations

Short-term

- Complete a three-year development plan for the library.
- Increase training for all research teams in information skills.
- Engage in a dedicated PR/promotion campaign for researchers to make them aware of the library resources and services.
- Audit all Teagasc's books and reports collections across all library sites.
- Provide full-time administrative support to the library so that the librarian can focus only on professional tasks.
- Create a formal collection development plan with an allocated book fund.
- Improve the library web page user-interface so that the library services are easier to find and easier to use.
- Conduct a library needs analysis for Teagasc Education and Advisory Services.
- Provide information literacy training to Teagasc Education and Advisory Services.

Medium-term

- Create hubs in local offices as space for reading, writing and quiet work, with dedicated administrative support at local level for maintenance and basic library services.
- Engage in a dedicated PR/promotion campaign for Teagasc Education and Advisory staff.
- Extend library services to the Teagasc colleges.
- Improve the system for lending books, through use of eBooks, reference-only core texts and access to book locations within offices.

• Mandate all staff to deposit all publications in TStór.

Long-term

- Develop additional services including research data management and curating and managing datasets.
- Provide for longer-term additional staffing to meet the changing role of research support.
- Revise the librarian's role in the context of the wider research support role.
- Advocate with the state for additional funding to enable access to all relevant consortium electronic database and journal resources to be extended to all public-sector research-performing bodies and, in doing so, to broaden access for Teagasc.
- Provide access to datasets generated within Teagasc and created externally where access is permissible.
- Given the dynamic and changing library / research space, a peer review of the library should take place on a five-year cycle.

Introduction

The objective of this review is to improve the efficiency and effectiveness of the Teagasc library services provided within the context of limited resources. The review was undertaken by Dr. Bríd McGrath and Michael Foley, professional librarians experienced in research. Dr. McGrath has worked as a Library and Information Consultant for 30 years and is Adjunct Assistant Professor in the School of Social Work and Social Policy, Trinity College Dublin where she teaches information literacy and research dissemination. Mr. Foley is a research consultant, working with Trinity College Dublin and the Irish Hospice Foundation, and is a Research Module Coordinator in the Kennedy Institute in Maynooth University. He also ran a public sector special library for eight years.

The specific objectives of the review were:

- To review the current library services provided by Teagasc.
- To review the current resources allocated to the library, particularly the physical space and how that space could be reduced and/or used more effectively.
- To seek feedback from Teagasc staff on the services provided and ideas for future services or needs.
- To review the trends and services provided by libraries in Ireland and internationally and identify best practices (including research support services in universities, research institutes, companies).
- To make recommendations for the future of the library service.

In particular, the review was to address the relevance, efficiency, effectiveness and impact of the library services provided.

Methodology

This study included desk research on international best practice and trends, consultation with Teagasc library users through an online survey, focus groups and telephone interviews, as well as interviews with librarians in what were viewed as comparable libraries in Ireland, Germany, New Zealand and Scotland.

Telephone interviews were held with the following Teagasc staff: Máire Caffrey, Maeve Henchion, Frank O'Mara, Edward O'Riordan and Tony Pettit. Three focus groups were conducted with staff in Athenry, Moorepark and Oak Park, with a total of fourteen staff (see Appendix 2) and an online survey was administered to all Teagasc staff (see Appendix 1) resulting in 190 respondents. Interviews were conducted with librarians in three Irish and three international libraries (see Appendix 4).

Overview of Teagasc Library Services

The Teagasc library service is located within Research Operations. While its services are open to any staff, its main focus is to provide support to researchers. There are libraries at the six Research Centre locations in Teagasc – Ashtown, Moorepark, Athenry, Johnstown Castle, Oak Park and Grange. Each holds a stock of books and older print journals mainly relating to the research topics at that centre. These libraries vary in size.

The Teagasc Librarian, located at Ashtown, is the one, full-time staff member. Each library centre receives one-to-two hours of mainly physical maintenance per week, with the exception of Athenry which receives none. Spending on library collections is circa €500,000 per year, mainly spent on access to journals and databases. The librarian maintains a central catalogue to facilitate retrieval of items held in the various Teagasc libraries when required by staff.

Journal Subscriptions

Currently library users have access to over 2,400 journals. The majority are online; there are only 33 titles received in print. This includes access to several large collections, such as the Science Direct Agricultural & Biological Sciences Collection, Wiley Online Library, Springer Consumer Packaged Goods collection (which also includes access to many online books) and the Oxford University Press collection.

Research Databases

Abstracting & Indexing Databases: The following Abstracting & Indexing Databases are available on the Web of Science platform: Web of Science Core Collection, CAB Abstracts, Food Science & Technology Abstracts, Biosis, Current Contents, Data Citation Index, Medline, Derwent Innovations Index, Zoological Records. Access is also provided to Proquest Dissertations & Theses database.

Market Research Data: Teagasc has a subscription to Global Data Intelligence, a market research information service, which includes Consumer Insights, Case Studies and Trend Analysis resources.

Citation Analysis/Bibliometric Tools: Teagasc subscribes to Incites - both the Benchmarking & Analytics and Profiles modules. There is also access to Journal Citation Reports.

Supply of Articles and Books

Teagasc library purchases articles for users where these are not covered by Teagasc's journal subscriptions. Several services are used on a regular basis to source these. Those services include Subito, TCD Information Service, British Library, UCD and other Irish university libraries. When necessary, the Librarian retrieves articles from other sources worldwide. Similarly, books not in the Teagasc collection are borrowed for Teagasc users from all of the above suppliers on request. Teagasc users can request the purchase of any book they require which is not already available in the library, with the cost of the book currently charged back to project or department budgets.

T-Stór and Open Access

Teagasc library service is responsible for the Open Access repository, T-Stór, where Teagasc research outputs, such as version of articles in scholarly journals, are made available. This has recently been

upgraded. There is also a membership account giving discounted Author Processing Charges in Biomed Central journals, which is managed by the library.

Other Services

- The Librarian maintains a page with information on the library services on Tnet, the Teagasc intranet.
- The Librarian provides training, advice and assistance for groups or individuals to promote the effective use of the library services. The librarian is always available to answer queries regarding services, resources, searching for information, publishing, open access or related areas.
- Reports and information are provided to management as required, including a major annual bibliometric analysis of Teagasc A1 publications.

Findings

This evaluation aimed to explore the relevance, effectiveness, efficiency and impact of Teagasc's library service. Under relevance and effectiveness¹, it looked at the current needs and practices of Teagasc staff and how their needs could be met into the future, while comparing the library to other Irish and international libraries. The appendices contain the results of these processes in more detail but a synopsis is provided below. In terms of efficiency, satisfaction with service delivery is explored in relation to monetary investment below; data is provided on the staffing, roles and operations of comparable Irish libraries and of the staffing, budgets and operations of equivalent agriculture libraries abroad. A discussion of impact is also provided below.

Relevance and Effectiveness

Based on the results of the survey (Appendix 1) and focus groups (Appendix 2), while the library is providing relevant collections and services to researchers, and three-quarters of respondents have used the library, researchers clearly expressed their need for more access to services. Research databases and journal subscriptions are efficiently delivered, as are bibliometric analysis and citation analysis, and the repository. This library, however, struggles against the ever-expanding, multidisciplinary approach to research that Teagasc must foster and, at times, against simply the assumption² by researchers that Teagasc library cannot supply what is required. There are problems with the purchase, currency and control of books and reports and delays in document supply and with the design of the library homepage, which is cumbersome and a disincentive to use.

The library is regarded as an essential element in Teagasc's research infrastructure and the librarian is highly regarded for her management skills and professionalism. Satisfaction with the services provided directly by the librarian is very high, but the library's effectiveness is limited by staffing constraints and consequent lack of local services and maintenance of physical library spaces and some digital services. Researchers stated a wish to see those physical library spaces repurposed to better suit their current work practices, providing a quiet space for reading and writing, with access to core texts. Researchers also requested further training in basic areas like constructing searches and writing for publication as well as more specialised work like Data Management Plans and tracking citation metrics.

Beyond the researchers, education and advisory staff do not receive relevant collections and services for their work³. There is an unmet need for information literacy training, which would be of special benefit to the education and advisory services, even if no other additional services were provided in the short-term.

¹ While relevance and effectiveness are two distinct concepts, they can best be addressed through exploring the same issues around staff feedback and comparison with other libraries.

² Data from the survey of Teagasc staff and from the focus groups highlighted, at times, that some staff members were requesting subscriptions to journals for which Teagasc already had a subscription. This highlights the difficulty that some people are making decisions about library use based on false assumptions.

³ The library's remit was, in the past, to serve the research community within Teagasc. Library services, however, can also contribute significantly to the work of both education and advisory services.

Other issues of effectiveness may best be understood by comparison with other agencies in Tables 1 to 3 below. A full discussion of comparator sites is available in Appendix 5.

Comparative Tables of national and international libraries

TABLE 1: COMPARISON WITH INTERNATIONAL LIBRARIES

Institution	Staff ⁴	Library locations	Budget ⁵	Consortium agreement	Professional Library staff	Library assistants	Total staff
AgResearch New Zealand	800	4	€850,000	None known	8	0	8
Julius Kuhn Institut	800	3	€347,500	€214,000 Included in total figure	3	4.75	7.45
Teagasc	1,225	6	€500,000	€21,685 included in total figure	1	0.1	1.1

TABLE 2: COMPARISON WITH IRISH LIBRARIES

Institution	Staff	Library locations	Budget for stock	Consortium agreement	Professional Library staff (WTE)	Library assistants (WTE)	Total staff
HSE	68,994 ⁶	30	No information provided	No	23.3	20.5	43.5
HRB	58	2	No information provided	No	5	0	5
Marine Institute	189	1	No information provided	No	0.71	0	0.71
Teagasc	1,225	6	€500,000	€21,685 Included in total figure	1	0.1	1.1

⁺ These staff numbers are for 800 overall staff with approx. 350 researchers, so comparable to Teagasc. See Appendix 5 for further details on the comparator organisations

⁵ The budgets are directly comparable figures, i.e. budgets for library collections only.

⁶ This is the number for all staff in the HSE; approximately half would be estimated as potential library users, i.e. 34,497.

Institution	Students ⁷	Library locations	Opening hours	Budget	Consortium agreement	Prof Library staff	Library assistants
SRUC	7,000	6	Min. 35 hours per week, more in some locations	€233,000	SHEDL	6	9-14 (seasonal / term- time)
Teagasc	6,500	4	0	€0	No Agreement	0	0

TABLE 3: COMPARISON WITH SCOTTISH RURAL UNIVERSITY COLLEGE AND TEAGASC COLLEGES

⁷ These figures include those who are part-time, distance or adult learners who may not interact in the same way with library services. In Teagasc, this accounts for 4,000 learners.

Efficiency

While it is accepted that efficiency is about value rather than costs, efforts were made to compare budgets from other libraries. Gathering such financial information from other Irish libraries proved not to be possible. The international comparators in Table 1 and Table 3 must be understood in the context that agencies like AgResearch and JKI are both smaller organisations with a narrower remit than Teagasc. In Table 3, what SRUC offers to fulfill its education remit is compared to what Teagasc offers to its educational remit.

As a direct cost benefit analysis was not possible⁸, in order to frame any conversation on costs, therefore, a BER (Basic Efficiency Resource) Analysis matrix is used to frame a conversation about resource use. This makes a comparison of the whether there is a high or low input for a high or low output. In this case, the inputs are financial and the outputs are the levels of satisfaction expressed in the survey of Teagasc staff.

TABLE 4: BASIC EFFICIENCY RESOURCE ANALYSIS

TRUE	L 7. D		Libuarian
		Library Space While all physical space incurs costs, they are not a part of the overall library budget. The level of dissatisfaction of the physical spaces, however, is notable.	Librarian The librarian as the sole dedicated staff member accounts for approximately 10% of budget but garners a high level of satisfaction.
Inputs	Low	Books Books use approximately 1% of budget but garner an average level of satisfaction. It should be noted that the costs of books purchased are charged back to departments.	Interlibrary Loan and Document Supply The ILL / Doc Supply service uses approximately 1% of budget but garners a high level of satisfaction.
	High	Journals and Databases Journals and Databases use over 85% of the library budget but only garner average levels of satisfaction	
		Low	High
		Output	ts

There are no current national or international standards for library budgets. The balance of expenditure, however, of stock and staff in Teagasc's library, where approximately 90% of the budget is spent on collections and 10% on staff, represents a significant discrepancy with all the comparator libraries, which

⁸ As Teagasc library services supports outputs, primarily from Teagasc's research aspect, rather than producing its own stand-alone outputs, there is no standard component output, such as a published paper, that can be tallied and compared to the input, as a cost-benefit analysis and it would be misleading to construct such an analysis in isolation for the library.

have much higher staffing levels, enabling them to provide more consistent levels of service and additional research support services to their parent organisations and, consequently, increase the value for money spent on expensive stock, especially journals and research databases (see Table 1 to 3). The agriculture libraries in Germany and New Zealand each have 8 library staff, even though they are smaller organisations with a narrower remit and no education or advisory service.

The issue of the physical library spaces emerged from the survey and the focus groups. While there is no estimate of what the library spaces and their maintenance cost Teagasc, it is reasonable to consider that some cost is incurred. Staff stated the need for a space in which to read and write and yet the library spaces were not fit to be that space as they were right now, indicating an inefficient use of that space.

It should be noted that automation of processes often features in discussions on efficiency. In the case of modern library services, however, most aspects are already automated. Efficiency issues arise not from the processes themselves but from researchers not making best use of what is available through lack of training or awareness.

It is clear from the findings that a fundamental dilemma exists: Teagasc's research function needs access to the services that a library provides so it makes an ongoing investment in a library and, naturally, needs to see a return on that investment. There is evidence that librarians significantly enhance the quality of research and the efficiency of researchers⁹ but current staffing levels cannot sustain increased usage and the demand for additional services, or provide adequate value for money on the current investment. This is not an argument for reducing the investment, but for increasing staffing to ensure a greater balance between collections, services and use and enhanced value for money and improved research impact.

The dilemma presented by limited staffing appears intractable, and no exemplar from the comparator libraries in this review (Appendix 5) provides an elegant solution. Three other factors both exacerbate, and suggest solutions to, this dilemma:

- 1. The position of libraries and research is currently very dynamic. Access to data and information, usage rights, open access and intellectual property are all live debates that will affect every research-driven organisation into the future and continue to develop at a rapid pace. The developments in those debates will affect how researchers work and, by extension, what function and roles libraries have. In particular, movements towards national subscriptions have the potential to transform library services and the quality of national research output, but will require additional investment in information literacy training. It is essential that Teagasc is involved in the national debate about the extent of national subscriptions so that they are available to the research community outside the third level sector.
- 2. Library users can often work independently. Many library services are now provided directly to people's devices or desktop. A well-trained library user can make great use of those resources for themselves and their team with additional advice and support from library staff. Good basic information literacy training is a must, as is continuing updating as services develop. In

⁹ Medical Library Association. 2017. *Evidence you can use to communicate library value*. http://www.mlanet.org/p/cm/ld/fid=1247 Accessed 15 December 2017.

particular, as a first step, even without providing additional stock for the education and advisory services, information skills training on open access resources like the education research database ERIC (www.eric.ed.gov), Google, Google Scholar, PLoS, the education section of the Directory of Open Access Journals (https://doaj.org/subjects), RIAN and www.base-search.net could significantly enhance those services' information resources and research capacity, at no additional cost.

3. Teagasc has significant relationships with the broader public sector and research communities. Teagasc is not experiencing this dilemma in isolation; the research ecosystem of universities, Institutes of Technology, other research and funding bodies and other public-sector agencies also have a role to play in resolving the issues identified. It will mean, however, that Teagasc will have to advocate for, and persuade them to, work differently together.

Impact

As stated above, as a support service to the delivery of research, the library can best be seen as a contributory cog within a research process which drives the work of Teagasc. While it has a fundamental role to play, there are no clear impact metrics within the agri-food sector and wider bio-economy that this evaluation could claim as being the sole result of library activity.

Conversely, as all research must be based on previously existing findings, it must have access to relevant, quality current and historic scholarly literature on which to build its own primary research. This is the function of the library and, as such, is the primary way in which researchers can access, and learn to access, that literature at an expert level. Added to this is the role of T-Stór, maintained by the librarian, to fulfill the requirement of funders to see Open Access to papers resulting from research which they have funded and to enhance the impact of all of Teagasc's research work, and the bibliometric analysis she provides to track Teagasc's research output.

While it is clear that the library is both useful and well used, the current staffing is below a critical level to guarantee impact and value. This is clear from the comparator sites and what they deem to be the necessary resources to achieve impact. Using the responses of staff to the survey and the focus groups, there is a clear indirect indicator that that the library service is not having the impact in supporting Teagasc's research that it could have, nor is it having a direct impact on the Education and Advisory Services.

Recommendations

These recommendations are organised into short (2018), medium (2020) and long-term (beyond 2020).

Short-term (2018)

Complete a three-year development plan for the library

As a first step to implementation of this report, there will be a need to create a three-year plan in order to timetable and clarify resource implications of recommendations taken forward from this report. This plan will provide a clear statement to staff that their engagement in the evaluation has led to tangible results. It will also manage expectations about library services from staff.

Increase training for all research teams in information skills

To ensure that researchers are making full use of the investment in library resources, there needs to be a campaign to increase information literacy training, including search strategies, use of individual resources, citation management and research data management and open access publications. This will not just create better research by increasing researchers' efficiency and effectiveness in locating current research, enhancing their research profiles and the impact of Teagasc's research, as well as ensuring greater value for money spent on library subscriptions, but will also free up the librarian from answering basic queries.

It was clear from the online survey and focus groups that there is already a demand for information literacy training and research support, including from contract researchers. Search strategies, citation management, managing online profiles and bibliometrics all fall under the heading of library training. This training could be carried out by an external agency or consultant under the guidance of the librarian, or in part by members of the research teams so as not to add to the librarian's already significant workload.

Engage in a dedicated PR/promotion campaign for researchers

The survey and focus groups revealed a lack of awareness or clarity about current library services (e.g. requests for journals which are already available, the availability of the Dissertations database). This is not unusual for library services¹⁰. As with all services, libraries must promote their value to their primary customers as a fundamental part of better library use and value for money. This awareness work is about ensuring that full-time staff and scholars are fully aware of what is available, but also contract research staff who may feel less 'invested' in Teagasc due to their temporary status, are also interacting fully with the library.

Audit all Teagasc's books and reports across all library sites

The stock of paper books and journals has grown to an extent that, in Ashtown and Athenry, it was clear that it was no longer containable within the allocated space. With reports of missing material and books

¹⁰ Thomas, G. and Preston, H. 2016. Barriers to the use of the library service amongst clinical staff in an acute hospital setting: an evaluation. *Health Information & Libraries Journal 33*(2) 150-155.

seen as obsolete, there needs to be an audit of what is available and material that is no longer relevant needs to be discarded.

While it was clear from the focus groups that researchers wanted core printed reference texts, electronic availability of works, such as historical statistical reports, was deemed sufficient. Again, auditing and weeding out obsolete stock could be tendered out under the guidance of the librarian so as not to put further strain on the staff resource. If done in a systematic, stringent fashion, this would not need to be redone again for a number of years.

There will always be a need to provide some dedicated, protected part-time local administrative support for processing inter-library loan and document supply requests, providing basic support, re-shelving items, ensuring basic maintenance of the space and following up on missing books but, with a smaller collection, this task would be more manageable.

Provide full-time administrative support to the library so that the librarian can focus only on professional tasks

Because of cuts in staffing, the librarian is performing routine work that can be done by clerical staff (e.g. interlibrary loans, ordering books, dealing with routine queries), rather than using her skills for developmental work. Needless to say, this is an inefficient use of staff resources. Moreover, following up on any development plan arising from this review, there will be a further time requirement for the librarian to set this plan in motion.

Administrative support could ensure that the librarian has time to implement this strategy. If this cannot be fulfilled from internal resources, which would be preferable, it could be done using an agency contract for administrative support. The medium-term need could be fulfilled via a graduate trainee scheme.

Create a formal collection development plan, with an allocated book fund

The online survey and focus groups expressed a perception that the library's books and reports are out of date and of limited use and that new books are being bought without involving the library and, therefore, are available only to those requesting them rather than all Teagasc staff. The point was made that books are held within people's offices and that there is, without any suggestion of malice, very poor stock control as there is no human presence in the library to stop someone removing a book or journal without signing it out. The librarian is responding only to requests from staff members for specific books as opposed to building up a collection that would meet the needs of a larger number of staff. This represents a significant gap in the collections for all staff, but especially for the social scientists, education staff and students, for whom printed books remain core resources. See Table 5 below for the budget allocation.

Improve the library web page user-interface so that the library services are easier to find and easier to use.

The online survey and focus groups indicated that users find the library page difficult to use and this reduces the use of library resources. The library web page should be redesigned to make it more intuitive, attractive and easy to use. This will encourage better use of library resources and increased value for money.

Conduct a library needs analysis for Teagasc Education and Advisory Services

While Teagasc library has traditionally served its researchers, the survey and focus groups indicate a requirement for services from the Education and Advisory services. Only two subscription journals concern education and very few books are bought. Teagasc library can develop its book and journal collections to support the education staff and advisory services. It should consult with the education and advisory staff about their library and information needs. See Table 5 below for the budget allocation.

Provide information literacy training to Teagasc Education and Advisory Services

The online survey and focus groups revealed a demand for information literacy training for education staff, including search strategies and efficient retrieval of information. Information literacy training should be offered to them, if necessary, through an external agency, as a first step towards providing a library service to them. Table 5 does not provide a budget allocation for this, as it is unclear how much time should be spent on this service. This could be provided by an external agency under the direction of the librarian.

Medium-term (2019-2020)

Create hubs in local offices as space for reading, writing and quiet work with dedicated administrative support at local level for maintenance and basic library services

What was clear from the focus groups and survey was the need for the physical space of the library to become a quiet place where researchers could work and have access to core reference texts. This would be in line with AgResearch NewZealand's move to create hubs that can facilitate this type of work.

Following the proposed audit of Teagasc materials, the library spaces should be repurposed as somewhere that dedicated, concentrated work can take place, especially for those staff that do not have their own office space. With an appreciation that space is at a premium on many sites, this could be introduced on a pilot basis for three sites to evaluate whether it is best use for the space and whether, organizationally, it can be supported and what the staff maintenance of such a space would entail.

Engage in a dedicated PR/promotion campaign for Teagasc Education and Advisory Services

As reported in the focus groups, there is a perception that the library service is for researchers only. This does not use the library to full effect, particularly as education and advisory services have a clear need that goes beyond the information that is supplied via the research function; a need which supports

continued innovation and professional development. Building on the proposed needs analysis of these groups, this promotion work is necessary to create a clear statement of the value of the library to meet their needs.

Extend library services to Teagasc colleges

Teagasc colleges currently receive no specific library services but there is an urgent need to support students' learning and the teaching staff's course development and professional education. Developing library services will be a priority if Teagasc seeks recognition from QQI. A detailed plan for developing the college library services is outside the scope of this review. A scoping exercise should be undertaken to establish the level of service that can be provided and benchmark this against SRUC's service.

A capital sum should be allocated to develop this service. SRUC's experience is that, for the early portion of courses, printed textbooks remain key resources; the principal additional costs would be capital costs for physical fittings and furniture and initial stock of books, and annual budgets for books and staffing, as Teagasc's current database and journal subscriptions could be used by the students in later years of courses. This development cannot happen without additional staffing.

Improve the system for lending books, through use of eBooks, reference-only core texts and access to book locations within offices

Following the audit and weeding of the book collections across the library sites, there needs to be a better recording process for stock control. This, however, is complicated by the fact that the library is over multiple sites and is not staffed. As mentioned previously, staff removes items and while libraries now often use RFIDs¹¹ to make checking out of stock more straightforward, an investment in this may still not have the desired effect as there will be no staff on hand to enforce the system.

What may be required is a system whereby stock is mainly electronic, that core texts are not to be removed from the library space and the location of any other stock is recorded, including if in people's offices, so that it can be retrieved by other staff members.

Mandate all staff to deposit all publications in TStór

While this has been supported in the survey, there does appear to be some way to go in order to build awareness and use of TStór by Teagasc researchers. Mandating deposit will increase the repository's comprehensiveness and enhance the impact of Teagasc's research output.

Long-term (2020 onwards)

Develop additional services including research data management and curating and managing datasets

International best practice increasingly involves librarians providing wider research support, including creating and maintaining repositories, research data management, creating and curating datasets,

¹¹ Radio-frequency identification, akin to what is used in travel cards and 'touch-payment' credit cards.

bibliometric analysis, citation tracking and analysis and research impact and embedding librarians within research and other teams within workplaces. These innovations are already taking place in the HSE, HRB, AgResearch New Zealand and within other research institutes and colleges.

It is not possible, with Teagasc library's current staffing, for it to realistically develop and maintain these new services. There is a need, therefore, to consider how, in the long-term, the roles of various staff members could be adapted so as to create these types of services so that Teagasc researchers are not disadvantaged over their colleagues in other fields, and that best use is made of existing library stock and services.

Provide for longer-term staffing arrangements to meet the changing role of research support

As stated earlier, Teagasc's current configuration and staffing restrictions create a dilemma. While the short-term and medium-term recommendations buy time, they do not resolve the need for Teagasc, as an organisation, to adapt to a changing research environment.

As can be seen from the comparison with other organisations, how they have resolved this is through the deployment of more library staff. One discrete solution would be introducing three new professional posts and the already recommended administrative post into the library in order for it to be comparable with the other Irish and international bodies surveyed. While this may not be possible in the short term, Teagasc must take a longer term strategic view of how research support can be delivered at what is becoming the standard in other agencies and increase staffing in the library.

Revise the librarian's role in the context of the wider research support role

Teagasc's librarian has developed a wider research support role in line with international best-practice. Her job description, however, does not include this role and she has undertaken it in addition to her other duties in managing the library.

As part of a future strategy process for Teagasc, the changing role of research support could be tackled as an organisational development. If, at that point, there is still a restriction on approval for any new staff, it will require a significant reorganisation of function that can only be done as part of an overall strategy.

Advocate with the state for additional funding to enable access to all relevant IReL resources to be extended to all public-sector research-performing bodies and, in doing so, to broaden access for Teagasc

No information was available on other Irish library budgets, but Teagasc's library budget is significantly smaller than AgResearch New Zealand's. While it is larger than Julius Kuehn Institut¹², that Institute benefits from a consortium agreement, as does SRUC, which provide shared subscriptions at lower cost.

¹² It should be noted that the Institut and SRUC are both smaller than Teagasc with a narrower remit.

Outside the third-level sector, consortium agreements are unusual in Ireland. While Teagasc is part of the IReL (Irish Research eLibrary) consortium for a number of resources, it does not enjoy the same access as the universities to the IReL resources. At the same time, Teagasc's highly specialist remit makes it difficult to identify partners to set up its own consortium. While it may be possible that the Botanic Gardens, Bórd Bia and Enterprise Ireland might be suitable partners for botanical and market research information respectively, it may make more sense to advocate for greater IReL access to all public-sector research bodies.

Provide access to datasets generated within Teagasc and created externally where access is permissible

As highlighted in the focus groups, funders are increasingly insisting that datasets be made publicly available, as well as the research results, and publishers are starting to require datasets be made available before accepting articles based on that research for publication. Teagasc's National Farm Survey is available through ISSDA (https://www.ucd.ie/issda/); other datasets should be curated and provided to researchers and the wider research community through data archiving. While Teagasc already has a Data Management Working Group engaging with these questions, it is often overlooked that data management and collection management in libraries share many facets. In a number of academic settings, libraries are now taking more responsibility in ensuring that students are aware of, and can gain access to, datasets for their research; indeed, ISSDA is managed by U.C.D. library.

Given the dynamic and changing library / research space, a peer review of the library should take place on a five-year cycle

The nature of research and, by extension, those services that support it, has changed radically in the past twenty years. The legal, ethical, practical and technological implications of how research is funded, conducted, translated and promoted continue to change and develop and live debates around access to data and information, usage rights, open access and intellectual property are set to continue into the near future. Teagasc must continue to evaluate the impact of its research investment and, by extension, how the support environment for that research is shifting and changing. Considering that the first iPhone, for example, is only ten years old and the impact that it has wrought on how researchers work, interact and access material, it would be reasonable and rational for Teagasc to factor in a peer review again in 2022.

Item	Rationale	Cost
Books / reports	As books are purchased without reference to the library, it is impossible to know what is currently being purchased by Teagasc. What is clear is that as the books and reports are not available to any staff other than the purchaser, there is probably unnecessary duplication of stock, and no efficiencies from making the book available to all staff. It is, therefore, unclear whether allocating a set book budget to the library would significantly affect the amount of money currently spent on books. However, it would be reasonable to have a 90:10 ratio of expenditure on journals : books.	€50,000
Journals	More education journals; EBSCO's Professional development collection. Wider range of journals to meet additional needs; benchmark against AgResearch New Zealand.	€3,820 ¹³
Databases	As the main education database ERIC is free, there is no obvious need for additional resources in this area.	
Inter-Library Loans	If a service is extended to the education and advisory service, demand for ILLs is likely to grow especially as there is no legacy collection on which to draw. Assuming a 50% increase in current expenditure.	€1,900
Staffing	Gradually increase staffing to have three additional librarians, on usual Teagasc scales. In the meantime, allocate a full-time administrative support to the librarian, appoint a library intern and provide four hours per week dedicated administrative support at each local office to provide basic library support and maintenance.	Depends on Teagasc salary scales ¹⁴

TABLE 5: ADDITIONAL COSTINGS FOR TEAGASC LIBRARY SERVICE

 ¹³ Euro equivalent of \$4,500
 ¹⁴ Administrative support to be allocated immediately and appoint a library intern. Build up additional staffing over three years.

Best Practice in Library Services

Best practice internationally highlights the need for quality, relevant library services available to staff engaged in research and education. Library services have developed from large, physical collections of printed books, available for loan, and bound journals, with reading spaces and advice and reference services available from library staff, to the provision of electronic resources, principally journals and research databases, provided at the users' own desks. This requires library staff to be skillful in negotiating user licences, carefully managing subscriptions to get the best resources at the best price, and training users in how to use the resources, and marketing them continually to ensure that expensive resources are well-used. Physical library space is less important, but is still required and cherished by users.

In addition, library staff have expanded their services to include research support, information literacy training, research data management, curation of datasets, open-access publishing support and the development of portals, libguides (curated guides to quality resources, organised by subject), repositories and digital collections (e.g. http://libguides.ucd.ie/data and http://www.dcu.ie/library/information/researchers/researchers.shtml) and many libraries now employ research support librarians (e.g. http://library.nuigalway.ie/support/researchsupport/).

Increasingly, librarians are embedded in research and project teams, to support the researchers at every stage from project planning to research impact analysis (e.g. AgResearch New Zealand, Health Research Board, HSE Library). This increases the quality of the research and the efficiency of the researchers' time, as well as the impact of research output.

In effect, librarians have become information specialists, acquiring subject specialist knowledge and engaging in close liaison with users within their organisations at every stage of their work. This expanded library role, however, is also dependent on traditional library services being managed effectively and, therefore, it requires more, not fewer, and more highly qualified and experienced library staff. Without such library management, the wider information and research support role cannot be effective.¹⁵

Acknowledgements

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- HRB Evidence Centre, Mary Dunne, Information Specialist and Mairea Nelson, Information Officer, HRB National Drugs Library. Dublin
- Stephanie Ronan, Librarian, Marine Institute, Oranmore.
- Nauman Maqbool, Group Leader, Knowledge & Analytics, Agresearch New Zealand.
- Viktoria Kappes, Head of the Library in Berlin and Kleinmachnow, Julius Kuehn Institut fuer Kulturpflanzen, Braunschweig.
- Elaine Muir, Head of Library Services, Scotland's Rural University College, Ayr.

Appendix 1: Survey Results & Analysis

Sample

A survey in the form of an online questionnaire was administered via SurveyMonkey to those employed or supported by Teagasc. The survey was distributed via email to all Teagasc staff and results were collected, via SurveyMonkey, from 19th October 2017 to 8th November 2017.

These results represent a sample of 190 responses out of a possible sample frame of 1,225, which would, at a 95% Confidence Interval, lead to a margin of error of approx. ±6.54. The largest response was from Permanent Researchers (26.8%, n=51), followed by Research Walsh Fellowship Students (14.2%, n=27) and Administrator staff (11.6%, n=22). When taken as a group, 59.5% (n=113) of respondents to the survey had a research role (permanent, contract, post-doc and Walsh Fellows). As FTE researchers account for 48% (n=593) of staff, their views may be over-represented. Due to the fact that Teagasc library services are targeted to researchers, this over-representation is not seen as problematic.

ROLE IN TEAGASC

	Frequency	Percent
Permanent Researcher	51	26.8
Contract Researcher	15	7.9
Post-Doctoral Fellow	16	8.4
Technician/Technologist	17	8.9
Research Walsh Fellowship Student	27	14.2
KT Masters Walsh Fellowship Student	4	2.1
Specialist Advisor	4	2.1
Specialist	6	3.2
Teacher in a College	11	5.8
Education Officer	3	1.6
Advisor	9	4.7
Administrator	22	11.6
Other	5	2.6
Total	190	100.0

Of those surveyed, the largest response was from Moorepark (25.8%, n=49), followed by Ashtown (15.8%, n=30) and Oak Park (10.5%, n=20).

LOCATION IN TEAGASC

	Frequency	Percent
Ashtown	30	15.8
Athenry	17	8.9
Grange	12	6.3
Johnstown Castle	19	10
Oak Park	20	10.5
Moorepark	49	25.8
Head Office	6	3.2
Advisory Office not co-located with research centre	11	5.8
Ballyhaise Agricultural College	6	3.2
Clonakilty Agricultural College	1	0.5
Kildalton Agricultural College	10	5.3
Botanic Gardens	7	3.7
Other	2	1.1
Total	190	100

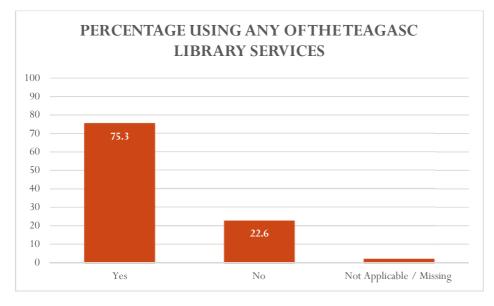
The largest response was from the FOOD directorate (23.2%, n=44), followed by the CELUP directorate (20.0%, n=38) and the AGRIP directorate (18.9%, n=36).

RESEARCH PROGRAMME OR DIRECTORATE

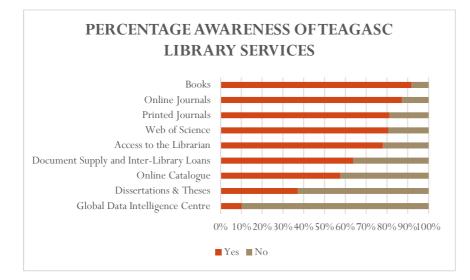
	Frequency	Percent
AGRIP	36	18.9
CELUP	38	20.0
FOOD	44	23.2
REDP	15	7.9
Research HQ	6	3.2
КТ	14	7.4
Education	21	11.1
Operations	10	5.3
Missing	6	3.2
Total	190	100

Responses to Use of Library Services

Respondents were asked whether they had used Teagasc library services in their current role. Threequarters (75.3%, n=143) said they had, with approx. one-quarter saying they had not (22.6%, n=43) and a small number stating it was not applicable to them or skipping the question (2.1%, n=4)



On awareness of services supplied by the Teagasc library, the highest awareness was of book borrowing (91.7%, n=122), online journals (87.3%, n=124) and printed journals (81.2%, n=108)¹⁶. Those services with the lowest level of awareness were access to the Global Data Intelligence Service (10.1%, n=13), access to Theses and Dissertations database (37.2%, n=48) and the library's online catalogue (57.6%, n=76).



¹⁶ Note that not all respondents responded to all questions; percentages quotes are valid percentages of those who responded Yes or No to the question, excluding those who skipped the question.

For those who were aware of each service, they were asked about their frequency of usage of each service. As can be seen below, most services are used less than six times per year, apart from online journals and Web of Science, which are both used quite frequently.

	Borrow Books	Online Journals	Printed Journals	Web of Science	Consult Librarian	Document Supply and Inter- Library Loans	Library Catalogue	Dissertations & Theses Database	GlobalData Intelligence Centre
More than twice per week	0	31	2	24	0	0	0	0	0
Once or twice per week	2	20	2	14	0	2	3	0	2
Once or twice per month	9	27	18	15	4	3	8	2	0
Up to 6 times per year	30	8	17	12	28	22	15	4	3
Very rarely	54	22	43	29	47	37	37	23	2
Never	20	5	20	7	20	16	8	16	4
Not needed in my work	0	1	4	0	1	2	2	0	1
Total	115	114	106	101	100	82	73	45	12

FREQUENCY OF USE OF LIBRARY SERVICES

Respondents were asked to rate their satisfaction on a scale from one to five, with one indicating 'Very Dissatisfied' and five indicating 'Very Satisfied'. The average scores for each were calculated with respondents citing advice from the Librarian (M=4.2) and Document Supply and Interlibrary Loans (M=4.0) as the services with which they were most satisfied. The service where there was most dissatisfaction were printed journal (M=3.1).

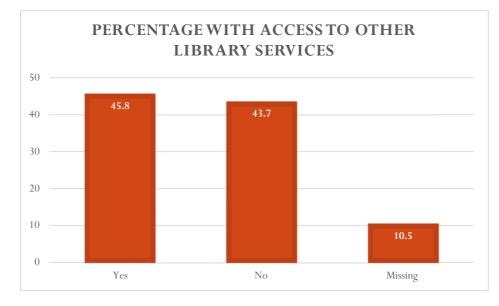


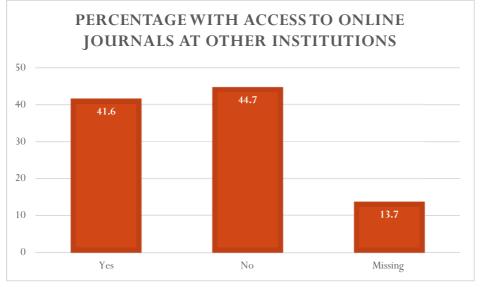
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Reasons stated for satisfaction or lack thereof are included at the end of this Appendix.

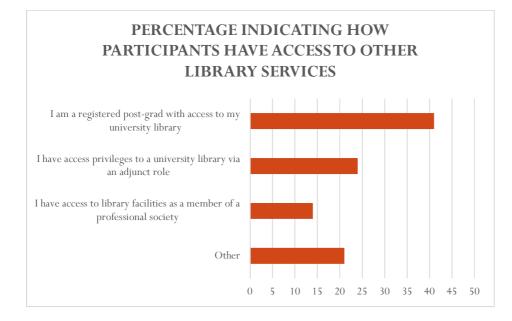
Access to Other Library Services

Numbers were evenly split between those who had access to other library services (45.8%, n=87) and those who did not (43.7%, n=83). Of those who access online journals from other institutions, the numbers again are evenly split with 41.6% (n=79) who did and 44.7% (n=85) who did not.

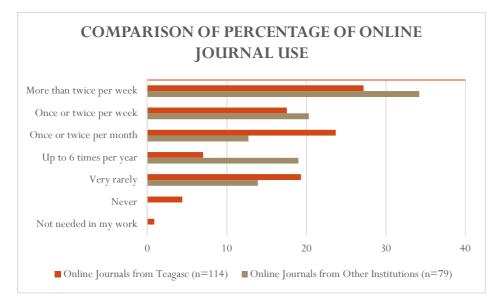




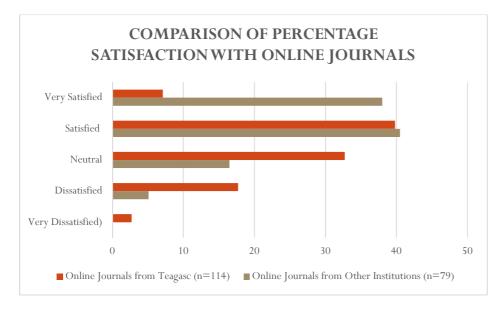
Of those who have access to other libraries, the largest number were registered post-grads with access to their university library (41.0%, n=41). Of those who had 'other access' (21.0%, n=21), four were using other institutions' libraries (e.g. IMI), four were using their public library, eight were using other people's logins to other institutions, five provided ambiguous answers.



While the sample sizes were different, when comparing the percentage usage, respondents were more likely to use the journals from other institutions on more frequently than those supplied via Teagasc. On a weekly basis, 54.5% of recipients used journals from other institutions in comparison to 44.7% of recipients using journals supplied by Teagasc¹⁷.



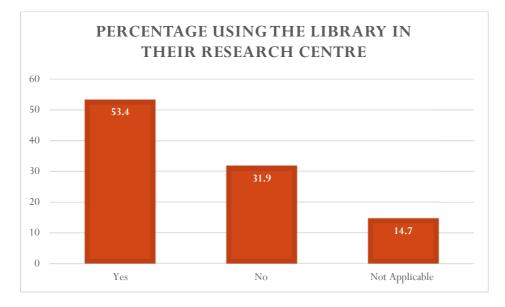
On levels of satisfaction, 38.0% of respondents were 'very satisfied' with access to online journals from other institutions as opposed to 7.1% of respondents accessing Teagasc online journals. Overall, 78.5% of respondents expressed some level of satisfaction in the use of online journals from other institutions, whereas 46.9% did so for Teagasc online journals.



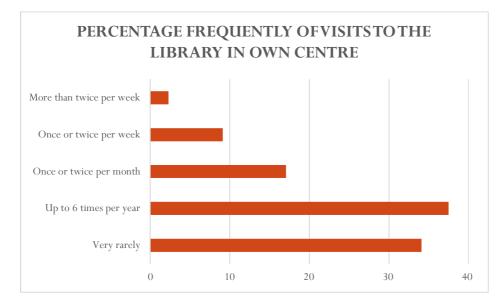
¹⁷ There is a further aspect to access, whereby a researcher may be searching via an external catalogue or database but the actual access to the article is through the Teagasc licence agreement, unbeknown to the researcher.

Using the Library Space

On whether respondents used the library space in their centre, over half (53.4%, n=87) said that they have used the library service in their centre. One-third said they did not (31.9%, n=52) and a number stated that it was not applicable to them (14.5%, n=24).

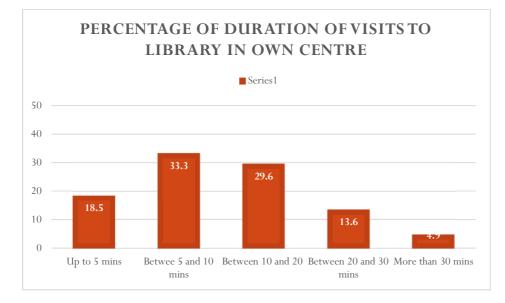


Only one-tenth use the library on a weekly basis (11.4%, n=10). Almost three-quarters use the library space six or fewer times per year (71.6%, n=63).

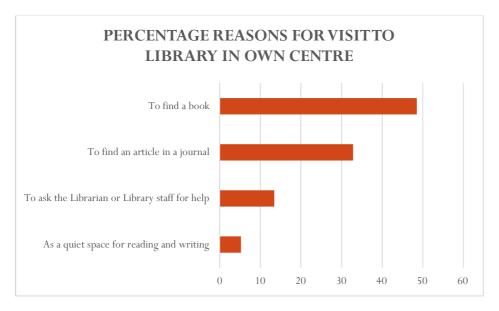


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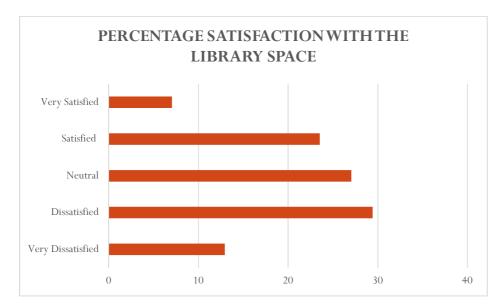
Of those who used the library in their local centre, two-thirds of people spend between five and twenty minutes in the library in their local centre. (62.9%, n=51). Very few spend more than thirty minutes (4.9%, n=4).



Nearly half visited the library in order to find a book, the most common reason for visiting the library (48.5%, n=65) with one-third going to find a journal article (32.8%, n=44). Only a small number used it as a quiet space for reading and writing (5.2%, n=7).

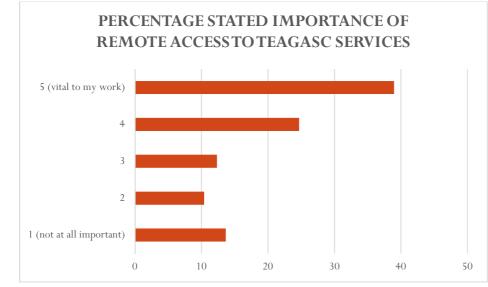


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The mean satisfaction rating on a scale of 1 to 5, with 5 being very satisfied and 1 being very dissatisfied is 2.8.

Over one-third of people described as 'vital to my work', scoring 5 on a scale of 1 to 5, having remote access to services such as online journals (39.0%, n=60). Those who scored either 4 or 5 make up nearly two-thirds of respondents (63.7%, n=98).



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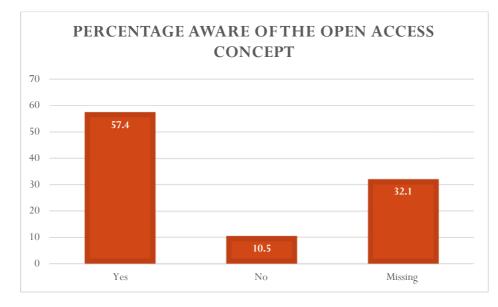
Training Provided by the Library

Of the areas of training which respondents requested in the survey, the most popular were 'Designing search strategies for literature reviews' (48.0%, n=60) and 'Writing for journals and where to publish' (47.2%, n=59). The least popular areas were 'Research Integrity issues and the National Forum on Research Integrity' (23.2%, n=29) and 'Understanding metrics used to evaluate research outputs (h-index, Journal Impact Factors, citation metrics, Altmetrics)' (34.4%, n=43). Other suggestions included training the use of T-Stór, training for advisors on information searching, and ways to improve knowledge transfer in education environments.

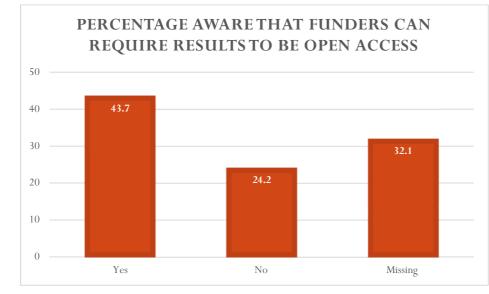


Open Access

Over half of those surveyed were aware of the Open Access concept (57.4%, n=109), with 10.5% stating that they were not aware (n=20) and a further 32.1% not responding to the question (n=61).



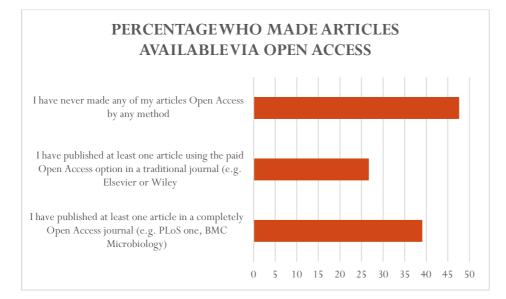
When asked whether they were aware that Open Access is a requirement of some funders, 43.7% (n=83) said that they were, 24.2% (n=46) stated that they were not, with a further 32.1% (n=61) not responding to the question.



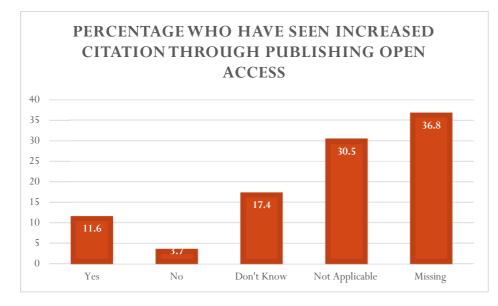
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When asked whether the current funder of their project required the results to be Open Access, only one-third could provide an answer, with one-third unsure (31.6%, n=60) and one-third skipping the question (34.7%, n=66). Of those that were certain either way, it was fairly evenly split between those whose funders did or did not require Open Access (18.4% vs. 15.3%, n=35 vs. n=29).

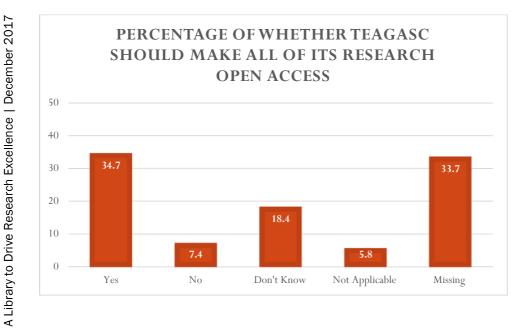
When asked whether they had made any articles available via Open Access, of those who responded (n=105), just under half had never made an article available via Open Access (47.6%, n=50), over one-third had used a completely Open Access journal (39.0%, n=41), while over one-quarter used an Open Access option in a paid journal (26.7%, n=28).



While those who stated that their citations increased due to Open Access was three times greater than those who stated that they did not (11.6% vs. 3.7%, n=22 vs. n=7), there were a large number of respondents for whom this question was not applicable (30.5%, n=58) or who did not respond (36.8%, n=70). For those who did respond and for whom it was relevant, there were as many unsure about whether it had any effect on their citations (17%.4, n=33) as those who were sure (15.3%, n=29).



When asked whether Teagasc should make all of its research Open Access, over one-third said that it should (34.7%, n=66), less than one-tenth said that it should not (7.4%, n=14) and less than one-fifth (18.4%, n=35) were unsure. Again, one-third did not respond to this question (33.7%, n=64).

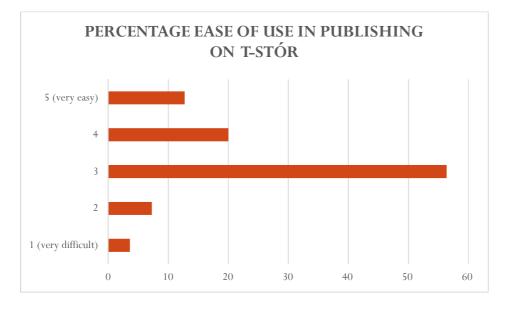


T-Stór

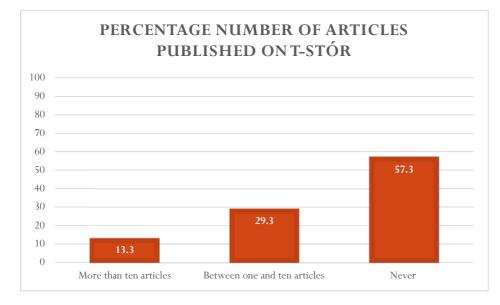
PERCENTAGE AWARE OF T-STÓR Series2 So 40 45.8 30 40 45.8 33.7 33.7 20 Ves No Missing

Almost half of those surveyed were aware of T-Stór (45.8%, n=87) with one-fifth not aware of it (20.5%, n=39) and a further one-third missing responses (33.7%, n=64).

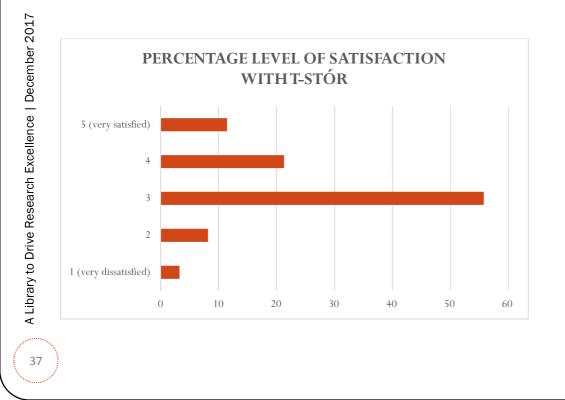
When asked how easy it was to publish on T-Stór, on a scale of 1 to 5 with 1 being very difficult and 5 very easy, the mean score was 3.3.



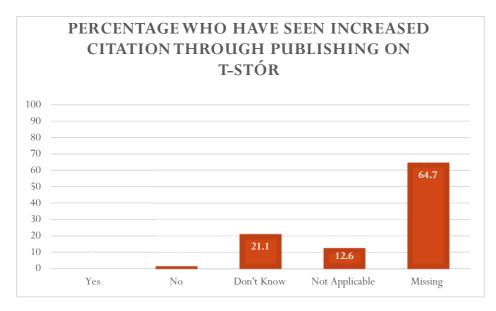
Of those who responded (n=75) to the question on the amount of articles they had published on T-Stór, over half had never published an article on it (57.3%, n=43), over one-quarter had published up to ten articles (29.3%, n=22) and just over one-tenth had published more than ten articles (13.3% n=10).



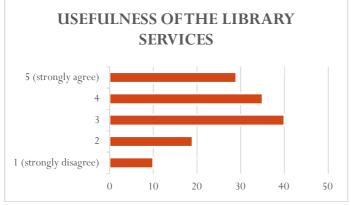
When asked to rate their satisfaction with T-Stór, on a scale of 1 to 5 with 1 being very dissatisfied and 5 very satisfied, the mean score was 3.3. One-third were satisfied or very satisfied (32.8%, n=20) while just over one-tenth were dissatisfied (11.5%, n=7).

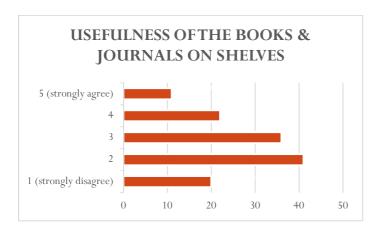


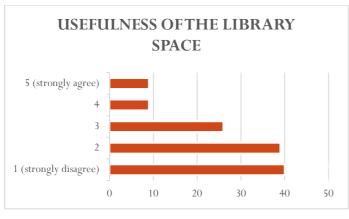
When asked whether publishing on T-Stór had increased their citations, no respondent said that it had. Only a small number had said that it had not (1.6%, n=3) and one-fifth said that they did not know (21.1%, n=40). Over three-quarters either skipped the question or said that it was not applicable to them (77.3%, n=147).

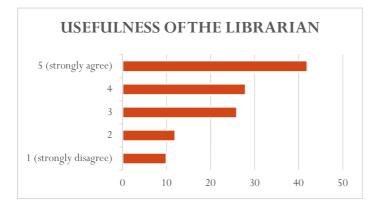


When responding to the four aspects of what constitutes the library in Teagasc, while respondents mostly agreed or were neutral on the usefulness of the library services and the librarian but were mostly disagreed about the usefulness of the current library spaces and the usefulness of the books and journals on the shelves.









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Comments on improving the Library service overall

The following are quotes taken directly from an open question on the survey about how people would like to see improvements. This data is presented in the format in which it was entered, with only minimal editing by the researcher to remove any explicitly identifying data:

1) The most important thing - access to more online journals! This is critical for researchers. At the moment people have access only thanks to PhD students that have access through a university. 2) Enable another citation software. Endnote has its problems plus it can't be accessed at home/everywhere. There are online reference systems like Mendeley which is also widely used in Europe. 3) More training relating to publishing etc.

1. Make a decision on local libraries. Resource them or remove them. 2. Provide clear information as to what material is on line and what is available in hard copy (and where).

a few online tutorials or videos demonstrating how you use TStor, Web of Science, etc. would be useful.

A list of all published work should be correlated and emailed to each staff member on an annual basis. if the item is of interest, then the staff member should just have to click on it to read. Teagasc produces lots of research, but much of is not made available easily for staff to access it.

a reading room would be an improvement

Allocate more funding, especially in the larger centres.

An informatic system of registration when borrowing a book may be useful to keep the books and journals available to all.

As I said previously, if it is possible, I would love to access to journals/papers directly from Web of Science

As I said, I would like more access to online journals please, and because I have only been working in Teagasc just under a year - maybe I don't know what to ask for in terms of log-ins etc so if an email was sent maybe twice per year with a list of what is available to us then I would make more use of it. Thank you

Digitise material as much as possible and reduce space and other capital required to maintain a physical library. The vast majority of most researchers requirements can be met by appropriate access to on-line resources.

Direct link to research for KT. Make more visible, sell resource online, make easier to access and use nonresearch terminology and training through KT IST days

Each centre should designate a large quiet reading space for staff and students with generous opening hours.

Enhance online resources to a university level or higher. Eliminate physical books and periodicals

Everything should be online, including online links to every thesis as a PDF.

Get access to more journals or better still (although I know there is legislation or something prohibiting this) join up with a university

Greater visibility of how to avail of the services

I have never used the Teagasc Lib service but will be in the near future as such answers could be a little prejudice

I haven't looked at the Teagasc library online in a couple of years so I don't know if it has improved or not but when I last tried to use it it was very hard to navigate and understand how to access anything. If this hasn't been improved, it needs to be improved.

I imagine that the great majority of advisers don't make much if any use of library services - seems to be the preserve of the researchers. Suggestion 1: promote awareness of the library service amongst staff (especially advisory) by directly meeting with them and showing them how everything works. Suggestion 2: make a short video of the above talk for future reference. Suggestion 3: make a short video on how to make effective searches for both the Teagasc online service and how to search in general. Suggestion 4: put a picture button out front on the Tnet to allow direct access to the library. Currently it's hidden under the Research dropdown menu. I tend to forget about Library Services unless I'm rightly stuck. Bottom line: there's an enormous amount of information in the Teagasc library (on shelves and online) that most Teagasc folk don't know about and don't use...and that's our loss. We should be utilising the Service to a far greater extent than we do. Good luck with the survey.

I think the following should be considered by Teagasc library services / Teagasc in General: Old publications in advisory offices are dumped - is there a hard copy of all Teagasc publications being kept? I believe that some copies should be kept and archived/stored. Advisory offices in some locations have a number of old agricultural books, I fear that when older staff leave that these books will be thrown out, so I feel that there should be some stock take done on books/materials held in advisory office. This also goes for old equipment lying around in advisory offices and old staff records re pay etc. (in large book format). It became very apparent at the 1916 celebration event held in Athenry that there is a lot of valuable stuff in the organisation. The old Department of Agriculture/ACOT leaflets are another thing that should be kept and archived. Some of the Farm Home Advice books are not very PC by today's standards. I also feel that it is difficult to find Teagasc publications, some are listed on Tnet but can be difficult to find.

I think with electronic era the relevance of physical library is diminishing.

Improved linkages with public libraries, including library standards

In general, increasing the offer in books, Journals...

Increase online subscriptions to high profile journals

Increase the number of journal subscriptions.

Introduce electronic check in and out facility in psychical libraries similar to that in Universities. Is there a central budget through which books can be purchased for the library?

It is very important in my work to access market reports, through BordBia or Enterprise Ireland. However, I can only have access to their database by going physically there, which is time consuming and requires organisation. Would it be possible to extend our collaboration with them by having access to their database from Teagasc computers?

Library services tended to be aimed at research staff and specialists

Library space is the office desk! Access to electronic resources similar to UCD would be useful. Very satisfied with library services available.

Library website is not user friendly at all and off putting to use. The library itself has old books generally only useful for looking at other thesis for examples

Make all students aware of the service.

Make it relevant to advisors/all users not just researchers. The above questions reflect this. The tnet portal is confusing, bitty and user-unfriendly. Improve the UI. Find out what ALL users require, develop strategy, implement, provide IST, etc.

More access to databases of information such as http://turfweb.lib.msu.edu/starweb/login.htm A lifetime subscription that purchased by a now retired colleague and is a fantastic database for all turfgrass related research etc. It is also a potential draw for students that access our courses.

No library services on offer

Not sure but something relating to training/mentoring on various aspects. Group training is good but if not using the particular tools straight away its difficult remember details etc.

On-line self-directed technical training modules might be useful e.g. Basics in meat science modules for scientists new to that discipline. This service could also be offered to external clients e.g. industry, other Gov. Dept's and agencies

Option where a researcher can request the purchase of a book they need for their work

Promote the services available. Revamp the library services webpage. Make it more relevant to people who aren't involved in research day to day but could still benefit from accessing information (advisory and educational staff)

Provide access to science direct

Provide on site libraries at colleges with manned library

Provide staff in libraries

Since this survey, I realise there are a few services that I was unaware of so I might attend a library induction again!

Suggest a site visit to JC library. Would be great to have a system for knowing what books are there or on who's bookshelf they are. Would be good to have a refresher on teagasc library services.

There should be budget either on core or project specific to buy a few books every year.

Training. Training. Training. Training. Training There is no training on library services. I'm not aware of what is available to me, let alone how to access it.

Try and work with local library services in the regions to make material more readily available especially to students and researchers attending Teagasc Colleges. As it is currently not readily available in all areas or they don't know about it. I believe most local libraries are trying to increase the numbers coming through the doors and will be eager to help.

Updating the in-house library would be very useful

We need more time to use it!!!!!!!

Work stations (similar to what you would find in a university library)

Would be good to have a local librarian (if there is not one already). Would like to see more journals/technical magazines of relevance to my own line of research in the local library. Presently the library is predominated mainly with books of an economic and rural development content. Would like to see more on - organic farming, feed cost modelling, value chain analysis, agro-ecological approaches to farming if this is possible to organise through a local librarian.

Appendix 2: Analysis of Focus Groups

Three focus groups were conducted at three of the Teagasc centres. Two were in person and one was via conference call. The first had four attendees, the second had five attendees and the last had five. The first two were primarily researchers / research managers. The last group were from education.

It was agreed that, while a focus group cannot assure confidentiality, anything said would not be attributed back to the contributor in the final report. A recording was made of each group but these recordings were deleted once the analysis was complete. All attendees assented that they were there by choice and it was clear that participants were free to go at any point.

The feedback from the focus groups came under six different areas:

- 1. Access to Journals
- 2. Access to Datasets
- 3. Staffing
- 4. Library Space
- 5. Clearing Stock
- 6. Core Requirements

These six areas are explored below.

1. Access to Journals

Access to journals was stated as a top priority for all researchers. As stated by one participant:

The information needs that I have and a lot of people have are primarily about access to journals in terms of the primary metric that we are assessed on is your publication in journals. To be active in that space, you need to be in that space, and to be in that space, you need to have access to that area.

There was an appreciation that the library did have access to core journals but that it simply wasn't enough for most researchers:

[Teagasc library] is convenient for the core journals, you just click on it and it's there straight away. But, if you are searching for articles, you wouldn't be relying on the Teagasc library.

This is a theme that is brought up time and time again:

We need access to those prestigious journals. We rely on our experimental work plan on those journals and those papers that we find there, so if they restrict the rules and we cannot access it we won't be able to do [our work] at all or it will just be poor quality research.

It's not a nice thing to have; it's an essential.

It also highlighted a strange situation where students coming into Teagasc had a greater level of access to journals than the people who were supposed to be mentoring them:

Often there is a staff member asking the student 'Can you tell me what's in that journal...?'... which just points to the, sort of, that, kind-of, a bit perverse outcome in terms of the student / mentor / supervisor relationship

What emerged was a sense that researchers couldn't imagine a special library service having access to because the breadth of their research is taking them outside what would be the usual Teagasc concerns:

I have a big issue that [because my research area has moved into an area outside of what Teagasc does], the journals that we target now are not part of the e journals service so we don't actually have access to some of the people that we would like to have as a result I would generally have to go to say a university and get their passwords and access e journals through that. Now that works fine for me up to a point but [when that access runs out] I will always need to look at articles that are in open access. Some journals don't have that. Some prestigious journals don't have access like that... I'm getting to the point that it is hindering the work that I do and I can only read an abstract and can't go beyond that.

In the last ten years, research has matured, and you are looking for ideas for new projects and, I know it's a buzzword, but there is a lot of cross-disciplinary work, and we've just started a project in [stated area] but Teagasc would have no journals on [stated area] but we have just got funding for a big project in [stated area]. Science has changed big time in the past ten years, in fairness.

I suppose you're trying to go outside the small number of agricultural economics journals and trying to feed off different methodologies so you're just very constrained.

And as one researcher very succinctly put it:

Research has evolved, and I don't think that the library has evolved along with that.

As was highlighted in the survey, it is through having access to both Teagasc and other services together is how people did their work:

I don't hear too many complaints about, you know, not having access to [journals]. You'd have a lot of people who would have a strong association with places and they would probably be using that.

It should also be noted that quite a number did not have access to journals from an external institution and may find themselves, apart from asking their students to do work, be muddling through with open access and pre-prints:

People are using the internet as a virtual library and Google and other search engines will bring you to Elsevier and Taylor & Francis publication page, and if you use Google Scholar, you can also get at the pre-publication versions of what is, more often than not, the same publication. This, however, does not, as stated earlier, lead to good research and Teagasc would need to ensure that researchers do not attempt other means to gain access to research articles that would be in contravention of their licenced access.

There was also a sense that people had an expectation of being able to access journals instantly:

A book I will wait for, for three days but a journal I would have to have there and then.

Interlibrary loan as a system, however, was simply too cumbersome for them to use:

I don't even use Teagasc's service... because you look for papers... I don't know if it's just me; I used to ask the library service for articles but you have to fill out loads of forms and you get the paper two weeks later and you've forgotten all about why you want it. I haven't done that in probably two years

That was challenged by another researcher but there was an acceptance that there was a delay:

No, now you just send an email and she sends it back to you but sometimes you have to wait a long time.

There is a recognition that it is not just about the broadening nature of the work; it is also about cutbacks experienced in the library service:

When the crunch came here, every year there was emails sent around 'Does anybody need this journal anymore? Can we cancel this subscription?' They would cancel it on the basis that there was a small number of downloads or usage of that journal in the previous twelve-months, but that journal may have been very useful for an individual. If you do that, year on year, then people just stop using it totally because, if you have access to a bigger source, why would you keep using the other one.

I started here ten years ago and I thought the library was great then but ... it doesn't exist anymore; it's a virtual library now.

And that, for temporary staff members, there wasn't the same investment in ensuring that the library holdings were sufficiently covering the work of the organisation:

Most people... are on contracts, so we don't ask for journals to be accessed.

2. Access to Datasets

As the nature of research changes, so too does the accessibility and use of datasets. Some libraries in academic settings are taking on the role of custodian to datasets (e.g. Maynooth University Library and UCD) and there is some talk of the role for a 'data-brarian' who can seek out and negotiate access to data sets for researchers.

This was brought up in one of the focus groups:

The other thing that active researchers in social sciences need, and that is access to datasets. And that is one of the primary benefits of doing a PhD in Teagasc or working in Teagasc... we have one of the richest datasets that exists in Ireland for economics and that is the National Farm Survey... Teagasc needs to think about how it provides access to other information sets that it collects in the social science / economics sphere... Teagasc might want to start to consider..., to think more broadly about what a library is, not only about peer-review journal articles and books and reports and periodicals, it is also about information, data that it has spent a lot of money creating and could get more value out of in the future. That would have to be managed

It was understood that this was an under-utilised asset of the organisation but that Teagasc was in danger of data sets going 'stale' due to their originators leaving the organisation:

There are massive databases within the organisation and they're probably literally in a hundred different locations and they are not accessible. And, when people leave the organisation, you know, an awful lot wisdom goes and there's nobody else able to decipher what they've done. That's not done well.

It was also understood in the context what was prioritised in research:

Teagasc is going to be pushed by funders and by good practice to manage [their data] in a systematic way. Whether that happens through a data librarian or some other process, I think we're going to have to address that as an organisation

Teagasc has access to a lot of data and, with new regulations coming in, Teagasc needs to find somebody with will manage that and advise staff.

3. Staffing

While there was praise for the Librarian, there was an understanding that she was understaffed and under-resourced and that there was not an expectation that there would be much access to her as a service, which was a disadvantage in terms of what she could do if she were more available:

I would think, in terms of the Teagasc library, I think Máire Caffery is doing her absolute best in terms of it being a totally under-resourced facility.

In terms of the expertise [of the librarian in helping to promote their research], increasingly researchers have to be self-serving and are unaware of the service offering or feel that there is no service being offered and have to go off and do it for themselves.

I have minimum interaction with the library services in Teagasc in terms of that [promotion of research] dimension, except as a manager as one of Máire's jobs is to provide a bibliometric service for managers in terms of monitoring performance of researchers in terms of their citations, in terms of peer reviewed publications and so on. But in terms of assistance... I couldn't say that I've utilised the Teagasc library services in that dimension.

Basically, making people aware of the services that are there, that would be extremely useful. And I know Máire Caffery is a one-person team as well and, typically, in Teagasc over the past good number of years now, all the resources and support resources have been withdrawn and the manager needs to be an expert in everything. So I was trying to get a publication record here on Sunday for this peer review and I managed to go into Web of Science and claw my way through until I got what I needed. I presume that there are easier ways to do that and that service could be made available to me.

There was also the sense that the library needed to be a resource that was more front of mind for people and that they would use it more if it had a higher profile:

The library needs to be 'front and centre' on T-Net every day and that will encourage more people to use it and make use of it.

Staff in education need to know how to use the services of the library and need to know what is available to them. That is the first priority.

There was also some comment among the education group that they were discouraged from using the library:

They published a 2015 book which advises you not to use the Teagasc library, to use your own library instead.

[In education,] students have access to their own university; you are discouraged from using the Teagasc service.

What came up a number of times were the education and awareness roles that the librarian could play if more available to Teagasc staff:

What we need is a sort of 'mentored support' in order to be up to speed on how to search and where to find things that are useful to us.

How to teach, methods of teaching and teaching practices, I think we would benefit on finding out about the work the Walsh Fellows or others are doing around this type of thing. How do I build a culture of learning in this area?

These emails we get from all the different people saying 'You can now do this' and 'You can now do that', like there's a peer review training course recently on one of the sites. I thought that was useful. But, like, that sort of dissemination of what's out there with regards to output and helping you to get your research out there, that would be good, maybe.

There's probably a need for the Walsh Fellows to be trained in good practice around searching and catalogues so that they can use their time effectively.

It would be very good every six months for a course given by the Librarian predominantly for students and new entrants on how to find things like 'How do you use Web of Science?', 'How do you look up your h-index?'... People don't even know how to Goole right a lot of the time. They think they do but they don't.

And this exchange between two researchers highlights how people are not systematically being brought through what would assist them with their research:

A: People setting up ORCID IDs, the kind of thing that most people in Teagasc don't have. They're all important from a funding perspective.

B: I only did it [set up an ORCID ID] because I saw somebody else doing it and I said 'What's that? I must get one of them.'

A: You need them for SFI

B: Yeah, I know, I have one but no one told me to get one

A: My point is that people don't know they're missing it, or that there is such a thing until they see it.

There was also a role in trying to assist students at QQI Level 5 and 6 to understand how to engage with research information:

All of the information that Teagasc produces is at the same level. There's a need for students to be able to use and access that information. A raw paper, at the same time, is not as accessible. How do you get students to be able to translate what is available as a way to leading into being able to use it in its raw state?

At a very practical level, what was also highlighted was the need for the librarian to be available for oneoff or occasional assistance. The education focus group highlighted an upcoming need they had for information:

There is a need now to develop an entire new set of modules within the Level 5 and Level 6 and so there will be a need for information to come from somewhere.

4. Library Space

Nobody had anything positive to say about the library spaces as they stood at the moment:

A: I think here, the best way to describe it would be 'chaotic'B: That's being generous now.

There is effectively no space – no traditional library space... what the space is used for is where you put temporary students who are working for a few months, helping out with a scheme, or whatever... It's basically a hotdesk without any hotdesk rules.

It was identified that the spaces were not being managed and that they had stock which was no longer needed:

There's no real organisation of the holdings in terms of the stock. Doesn't seem to me like there's any system being followed in terms of how things are being put on shelves. There might have been started to be like that but there's basically whoever had the role of doing that either decided not to follow it or became overwhelmed by the amount of material they had to catalogue so now there is just piles and piles and piles of periodicals and books that have not been properly catalogued and not put on the shelf.

There's also insufficient shelf room down there for the stock that's there and there's also, it's also being used as a store room, so there are probably foot upon foot of shelves with duplicate copies of the same Teagasc publication. That's not the function of a library; that is the function of a storeroom.

It feels more like a storage room, with a lot of outdated reports taking up space. For most research topics, we are looking for current research and moving forward. Most of your references for journals would be... within the most recent ten years.

Like, historically, the library was very important for research staff and, okay, things have changed with the advent of the internet and easier access, but often, you need to go back and look at hard copies of papers and the last place you would like to go is to our own library here. It's not conducive to any type of visits or study or anything. It's the last place you'd go to.

What was clear was the need that someone needed to be able to manage the space as the lack of a staff member made the library no longer function as a library:

They need somebody who it is part of their job description to manage it. To manage whatever 'it' turns out to be. 'It' is effectively a space...

In terms of the catalogue, you'd know the general area where something might be but I don't think it's followed 100%.

You could take out a book or I could take out a journal and it could be in my office for five years and nobody would ever miss it.

If I have to look for a book. I don't know if there is a list, a catalogue available where I can look for it. I'm sorry, I don't know. But you go to the shelves and you wouldn't find it. Some students have come and put it back in the wrong place.

There was also a very strongly articulated desire to reconsider the space:

We need to repurpose it for today; it's not doing what it used to do, it's not doing what it could do and it's not doing anything in terms of what people want to use it for.

The space is inadequate in terms of the space for a modern library; eight foot, ten foot bookshelves, quite dark; there's a very big window at the front where people are supposed to sit but there's no space there. It probably needs a major overhaul and a rethink.

The need, as identified by researchers, was to create a space for work which needed concentration such as reading and writing:

There is a need for somewhere to go and especially post-docs because not everybody has their own office. It's just impossible to concentration and I have to do all of my reading and writing at home. I go to the canteen sometimes... it's just crazy.. and they lock the canteen at half-two.

A long time ago [the library] was a space where you could go and read a journal or a book... it was essential. It's now full of PhD students.

The value traditionally of libraries is that it was a space that you could go to get to somewhere different to think about something, sit down and not have the phone ringing and you being pulled off to this and that. These are things we went to libraries for and that would be nice to have. Most research centres and locations should have a space like that.

A space where you can get away from your colleagues, from your email pinging all the time, just bring your material with you almost, as much as go there to get material.

A place to concentrate and focus. Just an area that's conducive to that.

That must be its exclusive use and it doesn't fit with having someone on the other side of the room on the phone, arranging knowledge transfer.

A: I spend two days a week out of here... the most productive days I have are in [location] B: where no one is pulling out of you

A: and that's not in any way to be critical of the people here but I can go up there and the rest of the day can be hugely productive.

It's a space where you can go and you are out of bounds for a couple of hours.

It's great working with people, great being enmeshed in a team, in a community, but there are times in your working life when you need to be allowed the option to step out of that mesh, a library space gives you that. What a lot of people are doing now is working from home which, I think, is not necessarily a good thing but it is the only outlet they have in which to get their work done.

If someone is in the library, it means that they are prioritising writing or work where they need deep concentration.

5. Clearing Stock

Researchers, in wanting to create a quiet space for research, accepted the fact that there was a need to clear a large amount of stock from the rooms that were currently the libraries in their centre:

A: I think the big fear was that everybody was very, very reluctant to dump anything. And then it became totally cluttered and there's two small rooms off it with filing cabinets.B: There are people who no longer work for Teagasc but Teagasc has a requirement to maintain these things but why are they in the library?

Personally, I think all of the statistical holdings should be dumped or sent to stacks if we had stacks because... unless you're doing history... the only reason I've ever gotten information out of the library in terms of numbers is when we were doing work about 1916 or the 19th Century... All the other data from the last 50 years, generally speaking, that's in the library, is also available on the internet and much more easily used from that source.

The primary, the 'go to' texts,... the one that's going to be pulled off by every post-doc or PhD student or researcher every now and then. The periodicals thing has migrated effectively to the electronic format so I don't think we need to have the large collections we have in the room. They could just be archived or destroyed or whatever. Then that space opens up.

I don't think there's a need even to have books because anytime I want a book, it's not there so I just send an email and it comes by post from Ashtown and it doesn't take long, just a couple of days; it's a really good system. And they have a borrowing system with Trinity Library so they literally will find the book for you. Sometimes they will buy the book for you, which is cool, so that's what I do

There were also suggestions to think about, if the collection was no longer being managed, why not distribute it to the spaces where it was most in use. Why would it all need to be within the one space? On suggestion of this, however, others said that it should not be used as an excuse not to 'dump' material that was no longer required.

6. Core Requirements

While the focus groups did focus on the library under the four headings of Stock, Services, Space and Expertise, there were also some discussions about what a library could signify for the organisation for those working within education.

One thing that was discussed at the education level was the 'idea' of the library and what that signified in education:

It is not just about telling them how a library works, it is about getting over that line, where they learn what is possible, what they can and cannot use. It's about a design for searching, for finding out stuff for themselves. While there is an acceptance that students at QQI Level 5 and Level 6 have plenty of information retrieval skills through being 'digital natives', it is about showing how those skills could be used in education and further development:

If you think about it, there are young guys, straight out of school. If we don't expose them to the library experience, they probably aren't going to get that chance again. A lot of students don't have an idea of what a library or how to do a search works but you ask them if they use Done Deal to sell a few calves or ICBL to register calves, they do know about that. So they know how to do things but they just don't have someone showing them how to use those skills in other settings.

Finally, in terms of putting down what researchers need from the library, this was a succinct suggestion from one researcher:

They're kind-of the three areas you need: you need access to all your journal articles; you need access to the core texts on methodologies; and the data. And from them you can move on. And previous dissertations done by Teagasc alumni which is very important that we have access to that.

Appendix 3: Interview Questions for Key Teagasc Staff

What is the role of the library within an organisation like Teagasc?

How does what the library does affect your work and that of your team?

What impact does the library have on your work?

What do you feel is the value of the library to you and Teagasc?

How has the library and its services changed?

How do you rate the library and its services under the following headings?

- Space / place
- Collections
- Services
- Expertise?

What would you like the library to do that it is not doing?

What prevents your using the library more?

Appendix 4 Interview Questions for National & International Comparators

I would like to talk to the library staff about their services under the following general areas, and the following specific areas:

General

Value to their organisations

Profile within the organisation and outside it

Status within the organisation

How they identify with their users

How close they are to the channels within their organisations

1) Collections

Book / report collection

E-books / reports

Electronic databases

Other material (slides / AV) anything else?

Do they curate or support access to datasets?

Other information?

2) Space / place

No. of locations?

Study / reading spaces

Computer facilities

Library staff office

3) Services

Catalogue available on intranet or internet?

ILLs

Loans

Reference queries

Current awareness / alerts / accession lists

News service

Information literacy promotion / training – formal or informal

Internal / external users

Any other services

4) Expertise

Digitisation

Research management support

Repository - how many up-loads / downloads

5) Library promotion

Staff involvement in external associations / networks

Staff presenting at conferences / presentations

Social media use to promote the library

Publishing

6) Management / finance

Staffing

Professionals FTEs

Qualifications - more than basic and in the same subject area?

Pay Scale on which appointed

Non-professionals FTEs

Budget - capital, recurrent, project finance

Strategic plan

Formal collection development policy

Formal system for assessing value for money

Formal system for evaluating the library

Procedures manuals

7) Anything else they would like to add?

Appendix 5: Best Practice in Library Services

Comparison with Irish and international libraries

Ireland

The following libraries were selected as comparator libraries in Ireland, meeting the criteria of being state agencies with a research remit and generally more than one location: Health Research Board, Health Service Executive and the Marine Institute. A short account is given of each compiled from their responses to the questions listed in Appendix 4.

While Teagasc staff satisfaction with its library was measured by focus groups, interviews with key stakeholders and an anonymous online survey, no attempt was made to identify comparator libraries' usage or to capture readers' satisfaction with the libraries against which Teagasc was benchmarked.

Health Research Board

The Health Research Board has no library service for the Board as a whole, but employs five full-time librarians in its Evidence Centre, one as Head of Ireland's Focal Point for European Monitoring Centre for Drugs and Drug Addiction. Two librarians, with the title Information Specialist and Senior Information Officer, under his management, run the HRB National Drugs Library and two other librarians, with the title Information Specialist are embedded in the Evidence Team. The librarians provide some library services to the wider HRB, although this is not their primary role. The HRB has approximately 80 staff, so the librarians make up roughly 6% of the total staff numbers.

The library has a reading room with space for eight readers, four public access computer terminals and physical stock of books, reports, journals and grey literature; there is a separate staff office. It has subscriptions to nine major research databases, as well as the Cochrane Library¹⁸ (for which the HRB pays for a subscription to the entire island of Ireland).

The library manages the National Drugs Library, an open access repository of articles, papers and other research publications relating to drugs and alcohol misuse, which was heavily used in the development of the National Drugs Strategy, Reducing harm supporting recovery. 2017.¹⁹ The librarians also provide online resources to promote effective use of the collection (www.drugsandalcohol.ie) and produce a monthly newsletter as a current awareness service, with a wide circulation and a second bulletin of Irish publications and news. They manage access to the http://www.drugsandalcohol.ie/tables/ dataset and plan to develop this area of their work. They also provide an Endnote database of publications to facilitate HRB staff with accurate citations. Library staff provide talks and information literacy training to users, both within the HRB and to external users. They have an active Twitter presence to promote the library and the subject area, using two Twitter accounts, @hrbdrugslibrary and @hrblibrarians. Staff are heavily involved in professional organisations and networks and present regularly at conferences and

¹⁸ The Cochrane Library is a collection of six databases that contain different types of high-quality, independent evidence to inform decision-making around health.

¹⁹ <u>http://www.drugsandalcohol.ie/27603/</u>

workshops of researchers and students and all the staff have published articles and papers. All the librarians have at least one masters degree, in addition to their library qualifications.

They have a formal collection development policy and procedures manuals, are planning their next strategic plan and have three KPIs to evaluate the quality of their library service.

Health Services Executive

The Health Service Executive has 68,994 full-time equivalent staff and 30 libraries with varying of opening hours, and levels of stock, services and staff. http://hselibrary.ie/category/your-local-library/ Overall, there are 49 staff members, (43 FTEs), comprising 24 professional librarians and 25 library assistants.

There are reading rooms in all 30 locations, with computers for users; their quality varies significantly, from the recently renovated (e.g. University Hospital, Limerick, Tullamore), to less well-maintained venues. http://hselibrary.ie/cavan-general-hospital-library/

A research repository Lenus.ie, includes digitised copies of all official publications relating to health since the foundation of the state, and official, HSE, hospital and other publications, as well as research reports, journal articles from within the HSE but also relating to health and social services in Ireland. They also hold archival material.

A National Librarian was appointed in 2016 to co-ordinate and manage the services. She established 14 KPIs (9 quantitative and 5 qualitative) to guide the service and these have been in force for the last year. They have adopted a partnership approach to add value and promote their engagement with project teams within the HSE This has significantly changed (and improved) the attitude and perception of their value to the organisation. They are working to embed librarians within project teams.

44% of HSE staff are registered with the library and therefore able to use the library's physical stock and electronic resources through; this represents and increase from 38% in 2016; these figures are presented with caution as they include TUSLA staff and students who are not part of the HSE's 68,994 staff. The number of logins to the portal was stationary over 2016-7, but the number of documents provided to staff for patient care more than doubled (25,406 from 11,435) and there was a 10% increase in the number of books borrowed and a 20% increase in the number of visits to the libraries. Information literacy training was provided to 2878 users, 18224 staff subscribe to current awareness bulletins. A recent innovation is the "drop everything and read' service aimed at promoting CPD amongst all staff and promoted on social media and otherwise.

The library does not currently provide or curate datasets, or research management support but expects that these will become key services in the future.

The Library has produced 11 Libguides http://hse.drsteevenslibrary.ie/ and uses social media extensively to promote information use under the hashtag #evidenceinformedhealthcare.

Staff present frequently at conferences and the National Health Services librarian published a book Aoife Lawton, The Invisible Librarian; A Librarian's Guide to Increasing Visibility and Impact. (Chandos, 2015).

The library has a high profile within the HSE and within 'Section 8' organisations, as library staff attend non-library events and services to promote their services; they have a 'Penguin' stand and contribute to meetings to highlight their services and personnel.

Marine Institute

The Marine Institute Library is managed by one professional on a contract basis for 25 hours per week. There were formerly two full-time professional staff members, a library manager and a stagiere. It is hoped that the post will be made full-time from next year. The Institute has roughly 189 staff.

The library has a high value amongst the researchers "everyone knows who I am." The Library's position in the Communications department raises its profile internally. The library has access to the main research databases for the area ASFA (Aquatic Science and Fisheries Abstracts) but not Science Direct or Scopus. It has no ebook collections but does have electronic journal subscriptions, as well as books and reports collections and some special collections, e.g. Commander King Collection and an archive of older specialised books based in Newport and samples of fishing from the 1920s.

The library manages the Marine Institute's repository oar.marine.ie. The librarian is a member of data publishing groups and supports access to datasets by providing DOIs for the data (data.marine.ie)

The Library is largely based at Oranmore but there is also a room with books at Newport; there are 6-8 reading spaces and two computers for users at Oranmore and separate space for the library staff.

The catalogue is managed through Accessit, a rather obsolete package. The library provides a news service on the Intranet, and sets up alerts and provides a current awareness / SDI service to those interested and provides library guides on the library website. It provides social media content to the Communications team.

The librarian is involved in the open forum on data and open data groups within the Institute and is working towards providing research management support. There is a digiscanner for digitising.

The librarian is involved in professional associations and networks, chairing the Western Regional Section of the Library Association and Repository Network Ireland, a moderator for Rudaí 23 (a community-based CPD programme for librarians) and involved in Teachmeets. She has presented at conferences, including CONUL and the Academic and Special Libraries Section of the Library Association of Ireland, and is the Irish representative on the International Association of Marine and Aquatic Libraries, for which she is communications officer. She is the Irish input centre for ASFA. She has published a paper in ASLIB Proceedings.

The library is included in the Marine Institute's Strategic Plan but does not have a separate plan; it has a short formal collection development policy; it keeps statistics on journal use to guide renewal decisions. There is no formal system for evaluating the library

Access to other libraries Many of the researchers are involved in projects affiliated with NUIG and have access to their collections. There is a MOA with GMIT Library for mentoring and support for the librarian.

INTERNATIONAL

Teagasc is unique amongst most agriculture research organisations in that it not merely conducts research, but also has an education and advisory role. Other international organisations which conduct and manage agricultural research generally do not have these additional roles. In addition, some include forestry and fisheries among their subject areas

In addition, many of the research libraries which dealt with agriculture have disappeared or amalgamated with other organisations. For example, The Institute of Food Research has become Quadram and does not have its own library; instead, it shares resources with other institutes locally through the Norwich Bioscience Institutes Partnership (NBI). The majority of agriculture libraries listed as members of AGLINET (the Association of Agricultural Libraries Network) are based in universities and therefore not comparable with a one-person special library.²⁰ Two of the closest comparator libraries are AgResearch New Zealand (www.agresearch.co.nz) and the Julius Kuehn Institut https://www.julius-kuehn.de/en/information-centre-and-library.

AgResearch New Zealand

AgResearch New Zealand is a Crown Research Institute with over 800 staff, concentrating on agricultural research, including contract work for clients. It has four locations in Palmerston North (Grasslands), Hamilton (Ruakura), Lincoln and Wellington (two in each island) and its Knowledge and Analytics Group includes both Library and Knowledge Services and Bioinformatics and Statistics Teams. The Library and Knowledge Services team manages the library, knowledge services and record management functions, with 10 staff members, including the Group Leader who sits on the Management Group. Three of the staff run the library, including managing the catalogue and the bookstock, inter-library loans, etc. The Knowledge Advisors, all of whom are professionally qualified and experienced reference librarians, either are already, or are in the process of being, embedded in the research teams and work closely with the researchers, advising on search strategies, carry out scientific literature searches, book requests, patent searches, grant proposals and research publications. The Records Management section is headed by a professional records manager, with an assistant and provides records management services and archiving services to the entire organisation. All of the team's users are internal. As a result, any communications and marketing is internal, including posting case-studies of how the section is supporting research within Agriculture NZ. There are separate Communications section and a Research Office which manages and reports on research impact and bibliometrics. However, as some of the research is conducted for clients and is confidential, this is not included in the published output. The Communications team manages a news service.

The Knowledge and Analytics Team is currently based in all four locations with reading rooms and physical and electronic stock. It does not provide computers for users. The catalogue is available only internally (although its holdings are included on www.worldcat.org/3932), and it provides interlibrary loans, a circulating bookstock and reference services, especially within the research teams. Knowledge

²⁰ http://www.fao.org/library/library-aglinet/en/?page=3

advisors provide information literacy training and current awareness for their teams and information literacy training is also provided as part of the induction programme for new staff.

The team manages a repository of the organisation's research but this is for internal use only; approximately 1,000 items are uploaded annually. It is currently investigating how this might be made publicly available, the principal consideration being how confidential research for clients might be handled.

The Group leader liaises with his counterparts in the other Crown Research Institutions; other members of the team are involved in NZ-based professional bodies, e.g. LIANZA and regularly attend national and/ or Australasian conferences and occasionally present at these conferences.

Consideration is being given to creating two hubs, rather than the four existing physical libraries, with services and reading rooms, but no decision has yet been taken on whether they will continue to house physical collections. The Library and Knowledge Services team is represented at the Management Group through the Group Leader.

AgResearch NZ has 22,000 books and journals, an electronic library collection with 119,651 e-books and 71,863 journals (it is not clear what this designation of journals means but the collections include JSTOR, Science Direct, Wiley Library, Cambridge Journals Online, EBSCO Business Source Premier and Springer Nature), and 19 research databases. The Library and Knowledge Services team has a significantly larger budget than Teagasc, largely spent on subscriptions to journals and databases, as well as books and reports. It has no formal capital budget, but could make a claim for capital funding, if required; it has not felt such a requirement for the last number of years.

Its previous strategic plan was not implemented back in 2012, and the team is currently planning its future development, including developing a format collection development policy, a roadmap for assessing value for money. The team is also developing plans on how its services will be provided as AgResearch is undergoing significant changes consolidating on two hubs in Lincoln and Palmerston North. There are regular benchmarking exercises against other libraries and they use a Service Quality Index with six questions after every transaction and monthly reports are compiled from these responses. There are no procedures manuals but teams have guidelines for their work.

It does not curate or support datasets (raw data from research) although it is planning to develop research data management services and there is a plan to upskill knowledge advisors into data librarians where they will provide support to researchers on managing research data.

Julius Kuehn Institut fuer Kulturpflanzen

The Julius Kuehn Institut fuer Kulturpflanzen is the German federal research centre for cultivated plant research and has 800 staff, over 350 of whom are researchers. The JKI is smaller than Teagasc and has a narrower remit, dealing with cultivated plants, not livestock or the rural economy. The library is part of the Information Centre and Library and has libraries in Berlin, Braunschweig and Quedlinburg, with three librarians and 4.75 FTE library assistants. The information centre also has 4.5 scientists who work as editors in publishing the JKI's research journals, open access, help authos with their publishing

contractsresearch data plans and developing information portals. The library has 370,000 books and journals, 4,000 electronic journals, core databases (CAB, Agricola, Web of Science), over 5,000 ebooks and provides reference services, inter-library loans (1230 in 2016) and informal information literacy training. The Information Centre is responsible for the design of the Internet platform The JKI provides access to its own open-access publications and publishes a suite of journals, but does not have its own repository, although it collaborates with the other research institutes in the portfolio of the Federal Ministry of Food and Agriculture (BMEL)] in the OpenAgrar Repository. Library staff are involved in the German Library Association, the Special Libraries Association and internal working groups. Its researchers are full-time and have access only to the JKI Library. The library also has an archive of historical photographs and posters, which is being digitised by a colleague on a 6-month contract. The library budget is €133,5000 for stock, which is supplemented by a consortium agreement with 7 other libraries; the JKI contributes roughly 1/7 of the cost of these subscriptions (€214,000), leaving the total annual budget for stock and collections of €347,500.

Education library

The Scottish Rural University College has 7,000 students, with a very diverse range from further and higher education, part-time and distance learning, providing diplomas, primary degrees and a small number of higher degrees. Its library operates over 6 campus locations, some co-located with other educational institutions, such as Edinburgh University and the University of the West of Scotland. It shares its library management system with the University of the Highlands and Islands and pays a contribution towards the systems librarian for managing this catalogue. Its six campus libraries are each staffed by one full-time professional librarian with library assistants, making 15-20 staff (15 FTEs) The libraries are all open and staffed for a minimum of 35 hours per week, with longer opening hours in some locations, including evening opening and short sessions on Saturdays and Sundays, especially during term time.

The library has some 75,000 print books and the budget includes some £150,000 for journals, c£30,000 for databases, £25,000 for books; they describe their book budget as "small" especially as many of their courses, especially the first two years, are heavily reliant on printed textbooks. They benefit from access to some parts of SHEDL Scottish Higher Education Digital Library (www.scurl.ac.uk/what-we-do/procurement/shedl)

They do some information literacy training and are moving towards providing some Research Data Management work, hoping to use Dspace (their repository system) for that. With the Research Support Officer, they work on the repository.

International Best Practice: lessons from the literature

Library services have changed dramatically over the last nine years, as the information environment is affected by technological developments, research requirements, funders' expectations, globalisation and the world-wide economic downturn, which has significantly restricted library budgets and more specifically, library staff levels. A recent review of trends in research libraries noted the very rapid development in the information environment, including research data services, data plans and policies, digital scholarship, information literacy, citation analysis, altmetrics and open educational resources.²¹ In particular, the requirement for research to be made freely available and to demonstrate its impact have driven the development of open access publications and data collections, most especially in the scientific area, but also in the social sciences.

Relatively few international library standards have been produced in recent years, and those that have been issued refer to libraries in general, rather than special or research libraries. A recent standard from the Philippines specified that library services in research organisations should be headed by a professionally qualified librarian and have a ratio of one librarian for each 50 FTE staff members. Libraries should have formal collection development and risk management policies, collections appropriate to the organisation's wider needs, be managed using standard library systems, and loans, answer reference queries, and should provide information literacy training, digitisation of records, support open access publications of the organisation's research output, have good quality accommodation, computers for users as well as the library staff and a sufficient budget, managed by the head librarian.²²

The US Special Libraries Association regularly issues a list of Competencies for Special Libraries' staff, all of which are demonstrated by Teagasc's librarian.²³

Attention has recently been paid to the specific needs of agricultural researchers and their library services. A 2017 benchmark study of the research support needs of agriculture researchers noted that the field is *"characterized by complex multi-site teams, constrained research funding and costly tools and materials."* Agriculture scholars *"reported real needs for help with information management during the course of their research projects ... and a need for help translating their findings to reach a broad*

²³ Special Libraries Association. 2016. *Competencies for Special Libraries staff.* 2016. https://www.sla.org/about-sla/competencies/ Accessed 29 November 2017.

²¹ ACRL Research Planning and Review Committee. 2016. '2016 top trends in academic libraries: a review of the trends affecting academic libraries in Higher Education. *College and Research Libraries News*, 77(6) http://crln.acrl.org/index.php/crlnews/article/view/9505/10798_accessed 29 November 2017.

²² Philippines, Professional Regulation Commission. 2016. *Standards for Special Libraries in the Philippines.* Manila: Professional Regulation Commission. http://plaibicolregionlibrarianscouncil.yolasite.com/resources/2016-01 Standards for Special Libraries.PDF Accessed 29 November 2017

audience.^{"24} Specifically, researchers reported a need for help with "*discovering and accessing information, information management, and audience, output and credit.*" The researchers interviewed for that project were based in academic libraries in the US, so it is unsurprising that they reported fewer problems with "*digital discovery and access*" and greater problems with research information management and research dissemination.

"Agriculture is a compelling field to investigate research support needs because of its broad and evolving scope, which reflects the centrality of agriculture to the human experience. Technology, societal needs, and environmental pressures are pushing the field to rapidly evolve: "This report further concludes "Agriculture scholars report relatively low challenges with digital discovery and access, particularly in contrast to information management, in which a lack of services and support, coupled with gaps in responsibility, lead scholars to utilize idiosyncratic approaches to the detriment of longterm preservation." This report notes the difficulties presented by the inter-disciplinary nature of agricultural research, and describes researchers' information retrieval practices as a heavily reliant on Google platforms and "They often rely on others, particularly students, to assist in information discovery, and by extension, characterize library support of student information as a way of helping them by proxy."²⁵

This issue of non-use of libraries has been frequently addressed in the research literature, mainly in relation to other disciplines, and the barriers to use have been summarised as lack of time, accessibility and psychological factors, a situation confirmed by Cooper et al. and Thomas and Preston *"Due to its accessibility and familiarity as a search engine, Google is often favoured over databases."*²⁶ This study, like others, revealed a significant gap in users' perception of what they want and what they think the library provides *"Use of Google was universal, and freely available articles were likely to be chosen over more difficult to reach articles, with quality a secondary consideration."* The importance of a user-friendly interface for library services was stressed, as was the need for more information literacy training and support, but above all a very simple user-interface. These findings were reflected in other studies on agricultural researchers.²⁷

²⁶ Thomas, G. and Preston, H. 2016. Barriers to the use of the library service amongst clinical staff in an acute hospital setting: an evaluation. *Health Information & Libraries Journal*, *33*(2), 150-155

²⁷ Malapela, T. and de Jager, K. 2017. Evaluating electronic journal use and access among academic staff at the Faculty of Agriculture, University of Zimbabwe, *Performance Measurement and Metrics*, *18*(2) 110-117, https://doi.org/10.1108/PMM-05-2017-0020; Naqvi, T.H. 2017. Use of Collection and Services: A Study of Indian Agricultural Research Institute Library. *DESIDOC Journal of Library & Information Technology*, *37*(6) 425-431.

²⁴ Cooper, D. et al. 2017. *Supporting the Changing Research Practices of Agriculture Scholars.* Ithaka S+R, June 2017 http://www.sr.ithaka.org/publications/supporting-the-changing-research-practices-of-agriculture-scholars/ Accessed 23 November 2017.

²⁵ Cooper, D. et al. 2017. *Supporting the Changing Research Practices of Agriculture Scholars*. Ithaka S+R, 2017. http://www.sr.ithaka.org/publications/supporting-the-changing-research-practices-of-agriculture-scholars/ Accessed 30 November 2017

Library services and collections

A traditional benchmark for libraries has long been their book collection; librarians introduce their libraries by stating the number of books / reports (by which they mean printed books), current journal subscriptions and numbers of databases. However, while it is important to measure stock (but more importantly to ensure that the stock is appropriate - relevant to the work of the organisation, current and of high quality), other elements are also critical to providing a quality service, including space / place, staff numbers and qualifications and expertise and strategic planning and evaluation to ensure the library develops in line with the needs of the organisation and the library's users. Recent years have seen a move away from physical stock and services to virtual resources and a consequent need for a higher level of expertise amongst library staff in negotiating licencing agreements, copyright, information literacy training, open access publishing and research support for users, including by 'embedding' librarians within research teams. Physical space remains important, as quality environment significantly improves productivity and pride in the service. Moreover, as workers become increasingly mobile, the provision of services over mobile devices is a significant factor in the usability of resources, but also the provision of reading / writing / working space for readers in libraries is also important.

As a result, while traditional library services, including information selection, capturing, brokering and management, remain important, the role of the librarian is now a much wider one, encompassing information literacy, research support, scholarly communications, research data management, publications, bibliometrics and access. Evidence demonstrates the value of professional librarians within clinical and academic settings, in particular in assisting with enhancing the quality of research and its impact.²⁸ While this report did not access the role of librarians within special libraries. Bracke noted this specific trend amongst agriculture librarians, following the lead of clinical health librarians, describing their move to becoming 'informatists' as a "paradigm shift."²⁹

²⁸ Brettle, A. and Maden, M. 2015. *What evidence is there to support the employment of trained and professionally registered library, information and knowledge workers? A systematic scoping review of the evidence.* Manchester: University of Salford for CILIP.

http://archive.cilip.org.uk/sites/default/files/media/document/2017/value_of_trained_lik_workers_fina l_211215_0.pdf

²⁹ Bracke, M.S. 2017. Agriculture librarians becoming informationists: a paradigm shift. *Library Trends, 65*(3) 448-466. Special issue on agricultural librarianship.

Evaluation of Teagasc Library Service 2017

Action Plan for Implementation of Recommendations

Date: 23/4/2018

Submit to: Dr. Frank O'Mara, Director of Research

EVALUATION OF TEAGASC LIBRARY SERVICE ACTION PLAN

This action plan outlines the recommendations from the Evaluation of Teagasc Library Services 2017. To complete this action plan please specify the actions to be taken, if any, to implement the recommendations outlined, allocate responsibility for these actions and set a target date by which the recommendation is to be implemented.

1. Short Term Recommendations

No.	Recommendations	Actions to be taken	Person responsible	Date for completion
1	Complete a three-year development plan for the library.	A draft three-year plan is appended to this Action plan.	Máire Caffrey/Jane Kavanagh	Q2 2018
2	Increase training for all research teams in information skills.	Online guides will be developed and made available on the Tnet.	Máire Caffrey	Q4 2018
		Relevant publicly available LibGuides will also be sourced and links provided on Tnet.		1 st training day to be in Q4
		Two training days will be organised annually and will be available to all staff across the organisation.		2018, 2 nd to be in Q1 2019 and continuing
3	Engage in a dedicated PR/promotion campaign for researchers to make them aware of the library resources	Promotional material will be developed for Table Talk and display in Research Centres.	Máire Caffrey	Q1 2019
	and services.	When the Discovery Service (see Item 7 below) is launched, there will be a campaign to inform all staff and promote the new library interface. This will include the Training Days (as above), Table Talk, email and presentations at appropriate meetings (e.g. HoD meeting).		Q1 2019
4	Audit all Teagasc's books and reports collections across all library sites.	 A schedule will be set for a stocktake at each research centre. To facilitate this exercise, Admin support at each Centre will be provided to the Librarian. Procedure will include these steps: Notify researchers to return all library books by specific date Physical check of each book in stock and note in Catalogue record Delete catalogue records for books found to be missing Update catalogue records for print journals at centres 	Máire Caffrey/ Local library admin support	Schedule for series of dates from Q1 to Q4 2019

EVALUATION OF TEAGASC LIBRARY SERVICE ACTION PLAN

5	Provide full-time administrative support to the library so that the librarian can focus only on professional tasks.	Part-time admin support will be provided	HR	Q3 2018
6	Create a formal collection development plan with an allocated book fund.	A meeting will be held with Finance regarding allocation of a budget code for book purchasing, enabling better tracking of spending in this area.	Finance Dept./Máire Caffrey	Q3 2018
		The situation will be reviewed after two years.		Q1 2021
7	Improve the library web page user- interface so that the library services are easier to find and easier to use.	Provision of a single-search-box-type user interface by contracting with a "Discovery Service" will be scoped and implemented via RFT process.	Máire Caffrey/ICT dept.	Scoping Q2 2018 RFT Q3 2018 Award tender Q4 2018 Implementation Q1 2019
8	Conduct a library needs analysis for Teagasc Education and Advisory Services.	A meeting will be held with education and advisory management to establish preliminary needs for library services. Education and advisory staff will be invited to attend annual training sessions. A more detailed needs analysis will be carried out as part of the three-year development plan for the library services.	Máire Caffrey, Jane Kavanagh, Tony Pettit, Dermor McCarthy, Frank Murphy	Q3 2018
9	Provide information literacy training to Teagasc Education and Advisory Services.	The online training to be developed at item 2 (above) will be available to all Teagasc staff, including Education & Advisory staff. Education and advisory staff will be invited to attend the two annual library and information training courses.	Máire Caffrey	As above

2. Medium Term Recommendations

Recommendations	Actions to be taken	Person responsible	Date for completion
Create hubs in local offices as space for reading, writing and quiet work, with dedicated administrative support at local level for maintenance and basic library services.	A new library space will be developed at Ashtown in the current Station House.	Máire Caffrey/Buildings Officer	Q4 2019
	Consultation will be carried out with Management at each Research Centre to establish the availability of suitable space and an implementation plan for each centre will be developed.	Máire Caffrey/Jane Kavanagh/Local Campus Management	Plan Q4 2019 Implementation Q2 2020
Engage in a dedicated PR/promotion campaign for Teagasc Education and Advisory staff.	As outlined at Item 2-Short-term Recommendations above, when the Discovery Service is launched, there will be a campaign to inform all staff and promote the new library interface.	Máire Caffrey/ KT management	On-going from Q1 2019
Extend library services to the Teagasc colleges.	College staff are able to access the current services. They will be invited to attend the Annual Training Days. They will be able to access the online Training and new Discovery Services to be developed as outlined above. Education Management & Staff will be consulted regarding the services required as part of QQI and an implementation plan developed if required, and in line with budgetary provisions.	Máire Caffrey/Jane Kavanagh/Education Staff & Management	Q4 2020
Improve the system for lending books, through use of eBooks, reference-only core texts and access to book locations within offices.	The cost and use of a self-check-out system will be scoped, as part of a business case for change of supplier for Library Management System.	Máire Caffrey	Q2 2019 2020
	System will be implemented when funding can be provided. Increased use of e-books will form part of the scoping for changed LMS.		
	Create hubs in local offices as space for reading, writing and quiet work, with dedicated administrative support at local level for maintenance and basic library services. Engage in a dedicated PR/promotion campaign for Teagasc Education and Advisory staff. Extend library services to the Teagasc colleges.	Create hubs in local offices as space for reading, writing and quiet work, with dedicated administrative support at local level for maintenance and basic library services. A new library space will be developed at Ashtown in the current Station House. Consultation will be carried out with Management at each Research Centre to establish the availability of suitable space and an implementation plan for each centre will be developed. Engage in a dedicated PR/promotion campaign for Teagasc Education and Advisory staff. As outlined at Item 2-Short-term Recommendations above, when the Discovery Service is launched, there will be a campaign to inform all staff and promote the new library interface. Extend library services to the Teagasc colleges. College staff are able to access the current services. They will be invited to attend the Annual Training Days. They will be able to access the online Training and new Discovery Services to be developed as outlined above. Education Management & Staff will be consulted regarding the services required as part of QQI and an implementation plan developed if required, and in line with budgetary provisions. Improve the system for lending books, through use of eBooks, reference-only core texts and access to book locations within offices. The cost and use of a self-check-out system will be scoped, as part of a business case for change of supplier for Library Management System. System will be implemented when funding can be provided. Increased use of e-books will form part of the	Create hubs in local offices as space for reading, writing and quiet work, with dedicated administrative support at local level for maintenance and basic library services. A new library space will be developed at Ashown in the current Station House. Máire Caffrey/Buildings Officer Engage in a dedicated PR/promotion campaign for Teagasc Education and Advisory staff. Consultation will be carried out with Management at each Research Centre to establish the availability of suitable space and an implementation plan for each centre will be developed. Máire Caffrey/Jane Kavanagh/Local Campus Management Engage in a dedicated PR/promotion campaign for Teagasc Education and Advisory staff. As outlined at Item 2-Short-term Recommendations above, when the Discovery Service is launched, there will be a campaign to inform all staff and promote the new library interface. Máire Caffrey/ KT management Extend library services to the Teagasc colleges. College staff are able to access the current services. They will be invited to attend the Annual Training Days. They will be able to access the online Training and new Discovery Services to be developed as outlined above. Máire Caffrey/Jane Kavanagh/Education Staff & Management developed if required and in inplementation plan developed if required and in inplementation plan developed if required, and in line with budgetary provisions. Máire Caffrey Improve the system for lending books, through use of eBooks, reference-only core texts and access to book locations within offices. The cost and use of a self-check-out system will be scoped, as part of a business case for change of supplier for Library Management System. Máire Caffrey

EVALUATION OF TEAGASC LIBRARY SERVICE ACTION PLAN

5	Mandate all staff to deposit all publications in	Access to book locations will form part of the plan for library space as outlined above. A plan for increasing deposits to, and use of,		
	TStór.	 T-Stór will be developed, to include elements such as: Reporting on number of articles uploaded as part of departmental business plans Prominent link to T-Stór on Publications page of public website Annual Open access award Information on Open Acess and T-Stór to be included in annual training days. Additional admin staff (item 5 of Short term recommendations) will work on increasing content.	Máire Caffrey New admin staff	Q2 2019

3. Long Term Recommendations

No.	Recommendations	Actions to be taken	Person responsible	Date for completion
1	Develop additional services including research data management and curating and managing datasets.	A Research Data Working Group is in place and will produce a plan for RDM in Teagasc.	RDM Working Group	2021
2	Provide for longer-term additional staffing to meet the changing role of research support.	This must be considered in the context of overall constrained staff resources, but will continue to be an agenda item for SMG.	Frank O;Mara/HR	2021
3	Revise the librarian's role in the context of the wider research support role.	Major changes are dependent on the availability of staff and budgetary resources into the future. Revision will be considered when the above recommendations have been implemented.	Frank O'Mara/Jane Kavanagh/Máire Caffrey	2021
4	Advocate with the state for additional funding to enable access to all relevant consortium electronic database and journal resources to be extended to all public-sector research-performing bodies and, in doing so, to broaden access for Teagasc.	Teagasc currently participates in the IReL consortium for access to a number of resources. Development of this and other consortia are under consideration on a national level. Teagasc will continue to monitor developments.	Máire Caffrey	Ongoing 2019
		The level of availability of access to the resources of other libraries by staff, via adjunct professorships or other means, will be established.		
5	Provide access to datasets generated within Teagasc and created externally where access is permissible.	This will be considered by the RDM Working Group.	RDM Working Group	2021
6	Given the dynamic and changing library / research space, a peer review of the library should take place on a five-year cycle.	A review of the library services will be scheduled for 2022.	Kevin Heanue	2022

Appendix: Outline 3-Year Library Development plan

It should be noted that all the activities and developments outlined below will take place in addition to the continued provision of current library services. Major changes are dependent on the availability of staff and budgetary resources into the future.

2018 (from Q2):

The priorities for 2018 are:

- Scope, prepare RFT and award tender for Discovery Service, to provide an improved and simplified web interface for the library services.
- Put in place part-time admin support for librarian.
- Training for staff in optimising use of the available library services:
 - o Develop online guides for Tnet and source links to publicly available LibGuides
 - Organisation of first annual Training Day

Other development work:

- A meeting will be held with education and advisory management to establish preliminary needs for library services.
- A meeting will be held with Finance regarding allocation of a budget code for book purchasing, enabling better tracking of spending in this area.
- The level of availability of access to the resources of other libraries by staff, via adjunct professorships or other means, will be established.

2019:

The priorities for 2019 are:

- Implementation of the Discovery Service early in the year
- Promotional campaign to introduce the Discovery Service and raise awareness/use of all the available services:
 - o Table Talk
 - Posters for display in Research Centres
 - o Annual Training Days in Q1 and Q3
 - o Presentations at appropriate meetings/events
- Stocktaking of book collection at all Research Centres and consequent updating of library catalogue
- New library space at Ashtown
- Consultation with Management at each Research Centre to establish the availability of suitable space for reading, writing and quiet work, as well as print collection, and development of an implementation plan for each centre.
- Finalise and Implement development plan for T-Stór
- Cost and use of a self-check-out system will be scoped, as part of a business case for change of supplier for Library Management System.
 RFT for change of supplier, award of contract and start changeover.

Work will also be carried out to develop Research Data Management services.

2020:

Priorities for 2020 are:

- Implementation of plans for library space at each research centre
- Continued updating of online guides to use of services as necessary
- Complete remaining work on change of Library Management System and implement self-checkout system (dependent on availability of budget resources)
- Annual Training Days continue
- Consultation with Education Management & Staff regarding the services required as part of QQI and an implementation plan developed.
- Continued implementation of all plans and developments commenced in previous years.

2021 and beyond

Prioritise Implementation of long term recommendations:

- Provide for longer-term additional staffing to meet the changing role of research support.
- Continued participation in expansion of national consortial purchasing developments.
- Continued development of Research Data Management Services.

Other work:

- Review book purchasing budget.
- Review e-book situation.