ARDC Institutional Underpinnings Consultation Feedback

The Institutional Underpinnings program, coordinated by the Australian Research Data Commons (ARDC), aims to develop a framework for institutional research data management across Australia's universities. The 25 participating universities are jointly developing and testing a framework for the institutional management, sharing, retention and disposal of research data towards a final release. The scope of workshops has included how institutions provide services, support, training, process and policy, engage stakeholders and manage change.

The framework outputs of the phase 1 elements co-design workshops and working groups have been released as drafts for awareness and review. The participants identified 16 essential elements and prioritised 8 elements for phase 1 output development. Please note this is a mid-program release and during the current phase 2 participating institutions are undertaking activities to test, validate and contribute further to this framework.

Combined feedback from institutions and groups is preferred. Any feedback will be reviewed for consideration and consolidation by the ARDC and participating institutions in later phase releases of the framework.

Once you and your collaborators have completed this form, please submit it to the ARDC via the form at the bottom of the Institutional Underpinnings page. Submissions close on 31 May 2022.

Q1. In reviewing the elements, which components would you agree are particularly important for Australian Universities? Within those given element areas, are there any challenges you (or the universities that you interact with) are facing or recommendations you would make that aren't captured? Are there resources or activities that might be useful and can contribute to the further development of these elements?

(To aid the collating feedback, please clearly label your feedback against the specific element.)

Active Data Management
Level of importance – High **Challenges –** Element-01 focuses on primary data creators and their role as data custodians. Another challenge not addressed here is the cross-institutional movement of data and data management when the researcher and organisation are third-party data recipients. This data relationship has more considerations within ADM than those presented here. **Suggested Resources –** No additional comments **Other comments – (A)** "*Active data management ends when the data is either disposed of or moved to long-term storage after project reporting is complete, and does not include sharing data for re-use after the life of the original project.*" (page 2). We fundamentally disagree with the proposition that ADM does not include sharing data for re-use. Reading the Underpinning document, we anticipated that this exclusion would lead to a dedicated Element for this concept. Instead, it has been mentioned in passing with no specific exploration that reflects the breadth of guidance needed for this topic. *Please see our related comments in* ***Open Research and Data Publication*** *(Element-07).* Researchers should plan their collection and active data management strategy according to a framework that maximises opportunities for re-use by themselves, the home institution or externally. This includes standards around reporting on datasets, using standardised data formats and metadata, ontologies etc. By excluding data re-use from ADM and not providing an Element that expands on this concept, there is a conceptual hole in the document that undermines ADM and **Research Data Management Planning** (Element-04). We do not know how the working groups operated and interacted. However, we wonder if the concept of data re-use is missing due to the working groups' responsibilities and siloed development of their Element, rather than it not being a recognised priority. **(B)** For the *Platform selection key considerations* (page 7), we would suggest that different data access, security and privacy tiers should be considered. Not all university held datasets would be subject to the same degree of privacy and compliance (e.g. human health data versus animal model data).
Culture Change
Level of importance – High **Challenges –** No additional comments **Suggested Resources –** No additional comments **Other comments –** *Culture change for funding bodies* (Point 5, page 4) will need greater input from other research stakeholders that will be affected by any organised effort to affect change. This comes up again in **Remaining Elements** (Element 10). Effecting culture change in funding bodies would have a greater impact if centrally organised and done as a partnership between overarching organisations (Universities Australia, Australian Society of Medical Research Institutes, etc.).
Policy
Level of importance – High **Challenges –** No additional comments **Suggested Resources –** No additional comments **Other comments –** *"Call to action 1: Institutions are encouraged to collectively describe details of relevant legislation that impacts research data aspects in their state"* - page 6. Depending on how agreements are worded, researchers can be required to adhere to relevant legislation in other states or international legislation. This call to action needs to be broader,

to remove the wording "aspects in their state". Achieving this call to action would likely require external management.
Research Data Management Planning
Level of importance – High **Challenges –** No additional comments **Suggested Resources –** No additional comments **Other comments –** No comments
Retention and Disposal
Level of importance – High **Challenges -** Curating datasets or primary materials that have long term value in centralised repositories is a valid option for retention, yet it is not discussed in **Retention and Disposal** (Element-06). Involvement in data or primary material repositories is a challenge for researchers navigating deposition, as it requires planning during **Active Data Management** (Element-01) and legal considerations related to agreements. Use of these repositories will inform retention policy and practices, organisational and individual researcher budget planning, and standardising metadata capture with external organisations processes. **Suggested Resources -** No additional comments **Other comments –** No additional comments
Open Research and Data Publication
Level of importance – Medium (See notes. Data Sharing and Access is a high priority and needs to be prioritised over the sub-concepts of open research and data publication) **Challenges – (A)** For researchers to practice Open Research, they will need financial support to use open-access platforms. For example, Article Processing Charges (APC), data access egress costs, and staff wages for managing this data within a project. This must be factored into policies, organisational budgets, researcher support schemes, grant requirements, and agreements. **(B)** The list of *Key challenges* (page 4) - needs to include *"A lack of participant consent to data sharing in human research."* Open access and data publishing are not universal for all data and primary materials. Some data sets need to be controlled or registered access due to consent for re-use of data. **Suggested Resources –** Australian Genomics dynamic consent web-app CTRL (https://www.australiangenomics.org.au/tools-and-resources/dynamic-consent-and-ctrl/) & the associated publication (https://www.nature.com/articles/s41431-020-00782-w) **Other comments - (A)** "Open Research" and "Data Publication" are two examples of approaches under the concept of Data Sharing and Access (DSA). **Active Data Management** (Element-01) excludes data re-use as part of ADM. Element-07 must be expanded beyond open research and data publication to encompass the broader data sharing and access concept. In this current iteration, the Institutional Underpinnings document, as a whole, has glossed over data access and sharing and its importance. In future versions, data sharing and access needs to be a primary Element and acknowledged as a sister element to **Active Data Management** (Element-01), with strong relationships between the working groups progressing these areas. Further to this recommendation, it is misleading to use the terms 'Open Research' and 'Data Publication' in this context. You can support data sharing and accessibility with an organisation's infrastructure or a data commons environment without "publishing" it to archive. Any RDM framework should be much clearer in the data access types (Controlled, Registered, Open) and how these are related to FAIR principles. They are very distinct concepts, and the advice given in this document should present the spectrum of options available to researchers in upholding their data access and sharing obligations.

(B) The Open Research section acknowledged human research participant consent as a concept, suggesting that broad consent is preferred and suggesting ways to improve data re-use through consent education and storage in *Recommendation 5* (second dot point, page 10). While we agree with the recommendations presented, the discussion here is reductive. It doesn't consider the breadth of options and considerations that need to be communicated to organisations and researchers about participant consent and re-use of data. We would also argue that it is not only HRECs and researchers that have a say in applying broad consent. There needs to be human research participant acceptance of this concept in a per-project manner. This requires participant education of what broad consent means to their data, and participation and consideration of optional consent are better suited to the specific circumstances or cohort of the research. In the "resources section", we have provided information on the concept of dynamic consent and an example of a platform used to implement it in research projects. **(C)** *"Recommendation 2: Adopt Incentives for good data management, with open research and data sharing as end aspirations"* (page 5) equates open research and data sharing to good data management. If you incentivise open research and data sharing, you could inadvertently create poor data management as researchers seek to obtain metrics without considering the impact on their specific research. Perhaps rather than incentivise the document could promote the provision of active or direct support for appropriate open research and data sharing processes. This would encourage organisations to dedicate funds/resources/staff/advisory groups/support personnel to achieving good data management throughout the process rather than providing rewards after the fact. **(D)** *"Recommendation 3: Create and adopt uniform research data metrics as a mechanism for measuring the impact of data/research sharing"* (page 6) is expanded upon using publications as a metric. This does not align with current efforts for funding bodies to diversify their metric for research success away from journal publication. There needs to be more consideration of uniform metrics unrelated to journal article publication that can be applied consistently across disciplines. An example is creating metrics around the adoption of FAIR principles.
Sensitive Data
Level of importance – High **Challenges -** No additional comments **Suggested Resources –** No additional comments **Other comments –** "*Recommendation 5: Provide guidance for ethics committees on appropriate RDM approaches for sensitive data*", page 10. HRECs have their own sensitive data schemes. Instead of trying to change HREC's perspective on sensitive data, universities should be consulting HREC when developing their approach to sensitive data. This will promote the alignment of the university and HREC concepts.
Support, Training and Guidance
Level of importance – High **Challenges –** No additional comments **Suggested Resources –** No additional comments **Other comments –** none

Q2. Looking at the full list of 16 element areas, is there anything important to university research data management that is not covered?

Data Access and Sharing should replace **Open Research and Data Publication** (See Element-07 for comments). Alternatively, if **Open Research and Data Publication** remains unchanged, data access and sharing should be included in **Active Data management** (Element-01).

We would also like to note that all 16 Elements are important. However, prioritisation may not be based on perceived importance. Rather, some issues and activities within Elements need to be resolved before others can be addressed. Examples are **Support, Training and Guidance** (Element-08) and **Culture Change** (Element-02). Both are critically important and must be factored into planning for a Research Data Framework. However, most of the work in these Elements will occur after policies and processes in the other Elements are established.

Q3. What components of the draft release might you find most useful for your organisation? In what components of the draft release would you see potential or find the most encouraging?

The **Calls to Action** have the potential to be a higher useful part of this document to highlight and drive actions that support cross-institutional activities. However, many of the **Call to Action** statements lack specificity in what is being asked of the reader or how they can purposefully enact the suggested action. In some instances, individual university actions will not be able to create change. Instead, there is a need to participate in centralised and externally managed effort in pursuing an action. We feel this concept should be kept, but more consideration for how it is delivered and supported should be included.

Policy (Element-03) was presented in a way that assisted universities in how to construct policy. It provided a template for action more than the other Elements. We suggest the structure of Element-03 be used as a template for how the other Elements should be presented in the final document.

Q4. Please provide a contact email address

info@australiangenomics.org.au

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