

Future Pathways Policy Team  
Ministry of Business, Innovation & Employment  
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(Via email to [futurepathways@mbie.govt.nz](mailto:futurepathways@mbie.govt.nz))

Re: Submission on Te Ara Paerangi - Future Pathways Green Paper

## 1 **CONTEXT**

- 1.1 The New Zealand Government seeks submissions from interested parties to the Green Paper “Te Ara Paerangi - Future Pathways” (“Paper”) addressing how the national research, science and innovation (“RSI”) system might be modernised to better serve future needs.
- 1.2 One aspect of the Paper considers “core functions” of the RSI System and includes key databases and collections as a component of essential research infrastructure.
- 1.3 This submission is directed exclusively to that narrow aspect of the Paper and in particular to the New Zealand Food Composition Database (“NZFCD”) as an example of a critical database resource that serves a multitude of users and uses but has no certainty of being sustained long-term.
- 1.4 This submission is made jointly by The New Zealand Institute for Plant and Food Research Ltd (“PFR”) and the New Zealand Ministry of Health (“MoH”) as the joint owners of the New Zealand Food Composition Database (“NZFCD”).

## 2 **WHAT IS THE NZ FOOD COMPOSITION DATABASE (NZFCD)**

- 2.1 NZFCD is a national asset initially established by DSIR in 1986 and further developed by its successor the New Zealand Institute for Crop and Food Research (now The New Zealand Institute for Plant and Food Research Ltd – PFR) with funding and direction from Ministry of Health (MoH) since the late 1980’s.
- 2.2 The NZFCD is a living database of composition data for foods consumed in New Zealand by New Zealanders.
- 2.3 The NZFCD is openly published through the website [foodcomposition.co.nz](http://foodcomposition.co.nz) as compiled publications or through extensive report formats accessible through the on-line search facility; these resources are freely available to everyone.
- 2.4 The goal of the NZFCD is “to provide a national source of independent, reliable and up-to-date information on the nutrient composition of foods and drinks that contribute substantially to nutrient intake in New Zealand.”
- 2.5 MoH and PFR have jointly invested for over 30 years in the maintenance and development of the NZFCD on behalf of all New Zealanders; MoH has invested in the production of nutrient composition data and PFR has invested in the database management system.
- 2.6 This composition data has an extensive user base being used to inform Government food and public health policy, enabling nutrition and diet surveys, supporting professional diet/meal planning, education both formal (schools and universities) and informal (general public), scientific and social research, food labelling & trade including declarations for exporters.
- 2.7 The science community relies on the NZFCD (whether directly or through derivative works that source their data from NZFCD such as Xyris Software’s FoodWorks®) to provide data on macro- and micro-

nutrient (and some anti-nutrient – eg heavy metals) of foods in order to project the impact of diets and foods on populations and sub-populations within New Zealand without having to run extensive and expensive assays on the foods that their research depends upon.

- 2.8 Consequently the NZFCD and third party derivative computer apps that build off the NZFCD data (eg FoodWorks®) are frequently cited in published scientific papers.
- 2.9 It is our submission that this evidences that the NZFCD is a public good resource that comprises a critical component of the New Zealand science infrastructure of the type the Paper anticipates.

### **3 SUBMISSION**

- 3.1 Our submission relates to the role of the NZFCD as a critical element of National Science Infrastructure and its reliance on the goodwill of the joint owners to maintain it as a functioning resource to support academic research in health, nutrition and social science as well as for framing government policy, supporting education, enabling professional health management and for our food industry to support food labelling compliance.
- 3.2 We commend the authors of the Paper for recognising that databases and collections are as crucial to supporting the RSI system as are facilities and equipment and thereby according these resources a considered place within the wider science ecosystem.
- 3.3 The value of openly available and reliable databases is that they enable an efficiency to the RSI system through not requiring data to be originally produced each time it is required for applied research. For example, if it was necessary to analyse the nutrient composition of each food identified in a dietary study in every instance, it would be impossible to conduct such research. Instead the NZFCD provides that data in a reliable and freely available form so that science resources may be channelled to more impactful investigations.
- 3.4 We submit that the characteristics that indicate that a database or collection is a core component of New Zealand's science infrastructure include:
- systematic compilation according to international best practice;
  - relied on for a broad range of uses by diverse users;
  - open and freely available via readily accessed channels;
  - focused on public good or national benefit outcomes, and
  - is highly regarded internationally
- 3.5 As an aspect of the review that is triggered by the Paper we submit that those data resources that meet the criteria stated in the previous point are core to the performance of critical science so should be directly funded and generally supported as a core element of national science infrastructure that enables the science community to perform its functions.
- 3.6 We further submit that the NZFCD is a specific example of a database that should be maintained as an element of national science infrastructure under direct and specific funding within the national RSI system to provide greater surety of continued availability to the science community and all users.
- 3.7 Furthermore, a more assured funding mechanism could allow further resourcing at levels that permit greater development of the resource to enhance its value to the scientific community and other national users.
- 3.8 As a final observation we note that MBIE conducted a review of Nationally Significant Databases and Collections commencing September 2018 and that the extensive work conducted in that review should feed the consideration of these resources in the current context.

### **4 CONTACTS**

- 4.1 For Plant & Food Research: Allan Main, Business Manager, [Privacy - 9\(2\)\(a\)](#).
- 4.2 For Ministry of Health: Maria Turley, Principal Technical Specialist, Health and Disability Intelligence, [Privacy - 9\(2\)\(a\)](#).