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# CONSULTATION DRAFT

Australian and New Zealand Standard  
Research Classification Review 2019

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## Introduction

This paper provides background to the ANZSRC Review Consultation Draft, including the process for developing the draft, outstanding issues, and next steps for the review. Expert feedback is sought on the Consultation Draft prior to finalisation of the ANZSRC revisions.

### ANZSRC

The Australian and New Zealand Standard Research Classification (ANZSRC) is a set of three related classifications developed for use in the measurement and analysis of research and experimental development (R&D) undertaken in Australia and New Zealand. ANZSRC is used both in the public and private sectors. It allows the comparison of R&D data between sectors of the economy (e.g. general government, private non-profit organisations, business enterprises and educational institutions).

ANZSRC was published in 2008, as a replacement for the Australian Standard Research Classification (ASRC). ANZSRC was introduced to keep pace with contemporary research and to create a joint Australian and New Zealand statistical classification for research and experimental development. It has three component classifications: Type of Activity (ToA), Fields of Research (FoR), and Socio-Economic Objective (SEO).<sup>1</sup> This paper assumes familiarity with these three classifications, however further information on ToA, FoR and SEO is provided at the end of this document.

The use of these classifications ensures that R&D statistics are useful to governments, educational institutions, international organisations, scientific, professional or business organisations, business enterprises, community groups and private individuals.

ANZSRC is also used nationally and internationally for a wide variety of applications by a range of government, education and industry stakeholders.

### ANZSRC Review

Announced in June 2018, the ANZSRC Review ('the Review') is being carried out jointly by the Australian Bureau of Statistics (ABS), Stats NZ, the Australian Research Council (ARC) and the New Zealand Ministry of Business, Innovation and Employment (MBIE).

The aim of the Review is to ensure that ANZSRC reflects current practice and is sufficiently robust to allow for long-term data analysis.

The Review is overseen by the ANZSRC Review Steering Committee, comprising representatives from the ABS, Stats NZ, ARC and MBIE. The role of the Steering Committee is to oversee the Review, consider implementation of the revised ANZSRC, and manage project governance. Any updates to ANZSRC will require endorsement by the ABS and Stats NZ.

The Consultation Draft is the result of ongoing consultations that commenced in February 2019. The ANZSRC Review Steering Committee will consider feedback in response to this draft and make changes as necessary, before the revised ANZSRC is finalised and adopted in mid-2020.

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<sup>1</sup> Australian Bureau of Statistics (ABS), [Australian New Zealand Standard Research Classification \(ANZSRC\)](#) (2008)

## Review Process

### Initial Public Consultation

The ANZSRC Review Discussion Paper was released on 25 February 2019, with responses due by 7 June 2019. 214 Australian and 23 New Zealand submissions were received from individuals and organisations in response to the Discussion Paper. Submissions were published on the [ARC website](#) (for Australian responses) and [MBIE website](#) (for New Zealand responses), except where the authors requested that their responses not be published.

The initial public consultation reflected high levels of participation from stakeholders and resulted in more than 2,500 individual suggestions for changes to ANZSRC.

In addition to the responses to the Discussion Paper, the ABS, Stats NZ, ARC and MBIE conducted a range of ongoing public consultations with discipline experts, peak bodies, and other individuals and organisations.

### Development of the Consultation Draft

All suggested changes to ANZSRC were collated and considered for incorporation in the Consultation Draft. In general, suggestions were incorporated without further analysis where:

- There were no competing suggestions or a strong majority view existed among submissions
- The change was of low complexity and not expected to be controversial with stakeholders and
- The suggestion was consistent with the Review principles.

Where these conditions were not met, further analysis was undertaken. Multiple factors were considered in determining whether to incorporate submissions into the draft. In general, the greatest importance was assigned to the views of representative groups of discipline experts such as academies, deans' councils, royal societies and other discipline peak bodies. Evidence of community of practice—i.e. evidence that proposed changes reflect the way that researchers organise themselves and regard their work, such as the existence of research groups, institutes, associations or conferences dedicated to a topic—and alignment with international research practices were also highly regarded sources of evidence in support of particular proposals. Bibliographic analysis and volume measurements were used sparingly and generally did not strongly influence the decision-making process.

Following this development process, sections of the Consultation Draft were provided to relevant academies and peak bodies for initial review prior to publication.

## Specific Issues

The ANZSRC Review Discussion Paper raised a number of specific issues to be considered by the review for detailed consideration:

### Aboriginal and Torres Strait Islander, Māori and Pacific Peoples Studies

A large volume of feedback has been received relating to classification of Aboriginal and Torres Strait Islander, Māori and Pacific Peoples research and socio-economic objectives. Feedback from

discipline experts during the consultation process indicated that Indigenous research is most accurately classified as its own research discipline, and in this draft Indigenous research is classified as a separate Division in both FoR and SEO. A detailed supplementary paper accompanies this paper, which specifically addresses views and options relating to classification of Indigenous research. The supplementary paper is available on the [ARC website](#).

## Interdisciplinary and Multidisciplinary Research

Feedback through the initial public consultations indicated that in most instances, allowing users to assign multiple codes to research data, or apportion research across multiple codes, is adequate to capture interdisciplinary and multidisciplinary research. No specific changes have been made in the draft to the classification of interdisciplinary and multidisciplinary research.

## New and Emerging Research Disciplines

A number of new and emerging research disciplines were identified in the initial public consultations, and these have been reflected in the draft revisions to the FoR classification.

## Proposed Changes

The proposed changes to SEO and FoR are listed in the respective spreadsheets that accompany this document. High-level changes to each of the classifications are outlined below.

The proposed numbering for the revised SEO and FoR is designed to avoid re-use of code numbers where classifications have been moved or deleted, but this numbering is not final and may be adjusted prior to finalisation of the review.

### Type of Activity

Following a review of the submissions received as part of the first round of public consultation, and more targeted stakeholder consultation, it is proposed that the current categories remain unchanged in content, but their respective definitions will be updated to align language with the *OECD Frascati Manual*<sup>2</sup> ToA classification. The result will be that the definitions of Applied Research and Experimental Development will mirror those in the *Frascati Manual*. The definitions for Pure Basic Research and Strategic Basic Research will be updated to reflect language from the *Frascati Manual* and clarify that the union of these two categories is identical to the *Frascati* Basic Research classification.

Overall the feedback received noted that the ToA component of the classification was adequate, and the split into four categories (as opposed to the three categories in the *Frascati Manual*) is relevant and useful for a granular view of the nature of the research classified. Additional supporting text will be included to assist in reducing any ambiguity in the existing ToA categories.

### Socio-Economic Objectives

In response to feedback, a number of changes have been made to the SEO classification. These are set out in the spreadsheet that accompanies this document.

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<sup>2</sup> OECD, [Frascati Manual](#) (2015).

The Sector level of the SEO classification has been removed. Although there was minimal feedback on the Sector codes specifically, it was suggested that removing them was beneficial. In application, they are not an effective way to measure socio-economic objectives and do not provide significant benefit to the SEO classification. The removal of the Sector level also allows for consistency in the approach of the SEO and FoR hierarchical structure.

Additional changes include:

- *90 Commercial Services* and *91 Economic Framework*—Minor renaming at Group level only.
- *81 Defence, 82 Plant Production, 83 Animal Production, 84 Mineral Resources, 85 Energy, 86 Manufacturing, 87 Construction* and *88 Transport*—Groups have been renamed and new Objectives identified.
- *89 Information Services*—Renaming of Groups including one for Information Systems, Technologies and Services, and new Objectives identified across the Division.
- *92 Health*—Clinical Health has significantly different codes to reflect current objectives of health research.
- *93 Education and Training*—A large number of changes across the Division including new Objectives such as Inclusive Education.
- *94 Law, Politics and Community Services*—Significant changes in the Community Services Group with new Objectives identified such as Homelessness and Housing Services.
- *95 Culture and Society*—Significant changes including the split of Religion and Ethics.
- *96 Environment*—The climate change codes in this Division have been restructured to reflect the current objectives of this research.

## Fields of Research

In response to feedback, extensive changes have been made to the FoR classification. These are set out in detail in the spreadsheet that accompanies this document. Major changes include:

- *05 Environmental Sciences*—Three new Groups have been created including one for Climate Change Studies.
- *07 Agricultural and Veterinary Sciences*—Food Sciences has been moved into this Division from Division 09 Engineering, and the Division has been renamed to ‘Food, Agricultural and Veterinary Sciences.’
- *08 Information and Computing Sciences*—This Division has been significantly restructured to reflect current practice, with 5 Groups removed and 11 new Groups created.
- *09 Engineering*—A large number of changes have been made at the Group level.
- *10 Technology*—This Division has been removed and its Groups distributed among other Divisions.
- *11 Medical and Health Sciences*—This Division has been split into two Divisions, ‘Biomedical and Clinical Science’ and ‘Health Sciences.’ A number of new Groups have been created in the Health Sciences Division to capture health sciences and public and allied health in more detail.
- *15 Commerce, Management, Tourism and Services*—A large number of Fields have been moved within this Division.
- *16 Studies in Human Society*—Created new Groups for Forensic Science, Gender Studies and Development Studies.

- *17 Psychology and Cognitive Sciences*—This Division has been significantly restructured and renamed to ‘Psychology.’
- *18 Law and Legal Studies*—The Group 1801 Law has been divided into a number of new Groups.
- *19 Studies in Creative Arts and Writing*—This Division has significant changes at the Group level.

## Providing Comment

This draft is not final and the ANZSRC Review Steering Committee is allowing time for changes before finalisation of the new ANZSRC classification.

Feedback is sought on:

- Whether the revised classifications accurately capture the current Australian and New Zealand research landscape.
- Whether any errors or ambiguities have been introduced in the drafting process.
- Concordance between the old and revised ANZSRC classifications, including
  - where codes have been deleted, where would that research be classified in the revised ANZSRC?
  - where new codes have been created, where would that research have been classified in ANZSRC 2008?

Feedback should directly address corrections that are required to the draft classification to ensure the classification reflects research practices in Australia and New Zealand.

If you identify issues with the draft, please provide specific suggestions as to how they could be resolved. Please consider your response in the context of disciplinary research practice, the multiple uses of ANZSRC and the information provided in this paper or the *ANZSRC Review Consultation Draft: Indigenous Research*.

To assist in a balanced evaluation of the draft, submissions in support of changes are also welcomed.

### **Submissions will close on 10 February 2020.**

This will be the last opportunity for public comment on the ANZSRC draft. The final revised ANZSRC will be published in mid-2020.

### Format of submissions

Emailed submissions must indicate whether the submission represents the views of an individual or an organisation (and if so, which organisation).

The preferred format for responses to the SEO or FoR drafts is **a copy of the draft classification Excel workbook with comments against specific codes in the ‘Comments’ column** provided.

Submissions may be made public unless accompanied by a request that they not be made public. Submission information may be shared with Australian or New Zealand government agencies and other organisations for the purpose of the review.



Submissions may be made anonymously or pseudonymously, however in these cases the Review agencies will be unable to follow up on any details in the submission.

Submissions in response to this consultation draft are invited via email to:

- [ARC-ANZSRCReview@arc.gov.au](mailto:ARC-ANZSRCReview@arc.gov.au) (for Australian stakeholders) or
- [ANZSRCReview@mbie.govt.nz](mailto:ANZSRCReview@mbie.govt.nz) (for New Zealand stakeholders).

Please contact the ARC or MBIE if you wish to make a submission in another format.

## ANZSRC Classifications Background

The following is a broad overview of the current (2008) ANZSRC.

### Type of Activity

Four types of activity applicable to R&D are recognised in this component of the ANZSRC classification:

- Pure basic research
- Strategic basic research
- Applied research
- Experimental development

The definitions in ANZSRC 2008 are as follows:

**Pure basic research** is experimental and theoretical work undertaken to acquire new knowledge without looking for long term benefits other than the advancement of knowledge.

**Strategic basic research** is experimental and theoretical work undertaken to acquire new knowledge directed into specified broad areas in the expectation of practical discoveries. It provides the broad base of knowledge necessary for the solution of recognised practical problems.

**Applied research** is original work undertaken primarily to acquire new knowledge with a specific application in view. It is undertaken either to determine possible uses for the findings of basic research or to determine new ways of achieving some specific and predetermined objectives.

**Experimental development** is systematic work, using existing knowledge gained from research or practical experience, which is directed to producing new materials, products, devices, policies, behaviours or outlooks; to installing new processes, systems and services; or to improving substantially those already produced or installed.

There were no changes to the ToA categories between the 1998 ASRC and 2008 ANZSRC.

### Fields of Research

ANZSRC FoR is a classification for research activity according to the *methodology* used in the research, rather than the activity of the unit performing the research or the purpose of the research.

The FoR classification has three hierarchical levels of increasing specificity. The three levels are Divisions, Groups and Fields, respectively indicated by two, four or six digit classification numbers. The current FoR classification has 22 Divisions, 157 Groups and 1238 Fields.

Each Division is based on a broad discipline. Groups within each Division are those which share the same broad methodology, techniques and/or perspective as others in the Division. Each Group is a collection of related Fields. An example of this hierarchy is:

Division ..... 21 History and Archaeology

Group ..... 2101 Archaeology

Field ..... 210103 Archaeology of Asia, Africa and the Americas

ANZSRC was developed based on the 1998 *Australian Standard Research Classification (ASRC)*<sup>3</sup>, which used a similar hierarchical structure. In developing ANZSRC, ASRC categories that had reported very little activity in ABS surveys were merged with other categories or deleted, in consultation with experts in the relevant fields. Some Division and Group classifications that reported very high levels of activity were split into more targeted codes, and some new codes were added for emerging research areas identified by experts.

As far as possible, the 2008 ANZSRC FoR classification was designed to align at the Division level with the OECD *Fields of Science 2007*<sup>4</sup> classification. However, some changes were made to better align with the Australian and New Zealand research environment. A table of correspondences between ANZSRC and the Fields of Science is [available on the ABS Website](#).

## Socio-Economic Objective

The ANZSRC SEO classification allows R&D activity in Australia and New Zealand to be categorised according to the intended purpose or outcome of the research, rather than the processes or techniques used in order to achieve this objective. The purpose categories include processes, products, health, education and other social and environmental aspects in Australia and New Zealand that R&D activity aims to improve.

The SEO is a hierarchical classification with four levels, namely Sectors (letter), Divisions (2 digits), Groups (4 digits) and Objectives (6 digits). The current SEO has 5 Sectors, 17 Divisions, 119 Groups and 847 Objectives. While the Sector forms part of the hierarchical structure of the SEO, it is used only for grouping divisions for publication of R&D data, not for data collection.

Each Division is based on a broad research objective. Groups within each Division are those which are aligned towards the same objective as the Division. Each Group is a collection of related research Objectives.

The hierarchical structure of the SEO is illustrated in the example below:

Sector ..... B Economic Development  
Division ..... 86 Manufacturing  
Group ..... 8607 Agricultural Chemicals  
Objective ..... 860702 Chemical Fertilisers

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<sup>3</sup> ABS, [Australian Standard Research Classification](#) (1998).

<sup>4</sup> OECD, [Revised Fields of Science and Technology \(FOS\) Classification in the Frascati Manual](#) (2007).