# ACGR Good Practice Guidelines:

# HEIMS Higher Degree by Research End-User Reporting Requirements

These Guidelines should be read in association with the Good Practice Guide for enhancing industry university engagement.







### ACGR Good Practice Guidelines: HEIMS Higher Degree by Research End-User Reporting Requirements

#### 1. Industry-university engagement

Improving mechanisms to increase Industry -University engagement has been a main focus on the Australian research training agenda in recent years. One of the key findings from the 2016 Australian Council of Learned Academies (ACOLA) *Review of Australia's Research Training System* was that an increased engagement at the higher degree by research (HDR) level was essential in improving industry-university collaboration (McGagh et al., p. xiv). The review recommended the implementation of initiatives to connect HDR candidates with industry such as industry placements and other programs. In response to the ACOLA review the Federal Government developed the 2017 Research Training Implementation Plan, which includes industry-university collaboration as one of five priority areas.

The sector has responded with an increase in the number of industry-engaged activities and formalisation of structures, policies and procedures to implement these more seamlessly into University core business. The Australian Council for Graduate Research (ACGR) in collaboration with the Australian Industry Group has produced a <u>Good Practice Guide for enhancing industry university engagement</u> to assist Universities with this process.

#### 1.1 Industry engagement reporting

The impetus for reporting industry engagement came from the ACOLA Review, and the subsequent Research Training Implementation Plan (*RTIP Action 2.4 Establish baseline data and monitor internships and other collaboration*). This reporting has now been implemented across the sector via the Higher Education Information Management System (HEIMS), which collects data for the Higher Education Student Data Collection. Universities are required to report, through element 593, on the types of engagement with *research end-users* in the HDR student cohort. A *research end-user* is a term now common across the sector and represents the nature of engagement between the two groups. There are currently 6 different categories that are reportable within element 593, each defined by the Department of Education (see Section 5: Legend).

#### 1.2 How to use this guide

This guide is designed to provide institutions with assistance on the interpretation of the HEIMS element 593 higher degree by research end-user engagement code and reporting requirements. Section 2 outlines key principles on the reporting, collection and analysis of the data; Section 3 provides a guided explanation of each of the six codes; Section 4 provides examples collected from Universities of research end user engagement; and Section 5 is a legend of the codes and their definitions.

The guide has been produced by the HDR End-user Engagement Reporting Working Group in consultation with the Department of Education and is endorsed by the Australian Council of Graduate Research (ACGR) (August 2019).

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#### 2. Principles for reporting data on higher degree by research end-user engagement

#### Key Principle (for purpose of reporting):

Universities and government will benefit from better understanding the *contribution* of HDR programs to economic, social and environmental benefit. Data collected by the Higher Degree by Research End-User Engagement Code quantifies the *amount* and *type* of HDR engagement. Such activities have the potential to improve the contribution of HDR programs to economic, social and environment benefit.

#### Sub Principles (for data collection, analysis and reporting):

- 1. The University recognises the value of the data to inform local and sectoral development of HDR programs and therefore the importance of collecting, analysing and reporting accurate and representative data.
- 2. The University follows the user guide on how to consistently interpret the reporting requirements in order to ensure consistency of reporting and benchmarking across the sector.
- 3. The University recognises that there will be short term and longer-term solutions to data collection, analysis and reporting depending on the maturity of the industry/research end user agenda and capability of the systems at their own institution.
- 4. The University utilises the collection, analysis and reporting of data as an opportunity to promote and communicate the value of industry/research end user engagement to the HDR candidate and to a range of internal and external stakeholders as outlined in the ACGR <u>Good Practice Guide for enhancing industry university engagement</u>.
- 5. The University recognises that their HDR candidate cohorts may already be engaged in industry and may also be research end users themselves and considers the implication of this in strategic planning and communications conversations.
- 6. The University incentivises HDR candidates if they are being asked to provide data for reporting purposes.



#### 3. Research end-user definitions and interpretation

The following table provides the HEIMS value, its definition, and guidance for Universities on the definition. It is intended to provide broad assistance in interpreting the definitions, and not intended to be exhaustive in the examples and explanation. Extensive 'real' examples from Universities within each of the categories are provided in the quick reference guide in <u>Section 4.</u>

| HEIMS     | Data Element Specification Terminology  | Explanation   |  |  |  |
|-----------|---|---|--|--|--|
| Indicator |   |   |  |  |  |
| Intro-    | Research end-user   | The definition of research end-user was created by the Department of  |  |  |  |
| duction   | An individual, community or organisation external to academia that will directly use or directly benefit from the output, outcome or results of the research.   | Education for HDR end-user reporting, informed by the ARC definition of engagement.   |  |  |  |
|           | Note: Examples of end-users includes businesses, governments, non-governmental organisations, communities and community organisations. Specific exclusions of research end-user are:  Other higher education providers                              | The scope of the ARC and HDR definitions on who can be counted as an end user are the same <i>with the exception</i> that publicly funded research organisations are in scope for the HDR reporting, and out of scope in ARC.         |  |  |  |
|           | <ul> <li>Organisations that are affiliates, controlled entities or subsidiaries (such as Medical Research Institutes) of a higher education provider</li> <li>Equivalents (international or domestic) of the above exclusions</li> </ul>            | Examples of end-users include businesses, governments, non-governmental organisations, communities and community organisations. End-users of research <i>do not</i> need to come from a particular business type, or industry sector. |  |  |  |
|           |   | Advice to Higher Education Providers (HEPs):  |  |  |  |
|           |   | Provide examples to your cohort of organisations that should be <i>excluded</i> from reporting, eg external affiliates such as SAHMRI   |  |  |  |
| 02        | Research internship   | Advice to HEPs:   |  |  |  |
|           | A temporary position with a research end-user where a student has undertaken research and development (R&D) related to their higher degree by research (HDR). A research internship must be for a period of at least 30 days, can be either paid or | Use the language most familiar in your institutions - placements, short-term research projects or internships.  Research end-user in this context is  Duration is key – this is 30 calendar days regardless of whether they are       |  |  |  |
|           | must be jor a period of at least 30 days, can be either paid of   | consecutive   |  |  |  |



| HEIMS<br>Indicator | Data Element Specification Terminology   | Explanation  |
|--------------------|--|--|
| mucacoi            | unpaid, and can form part of the enrolment or be undertaken during an HDR period of suspension.  | 'Related to their higher degree by research' can be interpreted broadly.  It relates to the use and extension of transferable skills and research training (ie developing graduate attributes), not just activities cognate with the research project.   |
| 03                 | Jointly supervised by a research end-user Jointly supervised by a research end-user is defined as an HDR student that has at least two HDR supervisors, with at least one supervisor from a research end-user organisation. The supervision arrangements must be endorsed by the HDR student's HEP and the research end-user supervisor must be actively engaged in the student's HDR.   | <ul> <li>Advice to HEPs:         <ul> <li>'Actively engaged' should be interpreted as those formally approved by the HEP as part of the supervisory team or panel.</li> </ul> </li> <li>In scope:         <ul> <li>Research end-user is any individual from the industry partner, including private, government, not-for-profit or community groups. This excludes staff in affiliated research institutes, adjuncts.</li> </ul> </li> <li>Out of Scope:         <ul> <li>Mentors and external supervisors for whom there is no direct benefit and/or are not on the panel are considered out of scope.</li> </ul> </li> </ul> |
| 04                 | Jointly or fully funded by a research end-user Jointly funded or fully funded by a research end-user is where a research end-user contributes financially to the cost of an HDR student's course of study or to other costs borne by the student during their study (such as a stipend for general living costs). The arrangement must be awarded specifically in relation to an HDR student rather than a general HEP research project that a student may be involved with. | Advice to HEPs:  'Direct to the student' includes stipends, living costs, travel allowances, Professional Development, materials, equipment (directly for their use).  In scope:  • Funders that engage in the research outcomes of the project. For example, a philanthropist that funds a student to improve water quality, with the intention of investing in the solution.  Out of Scope:  • Funders that that do not directly engage in the outcomes (eg NHMRC, ARC) are not in scope   |



| HEIMS<br>Indicator | Data Element Specification Terminology  | Explanation   |
|--------------------|---|---|
| 05                 | Formal training on end-user engagement  Any formal training recognised by the HEP that focusses on preparing a student for work with a research end-user. This includes intellectual property, management/leadership, collaboration, entrepreneurship, and research commercialisation. Training can be administered by a research end-user organisation or by the HEP.      | Advice to HEPs: Formal training can include transferrable skills development or structured learning programs endorsed by the University that prepares a student for work with a research end-user.  In scope:  It's any training which prepares candidates to work with end-users, not formal training on end-user engagement  Any transferable skills training  Universities who use the Vitae Researcher Development Framework (RDF) would exclude activities mapped to domain A, for example.  Training can be administered by end-users or university staff. Out of scope:  Core research skills, including research methods, academic writing, statistics, research integrity. |
| 06                 | Other commercialisation and engagement activities An arrangement with a research end-user that enables experiential learning related to the student's HDR. This includes practicums or performances, R&D consultancy work, R&D commercialisation work, entrepreneurship, community engagement/outreach, and research extension work either with or for a research end-user. | <ul> <li>Advice to HEPs         <ul> <li>'Arrangement with end-user' can be broadly interpreted as any experience or activity relevant to candidature which involves or provides a benefit to a research end-user.</li> </ul> </li> <li>Points of clarification:         <ul> <li>someone in the audience of a performance would be regarded as an end-user.</li> <li>A PhD who continues to work PT while enrolled for an employer, provided the employer benefits from the research.</li> </ul> </li> </ul>   |



#### 4. Examples and quick reference guide

The following table is a quick reference on coding HDR research end-user engagement activities. It provides real examples from different Universities of different types of end-user engaged activities and how they can be coded. Activities can be attributed to more than one of the codes. However, in such instances, only one code should be selected per activity. The code that most accurately describes the end-user engagement should be selected.

| Activity   | 02       | 03 | 04       | 05 | 06 | NA       |
|--|----------|----|----------|----|----|----------|
| APR or other internship/ placement greater than or equal to 30 calendar days in total  | <b>√</b> |    |          |    |    |          |
| Participated in an entrepreneurship or business incubator (where candidate is provided resources and coaching to develop a new product or service) greater than or equal to 30 calendar days in total  | <b>√</b> |    |          |    |    |          |
| Publication of research findings with industry/ external co-author who was also the candidate's supervisor   |          | ✓  |          |    |    |          |
| Candidate actively supervised by external/ industry supervisor (ie member of the panel)  |          | ✓  |          |    |    |          |
| Candidate stipend, travel or other allowances provided by industry-funded research development corporations (eg Grains RDC)  |          |    | ✓        |    |    |          |
| Candidate stipend, top-ups, travel allowances or bursaries funded by publicly funded research organisations (eg CSIRO, ANSTO)  |          |    | ✓        |    |    |          |
| Candidate tuition fees, stipends, top-ups, travel allowances provided by a home government or sponsor where the candidate is bonded to work for them post-completion   |          |    | <b>√</b> |    |    |          |
| Candidate stipend, travel or other allowances provided by their employer AND there is intended benefit to employer from the research outputs   |          |    | ✓        |    |    |          |
| Candidate stipend, travel or other allowances provided by their employer, but the research project is not intended to be of benefit to their employer (end-user does not need to benefit from the funding contribution for it to be coded as 04) |          |    | <b>√</b> |    |    |          |
| Candidate stipend or travel allowance provided by ARC or NHMRC   |          |    |          |    |    | ✓        |
| Candidate stipend, travel or other allowances provided by philanthropists or not for profit organisations, who intend to translate the research findings   |          |    | <b>√</b> |    |    |          |
| Candidate stipend, travel or other allowances provided by philanthropists or not for profit organisations, who <i>do not</i> have a direct interest in translating the research findings   |          |    |          |    |    | <b>✓</b> |
| HDR candidate's general research project funded externally   |          |    |          |    |    | ✓        |
| Candidate stipends, top-ups, travel allowances or bursaries to the candidate funded by HEP affiliated institutions (eg Medical Research Institutes with an HEP affiliation)  |          |    |          |    |    | <b>✓</b> |



| Activity  | 02 | 03 | 04 | 05       | 06       | NA |
|---|----|----|----|----------|----------|----|
| Participated in soft skill training (communicating with others, working in teams, engaging with communities, project management) that was administered by the HEP or a research end-user organisation |    |    |    | <b>√</b> |          |    |
| Participated in entrepreneurship, IP, leadership training that was administered by the HEP or a research end-user organisation  |    |    |    | ✓        |          |    |
| Participated in an entrepreneurship or business incubator (where candidate is provided resources and coaching to develop a new product or service) less than 30 calendar days in total                |    |    |    | <b>√</b> |          |    |
| Completed research ethics training.   |    |    |    |          |          | ✓  |
| Journal/ referenced publication of research findings with industry/ external co-author  |    |    |    |          | ✓        |    |
| Short term work placement or internship (< 30 calendar days in total)   |    |    |    |          | ✓        |    |
| Job (work) shadowing (paid or unpaid)   |    |    |    |          | ✓        |    |
| Undertook a short-term consultancy related to the HDR research project  |    |    |    |          | ✓        |    |
| Participated in an entrepreneurship/innovation competition sponsored by end-users   |    |    |    |          | ✓        |    |
| Participated in an entrepreneurship/ pitch competition where formal coaching was provided as part of the competition  |    |    |    | ✓        | ✓        |    |
| Presented their creative outputs publicly (publishes prose or poetry, exhibition, performance, installation)  |    |    |    |          | <b>✓</b> |    |
| Participated in an industry mentor program (eg IMNIS)   |    |    |    |          | ✓        |    |
| Participated in formal seminars/ workshops as part of an industry mentor program  |    |    |    | ✓        | <b>✓</b> |    |
| Presented their project / results to a community forum or industry audience   |    |    |    |          | ✓        |    |
| Implemented or discussed opportunities for adoption of their research solution with users (eg on farm, in public policy fora, in classrooms, clinical settings, external R&D, manufacturing etc)      |    |    |    |          | <b>✓</b> |    |
| Disseminated their research work in public fora (eg blogs, newsletters, social media, the Conversation, media interviews)   |    |    |    |          | ✓        |    |
| Undertook fieldwork for the research project with research end users  |    |    |    |          | ✓        |    |
| Undertook community consultations/interviews for the research project   |    |    |    |          |          | ✓  |



## 5. Legend

Element 593: Higher degree by research end-user engagement code

| Code | Definition   |
|------|--|
| 01   | No engagement to report  |
| 02   | Research internship  A temporary position with a research end-user where a student has undertaken research and development (R&D) related to their higher degree by research (HDR). A research internship must be for a period of at least 30 days, can be either paid or unpaid, and can form part of the enrolment or be undertaken during an HDR period of suspension.   |
| 03   | O3 Jointly supervised by a research end-user  Jointly supervised by a research end-user is defined as an HDR student that has at least two HDR supervisors, with at least one supervisor from a research end-user organisation. The supervision arrangements must be endorsed by the HDR student's HEP and the research end-user supervisor must be actively engaged in the student's HDR.   |
| 04   | <b>04 Jointly or fully funded by a research end-user</b> Jointly funded or fully funded by a research end-user is where a research end-user contributes financially to the cost of an HDR student's course of study or to other costs borne by the student during their study (such as a stipend for general living costs). The arrangement must be awarded specifically in relation to an HDR student rather than a general HEP research project that a student may be involved with. |
| 05   | Formal training on end-user engagement Any formal training recognised by the HEP that focusses on preparing a student for work with a research end-user. This includes intellectual property, management/leadership, collaboration, entrepreneurship, and research commercialisation. Training can be administered by a research end-user organisation or by the HEP.  |
| 06   | Other commercialisation and engagement activities  An arrangement with a research end-user that enables experiential learning related to the student's HDR.  This includes practicums or performances, R&D consultancy work, R&D commercialisation work, entrepreneurship, community engagement/outreach, and research extension work either with or for a research end-user.  |