

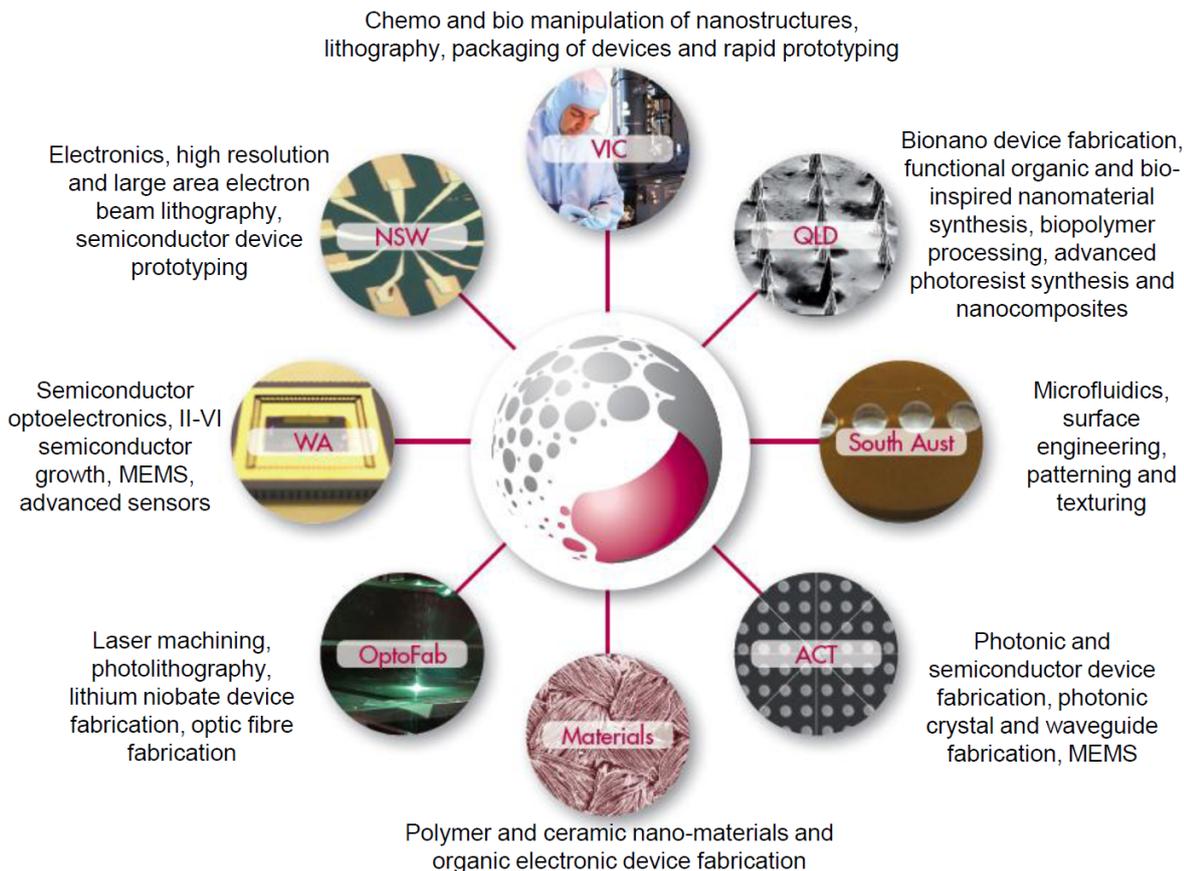


Australian National Fabrication Facility (ANFF)

Advice for ARC and NHMRC projects commencing in 2017

Established under the National Collaborative Research Infrastructure Strategy (NCRIS), ANFF provides researchers and industry with access to state-of-the-art fabrication capabilities through a network of 8 nodes including 21 institutions throughout Australia. The ANFF facility portfolio consists of over 500 instruments valued at approximately \$200m.

The 8 Nodes of ANFF draw on existing infrastructure and expertise providing a research environment that supports world class interdisciplinary research in their respective fields. These fields include:



This document provides advice on both how ANFF can help with planning your research project and how to include ANFF facility access time in your application.

How can ANFF help in planning ARC and NHMRC funded research projects?

ANFF was established to support fabrication research in Australia such as projects funded through the ARC and NHMRC programs. ANFF can help with a successful proposal by providing project advice and a supportive research environment for the researcher, providing project advice, such as:

- **Facilities Required:** Understanding the ANFF portfolio available in planning your project. A searchable facility database is available at www.anff.org.au
- **Planning:** ANFF staff can provide advice on components of your project which require ANFF facilities and the approximate number of instrument hours required. Please contact the appropriate Node or [ANFF Ltd.](#)
- **Budgeting:** Information or quotes on the facility access and ancillary costs (e.g. project-specific accessories) required for your project can be obtained directly from the Nodes. Instrument access charges can be obtained through the ANFF [access and pricing policy](#). Please note that ANFF instrument charges *do not* fall under the category of “Bench Fees or similar laboratory access fees” (section A5.3.1 of the funding rules for ARC Discovery Projects).
- **Information on subsidies:** Most ANFF facility access is heavily subsidised for university or government programs. This should be recognised as an in-kind contribution, for example in section E2 of an ARC Discovery Project application. Contact [ANFF Ltd](#) or the relevant Node for a statement on the extent to which access charges are subsidised by University or Government funding.
- **Provide a supportive “Research Environment”.** For an ARC discovery project, if a significant portion of the experimental component of a research project is planned to be conducted in an ANFF laboratory, it is important to discuss the details with the relevant Node and articulate in the grant application how these provide the most supportive environment. The main elements of a supportive research environment which ANFF provide are as follows:
 - **Training:** ANFF provides regular training courses on the key capabilities of each Node. Dedicated technical staff are also on hand to either perform complex experimental procedures or provide one-on-one training of new users tailored to their individual research problem.
 - **Technical Support:** Dedicated technical staff of all ANFF facilities are on hand to ensure they are operating at an optimal level and also to provide advice during user sessions.
 - **Research Support:** Each Node of ANFF houses a critical mass of academic knowledge, technical know-how and world class research facilities to provide Australia’s most well supported academic centres in fields listed on page 1. By performing projects in the relevant Nodes the researcher will become part of the ANFF collaborative network and be mentored by leaders in the Nodes respective fields.

Details of how to include facility access costs in ARC and NHMRC grant applications follow.

ARC Example

Grant proposals to the ARC must be submitted in their online Research Management System (RMS). For ARC Discovery Project applications 2015, you should include the access costs as a line item in the 'Project Costs' table (Part E) under 'Other' as shown in the examples below.

In the following example, the project requires access to an Electron Beam Lithography (EBL) unit for one sample per week, at 2 hours per sample, for 40 weeks in Year 1, which equates to 80 h of beam time. At \$50 per hour for access charges, this translates to a total cost of \$4,000 for instrument access in Year 1 of the project (see Step 5).

STEP 1: If your project involves contributions from an organisation such as your host university, you will need to add the detail of your host university under 'Add Organisation Participant...'. In the example below, The University of New South Wales was added as the Administering Organisation participant.

The image shows two screenshots from a software interface. The top screenshot is titled 'Organisation participants' and contains a table with the following data:

Name	Participation Type		
The University of New South Wales	Administering Organisation	Remove	▲▼
Bond University	Other Eligible Organisation	Remove	▲▼
The University of Melbourne	Other Organisation	Remove	▲▼
Blue Scope Steel Limited	Other Organisation	Remove	▲▼

A red oval highlights the link 'Add Organisation Participant...' above the table. A red arrow points from this link to a dialog box titled 'Add proposal organisation participant'. The dialog box has the following fields and controls:

- Participation Type: Administering Organisation (dropdown menu)
- Organisation: The University of New South Wales (text input field)
- Buttons: Add Participant, Cancel

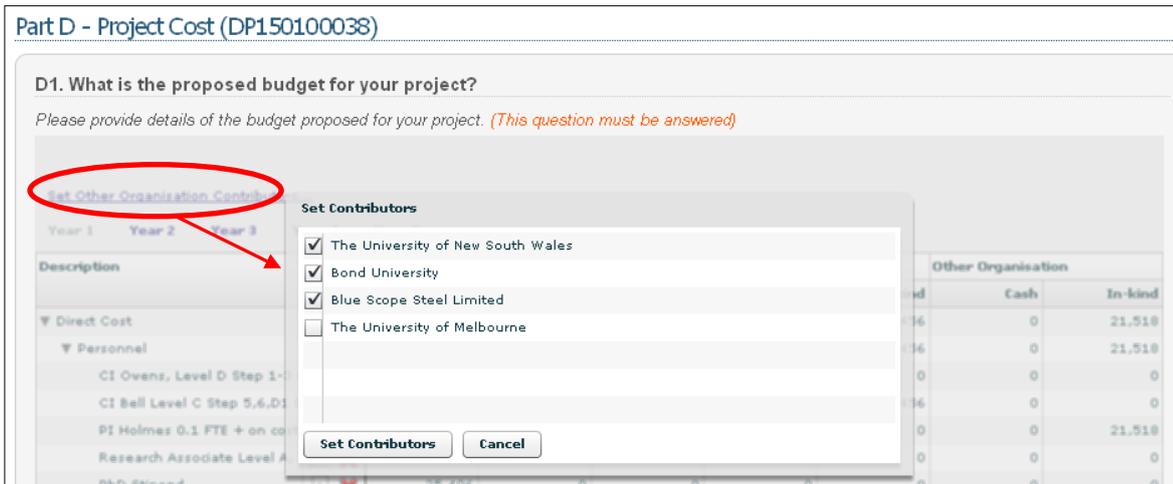
STEP 2: Under the **Application form** section, please click on 'D - Project Costs'.

The image shows a screenshot of the 'Application form' section. It displays a list of sections with their completion status:

- DP150100038 ✔ Complete and valid
- [A - Administrative Summary](#) ✔ Complete and valid
- [B - Classification and other statistical information](#) ✔ Complete and valid
- [C - Project Description](#) ✔ Complete and valid
- [D - Project Cost](#) ✔ Complete and valid
- [E - Budget Justifications](#) ✔ Complete and valid
- [F - Personnel \(Mr Daniel Owens\)](#) ✔ Complete and valid
- [G - Research Support](#) ✔ Complete and valid
- [H - Statements on Progress on ARC-funded Projects](#) ✔ Complete and valid
- [I - Additional Details](#) ✔ Complete and valid

The 'D - Project Cost' link is circled in red.

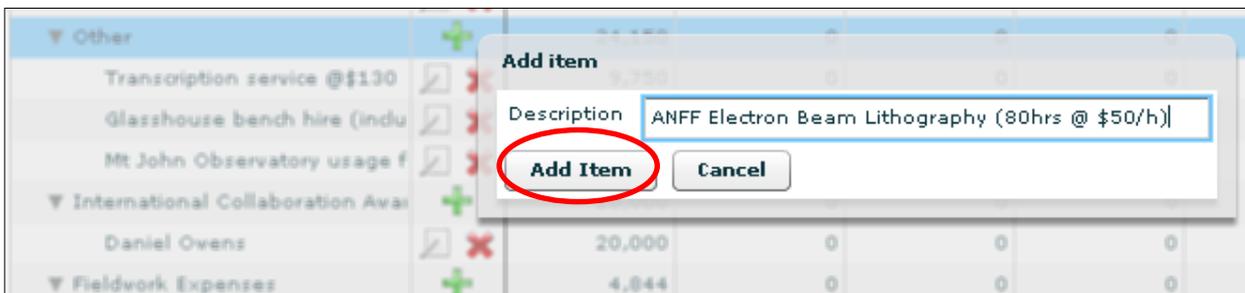
STEP 3: Click on the 'Set Other Organisation Contributors...' link and make sure to tick the box for the organisation participant (added in step 1), then press the 'Set Contributors' button. This will add the 'AdminOrg' column to the budget table.



STEP 4: Under the heading 'Other', click on the green plus sign.

▼ Other		24,150	0
Transcription service @\$130		9,750	0
Glasshouse bench hire (inclu		2,400	0
Mt John Observatory usage f		12,000	0

In the resulting **Add item** text box, type in 'ANFF Electron Beam Lithography (80hrs @ \$50/h)', then press the 'Add Item' button.



Step 5: Click on the **ARC** column of the newly created row and enter the amount required for this item; e.g. \$4,000.

▼ Other		24,150	0	0
Transcription service @\$130 per hour of interview		9,750	0	0
Glasshouse bench hire (includes pots and potting mix)		2,400	0	0
Mt John Observatory usage fees		12,000	0	0
ANFF Electron Beam Lithography (80hrs @ \$50/h)		4,000	0	0
▼ International Collaboration Award		20,000	0	0

STEP 6: Click on subsequent years, e.g. **Year 2 and Year 3**, above the budget table and then repeat step 5, with the requested amount adjusted for higher or lower instrument usage as the requirement of the project changes over time.

[Set Other Organisation Contributors...](#)

	Year 1	Year 2	Year 3	Year 4	Year 5
Description					
ARC					
Admin Org					
Cash					
▼ Direct Cost					
▼ Personnel					
CI Owens, Level D Step 1-3 0.5FTE + 29.42% on-costs					
CI Bell Level C Step 5,6,D1 0.3FTE + 29.42% on costs					
PI Holmes 0.1 FTE + on costs					
Research Associate Level A, 1.0 FTE Step 6-8 + 28% on					
PhD Stipend					
▼ Other					
Transcription service @\$130 per hour of interview					
Glasshouse bench hire (includes pots and potting mix)					
Mt John Observatory usage fees					
ANFF Electron Beam Lithography (80hrs @ \$50/h)					
▼ International Collaboration Award					

STEP 7: Justify the funding requested for ANFF instrument access in **Part E1 - 'Budget Justifications'**

The following example text may be used as a basis for your justification:

"This research project requires the synthesis/fabrication/analysis [insert as appropriate] of N samples per week/month/year [insert as appropriate] with the advanced technique/s of [specify; e.g. electron beam lithography]. The estimated time required for the synthesis/ fabrication/ characterisation [insert as appropriate] of each sample is X hours, at a cost of \$X per hour of instrument time."

You should add further specific explanation of why the chosen synthesis/fabrication/analysis technique/s is/are necessary for the research project, for example:

"Electron beam lithography is necessary to produce fine features (<30nm) on a silicon wafer with a high degree of control and accuracy whilst allowing the sample to be produced under an efficient time frame" with a reference to further detail elsewhere in the application.

STEP 8: In **Part E2 - 'Details of non- ARC contributions'**, input information on contributions arising from other sources from the relevant Node. Most ANFF facility access is heavily subsidised for university or government programs.

C - Project Description		✔ Complete and valid
D - Project Cost		✔ Complete and valid
E - Budget Justifications	Steps 7 and 8	✔ Complete and valid
F - Personnel (Mr Daniel Owens)		✔ Complete and valid

NHMRC Example

Grant proposals to the NHMRC must be submitted in their online **Research Grants Management System (RGMS)**.

For NHMRC Project Grant applications 2015, please calculate the annual access fees relevant for the ANFF instrument required (e.g. \$4,000) and then add it to other direct research costs (e.g. \$30,000 for personnel, travel, etc) to form a total annual figure (e.g. \$34,000). The total annual Direct Research Costs (e.g. \$34,000) for each year must be entered into the corresponding year box as shown below.

P-PB: Proposed Budget

Direct Research Costs (eligible costs are outlined in the relevant funding rules)

Enter the value of Direct Research Costs for each year. Only the relevant number of years should be completed.

* Year 1 (\$AUD)	35000
* Year 2 (\$AUD)	45000
* Year 3 (\$AUD)	55000
* Year 4 (\$AUD)	0
* Year 5 (\$AUD)	0

* Give details and justify each item of Direct Research Costs (6000 character limit including spaces and line breaks).

EXAMPLE: "This research project requires the synthesis/fabrication/analysis [insert as appropriate] of N samples per week/month/year [insert as appropriate] with the advanced technique/s of [specify; e.g. electron beam lithography]. The estimated time required for the synthesis/fabrication/characterisation [insert as appropriate] of each sample is X hours, at a cost of \$X per hour of instrument time."

In the example below; assume \$30,000 worth of other direct research costs for Year 1, and the access fee for ANFF instrument required was \$4,000 for 80 hrs of access (\$50/hr, as per the ARC example above). Adding these costs gives a total direct research cost of \$34,000 for Year 1, which gives \$35,000 when rounded up to the nearest \$5,000 unit.

This amount \$35,000 is entered in the Year 1 (\$AUD) box under – **Direct Research Costs**.

Proceed in a similar manner for each year of the application, with the requested amount adjusted for higher or lower instrument requirements at different stages of the project.

The following example text may be used as a basis for your justification:

"This research project requires the synthesis/fabrication/analysis [insert as appropriate] of N samples per week/month/year [insert as appropriate] with the advanced technique/s of [specify; e.g. electron beam lithography]. The estimated time required for the synthesis/fabrication/characterisation [insert as appropriate] of each sample is X hours, at a cost of \$X per hour of instrument time."

You should add further specific explanation of why the chosen synthesis/fabrication/analysis technique/s is/are necessary for the research project, for example:

"Electron beam lithography is necessary to produce fine features (<30nm) on a silicon wafer with a high degree of control and accuracy whilst allowing the sample to be produced under an efficient time frame" with a reference to further detail elsewhere in the application.

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