



Australian Government

Australian Grape and
Wine Authority



Opportunities for investment in the priority area of economic sustainability

The Australian Grape and Wine Authority Strategic Plan 2015–20 identifies sustainability as a priority research and development (R&D) topic for the Australian wine sector.

Background

One of our priorities is to increase the competitiveness of the Australian grape and wine community and one of the strategies we will use to do so is to improve resource management and sustainability. A measure of success for us in this area is:

Australia's competitive advantage will be enhanced by knowledge that leads to innovation to increase economic, social and/or environmental sustainability in the vineyard and/or winery.

We will be focusing on economic sustainability in the winery for R&D investment in 2016–17.

Because of the range of possible interpretations associated with the word *sustainability*, a simpler way to express the investment priority of economic sustainability in the winery is *winery profitability or efficiency*.

Current situation

Sustainable profitability in a global market place is not trivial to achieve. While there are several aspects over which we and the grape and wine community have little control (such as foreign currency fluctuations), we can support the community to achieve productivity gains, be innovative, differentiate and meet market demand. This call for R&D investment directly addresses two of these aspects i.e. productivity gains and innovations in the winery.

Our current R&D investment related to this area includes:

- [AWR 1301](#): Enhanced winemaking outcomes and wine style diversification through provision of fit-for-purpose yeast starter cultures
- [AWR 1302](#): Defining the nutritional drivers of yeast performance and matching yeast to must
- [AWR 1303](#): Efficient and reliable malolactic fermentation to achieve specific wine style
- [AWR 1304](#): Ensuring the continued efficacy of *Brettanomyces* control strategies for avoidance of spoilage
- [AWR 1307](#): Removal of lees from underneath wine to reduce wine movements and tank cleaning
- [AWRI 3.3.1](#): Evaluating non-conventional yeast for the production of wines that contain less ethanol
- [AWRI 3.3.2](#): Influencing wine style through management of oxygen during winemaking
- [TWE 1301](#): Novel fining agents to heat stabilise wine
- [UT 1301](#): Improved red wine process efficiency and product quality through enhanced phenolic extraction by Controlled Phenolic Release (CPR) and Berry Pricking
- [UA 1301](#): Developing a fundamental understanding of the microbiological treatment of winery wastewater
- [UA 1302](#): Fit-for-Purpose Yeast and Bacteria via Directed Evolution

Brief summaries of these current projects are available on our website and can be accessed by clicking on the hyperlinked project codes.

Recently completed projects in this area have included:

- Assessment of process sensor technologies to measure sugar levels during fermentation ([AWR 1401](#))
- Development of an online guide to 'Lean' manufacturing for wineries ([2XE 1302](#))
- Techniques and technologies used by other industries ([2XE 1303](#)), and
- Life cycle cost analysis of wine processing ([2XE 1301](#)).

Insights gained from these latter two projects has highlighted the pivotal role played by businesses having a culture of continuous improvement and understanding what the costs are for individual activities in the winery. The [Lean Guide](#) and associated online resources and workshop program go some way to assisting wine businesses identify waste and improve efficiency and sustainable profitability, but more is needed.

Opportunities for new R&D investment

For this funding round, we are seeking projects that focus on information, innovations and tools that enhance winery profitability and thus economic sustainability. These projects should build on international research and our current projects, particularly those that will be finalised before or by July 2016. Some of the questions for which we are seeking answers are:

- Can a user-friendly activity based costing tool be developed for wineries to determine the actual cost of production for an individual product and to benchmark performance between wineries?
- What are the average costs of Australian grape and wine production and how do they compare to our top 10 competitors?
- What is the most effective way to deal with smoke tainted grapes and wine and what is the economic impact of these remediation strategies?
- What techniques and strategies can be used to achieve faster colour extraction whilst maintaining or enhancing wine quality?
- Can innovative alternative pressing technologies be developed and what would be their impacts on efficiency and wine quality compared to commonly used basket, bag and screw presses?
- Can methods and tools be developed to assist in better energy demand management?
- How can the microbiological aspects of winery wastewater treatment plants be best managed to maximise efficiency?

The impact of innovations on wine quality should be included in project proposals if possible.

Next steps

We are seeking preliminary project proposals for projects to start from July 2016 that address these questions. The criteria we use to assess proposals can be downloaded by [clicking here](#).

We ask you to complete and lodge your application online through our Clarity Investment Management System (CIMS). [Click here](#) to go to CIMS. If you have not used CIMS before, please contact us at applications@wineaustralia.com for a username, password and 'how to' guide.

Key dates

Preliminary Project Applications (PPAs) due	Friday 6 November 2015
Final Project Applications (FPAs) invited	Friday 18 December 2015
FPAs due	Monday 22 February 2016
Applicants advised	late April 2016
Contracting	May 2016
Projects start	July 2016