



# *Winetech*

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Wine Industry Network of Expertise and Technology  
Netwerk van Kundigheid en Tegnologie vir die Wynbedryf

Strategy:

Research Development and  
Innovation (RDI)

**2017-2019**

## **STRATEGY: RESEARCH DEVELOPMENT AND INNOVATION (RDI)**

The core focus of this strategy is the establishment of a purpose driven innovative, market directed, problem solving, environmentally sustainable and responsible research, technology invention, commercial development and transfer system.

### **1. VISION**

To help create a wine industry that recognises and uses science and technology as foundation stones for it's success.

### **2. MISSION**

To identify, prioritize, commission, complete and transfer research, development and innovation projects/initiatives that will directly contribute to strengthening the profitability and competitiveness of the industry in the local and international markets.

### **3. STRATEGIC INTENT**

**Winetech's strategic intent is to deliver Research, Development and Innovation (RDI) outcomes that are highly valued and sought after by the industry in general and the pace setters in particular.**

We continuously review our RDI portfolio by involving thought leaders from industry, business and academic institutions.

This is a pro-active approach in order to keep up with the rapidly changing advances in the technological and scientific environment.

#### **4. KEY OBJECTIVES**

- To commission relevant research, innovation and technology transfer across the total wine industry value chain;
- To support and guide the wine industry with expertise and environmentally sustainable technologies to produce cost effective and quality driven wines, brandy and grape-spirit products;
- To provide access for relevant training and education for individuals in the RDI sector of the industry – at all levels in terms of skills, knowledge and insight development; and to facilitate the development of new entrants
- To facilitate the implementation of relevant innovative research outputs and technological developments for commercial value;
- To establish a culture of innovation and discovery within the industry;
- To create global collaborative networks of scientific and technological expertise to provide world-class leadership to the wine industry.

#### **5. STRATEGIC THEMES**

##### **PROMOTE OPERATIONAL EXCELLENCE**

- Work Smarter
- Efficiency
- Industry learning
- Sustainability – financial

##### **DRIVE INNOVATION**

- Encouraging a risk-taking mindset
- Collaboration across teams
- Data driven innovation experimentation
- Game Changing Actions

##### **BUILD ENGAGEMENT**

- Social Improvement
- Effective Communication
- Collaboration
- Adding Value
- Industry Satisfaction

## 6. RDI PORTFOLIO

Winetech's RDI Portfolio consists of Fundamental, Applied and Blue skies research areas across three main groups: Viticulture, Oenology and Knowledge transfer. Within the scope of Winetech these areas are defined for us as:

### 6.1 Applied Research

Is a systematic inquiry involving the practical application of science to provide solutions. It accesses and uses some part of the **research** communities' (the academia's) accumulated theories, knowledge, methods, and techniques, beneficial to the industry.

### 6.2 Blue skies Research

In our context it is innovative/disruptive **research** which is curiosity driven, which leads to radical outcomes beneficial to industry. Winetech will make use of a progressive technique used in the business and research world known as crowdsourcing to drive this research area.

Crowdsourcing – Open innovation that brings together people from different parts of the world and different sectors of business to work together on a project. Cost effective projects that may contribute significant impact for the SA Wine Industry in the shortest possible time.

***“Ideas can come from everywhere: Ideas are everywhere these days, and tapping into the power of the crowd is the best way to succeed fast. This is the basis for XPRIZE itself – when you're looking for a breakthrough, turn to crowdsourcing for incredible ideas, insights, products and services”.***

### 6.3 Fundamental research

Means experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any direct practical application or use in view. The output is predominantly beneficial to the research/academic community.

It is our intention to change the distribution of the current research areas within the RDI Portfolio as follows (see Figure 1).

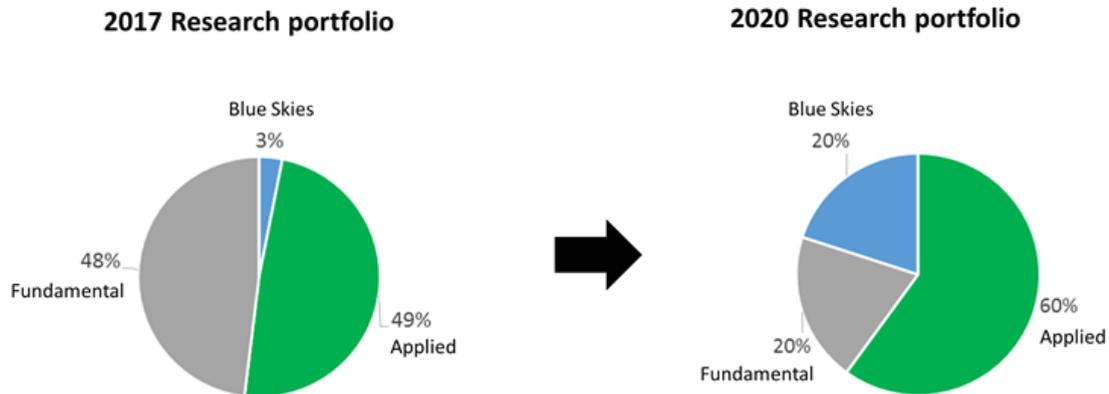


Fig 1: Breakdown that illustrates our current research portfolio (2017) vs. our envisaged future research portfolio (2020).

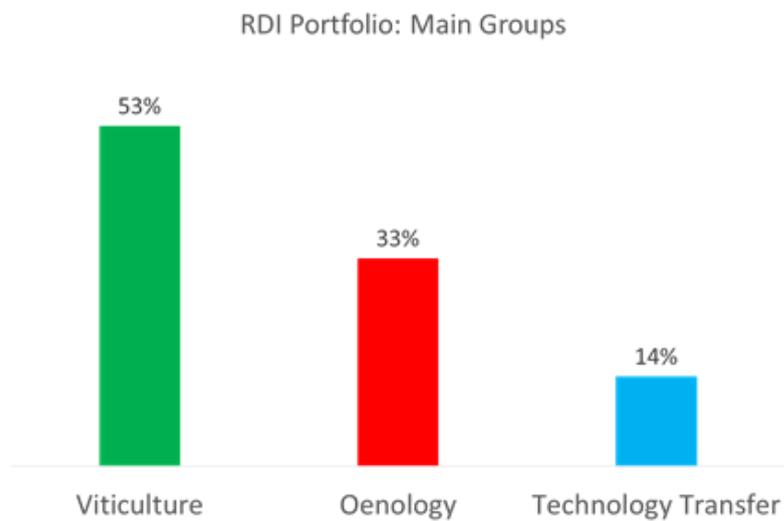


Fig 2: Breakdown that illustrates our current research portfolio across main groups.

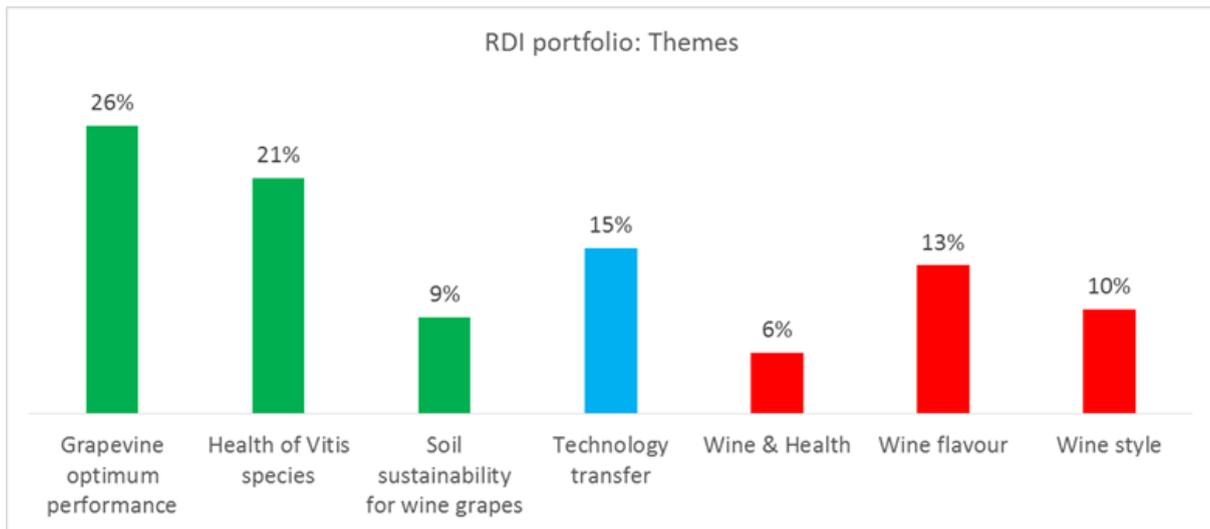


Fig 3: Breakdown that illustrates our current research portfolio across research themes.

#### **6.4 Winetech RDI Implementation**

Winetech follows a systematic approach towards the commissioning of research projects which include the following steps:

Winetech prioritise RDI projects and provides funding under strategic guidance after consultation with:

- Think tanks - Provides foresight and context of broader RDI initiatives;
- Research Theme Chairmen - Provides RDI Focus for SA Wine Industry;
- Committees - Evaluate RDI intrinsic performance and project progress evaluation;
- Academics - Performs research and generate new knowledge.

Refer to Figure 4 for further insight on Winetech's Strategic Research Management system for research prioritisation and implementation.

Within the three main groups of the RDI portfolio different Research themes were identified. These themes are dynamic in nature and was established after a broad inclusive consultative process with industry and academic role-players.

Specific future research gaps were identified and all future research projects should address these gaps. In other words Winetech's research projects will focus on industry relevance and impact.

It is envisaged that the current research themes will set the course for research at least for the next three years, this does not mean that new themes will not be considered. The system is dynamic in nature and will adapt quickly since advances in technology and science change very rapidly.

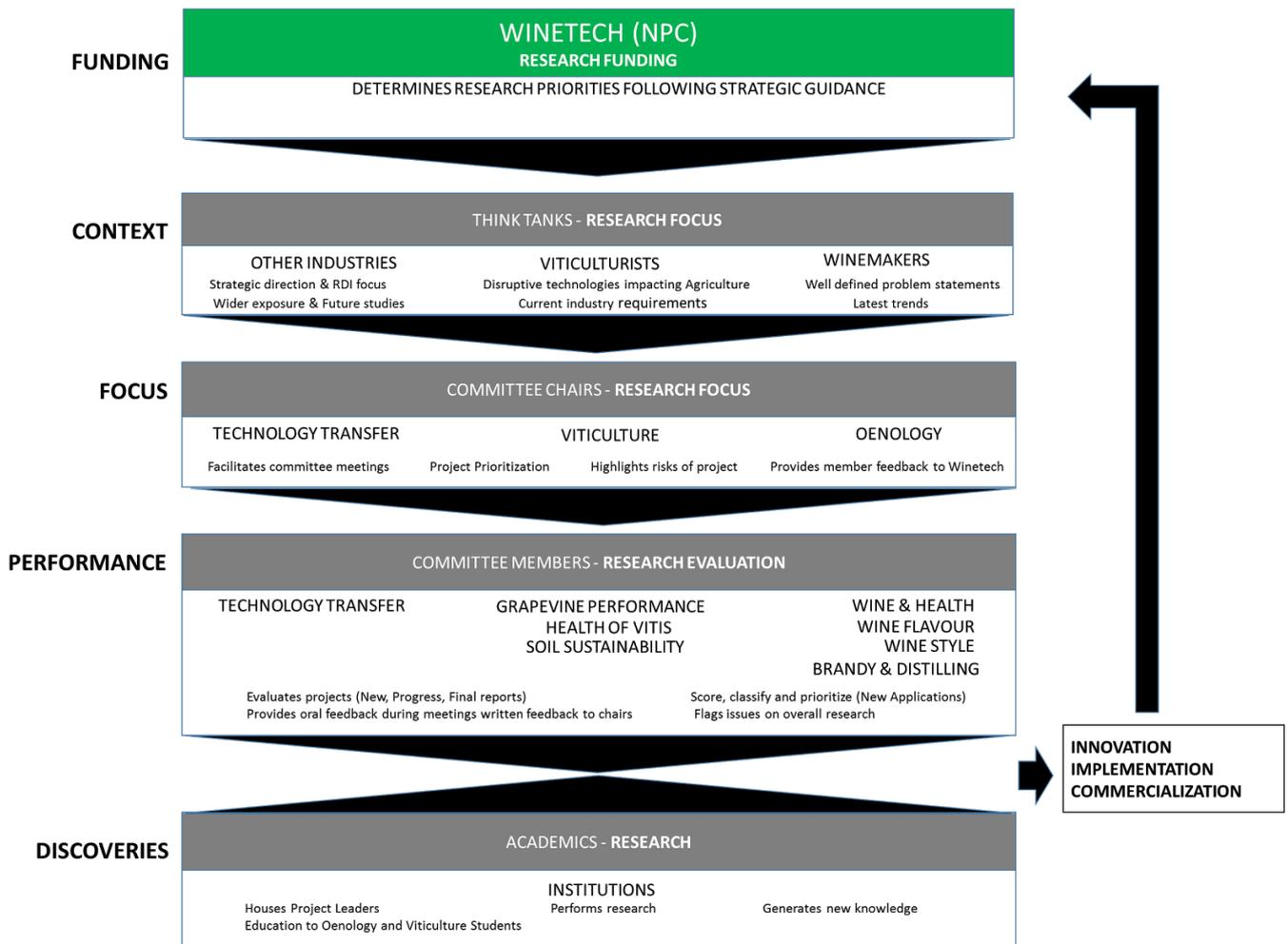


Fig 4. The Winetech research management system.

### **6.5 Knowledge Transfer (Technology Transfer)**

The strategic intent of the knowledge transfer platform is to create a modern extension system that effectively exchange knowledge within the diverse network of role players (Winetech, IGWS, VinPro & SASEV) in the South African Wine Industry. The platform established a top down system by which researchers and extension officers can effectively communicate new wine and vine knowledge to industry. For this purpose various information and communication technologies (ICT's) are continuously utilised.

A possible barrier to effective knowledge exchange is that scientists and the public are often described as living in two different worlds. In order to bridge the knowledge gap between the two communities, boundary spanning activities need to be put in place or existing ones improved upon. Boundary spanning activities therefore refer to practices and tools that could facilitate knowledge exchange across system boundaries.

## 7. GAME CHANGERS FOR WINETECH

- i) Winetech will become much **SMARTER**
- Winetech team should interact with researchers & thought leaders (local & international) to gain better insights on breakthroughs in the research world
  - Winetech should draft clear and well informed problem statements across the entire wine industry value chain
  - Problem statements can then be provided to the research fraternity in order to present research proposals for solutions
  - Winetech will encourage a collaborative multi-disciplinary approach between researchers to solve industry problems
- ii) Winetech will include the voice of **RADICAL ROLE PLAYERS** that experiment with novel and disruptive technologies and ideas
- Winetech team will interact more frequently with key industry role-players to gain better insights on concerns, issues as well as possible solutions in the wine industry
  - Winetech will visit all the wine regions on a regular basis and interact meaningfully with key industry role-players

Winetech will focus strongly on **THINK TANKS** to deliver a broader research context

- Winetech will make use of three different think tanks to articulate the broader RDI agenda

In the recent think tank session the following three questions were highlighted that Winetech staff should ask

- What are the 1 or 2 things we could do collectively for high impact?
- How do we through research, help the industry achieve financial sustainability? Alternatively, what research will make that contribution?
- How do we get radical innovation into the industry?

- iii) Winetech will **COMMUNICATE EFFECTIVELY** to the internal and external environment
- Winetech will construct an effective communication plan that will ensure that all internal as well as external stakeholders are informed on our activities and research outputs
  - Winetech will develop its brand through effective marketing activities
- iv) Winetech will **COMMISSION FLAGSHIP RESEARCH** projects that delivers impact
- Winetech will over time have far less research projects and will drive towards flagship projects that delivers high impact across the entire value chain
  - Winetech's research theme approach is a first step in this regard and will be applied more vigorously in the next three years

- v) Winetech will experiment with **CROWDSOURCING**
- Innovation is a key priority for Winetech and we will make use of innovative approaches to find solutions for industry problems and concerns
  - Winetech will invest some funds in crowdsourcing activities
- vi) Winetech will address research projects across the triple bottom line, special focus on projects that will deliver **ECONOMIC & SOCIAL BENEFIT**
- Winetech will ensure that research projects address the triple bottom-line more effectively
  - Winetech will engage rigorously with various stakeholders and thought leaders to achieve this goal
- vii) Winetech will develop an effective **AUTOMATED ONLINE SYSTEM** for monitoring and evaluation that provide rapid access to critical information and knowledge
- See more detail on this on page 11
- viii) Winetech will develop an **EFFECTIVE COMPANY CULTURE**, with clear defined roles and responsibilities
- Winetech will invest in activities that will build our team spirit and culture
  - Each Winetech employee will understand his/her role and will be responsible to make sure the outputs are achieved
- ix) Winetech will drive and implement the **LEARNING AND DEVELOPMENT STRATEGY** for the SA Wine Industry
- Winetech will appoint an L&D Manager that will drive the implementation of the L&D Strategy
- x) Winetech **TERMS AND CONDITIONS** should be strongly implemented across research projects
- Winetech will review its current Terms and Conditions which will be communicated with all researchers in the system
  - Terms and conditions needs to be adhered to by all researchers who receives research funding from Winetech and it will be evaluated annually in line with progress reports.

## 8. INNOVATION

Winetech will develop an Innovation Ecosystem that will deliver high impact results for the SA Wine Industry

- Close collaboration with the newly formed SU Innovation Hub, other Universities and other departments, e.g. process engineering, the IGWS, ARC & CSIR and other commodity organisations etc.
- Interaction with the Regional Innovation Network in order to maximise our research funds.

## 9. WISE ALIGNMENT

Winetech strongly aligns with the newly developed WISE strategy and continuously evaluate research projects against the specific objectives.

## 10. WINETECH FUNDING AND BUDGET PROJECTIONS

Winetech will have a strong focus to procure supportive RDI funding through initiatives mentioned below

- EU Horizon 2020
- Government funding for RDI
- Legacy funding
- Collaborative projects – IGWS, Hortgro Sciences, Inter-departmental etc.

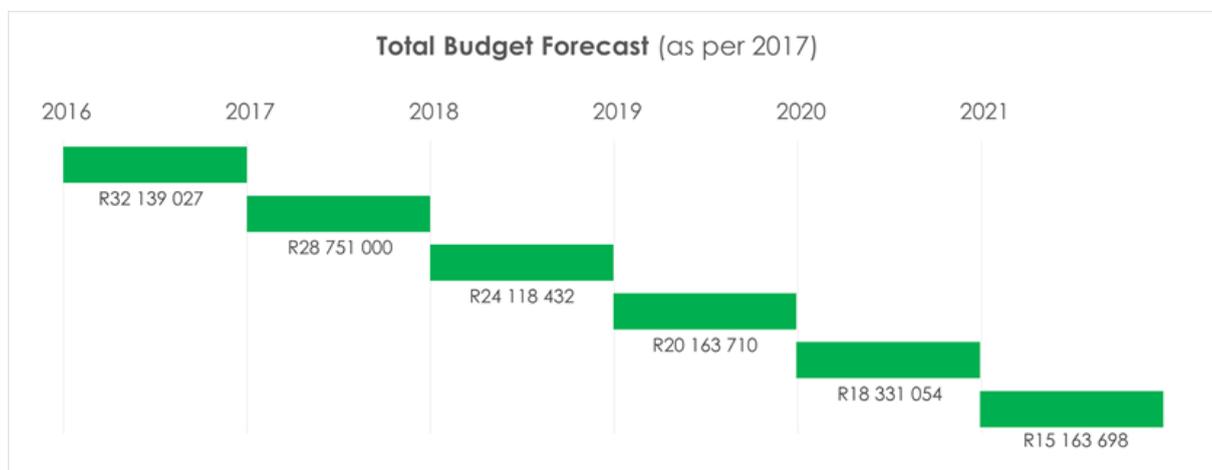


Fig 5. Total budget (research funds and administrative costs for 2017) with projections from 2018 to 2021 excluding new project funding

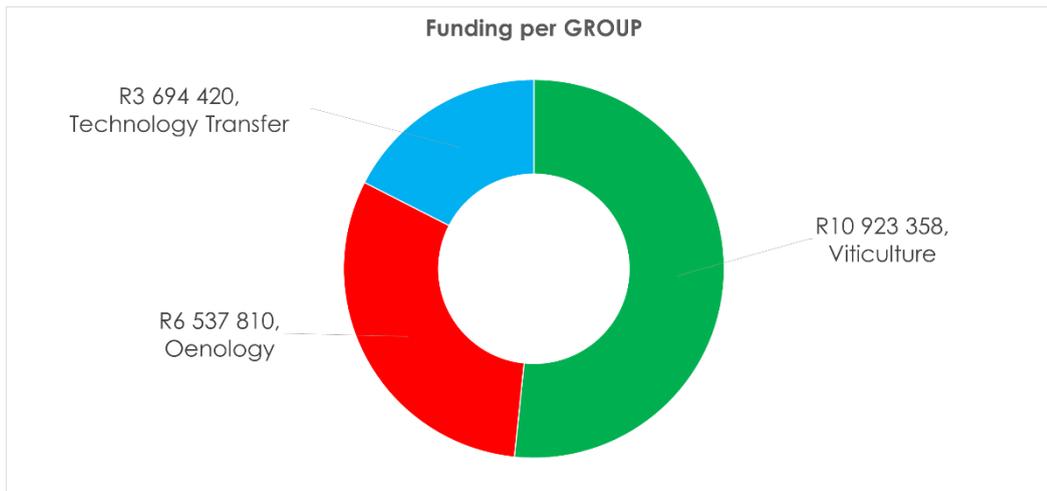


Fig 6. Budget breakdown of research funds per group for 2017

## 11. MONITORING & EVALUATION

### 11.1 RDI Dashboard

As part of our own internal strategy and attempt to increase our efficiency we have started with the implementation of a business dashboard system which will be used as an information management tool. Due to the large scope of the RDI portfolio (in excess of 100 projects) and the small management team we require a data summarization tool that consolidates all the financial and administrative information rapidly and provide us with a consolidated view of all projects.

This platform will give us the ability to make grounded and informed decisions aligned with our strategic and organizational goals. Our system currently incorporates key parameters such as alignment to WISE, research expenditure on applied, blue skies and fundamental projects, groupings by research themes and committees etc.

The dashboard will be developed to include KPI's and proactively identify problems over time and will be optimised continuously.

### 11.2 Automated Online Administrative System

In addition to the Dashboard platform, Winetech will investigate the development of an electronic online system (automatic e-filing system) to improve and standardise the entire research management process.

This system will help to standardise the information flow, improve the efficiencies and relieve the administrative burden regarding project review meetings, applications and reports.

The primary motivation for improving the administrative system of the Winetech office is to focus more on the RDI activities and create more opportunities for closer industry collaborations.

### 11.3 Evaluation system for Committee Members and External reviewers

The Winetech system (see Figure 4.) greatly depends on committee members for research evaluation and performance. For this purpose, Winetech will develop a scoring matrix document that will streamline the approval of new project applications and the evaluation of progress and final reports.

Winetech in consultation with the Committee chairpersons will determine the necessity for external evaluators. The scoring matrix document will also be utilised by external reviewers when the need arise.

## **12. MAJOR CONCLUSIONS**

The South African Wine Industry face challenges in a variety of aspects e.g. energy, water (climate change), land ownership etc. There is also the on-going challenge to remain profitable and competitive on a global scale.

It is therefore imperative that Winetech's RDI portfolio address these aspects and ensure that the SA Wine Industry is profitable, competitive and sustainable over time. In other words the RDI portfolio should have maximum impact and benefit for the SA Wine Industry.

Winetech will be smarter and up to date with the latest advances in the technology and scientific worlds across the entire value chain.

Our approach will be to focus more on Applied research as well as Innovative research (Blue skies) that will deliver high impact for the SA Wine Industry, we will, however not neglect Fundamental research as this is an important element to build research and knowledge capacity.

Winetech will take a systematic approach to ensure that our RDI portfolio delivers maximum benefit for the SA Wine Industry and the research community that serves the industry.

The effective transfer of knowledge will be a crucial element going forward and we will find novel ways making use of a range of technologies to ensure that the SA Wine Industry is well informed and up to date with the latest knowledge across the entire value chain.

Research projects will be clearly aligned to the WISE objectives and should clearly articulate how it contribute towards economic benefits for the SA Wine Industry.