

## **STRATEGY: RESEARCH AND INNOVATION TECHNOLOGY DEVELOPMENT AND TRANSFER (R&ITDT)**

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.

**Programme scope:** The long-term global competitiveness of the South African wine industry depends critically on its ability to learn and innovate faster than its competitors. This implies that the industry's research and technology invention and commercial transfer programme should be clearly focused on the kind of activities that hold the best promise in this aspect and be based on three principles, viz.

- A well-designed, well-financed and well-executed programme of research and technology development and transfer is absolutely essential for building innovativeness and international competitiveness in the South African Wine Industry;
- It should cover all the links in the wine industry's value chain, from terroir to the consumer (plant material selection, viticulture practice, wine and spirit making, cellar practice, financial analysis, sensorial research etc.); and
- It must be market-directed, but should also support national policy towards R&ITDT in agriculture and industry development in particular to make appropriate technology systems available for adoption by all sectors of the industry including new entrants.

This programme strives to integrate all value chain activities in the wine industry (wine, brandy and grape spirit) and also focus on aspects related to human resources development and logistics. It places a strong emphasis on the operational application of wine industry R&ITDT.

All of this implies enhancing inventiveness and innovation in the wine industry through technology transfer. This will be achieved through initiatives to:

- enhance South Africa's global competitiveness;
- enhance natural resource sustainability;
- enhance financial sustainability of producers by developing best practice technologies;
- improve the quality of life of all who are directly associated with the industry;
- empower new entrants in order to increase their effective participation in the industry through improved access to appropriate technology; and
- affirm the integrity of the total value chain of the South African wine industry with responsible R&ITDT.

A successful outcome in a particular R&ITDT programme focus area is, nevertheless, also dependent on its potential contribution towards innovation in the other business unit strategies – or, at the very least, that it will not subtract from these other focus areas. Broadly speaking, the sustainable success of a particular programme focus area depends on the interaction between focus areas of the different programmes.

Direct interaction with other SA Wine Industry Business units' strategic programmes to enhance and, where possible, develop integration and complementary activity will be implemented. Each activity will require a unique and particular target setting process. However, R&ITDT should set the tone for most as technology is viewed as a critical enabler for international competition.

Within the R&ITDT framework of the wine industry Black Economic Empowerment (BEE) and Human Resource Development (HRD) should also be addressed through objectives which focus on new entrants with the aim of broadening access to the industry by:

- the development and transfer of affordable and effective technologies for new entrants.; and

- the identification of training needs and facilitating the training of new entrants.

Transformation (exposure, training and research support of new entrants) should be supported by:

- making bursary funds available for Previously Disadvantaged Individual (PDI) students participating in wine industry related research projects; and
- funding wine industry related research projects where PDIs are involved as project leaders and/or technicians.

This programme will furthermore find its rationale in a focus on technology which could mitigate risk factors in the wine industry supply chain. These will include:

- natural factors;
- technology/production factors; and
- health and food safety.

Research themes should address the following issues:

- Innovative wine industry research;
- Climate change;
- Environmental, economic and social sustainability;
- Pest and Disease management, viruses and phytoplasma;
- Competitive viticulture and oenology production;
- Sensorial research;
- Health;
- Technology transfer; and
- Human Capital Development.

The following research programmes have been identified:

- (i) Vine Virus and Phytoplasma Programme that focuses on limitation and extermination, etiology, resistance and support studies.
- (ii) Terroir identification & utilisation, soil science, viticulture practices and grape composition.

- (iii) Grapevine and Wine Biology.
- (iv) Pest and Disease management.
- (v) Winemaking techniques and practices.
- (vi) Technology transfer.
- (vii) Human Capital Development.

**Strategic programmes, activities and tasks:** The operational focus of this strategic programme is to become the key co-ordination and facilitation institution in industry innovation through research and innovation, technology development and transfer. This programme will create an interactive network of service providers, co-funders, strategic planners and the users of technology and contribute to the funding of the required technical innovation. New entrants from historically disadvantaged groups will be a particular priority. To this end Winetech should attend to the following:

- To support the wine industry with expertise, enabling it to be cost effective while producing quality wines, brandy and grape spirits products through the application of environmentally friendly technologies;
- To support relevant training and education of individuals for the R&ITDT sector of the industry – at all levels in terms of skills, knowledge and insight development – in order to ensure the practical implementation of the best knowledge and most advanced technologies in viticulture, wine making and other grape based products;
- To establish a culture of technological innovation, to ensure the ongoing utilisation of the best technology within the industry, and to facilitate its dissemination to all the sectors of the industry;
- To support the adaption and adoption of relevant forefront research outputs, technologies and innovation;
- To facilitate the development of new entrants and to improve their access to the industry by making appropriate technology available to such producers;
- To promote sustainable natural resources management practices and product systems;

- To establish world leadership in selected niche areas of the wine industry through a network of scientific and technological expertise.;
- To commission relevant and thoroughly planned research, innovation, technology development and technology transfer in the promotion of the industry's technological capabilities and in the attainment of the other objectives;
- To support innovation/research to affirm the integrity of the total wine industry value chain; and
- To interact in the global environment in order to develop a productive network and alliances (i.e. the OIV, etc).

The following strategic programmes will direct these activities:

- (i)           **Setting a strategic agenda and operational plan**
  - To develop a wine industry technology innovation strategy and plan in collaboration with the industry stakeholders and service providers and R&ITDT institutions.
  
- (ii)           **Expertise network development**
  - Establish leadership in selected areas of the wine industry through a network of scientific, technological and economical/social expertise.
  
- (iii)           **Commissioning of research and development**
  - Commission relevant (in terms of the strategic plan) and thoroughly planned research, innovation, technology development and technology transfer in the promotion of the industry's technological capabilities and in the attainment of its objectives; and
  - To develop policy analysis and advice to support the strategic development of the industry in its economic, social, financial, institutional and environmental context and impact.

- (iv) **Technical expertise and skills development**
- Support the wine industry with the development of the required expertise at all levels in terms of skills, knowledge and insight development – in order to ensure the practical implementation of the best knowledge and most advanced technologies in viticulture, wine making and other grape based products;
  - Facilitate appropriate technology transfer activities along the wine industry value chain;
  - Facilitate the development of new entrants to improve their access to the industry by making appropriate technology available to such participants; and
  - Promote economic and social analysis skills.
- (v) **Business planning**
- An annual business plan will be required from the business unit and
  - The operational tasks should be to define a strategic approach and targets, facilitate the necessary opportunities and support activities to achieve these and measure, monitor and evaluate outcomes.

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**28 November 2012**