ViniPortugal
The Mission

ViniPortugal is an association that aims to promote the image of PORTUGAL, as a country that produce wines of excellence, valuing the brand “Wines of Portugal”/“Vinhos de Portugal”, and contributing to the sustainable growth of the volume and the average sales price of Portuguese wines, as well as, their diversity.

Portugal
Wine Sector

Position of Portugal in the world, relevant aspects:

• Portugal is situated in Europe in the so-called “Old World”.
• Portugal has a millenary tradition (2000 BC) in the wine making process and has the oldest demarcated and regulated wine region in the world – The Douro Wine Region.
• Making wine is in our roots and it is an evident reality in our Terroirs from North to South.
• We are Masters of Blends, experts at combining the many grape varieties that we have and at extracting the best out of each one.
PORTUGAL WINE COUNTRY. A TRADITION WITH MODERNITY.

PORTUGAL

TASTE TRUE HISTORY WITH MODERN WISDOM.

WINE PORTUGAL worldwide

Portuguese Wine export
1 000 000 hl! 2011

10th IN THE WORLD
5th IN EUROPE

Source: OIV

Top EXPORTS

<table>
<thead>
<tr>
<th>País de Destino</th>
<th>2011</th>
<th>€/hl</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANGOLA</td>
<td>627.474</td>
<td>1.15</td>
</tr>
<tr>
<td>RU</td>
<td>132.516</td>
<td>2.75</td>
</tr>
<tr>
<td>FRANÇA</td>
<td>324.404</td>
<td>0.91</td>
</tr>
<tr>
<td>BRASIL</td>
<td>44.450</td>
<td>2.80</td>
</tr>
<tr>
<td>ALEMANHA</td>
<td>159.139</td>
<td>1.44</td>
</tr>
<tr>
<td>EUR</td>
<td>94.723</td>
<td>2.37</td>
</tr>
<tr>
<td>CANADA</td>
<td>62.092</td>
<td>3.12</td>
</tr>
<tr>
<td>SUÍÇA</td>
<td>66.500</td>
<td>2.39</td>
</tr>
<tr>
<td>BÉLGICA</td>
<td>46.245</td>
<td>2.80</td>
</tr>
<tr>
<td>SUECIA</td>
<td>48.223</td>
<td>2.31</td>
</tr>
<tr>
<td>HOLANDA</td>
<td>39.307</td>
<td>2.84</td>
</tr>
<tr>
<td>ESPANHA</td>
<td>60.489</td>
<td>1.41</td>
</tr>
<tr>
<td>CHINA</td>
<td>61.104</td>
<td>1.35</td>
</tr>
<tr>
<td>POLÔNIA</td>
<td>36.361</td>
<td>2.06</td>
</tr>
<tr>
<td>LUXEMBURGO</td>
<td>25.114</td>
<td>2.62</td>
</tr>
</tbody>
</table>

Ranking sort by value of exports. Figures in hectolitres

Source: IVV
Research is the transformation of money into knowledge
Innovation is the transformation of knowledge into money

BUT

All research costs money
AND

Not all knowledge can be turned into money
SO

How do we make sure that the knowledge we generate can be turned into money?

- company's objective – increase market share
- Collective objective of a national / regional sector – bigger market
Increasing market share requires competition with those who you need to collaborate with to grow the total market.

R&D can generate knowledge which can both give a competitive edge to a company and increase the total market for a country’s / region’s product.

Conciliating public and collective R&D with company R&D.

Who decides what research is done in public / strategic research.

• Examples of sector-wide research prioritisation.

The knowledge which might influence the success of a country / region can be the basis of competitive knowledge.

Only when a company knows what knowledge it needs in order to innovate it can help identify what the sector collectively requires.

The process of identifying collective research needs requires work – and a process.
Technology Platforms: Central Concept

Instrument to strengthen the European-wide innovation process

(Industry led) Framework to unite stakeholders around:

- a common “VISION” for the technology concerned
- definition of a STRATEGIC RESEARCH AGENDA
- develop and execute an IMPLEMENTATION PLAN

ETP Food for Life

Vision

An effective integration of strategically-focused, trans-national, concerted research in the nutritional-, food- and consumer sciences and food chain management will deliver innovative, novel and improved food products for, and to, national, regional and global markets in line with consumer needs and expectations.

These products, together with recommended changes in dietary regimes and lifestyles, will have a positive impact on public health and overall quality of life ('adding life to years').

Such targeted activities will support a successful and competitive pan-European agro-food industry having global business leadership securely based on economic growth, technology transfer, sustainable food production and consumer confidence.
ViniPortugal’s R&D Agency.

Act as an interface between R&D providers, the supporting technology sectors, and public and private partners.

To influence research programmes which are strategic for the sector.

To influence and facilitate, not own or execute research.

To use the representativeness of ViniPortugal to leverage the competitiveness of the sector as a whole and to help create an environment in which companies can access that R&D they need to innovate.

Vision Documento Viniportugal R&D for the competitiveness of the Portuguese wine sector.

- Structured consultation of the sector (2004-2005);
- Summary of priority topics for collective R&D;
- Intended to influence national funding bodies;
- Regularly updated.

- Communication and technology transfer
- Portuguese grape varieties
- Consumer perception and preference
- Oenological practices
- Securing genetic resources
- The measurement of grape and wine quality
- Grapevine improvement and selection
- Food quality and safety
- Wine, human health and society
2012 Version

1. Exclusively focussed on supporting the strategic axes of the ViniPortugal and Wines of Portugal.
   Unique, flexible, linked to territory.

2. Broader in terms of scientific disciplines, to include economics, social sciences, history etc.

Agro-Food Cluster has the mission to reinforce competitiveness of food industry in the food sector:

By increasing the technologic index of enterprises, promoting production, transference of knowledge and its application towards valorisation and differentiation of food products;

By acting as a stimulus to Innovation, to Competitiveness and to Internationalization.
Knowledge Internationalisation

Actions

- Two main areas in focus:
  - Networking
  - Internationalse

Knowledge Division

Market Observatory

- Platform based on two strategic objectives:
  - Healthy and Safe Foods,
  - Environmental Friendly Foods

- Dissemination of knowledge, promotion of practices of innovation, networking, promotion of synergies, strategic cooperation between Industry and Universities;

- Market Observatory, generating tailor-made reports directed to industry needs and promoting innovation;

- Allowing tracking new launches (food products) in different sub-categories in Agro-Food sector, world wide, enabling identifying global market trends of consumption.

- Based of this information, PortugalFoods endorse the application of knowledge, through an active transference of knowledge and thus promoting innovation.

Market Division

- Platform based on two strategic axis:
  - National Support – aiming to organise and promote the food sector;
  - International Support – aiming to promote internationalisation of agro-food enterprises, through an active support based on:

- Capturing opportunities and
- Providing business intelligence
Relevant structures promoting generation and transfer of knowledge in the wine sector.

- GWRDC - The Grape and Wine Research and Development Corporation.
- ADVID – Douro Association for R&D in Viticulture.
- PORVID – Portuguese Association for the Diversity of the Grapevine

Wine Cluster of the Douro region.

- ADVID (www.advid.pt)
- Regional Cluster built on formal association of companies, already 27 years old.
- 184 Members.
- 24 Partners under protocol.
- Cluster owned by companies.

Research priorities

- The impact of climate change on the viticulture of the Douro.
- Management of water limitations.
- Zoning and mapping for quality.
- Functional biodiversity for viticulture.
- The preservation of the genetic diversity in grapevine varieties.
- Measuring quality in wine grapes.
- Sustainable viticulture.
- Rationalization of hillside viticulture.
- Economic observatory for Douro viticulture.

Ciência do Vinho em Portugal

How sharp is the knife?

Indicators of capacity and performance for wine related science in Portugal.
Publicações Científicas Portuguesas em Ciência do Vinho

- Parâmetros de Pesquisa:
  - Base de Dados: SCIE – Science Citation Index Expanded
  - Palavras-Chave: WINE* OR GRAPE* OR ENOLOG* OR OENOLOG* OR VITIS* OR RED WINE* OR WHITE WINE*
  - Publicações com PORTUGAL no campo de endereço
  - Período de tempo: 1978-2008

- Ferramenta de análise estatística do ISI Web of Science
- Dados recolhidos, filtrados e analisados

Wine science in the world.

<table>
<thead>
<tr>
<th>Nº of articles by country (SCIE 1978-2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>------</td>
</tr>
<tr>
<td>1º</td>
</tr>
<tr>
<td>2º</td>
</tr>
<tr>
<td>3º</td>
</tr>
<tr>
<td>4º</td>
</tr>
<tr>
<td>5º</td>
</tr>
<tr>
<td>6º</td>
</tr>
<tr>
<td>7º</td>
</tr>
<tr>
<td>8º</td>
</tr>
<tr>
<td>9º</td>
</tr>
<tr>
<td>10º</td>
</tr>
<tr>
<td>11º</td>
</tr>
<tr>
<td>12º</td>
</tr>
<tr>
<td>13º</td>
</tr>
<tr>
<td>14º</td>
</tr>
<tr>
<td>15º</td>
</tr>
</tbody>
</table>

Largest Growth (between 1991 e 2001)

* (between 1991 e 2001)

Major areas of wine science in Portugal (SCIE 1978-2008)

Botânica
Bioquímica e Biologia Molecular
Métodos de Pesquisa Bioquímica
Nutrição e Dietética
Cell Biology
Chemistry, Multidisciplinar
Mycologia
Agricultura, Multidisciplinar
Biotecnologia e Microbiologia Aplicada
Química Aplicada
Química Analítica
Ciência e Tecnologia Alimentar

Articles by institution (SCIE 1978-2008)

Univ Açores
Univ Evora
Int. Sup. Técnicas
Univ. Madeira
ITQB
UTAD
Univ. Coimbra
ISA
INIA/INPA
Univ. Minho
Univ. Aveiro
Univ. Novo Litoral
Univ. Católica Portuguesa
Univ. Faro Lisboa
Univ. Porto

PhDs in wine related subjects (1983-2007)

Total Accumulated

PhDs (1983-2007)

Antropologia
Sociologia
História e Arqueologia
Ciências da Terra e do Espaço
Economia e Gestão
Economia
Ciências da Saúde
Química
Engenharia Química
Engenharia Bioquímica
Ciências Biológicas
Ciências Agrárias e Veterinárias

(Fonts: ISI Web of Science, GPEAS/FCT)
Grapes and wine are part of the country

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Country</th>
<th>Total articles*</th>
<th>Articles in wine science*</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1º</td>
<td>Portugal</td>
<td>22708</td>
<td>168</td>
<td>0.74</td>
</tr>
<tr>
<td>2º</td>
<td>Espanha</td>
<td>200027</td>
<td>834</td>
<td>0.42</td>
</tr>
<tr>
<td>3º</td>
<td>Eslovénia</td>
<td>9691</td>
<td>30</td>
<td>0.31</td>
</tr>
<tr>
<td>4º</td>
<td>Grécia</td>
<td>41652</td>
<td>118</td>
<td>0.28</td>
</tr>
<tr>
<td>5º</td>
<td>Hungria</td>
<td>38587</td>
<td>88</td>
<td>0.23</td>
</tr>
<tr>
<td>6º</td>
<td>Austrália</td>
<td>203081</td>
<td>439</td>
<td>0.22</td>
</tr>
<tr>
<td>7º</td>
<td>Eslováquia</td>
<td>15635</td>
<td>33</td>
<td>0.21</td>
</tr>
<tr>
<td>8º</td>
<td>França</td>
<td>482882</td>
<td>978</td>
<td>0.2</td>
</tr>
<tr>
<td>9º</td>
<td>Itália</td>
<td>301713</td>
<td>600</td>
<td>0.2</td>
</tr>
<tr>
<td>10º</td>
<td>África do Sul</td>
<td>39841</td>
<td>73</td>
<td>0.18</td>
</tr>
<tr>
<td>11º</td>
<td>Chile</td>
<td>16899</td>
<td>31</td>
<td>0.18</td>
</tr>
<tr>
<td>12º</td>
<td>Nova Zelândia</td>
<td>41084</td>
<td>68</td>
<td>0.17</td>
</tr>
<tr>
<td>13º</td>
<td>Suíça</td>
<td>134278</td>
<td>130</td>
<td>0.1</td>
</tr>
<tr>
<td>14º</td>
<td>Israel</td>
<td>92891</td>
<td>96</td>
<td>0.1</td>
</tr>
<tr>
<td>15º</td>
<td>Argentina</td>
<td>35494</td>
<td>35</td>
<td>0.1</td>
</tr>
</tbody>
</table>

* (entre 1991 e 2001)

Portugal has the highest proportion of its total science output dedicated to wine.

To close

- Experience of the poles and clusters.
- Conciliating expectations and instruments.
- Experience of collaboration with companies.
- Wine is a special case – territory, identity, primary production vs processing.
- Need for clarity and objectivity when discussing the role of R&D.