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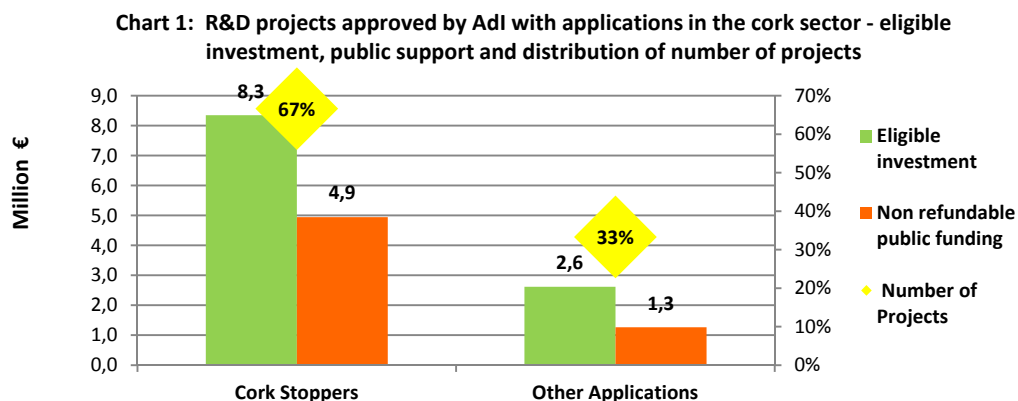
The investment in R&D helped recover market share.

R&D made an important contribution to the recovery of the cork sector in Portugal

Portugal is the largest exporter of cork in the world. In the last decade, its share of world exports increased significantly, namely 57.6% in 2001 and 61.3% in 2010. The main product exported is cork stoppers for wine bottles (67%) which are subject to fierce competition with other closures and have lost market share.

APCOR (The Portuguese business association for the cork sector) guarantees that "wineries that have used alternative closures are returning to cork because they were not satisfied with their performance," cited by "i" newspaper on December 29, 2011, adding: "investing in research in this field ultimately dictates regaining the market."

Since the 1990s, Agência de Inovação (the Portuguese official innovation agency) has approved 27 R&D projects with applications in the cork sector. As Chart 1 below shows, 67% of the projects were directed to the manufacturing of wine bottle stoppers. These projects have provided results ranging from machines for cork stoppers producers, automation of manufacturing processes, to the chemical processes to lower TCA (Tricloroanisol) and reduce "off-flavours" in the wine.



Source: AdI, December 2011

R&D made an important contribution to the recovery of the cork sector in Portugal

The other 33% of the projects are directed to cork clusters, composites and waste recovery.

The results of this investment in R&D have had an impact on exports as shown in the report of the Cork Quality Council (<http://www.corkqc.com/newsandpress/cnews3.htm>):

“Sales of Cork Finished Wines Continue to Increase

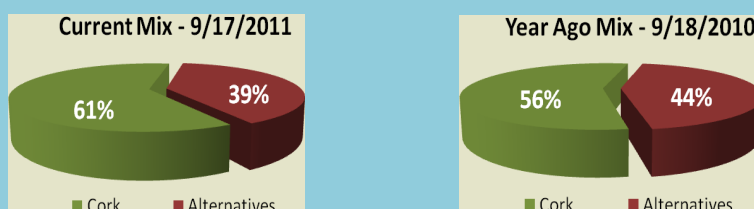
It has been eighteen months since the Cork Quality Council began tracking sales by closure type for the Top 100 Domestic Premium Wine Brands. This category consists of domestic Table Wine Brands with an average retail price over \$6 per bottle. The comparison of sales performance within this group has revealed a consistent pattern of increased volume and revenue for wines finished in with cork closures.

The most current Nielsen Survey for the four-week period ending September 17, 2011 shows that sales from the Top 100 Premium Brands posted a slight decline (-0.9%) from 2010. Within this category, sales from wines with cork finish were up 7.7%. Wines using alternative closures posted sales -11.9% below last year's performance.

Case Sales			
4 Weeks Ending	9/17/2011	9/18/2010	Change
Cork Closures	689,252	639,923	7.7%
Alternatives	444,848	504,992	-11.9%
Total Top 100	1,134,100	1,144,915	-0.9%

The net effect of sales activity has brought a change in the business mix for the Top 100 Premium Wine Brands—from 56% cork in 2010 to 61% in the current period.

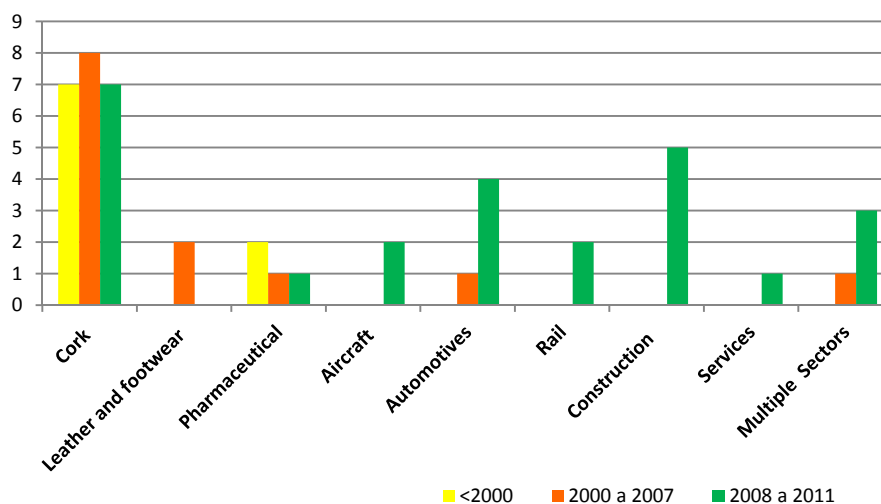
Mix of Case Sales by Closure Top 100 Premium Table Wine



Though cork finished wines have a slightly higher “same-brand” sales growth than wines with alternative closures, the most important reason for the shift in favour of cork closures is due to changes in product mix. The number of SKU's in the Top 100 Brands show a 5.5% increase for those finished with cork and a -15.4% decline for items finished with alternative closures.”

Other R&D projects from cork companies

Chart 2: Number of projects with the participation of cork companies by application sector and year of application



Source:Adi, December 2011

Cork companies are investing in projects for other areas of application in order to diversify markets.

They seem to be focusing on creating products with higher added value.

In addition to these projects whose market application is the cork sector, cork companies are investing in projects for other areas of application in order to diversify the markets. This diversification movement has accelerated in recent years as shown in Chart 2 above.

Cork companies seem to be focusing on creating products with higher added value.

They aim to develop products from cork or cork waste to produce clean, lightweight materials, with high capacity of thermal and acoustic insulation applied in various industrial sectors including aircraft, ground transportation and construction.

The chemical properties of certain components of cork can be used in the pharmaceutical industry and its absorbent properties also contribute to minimising the effects of pollutant spills.

To know more about the Portuguese cork sector:

Contact APCOR – The Portuguese Cork Association
<http://www.apcor.pt/home/>

Do you wish to find a Portuguese partner for a technology innovation project?

Contact AdI <http://www.adi.pt/uk/indexuk.htm>

Pictures of 2 examples of diversifying projects from the cork industry: Project LIFE and Project iBUS



LIFE – Lighter, Friendly and Eco-Efficient Aircraft Cabin

<http://life.inegi.up.pt/>

LIFE YouTube

<http://www.youtube.com/watch?v=IxD-kc8Hhyo>

LIFE PROJECT

Amorim Cork Composites, Couro Azul, INEGI and SET propose an innovative aircraft interior in collaboration with Almadesign and Embraer.

The goal of the LIFE Research Project - Lighter, Integrated, Friendly and Eco-efficient Aircraft Cabin - is to create skills for design, development and industrialization of functional and technical solutions for aircraft interiors aiming at eco-efficiency, lightweight and comfort in an integrated and innovative design.

The project also aims to introduce improvements to the R & D, organization, cooperation and business management as well as consolidate its presence in international markets.

By joining competences from different areas, this initiative was made possible by a consortium of four companies and one R&D institution: Amorim Cork Composites (Corticeira Amorim), Couro Azul (Carvalhos Group), SET (Iberomoldes Group) and INEGI (a Research and Technology Organization). For this project the consortium made a partnership with Almadesign (Industrial Design) and Embraer (Aircraft Manufacturer) as well as several other technology companies such as Caiado and Sernis with the support of PEMAS – Portuguese Aerospace Industry Association.



Full-scale mock up

iBUS – R&D of Integrated Systems for Interior and Exterior of Touring Coaches

<http://www.ibus.com.pt/>

iBUS YouTube

<http://www.youtube.com/watch?v=ImyGu3m37o0>

IBUS PROJECT

The IBUS consortium presents a new vision for the road transport sector: an eco-efficient, lightweight, comfortable and integrated concept for interior and exterior of touring coaches.

The project demonstrates the acquisition of new technological skills by the consortium, through the development of integrated, functional and technical solutions. The project resulted in a full-scale mock up (inner and outer cross-section) 2.4 m long, to visualize, test and validate solutions for future applications in touring coaches, by using innovative solutions inspired by the aeronautical and automotive areas.

CONSORTIUM

By joining competences from different areas, this initiative was made possible by a consortium of Portuguese companies and R&D institutions: Caetano Components (Salvador Caetano Group), Amorim Cork Composites (CORTICEIRA AMORIM), Couro Azul (Carvalhos Group), SET (Iberomoldes Group) and INEGI (a Research and Technology Organization). The consortium worked with an industrial design company, Almadesign, with a close monitoring support of a potential integrator with strong experience in the sector – CaetanoBus the manufacturer of CAETANO coaches. Additionally the consortium was technically supported by MNAC, regarding the project and installation of electronic and lighting systems, and Robbialac regarding the paint and finishing tests and supply.

SIDE PANELS

A modular and easily integrated system for the interior side panels was developed. It includes all the sub components that line the sides of the bodywork. In its production were applied new core cork composite materials (Corecork®), providing greater resistance, better sound and thermal insulation and lightness. The modular design allows adaptation to different body types.

FLOOR

For the bus floor IBUS developed a cork core composite floor (Corecork®) that meets the mechanical specification norm. The Corecork® also adds acoustic and thermal comfort and dramatically reduces the weight of the floor: 40% reduction in weight relative to current solutions, contributing to fuel economy and the consequent reduction of CO2 emissions.