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Claude Graff

Tenerrdis sources new energy

The Tenerrdis competitive cluster, established in Rhône-Alpes in 2005, has no shortage of ambition, ranging from developing its network abroad, establishing closer links with small business, and stepping up research partnerships and training schemes. We talk to the Tenerrdis President, Claude Graff, taking stock of present achievements and looking to the future.

What are the main activities of Tenerrdis?

The Tenerrdis competitive cluster seeks to develop new energy technologies and optimize their use in transport and housing. Our activities centre on solar energy, network management, hydrogen and fuel cells, biomass and hydraulics. The decision to locate the cluster in Rhône-Alpes was not made by chance. Our region has extraordinary potential for new energy technologies. A large number of organizations in research and industry are working in this field, from Grenoble to Lyon and including Chambéry, Valence and Bourgoin-Jallieu.

How do things stand for Tenerrdis at present?

We have tripled the number of our partners since 2005. Tenerrdis now comprises nearly 200 players, half of which are industrial firms. From the outset we encouraged small and medium-sized enterprises to take part in R&D projects. The wager has paid off because two-thirds of the firms now involved are SMEs.

Furthermore we have certified almost 240 projects taking in all the projects covered by the cluster since 2005.

Lastly Tenerrdis achieved its objectives in the national assessment of clusters carried out in 2008. Regarding the second phase for France's clusters (2009-11), our roadmap is clear: research partnerships, training, support for SMEs, international development

and coordination between clusters. We have, for instance, just signed a charter for cooperation with France's other competitive clusters working in new energy technologies (Capenergies in Provence Alpes Côte d'Azur, Derbi in Languedoc-Roussillon and S2E2 in the Centre region).

What are the prospects for the cluster's development?

Above all we must do more to promote international development. Cooperation with Spain, Germany and Italy is gathering speed. For example we are collaborating with the Piedmont region on the development of renewable energies. The key question at present hinges on the choice of clusters with which to establish connections. We have established links with Colorado, USA, which has a great deal in common with Rhône-Alpes, in particular its leadership position in new energies.

We also need to reassert our support for SMEs which are pivotal to our concerns, witness the signature of an agreement with the Business Angels association in Chambéry and Grenoble.

Lastly we want to boost the development of innovation platforms, focussing among others on energy storage. The government has issued an initial invitation to tender for innovation platforms to support the work of clusters by deploying framework projects. Of the eight applications filed by Tenerrdis four have passed the preliminary selection stage.

Poma in New York

Poma, the world leader in cable transport, has just won the contract to build an aerial tramway in New York City, straddling the East River to connect Roosevelt Island to Manhattan. It will replace the existing urban cable car which has been in service since 1976. Poma will be using the same system as the one deployed on the Vanoise Express which connects two of France's top ski resorts, La Plagne and Les Arcs. Two 110-seater gondolas will carry up to 1,500 passengers an hour.

Tronics hatches subsidiary in Texas

Tronics Microsystems, which makes high value-added micro-electro-mechanical systems (MEMS), has just opened an American subsidiary in Richardson, Texas. This move follows the recent acquisition of MedTech Development, a US firm specializing in medical devices, based in Silicon Valley. The new unit, Tronics Mems Inc, with 1,850 sq m of clean room space, will focus on MEMS fabrication on 150 mm wafers, serving the US and Asian markets for applications in medicine, car manufacture, printing, mobile and consumer products.

Boxal packaging wine

After aerosols and beer, the next commodity to benefit from aluminium packaging with high-definition graphics could well be wine. Boxal, the world leader for aluminium bottles, has just produced the first packaging for Lubie, a Bordeaux-based wine merchant, which will soon be marketing 25cl and 18.7cl (US standard) bottles. Premier supplier to the beverages, cosmetics and pharmaceuticals markets, Boxal offers a global capacity of over 900m units annually.

Recupyl raises €14.5m

Recupyl is a world-class eco-technology firm that was started in 1993 with the support of INPG Entreprises. It has just raised 14.5m from a group of investors, including Aloe Private Equity, which was the first investor to take a share in the venture in 2006, and AGF Private Equity. The new funds will be used to finance the next stage in its commercial development. Recupyl specializes in recycling and processing hazardous and industrial waste, for which it has developed several processes, protected by a string of patents. Using techniques based on hydrometallurgy and operating at room temperature, these processes enable more than three-quarters of the materials in batteries to be recycled. The firm has



several facilities for recycling batteries and power cells: in the Grenoble urban area (Domène), Singapore, Spain, Mexico and the United Kingdom (under licence).

It plans to open other facilities in the near future. But Recupyl is now determined to explore new markets, in particular recycling the batteries of hybrid vehicles, fuel cells, flat screens and solar panels. It should benefit from tougher European Community legislation which will require recycling of a quarter of all batteries and mobile power packs by 2012, rising to 45% by 2016, compared with less than 15% at present. Recupyl is targeting €10m annual sales by 2010. It currently employs some 20 people.

Record turn-out for Pollutec fair



Pollutec, the international exhibition of environmental equipment, technologies and services, was held in Lyon from 2 to 5 December. The 23rd edition was an exceptional success, attracting 73,668 visitors and 2,340 exhibitors, proof that the world of business and industry appreciates the environment's critical importance. With 8,422 foreign visitors from 110 different countries, Pollutec has also demonstrated that it is the global venue for technology innovation serving the environment. Visitors flocked from South America, Eastern Europe, Northern Africa and Asia, alongside official delegations from the United States, Central and Latin America, and West Africa. Energy, which grabbed the limelight this year, is now visitors' prime concern, but waste processing and water treatment



have lost none of their drawing power. Finally the topic of sustainable development, coupled with environmentally aware design and materials, registered a sudden gain in interest, now ranking as the fourth most important concern.

Pollutec is the world's benchmark trade fair for environment consultants, industry, local authorities and services. The event, which focuses on key market sectors (water, waste, air, sites and soil, risk prevention, etc.), also keeps an eye on the future, exploring renewable energies, energy efficiency and control, reducing greenhouse gas emissions and urban transit.

> SPOTLIGHT <

Competitive clusters boost Rhône-Alpes CleanTech business

Clean technology, often referred to as CleanTech, is rapidly becoming essential, particularly now that everyone agrees on the need to preserve the environment at every level. Three Rhône-Alpes competitive clusters – Axelera, Minalogic and Tenerrdis – are among leading CleanTech players and are currently gearing up to contribute to the sector's development.

Clean technology covers a range of services, products and technology for reducing the use of natural resources and limiting the impact of human activities on the environment. It is assuming an increasingly pivotal role in economic development. Rhône-Alpes is one of the top European regions for new energy technology, chemicals and the environment. The complementary relations between these fields is a key factor in developing Cleantech. In view of the stakes for this emerging sector, in terms of growth and jobs, the various players have joined forces to make Rhône-Alpes the Cleantech centre of Europe.

Competitive clusters moving towards Cleantech

The chemical industry has always made allowance for environmental issues but until recently its efforts mainly concerned the control of industrial emissions. Nowadays the environment counts right from the start of project design. Axelera, which brings together organizations working in chemicals and the environment, is actively promoting this proactive approach and is naturally keen to become a driving force in clean technology. The horizontal nature of environmental issues and the impact of the

chemical industry on many branches of the economy is a further incentive for the cluster to advocate an integrated chemical and environmental filière.

Tenerrdis is also working hard to speed up the emergence of Cleantech projects. Sirteri, a scheme involving two firms and two research centres, addresses industrial development of a thermo-acoustic insulation system for indoor installation in business premises. The Actifen Rehab project is working on a smart window integrating a range of functionalities (related to heat, noise, etc.), some of which may counter the effect of others (allowing ventilation while maintaining an air seal, letting light in while maintaining good thermal and acoustic insulation).

Micro and nanotechnology, and embedded software are another response to the challenge of reducing energy consumption. Minalogic has made green thinking a central plank of its action, with projects addressing energy control and management, in particular using systems that provide more detailed data and analysis of consumption. The cluster has launched a Green label, as in Grenoble Energy Efficiency, awarded to projects that cut the energy consumption and carbon footprint of products based on micro and nanotechnology, and embedded software: "One of the missions Minalogic has set itself (...) is to promote and encourage (...) all the organizations that seek to reduce energy consumption. Our Green label contributes to such recognition," says Eric Pilaud, the President of Minalogic. So far 10 projects have been certified.

Networking and amplifying synergy

Organizations working in chemicals, energy or the environment have many points in common. Rhône-Alpes clusters are beginning to organize their activities to optimize their impact on clean technology issues. "The challenge at present is to build networks, to identify forms of interaction that make sense," says Claude

Graff, the President of Tenerrdis. For instance Axelera and Minalogic are working together on chemistry in electronics. The Axelera, Tenerrdis and Lyon Urban Truck & Bus (clean urban transit) clusters have launched a joint scheme to establish a CleanTech alliance in Rhône-Alpes and set up a network of clusters certified as producing "eco-technology". So all aboard for eco-innovation in Rhône-Alpes!



Axelera combating PCB pollution



Polychlorobiphenyls (PCBs) are chlorinated chemical compounds commonly used in industry since the 1930s on account of their electrical insulation and thermal stability properties. They have proved to be highly resistant pollutants that are difficult to break down, accumulating in the ground and contaminating rivers and streams.

The PCB-Axelera programme aims to gain a better understanding of the processes involved in PCB-contamination, to design tools for assessment and analysis, and develop new processes and technologies to eliminate pollution from rivers. Coordinated by Suez Environnement, PCB-Axelera involves 36 partners in industry, business and research. By 2012 it plans to deliver 13 new processing technologies and 14 new tools and methods for controlling PCBs.

Terrace at Schneider Electric fitted with solar panels



> TIME OFF <

French Alps welcome world's top skiers

The first two weeks in February were a busy time for skiing in the French Alps. The world's top skiers gathered in Isère and Savoie for the cross-country Masters World Cup and the downhill World Championships, two major events in a region with a deep-rooted mountain spirit.

The village resort of Autrans, in the Vercors massif, 35 kilometres out of Grenoble, hosted the 29th edition of the Masters World Cup, from 30 January to 6 February. The competition, which is restricted to competitors over 30 but of both sexes, attracts many former cross-country champions. There were no fewer than 30 individual and team events, with some 1,200 competitors aged 30 to 75, representing all the nations where cross-country skiing is taken seriously. What better way to show off the mountains of Isère, than a competition drawing several thousand spectators?

The cross-country skiing was still underway when the Downhill Skiing World Championships kicked off in Savoie, at the internationally renowned resort of Val d'Isère, a fitting venue for the greatest contest in skiing, second only to the Winter Olympics. Eleven events were staged, from 2 to 15 February, featuring 350 skiers from 60 countries. It was the first time since 1934 that the World Championships had been held in France. The competition, which proved particu-

larly exciting, broke new ground in terms of organization. With invaluable input from about 1,000 voluntary organizers, priority was given to two concepts: free access to public transport, car parks and competitions; and sustainability, with in particular a drive to use no disposable cups at all. The aim was to seize this opportunity to promote the concept of a new type of sustainable resort.

It will come as no surprise to readers familiar with Autrans and Val d'Isère that these resorts were selected to organize sporting events on this scale. Autrans is France's top cross-country skiing centre and the annual venue for the famous Foulée Blanche race. It was only natural that the village should be chosen for the Masters World Cup, just over 40 years after hosting the Nordic events of the 1968 Winter Olympic Games, based in



Grenoble. As for Val d'Isère, the reputation of this great resort is firmly established. In 1992 the men's downhill event was held here during the Albertville Winter Olympics and every year the resort organizes the Critérium de la Première Neige, the official opening stage of the downhill World Cup.

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