

Special research&innovation



Christos Tokamanis, Head of the Nano-science and Nano-technologies Unit, DG European Research Commission

PH: COMMISSIONE EUROPEA

- **RESEARCH & INNOVATION** pag. 114
- **“HORIZON 2020”- Materials and Nanotechnology Programme for Research and Innovation 2014 - 2020** pag. 120
- **INTERNATIONALIZATION** pag. 124

Toward a New Renaissance

Special research

“**N**anotechnology and advanced materials technologies will allow Europe to manufacture better products and offer better services, but they will also provide sustainable industrial solutions, intended for the wealth of its citizens”. This is confirmed by Christos Tokamanis, Head of Nano Sciences and Technologies Unit as well as General Research Director of the European Commission, who stresses how the Old-Country is so important in this regard at an international level. Energy, health, housing, transport, namely the industry of advanced materials can intervene in different sectors by offering solutions and products. “All the aspects related to the development of

PH. COMMISSIONE EUROPEA



a product (from its design to its engineering, from its manufacture to its marketing) are closely dependent on the technological and social innovations that are based on the nanotechnology and advanced materials. For this reason, the Horizon 2020 explicitly included these technologies into the specific program concerning the Ket - Key Enabling Technologies for a new European, industrial and technological leadership – Tokamanis continues -.The Horizon 2020 promises to capitalize the progress made with the two previous Fp6/7 framework programs, which would allow Europe to seize the opportunities to convert this scientific and technological impressive work into successful commercial inno-

vations. The goal - he concludes - is to ensure that, over the next seven years, the research, development and innovation, as well as funding of the nanotechnology and advanced materials fall within the complex strategy aimed at managing, integrating and spreading these ‘enabling technologies’ with sectors such as manufacturing, biotechnology, nanoelectronics and photonics, as they are key factors to enhance the productivity and innovative capacity of the European industry.” For this reason, the European Conference taking place in Bologna at the end of September 2014 will be dedicated to the Key Enabling Technologies and industrial research. The event, sponsored by the European Commission in the context of half-year Italian Presidency, is organized by the National Research Council, Apre (Agency for the Promotion of European Research) and Aster, and will recall under the two towers more than 1,200 experts.

Break with the past through a large perspective outburst, where industrial development goes hand in hand with the incentives coming from the research. Nanotechnology and advanced materials industry become the pillars of Europe's rebirth

&innovation

The theme chosen as the main one of the European Conference in Bologna, dedicated to the industrial research and Key Enabling Technologies, will be the Renaissance, understood as a time of great break with the past and characterized by a great perspective outburst. "Reinventing a new Renaissance - Professor Ezio Andreta, President of Apre, said - is a proposal to arouse interest, but it requires profound changes.

Abandoning the quantitative model, in which we are immersed culturally, in favor of a qualitative model, based on merit, quality and value, is not possible without revolutionizing the system of designing, making and producing, for introducing a new one based on the ability to integrate through a synergic approach, different technologies, competitiveness, art and beauty.

PH: APRE



Ezio Andreta, President of Apre

PH: WARRANT



Fiorenzo Bellelli, President of the Warrant Group

zo Bellelli, President of the Warrant Group and Advisor of Apre, said: "We are facing the possibility of giving life to a new Renaissance, but first of all we are facing a new horizon for our companies. The industry has taken a leading role within the Horizon2020. The objectives of growth that Europe has set itself can only be achieved if the companies will transform the search results

of the Universities in businesses. At the same time, however, the academic community should direct its efforts in only one business oriented direction: thus the Horizon2020 goal is to create jobs and Gdp points before scientific publications."



Innovation makes it competitive

The revolution of a University dedicated to internationalization

“An international University is a University that is open to the world” - the words of the rector Giuseppe Novelli include all the innovative trend characterizing the University of Tor Vergata. To increase more and more its degree of internationalization, this University has many relationships with the most prestigious foreign universities. And it is only a few weeks ago that a new revolutionary agreement was entered into with the Harvard University. Through a collaboration with the Beth Israel Deaconess Medical Center, the largest hospital and pole of Medicine in Boston, and the establishment of a Research Foundation, the Htbt, “Hope to Beat Tumourgenesis”, for the first time students of the Roman University will be the protagonists of a cultural exchange

focused on the search for the fight to tumors. Laboratories, but especially so high training - “So, we create a bridge between Roma and Boston - the rector Giuseppe Novelli says - graduates and the holders of PhDs will spend two years in Boston in a joint laboratory with the Harvard students, and vice versa.” It is the first time that an Italian University becomes promoter of a project like this. In the meantime, reflecting the will to totally internationalize the University of Tor Vergata, just think that the ceremony for the delivery of the certificates to foreign students occurred in the current session of March in Roma, in front of the Ambassadors of the countries of origin of the young graduate students. What is the goal? Creating new relational networks and consolida-

ting more and more the ties with the world. “It’s a unique opportunity of visibility - the rector Giuseppe Novelli says - a way to establish synergies and global relationships, and, by doing so, also our University becomes a container of new potential cooperation with foreign countries.” In fact, the path, according to the Rector Giuseppe Novelli, is traced: that toward the very high quality of training and education, because “in a world that changes so fast we prepare our students to approach it with the right skills” - he stresses. That is why all degree programs have been carefully assessed by a commission of experts who has contributed to the important renewal of the programs and the content of the lessons, within the limits of the directions imposed by the Ministry. As with the Master of Science in Pharmacy, from always centered on chemistry, and including teachings of medicine and cosmetology, to give the student the profiles most required from the market. The horizon, in fact, is the one that aims to reach more and more universities and the companies. But this, the so-called “third mission” of the University, is already an achievement in the University of Tor Vergata, thanks to the relationships with the firms and the regional and national productive activities. “It is no longer the time to be alone - the rector Giuseppe Novelli concludes - knowledge and academic science must reach the companies and create new products and solutions; this is why our universities provide consulting services to companies in terms of innovation and applied research.”



PH: UNIVERSITÀ TOR VERGATA

Giuseppe Novelli



The Vivendi Campus

The modern feel of a university able to respond to the needs of modern society

PH: UNIVERSITÀ DI SALERNO



The Vivendi Campus of the University of Salerno

The University of Salerno can boast of its origins, which are comparable with those of the most ancient universities in Europe, by referring to the School of Medicine in Salerno, which was founded presumably in the late Middle Ages. Between the X and the XII centuries, Paris, Bologna, and Salerno were the only institutions to confer a “*licentia docendi*”, which allowed the holder to teach in any university of the world. Foreign students would come here seeking a synthesis of the Greek-Latin tradition mingling with the Arab and Hebrew one. The presence of female professors and disciples was especially pronounced at the School of Medicine. Starting from 1988 the University of Salerno has been located in Fisciano, which has been structured as a real university campus. The Faculty of Medicine and Surgery has been located on the Campus of Baronissi since 2006. Today the university has 16 departments, 5 faculties and the Law School. The students number approximately 35,000. Salerno is on the list of universities that are well-known and have good results in terms of their evaluation in research. It is the

only university in Italia’s central south, to have obtained European Eur-Ace accreditation for its courses in engineering. The campus certainly adds value to the excellences in education and research. To enhance facilities further, there are two libraries, a linguistics center, theatre, bank, post office, police station, sports fields, university halls of residence, canteens, snack bars, a bus terminal, multi-storied parking, solar panel park, arboretum, and green spaces. There are 7 music bands, 3 for dance, and the *webradioUnis@und*. And this is why it is an ideal place for students from all over the world (over 400 are on the Erasmus program), and where living together with other researchers of different fields encourages research and innovation which requires ever more integrated competences. A pair of examples are the 53 Pon (National operative program) Projects (circa 43 million euros), and the 36 European financed projects of the 7° Framework Program. The reality of the Campus has also favored innovation and the transfer of technology (16 prizes in the last 4 year), in which it has with long-term

planning invested. Today the university has a portfolio of approximately 70 patents; in the last 5 years it has activated 16 spin-offs (3 national and international awards; 2 million euros of venture capital funding for the *Biouniversa*). Under construction is a building to house spin-offs at their start. There are projects to locate companies on campus. At the campus are the Headquarters of the Interuniversity Consortium for the Prediction and Prevention of Great Risks (Cugri), the Center of Research for Pure and Applied Mathematics (Crmpa), the Center of Research for the Innovation of Products and Processes in the Agricultural Sector (Prodal), the Smart Power System Technological District for Renewable Energy; and the Interdepartmental Center for Nanomaterials and Nanotechnologies (Nanomates). The university is also a partner in the *Databenc* Technological District for the Cultural Heritage. The university in Salerno, under its Dean, Aurelio Tommasetti, and its campus are ready to face the new challenges posed by the *Horizon2020* European program.

-P.C.-

Excellent models of enabling technologies

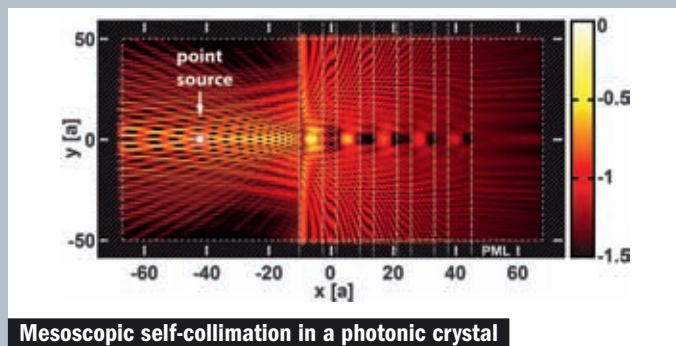


A cradle of new knowledge, the Polytechnic of Bari proves to be at the leading edge of Italian education

Basic subjects, physics, chemistry and mathematics; industrial area; information; civil engineering and architecture. These are the four main areas on which the Polytechnic of Bari has focused its attention to provide excellent in scientific research and education. And it is the deep interconnections between disciplines that enables the development of new knowledge and innovative solutions, aimed at improving the quality of life and enhancing the production capacity of the firms commissioning research. The hi-

Information. The first concerns research group nPeg (nanoPhotonics and Electromagnetics Group), coordinated by professors Antonella D'Orazio and Vincenzo Petruzzelli, engaged in the design and characterisation of optical devices based on photonic crystal nanostructures. The group's projects deal with optical interconnections for the transmission of high speed data to be used in new computers (developed in collaboration with the Universities of Siena, Ferrara and Glasgow), miniature sensors for industrial and

la. Equipped with innovative systems and tools for improving energy efficiency, this multidisciplinary laboratory is part of an applied research system developed in the region of Puglia and designed for integration with laboratory networks, industrial districts and businesses. Areas of activity include: applications for smart cities, ultrasonic non-destructive testing, thermo-physical characterisation of materials, synthesis of nanocomposite and nanostructured devices, rapid prototyping with real time digital simulator. New



Mesoscopic self-collimation in a photonic crystal



Vittorio Passaro

gh quality of products is internationally recognised by prestigious scientific assessment bodies. Again in 2013, the University of Bari was confirmed to be the Italian university with the highest performance in scientific research (source: Sir 2013 World Report) out of 4,000 competitors. The university's documented scientific value adds to its recognised teaching effectiveness, certified by Istat data, according to which 89% of graduates were working in the first three years after graduation. The university's excellent models of study and cooperation include three recent, cutting-edge units, all of them within the Department of Electrical Engineering and



medical applications (with IIT-Lecce, University of South Australia) and autocollimation systems (with Laas-Cnrs, Toulouse-France). The second is LabZero, an industrial research centre dealing with green and smart technology, which also draws on the expertise of the Polytechnic Universities of Bari and Enea Brindisi and is coordinated by professor Massimo La Sca-

synergies were also brought into play for European project Mermig, for which the Photonics Research Group from the Polytechnic University of Bari, coordinated by Professor Vittorio Passaro, developed a new type of integrated optoelectronic sensor for measuring rotation speed in gyroscopic systems used in most moving vehicles. The sensor is now being designed, manufactured and characterised by an international Consortium. This is how microelectronic technologies, used for the construction of consumer goods, are now also applied to photonics, one of the key enabling technologies for social and professional purposes according to the Eu.



Where meritocracy is born

Multidisciplinary research and internationalisation against the crisis

Research, interdisciplinary studies and internationalisation: a winning trio for the University Bergamo which, in the difficult context all Italian universities are currently operating in, continues to stand out as a pole of excellence in Europe. Because in these difficult times it is of paramount importance not to fall behind, and for Italian universities to remain competitive on the international further education scene demands even greater effort. In this scenario of diminishing funds and resources they can only really count on their own strengths. So, to get through the crisis, the University of Bergamo is counting on the quality of its teaching, its methods, range of courses and research. And the results are clearly visible: at a time when the national trend is toward a generalised reduction in the number of enrolments, the University of Bergamo is not only standing its ground, but is even managing to increase the number of students it accommodates, which since 2004 has increased from 8 to almost 16 thousand, and charging the lowest rates in the entire Lombardy region. These are significant numbers when you consider that the University of Bergamo has achieved this quantitative and qualitative growth over the last ten years despite suffering from chronic underfunding. “Our mission – explains Gianpietro Cossali, vice-rector and delegate for research – is to offer a different kind of university, in terms of teaching quality and research, to improve ourselves and give our student more outlets and opportunities on the employment market: despite the fact that we are habitually underfinanced, and that between 2009 and 2013 we’ve seen a 2%

reduction in staff, we’ve managed to upgrade our research programs thanks to a virtuous circle and synergy between private funding and internal resources”. But the University’s real crowning achievement lies in the multidisciplinary approach of the ideas and projects that develop within the faculties and the way they communicate between themselves in an ongoing osmosis of knowledge, making it possible for its interdisciplinary research groups to successfully compete in world level calls for tenders. In this context, internationalisation indeed plays a fundamental role: over recent years great progress has been made in this sense through the activation of bachelors and masters degree courses held

in English by visiting professors, and through ongoing exchanges and collaboration with some of the most prestigious international universities, among which Harvard. “The institution aims at giving students a broader European and world-level outlook. Internationalisation isn’t just a question of English, though it is certainly important, but also involves measuring up against new and different methods of study to our own, capable of raising our students to the level of the best of their European colleagues”. In Bergamo, meritocracy is the system that drives all internal activities, demonstrated by the launch of the “Top Ten Project” in 2014 that offers exemption from fees for the top 10% of students.

PH: UNIVERSITY OF BERGAMO



The main building of the university of Bergamo



New materials for innovation

Horizon2020: the European horizon for advanced materials

With 2014, a new season has officially opened for Research in Europe. With financial funding worth over 70 billion euros and a program which covers the 2014-2020 period, Horizon2020 represents without a doubt a new horizon for research and innovation. In

a socio-economic scenario that has changed so profoundly, Europe has courageously abandoned the route of a “knowledge based economy” to focus in a more decisive way in the direction of growth which should be intelligent, inclusive, and sustainable, in accordance to that which

is foreseen in the strategy for Europe 2020. Growth as an antidote to the crisis is therefore the fundamental assumption of Horizon2020 and it is just for this reason that one cannot think of growth if one does not support the whole process which takes an idea all the way to the market. One of the basic pillars on which all this new programming falls is actually the Industrial Leadership, and namely that grouping of financial instruments with which the European Commission intends to support and give a new surge to those enabling technologies called Kets (Key Enabling Technologies). These technologies are considered fundamental for growth and employment, since their application can bring about solutions or technological improvements capable of revitalizing the production system. According to the definition given by the Commission, enabling technologies are technologies “with a high intensity of knowledge and associated with a high intensity of R&D, with rapid innovation cycles, consistent investment costs, and jobs that are highly qualified”. Through the use of Kets, the engine of the chain of value of the entire production system can be revved up, innovating in a transversal manner the processes, products, and services of the various industrial sectors. Among the Kets, advanced materials occupy a very visible role. “Advanced materials are certainly a very fascinating disciplinary environment – commented Massimo Rinaldi, Advanced Materials and Processing Senior Engineer of the European Funding Division of the Warrant Group – which is interested in all the industrial sectors for their application potential.



Massimo Rinaldi



This is why among the first calls of Horizon2020 the European Commission wishes to stimulate the research and innovation of materials in diverse specific applicative sectors such as energy efficiency, construction, biotechnologies, health, textiles, and the conservation of the cultural heritage, just to cite a few. It is important that our country system and above all our companies become aware of these great opportunities. Participating in a research or innovation project on this theme does not mean just working on formulation and on the development of new materials, but also, and above all, being able to contribute to the industrialization and its first application. If I think of the Italian industrial districts, I believe that a 'European type' opening could without a doubt create a new surge and new competitiveness. I think of the ceramic industries, the bio-medical ones, or textiles, just to make a few examples. Working alongside the best industrial competences can allow a leap in quality not so much

European Funding Division (EFD) of the Warrant Group

Born in April 2008, the European Funding Division (Efd) of the Warrant Group, directed by the specialist in European projects, Isella Vicini, proposes to accompany private and public bodies, at national and international level, in the design, definition, presentation, and project management of European projects. The team is made up of 10 resources coming from the industrial sector, universities, public, and consultants with scientific, academic, and juridical training, located at headquarters and branches in Casalecchio di Reno (Bologna), Correggio (Reggio Emilia), Rome, Bergamo, and Brussels. The four roles of the Efd in the development of European projects are: technical administration coordinator, partner in the role of dissemination and exploitation manager, Lca (Lyfe Cycle Assessment), and technical consultant of the coordinator or of the partners of the consortium.

for the short periods productivity, as in the creation of new market niches of very high specialization. In other words – using the metaphor of the Blue Ocean Strategy best seller, – we should start to think of Horizon2020 as a way to go from the red ocean of unbridled competition, to the blue ocean which is clam and without competitors. I like to cite the project called Powderbond in which our client, Da Lio Spa a small business from the Noale (Venezia) which is working on the end-user

role with Jaguar-Land Rover and Fraunhofer-Institut to test a new technology for the joining of materials of diverse types for the car industry. Or the case of Ama Composites Srl with whom we are working on the Aeropan project for the creation of insulation panels for construction by the cross sector use of Aerogel, a material which up to today has been used only in other industrial sectors such as the aerospace one”.

-S.Z.-





The regeneration project

A concrete benefit for the environment and a business solution



“Good for business, good for the environment”. This is the claim of Cip Ecoinnovation, the program of European financing which supports those companies which choose to do business in a sustainable way through projects with a strong pro-environment impact. Among these is Gruppo Zilio, the company from Cassola which with its

project, Progetto Regenera (304317) has convinced the Eu to invest in the construction of an innovative plant for the purification of water by removing arsenic. The company is backed by an experience of over 50 years in the continuous development of new technologies for the treatment of civil and industrial waste water and for drinking water. “With Regenera, designed with the consultation of the European Funding Division of the Warrant Group - tells Simone Zilio, the commercial director - we have decided to add our contribution to resolving the environmental problem constituted by the presence of arsenic in drinking water. The goal is ambitious, as the problem involves hundreds of millions of people across the world, in Asia, the Indian sub-continent, in the Americas, and in Europe. The technology which we are introducing with this project is strongly innovative since the whole world uses iron hydroxide to purify water from arsenic. But this technique involves the throwing away in landfills of the material once it is exhausted. With Regenera we are carrying out an environment-friendly process which centralizes the regeneration of used-up material in a special made-to-measure plant without increasing costs but with a concrete benefit for the environment”.

-S.Z.-

PH: GRUPPO ZILIO



Simone Zilio

New energy performances

The milestones and the challenges in the Aeropan project



Construction represents without a doubt a strategic sector for the European economy. More than 16 million jobs are involved, involving almost 3 million companies, 95% of which are small to medium-sized businesses, with a turnover equal to 10% of the EU's Gnp. At the same time, however, the sector consumes 40% of energy use, and releases 36% of CO₂ emissions in Europe. Thus it is evident that innovation in these products is becoming a priority in order to reach the goals of the Europa 20.20 strategy. The project called Aeropan Eco/12/332844 is without a doubt going in this direction. “We have chosen to focus in a decisive way on innovation - declares Marco Corradini, Ceo of Ama Composites Srl located in Campogalliano - by applying nanotechnology to insulation panels. In fact, we have decided to use Aerogel, which is a material that is already known in diverse industrial sectors such as aerospace, to build a new type of composite panels to be applied both inside and outside building to notably improve their performance in terms of energy efficiency. With the help of the European Funding Division of the Warrant Group we have managed to convince the European Commission to finance the project presented on the competi-

tion, Cip Ecoinnovation of last year. The results that we are obtaining are filling us with satisfaction: the Aeropan is thinner, lighter, and more resistant than those which are at the moment present on the market, and contributes to the bettering of energy performance and to the comprehensive quality of the building, be it new or renovated”.

-S.Z.-



Example of panel application

PH: AMA COMPOSITES



PH: DISTRETTO TECNOLOGICO DELLA SICILIA



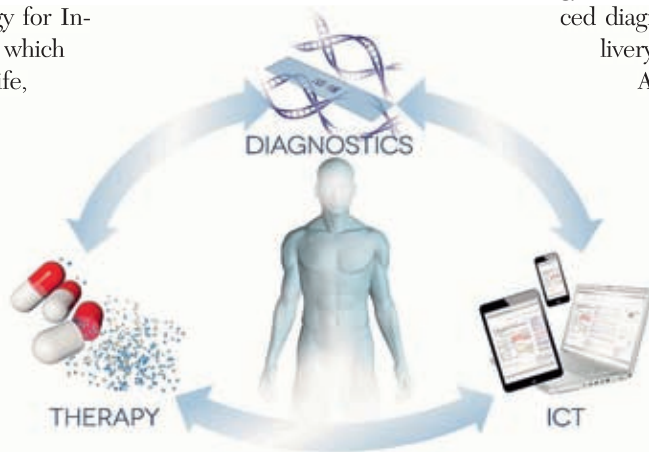
Clean Room

The new frontier of nanosystems

18 patents by 2016: this is Sicily's goal

After its crystal-clear waters and its beaches straight out of paradise, Sicily is also the land of micro-systems and nano-systems. This, in fact, is one of the six priority sectors indicated in the "Regional Strategy for Innovation 2007-2013" with which the Region of Sicily gave life, in 2008 to the Sicilian Micro and Nano System Technology District. To promote the growth of competitiveness and sustainability in Sicilian industry, to participate in research and development, to train highly qualified personnel, to create economic and social value: these are just some of the goals carried out by the Sicilian consortium, in an intense and productive collaboration with the industrial fabric of the regional territory. In it, in fact, are present all of the main actors in the production chain for nanotechnologies, since the same origins of the District are closely tied with the natural vocation

of Sicily towards the science of nanosystems. Among the promoting partners are industrial companies such as Stmicroelectronics, Ibm Italia, Engi-



Nanotechnologies for the health of man

neering, Corvallis, and Italtel all with specific competences regarding processes and microelectronic systems, Sifi and Ismett in the health sector, and other aggregated partners such as the Catania Research Consortium,

and the Etna Hitech Consortium for the applicative sectors which have been enabled for microelectronic systems. The internal research activity advanced by the Consortium, then, is a crucible of competences between the Sicilian universities of Catania, Messina, and Palermo, in addition to that of the National Research Council (Cnr), and the National Astrophysics Institute (Istituto Nazionale di Astrofisica). But it is the presence of category associations among the partner companies which permits the development of a strong connection to the territorial economic system, on a single thread which unites research, training, and innovation to stimulate sustainable growth, both economical as social, on all of Sicilian territory. Operating transversally in the sectors of health and biotechnologies, of energy and energy efficiency, in addition to Ict and agriculture, the District also sees itself as the instigator to pull in innovation. Suffice it to say that there are three great projects of research whose comprehensive value is over 50 million euros which are ongoing at this present moment. The first targets the elaboration of new and efficient technologies for renewable energy. The second is working on advanced diagnostic systems and drug delivery for the health of mankind.

And in the third project, the subject is the experimentation of systems and electronic cabled devices on a substrate of material that is flexible and low cost, such as plastic. Through these three project themes the Technological District has set an ambitious goal of contributing, in the five year period from 2011-2016, to the industrial re-launch of the land, stimulating the creation of new entrepreneurial realities in high technology. It hopes, in fact, to see the birth of at least 12 hi-tech university spinoffs or startups, and the generation of at least 18 patents derived from the research activities promoted.

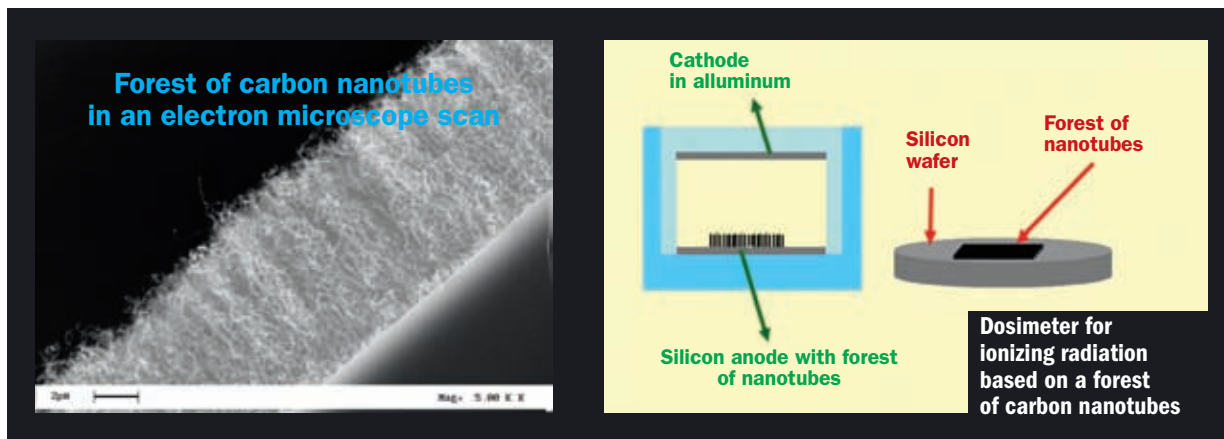
Nanoscience and nanotechnology: the synergy

The initiative by the Salerno university which combines research, education, and technological transfer

The interdepartmental center for research called Nano_Mates (Research Centre for nanomaterials and nanotechnology at the University of Salerno) is a research network on Campus, born in 2008, to create a strong synergy between researchers from the many departments in the fields of nanosciences and nanotechnologies with the goal of designing and carrying out projects requiring top training, research, and the transfer of technologies. Through agreements between the departments that make it up, the Center has access to the scientific tools and facilities that are essential for the characterization, manufacturing, and modeling of nanomaterials and nanodevices. At the moment the Statute and the organization of the

carbon nanotubes (Catherine), nano-additives for liquid lubricants (Add-Nano) and solids (Nanogrease, Italian-Israeli cooperation) on a basis of nano sheets made of molybdenum sulphide and tungsten or on a basis of graphene (Pon project), and nano-polymeric concentrators for the detection of drug precursors (Custom). And yet more: carbon nanotubes as gas and temperature sensors (Regione Campania), new materials for solar panel systems (Mise-Crui-Ice project and the Smart Power System Technological District), thermal management through carbon nanotubes for micro-nanoelectronics (SelexSI Contract), batteries in flux and supercondensers for the accumulation of energy (Smart Power System Technological

properties and applications for graphene. As for the high level training activity, a three-year course for an international doctorate has been activated on the theme of "Nanoscience and nanotechnologies" in collaboration with the Jacobs University of Bremen in Germany, and is in its concluding phase. As for the technological transfer activities worth mentioning are the first Campania StartCup2011 Prize with the project Nyborgmat (Nano hYBridORganic-inorGanicMATERials, Wo pat. 2012042511) and the first National Innovation Area South 2012 Prize for the project (NANocaRbonRADiationDOSimeters), which has generated an innovative start-up, Narrando. The researcher who have collaborated in the financed projects are: C. Alta-



PH: UNIVERSITÀ DI SALERNO

Center are being revised, following on the constitution of new departments at the University of Salerno. The Center is under the provisional direction of Professor Paolo Ciambelli of the Department of Industrial Engineering. The most significant research projects financed at Nano_Mates (total cost of approximately 4 million euros) are focused on the following themes: ultrahigh nano-interconnections based on

District), ceramic matrix composites for millimetric radomes for avionic sensors (Sirena, Mise). Other activities of on-going research: nanostructures for photocatalysts, nano magnetic particles covered with graphene for bio-medicine, oligomeric peptides and nano-toxicity, ferrous-electric polymers, nanocomposites and polymeric aerogels, nanocomposites on an episodic matrix for adhesives, pro-

villa, F. Bobba, P. Ciambelli, C. Cirillo, C. Costabile, A.M. Cucolo, C. Daniel, A. Di Bartolomeo, A. M. D'Ursi, M. Funaro, L. Guadagno, G. Guerra, P. Longo, M. Loria, G. Milano, C. Naddeo, R. Nobile, M. Polichetti, A. Proto, M. Raimondo, C. Rufolo, D. Sannino, M. Sarno, A. Scarfato, M. Sublimi, V. Vaiano, V. Venditto, V. Vittoria.

-P.C.-



Internationalizing growth



Globalization as a possible way out of the crisis

Identifying and positioning oneself on new international markets can be, especially in this period of severe economic crisis, an efficient means to face the difficulties that companies find themselves in front of. If, on the one hand, in fact, globalization has contributed to the aggravation of economic difficulties, making competition tougher on an international scale, on the other hand, it also represents a solution to the crisis, to tap the riches of growing economies, reduce production costs, and enlarge the horizons of one's business by accessing new markets. No longer a vision that is centered only on the concept of export, but a true internationalization strategy. "To set up an industrial or commercial undertaking in another country – comments Elisa Castagna, senior consultant at Agrè International - Warrant Group Srl – it is fundamental to know the social, cultural and organizational context, the framework of its laws, and the opportunities on its territory, in addition to being able to take advantage of trustworthy and professional partners who are indispensable for the development of activity in loco. One must consider the global market as an opportunity to optimize one's costs and to open new markets, enlarging the competitive horizon, abandoning the logic of protection and of local earnings which have allowed for the set up and the growth of our companies, above all those in the industrial districts". Agrè-International is dedicated to internationalization by assisting companies in their commercial development and the setting up of production in order to improve their comprehensive earnings and allow them to grow. The company is working mainly in India, the greatest democracy in the world, where it has concentra-



Elisa Castagna

PH: WARRANT GROUP

ted investment and resources with the stable presence of Italian professionals and locals with international training. "In Mumbai – continues Elisa Castagna – we can count on the abilities of our subsidiary, Agrè Corporate Advisor. With our multi-cultural team of professionals who are highly qualified, we are able to ensure a consultation that starts with analysis of the market to then flank the client companies in all their successive operational phases, from research with qualified local partners to the carrying out of feasibility studies, selection of the best locations, the setting out of a business plan, all the way to the true starting up of the entrepreneurial initiati-

ve. This is the case with Morando Spa, the company from Piemonte that was born in 1955 as the first producer in Italia, and now is today's leader in the national market of pet food. Our job was that of helping the company with its 'first landing' in India, since Morando was not interested in sporadic and occasional contacts with the subcontinent, but aimed to identify a commercial partner with whom to start a planned and structured penetration. And India, thanks to this strategic vision, revealed itself to be a breeding ground on which to set bases for distribution, and in future for the production of food for dogs and cats".

-S.Z.-