

Interview with Nino Gaeta GVS. S.P.A. Italy

Can you give us some background information about your education and current research?

When I was a student in Chemical Engineering at the University of Naples, Naples, Italy, in 1975 I met Prof. E. Drioli and his fascinating World of Membranes: polymers to formulate membranes, membranes to make filtration systems, membrane systems to prepare any kind of improved products: wine, water, olive oil, leather and textile goods, paper, pharmaceuticals, food, etc.

I was so fascinated by the art of making membranes that since then I never stopped working in this field as a researcher, scientist and industrial manager.

I graduated in Chemical Engineering in Naples in 1978; thereafter, I studied at North Carolina State University with Prof. H. B. Hopfenberg; his leadership and guidance and generally his enthusiasm about R&D and innovation further consolidated my interests in science and in R&D.

After graduation at North Carolina State University in 1981, I worked for a few years in USA as a Senior Research Engineer in a fundamental industrial project with American Can Co., at that time it was the largest can company in USA.

In 1985 I returned to Italy to initiate a membrane company in Biella: SEPAREM SPA. Those were the very early times of industrial membrane processes and we developed many new products mostly related to Reverse Osmosis and Ultrafiltration.

Since 2002 I have been working with GVS SPA, a filter and filter components multinational manufacturing company whose head quarters are located in Bologna, Italy.

Current research at GVS SPA includes the development of microfiltration affinity membranes to capture pathogens from water, blood, and pharmaceutical injectable liquid; novel high performance microfiltration membranes for automotive, biomedical and laboratory filters. Always R&D has been a priority in my carrier and I was lucky enough to work always with highly innovative companies.



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GVS S.P.A. is the mother company of an industrial group - GVS Group - characterized by a strong manufacturing and market-oriented vocation. The Group employs about 1050 people.

It is one of the world's leading manufacturers of **injection-moulded plastic filters** and components for the medical, automotive, laboratory, pharmaceutical, domestic, safety, industrial, and air conditioning sectors. GVS manufactures hydrophobic membranes in Polyvinylidene fluoride, hydrophilic membranes in Polyethersulphone, surface-modified membranes (both hydrophobic and hydrophilic) to control hydrorepellency, emorepellency, and oleophobicity of surfaces, functionalized membranes and nonwoven media to capture toxins and pathogens. The company also produces filters and **functionalized membranes** to capture bacterial endotoxins and viruses.



What made you opt for a scientific career? How would you define your job?

Since I was a little child I always had in mind to be an engineer. However, at that time I did not know that I wanted to be in R&D.

I decided to work in R&D after completing my thesis in Naples, IT; it was related to polymeric hollow fibers membrane development. This was the time (i.e., year 1979) when I realized how much fun it is to develop innovative products that are useful to many people. So... I decided that I wanted to work in R&D, but with private enterprises.

Since then I have always worked with industry and developed many new products. It is a lot of fun, besides hard work.

DYNANO brings together Research labs and industry. How do you view research-industry collaboration within the framework of the project?

I believe that in order to establish synergic long-term partnerships between Academia and Industry it is important that

- Each academic institute and each company identify the niche where they can achieve excellence in respect of their mission and in partnership.
- The distinct primary roles of universities and industry (i.e., advancement of knowledge for universities and exploitation of results for industries) are understood and maintained in order to establish synergic partnerships resulting from their strengths.
- Universities should disseminate and/or protect knowledge with a view to future industrial commercialization.

- Universities must guarantee the quality of graduated students.
- Industry must maintain a high level of investment in research as a long-term strategy and learn from universities how to better identify and explore long-term themes.

Therefore, it is essential to establish appropriate management and leadership within the universities capable of handling partnerships with industry. University teachers must understand the needs of industry and accordingly select part of their research topics and lead the education of new and experienced researchers. This can be done by allowing private-sector employees to spend time in universities, by periodically transferring university teachers into the private sector, and by exchanging researchers.

It appears to me that the above described priorities are also the major ambition both for the DYNANO Project and for the Marie Curie Programme.

I trust that within DYNANO there is potential to build new knowledge and create innovation by making effective use of science and technology and by integrating knowledge from multiple sources. In fact, there is a strong drive towards the promotion of joint research between industry and academia triggered by the effective participation of students in such research. This can contribute effectively to accommodate industries' needs and academia's interests, while developing highly skilled young researchers.

What is the added-value of an EU project such as DYNANO compared with other partnerships on the same topic you may be involved in?

The most important point for us is that in a truly interdisciplinary and international project, like DYNANO is, GVS SPA can count for two years on the work of a high level scientist (i.e., ER) that can work synergistically within the DYNANO well qualified partnership.

For a fast growing innovative company, as GVS is, this is the opportunity to invest in more fundamental technological projects limiting the risk of failure.

What do you think is the most satisfying part of this project?

We are very glad to have this opportunity to be exposed to such new development in nanosystems and chemistry and to collaborate with top scientists in this field.

We consider a very satisfying opportunity the possibility to synergize with all partners and young researchers within DYNANO in order to develop new ideas and materials to be used successfully in our filters and advance our state-of-the-art.

And the most frustrating part?

There is no frustrating part, there is only fun and interesting work!



Thank you Nino ,
and all the best for DYNANO.

DYNANO in brief

Starting date: 1st November 2011

Project duration: 48 months

Number of partners: 15

Project Coordinator: Dr. Mihai BARBOIU,
European Membrane Institute -IEM, Montpellier, France.

FP7-PEOPLE-2011-ITN

Grant agreement n°: PITN-GA-2011-289033

EC funding: 3 825 000 €.

www.dynano.eu

