## The locomotive

When Marcel Annegarn pushes himself forward through the morning rush hours in Paris, he does it with gentle indulgence, because he knows that the daily congestion of the large cities may be solved within the next ten years...

Marcel Annegarn has been looking secretly at a technology that makes it possible for cars to communicate with each other, so that they can unite in a virtual train, which keeps the speed constant - also when merging and sudden at obstructions. Of course this demands that the individual driver surrender himself to community and abandons his fight to get in front, which would be an obstruction of dimension in itself.

Marcel Annegarn is the Director-General of the EU-project ENIAC (European Nanoelectronics Initiative Advisory Council). On behalf of the member countries, his job consists in evaluating and financing European development projects aiming the greatest challenges in our time. Problems such as the aging population and exploding health expenditure. The necessity to turn down the energy and the burden on the climate and the environment, and as such mentioned the bottlenecks in the infrastructure by land, by sea and by air.

## of development

- But we suffer from the way in which we have organised ourselves. European governments do less than their counterparts in Asia and North America. In our countries the industry is left more to itself. This attitude motivates the companies to move out of Europe, warns Marcel Annegarn, whose mandate naturally also is to promote Europe's economy. Without any means of subsistence we will get nowhere.

Further down the hallway in the office on rue de Rennes resides sister project CATRENE (Cluster for Application Technology Research NanoElectronics), the heir to the EUREKA, MEDEA and MEDEA+ projects. Here, they began last year to work on distributing 16 billions euro shared out on 4000 annual works until 2016 (if the programme as expected will be extended after the first four years). The subvention is spent on the development of nanotech projects transversely of big and small companies, universities and technological institutes in those countries being part of CATRENE.

About the purpose of the investments, the chairman of the programme, Enrico Villa explains:

- The Europeans only stand for 16 percent of the world's total consumption, so we cannot survive on the home market alone. We need to think globally. Our mandate is therefore to help the big groups to "co-operate" on innovation.
- In the 80'ies the attitude towards microelectronics was that we might as well give up and aim at other technologies. But taking within the example mobile telephony, we have since demonstrated that Europe can easily compete, when we cooperate. There are more than 1000 industry conglomerates in the world, and in top 15 there are now three big European groups.
- The catalyst for development is the Nanoelectronics. It means as much to the information society as coal and steel did it to the first industrial revolution. Innovation is the driving force, and it is the core of our mission.

The vision is through a stronger industry to make Europe the leader of the global information society, in particular within the micro-electronics, says Enrico Villa.

practice the **CATRENE** In secretariat evaluates the companies' own project proposals. After thorough examination and correction of schemes and budgets the most promising ideas are recommended to receive a portion of the annual development subvention. Several times a year the companies need to answer for the achieved milestones. If the conditions are not respected, the subvention is lost.

It is not any bureaucrat that one is confronting. The key persons in the secretariat are all top people expatriated from the biggest industry locomotives in Europe, so they actually do know what innovation is.

The hot breath in the neck, Jean-Pierre Tual feels it each day. As of development at director Gemalto he is personally in head of a giant work on developing the standard and the technology for the biometric citizenship card that several EU-countries intend to employ. A project with farreaching perspectives for governments and citizens and those companies that soon may huge amounts manufacturing cards, readers and associated software for electronic and visas, passports drivers' licenses, payment and health insurance cards.

Originally, the project was composed of two distinct elements; the citizenship card and an ultra high-speed SIM-card, which both serve to verify if the user is the person that he pretends to be.

- Therefore they asked us to combine the two projects and also demanded that we reduce our budget. So the first very difficult task was to identify the common characteristics, and in this way we actually saved 30 percent, declares Jean-Pierre Tual.

On these conditions the member countries decided to support the development of a common citizenship card in an endless complex co-operation between 16 European companies, which in this way did not need to carry the whole risk themselves. The reward is turnover, jobs and tax revenue for those who followed and carried. However, Danish companies will not share the celebration, because we do support neither the CATRENE nor the ENIAC programmes. But a clear invitation is given from the chairman himself. Enrico Villa:

- The electronics make it possible to handle the biggest challenges of today. It serves a social need and provides a breeding ground for a whole industry. Denmark has both small and big companies in this field – so why not participate? I should like to come to Copenhagen and show your government, how we take part in developing the world.