



Dr Jadran Lenarčič, director of the Jožef Stefan Institute.



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“There has never been the kind of mood here that you can sense now”

My first meeting with the director of our biggest research institute – I do not know exactly when it was, but it must have been quite a few years ago – was anything but typical for getting an idea of the profile of this kind of manager. I was viewing an exhibition of his paintings at the institute’s exhibition hall. Aside from the fact that Dr Jadran Lenarčič has for decades now been one of Slovenia’s top researchers in the field of robotics, he is also a gifted painter. He admitted, however, that ever since he took on the leadership of such a large enterprise, he has lacked time for this and other kinds of hobbies, since in addition to his duties as director, he also works as a researcher and university teacher.

Is it true that at first you really did want to study painting?

It is true, but as a pupil at the Koper grammar school I was also thinking about studying mathematics, which seemed to me very close to philosophy, which I loved. For me life is eternal doubt, and I think that every sincere person is a doubter. I always had doubts about everything I did, so I also had doubts about my choice of studies. It was only at the last moment that I decided to study electrical engineering.

In any event, this is quite an unusual combination of interests. What subjects did you shine in most at secondary school?

Since I always had decidedly broad interests, I also did well in many areas. I could have studied languages or anything else. At that age – I had always been in love with everything to do with the sea – I was also very drawn to the idea of devoting myself to yacht design. Maybe I really should have enrolled at the art academy and become a designer, since I am still obsessed with designing – I am always designing something ...

How did such an artistic soul finally accept studying engineering? Did anyone, your parents perhaps, force you?

No, no. The way it happened was that when I came to Ljubljana to enrol – I had already decided on mathematics then – I first dropped in on my brother, who had graduated in electrotechnology, and he said to me: What do you want to go to classes over the road for, just enrol here! So I enrolled, but then I was very unhappy the entire time of my course, because I decided that this was not for me. Nevertheless I was the first to graduate in my generation.

Then you went on to get a master's and doctor's degree in electrotechnology, and of course you are also teaching it. So in time did you change your attitude to it?

Actually everything changed for me when I started dealing with automation and robotics in my senior years. I really found myself here, since this discipline also has a lot of mathematics and philosophy, and a sense of design comes in very handy in the field of kinematics. In any event I was determined from the start that I would work in science.

And going abroad did not attract you, since in the kind of research field you are pursuing you could have easily found work?

I never thought about moving abroad, although I worked a great deal abroad, lecturing at a number of universities, more recently particularly in Italy – perhaps also because I am drawn there by my Mediterranean soul.

So what drives you or guides you in your new and most responsible position to date? What vision did you bring with

you to the position of director of the institute?

I am of course firmly convinced that the institute needs to be more involved in the environment to which it belongs, both in the Slovenian and European research arena, in the economy and in other activities – and especially in the development of medicine – and of course in higher education. I think the time has finally come for a change to the established practice whereby institutes were separated from educational work, and when researchers could only work privately at universities – I myself, for example, have always had extremely good relations with the Faculty of Electrical Engineering, where I collaborate on the subject headed by Prof Dr Tadej Bajd, but this does not change the fact that along with my institute colleagues I could not do this in connection with the institute. At IJS we have partly resolved this problem by co-founding The Jožef Stefan Postgraduate School and the Polytechnic of Nova Gorica (now University of Nova Gorica), which are in fact both independent legal entities, and now we are drawing up a contract with the University of Ljubljana that will serve to define our cooperation in the

work of its faculties, and in this way to our mutual benefit we will be able to perform a role together in undergraduate and postgraduate courses. I am convinced that good researchers must also teach, while at the same time all students and professors should have the chance to do research.

Are you in this way continuing the work of your predecessor Prof Dr Vito Turk?

In my own way most certainly, except that in the past the institute failed to arrange completely its relationship with the University of Ljubljana, with which we no longer wish to have any conflicts, while now, I hope we will finally be able to do so. I know that our associates and friends at the university sometimes feel impinged upon because IJS has established two schools, one of which is already offering undergraduate courses, while the other is planning this as part of the Bologna reforms. But I believe that there is no reason for fear of duplicating courses, since our courses complement each other and in this way offer both of us great opportunities for better cooperation.



**COOPERATION
AGREEMENT BETWEEN
THE JOŽEF STEFAN
INSTITUTE AND
JOANNEUM RESEARCH**

On 15 March 2006 the Jožef Stefan Institute and Joanneum Research signed a cooperation agreement on exchanging information and experience in research and practice in a number of areas. Joanneum Research is one of Austria's largest non-academic research institutions, the primary role of which is to conduct applied research and development activities on behalf of private business and the public sector. The organisation, with a staff of over 380 highly qualified researchers in 14 institutes, is 90% owned by the province of Styria and



10% owned by the Dutch research organisation TNO.

On the basis of this agreement the Jožef Stefan Institute and Joanneum Research have already organised two workshops focused on the presentation of research activities in the fields of the environment, energy

research, biomedical technology, and production and communications technologies. New contacts and initiatives in joint research programmes have already begun as a result of the meetings held thus far, and preparations for a workshop on nanotechnology in autumn are underway.



Recently there has been more frequent talk of IJS being too big, or of how it would be good to divide it up into several institutes, attaching one or two of them to the university. What do you think about such ideas?

I think that this cannot happen, since IJS, along with its size and diversity of research, is too good a brand for any intelligent person to want to relinquish. I think that the institute is imprinted in the genes of every Slovenian, we are known and valued throughout the world, and the changes that we plan to carry out in our further development will certainly not divide the institute up into little parts, but will if anything consolidate it.

What changes are you thinking of?

There are of course many things at the institute that can be rationalised. I am thinking primarily of linking up our research fields, in order to make better use of the enormous knowledge that together we possess, which if it remains confined to narrow scientific fields, is not as effective as it could be.



There are many problems that can be tackled together by researchers of very different profiles, and all of them – technologists, electronics specialists, computer scientists, physicists, chemists, biochemists and so on – can also collaborate on joint programmes, such as those for the commercial sector, the Slovenian armed forces or medicine. This kind of cooperation does already exist at the institute, but we are working to establish more and for this to become the new force at the institute.

But is there sufficient will among the researchers for this?

There is, and I think that there has never been the kind of mood here that you can sense now. What is happening now, these positive tensions, the firm determination to refresh and rejuvenate the institute, well at least I in all my institute years – and there have been a few – have not noticed it.

How do you account for such a positive change and such enthusiasm?

On the one hand it is a reflection of our development, which has brought us to the current level from which in turn we see new developmental possibilities. But without doubt our increased momentum has been helped by the environment we are in, since it seems that science is gradually and finally acquiring a more visible role in the consciousness of Slovenians and in the consciousness of those who conduct our policies. I think that we are all sick of the situation where science was actually shoved aside, and we researchers just moaned but no one listened. On the other hand it continued to get bandied about that we have no proper links between commerce and research. The problems in establishing these links, however, are in no way exclusive to Slovenia, and everyone, even the most advanced countries, experience them. Those that successfully overcome them have first invested huge efforts and also huge sums of money in this. But for all of them it has paid off handsomely. Now Slovenian researchers would also like finally to take up their role in society, and we also feel a responsibility to contribute to the development of the country – and whom should a country planning more rapid development turn to, if not to its top scientists? Of course we believe, however, that here the state will also for its part provide effective support for science. Recently at the institute we held

a consultation, which was attended by around 120 representatives of the commercial sector, for the most part managing directors. We talked about cooperation and we agreed that there is still enormous unexploited scope for this. Now we just have to get on with the work, but of course we need all three players: the research sector, the commercial sector and the state.

This probably also means that you intend to strengthen the proportion of income from the commercial sector. What is it at the moment and what should it be?

According to IJS data, we receive around 16 percent of our income from the local environment, and then there is another share of the same amount from European projects. Together therefore we receive around a third of all our funding, with about two fifths coming from programme financing, and the difference coming from other national projects. In the future we would like to increase both the proportion from the commercial sector – although I would not like to predict what the optimum level should be, indeed this will depend on many factors and in no way simply on our efforts – and the proportion of income from international projects. For these we have more than sufficient opportunity, since every day we receive invitations to collaborate on European projects. No doubt, the fact that Slovenia has a line European Commissioner, and the reputation of our institute, contributes to this. Experience also plays a big part. Although I know this, I am often surprised when I see how extraordinarily successful our researchers are in winning European projects. It would be splendid if we were at least half as successful in winning projects for the domestic economy. Still, if the state fulfils what it announced in the reform proposals, if adequate tax and other incentives are truly provided for development investment by the commercial sector, and if the government policy is the same as indicated in the reform proposals, then we too will reach all the targets we set. But of course under no circumstances will we wait passively to see what happens. At the end of March, as part of the Stefan Days, we intend to invite Minister Damijan and leading business figures to our institute, in order to exchange opinions on what measures could most effectively and most rapidly stimulate development in Slovenia.