

Remarks at the Lions Club Trieste San Giusto: February 23, 2005

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Your President, Sergio Visintini, has been kind to ask me to speak about "Trieste after EXPO". Several others worked harder for the EXPO and possess broader perspectives. My own modest role was visible only because the theme, "Mobility of Knowledge," had some connection to international science. The EXPO would have raised Trieste's profile as a city, and I was quite convinced that the international institutions in general, ICTP in particular, would also indirectly benefit.

The EXPO is now past us but two facts remain: (1) the desire to raise the City's profile, and (2) the overall appreciation for the uniqueness of the scientific institutions in Trieste. The question now is: Where do we go from here? Let me comment on the second aspect first.

Looking back some thirty years ago, there was the University of Trieste which focused primarily on undergraduate education, and the observatories on astronomy and ocean sciences, and ICTP---the latter focusing on front-end research on the one hand, and developing countries on the other. In due course, with the leadership of ICTP at that time, and that of several others, various new institutions have emerged in the city: TWAS and its affiliate institutions, SISSA, ICGEB, ICS, ELETTRA, to name a few. ICTP, TWAS, SISSA and some others are in Miramare. The rest, including INFN and CNR, are housed at the Area di Ricerca that came into being about twenty years ago.

Trieste has thus succeeded in creating several wonderful research institutions, a few of which are international in character and mandate. The city has now acquired international reputation in science, particularly because a few of its institutions are focused on developing countries. Indeed, there are areas of physical sciences in which nearly every active scientist in the world has gone through ICTP at some point or another. In this regard, there is no other place like Trieste in the world.

Modern scientific problems, particularly those with socio-economic components---such as the environment, communications, health care and new materials---are interdisciplinary in character and all the needed expertise does not reside in a single institution. For example, nanotechnology is at the intersection of physics, chemistry, biology, engineering and human health; modern health care itself combines biosciences, genetics, imaging, and so forth. Thus, the scientific institutions have to cooperate better by complementing each other in pursuits that embrace and enhance them all.

However, this does not mean that they need an overriding directing body above them, or that they have to give up their individual identities and functions. There is indeed much to be said for diversity but working within diversity requires consensus-building mechanisms to generate trust and cooperation. This is not hard to do if we espouse broad and general principles of rigor in thinking, support the highest levels of quality and integrity, and show a universal commitment towards improving the level of science. One can generate broad consensus only through earnest discussions, which could sometimes be a hurdle to cross---but it is often a necessary one. And the process of building this consensus can be quite rewarding if there is openness and respect for each other. In the end, it builds everyone's confidence and the result will be better for the entire scientific community. Indeed, it could be better even for the level of support that our institutions receive from the government.

I am convinced that there is a very good community of scientists in Trieste. True, we should do better in attracting scientists of even greater quality and stature but the fundamentals are all here. While there is still a tendency here and there to look out only for oneself, there is an overwhelming desire to cooperate and support each other. Since some of our reputation comes from our commitment to developing countries, we should continue to be so engaged genuinely without being overbearing, or flaunting it needlessly. We cannot solve the problems of all the countries in the world, but can help create and support people who can solve them: and these must necessarily be people from the country or the region in question. Investment in human capital is the best that anyone can ever make, and I am very pleased that ICTP has been an

outstanding success in this regard. Let me just note that the Centre since inception has hosted about 100,000 visiting scientists from almost every country in the world. Among them, about half are from the poor countries. Our visitors from those countries are not people chosen at random, but are the best scientists that we could find.

A community's history often decides the bounds of possibility. We are fortunate that the efforts of Trieste's scientific institutions resonate with the city's cultural and political heritage. I need not mention that internationalism is a part of Trieste's history. You will no doubt recall that Trieste began to thrive from the 13th century onwards, after it shook off Venice's domination by associating with Austria. Trieste was the only seaport of the Austro-Hungarian Empire. Its free-port status made it an international and cosmopolitan city, with tolerance for multiethnic and multi-religious populations. The opening of the Suez Canal in the 19th century brought Trieste closer to India and the Far East, and the diversity of the city increased even further. Some great men such as James Joyce and Abdus Salam have lived and worked here; and let's not forget the city's connection to Sigmund Freud and whole school of psychiatry. It was for such reasons that Trieste was seen as one of the important gains of Italy after World War I. While the city was again lost to Italy for a while after World War II, when it was declared international in 1947, it has now become a proper Italian city.

Now the question is: How can one make Trieste an attractive city, perhaps as Florence and Venice once were---rich in creativity, and cultural influence? I am talking about circumstances that could make Trieste a place where creative people from all over the world wish to flock together to create something that is both beautiful and worthwhile.

Clearly, one has to take advantage of the thriving scene in science. I have already said that many scientists come to Trieste because of our international centres, particularly ICTP. We are all turning our attention slowly also to Central, Eastern and South-Eastern Europe. I think that Trieste today is well positioned geographically and culturally to bring off something unique in the world. However, if the city is not a thriving enterprise with expanding commerce and opportunities for wealth creation, it is difficult to go to the next level of desirability. Other cities in the Region, such as Udine---and even Gorizia---have started thinking in directions that have made Trieste special, and it is easy to lose the advantage if concerted efforts do not continue.

Considering the city's history, its geography and the present confluence of scientific institutions, it seems to me that one of the key directions for the city should be technological innovation. In this endeavor, it should connect up with all regional Universities and Research Centres. In both research and development, Trieste should be teaming up not only with other centres in the Region, but also with the country itself and the world as a whole. It is necessary to have a sound and open investment policy that caters to the merits of an idea, to innovation and to the culture of measured risk-taking. I fear that an Italian scientific and technological gap may be developing in comparison with its northern and western neighbors in Europe, the US and Japan. Sometimes, it is hard to understand this situation given that Italians are among the smartest people in the world; but perhaps what is missing is the level of drive that other countries like China are evincing on their development. While the building in Trieste of a "Citta' dell Scienza," attracting the best people in the world, particularly those willing to help the poor, is always a point in Trieste's favor, the city is still too guarded in its embrace of that philosophy and involvement.

Finally, I call attention to the well-known problem in Trieste that the fraction of young people is smaller than in most places in the Region. While the virtues of youth are sometimes overrated, the city must find ways of ensuring that it becomes more attractive for younger people and new families. Even increased job opportunities are not enough in this regard.

In conclusion, I believe that the city of Trieste has great possibilities for positioning itself in New Europe and New World. However, realizing them requires work. It needs action at all levels, political will, financial commitment, the participation of universities and scientific institutions and, most of all, the willingness of its citizens to be engaged in the process. They have to feel the excitement of being a part of it. Sometimes, old ways of doing things have to change as well.

I am myself happy to work towards this goal. I am certain that the country that produced a Dante and a Fermi will undoubtedly rise to the challenge, and that Trieste will be a proper part of it.

