

INTERVIEW WITH THOMAS HENZINGER

PRESIDENT OF IST AUSTRIA

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The Institute of Science and Technology Austria (IST Austria)¹ is a young international institute dedicated to basic research and graduate education in the natural and mathematical sciences, located in Klosterneuburg on the outskirts of Vienna. Our colleague Thomas Henzinger² has been the president of the institute since its birth, and I thought that it might be interesting for the readers of the Bulletin to hear about the development of IST Austria and his opinions on how to create an excellent research institution.

I interviewed Thomas Henzinger (abbreviated to TH in what follows) via email and present his answers to my questions in what follows. I hope that the readers of the Bulletin of the EATCS will enjoy reading the text of the interview and will find it as interesting as I did. Most importantly, I trust that researchers in theoretical computer science and prospective graduate students will consider joining IST Austria for their future studies and careers.

The interview

LA: Could you briefly introduce IST Austria, its aims and its current state of development?

TH: The Institute of Science and Technology (IST) Austria was founded in 2006 with the goal to build in Austria a world-class institution for basic research and graduate education in science. Currently we are half-way towards our goal of 90 research groups in biology, physics, chemistry, mathematics, and computer science.

¹<https://ist.ac.at/>

²<http://pub.ist.ac.at/~tah/>

LA: As far as I know, IST Austria only started its operations in 2009. It already underwent a successful, international evaluation in 2011 and has grown remarkably since then. In your opinion, which strategic decisions have been crucial in making IST Austria a high-quality research institute in such a short period of time and in attracting top-class scientists at various stages of their careers to it?

TH: The most important decision of the Austrian government was to start IST Austria from scratch, independent of any existing institution, and to give the Institute maximal freedom in designing itself. Whenever we take a design decision at IST Austria, we consider primarily one criterion: how can we best compete for the most promising young faculty and the most talented PhD students in the world? Three of our most important design decisions, all guided by this criterion, were: (1) We hire all young faculty on a tenure track, giving them both independence and the opportunity to be promoted to a full professorship, based solely on performance. (2) We never assign open faculty slots to research topics or scientific disciplines, but always try to offer our positions to the most promising candidates we see, independent of their field. (3) All PhD students are admitted centrally and must complete a multidisciplinary curriculum and rotation projects with several professors before they embark on their thesis research.

LA: So far, which aspects of the development of IST Austria are you most proud of? How would you like to see IST Austria grow in the near future? Do you think that the institute will expand its research in computer science and, if so, how?

TH: I am proudest of the fact that 30 of our 45 professors are funded by the European Research Council. I believe that relative to our size, this makes us the most successful institution in Europe. Among our 45 current professors, there are 8 computer scientists. We hope to double both numbers over the next 10 years.

LA: I recently watched the video of the panel discussion “IST Austria: On the Way to the Top: What Makes a Research Institution Excellent?”³, which you chaired, on YouTube. It was truly inspirational. However, since you were running short of time, you did not get a chance to express your views on the topic and I, for one, would be very interested in hearing them. So, in your opinion, what makes a research institution excellent? Would the advice you would give to a computer science department in a European university that strives for excellence be any different?

TH: Most science administrators agree that the key to excellence is the principle “hire the best scientists and leave them alone.” It is easy to advocate this principle, but it is difficult to implement it. The temptation to think strategically top-down — to focus on research areas when hiring professors, on research projects when

³<https://www.youtube.com/watch?v=EWQ2zToKzpo&t=1s>

hiring students, on industrial and societal needs when asking for more funds — is very hard to resist. But giving in to that temptation usually means leaving the quickest path to scientific excellence.

LA: To your mind, what is the role of PhD education in achieving research excellence? Would you have any advice to share with us on how to run an international PhD granting institution in Europe that is capable of attracting very strong students?

TH: Attracting top PhD students from all over the world is critical because top students attract top professors. In fact, in my experience it is more difficult to attract top students: they are often more “brand driven” than professors, and it takes a long time for an institution to build up a world-wide reputation that trickles down to undergraduates looking for PhD programs. I wish I had a quick solution for this problem.

LA: You have been the President of IST Austria from its inception. This must be more than a full-time job. However, at the same time, you have managed to remain very active in research, pursuing new avenues and maintaining a research group. How did you do so? Is there any “secret” you’d like to share with us?

TH: It is difficult to “context switch” between administrative and scientific problems. But the opportunity to talk with my students and postdocs almost on a daily basis is what keeps me sane. It is important also because it allows me to see the Institute and its administration from the “other” side, and because it gives me greater credibility when trying to recruit faculty.