

Science festivals are addressed to general public, but we specially want children and young adults to realize that working in science gives one vast satisfaction and offers a very interesting profession

# A Festival Against Ignorance

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The science festival concept originated in the US and Western Europe, but in Poland, due to great passion and goodwill shown by scientists, such festivals have grown into grand-scale events with unprecedented flair

Unlike other professional groups in Poland, scientists are not going on strike or organizing noisy demonstrations outside of parliament to protest their low incomes. Yet from the standpoint of Poland's future many scientists are quietly doing something even more devastating: simply packing their bags and leaving the country.

We, representatives of the scientific community, without much ability to intervene on state budget issues, have thus chosen a path of persuasion rather than protest – persuasion aimed at scientists themselves, the state authorities, and society at large.

#### The ignorant person in Europe

Science festivals are one way of facilitating the necessary dialogue between science and society. Science cannot develop if society is unable to grasp its objectives, methodology, and output. Taxpayers deserve to be informed about why it is worth spending money on science, as without scientific advancement there can be no modern society. Without two-way communication people will be afraid of genetically modified tomatoes and of atomic energy, they will ignore the warnings and recommendations of ecologists. They will fear and reject new advances – in short

they will simply act like ignorant people. And in Europe, a menial job is all that awaits an ignorant person.

The Science Festival in Warsaw, Poland's first such event, entered its second decade of existence in 2007. The festival represents an extraordinary initiative on the part of the Warsaw scientific community, and it immediately found imitators and active reformers throughout Poland. At least 17 such festivals now occur in Poland's university towns. More importantly, the festival concept has made its way into schools on every level of education. All of Poland has gone festive!

#### We found the concept appealing

"Everyone knew it was impossible, but then someone turned up who didn't know that and just did it..." The science festival concept was brought from Edinburgh by a biophysicist, Prof. David Shugar at the Polish Academy of Sciences and Warsaw University. It found fertile ground among the staff members from several institutes of the Academy and Warsaw University. That was back in December 1996, and the first Science Festival already kicked off in September 1997. No one asked who would give money or how much. We simply found the idea appealing and did not think about funding. No such events had ever before been organized in Poland! Decisions had to be made, descriptions given to the media, and most importantly everything had to be geared for an audience. That therefore raised the fundamental question: "Who will actually come?"

#### In crowds, on foot, and by coach

But to cut a long story short: people indeed came! People of all ages turned out in numbers, queuing for tickets to events with limited attendance, and standing elbow-to-elbow. They came by coach from Poland's farthest corners. They asked questions, argued specific points, gave much praise, and begged for more.

In time the number of cooperating institutions increased, expanding to include institutions of higher education, research institutes, museums, associations, NGOs, and others. The number of performers, working for little or no reward, also increased. Moreover, we quickly managed to win over a very important ally: the printed and electronic media, united in propagating greater awareness, a mission independent of all options and orientations.

Probably because the Festival emerged as a "grass-roots" initiative rather than from any top-down decree, it retains a fairly loose and economical organizational structure that is friendly to both researchers and to the public. At the same time, its scope has truly become vast: in Warsaw in 2006, for example, there were more than 1000 diverse events and more than 300 school "lessons", with more than 60 000 audience taking part.

The most important aspect of the Festival lies in its novel methods of promoting science. The experience gained in Edinburgh showed that members of the public must be given a chance to glimpse the "inside story" of what it is like to do science. What does the world look like under a microscope? How does a living organism work? How can one observe the stars or perform chemical reactions? And very importantly, how is new knowledge gleaned? Does the work of researchers follow smoothly along a set path? How does one seek collaborators or mentors? How are views exchanged and disputes discussed (not "fought")? We wanted to answer such questions by showcasing the venues and results of our research. That required taking on extra costs, the risk of inviting the public into research laboratories, and the development of new didactic models, computer programs, interactive game designs, etc.

We can state with pride that we are among Europe's vanguard in terms of efforts of this sort. We were among the initiators of the EUSCEA (European Science Events Association), set up in 1999 by 6 representatives of "science festival" and "science days" events, now encompassing 64 members. We obtained EU funding for 5 projects, enabling us to visit several European festivals. We also gained valuable allies: the "Warsaw Science Picnic," an independently organized event, plus the Copernicus Science Centre (Robert Firmhofer and Prof. Łukasz Turski).

### If only schools could teach that way...

Our official motto is: "Failing to invest in science means investing in ignorance." But a kind of "inspirational" motto was once uttered by a boy emerging from a demonstration at the Faculty of Physics, sighing: "Oh mom, if only they could teach physics that way at school....!"

## Science Festival in Warsaw (www.icm.edu.pl/festiwal)

**Organizational Secretariat:** Dr. Maciej Geller, IFD UW (Director), Prof. Magdalena Fikus, IBB, PAN (Deputy Director and Chair of the Program Council), and Anna Lesyng (Secretary). The sec-



retariat communicates with performers via several hundred local coordinators.

**Signatories:** The rectors of Warsaw University, Warsaw University of Technology, and the President of the Polish Academy of Sciences.

**Patronage:** The Board of Higher Education Institution Rectors in Warsaw and the Presidium of the Polish Academy of Sciences.

**Types of events:** Demonstrations, workshops, lectures, films, exhibitions, outdoor excursions, museum visits, public debates. All events free of charge.

**Budget:** An annual subsidy from the Ministry of Science (30%), financial contributions from the participating institutions (30%), and sponsors (10%).