

WYP in France

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WYP in France was initiated by the French Physical Society (SFP) starting working at it as early as from 2003. First a national SFP committee was created, and then replaced in 2004 by a steering committee including members of SFP, of the French Ministry of Research, of CNRS and of UDPPC (union of physics professors in high schools). This committee publicised a call for tender for WYP projects in March 2004 and selected proposals all over year 2004. It received over 600 propositions, rejected 10% of them. Some but not all of the labelled projects were allocated funding decided by the steering committee. The web site www.physique2005.org, constantly maintained, displayed advertisement for the events of the week and strongly contributed to the success. It was consulted over 7000 times per day in February 2005 and still 1000 in January 2006. It created a link between organisers in the different regions and was useful to attract all kinds of public.

Altogether the funding of WYP in France was about 5 M€ 2 M€ originate from the ministry of research (not entirely additional fresh money but partial reallocation of the recurrent funding of scientific cultural activities towards physics). CNRS contributed for 0.7 M€. Several industrial big scale companies sponsored the SFP activity (Saint Gobain, l'Oréal), or some particular events (EADS, THALES and others). The rest of the funds was provided by regional governments; for instance Ile de France gave to 0.4 M€ and Rhône-Alpes 0.3 M€. And some universities contributed, mainly by allowing young PhDs to devote their teaching time to WYP preparation.

Activities were very many (over 500). The most popular ones were exhibitions (about 100), quite diverse in style and size. Most of them were purely scientific, sometimes with an historical background. Science and art were frequently combined, the organisers had in mind to demonstrate the beauty of natural objects and of physics laws, conveying the message that the physical sciences are part of culture at large. About 20 of these exhibitions can be moved from place to place; they are listed and described on the web site. One of them ("mozaiques de la physique") is composed of easily reproducible experiments derived from present research in various laboratories; it already circulates in France and is scheduled to move to North Africa and Middle East. It is interactive and needs a physicist to help the public to participate, which is the main limitation of its diffusion. Similarly four science buses in four regions were equipped with on-board interactive experiments, meant to attract attention from school children and from the non scientific public. They started late in 2005 and will continue to travel in France in 2006. Their running cost is a problem not fully solved. A nice collection of physics posters ("aux horizons de la physique") is available both in English and in French and can be mailed on demand for exhibition abroad. Some exhibitions, which were not initially meant to last, will be rebuilt in science museums (for example "Soleil en Seine" on solar energy). Also many DVD, films and videos will remain after WYP is over, some of them are posted on internet. They are listed on the website.

Street events attracted the public attention for a while, primarily in big cities (Paris, Grenoble, Lyon). They were sometimes well advertised by the press and television (for instance "le rayon vert", the green laser beam across Paris measuring the speed of light according to Fizeau method), or resulted in a beautiful show (for example the 10m wall of soap film with reflected pictures on it, or the artificial rainbow on a water wall in the Tuileries gardens). This kind of creative actions strongly motivated the teams of young organisers; their impact on the public was limited, as in general the event could not be repeated more than twice. More

durable were the theatrical and chorographic events (about 20), especially created for the WYP. They will continue to be performed all over 2006. One scientific fiction called “Infrablues”, a movie shot with the THALES infrared camera, is available on DVD.

Next to these events meant to strike the imagination of the public at large, actions in school were very developed and are considered as the main success of the WYP in France. They were so many and so diverse that they could not be all listed on the website: conferences by young researchers and PhDs in schools, physics workshops for school children in university labs or at the schools, twining of a young researcher with a class (“100 parrains-100 classes” in the Grenoble area) or with an individual school child. Classes were linked together through internet for a collective experiment, such as the measurement of ozone pollution in the Mediterranean area. At least 20 physics competitions were organised which all were highly popular among the young ones, and so were the national Physics Olympiades. Some schools were associated with large scale physics projects, mostly in the astrophysics domain, and will go on following the data acquisition. What will also remain are the didactic documents provided by the institutions, such as the poster “composants de la matière”) created by Commissariat à l’Energie Atomique (CEA). Also the four brochures “la physique pour mieux comprendre le monde » (physics to better understand the world) edited by the French Physical Society and available in pdf on the website will keep providing nicely illustrated information on “the Universe”, “the Earth and its environment”, “Physics and the living world”, “light and matter”. Mostly welcome is the booklet “la physique,; pour quoi faire?” (what job to do with a physics background?), distributed on a large scale to school classes.

The press and the radio programmes partially reported on all this activity. Events were better covered at the regional level than at the national one. This is related to the fact that some regions could afford the help of a private communication agency, which the national committee could not, by lack of institutional funding. The national TV chains produced a few programmes on Einstein, a relatively poor quality, but none dedicated just to physics, considered as a non attractive topic and in spite of several propositions made by the SFP. On the other hand scientific journals published special issues on physics topics gathering quite high level articles (for instance “science et vie” on particle physics and cosmology, and “Pour la science” on Einstein physics today). Generally speaking, the media more celebrated Einstein than physics, as elsewhere in the world.

Contacts with policy makers were limited. 2005 occurred at a time of great demonstrations and debates about research policy in the country, several changes of ministers occurred, the president of the Science Academy Edourd Brezin, also president of SFP, advocated for reforming and better funding the university and research system in France (not only for physics), pushed forward by the movement ‘Sauvons le recherche’. The discussions are still going on. So far it is difficult to measure the actual impact of WYP on the student enrolling, because the actions took place mostly after the student choices were decided in the spring time. Also the complexity of the changes imposed by the new university cursus makes comparative statistics difficult to establish. Quantitative data will be analysed in July 2006 by the education ministry.

In any case many traces of the WYP activity will remain after 2005: movable exhibitions, movies and DVD, theatre pays, books, etc. The tradition of conferences in schools is now established and more and more society debates concerning physics applications will take place through “bars des sciences “and other channels. The most important fact is the newly established links between university researchers and high school teachers, often on a personal

and friendly basis. They are likely to develop in the future. The SFP society has decided to open more widely towards teachers, offering pertinent physics articles to them through its “new look” periodical. So far the main conclusion that can be drawn, after such a large activity in France for the WYP, is that the university people have realised the need to popularise their science and started to give part of their time to scientific and cultural activities for the public, which is a quite new and hopefully irreversible attitude.