

**Parallel Session 17: Scientists and science institutions as PCST agents:
responsibilities**

**PERSONAL, PROFESSIONAL PROFILE, AND MOTIVATIONS OF
SCIENTISTS INVOLVED IN PCST ACTIVITIES: THE CASE OF THE
MADRID SCIENCE FAIR**

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Abstract

The project '*Scientific Culture and Communication of Science in the
Community of Madrid: A study to encourage scientists to participate in PCST
activities*', is here presented, together with some of the preliminary results
obtained. The objective of this study is to define the profile of scientists who
participate in the Madrid Science Fair, as well as to identify the motivations
that prompted them to take part in the Fair, with the purpose of proposing
strategies and actions directed towards promoting and improving their
participation in this and other PCST events. The study has been carried out
through personal interview with scientists.

Key words: Public Communication of Science and Technology, Researchers,
Motivations, Science Fairs

Text

Context

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Community of Madrid: A study to encourage scientists to participate in PCST
activities*', is here presented, together with some of the preliminary results
obtained.

Objectives

The objective of this study is to define the profile of scientists who participate
in the Madrid Science Fair (MSF), as well as to identify the motivations that

prompted them to take part in the Fair, with the purpose of proposing strategies and actions directed towards promoting and improving their participation in this and other PCST events.

Methods

The analysed sample is constituted by the staff of the Spanish Council for Scientific Research (CSIC), participating in the three latest editions (2001 to 2003) of the MSF.

The study has been carried out through personal interviews with the participants, who were asked about the following aspects:

1. Professional and personal profile: professional status, scientific field, size and composition of their research teams, age, gender, family, involvement in other participatory activities, hobbies.
2. What made them take part? (own initiative, told to, obligation due to its professional position); What was their task? (coordinator, collaborator, expositor)
3. Motivations that prompted them to participate.
4. Its perception of whether activities presented aroused public interest, and their utility (for the public, for themselves, for their centres, etc.)
5. Benefits gained from their participation.
6. Main limitations and problems they encountered.
7. Participation in other PCST activities.
8. Proposals for promoting scientists' participation in PCST activities.

Results

Table 1 shows some data relating to the professional and personal profile of interviewees.

Figure 1 shows motivations that prompted scientists interviewed to participate in the Fair, showing differences based on the professional status (PST). "Economic Reward" is the motivation that most discriminate among individuals in relation to their PST, followed by the "Sense of Duty". The former shows a negative correlation with PST, while the later shows a positive one (see Figure 2).

In general, interviewees faced few limitations at the time of participating in the Fair. Economic, time and space are, by this order, the most significant limitations for Senior Researchers, although they were no more than moderately important limitations (valued below 3 in a "1-to-5" scale). Space and time, followed by economic, were also the main limitations encountered by Technicians and Support Staff. Finally, the most important limitation for

Fellows was the time, over the space. The rest of problems on which interviewees were asked, were valued, in average, as of little importance or not important at all (technical limitations, problems with other colleagues, no recognition, problems with the public, administrative, personal problems, stand short staffed, staff attending stand scarcely trained, transport).

Conclusions

The results obtained show that, although motivation vary with the professional status, CSIC staff appear to be motivated more by a desire to communicate science and increase the public's understanding of science and scientific culture, than by personal, professional or economic motivations.

In what respect the profile of scientists, stands out the relatively high participation of fellows, group that is characterized by the low percentage of individuals having dependent relatives and by its unexpected reduced implication in other participatory activities, probably derived from its little availability of time. On the other hand, it is worth noting the reduced participation of scientists from the Social Sciences and Humanities, probably due to its less experimental character.

Results are expected to allow to promote initiatives aimed at encouraging and improving the participation of the scientific community in future editions of the MSF and, in general, to increase their interest in PCST activities, as a way of increasing public's awareness of science and technology and the scientific culture of our society.

Figures and Tables

Legends to Figures:

Professional Status (PST):

RS= senior ReSearchers; TE: TEchnicians and support staff; FE: Fellows

Motivations:

PI: increasing Public's Interest and enthusiasm for science

SC: increasing Scientific Culture

PA: increasing Public's Acknowledgment of scientist's work

SD: Sense of Duty

VI: to give VIisibility to my institution

SS: Self-Satisfaction

EN: ENjoyment

TT: Told To by other person

PC: Personal Commitment

PR: Professional Relationships

PP: Professional Promotion

ER: Economic Reward

DL: Days' Leave reward

Table 1: Personal and professional profile

	<i>Professional status</i>			<i>Total</i>
	RS	TE	FE	
Population				
N	42	35	88	165
%	25.5%	21.2%	53.3%	100.0
<i>Distribution by field</i>				
BB+NR+AG				47.3%
PHY+MST				39.4%
HS				10.9%
Support Units				2.4%
Sample interviewed				
N	38	25	56	119
%	31.9%	21.0%	47.1%	100.0
Population interviewed (%)	90.5%	71.4%	29.5%	72.1%
<i>Distribution by field</i>				
BB+NR+AG				52.9%
PHY+MST				36.1%
HS				8.4%
Support Units				2.5%
Gender				

- Male	76.3%	68.0%	33.9%	54.6%
- Female	23.7%	32.0%	66.1%	45.4%
Age (average)	51.6	47.2	30.4	40.3%
Have dependent relatives	78.9%	68.0%	12.5%	45.4%
Carry out other participatory activities	57.9%	56.0%	33.9%	46.2%

BB=Biological and Biomedical; NR=Natural Resources; AG=AGronomy; PHY= Physics science and technology; MST=Materials Science and Technology; HS=Humanities and Social sciences

Figure 1: Motivations of scientists to participate in the Madrid Science Fair, by Professional Status

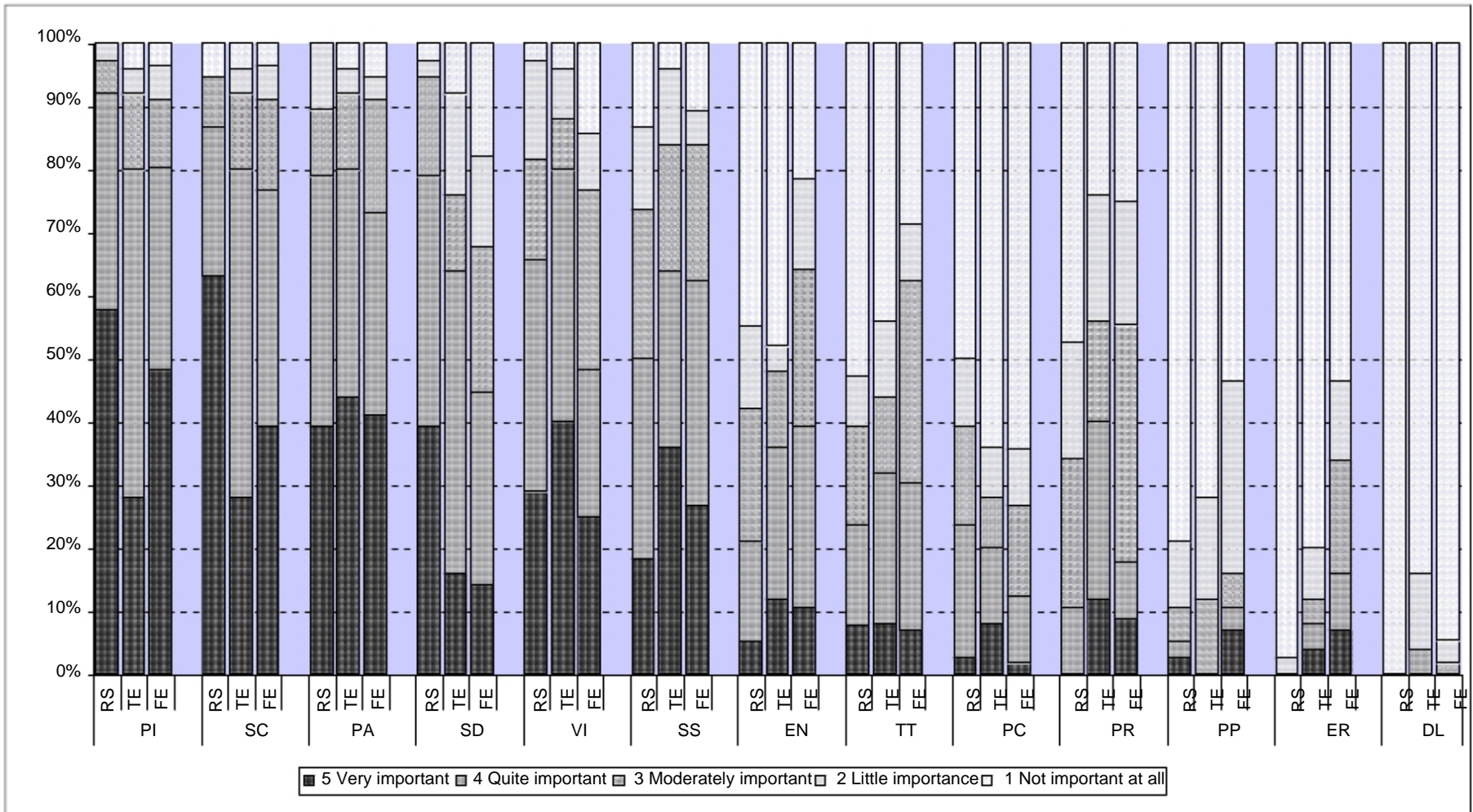
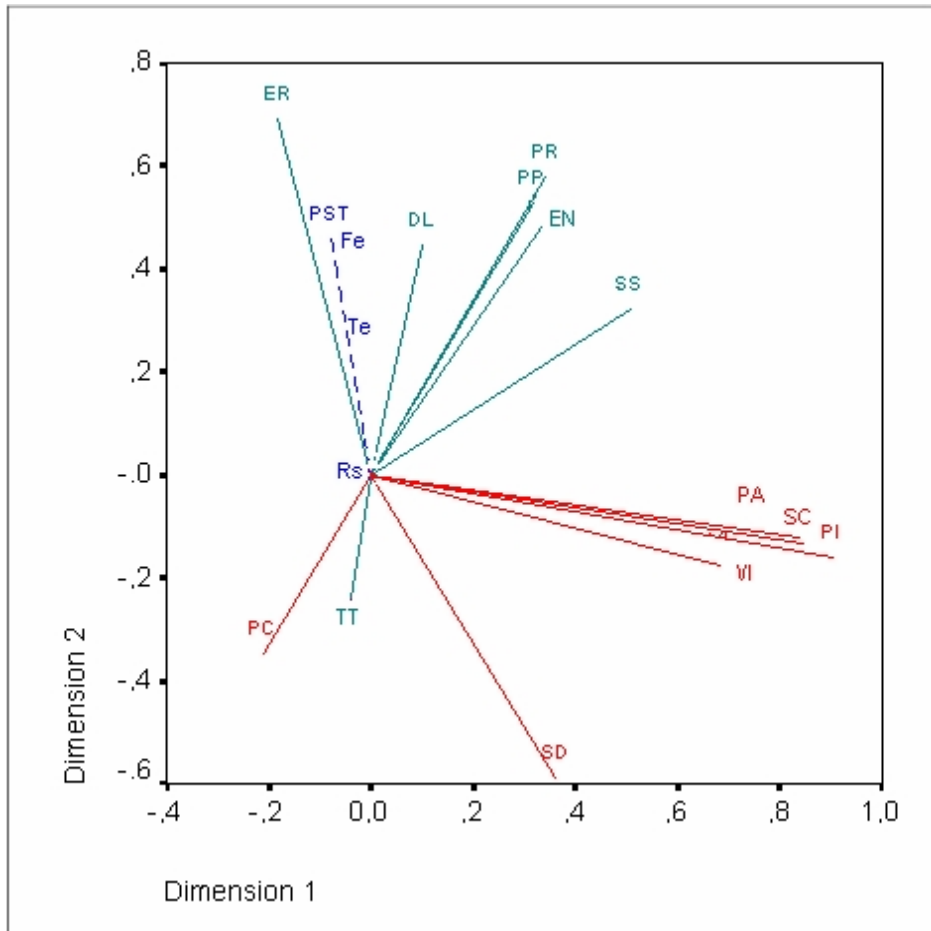


Figure 2: Principal Components Analysis for Categorical Data (CATPCA) of Motivations and Professional Status.



PC, SD, VI, SC, PA and PI show a positive correlation with PST (the higher the PST, the higher the value assigned to the corresponding variable). ER, DL, PR, PP, EN, TT and SS are negatively correlated with PST.

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