

Space Science and Exploration and the Public: Education and Communication

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Personal Story

What inspired me?



Dan Dare, Pilot of the Future

Sputnik

Science

Exploration

Planets



Education and Communication : I

- Two completely separate items
- Commonly confused (e.g. in word, 'Outreach')
- Easy to waste large sums of money pursuing one or the other.

Education and Communication: II Contrasts!

Education

- Common good
- Low status employees
- Underfunded

Communication

- Public Suspicion
- High status employees
- Well-funded

Education and Communication: III Goals

Education

Teachers are critical

- Overworked
- Dedicated
- How to contact them?

Communication

Audience is critical

- Who is it?
- How to reach it?
- How to measure success?

Education

If you are serious about education as the goal.....

- Link to curriculum
- Low cost approaches essential
- Use the existing focused market

Communication Contradictions!

Only scientists can 'communicate' science

- journalists should stick to simpler things.

Scientists should do science

- journalists should handle 'communication'.

Science cannot be 'compromised'

- public communication oversimplifies.

Everyone is a member of the public

- so everyone knows how to 'communicate'.

Communication

If you are serious about communication as the goal.....

know what you want

Why does Europe do Space Science?:

It is a strategic asset,

- *to ensure technological independence,*
- *to safeguard Europe's cultural identity.*
- *to demonstrate capability and vision*
- *to support scientific education.*



Why do we need to communicate?

To share knowledge
To contribute to education
To show what can be done, to inspire
To boost confidence in Europe's capabilities
To get the resources to do these things.....

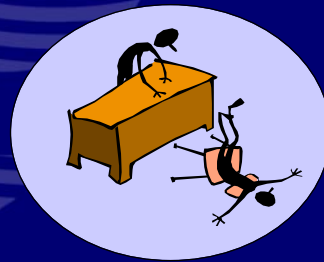


Why do we need to communicate?

Most important

We need money and resources!

- Space is expensive.



With whom do we need to communicate?

1. The Man-in-the-Street - i.e. the taxpayers
2. Politicians and their advisers - i.e. those who raise the taxes
3. ESA Member State delegations – who control contributions
4. ‘Opinion Makers’ - i.e. those who influence groups 1-3.
5. Industry - i.e. those to whom the bulk of the money goes
6. The Science Community – who use the programme

The recent target (1998-2004)

ESA/SPC(98)3 - "Science Communication"

"...The Science Directorate has recognised the importance of the appreciation of its activities and achievements not just by the specialised community but also by the public at large..."



Successful?



1998

12% of the general public is spontaneously aware of ESA







Base: All respondents

Average
in
Europe

12%

Survey in UK 2003 ~ > 70%

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Industry?

Science work challenging but hard to make profits

Member States ?

Programme is mandatory – a tax

Opinion Makers ?

Science is contingent not necessary.

Three types of Communications

Corporate Events

Industry
MS Agencies
Politicians

Serious journals/media

Opinion
makers

News: TV/radio/press

Man-in-the-street
Politicians

ESA's Space Science Annus Mirabilis

Mars Express arrives in Mars orbit !



Beagle 2 captures public imagination !



Smart-1 on way to the Moon !



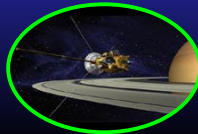
Double Star 1 & 2 launched with China !



Rosetta launched to comet!



Cassini/Huygens arrives Saturn !



All Solar System : most 'Exploration'

The astronomers' concern

How do we get astronomy to the masses?

