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# ESA Space Weather Study Final Presentation Market Analysis

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## Summary (1/2)

Market analysis results based on original research

- one-on-one interviews with 100% return on initial contacts
- extensive literature review
- excellence of methodology guaranteed by experienced participants

Identifies market-driven (unmet) needs, current structure and recommendations for future



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## Summary (2/2)

The analysis identifies:

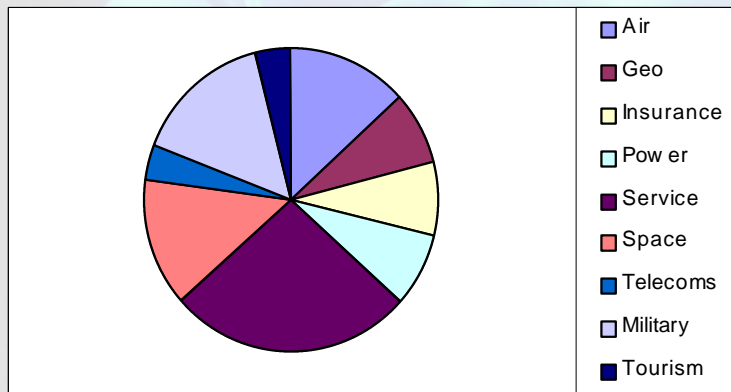
- current supply chain
- main market players and their activities
- current users
- gaps in current service provision
- user defined needs for a space weather service
- negative comments on space weather - essential input for effective future space weather service plans



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## Breakdown of participants by field



Sample size : 52. Composition includes key representatives and technical experts, existing space weather service providers and users



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## Key findings (1/2)

- Outside of scientific community, widespread awareness of "Space Weather" brand but understanding of benefits limited
- There is a lot of raw data available, and it's "free", but
  - it needs processing to extract required information
  - forecasting ability (time of arrival, affect on assets) very limited
- The existing market place has evolved into niche groups of data and service providers - "aware users" employ specialists to make sense of the data



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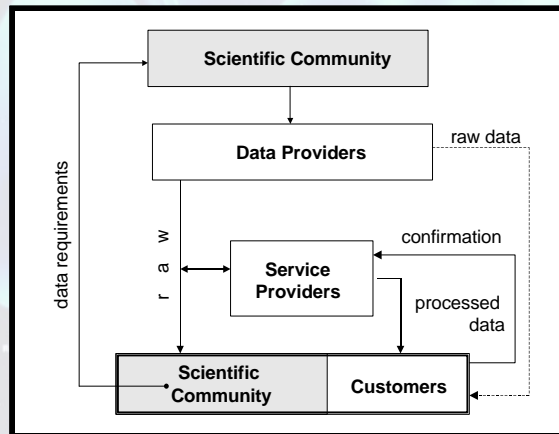


## Key findings (2/2)

- Some users know of possible benefits but are unable to obtain the specific information or believe it does not exist
- Some users are unaware / uninterested
- Some users are suspicious of " commercialisation push "
- Detailed list of market interview requirements (MIR) identified



## Current market structure



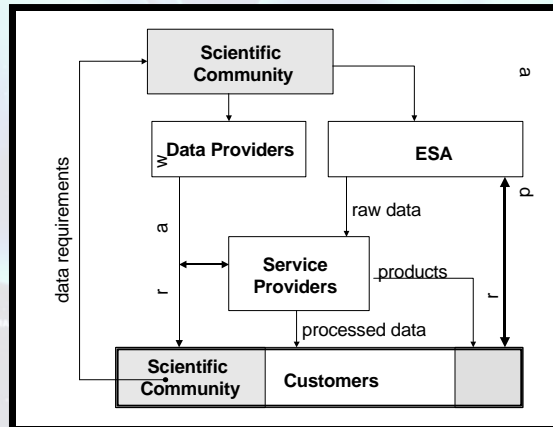
## Where are the gaps ?

	Air.	Elec.	Geo.	HFRad.	Ins.	Mil.	Sat.	Tour.
Well-defined space weather issues	yes	yes	no	yes	yes	no	yes	yes
Awareness of benefits of space weather to sector	high	high	low	high	med	low	high	med
Willingness to pay	yes	yes	no	no	no	yes	yes	yes
Needs addressed by service providers	yes	yes	no	yes	yes	no	yes	no
Easy to access	yes	yes	yes	med	yes	no	yes	yes

- Must understand the requirements of the Geological / Offshore market
- Must educate the Geological / Offshore, Insurance / Financial and Tourism markets
- Military / Defence market also appears attractive  
BUT we believe that there is a lot that they were unwilling to tell us about



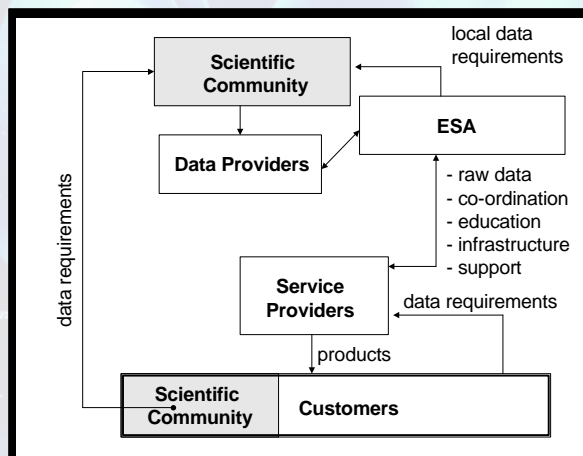
## Supply chain model: ESA as data provider



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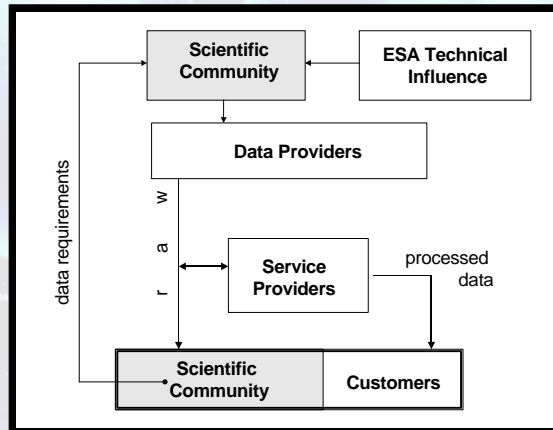
## Supply chain model: ESA support for commercial services



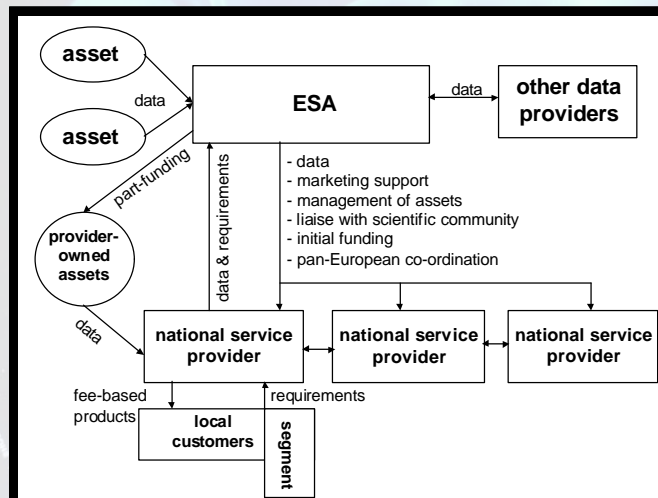




## Supply chain model: ESA as a sponsor of technical improvements



## Space weather commercialisation model





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## Main issues and challenges

- No strong interest for a space weather service, in contradiction to expectations, but interest in space weather information and products

### Action: Education and provision of targeted information

- many potential beneficiaries are ignorant of the benefits of space weather, and of who could provide them with these benefits but ESA well placed to lead education process
- good name of ESA should dispel concerns over commercial push
- initially target service provision gaps and establish needs through dialogue
- provide "value added" data