Draft 2

**SWWT-12, ESTEC, 17/12/2002**
**Position document**
***Opportunities for Space Weather within Framework 6, Why and how to submit ?***

1. Introduction.

This draft gathers information, comments and questions from all colleagues who contributed to the recent exchanges related to the introduction of SW in FP6 Work programme 1.4 (A&S). It could be a basis for discussion during the next SWWT-12. The purpose is to analyse the last events, to clarify the forthcoming tasks, and to answer the very urgent questions : to go or not to go into FP6 , why and how to submit ?
If yes, for those who have the motivation, there are some immediate actions during the next weeks in order to make relevant decision and prepare a successful submission.

2. Summary of recent events in 2002

7/06 submission of EOIs : about 10 are related to SW
EASE , CRISIS , MOPLE, SWEEC, SATPRO , ISWP , SPACERAD, SACE , SWAN, WATCSA
8/10 meeting in Brussels for SW group , briefing of the Space policy Unit (L. Tytgat)
beginning of evolution of Work Programme drafts 1.4 A&S
Development of ESA pilot projects and GMES service elements
5/11 SWWT-11, Berlin
11/11 Brussels FP6 official launch
Internal meetings (SPACERAD), training, contacts, …
18/11 Proposal submitted in response to ESA's GSE call by Y Beniguel and R Gendrin on behalf of SWWT: Aims to ensure discussion of pilot project outputs in context of GSE.
22/11 Meeting at EC : Space Weather was proposed for inclusion by the British representative, supported by Finnish and Polish representatives.
28/11 "quasi-final" WP 1.4 (issue 19) : SW is reinstated in the WP !

16-18/12 Space Weather Applications Pilot Project Workshop
17-19/12 SWWT-12, ESTEC
17/12 Official publication of FP6 first Call
17/12 Publication of Green paper about European space policy (Beta issue ?)

3. Redesigning an unique SW proposal to FP6 : to reset all counters

After introduction of 10 EOIs, a limited lobbying (no other SW member participated to FP6 launch !), obtained that SW was reinstated marginally in the new WP specifically under GMES-Risk Management. We may compare with other communities already very well organized (like Galileo). Due to the low priority of space weather in this context, the scientific leaders have to evaluate the situation, to converge to one common action, to redesign the baseline for :

- What type of EU approach is generated for the European SW research and product development ?
- Motivation and ambition : for European integration, for Space developments, for money ?
- Which FP6 thematic priority : GMES, Galileo, Satcom, Global change, IST, radiation ? :
- How to make synergy within all EOIs from SWWT : EASE, SATPRO, SPACERAD, …
- association / extension to other areas (risks, geology, vulcanology, …)
- Which old/new partners : industrials, services, assurances, SMEs, etc
- which FP6 instrument : IP, NOE, STREP ?
- how to be efficient in the "Euro world" ?

4. Present knowledge of WP 1.4, Aeronautics & space (issue 19, 28/11/2002)

1). "Space weather" is mentioned under "Risk Management" within GMES for the first Call (expected in December 2002).

(page 36) §2.3.2 Area GMES
§2.3.2.1 selected for 2003 deadline
*"Specific risks to be covered are: man-made hazards (including conflicts); earthquakes; tropical storms; drought; floods; volcanic eruptions; forest fires; landslides; other natural phenomena generating hazards (including space weather). Preference will be given to an Integrated Project."*

2). It is suggested inside "Atmosphere" for the following Call (foreseen by end 2003)
(page 38) §2.3.2.2 indicative for call in 2004
b) atmosphere : 1 Integrated Project
--- *interactions influencing the atmosphere, monitoring & assessment, space & ground measurements, ...*

3). Some other details to be taken into account in a proposal :

(page 40) §2.4 links to other research topics : other FP6 thematics, and also the reference to ESA GMES service element (see. Y. Beniguel & R. Gendrin input);

(pages 42-43) §2.5 roadmap with indicative budget for first Call (GMES = 45 mE); reference to the Galileo joint undertaking; percent of budget per intrument (IP+Noe= 86%)

4. Rationale presented by R. Horne (19/11/2002)

1). Space weather is much broader than ESA - it involves ground and space. In particular aviation, power generation and supply, and insurance. ESA can provide access to space but only the EU can address the breadth of systems affected.
2). Space weather affects major European industries that are in high competition with other economic blocs.
3). Space weather cuts across EU priorities, the design and construction of telecommunications, and navigation spacecraft, their operations, and services they provide.
4). Space weather is most important in northern Europe, but will affect systems such as Galileo services and aviation even in southern Europe.
5). Space weather can be used to produce products and services for risk management
6). Space weather should be reinstated under risk management under GMES.

6. Old and new instruments in FP6

SW may be introduced by several ways into FP6 :

1). one more general NoE crossing other thematics (A&S, Global change, IST, radiations ?), shared with other thematic leader (eg Galileo),in order to define some "virtual institute".
2). one limited chapter inside a more ambitious IP, inside GMES risk management, in connexion with similar IPs (fires, flood, …).
3). one "targeted" project (STREP),

7. Short term actions : anticipation on the submission

A very strong effort will be needed between the first "Call" (17/12/2002) and the submission deadline (20/03/2003 ?) :

- to create some dynamics and make decisions on the content of the proposal,
- to organise some core group or task force to share the tasks, eg writing the proposal,
- to ensure a strong team/network of experts involved.
- to envisage some "kick off" meeting for a core group by beginning of 2003,
- to receive all resources from National authorities : time, money, political support, legal aspects, …
- to increase contact with all National contact points,
- to develop "briefing" with "Euro-people" , Space advisory group, …
- to associate Brussels officers to SW meetings : invitation, minutes, etc
- to consider public documents : Green paper, Analysis of EOI, …
- to contact potential new partners : industrials, European entities (EU-JRC, ISU, Eurocontrol, Eutelsat )
- to approach other communities : Galileo, risks, geology, Global change, …
- to insure confidentiality during the proposal writing,
- to register oneself and colleagues as expert to European Commission,

Note: offer of assistance received at last SWWT meeting from DLR Brussels office.

8. Sharing the tasks, new partnership

It is necessary to redefine probably several levels of partnership in a future proposal :
- the scientific coordinator (one woman would be of high interest !)
- the management structure: internal / external (FMI is candidate)
- the general structure (EASE is an example)
- some core group of Institutes and industries, showing credibility (excellence) and integration capability to Brussels, and able of efficiency in the various efforts before the submission (including political lobbying, legal aspects, administrative support, etc);
- a larger (perhaps flexible ?) consortium of participants, contributing according to their scientific or technical background;

We have to be fair-play and inform all colleagues who contributed to EASE and other EOIs; however we have to convince new partners, eg industries, SMEs, services, assurances; simultaneously not all preliminary partners may remain as permanent members, for management and financial reasons.

9. Necessary training / education :

The main members in the proposal should be aware of or educated on :
- basic knowledge of FP6 objectives, new/old instruments,
- references to European policies , eg : international treaties, male-female parity, Europe enlargement, …!
- how to write a proposal, how to educate the evaluator (evacuator !) etc.
- to make a difference between EU and ESA, NASA procedures, objectives;
- to learn/speak EU jargon, blabla (give them what they want !),
- to make use of Web and data bases (Cordis, Europa, …)
- to transmit RTF or PDF files, rather than Word ones (due to viruses),

A training course may be proposed by many independent consultants
eg : Hyperion (Mc Carthy), Essor (Montgolfier), Alma CG, …?
Where, when, which cost ?

## 10. Preparing/writing the proposal

Internal support and/or external consultant will be necessary to develop the required documents :

- multiple rationale : political, economical, societal, ….
- Scientific/ technical Work packages
- Human resources , expertises
- material, financial, fiscal, legal aspects
- IPR, consortium agreement
- Complementarity with ESA projects
- common tools : software, data

## 11. Possible baselines

- Synergy may be found at the least between the 10 EOIs
- FMI is candidate for coordination and management
- the structure developed in the "EASE" EoI could be a good asset to redefine or negotiate a participation, taking into account the answers to the questionnaire
- …

## 12. Useful Information

1). Reference papers from SW group :

Minutes of meeting in Bruxelles
Minutes of SWWT-11 Berlin

2). Reference papers from EU :

- Aerospace 2002-19, 28.11.2002, Thematic Priority 1.4 Aeronautics and Space, Work Programme 2002-2006 (46 pages)
- The 6th Framework Programme in brief, brochure November 2002 Edition (33 pages)

3). on-line sites

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| Europa | http://europa.eu.int/index.htm |
| Cordis | http://www.cordis.lu/fp6/ |
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| Aeronautics and space | http://www.cordis.lu/fp6/aeronautics.htm |
| Global change and ecosystems | http://www.cordis.lu/sustdev.htm |
| Information society technologies | http://www.cordis.lu/fp6/ist.htm |
| Full description of EOI's | http://eoi.cordis.lu/search_form.cfm |
| France | http://pcn.jouy.inra.fr/reunions_6PC/ |
| Germany | http://www.kowi.de/ |
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