SIDC: Solar Influence Data analysis Center

The SDA activities of the SIDC are a collaboration between ROB, RMI, BISA and Creaction

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SIDC

Objectives

- To demonstrate the commercial value and necessity of space weather services as they are offered by the SIDC as an ISES regional warning center and as a scientific environment for space weather studies
- Enlarge the number of products based on user input
- Improve existing products based on user input
- Offer our service as input for other SDAs

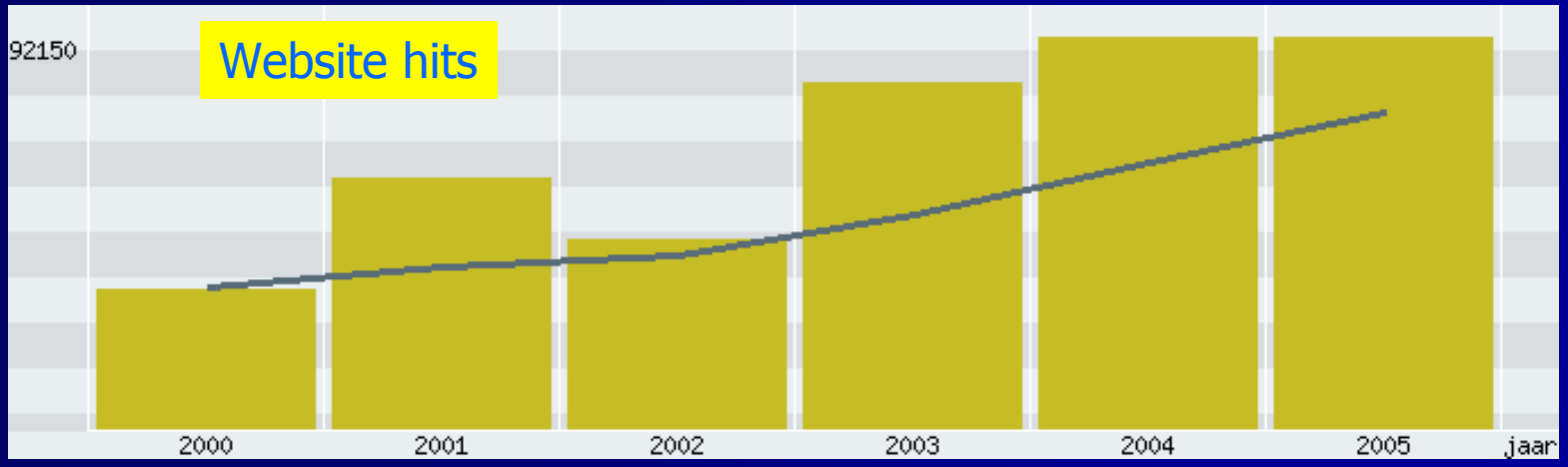
User needs

Based on a user survey and preparatory questionnaire

- Develop the 'Solar Weather Browser', a display tool summarizing conditions on the Sun
- Develop a fast alerts service with e-mail and SMS distribution
- Develop a daily solar weather report service for the 'professional user' and translate into a version accessible to the general public
- solar highlights on the SIDC-website
- Continue to provide a service of regular weekly and monthly bulletins for solar and geomagnetic activity, with an additional archive of these bulletins.
- An annual CD-ROM summarizing space weather activity over a year
- Assess in real-time the Space Weather (ionosphere) effects on the precision of DGPS positioning
- Assess in real-time the Space Weather effects on the precision of RTK positioning.
- Provide forecasts 24 hours in advance of the occurrence of severely degraded RTK positioning conditions due to Space Weather over Belgium.
- Develop the Space Weather Yellow Pages (SWYP), a prototype tool to demonstrate a centralized, automated data retrieval system where issues such as data location, format, and accessibility are transparent to the user.

Evaluation of user satisfaction

- Continuous growth of registered users
- Continuous growth of website hits, although we are heading for solar minimum
- Since registration and services are for free, there is almost no information on the financial benefit of the user. The GPS-products seem to have the most commercial value
- High users satisfaction in times of severe space weather events



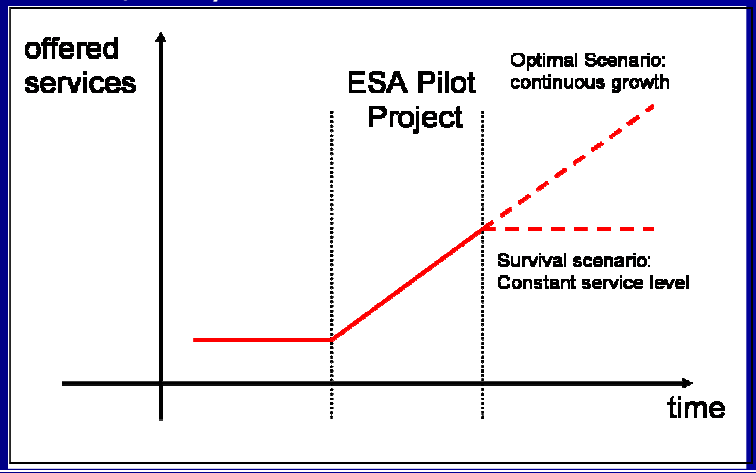
Sustainability of the service: business plan

- GPS-service has the most commercial application value: straightforward and clear information on the accuracy of GPS-measurements

- Example of RMI
  -Public service to public, companies,…
  -Free, credits only for specialized information and services
  -Government plays a central role

- Future need for a global approach on a higher level (e.g. federal, European), reaching the entire society.
- SIDC can play a leading role as we have the expertise and know-how.

- Survival Scenario: *freeze the current situation*
  -funding from hosting institute and projects
  -Estimated costs: € 140,400/year
- Optimal Scenario: *continue*
  -survival funding + funding from outside is necessary, e.g. ESA, SWENET
  -costs: comparable to real project cost, i.e. € 298,000/year



Perspective for improving the services

- Continue to look for potential user investments
- Development of forecasting through *automated* models
- *Quality control*: Implementation in the SWENET framework as an objective tool for comparison of Service Development Activities.
- More scientific data/science will lead to more and better services, but
- Priority has to be given to *inform companies* about Space Weather
- Development of *tailored products*