

| Meeting Minutes | |
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| Subject | Coastal Erosion Progress Meeting #6 |
| Date | 19 th Mar 20 |
| Minute Taker: | Noelia Zorrilla |
| Agenda: <ol style="list-style-type: none"> 1. Introduction 2. Production update 3. Auxiliary Data update 4. Website and webservices roadmap 5. Workshop planning 6. Validation Products (next MS) 7. Any Other Business | Attendees: <p>Martin Jones (Chair), Andres P Garcia (BGS) Xavier Monteys (GSI) Jara Martinez Sanchez (IH C) Christian Marchese (Arctus) Mark Pattle, (IsardSAT) Giovanni Corato (AdwaisEO) Francois Regis Martin-Lauzer Craig Jacobs, Steve Emsley, Anne-Laure Beck, Noelia Zorrilla, Amine Taji, (ARGANS Ltd)</p> |

1. Introduction:

1.1. The chair, MJ welcomes everyone to the 6th Progress Meeting, and outlined the agenda for the meeting, thanking everyone for making the extra special effort to join, whilst working remotely from home due to the COVID19 pandemic.

2. *Outstanding Actions from Last Meeting (the MTR and end of phase 1)*

- 2.1. ACTION: User Group. One outstanding action remains and that is for the User Group to supply the family tree for their national (regional and local coastal management systems. Once all these are received, they will be hosted within the password protected Partners Pages of the coastal erosion website (which ESA TO has access to).**

3. *Update from service user group on production*

- 3.1.** Anne-Laure provided an overview of the number of products that have been produced covering all the phase 1 sites in the four nations and identified where there was still more production to take place. All the available products are available via the FTP server based in AdwaisEO and this data set is added to daily.
- 3.2.** Martin briefed on TPM. A TPM request for phase 2 has been compiled and the request placed on ESA EarthNet, with an acknowledgement receipt received. The square KMs requested have been optimised to enable each of the phase 2 sites to have a polygon of either Maxar or Airbus VHR data that is suitable to conduct the Geolocation co-registering, being large enough to have suitable features and also close enough in time to the master sentinel tile being corrected. In addition we have finally resolved how to order the TPM from Maxar for Phase 1 sites. This data will (hopefully) be downloaded next week, stored on the FTP and available for validation if required. **ACTION: Martin to prompt ESA TPM to approve the request.**
- 3.3.** The proposed Phase 2 production process was introduced which suggested that for the production team it would be advantageous to assign a month (4 weeks) to each nation in turn and this would enable two complete cycles. This process would need the users to consider if they would prefer two individual 4 week blocks per nation side by side (ie an 8 week block just once) or we take it in turns, say Ireland, Canada, Spain England...and also the nation priority would need to be agreed. A national block would commence with bilateral dialogue with the single national user to prioritise site and provide auxiliary data, however the discussion and results would be shared across the community so that all partners could tailor each production 4 week block and also learn from the experiences of the others. **ACTION: User Group to approve or amend the principle of the production proposal and agree the national order for production. Andres to coordinate User Gp feedback by 25 Mar 20.**
- 3.4.** Discussion centered around the verification of the processors, and the QA/QC of the products being delivered to the Users (currently via the AdwaisEO FTP server). Much of the detail that supports the production and the processes employed are described within the ATDBs, including the verification of the processors; however, the ATBDs do not currently include the uncertainty budgets. This is mainly because the ESA or NASA ATBDs (used as templates) haven't included this work and the assessment of their errors is performed in specific studies, steered by the official Quality Working Groups (QWGs), who in turn deliver specific reports. With regards to the EO-derived products' QC, it is currently performed by the Service Group photo-interpreters, but without a formalized protocol. **ACTIONS: Appropriate error/uncertainty statements to be included within the ATDBs by end of Apr, and the data processors' verification to be reviewed and edited if required in the weeks to come, with the QC protocols to be recorded by end of June.**

4. *Update from Service Group on Auxiliary Data*

- 4.1.** Noelia briefed on the future need for Auxiliary Data to support the phase 2 site production but also requested that partners investigate whether there are freely available websites or other repositories of auxiliary data that could be freely and automatically accessed to enable a smoother more automated shoreline processing system to be put in place. A brief discussion

ensued between observed data and the various forms of modelled data. **ACTION: User Group to recommend any Auxiliary Data sets that could be accessed automatically for future (ie post phase 2) production and also to be prepared to support the phase 2 production.**

5. Website and webservice development

- 5.1. Steve presented the Web Service Specification and the proposed plan to introduce the webservices via the portal. The key next steps/tasks are to “freeze” the design and then draft the script to implement the file naming convention, create an SHTTP file structure for the agreed products and then establish a database (and populate it).
- 5.2. The proposal identified an HTTPS 0.5 version (a catalogue for each area of interest with clickable links to products) mid-April, a v1.0 (will have a working HTTPS server, product selectable by matching criteria, time series, metadata and other metrics) mid-May, and then a v1.5 (including GeoDJANGO location based services, and a RESTful interface) end-June. Subsequent versions will include post-processing options such as selectable formats, visualisation and packaging. Longer term, with the addition of on-demand selection of sites via a Geobrowser and process chain orchestration, is under consideration.
- 5.3. The current website at <https://coastalerosion.argans.co.uk> (which can also be accessed via the ARGANS site) has three sections: an open to the general public part which is informative and marketing in nature, a private Partners only section which provides our documents and a page for each nation/site and a the portal, which is very much under development as stated above. This is password protected but with the ability for a wider access to be granted once we have agreed the business model.
- 5.4. Metadata is still under development; however, it is appreciated that input/production metadata needs are different from those of the output product needs. These latter require to show the history of the process to support both verification and validation.
- 5.5. Formats were briefed and the intention is to provide a selection of formats and the ability to also transform if required. Although proprietary formats are not recommended it is clear that ESRI Shape files are very widely used.
- 5.6. **ACTION: all partners are requested to provide suggestions for the open part and also suggestions as to how they would to populate and use the “partners only” part. This is an open dated action as we hope to constantly update the site to reflect your needs.**
- 5.7. **ACTION: all partners are requested to suggest what they will need the metadata for and provide advice so that a suitable schema can be developed and additional advice as to what product formats are required.**

6. Workshop Planning

- 6.1. The principles for the workshop were discussed, however it was agreed that no workshop would be planned before Sept 20 due the current COVID19 Pandemic. It was further agreed that we will host four national workshops and it was requested that we agree to stagger the date in the autumn/winter. It was raised that many conferences and workshops have been cancelled and will be rescheduled for later in the year and so our workshops may have to “nest” within other national events. Partners are requested to keep aware of national opportunities and this topic will feature larger at the next Progress mtg.
- 6.2. A proposed standardised format was briefed that suggested a single day event with part presentational on the project, the processes/production and its outcomes followed by a series of course featuring the value, capabilities and limitation of Remote Sensing in general, the products derived specific to Coastal Erosion and finally a course on the utility and application/wider employment of earth observation products within a wider user/stakeholder

coastal management community. **ACTION: By the next meeting (PM#7 - 27 May 20) partners should be in a position to update on workshops and the proposed format.**

7. Validation Products

7.1. FRML lead this discussion stating that validation should be a relatively simple approach. The users are all experts in their local sites and therefore statements about their sites would be easy to draft. These statements can then tested against the earth observation products that have been derived. It is understood by all that the Validation Products (Evaluation Report and Validation Report) are Milestone#3 deliverables. Andres suggested that the User Group (in constant dialogue with the Service Provider Group) would draft the two report (required by end of Apr) and suggested they could be “badged” under their title. This was very greatly appreciated, and the agreed way forward would be that a Project capping document would be supported by the detailed Evaluation and Validation Report from the User Group. The Verification Procedures (discussed above) also form part of this package. It was also understood that this set of Validation Products was an initial version based on phase 1 experience. **ACTION: User Group to draft the Evaluation and Validation reports by end of April, ARGANS to draft the capping paper by 7 May.**

8. Any Other Business

8.1. There was further discussion with the User group confirming the need for quality of products versus the need for quantity.

8.2. The possibility of topographical DTMs , potentially based on InSAR was raised. **ACTION: The Service Provider Group (IsardSAT) will investigate the ability to derive topographical data across the beach using InSAR and report back by end of Apr.**

9. If no comments/amendments are received by end of Mar 20, the minutes will be considered a true reflection and recorded.

| Action Summary | | | |
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| No | Who | What | when |
| 6.1 | User Gp (Andres) | One outstanding action remains and that is for the User Group to supply the family tree for their national (regional and local) coastal management systems. Once all these are received, they will be hosted within the password protected Partners Pages of the coastal erosion website (which ESA TO has access to). | Mid Apr |
| 6.2 | ARGANS (Martin) | Prompt ESA TPM to approve the request. | Mid Apr |
| 6.3 | User Gp (Andres) | Approve or amend the principle of the production proposal and agree the national order for production. Andres to coordinate User Gp feedback by 25 Mar 20. | 25/03/20 |
| 6.4 | Service Gp (Anne-Laure & Albert) | ARGANS & IsardSAT will draft and add appropriate error/uncertainty statements to be included within the ATDBs by end of Apr, and the data processors' verification | 30/04/20 |

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| | | to be reviewed and edited if required in the weeks to come, with the QC protocols to be recorded by end of June. | |
| 6.5 | User Gp (Andres) | User Group to recommend any Auxiliary Data sets that could be accessed automatically for future (ie post phase 2) production and also to be prepared to support the phase 2 production. | 24/04/20 (& ongoing) |
| 6.6 | All Partners (via Steve) | All partners are requested to provide suggestions for the open part and also suggestions as to how they would to populate and use the “partners only” part. This is an open dated action as we hope to constantly update the site to reflect your needs. | Continuous & regular |
| 6.7 | All Partners (via Steve) | All partners are requested to suggest what they will need the metadata for and provide advice so that a suitable schema can be developed and additional advice as to what product formats are required. | By end of Apr |
| 6.7 | User Gp (Andres) | By the next meeting (PM#7 - 27 May 20) partners should be in a position to update on workshops and the proposed format. | 27/05/20 |
| 6.8 | User Gp (Andres) & ARGANS | User Group to draft the Evaluation and Validation reports by end of April, ARGANS to draft the capping paper by 7 May. | 30/04/20 07/05/20 |
| 6.9 | IsardSAT & ARGANS | The Service Provider Group (IsardSAT) will investigate the ability to derive topographical data across the beach using InSAR and report back by end of Apr. | 30/04/20 |