

Meeting Minutes	
<b>Subject</b>	Coastal Erosion Progress Meeting #4
<b>Date</b>	10 <sup>th</sup> Nov 19
<b>Minute Taker:</b>	Scott Miles
<b>Agenda:</b> <ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Outstanding Actions from Last Meeting</li> <li>3. Update from User Group on activities</li> <li>4. Update from Service Group on activities</li> <li>5. Product Validation Plan (PVP)</li> <li>6. Workshop Planning</li> <li>7. MTR Planning</li> <li>8. Website and Web Service</li> <li>9. Any Other Business</li> </ol>	<b>Attendees:</b> <p>Martin Jones (Chair),            Andres P Garcia (BGS)            Xavier Monteys (GSI)            Jara Martinez Sanchez (IH C)            Thomas Jaegler (Arctus)            Albert Garcia Mondejar &amp;            Mark Pattle, (IsardSAT)            Francois Regis Martin-Lauzer            Craig Jacobs, Amine Taji,            Steve Emsley, Scott Miles            (ARGANS Ltd)</p>

*1. Introduction:*

1.1. The chair, MJ welcomes everyone to the 4<sup>th</sup> Progress Meeting, and outlines the agenda for the meeting.

*2. Outstanding Actions from Last Meeting*

- 2.1. Different types of coastline need to be classified in a standardised manner. This classification would be reliant on the expertise of the user group. The user group was asked to provide a narrative and classify what is usable in terms of coastal types – a “Typology”. Previous deadline was 18<sup>th</sup> October. **ACTION: This is now requested by 20 Dec 2019 (BGS – Andres)**
- 2.2. Based on input post last PM#3, the Institute of Civil Engineers “International Coastal Management Conference” has been agreed as an ideal venue for the Coastal Change project to present at. Although the conference is relevant, it is small in size but very specific. The date for the conference is not yet advertised. It is agreed that this conference would be of interest to pursue.
- 2.3. ACTION: BGS (Andres) to contact the organizer of the conference to get information on the date, location and to obtain a slot to present. He will then send the details to the partners by 18 Dec 2019.**

### 3. Update from user group on activities

- 3.1. Jara gives updates on current activities. List of pilot sites for phase 1 are collected so far, with pilot sites for phase 2 currently being obtained. Currently writing summaries of URD for non-technical users. Letters of support from Spanish stakeholders are also being obtained and updated.
- 3.2. FRML identified that the funding support for future EO from both Spain and the UK was uncertain and hence, such letters of support have a much greater significance.
- 3.3. Andres explains his work on revising the URD to include the numerous new requirements from the wide stakeholder engagement and that it is currently a work in progress.
- 3.4. It is agreed that a “readable” abstract of the URD is required for non-technical readers. Approval was sought and agreed within the group to forward the URD (under confidence) and an Abstract to various stakeholders (Institutions, Agencies and Academia) at the discretion of the User Group.
- 3.5. **ACTION: BGS (Andres) to write a marketing abstract of the URD based on the typology, then send it and/or the URD in confidence to different agencies (Academia, Industry etc.) to look for feedback and support. No deadline set, however Jara is working on a Spanish version (to be shared please). However, the 8th Symposium Monitoring of Mediterranean coastal areas Livorno Conference abstract and the Sentinel Success Story (yet to be published by ESA) are attached.**
- 3.6. Xavier provides updates from conferences and stakeholder engagement. He identified that not all stakeholders fully understand the project with respect to forecasting vice observation. The message agreed is that the current contract focuses on **observation** value but could well evolve to a **forecasting** service in a separate future phase alongside vulnerability and risk indices.
- 3.7. **ACTION: User group to list outreach events and stakeholder engagement activities during phase 1 and planned during first few months of phase 2 with date, venue, audience and outcome. Deadline 22nd December. For BGS (Andres), deadline 17th December.**
- 3.8. Thomas explains that he has so far been gathering and sending auxiliary data to Argans and concentrating on the Sediment Transfer ATDB.
- 3.9. It was identified that cloud free data is difficult to obtain in the Canadian site, and that any cloud free VHR Commercial images available would be used for co-registration and validation to benefit Arctus and as such would not be used outside of the project and should be within the IPR and licencing conditions supplied.
- 3.10. **ACTION: Arctus (Thomas) to contact University to identify any cloud free commercial images that could be processed by the team on Arctus/Universities behalf so not breaching licencing. No Deadline needed ASAP.**

#### 4. *Update from Service Group on activities*

- 4.1. Martin set out the actions performed so far by Argans for satellite imagery. He explained the order of the pilot site processing, that the processors are so far semi-automated which entails considerable human oversight at present. The eight ATBD's have been updated to include partner comments and most importantly their endorsement. The TSD has also been reformatted and evolved for version 2. The TSD v2 and ATDBs are due to be with ESA along with the PR#4 and these minutes.
- 4.2. It is decided that the ATBD's and TSD's will be reviewed again by the partners before they are formally sent to Craig and FRML, although only critical changes are required. It was stated that although this TSD and ATDBs are the final version for Phase 1, the next phase will see changes in automation etc and refinement of products that will need to be captured, therefore the TSD and ATDBs can be considered "living" documents.
- 4.3. Albert begins by explaining that the SAR waterlines are currently in production. However, Barcelona SAR data must be reanalysed. There are issues with the projection and no initial rough validation has been performed.
- 4.4. **ACTION: IsardSAT (Albert) to send example SAR waterlines to Argans to test within the shoreline processor. 17 Dec 19.**
- 4.5. FRML explains problems with geolocation, Landsat must become within 10-12 m accuracy in pixel location, Sentinel-2 needs 3 m location accuracy. He emphasises that getting accurate geolocation is essential for calculating erosion rates/land retreats and is essential for a proper statistical analysis of results. This approach is a key and innovative component of the Service Group approach.
- 4.6. Xavier agrees, and states that there is no strong and clear emphasis of this unique and innovative approach in the documents. He states it should be clearer that this sets a boundary for the expectations of the of the products and this should be emphasised more in the TSD and ATDB.
- 4.7. **ACTION: ARGANS (Martin) Rename to the pre-processing ATBD to Geolocation ATDB and increase the emphasis of geolocation limitations in the TSD abstract. PMN – this has been completed. The TSD abstract and all reference to pre-processing has been replaced and supplemented.**

#### 5. *Product Validation Plan*

- 5.1. Martin begins by outlining the definitions of validation and outlining the overall validation plan.
- 5.2. It was discussed that there will be a generic validation of the products using specific sites to showcase or demonstrate the generic validation "tests". We were reminded that the pilot/demonstration sites are to help with the feasibility case, however as they are well known and documented sites, they will also form the key validation sites within phase 2. They also need to be able to demonstrate that an EO approach can create added value. The work order is outlined as creating a generic method of validation, then performing the validation on the sites as a test to the method, then proving that these products could not be obtained by other means and then scaling the validation/evaluation to other sites in phase 2 and beyond. A test plan was briefed by FRML that should accompany the PVP.
- 5.3. Andres raises the idea of considering the products as digital twins, to create added value, the frequency of updating will determine the applicability for different scenarios.
- 5.4. **ACTION: ARGANS (Anne-Laure)/IsardSAT (Albert) to build a draft product test list, as detailed as possible, based on the feasibility test sites data to accompany the PVP.**

#### 6. *Workshop Planning*

- 6.1. The invitations for the workshop are discussed. FRML suggests that the ESA should be present for the workshop, Martin argues that ESA should be included at the end of the workshop, as any disagreement will come from phase 2, this will allow amendments for phase 2.
- 6.2. It is highlighted that there is a risk that users at the workshop may bring in new expectations for the URD, which are not contractually possible to deliver. Users however will be able ask questions about how the processors manage with various use-cases.
- 6.3. It is summarised that the workshop highlights what has been done so far, current actions, and considerations for phase 2. This gives the opportunity to get feedback from the hand-selected wider user community. This then leads on to a presentation for the ESA where consortium members can stay on.
- 6.4. **ACTION: ARGANS (Martin) Create a draft workshop agenda and identify which users outside the coastal consortium should be invited. PMN – draft agenda attached – comments requested by 20 Dec 19..**

#### 7. *MTR & Workshop Planning*

- 7.1. Martin suggested to consider the MTR into three themes with 50% of work going towards phase 1 (what we have done), and 50% split between phases 2 and Outreach (what we wish to do next).
- 7.2. It was agreed that wider stakeholders involved with coastal erosion can be involved provided that they can be legitimately be considered part of the User Group. It is anticipated that ESA should be present for the workshop and MTR. Discussion centred on ensuring the message we have on why we chose the specific sites, the specific lines derived within a feasibility phase, the justification for our processor/ATDB approach and the selection of our wider stakeholders need to be justified.
- 7.3. Discussion centred on the relevance of the workshop, who was it for, what value would it deliver, was it mandatory. After much discussion a position evolved that identified that a workshop that invited very close components of the User Group stakeholder community (ie local or national govt and academia) would enable some briefing of the current URD, some debate and discussion and feedback on its currency, hopefully identifying new areas to be considered within phase 2 and additionally would show some evidence of the “value” to this work.
- 7.4. **ACTION: ARGANS (Martin and Craig) to outline an agenda for the Workshop and MTR. This will be forwarded to partners for comment by 18 Dec 19.**
- 7.5. **ACTION: ARGANS (Martin) Organise a planning meeting and rehearsal for the MTR for 2<sup>nd</sup> Week of Jan. Date will be requested via Doodle with these minutes.**

#### 8. *Website and Web Service*

- 8.1. The website and web service are distinguished, where the website is for marketing and education, and the web service is for data access and product/service delivery.
- 8.2. FRML suggested establishing a relationship with the Coastal Thematic Exploitation Platform for a potential phase 3 when a full service and potentially forecasting capability can be matured.
- 8.3. **ACTION: ARGANS (Steve) Update the website and design the web service based upon the processor outputs. ARGANS to demonstrate a capability by 22 Dec and then update in order to present at MTR.**

#### 9. *Any Other Business*

- 9.1. There is further discussion about methods of product validation, it is explained that basic logical validation methods will be applicable to all sites and tested on the feasibility sites. (e.g beach width must be less than the spacing between shorelines).
- 9.2. Xavier gives a short presentation on ICESAT-2 as a potential source of data for validation.
- 9.3. There was discussion between Martin and Xavier about collecting auxiliary data for the Wexford area due its extraordinary tidal regime.

**10. If no comments/amendments are received by end of Dec, the minutes will be considered a true reflection and recorded.**

<b>Action Summary</b>			
<b>No</b>	<b>Who</b>	<b>What</b>	<b>when</b>
4.1	BGS (Andres)	Andres to contact the organizer of the conference to get information on the date, location and to obtain a slot to present. He will then send the details to the partners by 18 Dec 2019.	18/12/19
4.2	BGS (Andres)	Andres to write a marketing abstract of the URD based on the typology, then send it and/or the URD in confidence to different agencies (Academia, Industry etc.) to look for feedback and support. No deadline set, however Jara is working on a Spanish version (to be shared please). However, the 8th Symposium Monitoring of Mediterranean coastal areas Livorno Conference abstract and the Sentinel Success Story (yet to be published by ESA) are attached.	By 15/02/20
4.3	All User Gp	User group to list outreach events and stakeholder engagement activities during phase 1 and planned during first few months of phase 2 with date, venue, audience and outcome and send to Argans.	22/12/19
4.4	Arctus (Thomas)	Thomas to contact University to identify any cloud free commercial images that could be processed by the team on Arctus/Universities behalf so not breaching licencing. No Deadline needed ASAP.	ASAP
4.5	IsardSAT (Albert)	Albert to send example SAR waterlines to Argans to test within the shoreline processor.	17/12/19
4.6	ARGANS (Martin)	Rename to the pre-processing ATBD to Geolocation ATDB and increase the emphasis of geolocation limitations in the TSD abstract. <b>PMN – this has been completed. The TSD abstract and all reference to pre-processing has been replaced and supplemented.</b>	Complete
4.7	ARGANS (Anne-Laure) &	Argans/IsardSAT to build a draft product test list, as detailed as possible, based on the feasibility test sites data to accompany the PVP.	22/12/19

	IsardSAT (Albert)		
4.8	ARGHANS (Martin & Craig)	Martin and Craig to outline an agenda for the Workshop and MTR. This will be forwarded to partners for comment by 18 Dec 19. <b>PMN – draft proposal attached</b>	comments back by 18/12/19
4.9	ARGANS (Scott)	Organise a planning meeting and rehearsal for the MTR for 2 <sup>nd</sup> Week of Jan. Date will be requested via Doodle with these minutes.	Attached
4.10	ARGANS (Steve)	Update the website and design the web service based upon the processor outputs. Argans to demonstrate a capability by 22 Dec and then update in order to present at MTR.	22/12/19

## Draft Proposed Agenda for the MTR

7-9 Jan 2020 Final Workshop/MTR planning (Doodle poll a day and expect presentations to be drafted)

22 Jan Wednesday

### Midday arrive Sophia

1400 – 1800 final Workshop & MTR rehearsal

### 23 Jan Thursday WORKSHOP

- 1000-1100** URD process and development. **(lead by Andres)**  
**1100-1200** Regional issues across the 4 nations. **(lead by rep from Barcelona, SW England)**  
**1200-1300** Lunch  
**1300-1400** Regional issues across the 4 nations **(Continued) (lead by Wexford and St Laurant)**  
**1400-1500** Additional User Requirement discussions with the Govt and Academic partners. **(workshop chaired by FRML)**  
**1500-1700** Gap Analysis reading to feed the MTR **(Argans to lead)** ...this is about what we present the next day, ie ppt prep.

### 24 Jan Friday MTR

#### 0900-1200 Phase 1

- 0900-0920 Introduction & Summary of Activities **(Martin)**  
0920-1000 User Requirements ...the process **(Andres)** & URD...the output **(Andres)**  
1000 -1100 RBD...the translation **(ALB)**  
TSD **(ALB)**  
ATDBs especially Geolocation **(ALB)**  
1100-1120 Feasibility Study & Production **(Martin, Albert & Giovanni)**  
1120-1150 Verification, Validation, Evaluation **(Andres/FRML)**  
1150-1200 summary so far **(Martin)**

#### 1200-1230 Break

#### 1300-1400 Phase 2

- 1300-1330 Implementation & Production **(Martin, Albert & Giovanni)**  
Roadmap **(Martin)**  
1330-1400 Next steps Outreach **(Craig)**  
Conferences/website/web services

#### 1400-1500 Discussion/Decision (lead by Olivier)