Final Review, 23 September 2020

Zoom meeting

Anna Belehaki is inviting you to a scheduled Zoom meeting.

Topic: TechTIDE final review

Time: Sep 23, 2020 09:30 AM Brussels

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Agenda

Time (Brussels LT)	Topic	Presenter
0930 - 0945	Introduction by the PO and the reviewer	PO+expert
0945 ? 1000	Introduction ? tour de table	PO and all participants
1000 - 1030	Overview of the project, progress achieved (Deliverables and Milestone status)	Anna Belehaki
1030 ? 1100	WP1 Requirements analysis	Claudia Borries
1100 ? 1130	WP2 TID identification methodologies	David Altadill
1130 ? 1200	WP3 TID activity metrics	Dalia Buresova
1200 ? 1230	WP4 Warning system	Anna Belehaki
1230 ? 1300	BREAK	
1300 ? 1330	WP5 Assessment of the impact on aerospace and ground systems	Miguel Juan
1330 - 1400	WP6 Mitigation Technologies	Sergio Magdaleno
1400 ? 1430	WP7 Dissemination, exploitation and communication activities	Claudia Borries
1430 ? 1500	Project Management, Risks, Advisory Board feedback, KPIs and plans for the next period	Anna Belehaki
1500 ? 1530	Financial Reporting	Discussion with the EC Officers
1530 - 1545	BREAK	
1545 - 1615	Questions and Answers	All
1615 - 1645	Post-review	Closed meeting PO + expert
1645 - 1700	Report to project members	Expert + PO
1700	End of the meeting	

Participants

Name	Affiliation
Andrej Rozkov (AR)	EC (Project Officer)
Viviane Pierrard (VP)	BISA (Expert Reviewer)
Anna Belehaki (??)	???
Claudia Borries (CB)	DLR
David Altadill (DA)	OE
Dalia Buresova (DB)	IAP
Ioanna Tsagouri (IT)	NOA
Themistocles Herekakis (TH)	NOA
Estefania Blanch (EB)	OE
Miguel Juan (MJ)	UPC
Sergio Magdaleno (SM)	ESSP
Jens Toelle (JT)	GFP

Stefan Unger (SU)	GFP
Jens Mielich (JM)	L-IAP
Tobias Verhulst (TV)	RMI
Jurgen Watermann (JW)	JFW
Zama Katamzi-Joseph (ZK)	SANSA
Haris Haralambous (HH)	FU

Minutes

Introduction

The meeting started with brief introductory remarks by the expert evaluator Dr Viviane Pierrard: Significant progress has been demonstrated during the second reporting period. All the deliverables, which are numerous, have been submitted on time. During the meeting, the evaluator expressed the wish to receive clarification on the web site functionalities, on possibilities to provide the users with a quick view the general activity conditions, and on the plan for securing the sustainability of the web site.

AR commented that the sustainability is an important aspect because based on the Consortium Agreement signed by all parties, the TechTIDE partners have to disseminate the project results for 4 years after the end of the EU funding period, and REA will follow up.

Overview of the project, progress achieved (Deliverables and Milestone status)

AB presented an overview of the progress achieved and the status of deliverables and milestones. AR had no comment. He was in particular pleased with the clear exploitation plan.

VP commented the valuable approach to exploit the results of many different methods. She requested some additional information about the plans to secure funding for the operation of the warning system in the post EU project period. AB explained that the plan is to seek national funding, and some additional support from systematic users such as the European Space Agency who already expressed the interest to integrate parts of the TechTIDE services to the SSA Space Weather Portal. In addition, the consortium is active in the submission of new research proposal to the EC and to other agencies.

VP asked some additional information on the definition of the activity levels. AB explained that the activity levels have been calculated for each methodology based on the statistical analysis of results accumulated in the TechTIDE database since 2017 and their comparison to performance degradation data obtained by EGNOS, NRTK and HF systems. More results will be presented in the WP2 and WP5 presentations. At this point VP asked if there is a list of events with high TID activity. AB explained that such a list is developed for WP3 analysis and as more data are accumulated in the database, the consortium is planning to compile a list of events with high TID activity.

WP1 Requirements analysis

CB gave an overview talk on the work done in WP1 that had the objective to collect users? requirements and to feed the warning system specifications with new requirements in order to have at the end a system compliant with the users? needs.

VB asked if there was an evolution in the users? classification. CB clarified that the users? groups have been identified since the early stages of the project, i.e. EGNOS, NRTK, HD communications, HF geolocation, radio astronomers. However, within the course of the project different representatives from these groups have been approached and several of them attended the TechTIDE users? workshops.

WP2 TID identification methodologies

DA gave an overview talk on the work done in WP2, explaining how the methodologies have been improved and validated.

VP asked for additional clarifications about the reliability of each methodology. DA explained how the results from the different methodologies are crossed checked and confirmed considering also the TID drivers. AB explained that the ?Activity report? page in the warning system provides in a consistent way the results from all basic methodologies in a way that it is straightforward for the user to quickly check the overall conditions. VP agreed that this page provides a good overview and she proposed to the consortium to consider to provide the Activity Report in the Home Page, in a future development.

WP3 TID activity metrics

DB gave an overview talk on the work done in WP3, explaining how the drivers are specified, how the ionospheric background conditions are calculated and how the interhemispheric conditions are assessed. Finally, she explained how the activity levels are defined.

VP asked additional clarification about the geophysical conditions that lead to interhemispheric circulation of TIDs and about possible thresholds of the drivers (and especially of the Dst index) in order to observe TID activity. DB provided additional details based on the numerous events analyzed for the WP3 developments.

WP4 Warning system

AB gave an overview talk on the work done in WP4, explaining the various phases of the warning system development, focusing on the architecture and functionality of the final release.

VP asked what are the most downloaded products. AB replied that the downloads are monitored by the internal services and within the last 6 months the data show that the AATR and TEC gradients are the most downloaded indicators, whereas the perturbation of the electron density in respect to median conditions is a product with many downloads. More results from the system log files will be presented in WP8 (Project Management).

WP5 Assessment of the impact on aerospace and ground systems

[MJ gave an overview talk on the objectives and the methodology adopted to perform the work done in WP5. This general part was followed by a specific presentation on the impact on NRT systems (presented by MJ), on the impact on EGNOS (presented by SM) and on the impact on HF systems (presented by JT).]

VP asked about the reliability of the impact assessment and the possibility to issue false alarms. MJ explained that the reliability of the impact assessment relies on the network configuration and on the software used by the service provider and the user.

WP6 Mitigation Technologies

SM gave an overview talk on the objectives and the methodology adopted to perform the work done in WP6. This general part was followed by a specific presentation on the mitigation technologies developed for NRT systems (presented by MJ), for EGNOS (presented by SM) and for HF systems (presented by JT).

VP asked if the same mitigation techniques can be applied in other applications and if the strategy can be improved. SM explained that the mitigation methodology is ready, but some adjustments per application might be necessary.

WP7 Dissemination, exploitation and communication activities

CB gave an overview talk on the work done in WP7, for the dissemination of the project results to the academic and research domain, for the communication with stakeholders and the general public and for the exploitation of the project results towards the sustainability.

VP and AR found that the whole set of activities are in line with the EC principles and it is successfully implemented. VP recommended to add links to other EC projects in the same domain, in order to increase visibility.

Project Management, Risks, Advisory Board feedback, KPIs

AB presented how the project was managed, what were the contacts with the Advisory Board, what feedback was received, how the Key Performance Indicators were measured and what are the follow up plans.

AR proposed to have the tables on the KPI included in the progress report that will be uploaded in the EC web site, because they summarize in an excellent way the work done and the successful outcome of the project. AR also asked the coordinator to double check in Sigma if all the publications listed concern the TechTIDE project and add any new entries that are missing.

Financial Reporting

AB presented a preliminary information on the personnel costs charged by the partners for the whole project and per WP. She also presented preliminary information about the other direct costs. She explained that the final data are under processing by the financial departments of the participants and will be submitted within the next days. However because of the COVID-19 work restrictions, there may be a delay in the submission of the final report. AR agreed to allow a delay of 2 weeks, beyond the official deadline for the submission of the final report.

Several members of the consortium has cancelled tickets for their travel to Athens planned in April but cancelled because of the COVID-19 pandemic. AR advised those partners to claim the cancelled tickets explaining the actions taken to get a refund.

AR clarified that in this phase of the project there is no possibility to shift money from partner to partner.

Report to project members

AR gave his concluding remarks: TechTIDE is an example of a successful project. All the objectives are achieved. The results are clear. The dissemination and exploitation activities are impressive. The risks were considered very carefully during the course of the project and have been anticipated. It was his pleasure to follow this project and to work with the consortium and with the coordinator.

VP gave her concluding remarks: the work in TechTIDE was very professional. All the deliverables, which were numerous, were submitted on time. The project produced good science and new ideas emerged for new projects. The warning system is a useful tool for the users. The communication towards the public was good. There is a promising plan for the exploitation of the project results, including the maintenance of the web sites. The possibilities for commercialization through the ESA SSA give good prospects for the sustainability of the project.