Project Overview: S1-Vis

This document provides project related management tables to document the project structure and progress. It is subject to regular updates.

1 Document version

Table 1: Document version

Nr.	Date	Version	Altered chapters	Type of altering	Author
1	15.03.2022	1.0	all	Creation	Niklas Jaggy
2					
3					
4					
5					

2 Project information

Please provide important facts for your project, e.g. acronym, title, proposed period, principal investigator and contractor.

Table 2: Overall project information

Project				
Acronym	S1-Vis			
Title	A Google Earth Engine App for a Sentinel-1 based visual interpretation tool			
Period	Start:	01.03.2022	End:	30.06.2022
Principal investigator	Dr. Herrmann Klug,			
Contractor	University of Salzburg, Department of Geoinformatics (Z_GIS)			

3 Project Content and Project Goals

Table 3: Project Content and Project Goals

Content & Goals
Project description *(~100-150 words)*
This project aims at creating an interactive Google Earth Engine that allows to intuitively access radar imagery and visualizes it instantly. The user thereby selects an area and time-period of interest for which the data is collected and presented using RGB composites and split-panel views. The focus of the application is set on dwelling detection in crisis areas but can be extended towards other topics such as flood detection. Extended functionality such as thresholding images for retrieving classification masks or basic classification tasks are in planning.
Project purpose, benefits and target group description *(~100 words)*
The main purpose is to provide easy and intuitive access for non-radar experts to radar data and using it for information visualization and retrieval in humanitarian contexts. It aims at directly supporting humanitarian applications through data and information provision. Direct benefits are the exploitation of a complementary satellite data source for humanitarian actors in interactive application form and the generation of geospatial datasets.
Project objectives (please also include a listing of the sub-goals) *(~100 words)*

• Working Google Earth Engine App
• User friendly and intuitive app interface
  ○ Interactive
  ○ Meaningful buttons, labels and descriptions

Non-Goals
• Implementation of complex image classification routines • Accuracy assessment of results

4 Frame of the project

Table 4: Frame of the project – Part 1

Context
Up-to-date status *(~50-100 words)*
There is a lack of freely available applications that allow to utilize radar data in humanitarian contexts. This GEE app hope to contribute to filling this gap of software solutions. Major challenges will be on the coding side, meaning the development of the code logic that should result in a working app. It is assumed that the GEE platform is and remains available for now.
Project setting *(~50 Wörter)*
The official project kick-off is on 01.03.2022 with the first course session. Within the first 2-3 weeks, the project concept and its framework is developed before starting the app development phase. Important dates are the delivery of the final project product on 20.06.2022 and mid-term presentations on the project status in end of April.

Table 5: Frame of the project – Part 2

Time frame of the project			
Start:	01.03.2022	**End:**	30.06.2022
Important Dates			
1	01.03.2022	Kick-Off, First Session	
2	22.03.2022	Project Idea/Abstract presentation	
3	26.04.2022	Mid-Term Pecha Kucha presentation	
4	21.06.2022	Final Poster Presentation	
5	30.06.2022	Delivering of final product, Project closing	

5 Resources & Budget

Please provide information on the project lead and the project team. Please include information on name, role and qualification. Additionally provide information about the planned resources with regard to personal costs and other costs.

Table 6: Resources and Budget – Part 1

Project Team
Project Lead
Niklas Jaggy
Project Team
Niklas Jaggy

Table 7: Resources and Budget – Part 2

Resources
Personal costs
300 working hours
Project costs
300 working hours
Other Costs
-

6 Project structure, description and risk matrix

Please provide a description about your work plan (work breakdown structure) your work packages in tabular and graphical form.

6.1 Work packages overview

Table 8: Work packages overview

WP	Name of the Work Package	Time Frame [to – from]
1	Project Management	01.03.2022 – 30.06.2022
2	Program logic	20.03.2022 – 30.04.2022
3	App Design/UI design	20.03.2022 – 15.06.2022
4	App creation	01.06.2022 – 25.06.2022

6.2 Work Breakdown Structure (WBS)

Create a work breakdown structure for your work packages including the important tasks.

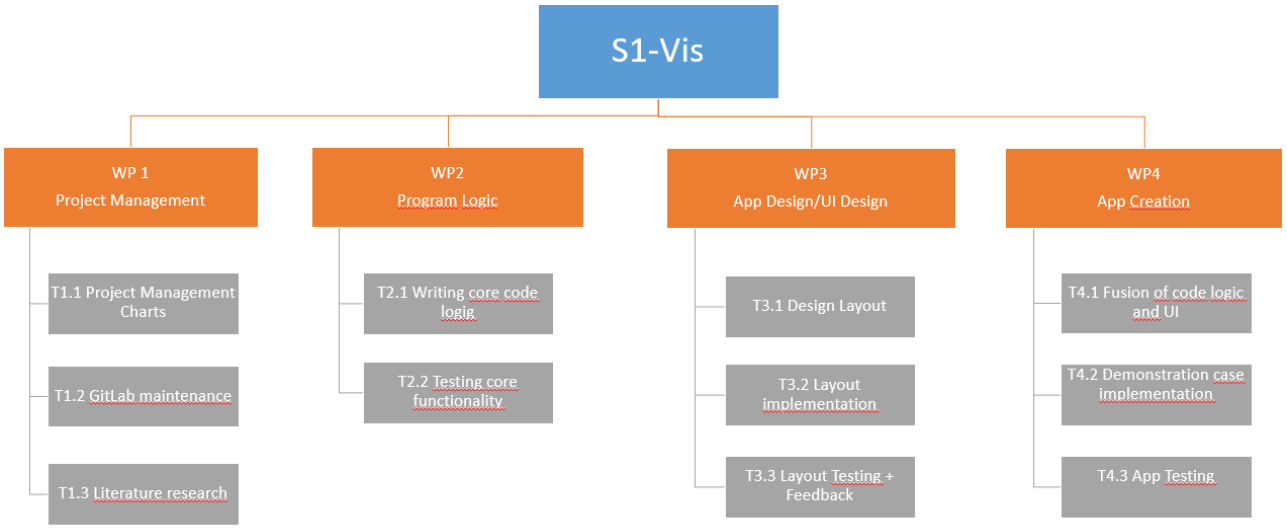


Figure 1 Work breakdown Structure

6.3 Detailed work plan

Please document the goals, content and expected results for each work package. Provide information on the planned approach and methods you want to apply as well as the expected results (including the planned milestones and deliverables). As a first work package please use 'project management'.

Table 9: Detailled Work Plan – WP1

WP 1	Project management	Duration	01.03.2022 – 30.06.2022
Project Lead	**Project team**		
Niklas Jaggy	Niklas Jaggy		

Objectives
Continuous project management for successful completing the project
Content & Tasks
• Creating and updating essential project management charts • Set up and maintaining GitLab project
Expected results
• Supporting charts and overviews on project status and progress • GitLab repository for documentation and results
Milestones & Deliverables
M1 Kick-Off M2 Project Concept Presentation D1 Projectmanagement Charts (Gantt Chart, PERT Chart, Risk Matrix, Time Sheet) D2 GitLab project

Table 10: Detailled Work Plan – WP2

WP 2	Program Logic	Duration	20.03.2022 – 30.04.2022
Project Lead		**Project team**	
Niklas Jaggy		Niklas Jaggy	
Objectives			
Writing the core functionality of the app			
Content & Tasks			
• Implement the core routines necessary for making the app work • Testing each part			
Expected results			
• Java Script code that implements the app functionality			
Milestones & Deliverables			
M3 Code delivery D3 Ready-to-implement code			

Table 11: Detailled Work Plan – WP3

WP 3	App Design/UI Design	Duration	20.03.2022 – 15.06.2022
Project Lead		**Project team**	
Niklas Jaggy		Niklas Jaggy	
Objectives			
To design an user interface that is intuitive and easy to navigate but allows to exploit the entire code functionality			

Content & Tasks
• Making Design concepts • Translating design concepts into script
Expected results
• App design code ready for integration with the core code
Milestones & Deliverables
M4 Design delivery D4 Working layout code

Table 12: Detailled Work Plan – WP4

WP 4	App creation	Duration	01.06.2022 – 25.06.2022
Project Lead		**Project team**	
Niklas Jaggy		Niklas Jaggy	
Objectives			
Merge code logic and UI design into a working app			
Content & Tasks			
• Integrating the previously created core code logic and UI code into a single script • Deploy app			
Expected results			
• Working GEE app ready for use			
Milestones & Deliverables			
M5 Product delivery D5 Final working app			

6.4 Milestone plan

Please provide a summary of the planned milestones and provide an according overview graphic.

Table 12: Milestone plan

MS	Name	Date Completion
M1	Kick-Off	01.03.2022
M2	Project Concept Presentation	22.03.2022
M3	Code delivery	30.04.2022
M4	Design delivery	31.05.2022
M5	Product delivery	30.06.2022

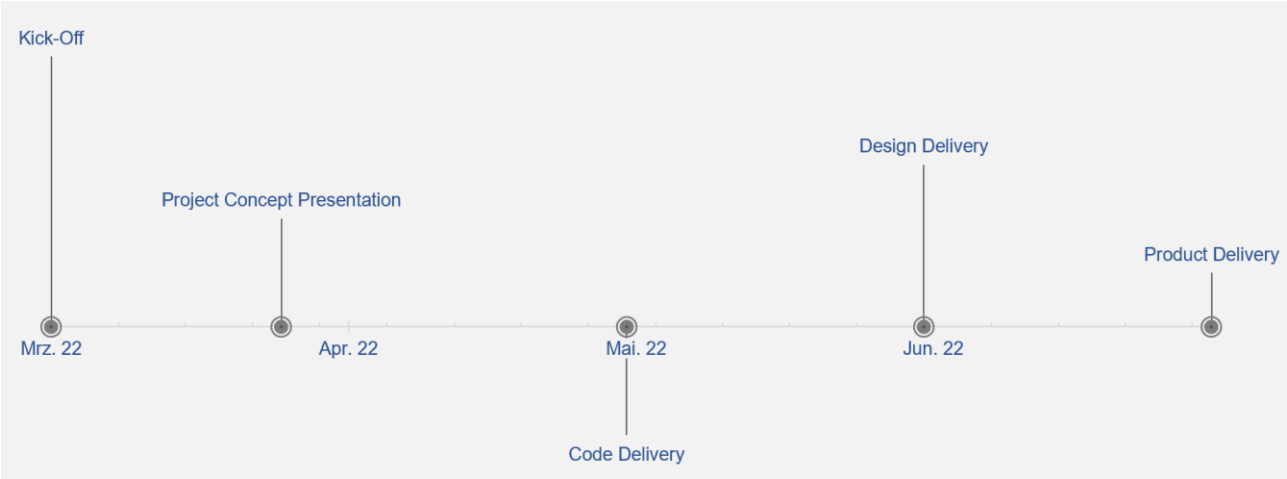


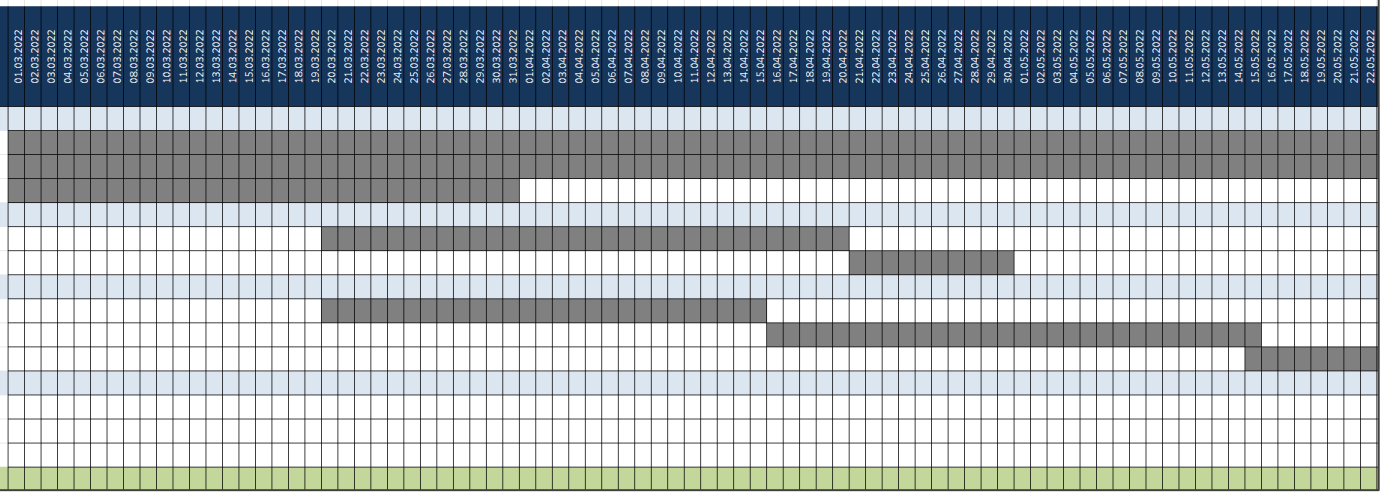
Figure 2 Milestones

6.5 Gantt Chart

Table 13: Milestone plan

Project Name	S1-Vis
Project Manager	Niklas Jaggy
Project Deliverable	GEE Application
Start Date	01.03.2022
End Date	30.06.2022
Overall Progress	5%

Tasks	Responsible	Start	End	Days	Status
WP 1 Project Management					
1.1 Time Sheet, Diagrams	Niklas J.	01.03.2022	30.06.2022	121	In progress
1.2 GitLab maintenance	Niklas J.	01.03.2022	30.06.2022	121	In progress
1.3 Literature Research	Niklas J.	01.03.2022	31.03.2022	30	In progress
WP 2 Program Logic					
2.1 Writing sceleton code logic	Niklas J.	20.03.2022	20.04.2022	31	Not started
2.2 Testing core functionality	Niklas J.	20.04.2022	30.04.2022	10	Not started
WP 3 App Design/UI design					
3.1 Design layout	Niklas J.	20.03.2022	15.04.2022	26	Not started
3.2 Layout implementation	Niklas J.	16.04.2022	15.05.2022	29	Not started
3.3. Layout testing/feedback	Niklas J.	15.05.2022	15.06.2022	31	Not started
WP 4 App creation					
4.1 Combining program logic + UI design	Niklas J.	01.06.2022	20.06.2022	19	Not started
4.2 Example implementation	Niklas J.	10.06.2020	20.06.2022	740	Not started
4.3 App Testing	Niklas J.	01.06.2022	25.06.2022	24	Not started
Launch		30.06.2022	30.06.2022		



6.6 Risk Matrix

Table 14: Risk matrix

No	Risk	Potential adverse impact	Risk level*	Risk management strategy	Responsibility
1	Google shutting down the Earth Engine Platform	Complete restructuring of project necessary	L	No options on level of individual GEE user available	-
2	Limited programming skills for complex logic	Reducing complexity (=quality) of project	M	Personal training, expert advise	Niklas Jaggy
3	Limited usability of app interface	Reducing value of output product	L	Continuous evaluation of intermediate products	Niklas Jaggy

7 Additional comments

Add additional comments if necessary.

Table 15: Additional comments

Comments

8 Approval

Please provide further information if necessary.

Table 16: Approval

Freigabe			
Date:	dd.mm.yyyy	**Date:**	20.03.2022
Signature principal investigator		Signature project lead/contractor	

9 Attachments

Attachment 1: Gantt chart (biweekly updated).