

Project Name	Building Information Extractor
Online team meeting	https://tu-berlin.zoom.us/j/67365570181?pwd=RXpnY2xleEYvU3JpR3JzSDZFMk01dz09
Online Team Meeting (Backup)	https://discord.gg/X4QMDpgtUR
Production system (if any)	http://prod.amos.b-ci.de/
Test system (if any)	http://test.amos.b-ci.de/
GitHub repository	GitHub - amosproj/amos2024ss04-building-information-enhancer
GitHub feature board	https://github.com/orgs/amosproj/projects/42
GitHub impediments backlog	https://github.com/orgs/amosproj/projects/50
Team T-shirt (white)	https://www.shirtinator.de/s/Qc61l_GoQwObnqsmHY2MpA
Team T-shirt (black)	https://www.shirtinator.de/s/AHGxY1zzT2m-AUhx2lc7Lw
Team T-shirt (black) (women)	https://www.shirtinator.de/s/sjwwt0GtTzGzfjSxn424ig
Additional materials	
Google Drive (notes, files, etc.)	https://drive.google.com/drive/folders/1DAyzaqwj5ID_YVzNBUgNE0JOCaUorzO_?usp=drive_link
Team mailing list	oss-amos-proj4@lists.fau.de
Quick links	
Happiness Index Tool	Happiness Index Tool Link (Project specific)
Capabilities Timeline	Capabilities Timeline (by Week)
Capabilities Timeline Explained	Capabilities Timeline Explained
Main AMOS Document	AMOS #22 - Organisation [Public]

Last Name	First Name	GitHub User Name	Email Address
Balitzki	Emil	Corgam	emil.balitzki@gmail.com
Bandel	Nicolas	nicolasbandel	nicolas.bandel@fau.de
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Yakovenko	Tetiana	dancingsushii	tetiana.yakovenko@campus.tu-berlin.de
Khan	Muhammad Ahsan	Ahsankkhan	ahsan.m.khan@fau.de
Dropped Out			
Sivaci	Bartu	-	-

#	Meeting Day	Product Owners	Software Developer	Release Manager	Scrum Master	Comment
1	2024-04-17	Pfeil, Oliver & Yakovenko, Tetiana	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
2	2024-04-24	Pfeil, Oliver & Yakovenko, Tetiana	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
3	2024-05-01	Pfeil, Oliver & Yakovenko, Tetiana	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
4	2024-05-08	Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
5	2024-05-15	Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
6	2024-05-22	Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
7	2024-05-29	Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	Mid-term due
8	2024-06-05	Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
9	2024-06-12	Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
10	2024-06-19	Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
11	2024-06-26	Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
12	2024-07-03	Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
13	2024-07-10	Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	
14	2024-07-17	Pfeil, Oliver [Orga] & Yakovenko, Tetiana [Notes]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	Demo day!
15	2024-07-24	Pfeil, Oliver [Notes] & Yakovenko, Tetiana [Orga]	Emil, Nicolas, Leon, Muhammad Ahsan, Lucas & Celine	Emil Balitzki	Erik Fischer	Retrospective
Product owners, software developers, and Scrum Master are set and ideally don't change over time; the critical part is the Release Manager role you need to define here						

Goals	<ul style="list-style-type: none"> - Collect relevant experiences! - Meet core requirements of the industry partner! - Produce something viable und usable we can be proud of! - Have fun!
Meeting norms	<ul style="list-style-type: none"> - Be on time. - Notify early if it's not possible to join. - Camera on and feedback will be given "loud" (no quiet "lecture"). - All questions are okay (there are no stupid questions). - Communicate clearly, try to avoid ambiguities. - Don't be rude. - Weekly team meetings are mandatory for each team member.
Working norms	<ul style="list-style-type: none"> - Stick to your (your co-coder) task, do not interfere with others tasks. - Tell as early as possible when encountering problems. - No late night work expected, focus on consistency. - Asking for help is fine. - Code should be readable and clear. - Code style should be uniform.
Coordination norms	<ul style="list-style-type: none"> - Roles in the Team Structure should be fixed and only change if really necessary (not randomly). - All team meetings should follow agreed meeting structure and timing. - Task Responsibilities should be assigned clearly for every week with feedback when it is done.
Communication norms	<ul style="list-style-type: none"> - Communication attempts should be answered within 2 days (eg. "Let's schedule a meeting on x"). - General, weekly comunication via Discord, Critical Communication via Phone (WhatsApp, SMS). - First name basis is default. - When ill, notify as early as possible, other team members should replace missing's person roles for a specific meeting.
Consideration norms	<ul style="list-style-type: none"> - General approach with problems is to talk directly, then in more general team meetings. If they are still not solvable, they will be escalated to the professor. - Side-conversations are appropriate if they are not necessary for others. General information should be communicated via Discord and/or in the general team meetings. - Disagreements which are not solvable by discussions will be decided by majority vote.
Cont. improvement norms	<ul style="list-style-type: none"> - Pull requests require review from another person. Keep the main branch clean. - Tracking individual and team progress via boards and weekly sprints, - Feedback should be considered necessary, relevant and as a way to improve for everyone - not as an insult.
Rewards	<ul style="list-style-type: none"> - Team party at the end of the project. - Small celebrations during online meetings.

Sanctions	- No in-team sanctions, but persistent problems may be escalated to the professor if not solvable.
Signatures	
Scrum Master	Erik Fischer
Product owner	Tetiana Yakovenko
Product owner	Oliver Pfeil
Software developer	Lucas Nandico
Software developer	Emil Balitzki
Software developer	Muhammad Ahsan Khan
Software developer	Nicolas Bandel
Software developer	Celine Pöhl
Software developer	Leon Holtmeier

Product Vision	Project Mission
<p>The BCI Building Information Enhancer is a platform for personal building owners or professionals to access information about a specific address (or region). This information can be used for a variety of applications, from sustainability certifications for buildings over calculating the solar power potential up to aiding in district planning. The BCI building information enhancer offers significant benefits for various stakeholders in the property market.</p>	<p>The team agreed to create an MVP for the BCI Building Information Enhancer, the core functionality will be displaying data from a fixed number of sources, including satellite images, charging stations and data needed for sustainability certification. Our goal is to build a practical tool that can grow with our users' needs.</p>

[illegible]

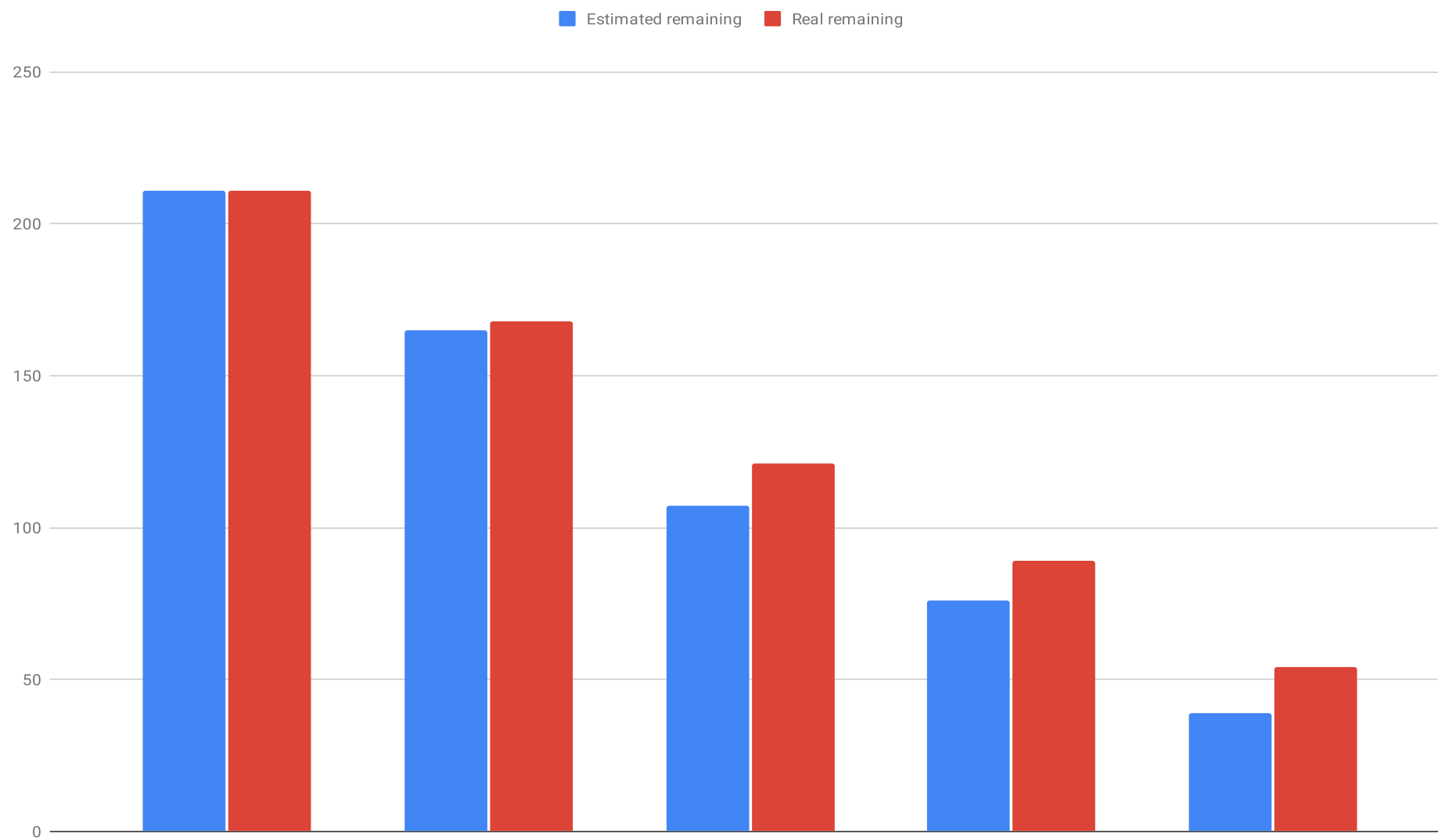
Sprint #	Sprint goal
1	Getting familiar with the requirements
2	Setting up the infrastructure and first steps
3	Agreed upon backend infrastructure and ingest one dataset for one UI view
4	Finalising the PoC defined in the previous sprint
5	Getting closer to specific cases: ecological calculator and solar potential of a building
6	Fixing bugs and polishing before mid-project release
7	Getting feasible backend and develop further API endpoints
8	Redesign data lake
9	
10	
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15	

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
Release						
Total			211	211	189	189
Sprints						
1	Getting familiar with the requirements		0	211	0	211
2	Setting up the infrastructure and first steps		46	211	43	211
3	Agree upon backend infrastructure and ingest one dataset for one UI view		58	165	47	168
4	Finalising the PoC defined in the previous sprint		31	107	32	121
5	Getting closer to specific cases: ecological calculator and solar potential of a building		37	76	35	89
6	Fixing bugs and polishing before mid-project release		39	39	32	54
7	Getting feasible backend and develop further API endpoints					
8	Redesign data lake					
9						
10						
11						
12						
13						
Features						
1	Getting familiar with the requirements	No features/commits	0		0	
2	Setting up the infrastructure and first steps	Request Deutsche Bahn dataset	1		1	
		Ingest Data [1]	3		2	
		Ingest Data [2]	3		3	
		Ingest data [3]	3		3	
		Documentation - BE technology	1		1	
		Research on how should data pipeline work	1		1	
		Create FE Concept	3		5	
		Documentation - CI/CD technology	1		1	
		Get Backend container running	2		2	
		Get FE container running	2		2	
		Initialize Github Wiki	1		1	
		Setup deployment pipeline/branches	3		3	
		Research on FE RestAPI requirements	3		2	
		Documentation - FE technology	1		1	
		Research Github Actions constraints	2		2	
		Setup basic React + NodeJS frontend	2		1	
		Automate workflow with github action	3		3	
		Technology Research (Map APIs)	3		3	

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
3	Agree upon backend infrastructure and ingest one dataset for one UI view	API project docker file	3		3	
		Create boilerplate API project	5		3	
		Create multimap view component	3		3	
		Create basic layout for main UI interface	2		1	
		Create basic data view component	3		3	
		Tag sprint candidate	2		2	
		Simplify .env file	1		0	
		Create video recording and documentation about build process	2		1	
		Automate workflow with GitHub Actions	3		3	
		Design Data Pipeline CLI Application	3		3	
		Develop YAML Parser	5		2	
		Develop CSV parser	5		5	
		Dockefile for data pipeline	3		3	
		Configure database connection	3		3	
		Dockerfile for database	3		5	
		Create generic pop-up container	1		1	
		Technology Research (Map APIs)	3		1	
		Create pop-up with favourites	2		2	
		Create map component from OSM	3		3	
		Create 3d view component	5			
		Row mapping/filtering	3		3	
		Design Data Pipeline CLI Application	3		3	
4	Finalising the PoC defined in the previous sprint	Row mapping/filtering	3		3	
		Create 3d view component	5			
		Implement search by coordinate	3		3	
		FE filtering changes data entries	1		1	
		Compose and finish the UI of the FE	3		5	
		Fix pinning of the tabs going crazy after deleting some tabs	1		1	
		Decide on API endpoints - to have one hour meeting	5		5	
		Add discard_if_empty attribute to yaml.	2		2	
		Crash on special character	1		1	
		Allow building of BE projects with command line	2		3	
5	Getting closer to specific cases: ecological calculator and solar potential of a building	Create endpoint to request datapoints for am area	5		8	
		Research and protoypr on Geospatial Database	5		5	
		Implement shapefile data importer for database integration	5		5	
		Implementation of a unified search interface	2		3	

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
		Irrelevant search results for query "1" in DataView	2		1	
		Make padding displaying correctly	1		1	
		Reset input fields when switching search modes	1		1	
		Persistent input in search popup	1		1	
		Enhance search suggestion relevancy	2		1	
		Rework the datasets tab, add metadata for datasets and main menu	2		2	
		Fix connection between FE and BE	5		5	
		Create build proces video and upload to Deliverables folder	2		2	
		Add support for satellite image in map	2		2	
		Allow default values in data description yaml	2		1	
		Data pipelin crashes while used in docker container	5		5	
6	Fixing bugs and polishing before mid-project release	Extend API Endpoints for Hausumringe	3		3	
		Create 3d view component	5			
		Map interaction from search	2		2	
		Change map controll button visibility	1		1	
		Clean Up data view	3		5	
		Trigger Data view only on button press	1		1	
		Display Hausumringe in FE	3			
		FE boundary for Germany	2			
		FE centering map on Germany	1		1	
		Improve display of markers for zoomed out maps	3		3	
		Improve Satellite view perfomance and visualization	2		2	
		Add linting and testing to backend	5		5	
		Add option to drop existing table in data pipeline	2		2	
		Extend data pipeline to handle zip files	3		5	
		Extend YAML handling to shapefiles	3		2	

Burn-Down Chart



Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining	
Release							
Total			211	211	189	189	
Sprints							
1	Getting familiar with the requirements		0	211	0	211	
2	Setting up the infrastructure and first steps		46	211	189	211	
3	Agree upon backend infrastructure and ingest one dataset for one UI view		58	165	0	22	
4	Finalising the PoC defined in the previous sprint		31	107	0	22	
5	Getting closer to specific cases: ecological calculator and solar potential of a building		37	76	0	22	
6	Fixing bugs and polishing before mid-project release		39	39	0	22	
7	Getting feasible backend and develop further API endpoints						
8	Redesign data lake						
9	Ingesting further dataset: natural hazards						
10	Energy consumption is displayed in the platform						
11	Polishing big picture						
12	Four datasets are ingested						
13	Last dataset and final outro						
Features							
1	Getting familiar with the requirements	No features/commits	0		0		
2	Setting up the infrastructure and first steps	Request Deutsche Bahn dataset	1		1		
		Ingest Data [1]	3		2		
		Ingest Data [2]	3		3		
		Ingest data [3]	3		3		
		Documentation - BE technology	1		1		
		Research on how should data pipeline work	1		1		
		Create FE Concept	3		5		
		Documentation - CI/CD technology	1		1		
		Get Backend container running	2		2		
		Get FE container running	2		2		
		Initialize Github Wiki	1		1		
		Setup deployment pipeline/branches	3		3		
		Research on FE RestAPI requirements	3		2		
		Documentation - FE technology	1		1		
		Research Github Actions constraints	2		2		
		Setup basic React + NodeJS frontend	2		1		
		Automate workflow with github action	3		3		
		Technology Research (Map APIs)	3		3		

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining	
3	Agree upon backend infrastructure and ingest one dataset for one UI view	API project docker file	3		3		
		Create boilerplate API project	5		3		
		Create multimap view component	3		3		
		Create basic layout for main UI interface	2		1		
		Create basic data view component	3		3		
		Tag sprint candidate	2		2		
		Simplify .env file	1		0		
		Create video recording and documentation about build process	2		1		
		Automate workflow with GitHub Actions	3		3		
		Design Data Pipeline CLI Application	3		3		
		Develop YAML Parser	5		2		
		Develop CSV parser	5		5		
		Dockefile for data pipeline	3		3		
		Configure database connection	3		3		
		Dockerfile for database	3		5		
		Create generic pop-up container	1		1		
		Technology Research (Map APIs)	3		1		
		Create pop-up with favourites	2		2		
		Create map component from OSM	3		3		
		Create 3d view component	5				
		Row mapping/filtering	3		3		
		Design Data Pipeline CLI Application	3		3		
4	Finalising the PoC defined in the previous sprint	Row mapping/filtering	3		3		
		Create 3d view component	5				
		Implement search by coordinate	3		3		
		FE filtering changes data entries	1		1		
		Compose and finish the UI of the FE	3		5		
		Fix pinning of the tabs going crazy after deleting some tabs	1		1		
		Decide on API endpoints - to have one hour meeting	5		5		
		Add discard_if_empty attribute to yaml.	2		2		
		Crash on special character	1		1		
		Allow building of BE projects with command line	2		3		
		Create endpoint to request datapoints for am area	5		8		
5	Getting closer to specific cases: ecological calculator and solar potential of a building	Research and protoypr on Geospatial Database	5		5		
		Implement shapefile data importer for database integration	5		5		
		Implementation of a unified search interface	2		3		
		Irrelevant search results for query "1" in DataView	2		1		
		Make padding displaying correctly	1		1		
		Reset input fields when switching search modes	1		1		

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining	
		Persistent input in search popup	1		1		
		Enhance search suggestion relevancy	2		1		
		Rework the datasets tab, add metadata for datasets and main menu	2		2		
		Fix connection between FE and BE	5		5		
		Create build proces video and upload to Deliverables folder	2		2		
		Add support for satellite image in map	2		2		
		Allow default values in data description yaml	2		1		
		Data pipelin crashes while used in docker container	5		5		
6	Fixing bugs and polishing before mid-project release	Extend API Endpoints for Hausumringe	3		3		
		Create 3d view component	5				
		Map interaction from search	2		2		
		Change map controll button visibility	1		1		
		Clean Up data view	3		5		
		Trigger Data view only on button press	1		1		
		Display Hausumringe in FE	3				
		FE boundary for Germany	2				
		FE centering map on Germany	1		1		
		Improve display of markers for zoomed out maps	3		3		
		Improve Satellite view perfomance and visualization	2		2		
		Add linting and testing to backend	5		5		
		Add option to drop existing table in data pipeline	2		2		
		Extend data pipeline to handle zip files	3		5		
		Extend YAML handling to shapefiles	3		2		
7	Getting feasible backend and develop further API endpoints	Extend layer select control	2				
		Create 3d view component					
		Implement clustering mechanism and define endpoint for clustered data	5				
		Code documentation					
		Code cleanup	2				
		Create API endpoint for single location	3				
		Fetch Hausumringe API	2				
		Storing additional docker images for local deployment	2				
		Create script to run datapipeline for each dataset upon deployment	1				
		Clean up data pipeline	2				
		Display Hausumringe in FE	3				
		FE boundary for Germany	2				
		Polishing Frontend	5				
		Search bar improvements	2				
		Extend API Endpoints for Tatsächliche Nutzung (actual use)	3				

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining	
		Fix the error while building data pipeline	3				
		Refactor FE for new API endpoints	2				
		Add argument to data pipeline to overwrite if_table_exists option	1				
		Ensure pin doesn't switch tabs	1				
		FE search and display polygon for specific region	3				
		Functionality to hide data view panel	2				
		The titles in the data view sections should be bold text	1				
8	Redesign data lake	Integrate third dataset with backend services					
		Develop unified data handling interface in backend					
		Optimize frontend to dynamically display multiple datasets					
		Implement responsive filtering mechanisms for data layers					
		Design and implement cross-dataset analysis tools					
9	Ingesting further dataset: natural hazards	Ingest natural hazards data into data lake					
		Develop API endpoints for natural hazards information retrieval					
		Create visualization tools for natural hazards on map view					
		Prepare documentation on handling natural hazard data					
10	Energy consumption is displayed in the platform	Develop energy consumption visualization interface					
		Integrate real-time energy data feeds					
		Create comparative analysis tools for energy usage					
		Design energy optimization recommendations system					
		Perform load testing on energy data processing					
		Document energy data sourcing and processing methods					
11	Polishing big picture	Refine user interface design for clarity and accessibility					
		Enhance data synchronization across all modules					
		Optimize backend for faster data retrieval					
		Prepare comprehensive end-user documentation					
12	Four datasets are ingested	Verify integrity and accuracy of all ingested data					
		Enhance data export and reporting features					
		Optimize data storage and retrieval mechanisms					
13	Last dataset and final outro	Ingest final dataset and ensure compatibility					
		Finalize all API integrations and endpoint documentations					
		Conduct final performance tuning across the platform					
		Release the final version of the platform					

[illegible]

[illegible]

#	Context	Name	Version	License	Comment
1	CI/CD	Docker - build scripts	26.0.0	MIT	Docker framework and tools used to build and publish container images
3	CI/CD	Node.js	>= 20.12.2	MIT	Free, open-source, cross-platform JavaScript runtime environment, here used for the npm tool.
2	Frontend	npm:typescript	5.4.5	Apache-2.0	TypeScript is a superset of JavaScript that compiles to clean JavaScript output.
3	Frontend	npm:react	18.3.0	MIT	The library for web and native user interfaces.
4	Frontend	npm:eslint	8.57.0	MIT	Find and fix problems in your JavaScript code.
5	Frontend	npm:react-dom	18.3.0	MIT	The library for web and native user interfaces.
7	Frontend	npm:vite	5.2.10	MIT	Frontend tooling for easier frontend development
8	Frontend	npm:acorn	8.11.3	MIT	JavaScript-based JavaScript parser
9	Backend	dotnet-docker	6.0	MIT	.NET is a general purpose development platform maintained by Microsoft and the .NET community on GitHub. This also includes all dotnet docker containers used for the Backend.
10	Backend	nuget:MySQL.Data	8.0.23	-	Connector/NET is a fully-managed ADO.NET driver for MySQL.
11	Backend	nuget:Swashbuckle.AspNetCore	5.6.3	MIT	Swagger tools for documenting API's built on ASP. NET Core
12	Data processing	nuget:Microsoft.Data.SqlClient	3.0.1	MIT	Microsoft.Data.SqlClient provides database connectivity to SQL Server for .NET applications.
Software bill of materials(generated from Github):		https://drive.google.com/file/d/1CPA89OGH_Cr0poRdWhUKLSSHIUuKb8Fm/view?usp=sharing			

Last Name	First Name	Value					
Balitzki	Emil	3		1.67	NOK		
Bandel	Nicolas	1					
Fischer	Erik						
Holtmeier	Leon						
Nandico	Lucas	1		0	No size		
Pfeil	Oliver			1	Trivial size		
Pöhl	Celine			2	Small size		
Khan	Muhammad Ahsan			3	Medium size		
Yakovenko	Tetiana			5	Large size		
				8	Very large size		
				13	Too large (size)		
How to play planning poker							
1. Everyone type their number into their value field, don't hit return yet							
2. Someone, perhaps a product owner, count down 3.. 2.. 1..							
3. Then, everyone hit return to submit their value							