| Project Name | Carbon Footprint Visualization |
|-------------------------------|---|
| | |
| Production system (if any) | |
| Test system (if any) | |
| | |
| GitHub repository | https://github.com/amosproj/amos-ss2021-carbon-footprint |
| GitHub kanban board (project) | https://github.com/amosproj/amos-ss2021-carbon-footprint/projects/1 |
| | |
| Team T-shirt (black) | https://www.shirtinator.de/loadBasket/gawEFWZioZC |
| | |
| Zoom-Meeting | https://fau.zoom.us/j/64835513630 |
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| Last Name | First Name | GitHub User Name | Email Address |
|------------------|------------|-------------------|---------------------------|
| Anand | Mani | manifau | mani.anand@fau.de |
| Dürsch | Martin | MartinDuersch | martin.duersch@fau.de |
| Gandomkar | Parham | gandompm | parham.gandomkar@fau.de |
| Oelhaf | Julian | ScoutAtlas | julian.oelhaf@fau.de |
| Olyaee | Ehsan | Olyaee | ehsan.olyaee@fau.de |
| Scheiderer | Michael | MichaelScheiderer | michael.scheiderer@fau.de |
| Toroslu | Irem | IremToroslu | irem.toroslu@fau.de |
| Varanasi | Sai Varun | SaiVarunVaranasi | varun.sai.varanasi@fau.de |
| Wagner | Martin | Waldleufer | martin.wagner@fau.de |
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| Goals | Experience Agile/Scrum |
|-------------------------|---|
| | Achieve our defined project mission |
| | Develop software that is able to visualize the carbon footprint of some machinery / production environments (scenario) under different circumstances (calculations) |
| | Design a valuable product with functions that the user really uses |
| Meeting norms | Inform the others if you can't attend |
| | Everyone shows up on-time |
| | We do not interrupt each other |
| | Attend all of the meetings |
| Working norms | Everyone contributes regularly |
| | We value quality over quantity |
| | Lines of comments (well documented) > Lines of Code |
| | Recommendation: Visual Studio Code |
| | Testing/Verification (Unit Testing) |
| Coordination norms | Scrum tools |
| | People choose what they want to work on, unwanted work gets split up over all team members equally. (managed by Scrum Master) |
| | Put everything non code related to the google drive folder |
| | Every job has a responsible person |
| Communication norms | Email for important things |
| | GitHub for Code related things |
| | Slack for organizational and product related discussions |
| | Protocol of the Meeting (in google drive, like a summary) - writing meeting minutes - documenting decisions |
| | We check Email at least once a workday |
| Consideration norms | All important decisions made in the team meeting |
| | Possibility of a emergency meeting with at least 1 PO, 2 SD |
| | We discuss disagreement openly |
| | We vote for a final resolution |
| Cont. improvement norms | Using the kanban system to track the teams progress |
| | Using the continuous demo releases to track the improvement of our system |
| Rewards | To celebrate the achievement of a goal we will meet for a beer (or maybe a cocktail) if possible in person otherwise online |
| Sanctions | You must raise clear violations of the team contract |
| | We apologize by writing a 4 line poem about how one will improve themself (and the meaning of life) and share it with the team! |

| # | Meeting Day | Comment | Coach | Product Owner | Software Developer | Scrum Master | Release Manager |
|----|-------------|---------------|-------|--------------------|--------------------|--|-----------------|
| 1 | 2021-04-14 | | Yes | Olyaee, Scheiderer | Everyone else | (Varanasi) | (Anand) |
| 2 | 2021-04-21 | | Yes | Olyaee, Scheiderer | Everyone else | Varanasi | Dürsch |
| 3 | 2021-04-28 | | | Olyaee | Everyone else | Scheiderer | Gandomkar |
| 4 | 2021-05-05 | | Yes | Olyaee | Everyone else | Scheiderer | Oelhaf |
| 5 | 2021-05-12 | | | Scheiderer | Everyone else | Olyaee | Toroslu |
| 6 | 2021-05-19 | | Yes | Scheiderer | Everyone else | Olyaee | Varanasi |
| 7 | 2021-05-26 | Mid-term due | Yes | Olyaee, Scheiderer | Everyone else | Wagner | Wagner |
| 8 | 2021-06-02 | | | Olyaee, Scheiderer | Everyone else | Wagner | Anand |
| 9 | 2021-06-09 | | | Olyaee, Scheiderer | Everyone else | Anand | Dürsch |
| 10 | 2021-06-16 | | Yes | Olyaee, Scheiderer | Everyone else | Anand | Gandomkar |
| 11 | 2021-06-23 | | | Olyaee, Scheiderer | Everyone else | Gandomkar | Oelhaf |
| 12 | 2021-06-30 | | | Olyaee, Scheiderer | Everyone else | Gandomkar | Toroslu |
| 13 | 2021-07-07 | | Yes | Olyaee, Scheiderer | Everyone else | Toroslu | Varanasi |
| 14 | 2021-07-14 | Demo day! | | Olyaee, Scheiderer | Everyone else | Toroslu | Wagner |
| 15 | 2021-07-21 | Retrospective | | Olyaee, Scheiderer | Everyone else | N/A | N/A |
| | | | | | | | |
| | | | | | | (Assignments refer to start date / start sprint) | |

Product Vision

The vision of this project is to create a (web) application to visualize, compare and analyze the impacts such as global warming, ozone layer depletion, acidification, etc that come from the production, use, and end-of-life of a product or service. We aim to set the highest standards for environmental protection in the industry and urge business partners to share this ambition and cooperate with both customers and suppliers to strive for continual improvement. We calculate the carbon footprint and help our customers to understand the impacts and risks associated with it and offer alternatives.

To present those numbers effectively, they need to be visualized. This is where the "Carbon Footprint Visualization" comes in. Salesman can use the visualization to directly show the customers the impact a product has on the environment and how the impact could be reduced with another version. For example, we could possibly convince customers to invest in something that reduces CO2 emissions, which maybe is more expensive now but will payout in the long run by slowing down global warming.

Project Mission

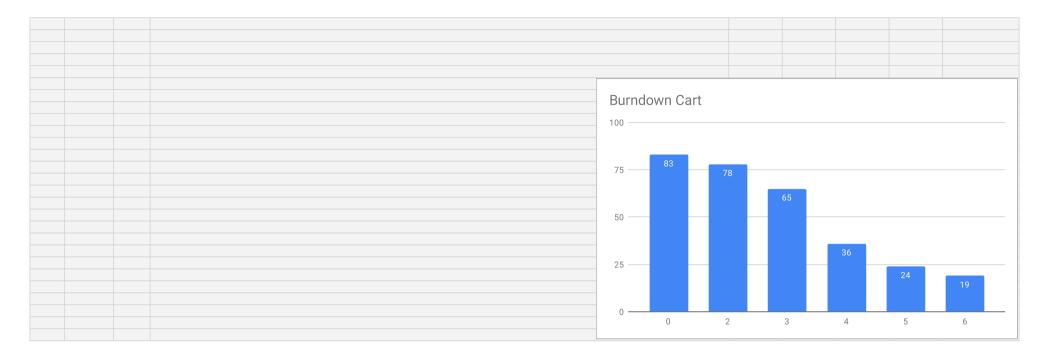
We pursue ambitious goals with regard to resource efficiency and environmental protection, and hence create long-term value by treating people and the environment in a responsible manner. The main objective of our environmental work is to prevent pollution and continually reduce the environmental impact of our activities in order to protect the environment for future generations.

To meet these objectives, we will maintain and further develop a culture in which reducing the environmental impact over each product's life cycle is an integral part of our daily work practices.

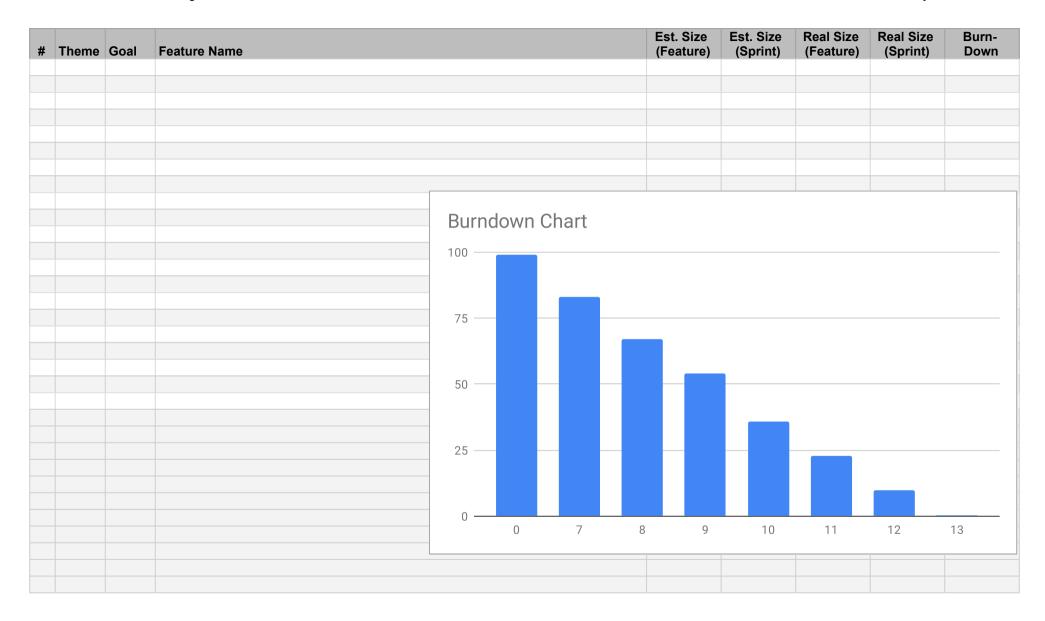
| Term | Definition |
|-------------------|---|
| Project | Synonym for projects created by Siemens Energy experts at SimaPro |
| Product | Synonym for the products available in Siemens Energy projects. For example, gas turbine or transformer |
| Model | Synonym for available models of a product. For example, a 3-phase GSU transformer. All the models are modeled by SimaPro. Detailed information of a model could be found at canvas section in SimaPro |
| Baseline scenario | Baseline scenario of a product with a default value for its variables |
| Scenario | The scenario created by changing default values of a model |
| Canvas | A window in which a scenario of a product is visualized |
| | |
| SimaPro Canvas | A canvas in which a SimaPro model is visualized. its different than the canvas in Carbon Footprint project |
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AMOS SS2021 - Team 8 - Planning Document

| # | Theme | Goal | Feature Name | Est. Size (Feature) | Est. Size (Sprint) | Real Size (Feature) | Real Size (Sprint) | Burn- Down |
|---|-------------|----------|---|---------------------|-----------------------|------------------------|-----------------------|------------|
| 0 | | | | | | | | 83 |
| 2 | Basic Use | | | | | | 5 | 78 |
| | | Deliver | first increment with basic User Interface Design | _ | | _ | | |
| _ | | | Basic UI Design | 5 | | 5 | | |
| 3 | Visualizati | | | | 10 | | 13 | 65 |
| | | Deliver | increment with initial backend setup and basic navigation | _ | | | | |
| | | | React.js initial setup | 5 | | 8 | | |
| _ | 0: D 4 | NDI 0 11 | Navigate through different Categories and display the corresponding Products (and their Models) as a List (No real Data, only dummy list) | 5 | | 5 | 00 | 20 |
| 4 | SimaPro A | | er Interface | | 29 | | 29 | 36 |
| | | Deliver | increment with improved navigation, initial canvas and visualization | 0 | | 0 | | |
| | | | Receive data from SimaPro API | 8 | | 8 | | |
| | | | See the overview of products in a grid | 8 | | 8 | | |
| | | | Select a model and set canvas up | 5 | | 5 | | |
| _ | | | Visualize a scenario | 8 | | 8 | | |
| 5 | Restructu | | | | 12 | | 12 | 24 |
| | | Deliver | Increment with uniform Interface and first comparison method | | | | | |
| | | | Restructure GitHub branches and folder structure | 2 | | 2 | | |
| | | | Uniform User Interface | 5 | | 5 | | |
| | | | Add second canvas | 5 | | 5 | | |
| 6 | Real Data | | | | 8 | | 5 | 19 |
| | | Deliver | Increment with compatibility to different screen sizes | | | | | |
| | | | Compatibility with different screen sizes (especially mobile devices) | 8 | | 5 | | |
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| # | Theme | Goal | Feature Name | Est. Size (Feature) | Est. Size (Sprint) | Real Size (Feature) | Real Size (Sprint) | Burn- Down |
|----|---|----------|--|---|-----------------------|------------------------|-----------------------|---------------|
| 0 | | | | (* ************************************ | (0) | , | (0):() | 99 |
| 7 | Real Da | ata & Lo | ginscreen | | 11 | | 16 | 83 |
| | | | | | | | | |
| | | | Loginscreen | 3 | | 3 | | |
| | | | Integrate data from SimaPro into the User Interface | 8 | | 13 | | |
| 8 | Integrate data from SimaPro into the User Interface Export & Real Data Deliver Increment with export function & real data integration into graphs Export graphs as PDF Integrate data from SimaPro into the graphs "Dashboard"-Page Deliver Increment with a good looking "Dashboard"-Page "Dashboard"-Page Recently Viewed Items Search Products/Models Deliver Increment with an easy way to find the searched Product Product Search Product Filter Favorite Products/Scenarios | | | | | | 67 | |
| | | Delive | r Increment with export function & real data integration into graphs | | 16 | | | |
| | | | | 8 | | | | |
| | | | Integrate data from SimaPro into the graphs | 8 | | | | |
| 9 | "Dashb | oard"-F | Page | | 13 | | | 54 |
| | | Delive | r Increment with a good looking "Dashboard"-Page | | | | | |
| | | | "Dashboard"-Page | | | | | |
| | | | | | | | | |
| 10 | Search | Produc | ts/Models | | 18 | | | 36 |
| | | Delive | r Increment with an easy way to find the searched Product | | | | | |
| | | | Product Search | | | | | |
| | | | Product Filter | | | | | |
| | | | Favorite Products/Scenarios | | | | | |
| 11 | World-n | nap sel | ection | | 13 | | | 23 |
| | | Delive | r Increment with a way to select model location using a world map | | | | | |
| | | | Filter Models based on location | | | | | |
| | | | Find Models of a specific location by pressing on the world map | | | | | |
| 12 | "Get sta | | | | | | | 10 |
| | | Delive | r Increment which assits first time user | | 13 | | | |
| | | | Present most important features | | | | | |
| | | | Explain how to use the features | | | | | |
| 13 | Takeov | er prepa | aration | | 10 | | | 0 |
| | | Prepar | re the project to be overtaken by Siemens Indian SD Team | | | | | |
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AMOS SS2021 - Team 8 - Planning Document Definition of Done

| # | Feature Definition of Done | Sprint Release Definition of Done | Project Release Definition of Done |
|---|--|--|--|
| | Documentation for that feature is done | No severe bugs open | No severe bugs open |
| | Feature branch has been merged | Implemented features are distributed to every branch | User manual is available |
| | Code has been reviewed by at least one other team member | 100% unit tests passed | Documentation has been peer reviewed |
| | Unit tests are written | Code is in a clean state | On the final project release: additional documentation has been added to unfinished features |
| | | Prettier extension is applied to all code files | |
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| Туре | Link / reference |
|--|---|
| Software Build and Deployment Document | https://github.com/amosproj/amos-ss2021-carbon-footprint/blob/main/README.md |
| User Documentation | https://github.com/amosproj/amos-ss2021-carbon-footprint/wiki/User-Documentation |
| Technical Documentation | https://github.com/amosproj/amos-ss2021-carbon-footprint/wiki/Technical-Documentation |
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AMOS SS2021 - Team 8 - Planning Document Impediments Backlog

| Sprint | Status | Source | Impediment | Resolution |
|--------|----------|-------------------|---|--|
| 4 | Resolved | Industry Partner | Connection/motivation from the industry partner with SDs missing | Industry Partners join next team meeting (05-12) |
| 4 | Resolved | Industry Partner | Unclear requirements from the industry partners (technologies) | Weekly meetings with their SDs from India |
| 5 | Resolved | Team | Too many SDs assigned for the same tasks | Improve communication (One person responsible for issue, you need to communicate with this person if you want to work on the issue) |
| 5 | Resolved | SDs | Commits are too large | Split large commits in few smaller commits |
| 5 | Resolved | SDs | Libraries not been added to BOM and in the Readme file | Add to team contract |
| 6 | In-work | SDs | No enough mutual understanding of each other's code | -At least one person have to review the code -Assign two people to each issue for pair programming -Rotate partners |
| 7 | In-work | Industry Partner | Dev team from the industry partner showing up late or not at all to negotiated meetings. | We try to put our industry partner in cc, whenever contacting the Dev team, and try to do more communication via email. |
| 7 | In-work | Team | Mysterious Martins (Not everyone showed up to the meetings with image data) | Pictures will be provided after receival of the Team T-Shirts. |
| 7 | Resolved | SDs / Source Code | There is a lot of noise in the commits, as still some frontend files are not yet prettified. | Prettier has been applied to all frontend code files. Team members that did not use prettier yet has been offered a helping hand in setup. |
| 7 | Resolved | SDs | A lot of work went into the backend, and we now found out that it might be replaced in the end. | This situation will not directly affect grading, as agile Methods are being graded. So the team should just focus on frontend tasks at hand. |
| 8 | In-work | Team | "Lets meet for a beer or something in July" | A doodle for this meeting will be created at some point in June. |
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AMOS SS2021 - Team 8 - Planning Document

Bill of Materials

| # Context | | Name | Version | License | Comment |
|-------------------|-----------------|-----------------------|---------|---------|---|
| 1 Frontend Fran | nework | React.js | 16.13.1 | MIT | |
| 2 Frontend Fran | nework | react-admin-dashboard | 2.0.0 | MIT | https://github.com/llorentegerman/react-admin-dashboard/tree/v2-0-0 |
| 3 Frontend Fran | nework | react-hook-form | 7.5.2 | MIT | https://www.npmjs.com/package/react-hook-form |
| 4 Frontend Fran | nework | react-jss | 10.6.0 | MIT | https://www.npmjs.com/package/react-jss |
| 5 Frontend Fran | nework | react-router-dom | 5.2.0 | MIT | https://www.npmjs.com/package/react-router-dom |
| 6 Frontend Fran | nework | simple-flexbox | 2.3.2 | MIT | https://www.npmjs.com/package/simple-flexbox |
| 7 Frontend Fran | nework | react-grid-system | 7.1.2 | MIT | https://www.npmjs.com/package/react-grid-system |
| 8 Frontend Fran | nework | react-apexcharts | 1.3.9 | MIT | https://www.npmjs.com/package/react-apexcharts |
| 9 Backend: Fran | mework | .NET 5 | 5.0.0 | MIT | |
| 10 Backend: Pac | kage | AspNetCore.Proxy | 4.2.0 | MIT | https://www.nuget.org/packages/AspNetCore.Proxy/ |
| 11 Backend: Pac | kage | Newtonsoft.Json | 13.0.1 | MIT | https://www.nuget.org/packages/Newtonsoft.Json/ |
| 12 Frontend Fran | nework | w3.css | 4.15.0 | MIT | https://www.w3schools.com/w3css/ |
| 13 Static Code ar | nalysis | CodeQL | | MIT | Github tool |
| 14 PDF Generato | or | jsPDF | 2.3.1 | MIT | https://www.npmjs.com/package/jspdf |
| 15 Frontend-Back | kend Connection | axios | 0.21.1 | MIT | https://www.npmjs.com/package/axios |
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| Last Name | First Name | Value | | | |
|-----------|------------|-------|-------|-------------------|--|
| Anand | Mani | | TUIVI | TUIVI | |
| Gandomkar | Parham | | 0! | 0! | |
| Oelhaf | Julian | | O: | U: | |
| Toroslu | Irem | | | | |
| Varanasi | Sai Varun | | 0 | No effort | |
| Wagner | Martin | | 1 | Minimal effort | |
| Dürsch | Martin | | 2 | Small effort | |
| | | | 3 | Medium effort | |
| | | | 5 | Large effort | |
| | | | 8 | Very large effort | |
| | | | 13 | Too large effort | |
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