Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Administrativia		
This Doc	http://goo.gl/IbzSsa	
Live Service	http://osr-amos.cs.fau.de/	
Code repository	https://github.com/Jather90/AMOS_proj5	
Industry Partner Meetings	09.04.2014	General Requirements and Expectations: http://goo.gl/hyQLo1
	23.04.2014	Requirements Simulation: http://goo.gl/2bA7RL
	07.05.2014	Updated Requirements and Expectations: http://goo.gl/V87qSH
	21.05.2014	Updated Requirements regarding Energy-Analysis
	11.06.2014	Updated Requirements regarding Energy-Analysis and Planning
	18.06.2014	Software demonstration
	02.07.2014	Software demonstration
Example		
http://goo.gl/FRfym		

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Vision
The Green Energy Cockpit is a Web-Service that offers the analysis, planning, controlling and simulation of a company's energy consumption. It therefore provides managers on the one hand as well as employees with a user-friendly UI and enables them to analyse, plan, control and simulate the needed energy of their production processes according to different parameters in a well-arranged way, without having to know detailed technical background.
Our vision is to create a product that is easily understandable and user friendly, and allows customization in the analysis with an attractive UI. We want to provide a clear tool that is intuitive to use and therefore eases energy controlling in production firms for managers and employees.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Glossary	
Term	**Definition**
Analysis	In the green Energy Cockpit analysis enables the user to analyze the energy consumption of the company's machines according to different parameters. It is one view that can be picked on the starting site in the green Energy Cockpit
Bookmarks	Can be either browser bookmarks or booksmarks directly integrated in the website and the user's account. Both with the same functionality: saving a previous report's filters/paramaters
Default Report	A report that can be ran only with the presetted default values, without any modification.
Energy	In the Green Energy Cockpit, energy refers to the energy consumption of the producing plant. The energy is continously tracked by several energy meters attached to the producing machines and saved into a database.
Energy Cockpit	In reference to a cockpit's dashboard: A structured way to display different kinds of data for Energy consumption, forecasting and planning.
Forecast	In the green Energy Cockpit forecast offers the user to plan energy consumption in the future, to compare actual and planned energy consumption and the automatic adaption of the planned energy consumption to the actual consumption. It's one view that can be picked on the starting site in the green Energy Cockpit
Format	Used as synonym for product.
Parameter	In the Energy-Analysis and Energy-Forecast a parameter is an adjustable setting in order to execute the analysis/ forecast according to the factors WHERE/ WHEN/ WHAT FOR
Product	The different shapes of sizes of the produced limestones are called products.
Simulation	In the green Energy Cockpit simulation can be used as the foundation for the future energy planning and the forecast. The simulation allows the specific adjustment of different machines and product in the production. It is included in the Forecast view.
TNF	Thousand normal format
User	A user is the default role in the Energy Cockpit.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool
Release Plan

Release	1
No Sprints	7
Due Date	14.05.14

Sprint #	Theme	User Stories	Est. Size	Burn-Down	Real Size	Dev Speed
0				88		
1	Basic Visitor Self-Admin	1, 2, 3, 4, 5	11	77	13	13
2	Redesign & Database Integration	7, 8	4	73	4	9
3	Database development	18, 19, 20, 21	18	55	17	11
4	Energy Analysis	10, 16, 22, 25	14	41	14	12
5	Energy Analysis	29, 36	13	28	13	12
6	Energy Analysis	34, 35, 37	14	14	11	12
7	Energy Analysis	39, 40, 41, 42	14	0	12	12
Total			**88**		**84**	

Release	2
No Sprints	6
Due Date	29.05.2014

Sprint #	Theme	User Stories	Est. Size	Burn-Down	Real Size	Dev Speed
				81		
8	Energy Analysis & Energy Planning	53	13	68	8	274
9	Energy Analysis & Energy Planning	48, 51, 52, 55	13	55	13	133
10	Energy Analysis & Energy Planning	56, 57	13	42	16	84
11	Energy Planning & Forecast	49, 50, 43, 58, 44	16	26	19	59
12	Energy Forecast & Energy Simulation	59, 45, 46	15	11	15	44

13	Energy Analysis, Planning & Forecast + Documentation	24, 60, 61	11	0		34
Total			**81**		**71**	
~~Release~~	~~2~~					
~~No Sprints~~	~~6~~					
~~Due Date~~	~~29.05.2014~~					
~~Sprint #~~	~~Theme~~	~~User Stories~~	~~Est. Size~~	~~Burn-Down~~	~~Real Size~~	~~Dev Speed~~
				~~91~~		
~~8~~	~~Energy Analysis & Energy Planning~~	~~53~~	~~13~~	~~78~~	~~8~~	~~132~~
~~9~~	~~Energy Analysis & Energy Planning~~	~~48, 51, 52, 55~~	~~13~~	~~65~~	~~13~~	~~62~~
~~10~~	~~Energy Analysis & Energy Planning~~	~~56, 57~~	~~13~~	~~52~~	~~16~~	~~37~~
~~11~~	~~Energy Planning & Forecast~~	~~49, 50, 43, 58, 44~~	~~16~~	~~36~~		~~24~~
~~12~~	~~Energy Forecast & Energy Simulation~~	~~45, 46, 28~~	~~21~~	~~15~~		~~19~~
~~13~~	~~Energy Simulation & Forecast~~	~~30, 32, 31~~	~~15~~	~~0~~		~~16~~
~~Total~~			~~91~~		~~37~~	
~~Sprint #~~	~~Theme~~	~~User Stories~~	~~Est. Size~~	~~Burn-Down~~	~~Real Size~~	~~Dev Speed~~
				~~97~~		
~~8~~	~~Energy Analysis & Energy Planning~~	~~53~~	~~13~~	~~84~~	~~8~~	~~58~~
~~9~~	~~Energy Analysis & Energy Planning~~	~~48, 51, 52, 55~~	~~13~~	~~71~~	~~13~~	~~25~~

10	Energy Analysis & Energy Planning	56, 57, 49, 50	21	50		12
11	Energy Planning & Forecast	43, 44, 45	16	34		9
12	Energy Forecast & Energy Simulation	46, 28, 30	18	16		7
13	Energy Simulation & Forecast	32, 31, 33	16	0		6
Total			**97**		**21**	
Release	2					
No Sprints	6					
Due Date	29.05.2014					
Sprint #	**Theme**	**User Stories**	**Est. Size**	**Burn-Down**	**Real Size**	**Dev Speed**
				84		
8	Energy Analysis & Energy Planning	53	13	71	8	16
9	Energy Analysis & Energy Planning	48, 51, 52, 55	13	58		4
10	Energy Planning	43, 49, 50	13	45		3
11	Energy Planning & Forecast	44, 45, 46	16	29		2
12	Energy Forecast & Energy Simulation	28, 30	13	16		2
13	Energy Simulation & Forecast	32, 31, 33	16	0		1
Total			**84**		**8**	
Release	2					
No Sprints	6					
Due Date	29.05.2014					
Sprint #	**Theme**	**User Stories**	**Est. Size**	**Burn-Down**	**Real Size**	**Dev Speed**
				87		
8	Energy Analysis & Energy Planning	51, 52, 53, 54	13	74		0

9	Energy Planning	48, 49, 50	16	58		0
10	Energy Planning & Forecast	43, 44, 45	16	42		0
11	Energy Forecast	46, 28	13	29		0
12	Energy Simulation	30, 32	13	16		0
13	Energy Simulation & Nice-To-Haves	31, 33, 23, 24	16	0		0
Total			**87**		**0**	

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Backlog							
#	Effort	Category	Short Name	Item Description	Acceptance Criteria		
30	5	Energy-Simulation	Machine Selection	As a logged- in user, I can choose between different machines (via dropdown) for the energy simulation to simulate and compare the energy usage for different machines of my production. The simulation algorithm needs this for the later calculation of the energy consumption.	After selecting the machine for simulation, the wanted machine is selected		
32	5	Energy-Simulation	Simulation Algorithm	As a logged-in user, I can choose to display a simulation according to the selected machines and products to simulate my future energy consumption, to plan the future use of machines and products and to compare the differentiation of energy consumption by the use of different machines. By comparing the different solutions/machine settings, the user can identify the most efficient one and setup the plant like this.	After selecting the simulation function the simulation according to the selected parameters a simulation will be displayed in a diagram.		

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Backlog							
#	Effort	Category	Short Name	Item Description	Acceptance Criteria		
31	5	Energy-Simulation	Product Selection	As a logged- in user, I can choose between different products (via dropdown) for the energy simulation to simulate and compare the energy usage of different products in the production. The simulation algorithm needs this for the later calculation of the energy consumption.	After selecting the product for simulation, the wanted machine is selected		
33	5	Energy - Forecast	Simulation Inclusion	As a logged-in user, I can include the simulation results in the Energy-Forecast to base my forecast of future energy consumption on the simulation results and not just on my own assumptions. This makes the forecast more precise and helps to plan future energy consumption better.	After choosing the inclusion of the simulation in the forecast the forecast with the simulation resulst will be displayed in a diagram.		
23	3	Energy-Analysis	Default reports	As a logged-in user, I can select default reports for the given data to see a preselected report without any modification/ customization. This could be i.e. a query for a certain machine which needs to be done regularly by many users, and therefore saves time.	After selecting a default report, the data is displayed according to the report.		

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Backlog							
#	Effort	Category	Short Name	Item Description	Acceptance Criteria		
17	8	Energy-Analysis	Diagram annotations	As a logged-in user, I can choose to display the diagrams with detailed data to see the detailed outcomes of my report. For this, there should be an implementation of several settings like displaying percentage, changing colors, titles, etc. This makes the Energy Analysis a lot more informative and structured.	After selecting the detailed view, all results will be displayed in the chosen diagram type annotated with the necessary data.		
13	8	Energy-Analysis	Parameter Drag & Drop	As a logged-in user, in the Analysis function, I can drag + drop the desired parameters into a field in the desired order to determine the required parameters for my request. This has the same functionality as user story 34, but is more convenient to use.	The different parameters can be dragged + dropped in the desired field. After dropping them, the parameters are selected for the analysis.		
6	5	Visitor Self-Admin	Password-Change	As a logged-in user, I can change my password i.e. for security reasons.	After changing my password, my new password is registered.		

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Backlog							
#	Effort	Category	Short Name	Item Description	Acceptance Criteria		
~~28~~	~~5~~	~~Energy-Forecast~~	~~Forecast-Algorithm~~	~~As a logged-in user, I can choose to display a forecast according to the selected parameters (described in User Story 27) by hitting the "Submit" button. The calculation should be an easy arithmetic average of the selected data. The calculated data can be used to compare the planned and actual energy consumption.~~	~~After selecting the forecast function and hitting the "Submit" button the forecast according to the selected parameters a forecast will be displayed.~~		
~~5~~		~~UI~~	~~Product Query Button~~	~~As a logged-in user, I can select product as a parameter (dropdown that changes according to the required machine, I can check the required product in the dropdown) in order to query energy consumption according to the required product. This feature enables me to get specific information about the energy consumption of a certain product.~~	~~I can select the products according to the determined products within the dropdown. The correct data will be displayed.~~		

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Backlog							
#	Effort	Category	Short Name	Item Description	Acceptance Criteria		
~~26~~		~~Energy-Forecast~~	~~Entering and saving target values~~	~~As a logged-in user I can enter estimated target energy values (in kWh) for a certain plant (dropdown) via a free text field. This must be done monthly for the whole year in advance. This data must be stored in the database. This data is needed for the Energy forecast/simulation in order to compare it with the actual energy consumption.~~	~~After entering, the target energy values will be saved to the database as target values.~~		
~~14~~		~~Energy-Analysis~~	~~Filter parameter values~~	~~As a logged-in user, after setting the parameters (time/ place/ product), I can filter for more detailed results via a dropdown menu according to my needs.~~	~~The chosen data changes according to the filtered parameters.~~		
~~9~~	~~8~~	~~Database~~	~~Dummy-DB~~	~~In order to start designing the web service a data dummybase needs to be created~~	~~A dummy database according to the Business Partners' requirements is created.~~		
~~11~~		~~Extract, Transform, Load~~	~~ETL~~	~~As a logged-in user, I can preview the transformed data in a database view.~~	~~After selecting the right parameters, the database can be previewed in a seperate view.~~		
~~12~~		~~Energy-Analysis~~	~~Parameter selection~~	~~As a logged-in user, I can choose from a range of different parameters to use for the analysis (WHERE, WHEN, WHAT FOR)~~	~~The analysis runs according to the preselected data.~~		

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Backlog							
#	Effort	Category	Short Name	Item Description	Acceptance Criteria		
~~15~~		~~Energy-Analysis~~	~~Result View~~	~~As a logged-in user, I can see the results of the analysis in a table view.~~	~~After running the anaylsis, the results are displayed in the way preselected by "Parameter Selection", "Drag & Drop" and "Filter"~~		
~~27~~		~~Energy-Forecast~~	~~Forecast-Parameters~~	~~As a logged-in user, I can select the parameters (time interval) and values that should be used by the forecasting-algorithm in order to define and change the paramters that I want to be considered by the forecast algorithm. This helps to tailor the forecast algorithm to the user's requirements. This can be necessary, if the conditions in the production site have changed significantly in the past and older data is not relevant anymore.~~	~~After selecting the forecast function I can select the different parameters/values for the forecast.~~		

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Product Backlog							
#	Effort	Category	Short Name	Item Description	Acceptance Criteria		
~~54~~	~~2~~	~~3~~	~~Energy Planning~~	~~Parameters and plain table view~~	~~As a logged-in user, I can select the parameters for the Energy Planning Tab. I can chose from the following parameters: 1. Reference year (data my planning should be based on; only completeley available years are disyplayed for selection // others are greyed out) 2. Factory location (Checkboxes + select all; as in the Energy Analysis) This shows an empty table with cells for 12 months and all products in the chosen factory. The data will be calculated in a later user story (see user story 48) By selecting the parameters, I can tailor the planning to my needs and so I can adapt it to the realities of the factories I want to analyse.~~	~~TBA~~	~~When Selecting the Energy Tab, three different areas are displayed where I can select the three different parameters. Only the available years should be displayed.~~

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Sprint Backlog							
#	Rel.	Effort	Category	Short Name	Item Description	Resp.	Acceptance Criteria
24	2	3	Energy-Analysis	Report bookmarks	As a logged-in user, I can save a combination of filters and parameters so I don't have to define the parameters of my favourite reports everytime I use the tool. This saves time and makes future usage more convenient.	Sven	After selecting a bookmark, a new report with the bookmarked parameters and filters is displayed.
60	2	5	Energy-Forecast	TNF to kWH calculation	As a logged-in user, I get the results of the energy forecast displayed in kWh instead of TNF. This is a lot more useful than just the TNF calculation because it consideres the individual energy consumption of the individual formats of stone.	Sven	After running the forecast for the next year, the future energy consumption is forecsted instead of the future material output.
61	2	3	Energy-Planning	Load/Save Bugfix	As a logged-in user, I am able to save and load the planned parameters without error message. While this does not affect the load/save functionality, it still confuses the user. This bugfix will helpt to increase the usability of the energy plannning.	Jakob, Dimi	When saving/loading previously planned meterial energy consumption, I will not see any error message and the values are saved/loaded.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Feature Archive									
#	Rel.	Sprint	Est. Effort	Real Effort	Category	Short Name	Item Description	Resp.	Acceptance Criteria
1	1	1	2	3	Visitor Self-Admin	Website Skeleton	As a guest, I can visit the website, when I enter the URL.	Sven	After visiting the website I will get an empty page and no error.
2	1	1	2	2	Visitor Self-Admin	Layout	As a guest, I can navigate through the website easily .	Sven	The website has an intuitive layout/design and an unexperienced user can navigate through it without any problems.
3	1	1	3	2	Visitor Self-Admin	Register	As a guest, I can register on the site, to become a user and get access to user functionality	Jakob	After registration, my newly created account is available right away and I can login
4	1	1	3	5	Visitor Self-Admin	Login	As a guest, I can login using my user account to get access to user functionality	Dimi	After logging in, I have access to user functionality
5	1	1	1	1	Visitor Self-Admin	Logout	As a logged-in user, I can logout to free up the computer for some other person	Dimi	After logging out, I have loose access and can only regain it by logging in again
7	1	2	3	3	UI	UI-Redesign	The homepage needs to be graphcally redesigned.	Jakob	The homepage's design is improved.
8	1	2	1	1	UI	UI logic adaptation	The new graphical design needs to be merged with the logic.	Sven	The homepage's new design is merged with the logic.
18	1	3	5	5	Database	Creation Dummy-DB	As a user, I can select an empty database for the different functions of the website.	Dimi	In the different functions of the website, there is a first Database selectable (no data).
19	1	3	3	2	Database	Filling DB with data	As a developer, I can upload data in .csv/.xls(x) format into the database.	Dimi	After filling the database, the relevant data will be in the database.
20	1	3	5	5	Energy-Analysis	DB-Query	As a user I can query data according to a filter from the database.	Sven	After the query, data will be filtered according to the filter.
21	1	3	5	5	Energy-Analysis	Table View Display	As a user I can display the queried data in a table view.	Jakob	After choosing the "Table View Display" function, the data will be displayed in a table view.
22	1	4	5	5	Energy-Analysis	Bar Chart Display	As a user I can display the queried data in a bar chart.	Jakob Sven	After choosing the "Bar Chart Display" function, the data will be displayed in a bar chart.
25	1	4	5	5	Energy-Analysis	Report download	As a logged-in user, I can download the results of the report.	Dimi	After selecting the download function, the results of the report will be downloaded.
10	1	4	1	1	Navigation	Choose functionality	As a logged-in user, I can pick from the different functions of the cockpit.	Sven	After clicking the desired function's button I am forwarded to the correct subpage.
16	1	4	3	3	Energy-Analysis	Additional Diagram Display	As a logged-in user, I can choose to display the results of the analysis in different diagrams.	Jakob Sven	After selecting the desired diagram type, the results of the anaylsis are displayed in the chosen diagram type.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Feature Archive									
#	Rel.	Sprint	Est. Effort	Real Effort	Category	Short Name	Item Description	Resp.	Acceptance Criteria
36	1	5	5	5	Database	Runinng the query	As a logged-in user, I can run the query by hitting the "Submit" button. The parameters selected in User Story 34 are then used by the website in order to create a database query. Furthermore the granularity described in User Story 36 is considered.	Sven	After hitting the "Submit" button, the results of the query according to the selected parameters and granularity are displayed in a diagram/table.
29	1	5	8	8	Energy-Analysis	Import	As a logged-in user, I can import CSV Data over an HTML-mask in a database using an import button to use the CSV file as a base for the report. The CSV file needs to be structured as the running database.	Dimi	After selecting the import function the data is loaded into the database.
35	1	6	3 (in Rel. 5) 3 additior	4	UI	Granularity Buttons	As a logged-user, I can select the granularity of the query before submitting it to customize the reports according to my needs (sometime I might need a very high level report, and sometimes I might need a more detailed report when further analysing the high level report). By doing this, I can i.e. display the results not in Energy/month but rather in Energy/day, etc. For this feature, there should be only the granularity for time implemented. --> also machine selection	Jakob, Dimi	I can select the granularity of the query according to my needs (time: year, month, day). The granularity is then used fpor the query and the result is displayed accordingly.
34	1	6	5 (in Rel. 5) 3 additior	7	UI	Time Query Button	As a logged-in user, I can select time as a parameter (dropdown offers year, month, day) in order to query energy consumption according to time. This feature enables me to get detailed information about the energy consumption over a sepecific time interval. --> Also machine selection	Jakob, Dimi	I can select the time interval (dropdown, from to, year, month, day) I need for the query according to my needs. The correct data will be displayed.
37	1	6	8	8	UI	Machine Query Button	As a logged-in user, I can select machine as a parameter (dropdown that changes according to the required factory, I can check the required machines in the dropdown) in order to query energy consumption according to the required machine. This feature enables me to get specific information about the energy consumption of a certain machine in the factory. This feature should be implemented with a dynamic box, that slides down and opens all the options, when clicked on it. In a later feature, this should help to fill multiple queries within the same browser window. Each query can then represent an own data-set.	Sven, Dimi	I can select the machines according to the determined factory within the dropdown. The correct data will be displayed.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Feature Archive									
#	Rel.	Sprint	Est. Effort	Real Effort	Category	Short Name	Item Description	Resp.	Acceptance Criteria
39	1	7	1	1	Energy Analysis	Choosing Diagram Type	As a logged-in user I can choose the type of diagram (Time/Place, Place/ Product, Product/ Place, via a dropdown list) I want to be queried. I can choose between different options, and according to the selected option I can define different parameters afterwards (see User Story...). This selection is the basis of my diagram and defines the x-axis and the y-axis in my later diagram.	Sven, Dimi	I can choose between the different diagram types via a dropwdown list. After selecting the diagram type the following parameters are shown according to my choice (every choice has different following parameters). The according static parameters are set as well.
40	1	7	5	5	Energy Analysis	Time/Place Diagram	As a logged-in user I can choose the granularity (years, year, month, day) and the requested time interval of my time request via a dropdown list. Depending on the granularity the results will either be displayed as a bar (month, year, years) or as a line chart (day). Moreover I can choose the granularity of the regarded factories and machines (via checkbox) in order to display the results in different granularities regarding time and places. This User Story is a modification of the User Stories 34 and 35, requested by our industry partner but the diagrams have to be aligned.	Sven, Dimi	I can choose different granularities regarding time (via dropdown) and machines (vie checkbox) and I can set the relevant time interval (vie dropdown) and the outcome is displayed correctly in the right diagram.
41	1	7	3	3	Energy Analysis	Import adaption	As a logged-in user, I can import CSV Data over an HTML-mask in a database using an import button to use the CSV file as a base for the report. The CSV file needs to be structured as the running database. With this function the data of the two input databases will be linked together in one database so they can be used for the data queries for the Energy Analysis, Forecast and Simulation. This User Stories is a modification of User Story 29.	Sven, Jakob	After selecting the import the data is loaded into the database and is prepared so the two datasets can be combined for the future queries.
42	1	7	5	3	UI	Diagram adaption	As a logged-in user I want the diagrams displayed according to my request. Our industry partner requested that the diagram types cannot be chosen by the user itself. The diagrams need to be adapted according to the new User Stories (40, 39). This User Story is a modification of User Stoy 21, 22, 16. Furthermore the time line needs to be improved.	Jakob	After running the query as mentioned in User Story 39, the diagrams are displayed according to the selected diagram type.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Feature Archive									
#	Rel.	Sprint	Est. Effort	Real Effort	Category	Short Name	Item Description	Resp.	Acceptance Criteria
53	2	8	2	8	Energy-Analysis	X-Axis-Adaption Time/Place Diagram	As a logged-in user, I get displayed the time-Axis (x-Axis) of the time/place diagram in a way, that is easily understandable. In larger timespans, this must be done by skipping days, so that the diagram stays clear. This helps to keep the overview and to make the diagrams easily comparable.	Jakob	The time axis is easily understandable and the numbers on the axis do not overlap.
51	2	9	5	5	Energy-Analysis	Place/Format Diagram	As a logged-in user I can select the fixed time (via dropdown) that I want my analysis to be based on. Furthermore I can select a factory (via dropdown; factory, machine), furthermore I can select required products (via dropdown) that are applicable for the selection above. This is useful if I want an analysis of the energy consumption of the different machines (or the whole factory) for the chosen products.	Sven	I can choose different time intervals that I want to be fixed (via dropdown), granularities regarding factories(via dropdown) and products (via dropdown) and the outcome is displayed correctly in the right diagram (machines on x-axis).
52	2	9	3	3	Energy-Analysis	Format/Place Diagram	As a logged-in user I can select the fixed time (via dropdown) that I want my analysis to be based on. Furthermore I can select a factory (via dropdown; factory, machine), furthermore I can select required products (via dropdown) that are applicable for the selection above. This is useful if I want an analysis of the energy consumption of the different machines (or the whole factory) for the chosen products.	Sven	I can choose different time intervals that I want to be fixed (via dropdown), granularities regarding factories(via dropdown) and products (via dropdown) and the outcome is displayed correctly in the right diagram (products on x-axis).

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Feature Archive									
#	Rel.	Sprint	Est. Effort	Real Effort	Category	Short Name	Item Description	Resp.	Acceptance Criteria
55	2	9	3	3	Energy Planning	Planning Table Layout	As a logged-in user, I can select the parameters for the Energy Planning Tab. I can chose from the following parameters: 1. Reference year (data my planning should be based on) 2. Factory location (same layout as in Energy Planning) This shows an empty table with cells for 12 months and all energy meters chosen. Every combination of month/energy meter needs 2 seperate cells: one for the energy (grey background + data from reference year) and one for the data manipulation (white background free field). By selecting the parameters, I can tailor the planning to my needs and so I can adapt it to the realities of the factories I want to analyse.	Dimi	When Selecting the Energy Tab, three different areas are displayed where I can select the three different parameters. Only the available years should be displayed. Also a table skeleton is shown.
48	2	9	3	3	Energy Planning	Planning Query	As a logged-in user, I can receive the energy data for the in user story 55 selected combinations of energy meter/place in the created table view. Therefore a database query collects the data from the database. This is required and gives the basis for the energy planning and manipulation.	Jakob	After selecting the reference year and the different energy meters, the table displays the data in a table view.
56	2	10	5	8	Energy-Analysis	Automatic Machine Adaption	As a logged-in user I want to run a Place/Format Diagram (User Story 51) but the direct energy consumption per format can only be calculated for presses. If I want the energy consumption of other machines additionally the Green Energy Cockpit needs an algorithm that calculates the consumption for other machines automatically. This User Story is an enhancement of User Story 51. This makes the calculation more accurate.	Sven	When I choose the machines I want the Place/Format Diagram to be run I cannot only choose from presses but from all the production machines, the calculations will be adapted and correct
57	2	10	8	8	Energy-Analysis	TNF - Calculation	As a logged-in user I can choose if the Energy consumption in the different diagrams is displayed per unit or in TNF (via Checkbox). This was requested by the industry partner, because TNF is a commonly used format for lime sand bricks and it helps to make the different formats comparable.	Sven	I can choose if the Energy Consumption is displayed in TNF or per format via checkbox.The analysed Energy Consumption is displayed accordingly to the format I've chosen.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Feature Archive									
#	Rel.	Sprint	Est. Effort	Real Effort	Category	Short Name	Item Description	Resp.	Acceptance Criteria
49	2	11	5	3	Energy Planning	Precondition adjustment	As a logged-in user, I can use a free cell (see user story 55) to adjust the amount of future energy consumption. The change in this field should change the value of all planning values. This can help to consider future machine changes/improvements or production peaks.	Jakob	In the Energy Planning there is a free cell to enter % change of energy globally. The calculated data in the table change according to the set values.
50	2	11	5	5	Energy Planning	Result adjustment	As a logged-in user, I can change single results after clicking in the requested cell. This is useful, if I already know about certain future events that can influence the conditions heavily (i.e. big customer order, etc.).	Jakob	When clicking in a table cell, I can change the value. It is saved when I click a second time outside the cell or hit enter.
43	2	11	5	3	Energy Planning	Save Planning results	As a logged-in user, I can save the planned data by hitting the save button to a database. Therefore the value and the adjustments (user story 49) need to be saved. This is needed for the Energy-Forecast/Controlling.	Jakob	After hitting the save button the website saves the results into a database. Every time I try to run the same planning again, the website shows a warning message and let's me chose from the two described options.
58	2	11	3	5	Energy Planning	Load Planning results	As a logged-in user, I can check whether the energy planning has already been done before with the selected parameters. By doing this, I can make sure that I do not overwrite previously planned data.	Jakob	After selecting the parameters, the system checks whether the data has already been planned. If so, the planned data is shown. If not, the data is calculated from the reference year's data.
44	2	11	5	3	Energy-Forecast	Forecast-Parameters	As a logged-in user, I can select the factory that should be considered in the forecast. In addition, I can chose the time, the calculation should consider. This helps to tailor the forecast algorithm to the user's requirements.	Sven	After selecting the forecast function I can select the differentfactories for the forecast and a dummy diagram is displayed.
59	2	12	2	2	UI	Forecast UI Improvement	The UI Design of the Energy Forecast needs to be improved. The functionality is there, but the user is still seeing black lines, which are not supposed to be there. Moreover when changing the single results in the forecast, they are displayed in red so they can hardly be read by the user. This needs to be changed to a colour that can be easily read (e.g. yellow). This user Story is a bug fix of User Story 50.	Dimi, Jakob	When changing to the forecast page the UI does not have the black lines anymore and the colour of the changed single results must no be red, blue or any colour that is hard to read. It must have an easily reable colour.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Feature Archive									
#	Rel.	Sprint	Est. Effort	Real Effort	Category	Short Name	Item Description	Resp.	Acceptance Criteria
45	2	12	8	8	Energy-Forecast	Forecast-Calculation	As a logged-in user, I can run the forecast by clicking on the RUN button. The system checks whether the planning with the selected data is already saved in the database. If not, I am redirected to the Energy planning with the selected parameters. This can help to improve the quality of the energy planning by considering the difference between actual and planned energy consumption.	Sven	After clicking the RUN button, I 1. get forwarded to the planning function if the data for my parameters is not yet saved in the database 2. get displayed the forecast
46	2	12	5	5	Energy-Forecast	Forecast-Diagram	As a logged-in user, I can display the forecast in a diagram. Therefore three different datasets are displayed. 1. Planned energy consumption (see user story 40 + 45) 2. actual energy consumtion (saved in the database, see Energy Analysis) 3. Energy Forecast (Calculation: Planned Energy consumption * average difference between planned and actual energy consumption) This leads to a diagram with two lines, one is the planned energy consumption and the other one is a combined line for actual and forecasted energy consumtion. The lines cross at the day of the forecast. This visually shows the possible development of the future energy consumption and can help to identify trends.	Sven	After running the calculation, a diagram with the 3 datasets is displayed.

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Impediments					
#	Category	Description	Date	Resolution/ Progress	Status
1	Database	No information about the data, data structures, database and interfaces was provided by the industry partner yet.	16.04.2014	We got some information about the data from our industry partner, but this is still not detailed enough. Tobias and Toni hope to be able to provide us with data by this week. Otherwise our Software Developers really have a problem with developing.	resolved
			23.04.2014	We received dummy data which is fine for the moment, but we are still waiting for additional/final data.	
			07.05.2014	The data is still incompletet but we should receive the rest by friday. If we don't receive the data by Friday, we are allowed to construct our own data.	
			12.05.2014	We have not received the further product data on Friday but they promised to deliver the data on Wednesday. We'll have to think about constructing our own data for the next sprint.	
			15.05.2014	FAPS still received no data. Tobias from FAPS will have a new appointment with Heidelberg Kalksandstein tomorrrow.	
			21.05.2014	FAPS arranged and appointment with the company in order to get the data programmed. Therefore, the SDs sent a table with the necessary structure of the future data in order to implement it correctly in the Green Energy Cockpit.	
			04.06.2014	We have agreed on providing the data on our own.	
2	Energy-Analysis	Intentionally we wanted to use Google Charts to display the results of the energy analysis. The industry partner is not confident with this solution because they fear security issues regarding their data.	23.04.2014	We found JFreeCharts as an alternative. Still need to check whether it's possible to implement them.	resolved
			30.04.2014	We need to check if the industry partner is satisfied with this solution.	
3	Energy-Analysis	There is still an uncertainty about the way the energy meters track and later save the energy consumption of	23.04.2014	First impression from the dummy data, but still needs to be clarrified.	resolved
			07.05.2014	Still no information.	

			04.06.2014	Since we provide the data on our own, we do not have to take care about this any more.	
4	Communication	Communication between SDs in particular and between all team members in general is a problem.	**14.05.2014**	Daily mobile SCRUM in WhatsApp. Every Evening short update about what the SDs have done, what they require and what they plan to do the next day.	**resolved**
5	Infrastructure	Jokob has got problems with his Eclipse/Github/Maven setup and can not properly use it.	**18.06.2014**	A fresh setup might be necessary. In case this does not work, Max/Hannes should be consulted.	**resolved**

Team 5 - FAPS Green Energy Cockpit - AMOS - Planning Tool Roles		
Sprint	**Review & Release Manager**	**Scrum Master**
1	Huprich, Sven	Wiebe, Cindy
2	Abb, Dimitri	Niedermeier, Ferdinand
3	Huebler, Jakob	Huprich, Sven
4	Abb, Dimitri	Abb, Dimitri
5	Huprich, Sven	Huebler, Jakob
6	Huebler, Jakob	Wiebe, Cindy
7	Huprich, Sven	Niedermeier, Ferdinand
8	Abb, Dimitri	Huprich, Sven
9	Huebler, Jakob	Abb, Dimitri
10	Huprich, Sven	Huebler, Jakob
11	Abb, Dimitri	Wiebe, Cindy
12	Huebler, Jakob	Niedermeier, Ferdinand
13	Huprich, Sven	Huebler, Jakob