	Task-ID	Task Name	Duration	Start Date	Responsible
1	**FR**	**Final Phase**	16d	06/03/19	
2	**FR12**	**Update Market Analysis**	4d	06/03/19	
3	**FR12-01**	**Research Users**	1.5d	06/03/19	
4	FR12-01-A	Choose representative areas	4h	06/03/19	ST
5	FR12-01-B	Define locations of hubs	4h	06/03/19	TR
6	FR12-01-C	Analyse detailed commuting flows	12h	06/03/19	BH
7	**FR12-02**	**Research Operations**	2d	06/04/19	
8	FR12-02-A	Determine network	8h	06/04/19	PB
9	FR12-02-B	Find optimal routes	8h	06/05/19	DOA
10	**FR12-03**	**Define Subsystem Requirements**	1d	06/06/19	
11	FR12-03-A	Analyse system requirements	4h	06/06/19	TG
12	FR12-03-B	Determine infrastructure requirements	4h	06/06/19	TB
13	FR12-03-C	Determine vehicle requirements	8h	06/06/19	SV
14	**FR05**	**Functional Flow Diagram**	0.5d	06/03/19	
15	FR05-01	Split up system into vehicle and infrastructure	4h	06/03/19	AB
16	FR05-02	Specify the interaction between subsystems	4h	06/03/19	WB
17	FR05-03	Create FFD for vehicle	4h	06/03/19	BH
18	FR05-04	Create FFD for infrastructure	4h	06/03/19	SV
19	**FR06**	**Functional Breakdown Diagram**	1d	06/03/19	
20	FR06-01	Define functions of subsystems	8h	06/03/19	TG
21	FR06-02	Create FBD for vehicle	4h	06/03/19	DOA
22	FR06-03	Create FBD for infrastructure	4h	06/03/19	AB
23	**FR09**	**Technical Risk Assessment / Risk Map**	2d	06/04/19	
24	**FR09-01**	**Identifying technical risks**	1d	06/04/19	
25	FR09-01-A	Investigate infrastructure risks	8h	06/04/19	PB
26	FR09-01-B	Investigate vehicle risks	8h	06/04/19	TR
27	FR09-02	**Rank the risks**	4h	06/05/19	ST
28	FR09-03	**Create the risk map**	4h	06/05/19	TB
29	FR09-04	**Make a risk mitigation plan**	8h	06/05/19	PB
30	**FR25**	**Sustainable Development Strategy**	0.5d	06/05/19	
31	FR25-01	Describe how sustainability is taken into account	4h	06/05/19	AB
32	FR25-02	Describe the relation of the system to sustainability	4h	06/05/19	WB
33	**FR08**	**Resource Allocation / Budget Breakdown**	1d	06/07/19	
34	FR08-01	Generate TPM Graph	8h	06/07/19	BH
35	FR08-02	Contingency management research	8h	06/07/19	TB
36	FR08-03	Contingency management execution	8h	06/07/19	TG
37	**FR32**	**RAMS**	0.625d	06/07/19	
38	**FR32-01**	**Determine Reliability**	0.625d	06/07/19	
39	FR32-01-A	Establish criterion for levels of maintainability	5h	06/07/19	TR
40	FR32-01-B	Grade concepts using criteria	4h	06/07/19	DOA
41	**FR32-02**	**Determine Availability**	0.625d	06/07/19	
42	FR32-02-A	Establish criterion for levels of availability	5h	06/07/19	WB
43	FR32-02-B	Grade concepts using criteria	4h	06/07/19	ST
44	**FR32-03**	**Determine Maintainability**	0.625d	06/07/19	
45	FR32-03-A	Establish criterion for levels of maintainability	5h	06/07/19	SV
46	FR32-03-B	Grade concepts using criteria	4h	06/07/19	PB
47	**FR32-04**	**Determine Safety**	0.625d	06/07/19	
48	FR32-04-A	Establish criterion for levels of safety	5h	06/07/19	DOA
49	FR32-04-B	Grade concepts using criteria	4h	06/07/19	AB
50	**FR36**	**Determine Aircraft System Characteristics**	0.5d	06/10/19	
51	FR36-01	Describe battery system	4h	06/10/19	ST
52	FR36-02	Describe auxiliary power estimate	4h	06/10/19	TR
53	FR36-03	Describe environmental control	4h	06/10/19	ST
54	**FR37**	**Determine Aerodynamic Characteristics**	1d	06/10/19	
55	FR37-01	Determine CL and CD for different phases	8h	06/10/19	BH
56	FR37-02	Determine CM for different phases	8h	06/10/19	PB
57	**FR42**	**Determine Propulsion Characteristics**	1d	06/10/19	
58	**FR42-01**	**Determine rotor characteristics**	1d	06/10/19	
59	FR42-01-A	Determine blade type	8h	06/10/19	DOA
60	FR42-01-B	Determine rotor radius	4h	06/10/19	TG
61	FR42-02	Determine noise and downwash	4h	06/10/19	TG
62	**FR38**	**Determine Structural Characteristics**	2d	06/10/19	
63	FR38-01	Create loading diagrams of wing/rotor/fuselage	4h	06/10/19	TB
64	FR38-02	Compute stress distribution	8h	06/11/19	SV
65	FR38-03	Determine structural dimensions and mat.	8h	06/11/19	TB
66	**FR39**	**Determine Stability & Control Characteristics**	1d	06/11/19	
67	FR39-01	Deterimine CoM limits	4h	06/11/19	AB
68	FR39-02	Determine pitch, roll and yaw characteristics	8h	06/11/19	WB
69	FR39-03	Make relevant plots for rotor/air craft	4h	06/11/19	AB
70	**FR23**	**Create Electrical Block Diagram**	0.5d	06/12/19	
71	FR23-01	Describe the electrical equipment of the system	4h	06/12/19	ST
72	FR23-02	Describe the interactions between the equipment	4h	06/12/19	TR
73	FR23-03	Create EBD	4h	06/12/19	ST
74	**FR24**	**Create Data Handling Block Diagram**	0.5d	06/12/19	
75	FR24-01	Identify the components of the data handling system	4h	06/12/19	BH
76	FR24-02	Define data flows through the system	4h	06/12/19	SV
77	FR24-03	Create DHBD	4h	06/12/19	BH
78	**FR29**	**Verification & Validation**	1.5d	06/14/19	
79	FR29-01	Verify & validate numerical models used	12h	06/14/19	TG
80	FR29-02	Verify & validate computer models used	12h	06/14/19	WB
81	FR29-03	Verify & validate that system meets the requirements	8h	06/14/19	TG
82	FR29-04	Verify & validate the system as whole	8h	06/14/19	WB
83	**FR27**	**Sensitivity Analysis**	1.5d	06/14/19	
84	FR27-01	Observe results of changed major system parameters	12h	06/14/19	SV
85	FR27-02	Analyse the robustness of the final design	4h	06/14/19	DOA
86	FR27-03	Establish the degree of feasibility of the final design	4h	06/14/19	DOA
87	**FR34**	**Define Vehicle Configuration and Layout**	1d	06/17/19	
88	**FR34-01**	**Illustrate vehicle layout**	0.5d	06/17/19	
89	FR34-01-A	Determine seating arrangement	2h	06/17/19	BH
90	FR34-01-B	Determine propulsion layout	4h	06/17/19	TR
91	FR34-01-C	Determine landing gear layout	4h	06/17/19	TB
92	FR34-01-D	Determine wing position	4h	06/17/19	WB
93	FR34-01-E	Determine door mechanism	4h	06/17/19	AB
94	FR34-01-F	Create detailed vehicle drawings	4h	06/17/19	ST
95	**FR34-02**	**Illustrate infrastructure layout**	1d	06/17/19	

	Task-ID	Task Name	Duration	Start Date	Responsible
96	FR34-02-A	Determine landing pad layout	4h	06/17/19	PB
97	FR34-02-B	Determine gate layout	4h	06/17/19	AB
98	FR34-02-C	Design vertiport	8h	06/17/19	BH
99	FR34-02-D	Create detailed infrastructure drawings	8h	06/17/19	TG
100	**FR18**	**Operations & Logistic Concept Description**	1d	06/17/19	
101	**FR18-01**	**Describe infrastructure**	1d	06/17/19	
102	FR18-01-A	Describe architecture of the vertiports	8h	06/17/19	TB
103	FR18-01-B	Describe architecture of landing pads	4h	06/17/19	SV
104	FR18-01-C	Describe storage area	3h	06/17/19	WB
105	FR18-01-D	Sketch/Draw Concepts	4h	06/17/19	TG
106	**FR18-02**	**Describe refueling/recharging process**	0.5d	06/17/19	
107	FR18-02-A	Estimate duration	4h	06/17/19	ST
108	FR18-02-B	Determine procedure interactions	4h	06/17/19	PB
109	FR18-02-C	Determine order of steps	4h	06/17/19	TR
110	FR18-02-D	Estimate process supervision	4h	06/17/19	SV
111	FR18-02-E	Define ground systems involved	4h	06/17/19	PB
112	FR18-02-F	Describe periodic maintenaince	4h	06/17/19	DOA
113	**FR18-03**	**Describe periodic maintenaince**	0.5d	06/17/19	
114	FR18-03-A	Estimate duration	4h	06/17/19	AB
115	FR18-03-B	Determine procedure interactions	4h	06/17/19	TB
116	FR18-03-C	Determine order of steps	4h	06/17/19	ST
117	FR18-03-D	Estimate process supervision	4h	06/17/19	PB
118	FR18-03-E	Define ground systems involved	4h	06/17/19	WB
119	FR18-03-F	Identify operational edge cases	4h	06/17/19	TG
120	FR18-03-G	Estimate frequency of inspections	4h	06/17/19	TR
121	**FR18-04**	**Describe vehicle and payload ground journey**	0.5d	06/17/19	
122	FR18-04-A	Define transfer of cargo procedure	4h	06/17/19	BH
123	FR18-04-B	Define transfer of passenger procedure	4h	06/17/19	ST
124	FR18-04-C	Define moving parts of system	4h	06/17/19	WB
125	FR18-04-D	Define system communication	4h	06/17/19	TR
126	**FR18-05**	**Describe loading/unloading and takeoff/landing**	0.5d	06/17/19	
127	FR18-05-A	Estimate duration	4h	06/17/19	AB
128	FR18-05-B	Determine procedure interactions	4h	06/17/19	SV
129	FR18-05-C	Determine order of steps	4h	06/17/19	BH
130	FR18-05-D	Estimate process supervision	4h	06/17/19	TG
131	FR18-05-E	Define ground systems involved	4h	06/17/19	TB
132	FR18-05-F	Describe (off-)loading steps	4h	06/17/19	DOA
133	FR18-05-G	Identify operational edge cases	4h	06/17/19	PB
134	**FR18-06**	**Describe air traffic management system**	0.5d	06/17/19	
135	FR18-06-A	Estimate vehicle throughput at hub	4h	06/17/19	TR
136	FR18-06-B	Estimate vehicle approach profile	4h	06/17/19	TB
137	FR18-06-C	Define flight plan deconfliction procudure	4h	06/17/19	SV
138	**FR22**	**H/W, S/W Block Diagram**	0.5d	06/18/19	
139	**FR22-01**	**Divide system into subcomponents**	0.5d	06/18/19	
140	FR22-01-A	Divide between Hardware and Software subomponents	4h	06/18/19	PB
141	FR22-01-B	Describe all subcomponents	4h	06/18/19	ST
142	**FR22-02**	**Describe inputs and outputs of subcomponents**	0.5d	06/18/19	
143	FR22-02-A	Analyse subcomponents seperately	4h	06/18/19	BH
144	FR22-02-B	Describe inputs and outputs	4h	06/18/19	TG
145	**FR22-03**	**Analyse the mutual relation and interactions of subcomponents**	0.5d	06/18/19	
146	FR22-03-A	Analyse interactions between subcomponents	4h	06/18/19	AB
147	FR22-03-B	Describe interrelations	4h	06/18/19	DOA
148	FR22-04	Create HWBDs	4h	06/18/19	WB
149	FR22-05	Create SWBDs	4h	06/18/19	ST
150	**FR28**	**Create Communication Flow Diagram**	0.5d	06/19/19	
151	**FR28-01**	**Analyse flow of data in the system**	0.5d	06/19/19	
152	FR28-01-A	Analyse interrelations in the system	4h	06/19/19	PB
153	FR28-01-B	Describe dataflow in the system	4h	06/19/19	DOA
154	**FR28-02**	**Analyse flow of data from system to environment and back**	0.5d	06/19/19	
155	FR28-02-A	Analyse communication to the vehicle	4h	06/19/19	AB
156	FR28-02-B	Describe external dataflows	4h	06/19/19	WB
157	FR28-03	Create CFD	4h	06/19/19	SV
158	**FR33**	**Performance Analysis**	1.5d	06/19/19	
159	**FR33-01**	**Quantify performance of the system**	1.5d	06/19/19	
160	FR33-01-A	Analyse performance of the vehicle	12h	06/19/19	TR
161	FR33-01-B	Analyse operations of the infrastructure	8h	06/19/19	BH
162	FR33-01-C	Analyse performance of the mobility system	4h	06/19/19	TB
163	**FR33-02**	**Verify compliance of the design with the requirements**	0.5d	06/19/19	
164	FR33-02-A	Analyse requirements	4h	06/19/19	TG
165	FR33-02-B	Verify the system to the requirements	4h	06/19/19	DOA
166	FR33-03	Analyse outcomes	4h	06/19/19	PB
167	**FR26**	**Create Compliance Matrix**	1d	06/20/19	
168	FR26-01	Make an overview of all requirements	4h	06/20/19	AB
169	FR26-02	Analyse if each requirements is met	4h	06/20/19	SV
170	FR26-03	Explain outcomes of analysis	8h	06/20/19	TR
171	**FR30**	**Create Production Plan**	1d	06/20/19	
172	**FR30-01**	**Divide system into parts to be manufactured**	0.5d	06/20/19	
173	FR30-01-A	Define manufactured parts for the vehicle	4h	06/20/19	ST
174	FR30-01-B	Define the manufatured parts for infrastructure	4h	06/20/19	BH
175	FR30-02	Determine timewise schedule of subassembly	8h	06/20/19	TB
176	FR30-03	Describe how subassemblies are integrated	8h	06/20/19	TG
177	FR30-04	Create MAI Plan	8h	06/20/19	ST
178	**FR19**	**Determine Project Design & Development Logic**	0.5d	06/21/19	
179	FR19-01	Determine post-DSE activities to be executed	4h	06/21/19	TB
180	FR19-02	Analyse logical order of the post-DSE activities	4h	06/21/19	BH
181	FR19-03	Create block diagram of activities	4h	06/21/19	WB
182	**FR21**	**Cost Breakdown Structure**	1d	06/24/19	
183	FR21-01	Analyse the cost of post-DSE activities	4h	06/24/19	AB
184	FR21-02	Create CBS	8h	06/24/19	SV
185	**FR31**	**Return on Investment**	0.5d	06/24/19	
186	FR31-01	Finalise the number of trips	4h	06/24/19	TG
187	FR31-02	Find total revenue	4h	06/24/19	DOA
188	FR31-03	Find total costs from CBS	4h	06/24/19	PB
189	FR31-04	Determine break-even point	4h	06/24/19	TR
190	FR31-05	Determine Return on Investment	4h	06/24/19	TB