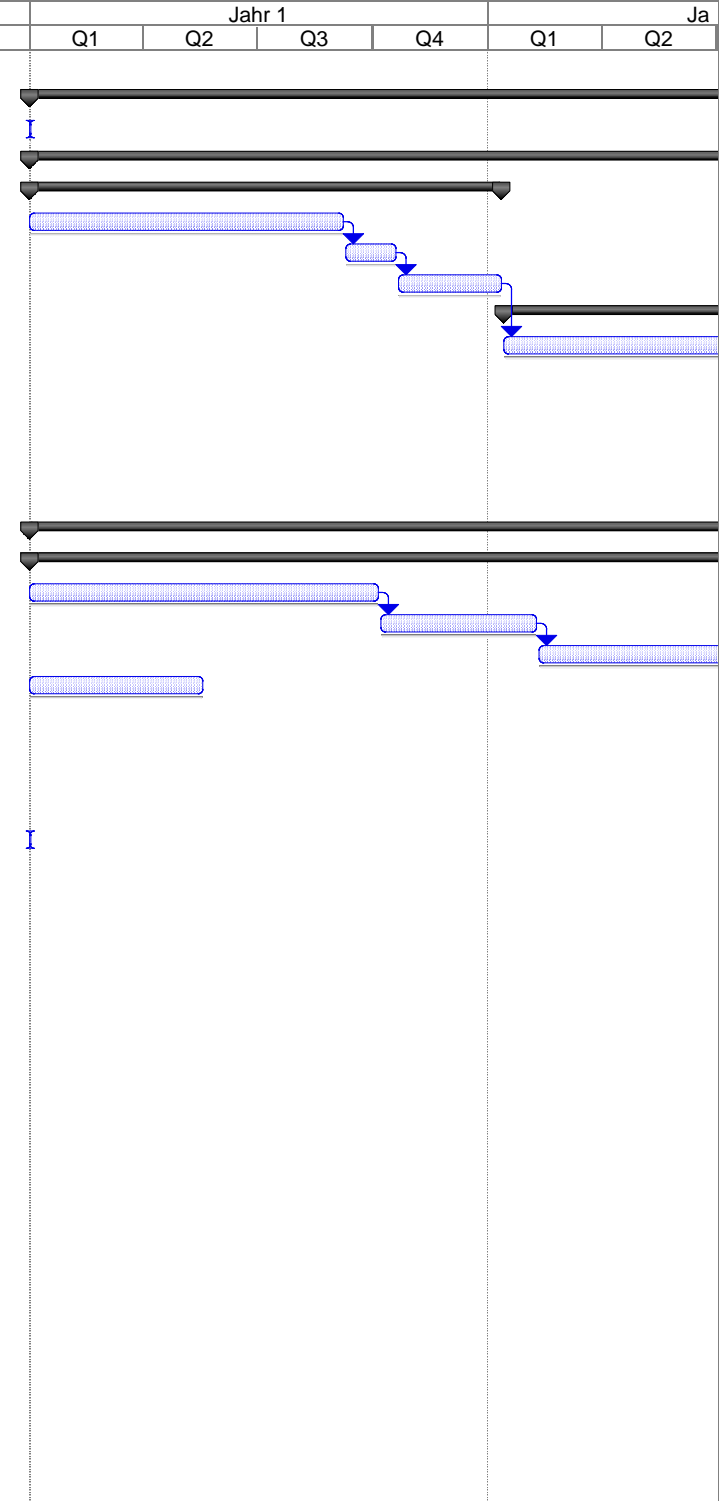


Nr.	Task Name	Dauer	Arbeit	Vorgänger	Kontaktperson	Text1	Jahr 1						
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Panda MVD	2000 Tage?	430,5 Monate		Torino/Jülich								
2	Pixel part	1220 Tage?	13,5 Monate		Torino/Jülich								
3	Module concept	1 Tag?	0 Monate		Torino	EPI pending							
4	Sensor	750 Tage	0 Monate										
5	Single Chip Sensor	270 Tage	0 Monate										
6	Design	180 Tage	0 Monate										
7	Production	30 Tage	0 Monate	6									
8	Test	60 Tage	0 Monate	7									
9	Fullsize Prototype Sensor	270 Tage	0 Monate										
10	Design	180 Tage	0 Monate	8									
11	Production	30 Tage	0 Monate	10									
12	Test	60 Tage	0 Monate	11									
13	Production	210 Tage	0 Monate										
14	Production	180 Tage	0 Monate	12									
15	Testing / Cataloging	180 Tage	0 Monate	+30 Tage									
16	Front-End ASIC	1060 Tage?	13,5 Monate		Torino								
17	ToPix3	490 Tage	0 Monate										
18	Design	200 Tage	0 Monate										
19	Production	90 Tage	0 Monate	18									
20	Test	200 Tage	0 Monate	19									
21	Radiation test	100 Tage	0 Monate										
22	Fullsize Prototype	360 Tage	13,5 Monate	20									
23	Design	240 Tage	12 Monate										
24	Production	90 Tage	0 Monate	23									
25	Test	30 Tage	1,5 Monate	24									
26	2nd iteration (optional)	1 Tag?	0 Monate										
27	Production	210 Tage	0 Monate	22									
28	Production	180 Tage	0 Monate										
29	Testing / Cataloging	180 Tage	0 Monate	+30 Tage									
30	Controller Chip	480 Tage	0 Monate		Torino								
31	Concept	30 Tage	0 Monate	20									
32	Design	180 Tage	0 Monate	31									
33	Prototype	90 Tage	0 Monate	32									
34	Production	180 Tage	0 Monate	33									
35	Module Bus (Flex Hybrid)	360 Tage	0 Monate		Torino/Jülich								
36	Design	180 Tage	0 Monate	23									
37	Test	60 Tage	0 Monate	36									
38	Production	120 Tage	0 Monate	37									
39	Hybridisation	270 Tage	0 Monate		Torino								
40	FE Wafer thinning	180 Tage	0 Monate	+30 Tage									
41	Connection FE/Sensor	180 Tage	0 Monate	+30 Tage									
42	Connection Controller/Bus	180 Tage	0 Monate	+30 Tage									
43	Connection Bus/Sensor	180 Tage	0 Monate	+30 Tage									
44	Connection Cable/Bus	180 Tage	0 Monate	+10 Tage									
45	Mounting	210 Tage	0 Monate		Torino/Jülich								
46	stave assembly	180 Tage	0 Monate	135 Tage;									
47	disk assembly	180 Tage	0 Monate	141 Tage;									



Nr.	Task Name	Dauer	Arbeit	Vorgänger	Kontaktperson	Text1	Jahr 1					
							Q4	Q1	Q2	Q3	Q4	Q1
95	Counting Room Electronics	720 Tage	0 Monate		H. Kleines ZEL							
96	Board Development	540 Tage	0 Monate									
97	FPGA Code Development	720 Tage	0 Monate									
98	Setup of Testsystem	180 Tage	0 Monate									
99	Integration with Compute-Node	360 Tage	0 Monate									
100	Optical Data Transmission	360 Tage	0 Monate		Torino / Jülich							
101	Cables / Power	100 Tage?	0 Monate		all							
102	Powering Concept	1 Tag?	0 Monate									
103	Design	1 Tag?	0 Monate									
104	Small Scale Lab Setup(s)	1 Tag?	0 Monate									
105	Power Distribution Test Setup	1 Tag?	0 Monate									
106	Grounding/Shielding Test Setup	1 Tag?	0 Monate									
107	Full Supermodule (Stave) Setup	1 Tag?	0 Monate									
108	LV Power supplies	100 Tage?	0 Monate									
109	Selection/Testing	100 Tage	0 Monate									
110	Commisioning	1 Tag?	0 Monate									
111	HV Power supplies	100 Tage?	0 Monate									
112	Selection/Testing	100 Tage	0 Monate									
113	Commisioning	1 Tag?	0 Monate									
114	Power regulators	1 Tag?	0 Monate									
115	Design	1 Tag?	0 Monate									
116	Tests	1 Tag?	0 Monate									
117	Load/Thermal Tests	1 Tag?	0 Monate									
118	Irradiation Tests	1 Tag?	0 Monate									
119	Cables	100 Tage?	0 Monate									
120	Selection/Spec Matching	30 Tage	0 Monate									
121	Tests (Load/Mechanical/Rad Hardness/Connectiv	100 Tage	0 Monate									
122	Ordering	1 Tag?	0 Monate									
123	Mechanical Structures	435 Tage?	33 Monate		all							
124	Global Support	420 Tage	0 Monate		Torino							
125	Design	60 Tage	0 Monate									
126	Tool development and production	120 Tage	0 Monate	125								
127	Prototype	60 Tage	0 Monate	126								
128	Test	60 Tage	0 Monate	127								
129	Production	120 Tage	0 Monate	128								
130	Local Pixel Barrel Support / Cooling	420 Tage	0 Monate		Torino							
131	Design	60 Tage	0 Monate									
132	Tool development and production	120 Tage	0 Monate	131								
133	Prototype	60 Tage	0 Monate	132								
134	Test	60 Tage	0 Monate	133								
135	Production	120 Tage	0 Monate	134								
136	Local Pixel Disks Support / Cooling	420 Tage	0 Monate		Torino							
137	Design	60 Tage	0 Monate									
138	Tool development and production	120 Tage	0 Monate	137								
139	Prototype	60 Tage	0 Monate	138								
140	Test	60 Tage	0 Monate	139								
141	Production	120 Tage	0 Monate	140								

Nr.	Task Name	Dauer	Arbeit	Vorgänger	Kontaktperson	Text1	Jahr 1						
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
142	Local Strip Barrel Support / Cooling	435 Tage	0 Monate		Jülich / Bonn								
143	Design	30 Tage	0 Monate										
144	Tool development and production	180 Tage	0 Monate	143									
145	Prototype	15 Tage	0 Monate	144									
146	Test	30 Tage	0 Monate	145									
147	Production	180 Tage	0 Monate	146									
148	Local Strip Disks Support / Cooling	420 Tage	33 Monate		Rosatom								
149	Design	120 Tage	6 Monate										
150	Tool development and production	0 Tage	0 Monate										
151	Prototype	120 Tage	12 Monate	149									
152	Test	30 Tage	3 Monate	151									
153	Production	150 Tage	12 Monate	152									
154	Additional Disks	1 Tag?	0 Monate		Rosatom								
155	Cooling	180 Tage	0 Monate		all								
156	Pixel Pipes	180 Tage	0 Monate										
157	Pixel Manifolds	180 Tage	0 Monate										
158	Strip Pipes	180 Tage	0 Monate										
159	Strip Manifolds	180 Tage	0 Monate										
160	Cooling plant	180 Tage	0 Monate										
161	DCS	720 Tage	0 Monate		Jülich(ZEL) / Bonnroup / Dan P.								
162	Mounting	360 Tage	0 Monate										
163	MVD mounting	180 Tage	0 Monate	45;124									
164	MVD installation	180 Tage	0 Monate	163									
165	Commissioning	360 Tage	0 Monate	164									
166	Milestones	1 Tag?	0 Monate										

