

FLARE funding requests

Introduction

Appended below are the famous FLARE tables prepared with the inputs of the PIs of the experiments in the same format as last year.

In order to facilitate our discussion in Lugano, I draw below a rough picture where we are for the coming funding period.

For 2017–2020 (4 years), 32 MCHF is granted for FLARE according to the message to parliament. Following Olivier's assumption that roughly 20% could go for astronomer's projects, we will get 25.6 MCHF.

Marc is still missing a few updates, but we can estimate the foreseen requests for the period 2017–2020 as being:

- LHC experiments: about 21.6 MCHF, including the M&O and Computing which are 7 MCHF
- Astroparticle experiments: 7 MCHF, including 4 MCHF for CTA
- Neutrino experiments: 6.4 MCHF

This adds up to a total of 35 MCHF requested, which is about 10 MCHF more than we foresee to have.

Some of the important points are:

- Whether CTA will be covered by the SERI special infrastructure funding line.
- Neutrino requests seem to be above Olivier's guideline by ~1.3 MCHF.
- Major investment for the LHC experiments are for the Phase-II upgrade being finalised now. For ATLAS and CMS, the upgrade spending will be stretched over many years even beyond 2020, whereas for LHCb only the coming four-year funding period is concerned. Is there any scope of re-profiling for ATLAS and CMS?

Yours Tatsuya

CHIPP FLARE table

updated between 12.06.2015 and 10.08.2016

Priorities according to the minutes of the LA FLARE meeting for 2016

All numbers are in kCHF (or in FTE when indicated)

Prio	Pillar	Project	Item	2013	2014	2015	2016	2017	2018	2019	2020	2013 – 2016	2017 – 2020
2	High energy	ATLAS	Request	970	940	1 166	1 096	2 570	2 570	2 570	2 570	4 172	10 280
2	High energy	CMS	Request	1 458	1 455	1 455	1 284	1 150	1 150	1 150	1 150	5 651	4 600
2	High energy	LHCb	Request	738	702	707	709	720	720	720	320	2 856	2 480
1	High energy	M&O LHC experiments	Request	990	975	973	946	955	960	960	960	3 885	3 835
1	High energy	LHC Computing Tier-2	Request	820	840	840	822	960	1 020	1 020	1 020	3 322	4 020
-	High energy	HL-LHC	Request	0	0	0	0	0	0	0	0	0	0
3	High energy	CLIC	Request	120	120	120	0	0	0	0	0	360	0
2	Astroparticle	CTA	Request	0	1 000	1 050	1 000	1 000	1 000	1 000	1 000	3 050	4 000
-	Astroparticle	DAMIC	Request	0	0	0	100	100	100	100	100	100	400
2	Astroparticle	XENON	Request	0	0	887	750	600	400	50	50	1 637	1 100
2	Astroparticle	DARWIN	Request	0	0	0	0	0	250	650	650	0	1 550
-	Astroparticle	ArDM	Request	0	0	100	0	0	0	0	0	100	0
-	Neutrino	GERDA	Request	0	0	0	0	58	58	58	58	0	232
-	Neutrino	SHIP	Request	0	0	0	0	0	0	0	400	0	400
-	Neutrino	OPERA	Request	175	175	0	0	0	0	0	0	350	0
2	Neutrino	SBN	Request	200	265	865	1 035	945	615	315	90	2 365	1 965
2	Neutrino	NA61/T2K/NP05/HyperK	Request	250	264	450	450	450	550	600	600	1 414	2 200
2	Neutrino	WA105 + DUNE-SPT	Request	681	681	730	450	650	700	200	50	2 542	1 600
-	Low energy	Mu3e	Request	0	0	0	0	0	0	250	250	0	500
1	ALL	ALL	Request	1 810	1 815	1 813	1 768	1 915	1 980	1 980	1 980	7 207	7 855
2	ALL	ALL	Request	4 297	5 307	7 309	6 774	8 085	7 955	7 255	6 480	23 687	29 775
3	ALL	ALL	Request	120	120	120	0	0	0	0	0	360	0
-	ALL	ALL	Request	175	175	100	100	158	158	408	808	550	1 532
ALL	High energy	ALL	Request	5 096	5 032	5 261	4 857	6 355	6 420	6 420	6 020	20 246	25 215
ALL	Astroparticle	ALL	Request	0	1 000	2 037	1 850	1 700	1 750	1 800	1 800	4 887	7 050
ALL	Neutrino	ALL	Request	1 306	1 385	2 045	1 935	2 103	1 923	1 173	1 198	6 671	6 397
ALL	ALL	ALL	Request	6 402	7 417	9 343	8 642	10 158	10 093	9 643	9 268	31 804	39 162
2	High energy	ATLAS	Grant	650	610	790	670	0	0	0	0	2 720	0
2	High energy	CMS	Grant	964	921	921	1 151	0	0	0	0	3 956	0
2	High energy	LHCb	Grant	621	586	557	709	0	0	0	0	2 473	0
1	High energy	M&O LHC experiments	Grant	990	975	973	946	0	0	0	0	3 885	0
1	High energy	LHC Computing Tier-2	Grant	831	832	863	785	0	0	0	0	3 310	0
-	High energy	HL-LHC	Grant	0	0	0	0	0	0	0	0	0	0
3	High energy	CLIC	Grant	95	120	120	0	0	0	0	0	335	0
2	Astroparticle	CTA	Grant	0	500	500	796	0	0	0	0	1 796	0
-	Astroparticle	DAMIC	Grant	0	0	0	0	0	0	0	0	0	0
2	Astroparticle	XENON	Grant	0	0	798	704	0	0	0	0	1 502	0
2	Astroparticle	DARWIN	Grant	0	0	0	0	0	0	0	0	0	0
-	Astroparticle	ArDM	Grant	0	0	100	0	0	0	0	0	100	0
-	Neutrino	GERDA	Grant	0	0	0	0	0	0	0	0	0	0
-	Neutrino	SHIP	Grant	0	0	0	0	0	0	0	0	0	0
-	Neutrino	OPERA	Grant	175	175	0	0	0	0	0	0	350	0
2	Neutrino	SBN	Grant	0	0	325	125	0	0	0	0	450	0
2	Neutrino	NA61/T2K/NP05/HyperK	Grant	132	132	216	214	0	0	0	0	694	0
2	Neutrino	WA105 + DUNE-SPT	Grant	331	382	390	576	0	0	0	0	1 678	0
-	Low energy	Mu3e	Grant	0	0	0	0	0	0	0	0	0	0
1	ALL	ALL	Grant	1 821	1 807	1 836	1 731	0	0	0	0	7 196	0
2	ALL	ALL	Grant	2 697	3 131	4 497	4 945	0	0	0	0	15 269	0
3	ALL	ALL	Grant	95	120	120	0	0	0	0	0	335	0
-	ALL	ALL	Grant	175	175	100	0	0	0	0	0	450	0
ALL	High energy	ALL	Grant	4 151	4 044	4 224	4 261	0	0	0	0	16 680	0
ALL	Astroparticle	ALL	Grant	0	500	1 398	1 500	0	0	0	0	3 398	0
ALL	Neutrino	ALL	Grant	637	689	931	915	0	0	0	0	3 172	0
ALL	ALL	ALL	Grant	4 788	5 233	6 553	6 676	0	0	0	0	23 250	0
2	High energy	ATLAS	Other funding	0	0	0	0	0	0	0	0	0	0
2	High energy	CMS	Other funding	823	694	594	280	4 900	2 600	2 600	4 100	2 391	14 200
2	High energy	LHCb	Other funding	130	173	185	185	185	185	0	0	673	370
1	High energy	M&O LHC experiments	Other funding	0	0	0	0	0	0	0	0	0	0
1	High energy	LHC Computing Tier-2	Other funding	130	130	130	150	130	120	120	120	540	490
-	High energy	HL-LHC	Other funding	0	0	0	0	0	0	0	0	0	0
3	High energy	CLIC	Other funding	15	15	15	0	0	0	0	0	45	0
2	Astroparticle	CTA	Other funding	555	625	110	50	50	50	50	50	1 340	200
-	Astroparticle	DAMIC	Other funding	54	96	93	48	48	48	48	48	290	190
2	Astroparticle	XENON	Other funding	425	713	285	230	267	267	45	45	1 653	624
2	Astroparticle	DARWIN	Other funding	25	25	28	28	28	220	850	850	105	1 948
-	Astroparticle	ArDM	Other funding	0	0	1 000	300	300	0	0	0	1 300	300
-	Neutrino	GERDA	Other funding	50	28	15	22	14	14	14	14	114	58
-	Neutrino	SHIP	Other funding	0	0	4	30	55	55	30	0	34	140
-	Neutrino	OPERA	Other funding	0	0	0	0	0	0	0	0	0	0
2	Neutrino	SBN	Other funding	150	465	350	175	190	140	90	0	1 140	420

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Prio	Pillar	Project	Item	2013	2014	2015	2016	2017	2018	2019	2020	2013 – 2016	2017 – 2020
2	Neutrino	NA61/T2K/NP05/HyperK	Other funding	400	400	550	570	510	820	820	820	1 920	2 970
2	Neutrino	WA105 + DUNE-SPT	Other funding	392	392	160	250	100	100	50	0	1 194	250
–	Low energy	Mu3e	Other funding	25	130	133	151	269	236	241	241	439	987
1	ALL	ALL	Other funding	130	130	130	150	130	120	120	120	540	490
2	ALL	ALL	Other funding	2 900	3 487	2 262	1 768	6 230	4 382	4 505	5 865	10 416	20 982
3	ALL	ALL	Other funding	15	15	15	0	0	0	0	0	45	0
–	ALL	ALL	Other funding	129	254	1 245	550	686	353	333	303	2 177	1 675
ALL	High energy	ALL	Other funding	1 098	1 012	924	615	5 215	2 905	2 720	4 220	3 649	15 060
ALL	Astroparticle	ALL	Other funding	1 059	1 459	1 515	655	693	585	993	993	4 688	3 262
ALL	Neutrino	ALL	Other funding	992	1 285	1 079	1 047	869	1 129	1 004	834	4 402	3 838
ALL	ALL	ALL	Other funding	3 174	3 886	3 651	2 468	7 046	4 855	4 958	6 288	13 178	23 147

NB: Grey-shaded experiments have not yet been updated this year.

2	High energy	ATLAS	Manpower FTE	2	2	0	0	2	2	2	2	4	8
			Manpower	240	240	0	0	240	240	240	240	480	960
			Operations	264	267	250	265	265	265	265	265	1 046	1 060
			R&D and invest.	410	370	790	670	2 330	2 330	2 330	2 330	2 240	9 320
			Total	914	877	1 040	935	2 835	2 835	2 835	2 835	3 766	11 340
			Request	970	940	1 166	1 096	2 570	2 570	2 570	2 570	4 172	10 280
			Grant	650	610	790	670	0	0	0	0	2 720	0
			M&O LHC	264	267	250	262	0	0	0	0	1 043	0
			Grant + M&O	914	877	1 040	932	0	0	0	0	3 763	0
			Other funding	0	0	0	0	0	0	0	0	0	0
2	High energy	CMS	Manpower FTE	2	2	2	2	2	2	2	2	8	8
			Manpower	267	290	289	260	300	300	300	300	1 105	1 200
			Operations	565	535	550	574	580	580	580	580	2 224	2 320
			R&D and invest.	607	571	572	794	750	750	750	750	2 544	3 000
			Total	1 439	1 396	1 411	1 628	1 630	1 630	1 630	1 630	5 873	6 520
			Request	1 458	1 455	1 455	1 284	1 150	1 150	1 150	1 150	5 651	4 600
			Grant	964	921	921	1 151	0	0	0	0	3 956	0
			M&O LHC	475	475	490	471	0	0	0	0	1 911	0
			Grant + M&O	1 439	1 396	1 410	1 622	0	0	0	0	5 867	0
			Other funding	823	694	594	280	4 900	2 600	2 600	4 100	2 391	14 200
2	High energy	LHCb	Manpower FTE	2	2	2	2	2	2	2	2	8	8
			Manpower	175	202	207	209	220	220	220	220	793	880
			Operations	251	233	234	216	216	216	216	216	934	864
			R&D and invest.	446	384	350	500	500	500	500	100	1 680	1 600
			Total	872	819	791	925	936	936	936	536	3 407	3 344
			Request	738	702	707	709	720	720	720	320	2 856	2 480
			Grant	621	586	557	709	0	0	0	0	2 473	0
			M&O LHC	251	233	234	213	0	0	0	0	932	0
			Grant + M&O	872	819	791	922	0	0	0	0	3 405	0
			Other funding	130	173	185	185	185	185	0	0	673	370
1	High energy	M&O LHC experiments	ATLAS	264	267	250	265	265	265	265	265	1 046	1 060
			CMS	475	475	490	477	480	480	480	480	1 917	1 920
			LHCb	251	233	234	216	216	216	216	216	934	864
			Total	990	975	974	958	961	961	961	961	3 897	3 844
			Request	990	975	973	946	955	960	960	960	3 885	3 835
			Grant	990	975	973	946	0	0	0	0	3 885	0
1	High energy	LHC Computing Tier-2	Manpower FTE	1	1.5	1.5	1.5	1.5	2	2	2	5.5	7.5
			Manpower	111	167	196	194	160	220	220	220	667	820

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Prio	Pillar	Project	Item	2013	2014	2015	2016	2017	2018	2019	2020	2013 – 2016	2017 – 2020
			Operations	40	40	40	20	50	50	50	50	140	200
			R&D and invest.	680	625	627	571	750	750	750	750	2 503	3 000
			Total	831	832	863	785	960	1 020	1 020	1 020	3 310	4 020
			Request	820	840	840	822	960	1 020	1 020	1 020	3 322	4 020
			Grant	831	832	863	785	0	0	0	0	3 310	0
			Other funding	130	130	130	150	130	120	120	120	540	490
-	High energy	HL-LHC	Manpower FTE	0	0	0	0	0	0	0	0	0	0
			Manpower	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	0	0	0	0	0	0	0
			R&D and invest.	0	0	0	0	0	0	0	0	0	0
			Total	0	0	0	0	0	0	0	0	0	0
			Request	0	0	0	0	0	0	0	0	0	0
			Grant	0	0	0	0	0	0	0	0	0	0
			Other funding	0	0	0	0	0	0	0	0	0	0
3	High energy	CLIC	Manpower FTE	0	0	0	0	0	0	0	0	0	0
			Manpower	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	0	0	0	0	0	0	0
			R&D and invest.	95	120	120	0	0	0	0	0	335	0
			Total	95	120	120	0	0	0	0	0	335	0
			Request	120	120	120	0	0	0	0	0	360	0
			Grant	95	120	120	0	0	0	0	0	335	0
			Other funding	15	15	15	0	0	0	0	0	45	0
2	Astroparticle	CTA	Manpower FTE	0	0.8	0.8	1	1	1	0	0	2.6	2
			Manpower	0	90	90	146	90	90	0	0	326	180
			Operations	0	0	0	54	50	50	50	50	54	200
			R&D and invest.	0	410	410	596	860	860	950	950	1 416	3 620
			Total	0	500	500	796	1 000	1 000	1 000	1 000	1 796	4 000
			Request	0	1 000	1 050	1 000	1 000	1 000	1 000	1 000	3 050	4 000
			Grant	0	500	500	796	0	0	0	0	1 796	0
			Other funding	555	625	110	50	50	50	50	50	1 340	200
-	Astroparticle	DAMIC	Manpower FTE	0	0	0	0	0	0	0	0	0	0
			Manpower	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	50	50	50	25	25	50	150
			R&D and invest.	0	0	0	50	50	50	75	75	50	250
			Total	0	0	0	100	100	100	100	100	100	400
			Request	0	0	0	100	100	100	100	100	100	400
			Grant	0	0	0	0	0	0	0	0	0	0
			Other funding	54	96	93	48	48	48	48	48	290	190
2	Astroparticle	XENON	Manpower FTE	0	0	0	0	0	0	0	0	0	0
			Manpower	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	50	50	50	50	50	50	200
			R&D and invest.	0	0	798	654	550	350	0	0	1 452	900
			Total	0	0	798	704	600	400	50	50	1 502	1 100
			Request	0	0	887	750	600	400	50	50	1 637	1 100
			Grant	0	0	798	704	0	0	0	0	1 502	0
			Other funding	425	713	285	230	267	267	45	45	1 653	624
2	Astroparticle	DARWIN	Manpower FTE	0	0	0	0	0	0	0	0	0	0
			Manpower	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	0	0	0	0	0	0	0
			R&D and invest.	0	0	0	0	0	250	650	650	0	1 550
			Total	0	0	0	0	0	250	650	650	0	1 550
			Request	0	0	0	0	0	250	650	650	0	1 550
			Grant	0	0	0	0	0	0	0	0	0	0
			Other funding	25	25	28	28	28	220	850	850	105	1 948
-	Astroparticle	ArDM	Manpower FTE	0	0	0	0	0	0	0	0	0	0
			Manpower	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	0	0	0	0	0	0	0
			R&D and invest.	0	0	100	0	0	0	0	0	100	0
			Total	0	0	100	0	0	0	0	0	100	0
			Request	0	0	100	0	0	0	0	0	100	0
			Grant	0	0	100	0	0	0	0	0	100	0
			Other funding	0	0	1 000	300	300	0	0	0	1 300	300
-	Neutrino	GERDA	Manpower FTE	0	0	0	0	0	0	0	0	0	0
			Manpower	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	0	4	4	4	4	0	16
			R&D and invest.	0	0	0	0	54	54	54	54	0	216
			Total	0	0	0	0	58	58	58	58	0	232
			Request	0	0	0	0	58	58	58	58	0	232
			Grant	0	0	0	0	0	0	0	0	0	0
			Other funding	50	28	15	22	14	14	14	14	114	58
-	Neutrino	SHIP	Manpower FTE	0	0	0	0	1	1	1	1	0	4
			Manpower	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	0	0	0	0	0	0	0
			R&D and invest.	0	0	0	0	0	0	0	400	0	400
			Total	0	0	0	0	0	0	0	400	0	400
			Request	0	0	0	0	0	0	0	400	0	400
			Grant	0	0	0	0	0	0	0	0	0	0
			Other funding	0	0	4	30	55	55	30	0	34	140

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Prio	Pillar	Project	Item	2013	2014	2015	2016	2017	2018	2019	2020	2013 – 2016	2017 – 2020		
-	Neutrino	OPERA	Manpower FTE	0	0	0	0	0	0	0	0	0	0	0	
			Manpower	0	0	0	0	0	0	0	0	0	0	0	0
			Operations	175	175	0	0	0	0	0	0	0	0	350	0
			R&D and invest.	0	0	0	0	0	0	0	0	0	0	0	0
			Total	175	175	0	0	0	0	0	0	0	0	350	0
			Request	175	175	0	0	0	0	0	0	0	0	350	0
			Grant	175	175	0	0	0	0	0	0	0	0	350	0
Other funding	0	0	0	0	0	0	0	0	0	0	0	0			
2	Neutrino	SBN	Manpower FTE	0	0	0	0	0	0	0	0	0	0	0	
			Manpower	0	0	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	45	45	60	90	90	90	90	90	90	330
			R&D and invest.	0	0	280	80	885	525	225	0	360	1 635	360	1 635
			Total	0	0	325	125	945	615	315	90	450	1 965	450	1 965
			Request	200	265	865	1 035	945	615	315	90	2 365	1 965	2 365	1 965
			Grant	0	0	325	125	0	0	0	0	450	0	450	0
Other funding	150	465	350	175	190	140	90	0	1 140	420	1 140	420			
2	Neutrino	NA61/T2K/NP05/HyperK	Manpower FTE	0	0	0	0	0	0	0	0	0	0	0	
			Manpower	0	0	0	0	0	0	0	0	0	0	0	0
			Operations	33	32	111	74	100	100	113	113	250	426	250	426
			R&D and invest.	99	100	105	140	350	450	487	487	444	1 774	444	1 774
			Total	132	132	216	214	450	550	600	600	694	2 200	694	2 200
			Request	250	264	450	450	450	550	600	600	1 414	2 200	1 414	2 200
			Grant	132	132	216	214	0	0	0	0	694	0	694	0
Other funding	400	400	550	570	510	820	820	820	1 920	2 970	1 920	2 970			
2	Neutrino	WA105 + DUNE-SPT	Manpower FTE	0	0	0	0	0	0	0	0	0	0	0	
			Manpower	0	0	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	0	0	50	50	50	0	150	0	150
			R&D and invest.	331	382	390	576	650	650	150	0	1 678	1 450	1 678	1 450
			Total	331	382	390	576	650	700	200	50	1 678	1 600	1 678	1 600
			Request	681	681	730	450	650	700	200	50	2 542	1 600	2 542	1 600
			Grant	331	382	390	576	0	0	0	0	1 678	0	1 678	0
Other funding	392	392	160	250	100	100	50	0	1 194	250	1 194	250			
-	Low energy	Mu3e	Manpower FTE	0	0	0	0	0	0	0	0	0	0	0	
			Manpower	0	0	0	0	0	0	0	0	0	0	0	0
			Operations	0	0	0	0	0	0	0	0	0	0	0	0
			R&D and invest.	0	0	0	0	0	0	250	250	0	500	0	500
			Total	0	0	0	0	0	0	250	250	0	500	0	500
			Request	0	0	0	0	0	0	250	250	0	500	0	500
			Grant	0	0	0	0	0	0	0	0	0	0	0	0
Other funding	25	130	133	151	269	236	241	241	439	987	439	987			