

WP1			Cost to STFC															
Institution			FY 12/13		FY 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		FY 18/19		Total	
			Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE
New staff	Imperial	Hall	£1,897	0.03	£22,331	0.30	£22,331	0.30	£22,331	0.30	£22,331	0.30	£22,331	0.30	£22,331	0.30	£135,883	1.8
	Imperial	Barlow	£476	0.01	£5,683	0.10	£5,849	0.10	£6,020	0.10	£6,202	0.10	£6,296	0.10	£6,296	0.10	£36,822	0.6
	Imperial	Brambilla	£677	0.02	£8,086	0.20	£8,321	0.20	£8,563	0.20	£8,812	0.20	£9,067	0.20	9,332	0.20	£52,858	1.2
Total			£3,050	0.05	£36,100	0.60	£36,501	0.60	£36,914	0.60	£37,345	0.60	£37,694	0.60	£37,959	0.60	£225,562	3.7
Equipment																		
Travel																		
Other costs	Imperial	DA	£24	0.03	£287	0.30	£287	0.30	£287	0.30	£287	0.30	£287	0.30	£287	0.30	£1,747	
Indirects	Imperial		£784	0.03	£9,231	0.30	£9,231	0.30	£9,231	0.30	£9,231	0.30	£9,231	0.30	£9,231	0.30	£56,168	
Estates	Imperial		£328	0.03	£3,864	0.30	£3,864	0.30	£3,864	0.30	£3,864	0.30	£3,864	0.30	£3,864	0.30	£23,509	
Working allowance																	£0	
Total non-staff			£1,137		£13,381		£13,381		£13,381		£13,381		£13,381		£13,381		£81,424	
Total 'new' cost			£4,186	0.05	£49,481	0.60	£49,882	0.60	£50,295	0.60	£50,726	0.60	£51,075	0.60	£51,340	0.60	£306,986	3.7
Existing resource			£1,473	0.02	£17,415	0.20	£16,798	0.20	£17,879	0.20	£18,133	0.20	£18,401	0.20	£18,628	0.20	£108,727	1.2
Grand total (exc travel)			£5,659	0.07	£66,896	0.80	£66,680	0.80	£68,174	0.80	£68,858	0.80	£69,476	0.80	£69,969	0.80	£415,713	4.9

WP2			Cost to STFC															
Institution			FY 12/13		FY 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		FY 18/19		Total	
			Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE
New staff	Imperial	Pesaresi	£1,142	0.03	£13,631	0.4	£14,013	0.4	£14,408	0.4	£14,810	0.4	£15,229	0.4	£15,658	0.4	£88,892	2.4
	Imperial	RA_1			£20,447	0.6	£21,020	0.6	£21,612	0.6	£22,215	0.6	£22,844	0.6	£23,486	0.6	£131,625	3.6
	Imperial	Khaleeq	£677	0.02	£8,086	0.2	£8,321	0.2	£8,563	0.2	£8,812	0.2	£9,067	0.2	£9,332	0.2	£52,858	1.2
	Imperial	Student 1			£9,709	0.5	£19,418	1.0	£19,418	1.0	£19,418	1.0		0.0			£67,963	3.5
	RAL TD	Prydderch			£13,045	0.1	£13,045	0.1	£13,045	0.1	£13,045	0.1	£13,045	0.1	£0	0.0	£65,227	0.5
	RAL TD	Braga			£84,500	1.0	£84,500	1.0	£106,513	1.0	£106,513	1.0	£53,257	0.5	£0	0.0	£435,284	4.5
	RAL TD	Bell			£106,513	1.0	£0	0.0	£53,257	0.5	£0	0.0	£0	0.0	£0	0.0	£159,770	1.5
Total			£1,819	0.05	£255,932	3.8	£160,318	3.3	£236,816	3.8	£184,814	3.3	£113,442	1.8	£48,476	1.2	£1,001,618	17.3
Equipment	Test stands & consumables				£10,000		£10,000		£10,000		£10,000		£10,000		£10,000		£60,000	
	ASIC manufacture						£178,065		£178,065		£178,065						£534,195	
	Module assembly				£14,286		£14,286		£14,286		£14,286		£14,286		£14,286		£85,716	
Total equipment					£24,286		£202,351		£202,351		£202,351		£24,286		£24,286		£679,911	
Travel																		
Other costs	Imperial	DA	£33	0.03	£957	1.0	£957	1.0	£957	1.0	£957	1.00	£957	1.0	£957	1.0	£5,773	
Indirects	Imperial		£1,045	0.03	£30,769	1.0	£30,769	1.0	£30,769	1.0	£30,769	1.00	£30,769	1.0	£30,769	1.0	£185,658	
Estates	Imperial		£438	0.03	£12,878	1.0	£12,878	1.0	£12,878	1.0	£12,878	1.00	£12,878	1.0	£12,878	1.0	£77,708	
Working allowance							£11,574		£11,574		£11,574		£178,065				£212,787	
Total non-staff			£1,515		£68,890		£258,529		£258,529		£258,529		£246,955		£68,890		£1,161,837	
Total 'new' cost			£3,335	0.05	£324,822	3.8	£418,847	3.3	£495,345	3.8	£443,343	3.3	£360,397	1.8	£117,366	1.2	£2,163,455	17.3
Existing resource			£8,102	0.09	£136,989	1.7	£133,883	1.7	£139,882	1.7	£141,278	1.7	£142,753	1.7	£144,005	1.7	£846,892	10.3
Grand total (exc travel)			£11,437	0.14	£461,811	5.5	£552,730	5	£635,227	5.5	£584,621	5	£503,149	3.5	£261,371	2.9	£3,010,347	27.5

WP3			Cost to STFC															
Institution			FY 12/13		FY 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		FY 18/19		Total	
			Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE
New staff	Bristol	Frazier			£34,587	1.0	£35,638	1.0	£36,722	1.0	£37,860	1	£38,987	1.0	£40,182	1.0	£223,976	6.0
	Bristol	RA 1			£31,615	1.0	£32,575	1.0	£33,566	1.0	£34,586	1	£35,638	1.0	£36,722	1.0	£204,702	6.0
	Bristol	Student			£4,355	0.3	£8,709	0.5	£8,709	0.5	£8,709	0.5					£30,482	1.8
	Bristol	Student							£4,355	0.3	£8,709	0.5	£8,709	0.5	£8,709	0.5	£30,482	1.8
	Imperial	RA_2			£34,078	1.0	£35,034	1.0	£36,020	1.0	£37,026	1.00	£38,073	1.0	£39,144	1.0	£219,374	6.0
	Imperial	RA_3									£34,078	1.00	£35,034	1.0	£36,020	1.0	£105,132	3.0
	Imperial	Greenwood	£846	0.02	£10,107	0.3	£10,401	0.3	£10,704	0.3	£11,015	0.25	£11,334	0.3	£11,664	0.3	£66,072	1.5
	Imperial	Student 2					£9,709	0.5	£19,418	1.0	£19,418	1	£19,418	1.0			£67,963	3.5
	RAL PPD	RA 1			£69,200	1.0	£69,200	1.0	£69,200	1.0	£69,200	1	£69,200	1.0	£69,200	1.0	£415,200	6.0
Total			£846	0.02	£183,942	4.5	£201,266	5.3	£218,694	6.0	£260,601	7.25	£256,392	6.8	£241,641	5.8	£1,363,382	35.5
Equipment	PreProduction				£54,573												£54,573	
	Infrastructure				£100,000												£100,000	
	Production				£143,887		£431,661		£143,887								£719,435	
	Subcontracts				£75,000		£75,000		£75,000		£75,000						£300,000	
	Next generation										£54,573		£54,573		£109,146		£218,292	
																		£874,008

Institute support				£15,000		£15,000		£10,000		£10,000		£10,000		£5,000		£65,000	
Total equipment				£388,460		£521,661		£228,887		£139,573		£64,573		£114,146		£1,457,300	
Travel																	
Other costs	Bristol DA																£0
	Imperial DA	£0	0	£957	1	£957	1	£957	1	£1,913	2	£1,913	2	£1,913	2	£8,610	
Indirects	Bristol			£64,496		£64,500		£64,500		£64,500		£64,500		£64,500		£386,996	
	Imperial	£0	0	£30,769	1	£30,769	1	£30,769	1	£61,538	2	£61,538	2	£61,538	2	£276,919	
Estates	Bristol			£30,072		£30,068		£30,068		£30,068		£30,068		£30,068		£180,412	
	Imperial	£0	0	£12,878	1	£12,878	1	£12,878	1	£25,757	2	£25,757	2	£25,757	2	£115,906	
Working allowance				£129,521		£29,033		£10,003		£4,197		£4,197		£7,419		£184,370	
Total non-staff		£0		£657,153		£689,866		£378,062		£327,546		£252,546		£305,341		£2,610,514	
Total 'new' cost		£846	0.02	£841,095	4.5	£891,132	5.25	£596,756	6	£588,147	7.25	£508,938	6.75	£546,982	5.75	£3,973,896	35.5
Existing resource		£15,468	0.18	£351,559	3.9	£356,465	4	£323,228	3.55	£350,085	3.75	£341,917	3.65	£344,081	3.65	£2,082,802	22.7
Grand total (exc travel)		£16,314	0.2	£1,192,654	8.4	£1,247,596	9.25	£919,984	9.55	£938,232	11	£850,855	10.4	£891,063	9.4	£6,056,698	58.2

WP4			Cost to STFC														Total	
			FY 12/13		FY 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		FY 18/19			
	Institution		Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE
New staff	Bristol	Grimes			£33,568	1.0	£34,586	1.0	£35,638	1.0	£36,722	1.0	£37,860	1.0	£38,987	1.0	£217,361	6.0
	Bristol	Kolya			£16,868	0.5	£17,381	0.5	£17,910	0.5	£18,456	0.5	£19,024	0.5	£19,593	0.5	£109,232	3.0
	Bristol	RA 2			£31,615	1.0	£32,575	1.0	£33,566	1.0	£34,586	1.0	£35,638	1.0	£36,722	1.0	£204,702	6.0
	Bristol	Student			£4,355	0.3	£8,709	0.5	£8,709	0.5	£8,709	0.5					£30,482	1.8
	Bristol	Student							£4,355	0.3	£8,709	0.5	£8,709	0.5	£8,709	0.5	£30,482	1.8
	Brunel	Reid			£23,003	0.5	£23,462	0.5	£23,932	0.5	£24,410	0.5	£24,899	0.5	£25,396	0.5	£145,103	3.0
	Imperial	Pesaresi	£1,714	0.05	£20,447	0.6	£21,020	0.6	£21,612	0.6	£22,215	0.6	£22,844	0.6	£23,486	0.6	£133,338	3.7
	Imperial	RA_1			£13,631	0.4	£14,013	0.4	£14,408	0.4	£14,810	0.4	£15,229	0.4	£15,658	0.4	£87,750	2.4
	Imperial	Greenwood	£846	0.02	£10,107	0.3	£10,401	0.3	£10,704	0.3	£11,015	0.3	£11,334	0.3	£11,664	0.3	£66,072	1.5
	Imperial	Student 3							£9,709	0.5	£19,418	1.0	£19,418	1.0	£19,418	1.0	£67,963	3.5
	RAL PPD	RA 2			£69,200	1.0	£69,200	1.0	£69,200	1.0	£69,200	1.0	£69,200	1.0	£69,200	1.0	£415,200	6.0
	RAL TD	Coughlan			£52,181	0.4	£52,181	0.4	£78,272	0.6	£104,363	0.8	£0	0.0	£0	0.0	£286,997	2.2
	RAL TD	Siyad			£106,513	1.0	£106,513	1.0	£106,513	1.0	£106,513	1.0	£0	0.0	£0	0.0	£426,053	4.0
Total		£2,560	0.07	£381,489	6.9	£390,043	7.2	£434,528	8.1	£479,127	9.1	£264,155	6.8	£268,833	6.8	£2,220,734	44.8	
Equipment	Prototypes			£72,663		£42,189										£114,852		
	Preproduction							£22,256								£22,256		
	Production					£17,556		£150,479		£306,958		£38,604				£513,597		
	Institute support			£23,145		£23,145		£14,750		£14,750		£11,750		£11,750		£99,290		
Total equipment				£95,808		£82,890		£187,485		£321,708		£50,354		£11,750		£749,995		
Travel																		
Other costs	Bristol DA																£0	
	Brunel DA	£0		£429		£429		£429		£429		£429		£429		£2,574		
	Imperial DA	£49	0.05	£957	1	£957	1	£957	1	£957	1	£957	1	£957	1	£5,789		
Indirects	Bristol			£80,620		£80,625		£80,625		£80,625		£80,625		£80,625		£483,745		
	Brunel	£0		£15,458		£15,458		£15,458		£15,458		£15,458		£15,458		£92,748		
	Imperial	£1,568	0.05	£30,769	1	£30,769	1	£30,769	1	£30,769	1	£30,769	1	£30,769	1	£186,181		
Estates	Bristol			£37,590		£37,585		£37,585		£37,585		£37,585		£37,585		£225,515		
	Brunel	£0		£4,492		£4,492		£4,492		£4,492		£4,492		£4,492		£26,952		
	Imperial	£656	0.05	£12,878	1	£12,878	1	£12,878	1	£12,878	1	£12,878	1	£12,878	1	£77,927		
Working allowance	Equipment			£115,890		£5,388		£12,187		£20,911		£3,273		£764		£158,413		
	Staff			£0	0	£0	0	£0	0	£0	0	£210,876	1.8	£210,876	1.8	£421,752	3.6	
Total W. Allowance				£115,890	0	£5,388	0	£12,187	0	£20,911	0	£214,149	1.8	£211,640	1.8	£580,165	3.6	
Total non-staff		£2,273		£394,891		£271,471		£382,865		£525,812		£447,696		£406,583		£2,431,590		
Total 'new' cost		£4,833	0.07	£776,380	6.9	£661,514	7.2	£817,393	8.1	£1,004,939	9.1	£711,851	8.6	£675,416	8.6	£4,652,325	48.4	
Existing resource		£5,892	0.07	£366,038	4.55	£359,138	4.5	£358,910	4.5	£360,171	4.5	£361,494	4.5	£348,961	4.4	£2,160,605	26.8	
Grand total (exc travel)		£10,725	0.14	£1,142,417	11.5	£1,020,652	11.7	£1,176,303	12.6	£1,365,110	13.5	£1,073,345	13.0	£1,024,377	12.9	£6,812,929	75.2	

£650,705

Total			Cost to STFC														Total	
			FY 12/13		FY 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		FY 18/19			
	Institution		Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE
New staff	WP1	£3,050	0.05	£36,100	0.6	£36,501	0.6	£36,914	0.6	£37,345	0.6	£37,694	0.6	£37,959	0.6	£225,562	3.7	
	WP2	£1,819	0.05	£255,932	3.8	£160,318	3.3	£236,816	3.8	£184,814	3.3	£113,442	1.8	£48,476	1.2	£1,001,618	17.3	
	WP3	£846	0.02	£183,942	4.5	£201,266	5.3	£218,694	6.0	£260,601	7.3	£256,392	6.8	£241,641	5.8	£1,363,382	35.5	
	WP4	£2,560	0.07	£381,489	6.9	£390,043	7.2	£434,528	8.1	£479,127	9.1	£264,155	6.8	£268,833	6.8	£2,220,734	44.8	
Total		£8,275	0.19	£857,463	15.8	£788,127	16.3	£926,953	18.5	£961,886	20.2	£671,684	15.9	£596,909	14.3	£4,811,297	101.2	

Equipment				£508,554		£806,902		£618,723		£663,632		£139,213		£150,182		£2,887,206		
Travel				£40,000		£50,000		£60,000		£75,000		£90,000		£75,000		£390,000		
Other costs	WP1	DA	£24	£287	£287	£287	£287	£287	£287	£287	£287	£287	£287	£287	£287	£1,747		
	WP2	DA	£33	£957	£957	£957	£957	£957	£957	£957	£957	£957	£957	£957	£957	£5,773		
	WP3	DA	£0	£957	£957	£957	£957	£957	£1,913	£1,913	£1,913	£1,913	£1,913	£1,913	£1,913	£8,610		
	WP4	DA	£49	£1,386	£1,386	£1,386	£1,386	£1,386	£1,386	£1,386	£1,386	£1,386	£1,386	£1,386	£1,386	£8,363		
Indirects	WP1		£784	£9,231	£9,231	£9,231	£9,231	£9,231	£9,231	£9,231	£9,231	£9,231	£9,231	£9,231	£9,231	£56,168		
	WP2		£1,045	£30,769	£30,769	£30,769	£30,769	£30,769	£30,769	£30,769	£30,769	£30,769	£30,769	£30,769	£30,769	£185,658		
	WP3		£0	£95,265	£95,269	£95,269	£95,269	£126,038	£126,038	£126,038	£126,038	£126,038	£126,038	£126,038	£126,038	£663,915		
	WP4		£1,568	£126,847	£126,852	£126,852	£126,852	£126,852	£126,852	£126,852	£126,852	£126,852	£126,852	£126,852	£126,852	£762,674		
Estates	WP1		£328	£3,864	£3,864	£3,864	£3,864	£3,864	£3,864	£3,864	£3,864	£3,864	£3,864	£3,864	£3,864	£23,509		
	WP2		£438	£12,878	£12,878	£12,878	£12,878	£12,878	£12,878	£12,878	£12,878	£12,878	£12,878	£12,878	£12,878	£77,708		
	WP3		£0	£42,950	£42,946	£42,946	£42,946	£55,825	£55,825	£55,825	£55,825	£55,825	£55,825	£55,825	£55,825	£296,318		
	WP4		£656	£54,960	£54,955	£54,955	£54,955	£54,955	£54,955	£54,955	£54,955	£54,955	£54,955	£54,955	£54,955	£330,394		
Working allowance				£245,411	0.0	£45,995	0.0	£33,764	0.0	£36,682	0.0	£396,411	1.8	£219,059	1.8	£977,322	3.6	
Total non-staff			£4,925	£1,174,315	£1,283,247	£1,092,837	£1,200,268	£1,050,578	£869,195	£6,675,365								
Total 'new' cost			£13,200	0.19	£2,031,778	15.8	£2,071,374	16.3	£2,019,790	18.5	£2,162,154	20.2	£1,722,261	17.7	£1,466,104	16.1	£11,486,662	104.8
Existing resource			£30,935	0.35	£872,001	10.4	£866,284	10.4	£839,898	9.9	£869,667	10.1	£864,564	10.0	£855,676	9.9	£5,199,026	61.0
Grand total			£44,135	0.54	£2,903,779	26.2	£2,937,658	26.7	£2,859,688	28.4	£3,031,821	30.3	£2,586,826	27.7	£2,321,780	26.0	£16,685,688	165.8

£16,295,688

£390,000