

Technical Document 2

attached to the European XFEL Convention

Estimated annual incidence of expenditure (in million Euro, 2005 prices, excluding taxes)

Year	Preparation		Construction without preparation and commissioning		Commissioning		Construction Cost	
	Start-up config.	TDR adjusted	Start-up config.	TDR adjusted	Start-up config.	TDR adjusted	Start-up config.	TDR adjusted
2005	14.0	14.0					14.0	14.0
2006	20.4	20.4					20.4	20.4
2007	3.1	3.1	10.4	10.4			13.5	13.5
2008	1.3	1.3	62.0	64.1			63.3	65.4
2009			131.9	136.9			131.9	136.9
2010			191.9	201.9			191.9	201.9
2011			182.3	202.3			182.3	202.3
2012			164.5	194.5			164.5	194.5
2013			80.7	110.7	13.7	13.7	94.4	124.4
2014			20.2	40.2	28.0	28.0	48.2	68.2
2015			5.4	20.4	7.1	10.3	12.5	30.7
2016				5.0	1.2	4.4	1.2	9.4
Total	38.8	38.8	849.3	986.4	50.0	56.4	938.1	1081.6

An additional **risk budget** of 78 M€ would be required in order

- to provide a 98% probability to complete the project within budget even with pessimistic assumptions on cost variations and
- to cover the cost risk due to a potential delay of about half a year.

Expenditure under **operating costs** will ramp up from year 2014 on to reach an annual amount of 83.6 million Euro (in 2005 prices) from 2017 on for the full TDR version, and 64.2 million Euro (in 2005 prices) per year for the start-up configuration.