Candidates should fill in the yellow spaces ONLY

	140 Qubits	1000 Qubits	server
Time required for running - on final machine (h)	*1 522 789*	*0*	*32 904 246*
Total run emissions (without preparation)	3221,6	0,0	2868,8
Total Use-case emissions (incl. preparation) tCO2	**5496,2**	**0,0**	**2868,8**

			Reference computation
	140 Qubits	**1000 Qubits**	**server**
CPU (units)			0
GPU (units)			3
RAM (TB)	25	25	0,128
SDD (PB)			0,015
HDD (PB)			0,15
Total hardware manufacturing (tCO2 eq)			2
emissions	20 440	20 440	28 032
run hour)	**1,2**	**1,2**	**0,07**
Nominal Power requirement (kW)	3	10	0,200
net cooling, maintenance, etc.)	3,5	3,5	1,25
Carbonation of electricity (kgCO2 eq/MWh)	85	85	85
Equivalent run emissions (kgCO2 eq/ run hour)	**0,9**	**3,0**	**0,02**
Total run emissions (kgCO2 eq/run hour)	**2,1**	**4,2**	**0,09**
Additional emissions for preparation time (benchmarked on a typical algo running 1000h on Fresr			
Time required for preparation - standard server (h)	*5 000*	*5 000*	*0*
Time required for preparation - on final machine (h)	*500*	*500*	
Time required for running - on final machine (h)	*1 000*	*100*	*100 000*
Total time	1 500	600	100 000
Total tCO2 eq emissions including preparation	**3,6**	**3,0**	**8,7**
tCO2 eq emissions withoiut preparation	2,1	0,4	8,7
Overhead ratio for preparation time	**171%**	**704%**	**100%**

7Pflops/s	Notes
126 916	case once fully prepared until final output
27308	
27307,5	

7Pflops/s	*Impact unit in kgCO2eq. /u*	
4 584		*20*
4 584		*20*
1 146		*3 600*
0		*51 000*
5		*3 750*
4 328	*transport and disposal over lifetime*	
49 056	*lifetime taken as the amortizing basis for*	
88		
1 436		
1,04		
85	*French electricity is taken as reference*	
127		
215		

ıel)	
0	standard server before addressing the
	or QPU before running the use-case
100	case once fully prepared until final output
100	
22	to reference unit emissions for the
22	
100%	