

Operational and unit costs for

Research Computing Platform (RCP)

		Equipments														
		CAAS H100 - CPU	CAAS H100 - RAM	CAAS H100 - GPU	CAAS V100 - CPU	CAAS V100 - RAM	CAAS V100 - GPU	CAAS A100 - CPU	CAAS A100 - RAM	CAAS A100 - GPU	HAAS Servers	HAAS Middle End Servers	HAAS High End Servers	HAAS Big Mem Servers	Storage 10PB	
No. of nodes		10	-	-	20	-	-	32	-	-	28	29	12	2	104	
No. of cores		192			72			128								
No. of GB			15'360			7'680			16'384							
No. of GPU				80			80			256						
Total																
Yearly operational costs, CHF																
<i>Direct costs</i>																
1.1	Salaries and social charges of operational personnel	241'386	4'604	3'909	38'215	3'895	3'316	9'528	8'541	6'919	66'474	6'571	4'743	3'209	990	80'473
1.2	Consumables															
1.3	Fluid costs															
1.4	Energy (for equipment for which this variable cost is significant)	328'502	7'517	1'296	72'576	7'776	2'592	31'104	18'662	4'147	132'710	13'245	10'860	7'490	2'759	15'768
1.5	Goods of non-durable value (≤ 4 years)	1'127'756	33'694	33'694	269'551	27'094	27'094	54'188	57'793	57'793	462'346	45'573	31'600	21'235	6'101	
1.6	Others	7'519														7'519
Total direct costs (T1)		CHF 1'705'163	45'815	38'899	380'342	38'765	33'002	94'820	84'996	68'859	661'530	65'389	47'203	31'934	9'850	103'760
<i>Other direct costs</i>																
2.1	Salaries and social charges of maintenance personnel	26'141	499	423	4'138	422	359	1'032	925	749	7'199	712	514	347	107	8'715
2.2	Maintenance contracts	204'365														204'365
2.3	Depreciation (for equipment with a duration ≥ 5 years)	828'376	12'881	12'881	12'881	25'763	25'763	25'763	41'220	41'220	41'220	36'068	37'356	15'458	2'576	497'326
2.4	Others															
Total other direct costs (T2)		CHF 1'058'882	13'380	13'304	17'019	26'185	26'122	26'795	42'145	41'969	48'419	36'780	37'870	15'805	2'683	710'406
<i>Indirect costs</i>																
3.1	Salaries and social charges of administrative personnel	503'270	9'598	8'149	79'676	8'121	6'914	19'865	17'807	14'426	138'592	13'699	9'889	6'690	2'064	167'780
3.2	Salaries and social charges of central services personnel	52'000	1'111	1'111	1'111	1'111	1'111	1'111	3'556	3'556	3'556	6'836	7'080	2'930	488	17'332
3.3	Rent and running expenses of the platform m2 of surface	50'420	3'849	3'849	3'849	1'868	1'868	1'868	5'335	5'335	5'335	2'487	2'487	2'487	2'487	7'316
3.4	Others	9'723	269	269	269	539	539	539	862	862	862	754	781	323	54	2'801
Total indirect costs (T3)		CHF 615'413	14'827	13'378	84'905	11'639	10'432	23'383	27'560	24'179	148'345	23'776	20'237	12'430	5'093	195'229
Total operational costs (OPEX)		CHF 3'379'459	74'022	65'581	482'266	76'589	69'556	144'998	154'701	135'007	858'294	125'945	105'310	60'169	17'626	1'009'395

Unit operational costs, CHF

		Unit	Core*h	GB*h	GPU*h	Core*h	GB*h	GPU*h	Core*h	GB*h	GPU*h	Server*d	Server*d	Server*d	Server*d	TB/Year	
Usage (Units/year)		A	16'819'200	134'553'600	700'800	12'614'400	67'276'800	700'800	35'880'960	143'523'840	2'242'560	10'220	10'585	4'380	730	5'000	
Uptime (Units/year)		B	16'819'200	134'553'600	700'800	12'614'400	67'276'800	700'800	35'880'960	143'523'840	2'242'560	10'220	10'585	4'380	730	10'000	
U.1	User fee 1 (direct costs)	CHF/unit	T1/A	0.00272	0.00029	0.54273	0.00307	0.00049	0.13530	0.00237	0.00048	0.29499	6.39810	4.45944	7.29084	13.49281	20.75200
U.2	User fee 2 (direct costs + other direct costs)	CHF/unit	U.1 + T2/B	0.00352	0.00039	0.56701	0.00515	0.00088	0.17354	0.00354	0.00077	0.31658	9.99692	8.03715	10.89929	17.16815	91.79260
U.3	User fee 3 (direct costs + other direct costs + indirect costs)	CHF/unit	U.2 + T3/B	0.00440	0.00049	0.68817	0.00607	0.00103	0.20690	0.00431	0.00094	0.38273	12.32336	9.94902	13.73724	24.14469	111.31550

Personnel of the common research facility		FTE	5.2
P.1	Operational		33%
P.2	Maintenance		4%
P.3	Administrative		63%
P.4	Others		
Total			100%

OPEX of the platform based on accounting year 2024
 EPFL applies a standard hourly rates by personnel categories
(ref. to Standard Annual Productive Hours & Hourly Rates dated December 2024)