RealData

DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Raw-Data	0	0	0	0	0	0	0	17050	25850
Test	0	0	0	0	2000	5000	10100	12100	12100
Sub-Total	0	0	0	0	2000	5000	10100	29150	37950

Table 1: Real data create/year in TB

Real Data after scaling to cap of 30 PB.
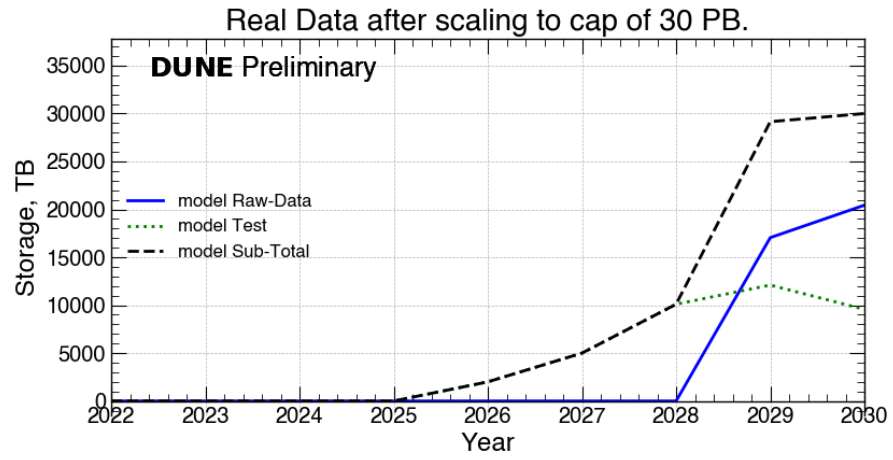
DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Raw-Data	0	0	0	0	0	0	0	17050	20434
Test	0	0	0	0	2000	5000	10100	12100	9565
Sub-Total	0	0	0	0	2000	5000	10100	29150	30000

Table 2: Real data created/year in TB, after scaling to cap of 30 PB. All data types are scaled by the same factor.

Processing by Type
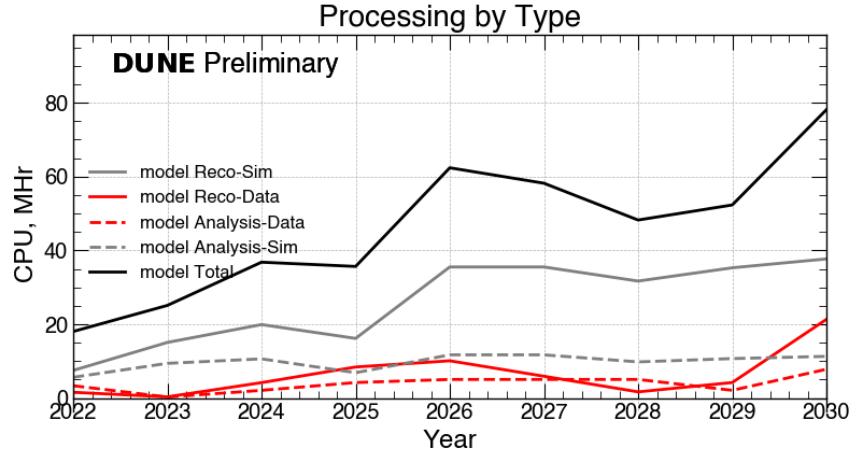
DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reco-Sim	7.5	15.1	19.9	16.2	35.5	35.5	31.7	35.3	37.7
Reco-Data	1.6	0.3	4.2	8.4	10.1	5.9	1.7	4.2	21.3
Analysis-Data	3.4	0.3	2.1	4.2	5.1	5.1	5.1	2.1	7.8
Analysis-Sim	5.6	9.4	10.6	6.9	11.7	11.7	9.8	10.7	11.3
Total	18.0	25.1	36.8	35.7	62.4	58.2	48.2	52.3	78.1

Table 3: CPU resources by data types by year.

Processing by Detector

DUNE Preliminary

Detectors	2022	2023	2024	2025	2026	2027	2028	2029	2030
SP	11.7	7.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0
PDHD	5.6	5.6	10.6	11.9	13.1	9.8	3.3	0.0	0.0
DP	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PDVD	0.0	5.7	7.0	12.1	13.4	12.5	3.4	0.0	0.0
FDHD	0.0	2.8	2.8	2.8	2.8	2.8	5.6	9.8	13.9
FDVD	0.0	2.8	2.8	2.8	2.8	2.8	5.6	7.8	12.2
ND-SAND	0.0	0.0	0.3	0.3	1.5	1.5	1.5	6.0	9.0
ND-LAr+TMS	0.0	0.0	5.8	5.8	28.8	28.8	28.8	28.8	43.0
Total	18.0	25.1	36.8	35.7	62.4	58.2	48.2	52.3	78.1
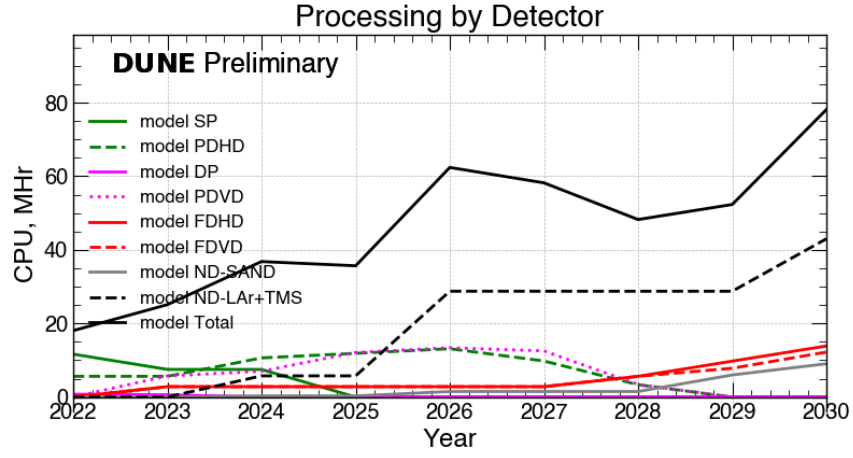
Table 4: CPU resources by detector by year.

Processing by Type

DUNE Preliminary
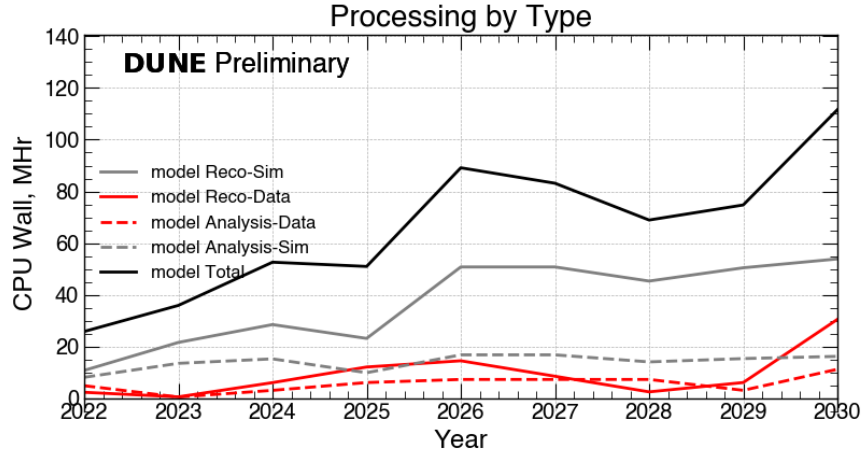
DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reco-Sim	10	21	28	23	50	50	45	50	53
Reco-Data	2	0	5	12	14	8	2	6	30
Analysis-Data	4	0	2	6	7	7	7	3	11
Analysis-Sim	8	13	15	9	16	16	14	15	16
Total	25	35	52	50	89	83	68	74	111

Table 5: CPU Wall resources by data types by year.

Processing by Detector
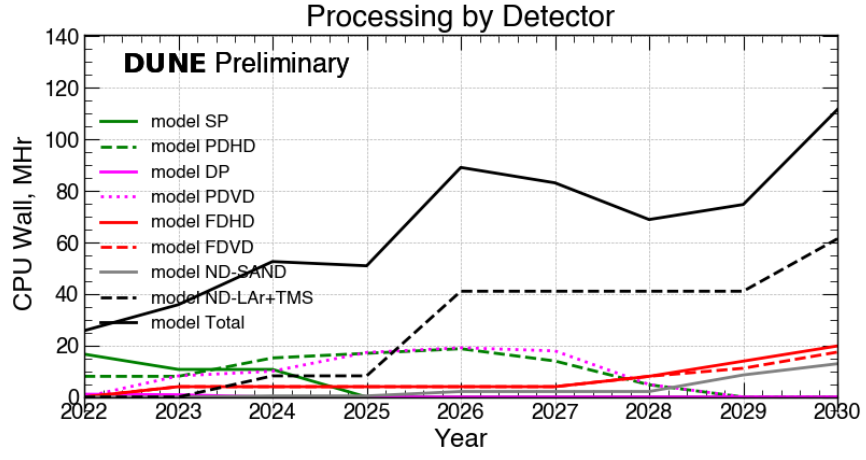
Detectors	2022	2023	2024	2025	2026	2027	2028	2029	2030
SP	16	10	10	0	0	0	0	0	0
PDHD	8	8	15	16	18	13	4	0	0
DP	1	0	0	0	0	0	0	0	0
PDVD	0	8	10	17	19	17	4	0	0
FDHD	0	4	4	4	4	4	8	13	19
FDVD	0	4	4	4	4	4	8	11	17
ND-SAND	0	0	0	0	2	2	2	8	12
ND-LAr+TMS	0	0	8	8	41	41	41	41	61
Total	25	35	52	50	89	83	68	74	111

Table 6: CPU Wall resources by detector by year.

Table 7: CPU kHS23-Yr resources by data types by year.
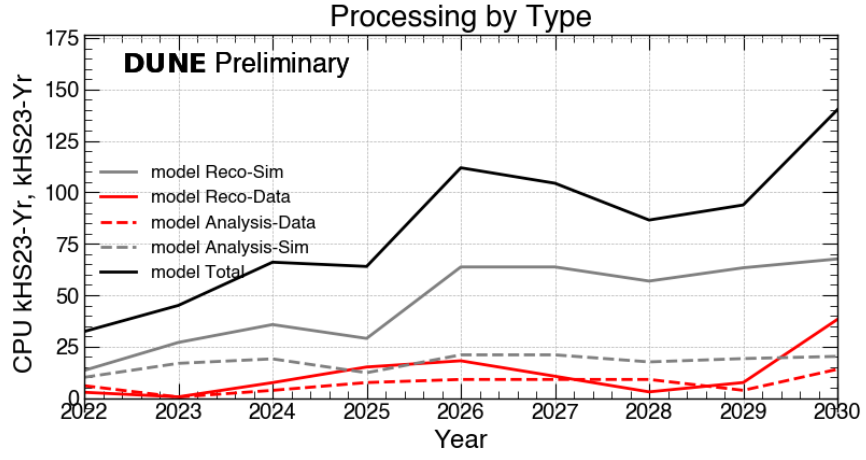
DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reco-Sim	13	27	35	28	63	63	56	63	67
Reco-Data	2	0	7	15	18	10	3	7	38
Analysis-Data	6	0	3	7	9	9	9	3	13
Analysis-Sim	10	16	19	12	21	21	17	19	20
Total	32	45	66	63	111	104	86	93	140

Processing by Detector
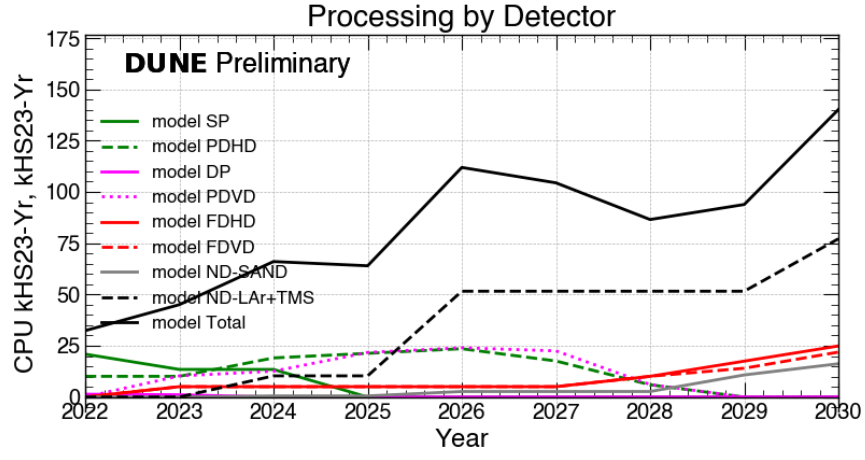
Detectors	2022	2023	2024	2025	2026	2027	2028	2029	2030
SP	20	13	13	0	0	0	0	0	0
PDHD	10	10	19	21	23	17	5	0	0
DP	1	1	0	0	0	0	0	0	0
PDVD	0	10	12	21	24	22	6	0	0
FDHD	0	5	5	5	5	5	10	17	24
FDVD	0	5	5	5	5	5	10	14	21
ND-SAND	0	0	0	0	2	2	2	10	16
ND-LAr+TMS	0	0	10	10	51	51	51	51	77
Total	32	45	66	63	111	104	86	93	140

Table 8: CPU kHS23-Yr resources by detector by year.

Processing by Type

DUNE Preliminary

CPU Cores, Cores

model Reco-Sim
model Reco-Data
model Analysis-Data
model Analysis-Sim
model Total
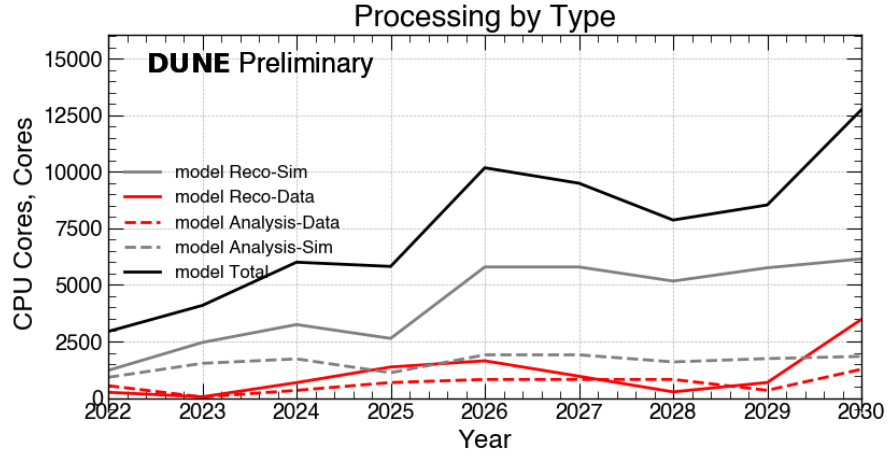
DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reco-Sim	1223	2458	3247	2636	5793	5793	5169	5756	6148
Reco-Data	255	54	682	1372	1647	965	274	687	3477
Analysis-Data	546	46	341	686	823	823	823	343	1272
Analysis-Sim	917	1534	1732	1120	1910	1910	1598	1744	1842
Total	2942	4093	6003	5816	10174	9492	7866	8532	12740

Table 9: CPU Cores resources by data types by year.

Processing by Detector
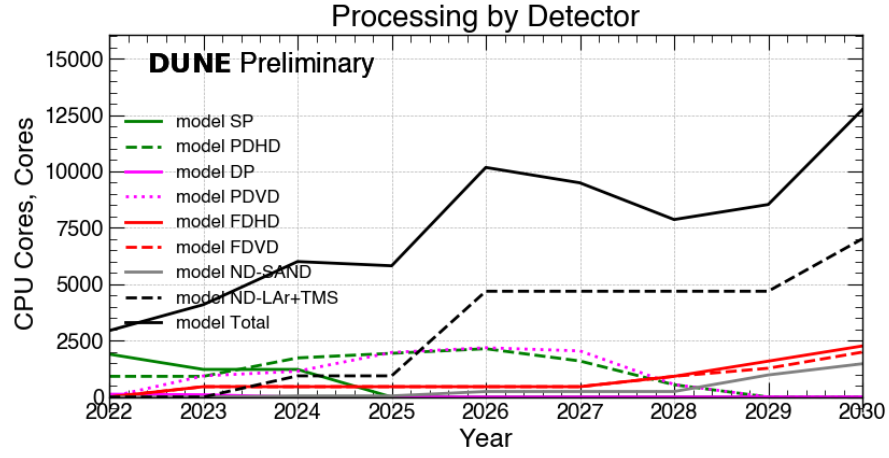
Detectors	2022	2023	2024	2025	2026	2027	2028	2029	2030
SP	1900	1223	1223	0	0	0	0	0	0
PDHD	917	917	1732	1936	2140	1596	543	0	0
DP	125	100	0	0	0	0	0	0	0
PDVD	0	935	1143	1975	2183	2044	554	0	0
FDHD	0	458	458	458	458	458	917	1590	2262
FDVD	0	458	458	458	458	458	917	1275	1990
ND-SAND	0	0	48	48	244	244	244	978	1474
ND-LAr+TMS	0	0	937	937	4688	4688	4688	4688	7012
Total	2942	4093	6003	5816	10174	9492	7866	8532	12740

Table 10: CPU Cores resources by detector by year.

New Tape by Type
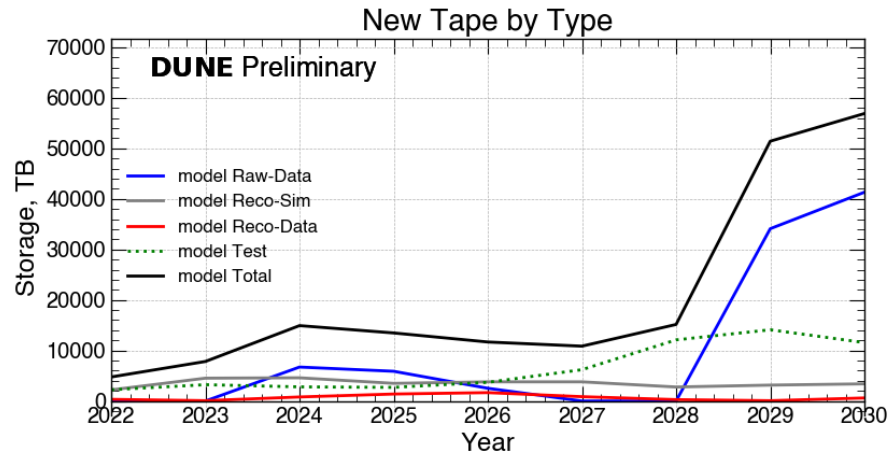
DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Raw-Data	0	0	6722	5888	2522	0	0	34100	41319
Reco-Sim	2200	4522	4597	3497	3797	3797	2775	3150	3400
Reco-Data	329	70	802	1385	1662	860	277	66	604
Test	2231	3231	2800	2700	3700	6200	12100	14100	11565
Total	4760	7823	14921	13470	11681	10857	15152	51416	56888

Table 11: New Tape by data type.

New Tape by Detector

Detectors	2022	2023	2024	2025	2026	2027	2028	2029	2030
SP	1327	1100	1100	0	0	0	0	0	0
PDHD	2100	2100	7500	3875	3550	1450	175	0	0
DP	332	301	500	500	0	0	0	0	0
PDVD	1000	2122	3346	6620	3356	1632	102	0	0
FDHD	0	600	600	600	1600	3100	6200	23744	19074
FDVD	0	600	600	600	1600	3100	6300	24922	33914
ND-SAND	0	0	225	225	325	325	1125	1500	2050
ND-LAr+TMS	0	1000	1050	1050	1250	1250	1250	1250	1850
Total	4760	7823	14921	13470	11681	10857	15152	51416	56888

Table 12: New Tape by detector.

New Tape by Site

DUNE Preliminary
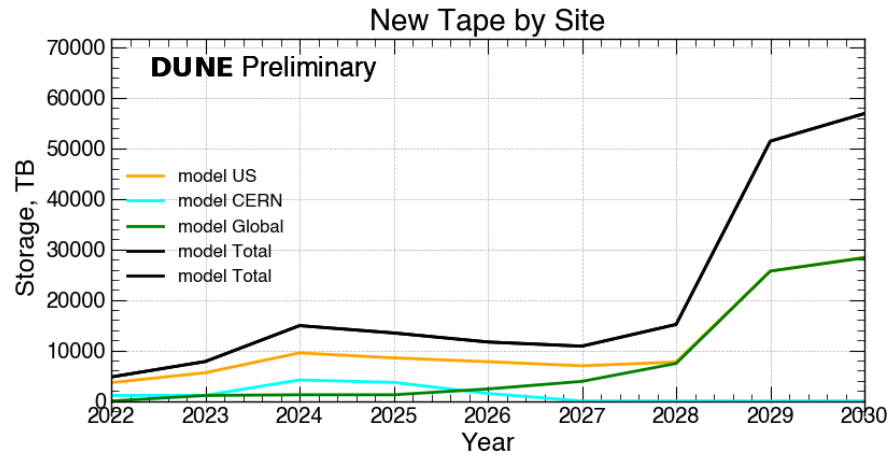
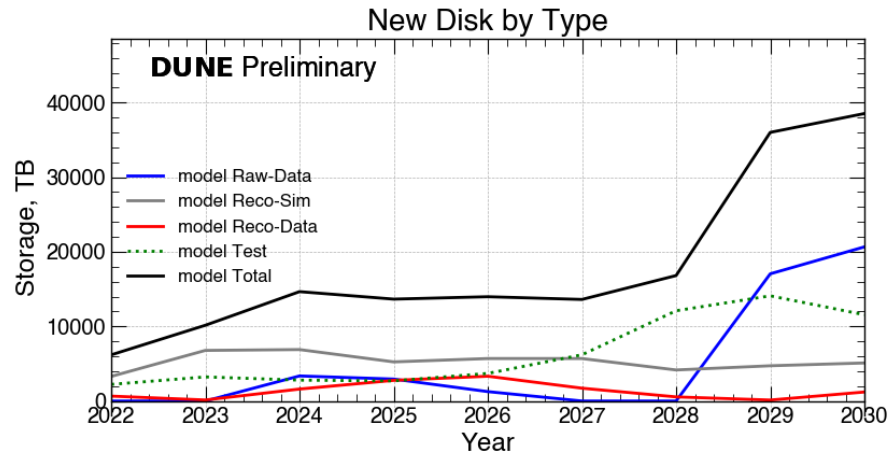| Locations	2022	2023	2024	2025	2026	2027	2028	2029	2030
US	3644	5607	9522	8538	7782	6969	7714	25708	28444
CERN	1115	1115	4161	3694	1511	0	0	0	0
Global	0	1100	1237	1237	2387	3887	7437	25708	28331
Total	4760	7823	14921	13470	11681	10857	15152	51416	56888
Total	4760	7823	14921	13470	11681	10857	15152	51416	56888

Table 13: New Tape by site.

Cumulative Tape by Type

DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Raw-Data	5900	5900	12622	18510	21032	21032	21032	55132	96451
Reco-Sim	10472	14994	19591	23088	26885	30682	33457	36607	40007
Reco-Data	4151	4221	5023	6408	8070	8930	9207	9273	9877
Test	2231	3231	2800	2700	3700	6200	12100	14100	11565
Total	22754	28346	40036	50706	59687	66844	75796	115112	157900

Table 14: Cumulative Tape by data type.

Cumulative Tape by Detector
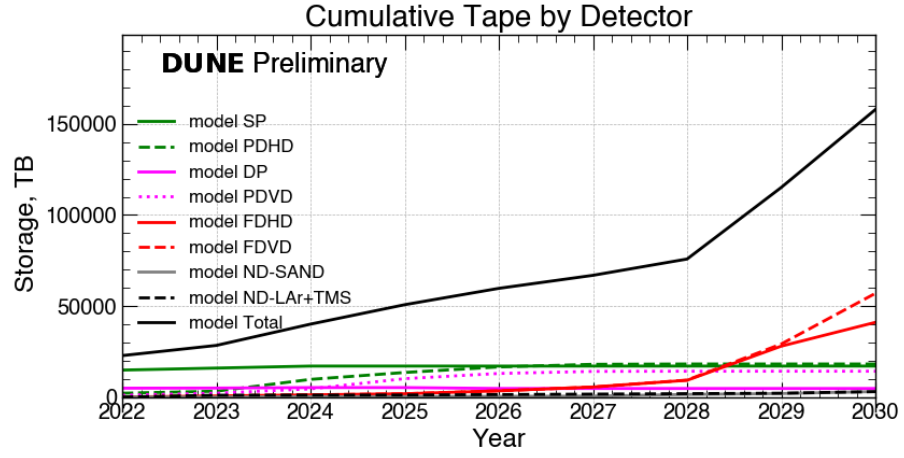
Detectors	2022	2023	2024	2025	2026	2027	2028	2029	2030
SP	14802	15902	17002	17002	17002	17002	17002	17002	17002
PDHD	2100	3200	9700	13475	16525	17975	18150	18150	18150
DP	4852	4922	5191	5191	4691	4691	4691	4691	4691
PDVD	1000	2122	4468	10088	12944	14076	14178	14178	14178
FDHD	0	600	1200	1800	3400	5500	9200	27944	41018
FDVD	0	600	1200	1800	3400	5500	9300	29122	56936
ND-SAND	0	0	225	250	375	500	1425	1925	2975
ND-LAr+TMS	0	1000	1050	1100	1350	1600	1850	2100	2950
Total	22754	28346	40036	50706	59687	66844	75796	115112	157900

Table 15: Cumulative Tape by detector.

Cumulative Tape by Site
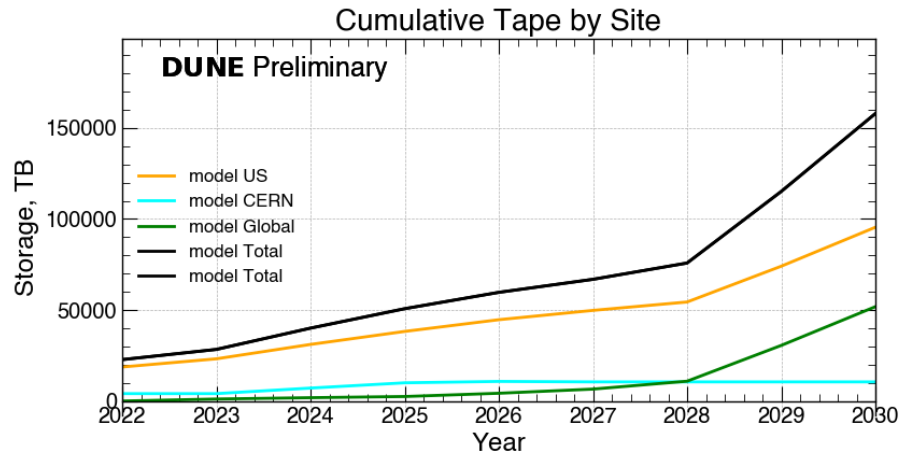
Locations	2022	2023	2024	2025	2026	2027	2028	2029	2030
US	18688	23180	31087	38226	44658	49778	54392	74050	95444
CERN	4065	4065	7111	10005	10766	10516	10516	10516	10516
Global	0	1100	1837	2475	4262	6550	10887	30545	51827
Total	22754	28346	40036	50706	59687	66844	75796	115112	157900
Total	22754	28346	40036	50706	59687	66844	75796	115112	157900

Table 16: Cumulative Tape by site.

DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Raw-Data	0	0	3361	2944	1261	0	0	17050	20659
Reco-Sim	3300	6783	6895	5245	5695	5695	4162	4725	5100
Reco-Data	658	140	1604	2770	3324	1720	554	132	1208
Test	2231	3231	2800	2700	3700	6200	12100	14100	11565
Total	6189	10154	14660	13659	13980	13615	16816	36007	38533

Table 17: New Disk by data type.

New Disk by Detector
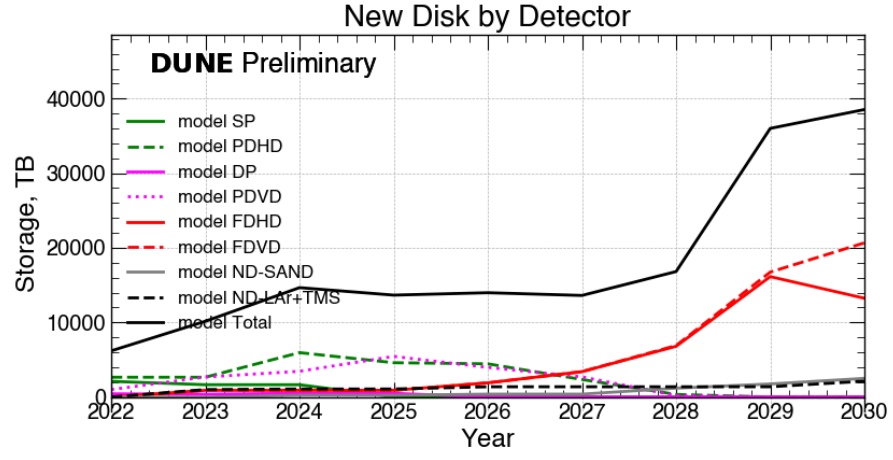
Detectors	2022	2023	2024	2025	2026	2027	2028	2029	2030
SP	2105	1650	1650	0	0	0	0	0	0
PDHD	2650	2650	5950	4600	4450	2350	350	0	0
DP	434	371	500	500	0	0	0	0	0
PDVD	1000	2683	3448	5447	3968	2703	204	0	0
FDHD	0	900	900	900	1900	3400	6800	16138	13240
FDVD	0	900	900	900	1900	3400	6900	16744	20667
ND-SAND	0	0	237	237	387	387	1187	1750	2500
ND-LAr+TMS	0	1000	1075	1075	1375	1375	1375	1375	2125
Total	6189	10154	14660	13659	13980	13615	16816	36007	38533

Table 18: New Disk by detector.

New Disk by Site
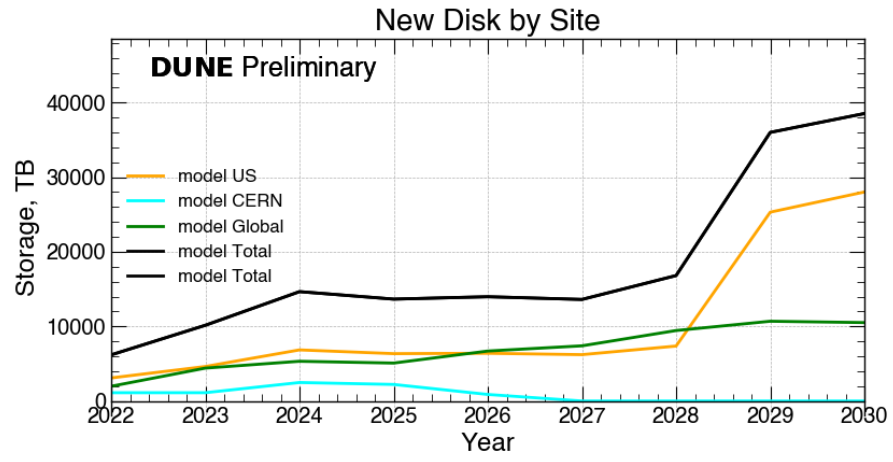
Locations	2022	2023	2024	2025	2026	2027	2028	2029	2030
US	3094	4627	6852	6351	6399	6217	7367	25314	28019
CERN	1115	1115	2480	2222	880	0	0	0	0
Global	1979	4411	5327	5085	6700	7398	9448	10692	10513
Total	6189	10154	14660	13659	13980	13615	16816	36007	38533
Total	6189	10154	14660	13659	13980	13615	16816	36007	38533

Table 19: New Disk by site.
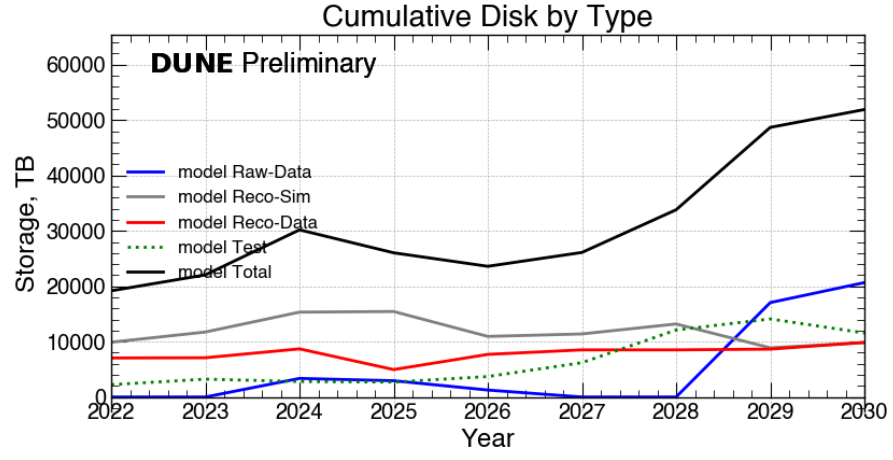
Cumulative Disk by Type

DataTypes	2022	2023	2024	2025	2026	2027	2028	2029	2030
Raw-Data	0	0	3361	2944	1261	0	0	17050	20659
Reco-Sim	9900	11733	15328	15441	10941	11391	13191	8887	9825
Reco-Data	7049	7091	8695	4955	7698	8514	8514	8646	9854
Test	2231	3231	2800	2700	3700	6200	12100	14100	11565
Total	19180	22055	30184	26040	23600	26105	33805	48683	51904

Table 20: Cumulative Disk by data type.

Cumulative Disk by Detector
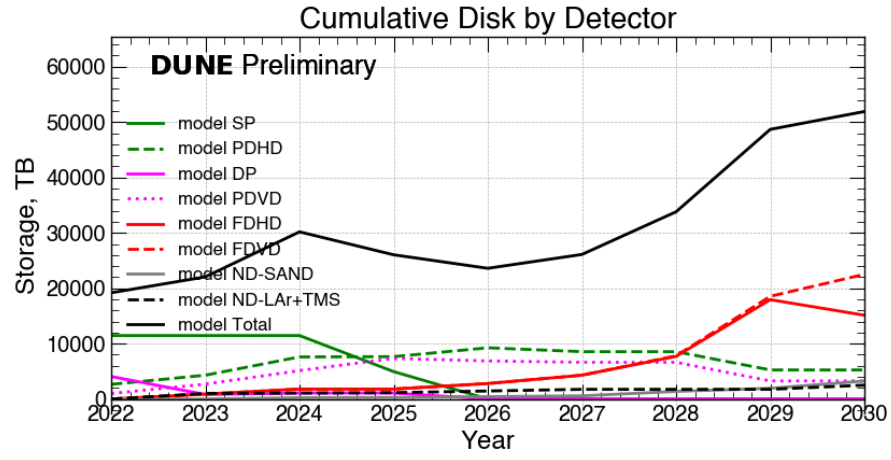
Detectors	2022	2023	2024	2025	2026	2027	2028	2029	2030
SP	11460	11460	11460	4950	0	0	0	0	0
PDHD	2650	4300	7600	7650	9250	8550	8550	5250	5250
DP	4070	812	1081	1081	0	0	0	0	0
PDVD	1000	2683	5131	7334	6875	6630	6630	3264	3264
FDHD	0	900	1800	1800	2800	4300	7700	17938	15128
FDVD	0	900	1800	1800	2800	4300	7800	18544	22511
ND-SAND	0	0	237	275	425	575	1375	1937	3250
ND-LAr+TMS	0	1000	1075	1150	1450	1750	1750	1750	2500
Total	19180	22055	30184	26040	23600	26105	33805	48683	51904

Table 21: Cumulative Disk by detector.

Cumulative Disk by Site
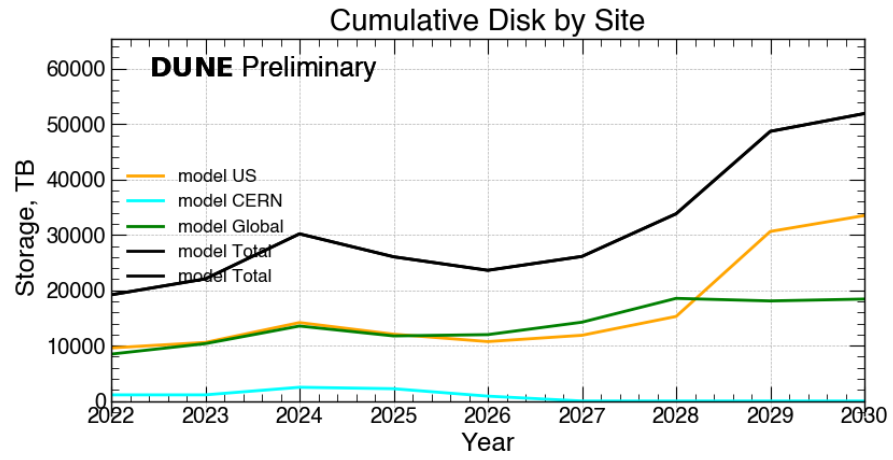
Locations	2022	2023	2024	2025	2026	2027	2028	2029	2030
US	9590	10577	14164	12063	10731	11871	15271	30611	33490
CERN	1115	1115	2480	2222	880	0	0	0	0
Global	8474	10362	13539	11754	11988	14233	18533	18071	18413
Total	19180	22055	30184	26040	23600	26105	33805	48683	51904
Total	19180	22055	30184	26040	23600	26105	33805	48683	51904

Table 22: Cumulative Disk by site.