

2021q3 - status

NeIC NT1 Manager
Mattias Wadenstein
<maswan@ndgf.org>

2020-11-25
NLCCG Committee meeting 4/2021
Oslo, Norway

Overview

- Resource changes
- Noteworthy events and issues
- Statistics
- Board reporting



Resource changes

- UiB tape pools in semi-production
 - We have started migration of data from HPC2N
 - The plan is to empty HPC2N so that Sweden with high speed but low total capacity/pledge can be useful for taking new data
 - Performance OK but not great, local admins still poking
- New Slovenian pools as part of EuroHPC
 - 3 PB backed by Ceph
 - Currently RBD backend, switching to CephFS for performance reasons
- New KU pools
 - Faster tape write, some more capacity, etc



Resource changes

- Lots of more CPU capacity in one of our associated tier-2s
 - Vega EuroHPC resource running up to 250k ATLAS jobs
 - Reading lots of input from NDGF



Noteworthy events and issues

- WLCG Network and Tape challenges 2021
 - NDGF did well, surpassing the targets set
 - Long-term outlook is still growing storage transfer rates (including network) by a factor of 12 before HL-LHC
- High network load
 - A data intensive workflow with many job slots at Vega saturated our LHCONE network connectivity
 - NORDUNet put in some temporary extra capacity
 - We regularly now see 20GByte/s aggregate reads from storage

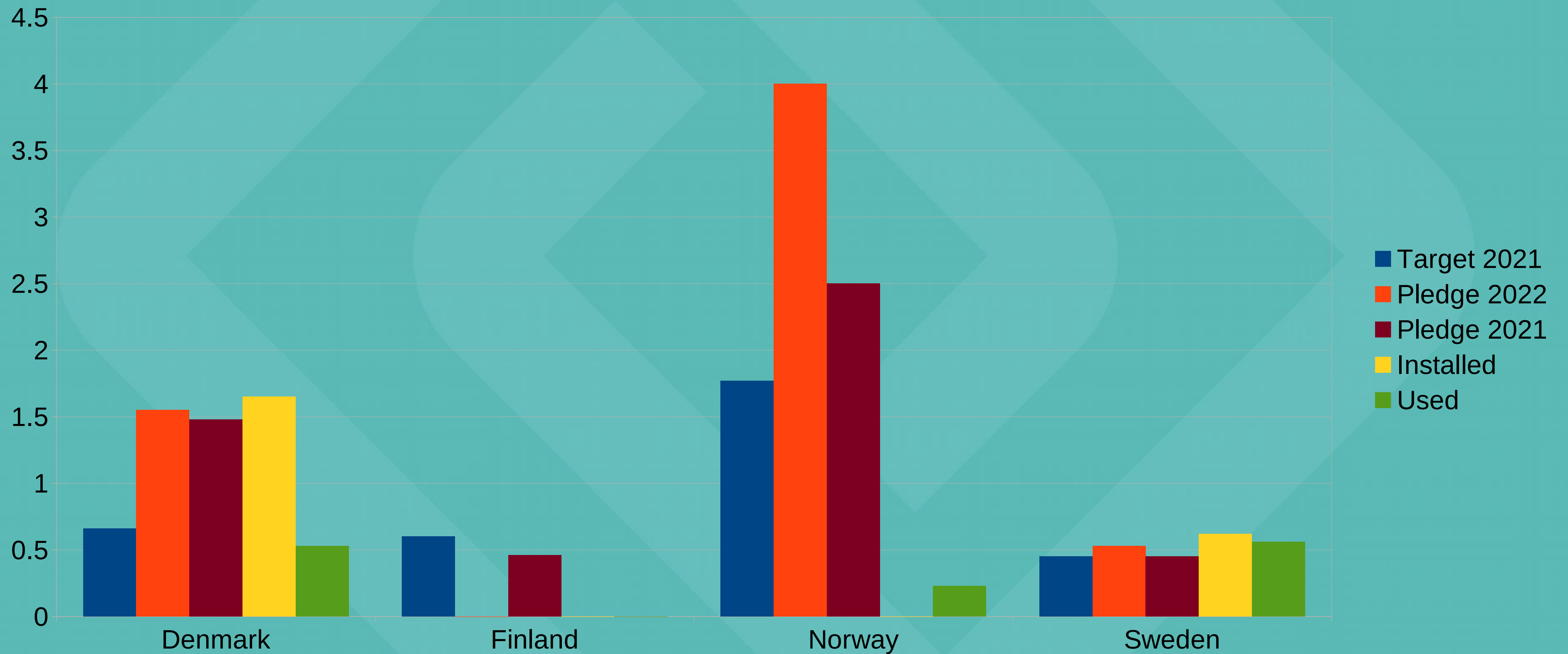


Network challenge

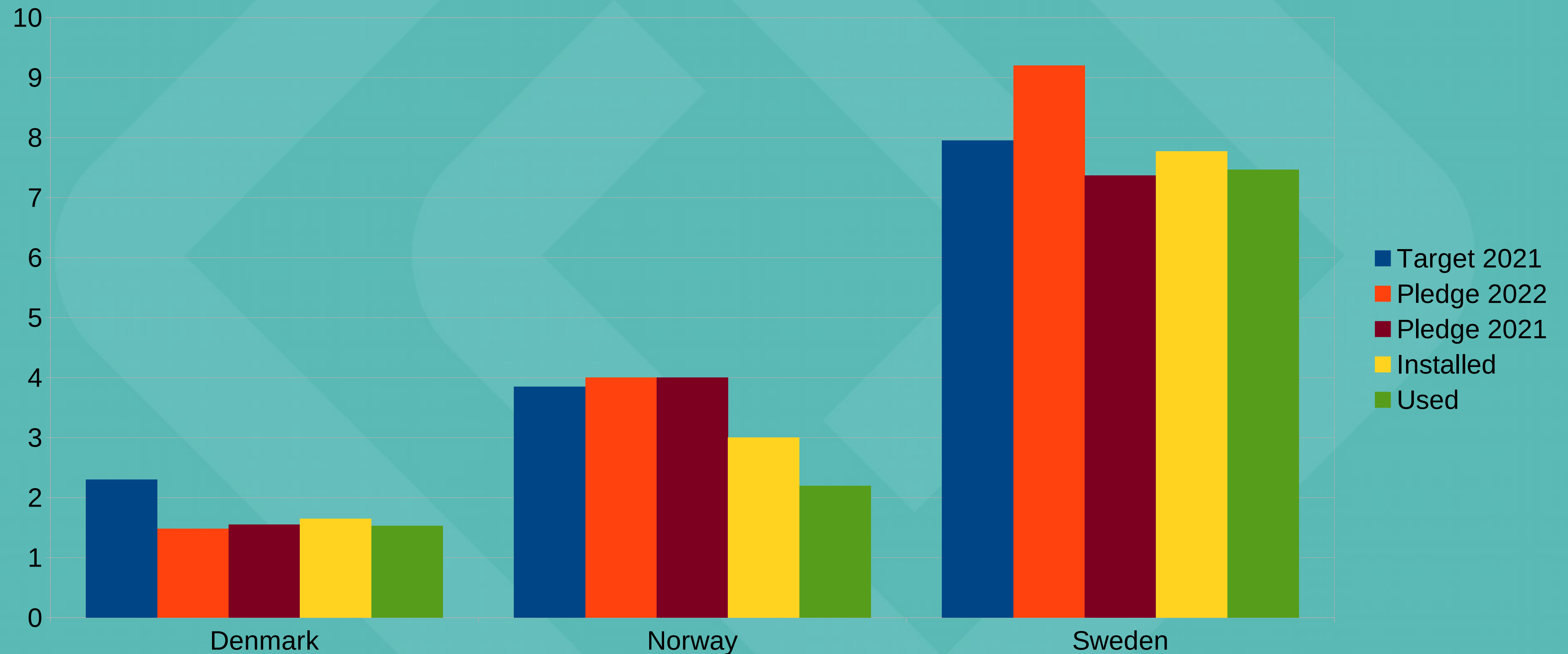
T1	Minimal Scenario 2027	Flexible scenario 2027	Minimal scenario ingress/egress targets 2021	Ingress (hourly avg/max)	Egress (hourly avg/max)	comments
CA-TRIUMF	200	400	10/10	17/49	25/70	ok
DE-KIT	600	1200	30/30	33/77	52/143	ok
ES-PIC	200	400	10/10	11/18	11/17	ok
FR-CCIN2P3	570	1140	30/30	35/70	41/80	ok
IT-INFN-CNAF	690	1380	30/30	25/57	43/87	sum ok
KR-KISTI-GSDC	50	100	0	0	0	Alice T1
NDGF	140	280	10/10	26/49	27/82	ok
NL-T1 (NIKHEF)	-	-	10/10	10/37	12/53	ok
NL-T1 (SARA)	180	360	10/10	13/51	16/79	ok
RU-JINR-T1	200	400	10/10	11/26	12/31	ok
RU-NRC-KI-T1	120	240	10/10	9/18	12/34	sum ok
TW-ASGC	-	-	10/10	8/16	10/13	explain
UK-T1-RAL	610	1220	30/30	16/41	25/43	explain
US-FNAL-CMS	800	1600	40/40	16/49	19/49	explain
US-T1-BNL	450	900	20/20	29/75	38/117	ok
Atlantic link	1250	2500	60/60			
Sum	4810	9620	240/240	259 avg	343 avg	ok



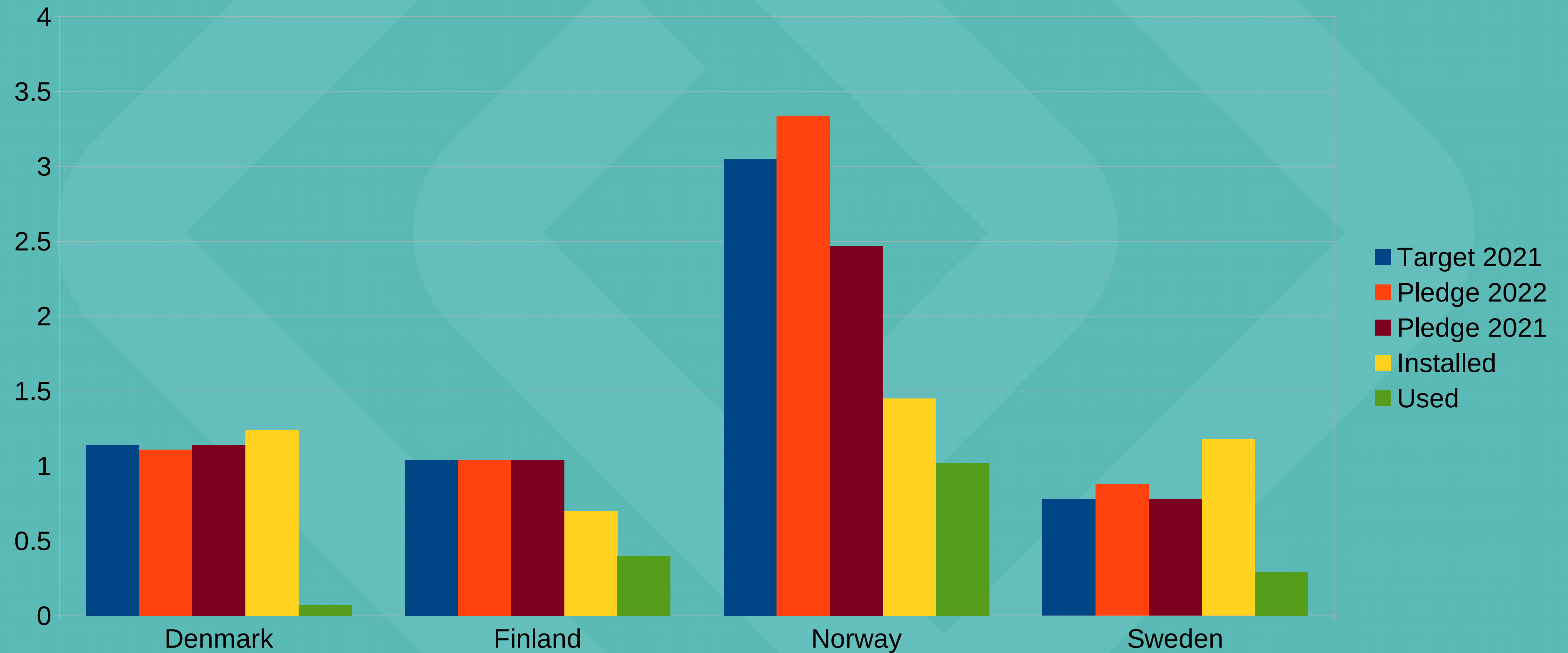
ALICE Tape



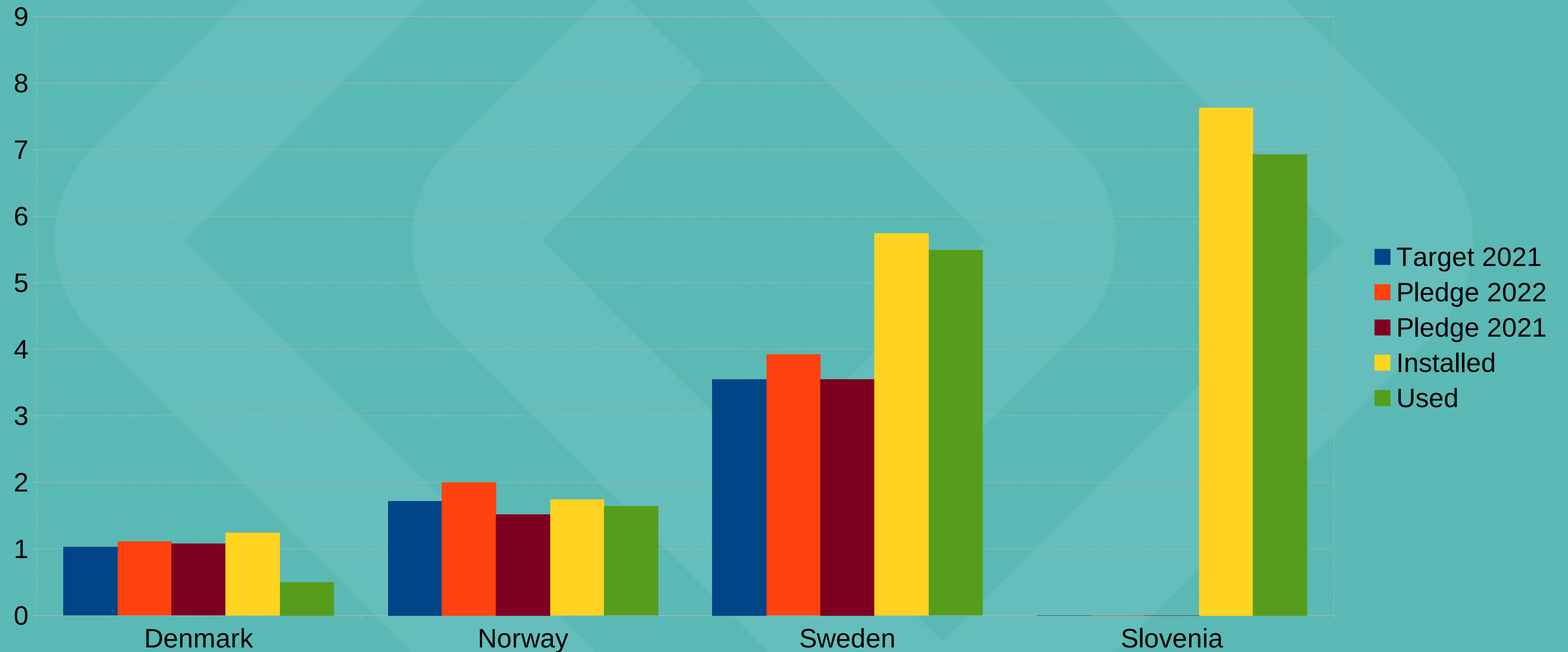
ATLAS Tape



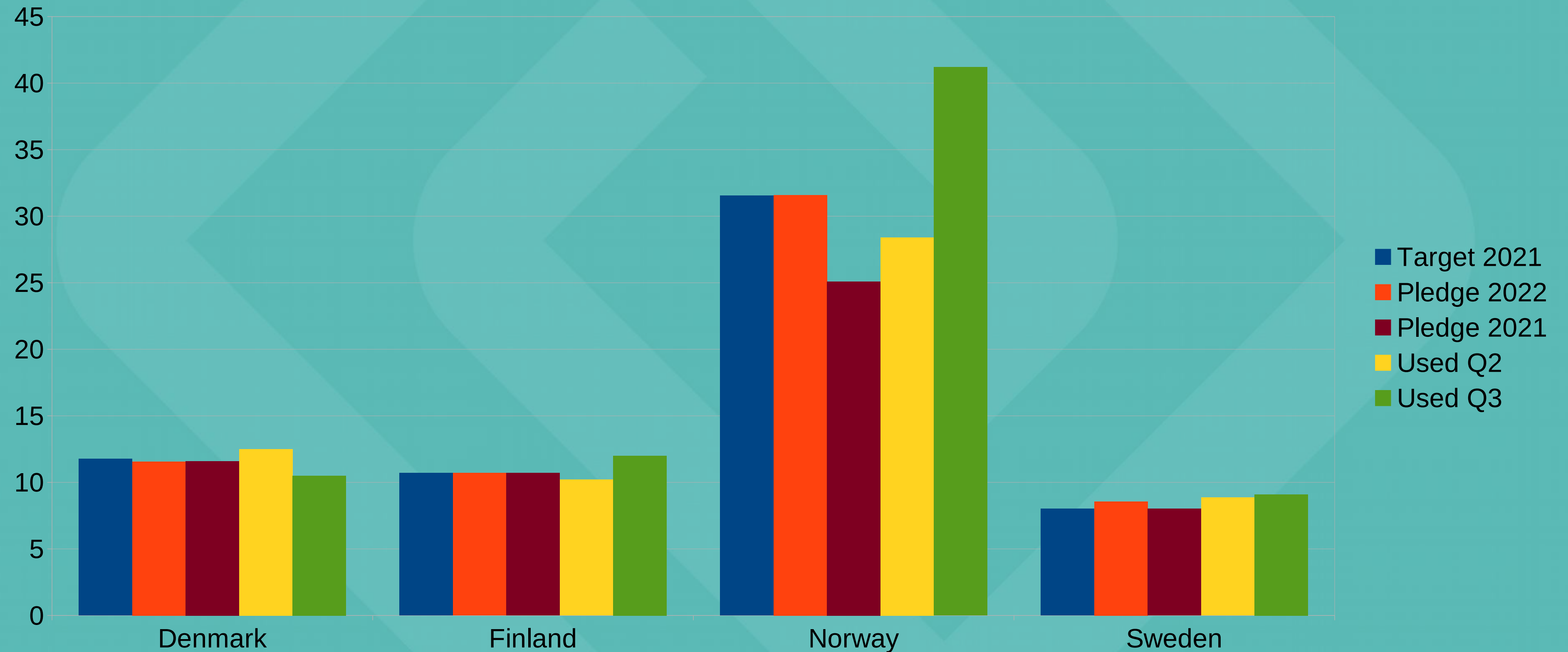
ALICE Disk



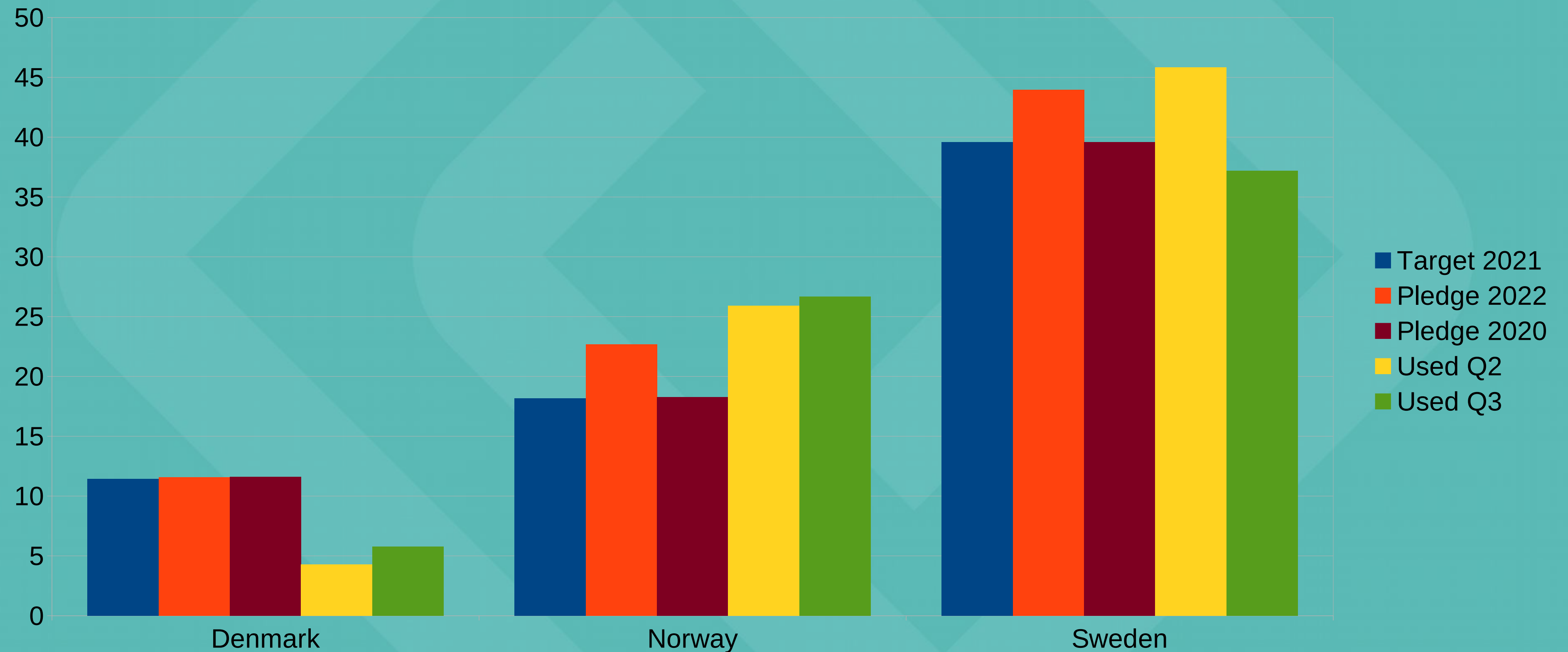
ATLAS Disk



ALICE CPU



ATLAS CPU





Questions?