

Gallapolin umfremdarhönnun á ofurtölva Íslands

Gallapólin =
e. fault tolerant

Umfremd =
e. redundant

Rit Íslenskrar málnefndar 3

Tölvuorðasafn

2. útgáfa, aukin og endurbætt

Orðanefnd Skýrslutæknifélags Íslands tók saman



Samstarf VÍ og DMI



- Aðdragandi
- Einstakt að mörgu leiti



1995



1996



26 árum áður...

**A LONG TIME AGO
IN A GALAXY
FAR FAR AWAY...**

**STAR
WARS**

Cray 1
1970











iPhone 4



Cray 1, 1970





CRAY

CRAY

CRAY

CRAY

CRAY XE40

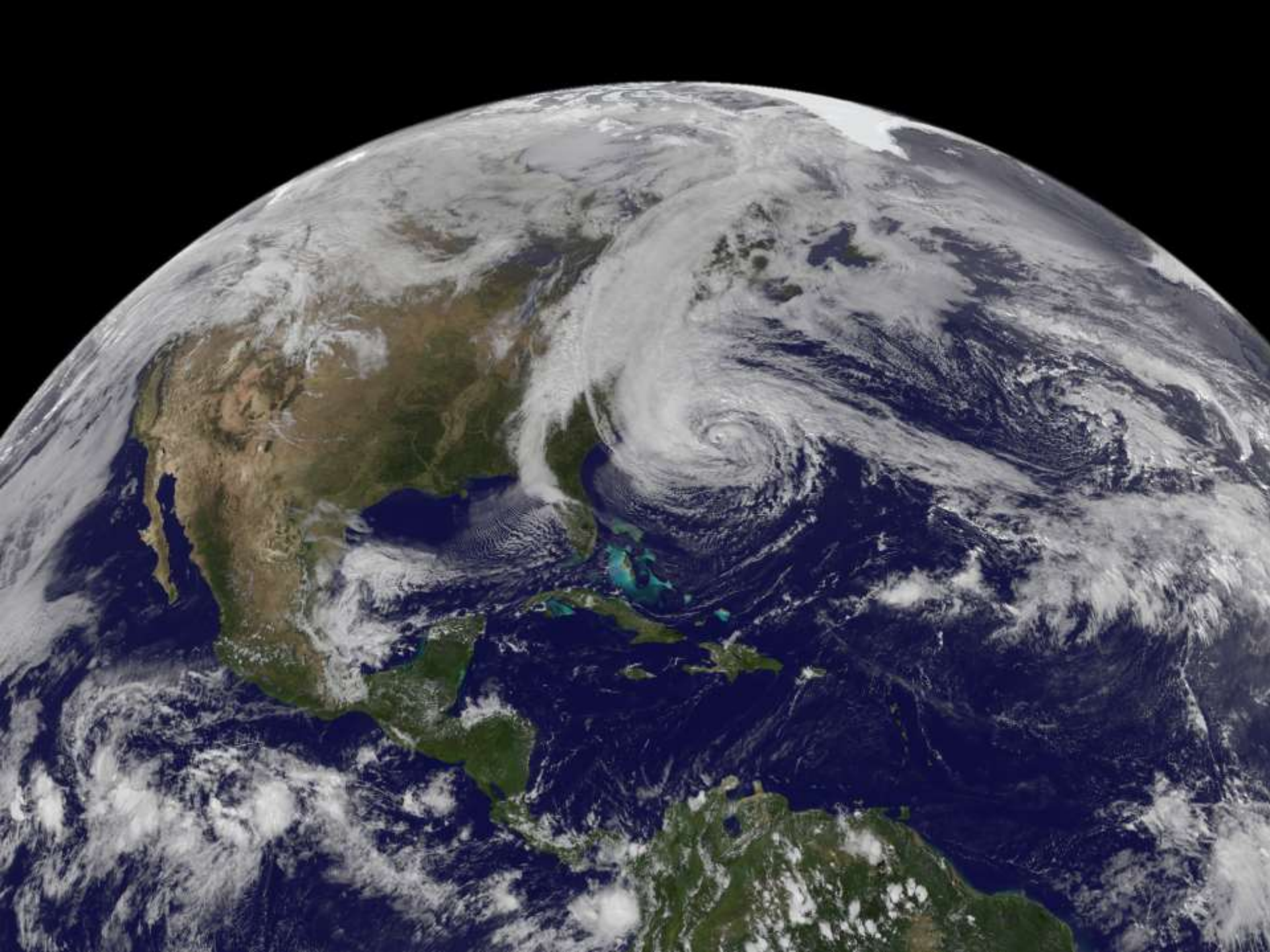
The

SUPERMEN

*The Story of
Seymour Gray and
the Technical Wizards
behind the
Supercomputer*

CHARLES J. MURRAY





Geo-stationary satellites

Polar-orbiting satellites

GPS satellites

Atmospheric
motion vector

Ozone
SCATT
Radiances

Radiances

Profiler/
RADAR
wind

TEMP

Dropsondes

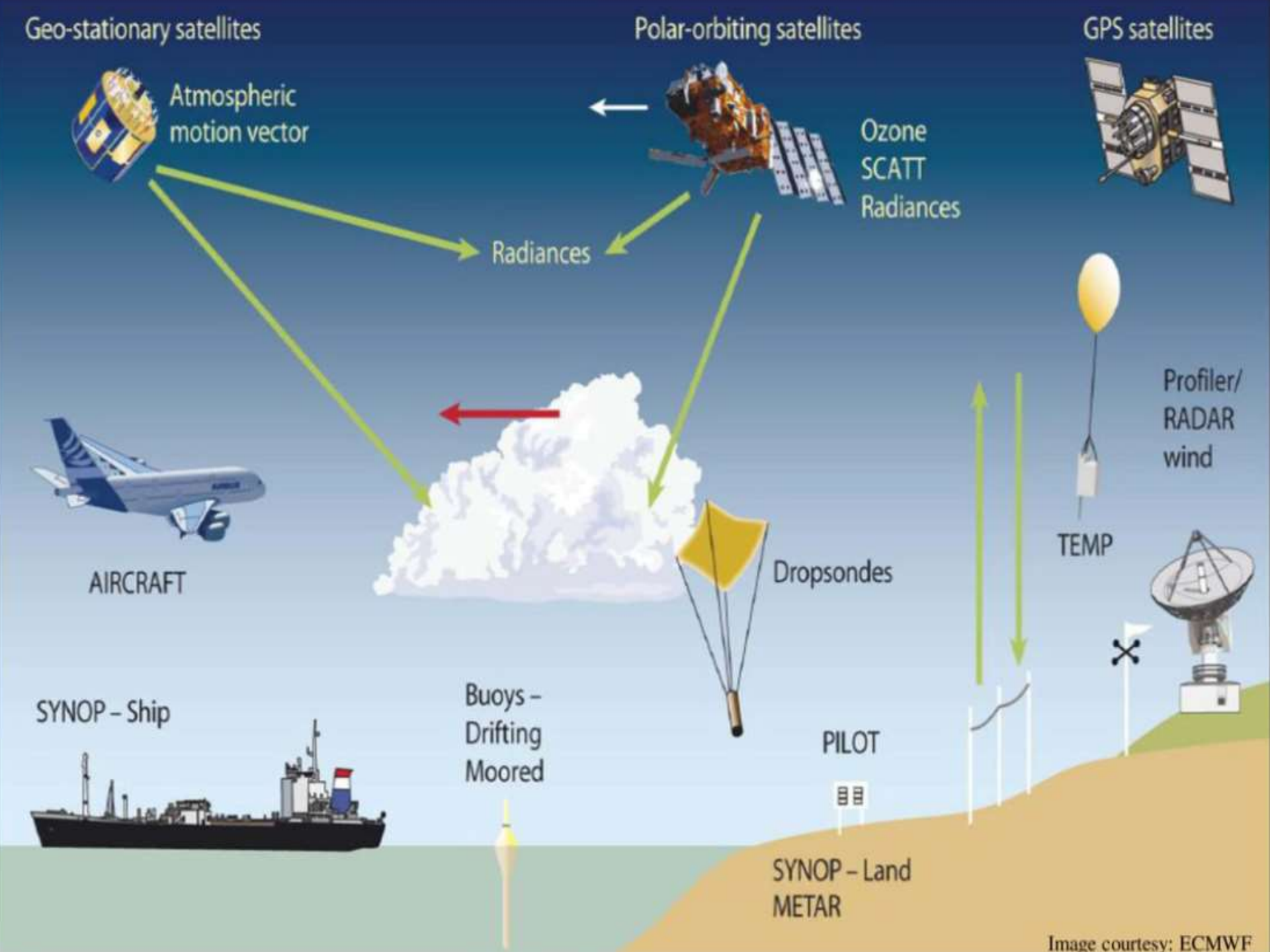
PILOT

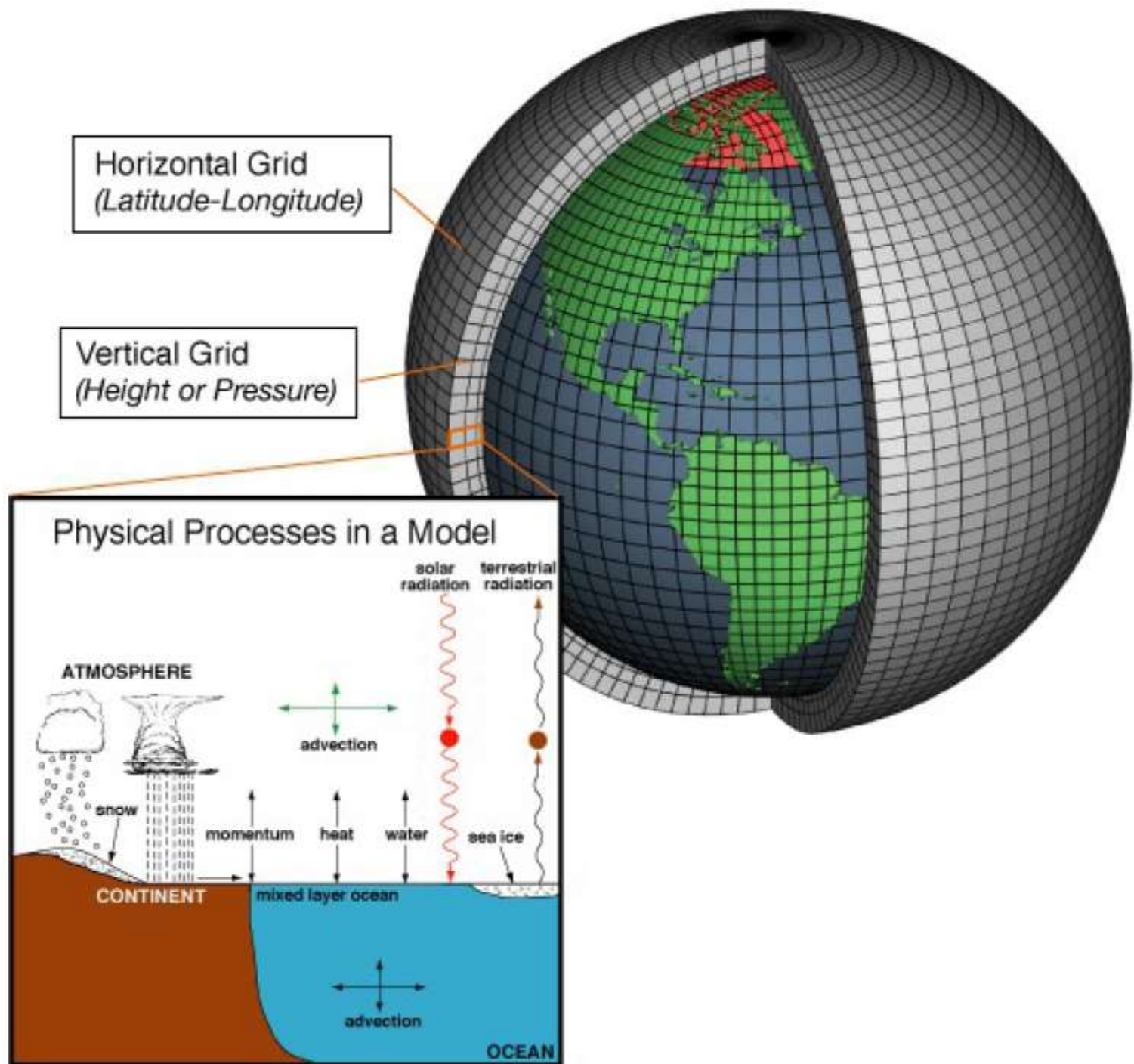
Buoys –
Drifting
Moored

SYNOP – Land
METAR

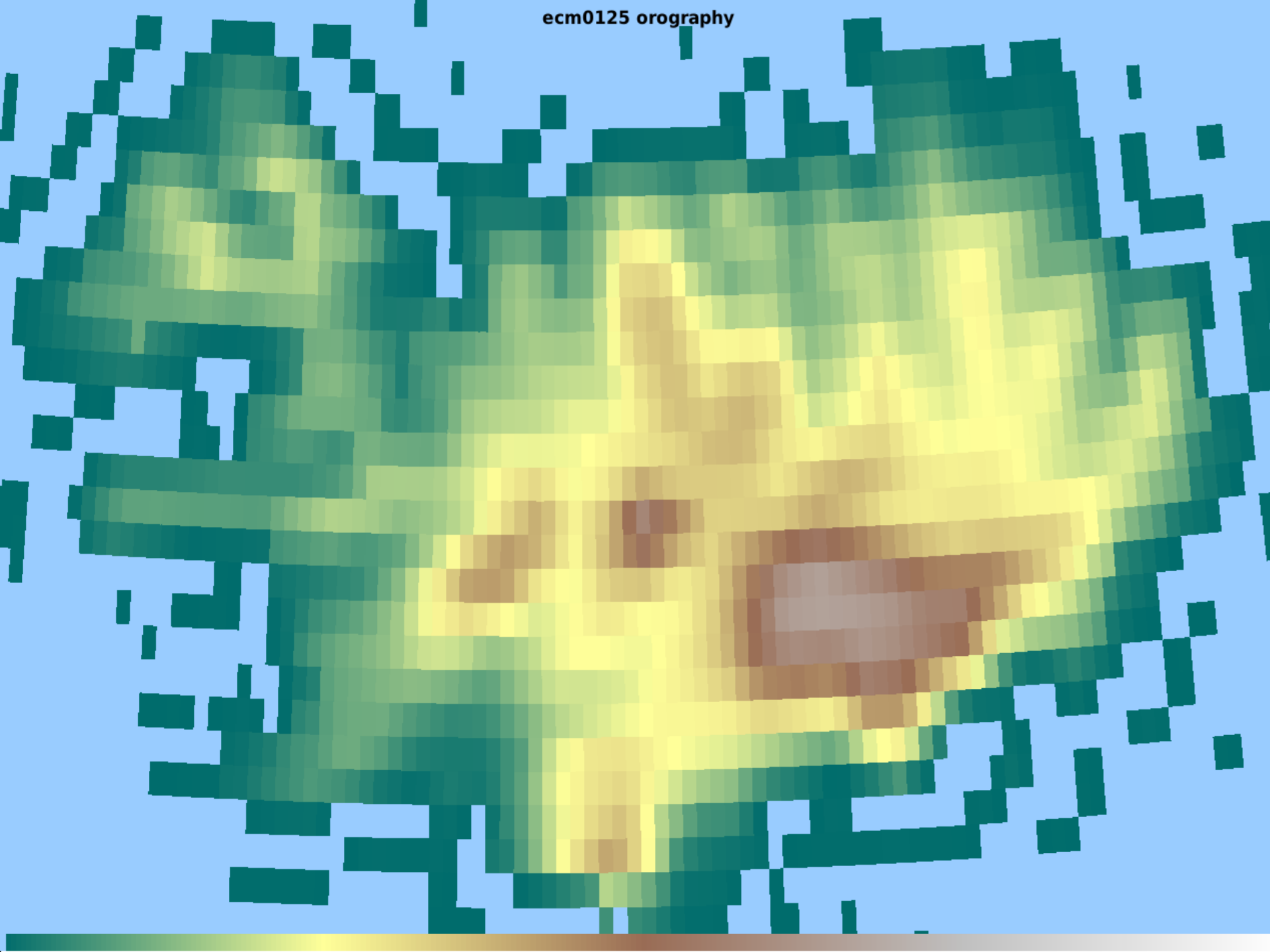
AIRCRAFT

SYNOP – Ship

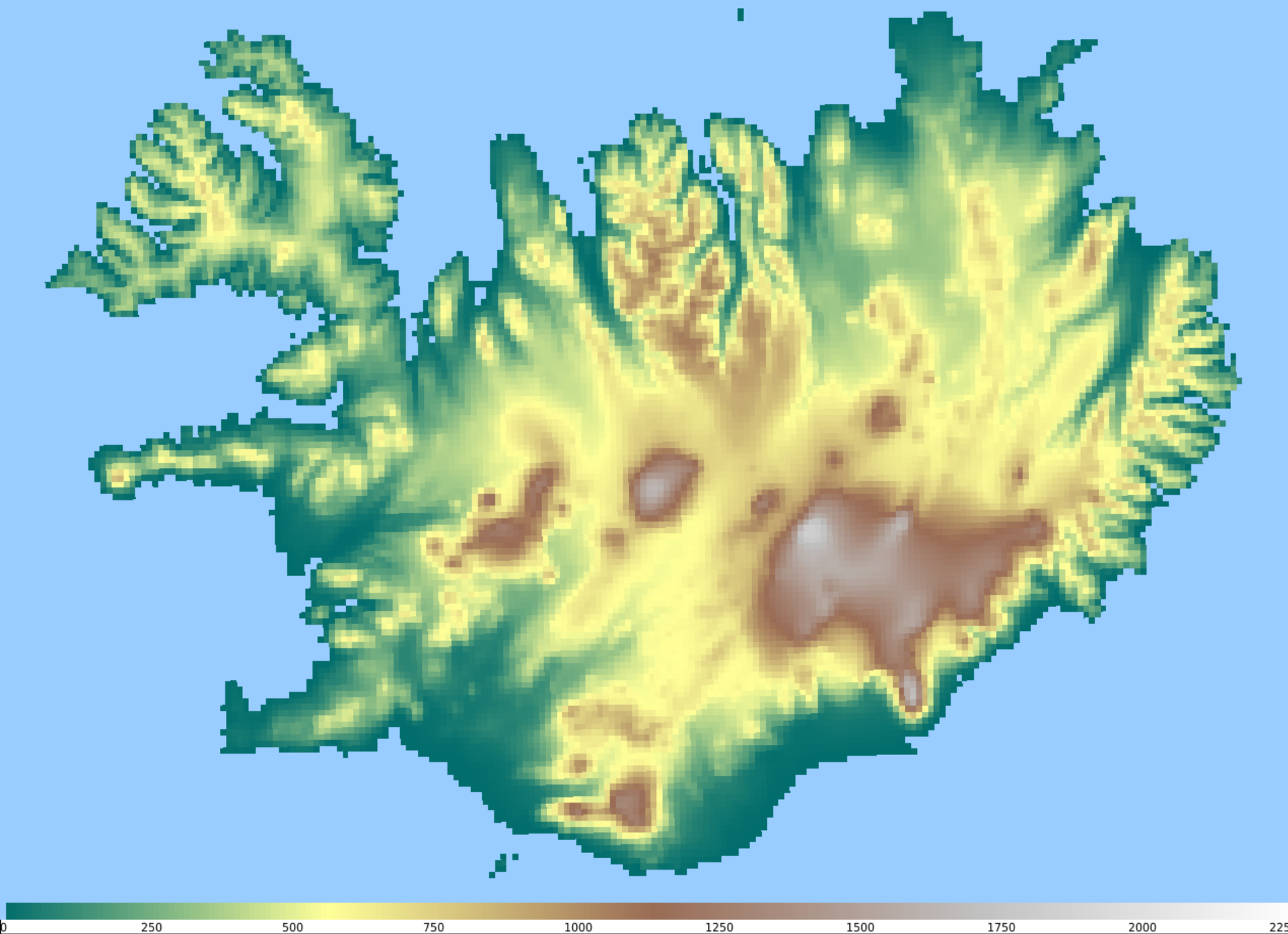




ecm0125 orography



harmonie orography





Þéttleiki
Svæði
Tíðni

Ofurtölván

- Fasi 1 og 2
- 400 KW max
- 700 TFLOPS
- 25.000 fartölvur
- 14 tonn
- Spálíkön
- Rannsóknir

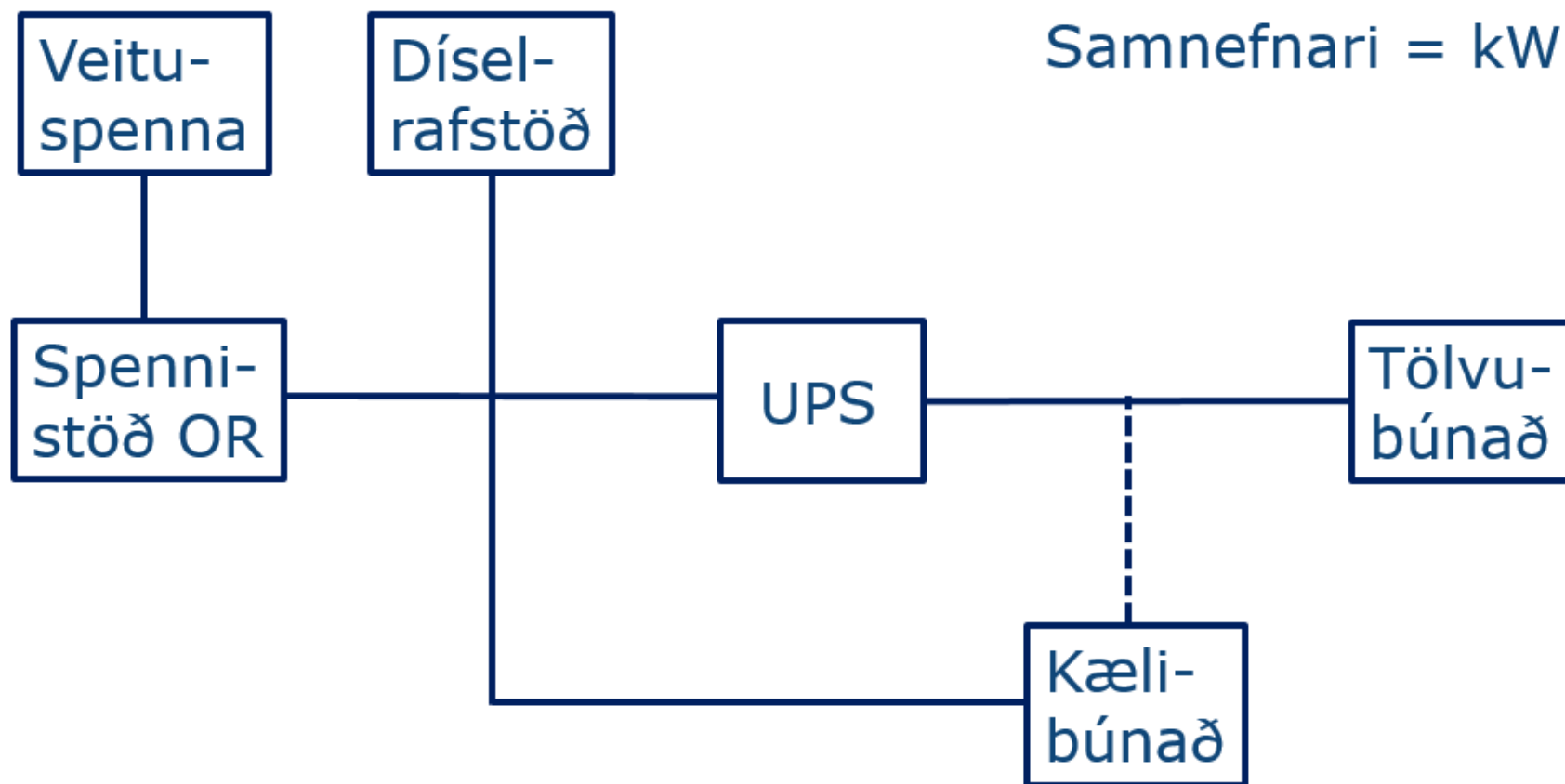


700.000.000.000.000

reikniaðgerðir á hverri sekúndu

Stoðkerfi – endurnýjun Blokkmýnd

Samnefnari = kW



Gallapolin umfremdar hönnun

Gallapolin = e. fault tolerant

Umfremdar = e. redundant

Rafmagn

Kæling

Gagnaflutning (net)

Reiknigeta

Helstu áskoranir

Viðhalda 100% rekstur samhliða endurbótum

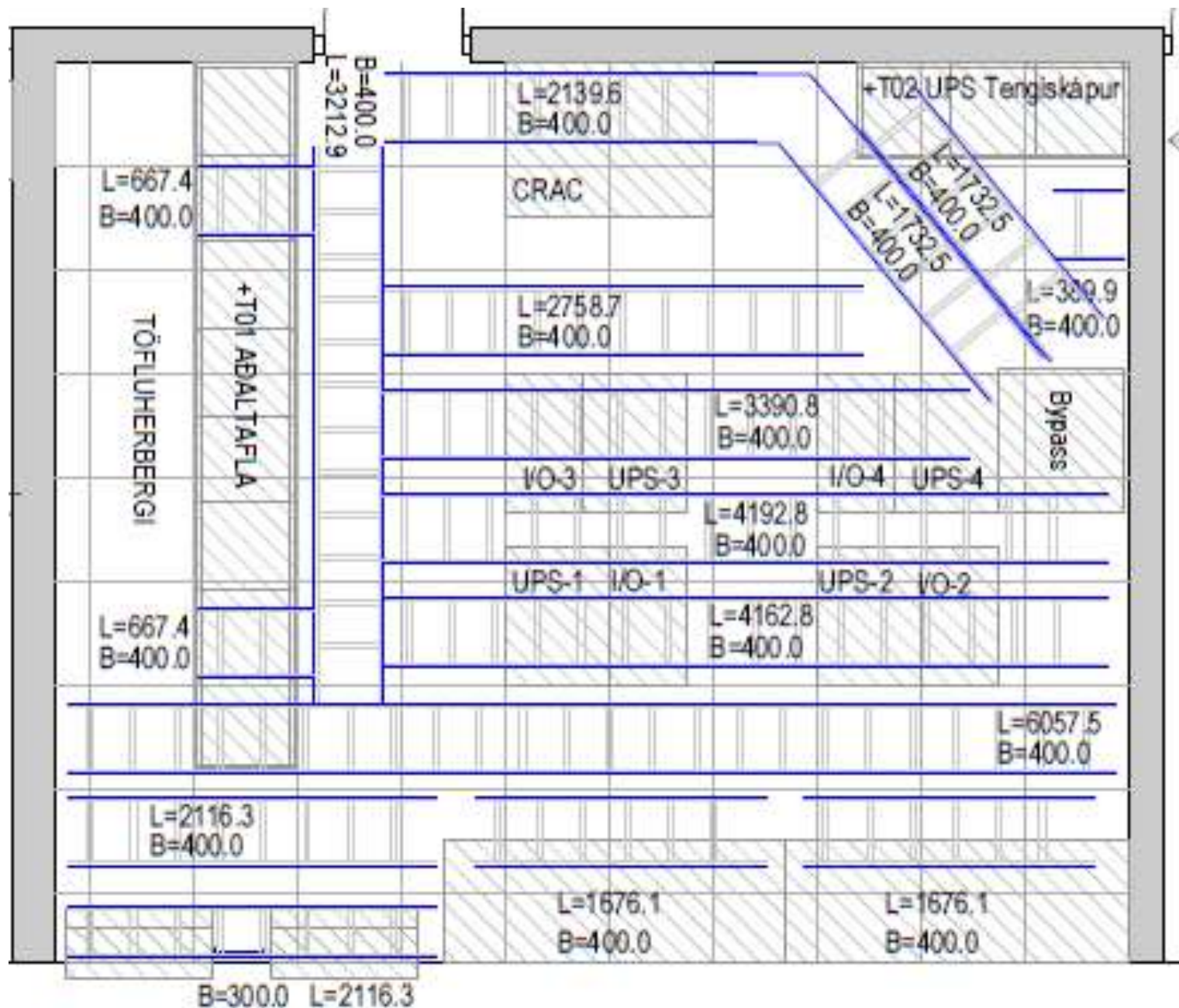
Tímarammi

Kostnaðaráætlun

Aðgengi að fagfólki

Aðilar að verkefninu

Efla, Set, HS pípulagnir, Rafþing, Nýherji, Hitastýring, JS Hús, Galdrasmiðir, Orkuvirki, Rafmiðlun, Ríkiskaup, Arkís, Arkform, Áltak, Cray, DB Schenker, DMI, Eimskip, Farice, RHnet, Frakt, Ferrozink, Framtak, GG Verk, Hitastýring, Icelandair Cargo, Íslandslyftur, Ísold, Berserkir, Klettur, Lagnalagerinn, Landsvirkjun, Léttitækni, Orkuveita Reykjavíkur, Póst og fjar, Rönning, Sprinkle, Verklagnir, VHE, Öryggismiðstöðin, stjórnsýslan, ráðuneytið,

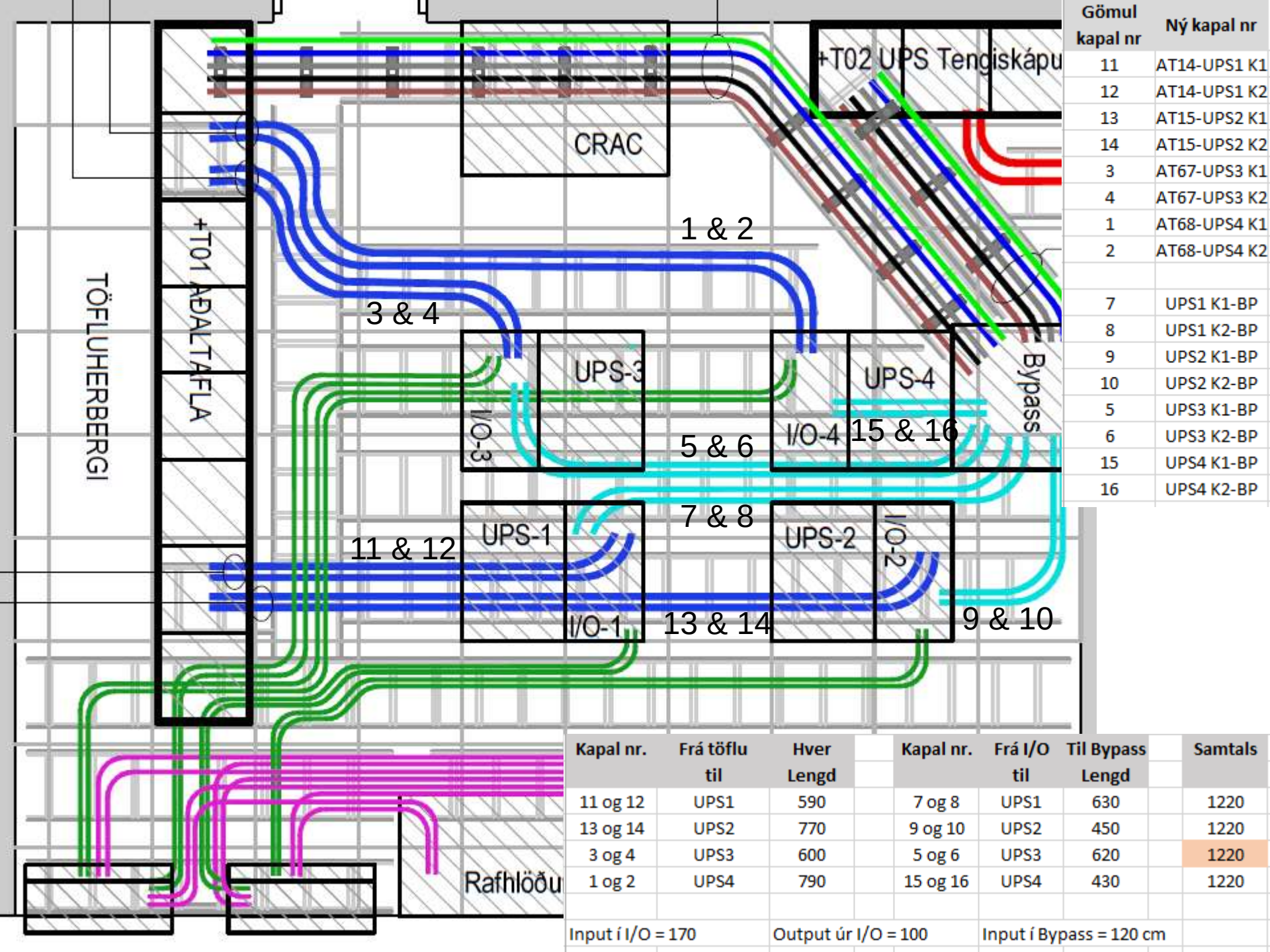


Rafhjóðurofar
(2stk)

Rafhjóðurofar
(2stk)

Rafhjóðurekki 2

Rafhjóðurekki 1



Gömul kapal nr	Ný kapal nr
11	AT14-UPS1 K1
12	AT14-UPS1 K2
13	AT15-UPS2 K1
14	AT15-UPS2 K2
3	AT67-UPS3 K1
4	AT67-UPS3 K2
1	AT68-UPS4 K1
2	AT68-UPS4 K2
7	UPS1 K1-BP
8	UPS1 K2-BP
9	UPS2 K1-BP
10	UPS2 K2-BP
5	UPS3 K1-BP
6	UPS3 K2-BP
15	UPS4 K1-BP
16	UPS4 K2-BP

Kapal nr.	Frá töflu til	Hver Lengd	Kapal nr.	Frá I/O til	Til Bypass Lengd	Samtals
11 og 12	UPS1	590	7 og 8	UPS1	630	1220
13 og 14	UPS2	770	9 og 10	UPS2	450	1220
3 og 4	UPS3	600	5 og 6	UPS3	620	1220
1 og 2	UPS4	790	15 og 16	UPS4	430	1220

Input í I/O = 170 Output úr I/O = 100 Input í Bypass = 120 cm

UPS herbergi







UPS herbergi

















UPS herbergi











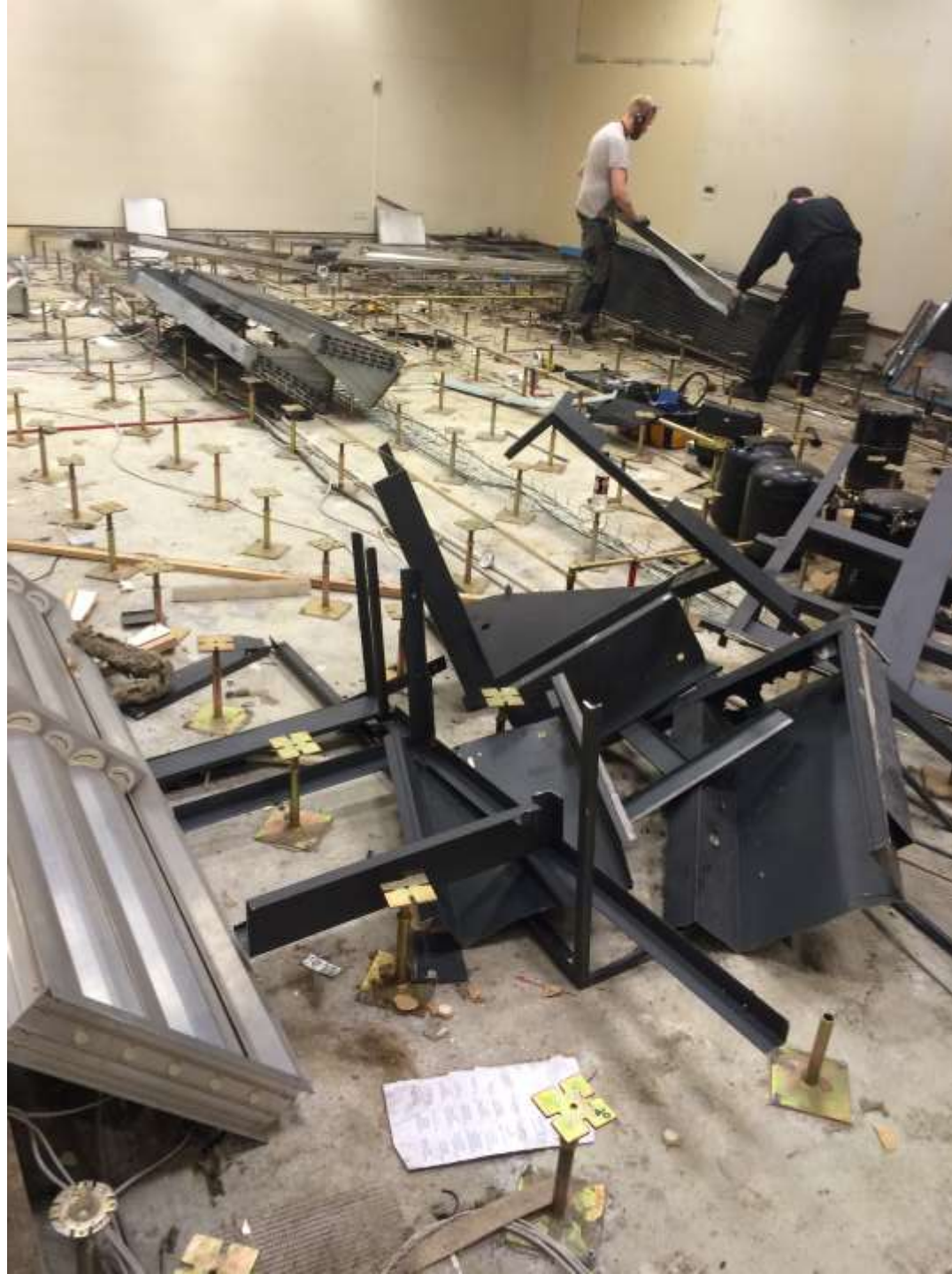














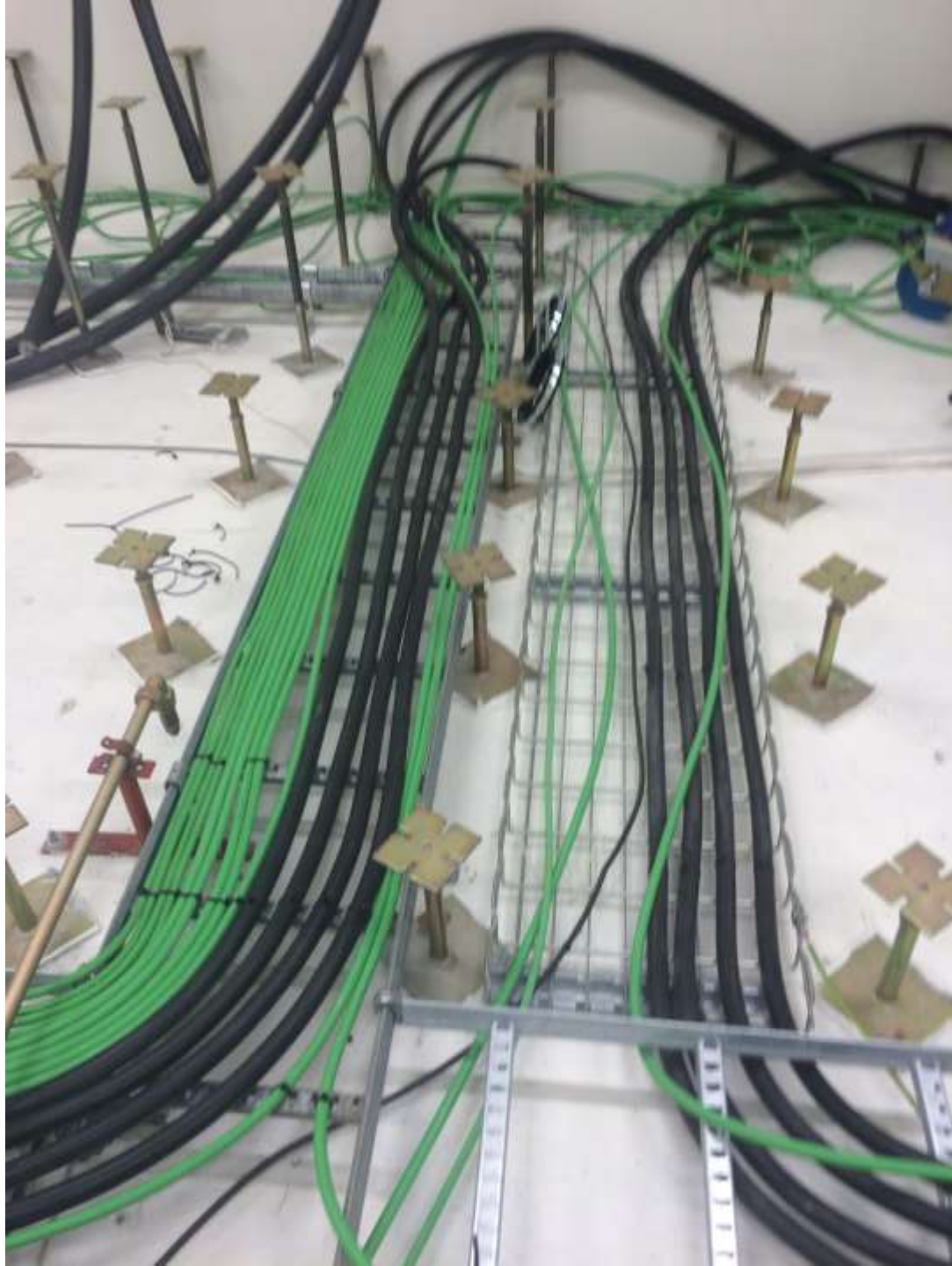




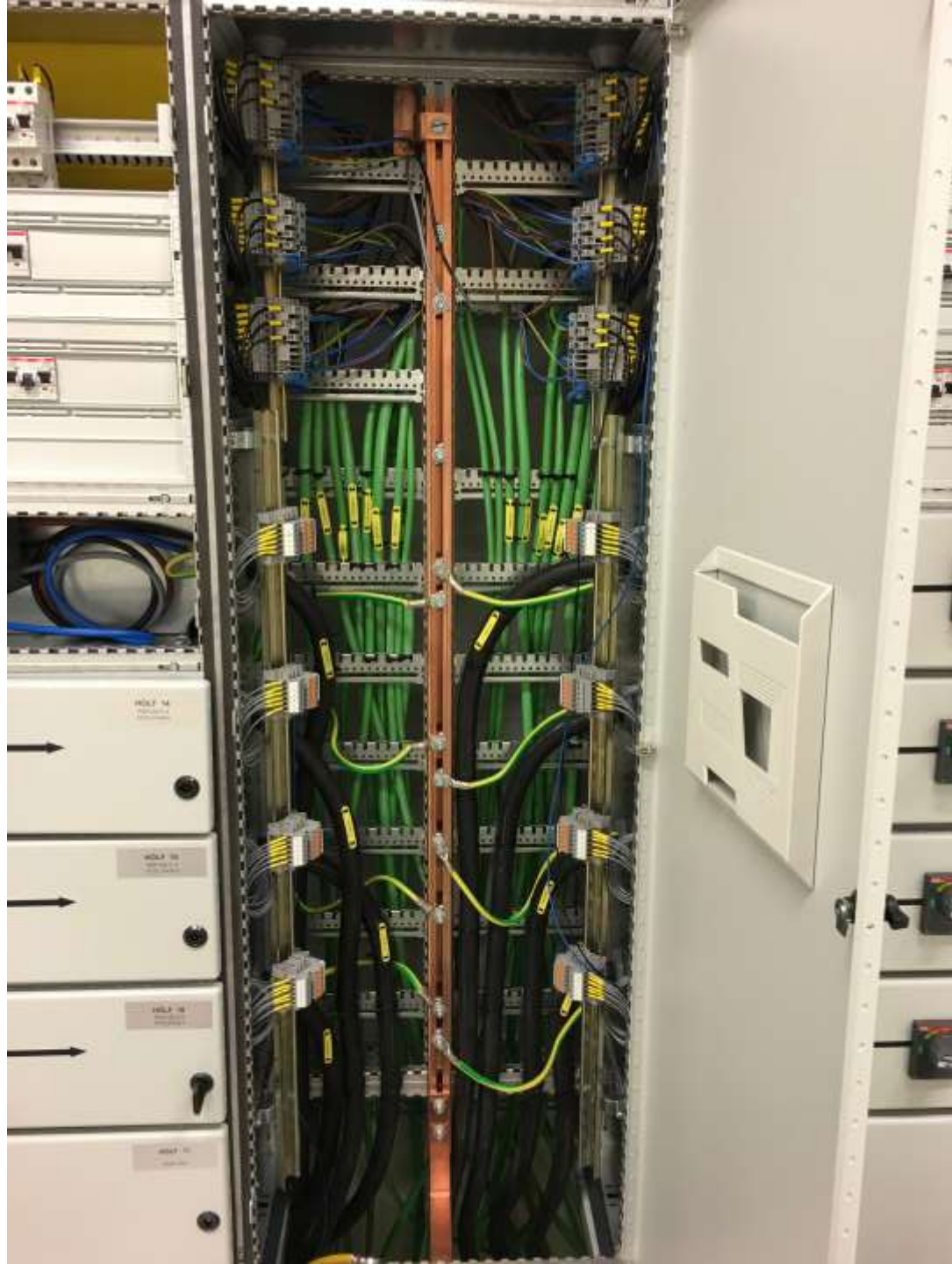
















Díselrafstöð 1

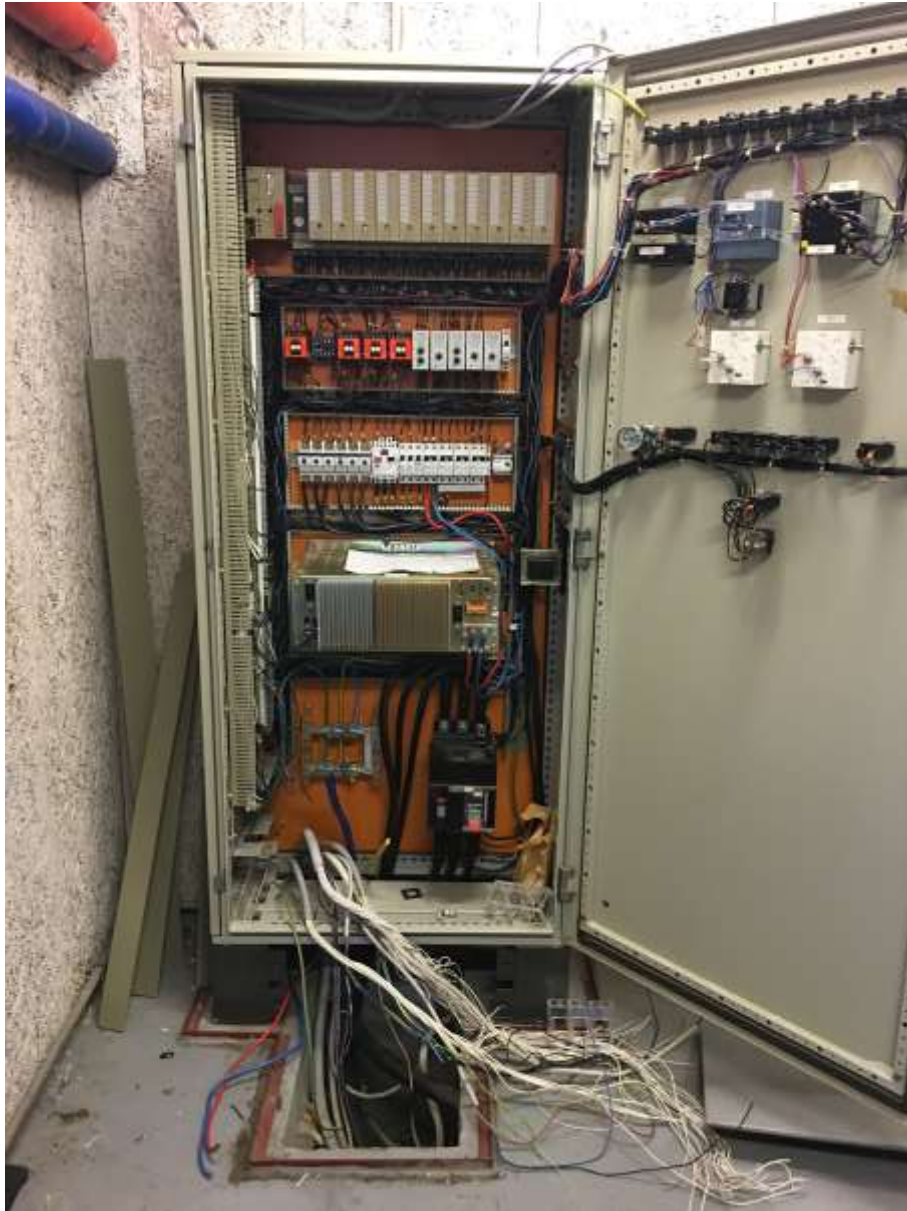








Díselrafstöð 2



Díselrafstöð 2





Útikæli









...og svo kom
ofurtölván



Atlas Copco

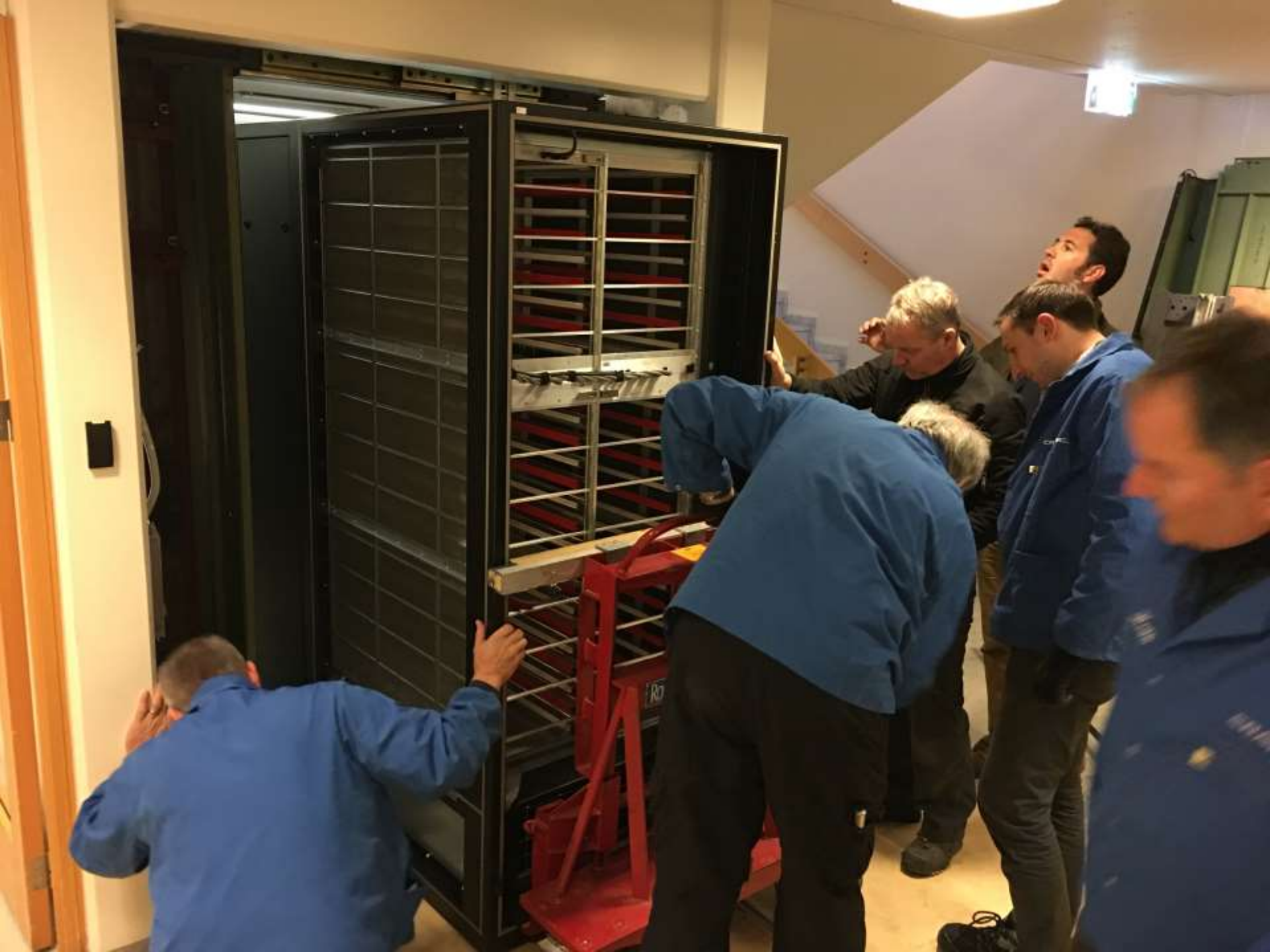




















Öflugasta ofurtölva Íslandssögunnar



Verki lokið

