Configuration:

Total System

Item Description

HF Vacuum Pipe

LFVacuum Pipe

Filter Cav. Vac. Pipe

Pipe Factory

Baking Supply

High Tower

High Cryo-Tower

Ancillary Cryo-Tower

Tower

Filter Tower

Cryotrap

Large Valve

Large Valve

Large Valve

Pseudo-valve

Tower Link Tubes

Pipe rough pumping

Pipe evacuation+bake

Pipe final pumping

Pipe monitoring

Pipe Vacuum Control

Tower Pumping & Control

Costs in k€

Q

10

11

12

13

14

15

16

17

18

10

20

21

22

Vacuum

Xvlophone - Single detector

Comment

o,o m inst + supp + therm insul

φ 0,75 m inst + supp + therm insul

φ 0.67 m inst + supp + therm insul

on site fabrication & 400°C firing

15 kV-50 V

18 m x 2-2.5 m (Figs 196-7)

18 m x 2 m (cryog. excluded)

6 m x 2 m (cryog. Excluded)

10 m x 2 m

8 m x 2.5 m

6 m x 0.9 m

o,8 m aperture

0,65 m aperture

0,50 m aperture

0,80-0,50 m aperture

0,75-0,9 m diameter

dry/roots

turbo+scroll+gauges+valves

Ti evap.+Ion+gauges+valves

Gauges+RGA

HW+SW+Cabling

scroll+turbo+ion+gauges+valves

169864

Selected Option

Option

Baseline

=Baseline

Unitary cost (k€)

2070,00

1780,00

1630,00

1000.00

220,00

1000.00

1100,00

300,00

500,00

500,00

250,00

96,00

40,00

35,00

30,00

40,00

100,00

46,00

41,00

100,00

25,00

271,00

Date:

Quantity

20,0

20,0

20.0

2,0

20.0

3.0

4,0

4,0

11,0

3,0

4.0

10,0

14,0

12,0

10,0

240

360

6

60

Unit

km

km

km

km

25/02/11

Carlo Bradaschia

SubTotal

41400,0

35600,0

32600,0

2000.

4400,0

3000,0

4400,0

1200.0

5500,0

1500,0

1000.0

960,0

560,0

420,0

300,0

520,0

100,0

11040,0

14760,0

600,0

1500,0

6504,0

7800

2019

50% 1000 50% 1000

20% 880 30% 1320

0%

0%

0%

0%

0%

0%

0%

0%

0%

0%

0%

ο%

1780 5% 1780

1630

O

0

o

O

0%

5730

2018

ο%

ο%

ο%

ο%

0%

o%

ο%

o%

ο%

ο%

6800

2020

30% 1320

0%

1630

Time distribution of the expenses

to=escavation start-up (2018)

30566,4

2023

20% 8280

38079,2

2024

20% 8280

20%

30%

30%

30%

30%

30%

30%

30%

30%

30%

30%

30%

300

440 30%

120

550 30%

150

100

56 30%

30

52

10

1104

1476 30%

> 60 30%

150

650 30% 7120

6520

900

1320

360

1650

450

300

288

168

126

90

156

30

3312

4428 30%

180 30%

450

38079,2

2025

20% 8280

20% 6520

7120

900

360

1650

450

300

288

168 30%

126

156

30

4428

450

20%

0%

30%

30%

30%

30%

30%

21639,2

2026 5% 2070

5% 1780

5% 1630

30%

30% 1320

30%

30%

30%

30%

30%

30%

30%

30% 180

30%

30% 3312

30% 4428

360

300

288

10060

2022

10% 4140

0%

0%

o%

0%

o%

0%

o%

ο%

3560 10% 3560 20% 7120

1630 10% 3260 30% 9780

10210

2021

20% 880

ο%

ο%

o%

0%

o%

0%

o%

o%

O

o

4140