

The new Metro

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Head of procurement

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Stockholm – one of the fastest growing regions in Europe

**40 000
a year**

**In 2030
approx.
2.4 million
people**

The 2013 Stockholm negotiation

The negotiation was led by the government

Assignment:

- An expansion of the Stockholm Metro system
- Increase housing construction in the Stockholm region.

An agreement was signed after 10 month.

A new administration was created with the mission to plan, design and construct the new metro for Stockholm

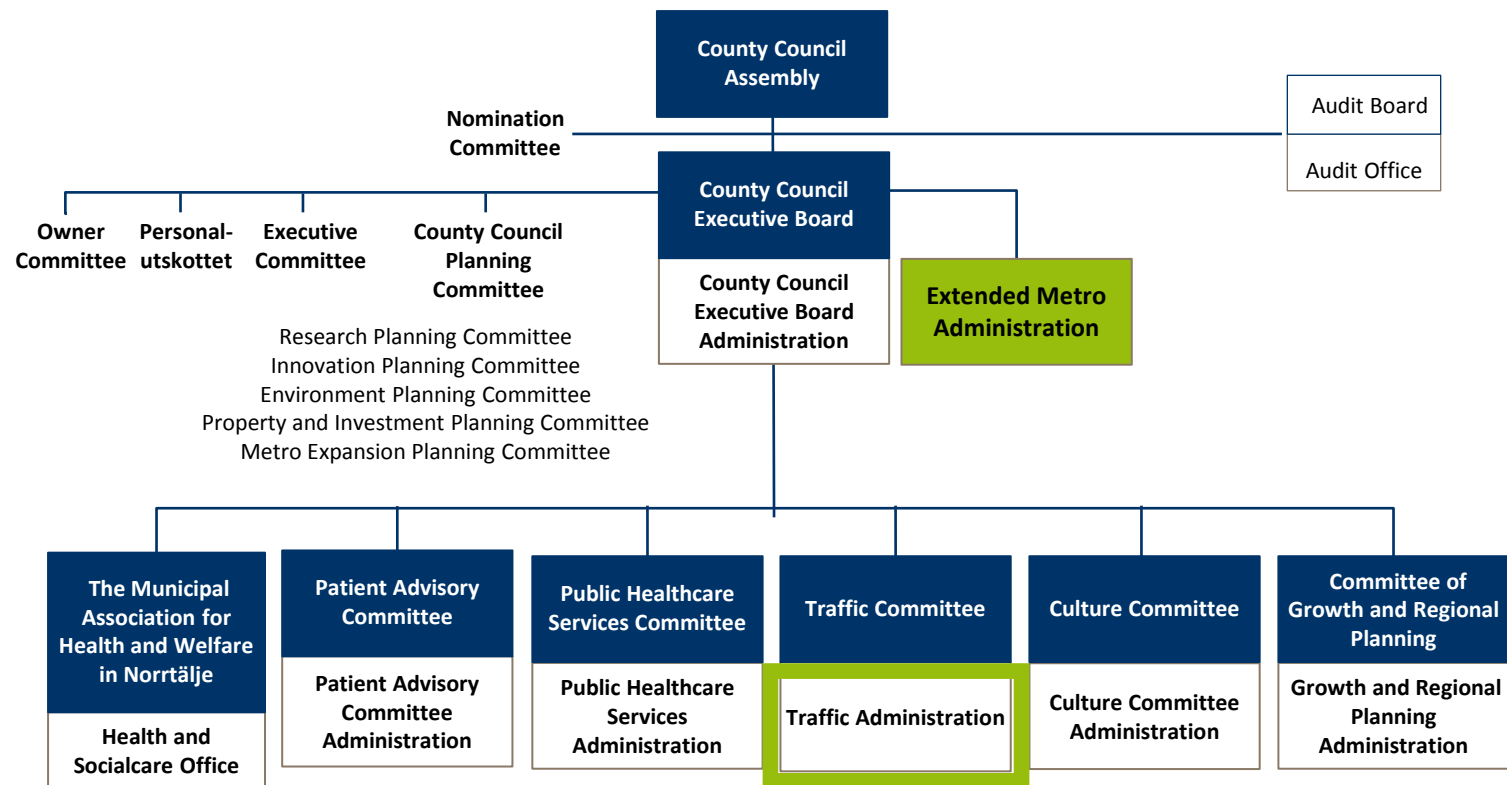


Mr
HG Wessberg



Ms Catharina
Håkansson
Boman

Stockholm County Council





expansion

expansion

Existing line

Expansion of depot

expansion

expansion

Existing line

Expansion of depot

Four extension projects

- Metro to Barkarby
- Metro to Arenastaden
- Metro to Nacka and Söderort
- Depots and rolling stock



Metro to Barkarby

Barkarbystaden

Barkarby station



Facts

Track length 4 km

2 new stations

Rock excavation
710.000 m³

Construction period
6 years. Start 2018

Concrete 32000 m³

Metro to Arenastaden

Arenastaden
Solna station

Facts

Track length: 4,1 km

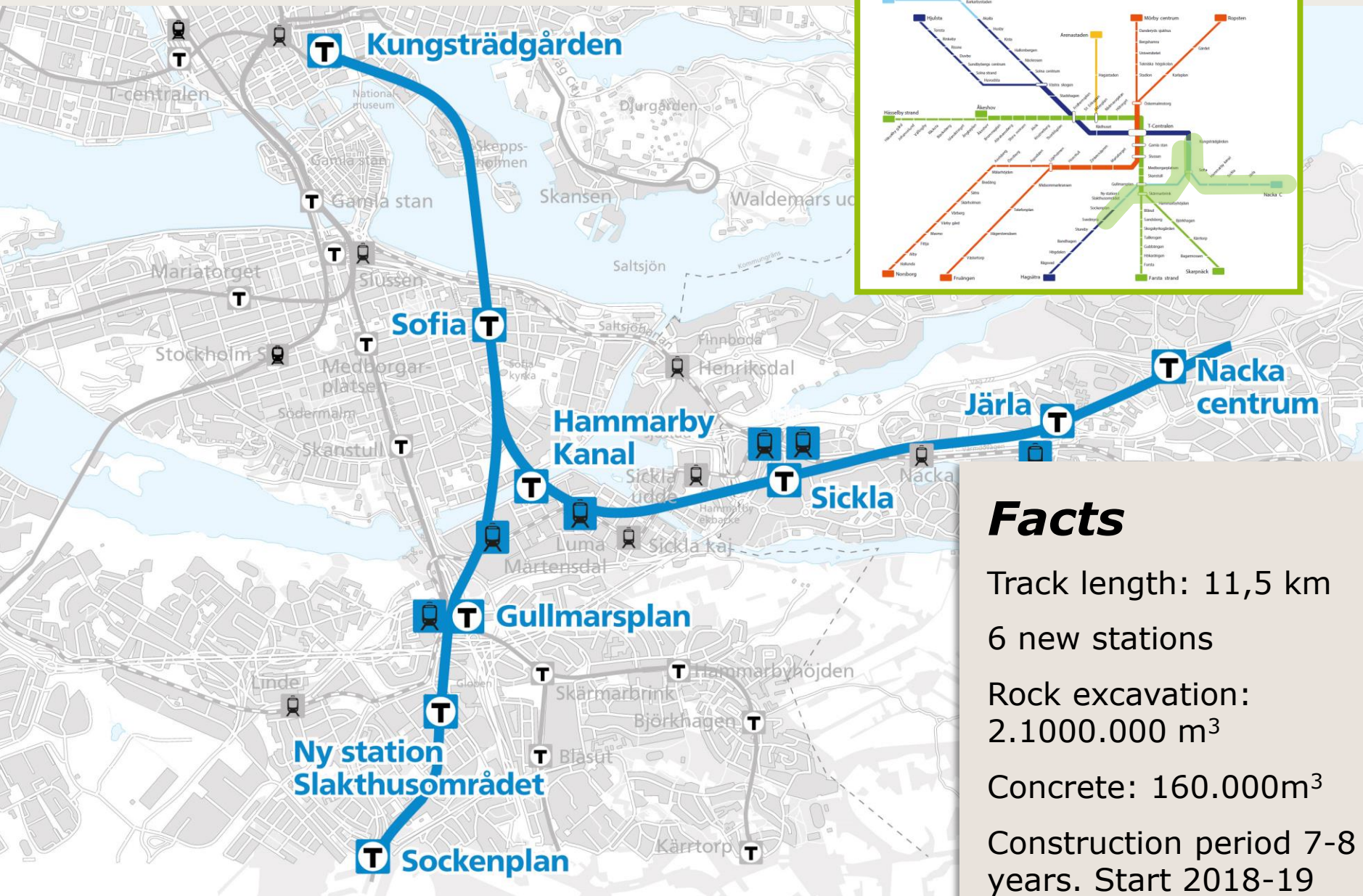
2 new stations

Rock excavation: 800.000 m³

Concrete: 37 000m³

Construction period 6 years. Start 2018





Facts

Track length: 11,5 km

6 new stations

Rock excavation:
2.1000.000 m³

Concrete: 160.000m³

Construction period 7-8
years. Start 2018-19

More depot capacity is needed

- More trains on the new Metro
- New staging tracks
- Increased capacity for maintenance and service
- We are expanding the existing depot at Högdalen

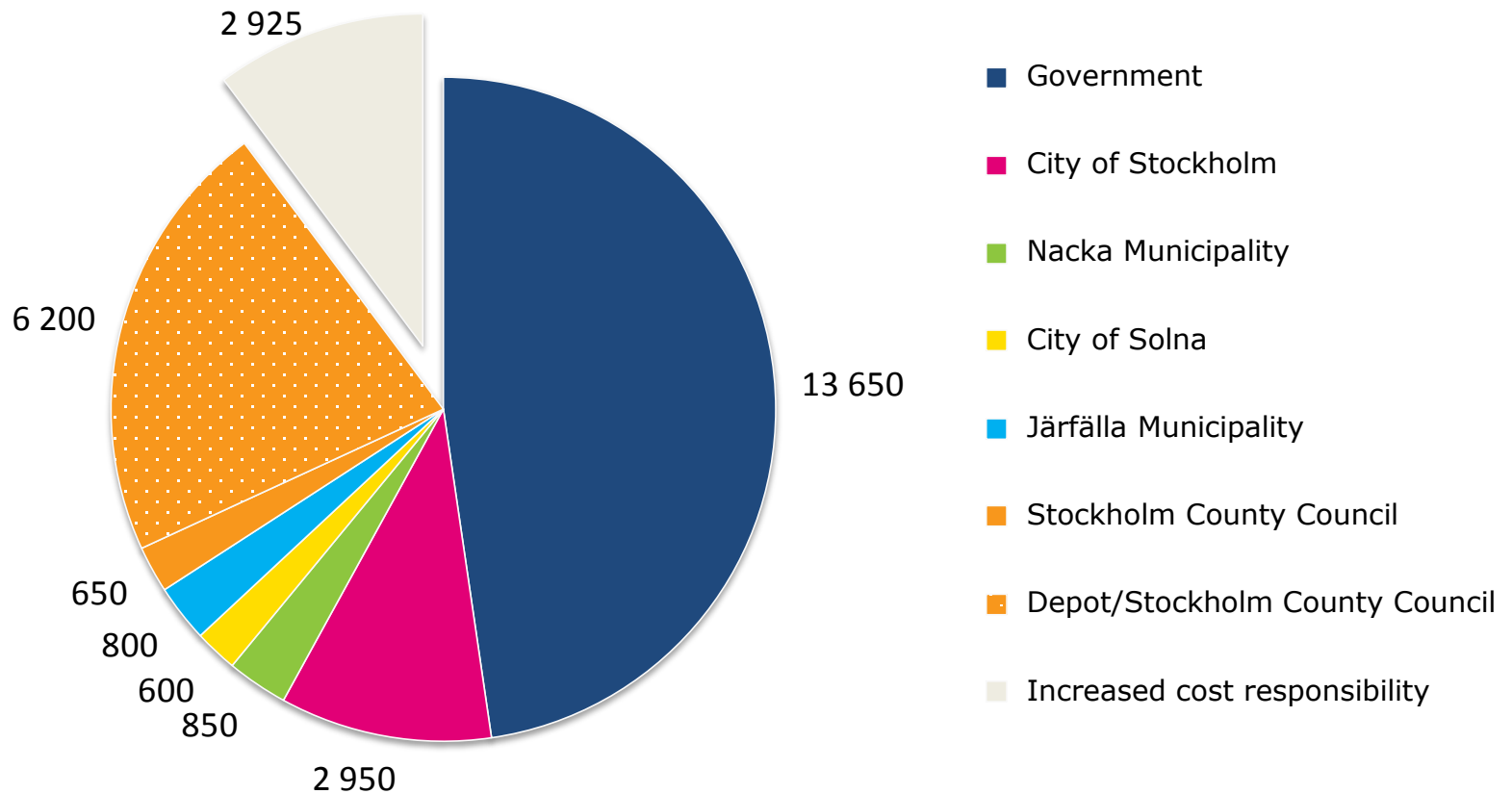




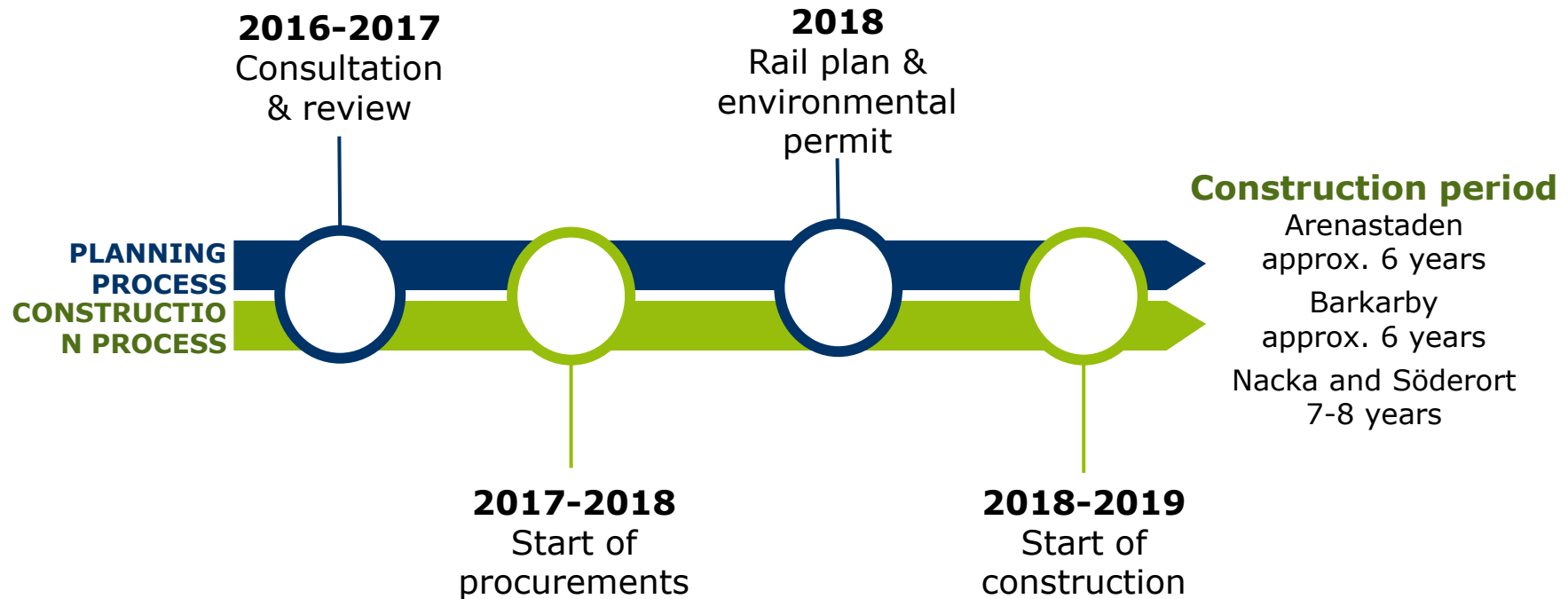
Financing and time schedule

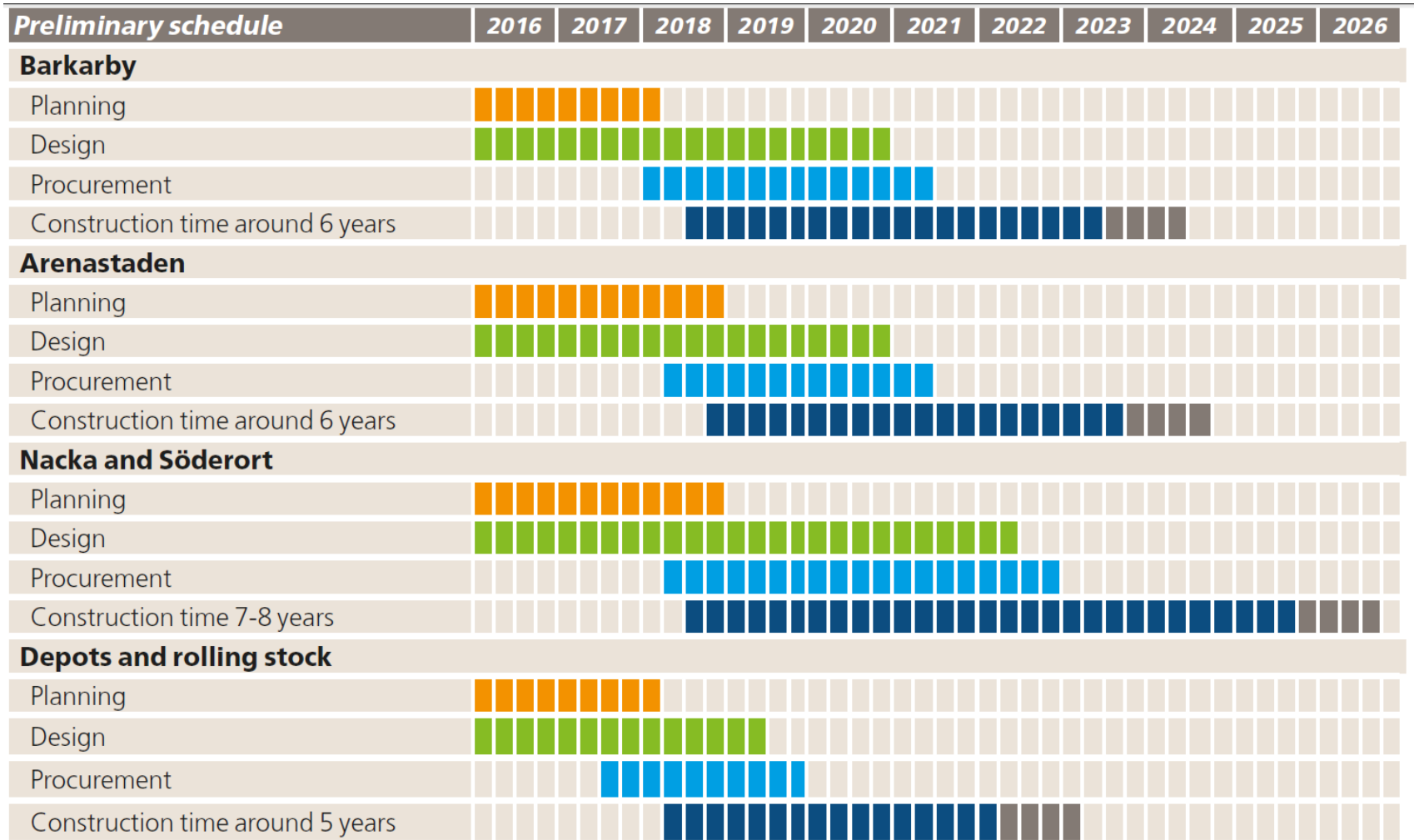
Financing- agreed by the parties

SEK 28.6 billion (approx € 2,86 billion)



Schedule

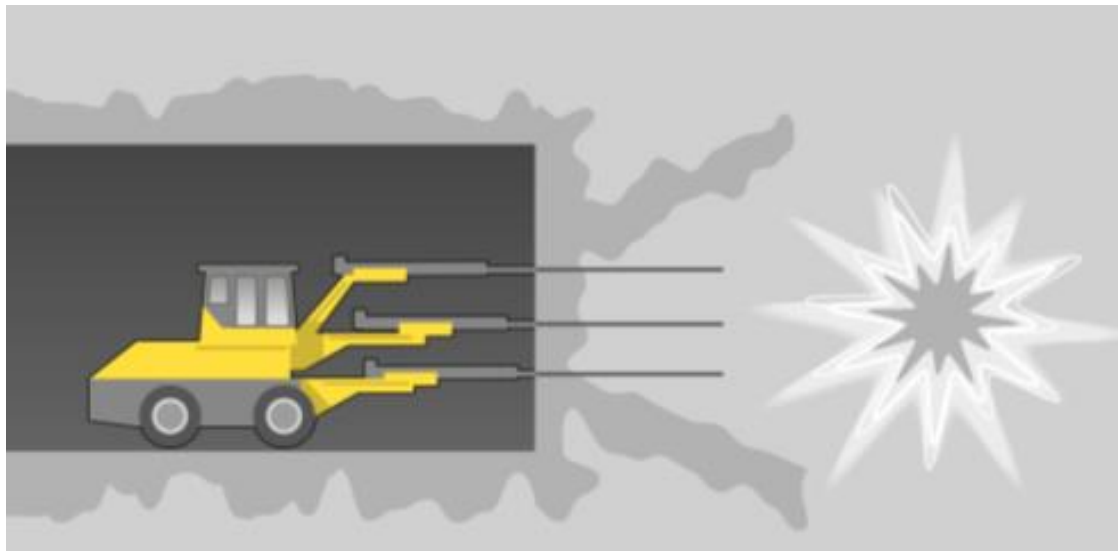




commissioning

Tunneling

- All tunnels and stations will be done in hard crystalline rock (+250 MPa).
- Traditional methods with drill and blast will be used instead of TBM (Tunneling Boring Machine).



Track bed

Track bed alternatives;
traditional ballasted track or slab track?
Ballasted tracks will probably be built.



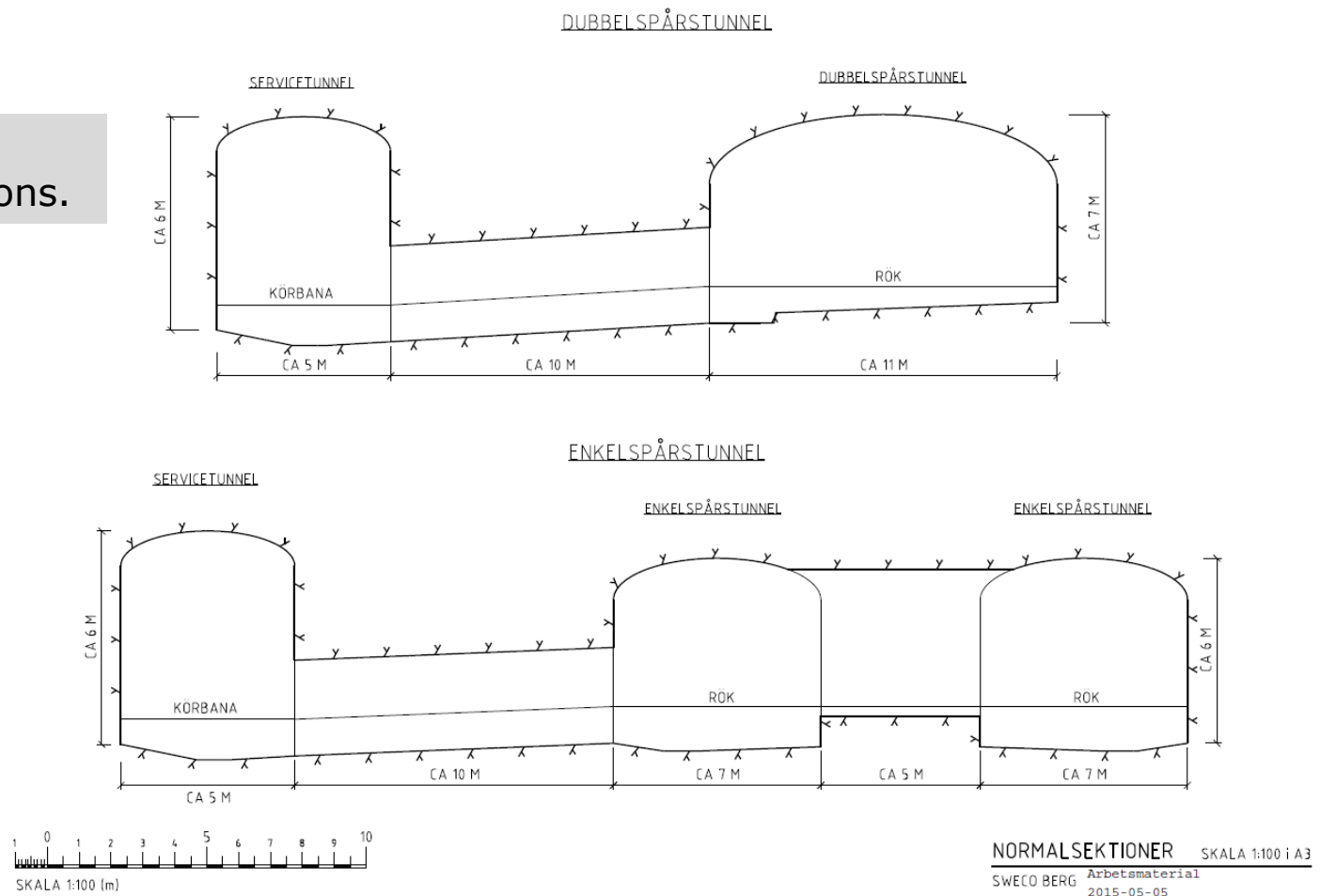
Signalling systems

We have chosen to expand the existing signalling system :

- The Blue line's signalling system is in very good condition
- Easy to develop for the new sections of the Blue line
- The Yellow line must be able to use the Green line
– the same signalling system will be needed.

We are planning for double track tunnel with a parallel evacuation/service tunnel where it's possible.

Exemple,
new dimensions.



Deep stations

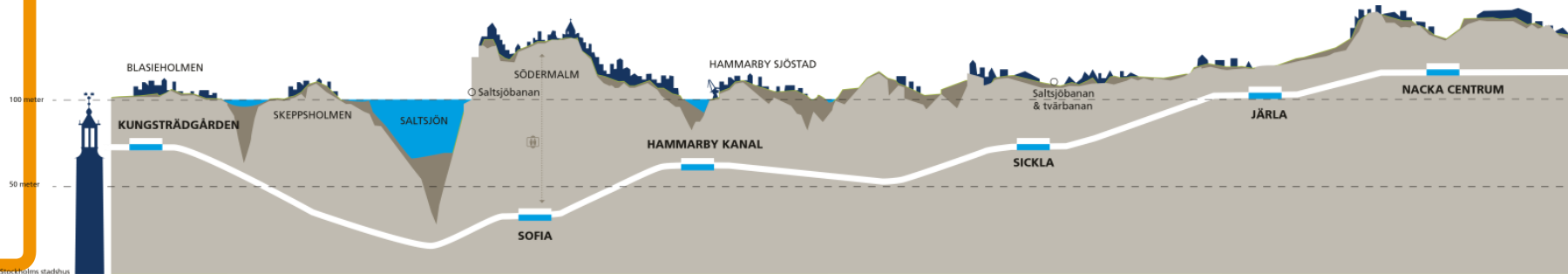
- The new stations will be situated deep or very deep, 30 to 90 meters under ground level.
- The deepest station, Sofia, will only be served by elevators.



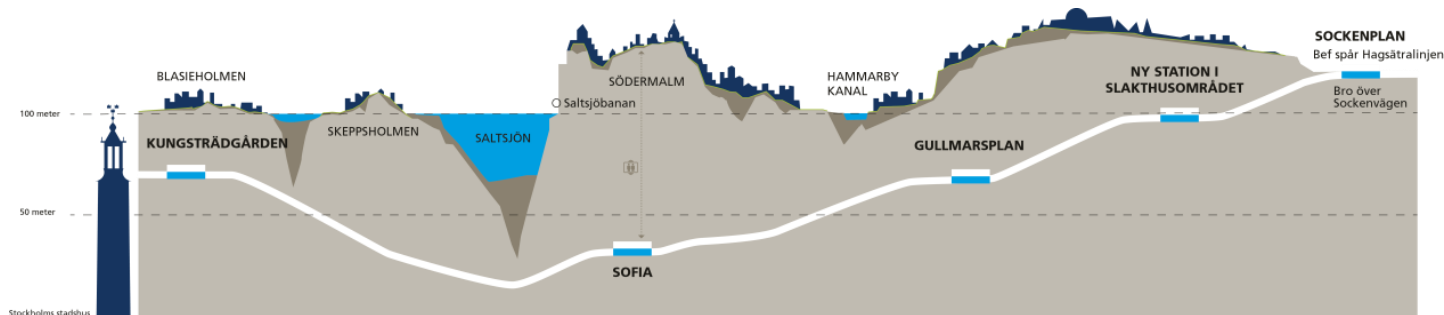
Deep station in Barcelona.

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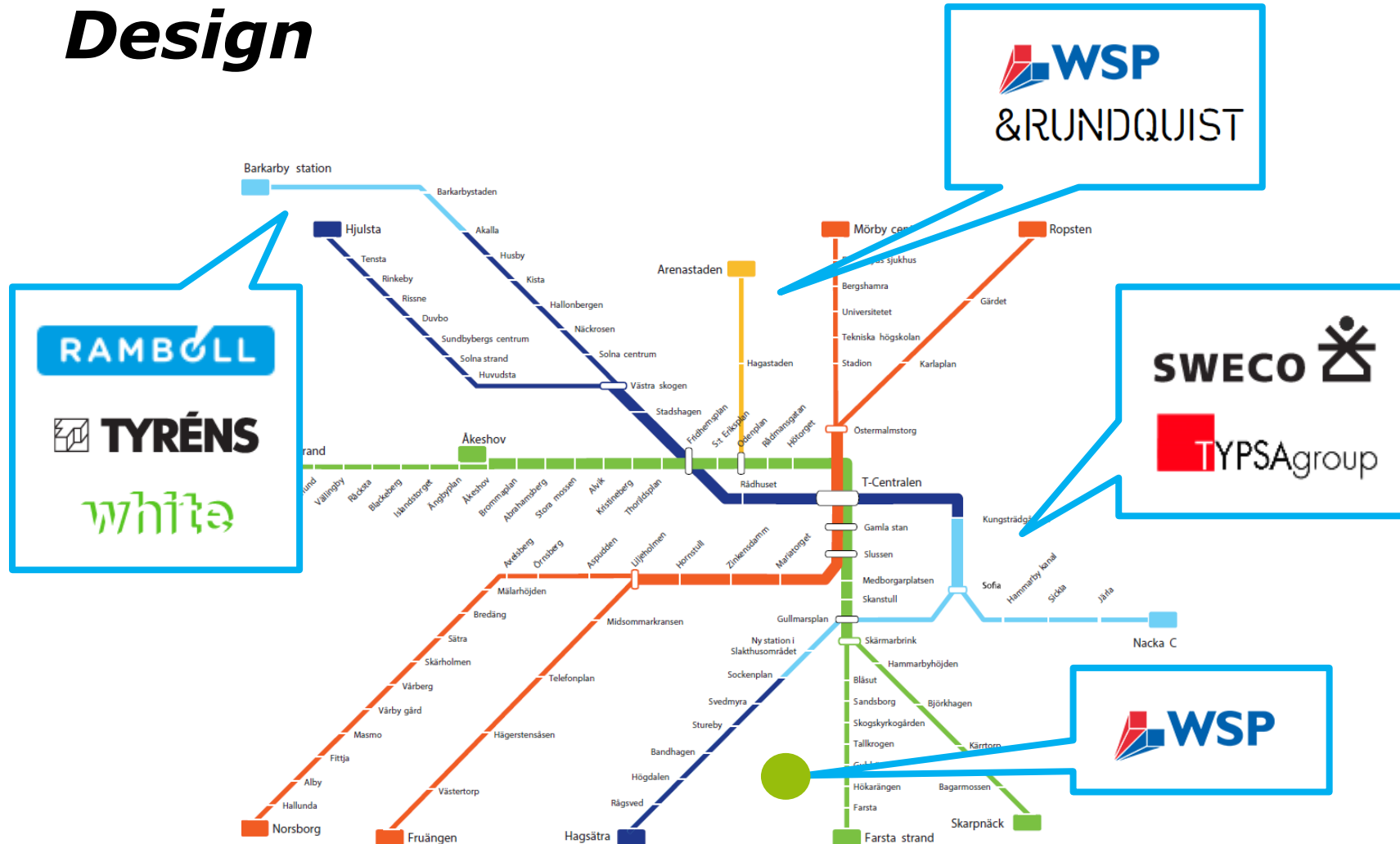
Profile- extension to Nacka



Sofia, approx. 100 m



Design



Upcoming procurements

- Preparatory works 2017-2018
- Access tunnels 2017-2018
- Tunnels, Civil works 2018-2019
- Stations, Construction works 2018-2021
- BEST (Rail, Electric, Signal and Telecommunication) 2018-2020



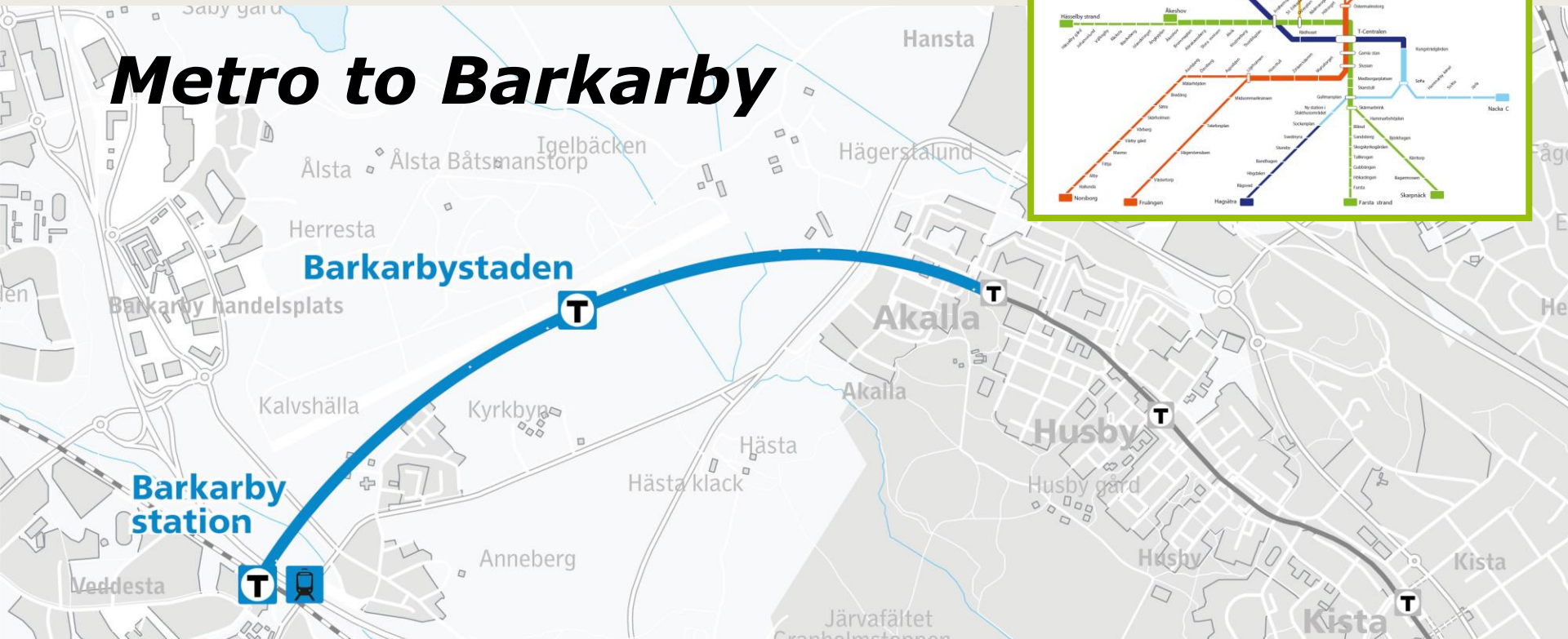
€ 50-200 million

Mainly performance contracts.

A few design and build contracts.



Metro to Barkarby



Alternative 1

Several, up to 8 separate contracts. 6-63 million€

Alternative 2

Access tunnels (2) 6/10 million€

1 contract for everything else. 215 million€

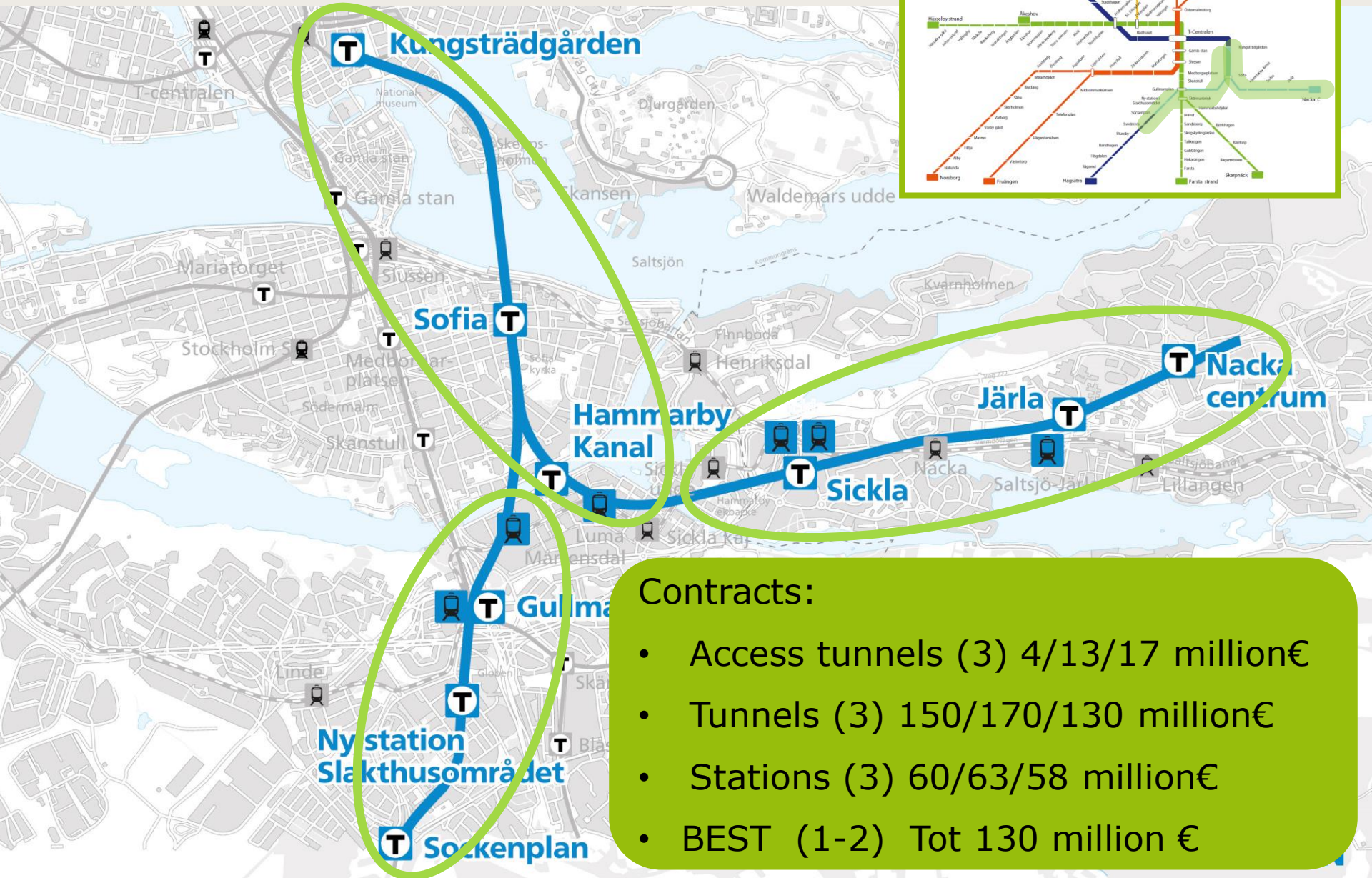


Contracts

- Access tunnels (2). 40/80 million€
- Tunnels (2) 63/53 million€
- Stations (2) 47/47 million€
- BEST

Metro to Arenastaden

Possible station
not included



Contracts:

- Access tunnels (3) 4/13/17 million€
- Tunnels (3) 150/170/130 million€
- Stations (3) 60/63/58 million€
- BEST (1-2) Tot 130 million €

Depot with connecting tracks:

Contracts:

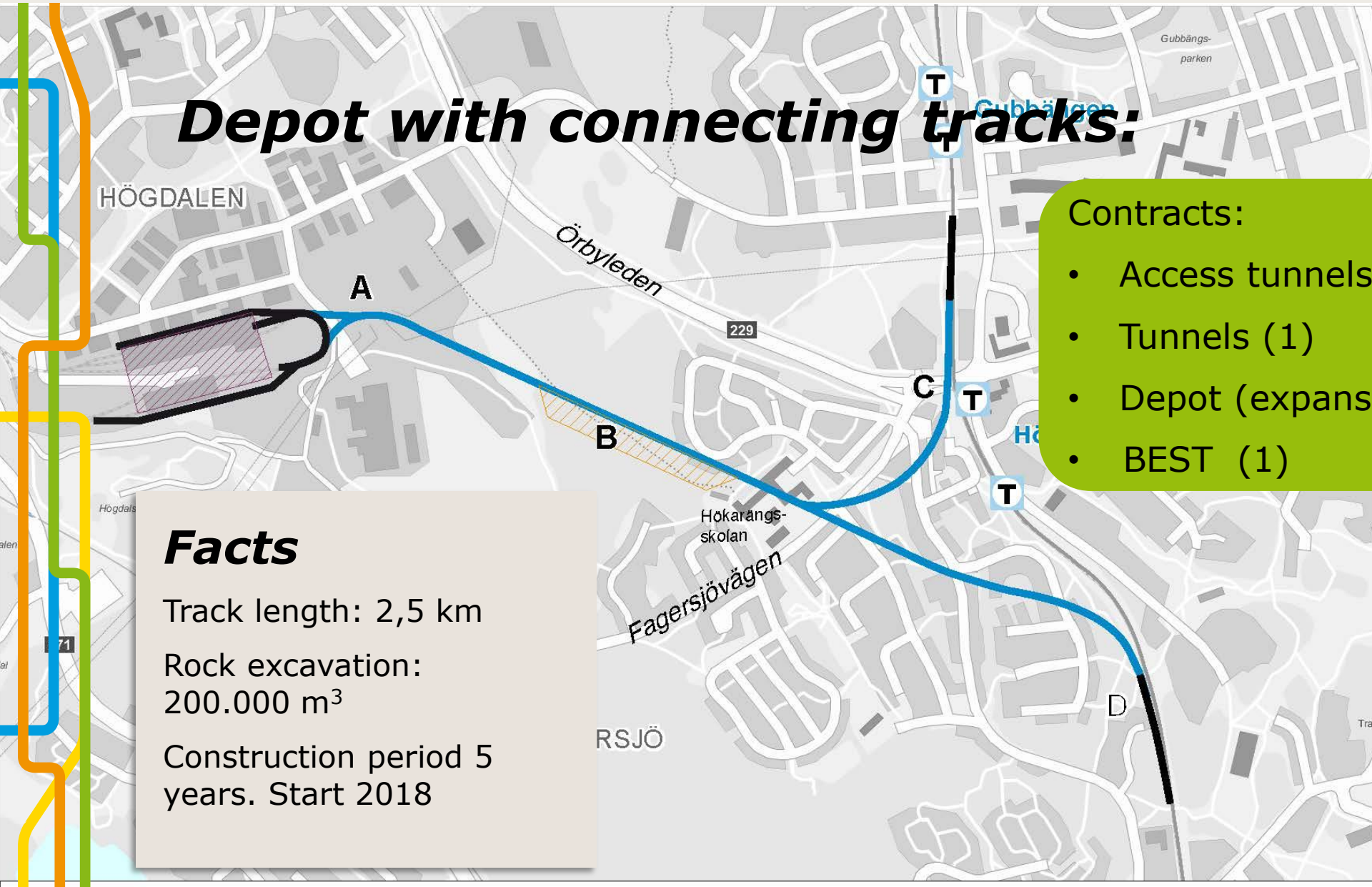
- Access tunnels
- Tunnels (1)
- Depot (expans)
- BEST (1)

Facts

Track length: 2,5 km

Rock excavation:
200.000 m³

Construction period 5
years. Start 2018





Further information

- Current information on the expansion project is available at nyatunnelbanan.sll.se
- Follow us on twitter: @nyatunnelbanan
- Subscribe to our newsletter for suppliers

