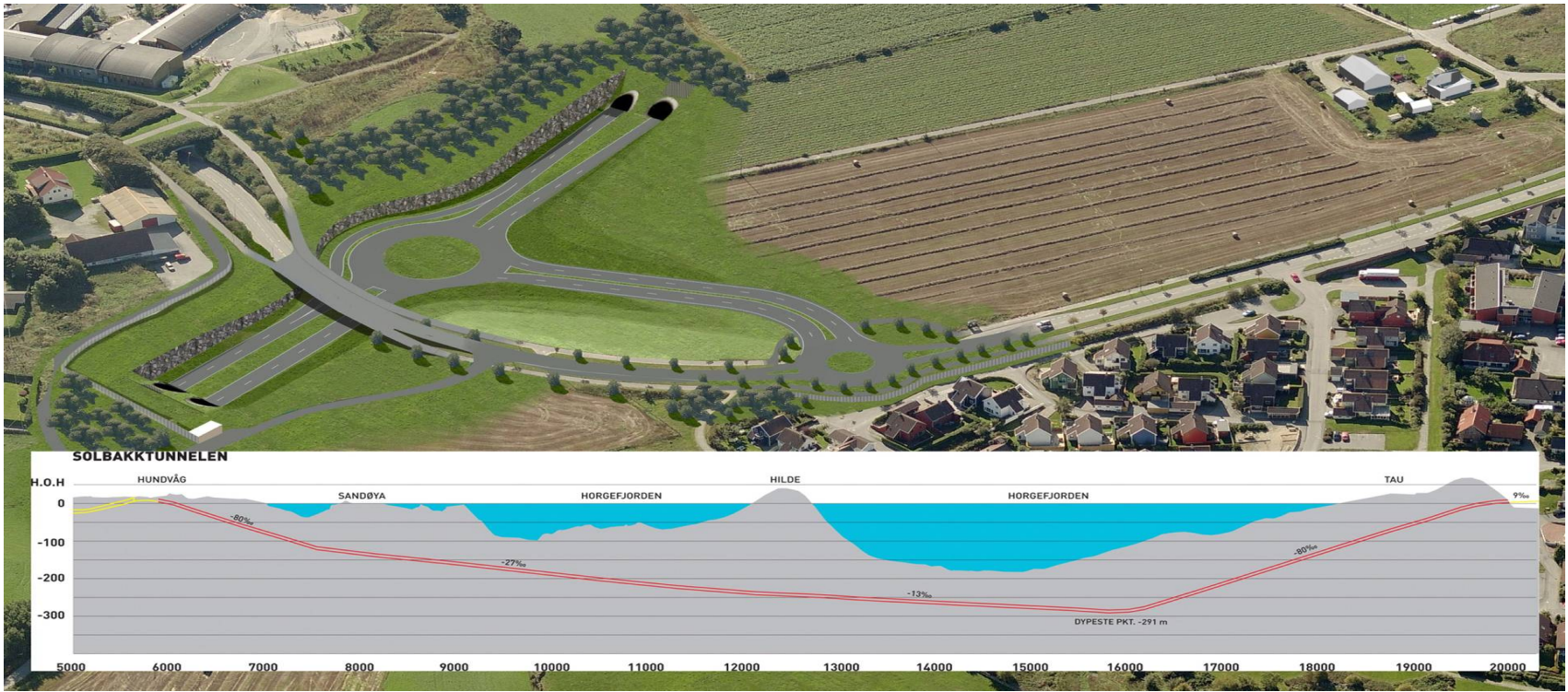


Norway vs NL Subsea Tunnels

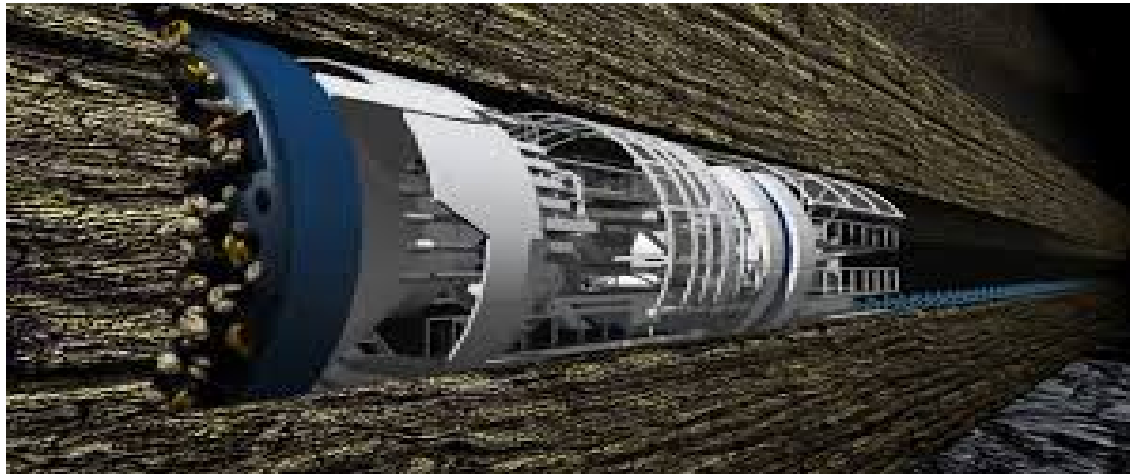


Subsea Tunnels in Norway

- 32 done, Solbakk tunnel is number 33

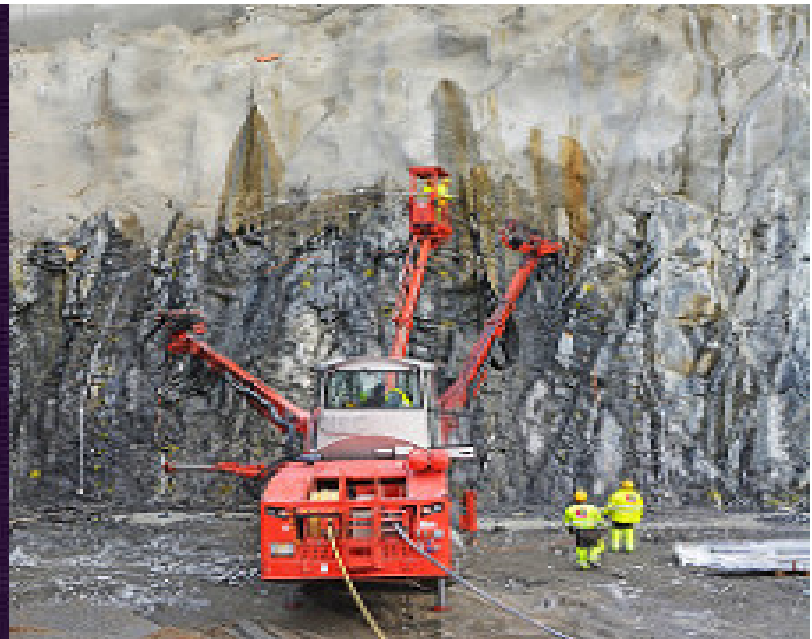
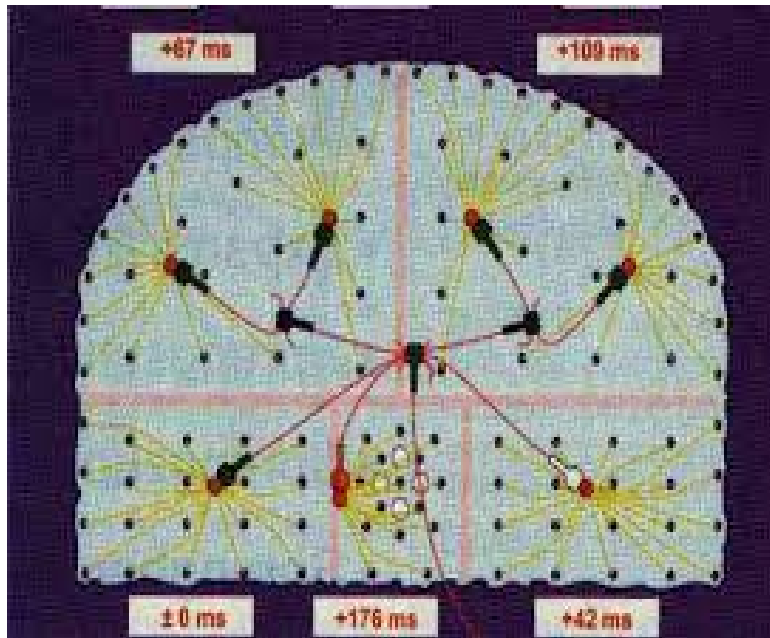


Tunnel Boring Machine



Proven inflexible, unsafe and costly in Norway

Tunneling by Drill and Blast Technique



Flexible, safer and cheaper
than TBM

COST IN NORWAY:

Defined by Unit Price Contracts

- Public tenders called and units of bolts, sprayed concrete, blasts, concrete elements, asphalt, stone and cables at fixed prices.
- Very significant oversight by experienced government personnel.

Solbakk Tunnel

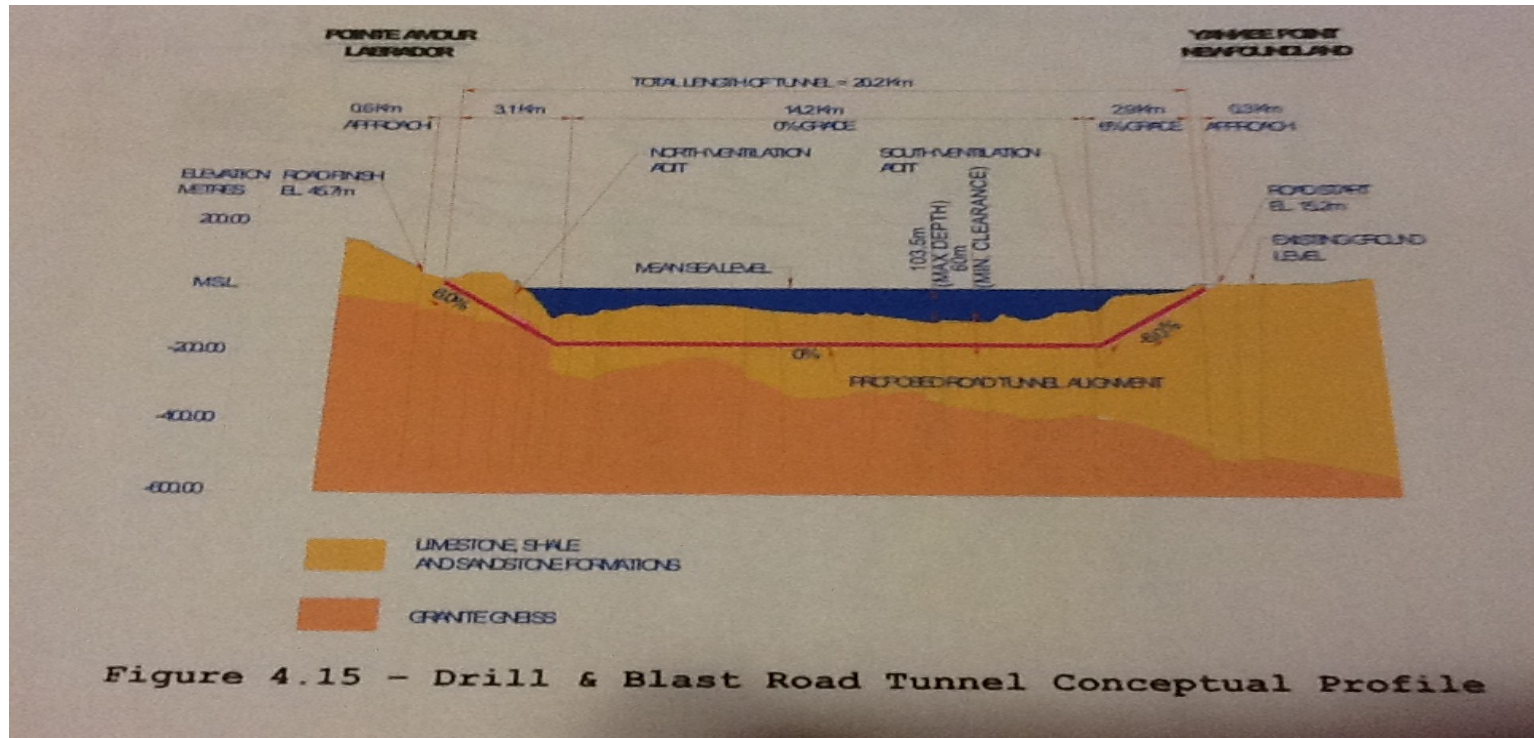
* 14.3 km, 290m < sea level



Solbakk vs NL Cost

- SOLBAKK: 2013 - two tenders: 7.1 and 7.2 kms which covered the $14.3 \times 2 = 28.6$ kms of tunnel with total cost: **\$ 418 M**
- STRAITS: $18 \text{ kms} \times 2 = 36 \text{ kms}$ or **\$ 800 M**

Straits Tunnel Profile



Financing Option

CONFEDERATION BRIDGE DEAL

PPP with Canada so private company invested **\$1.3 billion in 1993**. They received ferry subsidy of \$44 million + \$44 car charge for 33 years and in 2030 the bridge reverts to Canada for \$1. Not one new cent of money was taken from federal or provincial budgets to build, operate and maintain the bridge to date.

STRAITS CONSTRUCTION BUSINESS CASE

The construction, operation and maintenance of this project could be done on the same basis with an acknowledgement of new revenue to NL treasury as follows, over 40 years or negotiated term:

MF Cable Replace	= \$ 0.3 M
Straits Ferry operating/capital	= \$ 0.6 M
Icebreaking	= \$ 0.3 M
Quebec Ferry	= \$ 0.3 M
	Total of \$1.5 Billion for status quo
New revenue from 300,000+ visitors annually/50 yrs=\$45.0 Billion	
	Total of \$46.5 Billion

Economic Benefits: Where and How

- Non-Resident Traffic Statistics by bridge / ferry:

- PEI Before the bridge:	740,000 (1996)	1,500,000 (2017)
- NL Before the road tunnel:	95,000 (2018)	400,000 (2023)

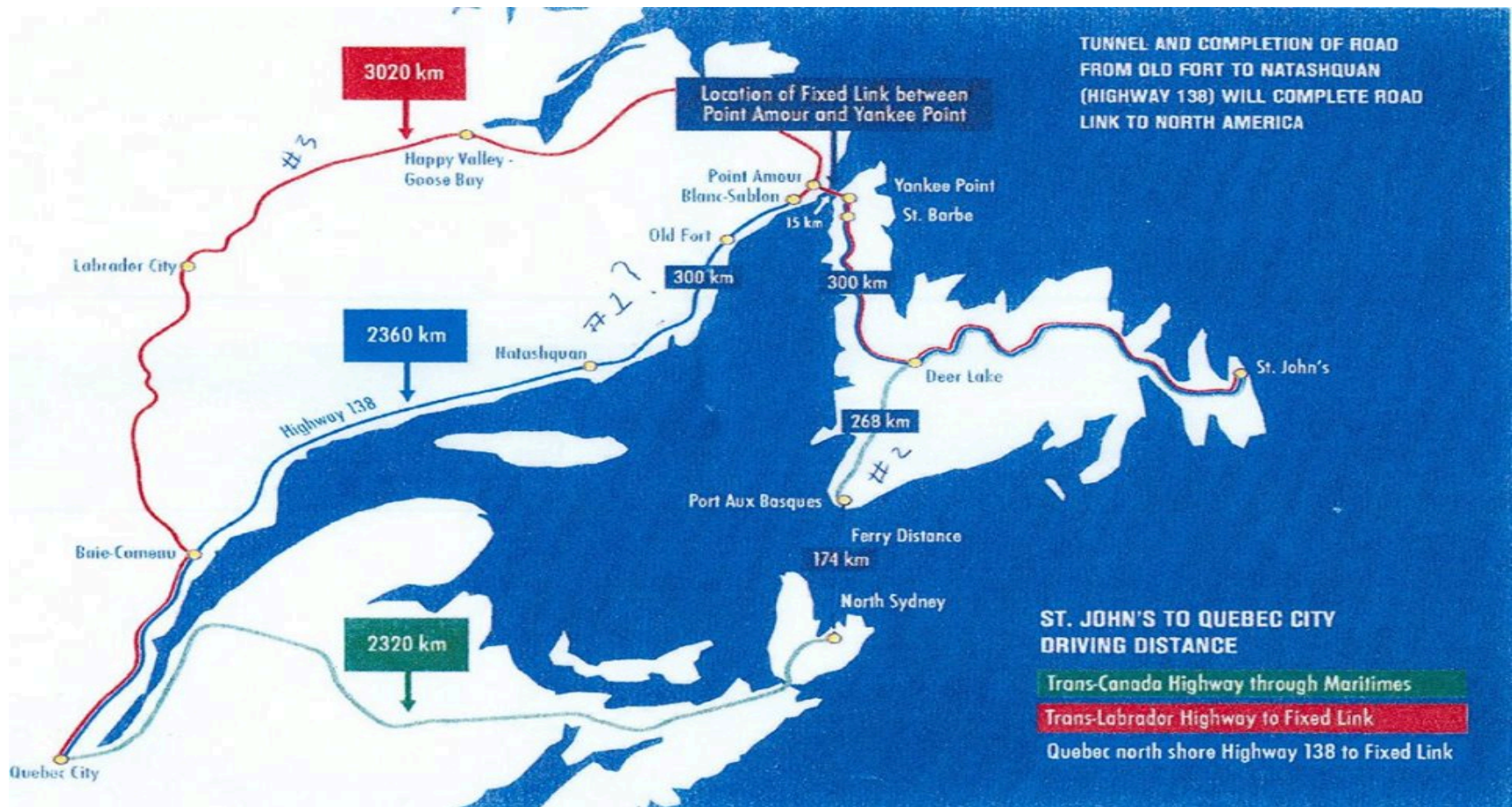
Factors Driving the increase in non-resident traffic:

- Reliability: 24/7/365
- Price: Negligible
- Product: World Heritage Sites, Rural NL, City of Legends

Economic Diversification: Billion dollars every year/ 5000 jobs <5 years.

- New jobs and new businesses will be created for decades in construction, retail, and hospitality serves in every region of the Province, especially Avalon.
- Cost of living will be significantly reduced with food security, higher quality and lower cost food
- It will be a significant reducer of greenhouse gas emissions displacing millions of litres of carbon.

The Last Spike Connecting Canada Sea-to-Sea; The Eastern Canadian Travel Loop.



The Way Forward

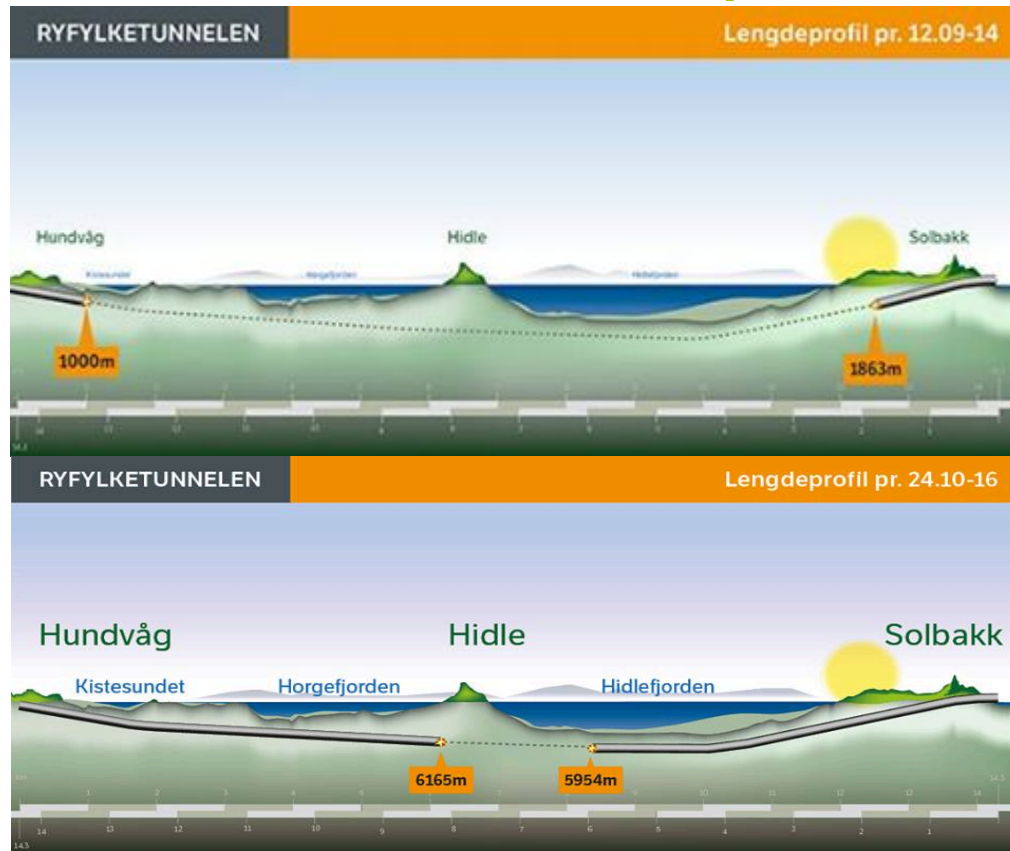
RFP prepared, defining the project, and issued to provide the cost of the project by NL government:

-PROJECT: Subsea Road Tunnel with specifications similar to Solbakk.

-TERMS: PPP over a fixed number of yrs.

-ASSESSMENT: NL government selects a proposal and makes an agreement for construction, maintenance and operation; hopefully, with Ottawa and Quebec included.

Solbakk: 2014 / 2017



Hey Canada, Welcome to
NL in 14 minutes!

