

The Barents Sea Delimitation Implications for Cooperation with Russia

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Daniel Fjærtøft, Kirkenes Conference

The Barents Sea Is One Energy Province

Main messages:

If the Norwegian PDA is resource rich:

Norway can manage without a close cooperation with Russia

If not :

Norwegian PDA Development will be highly dependent on the Russian Barents Sea

Therefore:

Norway should focus on assisting Russian success

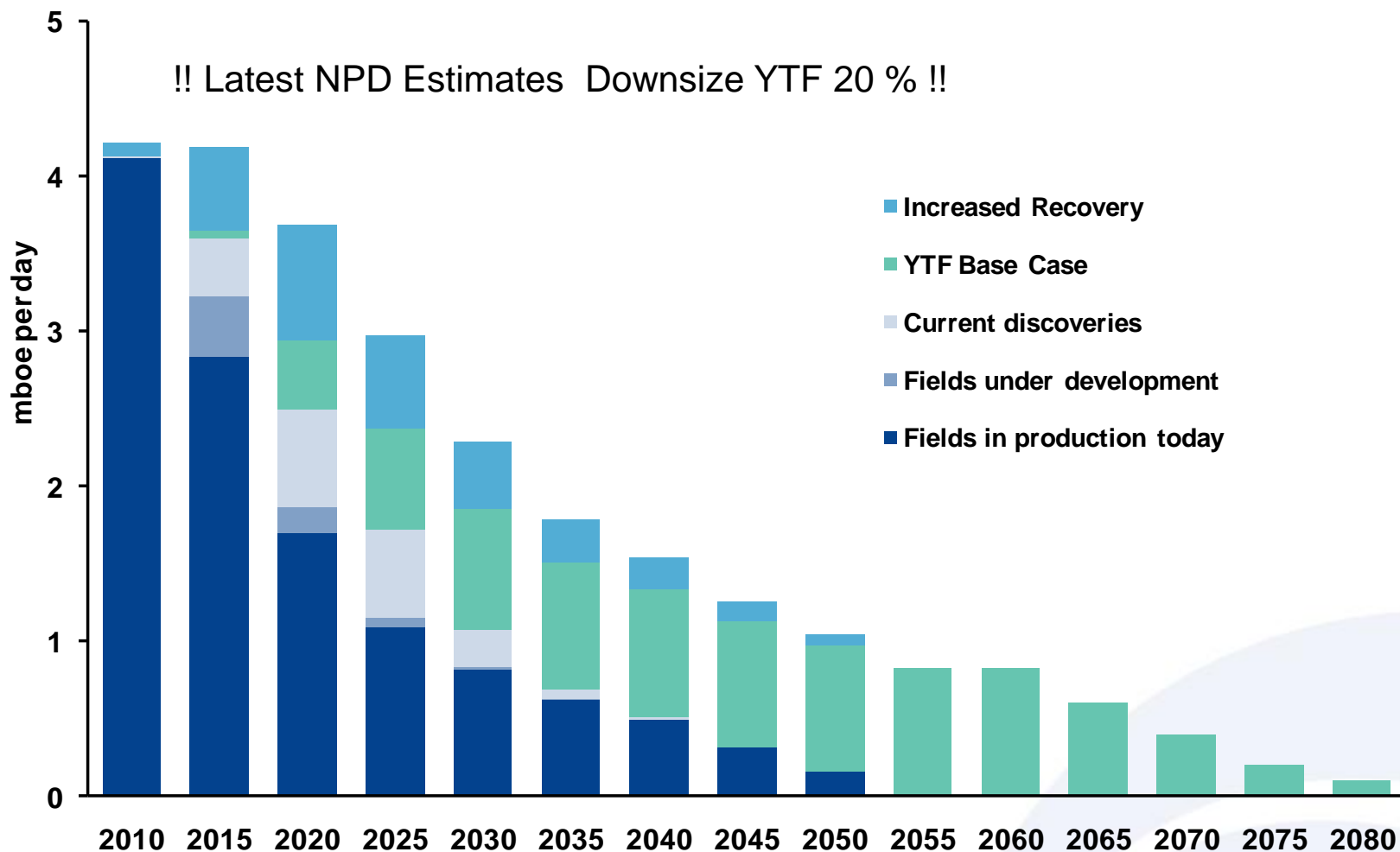
Norwegian Activity Could Be Substantial

Activity is Required to the East

Keep the Focus on Russia

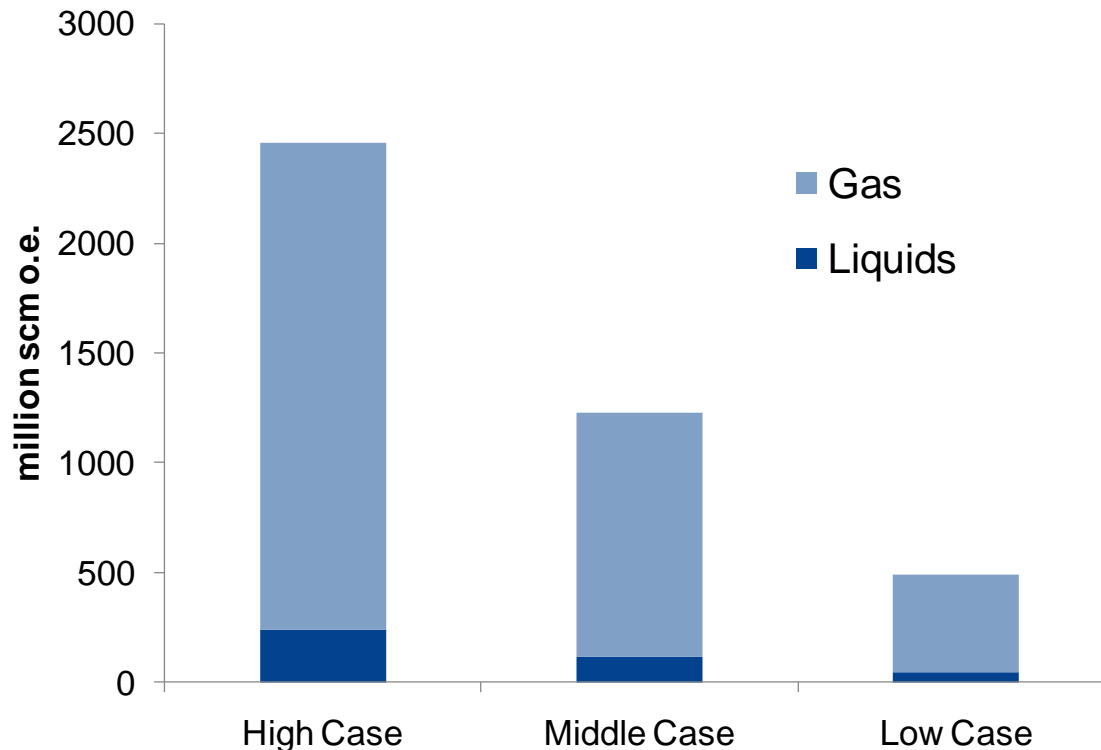
Norway Is Facing a Dramatic Decline in O&G Production

Production Projections NCS excl. PDA



Potential Resources in the PDA

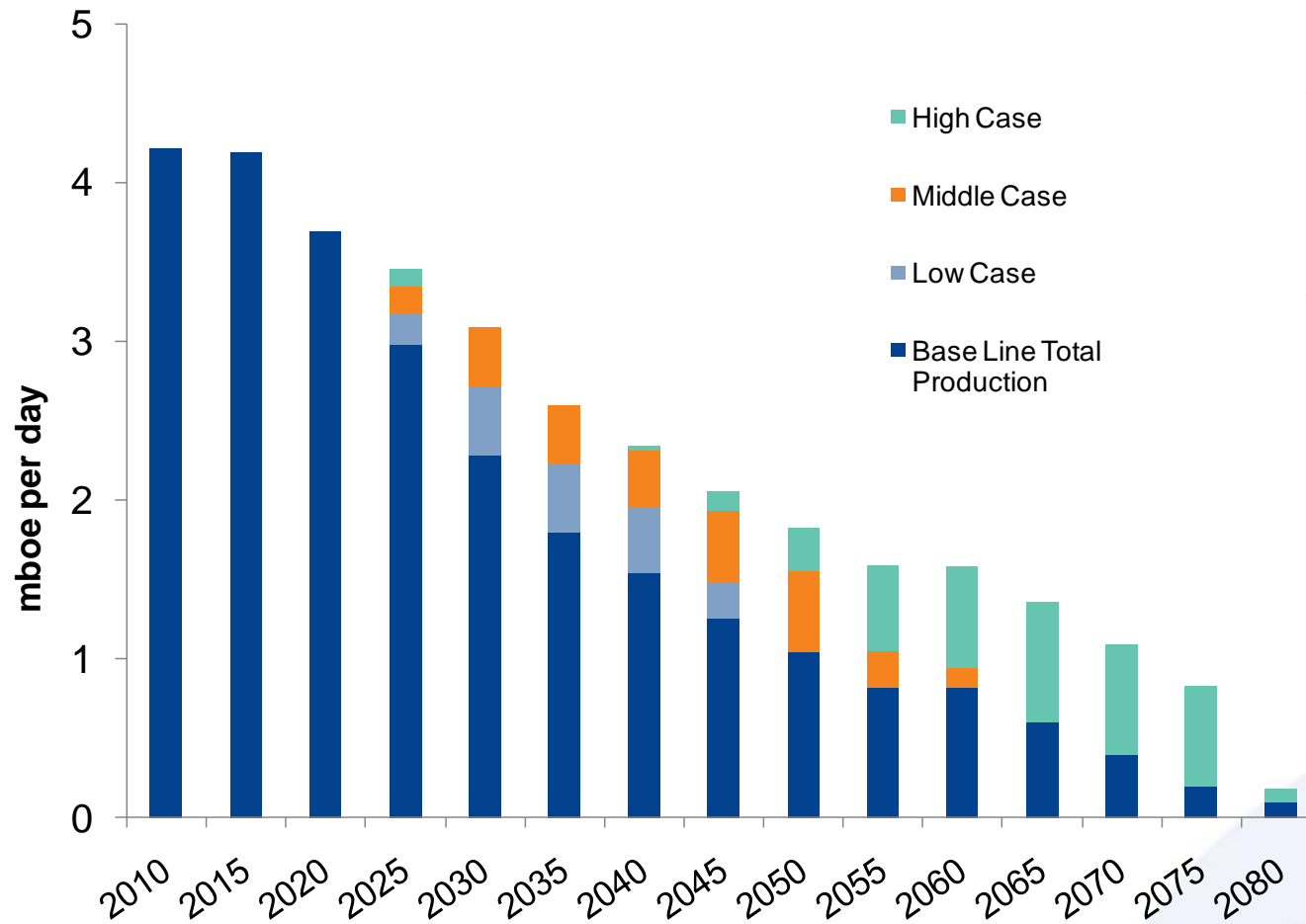
Econ Pöyry Resource Scenarios for Norwegian PDA Based on Russian Estimates



- High Case would double total YTF resources from 2.6 to 5 bln. scm o.e.
- Depends on distribution of resources between Russia and Norway
- Sounds incredible – but Shtokman is near by
- Need to start exploration

PDA Production Can Ease the Fall

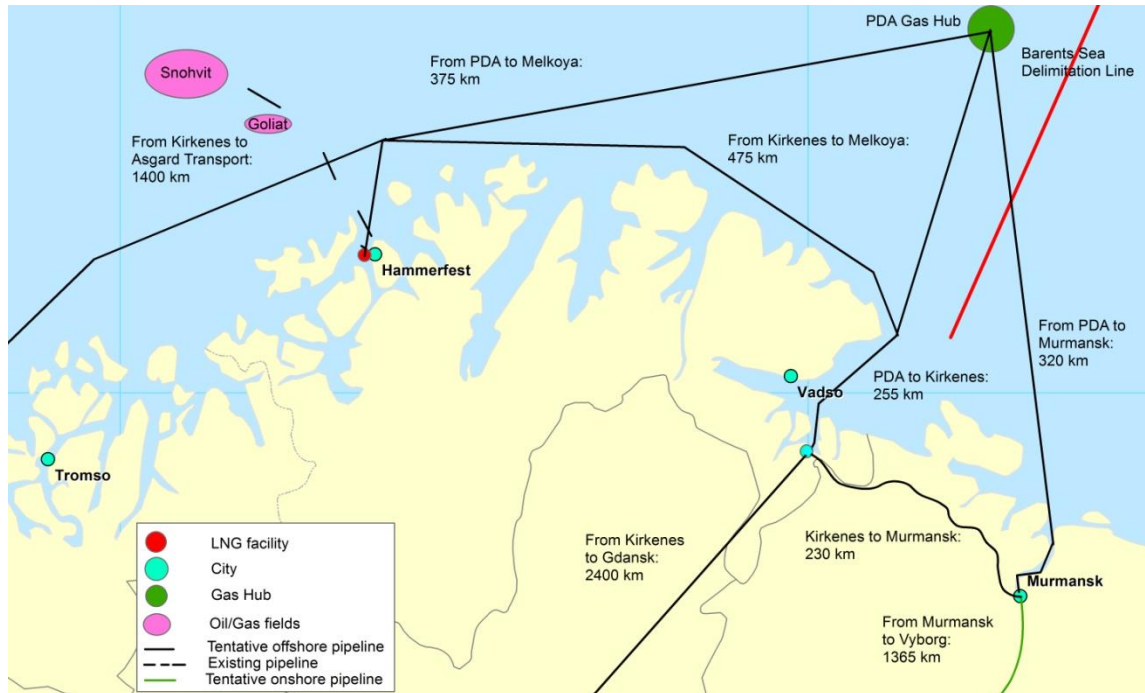
Production Projections Including PDA



- Annual production 25 – 50 million scm o.e.
- Substantial employment effects
 - 7 000 -14 000 Operations related Jobs
 - 4 000 – 20 000 Investment related jobs

East Finnmark Will be Landing Site and Export hub

Preferred Export Scheme: Pipeline to Haltenbanken



- Haltenbanken is cheaper
 - Utilize spare capacity in Norwegian grid
 - Flexibility for LNG production
- LNG is a low resource option
- Murmansk is an option for:
 - Relief capacity
 - Low resource scenario
 - Shared fields

Regional Ripple Effects Related to Processing and Supply Bases

- Demand will be covered mostly by existing jobs in Southern Norway
- Manpower requirements for terminal and supply bases will lead to substantial job creation locally
- Additional job creation needs development of supply industry, but
 - Local community might not have capacity to support more industrial development
 - Companies are likely to limit presence to a logistical minimum

Possible Regional Job Creation

Type of facility	High Case	Middle Case	Low Case
Terminal	600	600	400
Supply base	750	500	250
Supply industry	?	?	?

- Nyhamna export terminal
 - 450 jobs
- Fjord base in Florø
 - 420 jobs including supply industry
- Vestbase in Kristiansund
 - 750 jobs including supply industry

Note: For illustration purposes only

Potential for Norway Depends on Russia

Two likely problems with the story so far:



It is possible that:

Without activity in Russia petroleum activities in East Finnmark will not develop

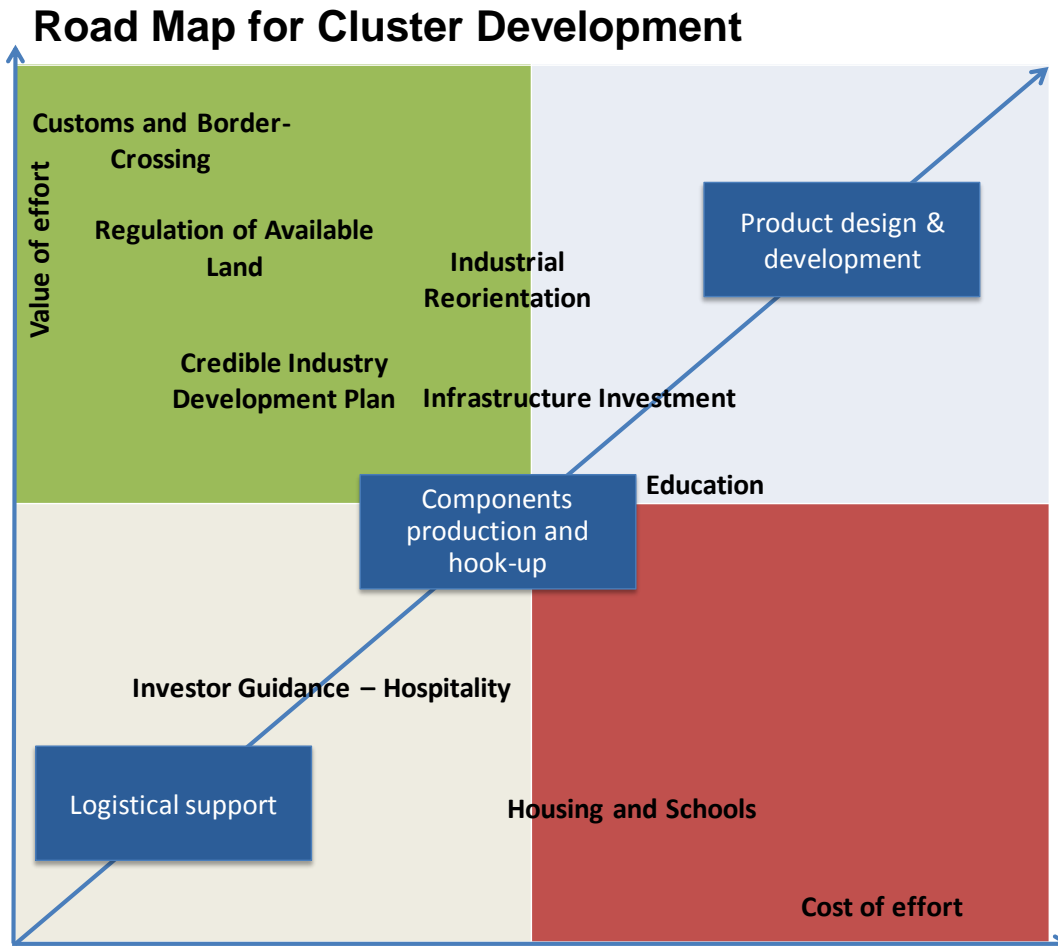
Russia is Not Ready for Barents Sea Developments

Norway will be the first to start developing the PDA not Russia and may not find a motivated Russian counterpart in case of joint developments

- Gazprom and Rosneft have shelf monopoly but priorities elsewhere
- Ministry of Natural Resources wants reform but lacks support
- Lukoil and Zarubezhneft show interest in the Arctic, but will it lead to anything?



A Supply Industry in Murmansk will Support Russian Activity

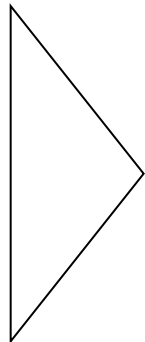
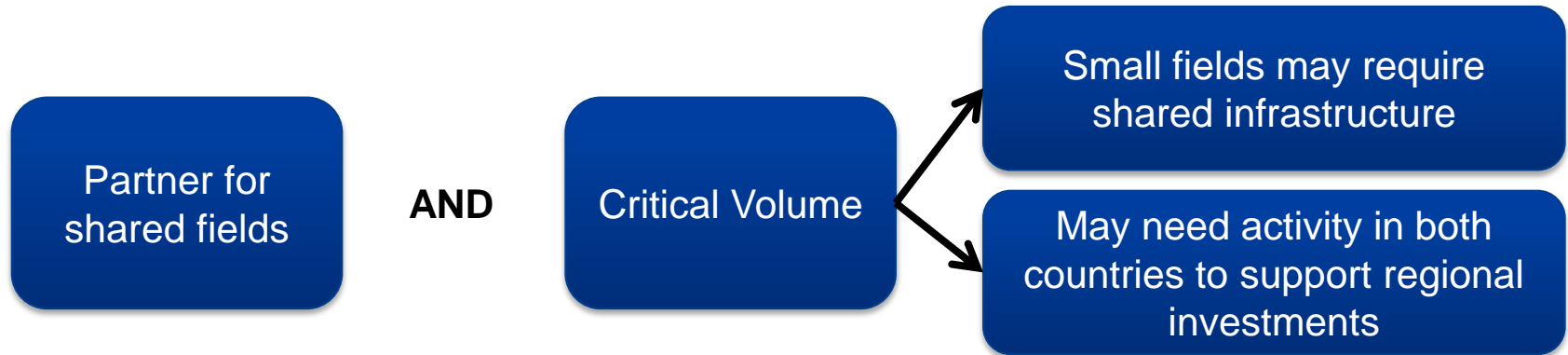


Murmansk Oil and Gas Cluster Project

- Using Shtokman to build industrial capacity in Murmansk
 - Increase Russian ability to develop offshore deposits
 - Create industrial lobby to push for continuous development
 - Reduce “Zero-sum” perception of international cooperation
- But Murmansk is not ready to benefit from Shtokman opportunity

Norway Should Focus on Supporting Russian Success

Russian activity is only credible if a supply industry develops in Murmansk



- **Strengthen dialogue with Russia on offshore policy**
- **Support supply industry development in Murmansk**





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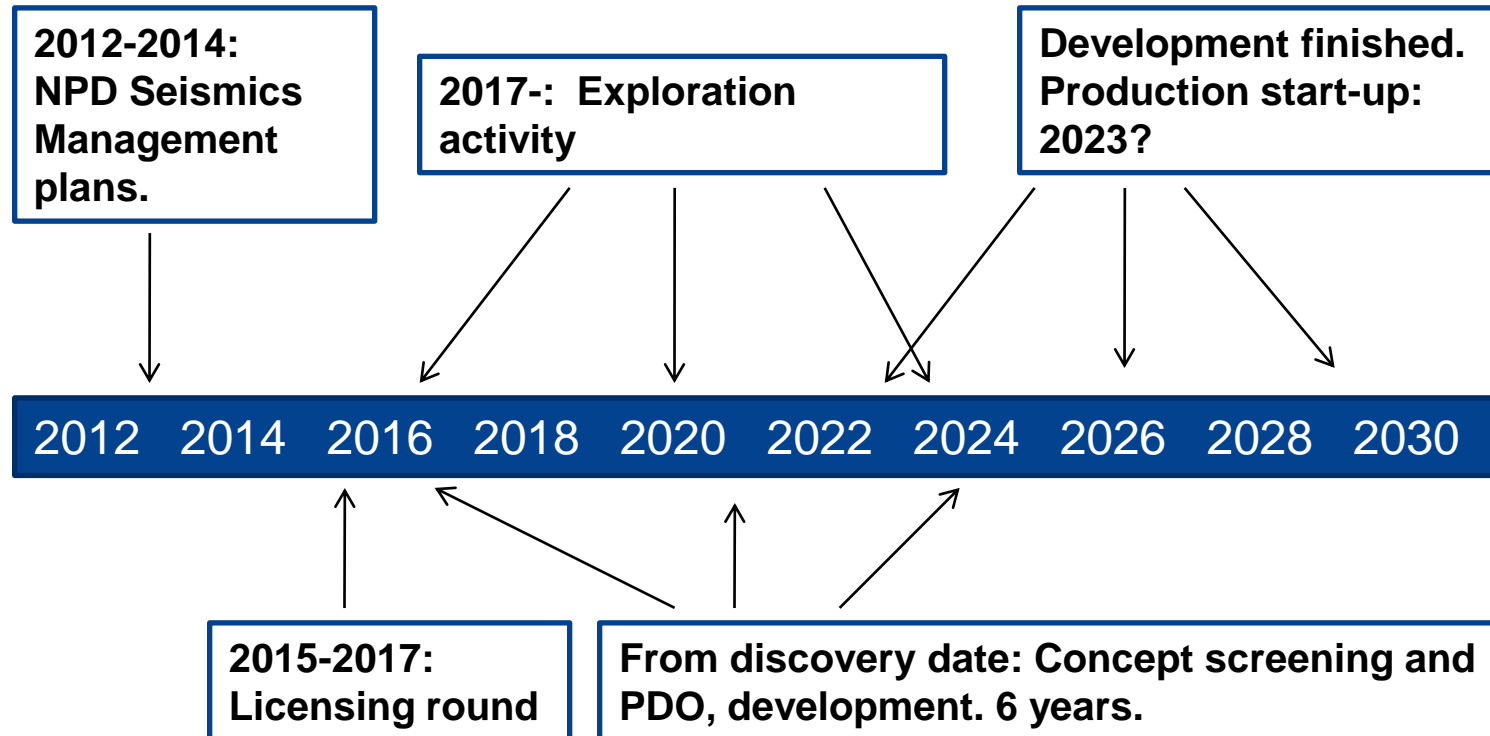
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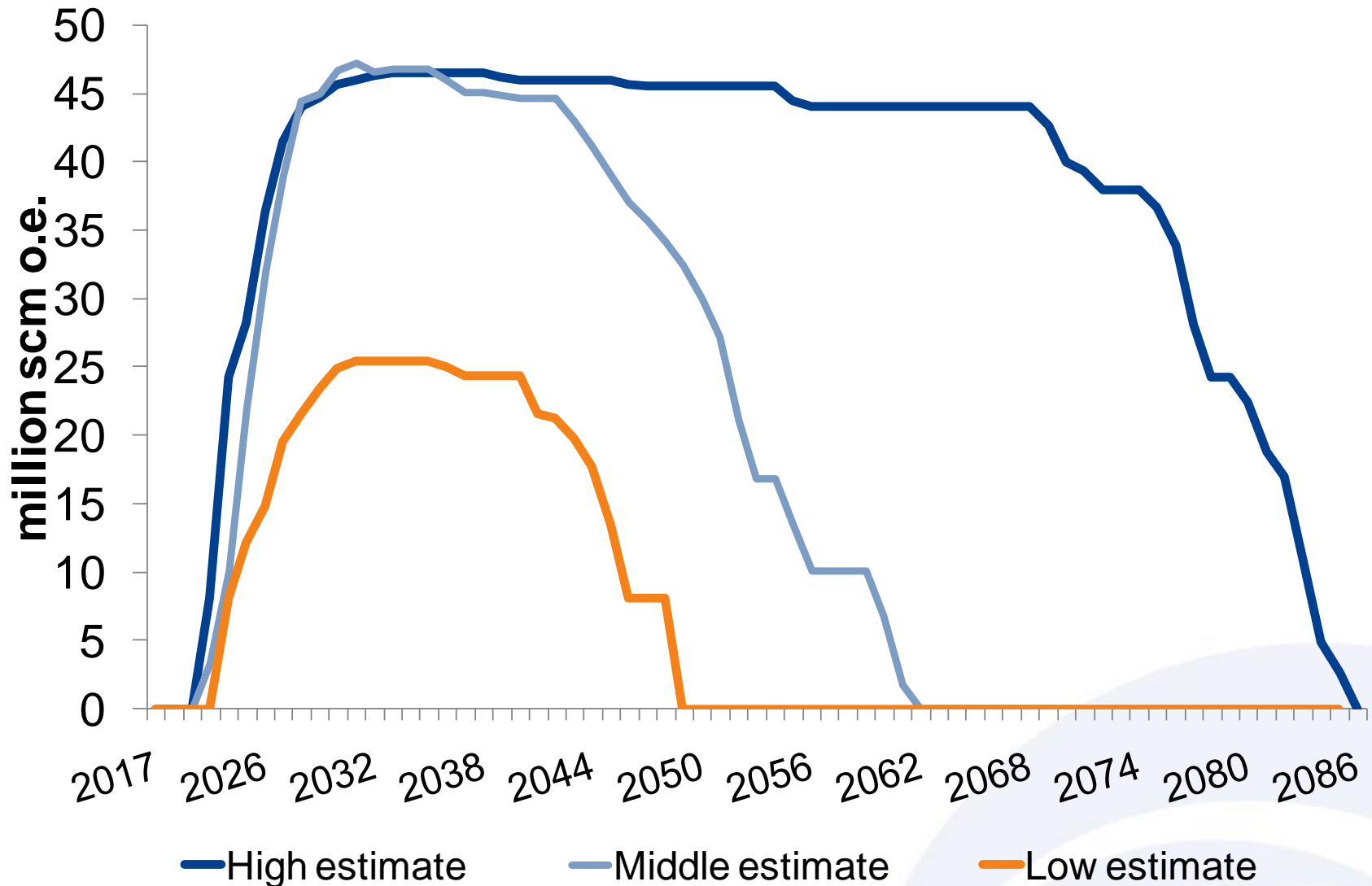
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Development Timeline



Example Production Profiles



NCS Employment Effects

