



ebn
best access to dutch gas

Tomorrow's Gas

Roadmaps for stimulating long term E&P in NL

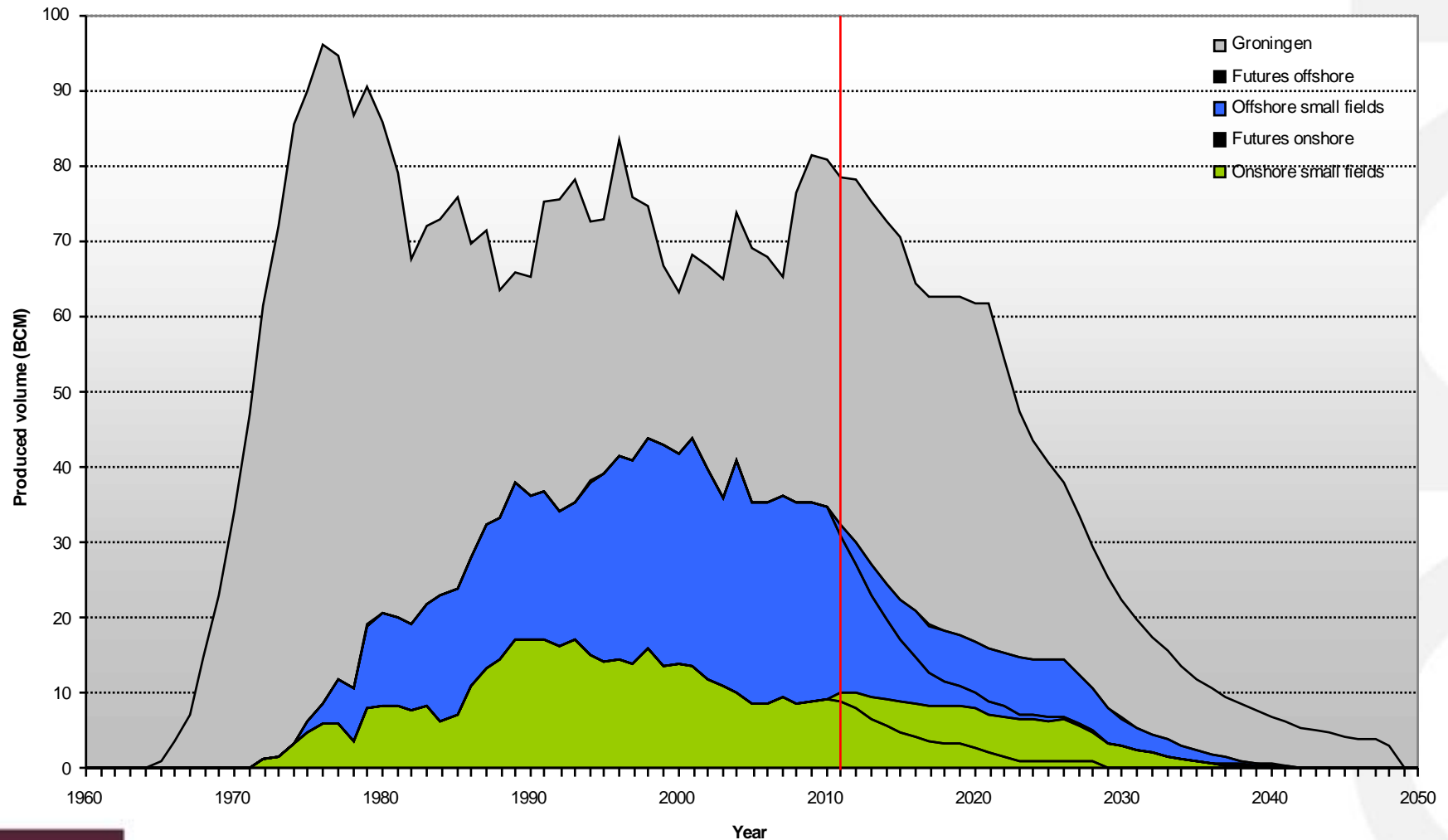
Offshore Energy 2011 october 12

Guido Hoetz

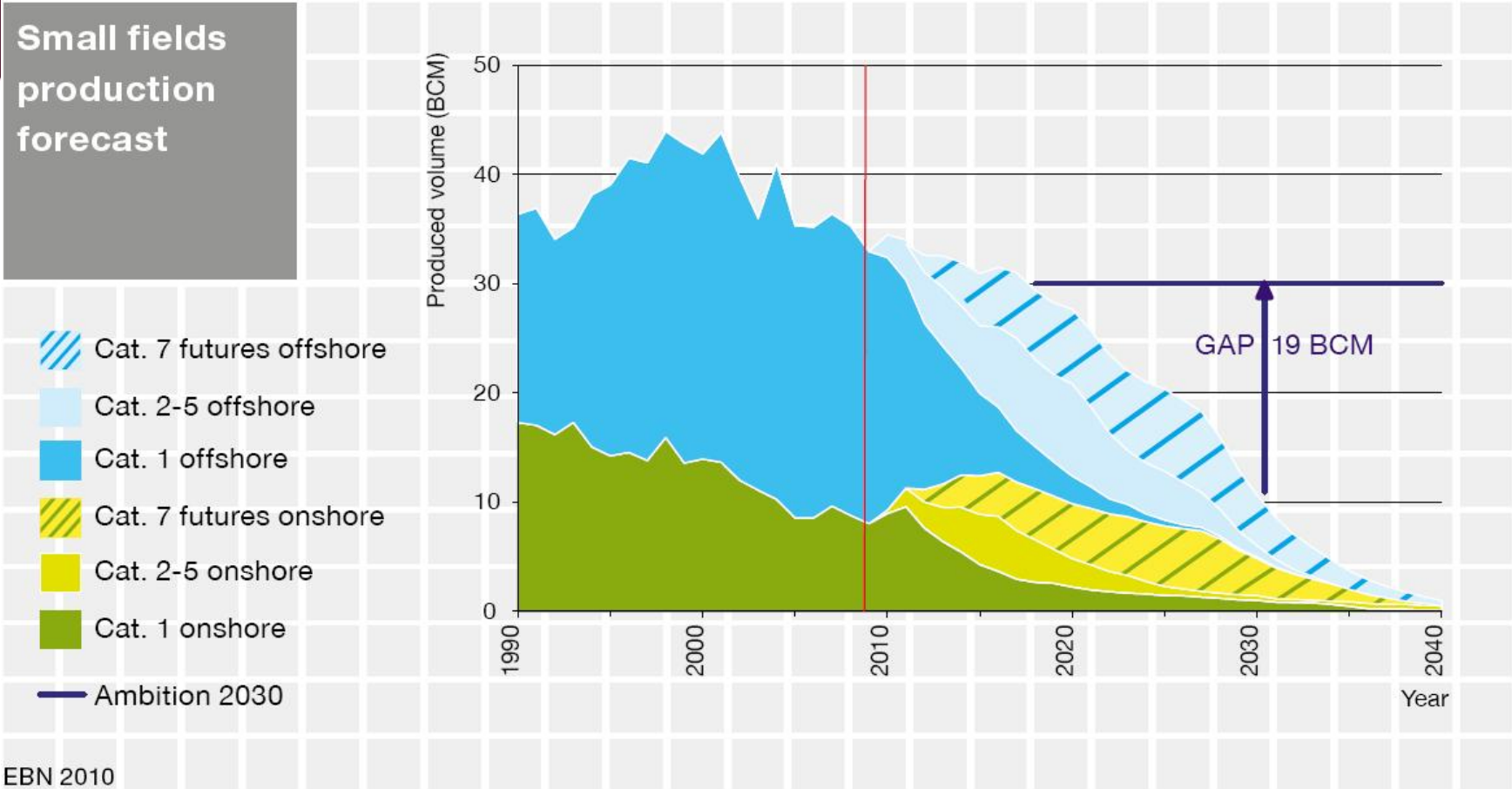
Energie Beheer Nederland B.V.

Sense of Urgency: Trends in Dutch E&P

Historic production & forecast NL



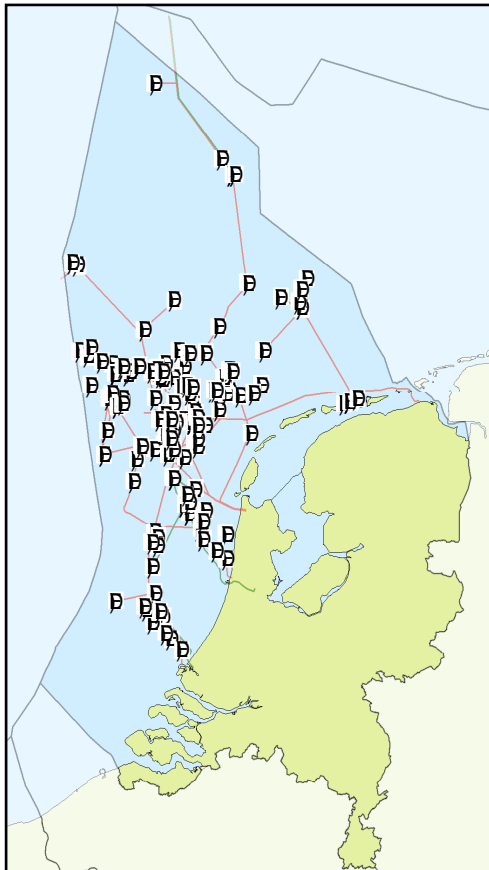
EBN Ambition 30/30



- Ambition to keep current production level of 30 bcm/y (outside Groningen) until 2030.
- Current shortfall in 2030: ~19 bcm

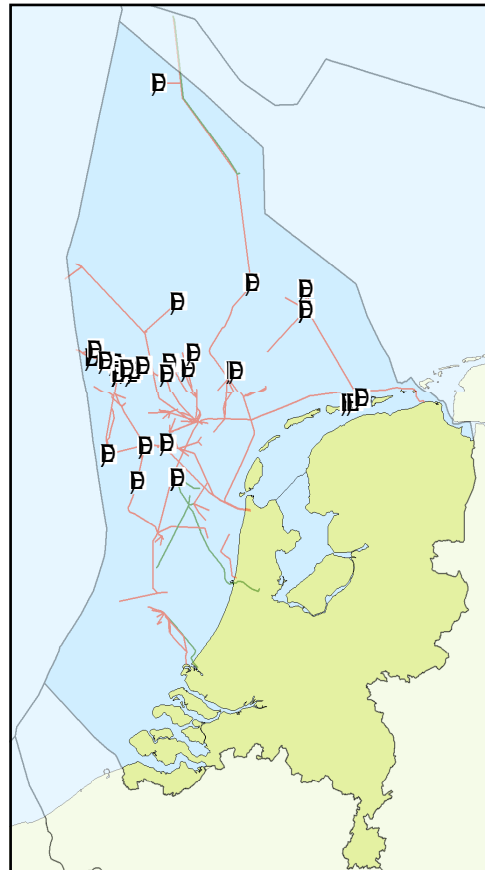
Infrastructure: Window of opportunity is closing

Netherlands - Offshore Facilities 2009



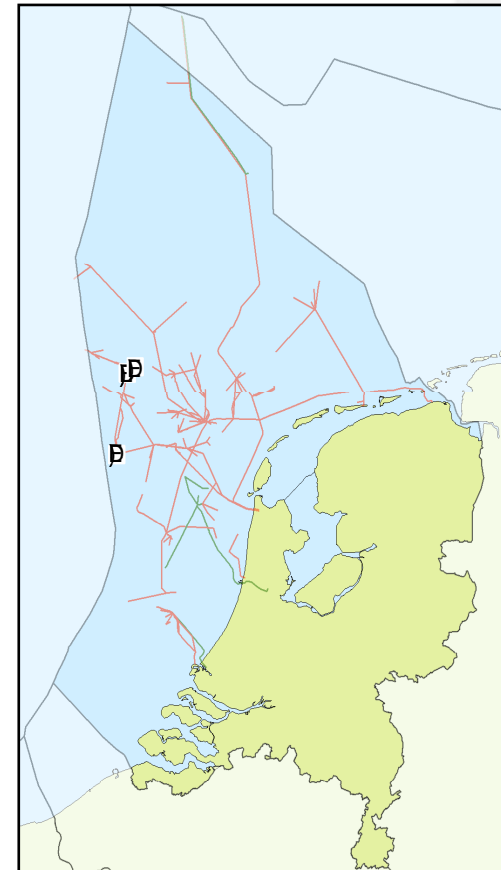
2009

Netherlands - Offshore Facilities 2020



2020

Netherlands - Offshore Facilities 2030



2030

Offshore infrastructure disappearing with time

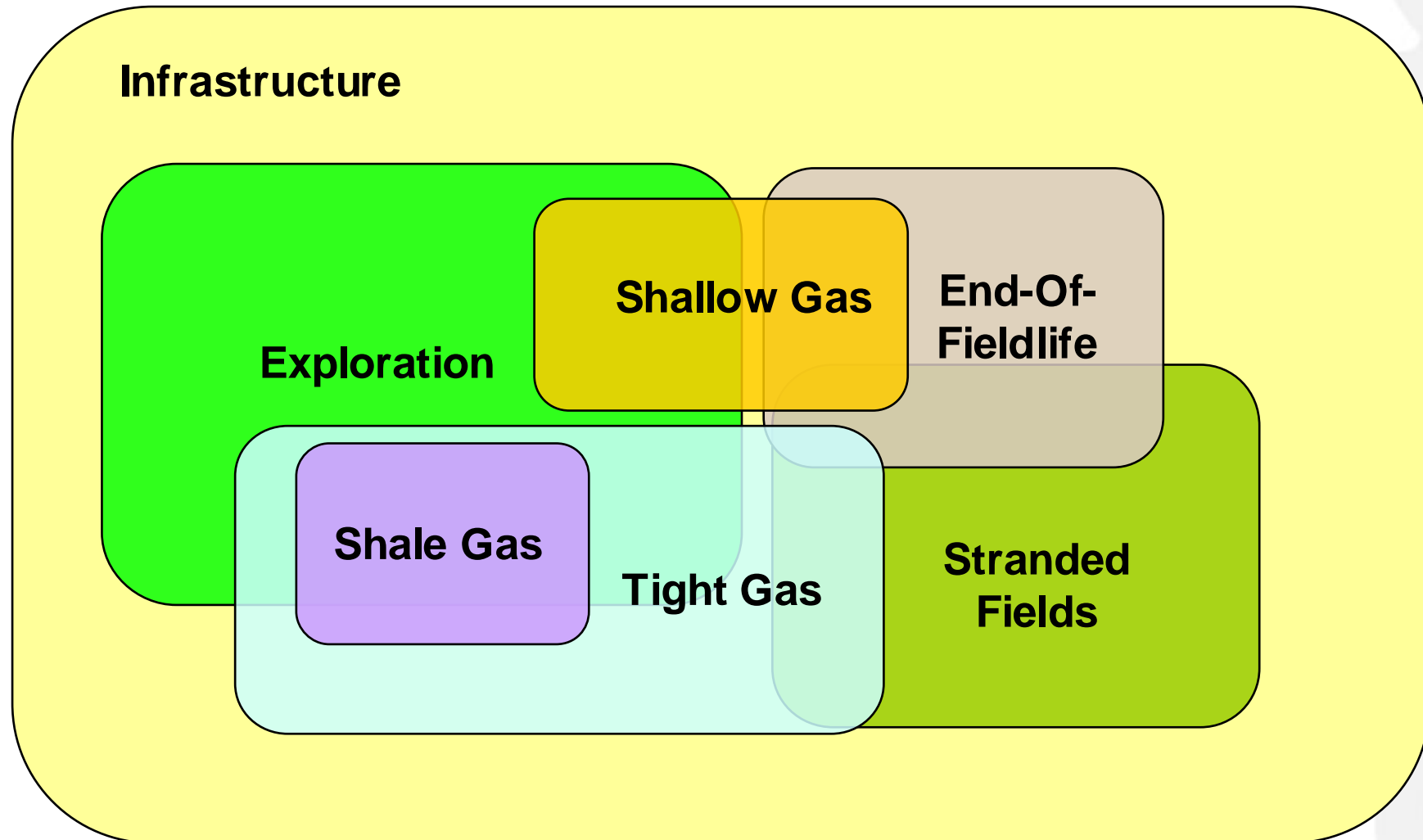
Roadmap Approach

7 Themes selected for stimulation

1. Exploration
2. Tight Gas
3. Shale Gas
4. Shallow Gas
5. Stranded Fields
6. Infrastructure
7. End-of-Field life

Tough reservoirs
= unconventionalals

Roadmaps: overlapping themes



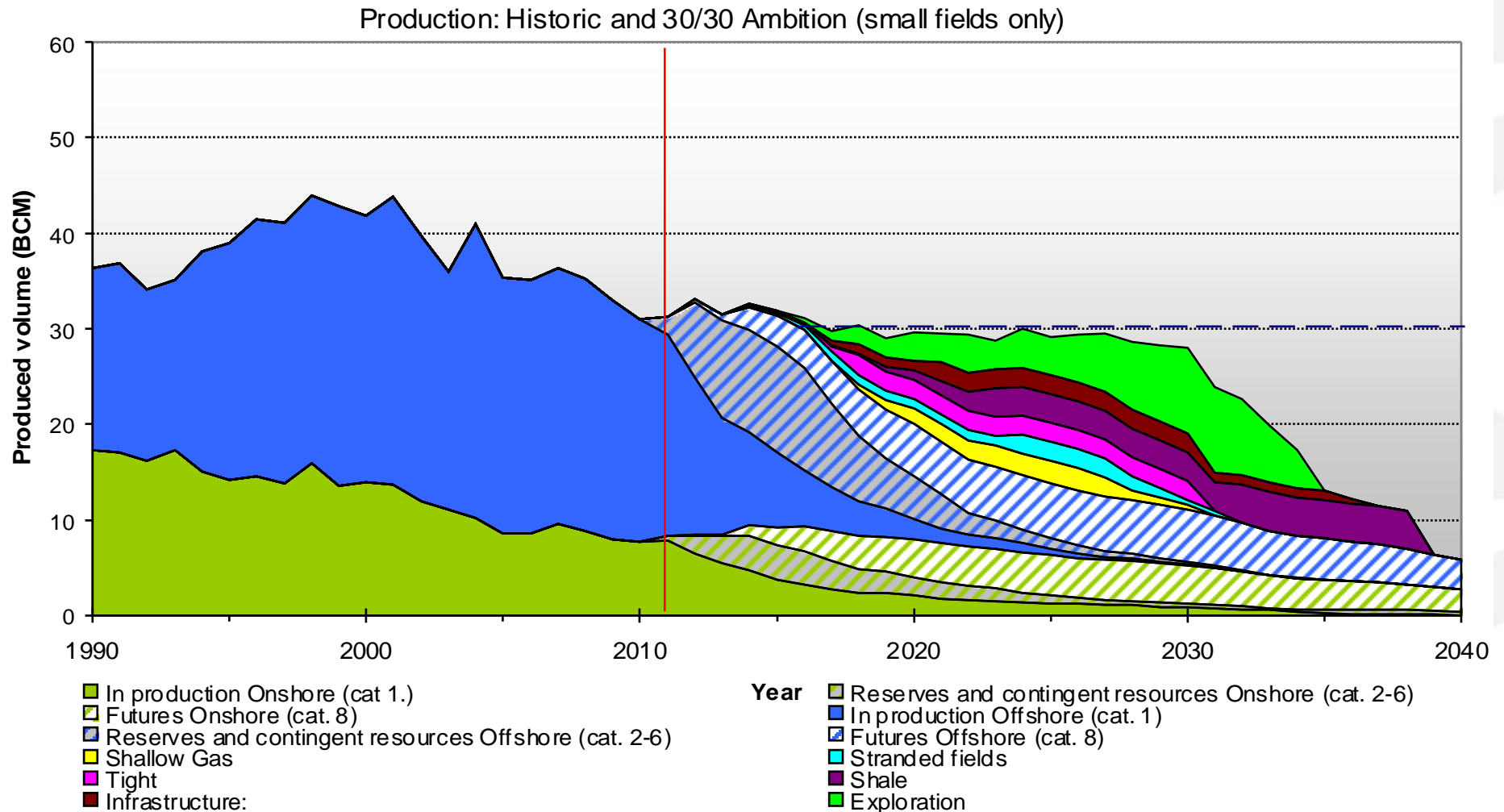
Open mind for roadmap synergy!

Roadmaps in EBN

For each Theme:

1. *Moonshot* definition via workshops
2. Identify *bottlenecks* for progressing volume maturation
3. Structured set of projects addressing *bottlenecks*
4. Timeline and resources defined
5. *Multi-disciplinary* teams (2-4)
6. *Single point responsibility* for project delivery
7. Regular progress *meetings & milestones*
8. *WIKI* based deliverables

Ambition: contributions from different themes



Shallow Gas

- Building SG portfolio
 - Regional Bright Spot mapping
 - Workflow for volumetric assessment
 - Rock properties constrained via TNO JIP
- Understanding critical issues e.g:
 - Gas saturations
 - sand production
 - Low pressures
- Promoting prospects in Open Acreage

✓

✓

✓

..

✓

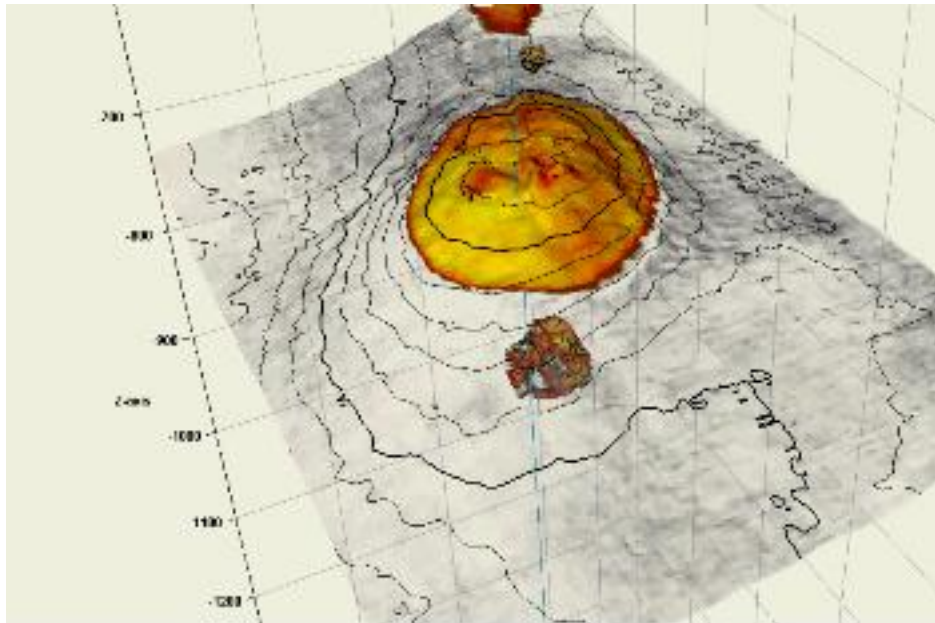
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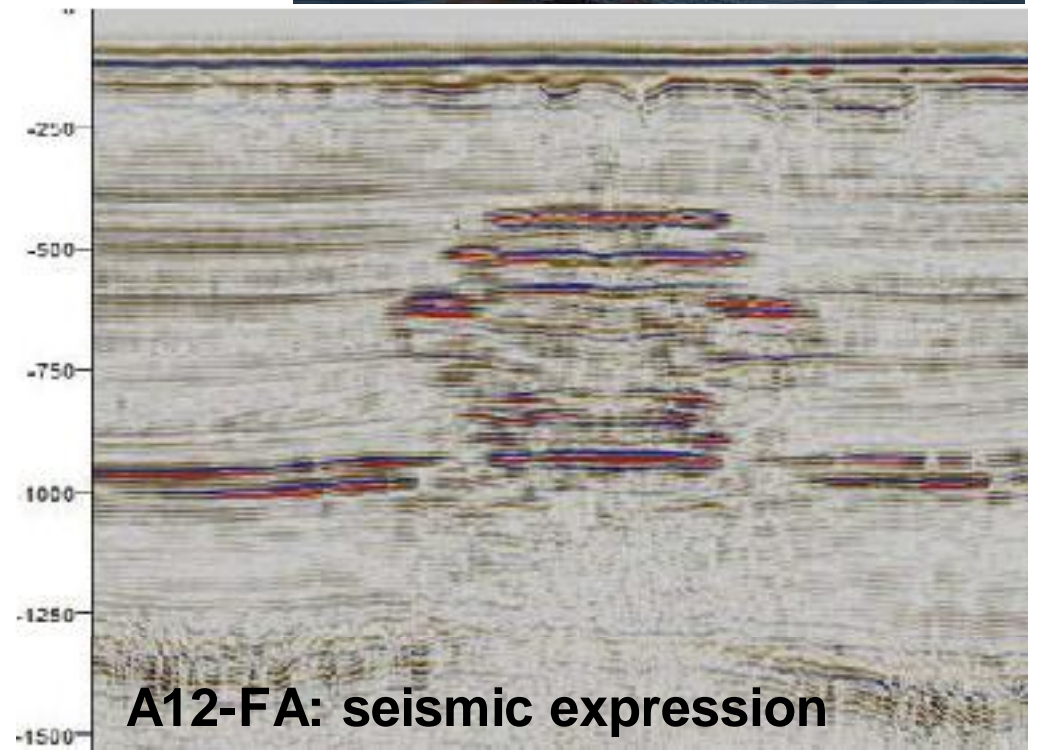
Shallow Gas delivers!



A12-FA platform



Bright Spot: F16



A12-FA: seismic expression