DUG Conference, Brisbane. Regulatory Spotlight: State Of The States

South Australia's Fiscal & Regulatory Vision for Oil and Gas

What do we want?

- Risks to natural, social & economic environments reduced to *as low as reasonably practical* (ALARP) and operations meet community expectations for net outcomes;
- Secure and competitively priced oil and gas;
- Improved balance of trade;
- $ Billions in environmentally sustainable development projects;
- Thousands of jobs;
- Market competitive royalties for public good; and
- Wider use of gas-based transport fuel.

South Australia

Government of South Australia

Department of State Development

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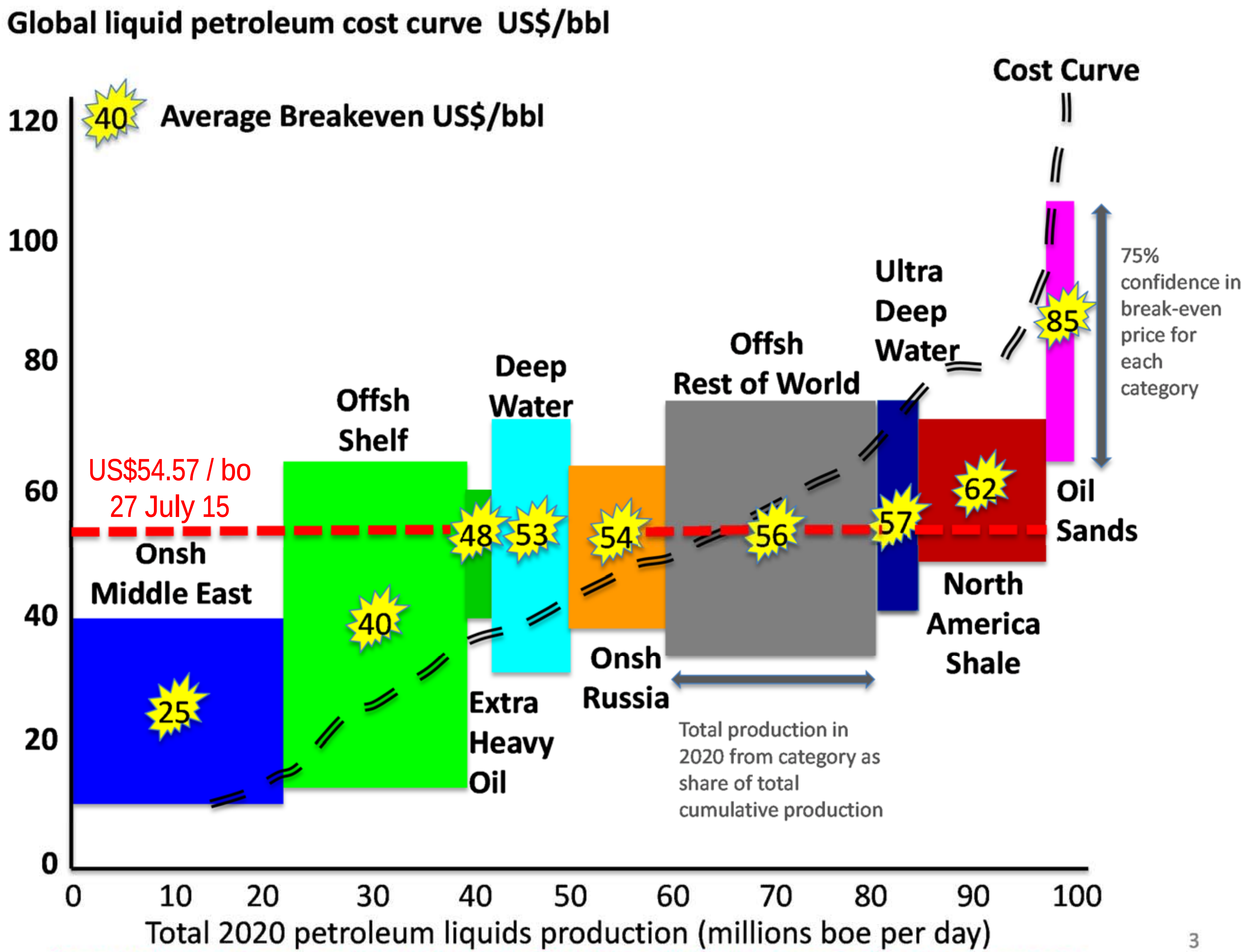
Context to Fiscal and Regulatory Frameworks



Source: http://www.rystadenergy.com/AboutUs/NewsCenter/PressReleases/2015-will-be-extraordinarily-tough-for-oil-companies

OBJECTIVE: Safe, secure and competitively priced natural gas

Gas price parity (per April 2015 LNG and forex and Brent price on 27/7/15)

<=US7.85 = A$10. 77 per gigajoule (GJ) high-side for LNG in Asia

- A$1/GJ for LNG vessel shipping

- A$2 to A$4/GJ for LNG production in Gladstone, Qld

- A$2/GJ tariff per 1,000 km gas pipeline Moomba to Gladstone

A$3.77 to A$5.77/GJ is one benchmark for gas price parity at Moomba's gate

Approx. 15% of Brent oil (~US$54.57/barrel = A$75/barrel) for LNG ex-Gladstone

A$11.25/GJ for LNG ex Gladstone

- A$1/GJ for LNG vessel shipping (exclude if price is ex-Gladstone)

- A$2 to A$4/GJ for creating LNG in Gladstone

- A$2/GJ tariff per 1,000 km gas pipeline Moomba to Gladstone

A$4.25 to A$7.25/GJ is gas price parity at Moomba's gate excl'g LNG vessel cost

Buyers and sellers need to share uncertainty on oil price and forex

Comparative advantages delivered from local energy supplies

Longford – Mount Gambier	~A$0.45/GJ pipeline tariff
Moomba – Mount Gambier	~A$1.50/GJ pipeline tariff
Katnook to Mount Gambier	~A$0.06/GJ + add'l security of competing gas supplies

Roadmap for Unconventional Gas informed by the Roundtable for Oil and Gas Projects

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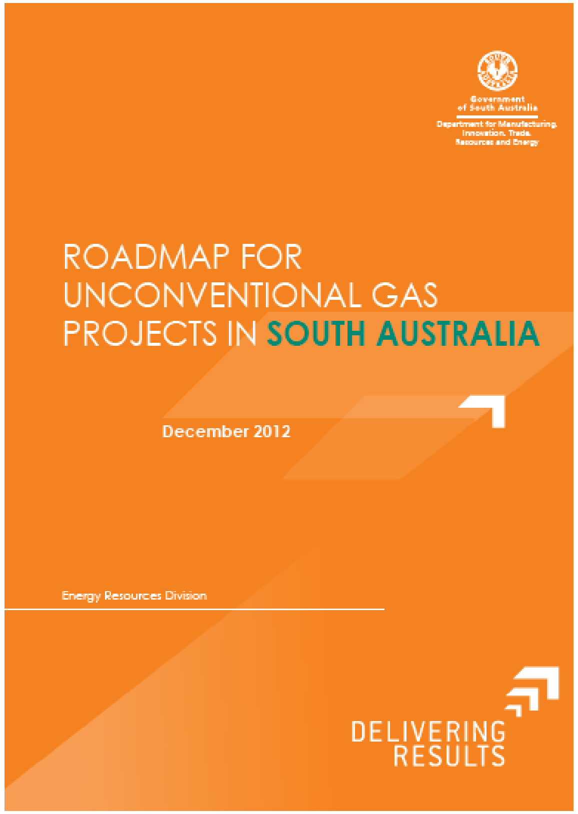
Conclusions:

Descend cost & ascend productivity curves to survive supply-side competition

Regional sharing of costs mitigates the tyranny of distance for remote operations



Search words: ***DSD & Unconventional Gas***

Informed by a Roundtable of: industry; governments; peak bodies for protecting environments and aboriginal people; research institutions & a few individuals. Now >700 members

Now under the auspices of the Roundtable for Oil and Gas Projects with 8 working groups to inform potentially affected people and enterprises while enabling cooperation amongst competitors.

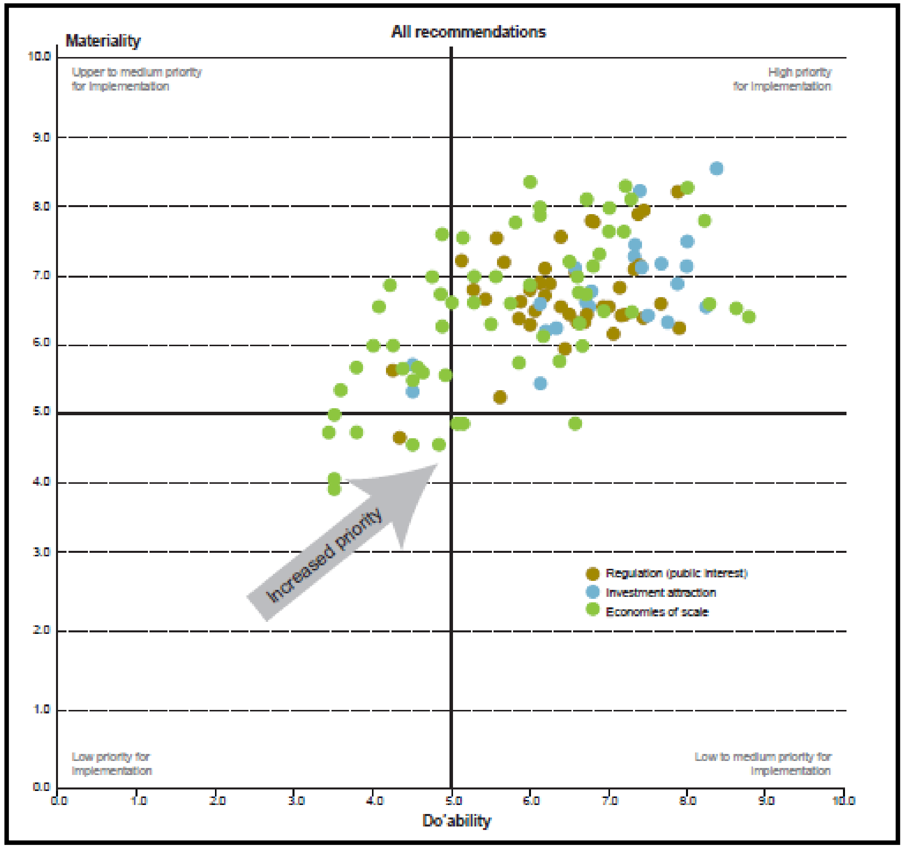
Strategic actions:

- Demonstrate where the net present value of cooperation (JVs for JVs) exceeds the value of go-it-alone planning / investment;
- Local businesses given a 'heads-up' to use competence to build capacity to compete (local skin in the game)

Priorities to foster sustainable, profitable projects - Feedback from Roundtable / Roadmap for Oil & Gas

Top priorities:

- Legal frameworks provide certainty and simultaneously meet community and investor expectations for outcomes
- Trustworthy, people implement and regulate projects
- Environmental sustainability
- Manage supply-chain risks (people and facilities)
- Bolster understanding of risks, risk management and rewards



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Roundtable for O&G Working Groups

#1 **Training** (Tonsley CoE, Chair Unconventional reservoirs)

#2 **Supply hubs, roads, rail and airstrips for the Cooper-Eromanga basins** (Innamincka airport, depots, Strez. Track)

#3 **Water use in the Cooper-Eromanga basins**

#4 **Minimize redtape for interstate 'wharf to well' corridors to/fro the Cooper-Eromanga basins** (heavy vehicle, wiring)

#5 **Cost-effective, trustworthy GHG detection**

#6 **Suppliers' forum (make locals smart)** (MIPO)

 # 7 **Use gas for transport and heavy equipment**

#8 **Information (answers to FAQs & fact checking)**

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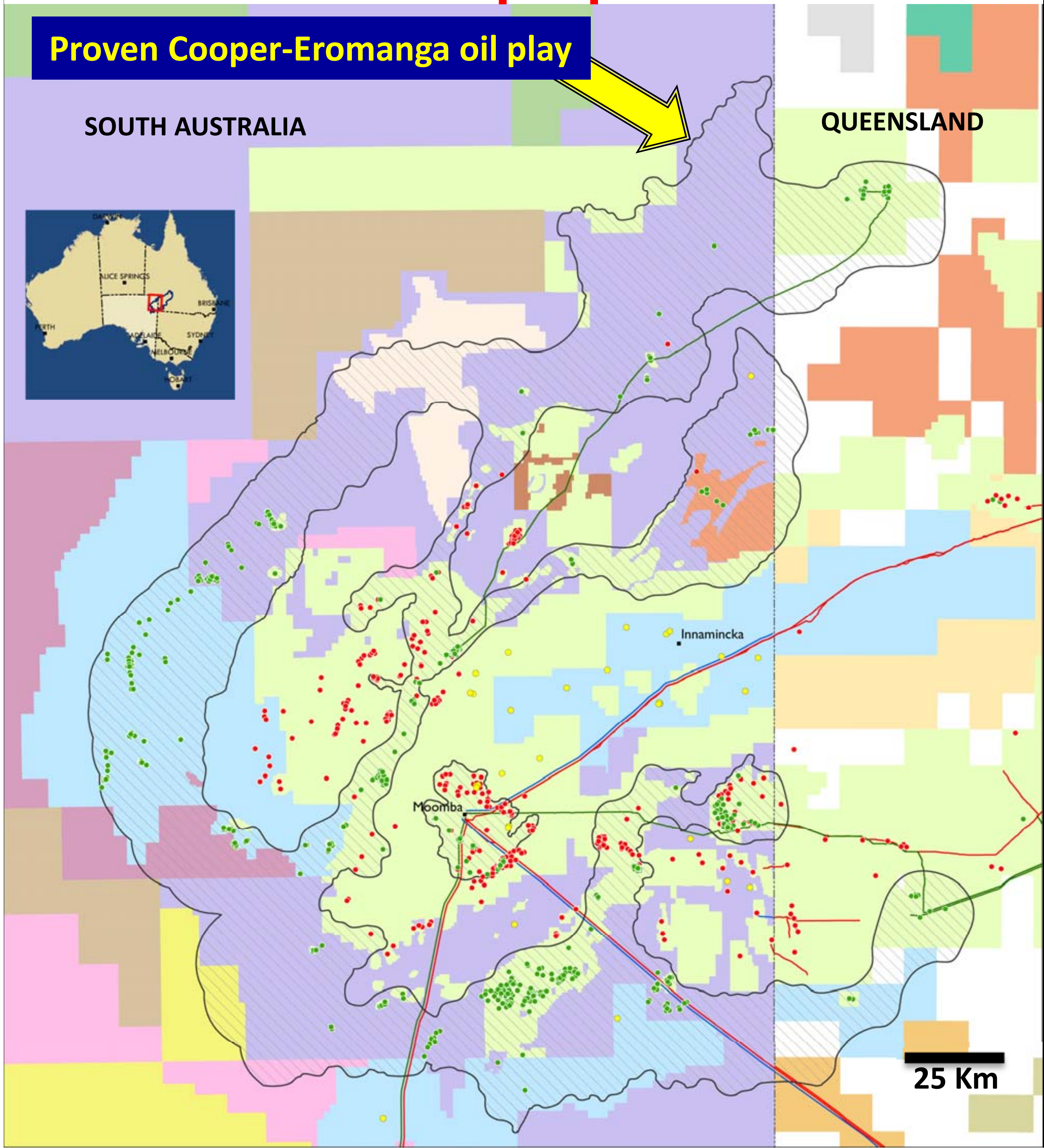
Top (#1) *Roadmap* recommendation - Provide fit-for-purpose licences



- Giant gas ('00s of TCF) resource potential in unconventional reservoirs
- 50% post-3D success rate 2002- 14 for oil exploration in western flank of Cooper – Eromanga (avg. 2.5 mmbo find size)
- South Australia Western Flank Oil: 9 operators for 25 companies
- South Australia Cooper Gas 9 operators for 28 companies in SA & Qld

Operators

- Acer Energy
- Australian Gasfields
- Beach Energy
- Blue Energy
- Bridgeport Energy
- Circumpacific Energy
- Discovery Energy SA
- Drillsearch Energy
- Great Artesian Oil and Gas
- Quasar Energy
- Rawson Resources
- Santos
- SAPEX
- Senex Energy
- Strike Energy
- Terra Nova Energy

- Oil well
- Gas well
- Resource play well
- Western Flank proven oil play
- Gas pipeline
- Gas and liquids pipeline
- Liquids pipeline
- Coongie Lakes control zone - no access

Vision for Nirvana: Centuries of safe, secure, competitive energy supplies that meet community expectations for net outcomes

To reach the vision

- Potential risks to social, natural and economic environments are *reduced to as low as reasonably practical* (**ALARP**); and meet community expectations for net outcomes **BEFORE IT IS PERSONAL** – before approval sought for land access;
- Affected people and enterprises get timely information describing risks and rewards to enable informed opinions;
- Convene **roundtables** to deliver **roadmaps** for projects to inform: the **PUBLIC, GOVERNMENTS, INVESTORS, AND REGULATORS** and in doing so – enable/attract welcomed oil and gas projects.
- **South Australia's Roadmap for Unconventional Gas (Dec. 2012)**

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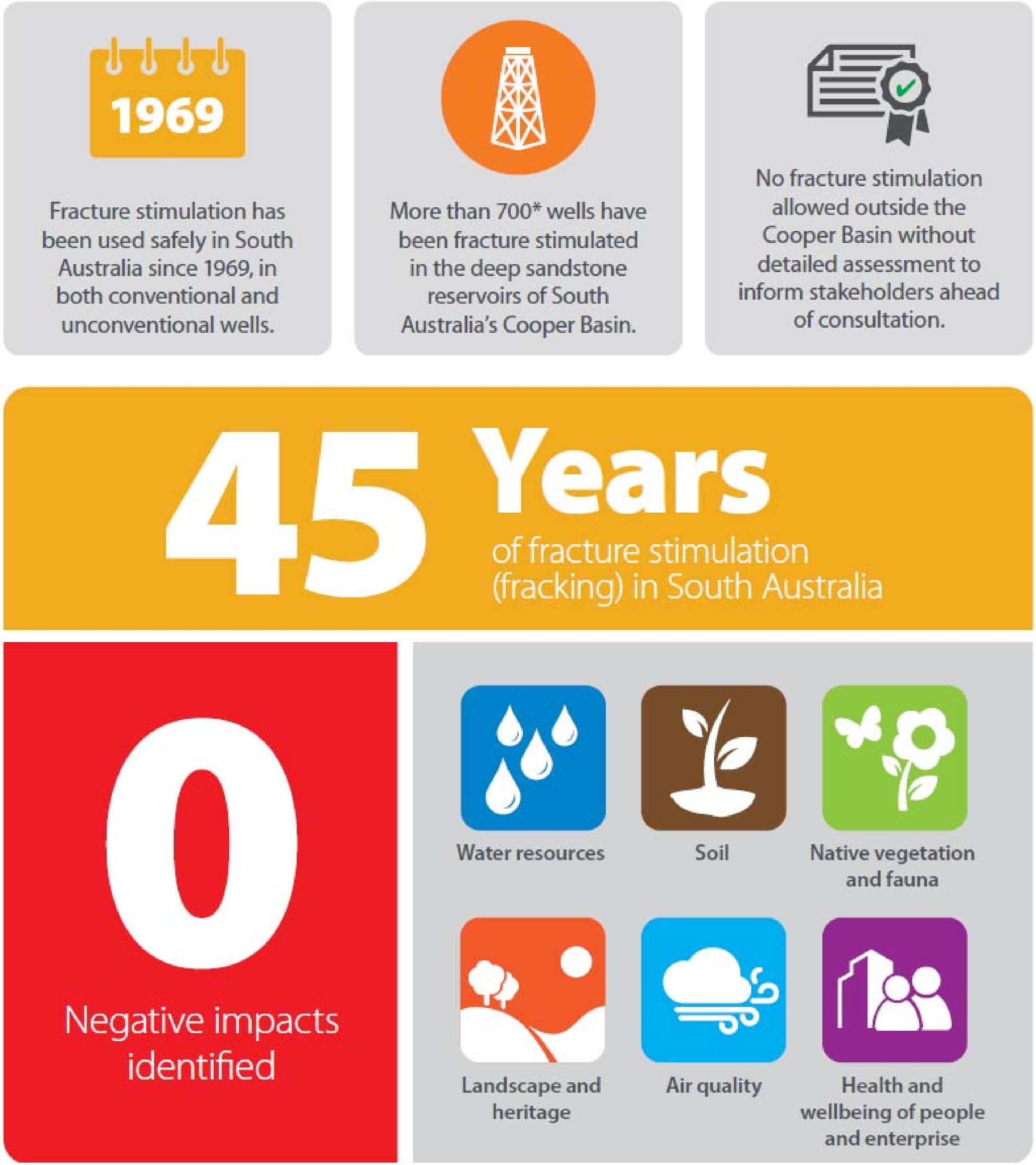
Experience and Regulatory Framework in South Australia



South Australia has a BAN on all oil, gas, geothermal energy and gas (including greenhouse) gas storage operations UNTIL potentially significant risks, risk mitigation strategies and residual risks are established and after EFFECTIVE CONSULTATION with potentially affected people, enterprises and organisations under STATEMENTS OF ENVIRONMENTAL OBJECTIVES (SEOs) resolve that operations- and region-specific risks are simultaneously reduced to as low as reasonably practical and meet community expectations for net outcomes

Thereafter, SEOs are approved and operators give NOTICE OF ENTRY (NoE) with sufficient project details to enable stakeholders to make informed decisions whether or not to object to land access.

Every potentially directly affected person, enterprise and organisation is given NoE can be a show-stopper with disputes resolved in court. ~14,500 NoEs since 2000 without a single instance of court proceedings

Key Conclusions

1. Huge potential in unconventional reservoirs in the Cooper.
2. Lucrative western flank oil play in the Cooper-Eromanga
3. Huge potential offshore Bight Basin.
4. The Roundtable for Oil & Gas Projects will expedite fit-for-purpose beneficial outcomes

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