

*The Sixth U.S. – China Oil and Gas
Industry Forum*



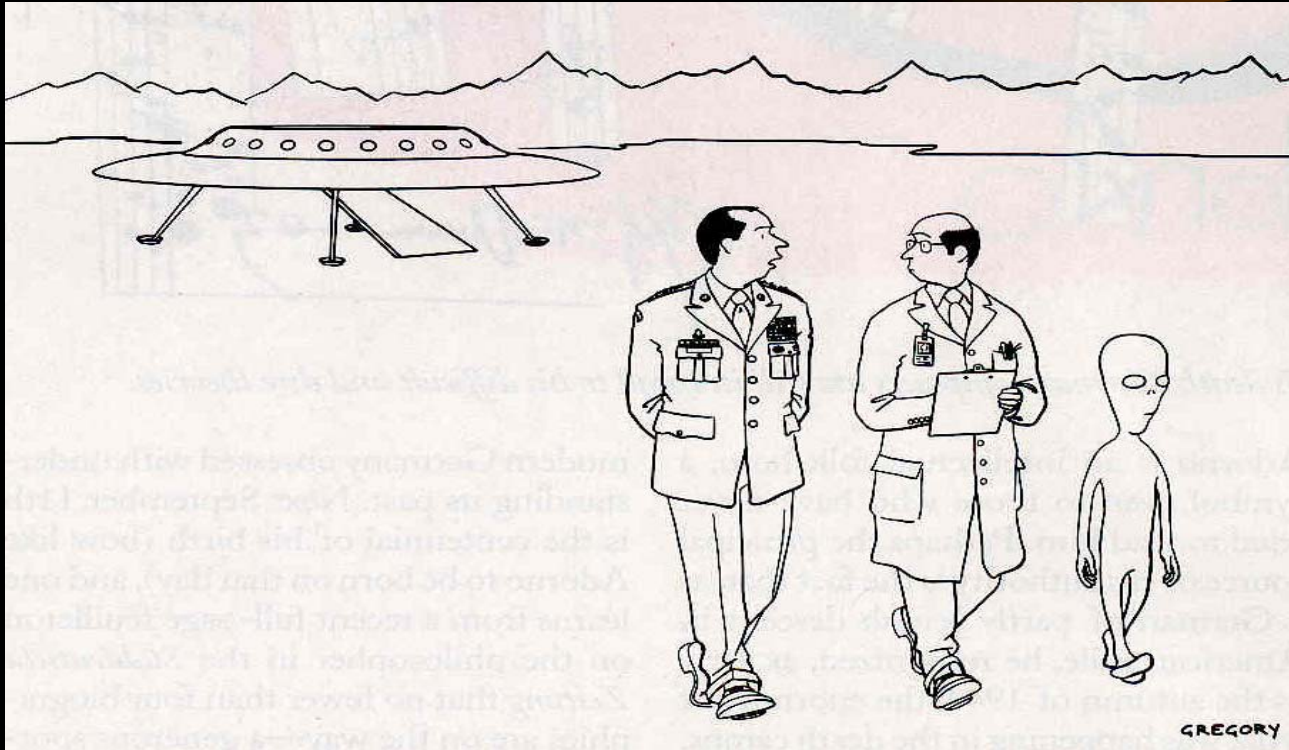
Upstream Oil and Gas

Technologies and Intellectual Property

Art J. Schroeder, Jr.
Energy Valley, Inc.

28-29 June, 2005 New Orleans, LA. USA

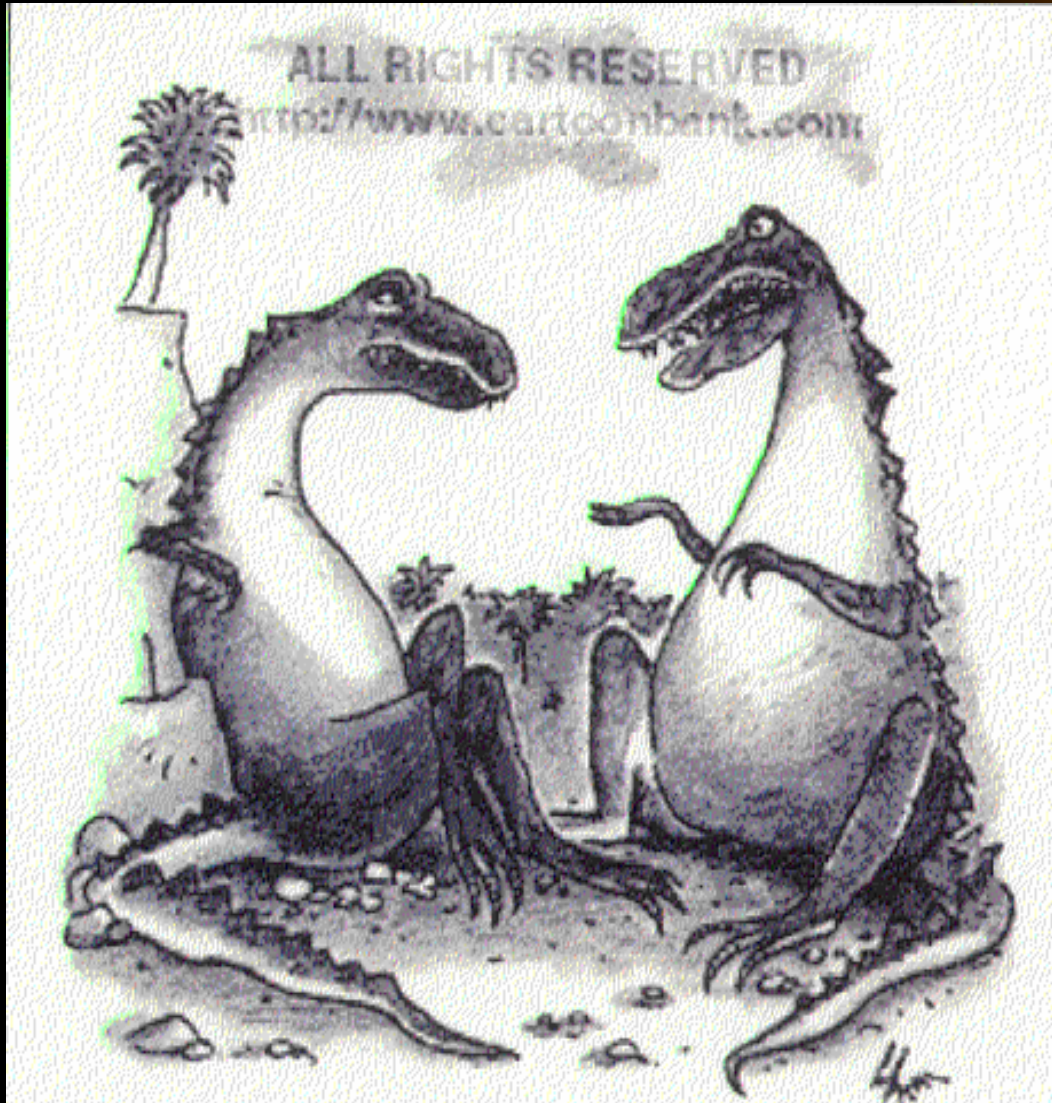
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"This galaxy he's from---ask him if it's got oil."

www.CartoonBank.com

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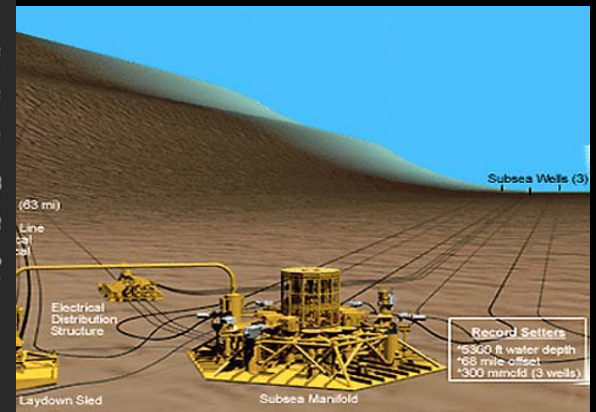
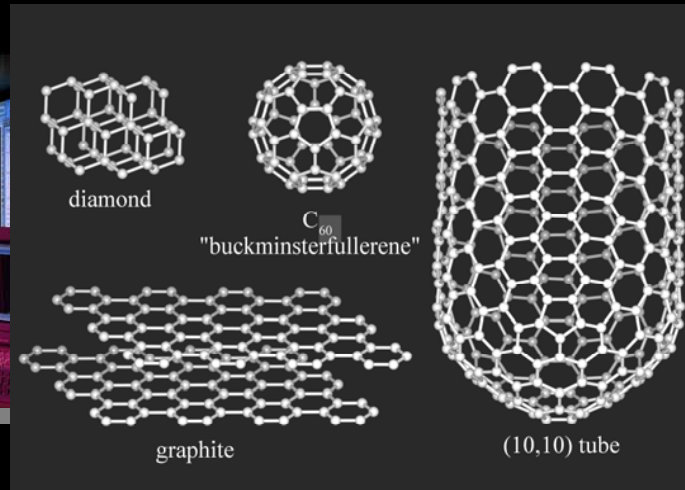
All I'm saying is
now is the time to
develop the
technology to
deflect an asteroid.

www.CartoonBank.com

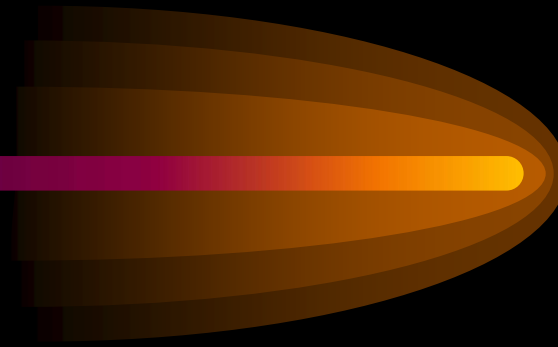
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**Technology;
Inherently intangible**

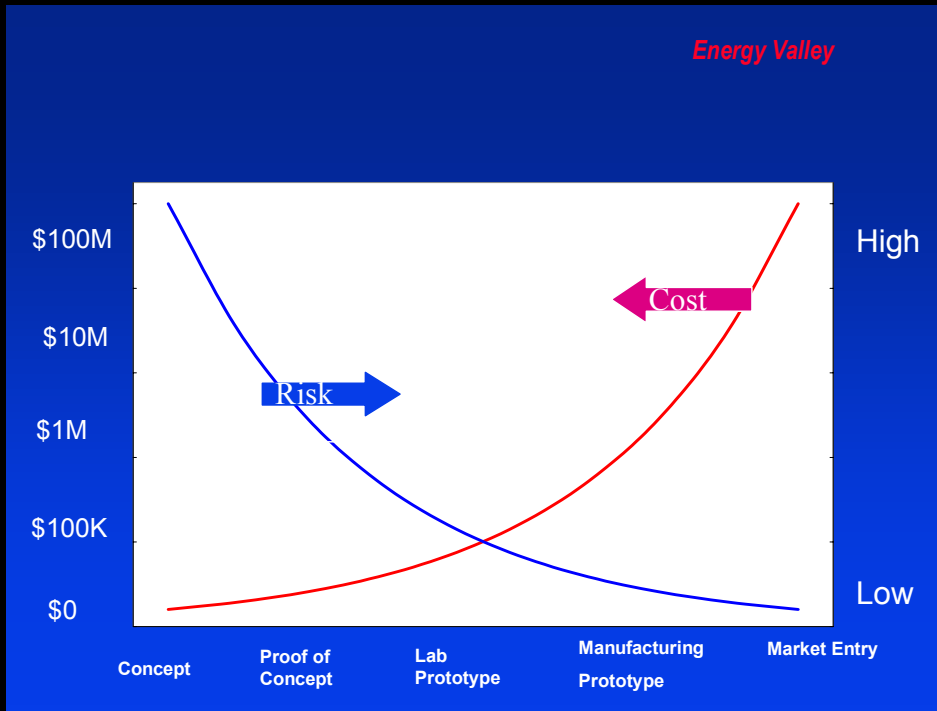


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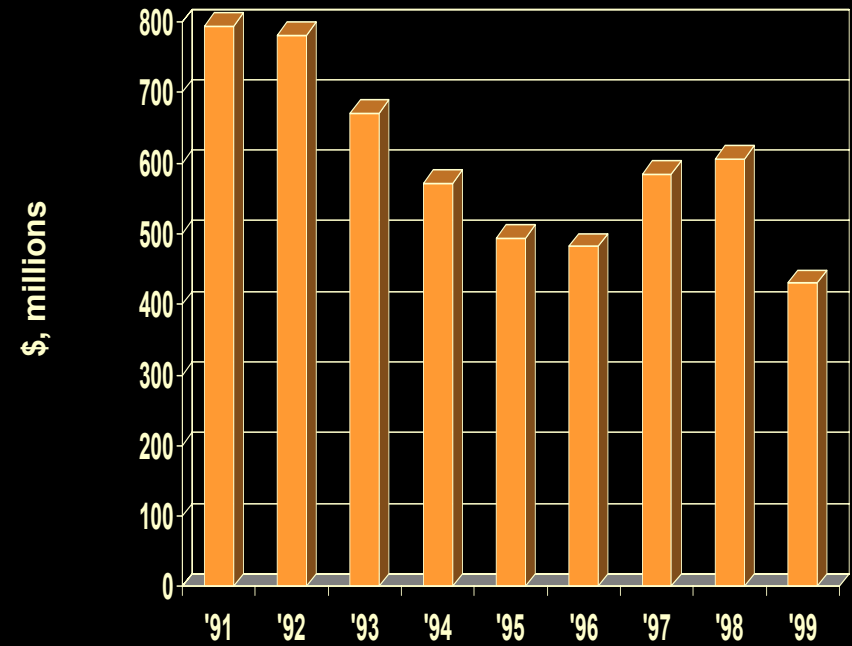


Technology;

Expensive



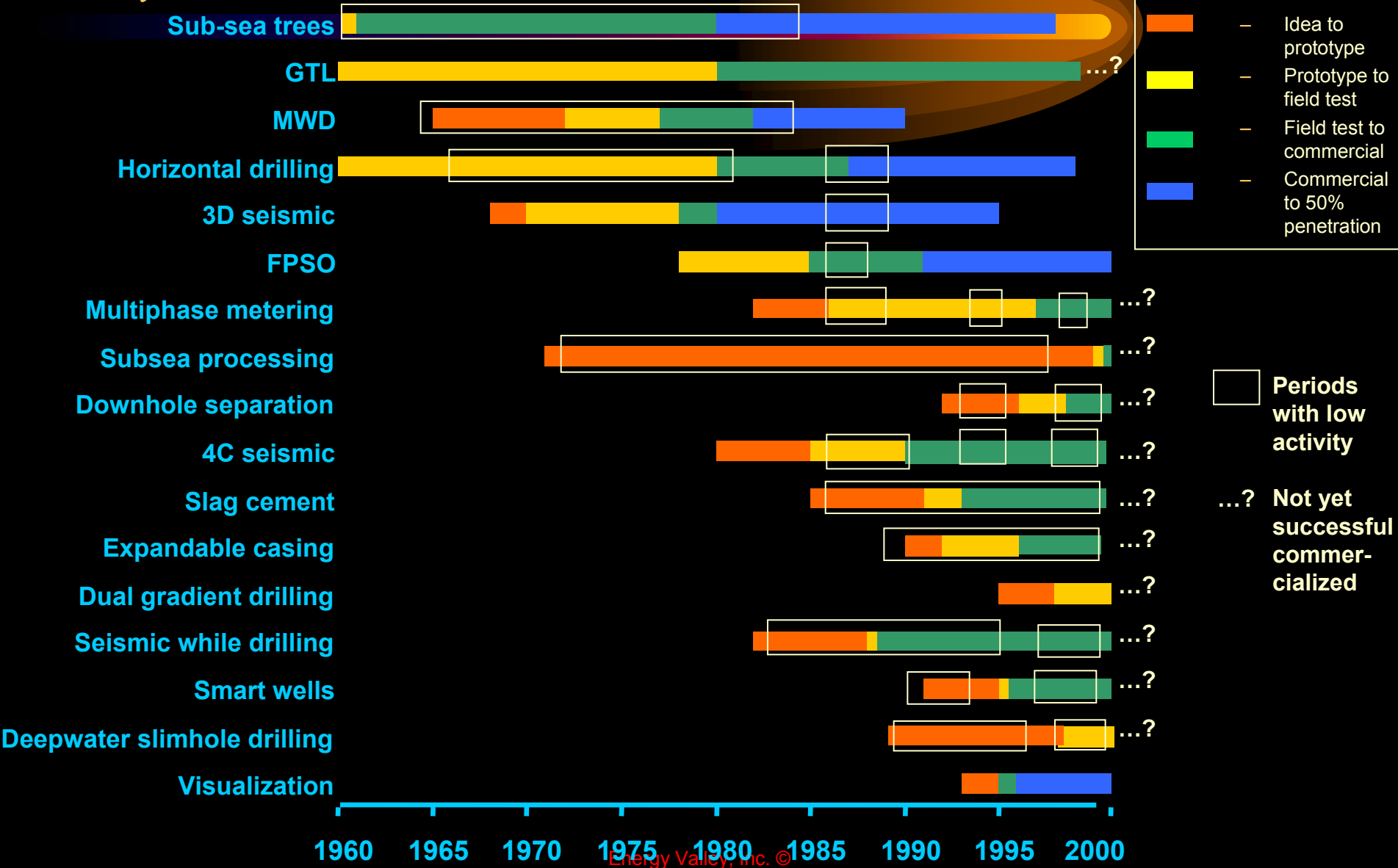
Oil Company R&D



Source: Simmons & Co.

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Source: After McKinsey & Co. study; HTC

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**Technology;
Expensive**



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Intellectual Property;

- Patents
- Trademarks
- Copyrights
- Trade Secrets
- Other
 - Know-How
 - Know – Who
 - Professional Credentials & Credibility

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Patent;

Government granted monopoly allowing patentee to exclude others from making, using, or selling their invention.

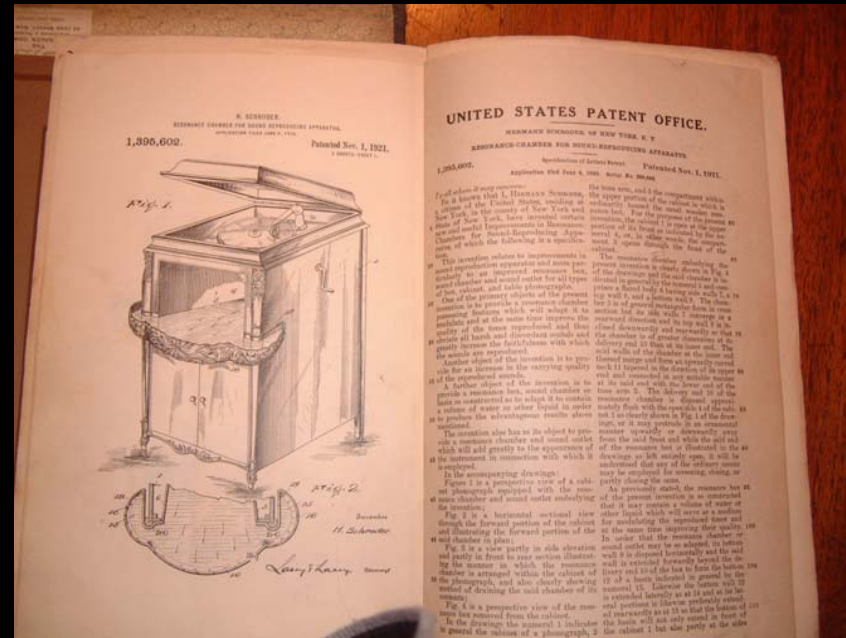


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Patent;

- + Reduce risk
- + Barrier to competition
- + Generate profit
- Full disclosure
- Time limits



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Trademarks;

Rights created by actual use
By class of goods and services
® - notice of registration



Copyright;

Comes into being when work is created
© - notice of copyright

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Trade Secrets;

- Indefinite life
- Must be kept secret
- May be 'reverse engineered'



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Other

- Know - How
- Know – Who
- Professional Credentials & Credibility

“...(CNOOC) needs better middle managers and creative thinkers who can operate independently outside China’s borders..”

Gavin Thompson, Wood MacKenzie; Houston Chronicle, 24jun05

“.... Unocal’s deepwater technology, field operations expertise and political / commercial negotiating skills could fill some serious gaps at CNOOC”

Eric Spiegel, Booz Allen Hamilton

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Other

- Know - How
- Know – Who
- Professional Credentials & Credibility



To Mr. A. J. Schroeder Jr.,

Thank you for your loyal commitment. I'm looking forward to working closely with you for a great Republican victory this year.

Warmest regards,

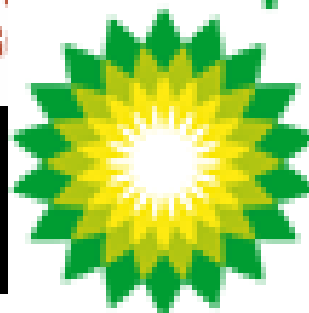
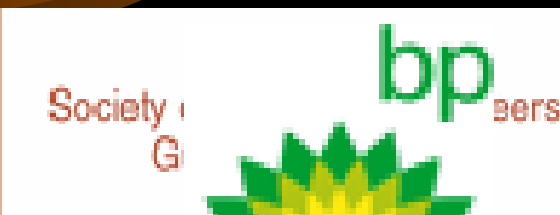
A handwritten signature in blue ink, which appears to be "G. W. Bush".

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Other

- Know - How
- Know – Who
- Professional Credentials & Credibility



Taking on the world's toughest energy challenges.



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Appropriate balance is required;

- Patents
- Trademarks
- Copyrights
- Trade Secrets
- Other
 - Know-How
 - Know – Who
 - Professional Credentials
& Credibility



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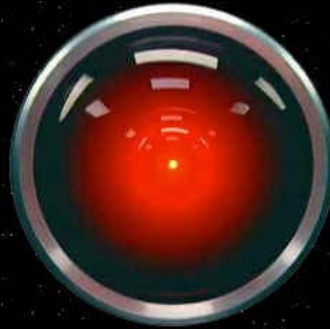
Integrating...

Oilfield hardware technology



Information systems technology

+



=

***OILFIELD
OF
THE
FUTURE***

To accomplish specific business objectives in

G&G /
reservoir

Drilling

Facilities/
projects

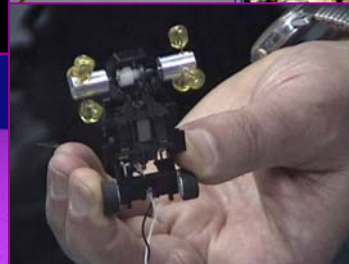
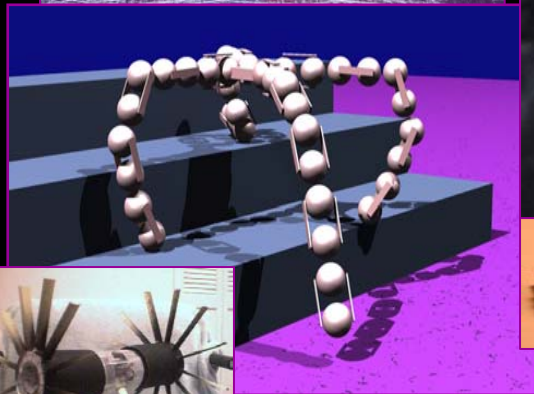
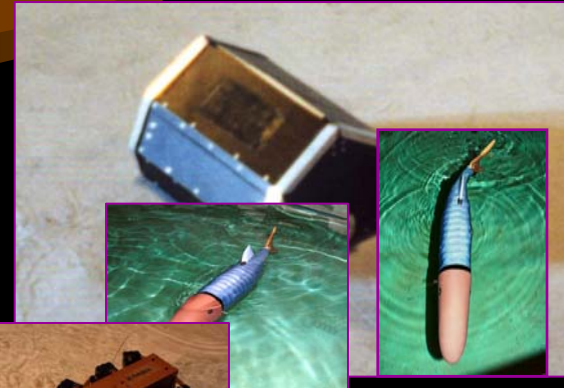
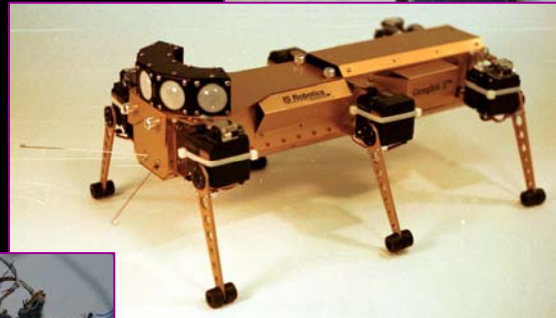
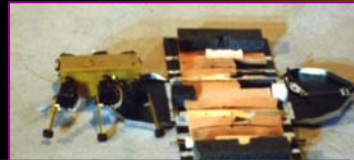
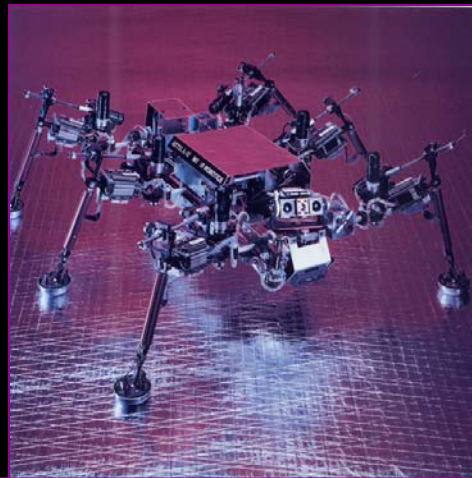
Operations

Lifecycle
economics

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Research Robots



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**Robotics – in military
applications**



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E & P Technology IP

+ China = Big Risks

or Opportunities?



US Bureau of Labor stats

Average hourly compensation (2002 - usd)

US

21.11

Average 30 countries

14.22

Mexico

2.38

China

0.64*

*average; rural & city

Ph.D. Degrees in Physical Science and Engineering

