

Using the *Innovation Capital*sm
framework to connect
corporations and entrepreneurs

The *Innovation Capital*sm System

An Empirical Framework for
Selecting, & Measuring
Strategic Investments









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IBF Corporate Venturing
&
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Problem: The Kids Want Fruit...

8 kids with very specific, ranked preferences as to what kinds of fruit they'll eat:

Peter	Lin Tai Yu	Sasha	Enrico	Brit	Hugh	Chaing	Steve
							
							
							

And different price/quality preferences:

Peter	Lin Tai Yu	Sasha	Enrico	Brit	Hugh	Chaing	Steve
\$\$	\$\$\$\$\$	\$\$	\$\$\$\$	\$	\$\$	\$\$\$\$	\$\$\$\$\$\$\$\$

Analyzing Their Fruity Little Needs...

Different measures for each type of fruit

- ❖ Apples: crispy, tart, red skin
- ❖ Oranges: juicy, pulpy, few seeds
- ❖ Bananas: firm, easy to peel, good texture
- ❖ Strawberries: sweet, juicy, ripe
- ❖ ...and so on

At the Grocery Store....



Strategic Benefits - Difficult to Parameterize

While certain parameters are easily expressed in financial terms...

- Revenue / Margin Gains
- Cost & Efficiency Savings
- Market Share Gains

...others are much better articulated as relative improvements.

- Improved Safety
- Increased product life expectancy
- Decreased Time-to-market
- Reduced Environmental Impact
- Increased technological influence
- Increased Market Influence

The Ideal Solution

An empirically-driven, unbiased, and sustainable system which:

- Discovers and ranks strategic priorities objectively
- Identifies technology and business areas with the highest potential, and the best specific gaps and/or opportunities
- Establishes rigorous measures and promotes stakeholder buy-in
- Establishes specific value-creation thresholds for deals/partnerships
- Tracks performance & reports contributions
- Integrates both financial and strategic measures into a simple to understand expression

*Innovation Capital*sm System

- Initial priority-setting
- TechBrief - the starting point for gathering raw data
- Data collection, validation & normalization: SVM's proprietary method for flattening disparate strategic variables to a single index
- Targeting: Determining the ripest areas for innovation
- Threshold-setting: Establishing the set-points for significance (strategic & financial)
- Deal scoring: screening opportunities based on the pre-defined innovation targets (a/k/a 'gappportunities')

TiCR - Total Innovation Capitalsm Returns

$$\text{TiCR}^* = (\text{FROI} + \text{fROI}) \& \text{sROI}$$

Financial ROI (FROI), expressed in dollars

- Traditional VC measure realized at exit (Total Profit/Original Equity Investment)

Strategic financial ROI (fROI), expressed in dollars

Measurable gains from partnering with portfolio companies

- Revenue/Margin Gains
- Cost Savings
- Market Share Gains
- R&D Savings

Strategic non-financial ROI (sROI)

Scorable Benefits, expressed on a 0 to 1000 scale

- Increased Efficiency
- Decreased Time-to-Market
- Competitive Barriers
- Environmental Impact & Safety Improvements

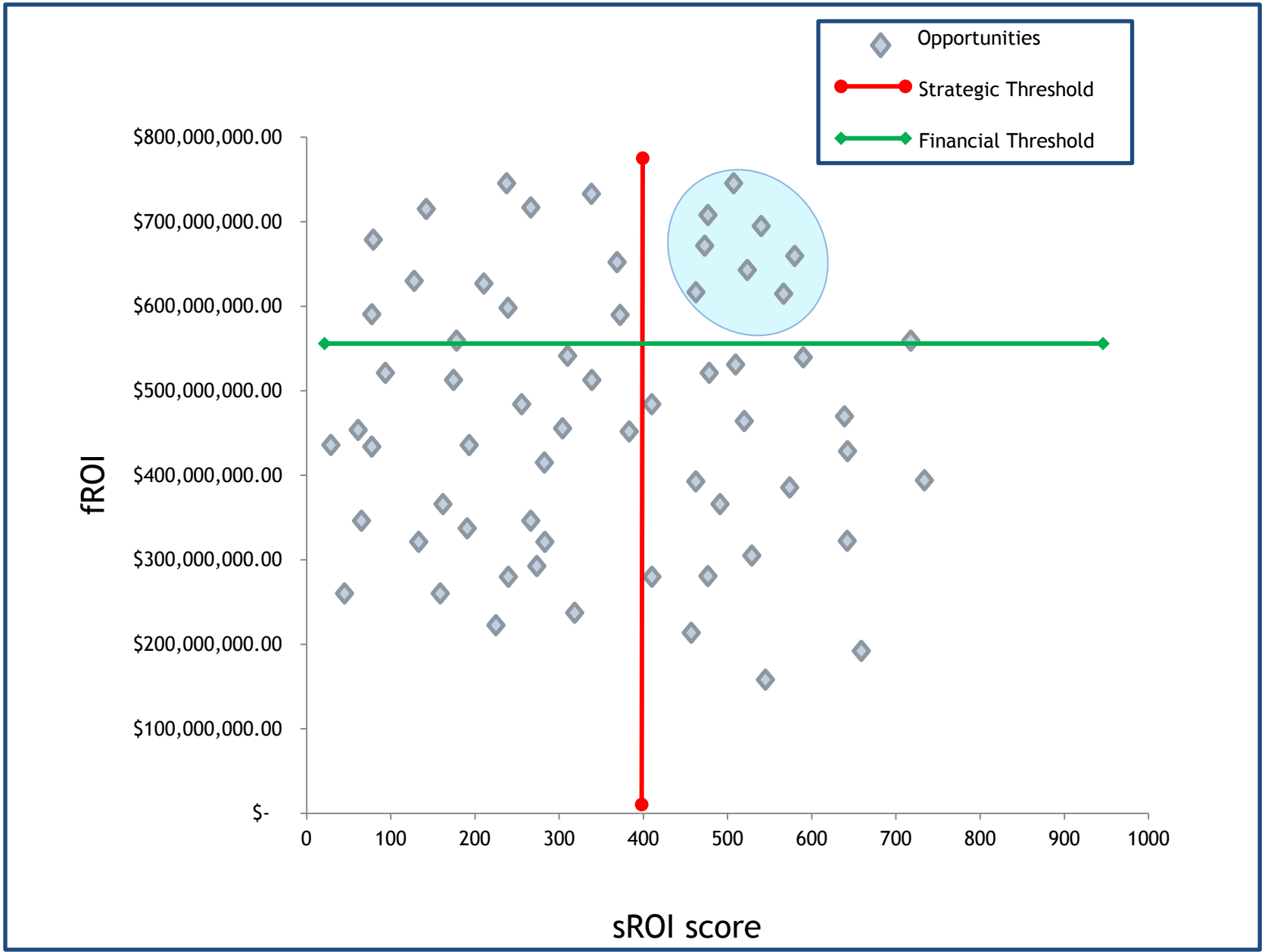
For example:

$$\text{TiCR} = (\text{FROI} + \text{fROI}) \& \text{sROI}$$



$$\text{TiCR} = \$580\text{MM} | 637$$

*The TiCR expression & associated devices are service marks of Synchrony Venture Management, LLC. Use is granted by license only.



Golden and Black Swans (the 70/30 split)

Golden Swans

- Truly disruptive innovations which cannot be captured in any system
- Opportunities which score poorly because one or more exceptional variables is drowned out by mediocre ones

There are two ways to capture Golden Swans in the *Innovation Capital* system:

- Deals which cannot be scored using the system can be reviewed manually
- The system can be alerted to automatically flag deals which have one or more exceptional strategic variables

Golden Swans serve as a valuable feedback mechanism for enhancing enterprise awareness

- Too many = unambitious strategic priorities
- Too few = improve your dealflow mechanism

Black Swans

- False positives; opportunities which contain deal-killers

Schlumberger at a Glance



Oilfield Services

- Wireline
- Testing
- Drilling & Measurements
- MI-Swaco & Geoservices
- Well Services
- Completions
- Artificial Lift
- Data & Consulting Services
- Schlumberger Information Solutions
- Integrated Project Management

- 31 GeoMarkets - 5 Areas
- 20+ R&D Centers



WesternGeco

- Land & Marine Seismic
- Seismic Data Processing
- Multiclient Data Library

- SLB Market Cap: \$100 Billion

*Includes Smith



2011 Financial Highlights*

- Revenue : \$40 Billion
- Net Income : \$5 Billion
- Total 2011 R&D: \$1100M

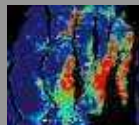
110000 People

140 Nationalities

More than 80
countries



Global Reach
& Knowledge



Technology
& Culture



Deep Industry
Solutions

Business Drivers Guide Technology Needs

Business Drivers (sample)

- High(er) Resolution Subsurface Imaging, Measurement & Modeling
- Techniques for ROP Improvement (Hard rock/Subsalt)
- Extending Lateral Reach & Recovery
- Real-time Fluid Analysis (Surface & Downhole)
- HPHT & Sour Environments
- Enhanced Reservoir Contact
- Improved Efficiency/Service Quality
- Produced water / flowback water re-use

Technology Drivers

- Advanced Materials & Chemistry (Extreme environments, Green, Nanotech)
- Advanced (Micro)Electronics/Electrical Systems & Power Sources
- Robotics & Automation
- Technologies to Improve Measurement Accuracy & Reliability
- High Performance Computing, Modeling & Simulation
- Novel Sensors & Telemetry/Control Systems
- Technologies to support Geothermal, CCS, Water Services
- Predictive Maintenance & Technologies to Optimize Supply Chain

Technology Portfolio

Schlumberger Investments:

- Driven by one (or more) business units, e.g., drilling & production
- Equity + Development to accelerate technology into the oilfield
- Minority Stakes (< 20%)
- Board Seat/Observer as appropriate/necessary
- Second SLB staff into start-up as necessary
- Co-developed IP useable outside SLB Field of use by start-up

Sample Investments as follows:



TiCR = (FROI + fROI) & sROI

- Financial ROI
 - \$5M for 10% interest
 - Recent Independent IPO Valuation: \$450M
- Strategic financial ROI (fROI)
 - Revenue / Margin Gains: \$250M/yr
 - Cost & Efficiency Savings: \$10M/yr savings
 - Market Share Gains: 4% increase
- Strategic non-financial ROI (sROI)
 - Increased life expectancy: ~50%
 - Decreased Time-to-market: ~15%
 - Ability to Leapfrog industry consortium: create Competitive Barrier
 - Reduce Environmental Impact: ~10%

Innovation Capitalsm Breakdown - Case Study

Total Innovation Capital Returnssm

$$\text{TiCR} = (\text{FROI} + \text{fROI}) \ \& \ \text{sROI}$$

SLB: **\$5MM** for 10% interest
Recent projected IPO Valuation: **\$450M**
ROI: ~ 900%

Revenue Gain: \$250M/yr
Cost Saving : ~\$10M/yr
Enhanced Market share: ~4%

Increased life expectancy: ~50%
(reduced preventative maintenance and down time)
Decreased Time-to-market by an estimated 15%
An ability to leapfrog industry consortium (thereby creating a **Competitive Barrier**)
Improve environmentally friendliness by ~10%

TiCR = \$580MM | 637

Using the *Innovation Capital methodology*, SLB has begun to:

- Prioritize the importance of technology areas in terms of their potential to contribute to enterprise-wide goals
- Systematically identify appropriate sources of technology in the external innovation ecosystem
- Efficiently evaluate the thousands of potential strategic investment opportunities it encounters each year
- Establish a means of articulating the expected outcome of a strategic partnership and its potential to contribute to strategic goals
- Assimilate a cyclic reporting system so that senior management remains engaged and informed

Benefits to SLB

- An objective, quantified approach
 - Targeting
 - Tracking
 - Evaluating
- Encompasses both financial and strategic contributions
- Familiar method to internal product development teams
- Proactive targeting of highest-value spaces, rather than a reactive posture
- A visible commitment to clarity & best practices, which attracts top-tier VC investing partners
- Data-driven deal terms & value-apportionment between SLB & portfolio company
- Recognition opportunities for internal stakeholders

The Innovation Capitalsm System - SUMMARY

An empirically-driven, objective, and sustainable method which:

- Discovers and ranks strategic priorities
- Identifies technology and business areas with the highest potential, and the best specific gaps and/or opportunities
- Establishes rigorous measures and stakeholder buy-in
- Establishes specific value-creation thresholds for deals/partnerships; tracks performance
- Creates a dashboard & reporting regime

*The *Innovation Capital* system is patent-pending.