The KeyStone Score™

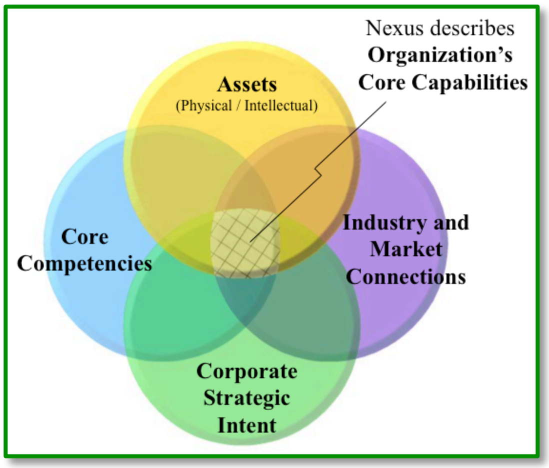
'Ranking of Companies for Value Capture Positioning and Investability'

SUMMARY

The KeyStone Score™ ranks your firm based on how its capabilities allow the firm to capture value and whether your firm is equity investable or should pursue alternative sources of capital to grow and de-risk. The score is based on a rigorous, data-driven methodology (KeyStone Compact™) that analyzes the feasibility of your firm for investment based on a separate industry and market look.

BACKGROUND

The KeyStone Score™ is the result from mapping out the capabilities of hundreds of startups in a wide range of technology spaces, ranging from space science to geology, from biotech to CleanTech, and from ICT to social networks since 2002 at The University of Michigan. Based on the capability maps of these startups, we were able to position the company in the relevant value system of the industry in which it wants to innovate, and assess the potential for value extraction given its dependencies to deliver a solution to market.



In this context, the KeyStone Score™ assesses the nexus of a firm's capabilities from the following perspectives: Physical and Intellectual assets; Connectiveness of the firm/its officers/board across the industry where it wants to innovate; Corporate strategic intent; and Core skills and competencies. Whether a firm is positioned for value capture, and is worthy of equity investing, then depends on:

1. *The leveragability of its capabilities relative to the complementary assets required*
2. *The (type of) capital required to acquire key assets to enhance its own capabilities*

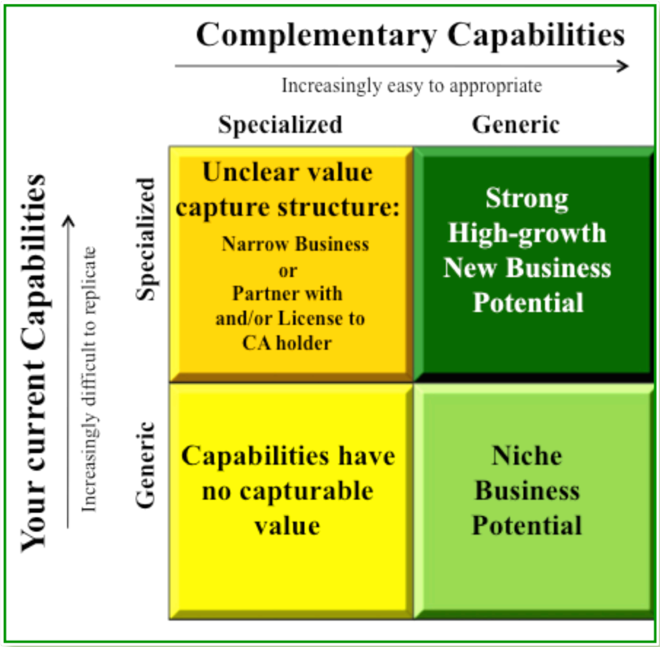
The KeyStone Score™ approach is firmly grounded in developing, acquiring and growing the firm's capabilities in the context of its value chain position in the initial target industry where it seeks to innovate, and its growth strategy in new markets.

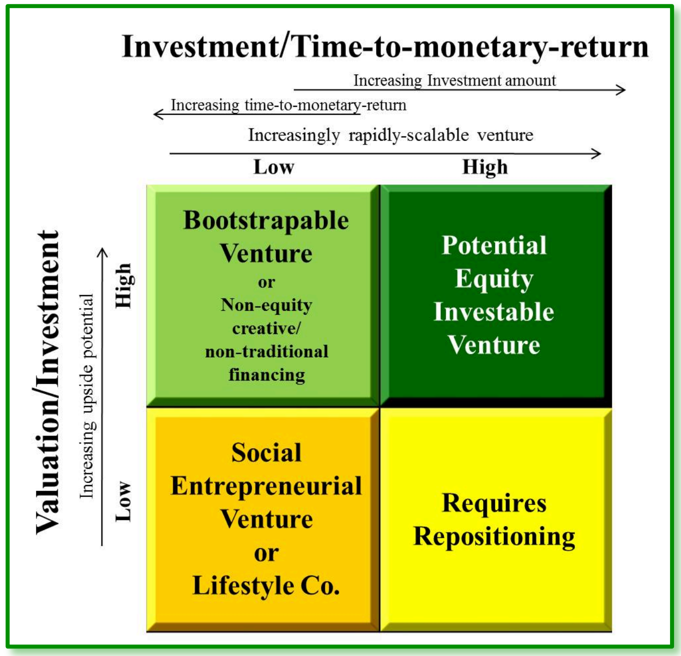
APPROACH

Companies are scored based on two measures (please refer to KeyStone Compact™ brief for further details on the industry and market perspectives of the tools):

1. An <u>industry view</u> that scores the position of the firm in the value chain in terms of potential value extraction, and
2. A <u>market view</u> that scores the investability of a firm (either from a technology or market risk perspective) as a function of capital IRR/NPV expectations.

The KeyStone Score™ is closely aligned with the KeyStone Compact™, a data-driven set of tools that allows for assessment and repositioning of companies along the lifecycle of a company, illustrated by the four quadrants of the PVC (positioning for value capture) screen (left) and the Investability screen (right).





A <u>*preliminary*</u> <u>KeyStone Score™</u> (A-E) is used to screen companies or technology-enabled ventures for their capability in the relevant value system to extract value. The scores (from high to low) reflect the firm's potential to extract value from its relevant market segment, and capture dependencies from complementary assets/capabilities. Typically, companies in the top two quadrants of the PVC screen are retained for further investability analysis.

A (upper right quadrant): The firm's capabilities and leverage have the potential for high growth because of high level of differentiation and primary dependencies on generic complementary capabilities.

B (upper left quadrant; partnership): The firm's differentiated capabilities are well-positioned for partnership opportunities with other specialized firms in the industry value chain. Capability co-dependencies will allow for value capture and shared margins.

C (upper left quadrant; license): The firm's capabilities are likely positioned for (cross)-licensing opportunities due to differentiated assets, but limited capability co-dependencies. This results in lack of opportunity for revenue margin sharing.

D (lower right quadrant): The firm's capabilities position it for niche business potential with minimal technological differentiation, and dependencies on relatively easily acquirable complementary assets.

E (lower left quadrant): The firm's capabilities currently have no capturable value in the relevant market segment due to lack of differentiation and high dependencies on specialized capabilities not under control of the company.

The premise of the preliminary score is that the firm will be able to capture the value it is creating based on its differentiated assets IF investments are made in key complementary assets. Hence, the positioning for value capture becomes a proxy for a successful investment opportunity.

The *final* KeyStone Score™ (A-D) is used to assess whether the company is investable using equity capital or other sources of investment. This Score considers the return on investment and value of the firm after key complementary capabilities have been acquired. Given the focus of equity investment on high growth/high value companies, the highest score is reserved for equity investable potential.

A (upper right quadrant): The firm is potentially equity investable, meaning that venture capital or private equity finance have the potential for significant upside relative to investment time horizon and capital required.

B (upper left quadrant): The firm is not considered equity-investable, but can be boot-strapped using debt-finance, convertible notes, or other non-traditional financing options. Key is the limited scalability and longer investment horizon, relative to the upside.

C (lower left quadrant): The firm's upside value and time to scale position the investment as a social venture or lifestyle company. This is no judgment on the firm, but rather an outcome of monetary returns and investment time horizon.

D (lower right quadrant): The firm has the potential to become investable, given its scalability and investment time horizon, but the low valuation relative to its investment requires either repositioning of its capabilities in the industry value chain or a move to a different industry sector.

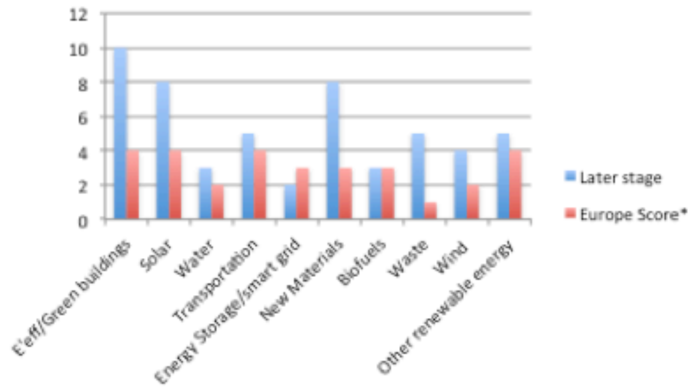
Only companies in the top two quadrants are generally retained for full business design and assessment, though social ventures are considered as well. Companies in the lower right quadrant can be repositioned and structured ('getting to plan B'), using bottom up data acquisition and analysis.

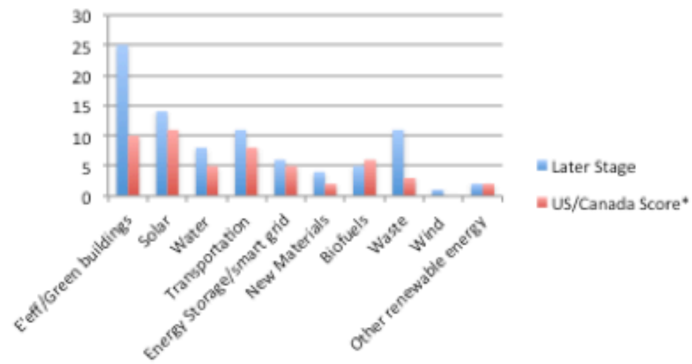
KEYSTONE SCORE™ APPLICATION

The scores are routinely applied to new ventures and companies in the growth stage investment or pre-IPO stages. A recent commercial example of the final score (A-D), shown below, indicates how the KeyStone Score™ was used to score the 2011 top-30 later stage CleanTech firms of the Global CleanTech Cluster Association's award competition (www.globalcleantech.org). Over 200 companies were pre-screened using the preliminary KeyStone Score™, and given an A-C score. The top 30 companies were assessed for investability using the final KeyStone Score™:

45% of companies received an 'A' score,
40% of companies received a 'B' score, and
5% of companies received a 'C' score

The remaining 5-10% of submissions did not qualify as later stage companies, and would need to be redesigned to fit either other categories. Elements of the firms' capabilities could be designed as projects, if the proper government/debt/private capital were available.





KeyStone Scores:

1. Approx. 45% of top-30 companies potential venture/PE grade returns
2. 5-10% project finance grade
3. 5% bootstrap or social venture
4. 40% public equity and bootstrap (buyer/supplier/debt finance)

Regional Differences:

1. Asia: corp/govt' private equity
2. Europe: Green procurement and private equity
3. US: Venture grade, corporate direct/VC, private equity

**Based on US fund IRR/NPV expectations for equity investments*

The scores also highlighted regional differences in the types of companies and investment return opportunities, with private equity and bootstrap firms dominant in Europe and Asia, and a mix of VC/PE relevant for the US.

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