Game Changers of the global forest industry?

Cost, September 13 2011
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Game Changers Project
Xevents Initiative

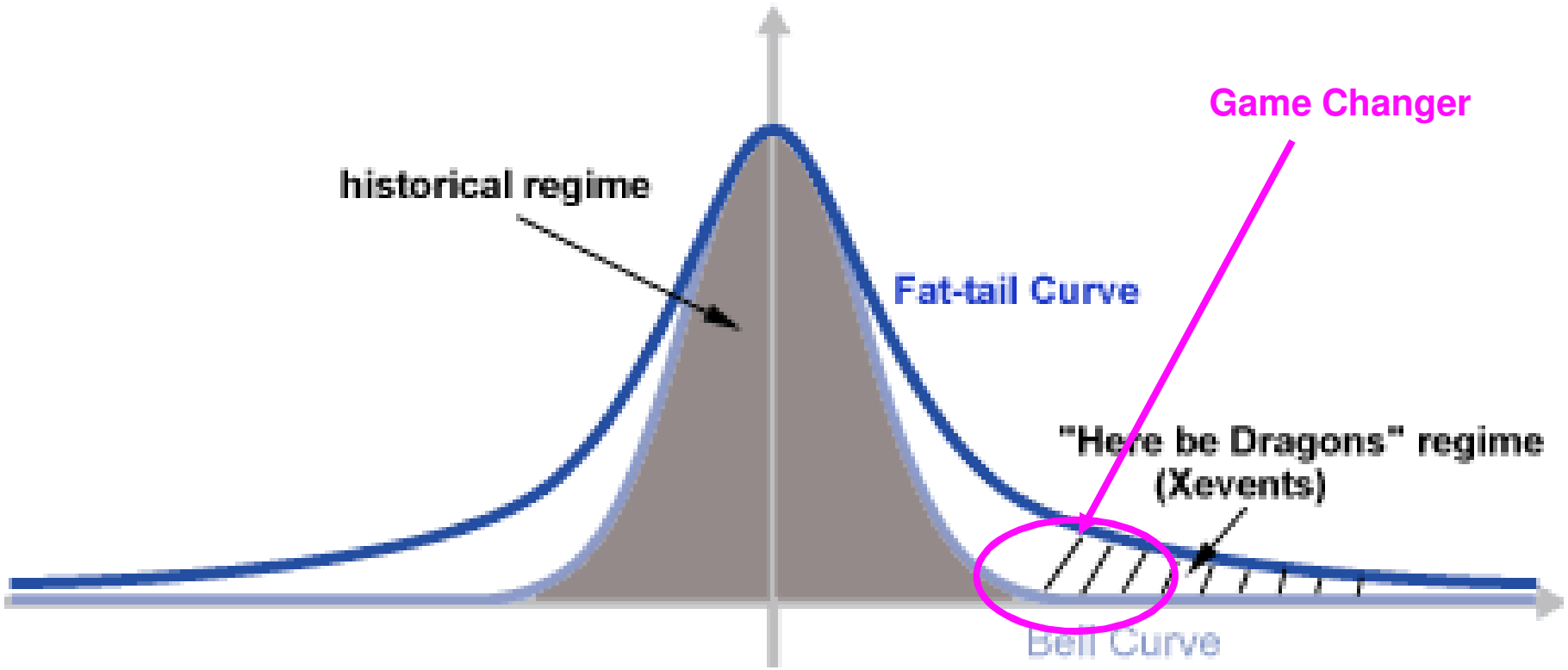
International Institute for Applied Systems Analysis

Systems analysis and methodological development for application in critical areas of global change – major focus:

POPULATION
ENERGY
LAND USE & FORESTRY
EVOLUTION & ECOLOGY
ATMOSPHERIC POLLUTION & MITIGATION
DISASTER & RISK

Funded by 17 nations.

Unknown Unknowns
(no data, no model)



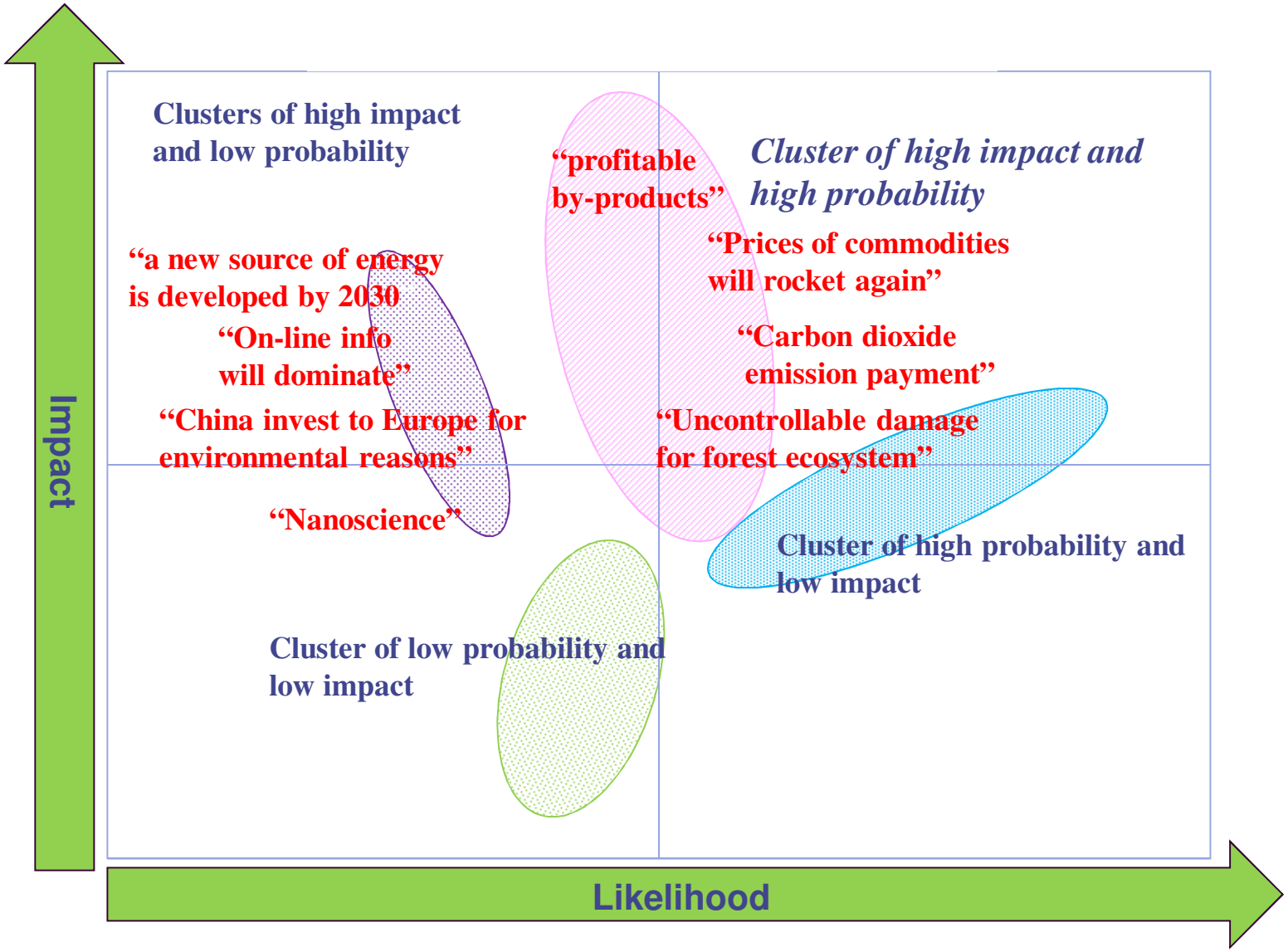
Aims and research questions

- What are the global Game Changers of the forest industry?
- What portfolios of the strategy actions have the highest resilience in the world driven by Game Changers?
- What are the core pieces of resilient strategy and resilient competitive advantage?

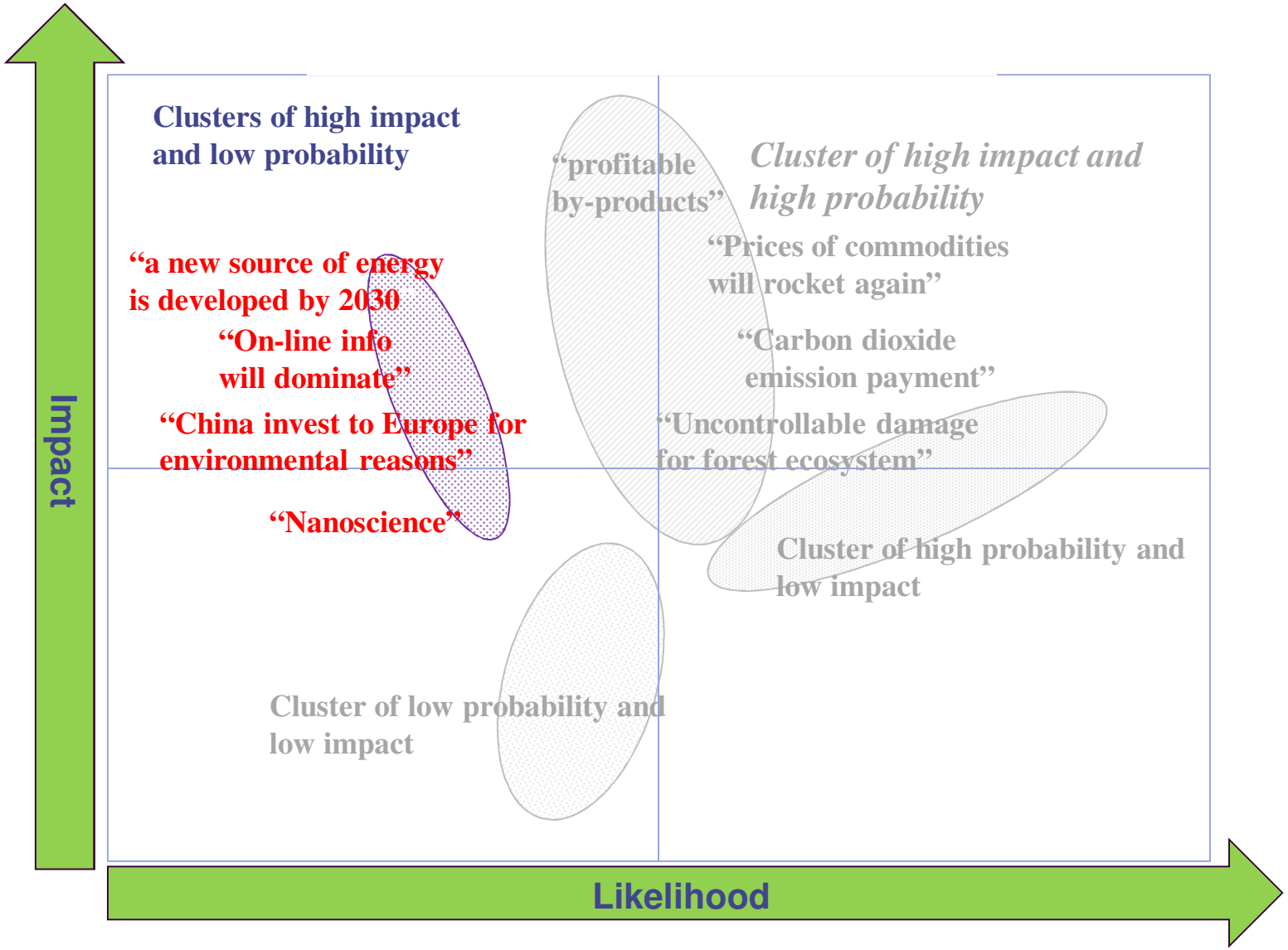
Step 1 - Collection and assessment of ideas for Game Changers

Web-interview

Step 1 – Identification of GC ideas



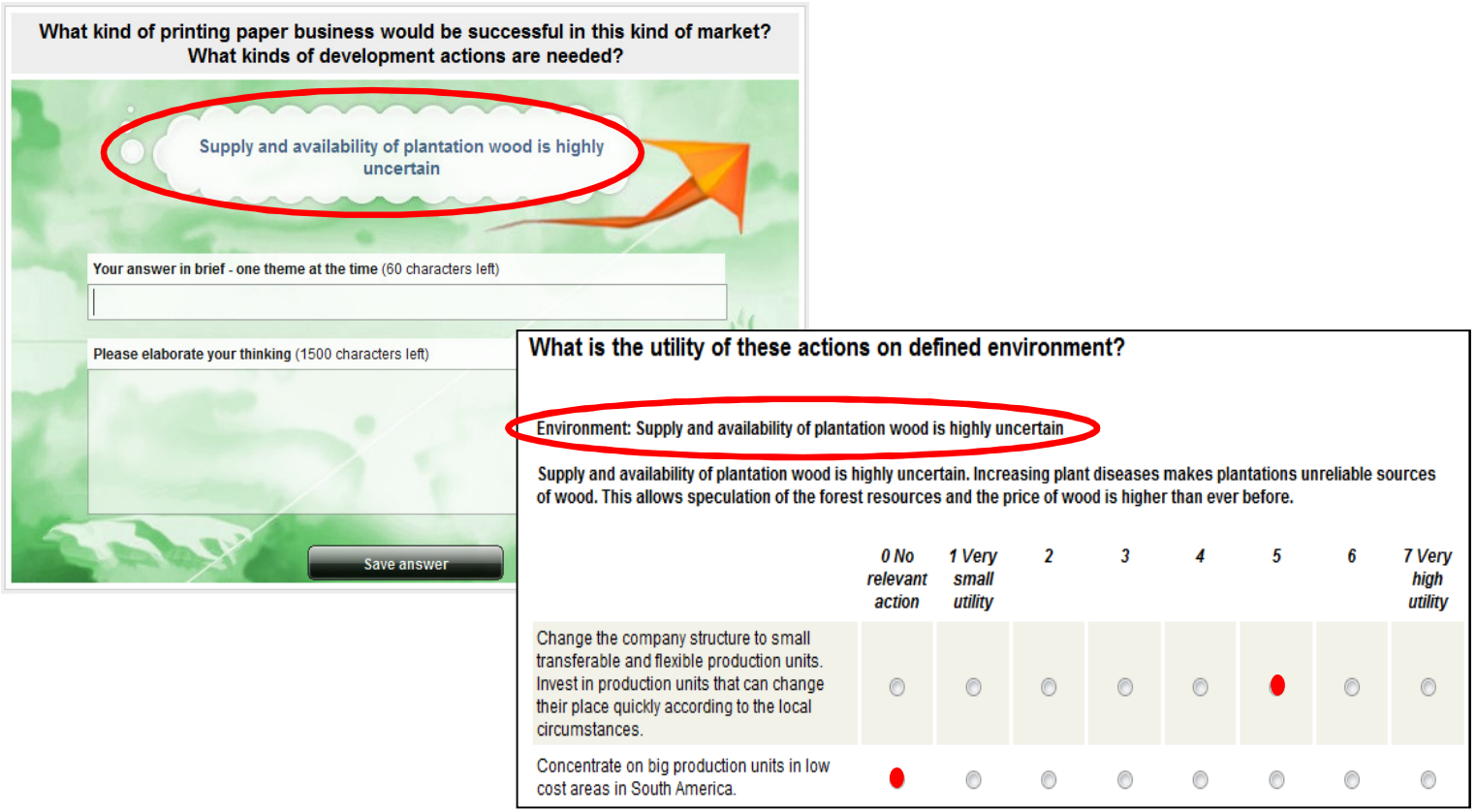
Step 1 – Identification of GC ideas



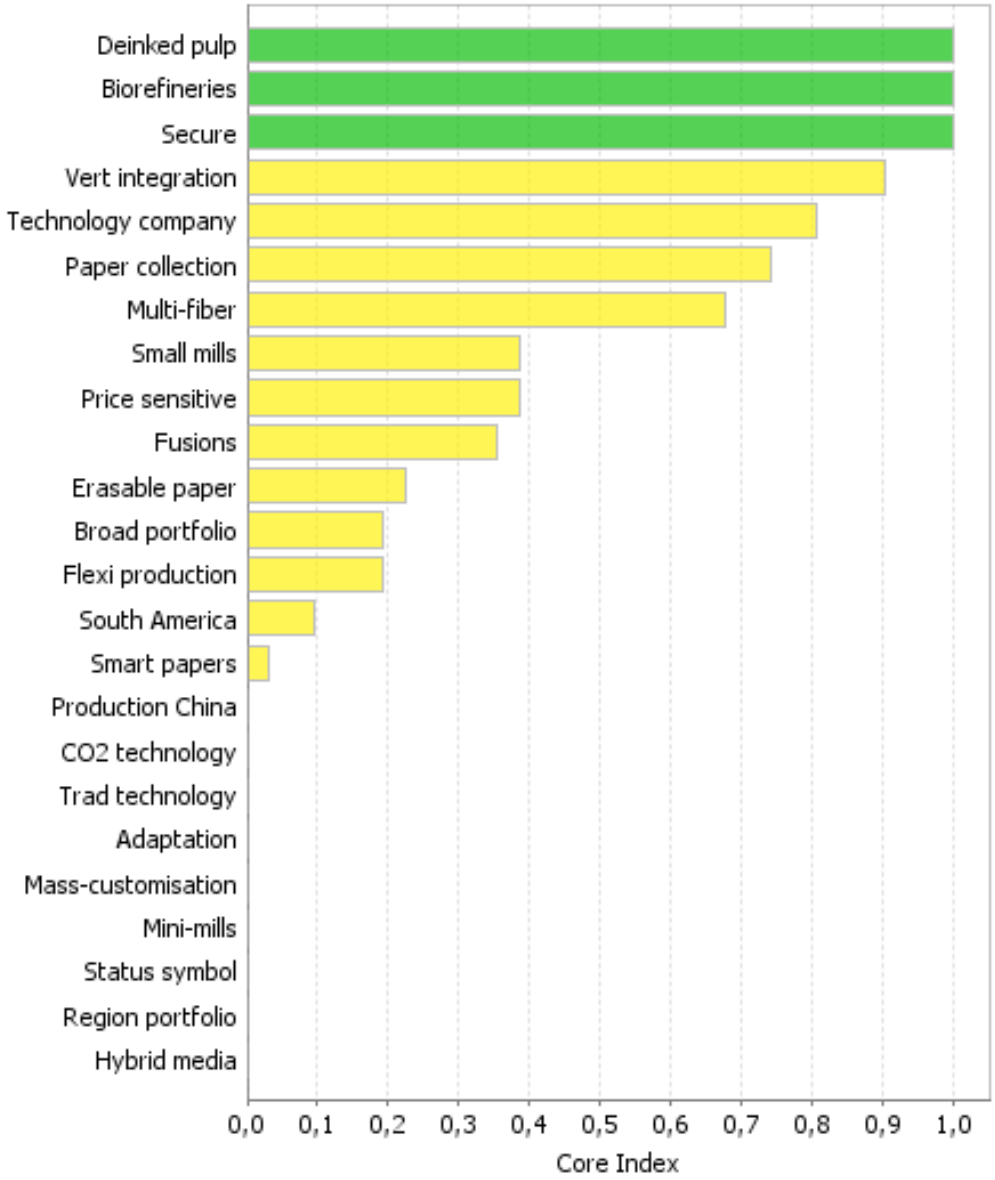
Step 1 - 24 GC environments

ONE EXTREME	UNCERTAINTY	THE OTHER EXTREME
All wood is certified	**Certification**	Wild wood markets dominate.
Supply and availability of plantations is highly uncertain	**Plantations**	Supply and availability of plantations is high
Highly volatile price of wood	**Speculation of wood**	Wood price is stable
Forests are used for other purposes than raw material production for forest industry	**Primary use of forest land**	Forests are used for raw material production for forest industry
Strong global environmental regulation	**Environmental regulation**	Heterogeneous environmental regulation
Wood is used in bio-energy production	**Bio-energy economy**	Wood has no use in energy production
Molecule level high-tech paper products	**Nano-science**	No investments to technology and technology has failed.
Global markets highly open and All paper produced in Asia and South America	**Globalization**	Political crisis and high transportation costs means that industry is based on local production
Re-using	**Re-cycling**	Re-cycling
Chinese invest heavily on forest industry	**Chinese investments**	Chinese invest only to their own paper industry
Lignin or hemicellulose based highly profitable products	**Profitable by-products**	By-products have no value (wood is only wood)
Internet dominate	**Consumer preferences**	Market will collapse

Steps 2 &3 - Success action generation for each Game Changer environment



Step 4 - Results of action portfolio analysis



Potential strategies derived from uncertainty

ALTERNATIVE STRATEGIES FAST PRODUCTION The success is based on fast adaptation. Drivers: fast changing customer needs, regulation or fluctuation in raw material supply.

MICROUNITS Key success factors are customized product and service concepts and closeness ("fitting" or customer's own raw material). Multipurpose or dedicated production unit on customers their site. Drivers: new technology (3D printing), energy price, recycling regulation and volatility of the global economy.

SPECIALIZATION FOR NEW AREAS Biomass is used for new areas, (such as furniture/decoration production), where the success comes from design, fast adaptation to customer needs and trends, lightness and durability of the structure. Drivers: new technology, fast changing customer needs, recyclability

SCALE FREE PORTFOLIOS The orchestration of different sources, different size units and a flexible network of production (product& service partners) is the source of profitable business. Drivers: Volatility of the global economy, new technologies, fast adaptation. Increasing ROI expectations of investors, fast investments.

LOCALIZED PRODUCTION The success is based on efficient adaptation on local needs. The source of corporate success is portfolio management. Drivers are high transportation cost (price of energy or regulation), different supply of raw materials and very different local conditions.

NEW PRODUCT LINES, PAPER IS A SIDE PRODUCT The profitable business comes from different products, paper is only one of side products of the process. The main production line; energy, production of bio-components or techno-materials Drivers: demand of paper, energy price, demand for bio-components, energy efficient building, regulation

TECHNOPRODUCTS The efficient management of a portfolio of fragmented technology based products (erasable paper, nanopaper). Innovation pace is high and r&d investments drive the business. Joint development with customers for different needs. Drivers: new technology, diversification of customer needs, profit requirements, energy price is high

NICHE PRODUCTS Profits come from niches, such as super luxury products, furniture, tapestry or technology products. Drivers: changing customer demand, low profitability of the mass market

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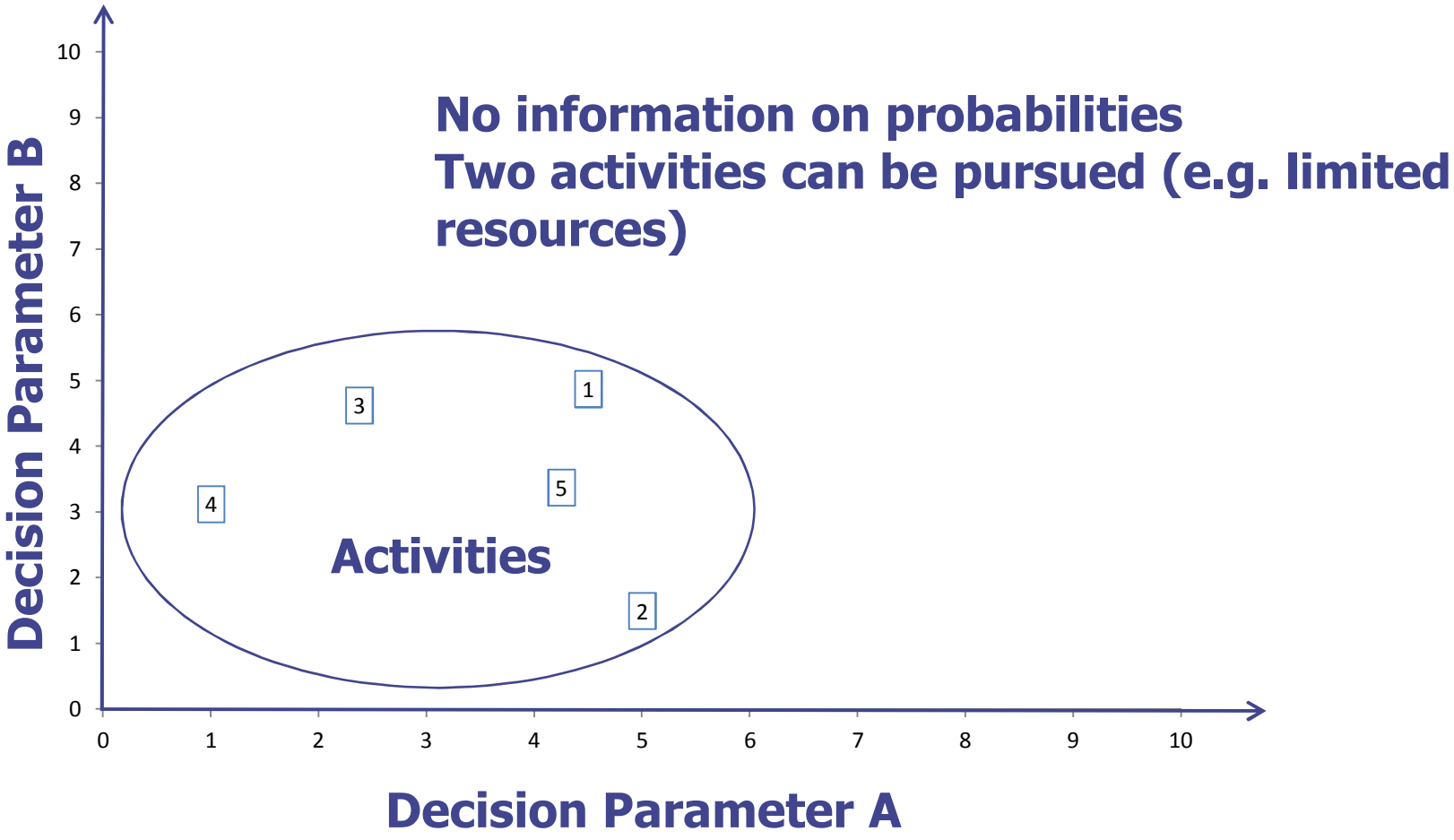

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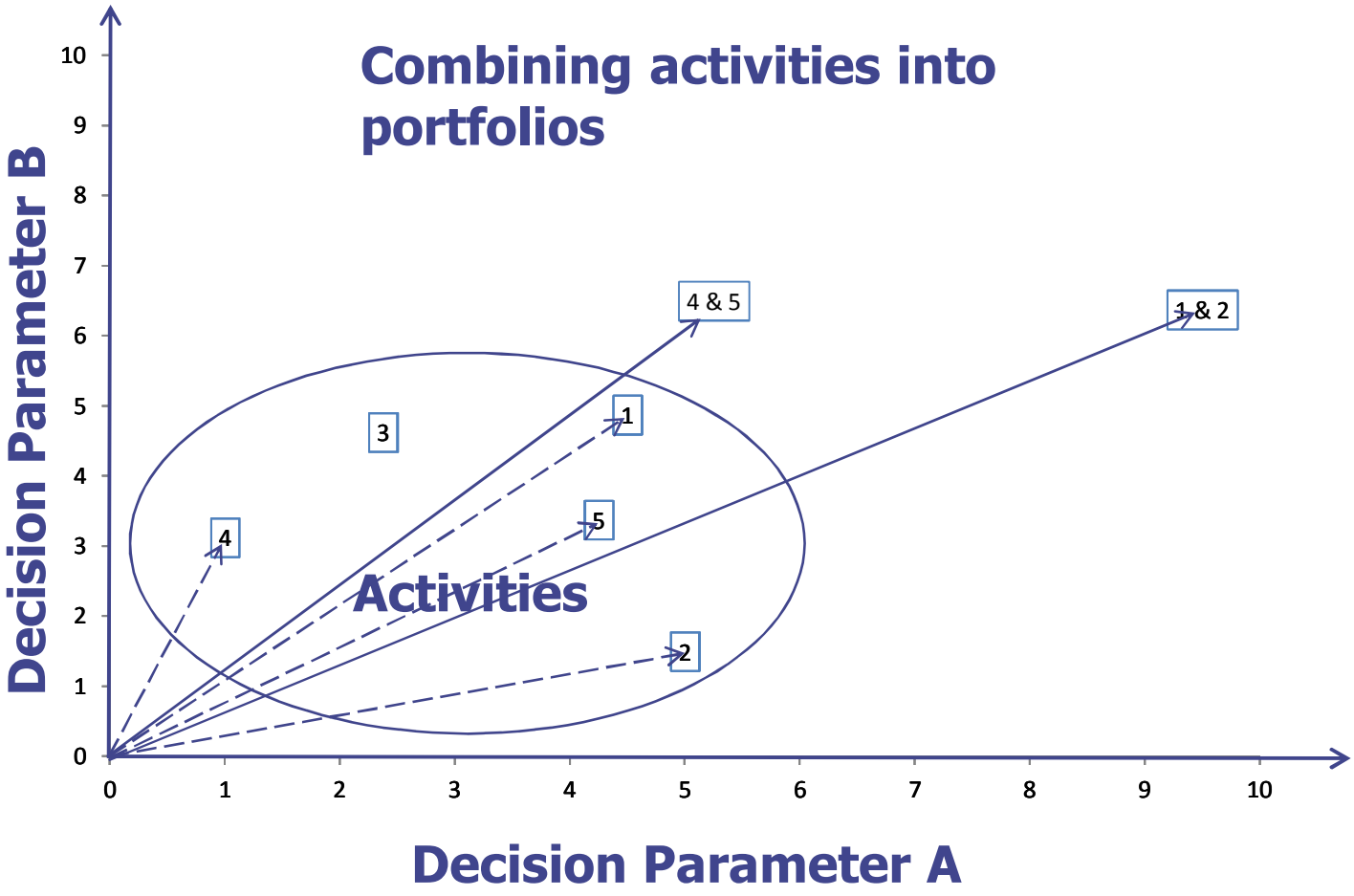
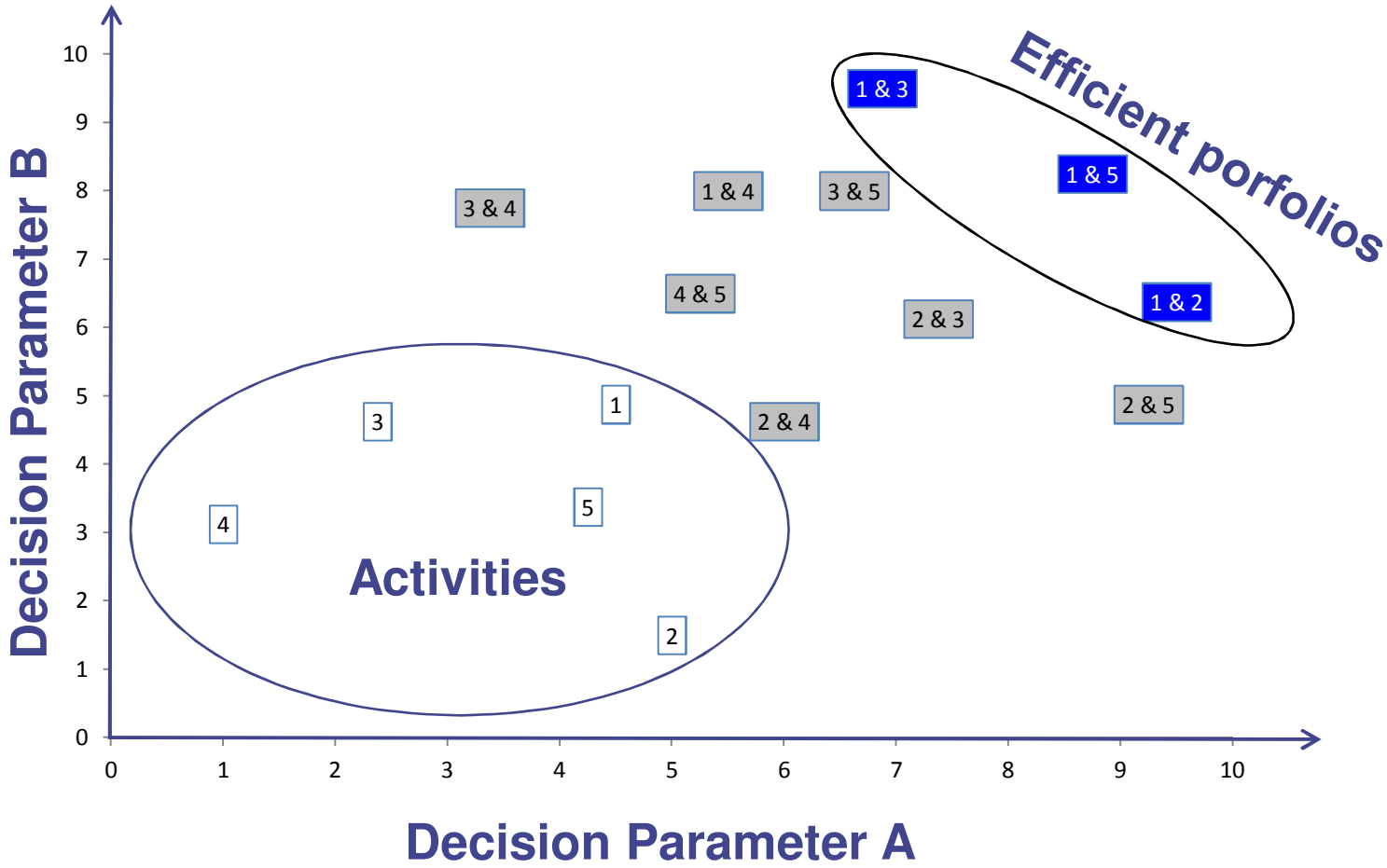
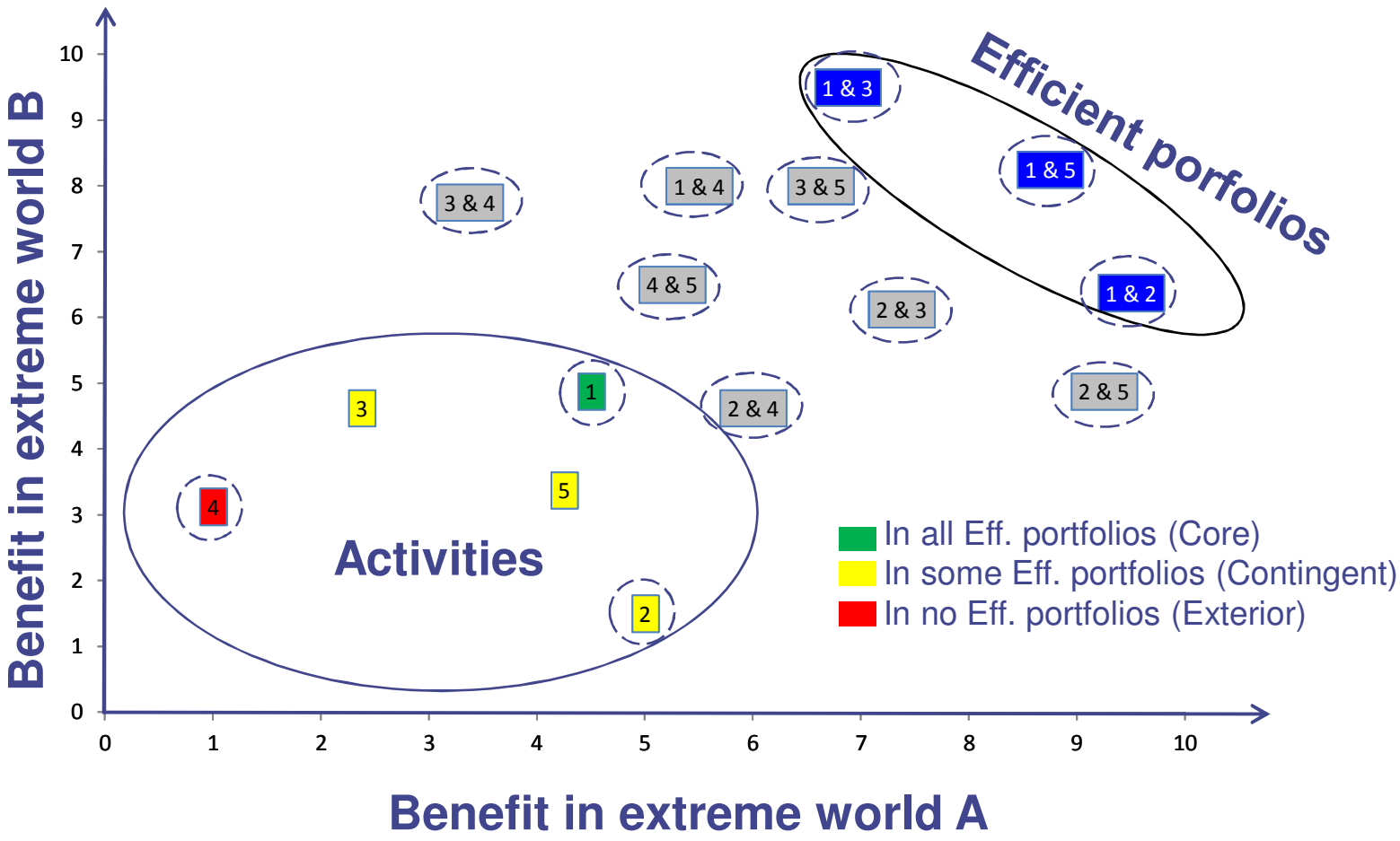


RPM: Efficient portfolios



RPM: Activity classification



INSIGHT: HOW TO BE SURE THAT YOUR COUNTRY/ORGANIZATION IS COMPETITIVE

....WHAT SO EVER HAPPENS IN THE GLOBAL ECONOMY (OR CLOSE TO THAT).

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