

# Strategic choices and the global economic system 2030

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Xevents Initiative



# International Institute for Applied Systems Analysis

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

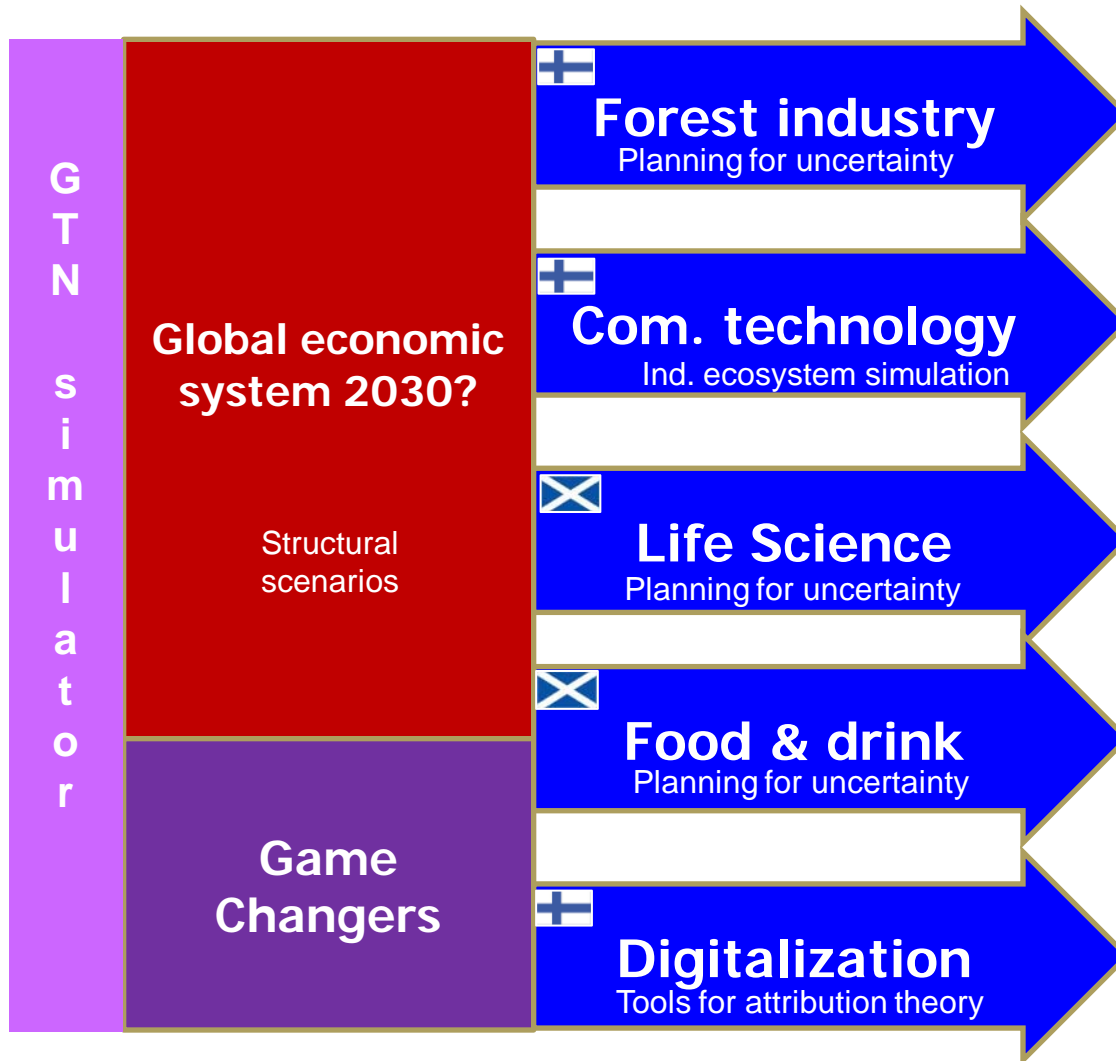
**POPULATION**  
**ENERGY**  
**LAND USE & FORESTRY**  
**EVOLUTION & ECOLOGY**  
**ATMOSPHERIC**  
**POLLUTION &**  
**MITIGATION**  
**DISASTER & RISK**

Funded by 19 nations.

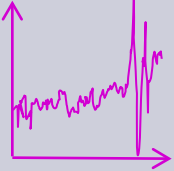






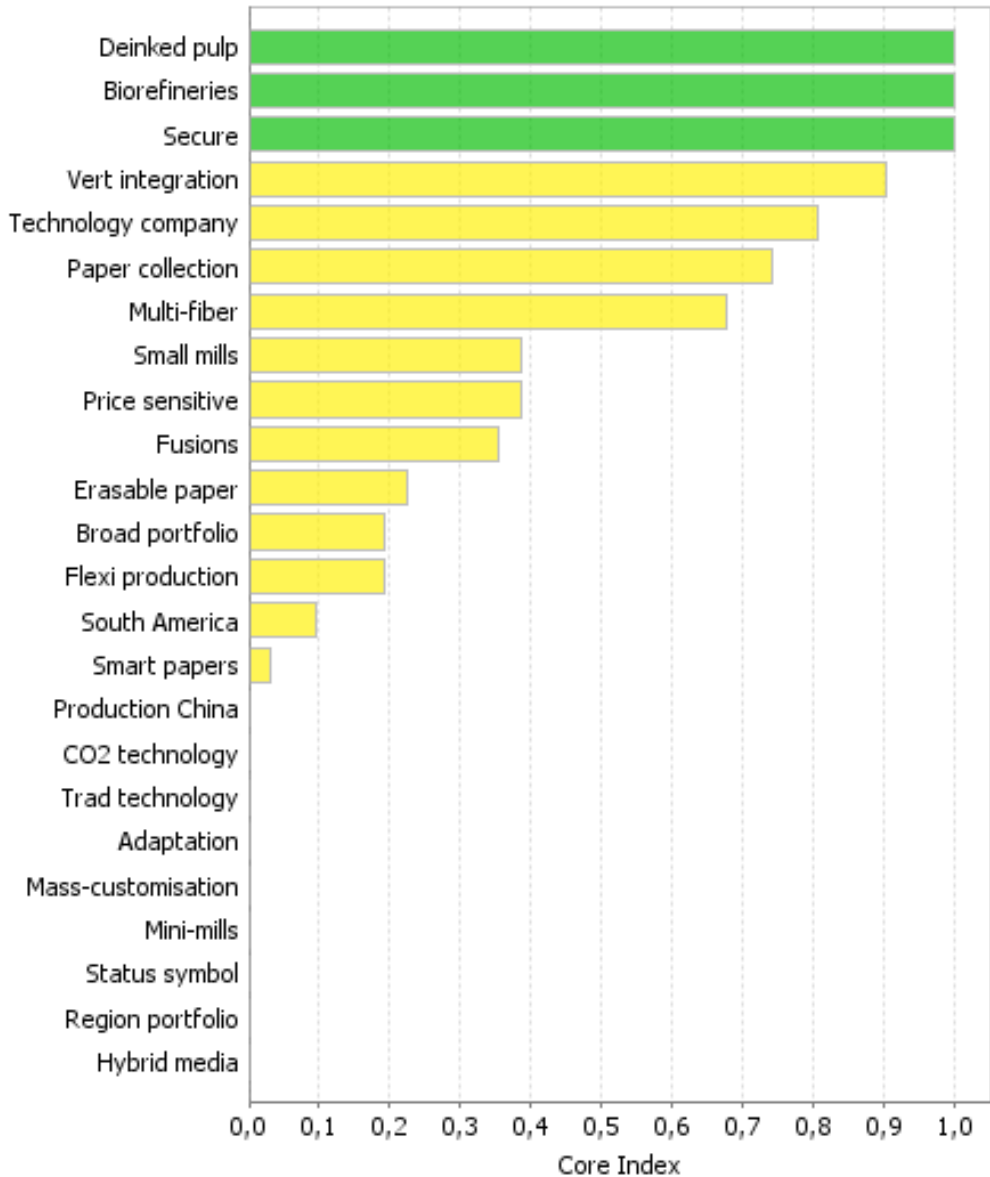
# Game Changers Project 2/2010-3/2011



*What are the implications on competitiveness of the small open national economy?*

	Stable & Turbulent World	Volatile World	Multiplex
Scenario in brief	 <p>The structure of the global economy is hierarchical (one world or blocs). Economy is pretty stable (rules) until the shock of power centers causes huge turbulence.</p>	 <p>The global economic system is unpredictable and behavior is very volatile. Small change in external or internal conditions may cause a major shift in the behavior.</p>	 <p>Global system consists of different domains with different structures and behaviours. Uncertainty and systemic behavior. Each domain has its own dynamics, but it is possible that small changes cascade through system</p>
Prerequisites	Fast climate change, resource scarcity severe, capitalism (financial system) fails in some areas	Global growth period 2010-2020, technology development fast (does not solve scarcity problems)	Assymmetric development
Drivers	<b>Globalization</b> , many relatively strong nations, strong ideologies, clash of cultures, political power strong, wars (trade/military conflicts)	Knowledge drives economy, quantum computing, zero energy sources, global financial system collapsed, <b>globalization is over</b> , no reliance on policy makers	Diverse set of drivers, domain specific
Structure drivers	<b>Strong IPR</b> , public sector role strong, successful global operations track record	<b>Open source development</b> , climate change is mitigated,/failure, resource scarcity, no ideologies	<b>Role of public sector</b>

# Core index of the actions



**Core actions that are included in all efficient portfolios**

**They are core of the strategy!**

# 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 (eraseable 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

# Simple example strategies providing high resilience...

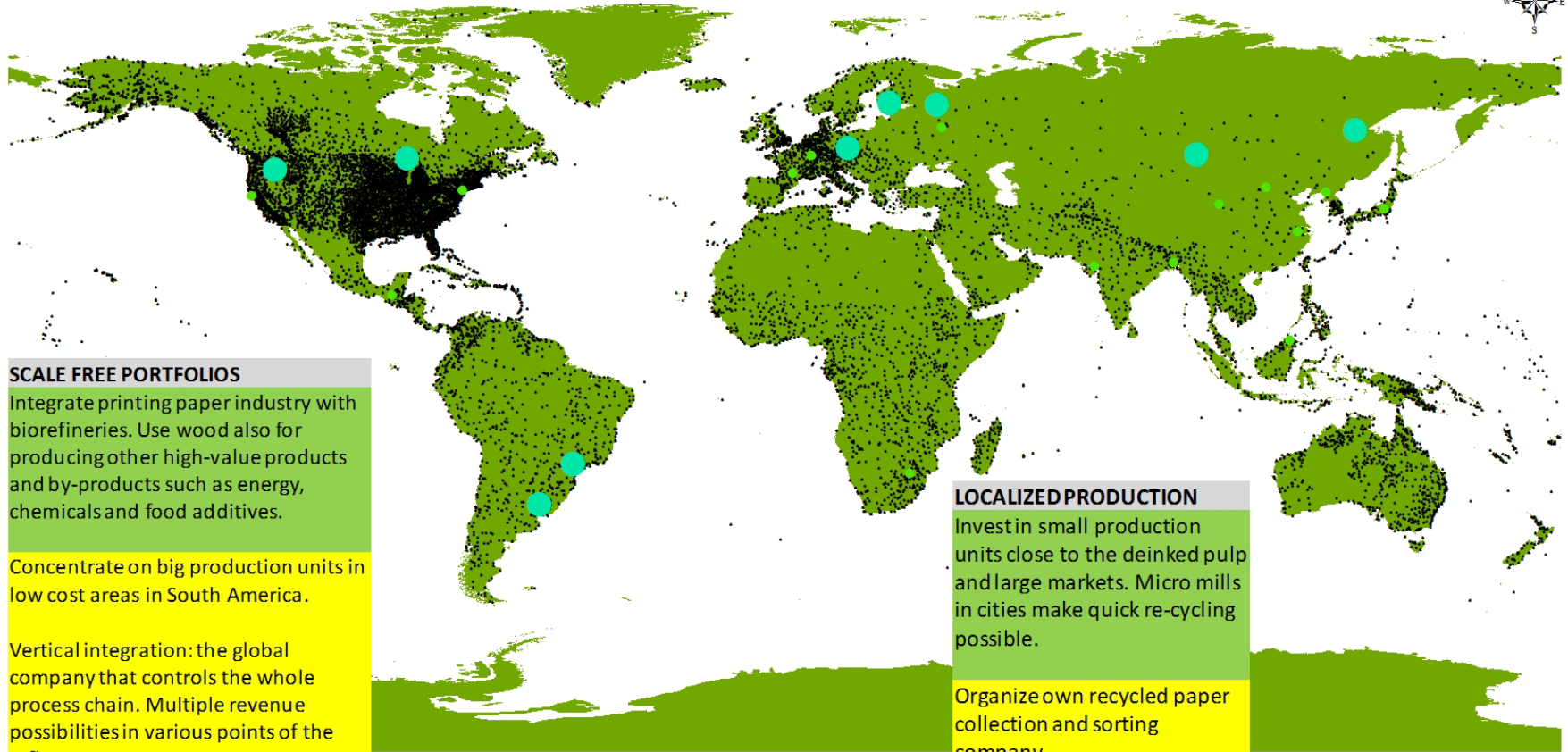
Potential strategies based on actions:

## Strategies

- Localized production
- Scalefree portfolios

## Legend

- World cities



### SCALE FREE PORTFOLIOS

Integrate printing paper industry with biorefineries. Use wood also for producing other high-value products and by-products such as energy, chemicals and food additives.

Concentrate on big production units in low cost areas in South America.

Vertical integration: the global company that controls the whole process chain. Multiple revenue possibilities in various points of the refinement process.

### LOCALIZED PRODUCTION

Invest in small production units close to the deinked pulp and large markets. Micro mills in cities make quick re-cycling possible.

Organize own recycled paper collection and sorting company

# Success in the world of uncertainty **Part 1**

## CORPORATION

Portfolio of diverse  
businesses

Mode defined  
strategies

Resource flexibility  
Skills, roles

Investment intensity  
Branding

## **Immediate adaptation**

Structure

Volume

Choices

## PUBLIC SECTOR

National portfolio

Ecosystems

Cycle specific rules  
Resource allocation

Support structure

# Success in the world of uncertainty **Part 2**

## CORPORATION

Scanning system

Unique combinations

Portfolio of exclusive products.

Multipurpose production

Diversity of businesses

## **GROWTH**

Speed of reaction

Complexity

Crash

## PUBLIC SECTOR

Sensor system

High innovation pace  
Regulatory environment

Platforms

Diversity of exports

Hybrid education  
Basic education

Insurance