### Driving Forces of Innovation: Critical Transformation for the Companies

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### Global Innovation Strategy

- In the global age, continuous entrepreneurship and speedy decision making are critical, particularly in big corporations and large organizations. The highest priority is the development and implementation of an innovation strategy, based upon an objective assessment of the entity's strengths and weaknesses. Innovation needs to be promoted strategically and recognize the needs of the people such that economic and social benefits are created.
- In the last 100 years, humankind has seen the fastest and the most dramatic changes in our history. Remarkable progress in transportation technology has reduced physical distance, and radical changes in information and communication technology have enabled people around the world to share information instantaneously.
- In this context, the role of science and technology as the engine for economic growth has been recognized increasingly. International competition in the field of science and technology, whether it is for investment or among people, has greatly intensified in recent years. Many countries throughout the world have recently recognized the importance of innovation and have actually begun various initiatives to develop national innovation systems which will define Driving Forces who will lead them!

### **Driving Forces of Innovation**

- If we can said that Innovation is derived from Latin word Innovare which means: in(within) = novare (change), we can conclude that on the company's level Innovation is unique way to survive.
- \* From another side, if we can said that *Driving Forces* are synonyms for the forcing factors, can be seen as independent, autonomous, 'outside' forces directly or indirectly affecting a (depended) system, we must underline that in each analyze *Driving Forces of Innovation* must be derived on external & internal forces.
- Moreover, DFs themselves differ in origin, nature, geographical extent, duration and intensity. So specification for the both driving forces and the affected systems is obligatory...

### **Primary Interest**

- Our Primary Interest, if we want to reconsider or solve the Critical Transformation of the Company in advance, is to identify DFs and possibilities to intervene. First step is to derive Driving Forces on the external and internal and after that through the Different related conceptual models explain and elaborate them
- Current and foreseeable trends in Europe herald major changes affecting biodiversity, cultural heritage, scenery, environmental quality and economical values
- Three related conceptual models are:
- Based on DPSIR = Driver-Pressure-State-Impact-Response
- Mental map
- Model who distinguish decision-making philosophies or stages according to their scope and time horizon

### External & Internal DFs of Innovation

- Company's level is always most demanded task when we want for the first identifies DFs and after that Identify Critical Transformation Model recommended or Strategy who can solve the situation problem
- External DFs can be searched in the: globalization trends, governmental policy, common regional policy, competitors attack to the market, new technology way of work etc.
- Internal DFs can be searched in the: Top-management behavior, appropriate internal coordination, innovative and advanced technology level, new organizational structure, new product and global challenges reflected on the employees association ...

# DFs Concept: The Key to Strategic Thinking

Chinese enterprises must draw their attention to the testing of each of the potential and recommended DFs when they plan to avoid the Critical Transformation Moments:

The Driving force is key to strategic thinking.

Once top management understands the Concept of DFs, it can use that understanding to reach agreement on what strategic area represents the organization's current driving force.

### DFs Concept: The Key to Strategic Thinking 2

Products offered

Services offered

Customer needs

Market needs

Return/profit

Size/growth

**Technology** 

Human resources

Service Capability

**Production Capacity** 

Natural resources

Sale/Distribution method Land

**Assets** 

**Image** 

# Critical Transformation Of The Company

- Critical Transformation of the Company must be tend towards in the entrepreneurship spirit of the top management at the three basic functions which they must control according to the identified driving forces (external & internal):
- Decision making function of the top management in the name of the obtaining of targeted goals
- Resource allocation
- 3. Shareware of achieved effects on the all participants

In that sensible field of decision makers in the Company the substance is to make a fast and qualitative decision. For that reason, they must evaluate they research, analysis and management on the Business Intelligence basis. Always open minded and ready to improve yourself and others

# TOP Management As One Of The Most Important Driving Forces of Innovation

- The Chief Information Officer (CIO) is the head of the information technology group within an organization. The CIO normally reports to the Chief Executive Officer (CEO).
- The current trend is for the CIO to be assisted a set of management personnel, because of the expanded role for CIO's in organizations. These personnel include the Chief Technical Officer (CTO) for technical aspects of information technology used and needed in the organization; the Chief Risk Officer (CRO) for risk management; and the Chief Knowledge Officer (CKO) for knowledge management.
- > The prominent and expanded role for the CIO has been the outcome of the dramatic developments in the field of information technology, and the critical importance of information technology in the competitiveness of the business enterprise in these days of globalization and commoditization.

This expanded role of the CIO has developed into the CIO being the drive force for innovation in the business enterprise.

#### CIO = DFs of Innovation 1

The Chief Information Officer (CIO) is a job title commonly to the person in an enterprise responsible for the information technology and computer system that support enterprise goals. As information technology and systems have become more important, the CIO has come to be viewed in many organizations as a key contributor in formulating strategic goals.

#### **TOP 10 Concerns of CIO are:**

People leadership + managing budget + business alignment + infrastructure refresh + security + compliance + resource management + managing customers + managing change + board politics

### CIO = DFs of Innovation 2

It is in this frame of competency of a business enterprise that a CIO takes on the expanded role of being the driving force behind innovation.

- Innovation is about change and as the driving force of change the COI becomes responsible for creating the necessary environment for change in the organization. This means creating a culture for change and removing resistance to change. It is in this aspect that the connection between the CIO and the CEO become important, as the CEO should provide the leadership for change, and the CIO can promote this in the CEO.
- > To make innovation a part of the manner in which the business enterprise or organization functions the CIO needs to make the working suitable for it. In the first place, this means creating a flexible infrastructure and sufficient access to information. Lack of these, are obstacles to innovation, and hence the role of the CIO should be to target the removal of these obstacles.

### CIO = DFs of Innovation 3

- To improve the culture besides identifying resistance to innovation and reduces or eliminating its impact the CIO needs to be the facilitator in creating an environment of collaborative work. That is a more democratic and a more empowering work environment. This means that the CIO needs to ensure that rules of the organization are applicable to all levels of the organization, people at all levels in the organization are given the opportunity to be heard, and the workers in the organization are provided with opportunity to work smarter and not just harder.
- Another emerging role for the CIO is the creation of an amiable context for innovative thinking in the organization. This means that the CIO needs to cultivate an entrepreneurial atmosphere that allows for the merging of business and technology as a natural process.
- > Collaboration and partnering are two important facets that are significant to innovation. Understanding this, the CIO needs to instill this in the business organization, for many new ideas come from employees, business partners and customers. Thus external sources can be inspirational for innovation

### CIO: CEO

#### To not forget!

Business by itself is not a driving force for innovation. It has a significant role to play in driving innovation.

There is the need for CIO's to become business partners, and take on an integral role of implementing the strategy and vision of the business enterprise.

The CIO's thus become instrumental in establishing the conditions and environment that sparks innovate ideas, and then be the driving force for their execution and capture the dividend of innovation.

#### The Trend of Innovation

Innovation, by definition, almost always challenges the long-kept mindset and value system of a society, so it can create **tension** 

For that reason, please, managers:
listen, monitor, look, supervise,
innovate, invest in people, invest in environment,
invest in society, because:
Better society better Company and vice-versa

## The World Trends: GEEC Formula Of Sucess

« Green is Gold! «
Davos message to the World
« Energy & Ecology »
European message to the companies

The full message is that if you want to define DFs who can lead you to the top and to secure your top position for the long time you must involve all available resources: humans, companies, governmental and global to accept your future business on the Green grass of your Innovation portfolio: in your mind and in production!

### The Trend Of Innovation: Country Case

#### « INNOVATION 25 »

Creating the Future, Challenging Unlimited Possibilities

- Innovation 25 is a long-term strategy for the creation of innovation contributing to the growth with an eye on the year 2025
- In the message from Ms. Sanae Takaichi, Minister of Japan for Innovation we found very important lesson:
  - « Innovation 25 will serve as the driving forces in the journey of governmental creation of the better Japan through the innovation »

### Driving Forces at Work Surrounding Japan and the World in the Next 20 years

Major factors that will shape Japan and the world in the next 20 years include the following:

- > 1) a declining population and rapid ageing in Japan
- > 2) growth in Asia with pressing issues
- > 3) further development of a knowledge-based network society
- > 4) explosive progress of globalization
- > 5) growth of the world population threatening the sustainability of humankind
- > 6) climate change and environmental degradation
- > 7) an increase in the divide between rich and poor nations, often called the "north-south disparity".

#### Why is Innovation Important Now?

- History tells us that a few decades of hard and persistent efforts with a completely new mentality and attitude are required for innovative breakthroughs to come to fruition. Unless we dedicate ourselves to changing our familiar ways of thinking and conventional attitudes, we can never create a bright future.
- The world, including Japan, is stepping into a completely new and unexplored era, whether it is welcome or not. Can we resolve the unprecedented changes and issues of magnitude this new era bring with a conventional approach and mentality? The answer is definitely "No".
- Ageing of Japan's society can serve as a driving force to design new technologies and services that meet the unique needs of individuals. These efforts can lead us to a better and healthier life, while boosting economic development even further
- Innovation goes far beyond technology alone. It brings about comprehensive transformations that encompass the way people live in society. As such, it requires a completely new social system to be put in place. People and infrastructure are essential. Innovation is a key to productivity enhancement.

### Basic Driving Forces indentified as direct and indirect in the Innovation 25

There are four basic driving forces who are formulated as four basic premises of the strategy to attain this challenging goal:

- Integrating and Promoting "Innovation in science & technology"
- Integrating and Promoting "Innovation in social systems"
- 3. Integrating and Promoting "Innovation in human resources"
- 4. Changing our Mindset

### Internal Government Mechanisms to make Japan the World's Leading Nation of Innovation

Comprehensive mechanisms are needed to integrate the three areas of innovation addressed in this strategy: science and technology, our social system and human resources.

Sustaining innovation over the next 20 years to make Innovation 25 a reality will require persistent effort.

Japan will become an innovative nation by 2025 only if top-down measures cutting across existing ministries and organizations are established, and if the people continue to persevere with the "Plan-Do-Check-Act" (PDCA) cycle.

# The Trend Of Innovation: Case Study

- Concerning the « E=E » formula one of the best examples that I have had an opportunity to work with, is the World leader & American company Capstone and their micro turbine on the biogas
- Together with the local Municipality of Valjevo Republic of Serbia, local Public enterprise for the waste treatment, local Public enterprises for the water treatment, they created one form of "perpetual-mobile" for the Energy&Ecology formula of successful business

www.microturbines.com

### David Packard says:

«Many people assume, wrongly, that a company exists simply to make money. While this is an important result of a company existence, we have to go deeper and find the real reasons for our being...People get together and exist as...a company do that they are able to accomplish something collectively that they could not accomplish separately – they make a contribution to society. »

This must be the main Driving Force and for the Company and for the Government

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Thank you for your time and attention