EVOLUTIONARY APPROACH TO PRODUCT DEVELOPMENT PROJECTS

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Purpose of the Paper

- To piece together a comprehensive "R&D platform" where innovative results can best be created
  - Focus on the innovation management and leadership activities
  - Network / collaboration perspective
Background for the Topic
- Modern World Is Changing – Fast

Changes are impossible to foresee

- Inevitable
- Dynamic
- Irreversible
- Non-linear
- Open ended
- Continuous

Are we ready for the The Black Swan?
Background for the Topic

- Need for a non-stop adjustment of R&D activities → agility and proactiveness
- Border-crossing projects and networks within R&D → increasing expertise
- Innovation drivers consisting of various elements involved → proper physical, mental and virtual facilities
From Reactive to Proactive Product Development

- Most typical situation:
  - product development based on feedback or competition

- Ideal situation:
  - to be one step further
  - external and internal development and future aspects constantly monitored

- Perspective beyond the present customers
Evolutionary Approach

- Innovation process typically non-linear by nature
  - Interaction within the system makes it impossible to determine the performance and results by studying its isolated parts/elements
  - Numerous feedback loops causing a need for immediate change

→ impossible to forecast the outcome
→ bifurcation points should be recognized
Evolution Can Be Steered

- Goal-oriented and systematic approach
- Evolution management for thorough analysis
- Alteration in input does not necessarily mean direct alteration in output
- A role of coincidence and interaction within the processes

“a change from an indefinite, incoherent homogeneity, to a definite coherent heterogeneity through continuous differentiations”

-Herbpet Spencer
The Beauty of Uncertainty

- Safety and traditions in processes v. chaotic and unknown elements included
- Chaos seen as a subtle, complex and ultrasensitive form of order, not the opposite of order
- Chaotic system gets continuous energy, impulses and information from its environment
- Coincidence and change as an opportunity
Competence and Mental Facilities among Key Strategic Sources

- Human beings as basic blocks
- Competence development and deployment in focus
- Wide perspective beyond present requirements ("Forget your customer!")
- Business strategy connection
Business Strategy on the Move

- Market-driven alone is not enough
- Resource-driven might get lost
- Combination implemented in harmony and in a target oriented manner
Integrated Product Development Strategy

- Adjustment of a business strategy should be synchronized with the changes in market demands
- Strategic resources – like competence – should be adjusted and developed accordingly
- Opportunities and changes in strategic resources also taken account in strategy development
Integrated Product Development Strategy

- If resources are not suitable for markets and strategy
Conclusions (1/2)

- Evolutionary approach offers applicable perspective to examine the R&D processes

- Strategy development and resources adjustment often blocked by old traditions and rigid habits

- Proactivity can be added into the processes by accepting uncertainty and chaos
Conclusions (2/2)

- Every element involved is meaningful and unpredictable within the "R&D platform"

- Optimum mixture of top-down and bottom-up philosophy needed in steering the system

- Whole business culture must be tuned accordingly
Thank you!

Questions?

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