

## STARTING WITH THE YOUNG

It is a very difficult task to change the way of thinking in a society that mainly operates in silos. Add to this the predominance of traditional linear thinking in decision and policy making, it becomes even more challenging. Taking into account that the issues facing the world are increasingly becoming complex (Figure 1), the leaders of tomorrow will need to develop a deeper understanding of the interconnectedness between all the components of a system and the ability to think in systems, rather than continuing traditional approaches of the past. Starting with the younger generation could therefore be an important leverage to create new era leadership that is systems thinking and design-led to deal with complex problems in a systemic, integrated and collaborative fashion.

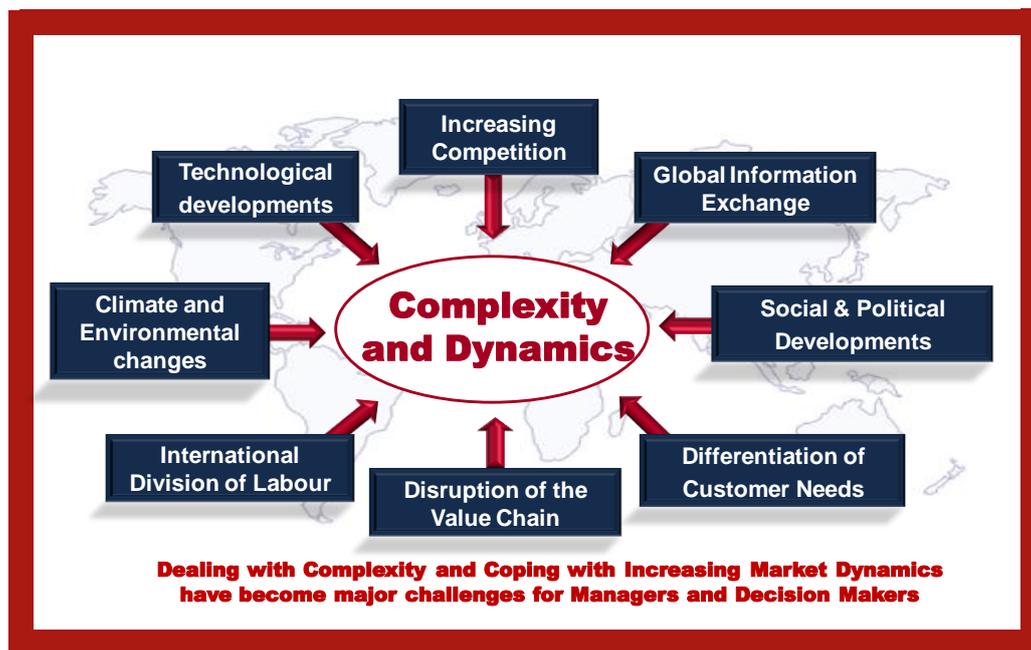
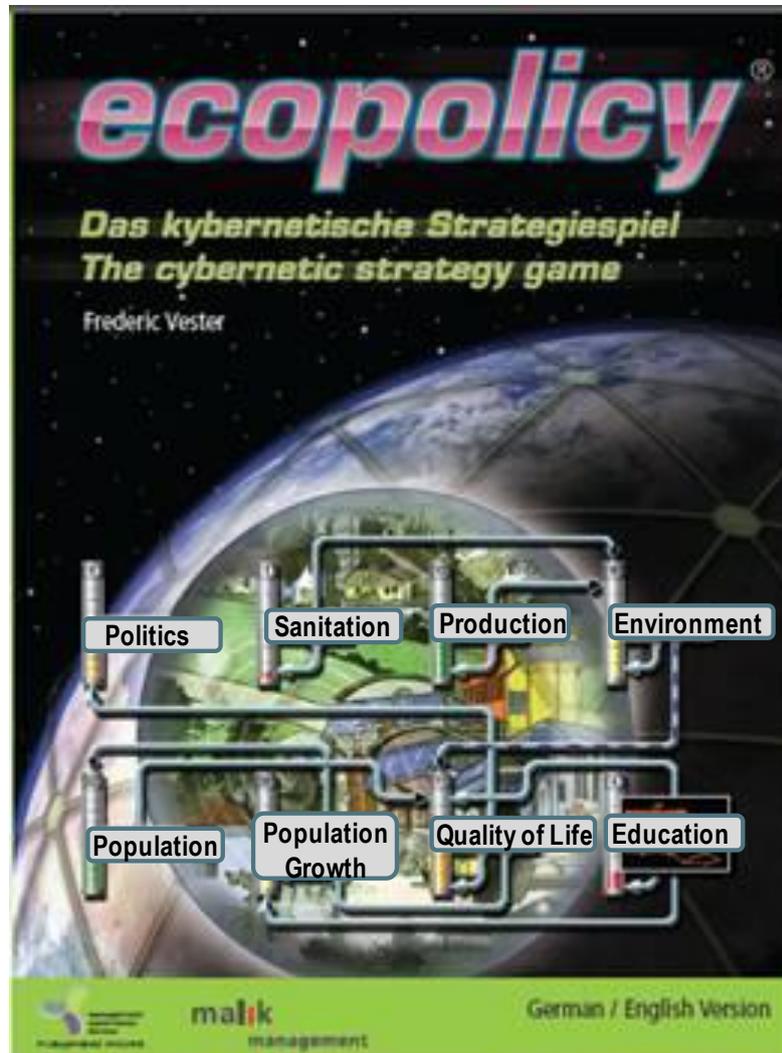


Figure 1. Drivers of Complexity (Adapted from Malik 2010)

“Starting with the Young” could be regarded as a small rudder that will serve as a leverage to cause a big ship that is moving strongly in one direction (as in the past) to change its direction in the long term. This requires first to expose the young generation to systems design thinking and how it offers a holistic and integrative way of appreciating that all sectors in life are highly interconnected. Second will be the realisation that interdisciplinary, cross-sectoral communication and collaboration are the only ways in which issues of a multi-dimensional and multidisciplinary nature can be addressed. Third, will be an understanding that short term fixes can only “treat the symptoms” and problems need to be addressed systemically at the root causes.

“Gaming” is part of the culture and language of young people and “Schoolchildren are at an age in which they can access interconnected thinking with the greatest of ease. As a matter of fact, training in interconnected thinking should start early – before specializing in a certain field of study. We need experts who do not pursue their special topics in isolation, but in an end-to-end context, integrating it in a systemic overall understanding” (Malik 2010). A cybernetic strategy game (Ecopolicy, Figure 2) that was developed in Germany (Vester 2010; Management 2011) has been introduced in July 2012 in 16 selected high schools in Adelaide, South

Australia. These schools took part in a series of competitions in which students learn, through playing the cybernetic computer simulation game, how to shift from traditional linear, simple cause-effect thinking approaches to a new way of thinking in relations, in feedback cycles, patterns, networks and in systems.



*Figure 2. Ecopolicy game*

What is special about Ecopolicy is that the fast and obvious solution generally proves inadequate – just as in real life. By getting acquainted with pattern recognition and parallel processing of the interconnected levels of the reality they are dealing with, the players experience how to develop relevant and future oriented decisions in order to achieve resilient and sustainable systems. The students (Figure 3) acted like the government of a country in despair, with the goal to stabilize the country through developing a balance between education, health, politics, production, environment, quality of life, and population growth.



*Figure 3. Students playing Ecopolicy game*

These are all important sectors of human life and in the game they are all interlinked in such a way that each decision results in a chain of effects and repercussions – just like in real life.

In the game the results of both foundering the fictitious country with short term decisions, and leading it towards a stable and sustainable country are experienced. The highest score is automatically calculated from the nature and effectiveness of the decisions that students make.

The competitions were run within schools in several rounds between small teams (three students) within classes, between classes within schools until a winning team for each school was determined. More than 3,000 students in Adelaide were taking part in the various rounds.



*Figure 4. Ecopolicyade in the Adelaide City Council Chambers*

The final competition was run in December 2012 as an “Ecopolicyade” when all the winning teams from each school competed against each other in the Adelaide City Council Chambers (Figures 4&5) and in the presence of invited guests from all walks of life. Managers and decision makers in Government, companies, businesses and organisations provided advice to the students during the final competition, while some of the guests also played the game and became familiar with how investments in one sector could have unintended consequences in another. The value of the Ecopolicyade did not only lie in the benefits to the students, but the event itself was acknowledged by all present as a most valuable inter-generational co-learning experience.



*Figure 5. Winners 2012 Ecopolicyade  
St Ignatius, Adelaide*

Since its instigation in 2005 this holistic simulation game has become one of the most popular competitions in various countries in Europe. For example, in Germany more than 3000 schools and 200,000 pupils per year are now taking part in the Ecopolicy competitions. Ecopolicy has also been introduced to other countries including the USA, Vietnam, Argentina, China, Sri Lanka and Japan. The SDCM Research Team has so far introduced Ecopolicy to 16 high schools in Adelaide; four universities and 18 high schools in Haiphong City, Vietnam (see Endnote). The “Ecopolicy” game is currently being extended to other schools in the State of South Australia as an annual event, with the intention to eventually become nationwide. Two project proposals have also been submitted to introduce Ecopolicy to all universities in Australia ([Seed Project SD13-2727 submitted to the Australian Office for Learning and Teaching](#)) and high school and universities in Vietnam ([Project Proposal submitted to the AusAID Development Research Awards Scheme 2012 Round Funding](#)).

## References

- Malik, F. (2010). Managing, Performing, Living: Effective Management for a New Era. Frankfurt, Germany, Campus Verlag GmbH.
- Management, M. (2011). ""Ecopolicyade@."" Retrieved 1 March 2012, from <http://www.malik-management.com/en/news/380/Ecopolicyade-Magazine-now-available-in-English>.
- Vester, F. (2010). Ecopolicy: A Cybernetic Environmental Simulation Game. Munich, Germany, English/German Version 2010.

**Endnotes:** Media reports and links providing useful and additional information about *Ecopolicy* and *Ecopolicyade*:

1. Ecopolicyade in Europe:
  - [http://www.video-artwork.ch/vorschau/ecopolicyade\\_en.htm](http://www.video-artwork.ch/vorschau/ecopolicyade_en.htm)
  - <http://www.frederic-vester.de/eng/ecopolicy/>
2. Introducing Ecopolicy to high schools in Adelaide:
  - <http://blogs.adelaide.edu.au/business/2013/01/24/systems-design-complexity-management/>
  - <http://business.adelaide.edu.au/documents/Starting-with-the-Young-Brochure.pdf>
3. Introducing Ecopolicy to Haiphong City, Vietnam:
  - <http://baohaiphong.com.vn/channel/4920/201208/15-truong-hoc-tai-Hai-Phong-tham-gia-chuong-trinh-Tro-choi-phat-trien-ben-vung-2187381/>
  - <http://www.youtube.com/watch?v=Oj7TIZYKQj8>