

University Culture – Quo Vadis?

Prospects of environmental science-policy interface in Finland up to 2020



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External pressures to universities



- Business interests
 - Production of competent labour
 - From innovations to products
- Governmental interests
 - Production of competent labour
 - Increasing efficiency
- Ideological interests
 - Demand of politically correct research and education
 - Demand for critical approach
- Environmental interests
 - Science based products harming the environment
 - Discovery of non-visual environmental problems
 - Mitigation of environmental problems

Internal pressures to universities

- Decentralisation of academic freedom
 - Budget plans
 - Freedom of opinion
- Staff empowerment
 - From chancellors to professors
 - From professors to department boards
- Student empowerment
 - Access to department boards, university senate and the like
 - From the object to the subject of education & learning



Research questions

- How to deal with the pressures and changes in the university culture?
- How will the university culture evolve in the future?
- What is the environmental point of view to these changes?

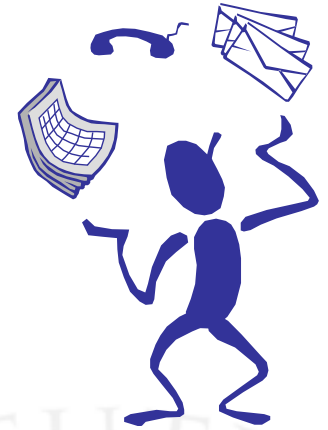


The case study is part of the project

- Title: Agora 2020 – Qualitative and quantitative needs for future environmental education
- Funding: 290k€ Ministry of Education Finland & ESR
- Durance: 2005-2007
- Director: Markku Wilenius
- Project manager: Johanna Kohl
- Researchers: Tuomo Kuosa, Sofi Salonen, Petri Tapio, Sarianne Tikkanen

- Scenario report: Tapio, P., Kohl, J., Tikkanen, S. & Salonen, S. 2007. Kestävän kehityksen torille 2020. Skenaarioraportti. Abstract in English.
www.tse.fi/FI/yksikot/erillislaitokset/tutu/Documents/publications/eTutu_2007-1.pdf

Agora 2020 project outline



- Literature review
- Two-rounded Delphi study
 - First round questionnaire and interview
 - Second round questionnaire
 - Scenarios of the future of sustainability education
- Future workshops for interest-groups

Twelve themes in the Delphi study

General themes

- **University culture**
- Practical vs academic
- General working skills
- Environmental vs sustainable development (SD) education
- Emphasis on the dimensions of SD

Environmental themes

- Demand of degree levels
- Demand by employer type
- Knowledge of facts
- Value base
- Interdisciplinarity
- Environmental professionals' roles
- A list of separate statements

Traditional and disaggregative Delphi method

Delphi features	Traditional	Disaggregative
Similarities Ideal Transparency Iteration	Best argument wins Anonymity of arguments Multiple rounds	
Differences Philosophy Goal Feedback Statistical test, e.g.	Consensus Accurate prediction Median and interquartiles ANOVA between rounds	Dissensus Alternative scenarios All responses or response groups Cluster analysis

Material and methods

- Analysis of expert opinions with Disaggregative Policy Delphi (DPD)
- Two-rounded application
 - Round I: Questionnaire and rather open interview (n=23)
 - Round II: Questionnaire (18 respondents, n=36)
- Cluster analysis of quantitative material
 - Probable and preferable of each respondent were treated as separate cases in the statistical runs
 - Each of the 12 themes were analysed separately
- Qualitative content analysis of the interviews and written arguments (not presented here)



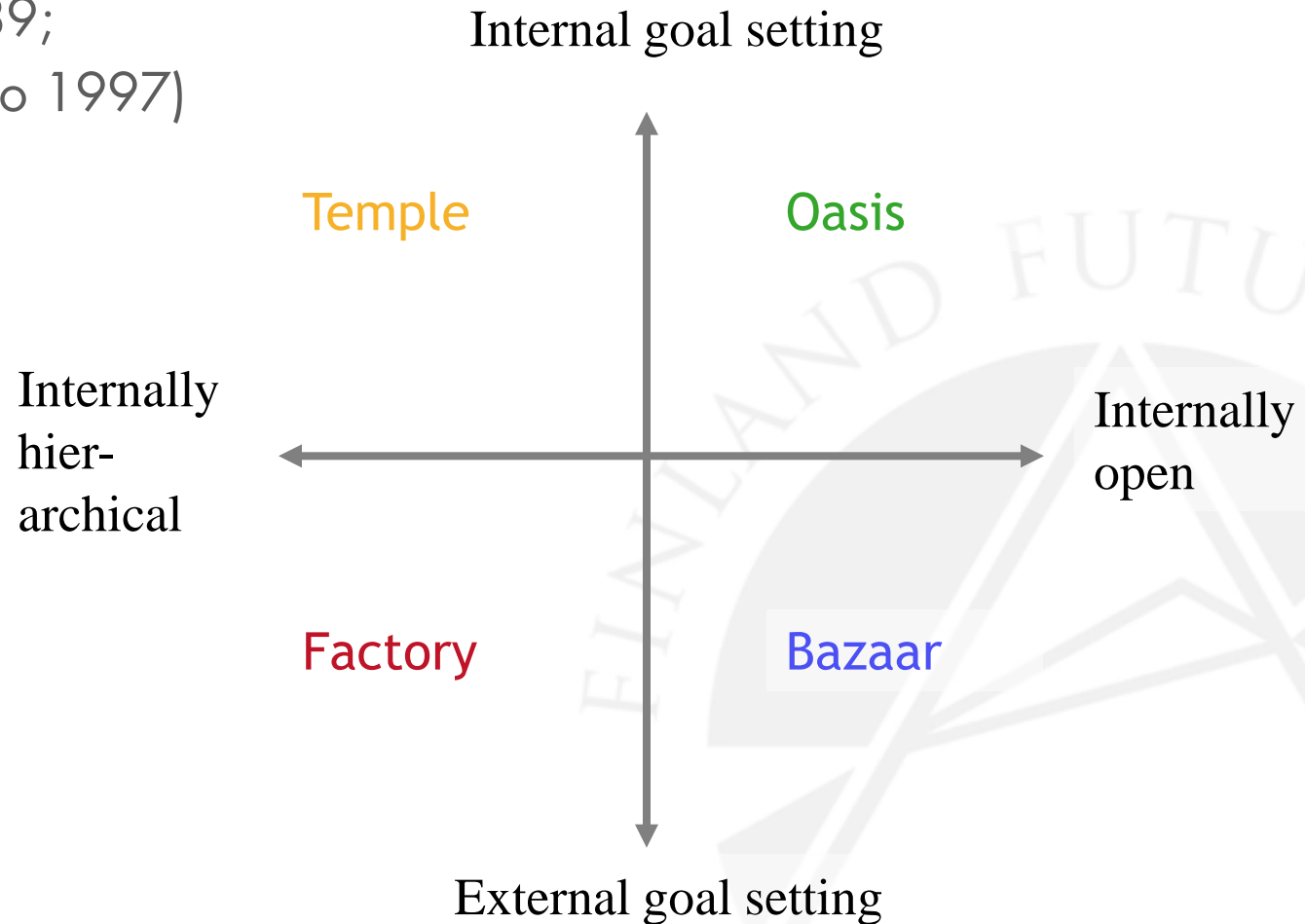
Environmental science – policy interface

Goal setting and information flow

Role of environmental science	Environmental policy target setting	Direction of information flow
Outsider	Outside science	No information flow
Agent of societal change	From science to society	From science to society
Subcontractor	From society to science	From science to society
Changing role	Complex, context dependent	Complex context dependent

How to deal with the pressures to the university culture?

(Beckman 1989;
Eronen & Tapio 1997)

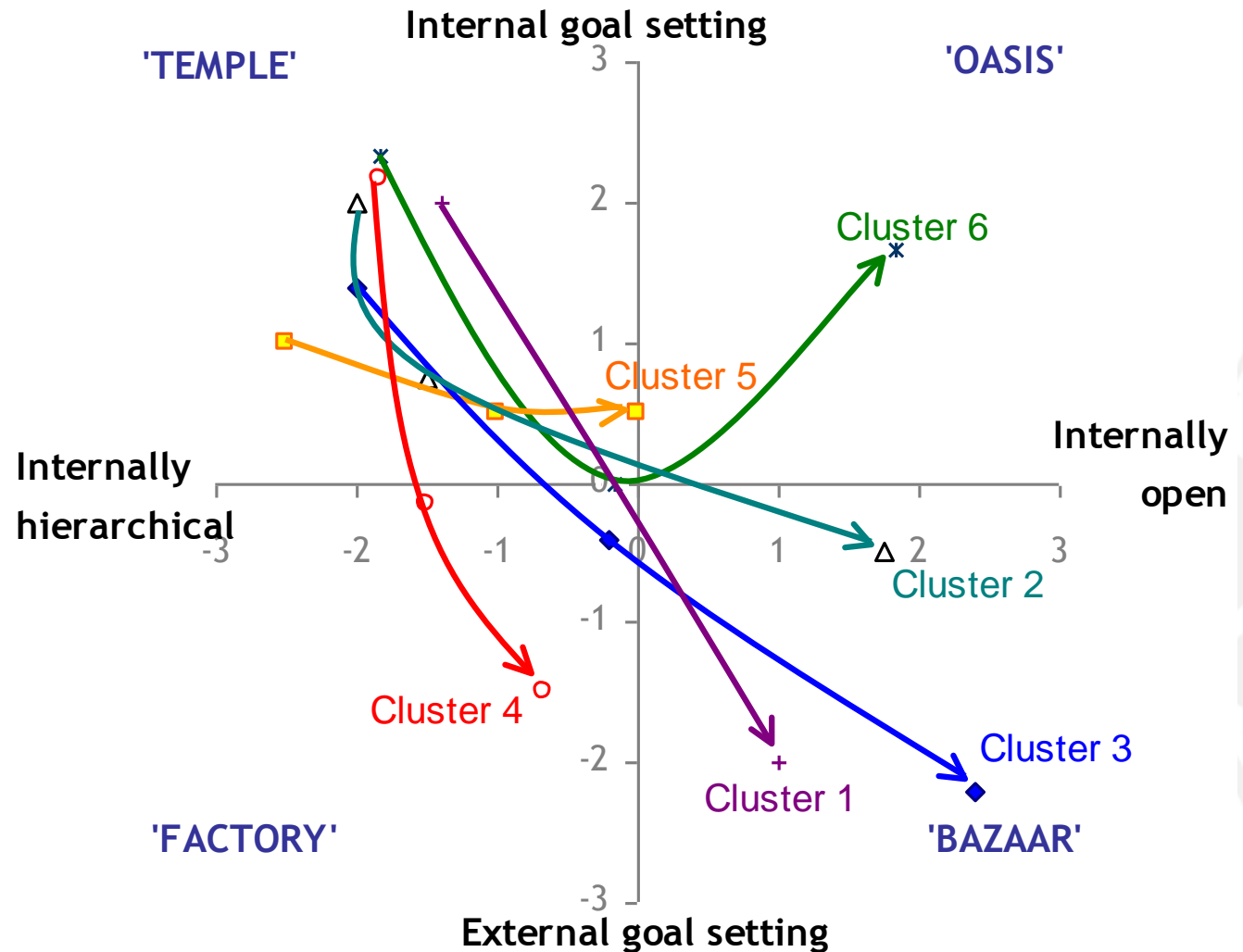


Actor roles and information flows

University culture	Temple	Oasis	Factory	Bazaar
Professor	Bishop	Colleague	Controller	Manager
Teacher & researcher	Priest	Colleague	Labor	Entrepreneur
Other employee	Verger	Colleague	Service staff	Facilitator
Student	Congregant	Colleague	Raw material	Client
MSc	Confirmed	Colleague	Product	Client
Government	Patron saint	Patron	Investor	Client
Business	Tax payer	Tax payer	Consumer	Client
Wider public	Pagan	Audience	Consumer	Consumer

The futures of university culture

Beginning point
1990
Middle point
2005
End point 2020



University culture SWOT analysis

TEMPLE		OASIS	
Strength The ones who know best make the decisions	Opportunity Knowledge economy	Strength Free flow of ideas	Opportunity Innovation economy
Weakness Lack of reflection of development outside own scientific field	Threat 'Ivory tower' exclusion Lack of funding	Weakness Re-inventing the wheel	Threat 'Ivory tower' exclusion Lack of funding
FACTORY		BAZAAR	
Strength Efficient use of resources	Opportunity Diminishing critique of using public funding	Strength Increased funding from external sources	Opportunity Applied sciences more valued
Weakness Increasing bureaucratic control	Threat Loosing academic freedom and therefore novelty of ideas	Weakness Loosing knowledge of scholastic history	Threat Loosing independence Classified research

Discussion



- From the traditional environmental point of view
 - New ideas and solutions to environmental problems are needed
 - Strong economic or political interests might hinder developing efficient environmental measures
 - Oasis
- From the societal point of view of
 - Environmental issues need to be integrated into governmental and business decision-making
 - The needs of the decision-maker should be taken into account
 - Bazaar