
Libre Software Methods for E-Education

EDUKALIBRE

4th project meeting
Genoa, 15 July 2005

Evaluation and Future Prospects

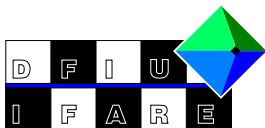
Dr. Jutta Geldermann, Jens Ludwig, Martin Treitz, Valentin Bertsch, Prof. Dr. Otto Rentz

Institute for Industrial Production

French-German Institute for Environmental Research (DFIU)

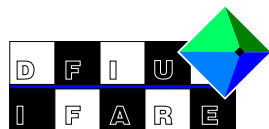
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Evaluation and Future Prospects (Winter Term 2005 / 2006)

- Evaluation: Use of the Platform during the Seminar in the Summer Term 2005
- Future Prospects:
 - × Business Game “Dynamic Production Planning under consideration of multiple criteria” (Seminar in the Winter Term 2005 / 2006)
 - × Lecture Notes for Mass and Energy Flows in the Economy / Industrial Ecology courses



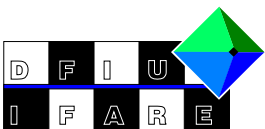
Course "Multi-Criteria Decision Support for Emergency Management" on the platform

The screenshot shows a Microsoft Internet Explorer browser window displaying a course page. The browser's address bar shows the URL: <http://edukalibre.comp.leeds.ac.uk/groupware/course/view.php?id=14>. The page title is "Kurs: Entscheidungsunterstützung im Notfallmanagement - Microsoft Internet Explorer".

The main content area is titled "Entscheidungsunterstützung im Notfallmanagement" and shows the user is logged in as "Valentin Bertsch". The course is identified as "groupware » DFIU_SS05".

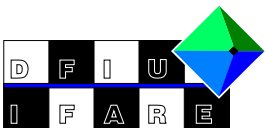
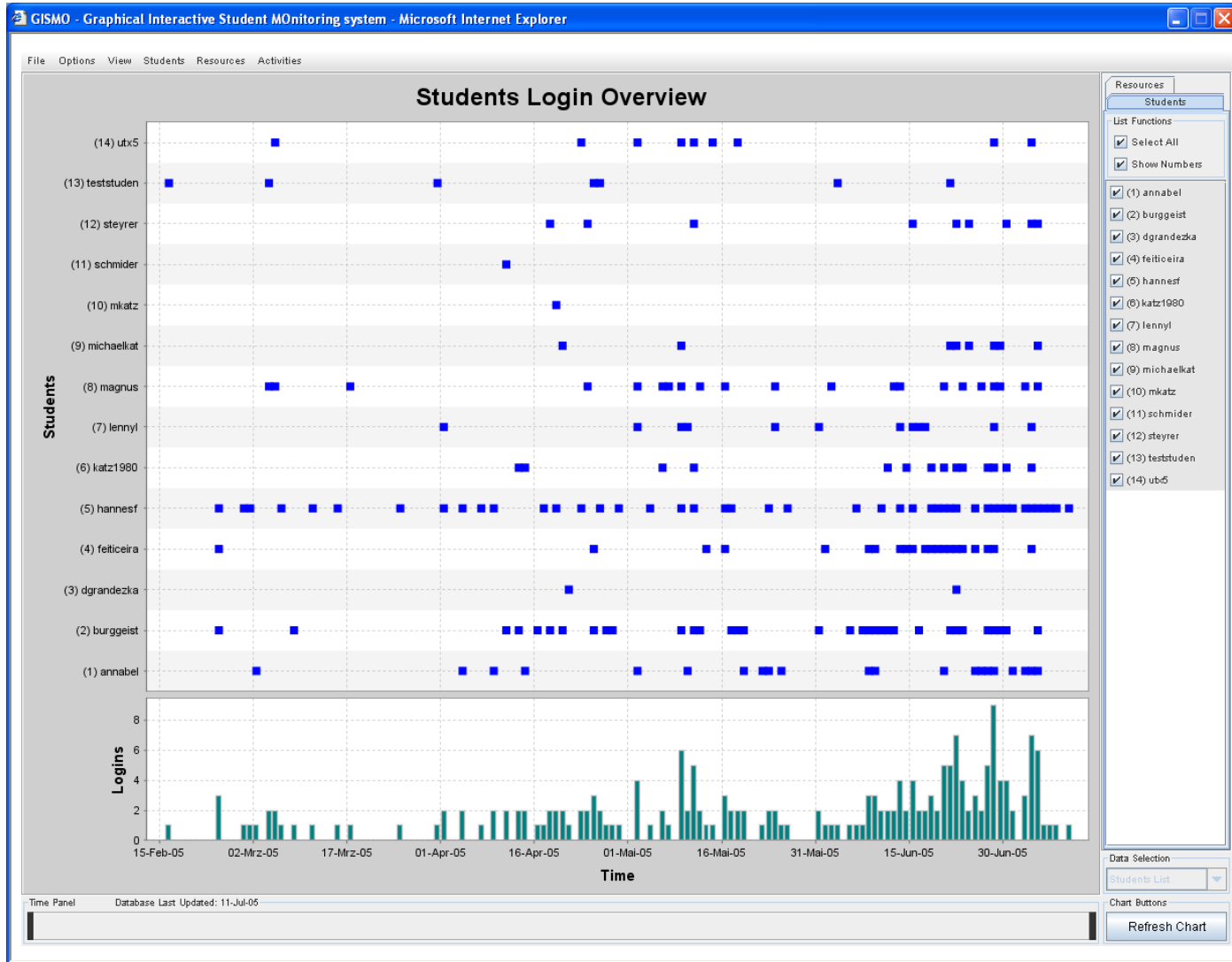
The page is divided into several sections:

- Aktivitäten:** Includes links for "Arbeitsmaterialien", "Foren", and "Groupware".
- Administration:** Includes links for "Jetzt bearbeiten", "Einstellungen...", "Betreuer...", "Teilnehmer...", "Sicherung...", "Wiederherstellung...", "Bewertungskalen...", "Punkte...", "Statistiken...", "Dateien...", "Hilfe...", and "Trainer/Innen-Forum".
- Kalender:** Shows a calendar for July 2005 with dates 4, 5, 6, 7, 8, 9, and 10 highlighted.
- Themen dieses Kurses:** Features a section for "IIP Seminar Sommersemester 2005" with the title "Entscheidungsunterstützung im Notfallmanagement". The text describes natural and human-induced crisis situations and the need for effective emergency management. It mentions a seminar for teams of two people from various industries to classify risks and describe evaluation strategies. Below this text are links for "News forum", "Handout Vorbesprechung", and "Seminararten".
- 1 Organisatorisches:** Announces seminar presentations on 6.7. (8:30-17:00) and 7.7. (8:30-12:30). A mid-session discussion is scheduled for Wednesday, 11.05.2005 (14:00-15:30) in the seminar room EG of the IIP (Building 6.33). Evaluation criteria include written work, presentation, and discussion.
- Onlinenutzer:** Shows the user "Valentin Bertsch" is online (5 minutes ago).
- Neueste Nachrichten:** Lists recent messages, including one from Jens Ludwig about page numbers and another from Valentin Bertsch about economic evaluation methods.
- Neueste Aktivitäten:** Shows the last activity on Tuesday, 12 July 2005, at 08:47.
- Suche:** A search bar is located at the bottom right.

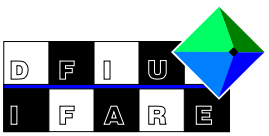
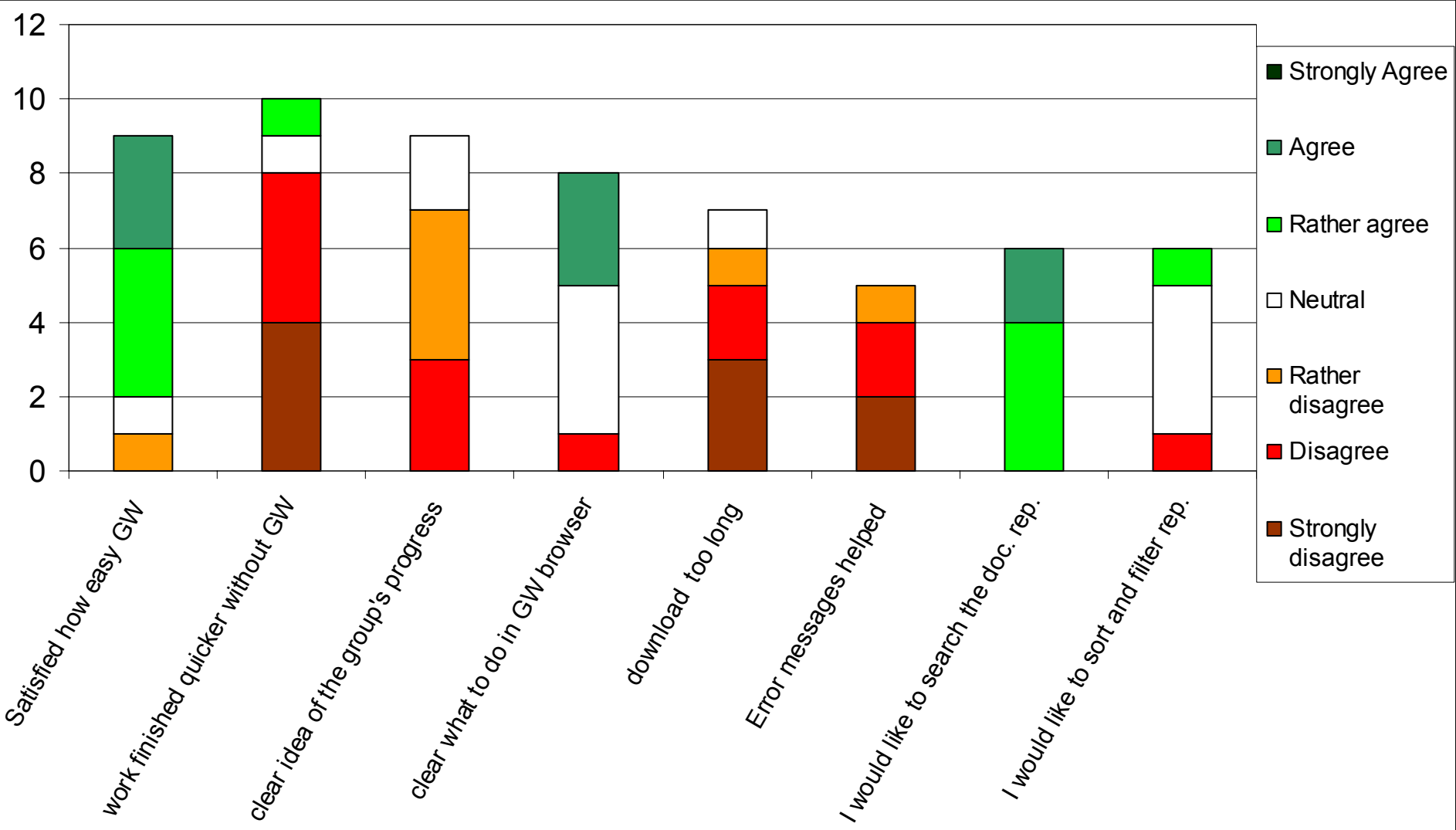


Use of the platform during the course

“Multi-Criteria Decision Support for Emergency Management”



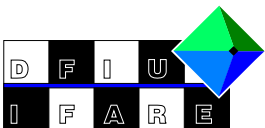
Examples of answers to the questionnaire



Comments of the students on the platform

- „Good“ features of the platform:
 - × Download of documents
 - × Discussion Board useful for posting links and files
 - × Contact to teachers very easy
 - × „Latest News“ display practical (not available for groupware?)

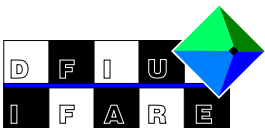
- „Bad“ features of the platform
 - × The repository browser did not always work
 - × Confusion because of too many tools (forum<>newsgroup<>groupware forum), Groupware hidden between many other links



Comments of the students on OpenOffice

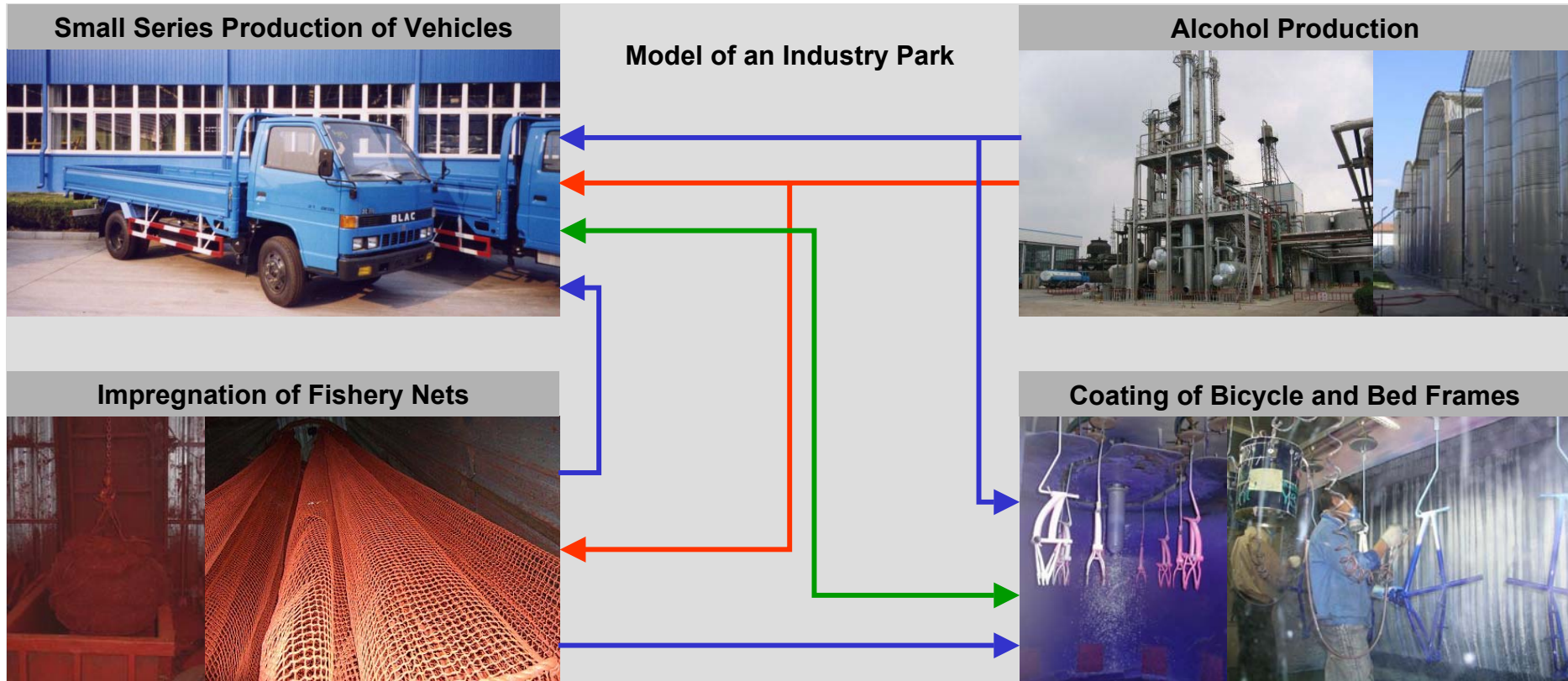
- „Good“ features of OpenOffice:
 - × Writer rather easy to use
 - × Many possibilities for formatting
 - × Can work with MS-Office documents

- „Bad“ features of OpenOffice:
 - × Different filetypes, OpenOffice 1.4 and 1.9 not fully compatible
 - × Impress rather unstable, files could not be recovered
 - × Images and tables caused problems
 - × Spell check could be improved



Four fictitious enterprises will be considered in the Business Game in the Winter Term 2005 / 2006

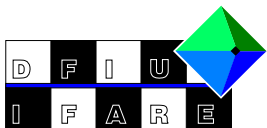
Business Game (1/3)



→ heat streams

→ water streams

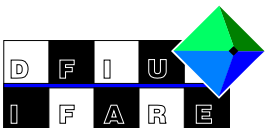
→ solvent streams



The Business Game requires a combination of MCDA and sequential decision making

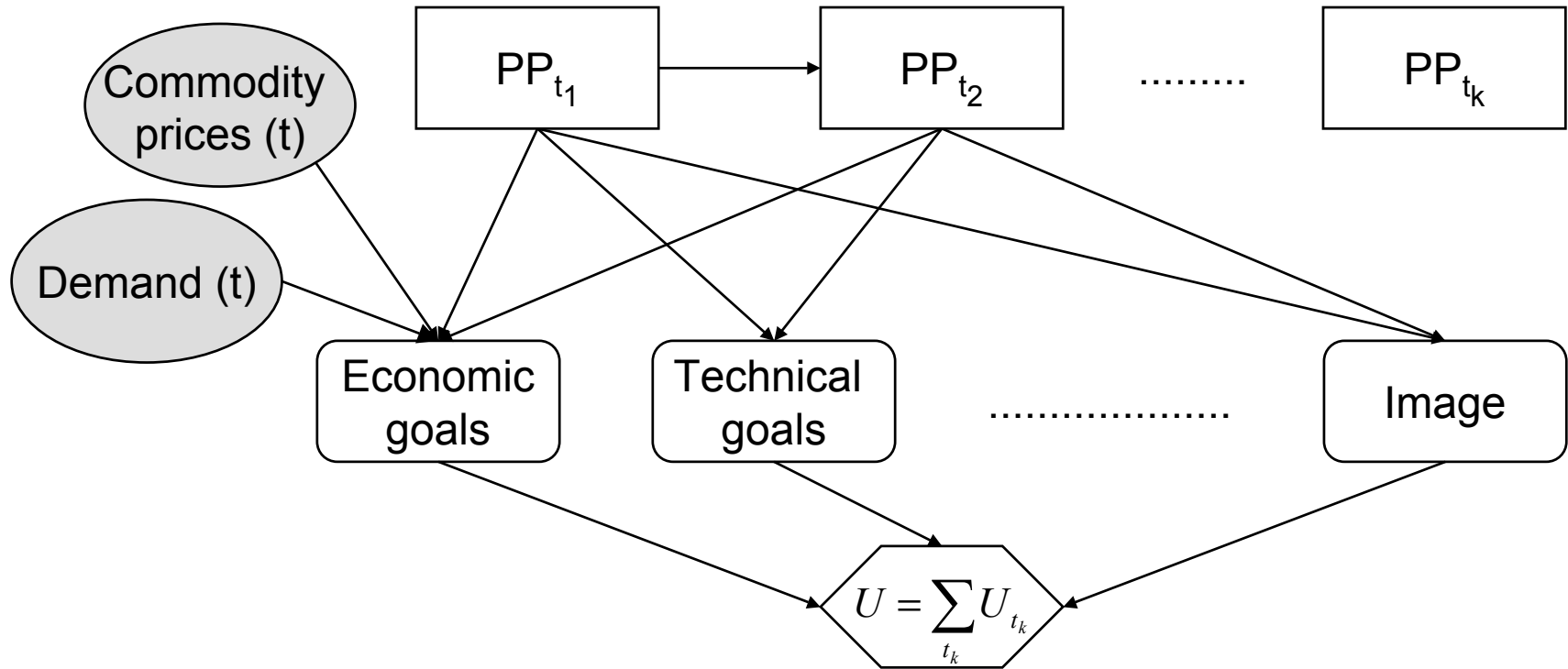
Business Game (2/3)

- Characteristics of decision making in Dynamic Production Planning
 - × Production Planning is a multi-criteria problem
 - × Dynamic Production Planning involves sequential decisions
 - × Temporally variable external influences must be considered
 - × The results of the decision analysis need to be visualised
- Teams consisting of three students each, decide about the production planning of a fictitious enterprise in several periods where the external influences – e.g. given by the world market (demand, commodity prices, etc.) – vary between the different periods
- The platform will be used to communicate with the students (e.g. to announce the situation on the world market in each period) and to upload documents and papers



Modelling sequential decision making under consideration of multiple criteria with influence diagrams

Business Game (3/3)



Where PP_{t_k} is the production planning in period t_k and $U_{t_k} = \sum_{i=1}^n w_i^{t_k} \cdot u(a_{t_k}, C_i)$, $a_{t_k} \in A_{t_k}$

Questions concerning the future and sustainability of the platform after the end of the project

- Can the platform be used after the end of the project? How long?
 - × Collaborative improvement of Lecture Notes for Mass and Energy Flows in the Economy / Industrial Ecology courses
 - × Collaborative development / improvement of the MADM-tool
 - × Continuous update of Technical Background Documents (UNECE Protocols, CAFE – Clean Air For Europe Programme of the European Commission)

- Follow-up Project?

