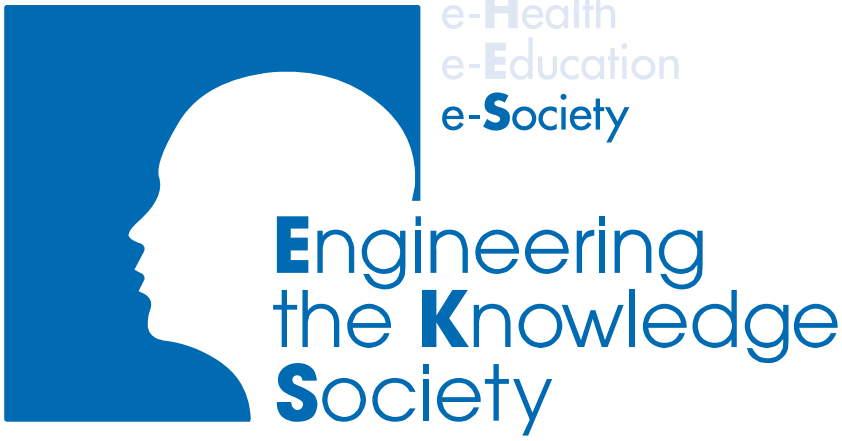
# F-ONE

Federating Observatories and Networking for Education

Münchenwiler – oct. 2004

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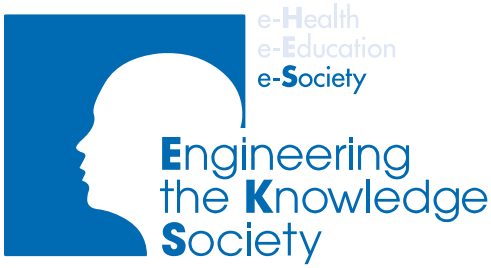



SATW[1] ICT[2] Commission
http://ict.satw.ch/
Workshop Münchenwiler – 10. bis 12. Oktober 2004

# F-ONE – Federation Observatories and Networking for Education

# From Observation to Action: Challenges for Policy and Decision Makers in the Field of ICT in School Education

Mit der Organisation dieses Workshops hat die ICT Commission der SATW einer internationalen Expertengruppe aus über zehn europäischen Fachgremien **Gelegenheit geboten, die praktische Anwendung neuer Technologien im Bildungswesen und die Umsetzung neuer Lehr- und Lernformen und -methoden zu diskutieren und Erfahrungen auszutauschen**.

**Auslöser und Motivation für diesen Workshop bildet die Notwendigkeit, den EntscheidungsträgerInnen im Bildungswesen**

- den Zugang zu Untersuchungen zu erschliessen, welche für ihre Entscheidungen und Massnahmen relevant, objektiv und verlässlich sind, und ihnen den Vergleich der Resultate zu ermöglichen;
- die Ergebnisse der Analysen und Studien, welche sich an sogenannten good practices orientieren, für die praktische Umsetzung auf nationaler, regionaler und/oder lokaler Stufe zu präsentieren;
- eine Gelegenheit zur Darstellung der Bedürfnisse und zum Informationsaustausch auf der Basis der zahlreichen laufenden praktischen Arbeiten zu bieten;
- Tendenzen und Entwicklungsszenarien aufzuzeigen, welche durch den Einsatz von ICT im Bildungswesen entstehen, Veränderungen auslösen und Chancen für Neugestaltung eröffnen;
- die Rollen der verschiedenen Fachgremien im europäischen Bildungswesen darzustellen und Möglichkeiten einer gegenseitigen gemeinsamen Nutzung der Aktivitäten sowie der Konvergenz von Bestrebungen und Leistungen zu erörtern.

Als Ergebnis zweier intensiver Arbeitstage und dank methodischem und bewährtem Vorgehen präsentiert sich der Leserin und dem Leser dieser Broschüre in der standardisierten Darstellungsform der SATW ICT Commission

- eine verdichtete Darstellung der ermittelten Resultate (Projekt F-ONE),
- eine Auflistung der im Vorfeld des Workshops geleisteten Arbeiten,
- eine Zusammenstellung der zahlreichen und vielfältigen Beiträge während der Veranstaltung (Exposés, Fallstudien, persönliche Beiträge der Teilnehmenden etc.),
- eine Bibliografie der Teilnehmenden, sowie
- eine kurze Darstellung der Aktivitäten der SATW ICT Commission und der Zielsetzungen der SATW.

Die Broschüre und die einzelnen Beiträge stehen auch in elektronischer Form zur Verfügung und sind unter der Adresse http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=55 publiziert.

**Was bei den Teilnehmenden dieser Veranstaltung den stärksten Eindruck hinterlassen hat, war die Erkenntnis über die Notwendigkeit der Vernetzung der zahlreichen Fachgremien und einer engen Zusammenarbeit, um die Kräfte in den mannigfaltigen** Arbeitsgebieten zu bündeln und die Anstrengungen angesichts der unterschiedlichen Kenntnisse, Standpunkte, Methoden und Vorgehensweisen zu intensivieren.

Zu diesem Zweck wurde die Auslösung des Projekts F-ONE (ODL[3] and ICT in Education) beschlossen, basierend auf einem Vorstoss des Kaders der Minerva, welcher zusammen mit 70 weiteren unter rund 300 Eingaben zurückgehalten worden war (zur Präzisierung: die Beschreibung des Projekts F-ONE erfolgte bereits im März 2005; der negative Bescheid seitens der Experten wurde nach sechs Monaten im Herbst 2005 bekanntgegeben).

Nun hat sich die Idee neue Energie verschafft. Die Probleme sind erkannt und liegen aktuell auf dem Tisch. Die Vernetzung hat stattgefunden und trägt erste Früchte. An den EntscheidungsträgerInnen und an den direkt Beteiligten liegt es nun, Massnahmen zu treffen und die nötigen Schritte im Rahmen des Rahmenprogramms »Life Long Learning« auszulösen.

Raymond Morel
Präsident der SATW ICT Commission

Fulvio Caccia
Vizepräsident der SATW

Dezember 2005

**Weitere bereits erschienene Publikationen der SATW ICT Commission sind im Web unter folgenden Adressen abrufbar:**

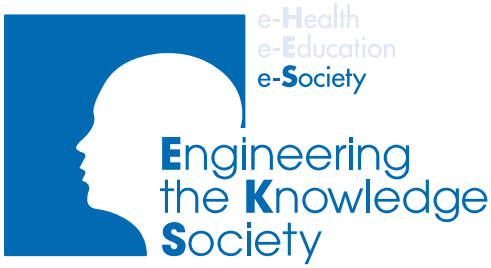
N° 1 Abstracts EKS Forum, Dezember 2003 (WSIS)
http://ict.satw.ch/SPIP/IMG/pdf/gen200312.pdf

N° 2 e-Society, November 2004
http://ict.satw.ch/SPIP/IMG/pdf/mun200411.pdf

N° 3 F3-MITIC, Mai 2003
http://ict.satw.ch/SPIP/IMG/pdf/mun200305.pdf

N° 4 Competencies Referential(s), September 2004
http://ict.satw.ch/SPIP/IMG/pdf/mun200409.pdf

1 Schweizerische Akademie der Technischen Wissenschaften, http://www.satw.ch
2 Information & Communication Technologies
3 Open and Distance Learning




Commission ICT [1] de la SATW [2]
http://ict.satw.ch/
Workshop des 10 au 12 octobre 2004 à Münchenwiler

# F-ONE – Federation Observatories and Networking for Education

## From Observation to Action : Challenges for Policy and Decision Makers in the Field of ICT in School Education

En organisant cette rencontre internationale sous ce titre évoquant les défis liés aux stratégies et au pilotage des ICT dans l'éducation, la Commission ICT de la SATW offrait à des experts de plus de dix observatoires en Europe **une occasion d'échanger les pratiques et de mettre en œuvre certaines synergies**.

**En effet la problématique abordée était celle de la nécessité pour des décideurs** :

- d'avoir accès à des recherches de pointes significatives et de pouvoir les comparer objectivement (distinction entre stratégies, recherches et évaluations )
- de disposer d'analyses et d'études de cas pertinents tant sur les bonnes pratiques que sur les difficultés rencontrées dans la mise en œuvre de politiques nationales, régionales et / ou locales
- de pouvoir dégager et échanger sur la nature des besoins et simplifier l'accessibilité aux données pertinentes parmi les nombreux travaux en cours
- d'expliciter les tendances et les scénarios de l'évolution des ICT dans l'éducation, comme vecteurs de choix de systèmes éducatifs en mutation
- de faire émerger les rôles des différents observatoires en Europe et, si possible, d'envisager une mutualisation des activités ou une convergence des prestations pour les décideurs

Après deux jours de travail intense, avec une méthodologie bien connue et surtout rôdée, le lecteur retrouvera dans ce document la structure standard des fascicules de la COM ICT avec d'abord les résultats obtenus( le projet F-ONE), puis le travail produit avant le workshop, suivi d'un échantillon des contributions multiples et diversifiées pendant la manifestation (exposés, study case, contribution personnelle de participants, etc.), pour se terminer avec des références bibliographiques et un bref rappel des activités de la COM ICT et des objectifs de la SATW. Il convient encore de rappeler que le présent document est téléchargeable en pdf avec de nombreux liens sur les exposés complets (powerpoint) et les références. http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=55

**Le point qui a le plus étonné les participants est celui d'avoir vécu irrémédiablement, en dépit de méthodes, d'options et de domaines de travail fort différents, l'émergence de la nécessité d'une fédération d'observatoires en Europe** : ce qui a donné lieu d'abord à une pré-proposition F-ONE dans le cadre de Minerva (ODL3 and ICT in Education), puis, cette dernière étant retenue avec 70 autres, parmi près de 300 déposées, il y a eu la rédaction pour mars 2005 du projet F-ONE proprement dit. Après 6 mois chez les experts, la réponse négative est tombée en automne.

Peu importe ! l'idée est dans l'air, les problèmes sur le terrain sont bien réels et toujours actuels pour les décideurs. Le réseautage est maintenant en place ! C'est au tour des décideurs et des acteurs directement concernés d'œuvrer avec tact et réalisme pour passer un tel projet dans le cadre du prochain programme sur le LifeLong Learning.

Raymond Morel
Président de
la Commission ICT
de la SATW

Fulvio Caccia
Vice-président de la SATW

Décembre 2005

**Les autres fascicules déjà parus sont :**

N° 1 Abstracts EKS Forum, décembre 2003 (WSIS)
http://ict.satw.ch/SPIP/IMG/pdf/gen200312.pdf

N° 2 e-Society, novembre 2004
http://ict.satw.ch/SPIP/IMG/pdf/mun200411.pdf

N° 3 F3-MITIC, mai 2003
http://ict.satw.ch/SPIP/IMG/pdf/mun200305.pdf

N° 4 Competencies Referential(s), septembre 2004
http://ict.satw.ch/SPIP/IMG/pdf/mun200409.pdf

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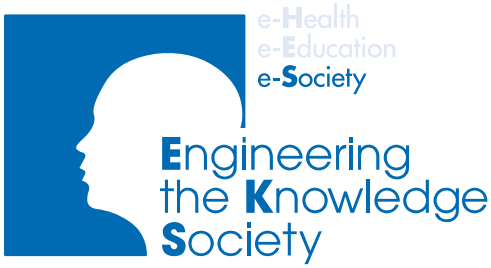
1 ICT : Information and Communication Technologies
2 SATW : Académie suisse des sciences techniques
http://www.satw.ch
3 ODL : Open and Distance Learning




Commission ICT [1] de la SATW [2]
http://ict.satw.ch/
Workshop des 10 au 12 octobre 2004 à Münchenwiler

# F-ONE – Federation Observatories and Networking for Education

## From Observation to Action : Challenges for Policy and Decision Makers in the Field of ICT in School Education

Through the organisation of this international seminar on the challenges related to the strategies and the monitoring of ICT in education, the ICT committee of the SATW **offered to experts of more than ten observatories in Europe the opportunity to exchange practices and to implement certain general synergies**.

**The adopted approach was indeed the necessity for decision-makers** :

- to have access to significant advanced research results and to be able to compare them objectively (distinction between strategies, research and evaluations)
- to have available analysis and studies of relevant cases both on the good practices and on the difficulties met in the implementation of national, regional and / or local policies
- to be able to identify and exchange on the nature of needs and to simplify the accessibility to the relevant data among the numerous projects.
- to clarify the tendencies and the scenarios of the evolution of the ICT in education, as vectors of choice of education systems in evolution.
- to bring in evidence the roles of the various observatories in Europe and, if possible, to envisage a mutualization of the activities or a convergence of the services for the decision-makers

After two days of intense work, with a well established and proven methodology, the reader will find in this document the standard structure of the reports of the COM ICT with first the obtained results (the F-ONE project), then the work produced before the workshop, followed by a sample of the many and diversified contributions during the workshop (presentations, case studies, participants' personal contributions) and ending with bibliographical references and a summary of the activities of the COM ICT and the objectives of the SATW.

Please note that the present document is downloadable (pdf) with numerous links to the full texts (powerpoint) and the references : http://ict.satw.ch/SPIP/rubrique.php3?Id_rubrique=55

**What most amazed the participants was to have really lived, in spite of various methods, options and very different working domains, the emergence of the necessity of a Federation of Observatories in Europe**. This induced first a pre-proposal F-ONE within the framework of Minerva (ODL3 and ICT in Education), then, after being selected with 70 others among about 300 proposed, the final project F-ONE which was finalised in March 2005. After 6 months spent by the experts, the negative answer fell in autumn.

It doesn't matter much! The idea is here, the problems at hand are very real and always in front of the decision-makers. The networking is in place and it is now up to the decision-makers and the actors directly concerned to work tactfully and with realism to include such a project within the framework of the next program on LifeLong Learning.

Raymond Morel
Chairman of
the SATW ICT
Commission

Fulvio Caccia
SATW Vice-Chairman

December 2005

**Other already appeared booklets are:**

N° 1 Abstracts EKS Forum, december 2003 (WSIS)
http://ict.satw.ch/SPIP/IMG/pdf/gen200312.pdf

N° 2 e-Society, november 2004
http://ict.satw.ch/SPIP/IMG/pdf/mun200411.pdf

N° 3 F3-MITIC, may 2003
http://ict.satw.ch/SPIP/IMG/pdf/mun200305.pdf

N° 4 Competencies Referential(s), september 2004
http://ict.satw.ch/SPIP/IMG/pdf/mun200409.pdf

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1 ICT: Information and Communication Technologies
2 SATW: Académie suisse des sciences techniques
http://www.satw.ch
3 MITIC: Médias, Images et Technologies de l'Information et de la Communication

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# Partie A

## Résultats du Workshop du 10 au 12 octobre 2004 à Münchenwiler

# SOCRATES PROGRAMME

Extract from the

# Application Form for Full Proposals
# MINERVA : (ODL and ICT in EDUCATION)
# The F-ONE project

## 1. Project

F-ONE Federating Observatories and Networking for Education (24 months)

### Summary of the project

F-ONE aims to de-fragment and to network existing observatory data and research findings in the field of ICT in education and training systems so as to improve accessibility and usability of this information to decision and policy makers. The project aims to promote a dialogue between analysis, observation and policy implementation and include under-documented national policies and practices in Central and Eastern European countries. The objectives of F-ONE are :

1) to increase transparency in the area of observation activities,
2) to raise awareness of the potential benefits for decision makers and stakeholders,
3) to mediate between national policy demands and international observation activities,
4) to effectively disseminate relevant reflections and findings,
5) to create synergies between the observation activities through different means (federation building, seminars, information services).

F-ONE starts from concrete policy and decision making cases from different European countries and merges relevant data from existing data sources (« ICT Observatories ») with assessments of experts in the field of ICT in education. The results of this case and knowledge construction process will be assessed in national test bed seminars with stakeholders. In parallel, providers of observatories will be invited to join a Federation of Observatories in order to create synergies and to improve the meeting of needs of decision makers.

### Duration

24 months

#### Participating institution N° 1

| | |
|---|---|
| Full legal name of the institution in the national language | ecmc Europäisches Zentrum für Medienkompetenz GmbH |
| Acronym of the institution, if applicable | ecmc http://www.ecmc.de |
| Full name of the institution in English (formal or informal translation) | European Center for Media Competence |

#### Coordinator

| | | | |
|---|---|---|---|
| Title (optional) (e.g. Mr, Mrs, Prof, Dr, …) | Dr | | |
| Family name: | Gapski | First name: | Harald |
| Department / Unit | Project Development (ECMC) | | |

#### Participating institution N° 2

| | |
|---|---|
| Full legal name of the institution in the national language | MENON Network EEIG (European Economic Interest Group) |
| Acronym of the institution, if applicable | MENON http://www.menon.org |

### Participating institution N° 3

| | |
|---|---|
| Full legal name of the institution in the national language | UNI-C, Danmarks IT-Center for Uddannelse og Forskning |
| Acronym of the institution, if applicable | UNI-C |
| Full name of the institution in English (formal or informal translation) | The Danish IT Center for Education and Research<br>http://www.uni-c.dk |

### Participating institution N° 4

| | |
|---|---|
| Full legal name of the institution in the national language | EENet European Experts' Network for Education and Technology e.V. |
| Acronym of the institution, if applicable | EENet |
| Full name of the institution in English (formal or informal translation) | EENet European Experts' Network for Education and Technology e.V<br>http://www.eenet.org |

### Participating institution N° 5

| | | | |
|---|---|---|---|
| Full legal name of the institution in the national language | Schulen ans Netz e.V. | | |
| Acronym of the institution, if applicable | SAN | | |
| Full name of the institution in English (formal or informal translation) | Schools online http://www.schulen-ans-netz.de | | |
| Type of institution code | ASS.1 | Erasmus ID code, for Higher Education Institutions only | |

### Participating institution N° 6

| | |
|---|---|
| Full legal name of the institution in the national language | University of Dublin, Trinity College<br>CRITE Center for Research in IT in Education<br>[Legal name: Provost, Fellows and Scholars of the College of the Holy and Undivided Trinity of Queen Elizabeth near Dublin]<br>http://www.cs.tcd.ie/crite |

### Participating institution N° 7

| | |
|---|---|
| Full legal name of the institution in the national language | Eötvös Loránd Tudományegyetem, Természettudományi Kar, UNESCO Onformációtechnológiai Pedagógiai Központ |
| Acronym of the institution, if applicable | ELTE |
| Full name of the institution in English (formal or informal translation) | Eötvös Loránd Tudományegyetem, Természettudományi Kar, UNESCO Onformációtechnológiai Pedagógiai Központ<br>http://www.elte.hu/ |

### Participating institution N° 8

| | |
|---|---|
| Full legal name of the institution in the national language | Educational Assessment and Monitoring |
| Acronym of the institution, if applicable | EdAsMo |
| Full name of the institution in English (formal or informal translation) | Educational Assessment and Monitoring<br>pelgrum@edte.utwente.nl |

### Participating institution N° 9

| | |
|---|---|
| Full legal name of the institution in the national language | Nationellt Centrum för Flexibelt Lärande, CFL |
| Acronym of the institution, if applicable | CFL |
| Full name of the institution in English (formal or informal translation) | Swedish Agency for Flexible Learning http://www.cfl.se |

### Participating institution N° 10

| | |
|---|---|
| Full legal name of the institution in the national language | Sheffield Hallam University |
| Acronym of the institution, if applicable | SHU |
| Full name of the institution in English (formal or informal translation) | Sheffield Hallam University http://shu.ac.uk |

### Participating institution N° 11

| | |
|---|---|
| Full legal name of the institution in the national language | Schweizer Akademie der Technischen Wissenschaften |
| Acronym of the institution, if applicable | SATW |
| Full name of the institution in English (formal or informal translation) | Swiss Academy of Engineering Sciences http://www.satw.ch |

### Participating institution N° 12

| | |
|---|---|
| Full legal name of the institution in the national language | Tallinna Pedagoogikaülikool |
| Acronym of the institution, if applicable | TPU |
| Full name of the institution in English (formal or informal translation) | Tallinn Pedagogical University http://www.tpu.ee http://www.htk.tpu.ee |

## 2. Rationale, Objectives, Target Group

### 2.1 Educational systems in Europe

There is increasing evidence that almost all educational systems in Europe and the rest of the world have entered a prolonged period of changes, which is challenging the basic assumptions and objectives of comprehensive education as the means to alleviate social differences and increase mobility between social classes – economic growth and social cohesion. The pervasiveness of ICT in our modern societies, in particular, being a driving factor of change, are expected to be an integral part of teaching, learning and organisational developments in the education and training systems. Over the last decade major efforts have been undertaken by public and private stakeholders to promote the use of ICT in educational settings. At the same time a significant number of research and comparative studies have tried to investigate the complexity of interrelated factors on various levels of the educational systems. The integration of ICT in education can be understood as a complex and multi-dimensional process.

Depending on the level of analysis sought, a huge amount of data can be found which refer not only to the relatively recent needs to better understand the impact of ICT on the learning systems, but to the issues of performance and investments in education as well ; there are statistical databases on education systems, case studies, research projects and a number of so-called « Observatories », which are collecting relevant data in the field. These observation and analysis activities in the education and training systems can be characterised by (a) having an empirical and methodological approach, (b) presenting qualitative and/or quantitative data in a systematic way, (c) reflecting the needs and trying to analyse outcomes and effects, (d) including an (international) comparative perspective, (e) publishing results regularly. Examples of these observation activities are the studies of OECD (e.g. www.pisa.oecd.org), the EURYDICE (www.eurydice.org), the INSIGHT project by the European Schoolnet (insight.eun.org), the Educational Observatories by MENON (www.education-observatories.net), the European Quality Observatory (www.eqo.info) and the

SITES-project, the international comparative indicator studies focussing on ICT and pedagogical practices, which are run under the auspices of IEA (www.iea.nl).

*But do decision makers in educational systems take full advantage of these « Observatories » ? Are synergies created between the existing Observatories ? Is there a regular exchange of findings and reflections among the relevant actors, the observation bodies and their potential users ? Are policies and good practice in Central and Eastern European countries sufficiently represented in studies ?*

The project F-ONE – Federating Observatories and Networking for Education – tackles these issues in order to support the exchange of knowledge and experiences and enhance our understanding and decision-making capacity, relating to e-learning and the use of ICT as well as the monitoring and analysis of the major developments and trends in educational systems. It increases the level of awareness about present trends and innovation in the field of ICT in educational systems by mediating the supply of analysed data with the needs of the users (decision makers).

## 2.2 Overall objective and the specific objectives of the project

The overall objective of the F-ONE project is to foster the exchange of knowledge and experience across Europe. F-ONE aims to de-fragment and to network existing observatory data and research findings so as to improve accessibility of this information to decision and policy makers. The project aims to facilitate the dialogue between observation and policy implementation and shed light on under-documented national policies and practices in Central and Eastern European countries. The specific objectives of F-ONE are :

1. to increase transparency in the area of observation activities
2. to raise awareness of the potential benefits for decision makers and stakeholders
3. to mediate between national policy demands and international observation activities
4. to effectively disseminate relevant reflections and findings
5. to create synergies between the observation activities through on-line means (federation building, seminars, information services)

## 2.3 The innovative aspects of this project

– F-ONE has its starting point in real and pragmatic decision problems (« decision making cases »).
– F-ONE is not a compilation of data and figures but links these specific decision making cases with knowledge and assessments from experts as well as empirical evidences (Observatory data).
– F-ONE implements and tests a comprehensive and multi-level valorisation strategy by using decision cases, group work, test bed seminars, and various dissemination activities.
– At present there is no common information documentation & contextualization scheme for educational observatories available : F-ONE does a mapping of relevant observatories and has an open, flexible and expandable structure. Also Observation activities in non-European countries, closely related to the thematic area, will be included in the Observatory Inventory Database.
– The envisaged Federation of Educational Observatories would strengthen the implementation of the e-Learning action plan. Several members of F-ONE participate in the « ICT in Education » Expert Group of the Education & Training 2010 Process of the EU and can serve as an interface.
– « Test Bed Seminars » in national languages will bring the findings and results of educational observatories directly to the target group. These seminars in Central and Eastern European Countries will provide networking facilities and yield data not readily accessible in existing databases on ICT related educational policy making and good practice in these areas.
– The technical use of syndication (RSS feeds) as a method for disseminating relevant information on the web is new in this context.
– F-ONE has a strong European focus given the involved project partners. Special attention will be paid to the Eastern European activities as these new member countries have been launching huge national research and innovation projects in the field of educational computing that need international policies and good practice. A special section in the project website and a seminar organised by the Hungarian and the Estonian partner will facilitate the inclusion of Eastern and Central European national ICT observatories and approach policy makers in this area.
– F-ONE is supported by European Experts' Network for Education and Technology (EENet) which ensures the continuation of the services after the funding phase (sustainability)

## 2.4 Specific pedagogical and didactical approaches that will be tested

*(Note : Please compare Gantt chart with task numbers for references,* *see p. 17)*

F-ONE starts from the identification of pragmatic and real decision making cases for policy makers in the field of ICT in education. On the basis of research findings (T2.1) and previous projects e.g. DELOS or HELIOS (see partner organisation no. 2, section 4.1) a questionnaire with open questions will be created (T2.2). In order to have a high level of validity an especial effort will be put on the broad variation among analysed cases : Eight different environments will be analysed in Estonia, Denmark, Hungary and Switzerland (T2.3). These environments vary in terms of centralised / decentralised system, degree of ICT penetration in the educational system, socio-cultural as well as political background. Two policy makers / decision makers on different levels (national / regional) from each of these four countries will be interviewed by using the structured interview guideline (T2.2). The outcome of these set of eight interviews are two condensed and specific decision making questions (« cases ») per country, e.g. questions on « ICT Teacher Competence Building Schemes » or « Technical Support Solutions for Schools ». Which (observatory) data is needed in order to support the decision making in these particular cases ? Is this information available at all ?
In order to answer these questions, experts in the consortium will compile relevant findings and data according to a common data set structure (T3.1), e.g. evaluation of a « national strategy on ICT teacher competence building » or « total cost of ownership calculations for school support ». These specific data items as well as data on observatories will be entered in the data base (T3.2), implemented as an integral part of the project website (WP4).
In the Case and Knowledge construction phase (WP 6) three levels of information / knowledge will be related and merged (T6.1) :

a) the **specific decision making case** and its rationale as investigated in the interview with the decision maker
b) the identified related **data records from observatory and research findings**
c) the **knowledge and expertise from various experts** of the F-ONE consortium who are able to reflect on the context of (a), to analyse on the relations between (a) and (b), and to annotate and assess described decision cases.

This merging of cases, sources and knowledge (a+b+c), will take place in a 2-3 days workshop. Outcome of this workshop are well elaborated and documented cases publicly available on the website.
The validity of this constructed knowledge will be tested in national seminars, the so-called test bed seminars (WP7). In the presence of the decision makers interviewed and other stakeholders the results of case and knowledge construction phase (WP 6) will be presented, discussed and evaluated (WP9). The national test bed seminars are an essential element for raising awareness and reaching the target group. The database of F-ONE will be used to retrieve relevant information from the databases and observatories and to discuss various approaches. From a technical point of view the « Syndication » of content through RSS guarantees an updating of the information.
The evaluation results of these workshops and the responses from the participants will be an important feedback mechanism for working on remaining « white spots » in the observatory landscape and improving the offered services of F-ONE (WP9).

## 2.6 Target groups

Specify the nature (pupils, students, teachers, decision makers, researchers…) the educational context and the sizes of the **groups involved** in the project and/or the **end users** of the results, and describe the different impacts envisaged.
The target groups of F-ONE are

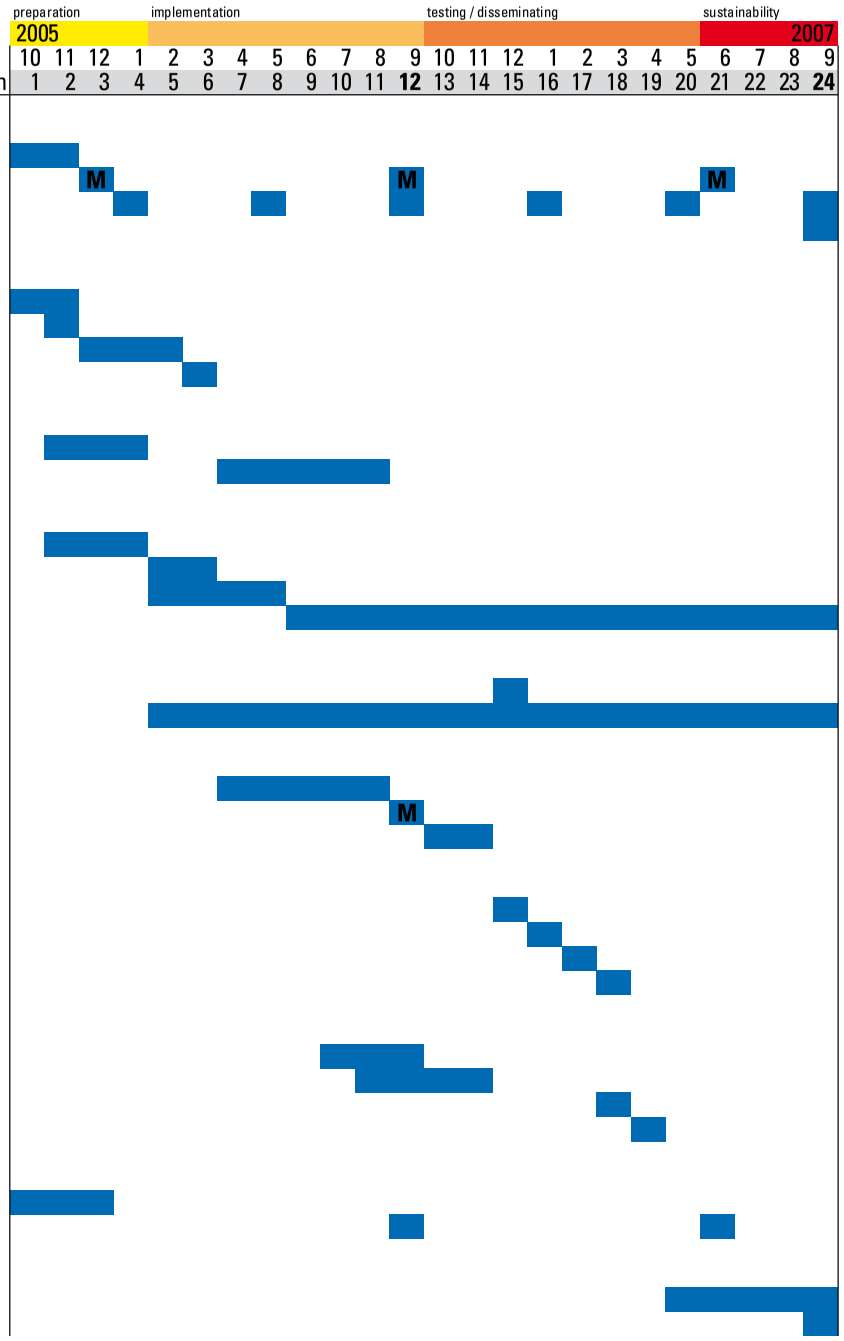
– Regional, National, European and International educational policy makers
– decision makers in national and international agencies who run ICT initiatives and programmes to promote ICT in educational contexts
– decision makers from the private sector
– educational researchers and networks.

## 2.7 Justify the duration of the Socrates support requested (one, two or three years)

Given the size of the consortium, the scope and the number of valorisation activities, the project has a minimum duration of two years. During this period of time four phases can be distinguished :

– **Preparatory phase** : refined work programme and task descriptions, research on related projects and previous findings, mapping of existing data sources and definition of evaluation methodology and indicators.
– **Implementation phase** : on the basis of defined standards and specifications the technical implementation of tools and the construction of knowledge will take place.
– **Testing and dissemination phase** : The networked observatories and the constructed and assessed cases will be tested and presented in national workshops in at least seven European countries.
– **Sustainability phase** : The experience of the testing phase and the evaluation results will be taken into account when developing a sustainable strategy for maintaining the F-ONE services after the end of the funding phase.

# GANTT CHART: TASKS AND TIME




| WP | Title | Organisation Lead | Organisation Involved |
|---|---|---|---|
| **1** | **Project management** | **ecmc** | |
| 1.1 | Detailed Workplan | ecmc | |
| 1.2 | Project Management Meetings (3) | ecmc | all |
| 1.3 | Quarterly Progress Reports | ecmc | all |
| 1.4 | Final Report | ecmc | all |
| **2** | **Decision Making Cases** | **SATW** | |
| 2.1 | Desk research on decision makers needs | MENON | |
| 2.2 | Development of questionnaire | SATW | |
| 2.3 | Interviews in CH, DE, DK, EE (2 in each country) | SATW | UNI-C, TPU, SAN |
| 2.4 | Summary report on 8 specific decision cases (questions) | SATW | |
| **3** | **Observatory Mapping** | **MENON** | |
| 3.1 | Definition of (observatory) data framework | MENON | ecmc |
| 3.2 | Collecting data on existing observatories and relevant findings | MENON | all |
| **4** | **Internet Services / Website** | **ecmc** | |
| 4.1 | Concept, technical specifications (RSS, DB, CMS) | ecmc | all |
| 4.2 | Technical implementation Observatory DB | ecmc | |
| 4.3 | Technical implementation (website, News DB, search) | ecmc | |
| 4.4 | Newsletter and News services | EENet | |
| **5** | **Observatory Federation Building** | **MENON** | |
| 5.1 | Workshop with Obs. providers | MENON | |
| 5.2 | Process of federation building / Memorandum / Syndication of news | MENON | all |
| **6** | **Case & Knowledge construction** | **ELTE** | |
| 6.1 | Merging Interview outcomes (questions, 2.4) with Obs. data (3.2) | ELTE | all |
| 6.2 | Case Construction Workshop: analysing, reflecting, assessing D6.1 | ELTE | all |
| 6.3 | Documentation of constructed cases on website | SHU | |
| **7** | **Test Bed Seminars** | **ELTE** | |
| 7.1 | in Denmark | UNI-C | |
| 7.2 | in Estonia | TPU | |
| 7.3 | in Germany | SAN | |
| 7.4 | in Switzerland | SATW | |
| **8** | **Dissemination** | **CFL** | |
| 8.1 | Dissemination Plan | CFL | |
| 8.2 | Flyer design and production (sub-contact) | CRITE | |
| 8.3 | Decision maker seminar in Sweden | CFL | |
| 8.4 | Decision maker seminar in Brussels / BE | MENON | |
| **9** | **Evaluation, Quality Assurance** | **EdAsMo** | |
| 9.1 | Evaluation plan with indicators | EdAsMo | |
| 9.2 | Evaluation Reports | EdAsMo | |
| **10** | **Sustainability Concept** | **EENet** | |
| 10.1 | EENet maintainance and sustainability concept | EENet | MENON |
| 10.2 | EENet workshop | EENet | all |

After two years F-ONE will be integrated in the work programme of EENet in order to secure the maintenance and the further development of the project and its services (Continuation phase).

## 3. Expected outputs

In general, F-ONE will increase, strengthen and enhance

- transparency of existing data resources and stock staking of relevant ICT observatories
- communication between educational observatory providers and decision makers
- knowledge exchange among European states, in particular between new member states and West European states
- levels of contextualisation and reflection in view of educational objectives and visions, methodologies and approaches, research and assessments.

| Delivery | Output | Main Responsibility | Scope, Structure | Language |
|---|---|---|---|---|
| D1.1-D1.4 | Refined Work plan (D1.1), Project management meetings (D1.2), Quarterly progress reports (D1.3), Final report (D1.4) | ecmc | 3 Project management meetings and 6 reports and final report | EN |
| D2.1 | Summary Report on outcomes of previous projects and research findings on decision makers needs | MENON | Report and presentation on first project management meeting (D1.2) | EN |
| D2.2 | Questionnaire | SATW | Questionnaire / Guideline for interviews with decision makers used in DE, DK, EE, CH | Model in EN / interviewa in DE, DA, EE, DE/FR |
| D2.3 | 8 specific decision cases from different levels and four different countries | SATW, UNI-C, TPU, SAN | Identified by 8 conducted interviews with decision makers in DE, DK, EE, CH | EN |
| D2.4 | Summary Report on D2.3 | SATW | Documented results of interviews | EN |
| D3.1 | 2 Data specifications / frameworks | MENON, ecmc | Specifications of data record structures (Metatext) for a) information items b) observatory inventory database | EN |
| D3.2 | Online Databases with observatory data and relevant data records | MENON, all | Databases will follow structure as defined in D3.1. Collected data on observatories and information items | EN (links to original documents in national languages) |

| Delivery | Output | Main Responsibility | Scope, Structure | Language |
|---|---|---|---|---|
| D4.1 | Technical specifications for website and news feeds | ecmc | Technical specifications for CMS, website-structure | EN |
| D4.2-D4.3 | Website | ecmc | Website with CMS, data entry forms, output pages, internal virtual working space | EN |
| D4.4 | News Services | EENet | Electronic Newsletter (quarterly) compiled with news from the RSS feeds and project news | EN |
| D5.1 | Observatory Workshop | MENON | Workshop with observatory providers – invitation to participate in the federation and syndication of news (RSS) | EN |
| D5.2 | Federation of Observatory / Memorandum | MENON | Building of a federation of observatory providers based on a memorandum of understanding; agreement to use RSS | EN |
| D6.1 | Merging, reflecting and constructing | ELTE, all | Each partner seeks and links information, findings, and references for the identified 8 cases (D2.3/D2.4) by using databases or entering new data records (D3.2). Each case will be annotated and assessed | EN |
| D6.2 | Workshop | ELTE, all | All partners discuss the group work of D6.1 and add qualitative assessment of the cases | EN |
| D6.3 | 8 Documented Case studies | SHU | Reporting and editing the results of the workshop (D6.2) on the website | EN |
| D7.1 | Test Bed Workshop 1 | UNI-C | Organising the national workshop and presenting the reflection work to authors of the decision case and relevant stakeholders | DA |

| Delivery | Output | Main Responsibility | Scope, Structure | Language |
|---|---|---|---|---|
| D7.2 | Test Bed Worshop 2 | TPU | As in D7.1 | EE |
| D7.3 | Test Bed Worshop 3 | SAN / ecmc | As in D7.1 | DE |
| D7.4 | Test Bed Worshop 4 | SATW | As in D7.1 | FR / DE |
| D8.1 | Dissemination Plan | CFL | Plan to describe the strategy for disseminating of project results through national and international events | EN |
| D8.2 | Production of Flyer on F-ONE | CRITE | Concept and text, production, printing (sub-contract) | EN |
| D8.3 | Dissemination Seminar 1 | CFL | Seminar with decision makers and stakeholders in Sweden | SE |
| D8.4 | Dissemination Seminar 2 | MENON | Seminar with decision makers, stakeholders and representatives from the EU commission in Belgium | EN |
| D9.1 | Evaluation Plan | EdAsMo | Evaluation plan for the project including performance indicators and assessment tools | EN |
| D9.2 | Evaluation Report | EdAsMo | Results of the evaluation | EN |
| D10.1 | EENet Sustainability Concept | EENet, MENON | Concept and strategy plan which explains the continuation of F-ONE | EN |
| D10.2 | EENet presentation | EENet | Kick-off event for F-ONE as a non-EU funded project | EN |

## 3.2 Information

The developed website and the information services, in particular the RSS-feed, can be used by all interested parties. Policy and decision makers can take a look at the analysed and constructed cases to get new impulses for their own decision making. The openness of the approach makes it possible to add more and more cases and news services in order to establish a collection of well documented and reflected decision cases.

# 4. Partnership composition and contribution

## 4.1 Provide for the coordinating institution and each of the other partner institutions in the project, the following information

- **type** of institution (legal status, short description of main areas and types of activity) ;
- **size** of institution in terms of the total number of (a) personnel (absolute numbers and full-time equivalents) and (b) learners and the number of personnel directly involved in ICT for learning, ODL or in educational multimedia (use full-time equivalents) ;
- **expertise** of the institution in the field covered by the project and **experience** in cooperation at local, regional, national and trans-national level (Socrates and other). Indicate experience both in content and project organisation and a short bibliography of readings in the field. If possible, provide a short C.V. of core participants ;
- the **specific tasks** to be assigned to each partner within the project ;
- number of **personnel** (in absolute numbers and as full-time equivalents) expected to be **involved in the project**.

**involved key personnel :**

**DR HARALD GAPSKI**
Applicant Organisation /
Participating institution No 1 : ecmc

**DR CARL HOLMBERG**
Applicant Organisation /
Participating institution No 9 : CFL

**DR NIKITAS KASTIS**
Participating institution No 2 : MENON EEIG

**RAYMOND MOREL**
Participating institution No 11 : SATW

**DR. W. J. PELGRUM**
Participating institution No 8 : EdAsMo

## 4.2 The following mechanisms will be used to ensure an effective co-operation and communication processes with in the consortium

- Internal communication plan will be developed as a part of the refined work plan (D1.1)
- Three Project meetings will be scheduled
- Virtual workspace to facilitate exchange of information and key documents. The virtual work space will be also used to monitor the progress of the project.
- Communication takes place via Email-list and regular telephone conferences
- Quarterly project management reports will document the progress of the project
- The co-ordinating organisation will set up partner contracts between the partner organisations.
- Main working language will be English.

## 4.3 In addition to the formal partner institutions, other institution will participate actively in the project

Prof Renaldas Gudauskas, Director of International Centre of Knowledge Economy & Management of Vilnius University, Advisor to the Prime Minister of Lithuania Vilniaus Universitetas, Tarptautinis _ini_ ekonomikos ir _ini_ vadybos centras (EDU.4)

Universiteto g. 3, 01513 Vilnius
renaldas.gudauskas@tzc.vu.lt
www.tzc.vu.lt

# 5. Evaluation

## 5.1 The coordination of the project is based on

– a clear division of work packages (WP) and tasks (Tn.n)
– each task will have clear responsibilities and defined deliveries (Dn.n)
– a reporting system which is supported by an virtual working environment (CMS)
– evaluation strategy which supports the steering and the improvement of the project progress (see 5.2).

### 5.2 Evaluation

The evaluation of F-ONE will be carried out by Educational Assessment and Monitoring (EdAsMo), a private service provider specialising on indicator construction, data collection, statistical analyses, international comparisons in the field of ICT in education and closely related to the University of Twente. The Evalution Plan (D9.1) will be presented during the first project management meeting (D1.2) to the whole project consortium in order to be integrated in all relevant project activities. The intermediate evaluation report (D9.2, project month 12) will present the status of the project and supports means of quality assurance.

The goal of the evaluation is to determine on the basis of quantitative and qualitative methods to what extent the project objectives are being realized. As this is a continuous activity throughout the lifetime of the project the results will on the one hand be used to provide feedback to the project participants during the execution of the project. At the end of the project the evaluation data will be used for describing the overall outcomes of the project.

For each of the objectives a short sketch of the evaluation activities will be given below:

1. To increase transparency in the area of observation activities. The evaluation activities with regard to his objective will be mainly based on a conceptual analysis of the way that the project is structuring consistently and transparently the information that is made available by the different observatories
2. To raise awareness of the potential benefits for decision makers and stakeholders. This objective will be evaluated in terms of indicators that will be constructed at the start of the project and which will be described in an evaluation plan. For example: relevance of the F-ONE products, practicality of the web data base, interpretability of the content, etc. The data for measuring these indicators will be collected via questionnaires and interviews at the seminar as well as via online questionnaires at the projects web site.
3. To mediate between national policy demands and international observation activities. The case studies that are conducted in the project are a first step towards linking policy demand and observatory supplies. The evaluation will consist of interviewing policy makers from the case study countries in order to determine to what extent the F-ONE data base is satisfactorily addressing these demands. This will be done by asking very specific questions about which actions were facilitated as the result of F-ONE's activities.
4. To effectively disseminate relevant reflections and findings. The notion of ‹effect› is of particular importance in this objective. As the dissemination will ultimately take place via the web data base, the evaluation of the extent to which this objective is realized will take place on the basis of analyzing log-files form the data base in order to determine the number of users, the frequency of use of the data base and the geographical background of the users. Moreover, users will be invited to complete short online questionnaires in order to investigate their experiences.
5. To create synergies between the observation activities through different means (federation building, seminars, information services). It may be hypothesized that the project has contributed to building synergy, if it can be demonstrated that existing observatories are more inclined to cooperate in federative activities than was the case before F-ONE. Evidence for demonstrating this potential effect will be collected throughout the project, mainly via interviews with representatives form existing observatories as well as desk research focussed on indications of synergetic activities.

## 6. Dissemination and sustainability strategies

### 6.1 Communication and dissemination plan

A detailed communication and dissemination plan (D8.1) will be prepared before the beginning of the dissemination phase of the project. This plan describes the interaction of the different disseminations tools and means in national and international environments. In particular the following dissemination tools will be used:

- The project website presenting the outcomes and the methodology of the F-ONE (D4.3)
- The electronic Newsletter reporting on the latest developments of the project (D4.4)
- The printed flyer on the F-ONE project (D8.2)
- The dissemination seminars in Sweden and in Belgium (Brussels) for stakeholders and decision makers (D8.3, D8.4)
- The public sustainability workshop presents the strategic planning of F-ONE after two years (D10.2).
- International Conferences: The F-ONE consortium includes close links to a number of European networks which ensure a wide dissemination of project results. For example: the European Educational Research Association (EERA) and related networks and the EDEN European Distance and E-Learning Network. In particular the EDEN conferences (EDEN Annual Conferences and Open Classroom Conferences) are intended to be used for dissemination

– During the last EENet seminar (14-15 Feb. 2005) F-ONE was also presented and discussed with PAU Education, which maintains the elearningeuropa. info-Portal. A potential collaboration between this important dissemination portal and F-ONE will be elaborated further.

The important « case and knowledge construction workshop » (D6.2) will be hosted by the Hungarian project partner as a « regional seminar » also reaching other new members states.
In addition to these direct means the Test Bed Seminars in Denmark (D7.1), Estonia (D7.2), Germany (D7.3) and Switzerland (D7.4) will also be announced in the national environments. The combination of national valorisation of cases and international dissemination will promote the project on different levels. In fact, all members of the F-ONE consortium are important national and international dissemination channels. As for example, UNI-C, the primary dissemination will take place within Denmark and the other Scandinavian countries. Further dissemination can take place in the Baltic countries as part of the strong collaboration between the Scandinavian and the Baltic countries.

## 6.2 Intentions for exploiting the results of the project in the long term

This issue is linked to the sustainability concept of F-ONE, compare question 6.4.

## 6.3 Partner organisations

Some of the partner organisations within the F-ONE consortium presently run observation activities on ICT in education and training systems themselves. This core group of observatory providers will be the starting point for developing a federation of observatories based on a common vision and a memorandum of understanding.

During the implementation phase, it is planned to contact the following organisations in view of their potential role in the federation of observatories :
– CEDEFOP – European Centre for the Development of Vocational Training
– EURYDICE – The information network on education in Europe
– IEA – International Association for the Evaluation of Educational Achievement (SITES-Study)
– IFIP – International Federation of Information Processing / TC 3 – Technical Committee on ICT and Education
– IIE – Instituto de Informática Educativa at the Universidad de La Frontera's (Chile)
– INCA – the International Review of Curriculum and Assessment Frameworks Internet Archive
– OECD – Organisation for Economic Cooperation and Development

In the process of developing and expanding a federation of observatories the crucial issue of the added value for potentially participating observatory providers has to be dealt with. In order to facilitate the participation in a federation and the technical issue of syndication of news a number of sub-contracts are foreseen to cover the costs for technical implementation of RSS scripts on the side of the Observatory providers.

## 6.4 Sustainability strategy

Set out any strategy you may have for seeking to ensure that the activities conducted by the network can be continued when the financial support from Minerva is reduced or phased out completely (**sustainability strategy**).

EENet – the European Experts' Network for Education and Technology e.V., will attend to the project beyond the period of support. EENet has been working as an informal network of expertise in the filed of ICT in school education since 1997 and was then founded as a non profit organisation in 2003. EENet strives to build on the coexisting perspectives and approaches, to foster the pan-European exchange of information, knowledge and experience as seen from diverse societal sectors, and to mutually profit – in every respect – by joining forces. In close co-operation with MENON a sustainable strategy will be developed by EENet which gives an answer to the future of F-ONE after the funding phase. Undertaking the task of continuing this project would fit in the aims of the association and provide a new joint objective. The international aspect would be secured by the EENet members.

The continuation of F-ONE will become a integral part of the annual EENet work programme. During the last EENet members' meeting (14 February 2005) the EENet members voted for the future inclusion of F-ONE in the work programme of the association in case of the initial funding through the EU. EENet is financed by membership fees and intends to invite more organisational members to the network. Parts of funding could be dedicated to the sustainable development and continuation of F-ONE after the financial support from MINERVA is phased out. The EENet Board and other interested member organisations will deal with the strategic planning.

## 7. Contribution to transversal policies

In terms of (a) the **impact of the project** on the target group (section of the educational community ultimately addressed), and (b) **participation in the project itself** the extent of the project will actively :

- ☐ promote equal opportunities between women and men ;
- ☐ promote equal opportunities for disabled persons ;
- ☐ contribute to the fight against racism and xenophobia ;
- ☒ promote social and economic cohesion ;
- ☒ promote ICT in education and e-Learning ;
- ☐ promote language learning and linguistic diversity ;
- ☒ promote the recent enlargement of the Union ;
- ☒ promote sustainable development ;
- ☐ promote stability and security ;
- ☒ tackle the future challenges to education and training systems and lifelong learning ;

The diversity of educational systems in Europe and the rapid developments in the fields of policy, technology, industry and research demand mechanisms and strategies for coping with these changes. Different stakeholders and parties, such as ministries and policy making bodies, educational authorities, and educational market players are in need of up-to-date information and consolidated knowledge which support their decision making.
F-ONE focuses on education as one of the core fields of political action in the information society. ICT play an important role in the transformation of the European educational systems. F-ONE combines three fields of action : ICT in education from a holistic perspective, the co-operation and communication processes among educational experts within the enlarged Europe, the future challenges by sharing and reflecting upon knowledge and research findings in context of concrete decision making cases.

## 8. Other aspects

Participating organisations in the F-ONE project are experienced players in the educational field and have carried out a number of acquainted projects and co-operations. The F-ONE project is e.g. one of the outcomes of an international workshop which was organised by SATW and EENet and took place on 10-12 October in Münchenwiler, Switzerland. The Workshop « From Observation to Action : Challenges for Policy and Decision Makers in the Field of ICT IN school Education » was attended by experts from 11 different European countries and had the purpose to re-think decision making processes in view of ICT in school education from a meta-perspective. The idea and concept for this proposal evolved from this workshop and most of the organisations of the attending participants are now partners of the F-ONE project.

And there has already been more cooperation between the participating institutions. The MENON Network and EENet have been connected closely in joint collaborations like e.g. « HELIOS – Horizontal E-Learning Integrated Observation System ». HELIOS by the MENON Network is an EU-funded project in which EENet is part of the steering committee. It « aims at establishing and consolidating a sustainable observation platform able to dynamically monitor the progress of e-Learning in Europe vis-à-vis policy objectives and to forecast future scenarios of e-learning evolution, thus closing the gap between the large amount of fragmentary data existing today about e-Learning policies, practices, research and market and the need for understandable, usable and coherent policy-related information by European national and local policy makers. » (HELIOS Grant Application)

Furthermore, EENet and EDEN, the European Distance and E-Learning Network, have established a mutual membership relation and strategic alliance to ensure future collaborations like the jointly organised Open Classroom Workshops, which take place at the annual EDEN Conference, this year in Helsinki, Finland.

The EENet Workshop and Seminar in Bonn (14 February 2005) offered participating members and invited guests the possibility to personally discuss and develop the F-ONE project. Results from the joint discussion have been incorporated in this proposal. On this occasion, the F-ONE project was also presented to Mr Renaldas Gudauskas, Director of International Centre of Knowledge Economy & Management of Vilnius University and Advisor to the Prime Minister of Lithuania who showed an interest in the project. The potential role of a Lithuanian organization as additional project / dissemination partner will be discussed in the future.

# Partie B

## Réflexions avant le Workshop

# Workshop Agenda

From Observation to Action :
Challenges for Policy and Decision Makers
in the Field of ICT in School Education

## Venue :

Schloss Münchenwiler
1797 Münchenwiler / Murten, Switzerland
Tel +41 26 67281 81, Fax +41 26 67281 82
info@schlossmuenchenwiler.com

## Sunday, 10 October 2004

*Arrival*

18.00 Welcome by Raymond Morel and Carl Holmberg
18.15 Round of Introductions
18.45 Impulse Lecture by Bernard Cornu
19.30 Dinner

## Monday, 11 October 2004

09.00 Introduction to the Workshop
09.30 Observatory Case Study 1 : European Schoolnet (EUN) by Roger Blamire
10.00 Observatory Case Study 2 : www.education-observatories.net by Stefania Aceto
10.30 Observatory Case Study 3 : The emerging paradigm for lifelong learning by Hans Pelgrum
Observatory Case Study 4 : ICT in Education & Training by Nikitas Kastis
11.00 Coffee Break
11.30 Discussion

*Lunch*

14.00 Working Group 1 on USER NEEDS + ACCESSIBILITY
Working Group 2 on TRENDS + SCENARIOS
16.30 Coffee Break
17.00 Report of the Working Groups and General Discussion
18.00 End of Meeting

## Tuesday, 12 October 2004

09.00 DESIGN : Identifying supportive tools and strategies for decision making
10.00 Brainstorming and Discussion

*Lunch*

14.00 Future Steps / Planning Activities
15.30 End of Workshop

## List of participants and invitees

## 10-12 October 2004 – Münchenwiler (Switzerland)

| WHO | Institution | Seat |
|---|---|---|
| Aceto, Stefania | SCIENTER / Observatory Unit on Learning Technologies | Bologna ITALY |
| Blamire, Roger | EUN European Schoolnet | Brussels BELGIUM |
| Brennan Freeman, Eileen | CRITE Centre for Research in IT in Education / Trinity College Dublin | Dublin IRELAND |
| Cornu, Bernard | La Villa Media – the European Residence for Educational Multimedia | Grenoble FRANCE |
| Filliettaz, François | CPTIC (Pedagogical Center for ITC) | Geneva SWITZERLAND |
| Gapski, Harald | ecmc European Centre for Media Competence | Marl GERMANY |
| Holmberg, Carl | CFL Swedish Agency for Flexible Learning | Hässleholm SWEDEN |
| Hudson, Brian | School of Education / Sheffield Hallam University | Sheffield ENGLAND |
| Kastis, Nikitas | LRF Lambrakis Research Foundation | Athens GREECE |
| MacClusky, Alan | CTIE (Swiss National Center for ICT and Swiss Schoolnet) | Berne SWITZERLAND |
| Morel, Raymond | Swiss Academy of Engineering Sciences (SATW) + CPTIC | Geneva SWITZERLAND |
| Morel, Francis | CTIE (Swiss National Center for ICT and Swiss Schoolnet) | Berne SWITZERLAND |
| Pelgrum, Willem | University of Twente / Faculty of Behavioural Sciences | Enschede THE NETHERLANDS |
| Schaer, Andy | Pädagogische Hochschule Aargau Institut Schule & Weiterbildung | Aarau SWITZERLAND |
| Stemmer, Helmut | bm : bwk Federal Ministry for Education, Science and Culture | Vienna AUSTRIA |
| Szûcs, András | EDEN European Distance and E-Learning Network (Secritariat) | Budapest HUNGARY |
| Thorbøll, Per | UNI-C The Danish IT Center for Education and Research | Copenhagen DENMARK |
| van Weert, Tom J. * | HvU University of Professional Education Utrecht / Cetis | Utrecht THE NETHERLANDS |

* empêché in extremis de participer au workshop, tout en ayant contribué par un texte

# Invitation

Mr Hans Siggaard Jensen
Research Director
LLD Learning Lab Denmark
Emdrupvej 54
Indgang K2, 1.sal
**2400 København NV**
**Denmark**

| your reference / message | our reference / message | direct dialing / name | date |
|---|---|---|---|
| | | | 20 septembre 2004 |

Dear Mr Jensen

The ICT Committee of the Swiss Academy of Engineering Sciences (SATW) and the European Experts' Network for Education and Technology e. V. (EENet) have the pleasure to invite you to a joint

Workshop entitled :

**From Observation to Action :**
**Challenges for Policy and Decision Makers**
**in the Field of ICT in School Education**

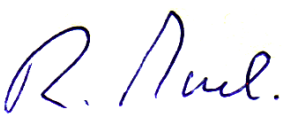
The event will take place from Sunday, 10th October, to Tuesday, 12th October 2004 in Switzerland in « Schloss Münchenwiler ». The ICT Committee of SATW will kindly host the meeting and bear the incurring expenses for participation, accommodation and catering on site.

Please find enclosed the Workshop Agenda, a list of participants and invitees, and a handout with background information. Attached you will also find a ‹ reflection paper › template asking your expert's opinion on essential fields of interest which shall be discussed in depth during the meeting. We would kindly ask you to complete this paper in advance. It is intended to collect these data prior to the meeting and to distribute the papers to the participants of the Münchenwiler event for mutual use. It is moreover planned to publish the results subsequent to the convention on the EENet website www.eenet.org. We would thus very much appreciate if you could send the filled document (max 2 pages) together with a short Curriculum Vitae to Raymond Morel before 1st October 2004 (e-mail : Raymond.Morel@tecfa.unige.ch).

We are very much looking forward to your response and will be delighted to welcome you to a fruitful exchange in Switzerland.

With kind regards

Dr Carl Holmberg
EENet Chair
Encl



Raymond Morel
SATW ICT Commitee Chair

# From Observation to Action : Challenges for Policy and Decision Makers in the Field of ICT in School Education

*A joint Workshop by the ICT Committee of the SATW Swiss Academy of Engineering Sciences and EENet European Experts' Network for Education and Technology e. V.*

In most educational systems ICT will be an integral part of teaching, learning and organisational development. Over the last decade major efforts have been undertaken by public and private stakeholders to promote the use of ICT in educational settings. At the same time a significant number of research studies have explored the complexity of interrelated driving factors on various levels of the educational system. The integration of ICT in education can be understood as a complex and multi-dimensional process.

For decision makers and policy makers it is important to have access to relevant research findings and case studies to support national decision making : What are the ‹ driving factors › and ‹ obstacles › when integrating ICT in education ? Depending on the level of analysis sought, a huge amount of data can be found ; there are statistical databases on education systems, case studies, research projects and a number of relevant « observatories » which collect relevant data in the field. Nevertheless the challenge remains : How do I, as a decision maker, interpret this data and how can I assess progress and innovation in view of my regional, national or transnational framework of action ? How can I distil key findings and extract knowledge for my own decision making ?

The purpose of this international workshop is to re-think decision making processes in view of ICT in school education from a meta-perspective. Which conclusions can be drawn from a trans-national policy auditing process ? Could peer-to-peer reviews support the national/local decision making process ? Which tools could be used respectively developed to help policy makers on national level ?

Existing observatories and research activities lay the basis for discussing the following key questions :

**1) USER NEEDS :**
Which information is really needed by decision makers ?
Which observation areas and indicators are important ?

**2) ACCESSIBILITY :**
Which information is available ?
Which role do existing « Observatories » play in decision making processes ?

**3) TRENDS :**
What are future trends and scenarios ?

**4) DESIGN :**
Towards a new service – Which tools and strategies could effectively support decision making processes ?

# Partie C

## Echanges pendant le Workshop

# Decision Making for Integrating ICT into Education

Prof. Bernard Cornu – INRP, France

## Decision Making for Integrating ICT into Education

1. Society is evolving
2. Education
3. Trends in ICT
4. Competencies
5. The school of the future
6. Institutionalisation
7. Learning systems management

**Prof. Bernard CORNU (INRP, France)**
bernard.cornu@inrp.fr

**Information society:** A society in which information is a good that one can exchange, buy, sell, store, transport, process. The society of the digital divide.

**Knowledge society:** A human society, in which knowledge can bring justice, solidarity, democracy, peace... A society in which knowledge is a force for changing society. A society which should provide universal and equitable access to information.

Integrating ICT in order to build the Knowledge Society

Learning to know
ICT and Knowledge, accessing Knowledge

Learning to do
New capacities, do through ICT

Learning to live together
New communication, the « e-citizen »

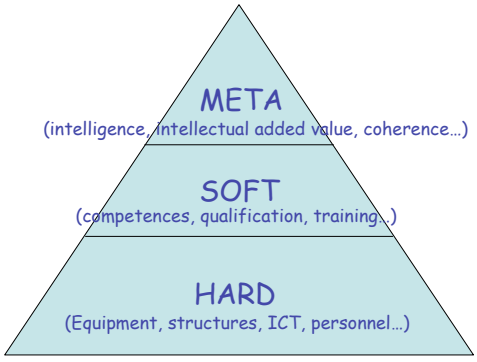
Learning to be
... in the knowledge society; personal development

## Collective intelligence

- communication
- collaboration
- collective competencies
- collective memory
- collective intelligence
- an aim for education: build a collective intelligence

## Ethical questions

- ICT and "Education for all"
- Digital divide and divides in education
- globalization
- commercialisation of education
- property rights, cyber-crime, privacy...

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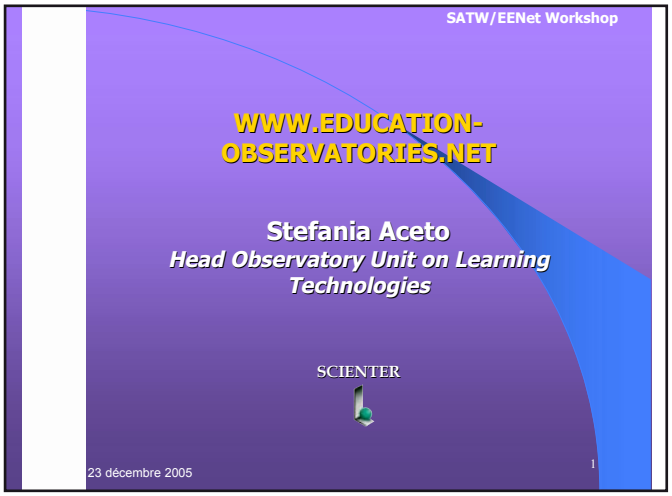
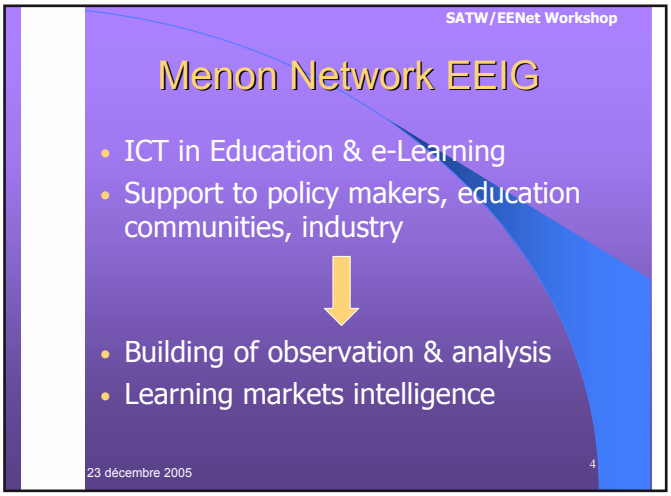
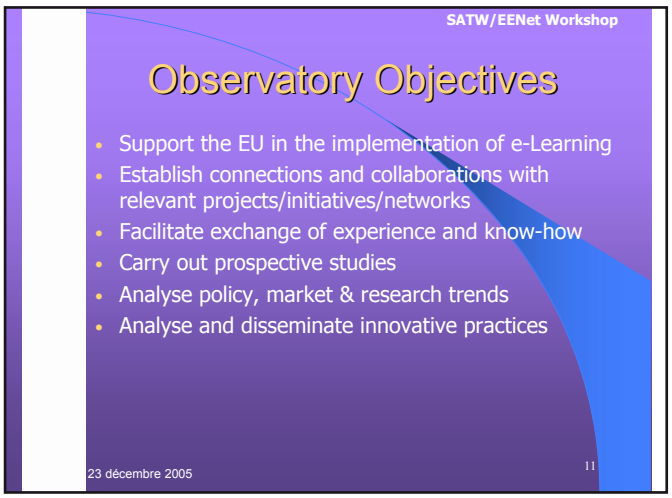
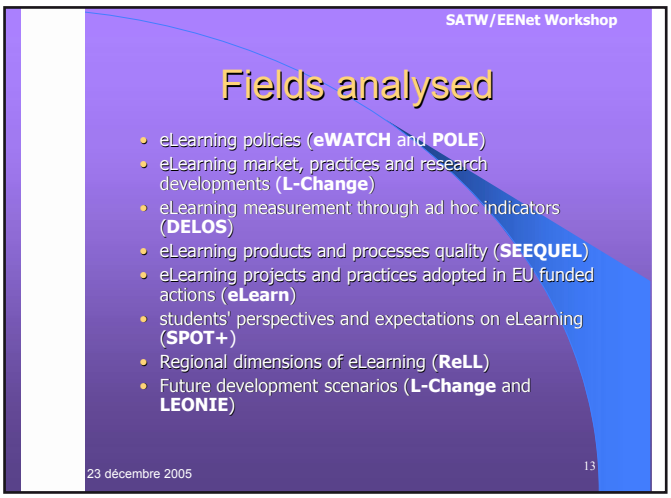
# WWW.EDUCATION-OBSERVATORIES.NET

Stefania Aceto – Scienter, Bolognia



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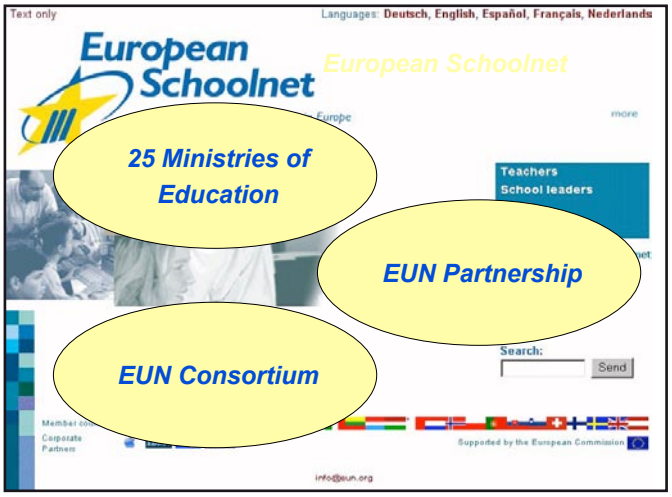
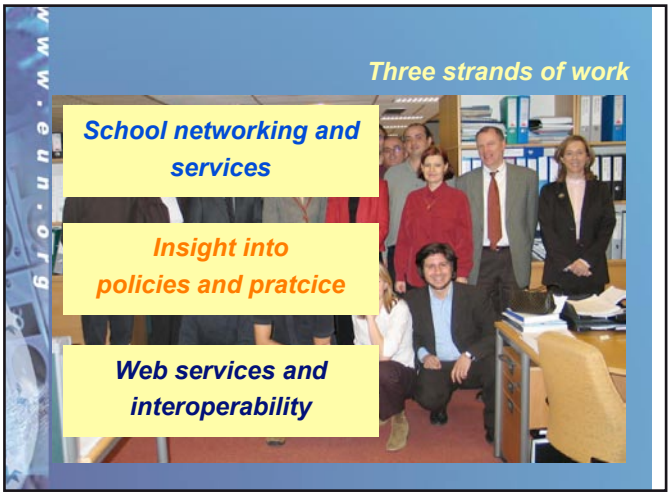
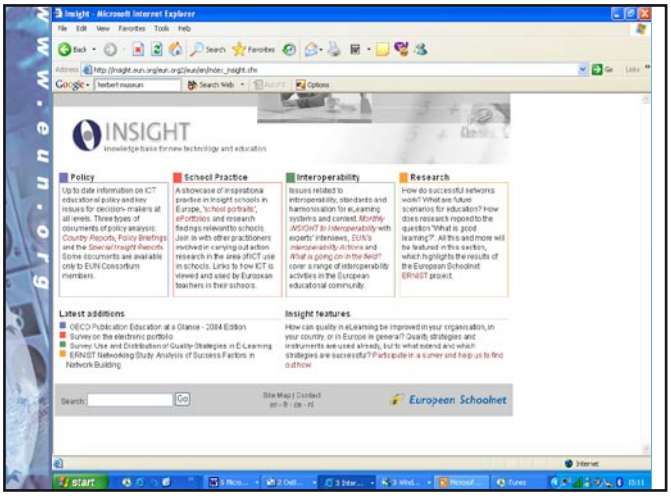
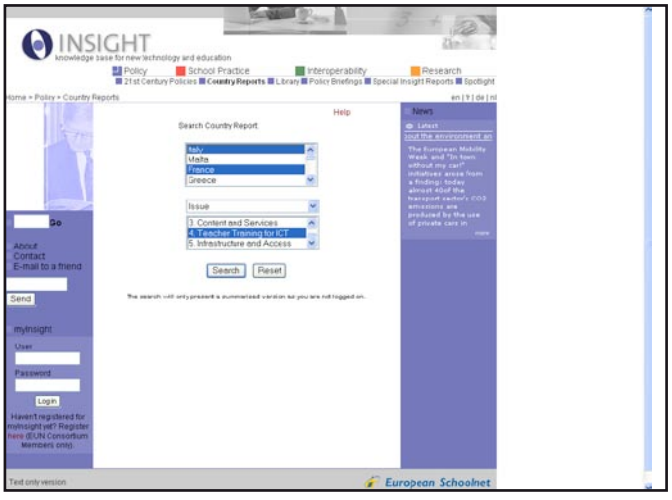
# European SchoolNet and INSIGHT

Roger Blamire – EUN office, Brussels



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Reflection paper

# ICT in Education & Training

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## 1) USER NEEDS :

### Which information is really needed by decision makers ?

#### Public Administration

- Should industry or families be the main direct beneficiaries of our Programme for Internet in Primary schools ?
- With which countries shall a collaboration programme turn to be most useful ?
- Should we continue to invest in technology infrastructure rather than people ?
- To which user groups should our efforts be primarily directed ?

#### Industry

- Should we invest on this technology platform in the next years ?
- How should we address the University market ?
- Should our promotional efforts be primarily directed to teachers or students ?
- Should we address the French market directly or through a French partner ? Which would be the appropriate partner, if any ?
- How can we add real value to our supply of products and services, considering the present practice in schools ?
- What market segment should we focus on abandon ?

#### Social partners

- How could we increase access to and use of ICT for learning of disadvantaged groups/SMEs employees ?
- Should we recommend a public policy based on « learning vouchers », so letting the users choose amongst available supply ?

#### Education and training organisations

- How should we address integration of ICT in our organisation ?
- Are international partnerships leading to substantial benefits ?
- Which technology is likely to be de facto standard in five years ?
- Should we spend more on teachers' training ?

#### Research planners

- In which area should we concentrate our financial and operational effort ?
- Which research subject is now mature/ready for consolidation and dissemination of results ?
- Do we need to increase the number of researchers and research projects on this issue, compared with other countries ?

### Which observation areas and indicators are important ?

The DELOS project suggests the following clustering of indicators :

a) Contextual Factors of Education
b) Education Finances
c) Access to & Participation in Education
d) Characteristics of Learning Environments
e) ICT Penetration & Use in Education
f) Learning & Knowledge Outcomes/Achievements
g) Labour Market & Social Outcomes of Education
h) Other Indicators

Evidently, the selection of significant indicators has been based on an approach that does not a priori exclude categories, clusters or groups of indicators lying outside the ‹ e-learning › area. This approach has been adopted in the light of a holistic or, even better, systemic view of ‹ e-learning ›, that does not easily isolate or disconnect closely interrelated parts of the education system. Still, it was understood that a systematic analysis of indicators should start from a thorough research and presentation of all indicators that are related to the ‹ core › indicators in several ways. For instance, it was clear to the desk research group that indicators of access/participation to e-learning cannot be isolated from indicators of access/participation in education in general. At a micro-level, indicators of access to e-learning could form a self-sustained group, but on a macro-level we could hardly claim the same thing.

## 2) ACCESSIBILITY :

Which information is available ?

Which role do existing « Observatories » play in decision making processes ?

## 3) TRENDS :

What are future trends and scenarios ?

Two major trends foreseen :

- Public authorities struggling to address the increasing needs for support to decision making in education systems. Investing in establishing indicators to document internal changes in the education system.
- NGOs and research organizations co-opeting to define transparent monitoring and analysis systems, encompassing the assessment of impact of investments and related developments in education on the social and economic changes.

**Scenario 1** : Co-existence
**Scenario 2** : « Internal Sufficiency »

## 4) DESIGN :

Towards a new service – Which tools and strategies could effectively support decision
making processes ?

- Development and validation of transparent & compatible information-about-education structures (reference frameworks and indicators).
- Increased usage of surveys and assessment of latest developments.

**"EDUCATION & TRAINING 2010" Work Programme**

## ICT in Education & Training

**Working Group C**

## Some Reflections on an OMC Exercise

*Dr Nikitas Kastis*
*MENON Network & LRF*

***Workshop: From Observation to Action***
*Münchenwiler, Switzerland 11 & 12 Oct 2004*
***SATW & EENet***
MENON Network www.menon.org

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*Workshop: from Observation to Action, SATW & EENet, Switzerland 11 & 12 Oct . 2004*

- ICT in/with/for the education & training systems
- Education & training systems in Europe, trying to cope with the changes, while defending their particularities
- Whith the "rush" towards the "Info Soc" (see *"Lisbon"*) E&T is experiencing a "violent push" to change. But is it only because of this (ICT)?

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*Workshop: from Observation to Action, SATW & EENet, Switzerland 11 & 12 Oct . 2004*

- Open Method Coordination (OMC)
- ***CONCRETE FUTURE OBJECTIVES of EDUCATION & TRAINING SYSTEMS***
- ***OBJECTIVE 1***: Improving the Quality & Effectiveness of Education & Training Systems in the EU
- ***OBJECTIVE 2***: Facilitating the Access of All to Education & Training Systems
- ***OBJECTIVE 3***: Opening up Education & Training Systems to the wider World

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**OBJECTIVE 1**

1.1: Improving Education & Training for Teachers & Trainers
1.2: Developing Skills for the Knowledge Society
***1.3: Ensuring Access to ICT for Everyone***
***(10) Percentage of Teachers that have been trained in ICT Use in Schools***
***(11) Percentage of Pupils and Students using ICT in their Studies***
***(12) Percentage of Learning Sessions in Teaching and Training Institutions in which ICT is used***
1.4: Increasing Recruitment to Scientific & Technical Studies
1.5: Making the best Use of Resources

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*Workshop: from Observation to Action, SATW & EENet, Switzerland 11 & 12 Oct . 2004*

- Peer reviewing of policies & projects, adoption of a meta-information framework to support comparative analysis
- Continues support to research and analysis actors, to sustain systematic observation
- Adoption of an indicators documentation system (metadata…)
- Keep separate observation & analysis from policy design & implementation

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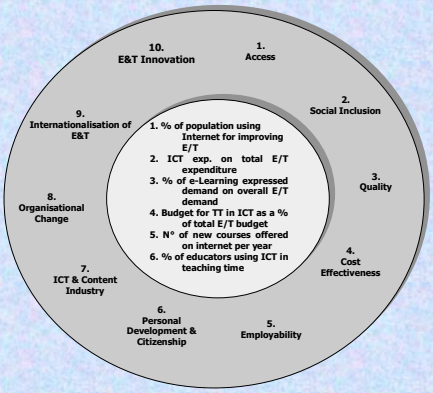


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Reflection paper

# The emerging paradigm for lifelong learning, quantitative and qualitative data

Hans Pelgrum – University Twente, Enschede, the Netherlands
PO Box 217, 7500 AE Enschede, The Netherlands

## 1) USER NEEDS:

### Which information is really needed by decision makers?

1. Answers to general questions, such as: Are our education systems fit for the future? Do we prepare our children well enough for the information society? Are we measuring up in terms of educational quality in comparison with our economic competitors? Is the pace of educational reform in our countries/regions/continents comparable to the pace of reform in other places?
2. Information about the impact of ICT on educational outcomes.
3. Indicators of educational progress in a comparative perspective.

### Which observation areas and indicators are important?

Pedagogical practices, curriculum, school organization, policy visions (at macro-, meso- and micro-level), ICT-infrastructure, staff development

## 2) ACCESSIBILITY:

### Which information is available?

First hand data: international comparative studies of OECD and IEA (but still thin with regard to new competencies and ICT-indicators), Eurobarometer (although criticized), national surveys. Second hand data: Eurydice, observatories (although there may be some observatories which possess first hand data, for instance the Dutch Foundation for ICT at School, which occasionally organizes statistical surveys).

### Which role do existing «Observatories» play in decision making processes?

Existing ‹observatories› can obviously play a role, but we would need to conduct policy-analyses to determine which role they are actually playing, what is the perceived relevance of them and how they can address the (short-term and long-term) needs of policy-makers. Also in terms of data acquisition there are questions: a good observatory has instruments for observation, can these be created in the existing laboratories?

## 3) TRENDS:

### What are future trends and scenarios?

More autonomy (as implied by the current educational reform movements) for students means more decentralization and more responsibilities at all educational levels to carefully monitor the pace and direction of change. Observatories can play a role in this, but need a long-term master plan

## 4) DESIGN:

### Towards a new service – Which tools and strategies could effectively support decision making processes?

First be aware that decentralization implies more decision-making at the educational workfloor. On the other hand, governments have a responsibility to maintain and promote educational quality. Hence, quality monitoring tools need to be developed and policy-makers (at several educational levels) will need support in using these tools. There is a need for getting access to good practices. Nowadays there are many sites were so-called good practices are listed, but on closer inspection it often appears that it is unclear what qualifies these practices as being good. Policy-makers need support in finding a match between demand for and supply of good practices.

# The emerging paradigm for lifelong learning, quantitative and qualitative data from:

The IEA Second International Technology in Education Study (SITES)

by

Hans Pelgrum, University Twente

## SITES Modules

(see also: www.iea.nl)

- *Module-1* (*quantitative + little qualitative*): a snapshot picture (school-survey) of the situation regarding ICT in education (1998-1999);
- *Module-2* (*qualitative+little quantitative*): observations of innovative practices in selected schools (1999-2002);
- *Module-3* : a repeat of Module-1 to determine changes across time and an assessment of readiness of teachers (2004-2007).

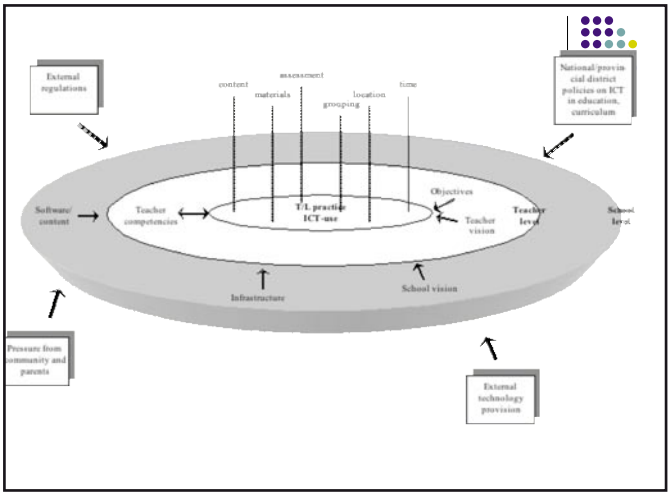
## Countries in M1 and/or M2

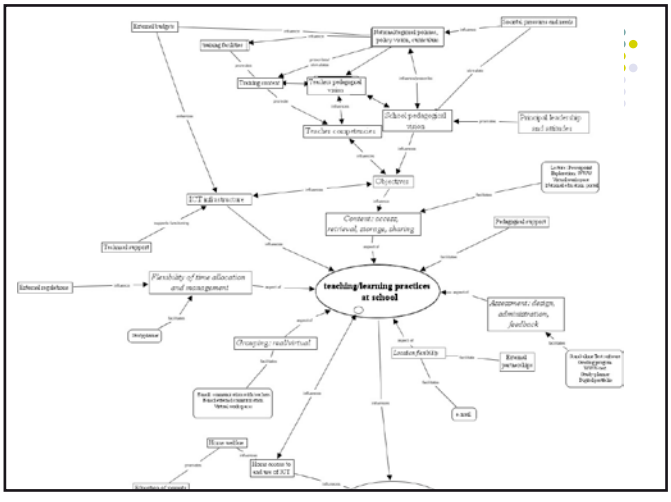
- **Africa**: South Africa
- **Asia & Pacific**: Australia, China Hong Kong, Chinese Taipei, Japan, Korea, New Zealand, Singapore, Thailand
- **Europe- Central and East**: Bulgaria, Czech Republic, Hungary, Latvia, Lithuania, Russian Federation, Slovenia, Slovak Republic
- **Europe-West**: Belgium-French, Cyprus, Denmark, Finland, France, Germany, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, United Kingdom
- **Middle-East**: Israel
- **North America**: Canada, USA
- **South America**: Chile

Only M1

## SITES2006: overview

- Conceptual: focus on pedagogical practices (see initial framework)
- International coordination consortium: Univ. Twente (ICC), University HongKong, IEA-DPC
- School surveys (n=400) and teacher surveys (math and science: n=1600)
- Try-out online data collection
- Currently: start-up phase
- Expected participation: ~20 countries

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# Leadership, information gathering and the future
# What if we've got it wrong ? [1]

Alan McCluskey – CTIE, Bern

## 1. USERS' INFORMATION NEEDS

### Which information is really needed by decision-makers ?

This first question is centred on a select class of people – the « decision-makers » – who manage the education system and who need dedicated information (requiring special procedures to extract it and bring it together) to decide what future we should head for and how we should get there. They are seen as politically accountable for the workings of the system, they express a need for specific information and structures have been created to provide that information. What if such a perspective on leadership and related information gathering is misleading ? It is based on the tacit assumption that the education system works like some sort of machine requiring a small group of people piloting the organisation to press the right buttons, that is to say a series of specific and necessarily localised actions employed to produce the desired results. In reality the situation is far more complex. All actors are involved in deciding on and bringing about what happens (at least partially) and all these decisions and activities are interrelated. The metaphor of the living organism would be far more appropriate to understanding the workings of such a complex system than that of the machine. All actors involved in the system both possess and require information. All actors are continually making decisions that affect the system to the extent that decisions in a part of the system necessarily affect the system as a whole.

### Which observation areas and indicators are important ?

It is probable that when we hear the word « information » in relationship to policy-making in ICT and education, many of us – specialists that we are in gathering and reorganising such information – have a pretty clear idea of what is meant and, if we were to compare notes, it is likely there would be relative agreement between us. Let's imagine for a moment that we are collectively wrong. What if the information we traditionally think of as necessary to manage an institution (financial statements, figures about equipment, data on usage, information about motivation, student test results, … and more elaborate combinations of data in the form of indicators) is not really appropriate for us to pilot the educational system forward in a complex, fast changing situation ? That this might be the case is hinted at by the way decisions based on such data often produce surprising results. An example : following on from various reports and studies, the DfES decided to redefine teachers' tasks in England so as to decrease workload and to upgrade the image of the profession. One unexpected result of this action, in the pilot phase, was to greatly enhance the status and job satisfaction of non-teaching staff. This factor was not included in the predetermined evaluation of the pilot project, an evaluation designed to prepare the full roll out of the idea. This example points not only to the way we are ill prepared for the unexpected, but also the way we compartmentalise the system in our attempts to master complexity. It points to how our fragmented understanding overlooks essential relationships with other areas we have mistakenly disregarded as unrelated or irrelevant.

## 2. ACCESSIBILITY

### Which information is available ?

In the light of what has been said above, maybe this question should be rephrased to ask ourselves about the way we see information and how that way of seeing affects our ability to understand the relationship between that information and what we need to know. It may well be that our perception of information gets in the way of knowing what has to be known. To illustrate the point, we might argue that talking in terms of « available » information tends to point to a sort of disembodied knowledge that can be extracted, reworked and exchanged, disregarding the extent to which knowledge is anchored in people and in contexts. Is it not just this anchorage in people that makes knowledge out of information ? If we considered knowledge as an integral part of the system, just like the people and the structures, then we might have a different attitude towards « information ». That would also shed new light on the notion of « availability ».

### Which role do existing « Observatories » play in decision-making processes ?

The traditional model of management has decision-makers in a privileged position with respect to information. Part of their status as a « special » class of people is tied to their control over information. The idea of « observatory » reflects and reinforces that model. An observatory is a

privileged « place » where information about the system is gathered, analysed and redistributed. What if the idea of the observatory reinforced a « leadership » model that is inappropriate? Is it possible, in a complex system, that pertinent information can be gathered together and « understood » in one place? Is it not possible that the very act of doing so necessarily distorts the image given of the system and consequently misleads those it is seeking to guide? In analysing available information, observatory staff undergo a learning process. However the knowledge thus developed cannot be handed on so easily to people who haven't taken part in the process. Knowledge is built by people in exchange with others, not passed from one person to another like a pre-packed commodity.

## 3. TRENDS

### What are future trends and scenarios?

« Future » is really the key word here. Leadership has to do with getting us to the right future. Any work we do in developing and sharing knowledge has to do with leading us to that future. Two questions are raised here. One has to do with the future of the current mechanical mindset in the management of education and the role of observatory-like structures to reinforce that approach. My hypothesis is that we will find a growing discrepancy between what we plan for the future and what comes about because of the actions we undertake to make it happen, until it becomes impossible not to see that we are doing something wrong. The only hope is that we reach that point and that we do so before the inherent errors become catastrophic. The other question has to do with how we approach the future, what values underlie the way we seek to make the future happen and how learning, i.e. knowledge building, can help us assist the best future to unfold. Currently we walk into the future backwards (our attention fixed on the past or present) with our eyes closed (blinded by habit and our self imposed limits).

## 4. DESIGN

### Towards a new service – Which tools and strategies could effectively support decision-making processes?

Science provides us with a model for understanding complexity based on the life sciences that sees a complex institution as a self-organising system in which the future emerges from the extreme complexity of the present. That future is a result of the complexity itself and not the decision of any one part of the system. The full impact of such a perspective is ground breaking in that it questions how we can effectively have an impact on the future. It questions traditional ideas of leadership and challenges the way we construct knowledge designed to help build the future. It is in this direction that our efforts need to be directed.

The hypothesis put forward here is that there is a « right » future that seeks to emerge that is in harmony with the system as a whole. That future cannot necessarily be predicted from the past or the present. What's more, it is not fixed, but is constantly changing because of what happens in the present. That « right » future exists in the present as lines of force seeking to unfold and our job in relationship to leadership and « gathering information » consists of identifying those changing lines of force and seeking to help them unfold. From such a perspective, clearly all actors are called upon to be « leaders » and all actors are actively developing and sharing knowledge about the system. From such a perspective, it is no longer the past and the present that are our prime focus, but the future as it unfolds in the present.

Alan McCluskey, Alan.mccluskey@educa.ch
St-Blaise, 2004-10-05

### Reading material

Presence – *Human Purpose and the Field of the Future*, Peter Synge, C. Otto Scharmer, Joseph Jaworski, Betty Sue Flowers, SoL, Cambridge MA, 2004
*Wholeness and the implicate order*, David Bohm, Routledge, London, 1980.
*Synchronicity, The Inner Path of Leadership*, Joseph Jaworski, Berrett-Koehler Publishers, San Francisco, 1996.
*The Web of Life – A new synthesis of mind and matter*, Fritjof Capra, Harper Collins, London, 1996.
*Leadership and sustainability*, Michael Fullan, Crown Press, Sage Publications, London, 2004.

1 The following text expresses personal ideas and opinions that in no way should be taken to reflect the ideas or policies of the Swiss Agency for ICT in Education (CTIE).

# Reflection paper

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## 1) USER NEEDS:

### Which information is really needed by decision makers?

They need to know what experts call « competences in ICT ». Decision makers would be grateful to get information on the competences required today and the ones that will be essential in the future. It would help them to cope with the following types of challenges:

- Economic
- Scientific
- Ecological
- Social

### Which observation areas and indicators are important?

Areas: politics, parties, NOG's, industry

Indicators: win of trust, social differences and development, lack of knowledge and sense of reality in education, gap between technical realisation and social needs, ICT is in danger to answer to questions nobody has ever asked or even thought of.

## 2) ACCESSIBILITY:

### Which information is available?

Information on required competences is available in the field academic research. This means that it is quite easy to find didactical, methodical approaches to ICT for the already specialists, although I need to remark that I have got a much better overview of the German side than the international one. But for a broader audience that has less information on the topic it is difficult to find a way and get the right information in time of decision making.

### Which role do existing « Observatories » play in decision making processes?

What does « Observatories » mean? Universities, private institutions, big players in the market of ICT or NGO's? I see big differences.

## 3) TRENDS:

### What are future trends and scenarios?

I see three main lines. One is related to the technical « everything is possible » and will therefore result in the development of new technologies, for example chips under the skin or on the skin. No privacy – you are « public » whether you want it or not. People will become very critical and they will keep distance to everything, which will cut their personal freedom.

Another line is the increased complexity of all systems. For comfort or security we will be guided by more intelligent systems. They seem to make life easier, but are in fact very complex and difficult to handle. If the behaviouristic models (in learning software for example) of today will become more adaptive and are able to provide instant solutions to problems, decision making will be more lifelike, but these systems will be more vulnerable.

The third and most important line will be what is going to happen in African countries or in the economically exploding China. The actual ICT is adapted to the aims, culture and philosophy of a Western, mostly English society. It has no link to any other cultural background except the language of the system.

From an educational and Western European point of view all three lines have an important impact on teaching. We have a lot for foreign employees with different backgrounds in European countries. People in general became aware and are more suspicious of the use of ICT in their daily lives, but want to get more and more comfort.

The media supply a higher amount of information than ever, though the complexity only serves a small group of well trained people – and in democracy decision makers do not always come from that elite.

## 4) DESIGN :

### Towards a new service – Which tools and strategies could effectively support decision making processes ?

We have to do more to do less, meaning we say ‹ yes › to complexity, but not in front of the user. Privacy and trust and reliability must come first and have to be taught in schools, not only in contact with ICT.

The consultant of a decision maker can be a decision maker himself. We have to support and win the trust of the consultant even more than the decision maker himself to become important in the whole process of decision making.

# Reflection paper

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c/o Budapest University of Technology and Economics, H-1111 Budapest Egry J. u. 1

## 1) USER NEEDS:

### Which information is really needed by decision makers?

I would distinguish between decision makers in the policy field, business sphere and institutional leadership, which may have different needs. But for all groups of decision makers, information which is based on well designed, properly analysed and representative research would be needed – less that based on speculative assumptions or theoretical scenarios.

### Which observation areas and indicators are important?

Besides the statistically measurable parameters, market and policy trends, I would put more emphasis on the the comprehensive issues of quality, the evaluation of products, and the complex but consequent comparison with the needs of the society and the given target groups, in support of the long term employability and successful personal carreer paths (including personal satisfaction).

## 2) ACCESSIBILITY:

### Which information is available?

All kinds of information, but with quite different relevance and reliability. The problem is probably that – besides very few unquestionnable research results – it is difficult to find orientation in the rather wide and colorful sphere of surveys with rather diverse value. Even within a given study, some information may be better reliable and proven, another cluster of data inconsistent.

### Which role do existing «Observatories» play in decision making processes?

This is probably too much depending on the current interests of the users/consumers/«subscribers» of the information – the actual concerns and positions, the policy environment largely determine the use of the observations.

## 3) TRENDS:

### What are future trends and scenarios?

Everything and its contrary may sound reasonably probable in the present metastable systems. I would rather use a sort of matrix of future trends, depending on the movement of certain basic factors, among which the economic development is probably the most influential. But I would not underestimate the possibility of a sudden upgrading of the human factors such as the joy of learning, culture of learning in support of improving the quality of life, strenghtening the atmosphere of self-confidence.

## 4) DESIGN:

### Towards a new service – Which tools and strategies could effectively support decision making processes?

Better scrutinised investigations, providing clear comparative information for decision makers (keeping in mind their different positions and thus interests as well).

### Credible presentation of potential and advantages of e-learning – what is it good for and what not?

A new generation of summative, transformative projects.

A sort of mapping tool for observatories – for finding the relevant data and distinguishing between different surveys. An orientative benchmarking system for the qualification and «taxonomy» of observatories.
Bringing closer the educationalist and the more ICT-based research and communication between these fields.

# Reflection paper

Carl Holmberg
Swedish Agency for Flexible Learning (CFL)
Karlavägen 9, SE 114 24 Stockholm, Sweden

## 1) USER NEEDS:

### Which information is really needed by decision makers?

National decision makers:

- How policy develops in European Union, US, neighbouring countries.
- Thorough information on trends, developments in the surrounding contexts – macro and micro settings. The latter could concern people's beliefs and attitudes towards technology related changes.
- Strategies for technology related changes from different milieus and data from implementation and evaluation of them.
- Uptake, effects of own policy decisions and strategies.

### Which observation areas and indicators are important?

- Impact of policies: Are the policies transformed into «local goals and strategies» for action. Often you can see ICT related actions without a framework of ideas about where to arrive, what long term effects are expected. As the local contexts vary to a large extent, they also need to adapt or transform EU-goals and national goals to the local context.
- Systemic changes. Are the education systems moving towards goals nationally decided? Examples: Learner orientation, increased flexibility in system-design, using ICT as a tool for co-operation between students.
- Consequences on the individual level: In policy documents often consequences on the individual level are foreseen. Realistic or not these expectations should be researched. E.g. do individuals really have access to lifelong learning?, do individuals take part more in social life, more of democracy?

## 2) ACCESSIBILITY:

### Which information is available?

- Huge masses of documents on policies.
- Statistics from national and international sources, focusing on easy to measure variables.
- Case studies.
- Increasing number of research studies, but far more systematic research is needed.

### Which role do existing «Observatories» play in decision-making processes?

I have little knowledge of that. My impressions are that they are not used to their full extent in the setting where I act.

## 3) TRENDS:

### What are future trends and scenarios?

- From politicians a growing un-interest in the ICT field as such. The issues are successively more integrated into other development areas.
- People like us (Swiss seminar) are realising the importance of teacher training and teacher trainers as key processes and key stakeholders in the ICT related change of school systems.
- Arising conflicts between those who have or have had power in the education systems, and those who power will be distributed to when foreseen changes will take place. To my opinion that is probably part of an explanation to why teacher training is so slow in take up of the possibilities related to ICT.

## 4) DESIGN:

### Towards a new service – Which tools and strategies could effectively support decision making processes?

- What I often find missing is more in depth analysis of already existing data.
- As findings, experiences in one context not easily travels to an other also here more of analysis has to be done to show what is transferable and what is not.
- Research programmes. Expectations on the education systems are extremely high (mass education, attract new groups, life long learning, …) Still very little resources are invested in research into the area.
- «Dialogue seminars» – people from «watch towers» meet politicians for dialogues around the transformations of education systems.

# (Mis) alignment of National ICT Policy, Curriculum and Assesment – an on-going international comparative analysis

Eileen Freeman[1] & J. Enrique Hinostroza[2] & Brendan Tangney[3]
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Towards our discussion on a future Policy Observatory, attached an abstract of a co-authored paper in progress.

## Abstract

Worldwide, the integration of ICT in school systems is high on the political agenda, evidenced by substantial government and private sector investments (OECD, 2001, 2002). Not surprisingly having made such large investments governments are looking for evidence that their investments were worthwhile. Within education systems in general there is an increasing emphasis on benchmarking and accountability and not surprisingly it is being asked if these benchmarking exercised show up any impact of ICT in student assessment at the national level. In general the answer to this question is NO ! Not surprisingly this is a matter of considerable concern for policy makers and those funding education.

The ongoing debate in the ICT in Education literature, between researchers such as (Carnoy, 2002), (Cuban, 2001) and Healy (ref) on the one hand and mainstream opinion on the other, as to why ICT is not having the benefits its proponents promised is well known. Reasons put forward, by both camps, as to why ICT is not being as successfully integrated into the classroom include infrastructural issues, technical support, time pressures on teachers, teachers ICT skills (basic literacy and advanced understanding of how to integrate ICT into learning), etc. .

A neglected aspect of this debate is the relationship between ICT in education policy, and national curriculum and assessment policies. We argue that there is an intrinsic causal relationship between these three aspects of an education system (policy) and that in many countries' ICT in education policies, these three levels are not coherently aligned. We argue that this misalignment is a major contributing factor to why the benefits ICT are not being realised and in the cases where they are realised why the benefits are not showing up in evaluation studies.

If the appropriate use of ICT is not embedded in the curriculum, it is unlikely to have any major visible impact in assessment or evaluation studies. Complementarily, if it is embodied in the curriculum but not assessed appropriately, it is likely not to be used, and even if it is used, it will not show up in the assessment. In either case it will not have a visible impact.

Following a review of how policy, curriculum and assessment are aligned in various countries and how ICT policy objectives fare in national evaluations this paper argues that in aligning policy, curriculum and assessment one should assess the things one can while acknowledging the benefits which cannot be (formally) assessed. We argue for a « push-pull support model » in which national education systems are **pushed** by curriculum and standards, **pulled** by assessment, evaluation and incentives and **supported** by resources, materials and methods.

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# Power Shifts

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## Power Shifts

Power Shifts are dual descriptors of situations. It is assumed that reality lies between the two concepts, and could be manipulated in both directions.

## 1 Public / private

The domain is under central state's control, or a large autonomy is granted to economic and civic organisations.

### 1.1 Free / paying

Wethwe the costs are assumed by state, or everybody has to pay for himself.

### 1.2 Regulated / deregulated

Wether the whole field is regulated by state or private organizations, or is left free to individual initiative.

## 2 Production / consumption

To produce a peculiar, better, answer to peculiar requirement, or simply use something already at disposal.

### 2.1 Active / passive

To think at and produce something better, or just use a poor existent.

## 3 Single formation / lifelong formation

One has to follow only one educational cursus, or has to follow many trainings during his professional life.

## 4 Global / sectorised

Wether assets are seen as valid for every entity, or the particularities are promoted.

### 4.1 World/national

Globalisation, or respect for national particularism.

### 4.2 International / regional

This shift deals with « international culture » or the respect and the protection of weaker culture.

### 4.3 General / trade

The scope is the whole set of actors, or one peculiar context.

### 4.4 System / singularity

Every little thing is seen as related to others, or per se.

### 4.5 Relocation / location

To produce or buy services where it is the more profitable or adventageous, without taking in account the local needs.

## 5 Central / local

Wether the central state holds the entire control, or a great amount of prerogatives are left to local authorities.

### 5.1 Unic policy / multiple policies

Wether the same policy is enforced by all the entities, or many policies are carried out by numerous entities.

## 6 Analogic / digital

More than just a descriptor of a technological condition, this shift is like a world's divide's measure.

### 6.1 Without technology / with technology

The process is accomplished without using any new technologies, in traditional way, or is re-examined in order to take advantage of the new contributions of technologies.

## 7 Loneliness / cooperation

To do a job and study alone, or studyng with others.

### 7.1 Individual / cooperative

Working and studying alone, or studying in a network because cooperation makes creativity and learning easier.

## 8 Open / patented

User may use, dismantle, study, modify or give a soft provided that he respects the work of other people, and share his contribution, or everything is patented, prohibiting the use, the gift or the dismantling of a soft without right.

## 9 New creation / consolidation

The traditional way of doing seems to be enough usable, but a evolution is desirable. Or the traditional way of doing is suffisant effective, and a strengthening is expected.

### 9.1 Evolution / tradition

Wether the traditional know-how is obsolete and has to be updated, or the traditional way of doing is, or seems to be, efficient, and evolution is rejected.

## 10 Presence / distance

Gathering in a classroom or get in touch with other students, wherever it is possible, thanks to the modern technologies.

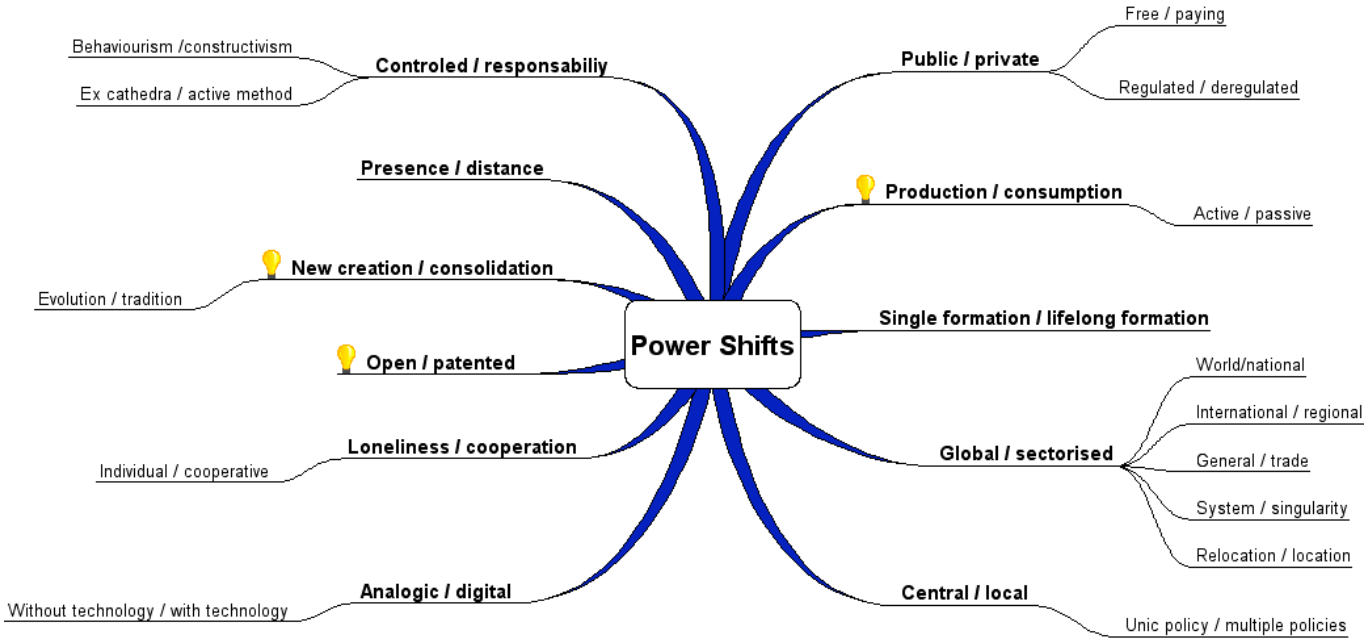
## 11 Controled / responsabiliy

### 11.1 Behaviourism /constructivism

The knowledge is given, one has to learn it receiving inducements or punishments. Or the knowledge has to be constructed by active participation, no matter the answer is wrong or right. Only the process is valuable, not the instantaneous result.

### 11.2 Ex cathedra / active method

Wether you have only one teacher, playing a part in front of numerous passive students, who hardly remember what they're listening to, or you have the same number of teachers and students, constructing knowledge all together.


Power Shifts
Controled / responsabiliy
Behaviourism /constructivism
Ex cathedra / active method
Presence / distance
New creation / consolidation
Evolution / tradition
Open / patented
Loneliness / cooperation
Individual / cooperative
Analogic / digital
Without technology / with technology
Public / private
Free / paying
Regulated / deregulated
Production / consumption
Active / passive
Single formation / lifelong formation
Global / sectorised
World/national
International / regional
General / trade
System / singularity
Relocation / location
Central / local
Unic policy / multiple policies

# Reflection paper

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## 1) USER NEEDS :

### Which information is really needed by decision makers ?
### Which observation areas and indicators are important ?

The need for information depends on the framework of decision making. One could distinguish large scale (national, European), regional and local (school level) decision making processes. On each level a different set of information is needed for different types of actions. The situation for decision makers can be characterised by the following conditions :

a) The public debate on education in the media highlights specific items in order to create attention. In many cases political decision makers have to react at short notice despite of the interrelated and complex nature of the problems.
b) There is a lack of time for in-depth analysis of the present situation, the everyday business and other pressuring tasks leave little space for long- and mid-term strategic thinking. Nevertheless there is a need for networked and cross-sector thinking.
c) There is no sufficient awareness or – the opposite – there is a confusing number of visions on learning in the 21st century. Existing visions are rarely connected to specific actions for further developments and consistent decision making. These visions and guidelines need to be future oriented and open, but at the same time sufficiently specific and concrete to have a real impact on decision making.
d) The reference to comparative international data can be used to create political pressure or to back-up decision making in the past. The problem of a holistic interpretation of comparative data arises.

With regard to strategic planning it is important to link educational programmes and recommendations to potential means of assessment. Political recommendation are often quite vague. How to bridge the gap between educational vision (recommendations) and adequate assessment of « success » ?

The observation area and the relation between organisational development and ICT requires more attention. The theme ICT tends to be observed in an isolated instead of systemic and networked way.

## 2) ACCESSIBILITY :

### Which information is available ?
### Which role do existing « Observatories » play in decision making processes ?

There is a substantial number of observatories in the field. They differ in terms of methodology, frame of reference and empirical data. It might be a fruitful idea to create a meta-observatory which gives a structured overview of the existing observatories in the field.
The role of existing observatories is often used in the sense of item (d) above.

## 3) TRENDS :

### What are future trends and scenarios ?

– Internationalisation : more international communication about indicators and assessment systems
– Systemic interpretation : Indicators on framing conditions will gain importance
– Organisational development : ICT will play a role not only as cognitive competences (« media / digital literacy ») or equipment (PC per pupil rate) but also as an organisational issue : observation systems have to take this into account.
– Quality assurance as integral elements of educational programmes.

## 4) DESIGN :

### Towards a new service – Which tools and strategies could effectively support decision making processes ?

A new service for decision makers should take into account the complexity of ICT integration processes. These processes are not restricted to educational policy making (e.g. national ICT Programmes) but rather comprises also the (educational and organisational) research area and ICT market and technology developments.

A new and expanded service could work on three levels :

– Mapping : « Information locator », retrieval service « search engine » focusing on selected information stored in a database system. This could include a portal of existing « observatories » with a special focus on ICT.
– Modelling : Interpretation and assessment of mapped data. The level deals with a systemic description of interrelated factors. This level can be seen as a condensed expert opinion on two perspectives : the « problem-finding » and the « target-setting » perspective of indicators. The complex question of reliability and validity of indicators and empirical data must be raised.
– Mediating : National and international dissemination of findings and activities. Discussing the national boundary conditions and organising a knowledge exchange on a regular basis.

# Reflection paper

Helmut Stemmer – Vienna, Austria

## User Needs / Accessibility

Which information is available?
Which Information is really needed by decision makers?
Which observation areas and indicators are important?

| Observation areas | Information available |
|---|---|
| **KIDs** | |
| Which level of ict-literacy do/should kids have | |
| – Intensity of ict-use in schools in all subjects (integrative) | No |
| using e-learning/blended learning methods | No |
| – in a special subject in a regular form or voluntary | Yes |
| – numbers and figures of ict-certifications | Yes |
| – numbers and figures of Internet-PCs at home | Yes |
| **TEACHERs:** | |
| Form of ict-knowledge, ict-competencies and knowledge in methodical | No |
| and pedagogical aspects in e-Learning or blended learning scenarios, | |
| numbers and figures of ict-certifications (Intel, ECDL); numbers of courses | Yes |
| **SCHOOLs** | |
| School (developing) program: Visibility of e-Learning/blended Learning activities? | No |
| Which kind of ict-activities are supported by school, to strengthen or to stabling eL/bL facilities? | No |
| Number of e-learning rooms (single learner, small groups or whole classes) | No |
| **Hardware** | |
| School environment (Internet-Computer, Peripherals) and support structure (humans) | Yes |
| Number of Notebook/PDA-classes | Yes |
| Networking (intranet, connection to Internet) | Yes |
| How much infrastructure needs a school implementing eL/bL in each subject | No |
| **Curriculum** | |
| Visibility in the curriculum in the various subjects | Yes |
| Which kind of competencies should be necessary (in theory: yes; in praxis?) | Yes |
| **Standards** | |
| Which form and nature of ict-competencies are necessary at what age | No |
| (not only how to use ict – this is much more than ecdl-competency! | |
| For example information and knowledge management in general | No |
| ict-workingtime (inside the school / at home) in competition with other school-requirements | |
| ict-literacy at what level/age and measurement/control | No |

| | |
|---|---|
| **Projects/Activities**<br>What kind of pilot-projects are running in the country ; acceptance ?<br>What kind of general activities are remarkable (eCLUSTER of schools,<br>ict-certificates like ecdl ; e-Certification of schools like concept : schoolportraits) | Yes |

## Trends

What are future Trends and scenarios ?
Every student will own a notebook or PDA or something like that with connection to the Internet or to e-Learning-utilities (for example : learning-hot spots with free access – similar to e-government solutions) ; anytime anywhere

A lot of educational content is available, ready for use and combined with different methodical instructions for the best use (for kids and teachers !)

Keyboard will loose importance in terms of mobile learning environments – language output will dominate the communication process
Translations systems will allow to « understand » all documents in the mother tongue.
Avatars/intelligent agents will help the learner in aspects of knowledge management systems

## Design

Towards a new service – Which tools and strategies could effectively support decision making process ?

Commitment for a framework of references on behalf of ict-competencies combined with the Standardisation of ict and

- learning to know
- learning to understand
- learning to do

**and**
- learning to be
- learning to live together

complex forms of controlling inside the schools to see, if the students have reached the goals ; but not only through tests but also through e-Portfolios and mentoring by the teacher

Watching the Change process of the learning behaviour, also teaching style ; social processes inside the school community ; new forms of interactions between learner and teacher

# Reflection paper : some tools

Raymond Morel
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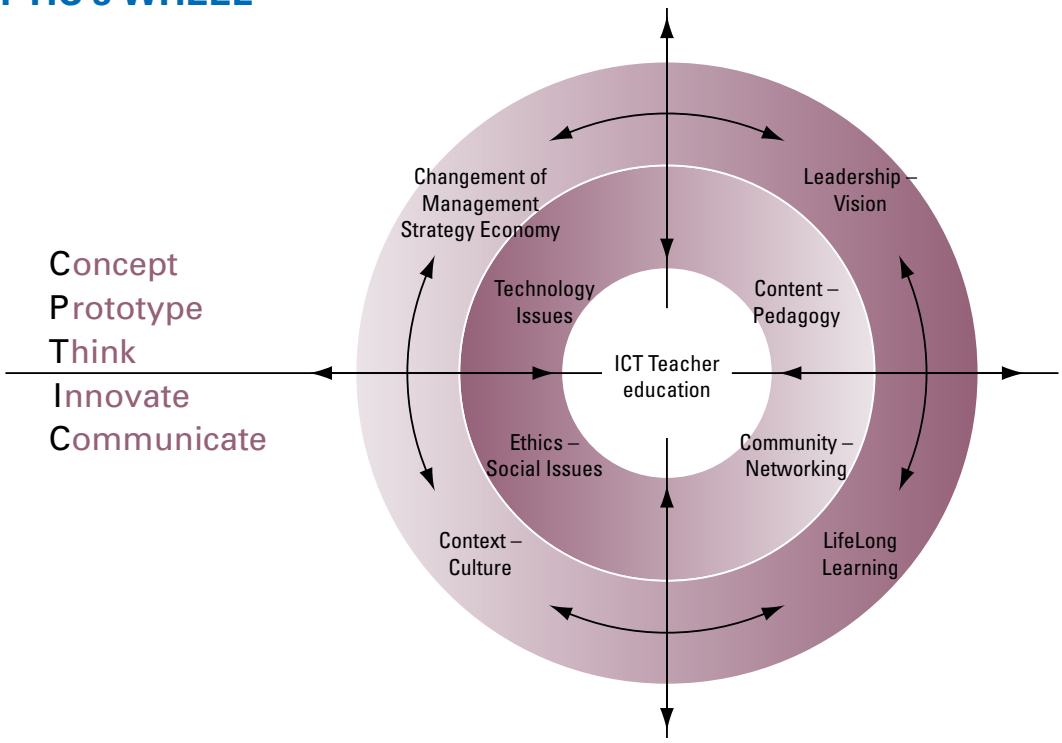
## 1. The CPTIC's WHEEL




## 2. The M-Matrix

*From INFOSHARE Volume 4 page 41*

**Table 2: "Morel's Matrix"**

| Criteria / Phase | Emerging | Applying | Integrating | Transforming |
|---|---|---|---|---|
| Context | | | | |
| Pedagogy | | | | |
| Vision | | | | |
| Coverage of ICT Strategy | | | | |
| Curriculum | | | | |
| Resources | | | | |
| Staff development | | | | |
| Quality assurance | | | | |

Page 1

## 3. From the HLS with IITE-UNESCO

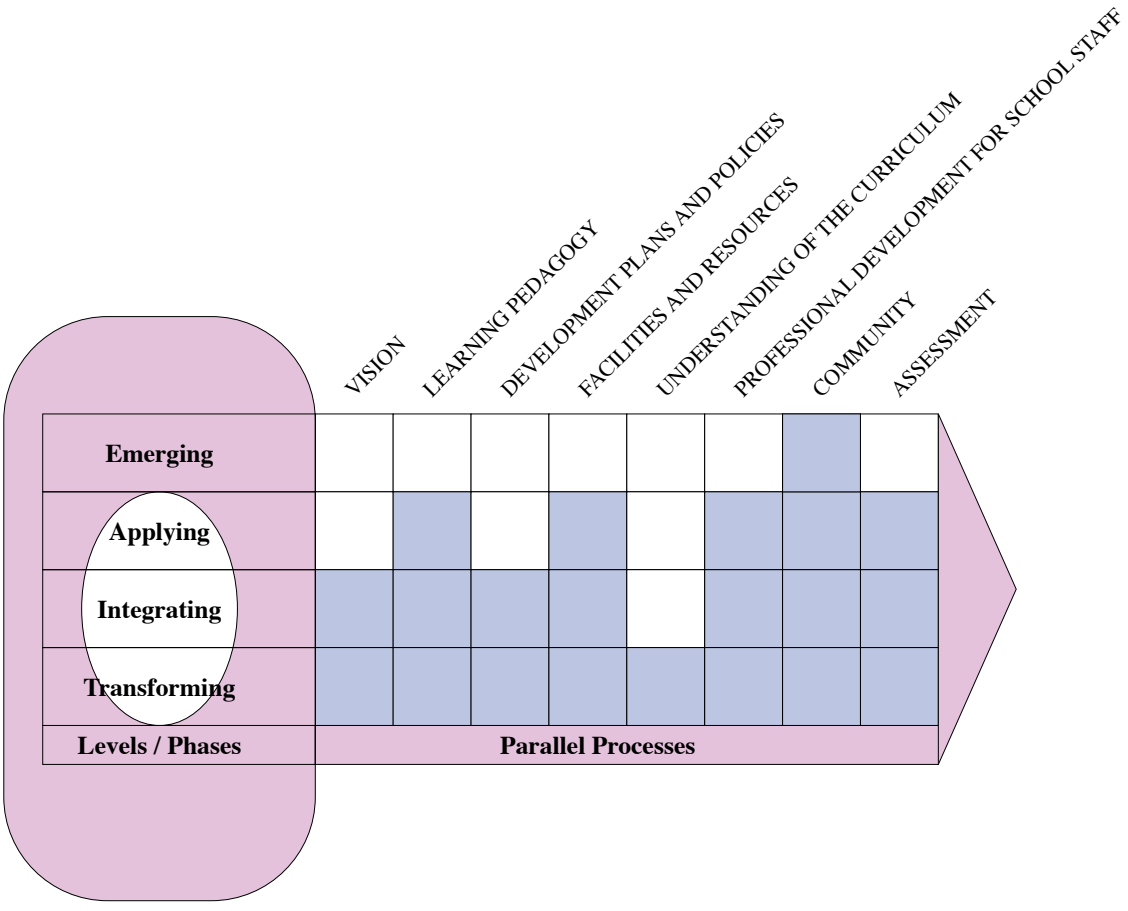
*From INFOSHARE Volume 4 page 41*

**Table 2: "Morel's Matrix"** (result at 6.00 pm 19.2.03)

| Criteria / Phase | Emerging | Applying | Integrating | Transforming |
|---|---|---|---|---|
| Context | E E E E E E<br>F<br>K K | E E E E E E<br>F F F F F<br>K K | E E<br>F F F F F F F<br>K K K K K K | E E<br>F F F F<br>K K K K K K |
| Pedagogy | E E E E<br>F | E E E E E E E<br>F F F F F F<br>K K K K K K K | E E E<br>F F F F F<br>K K K K K K | F<br>K K K |
| Vision | E E E E E<br>F F<br>K K | E E E E<br>F F F F F F<br>K K K K | E E E E<br>F F F F F<br>K K K K K K K | E<br>F F F F F F<br>K K K K K K K |
| Coverage of ICT Strategy | E E E E<br>F F<br>K | E E E E E E<br>F F F F F F<br>K K K | E E E<br>F F F F F F<br>K K K K K K | E E<br>F F F<br>K K K K K |
| Curriculum | E E E E<br>F<br>K | E E E E E E<br>F F F F F F F<br>K K K K K | E E E E<br>F F F F<br>K K K K K K | E<br>F<br>K K |
| Resources | E E<br>K | E E E E E E E<br>F F F F F F<br>K K | E E<br>F F F F F F F<br>K K K K | E<br>F F F F<br>K K K K K K K |
| Staff development | E E E<br>K | E E E E<br>F F<br>K K K | E E E E<br>F F F F F F F<br>K K K K K K K | E E<br>F F F<br>K K K |
| Quality assurance | E E | E E E<br>F F F F F F<br>K K K K K K | E E<br>F F F F F F F<br>K K K K K K | E E<br>F<br>K K |

Page1

## 4. The IFIP-UNESCO KEY




RM/8-10-04

# Reflection on ICT & Education

SATW meeting Muenchenwiller, October 10-12, 2004
Tom van Weert – Utrecht, The Netherlands

## Tension between systems and the outside world

The introduction of ICT is causing considerable tension between systems, like those of education, health and democracy, and what is happening outside them. One of the major challenges of the Information Society is institutional change. Institutions are the building blocks of society and, as such, the future of society depends on our ability to adapt and/or develop institutions that structure and give sense to our lives.

Much important learning using ICT takes place outside the educational systems in so-called ‹*Learning Communities*› or ‹*Communities of Practice*›. This situation fundamentally challenges the pertinence of institutional based learning. Educational institutions have considerable difficulties reconsidering their relationship with learning taking place outside their own limits. The question challenges one of the unspoken central tenets of school: school is the privileged place for learning. Correctly speaking, school is the privileged place of teaching, but not necessarily of learning. Learning and teaching are not at all synonymous. In their difficulty to recognise the challenge that comes from increasing non-formal learning, schools run the risk of being increasingly seen as marginal by society and loosing their essential role in helping to structure our understanding of what learning is about.

## Redefinition of educational goals

Educational goals need to be redefined to take this into account. Redefining goals needs to be related to defining competencies, integration into education and other forms of evaluation. This area represents one of the major axes of work for the future: defining goals, devising new structures, identifying competences, elaborating ways of developing these competencies, creating suitable forms of evaluation. Together this will constitute ‹*New Education*›.

### Learning is asking the ‹right› questions

Students need learn to ask fundamental questions – this is the main purpose of education. This thought reflects the shift away from the image of education as the «mechanical» transmission of knowledge towards a more constructivist approach to learning in which individuals need to construct their own understanding. The constructivist approach introduces the idea that exchange and processes are the keys to learning. It also challenges the process whereby experts develop knowledge in lieu of others and then «transfer» this knowledge to those who need it. A second thread of thought can be seen in this statement: learning has to do with asking questions more than providing answers. Much institutional learning is rooted in providing answers. The «half-life» of ready-made answers is getting progressively shorter as our understanding of society becomes more and more complex and change accelerates. This phenomenon reduces the value and the usefulness of such answers and threatens individuals and groups in their perceived identity.

### An experimental attitude

There is an art to asking questions that has something akin to childlike wonder and naivety. Assumptions are extremely convenient and absolutely necessary if we are to function in a complex world. Very many things have to be taken for granted. If fundamental choices were continually challenged, nothing would ever get done. Yet, at the same time, when change accelerates, foregone conclusion and the self-evident can lead to serious mistakes of judgement in a fast changing world. So we need to cultivate a certain «enraptured detachment» that marvels in seeing the self-evident as something new and strange, we need an ‹experimental attitude›.

### Learning networks

Answers to questions are sometimes available elsewhere, but are not always accessible.

The reference here is to the barriers between particular areas of activity when it comes to the flow of information. This is particularly the case between research and teaching practice. The dynamics of the research context are often such that there is little incentive to communicate results to anyone other than fellow researchers. This situation is unacceptably wasteful. We need a more « ecological » approach to knowledge and its development. There are often fundamental differences in perspective between researchers and those working in the field, like teachers requiring a considerable effort to establish exchange of knowledge and experience between these actors. A possible answer might lie in some form of « co-learning » in learning networks.

## A shared ‹ vision ›

The first step to shaping the modern world is developing a shared vision based on a clear idea of what is happening. This is the first step towards launching appropriate activities in the so-called « Information Society », in particular as far as the digital divide is concerned. Note that there is not one « digital divide », but many. For example North/South, East/West, poor/rich, men/women, young/old, town/countryside, trained/untrained, … The word « vision » – whose impact has become somewhat diluted through overuse and abuse – refers here to the need to address the underlying values and goals that shape action. The aim of having a « shared » vision is above all to promote the transparent discussion of values and goals in a world where much of the driving motivation behind action goes unchallenged and un-discussed. Behind the suggestion that a « clear idea of what is happening » is necessary is the fact that many claims to truth turn out to be based on beliefs or wishes rather than « hard » facts. Science was put forward as a paradigm of objective truth, but unfortunately science is not always as objective or as truthful as it would wish and this for reasons that are themselves quite scientific.

## Effective development of a shared ‹ vision ›

Practically speaking, developing such a shared vision requires the promotion a culture of open, transparent exchange about values and goals. It requires cultivating a « naïve » approach that challenges foregone conclusions and that which is self-evident in a drive to understand the values and goals that underlie our action.

A core group of institutions should be set up who agree to evolve such a global vision and **implement it** in institutional strategy and practice. To give body to these ideas and to translate them into concrete actions, a couple of suggestions were put forward. One concerned a North/South twinning of schools using ICTs with a view to developing a relationship that seeks to avoid « neo-colonialism ». That is to say, the setting up of two-way exchange of ideas and knowledge that not only respects diversity but considers it as an immense source of richness.
Another action, mentioned above, concerned mobilising institutions to implement the propositions given here. Universities may be first considered because these represent a key step in providing skills and knowledge for professional activities and are relatively close to the professional world. One could argue that the whole education system should be concerned, but universities have greater freedom than schools or colleges in determining their policies and obtaining additional funding and as such are more able to implement the necessary changes. The major question is going to be to what extent existing academic culture and the related ways of working can be modified through a process designed to elaborate a shared vision.

# Reflection paper

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## 1) USER NEEDS :

### Which information is really needed by decision makers ?

In the broadest sense IT is only important if it improves the education.
So the first question is : Can IT improve education ?
Most seem to take this for granted but some studies show the contrary

Next decision makers need to know what instruments are needed in order for IT to make a difference :

- Physical environment ?
- Hardware ?
- Software ?
- Teacher training ?
- Different curriculums ?
- Teaching method adjustments ?
- etc.

And thirdly what policy tools are available to further the chosen instruments

- Subsidy ?
- Law-making ?
- Stimulatin demand or supply side ?
- Central or decentralized control ?

### Which observation areas and indicators are important ?

Some sort of proxy that could measure the pedagogical use of IT in education, rather than the traditional attempts to measure the use of IT :

- number of computers,
- how often do you use e-mail,
- how long time do you use the internet each day
- etc.

## 2) ACCESSIBILITY :

### Which information is available ? Which role do existing « Observatories » play in decision making processes ?

Very small role in Denmark
In the EU ?

## 3) TRENDS :

### What are future trends and scenarios ?

1. More focus on knowledge sharing and learning management
2. Enhanced demands for written communication skills of teachers
3. A ‹ fight › between learner focused and teacher focused learning methods – and the ICT solutions that go with either.

## 4) DESIGN :

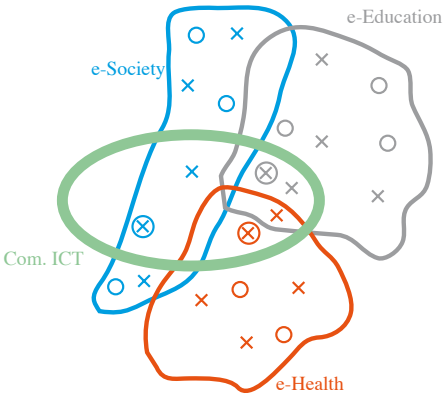
Towards a new service – Which tools and strategies could effectively support decision
making processes ?

# Partie D

## Documents de références

e-Health
e-Education
e-Society

Engineering the Knowledge Society




# Rapport annuel 2004 de la Commission ICT et de ses groupes de travail

## 1. Après le Sommet mondial de la Société de l'information de décembre 2003 (WSIS)

http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=35

Après avoir organisé le Forum EKS (« Engineering the Knowledge Society ») dans le cadre du WSIS, la Commission ICT a procédé à un **bilan** et au **suivi** de cet événement qui fut un grand succès et une démarche qui a placé la SATW dans une posture et une **visibilité** accrue. La moisson d'idées et de contacts a été stupéfiante et cette activité a été des plus tonifiante pour la commission et ses groupes de travail dans la perspective des thématiques à traiter : cela a également fixé non seulement un **cadre légitime institutionnel** avec le mécanisme sur une décade des sommets mondiaux, mais encore offert, pour notre pays qui révise sa stratégie fédérale, une excellente occasion de mieux **mesurer l'étendue des travaux à accomplir**.

Plus concrètement, les **proceedings** du Forum EKS ont été publiés à l'automne 2004 par l'éditeur officiel de l'IFIP (Kluwer-Springer ISBN 1-4020-7755-6
http://www.springeronline.com/sgw/cda/frontpage/0,11855,5-155-22-34955378-0,00.html
De plus, sur le site de la Commission ICT, l'internaute trouve une collection de plus de 100 « **cartoons** » de l'illustrateur-philosophe Pécub sur les thématiques correspondantes au WSIS. Ces dessins humoristiques sont libres de droits pour autant que la mention « Forum EKS » soit précisée afin de rappeler l'origine de ces travaux.
http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=16

## 2. Groupe de travail e-Health

http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=4

**La santé de la population constitue un enjeu au niveau national.**
**La modernisation du système de santé grâce à e-Health reste un défi à relever avec la collaboration de toutes les parties prenantes.**
**La SATW a un rôle à jouer.**

Le groupe de travail e-Health a accompli en 2004 les travaux préparatoires pour une série de trois workshops précédant une conférence nationale planifiée en 2005. Le contexte de ce projet (liens e-Health vs Télémédecine) a permis de mieux cerner les attentes, mais aussi les barrières et les freins avant de pouvoir imaginer un futur système de santé intégré où les ICT ne sont que des « enabling technologies ». Ce projet e-Health tient compte de l'existant tant en Suisse qu'à l'étranger et rencontre les préoccupations des acteurs pluridisciplinaires sur le terrain comme des leaders du monde politique au niveau national. Les 6 thèmes choisis sont :

1. **Stratégies** pour exploiter le potentiel de e-Health dans le système de santé et scénarios possibles pour son introduction en Suisse.
2. La carte-citoyen, notamment la **carte-santé** en tant que clé d'accès sécurisé aux données médicales.
3. **Interopérabilité** des systèmes informatiques comme pré-condition pour la communication et l'échange des données.
4. **Sécurité des données et accès sécurisé** ; confiance et protection de la sphère privée.
5. **Aspects légaux**, les 26 législations cantonales et conséquences pratiques.
6. e-Health : **Nouvelle activité économique** pour la Suisse ? Facteur de croissance ? Perspectives d'exportation ?

Les **aspects transversaux** des thèmes seront aussi considérés, notamment **l'éthique** et **l'acceptation** de e-Health par les patients et les professionnels de la santé.

## 3. Groupe de travail e-Education

http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=5

Après le workshop de mai 2003 (fascicule n° 3) à Münchenwiler sur la thématique prioritaire de la « Certification des formateurs de formateurs » en liaison avec la CDIP-CH et le projet fédéral PPP-l'école sur le net, le groupe de travail a accompagné les propositions élaborées pour les introduire dans les **dispositions légales** (règlement et profil F3-MITIC) qui ont été finalisées à fin décembre 2004. La trace de cette manifestation est disponible sur http://ict.satw.ch/SPIP/IMG/pdf/mun200305.pdf.

Toujours avec une vision de promouvoir de manière intercantonale les échanges autour de la professionnalisation des formateurs et de discuter avec d'autres acteurs de la thématique « lifelong learning », le workshop de septembre 2004 à Münchenwiler s'est concentré sur « **les référentiels de compétences minimales MITIC**[1] » afin de répondre aux questions suivantes :

- Qu'en est-il des compétences mises en œuvre par les écoliers, les étudiants, les enseignants de tous les niveaux, les formateurs , les parents d'élèves, voire les décideurs politiques et administratifs ?
- Quelles sont ces compétences qui définissent le rôle de chaque acteur de l'éducation ?

Les travaux de ce workshop (publiés dans le fascicule n° 4) ont été articulés autour de quelques exposés, des contributions des participants, des moments d'échanges et d'élaboration de **propositions concrètes** qui vont faire l'objet d'un autre fascicule SATW (avec fichier pdf sur le site de capitalisation de cette manifestation http://www.f3miticbjn.ch/spip/rubrique.php3?id_rubrique=59

Pour le workshop 2005, la cible est déjà connue avec « accompagnement d'activités et de projets pédagogiques », en novembre et à Münchenwiler.

## 4. Groupe de travail e-Society

http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=6

Après WSIS, il paraissait normal de travailler par rapport à notre pays dans le workshop de Münschenwiler en novembre 2004 avec pour intérêt aussi le **lifting de la stratégie de 1998 du Conseil fédéral pour la Suisse dans la société de l'information**.

Les objectifs de cette manifestation annonçaient l'ambition de formuler des priorités et des recommandations sur le suivi du SMSI (WSIS) dans une optique suisse.

Les motivations de cette rencontre se retrouvent aussi avec les remarques et les questions suivantes :

- Où se situe la Suisse au début du XXIe siècle dans la société de l'information ? (Quelles sont ses forces ? Quels sont ses atouts ? Quelle est sa vulnérabilité ? Quelles sont ses faiblesses ?).
- Comme c'est le cas dans tous les autres pays, il existe des problèmes urgents à traiter (coûts galopants de la médecine, difficultés avec le système éducatif, problèmes de financement des prestations de l'Etat, dispositifs à mettre en place pour la sécurité, etc.). Les ICT (Information & Communication Technologies) peuvent contribuer à aider à mettre en place des solutions, mais à certaines conditions, contraintes et priorités qu'il convient d'expliciter.
- Il y a nécessité de débats entre les différents partenaires de la société (gouvernement/autorités, liens avec les organisations internationales, secteur privé, ONG, Société civile, etc.).

Il s'agissait aussi d'utiliser la situation privilégiée et l'indépendance de la **SATW** dont le rôle est à la croisée de nombreux interlocuteurs, afin de susciter et d'accompagner un tel débat.

La réunion de novembre a permis d'**élargir la réflexion** en explorant des domaines allant de la culture à la cyber-administration, de l'économie à la sociologie, de la sécurité aux aspects juridiques, de la technologie à l'exclusion, etc. Ces journées ont rendu possible la définition de domaines dans lesquels la Suisse devrait s'engager et de **dégager des priorités** à réaliser à court, moyen et long termes qui doivent être recommandées aux autorités et aux principaux acteurs concernés.

Le suivi des résultats, très intéressants, car élaborés par un ensemble de participants représentant maints aspects de e-society (un dossier de 18 pages, avec une réelle stratégie pour l'ensemble de la société de l'information, des recommandations, des actions prioritaires, etc.) occupe bien le groupe de travail. Le fascicule n° 2 est la matérialisation des efforts et des idées rassemblés (http://ict.satw.ch/SPIP/IMG/pdf/mun200411.pdf). De plus ce suivi tombe exactement avec la période de consolidation de la révision de la stratégie du Conseil fédéral. Pour plus de détails, consulter le site http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=56

Comme pour WSIS, sur ce site se trouve une collection d'une centaine de « cartoons » de l'illustrateur-philosophe Pécub sur les situations évoquées durant le workshop. Ces dessins humoristiques sont bien sûr libres de droits pour autant que la mention de la source soit précisée afin de rappeler l'origine de ces travaux.

http://ict.satw.ch/SPIP/IMG/galeries/galerie%20Munchenwiler/

## 5. Vers une fédération des observatoires en Europe

(http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=55)

La Commission ICT a collaboré en octobre 2004 avec plusieurs observatoires pour l'éducation du continent afin d'aborder des questions fondamentales sur les **stratégies nationales et leurs évaluations** sous le titre :

**From Observation to Action : Challenges for Policy and Decision Makers in the Field of ICT in School Education**

In most educational systems ICT will be an integral part of teaching, learning and organisational development. Over the last decade major efforts have been undertaken by public and private stakeholders to promote the use of ICT in educational settings. At the same time a significant number of research studies have explored the complexity of interrelated driving factors on various levels of the educational system. The integration of ICT in education can be understood as a complex and multi-dimensional process.

**For decision makers and policy makers it is important to have access to relevant research findings and case studies to support national decision making**: What are the ‹driving factors› and ‹obstacles› when integrating ICT in education? Depending on the level of analysis sought, a huge amount of data can be found; there are statistical databases on education systems, case studies, research projects and a number of relevant « observatories » which collect relevant data in the field. Nevertheless the challenge remains: **How do I**, as a decision maker, interpret this data and how can I assess progress and innovation in view of my regional, national or trans-national framework of action? **How can I** distil key findings and extract knowledge for my own decision making?

The purpose of this international workshop is to **re-think decision making processes in view of ICT in school education** from a meta-perspective. Which conclusions can be drawn from a trans-national policy auditing process? Could peer-to-peer reviews support the national/local decision making process? Which tools could be used respectively developed to help policy makers on national level?

Existing observatories and research activities (ca. 16 institutions) lay the basis for discussing the following key questions :

1) USER NEEDS : Which information is really needed by decision makers ? Which observation areas and indicators are important ?
2) ACCESSIBILITY : Which information is available ? Which role do existing « Observatories » play in decision making processes ?
3) TRENDS : What are the important trends and scenarios ?
4) DESIGN : Towards a new service – Which tools and strategies could effectively support decision making processes ?

Le résultat de deux jours de travail fut une pré-proposition **F-ONE** (Federating Observatories and Networking for Education) dans le cadre EU-Minerva. Elle a été acceptée dans la deuxième quinzaine de janvier.

## 6. Autres synergies

Pour avoir une idée plus globale de ce qui se déroule en termes de collaboration et d'échanges, se référer aussi aux travaux vers et depuis l'IFIP avec ICTswitzerland, the Swiss IFIP Committee à partir des liens suivants :
http://ict.satw.ch/SPIP/article.php3?id_article=257
http://ict.satw.ch/SPIP/rubrique.php3?id_rubrique=21

Raymond Morel, président Janvier 2005

1 MITIC : Médias, Images et Technologies de l'Information et de la Communication

SATW

Schweizerische Akademie der Technischen Wissenschaften
Académie suisse des sciences techniques
Accademia svizzera delle scienze tecniche
Swiss Academy of Engineering Sciences

# L'Académie suisse des sciences techniques (SATW) – un portrait

Organisation à but non lucratif et politiquement neutre, l'Académie suisse des sciences techniques (SATW) s'engage, dans le cadre national, en faveur de la formation, de la recherche, du développement et de la relève en sciences techniques.

Les hommes et les femmes actifs au sein de la SATW sont des professeurs, des chercheurs et des ingénieurs de toutes les disciplines, qui contribuent bénévolement au développement de questions d'actualité ; ils sont animés par la conviction que l'exploitation de nouveaux acquis des sciences techniques est une nécessité aussi bien pour la santé de l'économie suisse, que pour la résolution de problèmes se posant à l'échelle planétaire. Leur réputation scientifique et professionnelle, alliée à leur engagement au service de l'Académie sont à la base de leur nomination au rang de membres individuels. A ce jour, la SATW peut s'enorgueillir de réunir quelque 190 membres individuels.

En sa qualité d'association faîtière chapeautant quelque 60 institutions et sociétés qui représentent les sciences techniques et de l'ingénieur, la SATW recouvre les intérêts de quelque 60'000 personnes actifs dans ces domaines et leur sert de porte-parole commun auprès du grand public.

La SATW institue des plates-formes de travail interdisciplinaire entre les diverses spécialités qu'elle représente et, dans le cadre du Conseil des Académies scientifiques suisses (CASS), elle cultive les liens avec les sciences naturelles, les sciences humaines et les sciences médicales.

Mandatée par la Confédération dans le cadre de la loi sur la recherche, la SATW agit sur la base d'un contrat de prestations qui lui confère d'importantes responsabilités en matière de promotion de la recherche.

## La mission et les tâches de la SATW

- La SATW contribue à élever la compréhension et l'intérêt du public pour les sciences de l'ingénieur ; elle participe à la formation de l'opinion sur les sciences, les techniques et leurs retombées.
- La SATW encourage la recherche, le développement et le transfert de technologies comme facteurs clés du maintien et de la création d'emplois, ainsi que comme bases de la création de nouvelles entreprises dans des domaines novateurs.
- La SATW présente aux jeunes les métiers de l'ingénieur dans le but d'éveiller leur curiosité et leur enthousiasme et de les encourager à entreprendre des études techniques.
- La SATW développe le réseau de contacts internationaux de la Suisse dans le domaine des sciences techniques en entretenant les échanges à ce niveau et en apportant son soutien à des boursiers.

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