Center for Advanced Learning Technologies (CALT)

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INSEAD’s Center for Advanced Learning Technologies (CALT) is increasingly regarded as Europe's leading R&D initiative in the domain of advanced learning technologies for management education and knowledge management.
At the core of the CALT research areas …

Small World Simulations

Virtual Interaction Spaces
CALT / Research Areas. Dynamics.

... with four sets of dynamics ...
Projects here concentrate on the design, diffusion and validation of advanced simulations based on models of *people behavior* & *organizational* and *group dynamics*.

The most developed and successful type of SWS is the *EIS Simulation* ...
But there are new SWS…

The LingHe Simulation, EduSynergy, WorldMusic, and emerging ones developed in several of the recent CALT projects as: ChangeMasters, L2C, KLAB, RW, and CHIPS.

New in 2008: Eagle Racing is currently one of the most successful of this new-generation of SWS developed in CALT, and now being successfully deployed at INSEAD.
After the success and large diffusion of SWS, a new focus has gained momentum in CALT, whereby research has gradually moved toward the creation of simulations addressing *Collaboration & Innovation Dynamics*.

See the recent CALT INSEAD/European Commission funded projects as: [TENCompetence](#), [Laboranova](#), along with [L2C](#), [F1 Games](#) and [WorldMusic](#).
The center’s objective …

is thus to study and actively contribute to the emergence of a new generation of effective, simulation-based learning experiences for managers (and other target groups) in order to help them to build on their competences in:

*Learning.*  
*Change.*  
*Collaboration & Innovation.*
are a first set of dynamics on which the CALT *Small World Simulations* projects focus (together with *Collaboration & Innovation Dynamics*).

Projects here concentrate on the design of simulation-based learning experiences based on the understanding and modelling of *Learning & Change Dynamics* at the *individual*, *group*, *organization* or *community* level.
Collaboration & Innovation Dynamics …

are a second set of dynamics on which the CALT Small World Simulations projects focus.

Projects here concentrate on the design of simulation-based learning experiences based on the understanding and modelling of *Collaboration & Innovation Dynamics* at the *individual, group, organization or community* level.
are at the core of a number of projects aiming at understanding the design, the deployment and the knowledge management and integration processes taking place in new Virtual Interaction Spaces (see ICDT model) now emerging on the internet.

The CALT projects in this area are highly experimental (ICDT, CALT Knowledge Base/Wiki, KM Tools) and involve large communities of pilot users (EIS Community and STC Community).
Research in this area has emerged from work on Intelligent Agents, as well as completed projects as LIP, Ontologging — and AtGentive, which focused on attention management, and contributed to the extension of the ICDT platform of CALT.

Also developed in CALT is Network & Mapping Software supporting knowledge exchange and value creation in online communities or co-located groups of managers, professionals and decision-makers.
CALT / A selection of Corporate Project Partners.
CALT / Snapshot of ongoing projects.

(6 projects in all: PLATON+, Laboranova, Rural Wings, TENCompetence, Career Guide, and FIDIS)

- **PLATON+**
  - Start date: 01-Jan-08
  - End date: 30-Jun-10
  - [http://80.245.170.229/platonplus/](http://80.245.170.229/platonplus/)

- **TENCompetence**
  - Start date: 01-Dec-05
  - End date: 30-Nov-09
  - [http://www.tencompetence.org/](http://www.tencompetence.org/)

- **Laboranova**
  - Start date: 01-Jun-06
  - End date: 30-Nov-09

- **Career Guide**
  - Start date: 01-Oct-05
  - End date: 30-Sep-08
  - [http://www.career-guide.eu/?pid=803](http://www.career-guide.eu/?pid=803)

- **Rural Wings**
  - Start date: 01-Jan-06
  - End date: 31-Dec-09
  - [http://www.ruralwings-project.net/](http://www.ruralwings-project.net/)

- **FIDIS**
  - Start date: 31-Mar-04
  - End date: 30-Mar-09
  - [http://www.fidis.net/](http://www.fidis.net/)
CALT / Snapshot of learning innovations.

(6 projects in all: PLATON+, Laboranova, Rural Wings, TENCompetence, Career Guide, and FIDIS)

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AtGentive is a CALT INSEAD/ EU-funded project.

It has been done in collaboration with Claudia Roda from the American University of Paris (AUP), and other partners.

The project has focused on better understanding on how to manage “attention” in online contexts, with users ranging from children to managers. It has also contributed significantly to the extension of the ICDT Platform with new functionalities, in collaboration with the CALT pilot STC Community as well as to the CALT research on Intelligent Agents and KM Tools.

Project web site at: http://www.atgentive.com/
CALT Knowledge Base/Wiki aims at collecting and categorizing knowledge assets and sources related to relevant research in a way which can be easily accessed and extended online.

The CALT Knowledge Base is now a widely accessed and well-linked site on the web, and a service for the whole researchers community linked to our CALT Website and KM Tools.
CareerGuide is a CALT INSEAD/EU-funded project.

CALT's contribution to the project is focused on games in career guidance and measuring the effectiveness of using SmallWorld simulations to develop social skills in the workplace.

Although games are a fun and effective way to trigger learning, there appears to be a lack of realistic educational games which develop an awareness of the advanced social skills needed to succeed in one's career.

In particular, young people, many of whom play video and computer games on a daily basis, should be highly receptive to a computer-enhanced approach to learning about effective social interaction in an organizational context, such as that found in the EIS simulation experience. Although this simulation was initially developed for experienced managers, the quantitative research on a group of 14-17 year olds showed a significant measurable increase in their awareness of many advanced social skills in the workplace.

Project web site at: [http://www.career-guide.eu/?pid=803](http://www.career-guide.eu/?pid=803)
Change Masters is a CALT INSEAD/EU-funded project.

It has aimed at:

- Providing a set of e-learning simulations
- Investigating the business case of an integrated e-learning solution
- Developing an integrated business strategy
- Demonstrating and testing the service by contacting five validation pilots in real environment
- Producing five validation case studies in different categories targeted in order to see the advantages users get from ChangeMasters service
- Validating a deployment strategy and business plan

Project web site at: http://www.alphaexperiences.org/
CHIPS – Change in the Public Sector – has aimed at understanding the diffusion of change and innovation management competences in public sector organizations, adopting simulation-based methods developed in management contexts (as with the EIS Simulation and other SmallWorld Simulations).

Partners include several universities and large public sector organizations (ministries, municipalities, etc.) in Italy, Sweden, Denmark and Greece.

Output:

A new generation of Small World Simulations addressing change dynamics, and linked to the EIS Simulation and ChangeMasters projects.
EdComNet has focused on Knowledge Management and Collaboration in the social context (local communities).

Within the CALT research context, it contributed to extending the understanding of online systems and simulation games used with citizens and decision-makers in the social context (rather than with managers in organizations), and how such systems can stimulate the introduction of innovative forms of peer-to-peer learning and collaboration.

This research continues, and has been extended to the other CALT projects, as Rural Wings and L2C.
EduChallenge is a SmallWorld Simulation prototype based on the EIS Simulation, addressing change management dynamics in the educational (Higher Education) context.

It resulted from a completed project in collaboration with researchers from the Swiss Institute of Innovation in Learning (SCIL) of the St.Gallen University.

The EduChallenge simulation prototype is currently tested in different contexts and universities, and provided the basis for the EduSynergy project.

It has strong links with the EIS Simulation and the ChangeMasters project.
EduSynergy is a SmallWorld Simulation addressing change management dynamics and the adoption of collaboration systems and processes in educational contexts.

It resulted from the EIS Simulation and EduChallenge projects, given its focus on change dynamics, and is strongly linked to the L2C project, given its focus on collaboration dynamics.
The **EIS Community** has been one of the CALT Pilot Users Communities since 1998.

This community includes researchers and educators in top management schools, universities and corporations across the world, all using extensively the EIS Simulation or another SmallWorld Simulation, and contributing to their continuous development and diffusion.

Hundreds of users have thus experimented with us over the years with different versions of the ICDT Platform.

Current objectives in CALT include the experimentation with advanced collaboration features in the users community, so as to enhance peer-to-peer collaboration and knowledge exchange.
EIS:

Executive Information System

This is a new computer-based multimedia business simulation involving the implementation of organisational change.

During the simulation, participants can develop and implement change strategies, select among many different tactics to meet their goal and incrementally change the attitude of the EuroComm managers, influencing their willingness to adopt the proposed innovation.

See: [http://www.insead.edu/facultyresearch/research/simulations.cfm](http://www.insead.edu/facultyresearch/research/simulations.cfm)
F1 Games aims at developing, diffusing and studying the impact of a new family of simulation games addressing the challenge of managing different types of teamwork (e.g., the “F1 pit-stop” experience, snapshots here below) and collaborations (e.g., among the top managers of a distributed organization).

The project is strongly linked to the L2C and the WorldMusic Projects.

Snapshots of Managers from Ferrari during a “F1 pit-stop” Workshop in Maranello, Italy
FIDIS is an on-going CALT INSEAD/ EU-funded project.

(Future of Identity in the Information Society).

The project is focusing on how to better understand the implication of emerging technologies and dynamics on the development of “identity”).

It has a large network of university and industry partners (e.g., Microsoft, IBM).

Project web site at:  http://www.fidis.net/
GamePlayers aims at developing, diffusing and studying the features and impact of online, distributed simulation delivery platforms. First experiences have been conducted with the EIS Simulation and other SmallWorld Simulations.

The insights emerging have been incorporated into the L2C and the ChangeMasters projects.
ICDT (Information and Collaboration Dynamics Technology) is an ongoing project based on the ICDT Model.

Since 1996, it has provided a framework for conducting research, experimentation, and the development of Knowledge Management Tools related to Virtual Interaction Spaces and Dynamics.

The resulting platforms are actively used (EIS Community and STC Community).

The ICDT Platform was the first online platforms used at INSEAD to support management courses.

It provides the basis for continuous development and has been strongly linked to the AtGentive and Network & Mapping Software projects.
Intelligent Agents is one of the very first of the CALT research projects.

It began with early research on “Stimulus Agents”, and then proceeded to explore how different Software Agents can support processes, as with learning and knowledge management (“K-InCA Agents”), as well as with attention management (AtGentive) in individuals and organizations.

Research in this area covers user interface aspects (e.g., experimentation with “LivingActors”), as well as the study of integration of such agents in simulations as with the EIS Simulation or in online community platforms (ICDT, AtGentive).
**KLAB** research seeks understanding of the diffusion of new Information and Communication Technologies in networks (inter-organizational settings and associations).

The project is an extension of the *Knowlaboration* project as it explores the Europe-wide diffusion of a simulation-based learning experience helping managers and members of Learning Networks to better understand and drive change and innovation in their networks.

Strongly based on the *EIS Simulation*, successful pilots have been conducted in France, Sweden, Belgium, Ireland and Cyprus.

This project is linked to the *ChangeMasters* project,
KM Tools – Knowledge Management Tools – is research aimed at providing CALT with sufficient knowledge and know-how related to knowledge management (KM).

It is linked to the design and experimentation with different KM technologies including the ICDT Platform but also: Wikis (see CALT Knowledge Base / Wiki), Blogs, Intelligent Agents, and other technologies, that have been integrated into the CALT Website.

The CALT Website itself was the first internet site of INSEAD (initially oriented towards students, now more towards researchers and professionals), and continues to be an important KM Tool and experimentation ground.
Knowlaboration has focused on Knowledge Management and Collaboration. Its contribution lies in advances it has provided for the CALT research agenda, notably in the area of Learning Networks, virtual community dynamics, and simulations addressing the adoption of Information and Communication Technologies in networks (inter-organizational settings and associations).

This research was extended to the KLAB project.
L2C – Learning to Collaborate is a CALT INSEAD/ EU-funded project.

It has focussed on new effective simulation-based learning experiences addressing the challenge of collaboration in teams, organizational, and inter-organizational settings.

Partners included in this CALT project: several universities (Milan, Vienna, Strathclyde, Munich, UK Open University) and large organizations such as FIAT and UniCredito.

Based on grounded research on what makes collaboration so hard to take place, it aims is to lead to a new generation of SmallWorld Simulations addressing collaboration dynamics, and be linked to the EIS Simulation, the WorldMusic, F1 Games and GamePlayers projects, as well as the TENCompetence and Laboranova projects, in which simulation games focusing on collaboration can be adapted to fit the needs of online communities.

Project web site at: http://www.l2c.info
Laboranova is an on-going CALT INSEAD/ EU-funded project.

Its aim is to explore creative processes in different innovation contexts. Its focus is the development of a new generation of simulation games supporting knowledge exchange, social encounters, and joint knowledge creation processes in online “Connection Spaces”.

Partners include The Learning Lab Denmark, several European Universities (Barcelona, Bremen, Nottingham, etc.), and companies such as SAP, FIAT, and KartOO.

The project explores the next generation of Innovation support systems, and is strongly linked to the TEN Competence and the Network & Mapping Software projects, given its focus on games and social networks.

Project web site at: http://www.laboranova.com
The LingHe Simulation is a SmallWorld Simulation addressing change management dynamics in a Chinese context. It resulted from a completed EU-funded project in collaboration with researchers from Nanjing University and INSEAD alumnus, Philippe Leliaert.

The LingHe Simulation models the dynamics of organizational change in a typical Chinese business environment. The simulation aims to stimulate and enhance managers’ understanding of organizational resistance to change and how to more effectively implement changes. It is an innovative learning tool and technique for improving their understanding of the organizational dynamics and the corresponding knowledge and skill in managing organizational change in a Chinese environment.

The LingHe simulation has started to be used worldwide (including in China), and insights generated by this project and from the further diffusion of the the LingHe simulation have enriched the EIS Simulation and ChangeMasters project.

See: [http://www.insead.edu/facultyresearch/research/simulations.cfm](http://www.insead.edu/facultyresearch/research/simulations.cfm)
LIP, Learning in Process, has focused on advanced Learning Management Systems. It contributed to advances in the area of Intelligent Agents and to the further development of the ICDT Platform (e.g., with SCORM components).
Network & Mapping Software is an emerging focus for projects aiming at the design and experimentation of software tools based on network-centric representation, visualization and mapping of data and information.

Prototypes are currently in development in the areas of competence networks (TEN Competence), innovation networks (Laboranova), as well as for application with groups of managers.
OntoLogging has focused on ontology-development tools in the learning context.

The project significantly contributed to advances in the area of Intelligent Agents and to the further development of the Knowledge Management Tools.
Rural Wings is an on-going CALT INSEAD/ EU-funded project.

Its aim is to understand the diffusion of change and innovation management competences in rural communities, adopting simulation-based methods developed in management contexts (as with the EIS Simulation and other SmallWorld Simulations). To better address the target users, the learning experience designed within RW includes the extensive use of modern satellite technology and internet-based videoconferencing.

Partners include Eutelsat, HellasSat, EADS.

Pilots are now conducted in France, Sweden, but also a variety of partner countries in which representatives of local communities need to extend their competences in addressing change and innovation.

Rural Wings has strong links with the ChangeMasters project.

Project web site at: http://www.ruralwings-project.net/
The **STC Community** has been one of the CALT Pilot Users Communities since 1999.

It has been supported by the Swedish Trade Council which provides us access to its network of Swedish SMEs as well as to its global network of Export Experts.

Over the years, hundreds of users have experimented with CALT’s different versions of the ICDT Platform.

Links to the [AtGentive](#) project.
TENCompetence (Trans-European Network) is an on-going CALT INSEAD/ EU-funded project.

Its aim is to explore Competence Development Systems and focuses on the design and injection of a new generation of simulation games and social network tools supporting knowledge exchange, social encounters, and joint knowledge creation processes in online competence management and competence development systems online. One of these is TENTube, a video-based connection tool integrating rich profiling and network visualization and navigation with agent-enhanced game-like connection dynamics.

Partners include The Open University of the Netherlands and several European Universities.

The project is strongly linked to the Laboranova and the Network & Mapping Software projects, given its focus on games and social networks.

Project web site at: http://www.tencompetence.org/
WorldMusic aims at developing, diffusing and studying the impact of a new family of simulation games addressing the challenge of managing collaboration in distributed groups.

The project has had strong links to the L2C and the F1 Games projects.
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