

**LEONARDO DA VINCI**

Community Vocational Training Action Programme

Second phase: 2000-2006

**ILTOF**

*Innovative Learning and Training On Fracture*

**Third Meeting**

Ester Hotel, Cracow, Poland - Friday, November 9, 2007

2007-11-09

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# Agenda

## 9.00 Opening

- Welcome to the Participants (A. Neimitz, M. Gorol)
- Brief overview on the progress of the ILTOF Project (A. Carpinteri)
- Work Package 1: Coordination
- Work Package 3: Specifics definition
- Work Package 4: Products implementation
- Work Package 5: Products testing
- Work Package 7: Dissemination
- Organization of new activities and scheduling of next Meetings

## 17.00 Closure



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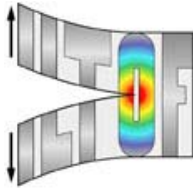
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# Brief overview on the progress of the ILTOF Project

A. Carpinteri  
Politecnico di Torino



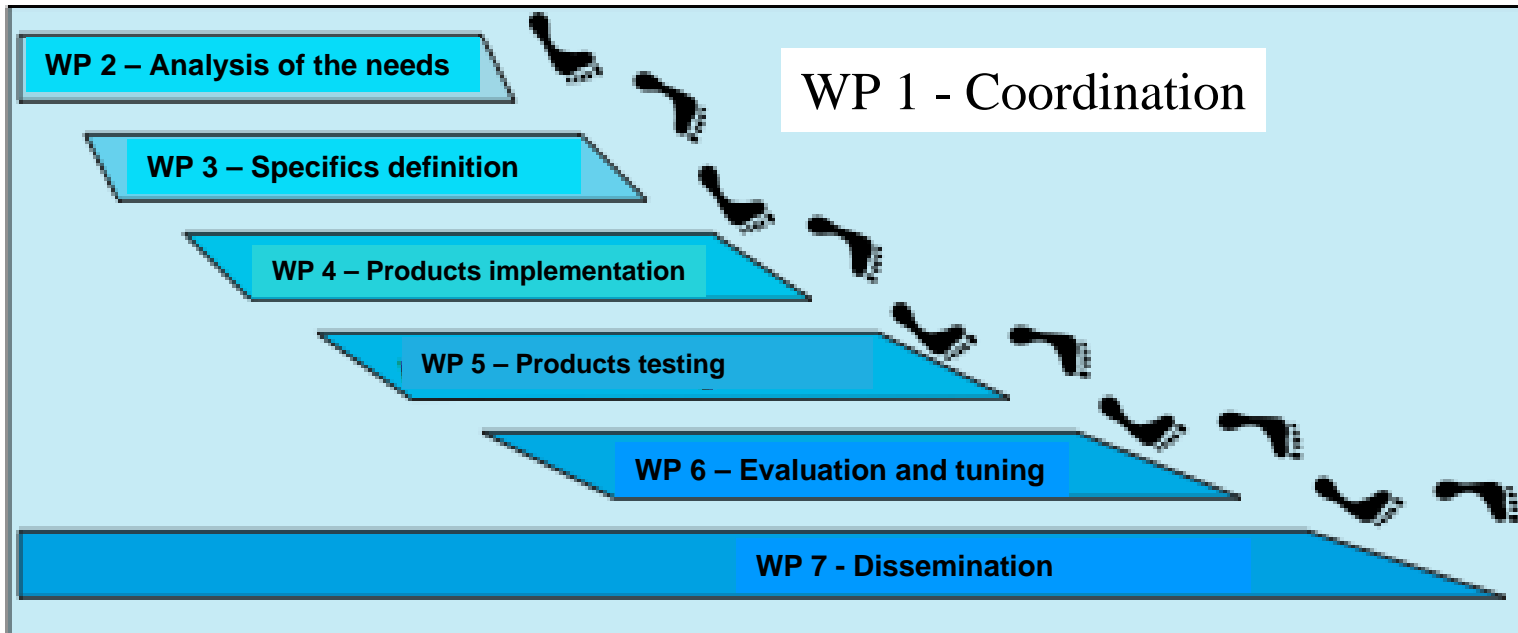
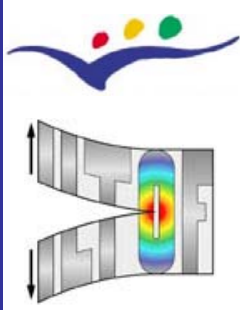
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# ILTOF Project: Conceptual outline

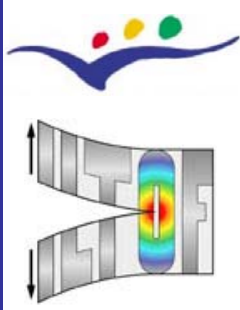


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# ILTOF Project: Operative table

WP	ACTIVITY	MONTHS																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Coordination		M						M			m			M			m			M		m		M
2	Needs analysis		M																						
3	Specifics def.		M						M																
4	Implementation								M			m			M			m			M				
5	Testing								M			m			M			m			M		m		
6	Evaluation																				M		m		M
7	Exploitation		M						M			m			M			m			M		m		M

(M = scheduled meeting; m = non scheduled meeting, hold in case of necessities)

# WP1: Coordination

PERIOD: from 01 Oct. 2006 to 30 Sept. 2008

WP Leader: POLITO

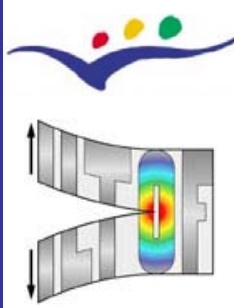
## Expected results

General activity related to the Project coordination.

## Achieved products/results

- (1) Collection of the presentations delivered during the meetings by the Partners and upload on the Project web-site.
- (2) Scheduling of the meetings and organization of the Opening Conference of the Project:

FraMCoS-6 Post-Conference Workshop on “Acoustic Emission and Critical Phenomena: from Structural Mechanics to Geophysics”, Sheraton Hotel Conference Centre, Catania, ITALY, June 22, 2007.



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# WP2: Analysis of the needs

PERIOD: from 01 Oct. 2006 to 31 Mar. 2007

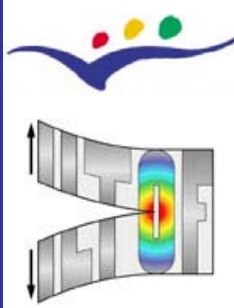
WP Leader: TCN

## Expected results

- (1) Definition of the themes of Fracture Mechanics which are subject of the training courses.
- (2) Definition of the teaching modalities.

## Achieved products/results

- (1) The results of the questionnaires have been processed by TCN and uploaded on the ILTOF web-site:
  - 50 filled in questionnaires (paper version)
  - 150 filled in interactive questionnaires on the ILTOF web-site
- (2) A guideline on how to perform the ILTOF educational needs survey has been delivered by TCN.



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# WP3: Specifics definition

PERIOD: from 01 Oct. 2006 to 30 June 2007

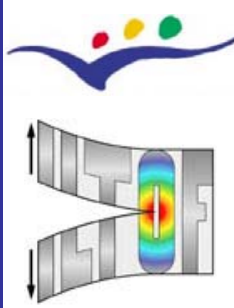
WP Leader: TCN

## Expected results

- (1) Catalogue of good practice for teaching on Fracture Mechanics and Structural Integrity.
- (2) Protocols with the details of the technical specifications for the realization of the didactic material.
- (3) Realization of the program and the time-schedule for the production of the didactic material.

## Achieved products/results

- (1) A course summary template has been prepared by TCN and delivered to the Partners.
- (2) Detailed technical specifications regarding the format of the video-courses have been sent to the Partners by TCN.



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# WP4: Products implementation

PERIOD: from 01 Jan. 2007 to 31 May 2008

WP Leader: POLITO

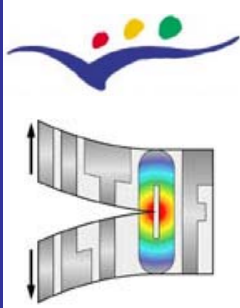
## Expected results

- (1) At least 10 courses will be realized and implemented on the web-site by POLITO, LAMDUT, KUT, ITWM and ESIS on the most topical themes previously specified.
- (2) Realization of the corresponding didactic material.

## Achieved products/results

- (1) Implemented Video-Course (12 hours):

“Fracture Mechanics and Complexity Sciences”, given by Prof. A. Carpinteri at the University of Pisa, Italy, April 11-13, 2007.



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# WP4: Products implementation

## Planned activities

### Video-courses:

#### POLITO:

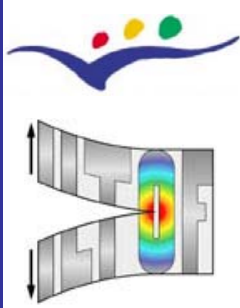
- Fundamentals of Fracture Mechanics (10 h);
- Advanced Applications of Nonlinear Crack Models (8 h);
- Miscellanea (8 h);
- Acoustic Emission Technique (4 h).

#### KUT:

- Applications of Fracture Mechanics to Fatigue and Creep in Engineering Problems (12 h);
- Applications of the Finite Element Method in Fracture Mechanics (12 h).

#### LAMDUT:

- Basic Concepts of Fracture Mechanics (10-20 h).



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# WP4: Products implementation

## Planned activities

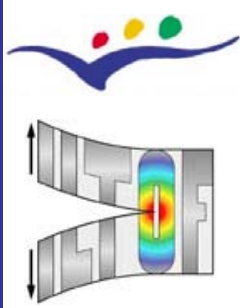
### Textbooks:

#### POLITO:

- Production of two primers (one on fundamental aspects and another on advanced applications).

#### KUT:

- Production of one book in Polish.



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# WP5: Products testing

PERIOD: from 01 May 2007 to 31 July 2008

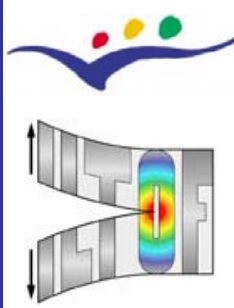
WP Leader: ESIS

## Expected results

- (1) Testing of the effectiveness of the produced material, from both the training and the technology viewpoints.
- (2) The selected end-users will test the educational material and the production methodologies.
- (3) The data will be collected in a specific form described in the test plan (i.e. questionnaires, interviews, reports concerning the use of the web-site and of the training resources, etc.).

## Planned activities

To be defined during the meeting.



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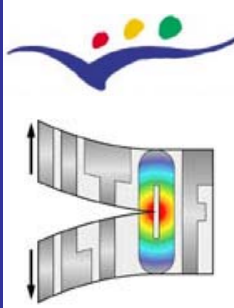
# WP7: Dissemination

PERIOD: from 01 Oct. 2006 to 30 Sept. 2008

WP Leader: ESIS

## Expected results

- (1) Opening and Closing Conferences.
- (2) International seminars.
- (3) National meetings.
- (4) Written contributions in specialized press and technical journals.
- (5) Direct mailing to partners, customers, and external coworkers.
- (6) Advertisement of the project results.



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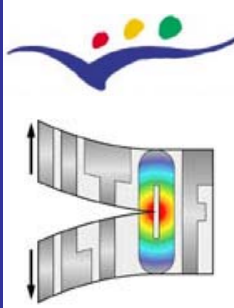


# WP7: Dissemination

## Achieved products/results

(1) Project web-site featuring the following content:

- Introduction to the ILTOF Project and List of Partners;
- Documents
  - Minutes of the meetings;
  - Dissemination activities: Opening Conference;
- Results of the ILTOF Survey;
- Library (collection of scientific papers on Fracture Mechanics and Structural Integrity);
- List of “Fracture Mechanics People” including 19 experts;
- List of other training initiatives.



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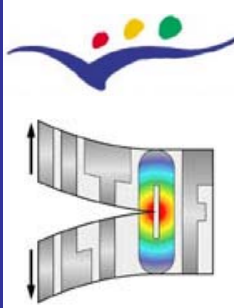
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# WP7: Dissemination

## Achieved products/results

- (2) Link to the ILTOF web-site on the Partners' web-sites.
- (3) A first phase project leaflet has been produced and sent to:
  - The Italian researchers of Structural Mechanics and Structural Design.
  - Members of the ESIS, ICF and IA-FraMCoS Associations (nearly 2000 potential end-users).
- (4) Opening Conference: FraMCoS-6 Post-Conference Workshop on “Acoustic Emission and Critical Phenomena: from Structural Mechanics to Geophysics”, Sheraton Hotel Conference Centre, Catania, ITALY, June 22, 2007.



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# WP7: Dissemination

## Achieved products/results

(5) Project advertisement on the IGF Newsletter No. 3 and on the IGF web-site:

**Gruppo Italiano Frattura**

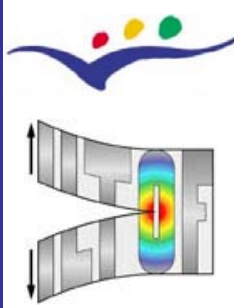
<http://www.gruppofrattura.it/>

### Innovative Learning and Training On Fracture



ILTOF - Innovative Learning and Training On Fracture - is a Leonardo da Vinci European Union co-funded Pilot Project, part of the European Vocational Training Action Programme. Leonardo da Vinci Pilot Projects are aimed at designing, testing, evaluating and disseminating innovative vocational training and lifelong learning practices, and at promoting innovation in training as well as methodologies, contents, media, products.

The Partnership includes three Universities (Politecnico di Torino, Democritus University of Thrace and Kielce University of Technology), two International Associations (ESIS and NAFEMS) and four Companies (FIGES, ITWM, MESCO and TCN). The web site is <http://www.iltof.org/>



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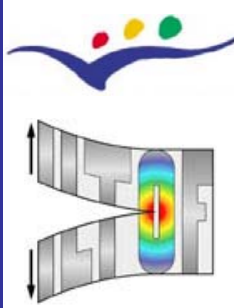


# WP7: Dissemination

## Achieved products/results

(6) One full-page Project advertisement on: “The Parliament Magazine - 12th November Edition 2007 On Education”

“The Parliament Magazine has been published for the last 10 years. We regularly work with Leonardo and other EU co-funded projects when they wish to run dissemination and mainstreaming messages to our **12,000 readers** in the European Parliament, European Commission and throughout the EU. In November, a **major Education issue** on Lifelong Learning Programme 2007/2008 will be published.”



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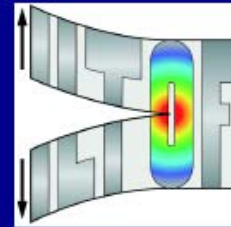
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# ILTOF – Innovative Learning and Training of Fracture

## A common European perspective on Structural Safety



**ILTOF – Innovative Learning and Training of Fracture** is a Leonardo da Vinci Project funded by the European Community in the framework of the Vocational Training Action Programme 2000-2006. The Project started on October 1, 2006 and will last 24 months.

### Project Aim

The project aims at developing innovative learning methods in the field of Fracture Mechanics, Structural Integrity and Structural Safety, with particular attention to e-learning technologies.

### Background

In the European Community there is a strong need to build new infrastructures and to maintain the existing ones, preventing obsolescence and accidents. Structural integrity has a **high social impact**: the costs of failure due to fracture and fatigue can be estimated in several billion Euro per year. A better knowledge in the fields of fracture and structural integrity will permit the design of **more safe and cheap structures**, as well as the protection of society, historical and monumental buildings, and natural environment from structural failures and accidents.

### Actions

ILTOF sets up an **innovative training** action in terms of both content and methodology. The developed courses contain not only traditional content, but also exchange of practices, experiences, opinions, advices, helping in establishing a common European best practice. Modern active-collaborative distance **e-learning technologies** will permit the users to follow a training path specifically tailored on their needs.

For further information please contact

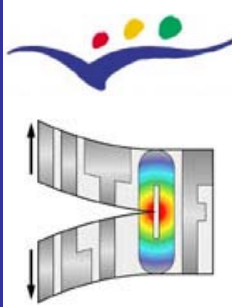
### Project Coordinator

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### Scientific Secretariat

Dr. Marco Paggi  
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and visit the **ILTOF website**:  
[www.iltof.org](http://www.iltof.org)



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