

# **SERF 2**

## **Socio-economic Research on Fusion**

**Period 1999-2000**

### **Trust and Licensing for Large Fusion Devices**

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# SERF STUDIES UNDER FP 5

## Proposed Provisional Tasks for 1999 - 2000

EUR (99) CCE-FU 3/3.2, DG XII – D II-4, Brussels, 10 June 1999

- Task 1 Externalities of fusion
- Task 2 Local public perception
- Task 3 Benefits at large
- Task 4 Politics and mega-science
- Task 5 Trust and licensing**
- Task 6 The long-term potential of fusion



# SERF Studies Under FP 5: Tasks for 1999 - 2000

EFDA-TS (99) 1 / 4.1/SERF2, DG XII – D II-4, Brussels, 12 July 1999

Task 1	Externalities of fusion	200
	UKAEA subtask 1	30
	UKAEA subtask 2	20
	CEA	150
Task 2	Local public perception	190
	ENEA	170
	UKAEA	20
Task 4	Politics and mega-science	30
	FZK	30
Task 5	Trust and licensing	125
	OAW	125
<b>Total k€</b>		<b>545</b>



# Task 5 - Trust and Licensing

## Area 1: Nuclear Regulation and Licensing

- ◆ History, Development, and Present State of Play.

## Area 2: Licensing and Regulation Authorities

- ◆ Structure, Development, and Composition of the Relevant Regulatory Agencies
- ◆ The Politics of Safety Regulation.
- ◆ Design Principles for Institutions Regulating Safety in Democracies.

## Area 3: Trust and Regulation

- ◆ Trust and Justice: General Definitions of Distributive Justice in Environmental and Technological Decision-making.
- ◆ Trust and Risk Perception and Communication.
- ◆ Trust and Responsibility.
- ◆ Trust and Public Participation.



## **Task 5 - Area 2**

# **Licensing and Regulation Authorities**

### **Structure, Development, and Composition of the Relevant Regulatory Agencies**

- ◆ organisational structure of the regulating bodies
- ◆ identification, characterisation, and description of the relevant national and transnational policy
- ◆ subsequent transnational comparison of organisational structures

### **The Politics of Safety Regulation.**

- ◆ sources of tensions between licencing authorities and the political system
- ◆ safety regulation in the context of democratic societies
- ◆ possible communication shortcomings between licensing authorities and the public.

### **Design Principles for Institutions Regulating Safety in Democracies.**

- ◆ design principles and the democratic implementation of the various regulation processes



## **Task 5 - Area 3**

# **Trust and Regulation**

### **Trust and Risk Perception and Communication**

- ◆ differences in technical, social, and individual risk perceptions
- ◆ special problems relating to risk communication
- ◆ evaluating the possibilities of establishing fusion as a new technology.

### **Trust and Responsibility**

- ◆ expert's role in technology choice and technical policy decisions.
- ◆ political responsibility of the authority
- ◆ tension between economic imperatives and societal expectations of technical safety
- ◆ problems of public assessment of nuclear fusion as a new technology
- ◆ definition of key criteria of public trust

### **Trust and Public Participation.**

- ◆ fusion related questions in a virtual public participation process (expert`s interviews and focus groups or similar)
- ◆ providing guidance on effective public participation
- ◆ set of recommendations on issues regarding public trust and licensing



## Involved Institutes

### Institute of Risk Research of the University of Vienna (IRR)

- ◆ Task leader: Univ.-Prof. Wolfgang Kromp
- ◆ Coordinator: André Gzásó
- ◆ Technical issues: Peter Hofer, Steven Sholly, Wolfgang Rehm

### International Institute for Applied Systems Analysis (IIASA)

- ◆ Joanne Linnerooth-Bayer (head of the IIASA risk research unit)
- ◆ Aniello Amendola (science and governance)

### Interdisciplinary Centre for Comparative Research in the Social Sciences (ICCR)

- ◆ Steven Ney, Gerald Berger

### Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO PrepCom), Vienna

- ◆ Martin Kalinowski, Herbert Gohla

### Technische Universität Graz, Inst. f. Theoretische Physik & Energiephysik

- ◆ Univ.-Prof. Manfred Heindler



## ICCR - Interdisciplinary Centre for Comparative Research in the Social Sciences

- ◆ Founded in 1986
- ◆ Head: Ronald J. Pohoryles
- ◆ independent, international non-profit research institution
- ◆ specialised in strategic policy analysis
- ◆ Research programme
  - ◆ SPA: Social Policy Analysis -- Social Structures and Integration
  - ◆ STARS: Society, Technology and Research
  - ◆ EASY: Environment and Sustainability
  - ◆ TEA: Transport Policy Evaluation and Analysis
  - ◆ EURO: European Developments – Policies and Politics



## **Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO PrepCom)**

- ◆ established in 1996
- ◆ chair (-06/2001): H.E. Ambassador Jaap Ramaker, Permanent Representative of the Netherlands to the United Nations in Vienna
- ◆ Tasks
  - ◆ bridging the period until the Treaty's entry into force
  - ◆ establishing the global verification regime foreseen in the Treaty
  - ◆ building and running a worldwide network of 321 monitoring stations
  - ◆ establishing an International Data Centre in Vienna
  - ◆ developing procedures for on-site inspections and confidence building measures



## **IRR - Institute of Risk Research of the University of Vienna**

- ◆ Founded 1995
- ◆ Head: Univ.-Prof. Dr. Wolfgang Kromp
- ◆ Tasks:
  - ◆ supporting interdisciplinary, independent and critical scientific discussion of societal risks related to technical and scientific issues
  - ◆ creating an academic institution willing to manage relevant interdisciplinary projects, for which no other single discipline feels sufficiently competent
  - ◆ setting up a documentation system for grey literature on relevant topics
- ◆ Research:
  - ◆ originally research focused on topics concerning nuclear safety
  - ◆ research on risk and uncertainty related to new technologies
  - ◆ methodological questions related to risk perception and communication

## IIASA - International Institute of Applied Systems Analysis

- ◆ Founded 1972
- ◆ Acting director: Professor Arne Bertil Jernelöv, Ph.D.
- ◆ non-governmental research organization
- ◆ Research goals
  - ◆ inter-disciplinary scientific studies on environmental, economic, technological and social issues in the context of human dimensions of global change
  - ◆ modelling dynamics of selected ecosystems, the atmosphere, water resources, the biosphere, the soil, and their relationship to humans
  - ◆ choosing problems for which solutions will benefit the public, the scientific community, and national and international institutions,
  - ◆ to addressing critical issues in an innovative manner, and
  - ◆ providing timely and relevant information and policy analyses.



