

**INTERNATIONAL CHORNOBYL CENTER:  
HISTORY, PRESENT, AND FUTURE**

**PRESENTED BY**

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# **ICC HISTORY AND BACKGROUND**

- ❖ **1995 MOU on prior-to-term closure of Chornobyl NPP**
- ❖ **possible way for science & technology support to Chornobyl decommissioning**
- ❖ **September 1995 Appeal of Ukraine Government**
- ❖ **April 1996 US-Ukraine government-to-government MOU**
- ❖ **October 1997 UK-Ukraine government-to-government MOU**

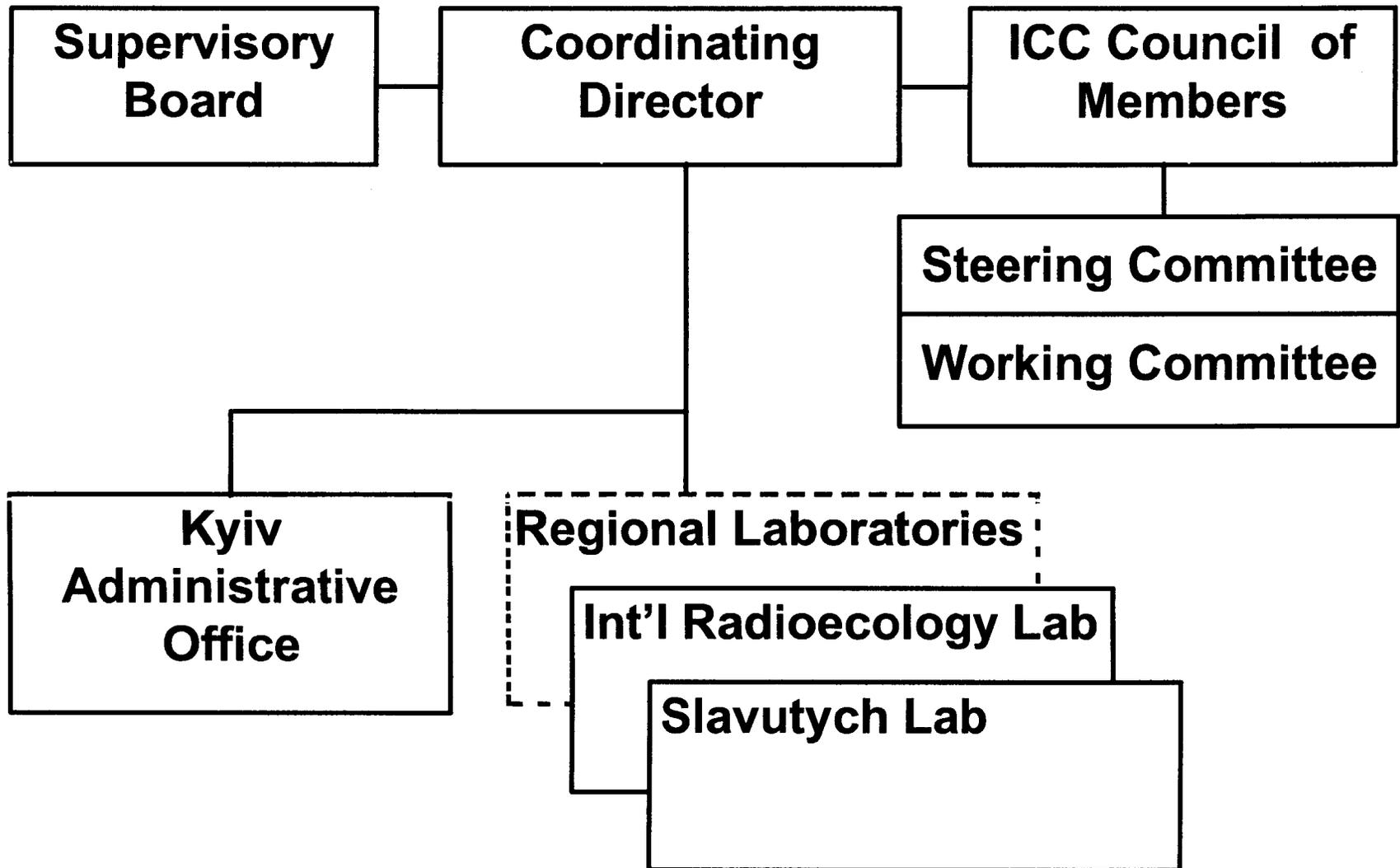
# **ICC MISSION**

- ❖ integration and coordination of technical assistance to Ukraine in handling Chernobyl-related issues**
- ❖ dissemination, throughout Ukraine, of advanced scientific knowledge and engineering expertise, international experience in nuclear energy uses**
- ❖ accumulation and generalization of information about the Chernobyl accident and its consequences, creation of comprehensive data and knowledge banks**
- ❖ development and application of unique technologies associated with activities at the Chernobyl units, the Shelter, and in the Chernobyl Zone**

# ICC CONCEPT

- ❖ **ICC is a special form of international partnership of scientists and specialists facilitating solutions to Chernobyl issues**
- ❖ **creates an organization mechanism for the world's science & engineering community to participate in research under the unique conditions of the Chernobyl Exclusion Zone**
- ❖ **enables integration of Ukrainian applied science into international research**
- ❖ **ICC capabilities can be used for the entire nuclear infrastructure in Ukraine**

# ICC ORGANIZATION



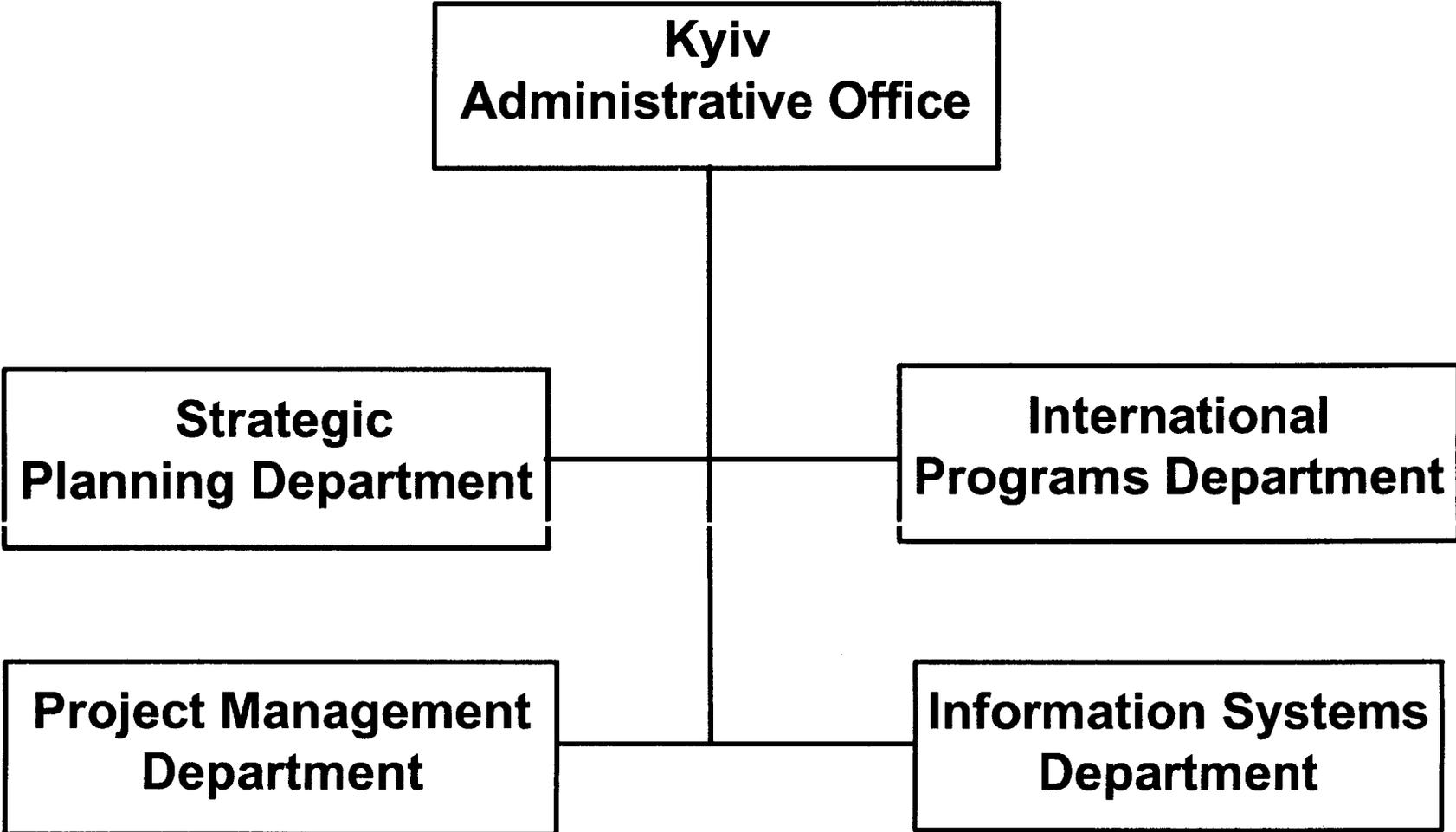
# ICC COUNCIL OF MEMBERS

- ❖ **advisory body to consider issues of mutual interest**
- ❖ **consists of authorized representatives of the governments supporting ICC**

## *The Council Members*

- ❖ **exchange information towards working out an agreed position**
- ❖ **review plans and results of work**
- ❖ **facilitate dissemination of information about the Center**
- ❖ **maintain contacts with their governments**

# ICC KYIV ADMINISTRATIVE OFFICE



# ICC ACTIVITY AREAS

- ❖ **nuclear power plants decontamination and decommissioning**
- ❖ **RAW and spent fuel management**
- ❖ **ecological rehabilitation of contaminated environment**
- ❖ **mitigation of consequences of the Chornobyl accident**
- ❖ **medical, biological and radiological studies**
- ❖ **nuclear plants safety assessment and improvement**
- ❖ **emergency planning and optimization of emergency measures**

# **ICC DEVELOPMENT PROGRAM**

- ❖ **agreed with participating Ukraine ministries, departments and organizations**

- ❖ **aimed at enabling organization for ICC development in accordance with the tasks established by Center's Charter**

- ❖ **Main objectives of the Program**

  - substantiate priority areas that need foreign investments**

  - create an effective mechanism of effective involvement and use of international assistance**

- ❖ **total FY 1998-1999 budget allocations \$2 million**

# STATUS OF INTERNATIONAL COOPERATION

## *USA (DOE/PNNL)*

- ❖ **Financial contribution to set up the ICC infrastructure in Slavutych - \$2.3 million**
- ❖ **Financial support of technical projects - \$0.7 million**

**assessment of vent stack impact on the Shelter safety**

**assessment of status of spent fuel management in Ukraine**

**assessment of Shelter modeling needs**

**remote technology needs assessment for the Shelter**

**emergency planning for the Shelter**

# **STATUS OF INTERNATIONAL COOPERATION**

## ***USA (DOE/PNNL) (continued)***

### **❖ technical projects (continued)**

**creation of a safety data bank for Soviet-designed reactors**

**development of a decommissioning plan for Chernobyl NPP**

**creation of a Nuclear Data Bank Services capability**

**provision of a satellite communication system**

### **❖ Organization and financial support of international conferences, seminars etc.**

# **STATUS OF INTERNATIONAL COOPERATION**

## ***France (IPSN) and Germany (GRS)***

- ❖ **ICC backed by a joint French-German government declaration (April 1996)**
- ❖ **DM12 million allocated for three ICC-led projects**

**safety status of the Shelter**

**radioecological consequences of Chernobyl accident**

**Chernobyl-induced health effects**

- ❖ **started July 1998 for three years**
- ❖ **data banks to be created**

# **STATUS OF INTERNATIONAL COOPERATION**

## ***UK (DTI)***

- ❖ **October 1997 MOU**
- ❖ **Financial and methodological support in areas such as:**

**communications strategy and publishing capabilities (NNC)**

**consultations on creation of business incubators in Slavutych**

**study of capabilities and application of RadScan device (BNFL, Chornobyl NPP)**

**ICC strategic planning**

# STATUS OF INTERNATIONAL COOPERATION

## *Italy (ENEA)*

- ❖ Italian government allocated \$3 million to support ICC technical projects as follows:

medical-biological studies of post-Chornobyl effects

analytical modeling of Chornobyl release propagation by water pathways

assessments of risks to human endocrine and immune systems for residents of contaminated territories

training in the area of RAW management

- ❖ TORs for each project developed
- ❖ Start of work delayed due to legal problems in Italy

# **STATUS OF INTERNATIONAL COOPERATION**

## ***Japan (NSRA)***

- ❖ Verbal Note sent by Japanese government to Ukraine's Foreign Ministry in support of ICC activities**
- ❖ Nuclear Safety Research Association (NSRA) is appointed to cooperate with ICC**
- ❖ ICC-NSRA Project Agreement worth 31.5 million yen is prepared for signing**
- ❖ Terms of Reference are prepared for projects as follows:**
  - state of fuel and fuel-containing masses inside the Shelter**
  - radiation situation inside the Shelter**
  - distribution of radioactivity and radionuclide migration in soils**

# OUTLINE OF ICC FUTURE PROJECTS

- ❖ **Comparative risk-cost assessment of different replacement options for obsolete power generating units in Ukraine (nuclear versus coal/gas/hydro, modification versus new unit construction)**
- ❖ **Comprehensive analysis of the Chernobyl accident remediation activities in Ukraine and development of optimal balance proposals**
- ❖ **Establishment, within the Chernobyl Exclusion Zone, of a research, testing and training facility intended for testing decommissioning, environmental restoration and waste management technologies and for training personnel engaged in SIP and Chernobyl NPP D&D ope**