

# Consultancy Meeting to Co-ordinate Preparation of a Summer Institute for World Nuclear University

01 to 02 December 2004, Vienna, Austria

Report

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## Background

The World Nuclear University (WNU) was inaugurated one year ago in London as a partnership of the world's leading institutions of nuclear learning. Two of the WNU's Founding Supporters are inter-governmental organizations: the IAEA and the NEA.

The WNU's essential aim is to foster inter-institutional cooperation to enhance nuclear coursework worldwide and to establish widely accepted global standards in academic and professional qualification.

In June 2004 the Agency convened a consultancy meeting (651-TI-04CT05288 from 8 to 9 June 2004) and followed by it a technical meeting (L1-TM-26481 from 9 to 11 June 2004) in order to develop a plan for WNU activities in the next years.

These meetings discussed and agreed on concept of a **WNU Summer Institute as the first deliverable of WNU**. The concept of a WNU Summer Institute, to be held annually at different locations, has been developed as:

- A special contribution to building future leadership for the nuclear community;
- A valuable means of galvanizing cooperation within the WNU network during the initial stages of the WNU partnership.

By the request of the WNU Secretariat the IAEA convened a meeting with a participation of experts from different Member States who reviewed the Summer Institute preparation and contents and outline the programme. The other issues related to the WNU activities were discussed as well.

## Objectives of the meeting

The following objectives have been set for the meeting:

- Co-ordinate the WNU Summer Institute preparation
- Follow up on course outline and contents for the Summer Institute
- Discuss a preparation of a compendium of existing courses and diplomas and inter-university cooperation.
- Discuss the current WNU activities.

## Summary of the meeting

### **1. Recall: objectives of the WNU and the Role of the WG1 and WG2**

Objectives of the WNU and the Role of the WG1 and WG2 were presented by Mr. J. L. Nigon and discussed by participants.

The recall of main objectives of the WNU figures in Attachment 1.

The objective of the present WG1 & 2 meeting are presented in Attachment 2.

### **2. The WNU Summer Institute.**

The first WNU Summer Institute will be hosted by the Department of Energy of the United States of America and held from 9 July – 20 August 2005 at the Idaho Nuclear Laboratory (Idaho Falls). It is expected that around 60 talented students and young professionals will attend. They will be educated in a broad spectrum of nuclear energy issues, engage in team building and leadership exercises, and become part of an expanding global network of future leaders in the nuclear profession. The curriculum is being shaped to provide cutting-edge presentations from leading world experts on the full range of topics relevant to the future of nuclear technology:

- **Global Setting**, including energy supply and demand, global warming and climate change, nuclear technology in sustainable development, lessons in public acceptance, and key political issues and trends.
- **International Regimes**, including safety, radiological protection, non-proliferation and security, waste management, transport, nuclear law, and global emissions control.
- **Technology Innovation**, including next-generation reactors, advanced fuel cycle, hydrogen production, and desalination.
- **Nuclear Industry Operations**, including industry economics, knowledge management, fuel market, comparative risk assessment, social ethics, and operational excellence.

Mr. E. Klevans and Mrs. D. Klevans, Coordinators for WNU Summer Institute, presented a status of curriculum development, faculty, organization activities, fellows applications as received and other associated issues.

The up to date curriculum of the WNU-SI may be found on the WNU website:

[http://www.world-nuclear-university.org/html/summer\\_institute/index.htm](http://www.world-nuclear-university.org/html/summer_institute/index.htm)

The following was discussed and agreed:

Curriculum: The curriculum was carefully reviewed and discussed, some comments received and small changes suggested. The WNU-CC will finalize the curriculum by the end of January 2005.

Faculty: More lecturers are needed from International community (IAEA?). The WG1 and WG2 members will discuss the issue in home institutions and communicate to the WNU Coordinating Centre (WNU-CC).

Mentoring: 5-6 groups are planning. At the presents there are 3 “six-week-full-time-mentor” volunteers, but to be confirmed. The WNU-CC is to call for other volunteers (3 or 6 weeks) ASAP. Guidelines for mentors will be prepared by: E.&D.Klevans lead, C.Feltn, G.Brown, G.Greyvenstein, and J.L.Nigon. The Role of mentors has been define as

- to “break ice” and to “glue” the group,
- to integrate, to assemble the various parts of a subject,
- to help the group in the management of its project,
- to help the group in its perception of the “speaker’s own criteria”,
- to help the group to build its own balanced opinion.

Evaluation: Evaluation Forms are to be prepared for both - Speakers and Fellows, the form development will be headed by E.&D.Klevans and supported by A.Sneedand and A.Kossilov.

Pedagogical Material: To be derived from the WNU-SI by Mary GOUGAR, Jacques FOOS (to be confirmed) and others (?) Prof. Korovin.

Selection of students: The process is to be conducted by the WNU-CC, in cooperation with IAEA, OECD/NEA, WNA, and WANO; it should be completed before end of December 2004.

Financial matters: A budget is being established; the final figures have to take the IAEA support into account. This is subject to specific meeting(s) and discussion between IAEA and WNU-CC.

Further improvements for the 2006 and 2007 Summer Institutes: A task force have been created to review, during the first semester of 2005,the improvements to be made.

Pedagogical material to be derived from the WNU-SI: A small group of WG1 & 2 members will specify the nature and the content of specific material issued out of the WNU-SI presentations, which could be useful to University Departments, and which could fulfill specific educative objectives such as information of corporate management in nuclear related firms.

Attachment 3 is describing those actions.

### **3. The WNU Business Plan. (actions related to the Summer Institute)**

The following items have been suggested for the WNU Business Plan:

- Mentors for 2005: nominations and definition of their role

- Curriculum improvements for 2006-2007 WNU-SI.
- Establishment of a Task Force on new project definition (H.Van der Velde, Y.Yanev, V.Mourogov, +USA (c/o G.Brown), India (c/o R.Grover))
- Russian proposal to host SI in 2006
- Sweden may suggest to host WNU in 2006 in Stockholm.
- ENEN Proposal to host SI in 2007, South Africa would like to support
- Summer Seminar (or workshop, or school) on Assessment of all potential solutions to the Energy Issues - Project to be discussed among J.Ritch, V.Mourogov, J.L.Nigon, R.Grover.
- Pedagogical material to be derived from the WNU-SI

#### **4. Examples of existing cooperation.**

The following educational networks were presented and discussed: ENEN, ANENT, RUSSIAN BRANCH, NEDHO, and UNENE.

#### **5. Exchange Programmes.**

- **Exchange of faculty:** Although it is considered important, even of first priority for some members, it is a matter of bilateral agreement between institutions with little potential added value from the WNU-CC
- **Exchange of students:** Every local network has to manage its own internal exchange programmes; since trans-continental exchanges are considered as highly valuable to students, and should be profitable to their future employers, the subject will be reworked during the coming months. At least, the WNU-CC should help in displaying the information (bids, demands, opportunities...) on its website (see above). Grants or scholarships should be considered as soon as the WNU gets the necessary resources.
- **Exchange of facilities:** Again it's a bilateral question; very few institutions can offer "open labs"; however, the website of the WNU may be used to display the useful information.

See Attachment 4.

#### **6. Tools for distance learning.**

The World University Network (WUN) has developed tools and practices applied to non-nuclear teaching, but which might be applied to nuclear teaching as well. It has been presented by Alistair Walsh Atkins. The practice of "preheating" the group of students implied in a distance web-based learning programme might well be applied to the WNU-SI Fellows. *Testing it in June 2005 will be considered (Action led by E. & D. Klevans).*

#### **7. Compendium on existing courses.**

A catalogue of existing educational programme is **useful** to universities, to students, and **to employers** as well (industry, operators, governmental bodies and research centres).

*PROJECT DEFINITION:*

*Task Force: WNU-CC/JL Nigon, IAEA, V Mourgov, T Levfert, C Felin.*

*Starting 2005, first Quarter, with the choice of the structure of the database or of the web page,*

*Then, creating the links, filters, search engine... to build the whole compendium on the basis of existing material on the Universities websites.*

*Delay: a first usable version, possibly limited to the Master Degree, should be available end of May 2005, before the WG1 & 2 June Meeting.*

*Budget (manpower) 4 man-months, (external cost) 50 000 euros (?)*

**8. Identifying customers needs.**

The WNU final customers are the Industry, the Operators, the Research Centres, and the Governmental Bodies, who hire the students after they get some degree.

*The WNU-CC is to launch an international inquiry in order to get a more exhaustive expression of the customer needs.*

*Delay: first results should be available before the June WG1 & 2 Meeting.*

*Budget: (manpower) 2 man-months, (external cost) #0*

**9. The WNU certificates.**

This has not been really discussed, and is to be one of the important items of the June 2005 Meeting.

Some issues to be considered:

The question had been initially raised as: TOWARDS A WNU LABEL?

**REQUIREMENTS:**

- For COURSES? (#programmes)
- For PROGRAMMES?
- For "SUMMER SCHOOLS"?

**LIST OF CRITERIA:**

- Language,

- Accessibility,
- Pedagogical material, support (handouts, electronic files, book,...)
- Benchmarking process
- Review process

**DEFINITION OF THE PROJECT:** Task Force

- Delay
- Resources (manpower), (cost)

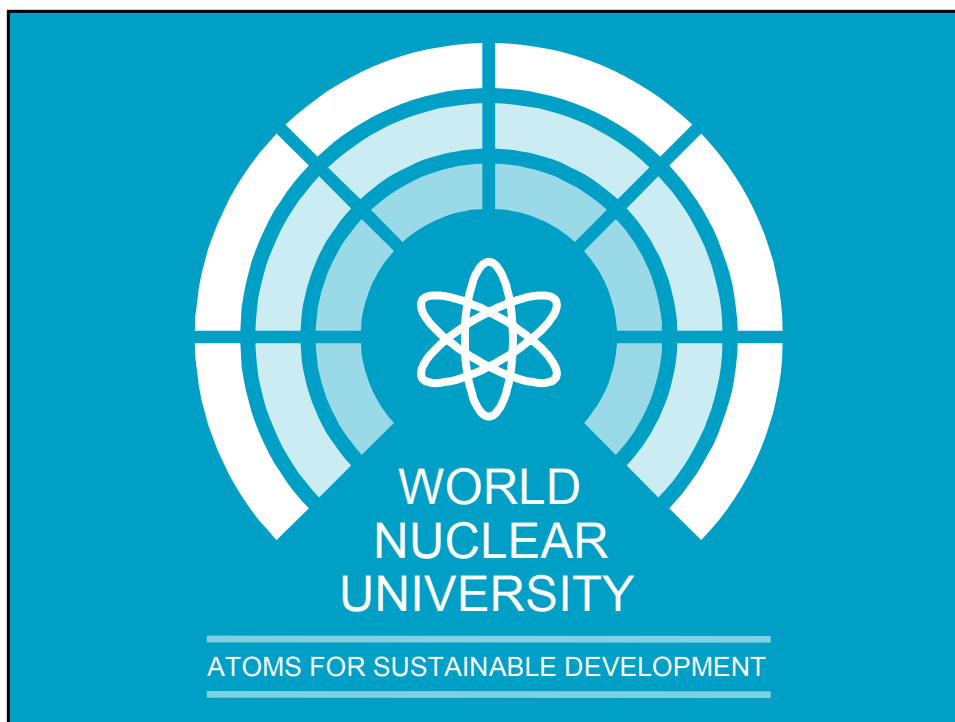
**10. Proposal on establishing the WNU Centre of Nuclear Science and Technology.**

Prof. V. Mourogov presented the Russian proposal on establishing the WNU Centre of Nuclear Science and Technology in Obninsk, Russian Federation. The proposal is attached.

**11. Next meetings.**

Meeting of the WG1 and WG2 is suggested for June 6 and 7, 2005, most likely in Vienna.

The WNU Symposium –September 2006 in London.



*WG1 & 2 Meeting, IAEA Vienna, Dec 1<sup>st</sup> & 2<sup>nd</sup>, 2004*

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INTER-INSTITUTIONAL COOPERATION  
FOR THE ENHANCEMENT  
OF NUCLEAR COURSEWORK  
AND  
FOR THE INSPIRATION OF FUTURE  
LEADERS IN NUCLEAR TECHNOLOGY

Jean-Louis NIGON  
Chief Coordinator  
WNU Working Groups



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## WNU CREATORS

### FOUNDING SUPPORTERS

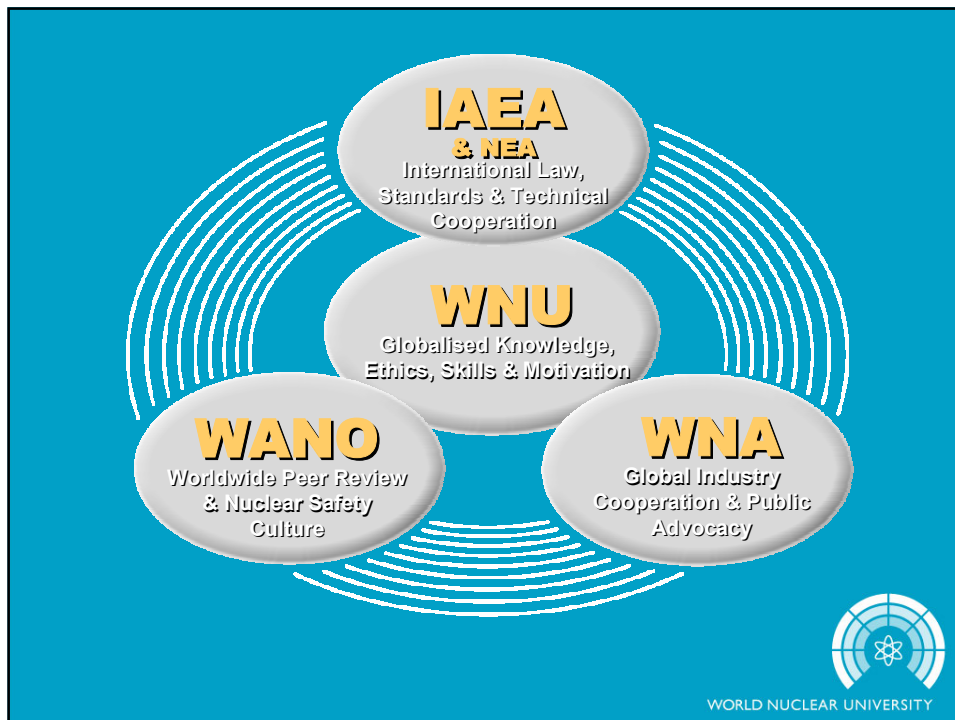
- International Atomic Energy Agency
- Nuclear Energy Agency / OECD
- World Association of Nuclear Operators
- World Nuclear Association

### CORPORATE SPONSORS (potential)

Areva, BNFL, British Energy, Bruce Power, Cameco, Dominion, Duke, EdF, Entergy, EoN, Eskom, Exelon, Iberdrola, Kansai, Korean H&N, Kyushu, Rosenergoatom, NPCIL, OPG, USEC, Rio Tinto, RWe, Tepco, Urenco, Vattenfall, WMC



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# **World Nuclear University**

## **MISSION**

**To build worldwide knowledge  
and strong stewardship  
of the peaceful uses of atomic energy,  
and thereby to support  
global sustainable development**



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## **WHAT FOR ?**

To support effective worldwide application of the peaceful uses of nuclear technology, the World Nuclear University will build:

- I. Human Resources** 
- II. Technical Knowledge** 
- III. Public Support** 



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## WHAT?

### Essentially:

**A Network of educational & research institutions** with strong programmes in nuclear science & engineering **either** directly or **through existing regional networks**

**A Summer Institute** for talented students, and an extended **Education Programme** for teachers, opinion makers, and **industry** managers

### Value-added from:

**WNU Coordinating Centre**

### Affiliations:

**Independent but closely linked** to its national, intergovernmental and corporate sponsors



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## The WNU : a network of networks



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# Attachment 1.

## HOW to ADD VALUE from a COORDINATION CENTRE

The Coordination Centre will be a small team with world-class expertise.

It will introduce a global dimension to nuclear studies by:

- **Facilitating development of standard curricula**
- **Designing courses with strong international content:**
  - Highly specialized scientific courses
  - Innovation oriented courses
  - Economy
  - Safety
  - Energy related environmental issues
  - Non-energetic applications
  - International Regimes



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## THE WNU WORKING GROUPS

### 3 WGs on CORE FUNCTIONS: Knowledge, Education, Professional Credentials

- 1-Inter-University Collaboration
- 2-Curriculum
- 3-Knowledge Management (*not limited to education*)



### 5 WGs on KEY NUCLEAR DISCIPLINES: Teaching the Nuclear Profession

- 4-Global Nuclear Safety Culture
- 5-Nuclear Reactor and Isotope Technology
- 6-Nuclear Law
- 7-Nuclear Safeguards and Security
- 8-Society and Nuclear Technology



### 2 WGs on the WNU ANALYSIS: The Future of Nuclear Technology

- 9-Global Use of Nuclear Power
- 10-Nuclear Energy and Sustainable Development



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## THE WNU EDUCATION PROGRAMME and THE SUMMER INSTITUTE \*

*The purpose of the annual WNU Summer Institute is to provide a unique educational experience aimed at building future global leadership in the fields of nuclear science and technology.*

**The WNU-Education Programme will be aimed at**

### **4 Classes of Participants:**

1. Leading students (the Fellows)
2. Teachers
3. Politicians and opinion makers
4. Industry and Operators Top Managers

The Summer Institute will consist of series of courses and seminars to be held annually in various locations.

The first one – in 2005 – will be a six-week summer school for talented students and young professionals, held in Idaho.

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## **WHAT FOR ?** (cont'd)

### **I. BUILD HUMAN RESOURCES**

- Attract **increased worldwide enrollment** by showcasing nuclear science & engineering as an exciting, future-oriented vocation
- Design & issue a **universal credential** for a global market
- Develop and administer **scholarship support**
- Foster an **ethic of responsibility** among nuclear scientists worldwide
- Operate a global nuclear-related **human resources pool**



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## WHAT FOR ? *(cont'd)*

### II. BUILD TECHNICAL KNOWLEDGE

- Work with **WANO & IAEA** to strengthen **global safety culture**
- Stress key **areas of study**:
  - New systems of **proliferation safeguards**
  - Innovation in a **nuclear-renewables-hydrogen economy**
- Cooperate with **IAEA** to **manage nuclear knowledge**



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## WHAT FOR ? *(cont'd)*

### III. BUILD PUBLIC SUPPORT

- Serve as an active, **high-credibility information** source:
  - Broaden **awareness** of nuclear technology's diverse benefits
  - Project image of a global industry adhering to the **highest international standards** of safety & performance
- Develop the **frame for opinion makers information and education**
- Develop the **growing cadre of WNU graduates** as champions of nuclear technology



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## WORKING GROUP 1

### COOPERATION among Participating Institutions

- Facility Sharing
- Faculty Exchange
- Student Exchange
- Distance Learning

### 1- EXCHANGE PROGRAMMES

- Experience Feedback from regional programmes
- Cost / Benefit Evaluation of Enlargement
- Criteria & Priorities
- Action Plan (Regional Networks)

### 2- DISTANCE LEARNING

- Existing material
- Criteria for large scale actions
- List of most urgent needs (IAEA?)



## WORKING GROUP 2

### The WNU CURRICULUM DESIGN

- For Summer Institute (Summer Schools)
- For Incorporation in Member's Curricula
- For the Design of a WNU-Certified Degree

### 1- SUMMER INSTITUTE // Summer Schools

- 2005 IDAHO WNU-SI
- Russian Summer Schools
- next 2006 and beyond WNU-SI
- Summer sessions for policy and opinion makers,  
and for industry managers

### 2- EXISTING COURSES

- Nuclear law: Link with WG6
- Natural Circulation: Link with IAEA and WG4
- Proliferation Resistance: Link with MIT and WG7
- Etc...



## WORKING GROUP 3

### EXPLICIT AND TACIT KNOWLEDGE PRESERVATION

- Existing experience and skills from seniors
- Develop knowledge basis in all nuclear areas
- Succession Planning Recommendations
- Define strategies for nuclear KM

### 1- WG3 led by IAEA and WANO

- Explicit the 3 year Action Plan
- Other potential

### 2-EXPRESSION OF INDUSTRIAL NEEDS

- Operational safety
- Decommissioning
- Other main issues?

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## WORKING GROUP 4

### GLOBAL NUCLEAR SAFETY CULTURE

- Heighten the efficiency and strength of the Nuclear Safety Culture
- Technology,
- Education,
- Training

### CLOSE COOPERATION WITH ENEN

Who already is planning to design a “Safety Education Body” dedicated to senior management

### CLOSE COOPERATION WITH IAEA, and with standard development organizations

- Consider the 4 aspects of Safety:
  - Transport
  - Radiation Protection
  - Waste Management
  - Nuclear Installations; Design, Operation, and Dismantling

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## WORKING GROUP 5

### NUCLEAR REACTOR, ISOTOPE, AND FUEL CYCLE TECHNOLOGY

- Closely linked to WG1 & 2, this WG is to identify best practices in a supposed “traditional area” of nuclear education,
- Identify potential useful partnerships
- Suggest courses for non traditional audiences: non technical professionals (finance, policy and opinion makers,...)
- Support high level education through research: Docs and Post-Docs through appropriate links with Research Institutes

### PARTNESHIP WITH: Operators (NPPs, Research Reactors, Fuel Cycle Facilities, Isotope Production Facilities,...), Designers and Vendors, Research Institutions, Governemental Bodies,...etc.

- Expression of their needs
- Advanced preparation of future systems: teaching promising technologies

### LANGUAGE ISSUE:

- Many stakeholders don't speak English (and don't need it)
- Share best practices in several usual languages

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## WORKING GROUP 6

### NUCLEAR LAW

- Based on one existing specific course, the WG should promote the worldwide access to such a high level education,

### SPREAD THE INFORMATION about the OECD/NEA - Montpellier University Course

- Suggest a even wider access to this;
- Consider translation in other languages ?

### SHARE TECHNICAL KNOWLEDGE WITH LAW EXPERTS

- Take the opportunity of a non technical WG for elaboration of strategies in teaching technical matters to those nuclear concerned, who are not technical experts

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## WORKING GROUP 7

### NUCLEAR SAFEGUARDS AND SECURITY

although Proliferation (Safeguards) and Security are two different issues, they share many common aspects and technologies.

A clear distinction has to be done when teaching these matters.

- Through training material, specialized lectures, short-term and full-term courses, provide information for governments and industry in the realm of regimes, and available techniques as well: accounting of nuclear material, detection, measurement, ...
- Through the diffusion and publication of such information, contribute to the development of the necessary confidence of the public in a safe nuclear world.

### PROLIFERATION RESISTANCE

- Suggest a worldwide diffusion of existing course taught in MIT
- Complete, as much as required, by contribution from various countries

### TERRORISM and SECURITY

- Teach Forensics Science, and appropriate techniques and methodologies
- Foster education of evaluation methodologies (criteria definition and use) applied to terrorist risk evaluation

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## WORKING GROUP 8

### SOCIETIES AND NUCLEAR TECHNOLOGIES

- There is a need for a better knowledge and better understanding of “how public attitude have been shaped in various regions”, and “what lessons have to be learned from this”
- The WG has to recommend which courses in sociology, psychology, and other disciplines should be incorporated into a “nuclear education”

### IDENTIFICATION OF PRIORITIES

- Safety as it is perceived by the public
- Mental representation of waste
- Perception of energy needs
- Security related to nuclear energy
- Proliferation concerns in the various societies of the world

### DEVELOPMENT OF EDUCATIVE MATERIAL AND COURSES

- For nuclear students
- For Teachers (at all school levels)
- For Policy and Opinion Makers
- For Managers

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## WORKING GROUP 9

### GLOBAL USE OF NUCLEAR POWER

- To provide a context for future nuclear education, this WG will marshal a team of experts, who will assess future prospects of Nuclear Power uses: electricity generation, hydrogen production, desalination,...
- Recent studies conducted by MIT and Harvard, and by the UK's Royal Institute of International Affairs, will serve as basis. Others should be indentified.

### BUILT A TEAM OF ENERGY AND NUCLEAR POWER EXPERTS

- From most of world countries,
- Cooperating closely with WNA Working Group on Industry Economics
- Closely linked to the other WNU WGs

### IDENTIFY THE KEY PARAMETERS WHICH COULD PREVENT NUCLEAR ENERGY FROM ITS NECESSARY DEVELOPMENT

- Technological difficulties,
- Socio-political blockages,
- Nuclear Professionals shortfall...

### ACT AS A THINK TANK and COMMUNICATE

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## WORKING GROUP 10

### NUCLEAR ENERGY AND SUSTAINABLE DEVELOPMENT

- Recognising that carbon-emitting energy sources must rapidly give way to clean, low-emission energy sources,
- And that nuclear has a significant share to take in future energy generation,
- This WG will seek to design a feasible long-term global emission-reduction regime

### EVALUATE AND SUGGEST

- Political and Economical Incentives for participation by every country, either developed or under development, to such a regime;
- Economical Solutions for the Financing of this;
- Review periodically the relevance of the "low-emission" target

### ACT AS A THINK TANK and COMMUNICATE

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Attachment 2.



*WG1 & 2 Meeting, IAEA Vienna, Dec 1<sup>st</sup> & 2<sup>nd</sup>, 2004*

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**ROLE OF THE WG1 & WG2**

Jean-Louis NIGON  
Chief Coordinator  
WNU Working Groups



## Attachment 2.

### HOW TO WORK TOGETHER?

#### ADDED VALUE

- « Subsidiarity »: act at the « lowest » possible level  
use local networks workforce
- No unwanted duplication
- Share information of world value, mostly through the WNU-CC
- Seek after benchmarks of pedagogical practices, curricula, and diploma

#### RELEVANCE

- Who are the WNU's customers?
- What are their needs and priorities?

#### EFFICIENCY

- Think global, act local: create small teams of project task force
- Find fun in competition? Be efficient in cooperation !
- Create and use tools: the WNU website, and links



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### NETWORKING THE NETWORKS

#### ACTIONS EXPECTED FROM THE NETWORKS

#### ORGANIZATION

- « Liaison officer » with the WNU-CC
- Representative in the WNU-CC London (partial or full time)
- **Language Issue:** assume translation from and to the members particularly with regard to South America, Russian speaking countries, China and other Asian countries.
- **Member List(s):** See WNU website (database)

**WNU-CC ACCESS** *Mes documents/WNU/wnu-contacts.mdb*

**WEBSITE ACCESS** [www.world-nuclear-university.org/contacts/forms.htm](http://www.world-nuclear-university.org/contacts/forms.htm)

#### EDUCATION ACTION PLAN

- Exchange programmes and harmonization experience feedback
- Regional expression of needs: industry and operators
- Local original educational experiences to share
- Evaluation of internetwork cooperation added value



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## Attachment 2.

### WORKING GROUP 1

#### COOPERATION among Participating Institutions

- Facility Sharing
- Faculty Exchange
- Student Exchange
- Distance Learning

#### 1- EXCHANGE PROGRAMMES

- Evaluate the benefits, the required efforts and resources
- Define priorities
- Launch projects on the basis of network experience feedback

#### 2- DISTANCE LEARNING

- On the basis of present experiences, plan the future actions
- Evaluate cost and delay

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### WORKING GROUP 2

#### The WNU CURRICULUM DESIGN

- For Summer Institute (Summer Schools)
- For Incorporation in Member's Curricula
- For the Design of a WNU-Certified Degree

#### 1- SUMMER INSTITUTE

- 2005 IDAHO WNU-SI
- next 2006 and beyond WNU-SI

#### 2- EXTENDED EDUCATION PROGRAMME

- Local / Regional Summer Schools: Russian example
- Criteria and requirements to be fulfilled to be labelled "WNU"

#### 3- EXISTING COURSES

- Worldwide spreading of Local / Regional courses (analyse examples)
- Highly specialized courses → to be managed by the appropriate WG
- Analyse examples, and define projects

#### 4- WNU CURRICULUM DESIGN

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## Attachment 2.

### MEETING OBJECTIVES

#### 1- FINALIZE THE WG1 & 2 CONTRIBUTIONS TO THE WNU-SI

#### 2- DRAFT THE WNU BUSINESS PLAN FOR 3 YEARS

- 2005 SI complements
- 2006 and 2007 SI organization, location, improvements
- Toolbox developments
- Exchange Programme projects
- Distance learning projects
- Compendium (catalogue?)
- Relations with other WGs
- Education Programme specific projects

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## Attachment 3.

### SUMMER INSTITUTE : WGs Actions

#### The 2005 WNU-SI CURRICULUM DESIGN

- Completed; refer to the minutes of June Meeting  
...but comments are welcome

#### 2006 AND 2007 WNU-SI CURRICULUM

- Suggest improvements

#### MENTORING

- Optimize the proposal: precise the goals, define the number of mentors, suggest names, prepare a “guide” for the mentors

#### EVALUATION ( or Assessment )

- Define the evaluation/assessment forms for Fellows, and for Speakers

#### PEDAGOGICAL MATERIAL BASED ON THE WNU-SI

- Record the lectures, and the discussions(?)
- Derive pedagogical material to be displayed to Universities, and others(?)

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### PROJECTS : Summer Institute Preparation

#### 2006 & 2007 WNU-SI

- Curriculum improvements

#### DEFINITION OF THE PROJECT:

- Task Force: *H. Van der Velde, Y. Yanev, V. Mourogov, +USA (c/o G. Brown), +India (c/o R. Grover)*
- ++ for 2007, *ENEN proposal to host*
- Delay *start March 2004,*
- Resources (manpower)  
(cost)

#### MENTORING

- 5 Groups,
- 3 “six-week-full-time-mentor” volunteers : *JLN, GB, and GG (to be confirmed)*
- Call for other volunteers (3 or 6 weeks) to be issued asap: *WNU-CC*
- Guidelines for mentors: *E. & D. Klevans lead, C. Feltin, G. Brown, G. Greyvenstein, J.L. Nigon*

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## **PROJECTS : Summer Institute Preparation (cont'd)**

### **MENTORING (cont'd)**

- Role of mentors: to “break ice” and to “glue” the group,  
to integrate, to assemble the various parts of a subject,  
to help the group in the management of its project,  
to help the group in its perception of the “speaker’s own criteria”  
thus to help the group to build its own balanced opinion

### **EVALUATION FORMS**

- Both for Speakers and for Fellows
- Project of definition of the forms, headed by *E.&D.Klevans*, *+A.Sneed*,  
*+A.Kossilov*

### **PEDAGOGICAL MATERIAL TO BE DERIVED FROM THE WNU-SI**

- Mary GOUGAR*
- Jacques FOOS (to be confirmed)*
- Others ? Prof. Korovin*



## Attachment 4.

### EXCHANGE PROGRAMMES

**FACULTY EXCHANGE:** (high priority, according to Mohan Mathur)

- Bipartite agreement?
- Higher benefit from « intercontinental » exchanges
- How to manage the opportunities, bids and demands?
- Can the WNU website be an appropriate tool?

**STUDENT EXCHANGE:**

- Mostly regional?
- Cost/benefit analysis of « intercontinental » exchanges?
- Reasons for fails and successes: Experiences feedback
- Again:* Use of the WNU website?

**FACILITY EXCHANGE:**

- Case by\_case basis and bipartite agreement?
- Case of facilities in a « non member » site: ITU, DOE site, CEA,...
- Catalogue of existing « open » facilities?

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