

# New Reactor Projects as Training Opportunities

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# Training and more...

## Human Resources Development for Nuclear Programs

Training

Know-how  
Transfer

Licensing  
Management

Industry  
Empowering

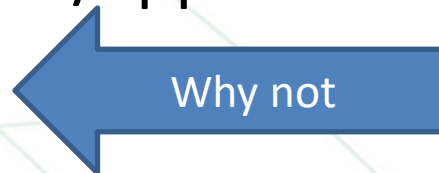
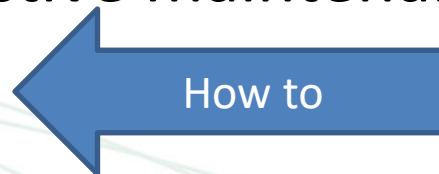
Users  
Development

Strategic  
Planning

Academic  
System

# Training

- Trade staff
  - Reactor operation
  - Preventive and corrective maintenance
- Engineering support
  - Safety assessments
  - Core follow up
  - Support to experiments/applications
- Trainers
  - Training management system



# Know-how Transfer

Knowledge required to:

- Plant modifications
  - Design techniques
  - Calculations
  - Modeling and prototyping
- Facility optimization
  - Management systems
  - Performance indicators
  - ALARA assessments
- Maintain and upgrade the Safety Analysis Report
- Ageing and obsolescence management



# Industry Empowering

Development of skills for both, nuclear and non-nuclear applications such as:

- QA techniques
- Testing and qualification programs
- Special material procurement and handling
- Special welding techniques
- Special concrete types
- Clean room techniques
- Utilization of state of the art tools and instruments

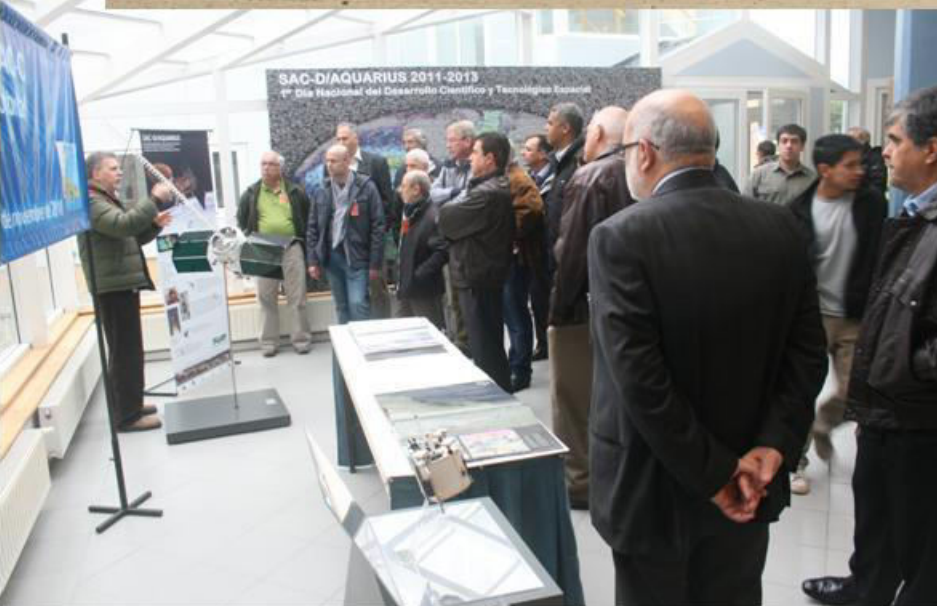




# Strategic Planning

- Extending the horizon beyond the reactor
- Areas of preparation
  - Infrastructure requirements
    - Fuel cycle front and back end
    - Waste management
  - Bidding process and contract management
  - Scheduling, planning, cash flow and cost control







# Licensing Management

- Licensing strategies
  - Timing
  - Crucial issues identification
  - Interfaces with federal/local authorities
- Preparation of Safety Analysis Report and related assessments
- Organization of supporting activities
  - Public hearing
  - Environmental screening



# Academic System

- Preparation of the infrastructure
  - Syllabus and curricula
  - Lecturers, bibliography, hands-on and other teaching activities
  - Laboratories
    - Nuclear physics
    - Radiochemistry
    - Thermohydraulic
    - Dosimetry



# Users Development

- Improvements on reactor utilization
  - Low irradiation costs
  - Opportunity to install new equipment
  - Revenues
- Consolidation of research groups
- Screening of new R&D areas







# INVAP Assets

- Experienced staff
  - Wide range of nuclear designs
    - Zero power to tens of megawatts
    - Open pool to pressurized circuits
    - Fuel rods to MTR plates
    - Radioisotope productions to NORM treatment plants
  - Construction and commission of facilities within schedule and budget both domestic and overseas
  - University lecturers
  - IAEA experts
- Receptive working groups accepting customer representatives

# INVAP Assets

- Open and fair relationship with customers
- Successful training courses delivered
- Incorporation of modern training methods
  - Virtual reality
  - On-line training
  - Nuclear labs activities







Thank you !!!!