

*Nonproliferation Through Science  
Cooperation*



# **Canada Helps Redirect Former Soviet Chemical Weapons Scientists**

M.G. Valentine – ISTC Senior Project Manager  
Program Manager, US Bio-Chem Redirect Program

with permission from  
Sabine Hey,  
Department of Foreign Affairs and International Trade, Canada

**22 May 2008**

# Canadian Support – Leadership in Security

## **Canadian Support reflected in:**

- **Destruction of Chemical Weapons**
- **Funding Science Centers Program**
- **G8 Global Partnership – Proposal and Principles**
- **Counter Terrorism Program**

# Canadian Support for Redirection

## **Funding International Programs:**

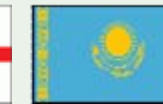
- **Major Donor of Science and Technology Centre of Ukraine (STCU) since 1993**
- **Acceded to the Moscow-based International Science and Technology Center (ISTC) in 2004**

# Core Objectives



- ***Redirect*** former WMD scientists of FSU
- Reinforce the ***transition to the market*** economy
- Help ***integrate WMD scientists*** into the global scientific community
- Contribute to ***solving*** national/global science & technology ***problems***
- Support basic and applied ***research***

# History



- **Founded in 1992 by the governments of the EU, Japan, the USA and Russia; operations began in 1994 in Moscow**
- **ISTC now has 37 member countries (25 from EU), representing the FSU, Europe, Asia, and North America**
- **Parties and Partners select and fund scientific projects in FSU**
- **ISTC manages projects and directs supporting programs for project participants and institutes**

# Examples: ISTC Regular Projects

ISTC Project 3316 **“Surface Decontamination after Chemical Terrorism: Safety Standards Development”** - *Scientific Research Institute of Hygiene, Toxicology and Occupational Pathology, Volgograd, Russia*

## **Expected results:**

“How clean is clean?”

*Safety standards for chemical agent residues on building structures’ surfaces after decontamination. Regulatory and methodical document on decontamination safety standards .*

# G8 Global Partnership

**In 2002, at Kananaskis, Canada, the G7 nations pledged \$20 billion over 10 years, against the spread of WMD. Four key priorities identified:**

- **Destruction of chemical weapons,**
- **Dismantlement of nuclear submarines,**
- **Nuclear and radiological security,**
- **Employment of former weapons scientists**

**As a result, Canada joined the ISTC in 2004.**

# G8 – ISTC Connection

***Parties of ISTC have designated their contributions to ISTC as fulfilling Global Partnership pledges***

Relevant ISTC projects:

- **Submarine decommissioning**  
 ISTC involvement ranges from new technologies for dismantlement to oceanic radio-nuclide databases
- **Chemical weapons destruction**  
 Technological approaches include blast furnaces and reaction into commercial products
- **Disposition of fissile materials**  
 Research on advanced reactor types and new fuels includes feasibility and safety studies

***In 2005, ISTC adds new department:  
Global Security and Strategic Planning***

New GS department will *not just redirect* former weapons scientists, but *specifically redirect* them towards science and technology that addresses counter-terrorism, disarmament, non-proliferation, and CBRN security issues related to the following thematic areas:

- Safety and security
- Transportation and containment
- Destruction and conversion
- Material and process controls
- Detection and enforcement

## Counter Terrorism & Global Security Program

- **LETI (Law Enforcement Targeted Initiative**
- **BioTerrorism - Concept Stage**

**Under LETI, GS Department works with Canada, the USA and EU, together with the DOE, RCMP and Russian MVD to deliver an initial Law Enforcement TI. This TI will focus on forensics technologies & applications.**

- **The first two projects have been funded and started.**
- **Subsequent TI's will also be developed on this model to address other areas related to counter-terrorism, including Nuclear Security**

# Objectives



## **LETI will**

- **create stronger ties between the law enforcement and scientific communities, initially in the area of Forensics**
- **seek to develop & enhance relationships between former defense-related institutes and WMD scientists and Russian law enforcement agencies with respect to technology development**
- **encourage collaborative research with international collaborators**

# Future Activities, Challenges

**In environment of shrinking budgets and “donor fatigue,”  
Donors are looking to include sustainability to funding  
commitments**

- **research proposals with higher sustainability potential  
are given greater attention and**
- **support is given to research marketing and technology  
commercialization.**

# Bi-lateral projects

**Environment Canada and DRDC engage with RF institutes with direct contracts – Contract Research Organizations (CROs):**

- **RIHTOP, Volgograd**
- **GosNIIOKhT, Moscow**
- **NIKIMT, Moscow**
- **RIHOPHE, St. Petersburg**

# Further Threat Reduction

## **Obsolete Pesticides Pose great OP Risk**

- **Thousand of Tonnes throughout CIS**
- **OP poisoning**
- **Possible Terrorist target?**
- **More easily obtained**
- **Concern of Green Cross, IHPA**
- **CWD Facilities – Next?**
- **CW Scientists – Valuable Resource!**

## Conclusion – Canada Shows path for “Many Birds – One Stone”

### **Overlapping, Synergistic Activities**

- **Through ISTC projects, CIS scientists can be active participants in nonproliferation, not just passive recipients of funds**
- **CIS science as resource for developing necessary technologies for GP work**
- **Beyond GP, unique capability – CWD Scientists – carrying out Counter-Terrorism, or Threat Reduction, Tasks**

# Canada Supports Former Weapons Scientists

Thank you for your attention

Questions and comments?

# Contact



**[www.ISTC.ru](http://www.ISTC.ru)**

**Michael G. Valentine  
Senior Project Manager**

**[Valentine@istc.ru](mailto:Valentine@istc.ru)**

**+7 495 982 3153**