STCU Program Planning Document

Program/Event Summary

Program/Event Name	Institute Sustainability Program
Lead DED and/or Staff Member	DED (US); Sustainability Promotion Department Staff
Supporting Departments	Performance/Public Outreach Dept., Science Excellence & Technology Advancement Department (primarily Senior Specialists)
GBM of Program Authorization	*The GBM where the budget for the program/event was approved*
Total Budget Approved for Program	Estimated US$5.9 million over 3.5 years (TBC and then approved by GB)
AOB/SB Budget Line	SB - Business Training/Sustainability Development (Shared or U.S. Party Designated)

Program Description: This program will combine several STCU activities into an integrated & holistic effort to improve the ability of former weapons institutes to achieve a higher level of successful self-reliance. The program arises from the 2007 U.S. Party request for STCU to assist the U.S. Department of State Science Centers Program (represented by the State Department's Officer of Cooperative Threat Reduction, Bureau of International Security and Nonproliferation) in directing its former weapon scientist redirection program financing toward specially designed, targeted actions on selected institutes of interest to the United States FWS redirection strategy. However, the program also will be designed such that other STCU Parties or Partners can make use of the programmatic framework for similar actions.

Program Objectives/Goals:

Overall Program Objective: To improve the overall self-sustainability of former weapons institutes/technical units through the measured improvement in the targeted "sustainability elements" of those institutes/technical units.

- Goal #1: Through engagement of groups of institutes and national-level stakeholders, agree on the applicability of the general Sustainability Elements to the institutes involved, and from these Elements, identify a set of tasks and objectives that STCU, the national agencies, and institutes can work towards in a cooperative effort. The tasks/objectives involving STCU could be, *inter alia*, long-term planning for institute development, institute capacity building (e.g., skills, expertise) in areas of both individual and mutual need, and leveraged activities with institute groups or national agencies in areas of mutual priority).

- Goal #2: Develop a modular program framework (managed by a single STCU authority) whereby targeted projects, training events, workshops, travel, IPR support, and sustainability plan implementation tasks are designed to address the Sustainability Element tasks/objectives at the institute level.

- Goal #3: Develop and implement any required cooperative arrangements with the institutes/TUs to allow STCU (alone or in partnership with other stakeholders) to implement the individual program plans with those institutes that agree to participate.

- Goal #4: Implement program plans and, through regular performance measurements of the targeted sustainability elements, increase the participating institute/TU measures in those Sustainability Elements.

Program Strategy: The STCU will seek to establish stakeholder support and cooperation of the Institute Sustainability Program by means of an informal "institute association"—a grouping of institutes with common R&D directions (e.g., biotechnology, nuclear science, etc)—using the U.S. priority institutes to identify the associations by R&D focus. National-level science agencies, ministries, and senior officials involved in those R&D directions will be invited to participate in the institute association activities. Through preparatory workshop discussions, the STCU, STCU consultants, and these "institute associations" will identify the general sustainability needs of the institutes in their association, along with objectives and actions required to pursue those needs (both generally for that specific R&D community and for individual institutes). The consensus set of institute sustainability goals, objectives, and tasks will be used to design a holistic, tailored set of activities and events, sponsored either by STCU alone or in partnership with national agencies and institutes. Through the cooperation (and partnership) of the institutes and national agencies, STCU will implement its modular Institute Sustainability Program with the institutes of each association so as to achieve the objectives identified through the "institute association" workshops. Regular interaction with the "institute associations" will continue throughout the program to address implementation issues, adjustments, and evaluation of effectiveness.

To minimize the start-up time and impact on other STCU activities, the Institute Sustainability Program will be an integration of existing STCU programs:

- "Targeted Initiative-like" program to design and select collaborative projects that fulfill existing or newly created Sustainability Implementation Plans (SIPs) to reinforce progress in Sustainability Elements
- Travel Support Grants and Partnering missions designed to facilitate active, substantive interaction with foreign collaborators, potential Partners, and peer communities
- Targeted Training in skill areas and topics that create foundations for future growth and for developing responsible S&T practices, etc.

The Program will require Project-based financing, Supplemental Budget-based financing, and Administrative financing. Project- and Supplemental Budget financial support will come primarily from the STCU Financing Parties, either from a single Party (e.g., the U.S. Party) choosing which institutes and program elements its wants to support, or from multi-Party co-financing (including Recipient party financial support, *a la* Targeted R&D Initiatives).

Throughout the Program, milestones with specific outputs will be used to measure the time-progress toward the Goals, while specific measurements related to Sustainability Elements will be used to assess individual institute/TU progress toward the Program Objective.

Program Resources: Because not all the STCU Governing Parties have agreed to fully participate in this U.S. initiative, the additional administrative burden of this new program must be minimized and it will need STCU Governing Board review and approval. The STCU Secretariat will use, to the largest extent possible, existing GB-approved programs and current STCU staff to implement and manage this proposed program. One experienced Senior Specialist shall be assigned as the overall program manager, with other Senior Specialists assigned to coordinate and monitor the implementation at the institute level. Other STCU specialty staff (e.g., Events Coordinator, Travel Support Coordinator, Partnership Managers) will be called upon to as needed. Outside consultants will be contracted for providing specific, independent expertise and objective analysis on issues that cut across the whole program.

Projected Program Plan:

Progr. Task	Actions	Duration	Milestone(s)	STCU Resources	External Resources	Output
1	Introduce Program to National Stakeholders & Agree to Establish "Associations" - Meet with Leaders and Establish National-Level Champions - Work with "champions" to organize "associations" and invite institutes to participate - Establish a workshop schedule and goals for each "association"	2 months	Final Agreement on all necessary associations and membership. Approved schedule of events for each association regarding start-up of institute sustain. Program.	ED (3 meetings) 2 DEDs (5 meetings) 5 Staff (5 meetings)	None	Written documents on approval of association concept and agreement of potential members to participate.
2	Hold Association "Workshops" to Define Institute Sustainability Needs, Objectives, Tasks, and Level of Cooperation/Support	3-4 months		1 DED (4 meetings) 4 Staff (or 1 per association WG meeting)	2-3 Consultants	Written Record of meetings with List of Objectives and Tasks for Program
3	Design Institute-Specific Modules within the Institute Sustainability Program framework	2 months	Program Plan w/modules for general institute participation and tailored participation for specific institutes	1 DED 5 Staff	2-3 Consultants	Written Program Plan with detailed schedule of module activities and budgets, for presentation to GB and Associations
4	Agree with Institutes and/or "Leveraging" Stakeholders on Implementation of Program (incld.	2 months	Presentation of Program Plan to Association WGs, and	ED (1 meeting per association) 1 DED (2 meetings	None	Record of Discussions and/or signed letters of cooperation

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	schedule, participants, etc.)		statements of cooperation with participation institutes.	per institute in each association) 4 Staff (1 per association meeting)		between institute directors and STCU
5	Program Implementation, focusing on, *inter alia*, • Collaborative Projects that follow a Sustainability Implementation Plan • Travel Support to Facilitate Collaborator Exchanges and International S&T Networking • Training to Improve skills in Technology Transfer (e.g., CTCO program), industry standards and "good practices", export control practices, and intellectual property protection/exploitation • Partner Promotion, matchmaking, and presentation opportunities	24-30 months	Completion of modules according to program plan	1 DED 4 Staff (depending on # of associations and institutes involved)	None	Progress Reports for AC/GB meetings and for Progress Review Meetings (Task 6)
6	Progress Review	Every 6	Presentation	1 DED	2-3	Record of

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	Meetings with Associations	months during Task 6	of module progress and results, with feedback and discussion from meeting members	4 Staff (depending on # of associations and institutes involved)	Consultants, but participation is as needed	Discussions, incld recommendations for adjustments or changes to program
7	Completion of Program and Decisions about Next Steps w/Associations	2 months	Presentation of final outcomes, with feedback and discussion on the impact of the program and any unmet needs.	ED (3 meetings) 2 DEDs (5 meetings) 4 Staff	2-3 Consultants for final meeting and any final contract deliverables	Record of Discussions with recommendations for future steps or actions, if any
TOTAL		Appox. 42 Months		1120 total person-days (120 executive person-days; 1000 staff person-days)	400 person-days	

Projected Program Budget:

STCU Planned Budget (Lifetime of Program)
      Executive Staff – Days: 3 officials, for approx. total of 115 work-days
      Non-Executive Staff – Days: 4-5 staff, for approx. total of 1000 person-days
      Staff Travel: For 5 staff, 6 trips within CIS (US$1000) + 4 international trips (US$2000) = US$70,000
(SB expense)
      Other Administrative Costs: ~10% of total non-executive Staff expenses = US$10,000 (SB expense)

Total STCU Budget = approx. US$80,000 in supplemental activities

Recipient Planned Budget (for targeted Institutes/TUs)
      Project Expenses: est. 15 targeted Projects @ US$300,000 each = US$4,500,000 (Project expense)
      Travel: 20 Recipients, 6 trips within CIS (US$1000) + 4 International trips (US$2000) = $280,000 (SB
expense)
      External Conference Expenses: Conference fees (US$1000) for 4 Conferences (20 Recipients) =
$80,000 (SB expense)

Total Recipient Budget = approx. US$4.5 M in projects and US$360,000 in supplemental activities

External Contracted Budget:
      Consultants: Two Consultant Services Contracts (Commercial evaluations; Strategic Business Planning)
– 24 work-months over life of program (approx. $250,000 each) = $500,000 total (SB expense)
      Training Providers: 3-4 training companies (Approx. $35,000 each) = $150,000 total (SB expense)
      Conference/Workshop: 10 STCU-hosted conferences/workshops over life of program @$30,000 each =
$300,000 (SB expense)

Total External Contracts Budget: US$950,000 in supplemental activities

**TOTAL ESTIMATED PROGRAM BUDGET = US$5,890,000 over 42 months: US$4,500,000 in projects +
US$1,390,000 in SB activities**

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Performance Measures:

Proliferation Risk Element	Risk Reduction Element	Sustainability Element Connected to Risk	Performance Metric Connecting Sustainability Element to Program
Military R&D Basis	• Convert to Civilian R&D	• Projects Applying R&D to National, Regional, Global Programs or Development Priorities • Commercialization of R&D Results • Beneficial Tech. Transfer Capability	• Estimate of Budget from State Budget Funding, Non-State Budget Funding, & Foreign Grants (% or general confirmation of budget diversity) • Existence of R&D Projects/Programs Not Connected to Military R&D • Existence of, and activity of, "technology transfer" or external relations promotion efforts (e.g., a tech transfer office, a designated institute official responsible for external or international promotion of the institute, etc.) • Number of STCU Regular, Gov, and Non-Gov. Partner Projects
Isolated	• Transparency & /Integration • Credible Reputation Within International S&T Community	• Active Connections to External Peer Groups • Strong, Professional, Collaborative Relationships with Foreign Experts • Commercial Strategic Partnerships • Large Mix of Active R&D Projects (Science Center Regular, Partner, as well as other National/International Programs)	• Number & Frequency of Collaborator Meetings/Exchanges • Number of STCU Regular, Gov, and Non-Gov. Partner Projects & Number of non-STCU Donor Projects • Number of International Conferences Attended/Presented • Number of Articles Published in Domestic Journals; in Foreign/International Journals • Existence of, and activity of, "technology transfer" or external relations promotion efforts (e.g., a tech transfer office, a designated institute official responsible for external or international promotion of the institute, etc.) • Scope of Interactions with Foreign Peers & Collaborators • Number & Frequency of Visiting Delegations to the Institute

			Grounds (including assessment of administrative procedures for visitors to enter the grounds)
Weak Internal/External Barriers	• Improved Export Control Implementation • Improved Awareness Training (science ethics, science standards, laboratory safety & security practices)	• Demonstrated Unit-level System for Applying National Export Control Laws • Unit-Level Awareness of International Standards on Professional Interactions with Foreign Entities (including R&D standards, science ethics, etc.)	• Level of Export Control Policy Implementation by Unit • Number of STCU Targeted Training in International Standards, Science Ethics Issues, National and International Export Control Norms, etc.
Weak/Unsteady Support	• Stable, Diverse Support Sources	• Strong, individual R&D-related income from State (with strong national-level champions, i.e., ministries) and non-State Sources (domestic private sector, foreign investment, foreign grants) • Competitive R&D Capacity & Modern Infrastructure	• Estimate of Budget from State Budget Funding, Non-State Budget Funding, & Foreign Grants (% or general confirmation of budget diversity) • Number of International Conferences Attended/Presented • Existence of, and activity of, "technology transfer" or external relations promotion efforts (e.g., a tech transfer office, a designated institute official responsible for external or international promotion of the institute, etc.) • Number of Foreign/International Patents • Number of Commercial Licenses from Patents • Number of Non-Gov. Partner Projects

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| Weak Nonproliferation "Culture" (aka, the "A. Q. Khan Factor"—Khan was quite self-sustaining in a material sense, but was still motivated to proliferate) | • Incentives/Penalties Mix
• Training to improve institutional sense of science ethics, international standards, Training in Science Ethics
• Regular Interaction w/International S&T Community | • Development of Good x Practice Policies, Unit-wide Staff Policies (consistent with national labor laws, etc.)
• Integrated Mix of Active Collaborative Projects (Science Center Regular, Partner, as well as other national/international R&D programs)
• Detailed, Realistic Strategic Planning, including actual implementation of such Plans (e.g., business planning ,long-term program planning & budgeting, project planning)
• Pro-active Policies to Increase Number & Frequency of Contacts with Foreign Peers and Other External Entities. | • Number of Participants in Targeted Training Courses (Targeted toward Export Control, Industry Standards, Interaction Skills with Foreign Business Representatives, International Program Management/Financial Controls, etc)
• Number of International Conferences Attended/Presented
• Number of Meetings with Foreign Collaborators/Partners |

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