

Session 4

Examples of Public-Private Partnerships: Electron Beam Technology in Support of the SDGs

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National Center for Electron Beam Research

An IAEA Collaborating Centre for Electron Beam Technology

Texas A&M University, College Station, Texas, USA



National Center for Electron Beam Research

Bring together key strategic partners to take the idea of using e-beam technology into reality



Outreach & Education

2017 Annual Hands-On Workshop in eBeam Technologies
 March 19 – March 24, 2017 | Texas A&M University, College Station, TX

To address the needs of the food, pharmaceutical, agricultural, and pharmaceutical industries, the IAEA is organizing a workshop in e-beam technology in March 2017. This will be the 10th e-beam workshop, after the regular workshop in April 2008.

The National Center for Electron Beam Research (NCEBR) at Texas A&M University is the workshop organizer. This workshop is an on-site event to help our strategic partners understand and implement e-beam technology and enhance its practical application in their industries.

The objectives of the hands-on workshop are:

- To provide attendees with an understanding of the basic principles of e-beam technology, including e-beam technology.
- To provide hands-on training in e-beam technology, including design, engineering, and their penetration, distribution, and validation with e-beam technology.
- To provide attendees with an understanding of the equipment and other infrastructure requirements needed for e-beam technology.
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- To provide information needed to commercialize e-beam technology in the food industry for food curing, food quality, phytochemical treatment, and food safety.
- To provide information to commercialize e-beam technology in the pharmaceutical and biomedical industries for sterilization, degradation, and waste management.
- To provide information to commercialize e-beam technology in the environmental industry for wastewater remediation, industrial waste treatment, treatment of municipal sludge, and so on.

LOCATION
 College Station is about a 2-hour drive from Houston (Austin and about 8 hours from Dallas, Texas) and about 3 hours from College Station (TX) by United Airlines and American Airlines.

REGISTRATION
 Early registration fee is US \$2000 and Full Time 2017 (late registration is US \$ 2700 after Feb 15th, 2017. Registration fee covers 2017/2018 (2) nights hotel accommodations, welcome reception, on-site meals, and travel around the facility, e-beam technology, and e-beam technology. Please send email requesting workshop information to Prof. Sarah D. Allen (sallen@tamu.edu)

ACCOMMODATION
 Hotel reservations will be made at the Radisson Hotel by Allen in College Station. Texas will provide free transportation between the hotel and the workshop venue. Additional details will be available later.

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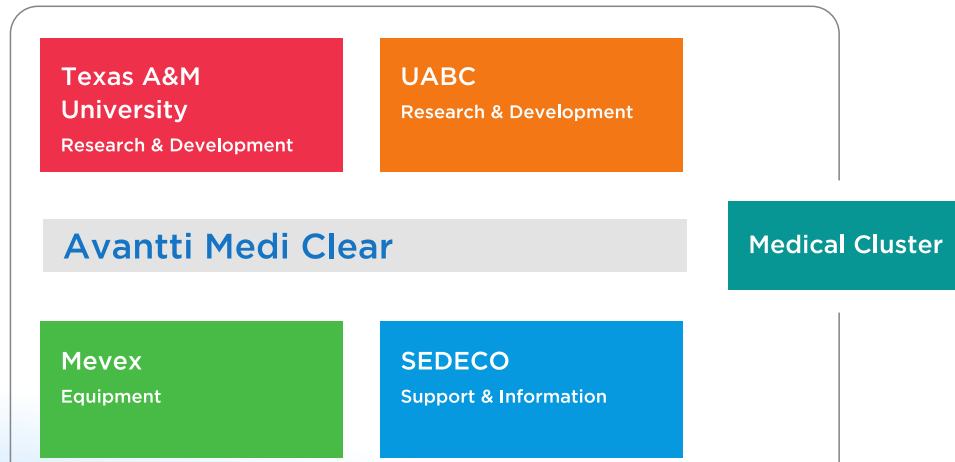
Case Study – Mexico

Medical Device Sterilization E-beam Facility



“ Baja California
Worldwide Hub of
Medical Device
Manufacturing
and Sterilization ”

**Baja California has the
highest concentration of
Medical Device
companies in Mexico.**



Case Study – Mexico

Mexico exports Manila mangoes for the 1st time ever

Framework

Technical cooperation regional project RLA/5/066 “Increasing the Commercial Application of Electron Beam and X Ray Irradiation Processing of Food”



Mangoes – Pakistan

Creation of new companies and jobs both in Pakistan and USA

- Strong interest for mangoes from Pakistan
- Partnered with Mevex, Inc.,
 - Developed a certifiable process (linac operating parameters) to achieve the 400 Gy – 1000 Gy dose limits
- Worked closely with USDA-APHIS for documenting and demonstrating the process and SOP of the facility
- Mangoes air freighted from Karachi, Pakistan to Houston, Texas then to Texas A&M University eBeam Center



Lessons Learned

- Private industry has to have a strong stake in the project
- Education, Education, Education for everyone
 - High quality, technically very specific educational materials
- Teaming with local educational institutions
- Financial and technology sustainability has to be documented, verified and proven

