



GOING GLOBAL

Excitement, Challenges and Innovations for Advanced In-Situ Remediation Technologies

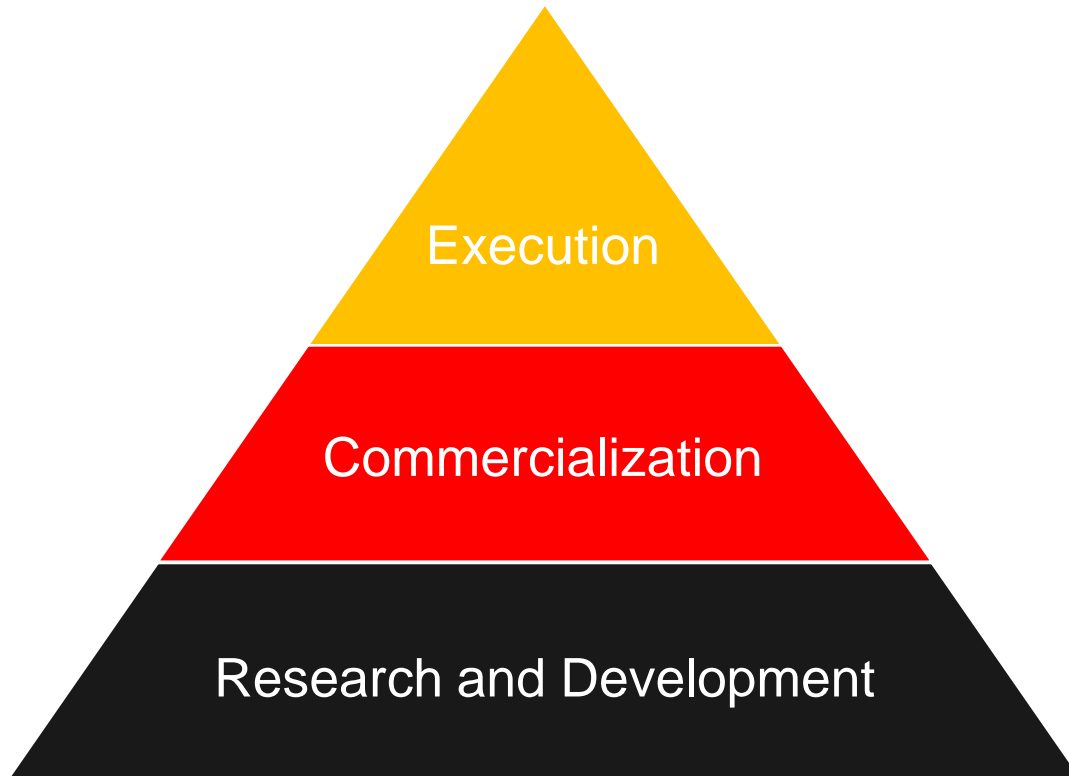
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+ Agenda – Going Global

- Initiatives
- Challenges
- Innovations
- Example Case Studies
- Q&A



About us – TRIUM Environmental Inc.



We are a technology company

A premier remediation technology company uniquely combining an innovation and commercialization platform with service-minded business models that integrate our expertise in:

- Chemical oxidation
- Heavy metal remediation & stabilization
- Thermal extraction and recovery

+ A Global Perspective

A world map with four callout boxes connected by lines to specific regions. The callouts are: Middle East (photo of five people in a desert), South Korea (photo of a white truck with a red container), China (photo of a large water tank and equipment in a field), and Canada (photo of a city skyline). A green location pin is also visible in the western US, and a yellow location pin is visible in China.



Building capacity through unique collaboration models



Remediation Services & Technologies

Canada



Contaminated On-Site Remediation Support

- Logistics
- Project Management
- Operations and Equipment



Chemical Oxidation (ChemOx®)

- In-situ
- Ex-situ



International

Stabilization (SRT®)



Heavy metals & Organics Remediation or Waste Treatment

Thermal Extraction (TREX®)



Low temperature/time
High removal efficiency
Condense and Recover

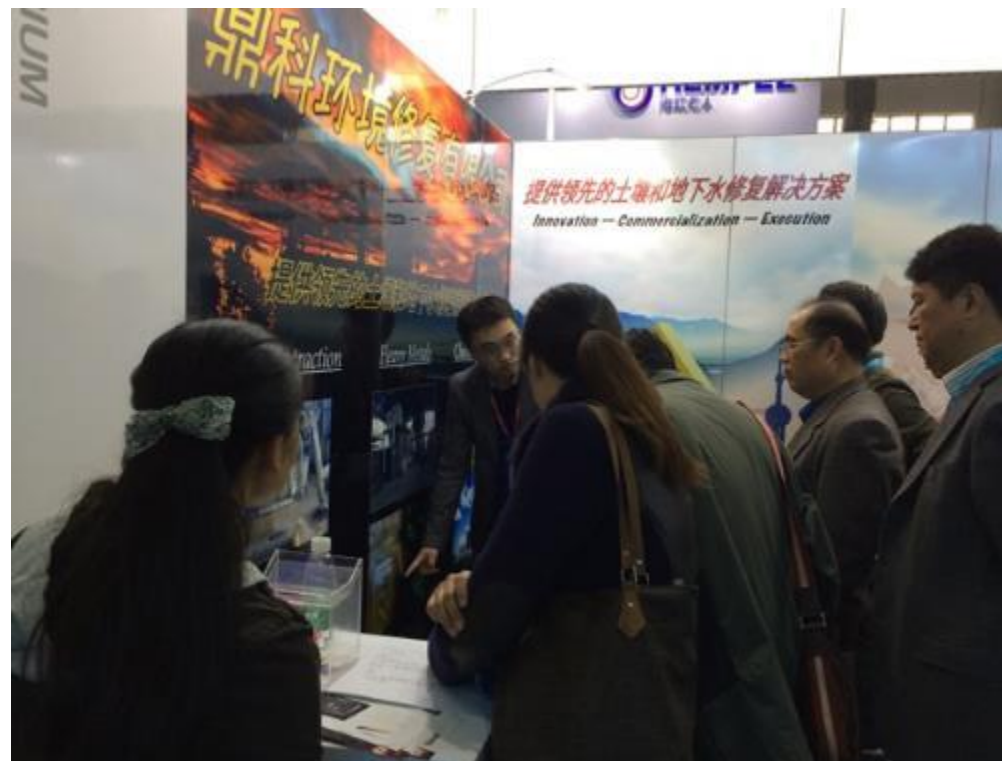
+ Going Global Initiatives

- Started in South Korea in 2007
- Expanded to China in 2014
- First Projects in 2008 and Numerous Projects to date
- Great Opportunities for Remediation Technology Firms Where Landfill Disposal is Limited or Not an Option for Remediation!



+ Going Global - Excitement

- Numerous BD Trips including Trade Missions, Exhibitions, Conferences and Follow up Meetings
- Signed Memorandum of Understanding (lots and lots), Teaming Agreement, Joint Venture Agreement, so on and so forth.
- Cultural Experiences, Building New Relationship and Meetings (again lots and lots....) and Finally Project Opportunities



+ Going Global - Excitement



+ Going Global - Excitement



+ Going Global - Excitement



+ Going Global - Excitement



+ Going Global - Challenges

- Funding and Target Timeframe for BD
- Law System – Common Law vs. Civil Law
- Applicable Laws, Regulations, Policies and Bylaws
- Culture, Language and Foods
- Competition with Local / Foreign Competitors
- Project Award and Contract
- Project Financial Risks
- Human Resources and Material Procurement



This is a hardcore authentic sashimi dish!!

+ Going Global – Executing

- True Face of Innovation
 - Perception vs. Reality
- One size never fits all
 - **1.4 billion** people live in China, representing **56** ethnic minority groups
- Opinions on technology
 - Debunking old myths or experiences
- Health, safety and environment management
 - It just is....
- Timeframe and cost structures
 - Opportunity and Risk
 - Know your preferred business model

Perception
\$250/day

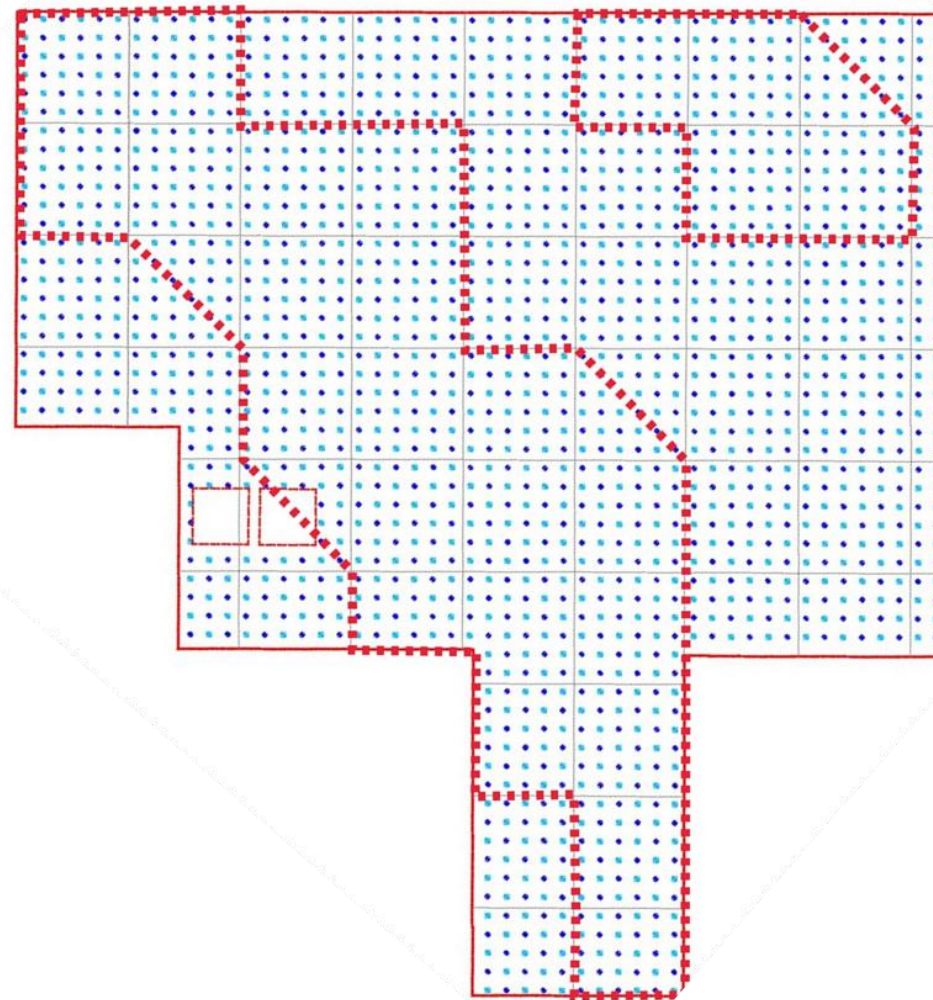


Reality
\$25/day



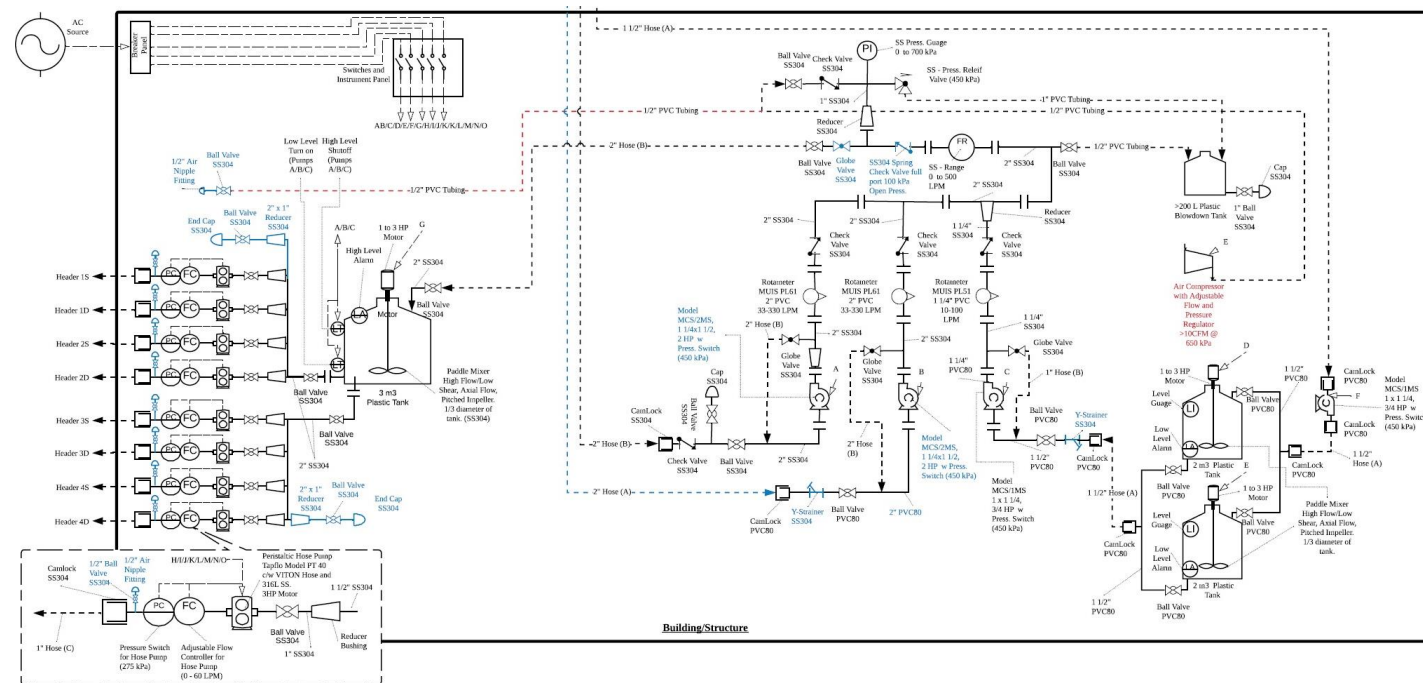
+ ChemOx® Example - China

- Scoped
 - 450,000 m³
 - Inside major city
 - Decommissioned old chemical plant (Brownfield Redevelopment)
 - 5 to 15 mbg injection interval
 - VOC's/SVOC's
 - 35 million Liters of oxidant
 - 1,700 injection wells
 - 12 months completion requirement



ChemOx® Example - China

- TRIUM's scope and design
 - Gap analysis
 - Proposal and strategy
 - Delivery system engineering and design
 - Oxidant specifications
 - Injection strategy and distributions
 - Performance monitoring and trend analysis
 - Pilot program
 - Training and Execution Support



+ ChemOx® Example - China

■ Site Performance

- “Too simple to be real”
- 3 trips for 60 days in country
- Estimated completion @ <50% of budget oxidant
- <120 days treatment timeframe
- = Happy Partner

■ Deliverables

- Documentation & contract performance is paramount
- Expect delays due to 3rd party scrutiny (customs, banks, etc)



+ Start with Small Steps

- Have you done it here?
 - Aim first for experience, value will follow
 - Don't plan for the biggest site first
- Work with partners not brokers
 - You'll know when the difference when it isn't going well
- Be prepared to do it yourself
- Get comfortable being uncomfortable
 - Not just talking about airplanes....



+ Partnerships for Expansion

- Absolutely necessary
- Execution not possible alone
 - Politics and government
 - Relationships
- Scale
 - Access to resources
 - Regulatory compliance
- Just need one, but focus on multiple
- Don't expect it to last forever
 - Win/Win for now



+ Closing Thoughts

- Technology is great but sometimes it just isn't needed when resource limitations aren't applicable
- Must be seen doing the work, even if it isn't "necessary".
 - Overestimation often easier than managing uncertainty
- Accept it may be "Just Because"
- Communication
 - Use local version (wechat, kakao)
 - Do it in person is the best

+ Closing Thoughts

- If you spend all your time on defense, you will forever play a game you can't win
- It isn't a one way street. Learn and use the skills
- Establish the repore, spend the time, build the trust and be patient
- No pretending: know your value proposition
 - Don't try to be something you are not
- Don't sit beside the phone waiting....



<https://globalnews.ca/news/4043736/trudeau-india-trip-debacle/>



WARNING

THIS PRESENTATION CONTAINS SOME GENERALIZATIONS

THERE ARE EXCEPTIONS TO THESE GENERALIZATIONS

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