For a Cleaner Future

Richland, Wash. (Main Office)
- Engineering offices
- GeoMelt test facility
- Modular vitrification test facility
- Modular Detritiation test facility (full scale)

Loveland, Colo.
- Remote systems engineering and design office

Manchester, UK
- GeoMelt® Processing Facility

Abingdon, UK
- Oxford Technologies, Ltd.

Tokyo, Japan
- Regional office

Iga, Japan
- GeoMelt® Processing Facility

Houston, Texas
- Detritiation test facility (bench scale)

Sellafield, UK
- GeoMelt® Processing Facility

Founded: 2008
Today: 200 know-how experts and growing

CONFIDENTIAL AND PROPRIETARY
Kurion Technologies are integrated & fully adaptable to any waste stream; Protected by nearly 100 broad, worldwide patents

**TARGETED ACCESS & SEPARATION**
- Access | Robotics
- Ion Specific Media (ISM) | Detritiation

**PERMANENT STABILIZATION**
- Stabilization | MVS™ | GeoMelt®

**Mobile Modular Solutions**
Technologies That Work Together

Ion Specific Media® Separation

MVS® Stabilization

GeoMelt® Stabilization

Ion Specific Removal Detritiation

Access Manipulators

Enhancements of Existing and Introduced Via Continuous Development
Kurion Works with Partners for Success, Safely

Kurion Provides Discriminating Know-How/Partners Provides Implementation
One of the most experienced teams in advanced engineering, robotic technologies and specialty tooling to minimize safety risks in hazardous environments
- Delivered >200 robotic systems and >2000 remote tools on tank and reactor projects
- Unique processes including 10,000 hours of remote operations for Fusion reactors
- Typically provide custom-designed solutions

**Project Examples:**
- Fukushima projects: Remote Inspection Manipulator, Remote Repair Manipulator and Fuel Removal Concept
- Hanford: 324 Building excavation
- Dounreay: Shaft and Silo
- ITER: operations and maintenance manipulators

**Technology Maturity:**
- Hundreds of diverse projects in hazardous environments
- Success at the most demanding sites: Fukushima, Rokkasho, Sellafield, Hanford, SRS, ITER, etc.
- Working on D&D of the Fukushima reactors since 2014
Separation: Ion Specific Media and Detritiation

**Ion Specific Media (ISM)**
A series of proprietary and patent-pending inorganic media that can selectively remove specific ions from an aqueous waste streams

**Project Examples:**
- Fukushima: simultaneously remove cesium and strontium in reactor recycle loop
- Fukushima: Kurion Mobile Processing System (KMPS) for removing strontium from tank water
- Magnox: Hinkley Station for pond water purification of cesium and strontium
- Cimarron Fuel Processing Plant: removing uranium from groundwater

**Modular Detritiation System (MDS™)**
A unique and improved design of the traditional combined electrolysis and catalytic exchange (CECE) system for light water applications

**Project Examples:**
- Commercial ops since 2006 for heavy water
- 2013 light water demo for confidential customer
- 2013/14/15 tours by TEPCO, METI, IRID and US DOE
- 2014 to 2016 ¥1B contract by Japan’s METI to demonstrate tritium removal at Engineering Scale from Fukushima’s waste water and achieve TRL6 status

**Technology Maturity:**
- First-of-a-kind external reactor recycle system since 2011; processed > 300,000 m³ (80M gallons) to date
- Hinkley Station pond water purification since 2013
- First-of-a-kind at-tank isotope removal system in 2014

**Technology Maturity:**
- Commercial operations since 2006
- Processed wastes for numerous customers
- Demonstrated at TRL5 for Fukushima water, ¥1B demo by the METI to achieve TRL6 by 2016 (TRL7 for PWRs)
Stabilization: Waste Vitrification Technologies

GeoMelt® Vitrification

- In-Situ Vitrification technology ideal for soil, solid waste and debris and In-Container Vitrification ideal for waste streams
- Unique ability to combine waste streams

Project Examples:
- Hazardous operations in Japan since 1990s
- Radwaste system at Sellafield, UK
- Support contracts with two confidential customers to support installations
- Demonstration waste and storage facility concept (confidential customer)

Technology Maturity:
- Highly mature over >26,000 tonnes glass and two decades of projects
- Nuclear, hazardous and mixed wastes
- Facilities in US, Japan and UK

Modular Vitrification System (MVS®)

- Single-cycle, inductively heated, in-container system
- Heating range from ambient to 2000°C, providing only in-class flexibility to melt below volatizing temperature of many isotopes or at very high temps for high waste loading

Project Examples:
- Continuous development: MVS® simulant testing in Richland, WA
- Demonstration waste and storage facility concept (confidential customer)

Technology Maturity:
- Bench sale system in operation since 2011 and Engineering scale system since 2012
- 100 tests Fukushima and Hanford tank waste simulants
- TRL6 for Fukushima, Hanford Tanks and INEL Calcine wastes
Solving Challenges is our Core Competency

- Commitment to Customer satisfaction
- Demonstrated Performance in high-risk waste environments:
  - Delivered >200 custom Robotic-Remote Systems over two decades
  - Ion Exchange expertise (>10 M Curies of Cs and Sr removed at Fukushima)
  - >26,000 tonnes vitrified over two decades of remediation projects
- Discriminating solutions:
  - Multiple First-of-a-Kind Technologies Deployed and Matured
  - Modular System/Factory Quality Deployments
- Customer Partnerships
Kurion Acquires Oxford Technologies, Ltd.

- **Oxford** by the numbers:
  - 60 professionals
  - Award winning (e.g. NDA Supply Chain Minister’s Award)
- Core businesses:
  - Remote handling systems
  - Complex plant assembly
  - Radiation-hardened systems
- Key customer areas:
  - Fusion (e.g. ITER, JET)
  - High Energy Physics (e.g. CERN, SCK-CEN)
  - Decommissioning (e.g. Sellafield, Dounreay S&S)
Veolia North America to Acquire Kurion

- **Veolia Group** by the numbers (FY14):
  - €24.4B revenues
  - €1.1B operating income
  - Global presence

- **Three core businesses:**
  - Water
  - Waste Management
  - Energy Services

- **Publically traded**
  - Listed on Paris Euronext: VIE and one of the CAC40
  - Major shareholders include France sovereign fund

- **Engineering News Record (ENR) Top 200 Environmental Firms** – Veolia North America ranks 4th

- **Fortune Global 500** – Veolia ranks 376 of the world’s largest 500 companies