Water and Environmental Technology (WET) Center
– a National Science Foundation Industry/University Cooperative Research Center (I/UCRC)

Presentation at the Annual I/UCRC Meeting
January 8-10, 2014
by
Rominder Suri

Key Features:
• Established in 2009 (to start Phase II in 2014)
• Three University Sites
  • Center Director: Rominder Suri
  • UA Site Director: Ian Pepper
  • ASU Site Director: Morteza Abbaszadegan
WET Center

• The mission is to develop methods/technologies to detect, understand, mitigate and/or control contaminants, including Emerging Contaminants of Concern, that can adversely impact water quality and the environment

• The vision of the WET Center is to minimize any potential adverse effects of contaminants on human health and/or the environment
- 33 Industrial Members
- 42+ projects since 2009

$10+ million total funding
Member Leveraging Factor of 5!
Center Technology Roadmap

The Need:
• Initial encouragement from Babu DasGupta
• Diverse IAB – pharma & personal care products industry, DoD and industry, water and wastewater utilities, technology companies
• Diverse, and large number of research projects
• Future research focus areas / projects
• Future Center Expansion

Initial Draft formulated by Center Directors, and reviewed/edited by IAB – for Phase I

For Phase II – Technology Roadmap drafted by the IAB, and reviewed by the Directors
Center Technology Roadmap – by the IAB
(no involvement of center directors)

On-line Survey of Technology thrust areas (based upon research projects done and existing Technology roadmap) – August/September, 2012

Live IAB Web Meeting in October 16 - 17, 2012 to discuss and draft the Roadmap
### 4. EC Degradation Data and Treatment Technologies

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**Answered Question**: 18  
**Skipped Question**: 2

### 5. Environmental Fate of Nanomaterials

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**Answered Question**: 18  
**Skipped Question**: 2
Center Technology Roadmap – by the IAB

Output – a revised, more focused and vibrant Roadmap, with input from the IAB, for the Next 5 Years

More engaged IAB

Used the Technology Roadmap in our Phase II Renewal proposal

Marketing Tool

Assessed Roadmap to identify research gaps and future projects
Assessment of Technology Roadmap

Analytical
- Methods Development
- Toxicity Analysis
- Bioassay Develop.

Projects
- EPA Methods
- ED methods

Engineering
- Treatment Research
- New Technologies
- Scale Up

Future Opportunities
- Prioritization methods
- Rapid Risk Assessment
- Mixtures – cumulative risk

Predictive Modeling

Risk Management
- Tech Transfer
- LCA
- Project Support

WaterTIE

Novel / IX Absorbents

AOP treatment technologies
O3, UV, H2O2

Sonolysis

QSAR estrogenic degradation

Multi-criteria Decision Analysis
Hybrid treatment technologies
New technologies

Risk Communication
Knowledge Mgmt
EC Database

LCA of AOP Treatments for ECs