



ORD Innovation

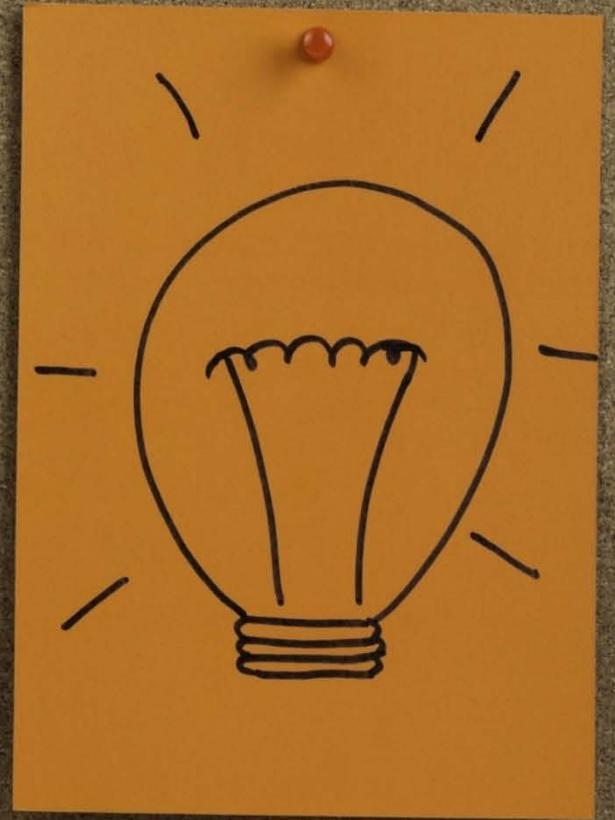
*Presentation to the Science Advisory Board
and Board of Scientific Counselors
June 29-30, 2011*

Peter Preuss
Chief Innovation Officer
EPA Office of Research and Development

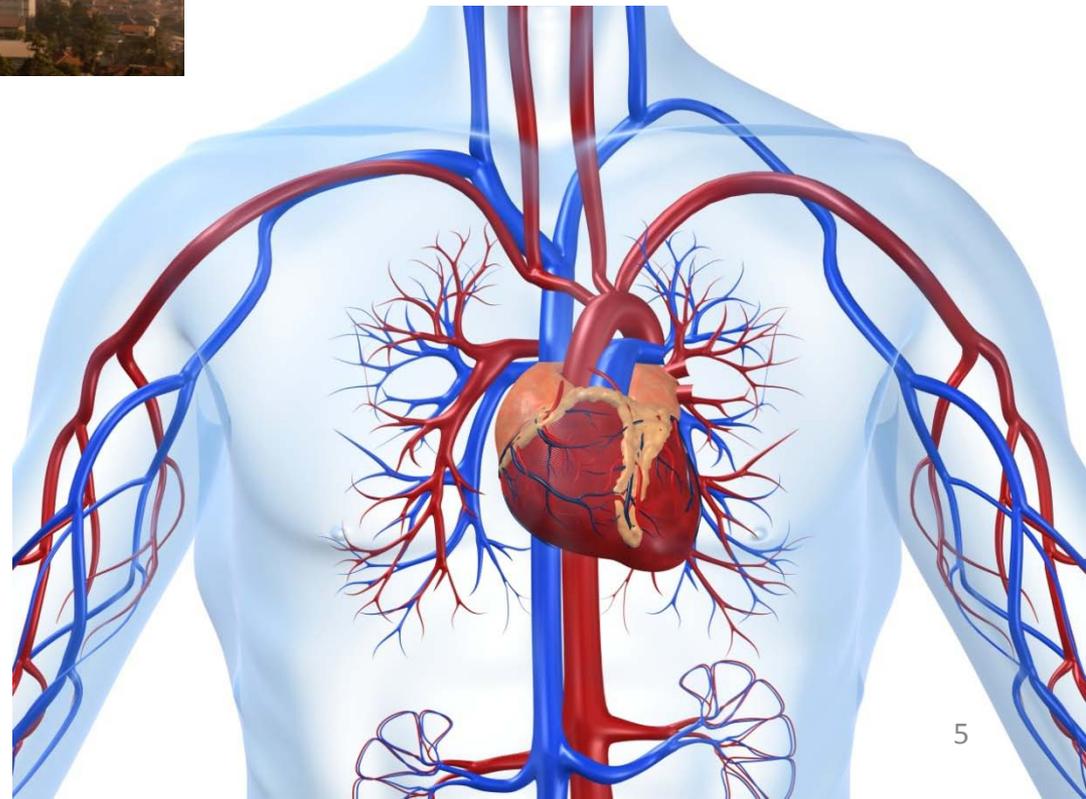
Innovation in ORD

“If I’d asked my customers what they wanted,
they'd have said a faster horse.”

-- Henry Ford



Transformative Innovation in ORD



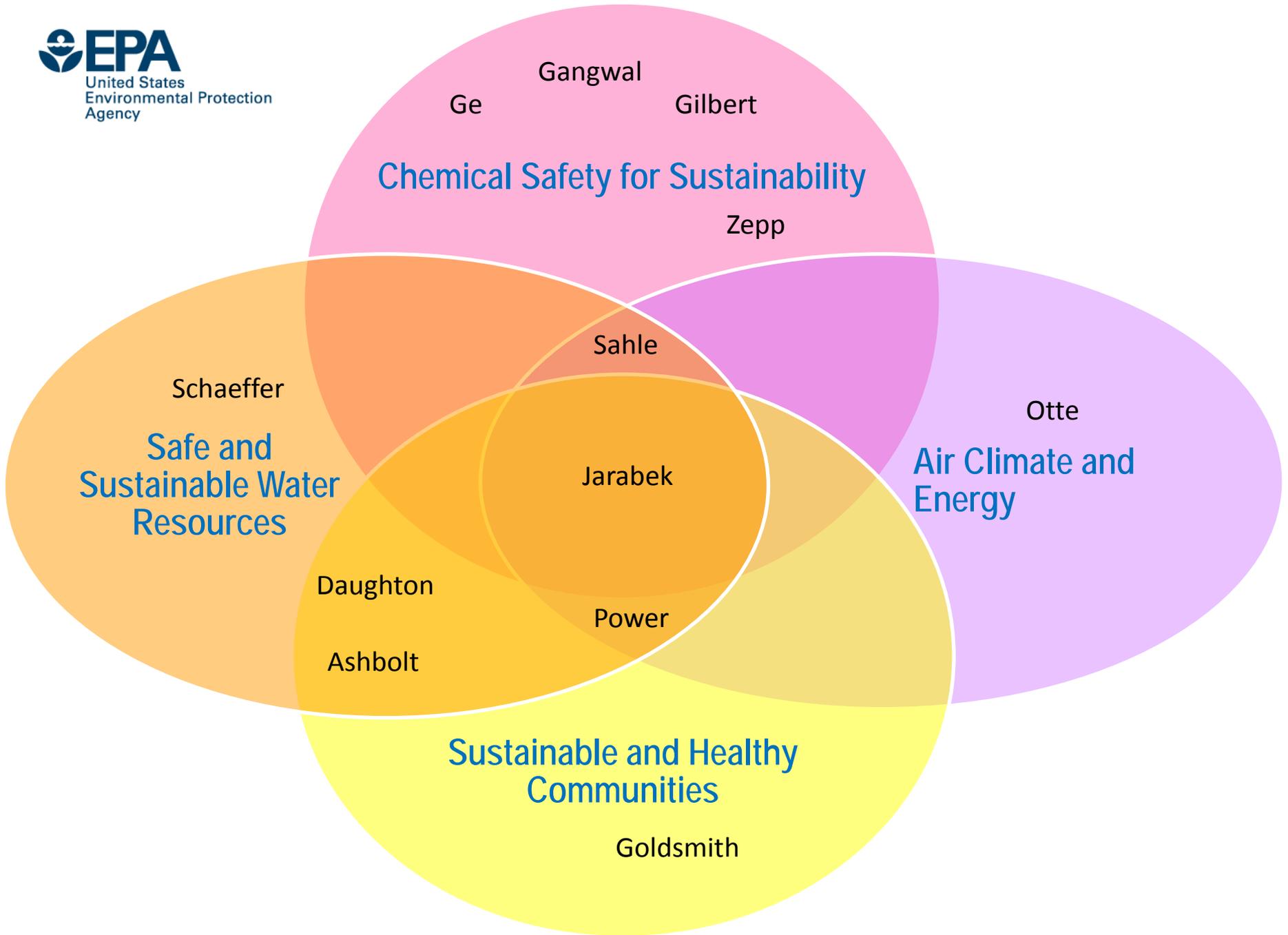




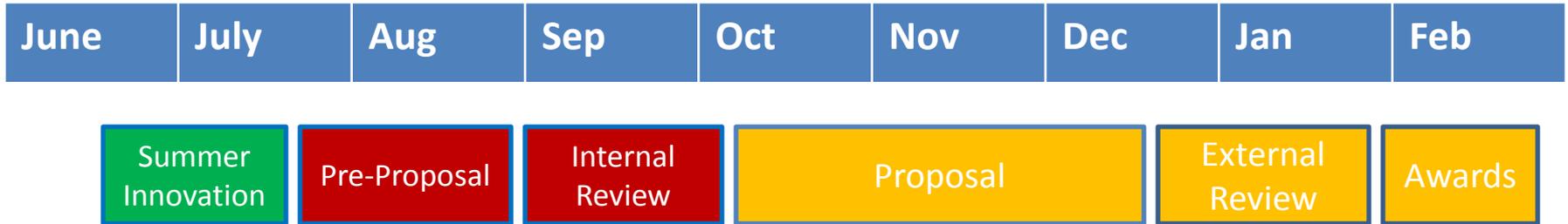
ORD Innovation Strategy

1. Support innovation at the bench in ORD laboratories
2. Demonstrate the power of transdisciplinary research
3. Use open innovation to broaden network of environmental problem solvers
4. Showcase research that exemplifies the principles of Path Forward

Pathfinder Innovation Projects



PIPs²



Key

- Summer Innovation
- Pre-Proposal Phase
- Proposal Phase

Transdisciplinary

Campaigns

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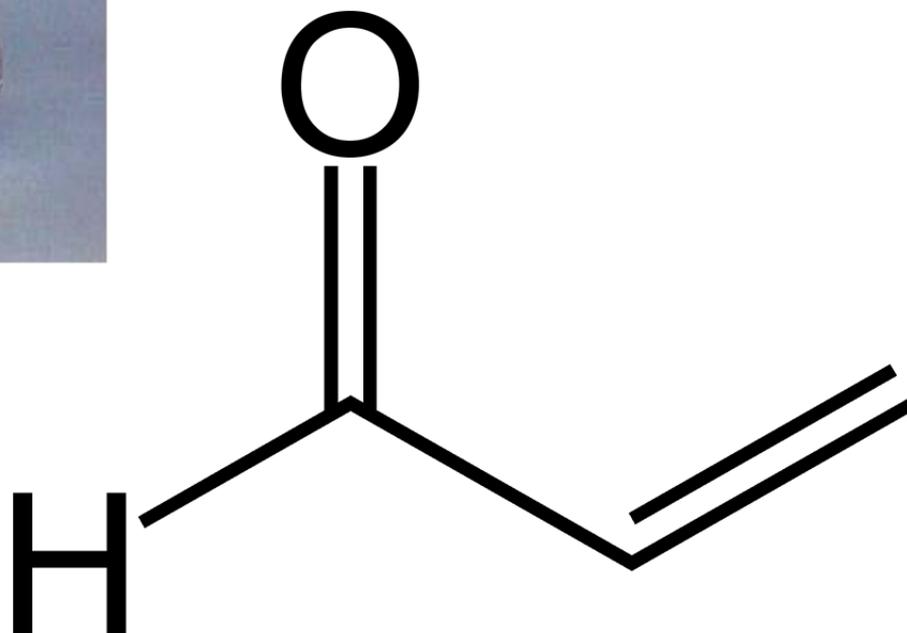
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Open Innovation



Courtesy: Innocentive





Courtesy: USGS

Signature Projects



Signature Projects

PROJECT IDEAS	<i>Sustainability</i>	<i>Innovative</i>	<i>Transdisciplinary</i>	<i>Significant problem</i>	<i>Systems Thinking</i>	<i>Research Alignment</i>	<i>EPA Mission/Client</i>	<i>Quick Start</i>	<i>Market Drivers</i>	<i>Champion</i>	Comments
SSWR											
Integrated Management of Nitrogen in New England											
Sustainable Approaches for Urban Water Services											
ACE											
Real-time Ambient Air Measurements From Linked Monitors/Sensors/Models											
Preventing Air Pollution Through Green Chemistry (ACE/CSS)											
CSS											
21st Century Guidelines for Manufacturing "Green" Chemicals											
SHC											
Durham NC and Gulf Coast - Full-cost Accounting for Environmental Decisions											

ORD Innovation Strategy

Shifting from individual projects to a systematic approach

What?

Support innovation at the bench in ORD laboratories

By fostering a dynamic work environment that rewards and recognizes creative problem solving

Demonstrate the power of transdisciplinary research

Learning how to connect scientists in new ways and engage practitioners and users

Use open innovation to broaden network of environmental problem solvers

Bring in new ideas and creative solutions from external scientists and others

Showcase research that exemplifies the principles of Path Forward

Expand understanding of innovative research and sustainability

How?

- *Pathfinder Innovation Projects*
- *Innovation in Research Plans*
- *Signature Projects*

-
- *Within ORD (IdeaScale)*
 - *Across EPA programs and regions*
 - *Federal Environmental Research Network*

-
- *FERN*
 - *InnoCentive challenges*
 - *Challenge.gov*

-
- *Signature projects*
 - *Pathfinder Innovation Projects*
-

“Innovation distinguishes between
a leader and a follower.”

-- Steve Jobs

“I put a dollar in the change machine –
but nothing changed.”

-- George Carlin

Thank You Innovation

Responsive
Relevant

Solution Oriented
Pathfinding

Catalytic
EPA
Groundbreaking

Transformative
Challenge

Timeliness

ORD

Integrated Transdisciplinary

Open Source Innovation

Science

Problem-solving

Research Environment

Communication

Dialogue

Change

Inspiration

Sustainability

Systems Thinking

Leapfrogging

Invention

Creativity

Empowering

Collaboration

Bold