



SW4EU Workshop
WRF Smart Water Activities
April 17, 2015

advancing the science of water



WRF Smart Water Activities

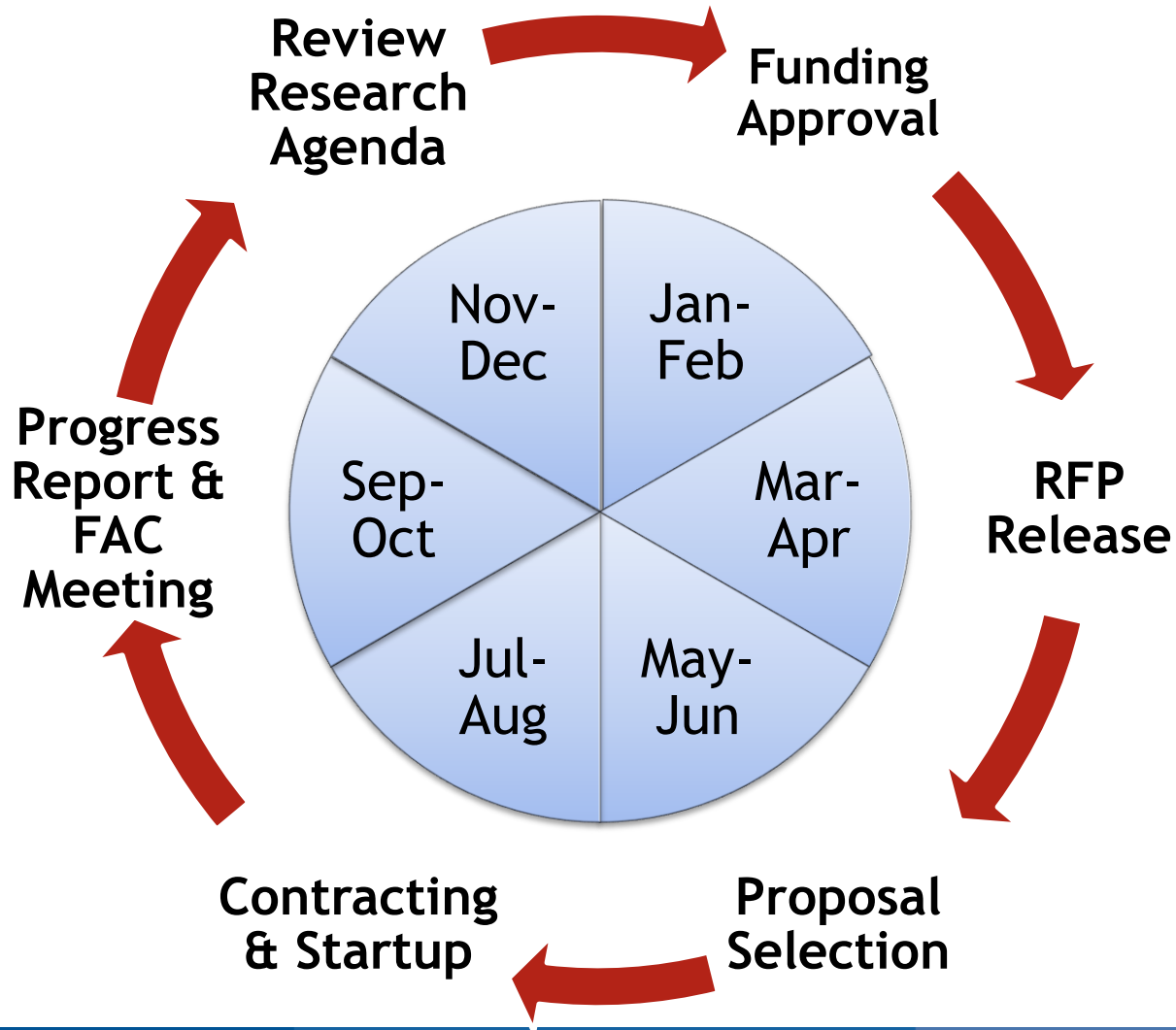
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WRF Funding Programs

Focus Area	10 targeted multi-year research agendas
Tailored Collaboration	limited matched funding for utility-sponsored research
Emerging Opportunities	limited funding for time-sensitive research
Facilitated	unmatched utility-sponsored research
Technical Facilitated	utility/vendor-sponsored research
Partnership	partnership funding for any of the other funding programs

Focus Area Research Planning Cycle





Defining Attributes and Demonstrating Benefits of Intelligent Distribution Systems

By 2020, define attributes, costs and benefits of intelligent water distribution systems, and demonstrate existing technologies at one or more sites.

<http://www.waterrf.org/the-foundation/research-programs/Pages/Focus-Area-Program.aspx>

Why do we need this research?

To improve efficiency and customer service

Define &
Standardize
Terms

Identify
Costs

Objectives

Demonstrate
Benefits

Summarize
Best
Practices

What are the challenges?



Big Data

How can we best use it?

Capital Investment

What are the costs & ROI?

Multiple Technologies

Can we integrate and optimize them for greater benefit?

Focus Area Development Workshop

Strategy

Assess state of science & industry

Discuss objectives & research needs



Outcomes

5-yr research agenda

Focus Area objectives

Intelligent distribution system definition

Research gaps and utility needs

Applications with quick results

Benefits to water quality and general operations

Related Research

Australian Research

Survey of state of Australian smart water industry (2013/2014)

Smart water conference and workshop in September 2015

WSAA partnership potential on Focus Area projects

Wastewater - Water Environment Research Foundation

Sensors Challenge Area - still in planning process

Compendium of Sensors & Monitors (2010)

North American Activities



Operational Efficiency

Balancing Power - SCADA to Power Grid

Smart Metering - less labor, better service

Pressure Management - balance pressure

Data Management - efficient O&M

Chip-embedded Equipment - O&M information

Reservoir Management - monitors; algal control



Conservation/Customer Service

Real-time usage data for customers

Rapid detection of leaks/waste





Thank You!

Comments or questions, please contact Mary Smith,

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For more information visit

www.waterrf.org

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