"W-SMART" Industry – University Collaborative R&D Center

Water Security Management Academy for Research & Technology

University Lille-1 – W-SMART – KWR WaterCycle Research Institute – CEA LIST Institute

Bio-Smart

Meeting in Lille University

<u>Bio-Smart Consortium:</u>

Sponsoring Utilities – EDP, SEN/LDE, Vitens

R&D Center Partners – USTL, W-Smart, KWR, CEA

ICT SME Partners – CALM Water,

21/2/13

Proposed Agenda

Review of Project Objectives & Main Concept

9:00 am	Welcome, Introduction	*Prof. Isam Shahrour*
9:20 am	Review of Project Objectives	*Prof. Ilan Juran*
9:30 am	Early Bio-Contamination Detection – Main Proposal Concept (challenges; multi-parameter monitoring; on-site verification; data analysis issues)	*Prof. Gertjan Medema*
10:00 am	Utility Needs & System Requirements (expected outcome; data accessibility; data processing & analysis; other issues)	*Bruno Nguyen, Jean-Marc Charlemagne, Dr. Bendert de Graaf*
10 :30	Discussion	

Demonstration Site Instrumentation Planning & β Testing

11:15 am	β Testing Sites – Objectives/Scope & Data Analysis Tools	*Prof. Gertjan Medema*
11:45 am	VIP Instrumentation, β Testing & Data Processing	*Dr. Bendert de Graaf*
12:15 pm	Lille Instrumentation Planning, & Site visit	*Prof. Isam Shahrour*
13:00 pm	Working Lunch Discussion	

"Bio-SMART" Prototype System Development & Demo-Simulations

2:00 pm	Smart Detection System Development & Demo-simulation Main Concept & Scope (AI based Smart Enterprise Platform; Data processing; Demo-simulation approach; data accessibility; utility support needs; expected output; etc.)	*John Johnson & Dr. Cedric Auliac*
2:45 pm	Discussion	
4:00 pm	Next Step & Project Management issues	*Prof. Ilan Juran*

Purpose:

•Reviewing specific project objectives/expect outcome with sponsoring utility experts
•Project objective now specified:
- o Beta testing of innovative early bio-contamination detection systems/methods
- o Assessment of current practice of anomaly detection with multi-parameters systems/analysis integrating QRMA
- o Development of intelligent Enterprise platform for early bio-contamination detection (sensor, spot, network)
- o Demo-simulation with off-line utility data

•Discussing for each work package - Its objectives, scope and proposed methodology
•Reviewing project management issues.
•Next Step

WPI
Industry Platform, Users Requirements & Tech Qual
W-SMART & Utilities

WPII.1
Site Characterization & Instrumentation
Sites: USTL & VITENS
USTL & VITENS

WPIII(1&2)
Demo-configuration of the BIO-SMART System(s) for the selected sites
CW & Utilities

WPII.2
Anomaly Diagnostics & QMRA Tools Development & Integration
KWR & USTL

WPII.3
β Testing of Technology Solutions Including multi-sensors monitoring
KWR, USTL & Utilities

WPIII.3
BIO-SMART site Demo-simulations
CW & Utilities

WPIV&V
Outcome Assessment & Recommend Report
W-SMART & KWR

Objectives:

Scope

Methodology

Interaction between WPs

Data Accessibility

Expected outcome for WPs

Time Table – Benchmarking

Other Issues

Task	Month																	
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
I – Industry Platform for ß testing																		
I.1– Con-Agreement																		
I.2 – Users' Require																		
1.3 – Tech Ass & Adapt																		
II – Site Instrument & ß testing																		
II.1 – Site Char & Instr																		
II.2 – Data Proc & Anal																		
II.3 – Utility ß testing																		
III – Adapt & Demo–simulate proto-systems																		
II.1– Adapt SG solutions																		
II.2– Pilot Demo-plan																		
II.3 – Demo-simulation																		
II.4 – Outcome Assess Workshop																		
IV – Tech Assessment & Prof. Training																		
IV.1 – Tech Assessment																		
IV.2 – Prof Training																		
IV.3 – Standard Support																		
V – Reporting & Project Management																		
V.1 – Outcome Report																		
V.2 – Project Mgmt.																		

Task	Month																	
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
I – Industry Platform for ß testing																		
I.1– Con-Agreement	■	■	■	■	■	■												
I.2 – Users' Require	■	■	■															
1.3 – Tech Ass & Adapt			■	■	■	■	■	■										
II – Site Instrument & ß testing																		
II.1 – Site Char & Instr		■	■	■	■	■	■	■	■	■	■							
II.2 – Data Proc & Anal							■	■	■	■	■	■	■					
II.3 – Utility ß testing										■	■	■	■	■	■			
III – Adapt & Demo–simulate proto-systems																		
II.1– Adapt SG solutions			■	■	■	■	■	■	■	■	■	■						
II.2– Pilot Demo-plan							■	■	■									
II.3 – Demo-simulation									■	■	■	■	■	■	■			
II.4 – Outcome Assess Workshop													■	■	■	■		
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IV.1 – Tech Assessment												■	■	■	■	■	■	■
IV.2 – Prof Training															■	■	■	■
IV.3 – Standard Support																■	■	■
V – Reporting & Project Management																		
V.1 – Outcome Report																	■	■
V.2 – Project Mgmt.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Work Package / Task	WP Lead Institution	Deliverables	Allocated Budget (k€)
WPI – Industry Platform & Users Requirements	W-SMART		**40**
I.1 – Consortium Agreements	W-SMART	D1 - Consortium Agreement	**5**
I.2 – Users' requirements	W-SMART	D2 – User Requirements	**10**
I.3 – Tech Assess & Pre-Qual	KWR		**25**
Allocated Budget			**40**
WPII – Utility ß Testing Sites: USTL & VITENS	KWR		**305**
II.1 – Site Character & Instrumentation	USTL & VITENS	D3 – GIS based info-system D4 – Instrumentation Report	**115**
II.2 – Data Process & MQRA Tools Integration	KWR & USTL	D5 – Data Analysis & Risk Assessment Tools – Report	**90**
II.3 – ß testing including standard testing, multi-sensor systems & selected technology solutions	KWR & Utilities	D6 – ß Testing Report	**100**
Allocated Budget			**305**
WPIII – "Bio-SMART" system Adaptation &Demo-simulations	CW & CEA & Utilities	D7 – BIO-SMART system(s) Demo-simulations Report	**315**
III.1 – Adapt SG solutions	CW & CEA		95
III.2 – Pilot Demo-planning	CW & CEA		45
III.3 – Utility Demo-simulations	CW & CEA		130
III.4 – Outcome Assessment	KWR & Utilities	D8 – Workshop Proceedings	45
Allocated Budget			**315**
WPIV – Technology Assessment Prof. Training & Standard Sup.	USTL, KWR, WS		**60**
IV.1 – Tech Assessment	W-SMART & Utilties	D9 - Utilities' Assessment Report	20
IV.2 – Professional Training for Monitoring systems	USTL	D10 – Bio-Monitoring Training sessions for the Utilities	25
IV.3 – Standardization Support	KWR		15
Allocated Budget			**60**
WPV – Reporting & Project Mgmt.	KWR & W-SMART		**50**
V.1 – Outcome Report & Recom for pilot scale system architecture	W-SMART	D11 – Final Report with Industry Recommendations	20
V.2 – Scientific Quality Control	KWR		5
V.3 – Project Mgmt.	W-SMART	D12 – Interim Progress Reports	25
Allocated Budget			**50**
Total Costs of Project			**770**