

***DOD Environmental Monitoring and
Data Quality Workshop***

**Data Management Systems:
Project Size Is Not An Issue**

CESPK-ED-EC

May 12, 2004

**Peck Ha, USACE Sacramento District
Suzan Hughes, Synectics**



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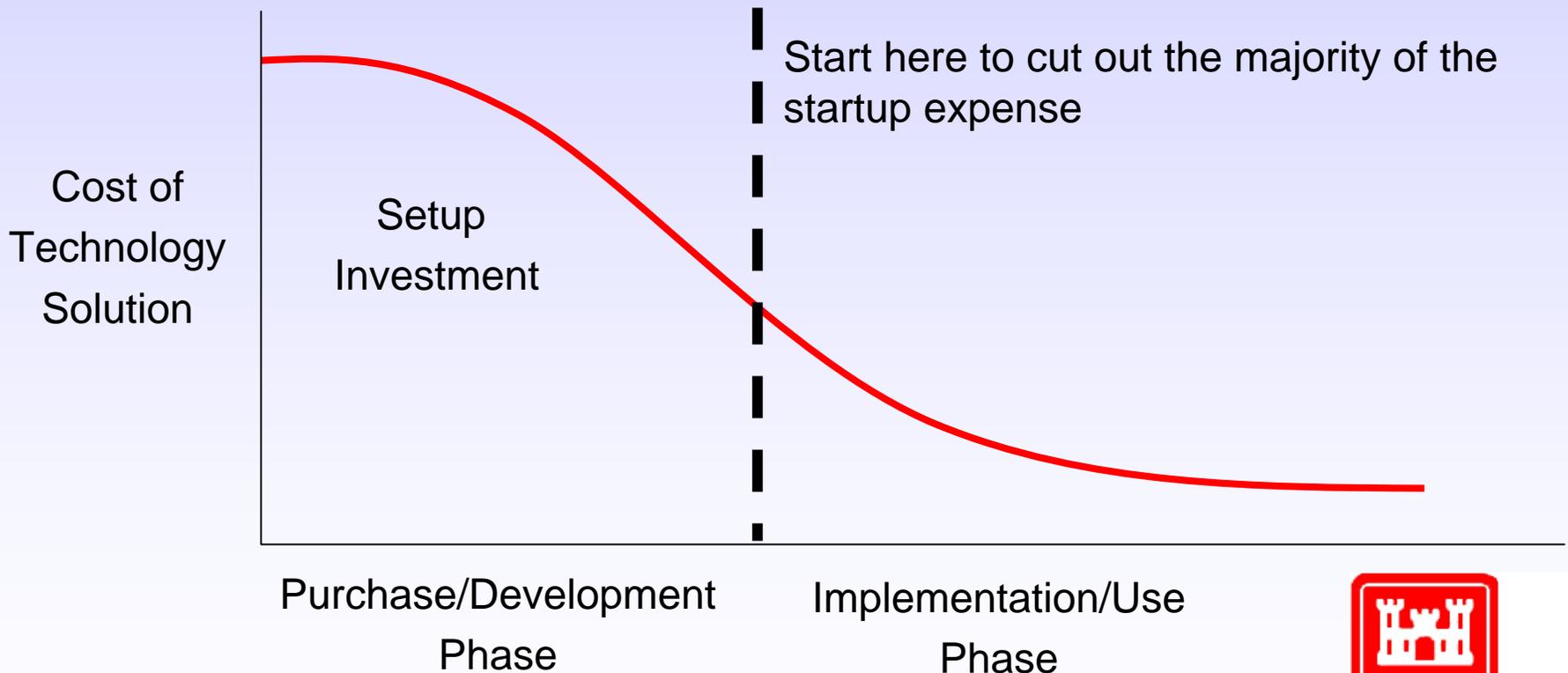
Might Project Size Matter?

- Cost
 - Up front investments in labor, hardware and software
- Schedule
 - Cannot afford several months of design, development and training
- Risk
 - Cannot afford unexpected costs and impacts

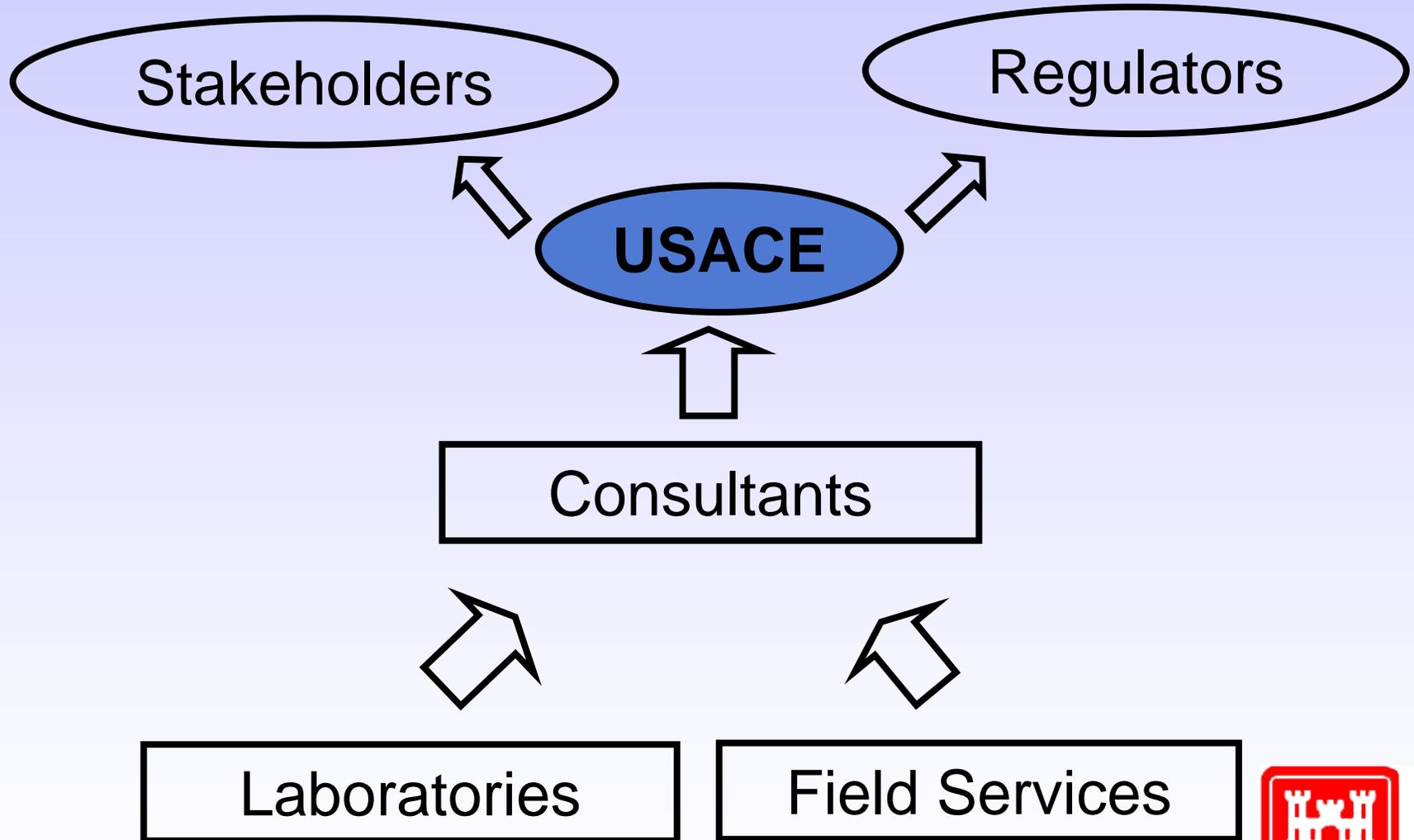


Reduce Cost and Schedule

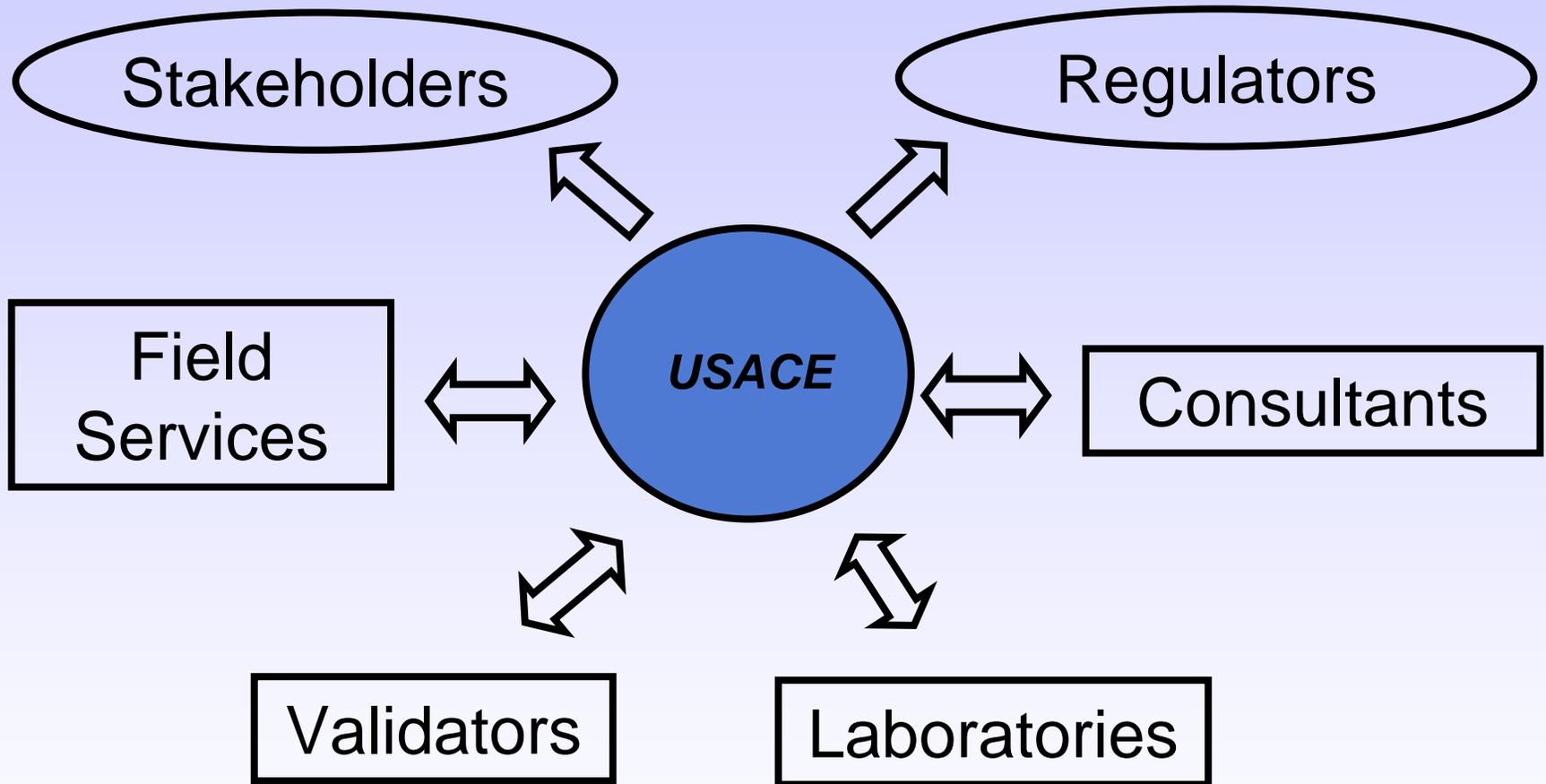
- Implementing a pre-established, proven system cuts out purchase, design and/or development costs



Traditional Data Management



Centralized Data Management



Benefits for Any Size Projects

- Low startup costs
- Only software requirement is access to the Internet
- Interchangeable formats (SEDD, ERPIMS, NEDTS)
- Low risk - Proven on USACE projects
- Built in security features and tools for loading, Automated Data Review, and web reporting
- Flexible system allows customization



Example Projects

	Environmental Budget	Sampling Locations
Large: Tooele Army Depot, UT	\$2-6 Million	700 +
Medium: Titan 1A Missile Facility, CA	\$800,000	300
Small: Deseret Chemical Depot, UT	\$300,000	130



Lessons Learned

- Multiple data locations were costly to the project
- Historical data in hardcopy was inaccessible to the project team
- Data was inconsistent and had defensibility issues
- USACE had no control over consultant's proprietary systems and data
- Data analysis was performed manually at high expense
- Most large projects were once a small project that became bigger over time

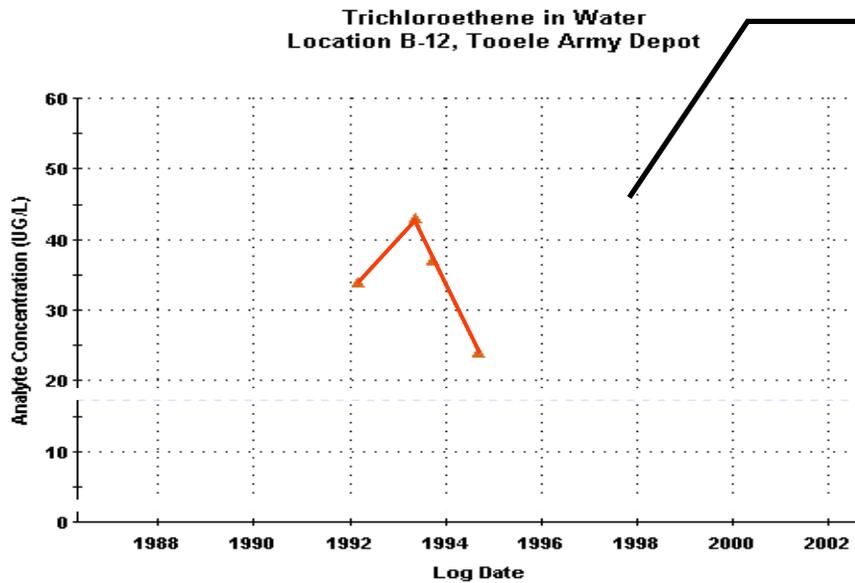


Results For Any Size Project

- All the data in one place
 - Technical data, electronic documents, geospatial data
- USACE controls their information
 - Real-time data access allows timely decision making
- Save time and money while reducing risk
 - Collaborate to reduce redundancy



Technical Data



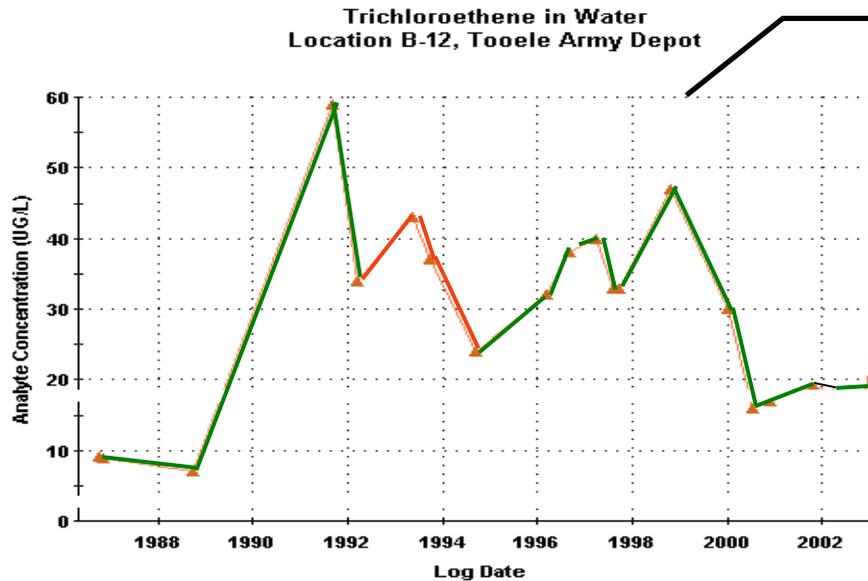
Single data
generator, single
data type



Example Chart
Date Generated: 3 Aug 2003



Technical Data



Multiple data generators, single data type

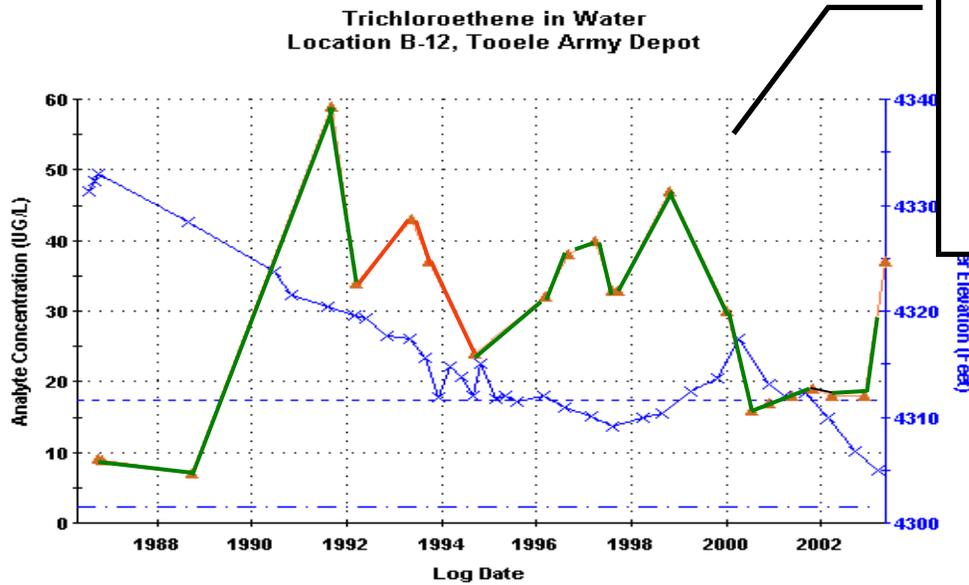


Example Chart
Date Generated: 3 Aug 2003



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Technical Data



Multiple data generators, multiple data types



Example Chart
Date Generated: 3 Aug 2003



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Geospatial Data

https://synectics.net/extranet/gis/website/demo_01/viewer.htm?DSN=demo&intTreeID=27114 - Microsoft Internet Explorer

Layers

Visible Active

- Volatile Organics
- Sample Locations
- Buildings
- Solvent Plumes
- IRP Source Sites
- Aerial Photo
- Mass Military Reservation

Refresh Map

Volatile Organics

Rec	LOCID	MATRIX	SBD	SED	NAME	PARLABEL	ANMCODE	PARVQ	PARVAL	UNITS
1	28EW0002	WG	0	0	Ethylbenzene	EBZ	SWS260	=	3.02	UG/L

Select Rectangle

Map: 865363.37, 236572.68 -- Image: 331, 110 -- ScaleFactor: 1.7056338028162025

Trusted sites

Multiple data generators, multiple data types, diverse data formats



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Conclusion

Centralized data management works on projects of widely varying sizes.

Benefits:

Increased data quality

Shortened turnaround times

Reduced project risk

Costs within the project's budget



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Acknowledgements

Titan 1A Missile Facility Project Team

Project Manager: Brenda Pedersen

Deseret Chemical Depot Team

Project Manager: Paul Zianno

Tooele Army Depot Project Team

Project Manager: Mary Ellen Mackenzie

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