



P2 Results Data System

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Tyler Rubach

R5/R7 P2 Roundtable

March 13, 2007

EPA Region 5

Thanks to:

Ken Grimm, PPRC

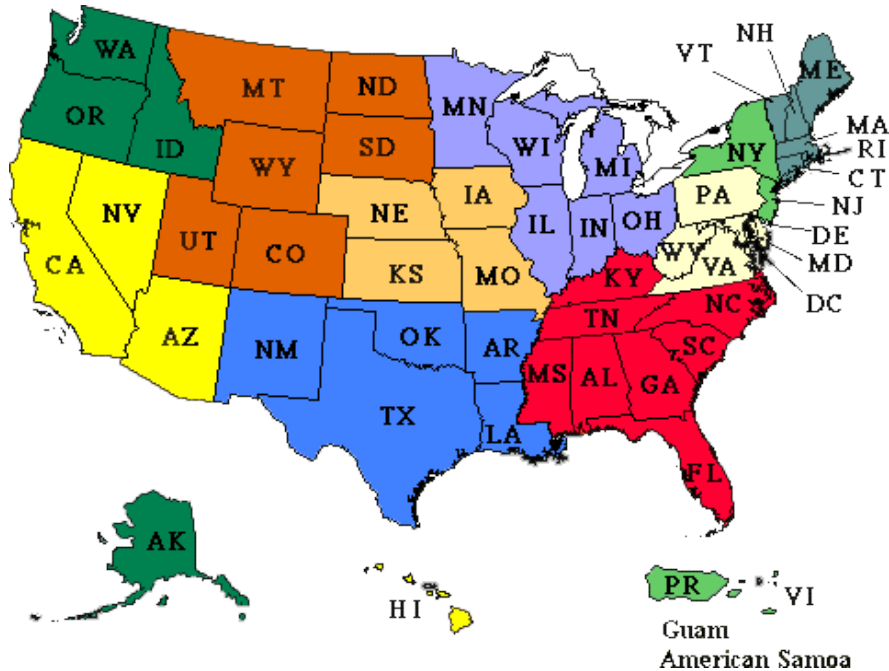
Prabin Kanel, P2RIC



Putt's Law

Those who understand information
technology don't manage it;

Those who manage information technology
don't manage it.



● **Northeast Waste Management Officials' Association**
 Regions 1 & 2 - CT, ME, MA, NH, RI, VT, NJ, NY
www.newmoa.org / 617-367-8558

● **Waste Reduction Resource Center**
 Regions 3 & 4 - DE, MD, PA, VA, WV, DC, AL, FL, GA, KY, MS, NC, SC, TN
wrrc.p2pays.org / 919-715-6534

● **Great Lakes Regional P2 Roundtable**
 Region 5 - IL, IN, MI, MN, NY, OH, PA, WI, Ontario
www.glrppr.org / 630-472-5019

● **P2 Regional Information Center**
 Region 7 - IA, KS, MO, NB
www.p2ric.org / 402-554-6257

● **Southwest P2 Information Center**
 Region 6 - AK, LA, NM, OK, TX
www.zerowastenetwork.org / 512-232-7149

● **Peaks to Prairies P2 Information Center**
 Region 8 - CO, MT, ND, SD, UT, WY
www.peakstoprairies.org / 406-994-3451

● **Western Regional P2 Network**
 Region 9 - AZ, CA, HI, NV
www.wrppn.org / 775-689-6688

● **Pacific Northwest P2 Resource Center**
 Region 10 - AK, ID, OR, WA
www.pprc.org / 206-352-2050

**POLLUTION
 PREVENTION**

P₂R

**RESOURCE
 EXCHANGE**

www.p2rx.org



P2 Results Data System: A dream



P2 Results Measurement

- Worries:
 - Double counting, info quality, info use/abuse
- System issues
 - UP, NFM; Jevons Paradox
- Environmental outcomes of measurement system



P2 Results Measurement

If you must tell me your opinions, tell me what you believe in. I have plenty of doubts of my own.

~ Goethe



Overview

- Background & structure of *P2 Results Data System*
- Your opportunity for action

A collage of images representing industry, urban development, and environmental science. It includes a factory with smokestacks, a modern building, a car, a person, and a globe.

National P2 Results Task Force

- Joint Project: NPPR & P2Rx
- Includes representatives of states in every EPA Region, P2Rx Centers, EPA HQs & Regional Offices
- Has been meeting for over 2 years
- **Focused on developing core national P2 measures, data aggregation tool, & report on the results**



Purpose

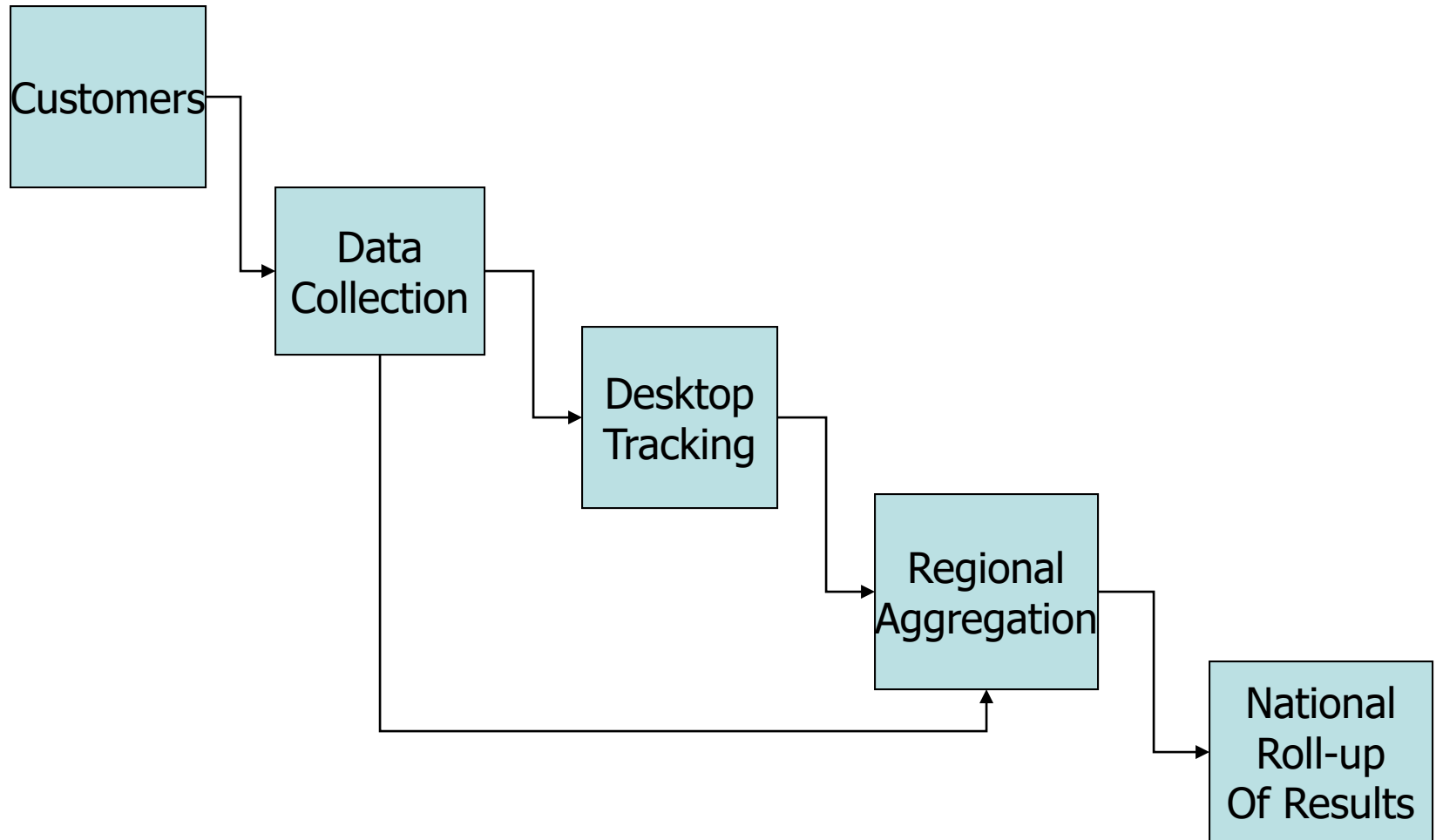
- Help sell the economic and environmental value of P2 and consequently..... YOUR program
- Promotes new opportunities and connection with clients
- Help policy makers assess P2 efforts and determine funding
- ***Provide (EPA) quality data regarding P2 efforts***



Current Accomplishments

- ✓ Designed Framework
- ✓ Developed a Data Dictionary for a set of core metrics – Behavioral, Activity and Outcome
- ✓ MOA with P2 programs – 35 signatories, 31 states
- ✓ Programmed regional aggregation modules that reside at P2Rx Centers

The Framework





Data Dictionary

Defines:

- Data elements for reporting
- Units to be used
- Categories of Core Elements
- Crosswalk with other EPA/State Programs
- Addresses EPA P2 Strategic Targets
- Helps meet accountability and budget needs



Core Measures

Activity Measures

Behavioral Measures

Outcome Measures



Activity Measures (Level 1)

- Trainings, workshops, meetings, conferences and roundtables
- P2 Plans
- Site visits
- Brief assistance
- P2 information developed
- P2 information distributed
- Grants awarded
- Web visitors to online information
- Awards Programs
- Leadership Programs



Behavioral Measures (Level 2)

- Clients reporting adoption of P2 policies
- People trained in P2 by clients
- Clients developing EMSs
- Clients that have developed a P2 Team
- Clients that have mapped their processes
- Clients reporting compliance improvements
- Clients reporting implemented P2 suggestions
- Clients reporting increased understanding of P2 Opportunities



Outcome Measure (Level 3)

- Reduced Operating Costs (dollars/year)
- Non-Hazardous (pounds/year)
- Hazardous Materials (pounds/year)
- Hazardous Wastes (pounds/year)
- Air Emissions (pounds/year)
- Solid Waste (pounds/year)
- Energy (Kwh/year or therms/year)
- Green Energy (Kwh/year or therms/year)
- Water Use (gallons/year)
- Water Pollution (pounds/year)

Reduced Operating Costs how was this calculated?	\$ 384,424,641.94	
Reduced Hazardous Waste Generation	26,748,866	pounds
	36,633	gallons
Reduced Toxic Material Use	6,243,551	pounds
	595,288	gallons
Electricity Saved	646,394,663	KWh
Natural Gas Saved	28,459,497	therms
Gasoline Saved	5,000	gallons diesel
	15,000,000	gallons other
Water Saved	2,179,588,848	gallons
Solid Waste Reduced	241,945,791	pounds
CO2 Emissions Eliminated	1190.0	tons
Vehicle Miles Avoided	17,588,000	miles
Renewable Energy Generated	1,400,000	KWh



Regional Aggregation Modules

- Key component of the “framework”
- Tell the Regional “P2 Story”
- Can provide local program anonymity & control
- ***Can provide reports for individual programs***
- Helps sell the value of programs to regional, state and local decision makers
- ***Feeds the National Report***



Current Action Opportunity (NEIEN Funded Effort)

- ***“Call for Data”*** for years 2004 and 2005
(October 2006)
- P2Rx Centers organize regional measurement ***stakeholder workgroups*** (September 2006)
- Submit regional ***measurement needs*** and changes to regional module (January 2007)
- ***Program changes to all regional modules***
(***March-May 2007***)



***Current* Action Opportunity (NEIEN Funded Effort)**

- ***Data entry training for P2 programs (January – June 2007):*** Today it's Tyler
- Regional Module Version 2.1 released to P2Rx Centers (May 2007)
 - Recent Improvements
 - Next Round of Improvements



Future Action Opportunity (NEIEN Funded Effort)

- Regional Measurement Workgroups to discuss Version 2.1 (May-July 2007)
- “Call for Data” - Calendar Year 2006 (July 2007)
- Version 2.1 modifications (July-September 2007)
 - Regional Reporting
 - National Reporting



Data Entry

- The bucket is built; we're ready for programs to fill it!
- So what's next?



Workgroups

- Regional workgroups developed to discuss data collection, metrics, calculators, reports and user interface of the Regional P2 Results Aggregation Module.



Questions?

- Contact Info
- kgrimm@pprc.org
- 206-352-2050
- pkanel@mail.unomaha.edu
- 402-554-6263



Useful Links...

- <http://www.p2rx.org/services/measurement.cfm>
 - Regional contact person information
- http://www.p2rx.org/measurement/info/FINAL_user_guide.pdf
 - User Guide
- http://www.p2rx.org/measurement/info/FINAL_meas_background.pdf
 - Background About the National P2 Results Data System
- <http://www.p2rx.org/measurement/info/>
 - Technical Documents



One More *Useful* Link

- <http://lib.wmrc.uiuc.edu/np2rds/index.php>
 - A WIKI-style storehouse of information, questions and tips on using and improving the P2 Results Data System.



Workgroup Tasks

- Identify current P2 data management systems in use in the region
- Develop regional or state-specific cost calculators (16 currently)
- Identify additional regional metrics (may not be reported nationally)
- Identify data collection barriers and needs from regional P2 programs



Other Issues - Next Steps

- What is context, bigger picture?
 - UP freight: total tonnage & revenues up
 - % of total freight transport *down*
- System issues – what is total impact?
 - NFM: game between service & warehouse



Next Steps

- What will happen to the information?
 - What can it be used for?
 - Funding justification.
 - Baseline & improvement – *or* – compare approaches?
 - Impact in the field?
 - Can it be used for environmental improvement?

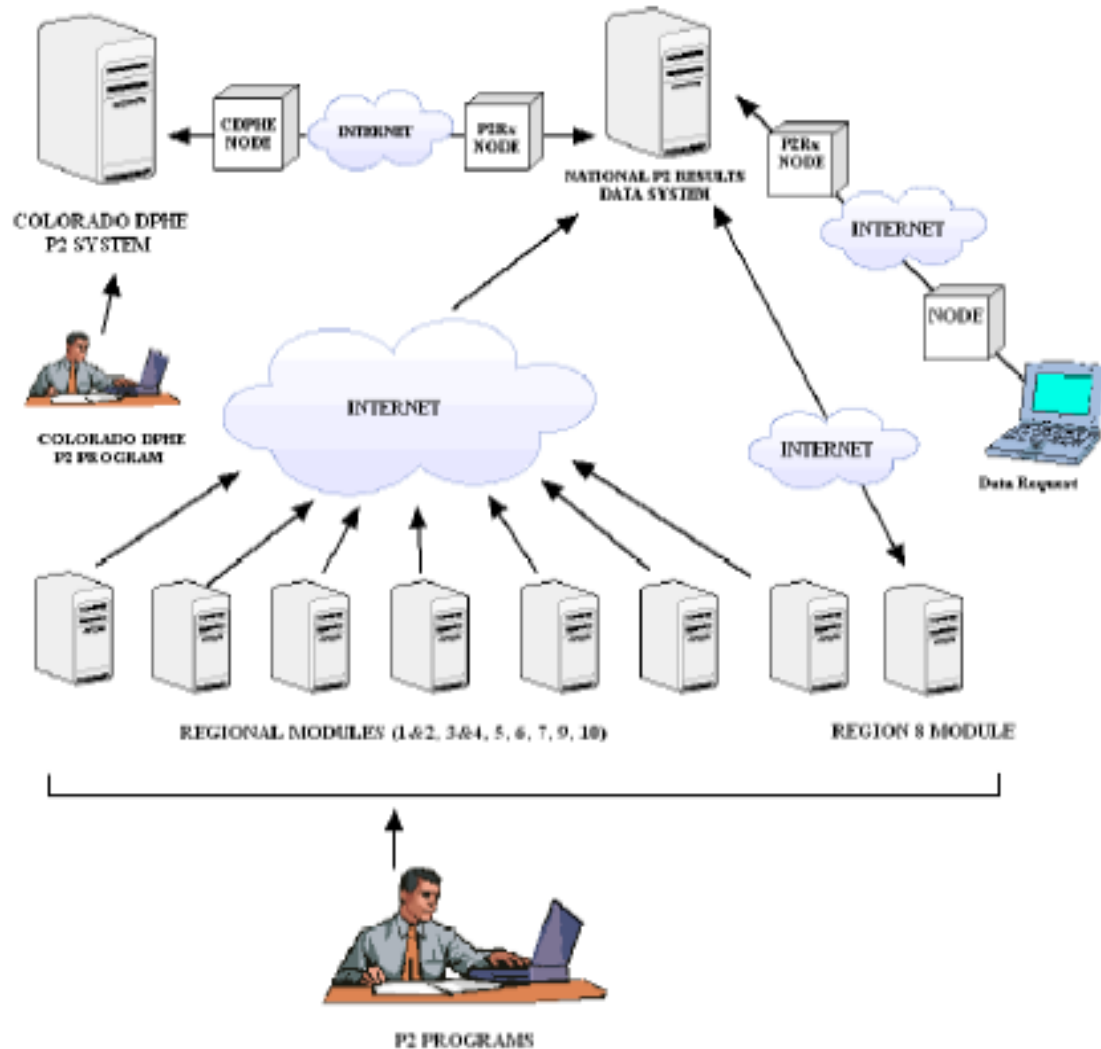


Next Steps

- Feedback mechanism
 - How can the information influence action?
- Possibilities for repurposing information?

NEIEN Funding Cont...

The following diagram is a model of how data will flow through the System.





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