

MI DEQ & RETAP Pollution Prevention (P2) Training

P2 Follow-up: Measuring Implementation & Program Success

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KPPC Services for Industry, Business & Organizations

- ☐ Training**
- ☐ On-site P2, E2 & EMS Assessments**
- ☐ Research, Demos & Trials (KMFI)**
- ☐ KIME / WWWeb & Hardcopy**
- ☐ KWWRS / www.kppc.org/woodwaste**
- ☐ KPPC's Website: www.kppc.org**
- ☐ The BottomLine: Quarterly (Bi-Annual)**
- ☐ Environmental Justice Through P2**

Why Look at a Systems Approach to P2 & EM?

- ❑ **KPPC has approximately 35% implementation rate on P2 recommendations.**
- ❑ **P2 barrier: Organizations may not be organized internally to exploit P2 opportunities.**
- ❑ **Answer: A managerial framework that systematically identifies & directs the resources & capabilities needed to implement P2.**
- ❑ **Program benefits: higher implementation rate, more quantitative P2 data, EMS-driven requests for additional P2 assistance.**

The Future of Pollution Prevention (P2)...

Environmental Management Systems (EMSs)

“Environmental

Management

System”

EMS

“Performance-Based, Results-Oriented”

- ❑ Organization’s environmental management efforts are organized & readily available**
- ❑ Third-party audits, verification & industry mentorship**
- ❑ Facilitates compliance resource allocation to processes requiring more help & training**
- ❑ Strong implementation teams are formed**
- ❑ Potential environmental benefits in non-regulated areas (energy, water, SW & supplier/contractors)**

EMS Benefits

Visteon Steering Systems (Indianapolis, IN)

- ❑ Through EMS employee awareness training, cut 1.5 million gallons waste oil to 800,000 gallons/year saving **\$700,000 annually**.
- ❑ Dropped from large to small quantity generator of hazardous waste
- ❑ Cut water usage 32% over last two years through EMS
- ❑ All PCB transformers removed by end of 1998
- ❑ Switched to low-mercury lighting tubes throughout the plant

What are the benefits of EMS/”Systems Approach”?

- ❑ Efficiency gains & streamlining in environmental management program administration
- ❑ Achieve consistency & control over environmental performance & compliance
- ❑ Environmentally-involved & aware employees
- ❑ Systematically achieve P2, waste reduction & conservation opportunities

Evaluation

□ Why evaluate?

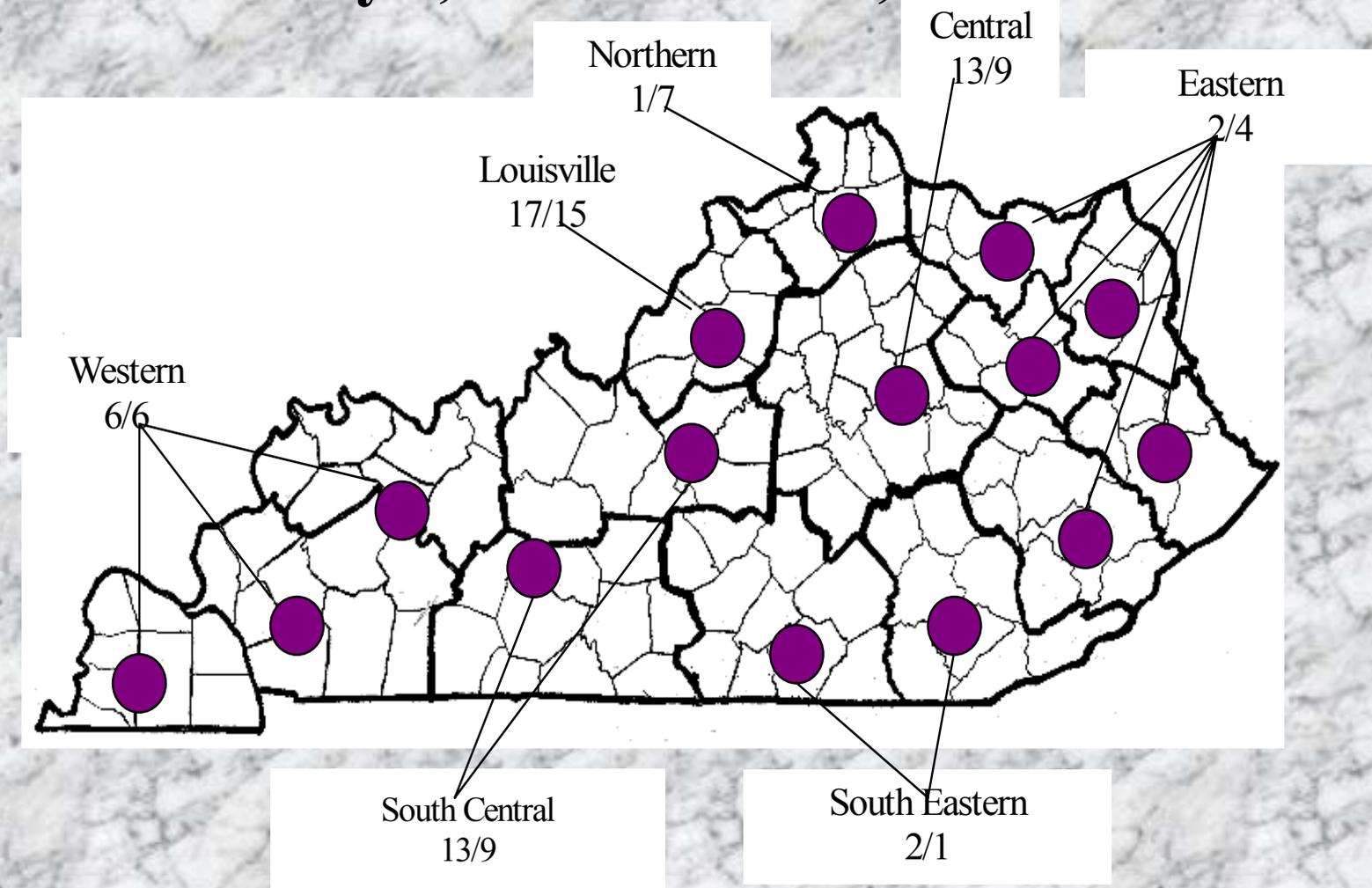
- ⇒ Helps institutionalize P2
- ⇒ Allows for mid-course corrections
- ⇒ Builds support among funders; industry; environmental groups & regulatory programs

□ What to consider in an evaluation?

- ⇒ Emphasize facts, not anecdotes
- ⇒ Base it on solid metrics
- ⇒ Build it into initial budget for the initiative
- ⇒ Document results (Activity & Outcome-based)

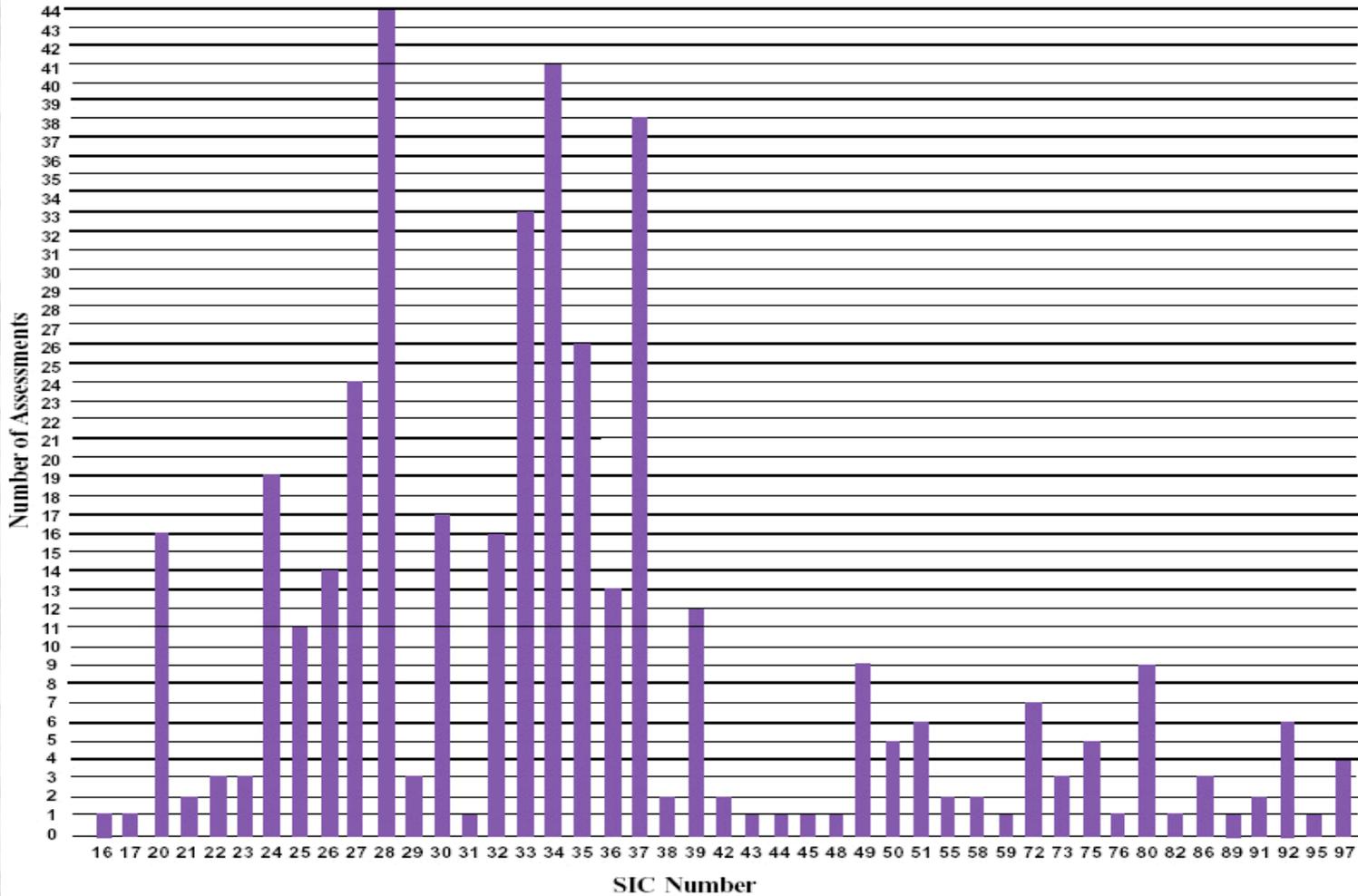
ASSESSMENTS / TRAINING PROGRAMS

July 1, 1999 – June 30, 2000



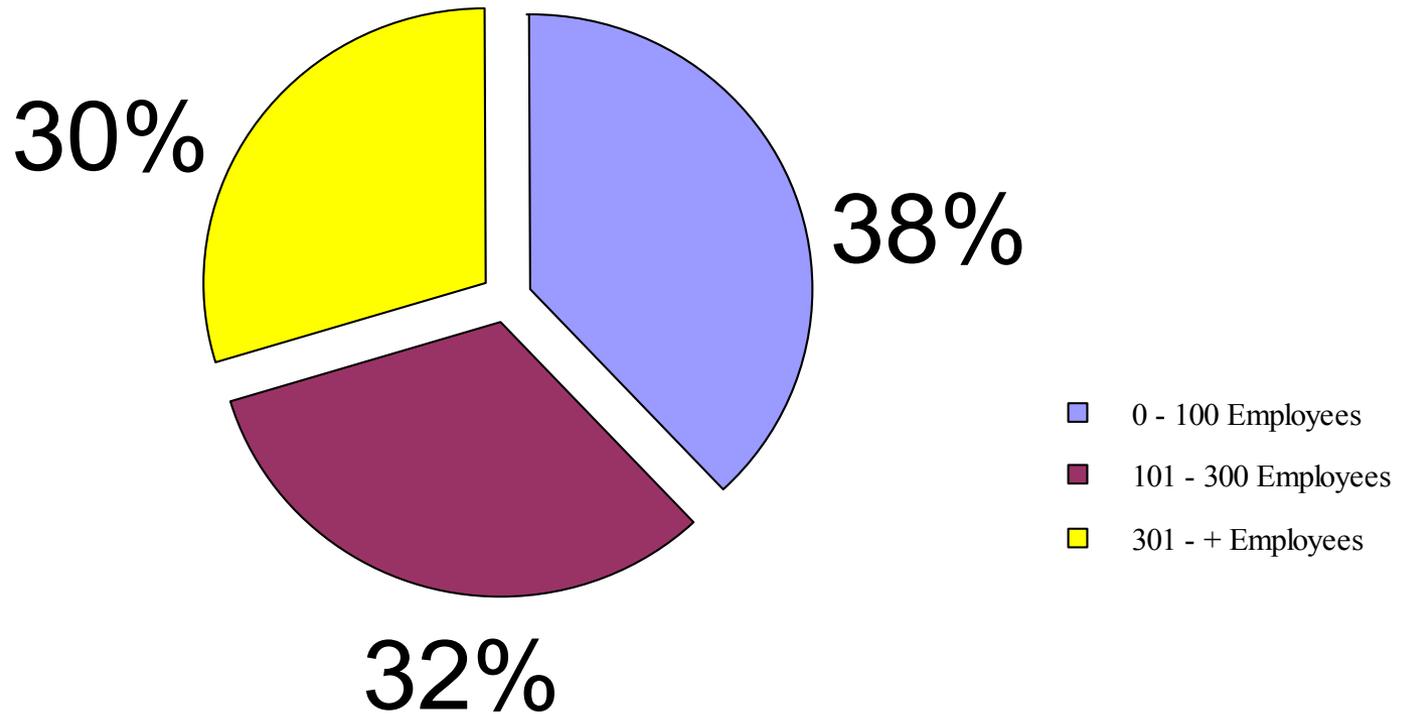
P2 Measurements

KPPC ASSESSMENTS = Total 414
(June 1995 - July 2001)



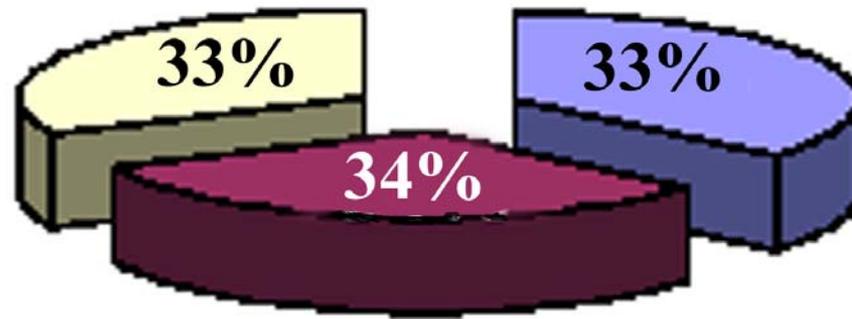
ASSESSMENTS FOR 1995-2000

Company Employee Count



P2 Measurements

Assessments at Companies by # of Employees



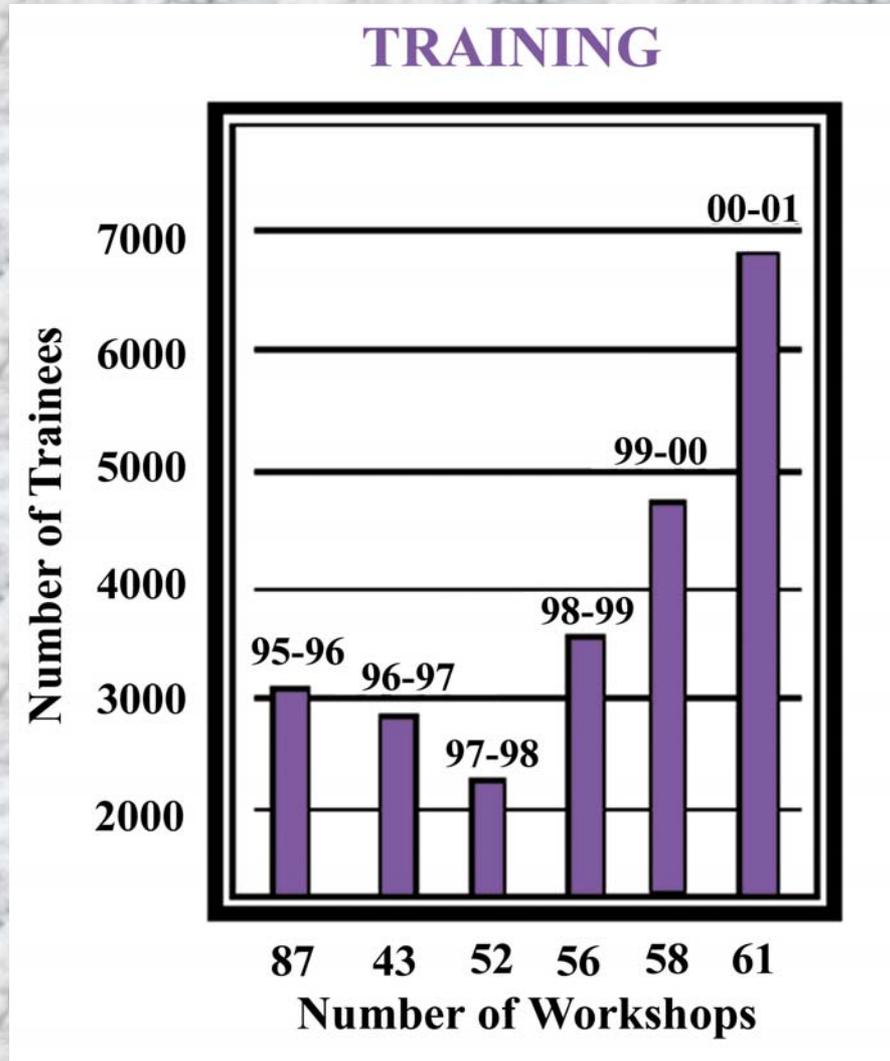
-  0 - 100 Employees
-  101 - 300 Employees
-  301+ Employees

P2, Energy Efficiency (E2) & EMS Assessments

- ❑ 18 P2 assessments (2002 to date)
- ❑ 414 over last 10 years (including 18 EMS, 6 E2)
- ❑ Average savings/facility: \$13, 750 or \$5.7 million total
- ❑ All organizations from 'A' to 'W' assisted



P2 Measurements



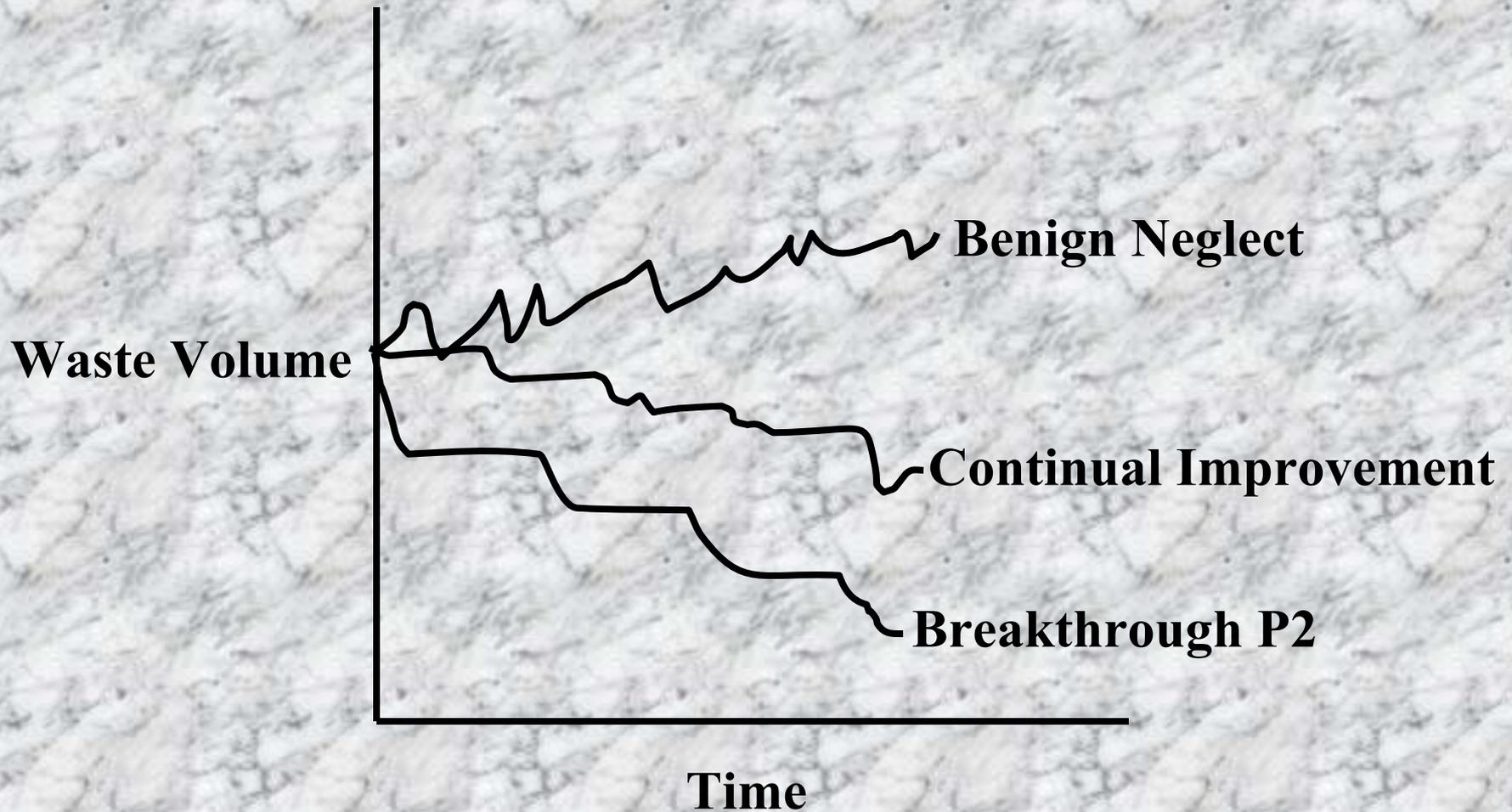
KPPC Strives to:

- ❑ Be the P2 “Responder of choice”!**
- ❑ Improve Quality in Traditional Services**
- ❑ Target new priorities of Industry Stakeholders**
- ❑ Develop & expand Partnerships to deliver services**
- ❑ Seek the most cost-effective ways to deliver P2 services**

KPPC Expanding Services

- ❑ Explore how P2 fits into the regulatory structure & may help drive P2 efforts**
- ❑ Help clients understand how P2 projects effect their compliance status**
- ❑ Help organizations spend less time on paperwork & permits to aid compliance**
- ❑ Develop & support voluntary P2 Supplemental Environmental Projects (SEPs)**
- ❑ Help clients move from P2 assessments to implementation**
- ❑ Technical assistance in E2 & KMFI**

Barriers: Commitment, Technology & Policy



Impediments to Success

- Emphasis on Process**
- Inadequate Training**
- Lack of Planning**
- Poor Communications**
- Lack of Patience**
- Assign to Person, Not a Team**
- Treating as a Special Program**

Institutional Barriers

- Supply Practices**
- Materials Usage Patterns**
- Materials Management Practices**
- Waste Disposal Practices**
- Resource Consumption Patterns**
- Preferential Use of Equipment or Techniques**

Institutional Barriers (continued)

- ❑ Lack of top management support**
- ❑ Lack of clear communication of priorities or support**
- ❑ Organizational structures may separate environmental decisions from production decisions**
- ❑ Habit & inertia may inhibit change**
- ❑ Lack of involvement of affected workers**
- ❑ Reward system does not focus on pollution prevention**

Institutional Barriers

(continued)

- ❑ Firms may lack the technical ability to apply preventive methods & technologies**
- ❑ Frequent changes to output, product design & other factors may make implementation more difficult**
- ❑ Lack of information about sources of waste releases, alternative strategies, & resources**
- ❑ Preventive applications not currently available**
- ❑ Perception that pollution prevention addresses only manufacturing processes**
- ❑ Lack of consumer environmental awareness**

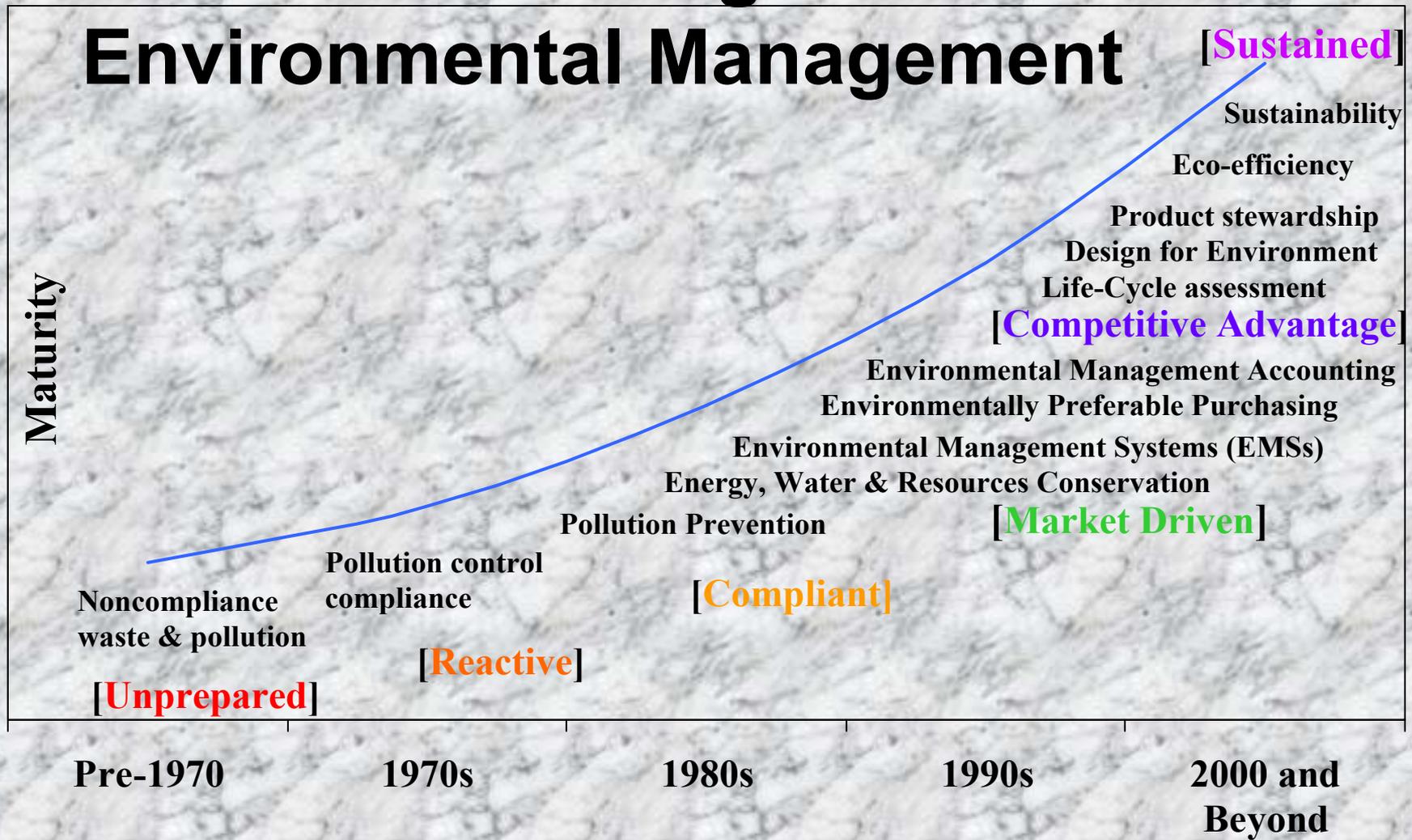
Economic Barriers to P2

- ❑ Inaccurate Market Signals**
- ❑ Incomplete Cost/Benefit Analysis**
- ❑ Inappropriately Short Time Horizons**
- ❑ Fear of Market Share Loss/Consumer Pressure**
- ❑ Inappropriate Product/Process Specifications**
- ❑ Fear of Production Interruption**
- ❑ Limited Access to Necessary Resources**
- ❑ Worker Fear of Job Loss**

Regulatory Barriers to P2

- ☐ End-of-Pipe Focus**
- ☐ Media-Specific Focus**
- ☐ Data Gathering & Management**
- ☐ Regulatory Program Evaluation Criteria**
- ☐ Regulatory Inflexibility**
- ☐ Regulatory Uncertainty**
- ☐ Pollution Fees**

Evolution of an Organization's Environmental Management



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***P2 Follow-up:
Reduce Barriers & Measure
Success!***

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