

Cleaner Production

CP Methodology/Finances

Part II - Finances

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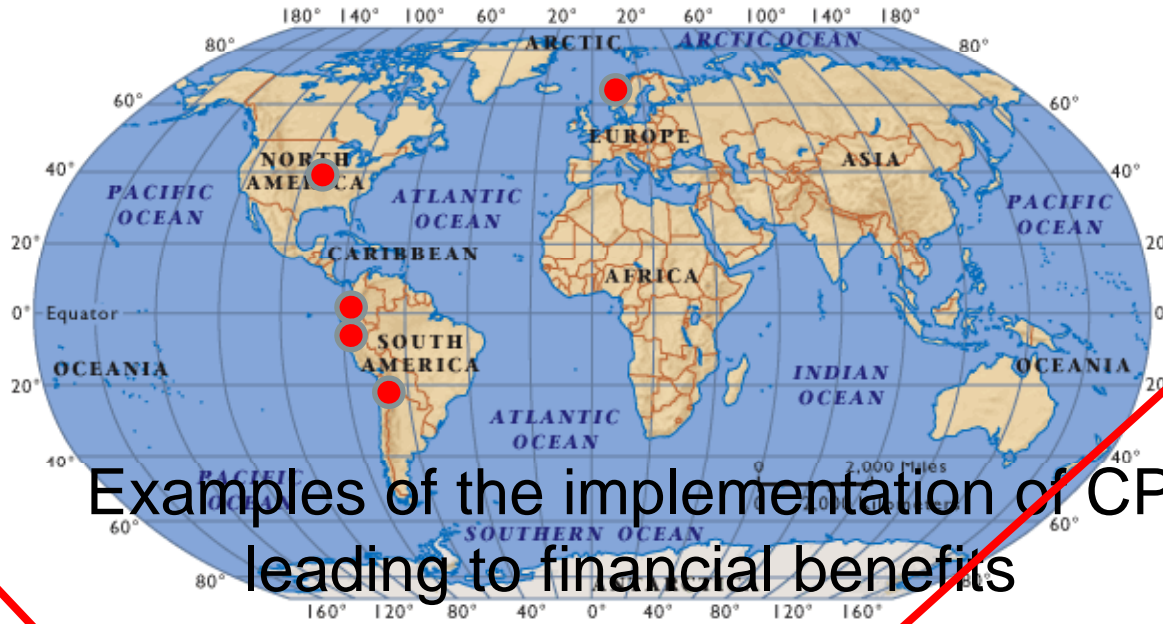


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3M Corporation

Pollution Prevention Pays (PPP) program Worldwide 1975 - 1990 (15 years)

- 126,000 tons of air pollutants
- 16,600 tons of sludge
- 6,600 m³ of wastewater
- 409,000 tons of solid/hazardous waste
- 210,000 barrels of oil annually

- US \$ 506,000,000 in 15 years

In 2005, 3M's Pollution Prevention Pays (3P) program celebrated its 30th anniversary. Over the last 34 years, the program has prevented 1.3 mega tons of pollutants and saved more than 1.2 billion dollars worldwide.

Química y Textiles Proquindus

Action	Cost (US\$)	Savings (US\$/y)	Payback period
Replace leaking steam traps	700	47,000	1 week
Modifying rinsing procedures	400	45,000	< 1 week
Replace sulphate with NaCl	none	7,500	immediate
Repair leaks in wool laundries	50	3,700	< 1 week
Repair leaks on Zonco washer	none	2,200	immediate
Filter sulphuric acid continuously	700	300	2.5 years
TOTAL	1,850	> 100,000	

Norwegian printing industry

Approach	Measure	Costs (NOK)*
<i>Dilution</i>	<ul style="list-style-type: none"> • 23 km pipeline • 1.5 m Ø 	<ul style="list-style-type: none"> • investment: 100 M
<i>Pollution Control</i>	<ul style="list-style-type: none"> • wastewater treatment plant 	<ul style="list-style-type: none"> • investment: 32 M • operation: 8 M/y
<i>Pollution Prevention</i>	<ul style="list-style-type: none"> • procedural and technical changes 	<ul style="list-style-type: none"> • investment: 8 M • savings: <ul style="list-style-type: none"> ❖ 5 M/y on chemicals ❖ 10 M/y on energy ❖ 8 M/y increased productivity

* Norwegian Krone (approx. 7 NOK per Euro 2012)

Two enterprises in Ecuador

ENTERPRISE	MEASURE	INVESTMENT COSTS (US\$)	PAY-BACK PERIOD (MONTHS)
Cerveceria SA	Reuse of Wastewater Effluent	7400	3.5
Cerveceria SA	Reutilization of Filtration Material	7681	2.3
Plastigama SA	Various small corrective material expenditures	9100	5.7
Plastigama SA	System for the management of raw and composite material	900,000	9



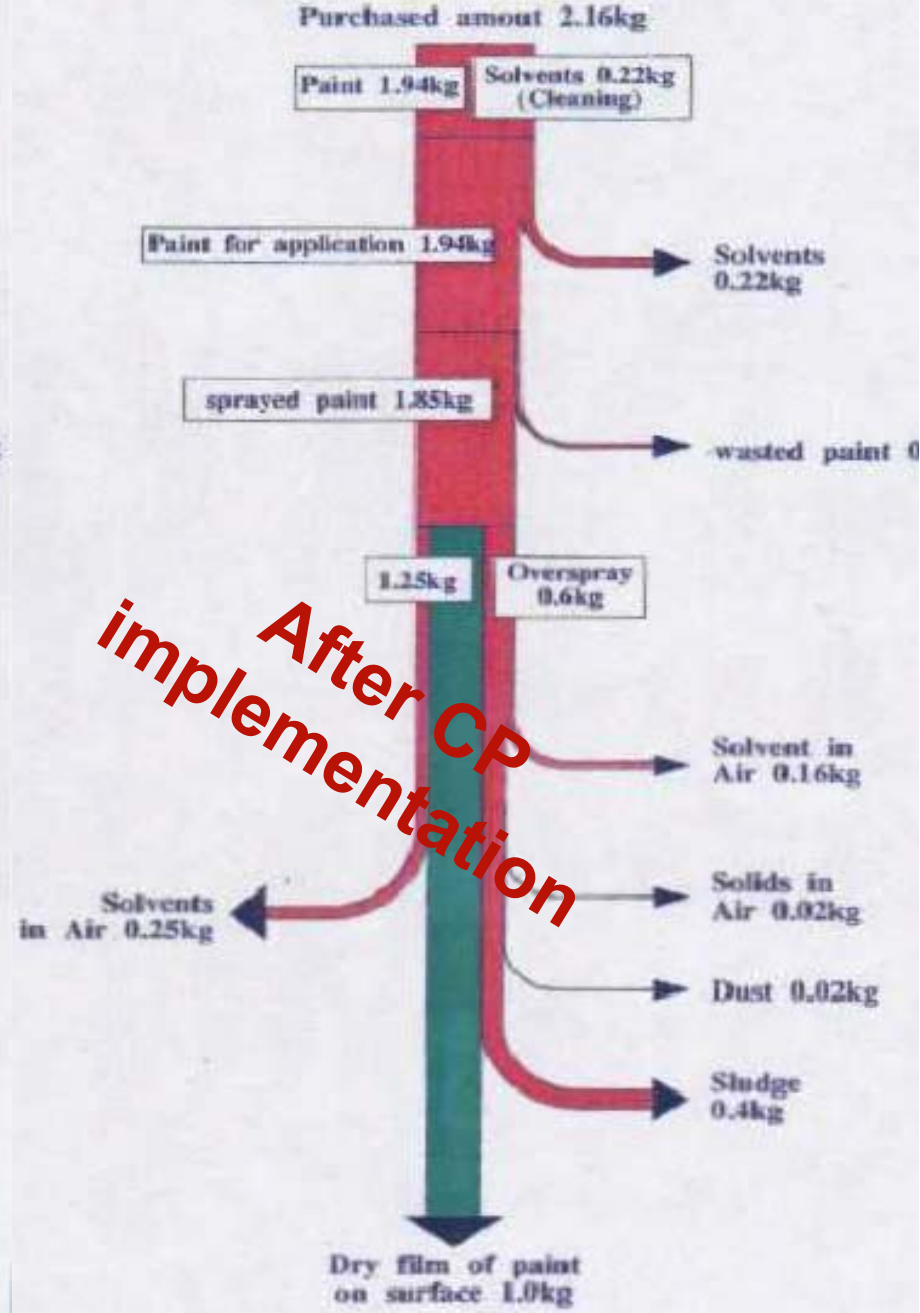
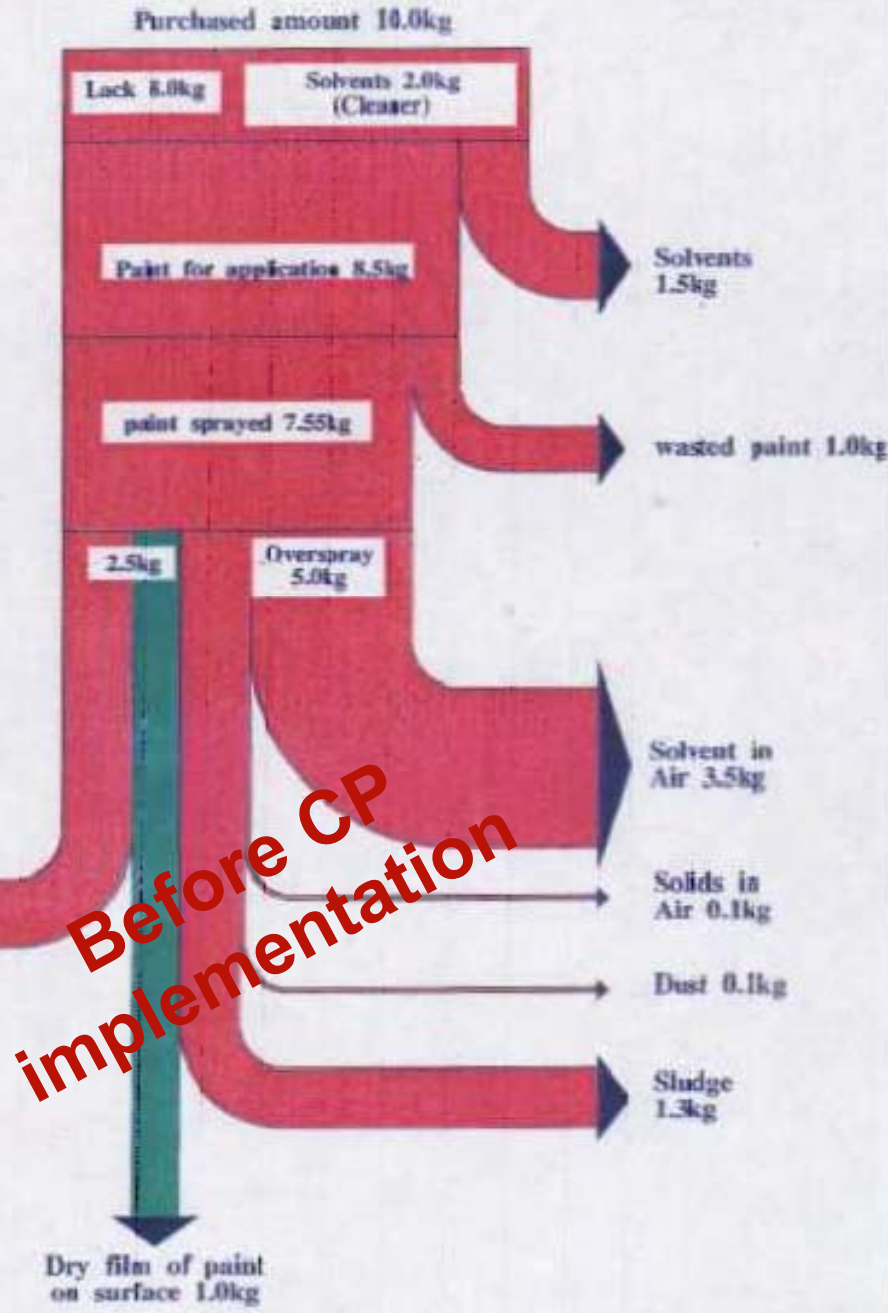
Financial benefits

UNIT: CP M€

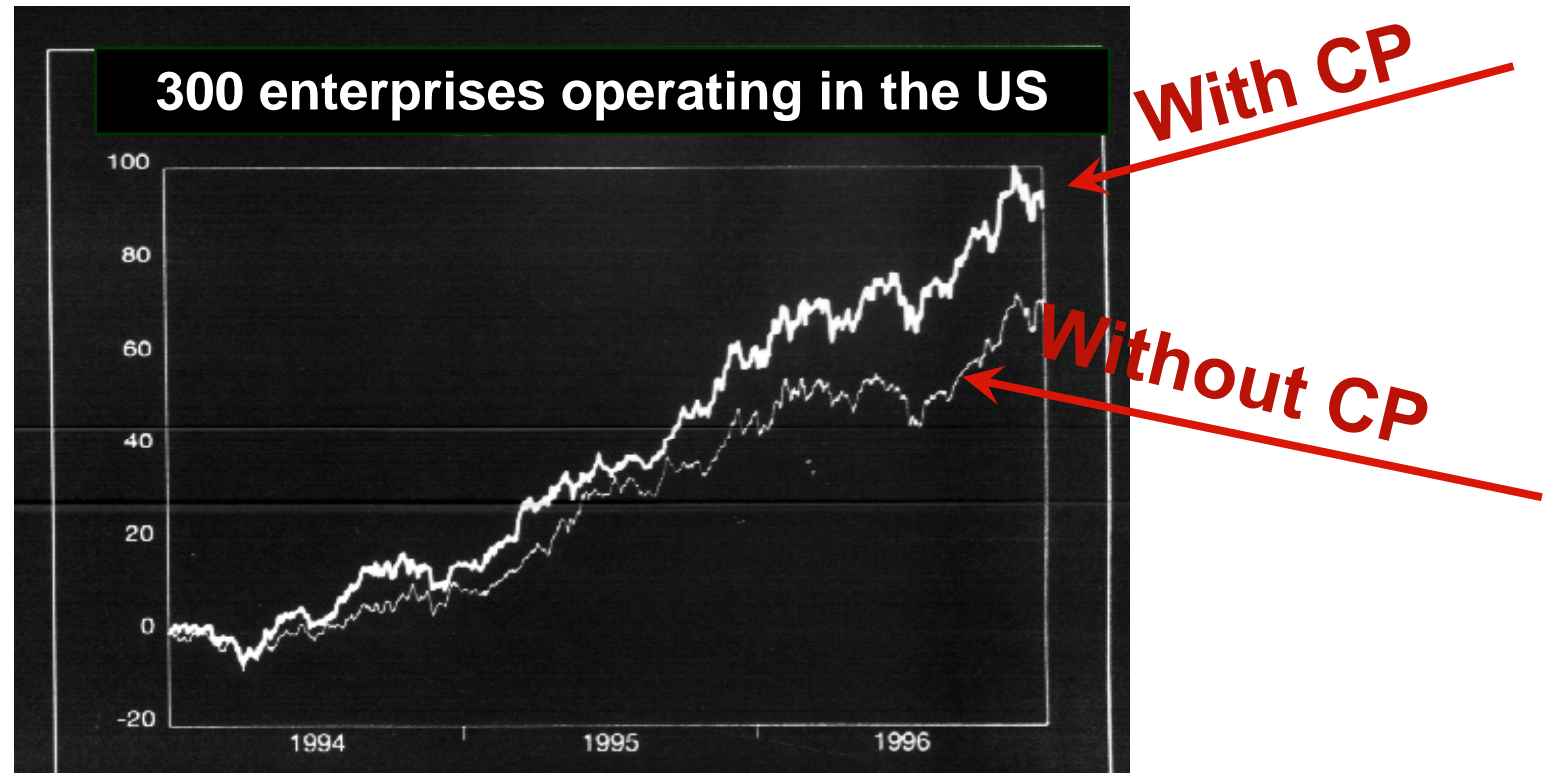
- The Ecoprofit project – a demonstration project in Graz, Austria in 1992
- The environmental profit is expressed graphically



From 10 kg of raw materials to 2.16 kg of raw materials per the same kg of paint



Financial performance based on progression of share values of 300 enterprises operating in the US



Sustainable performance Group, 1997

Good business?



Better choice of resources

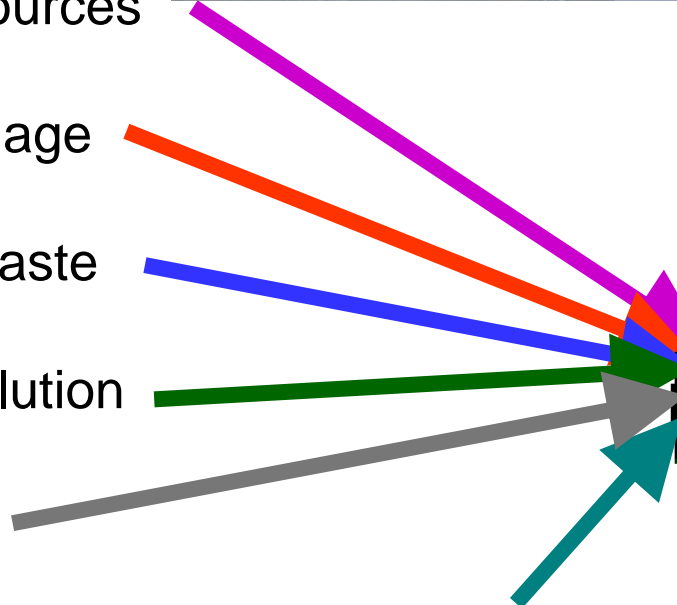
Less in-process spillage

Less 'end-of-pipe' waste

– Less observable pollution

– Better public image

– More reuse/recycling/recovery of materials



Thank you