

Environmental innovation in global supply chains

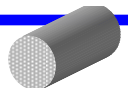
WORKSHOP ON ENVIRONMENTAL INNOVATION
AND GLOBAL MARKETS

OECD

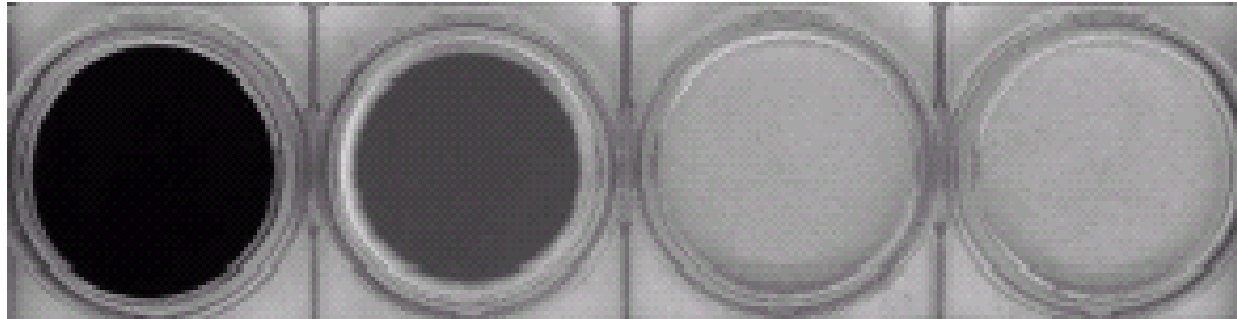
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Kazushige OHNO

IBIDEN Co., LTD



PM reduction efficiency by DPF



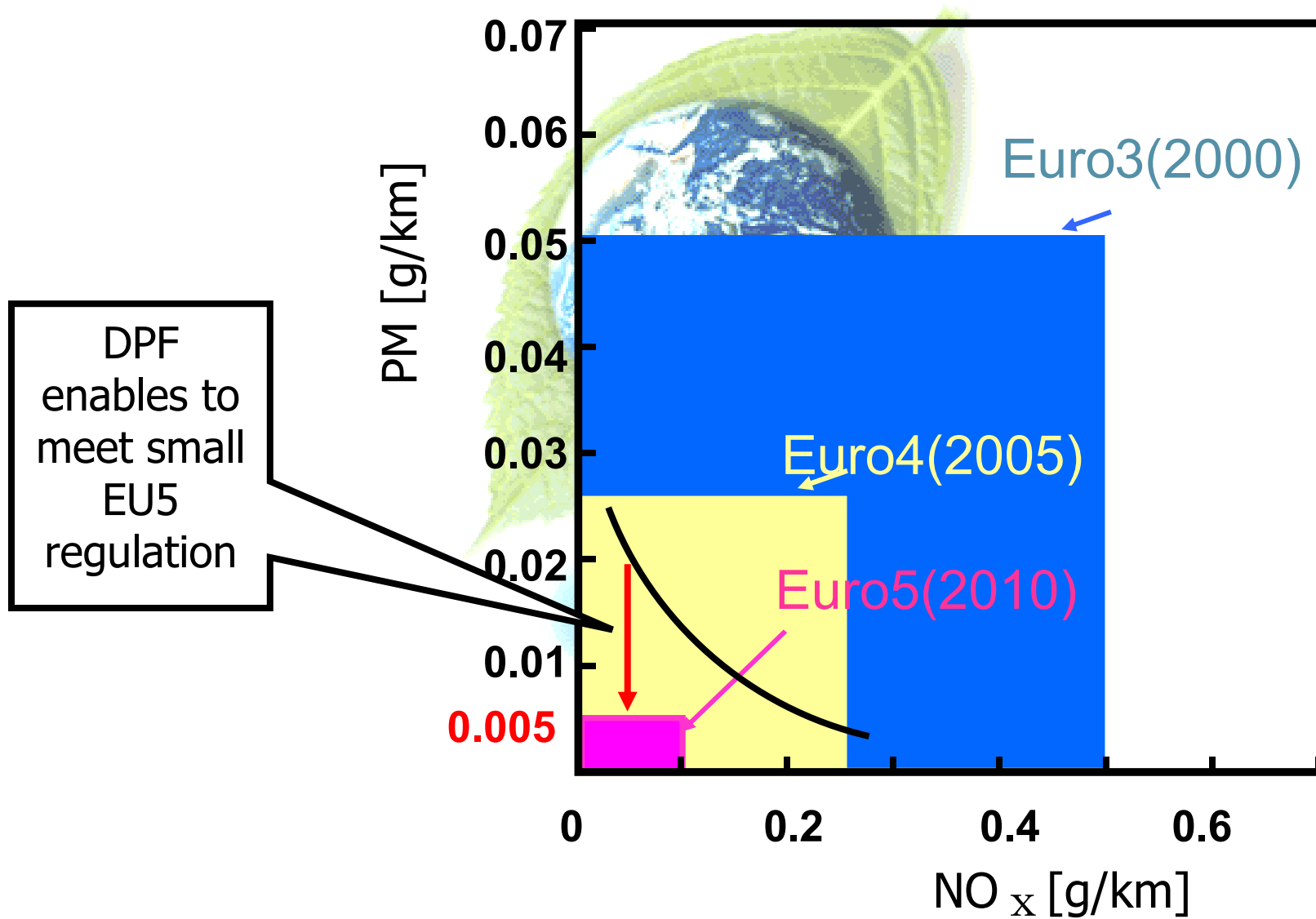
605-DK5	605-HDi	605-HDi+DPF	Air Dilution
Part	Part	Part	Part
0,1 g/km	0,035 g/km	0,004 g/km	0,004 g/km

Figure 19. Particulate matter emission in mass (MVEG cycle)

Ref. "Passenger Car Serial Application of Particulate Filter System on a Common Rail Direct Injection Diesel Engine", O. Salvat, etc., SAE2000-01-0473

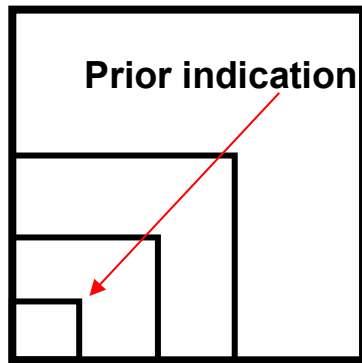
The removal rate in number of particulates of PM emitted from diesel engines reaches really near to 99.9 %, and the number of particulates of PM included in the purified exhaust gas is equivalent to the level of air.

Emission regulations

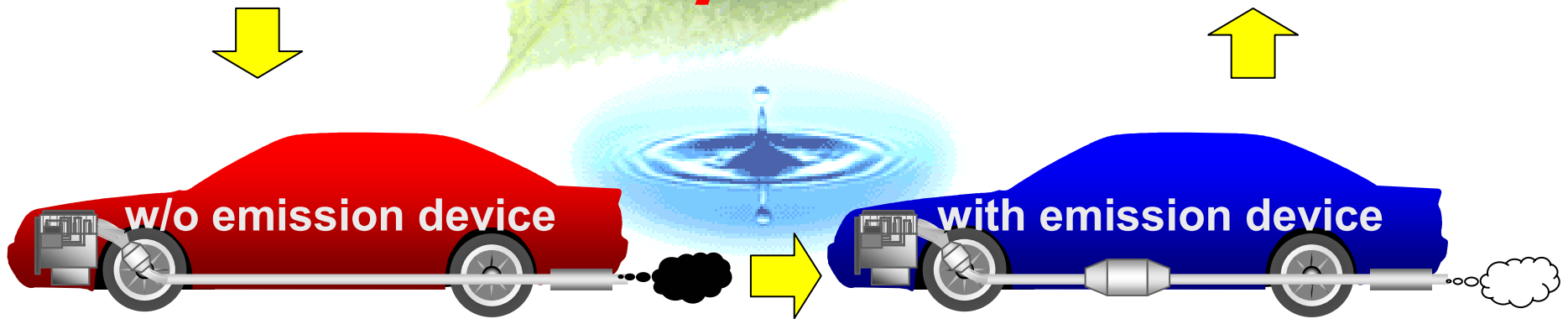
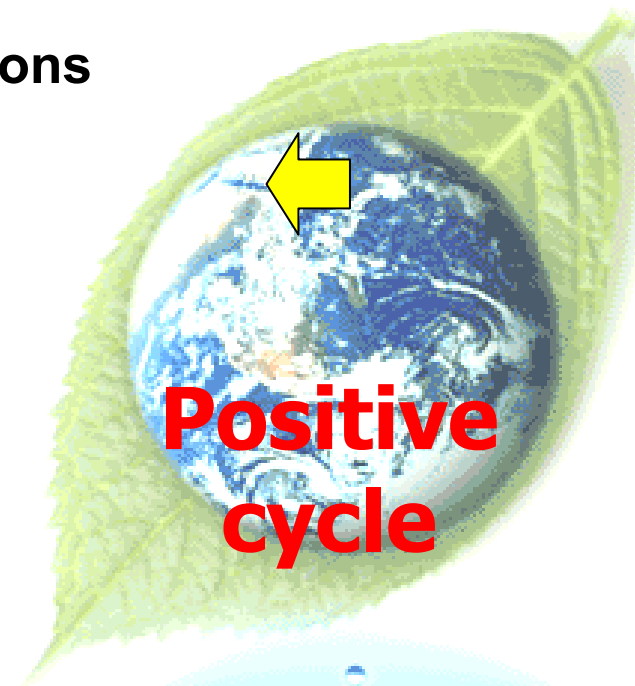
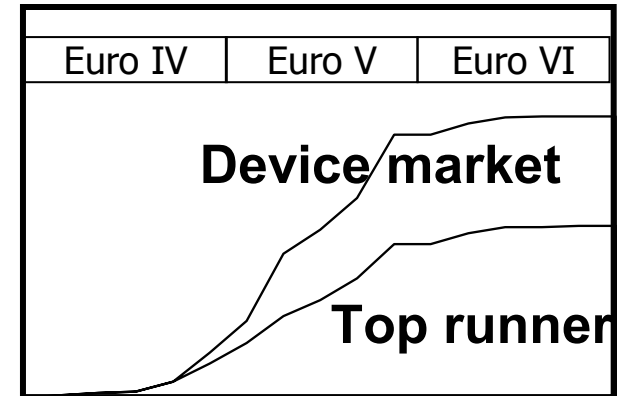


Emission device market growth

Initiator:
worldwide regulations



Return:
market growth



Emission device manufacturer efforts:
-Prior Research and Innovation
-Prior Investment (Taking a risk)

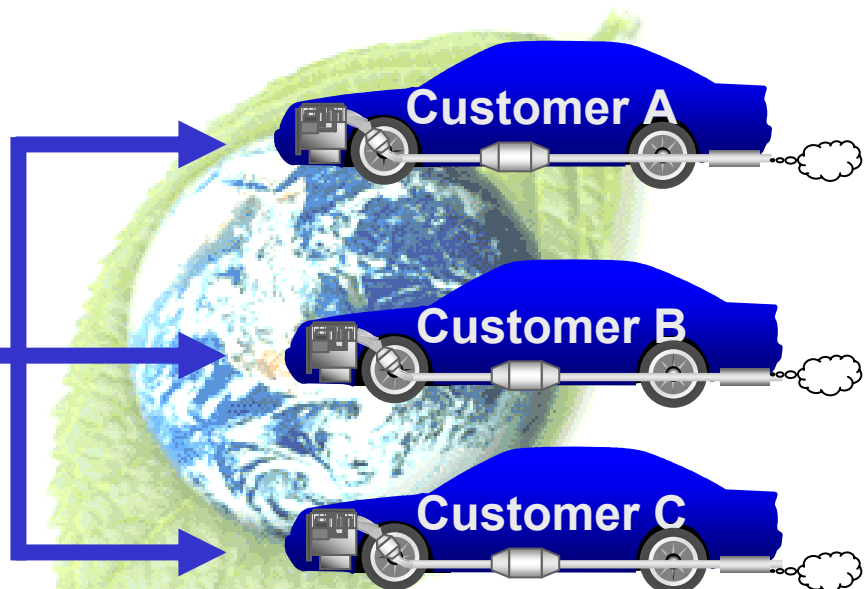
Key Factors driving markets

Emission: Excellent
Fuel economy: Excellent
CO2: Excellent

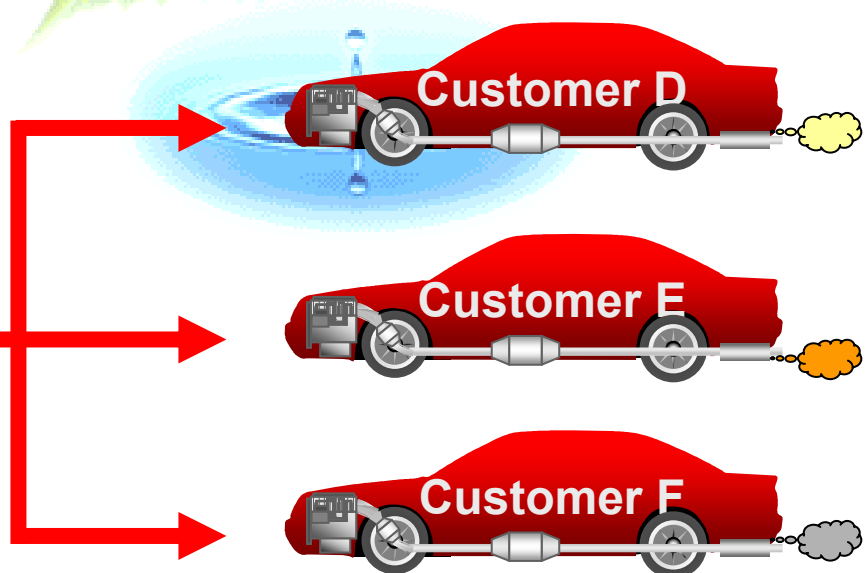
Satisfying regulations
Economically



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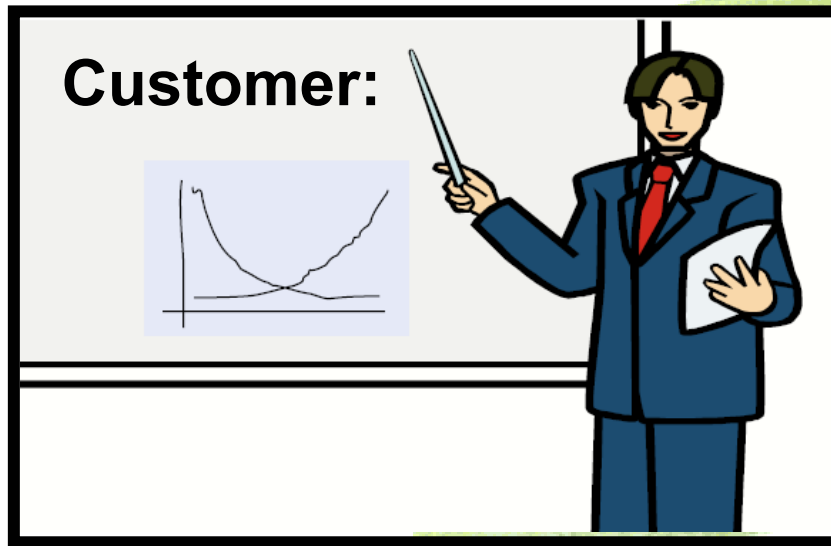


Competitors



Main obstacle developing environmental innovation

1. keen competition with excellent competitors



Keeping close contact

IBIDEN

Competitor A

Competitor B

Competitor C

2. Truly win-win R&D collaborations

Advantage

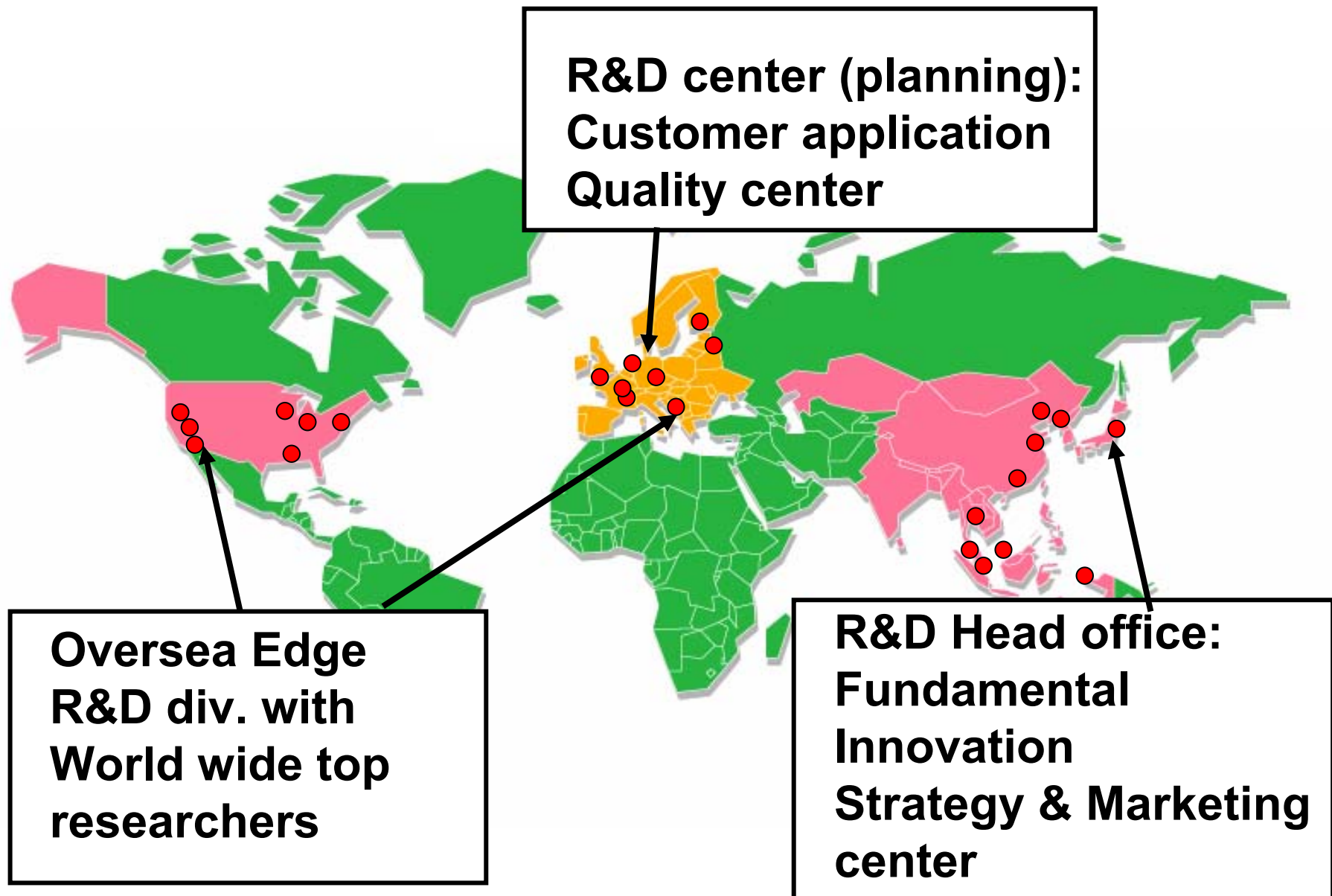
Speed up
New technology
as business key
factor

R&D
partnerships

Disadvantage

Spending great deal
of time and efforts
to create truly win-win
results

Globalization influencing strategy for developing and marketing



Policy measures IBIDEN expecting from government

1. Patent global coordination

**Application has been harmonized.
But registration depends on
each countries patent law. This leads
complex strategy to suppliers**



2. Emission standard coordination

**Driving mode for emission standard
authorization reflects each country's
circumstances.
But this forces to waste much testing
costs.**



IBIDEN expecting government's role

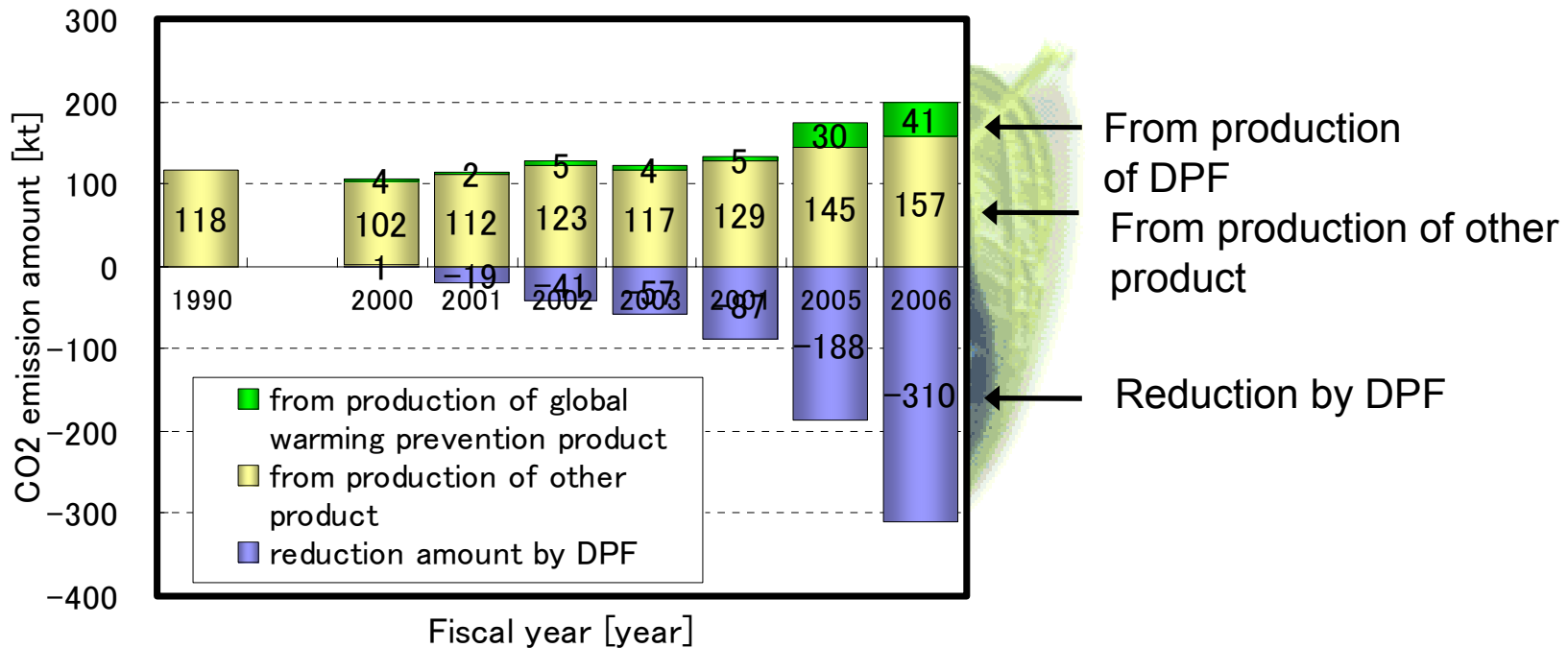


Fig. : The amount of CO2 emission from production and reduction by DPF. (Reduction of CO2 have exceeded emission since 2005.)

Incentive for device manufacturer

ie. IBIDEN contributes on the view points of CO2 reduction in global supply chains though we emits CO2 for the production. Incentive for environmental parts manufacture promotes further innovation