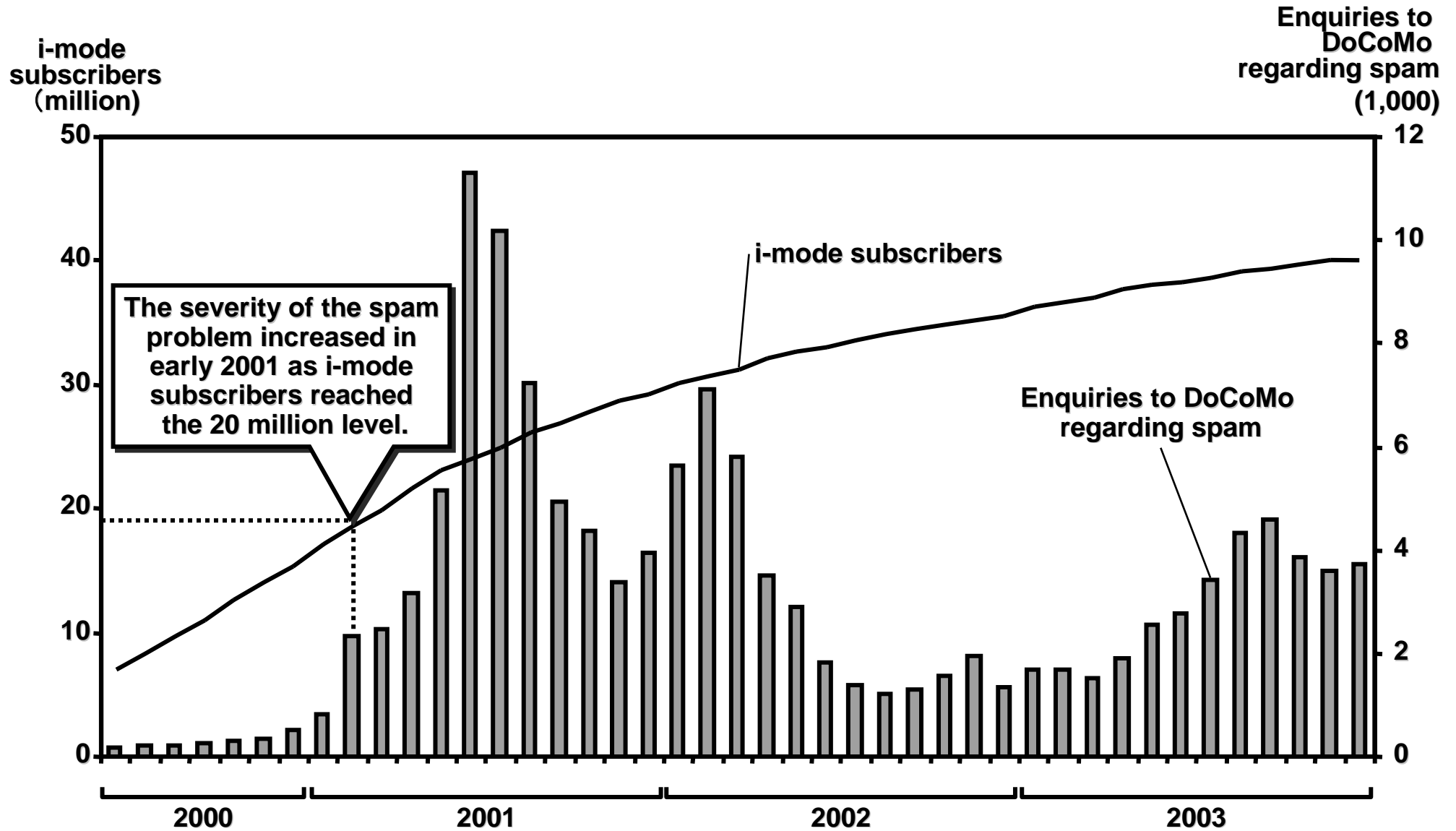




CHANGING TECHNOLOGIES AND SPAM

**NTT DoCoMo, Inc.
Kenichi Mori
February 2, 2004**

THE SPAM PROBLEM

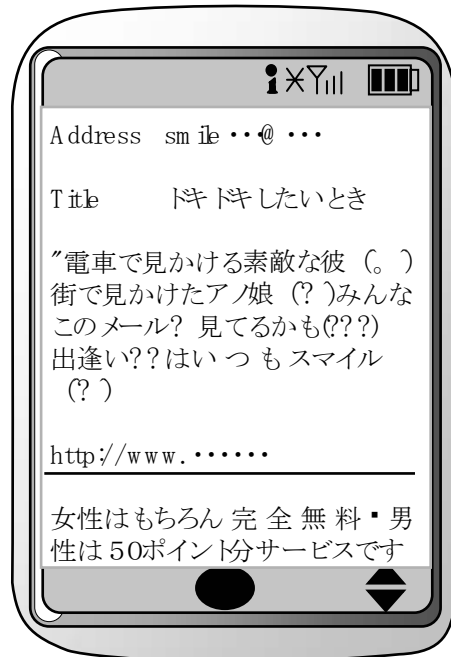


Source: NTT DoCoMo, Inc.

i-mode SPAM

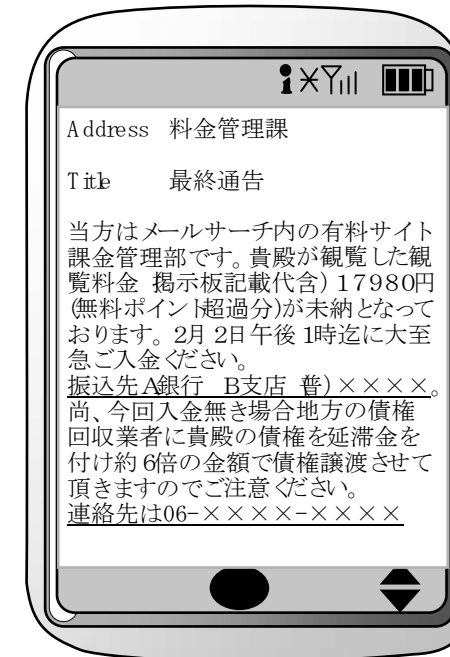
Spam to i-mode addresses comprises advertising by dubious dating sites and demands for payment of fictitious invoices

Dubious dating site



- Invitation to access site
- URL provided

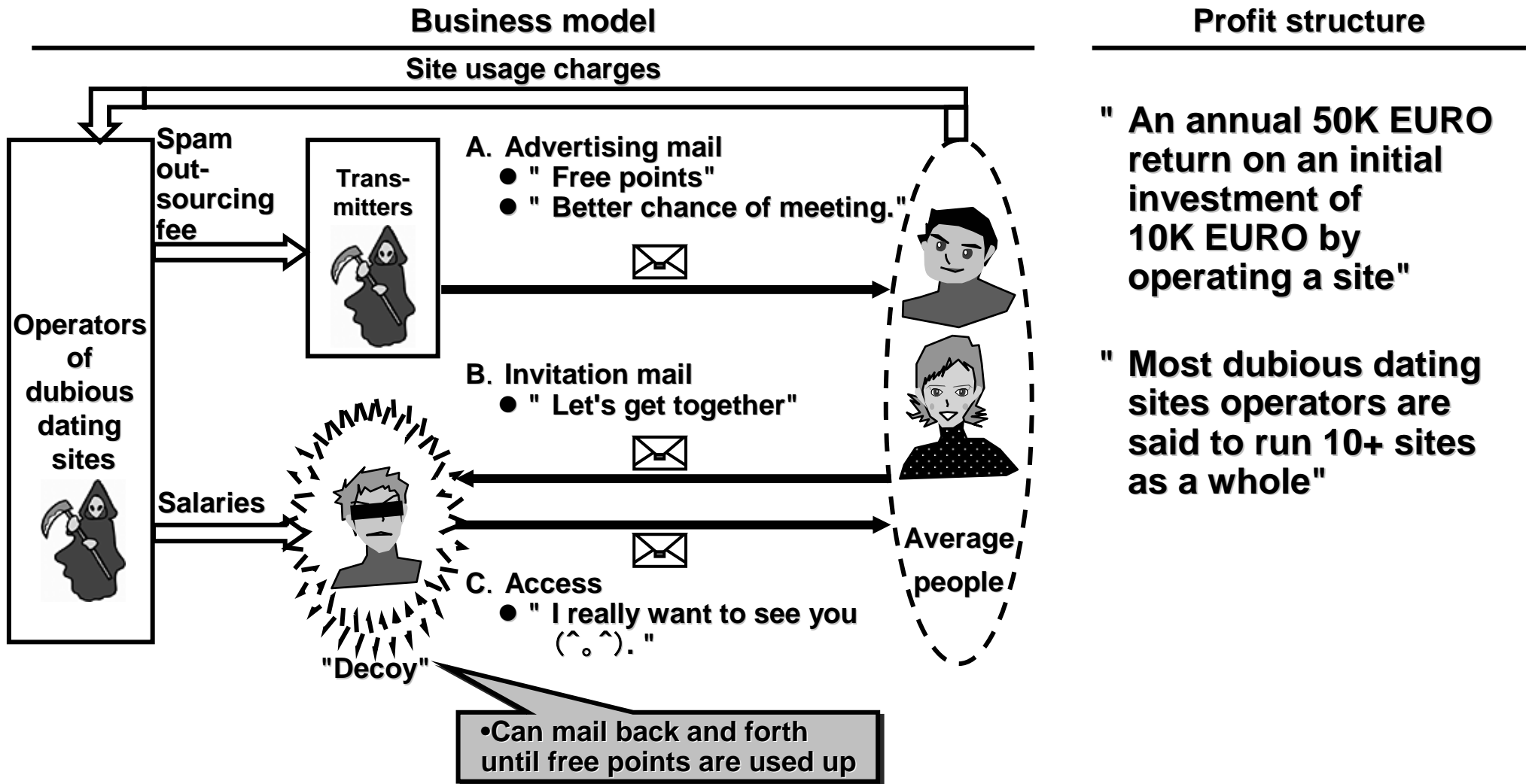
Demand for payment of fictitious invoices



- Intimidating language
- Bank a/c details
and/or telephone number
provided

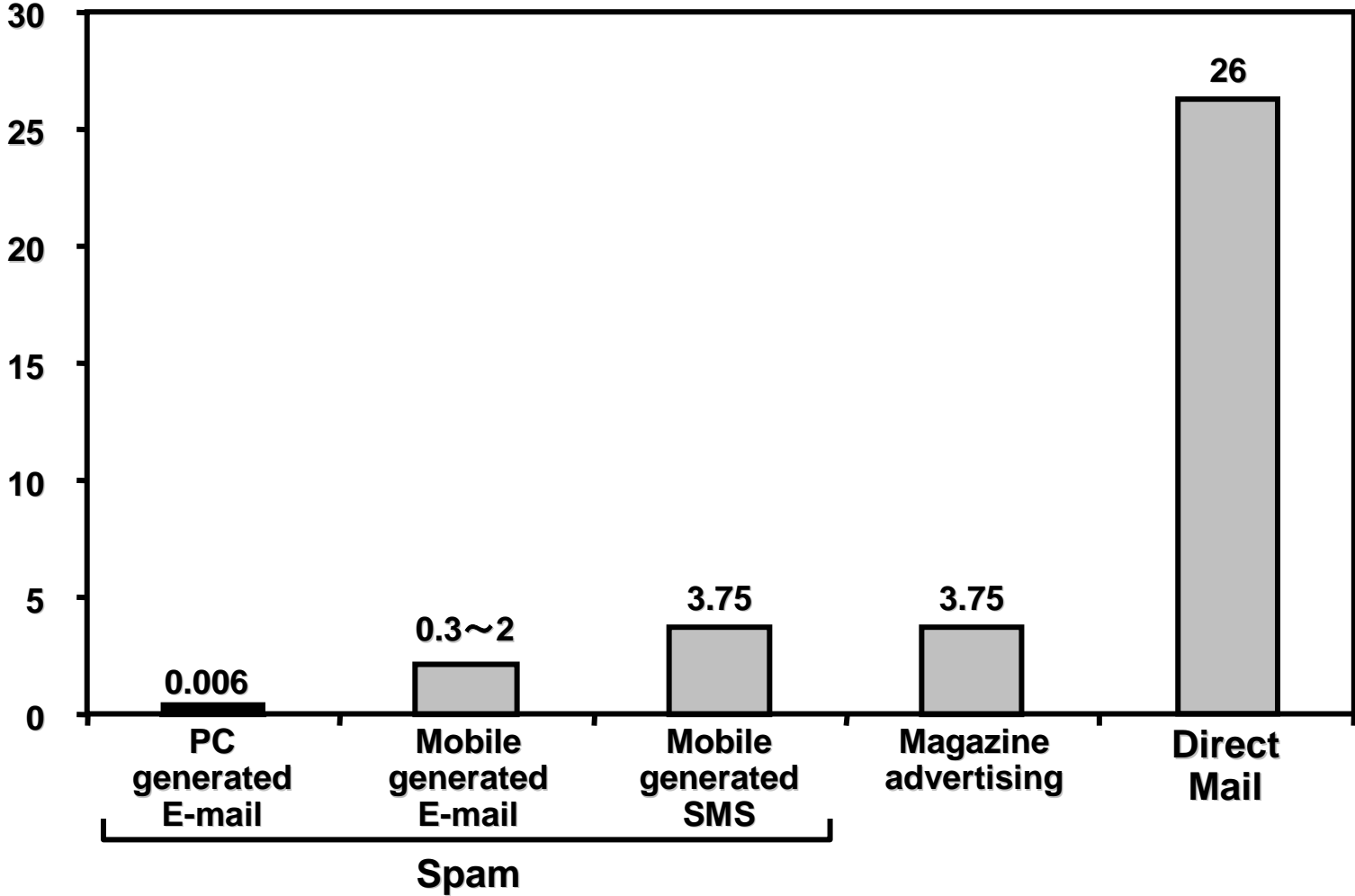
DUBIOUS DATING SITE BUSINESS MODEL AND PROFIT STRUCTURE

"Operators of dubious dating sites" make huge profits by using "decoys" to encourage average people to become paying members



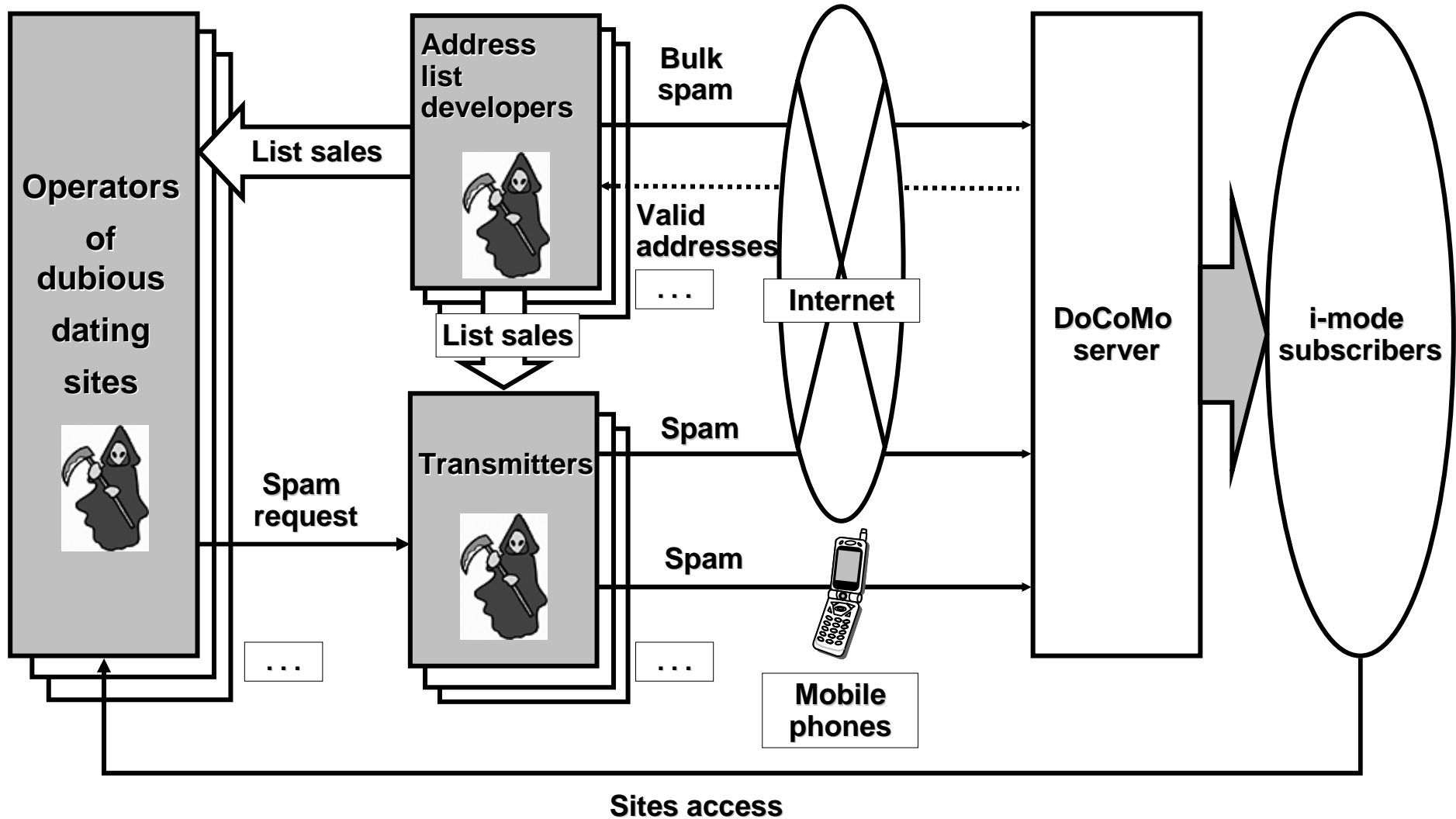
SPAM IS THE MOST COST-EFFECTIVE MEANS OF ADVERTISING

Delivery costs
(€cent/mail or part)



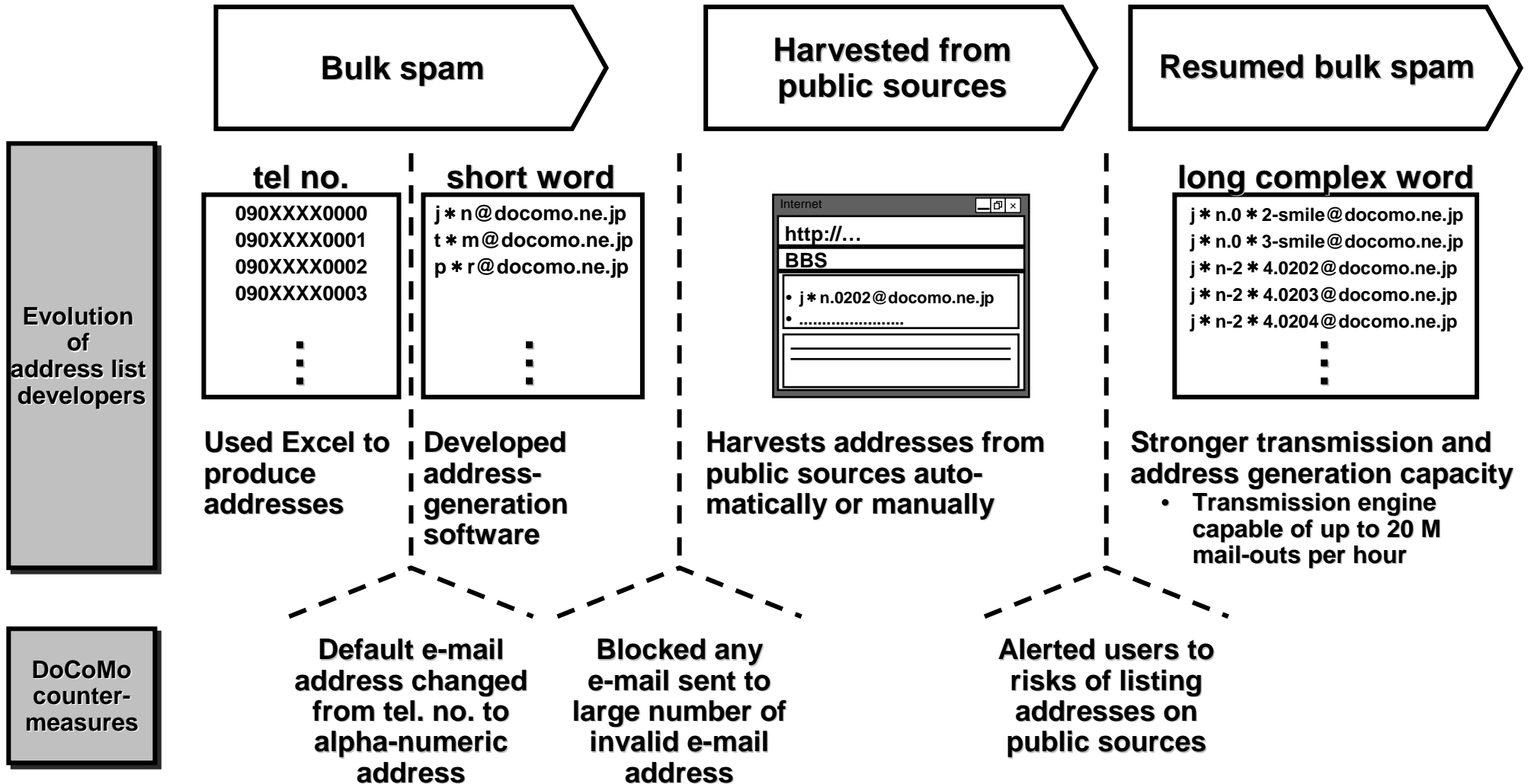
Source: NTT DoCoMo, Inc.

INDUSTRY STRUCTURE



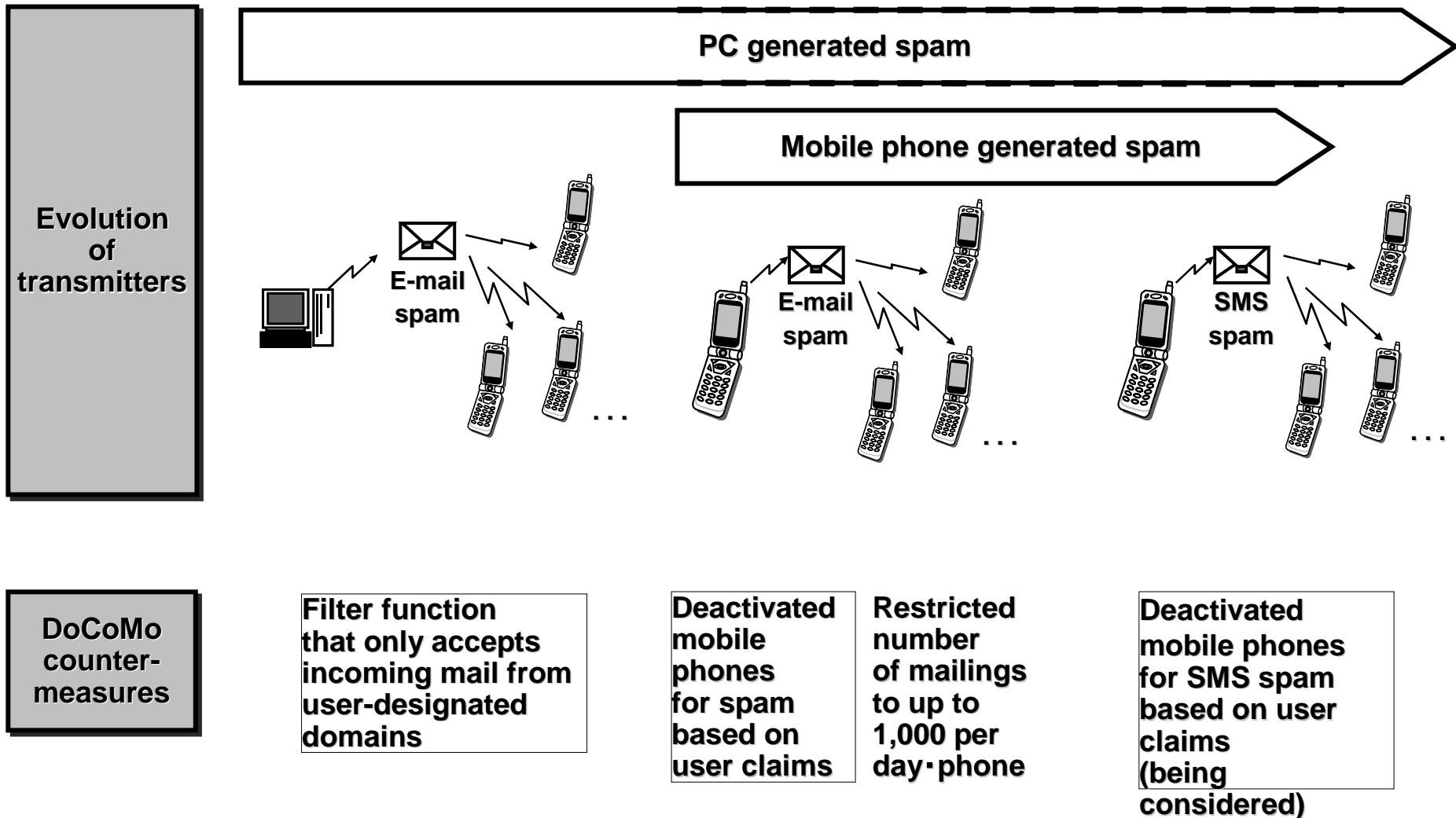
EVOLUTION OF THE ADDRESS LIST DEVELOPERS

Despite countermeasures taken by DoCoMo, address list developers' methods continue to "evolve"

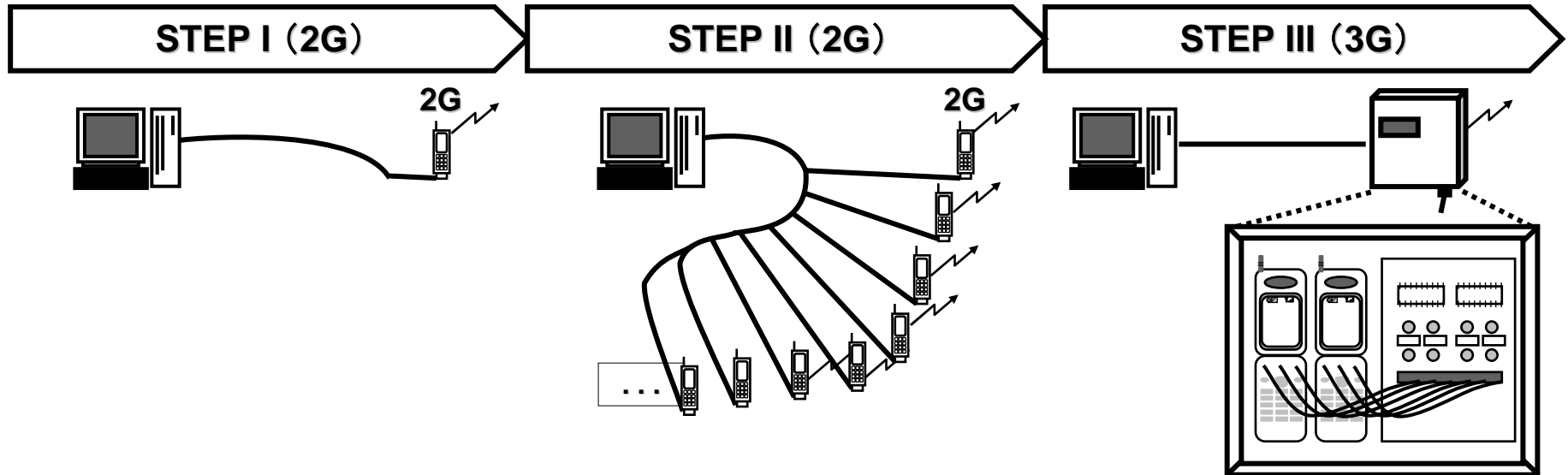


EVOLUTION OF TRANSMITTERS

Spammers continue to defy all measures DoCoMo puts in place



DEVELOPMENT OF MOBILE PHONE GENERATED SPAM



System outline

– 2G device with external interface connected to PC

– Multiple 2G devices connected to PC

– Disassembled 3G devices and built transmission system

- 3G uses undisclosed external interface

Delivery costs

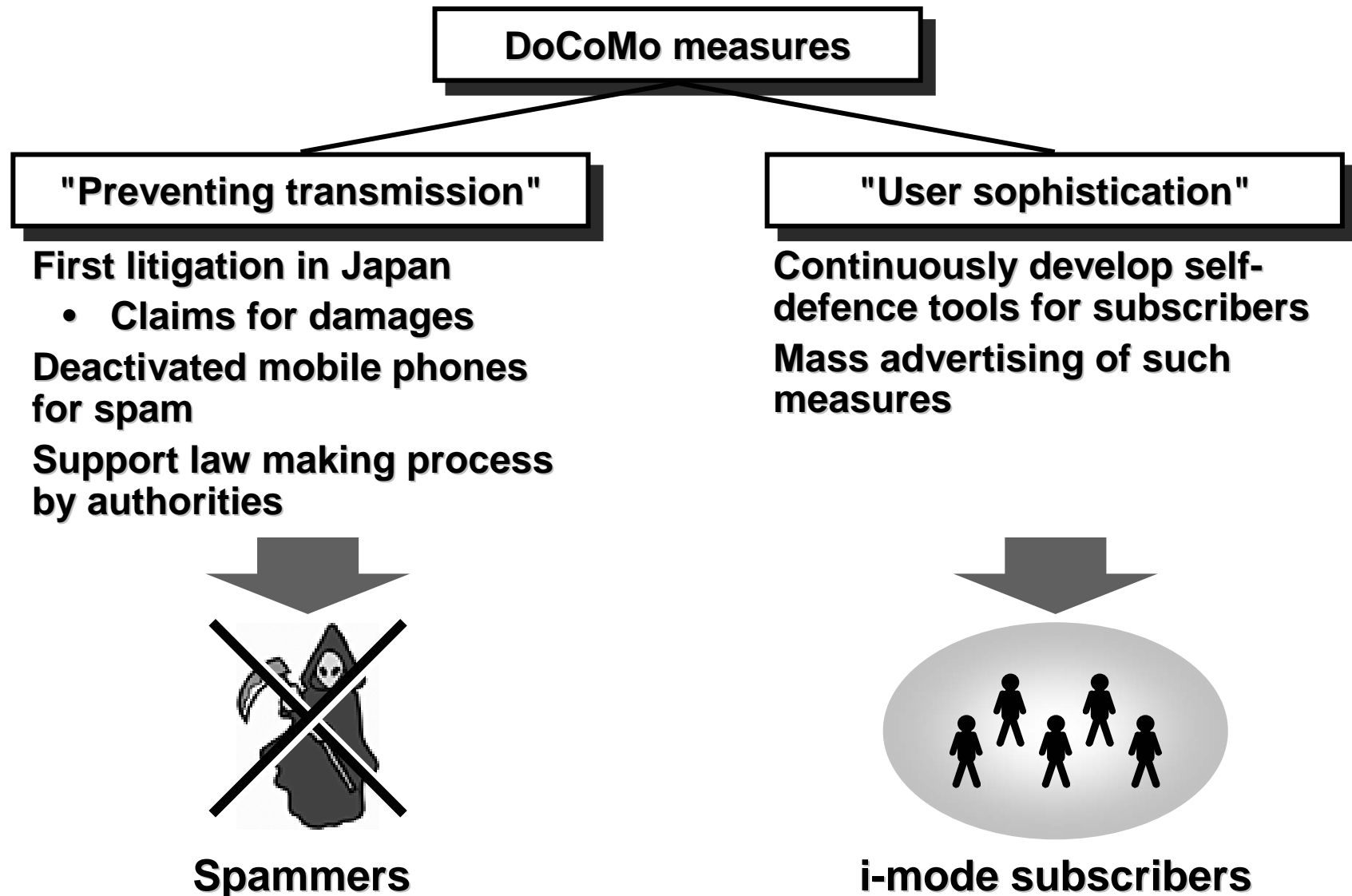
– 2€cent/mail

– 2€cent/mail

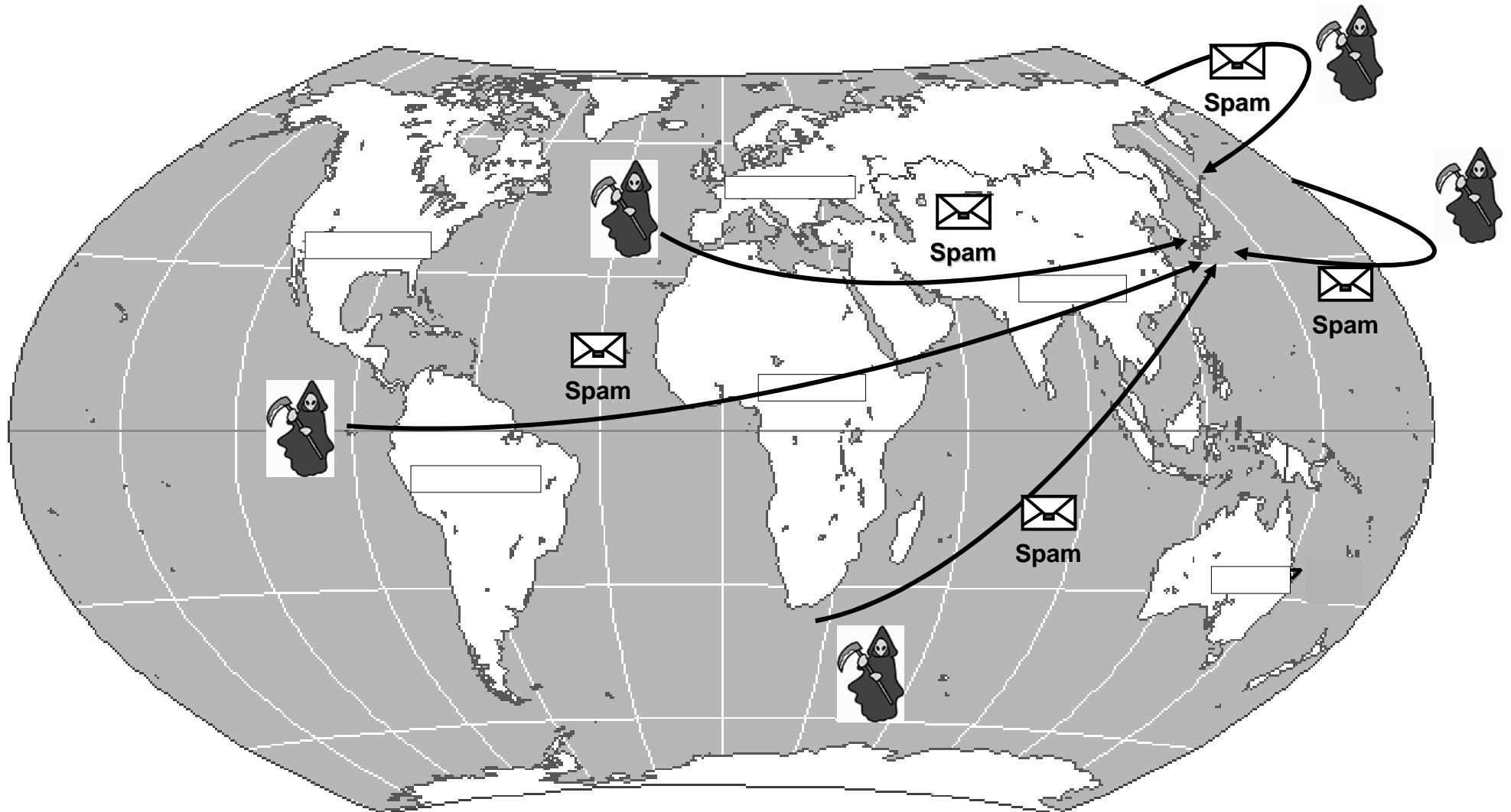
– 0.3€cent/mail

DoCoMo's EFFORTS OTHER THAN TECHNICAL SOLUTIONS

DoCoMo is also devising a number of other measures



ISSUES FOR FUTURE CONSIDERATION



Cross-border self-regulation and legal action