

REVERSE

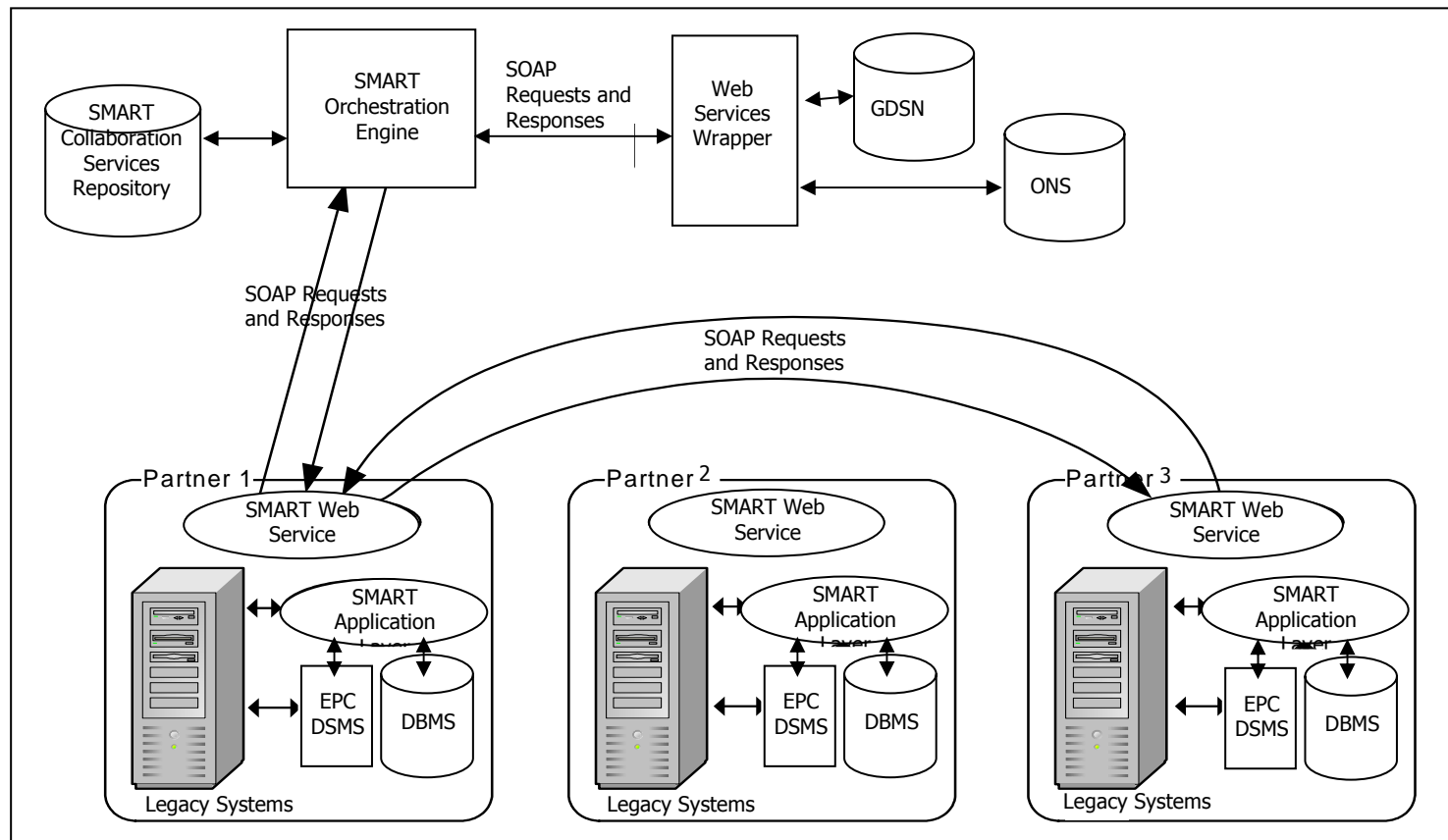
RFID-Enabled Collaborative Recycling Service Architecture

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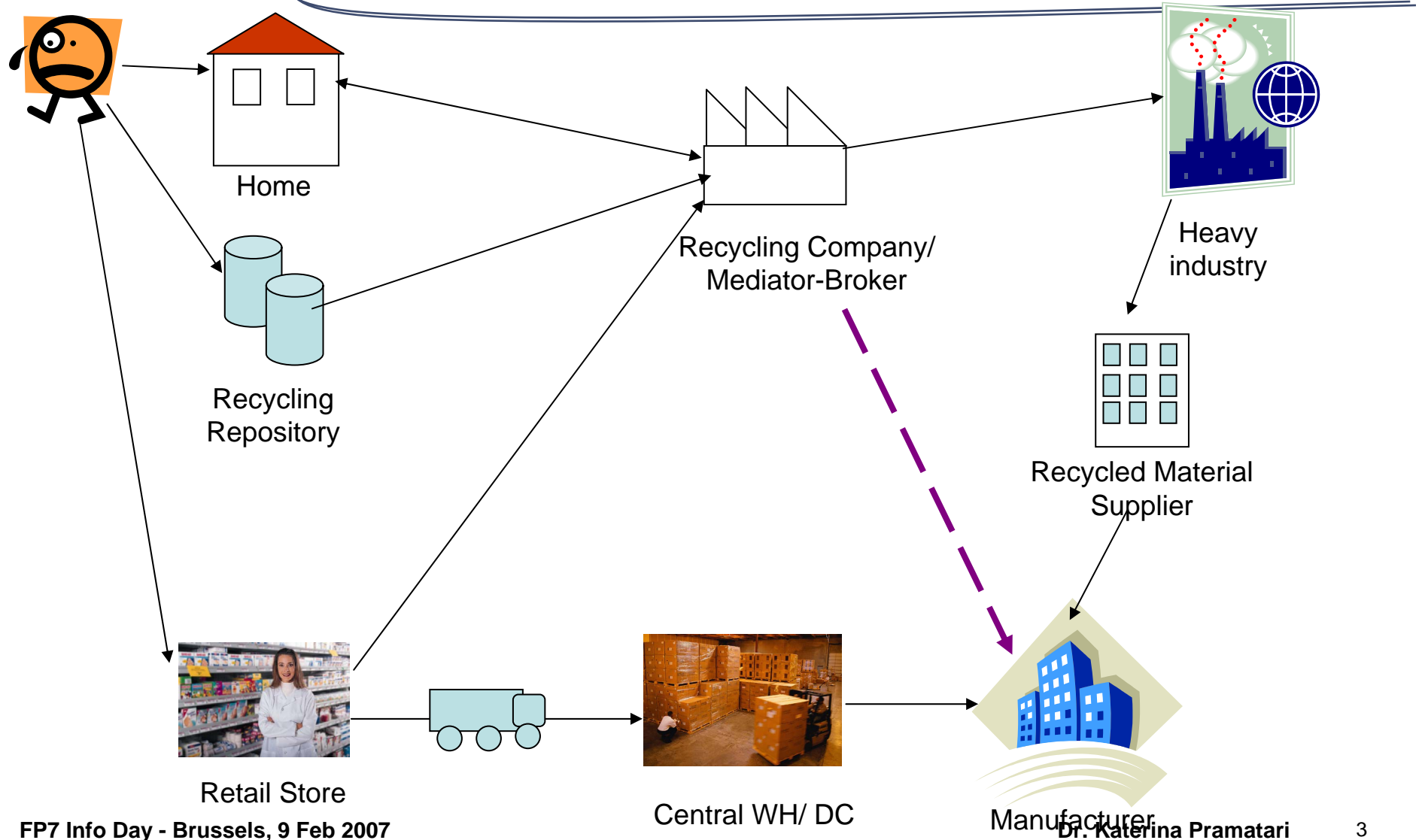
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The SMART (IST-FP6) Research Project

- RFID-enabled innovative consumer services and supply-chain collaboration



Recycling and Reverse Logistics





Variety of business domains

- Fast-moving consumer goods reusable assets:
 - Packaging (e.g. bottles, plastic containers)
 - Pallets
 - Cases
- RFID tags
- Electrical and electronic equipment
- Car tires
- Ink-refill



Exploiting RFID Capabilities

- Asset tracking
 - Reverse logistics
 - Life-long monitoring
- Automatic notification from products: “come and collect me”
 - From specific location (e.g. recycle bin)
 - I have expired
- Automatic sorting/ picking of recycled items

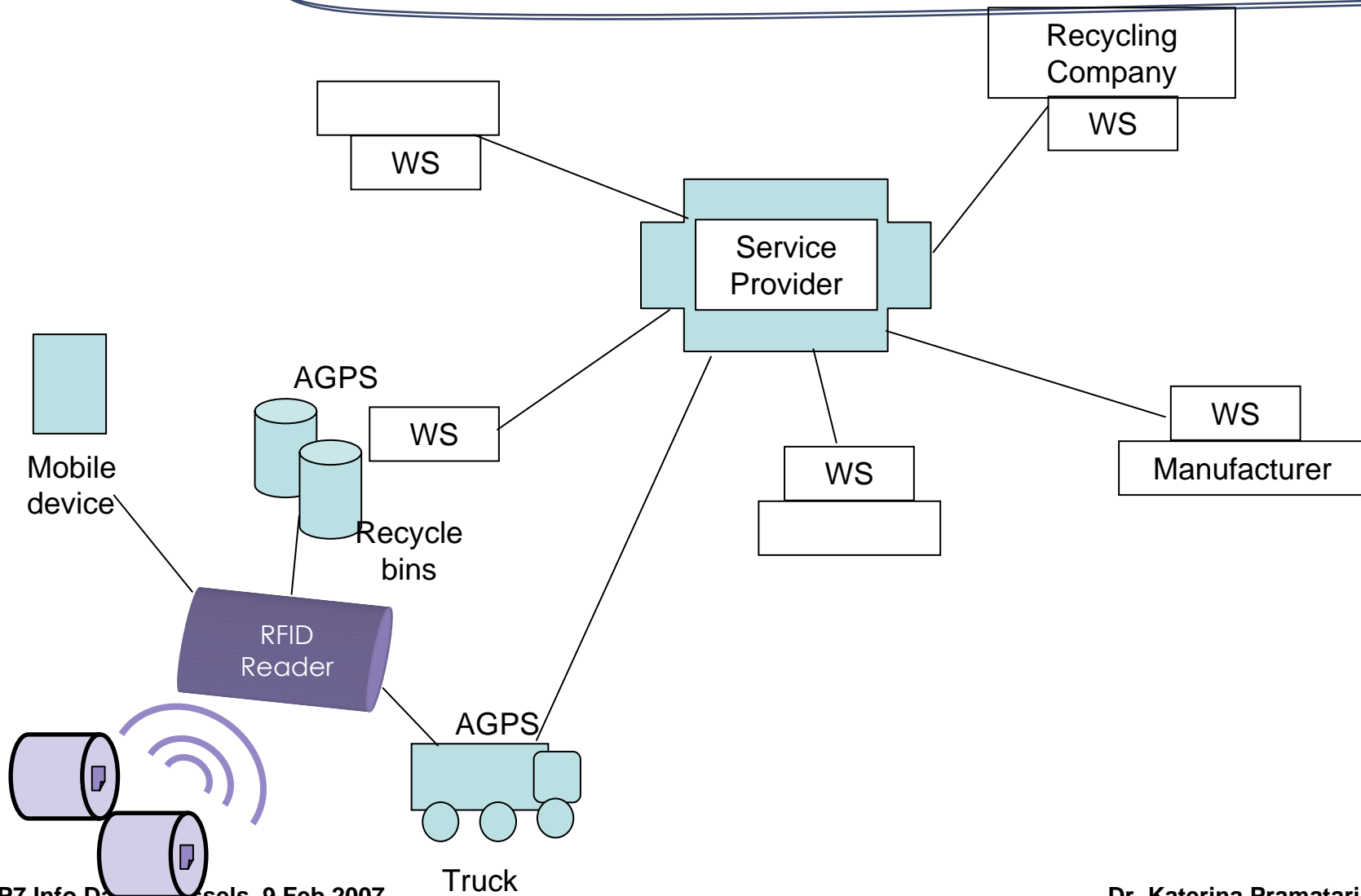


Incentives

- **Manufacturer**
 - Cost (Reusable assets, RFID tags)
 - Corporate social responsibility (CSR)
- **Recycling company**
 - New revenue stream
- **Consumer**
 - Promotion incentives (in combination with CSR)
 - Ethics

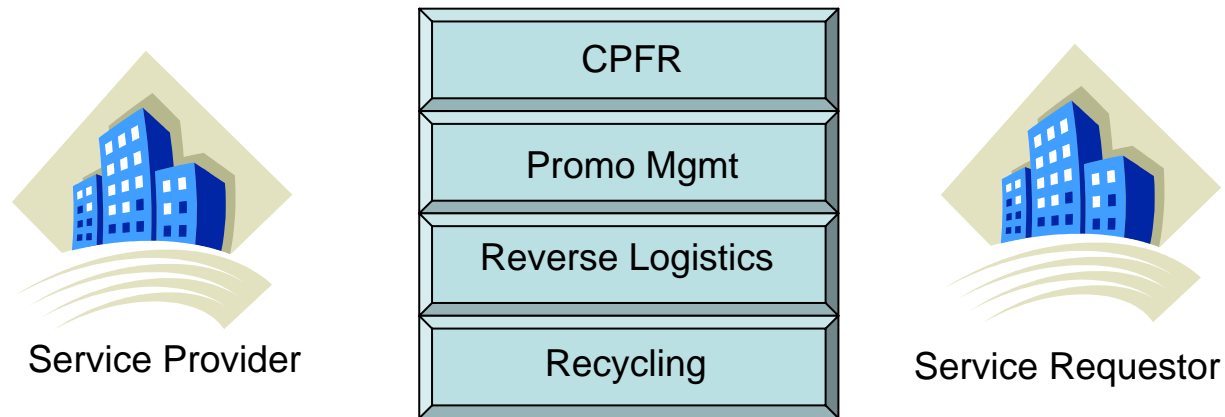


Dynamic Service Provision and Collaboration





Supply Chain Management Service Framework



Supply Chain Management Service Framework





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