

US EPA ARCHIVE DOCUMENT

Servicizing, Green Servicizing & the Sustainable Economy: an introduction

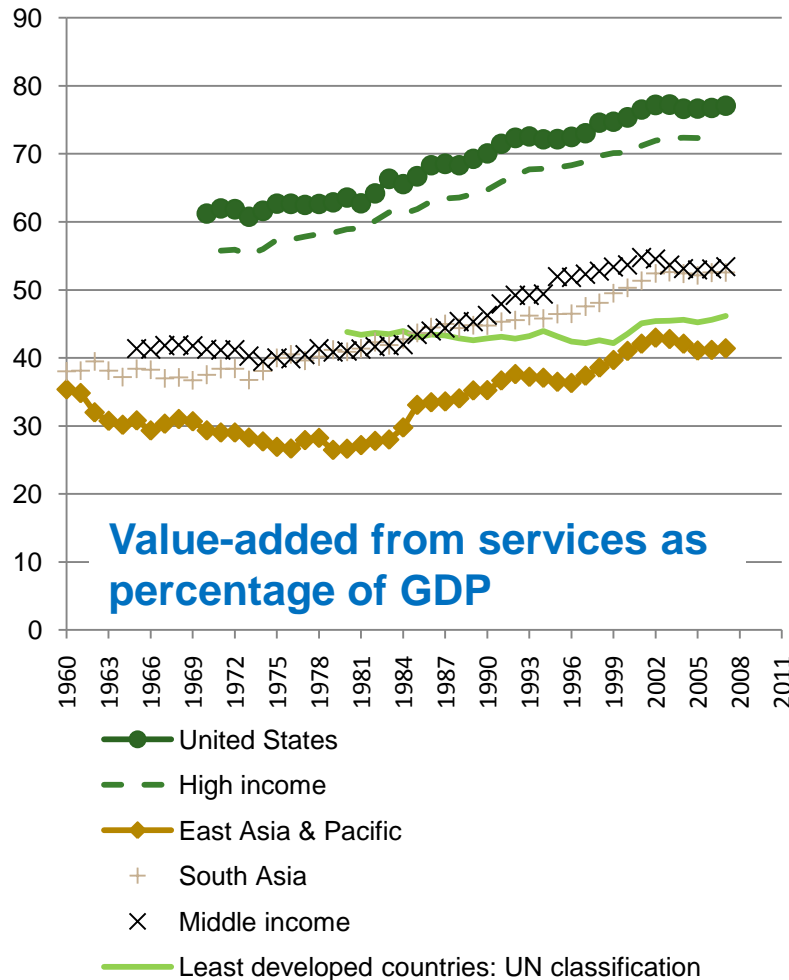
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A worldwide, US-led service transformation



And statistics understate the reality

Why?

Statistics divide the economy artificially into product & service sectors

In the real economy, value often created by a combination of product and service

Source: World Development Indicators

Business-as-usual:

Product-service bundles create value



+ WARRANTY



+ CALL & DATA SERVICE



+ DELIVERY

... But in the economy overall, **the service component of bundled offerings is growing**

SERVICIZING: pervasive & real

Meeting economic needs and wants in more service-intensive ways.

(also called Innovative product-service systems (Europe))

Third Party Logistics (3PL)



Car-Sharing



Chemical Management Services (CMS)



Energy Services Companies (ESCOs)



Mass Customization



IT "Lifecycle Solutions"



And on and on and on...

Why Servicizing?

Firms develop “servicized” offerings to:

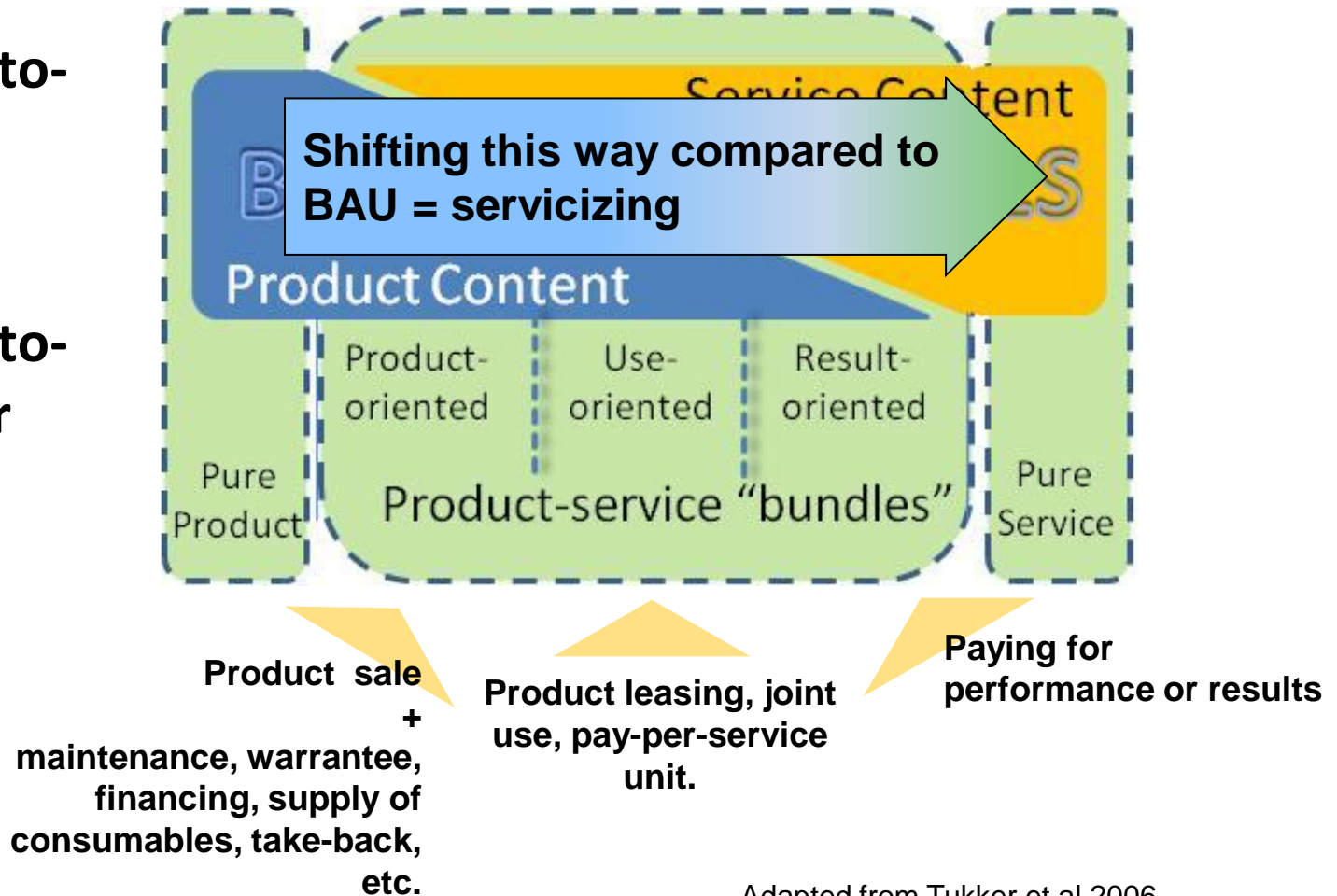
- Respond to market preferences for one-stop, integrated offerings.
- Capture more of the value-added associated with a product.
 - e.g. IT equipment sales + software + network & configuration services.
- Defend home markets against competition (services require local presence and knowledge).
- Among many other reasons. . .

SERVICIZING: many “flavors”

Both
business-to-
business

And

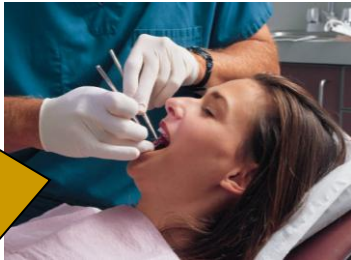
business-to-
consumer



Adapted from Tukker et al 2006

Servicizing: Challenges and opportunities for the sustainable economy

Issue:
“service-led economy” is not intrinsically green.



High dependency on the industrial economy.

IT services → IT hardware,

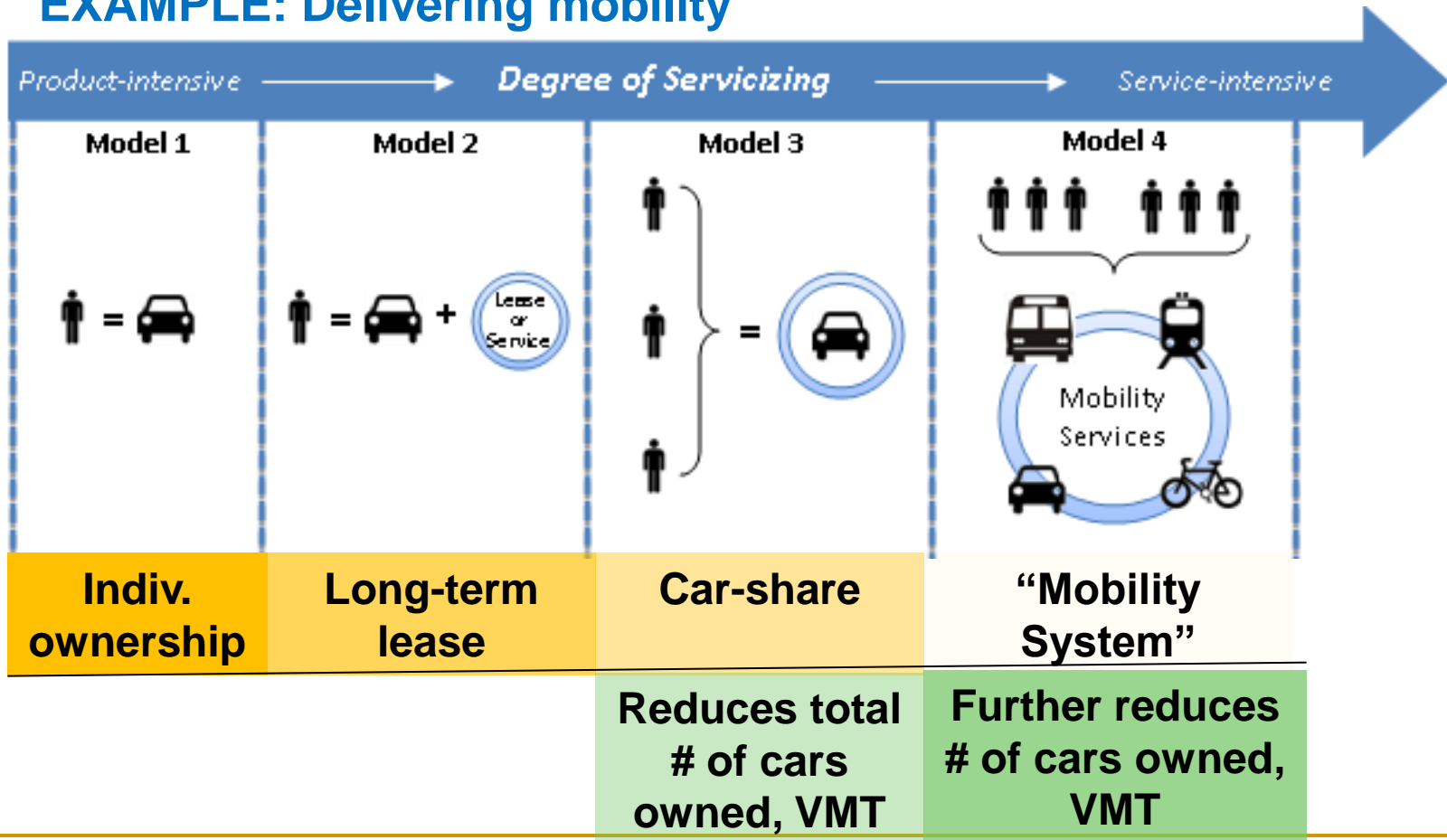
Trade → vehicles, fuel



Opportunity:
achieving a more “function-focused” economy

How can “functional sales” be green? (and why aren’t green products enough?)

EXAMPLE: Delivering mobility



International interest, research & experience

EU



Very significant research investment in innovative product-service systems (PSS) under FP5; PSS became a part of the “sustainable production and consumption” field under FP6



Major investment in ESCO promotion. Env. Ministry launched 3-yr CMS promotion project in cooperation with KCMA. Multi-year sustainable product services project; small pilots in CMS, car-sharing, etc. to date.



Concept research, government launch support for SME-based green services, promotion of ESCOs, 3PL, car-sharing

Green Servicizing: Real (US) examples. . .

Car Sharing

Provides short-term use of cars located in special reserved parking spaces distributed throughout a service area (e.g., an urban area or campus.)

Car-share members reduced VMT by 44% across several studies. Every US car-share vehicle "removes" between 6 and 23 vehicles from the road, depending on the study. 30% of US car-sharing vehicles are hybrids or powered by alternative fuels.

Chemical Management Services (CMS)

Certain chemical management activities (e.g., inventory management, application, collection, disposal) are outsourced to a CMS provider, who profits primarily from service provided and efficiencies achieved

Over 50% of CMS customers reported reductions in total chemicals use
Over 45% of CMS customers reported increased chemical reuse/recycling
Over 30% of CMS customers reported increased process efficiencies; approximately the same number reported beneficial chemical substitutions

Energy Services Companies (ESCOs)

Provide energy-efficiency services and assume performance risk—that is, their compensation and profits are tied to savings in energy costs actually obtained by the client.

Reduced energy consumption on the part of ESCO customers by 23%, or 47 kWh/m²/yr;

A small percentage of ESCO projects also reduce water consumption

Is all servicizing green?

“Green” =
Lifecycle
environmental
performance
that is clearly &
significantly
superior to the
BAU way of
satisfying a
customer’s
need.

NO.

**But when servicizing sells function
or efficiency, it is almost always greener.**

What makes servicizing green?

Hard to generalize.

For functional procurement/efficiency services models, some rules of thumb.

CMS, ESCOs, 3PL, RM contracting

Contract structured so eco-efficiency gains = profit

Sufficient scope of services

Sufficient scale of customer operations

Sufficient provider capacity

Deliberate decision to use green products and suppliers

The bottom line

1. Servicizing is real.
2. Green servicizing is real
3. Green servicizing (+ Green Products) can significantly improve the eco-efficiency of the US economy. . . **and its overall competitiveness**



But policy support likely needed to fully achieve this potential

Why Policy Support?

(fiscal instruments, information, convening agent, direct procurement and (maybe) regulation.)

- We don't fully understand servicizing market drivers, barriers, and "determinants" of greenness. . . .
- But for many servicizing business models, we know:
 - Some key drivers of market adoption are weak
 - Some barriers are significant
 - Greener and less-green variants exist. . . and individual firms have limited capacity to address these issues

Towards achieving green servicizing's potential: key questions/information needs:



- Drivers, Barriers, Determinants?
- Performance and benefits – economic and environmental, providers and customers
- Potential supporting actions:
 - Providers
 - Customers
 - Government
- Common answers within classes of servicizing models? for green servicizing generally?

More information. . .

“Green Servicizing” for a More Sustainable US Economy:

Key concepts, tools and analyses to inform policy engagement



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Thank-you.

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