

I percorsi di *Servitizzazione* delle aziende manifatturiere: Strategie, modelli di business e tecnologie abilitanti



Sergio Cavalieri



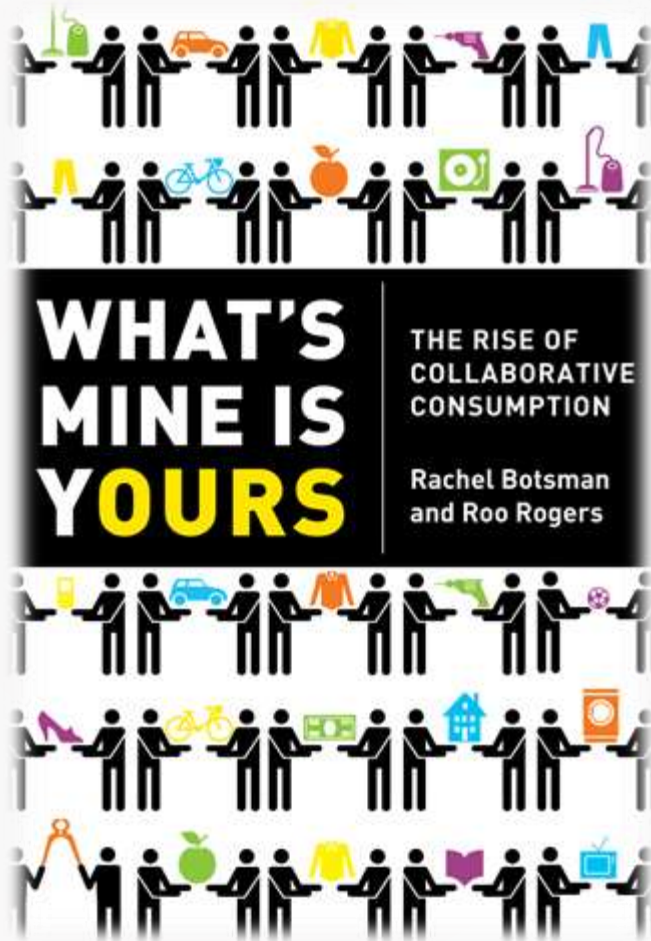
**Milano,
15 Febbraio 2017**

CELS – Research Group on Industrial Engineering, Logistics
and Service Operations - Università degli Studi di Bergamo

Sharing Economy



Trend socio-economici



Prosumership

Credit Crunch



Europe's credit crunch
Mend the money machine

The woes of small businesses in Italy and Spain threaten to be the next twist in the euro saga

July 4th 2013 | From the print edition

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MONEY, John Stuart Mill said, is just a machine: a tool for doing things, like exchanging goods, that take longer without it. Milton Friedman upped the ante: "Because it is so pervasive, when it gets out of order, it throws a monkey wrench into the operation of all other machines." In Europe things are even worse. The money machine is so badly out of order it may drive the economies of Italy and Spain into a depression.

To understand the scale of the problem, look first at the importance of small businesses in the euro area. Half of America's jobs are in small and medium-sized firms (SMEs). In Europe such firms play a far bigger role. In France SMEs employ 60% of workers, in Spain the figure is 67%—and

Interest rates on new business loans



HBR.ORG

Harvard Business Review

NOVEMBER 2014
REPRINT R1411C

SPOTLIGHT ON MANAGING THE INTERNET OF THINGS

How Smart, Connected Products Are Transforming Competition

by Michael E. Porter and James E. Heppelmann



TRATTORE

*Le spinte
tecnologiche*

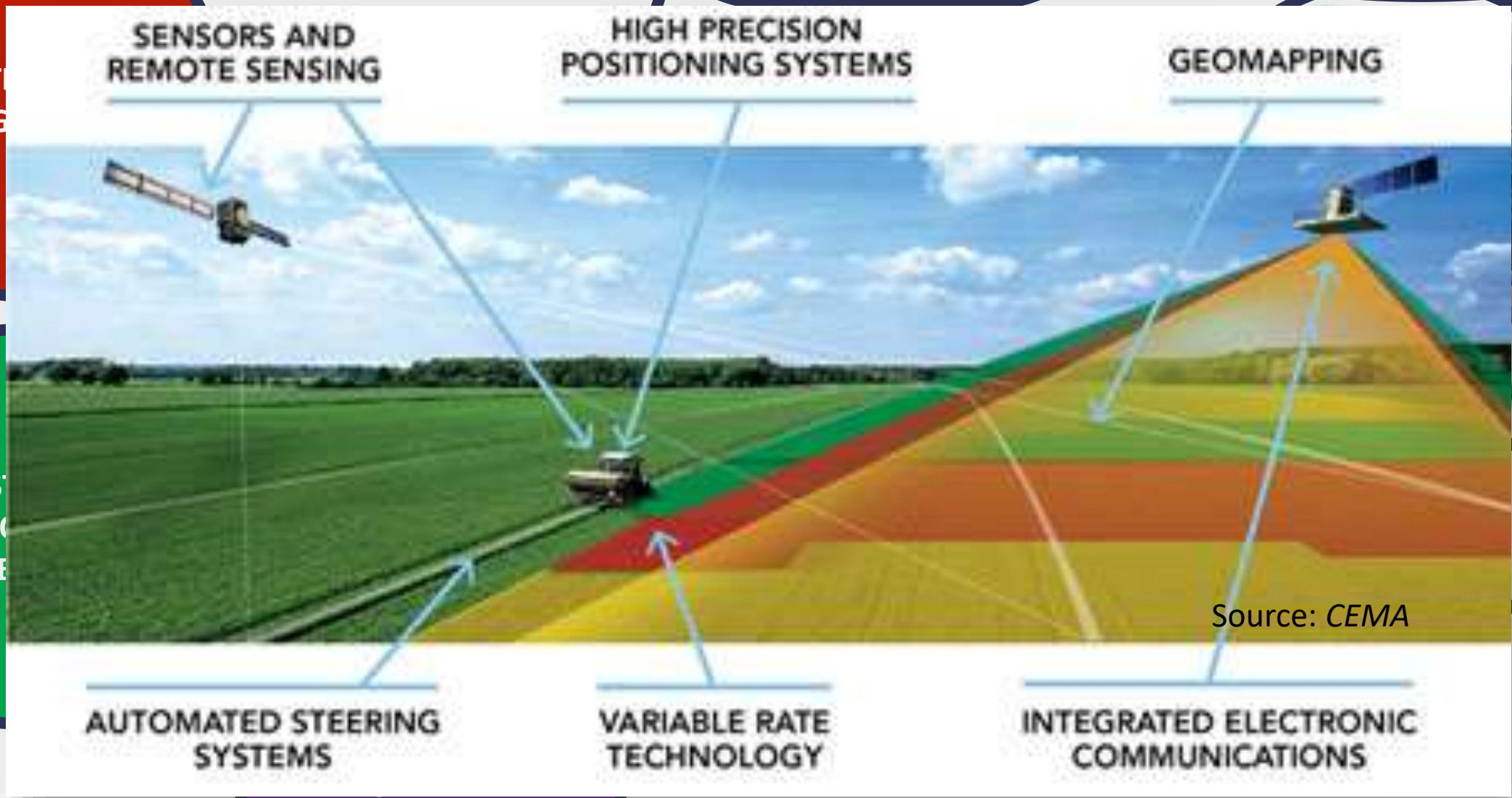
PRODUCT

SIST
IRRIG

SIS
MONIT
ME

FIORIERA

TRATTORE



Source: CEMA

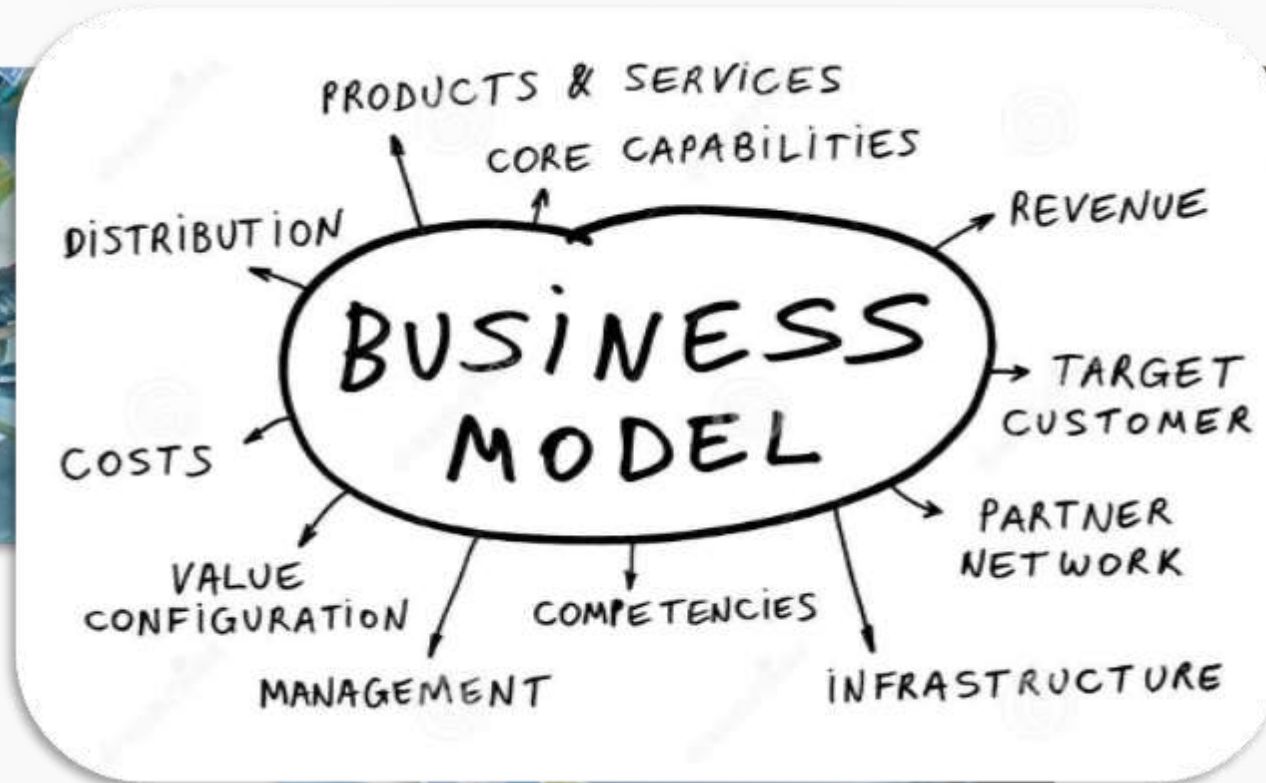
**SYSTEM
OF SYSTEMS**

Source: Porter & Hapelman (HBR – 2014)

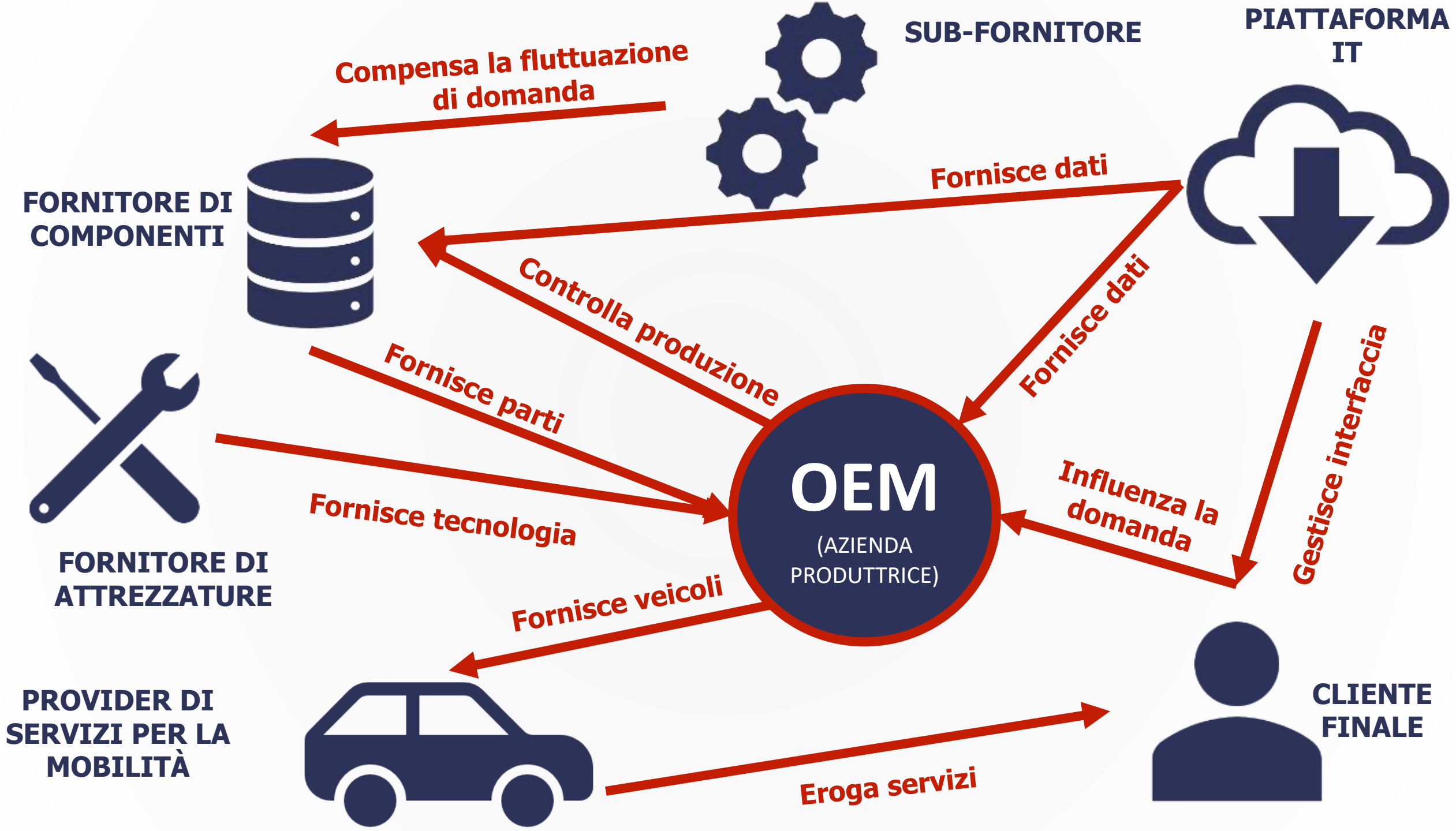
Da cliente a partner commerciale



Visione di sistema



Da catena di fornitura
a ecosistema



The customer's journey

Service Lifecycle Management

Acquisto



Consegna



Utilizzo



Modifiche

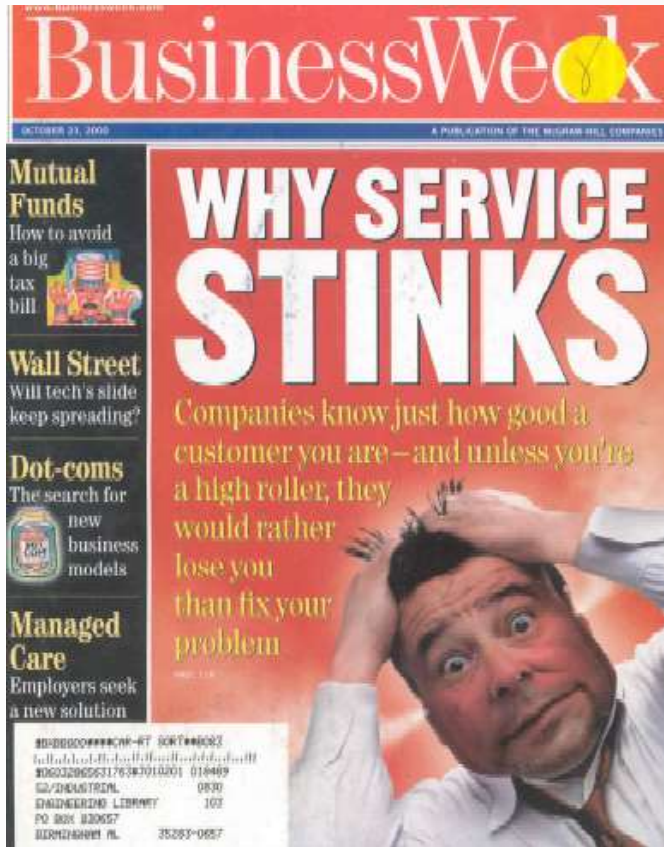


Manutenzione



Rottamazione





**Progettazione
del servizio**

Appetibilità
(i clienti lo vogliono?)

**Sviluppo
nuovi servizi**

**Service
Operations**

Applicabilità
(dovremmo farlo?)

Fattibilità
(possiamo farlo?)

Il ruolo dell'Ingegneria del Servizio

“If we designed cars the way we seem to design services, they would probably come with one axle and five wheels”

[Behara and Chase, 1993]



Sviluppa la parte tangibile



“something methodologically and systematically approached”



Adotta processi intuitive e metodi per sviluppare la parte intangibile

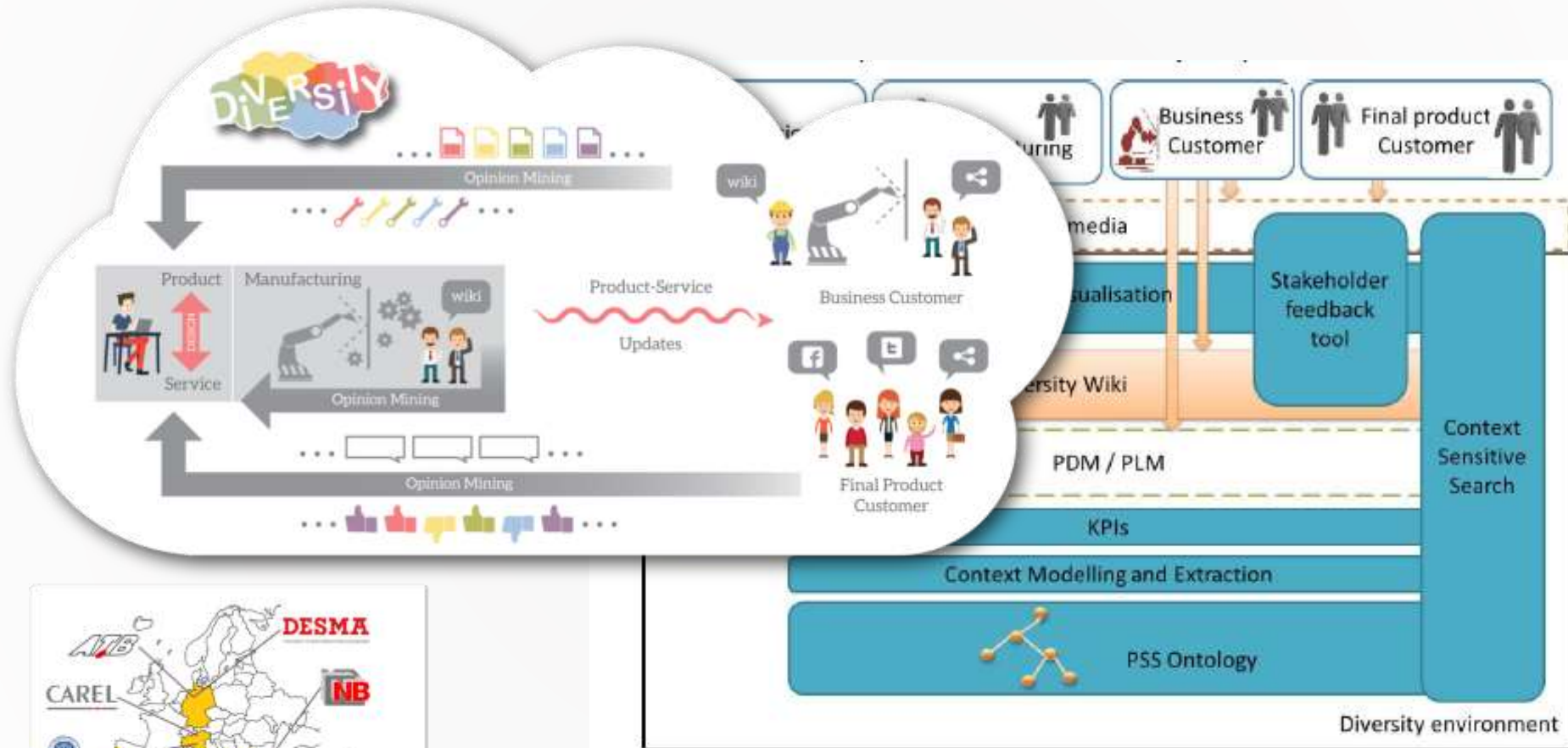


“something rudimentally developed”

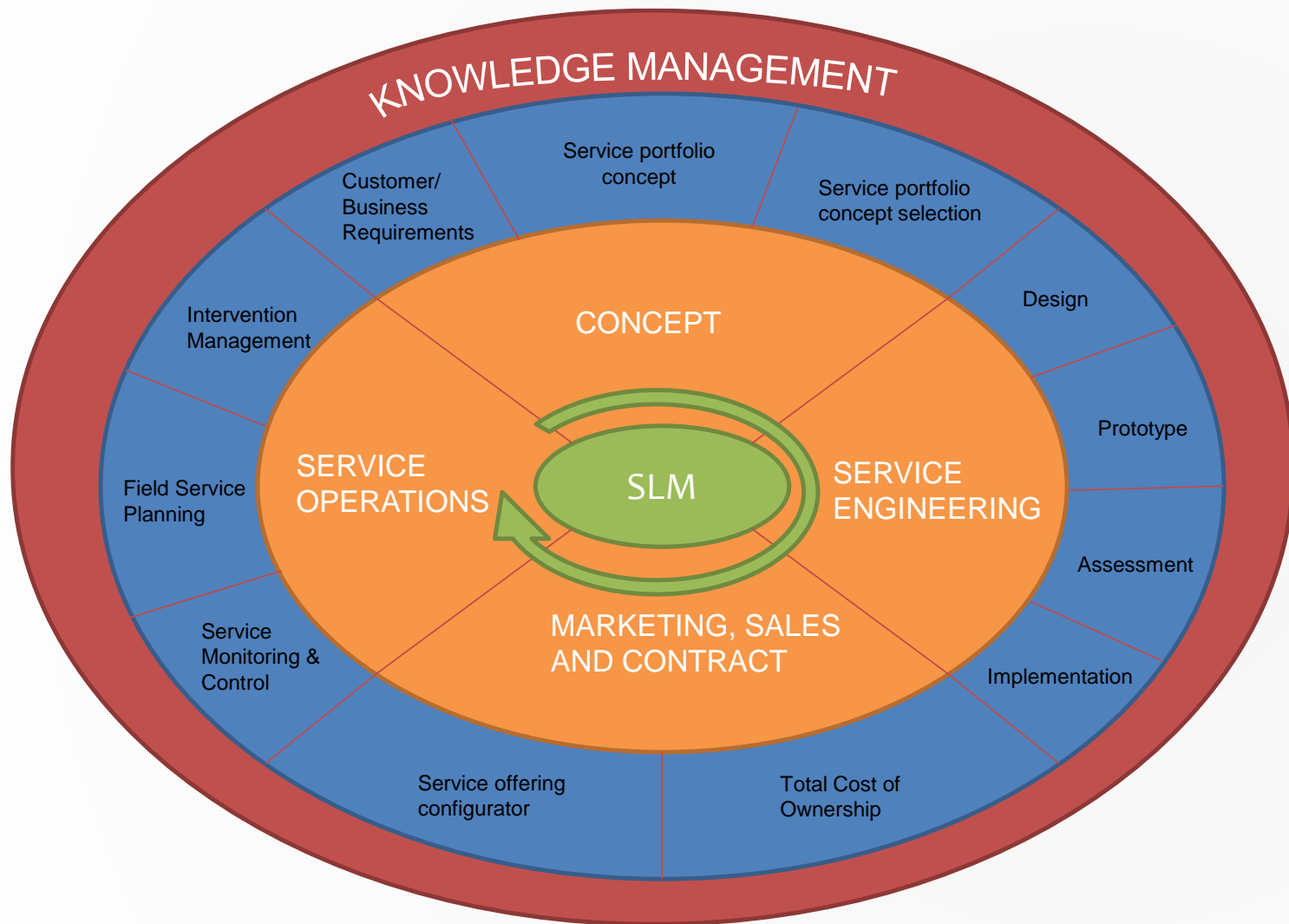


Il valore ottenuto non è ottimale

Piattaforme collaborative *cloud-based* di Service Engineering



DIVERSITY - Cloud Manufacturing and Social Software Based Context Sensitive Product-Service Engineering Environment for Globally Distributed Enterprise



Verso una Suite per il
Solution Lifecycle
Management (SLM)

Nuove competenze

IERI



OGGI



Le sfide



Superare una visione tecnocratica



CSO/CSE con medesime responsabilità
e poteri decisionali degli altri CXO



Programmi formativi in area service
management

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*Grazie
dell'attenzione*