



The Radical Shift: From Industry to Ecosystem

A New Paradigm for
Innovation-driven Global Markets



Abstract

An increasing problematic of the present economic structure is the thinking in terms of industries. As research has shown, industrial structures are dissolving and together with this dissolution theoretical frameworks developed during the era of the physical place become rapidly irrelevant in times of a dominant shift towards the virtual space. The new conceptual approach differentiates between dependent interactions of products, infrastructure and the ecosystem. This concept gains importance, if the present turbulences on markets and those within national economies want to be understood.

The 'Gang of Four' (Amazon, Apple, Facebook and Google) is continuously outperforming traditional enterprises, since they do not think in terms of outdated cost leadership or differentiation strategies anymore. Path-dependent organisational thinking creates problems in a world, which shifts towards keystone, niche and dominator strategies being based on platform innovation of the Internet. These developments require cross-functional research in which, e.g., biology is an important contributor towards the economic understanding of an ecosystem for which a precise definition is still missing.

This paper introduces to ongoing research which presently analyses and processes case-specific data, whose objective it is to lead towards a more precise understanding of the economic ecosystem.

Keywords: Ecosystem, platform innovation, keystone, niche and dominator strategies, industrial renewal.

The Core Problematic

(cited in Walton et al. 2011)

- # ebooks are the single best-selling category in American publishing (AAP)
- # Amazon's Kindle e-book sales exceed hard covers (Financial Times 20.04.2011)
- # By the end of 2012 Google's Android OS will account for half of the world's smart phone market seriously impacting Nokia/Microsoft (Gartner Research)
- # In 10-15 years energy suppliers will be marginalised
- # Conventional heating/boiler systems will disappear
- # Physical disc sales will decline by \$4.6b until 2014; replaced by streaming/digital downloads (Oestreicher. 2012)
- # 3-D laser printers start impacting on manufacturing of plastic, wood and metal commodities

From Biological to Economic Ecosystem

(cited in Walton et al. 2011)

Biological environment

(Clapham cited in Campbell. 2008, Odum. 1971)

- All interacting organisms living in a particular area
- All nonliving physical components of the environment with which the organisms interact
- ... so that a flow of energy leads to clearly defined trophic structure and biodiversity and material cycles

Economic ecosystem (Moore. 1993)

- An economic community supported by a foundation of interacting organizations and individuals
- [which] produces goods and services of value to customers,
- who are themselves members of the ecosystem.
- Over time, members co-evolve their capabilities and roles, and tend to align themselves with the directions set by one or more central companies.

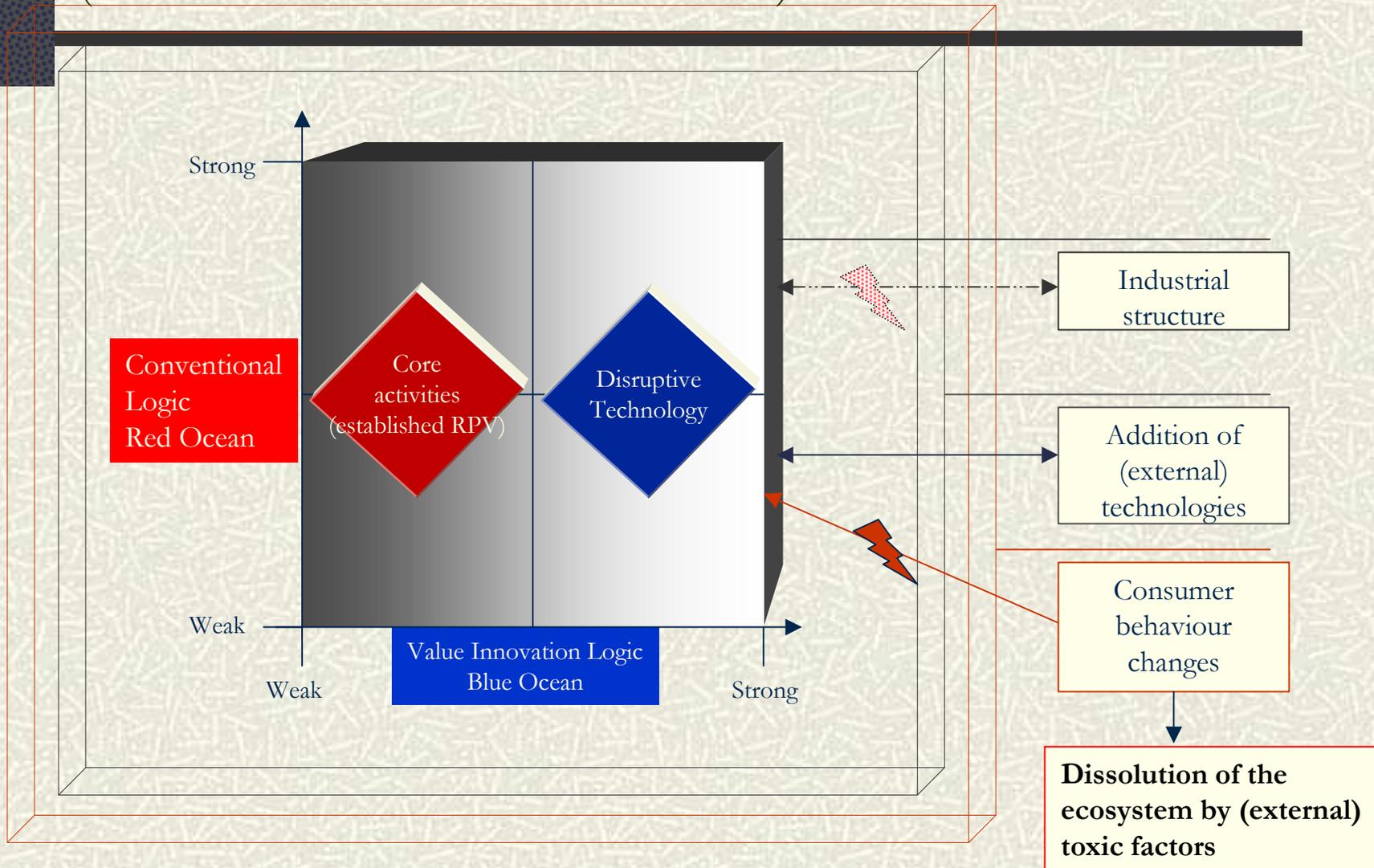
The Concept of the Internet-based Ecosystem

(cited in Walton et al. 2011)

- # Globalisation and the Internet [are] the equivalent to large scale climate change and – according to Moore’s theory – companies [are] now embedded within this [business] environment (Gruber. 2001, Oestreicher. 2012)
- # [e]volution on the Internet is no different from physical evolution but with vastly compressed life cycles and faster generic mutation (Dar. 1999)
- # ... Adomavicius et al. highlight the three-dimensional structure of product – infrastructure – ecosystem (2008)
 - But incumbent industries think in two dimensions: products and markets

Conventional Logic vs Value Innovation

(after Kim et al. cited in Oestreicher. 2012)



Product Failure & Segmentation Design

Consumer markets:

- Geography
- Demography
- Psychography
- Behaviour
- (Attitudinal)

Business markets:

- Demography
- Operating variables
- Purchasing approaches
- Situational factors
- Personal characteristics

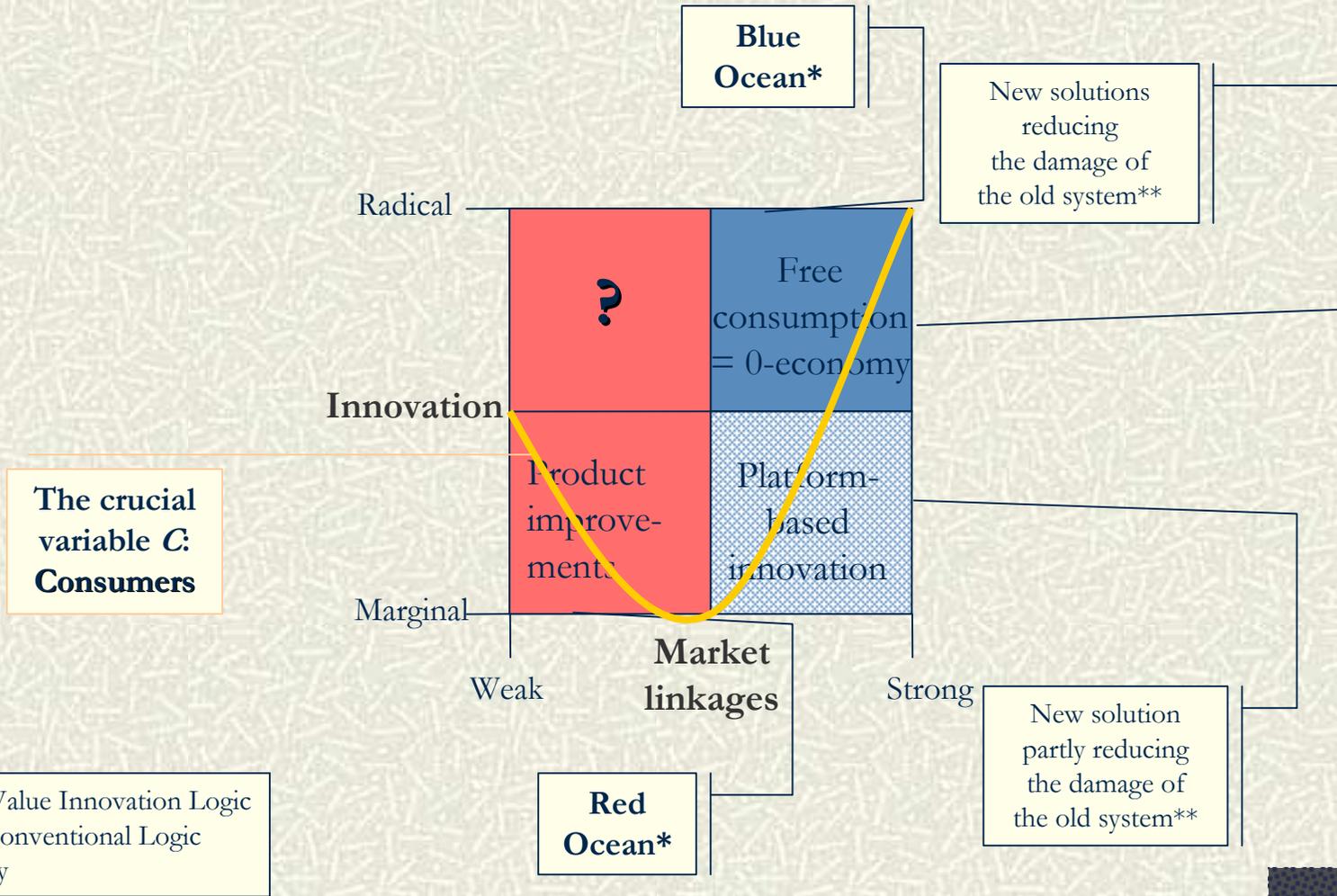
Reality(?):

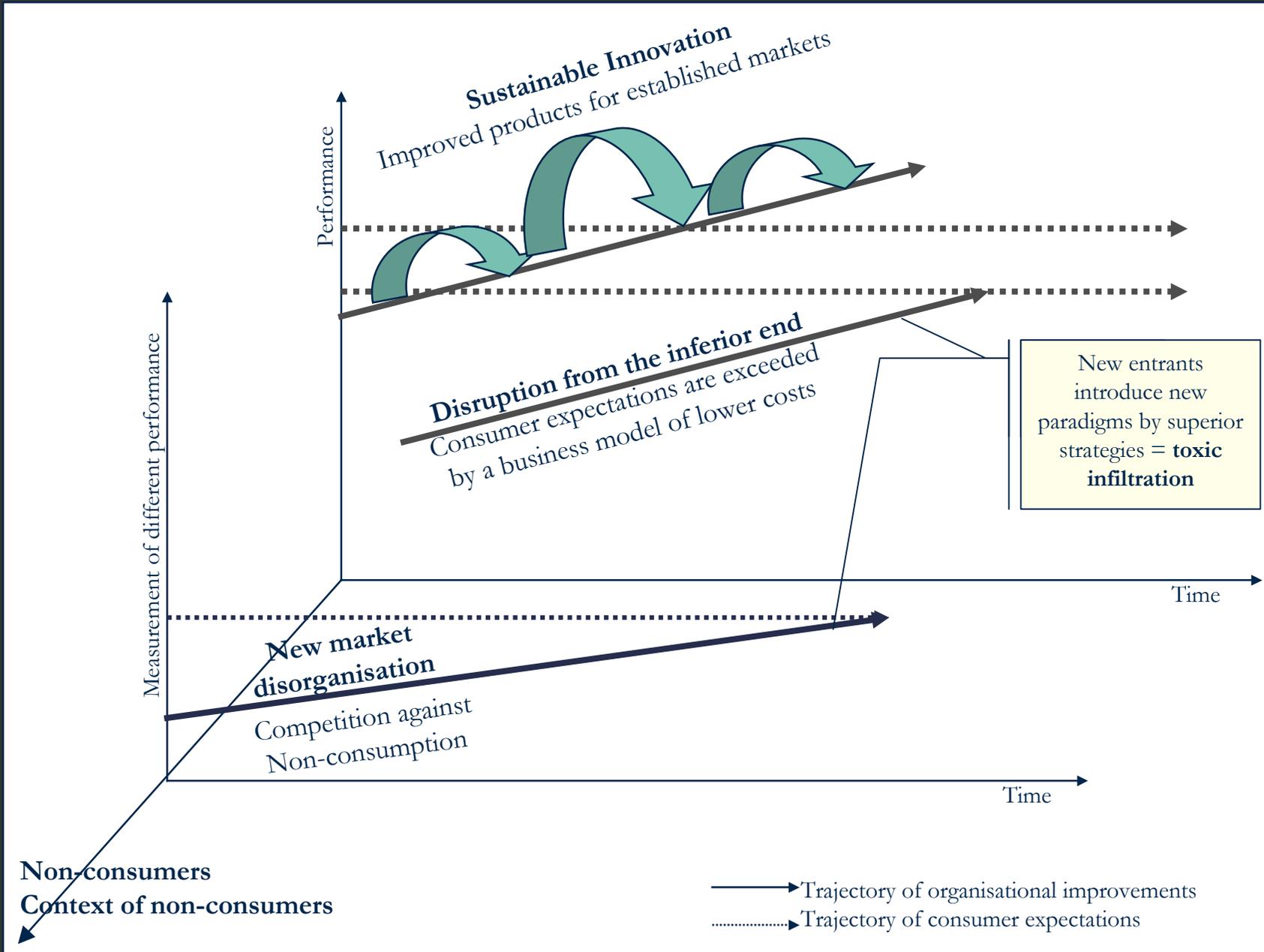
“... customers don’t know what they want. They never will.”

(Brown cited in Baker. 2007
cited in Oestreicher. 2010.)

(Wind et al. 1972, McDonald et al. 1995, Bonoma et al. 1983 cited in Walton et al. 2011)

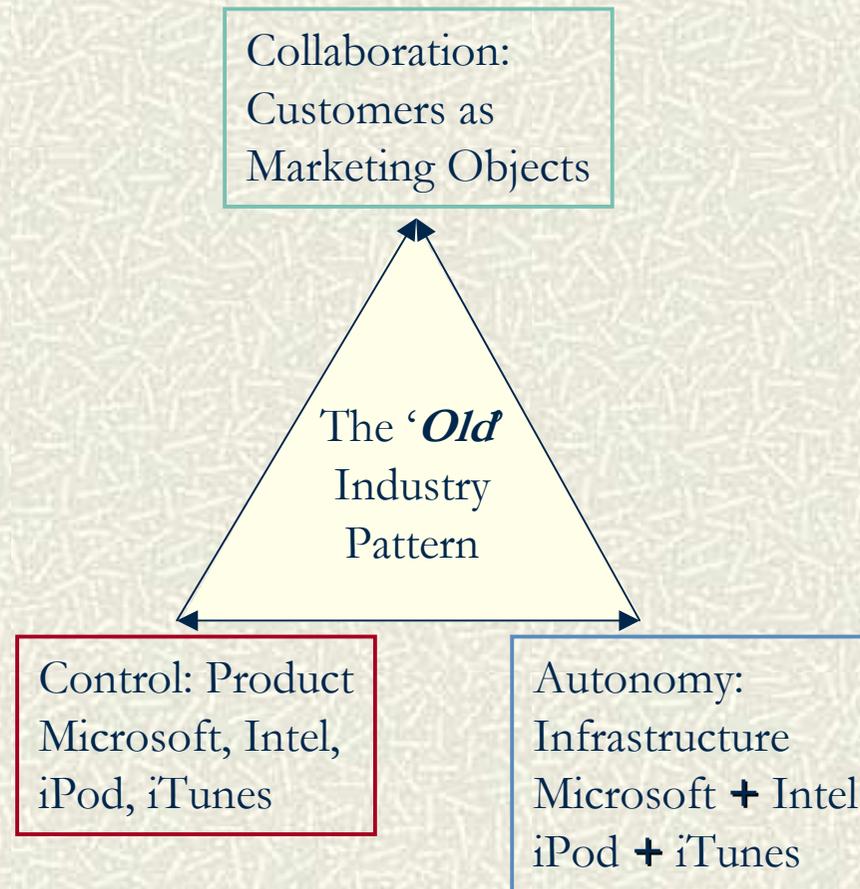
(Just) Angular Strategic Thinking



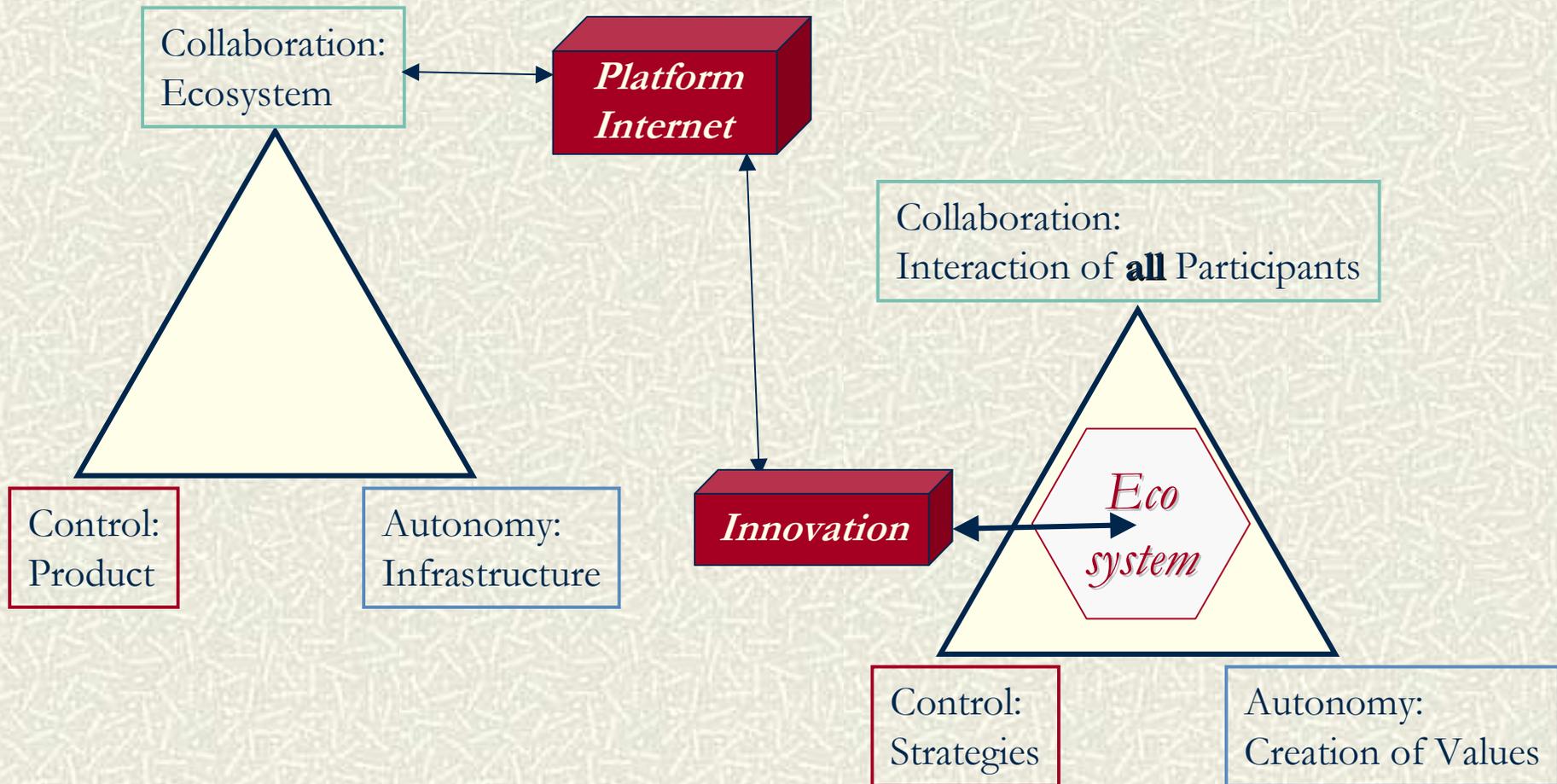


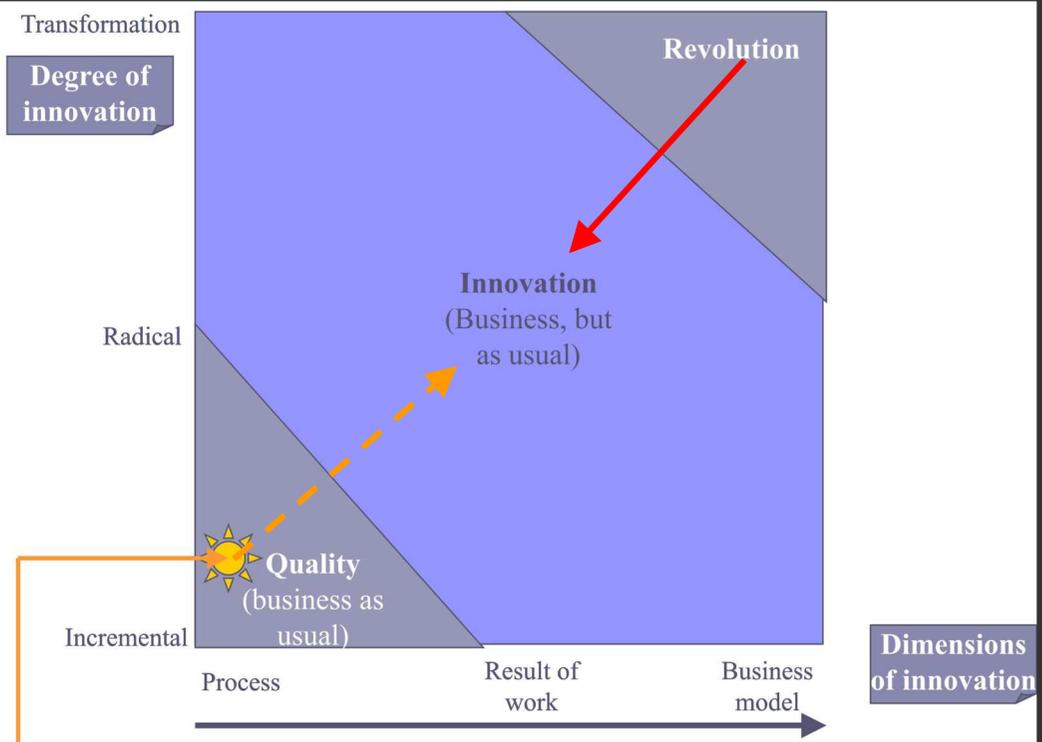
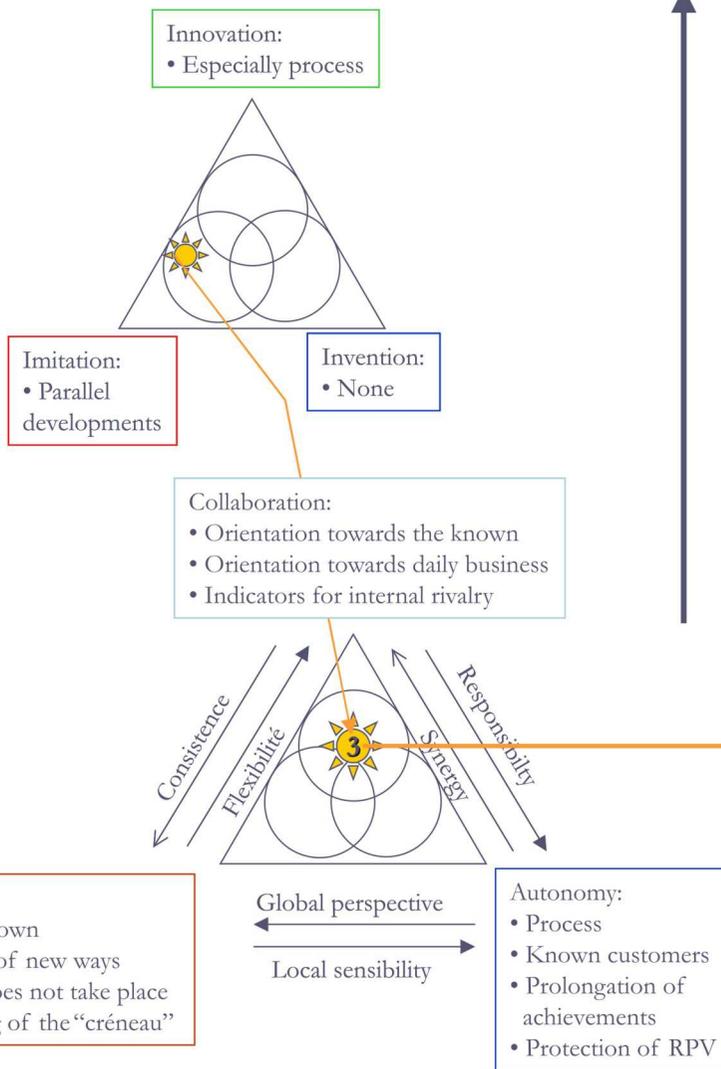
(after Christensen et al. 2004)

The Industry Paradigm



The Shift





(Oestreicher, 2012)

Conclusion

Persona: *Who are we?*

- An established industry

Puzzle: *What surprises us?*

- The dissolution of our *ecosystem*

Performance: *What do we measure?*

- Manufacturing by *established* resources, processes and values

Paradigm: *How do we compete?*

- By a double two-front war
 - Marginal **vs** radical innovation
 - New entrants with superior strategies **vs** established RPV

Technology:

1. Physical place **vs** virtual space
2. Path-dependency **vs** disruptive technology

Market linkages:

1. Dissolution of the ecosystem
2. New entrants' and consumer innovation

Control = lost

Autonomy = shift of power

Collaboration = discontinuous

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