

# ERA Convention 2010

*“New Opportunities for Rental”*

## SUSTAINABLE GROWTH

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## Presentation summary

- **Context**
  - **Evolution** of the economic models since 1950
  - **Functional economy** as a response to growth and sustainability objectives (success stories, examples)
  - **Challenges and opportunities** for rental firms
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## The context for a sustainable growth

**Structural crisis** (including financial crisis, environmental crisis, resources crisis) and transitions towards a greener growth

### Conditions for change:

- Responses to different crisis since 1950
- The impact of ITC on the demand evolution
- Increase in regulations for a sustainable development
- Globalization and “rebound effect”
- The role of the local dynamic in the value creation by companies
- Growth limits of the developed markets

The question is :

**How to adapt the firm’s strategy in this uncertain growth environment?**

## Changes towards a sustainable growth

**TIMING ANALYSIS of the change** in firms' strategies towards a compatibility with a sustainable development

**The considered dimensions of change:**

- \* **Economic models**
- \* **Innovation strategies**
- \* **Regulations and institutional forms**
- \* **Role of the client and other stakeholders in the value creation**

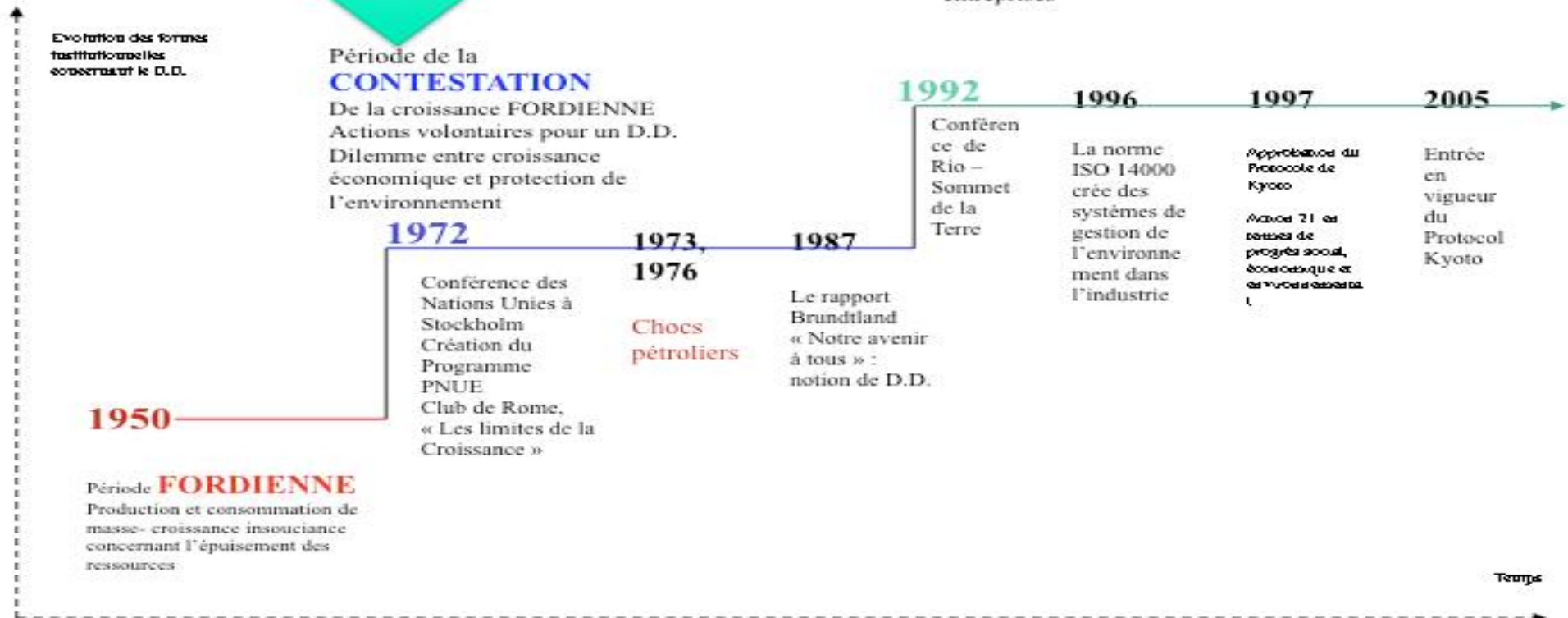


# Périodisation

Stratégies des entreprises face aux enjeux du développement durable et la place du territoire dans le processus productif

Période de recherche d'un **NOUVEAU MODELE ECONOMIQUE** pour un **DEVELOPPEMENT DURABLE**

Multiplication des réglementations et systèmes d'évaluation  
Nouveaux dispositifs institutionnels / Intégration des externalités dans le processus de croissance économique / Nouveaux leviers d'évaluation de la performance des entreprises



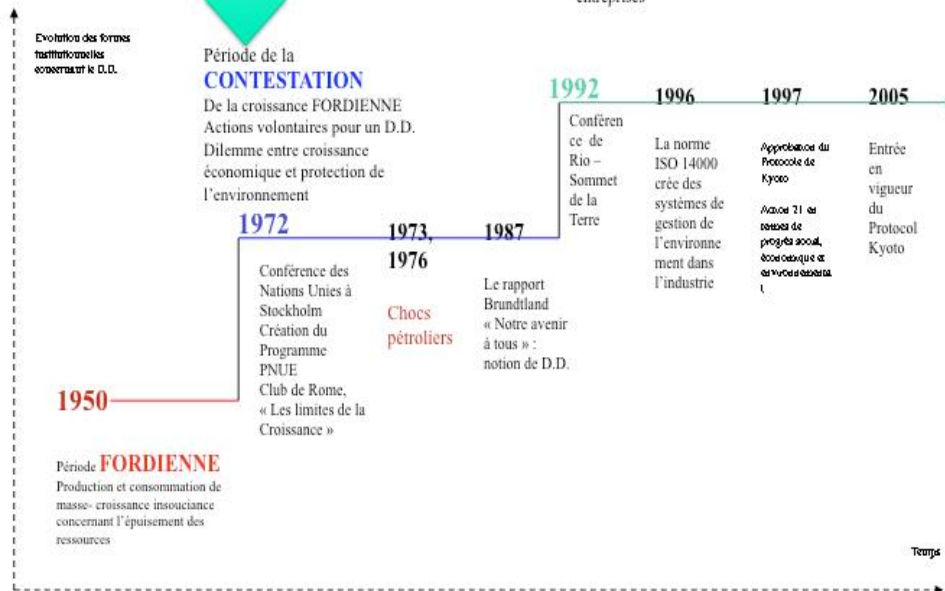
# IGNORANCE period : 50's through 60's



## Périodisation

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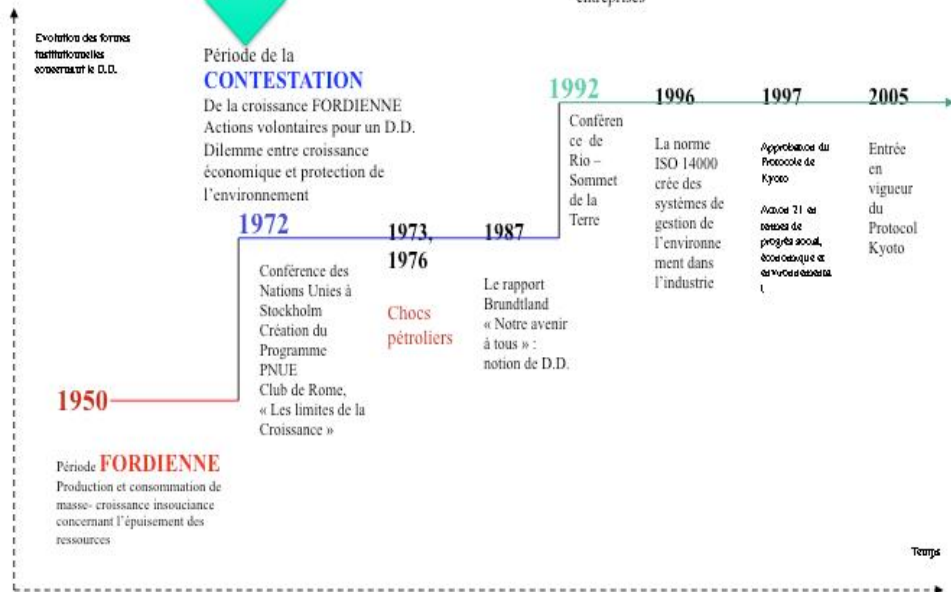
- **Fords' economic** model based on mass production and consumption
- **The PRODUCT** is the center of profit
- **Evaluation of material growth**
- Standardization of **work methods** (Taylor)
- **Technological innovation strategies**
- **No regulations** for protecting environment and the social values
- **The value creation** is based on **commercial transactions with the clients.**
- **Material resources use**



# CONTRADICTION period : 70's through 80's

## Périodisation

Stratégies des entreprises face aux enjeux du développement durable et la place du territoire dans le processus productif



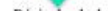
- **Services economy is developed on the basis of** « service relation » and on externalization of social and environment issues (outsourcing)
- **PRODUCT and SERVICES are considered separate** centers of profit.
- **Evaluation of material and services growth**
- **Co-production** of the service with a client in tertiary sectors
- **Product and services innovation strategies, both incremental and radical technological innovations** (to respond to energy crisis, for example)
- **Regulations** protecting environment and social values are perceived as barriers for **local** economic growth

# CONCERTATION period : starting from 1990

## Périodisation

Stratégies des entreprises face aux enjeux du développement durable et la place du territoire dans le processus productif

Evolution des formes institutionnelles concernant le D.D.



Période de la **CONTESTATION**  
De la croissance FORDIENNE  
Actions volontaires pour un D.D.  
Dilemme entre croissance économique et protection de l'environnement

1972

Conférence des Nations Unies à Stockholm  
Création du Programme PNUÉ  
Club de Rome, « Les limites de la Croissance »

1950

Période **FORDIENNE**  
Production et consommation de masse - croissance insouciante concernant l'épuisement des ressources

1973, 1976  
**Chocs pétroliers**

1987  
Le rapport Brundtland « Notre avenir à tous » : notion de D.D.

1992

Conférence de Rio - Sommet de la Terre

1996

La norme ISO 14000 crée des systèmes de gestion de l'environnement dans l'industrie

1997

Approbation du Protocole de Kyoto  
Accord 21 sur l'ensemble de progrès social, économique et environnemental

2005

Entrée en vigueur du Protocole Kyoto

Temps



Période de recherche d'un **NOUVEAU MODELE ECONOMIQUE** pour un **DEVELOPPEMENT DURABLE**  
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- Functional economy developed on the basis of the « use value »
- The « functional units » are sold based on solutions including integrated products and service, Product Service System (PSS)
- Cooperation relations with the client and the stakeholders (co-production, co-conception, co-evaluation in all sectors)
- Regulations protecting environment and social values should be compatibles with a economic growth and vice –versa.
- The value creation is based on cooperation relations and sales of « performance » to respond to client needs.
- The local economic actors contribute to the firm's value creation thanks to functional approaches: mobility, energetic comfort, etc.



## Functionnal Economy Definition

*The functional economy implies the replacement of the sale of a product with the sale of its usage, its function. The ownership and the maintenance of the products supporting this sold service stays with the provider. (Dominique Bourg, Lausanne, 2009)*

« A functional economy is one that optimizes the use (or function) of goods and services and thus the management of existing wealth (goods, knowledge, and nature). The economic objective of the functional economy is to create the highest possible use value for the longest possible time while consuming as few material resources and energy as possible. This functional economy is therefore considerably more sustainable, or dematerialized, than the present economy, which is focused on production and related material flows as its principal means to create wealth. » (1986, Stahel, W. and Giarini, O. « 'Hidden innovation' in: Science & Public Policy, London, vol 13 no 4, The hidden wealth)

## Functional economy' terminology

**Service economy** (Stahel & Giarini, 1989) : “selling services rather than products”

**Eco-efficient services** (Meijkamp, 1994, European research project):

“All sorts of commercial offers aiming at meeting customers' needs by selling the the use of product rather than just providing the product”

**Servicizing phenomenon**” (U.S. Environmental Protection Agency, White, Stoughton and Feng, 1999) : “extension of the producers responsibilities”

**PSS** (Goedkoop, 1999; Hockets, 1999; Manzini & Vezzoli, 2002 – United Nation Environment Programme):  
“a marketable set of products and services capable of jointly fulfilling a user's need”

# Product Service System (PSS)

## Product

**oriented PSS :** Services providing added value to the product sold while consumer keeps the ownership: financing, insuring, maintenance, repair, training

## Use

**oriented PSS :** Services providing “enabling platforms”: access to tools that will allow the customer to obtain the desired result like ready-to-use workplace, laundry services, car sharing. Sharing goods and tools can reduce manufactured products while meeting the needs of a given population

## Result

**oriented PSS :** Integrated solution (a mix of integrated services) that implies that the supplier bears the ownership and sells a result : “AMG solar heat service” providing hot water

→  
Servicizing

→  
Functional sales

→  
Traditional  
selling

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# Functional Economy: value creation and sustainability

## Value creation

**SALE of the FUNCTION (use) and not of the PRODUCT/EQUIPMENT**  
**PROPERTY stays with the SELLER**, is not transferred to the client  
**BETTER CLIENT RELATION** capitalization on client's satisfaction and trust

## Sustainability

**NEW ADDED VALUE is sold** (solutions to respond to functional needs of the client)  
**DISTINCT PROFIT** from sale of product, intensification of use and reduction of solid waste  
**PRODUCTION of BEST PRODUCTS** to reach the best use/life cycle (including re-use and recycle)  
**NETWORKS and FIELD SUPPORT** for maximizing the use of each product together with integrated services.

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## Functional Economy EXAMPLES: XEROX

### **Equipment leasing and rental services** with a payment by “copy unit”

- Eco-innovation of the equipment → reduced number of components which are
- 90% reproduced/repared
- 97% recycled (re-usage, renovation, recycling...)

### **Results between 1990 and 1999 :**

- 80% reduction of “end of cycle” equipments
  - 88% reduction of annual pollution emissions
  - Cost Reduction through operational improvements (in production, electronic storage, transport processes, etc.)
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# Functional Economy EXAMPLES: **Michelin**

## **MFS - Michelin Fleet Solution**

An integrated service proposed to large fleets of transport vehicles, evaluated on km. Cost Unit

- For a fleet of 2520 vehicles, the number of tires used is 37200 instead of 41248
  - 5 to 6 % reduction of the fuel consumption (the case of the « Energy » and « X-One »)
  - 36% costs reduction through operational improvements
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## Functional Economy criteria

- The value creation is based on use (function) and not on the product
- The profit depends on the number of functional units of sold and delivered services (for example: driven distance in Km. and not tires)
- The product, as support for the function remains in the ownership of the supplier during the all life cycle of the product.
- The aim is both economical and environmental (without a legal constraint)
- Decoupling between the value creation and resource consumption
- The question is how to sell less material volume while creating the maximum of value

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## Trends and implications of the Functional Economy

- The change in the market approach for the respective products and services : the offer consists of contracted services rather than traditional sales
  - A radical change in the internal organization of the companies
  - The importance of the relation with other actors of the market
  - A different approach in innovation strategy towards a reduction in costs per functional units (with positive impact on material resource consumption) rather than following to maximize the products sales.
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## Challenges and opportunities for rental firms

« A company's first duty is to its shareholders. Other stakeholders come further down the line, be they employees, sub-contractors, clients or charitable organizations » **(FIEC, 2008, John Goodall)**

**Benefit** from other sector's growth in developing functional solutions to respond to a more complex demand

**Capitalize** on the positive effects of rental sectors and become pioneers of the functional economy model (with positives externalities)

**Contribute** to the consensus between stakeholders, as actors of **the local sustainable development**

## Conclusion

**Rental is sustainable**

from the point of view of the Functional Economy

**Rental is essential**

for the functional economy

**Capitalize**

**on YOUR company's potential  
for sustainable growth**

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  - Netherlands' Environment Ministry (Goedkoop, van Halen et al., 1999)
  - EPA USA (White, Stoughton et al., 1999)
  - Eco-efficient producer services (Zaring, Bartolomeo et al.) 1998-2001
  - MEPSS (PWC et al.) 2001-2004
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  - DEFRA Environmental Action Fund (Muckle et al.) 2005-2008
  - EMUDE & CCSL (Manzini et al.) 2005-...
  - Grenelle de l'Environnement (Bourg, Buclet, Du Tertre, Vaileanu Paun, Van Niel)
  - Bourg, D., Buclet, N, Van Niel, J., 2008, Groupe d'étude Economie de la Fonctionnalité, Grenelle de l'Environnement chantier nr. 31