



Sustainable Supply Chain Management in Theory and Practice

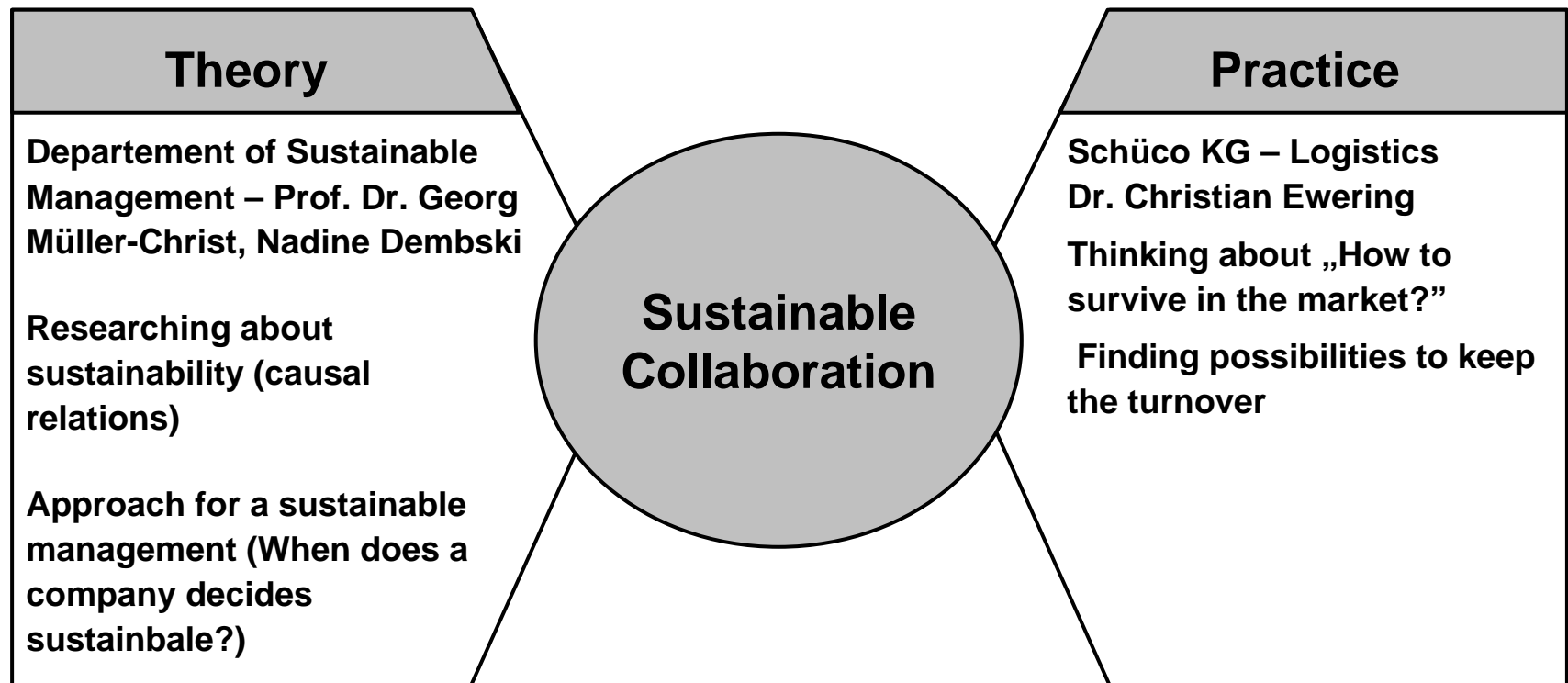
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Overview

- **Introduction and Motivation**
- **Theoretical Framework**
 - **Sustainable Management**
 - **Supply Chain Management**
- **Practical Framework**
 - **Schüco**
 - **Examples**
- **Conclusion**

Introduction



Motivation

Problem:

- **general considerations in logistics are based on the understanding of success which is primary oriented towards a short-term efficiency**

Aim:

- **show demands of strategic and organisational considerations and embedding into a rational long-term approach**

Proceeding:

- **sketch sustainable practical processes in supply chain management**

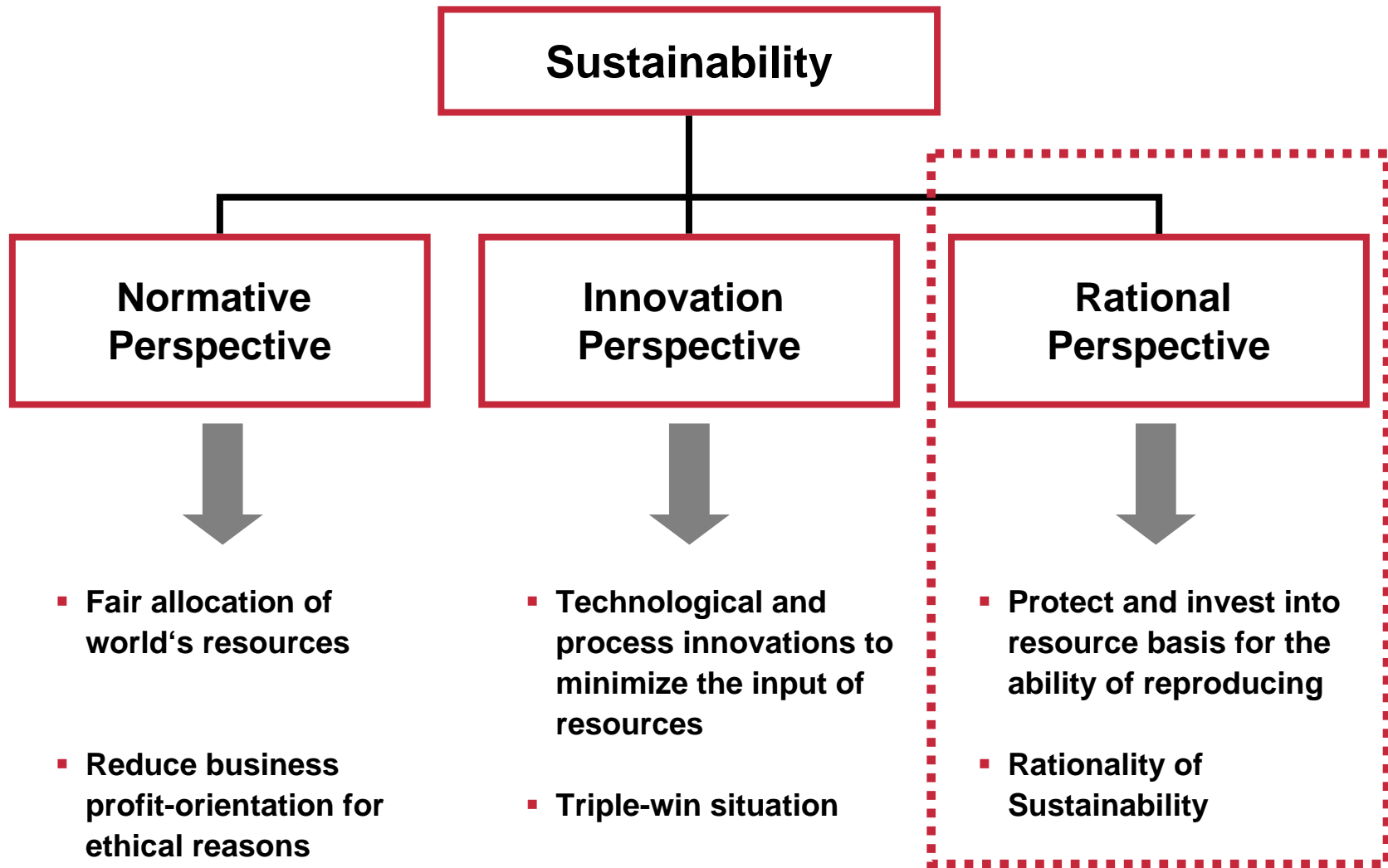
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Concept of Sustainability

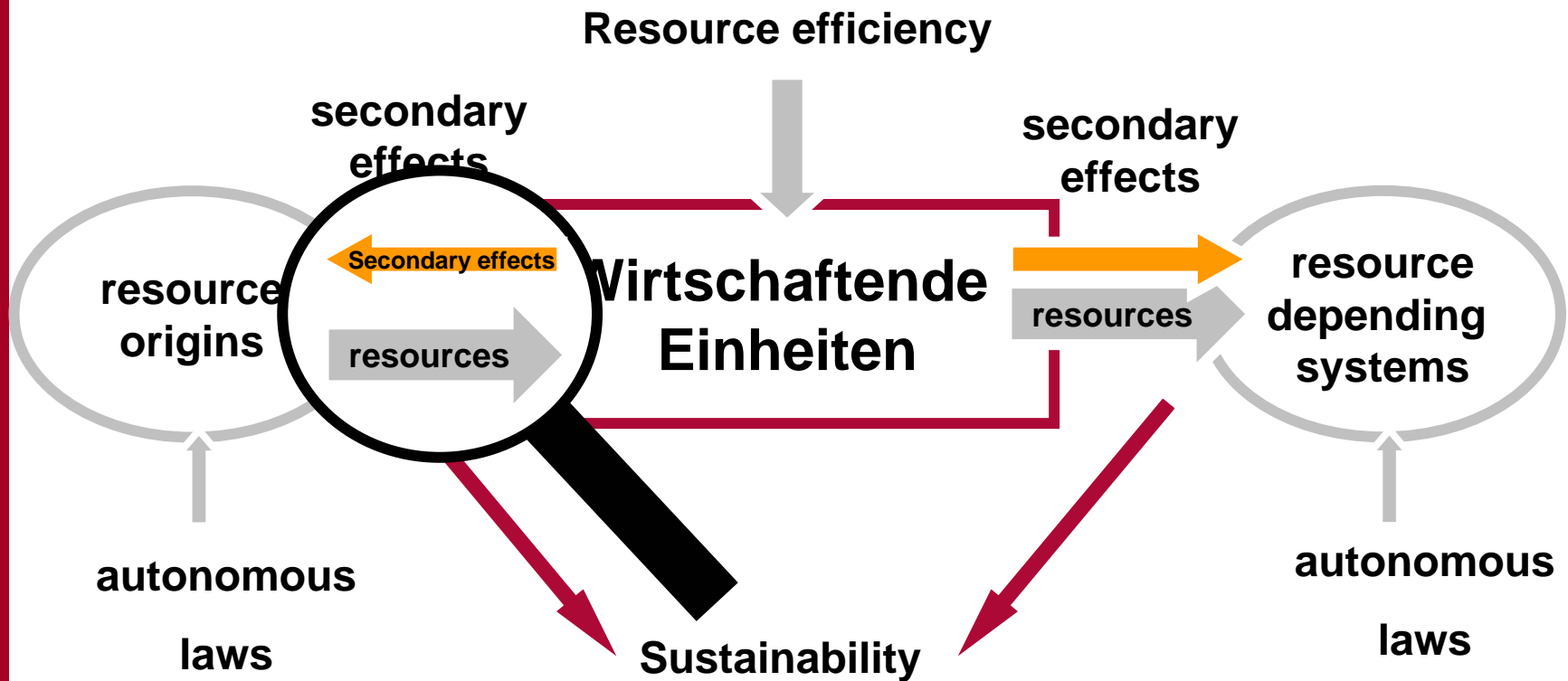
- **In the comprehension of the Brundtland Report, sustainability is about harmonizing economic, social and ecological aspects of global development, with the objective “to meet the need of the present without compromising the ability of future generations to meet their own needs.” (World Commission on Environment and Development 1987)**

Different Perspectives of Sustainability



Rational Perspective

- **From a resource-orientated point of view every economic organization depends on resources, which are usually required to fulfill the purposes and goals**
- **All open systems are resource dependent systems: They exchange resources with each other. Systems consequently take resources out of their basis and give those back to other system resources.**
- **Therefore every system depends upon other systems and as well is the (re-)source for other systems.**



Advantages of the Rational Approach

- **integrative consideration of economic, social and ecological resources,**
- **innovative solutions allowing a rebuilding of the economic substance**
- **understanding of the complex and circular interactions between companies and their resource networks, e.g. global supply chains**

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Who is Schüco?

Schüco develops and delivers systems for the complete hull of buildings:

- **Windows, Doors, Facades**
- **Solar Systems**
- **Sun Protection**
- **Fire Protection**
- **Security and Automation**
- **Environment protection**

Facts:

- **Countries** : > 80
- **Staff** : > 4.500
- **Sales** : > 1.600 T€

The Final Products



Aluminium-Systeme

Stahl-Systeme

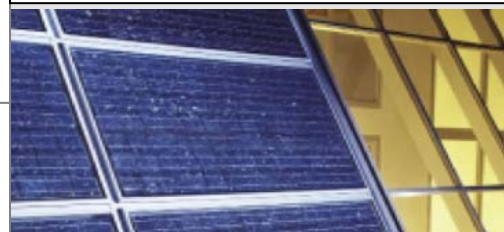
Kunststoff-Systeme



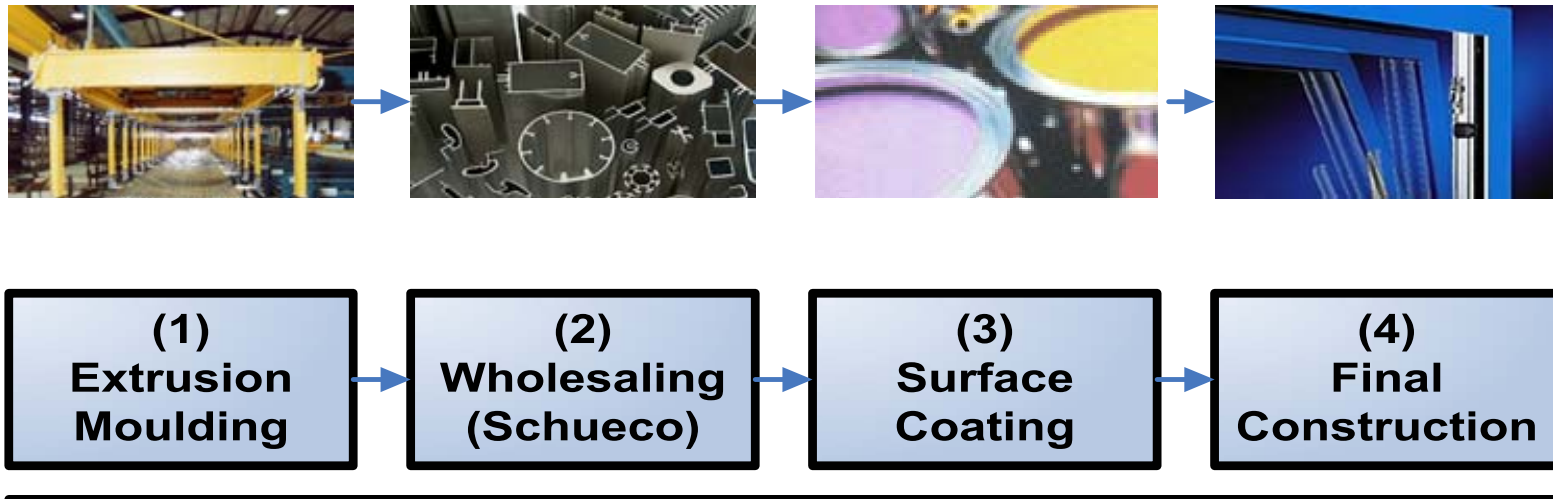
Bauelemente

Solar-Systeme

Schüco Design



The Business Process : Logistic



Sustainability and commercial organisations

Objectives : Make a Profit

Strategic Sourcing

- **Saving money**
- **Improving supplier performance**
- **Minimizing risks**

New supplier risks

- **time**
- **support**
- **one-time costs**

Strategies of Collaboration : Basic Condition

**A complex product/service or
an innovative product/service
demands collaboration.**

The type of collaboration depends on the

- **market strength**
- **market situation**

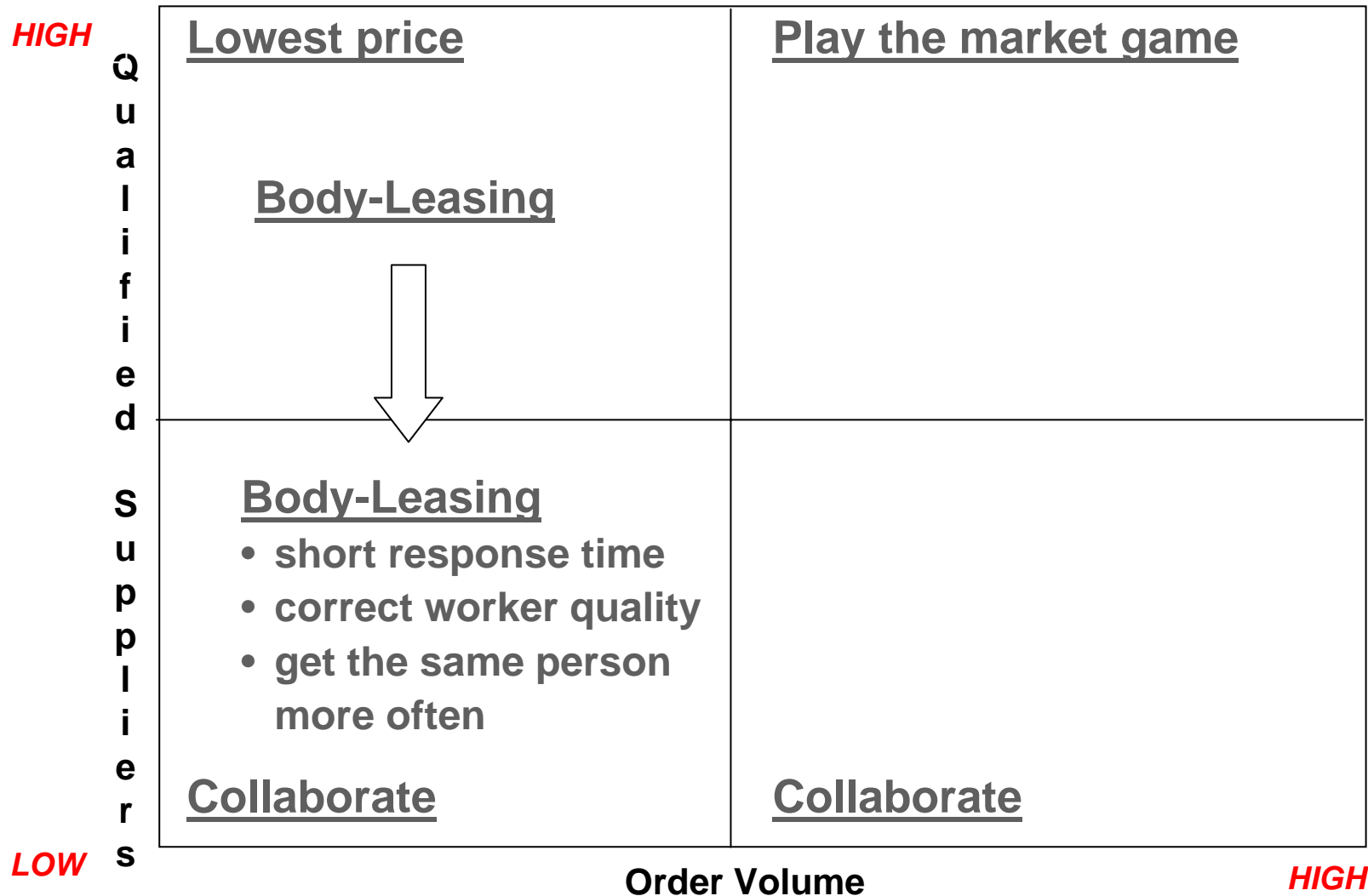
Strategies of Collaboration : Sourcing

HIGH Q u a l i f i e d S u p p l i e r s LOW	<u>Lowest price</u> <ul style="list-style-type: none"> • low volume products 	<u>Play the market game</u> <ul style="list-style-type: none"> • global sourcing
	<u>Collaborate</u> <ul style="list-style-type: none"> • few suppliers • high setup/one-time costs • guarantee the supply 	<u>Collaborate</u> <ul style="list-style-type: none"> • important for the business • development partnership
	Order Volume	HIGH

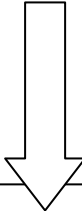
Apply the Model : Subcontracting (Coater)

<p>HIGH</p> <p>Q u a l i f i e d</p> <p>S u p p l e r s</p> <p>LOW</p>	<p><u>Lowest price</u></p>	<p><u>Play the market game</u></p>
	<p><u>Collaborate</u></p>	<p><u>Subcontracting (Coater)</u></p> <ul style="list-style-type: none"> • complex service • time critical • high quality needed • one-off cost <p><u>Collaborate</u></p>
	<p>Order Volume</p>	<p>HIGH</p>

Apply the Model : Body Leasing



Apply the Model : Transport

HIGH Q u a l i f i e d S u p p l e r s LOW	<u>Lowest price</u>	<u>Play the market game</u> <u>Transport</u> 
	<u>Collaborate</u>	<u>Transport</u> <ul style="list-style-type: none"> • special product • non standard equipment • high quality needed <u>Collaborate</u>
	Order Volume	HIGH

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Conclusion

Contributions:

- **integration of a sustainable Management in global logistics (i.e. resource community)**
- **consideration on a dual understanding of success (i.e. efficiency and substance orientation)**
- **Long term partnerships**
 - **are already in process (were needed).**
 - **are not integrated in todays reward systems.**
 - **are not considered in todays cost accounting process.**

Potential for further research:

- **operationalisation for a sustainable supply chain management (i.e. identification and classification of indicators for sustainable cooperations)**