At the Chair of Logistics and Supply Chain Management of TUM School of Management we are looking for an interested and qualified student to conduct his/her Master Thesis on the topic:

**Global Frame Contract Management at the Linde Group:**
Optimizing Processes and Order Quantities

Decentralized sourcing often leads to substantial supply chain costs and time inefficiencies that trigger procurement offices to get organized on national and regional levels - increasingly also on a global scale for certain products. High product variability, less structured purchasing processes, and high portion of non-value activities indicate potential savings.

The thesis seeks to bring the current global frame contract management system to a higher level. First, the process of frame contracts shall be mapped and evaluated along the sourcing value chain (e.g., sourcing strategy, contract details). Second, the process needs to be redefined: Which criteria define (and influence) the product portfolio for global purchasing? Which department shall trigger purchasing in which quantity when and after which approval? How to check order fulfillments (e.g., delivered quality)? Third, the global purchasing order quantities need to be optimized (considering risk and uncertainties), and measured against cost reduction and value improvements. Fourth, ideas how to implement the approach should be visualized using SAP. The company provides necessary data and internal interview partners (e.g., with expertise about e-Catalogs and contract systems).

**Selected research tasks:**
- to identify classification criteria for a global purchasing portfolio at Linde Engineering
- to perform process optimization (e.g., according to the Six Sigma Method)
- to provide management advise on optimal amount of purchasing global goods (e.g., incorporating uncertainties into contract designs with the newsvendor approach)
- to (conceptually) design the contract management system using state-of-the-art SAP functionalities

**Company description:**
The Linde Group is a world-leading gases and engineering company with approximately 62,000 employees working in more than 100 countries. The main divisions 'Linde Gases' and 'Linde Engineering' have generated revenue of €15.2 bn in 2012.

**Requirements:**
This Master thesis is particularly suitable for a student who has a strong interest and a proven track record in the contract logistics. Specifically, the student should have the interest of working in the interface of the two areas of Engineering and Strategic Purchasing. A previous successful internship at the Linde Group is a strong plus. The thesis should be written in American English.

**Begin:** April 2013  
**Advisor:** Dr. Martin Stößlein (martin.stoesslein@tum.de)