

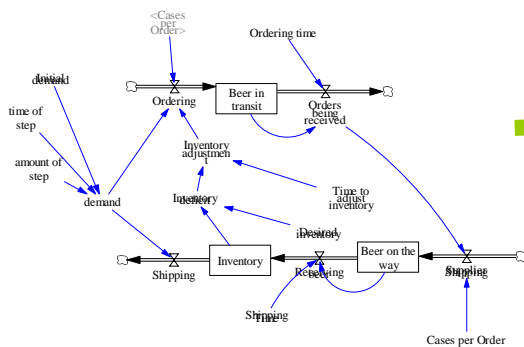
Comprehensive methodology

The scmLAB provides a comprehensive infrastructure and methodology to analyze, discuss and improve boundary spanning processes of partnering companies in the supply chain. These processes are for instance related to Collaborative Planning Forecasting and Replenishment (CPFR) or Vendor Managed Inventory (VMI). The scmLAB visualizes and simulates different scenarios of these processes and evaluates their impact on supply chain performance in terms of customer service, cost and lead-times. Moreover, the methodology of the scmLAB sessions fosters interpersonal dynamics that improve communication, involvement and commitment.

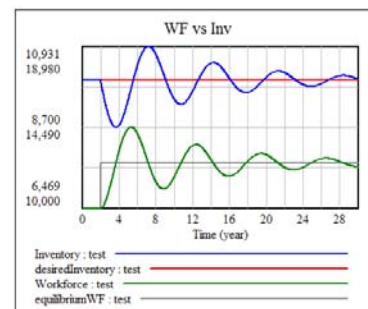
Powerful tool for supply chain innovation

The aim of the scmLAB is to enhance organizational development and competitiveness of the participating supply chain partners. This is facilitated through tailor-made simulation models and a methodology that gathers participants of collaborating companies of a supply chain in a dedicated environment fostering experiential learning, joint decision making, and subsequent change management. In that sense, the scmLAB constitutes a powerful tool for facilitating Supply Chain Innovation.

Build a tailor made model



Evaluate impact of change in parameters on performance



Background

ZLC, through its ongoing contact with regional and national companies, has detected the necessity to improve Supply Chain collaboration. Learning and decision making in a joint fashion are fundamental aspects for deepening collaborative agreements. Nonetheless, companies in their day-to-day practice do not encounter the adequate way to jointly learn and innovate their boundary spanning processes. Thus, the idea to establish a learning lab for Supply Chain collaboration was born.

The scmLAB is developed within the project “Análisis y configuración de la cadena de suministro en un contexto estratégico”, that in turn forms part of a

bigger project called “Proyecto Singular Estratégico (PSE) - Potenciación de la competitividad del tejido empresarial español a través de la Logística como factor estratégico en un entorno global”. PSE is funded by the Spanish Ministry of Education and Science.



Learning in a laboratory

Inherent to Supply Chain Management philosophy is the continuous improvement of timeliness, costs and service throughout the supply chain. Nonetheless, practice shows the difficulty of implementing change. In that regard, it is increasingly recognized that collaborative learning (i.e. the learning that takes place when collaborating partners share knowledge and jointly obtain new insights) precedes successful change projects. The scmLAB fosters collaborative learning, given that:

- The laboratory provokes learning through experience in a supply chain framework;
- The laboratory facilitates that collaborative learning moments occur, something which may be absent in the day-to-day rush;
- The participants are not distracted by their day-to-day activities;
- The laboratory stimulates involvement of all relevant actors;
- The laboratory creates a sense of ownership among all participants.



METHODOLOGY

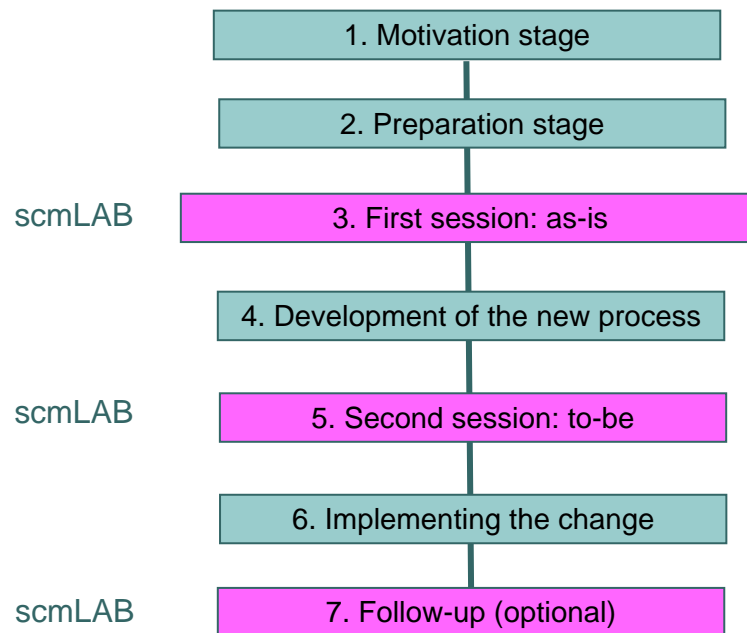
The practical aim of the scmLAB is to enhance Supply Chain innovation in the participant companies.

But...How does the laboratory work?

In the whole process six-seven stages can be distinguished depending on each particular case. Some stages are carried out within the physical setting of the scmLAB, and others will be developed within the companies:

1. **Motivation stage:** in this crucial phase, the main aim is to reach agreement between researchers and companies about mutual efforts and compromises, and to delimit the objectives and scope of the project.
2. **Preparation stage:** in this stage, the purpose is to build and test the as-is model; to develop the session protocol and observation checklist.
3. **Session 1 scmLAB:** in this first experience in the scmLAB the objective is to present and discuss the as-is model and obtain a shared vision and diagnosis. All relevant involved boundary spanners are invited to the session.
4. **Development stage:** in this phase, the effort is dedicated to develop several to-be scenarios. This is done in close collaboration between companies and researchers.
5. **Session 2 scmLAB:** in this second session in the scmLAB the aim is to introduce and discuss alternative scenarios and establish a change agenda.
6. **Change management:** in this external stage, the companies have a very active role because the objective is to implement the changes proposed in the previous stage.
7. **Session 3 scmLAB:** in this optional final phase, the scmLAB offers the possibility to evaluate the implemented changes and the experienced obstacles.

These phases can vary in terms of duration, but generally they should cover a period from 3 to 9 months. The scmLAB is oriented to those companies belonging to the same Supply Chain (a manufacturer and a supplier, a service provider and its strategic client, a manufacturer and its client...) so that they can learn how to improve their relationship.

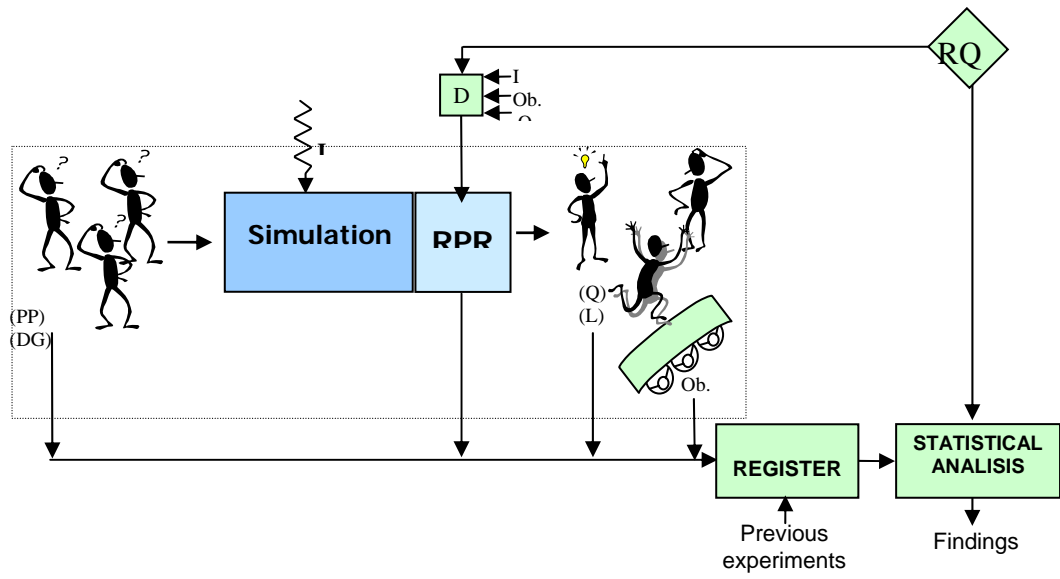


One of the building blocks of the scmLAB is the simulation model. For academic aims, several sources of data are gathered before, during and after the sessions. Qualitative analyses are performed for answering the diverse research questions.

As the picture shows, the simulation process requires a prior phase, where the participants, companies from the same Supply Chain, provide the data needed in order to develop a simulation that fairly represents reality. Once the simulation process is carried out, the lab registers the process results. Obtaining these results is the objective from the simulation process in order to learn and redesign the processes of the companies if needed.

This whole process of simulation is watched by a neutral agent, the observer, who will also register the results of the process and will observe how the companies work together in this simulated environment.

The process can be re-started again, after the first simulation process. The new conditions of the simulation environment will be based on the results of the previous phase, as the objective is to improve both processes and relationship along the Supply Chain.



P.P.: Participant profile
 L: Learning
 D: Designers
 I: Instructor
 Q: Questionnaire

RPR: Register of the Process Results
 DG: Data Gathering
 Ob: Observers
 RQ: Research Questions

MEMBERS

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Carolina García received her Master's degree in Physics from University of Zaragoza and has also participated as visitor student in the Master of Engineering in Logistics from the Massachusetts Institute of Technology. For her doctoral thesis she researches on best practices in supply chain management. She currently coordinates ZLC's activities in the National Center of Excellence in Logistics and the Technology Platform on Logistics in Spain.

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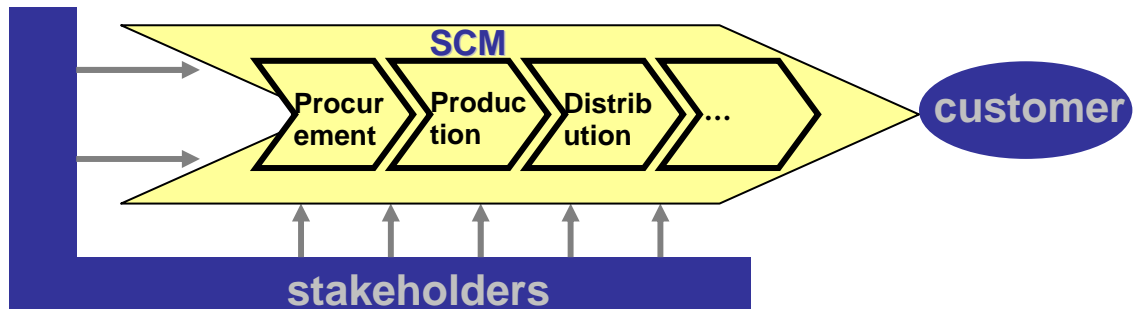
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INFORMATION FOR PARTICIPATING COMPANIES

The scmLAB is a suitable tool for companies collaborating within the Supply Chain that have the intention to improve their interrelationships and their shared processes. The scmLAB is able to work with different sectors, as the simulation tool is adaptable to each specific case.



But companies may have some questions about a simulation laboratory experience...

Why using simulation to initiate supply chain innovation projects?

- Analyzing effects of intended changes is determinant to **make balanced decisions**, and simulation allows doing it without the costs and risks that a real change involves;
- Simulation facilitates the **anticipation** of possible barriers or obstacles to future change implementations;
- Simulation unleashes **learning processes**;
- Discussing simulations with the scmLAB methodology improves **communication and team work** among participants.

What benefits can my company obtain as a participant in the simulation?

- The scmLAB permits your company to **learn** about strategic issues of the Supply Chain;
- The scmLAB gives an overview of **strengths and weaknesses** related to supply chain collaboration;
- The scmLAB facilitates that both partners obtain a **shared vision**;
- The simulation experience improves **collaboration** with your Supply Chain partner;
- It is a previous stage to the **successful management** of logistics innovations;
- It allows your company to participate in a leading R&D project.

Is the scmLAB the definitive solution to the company's problems?

- The scmLAB is a **tool** for innovation and changes in supply chain partnerships, but real change takes place within the day to day setting;
- A strong **commitment from the companies** is a requisite: the scmLAB paves the road toward change but companies are responsible of the changes.

CONTACT

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