

UNIDEMI – Research Unit in Mechanical and Industrial Engineering

LARGeSCM (MIT Portugal Program); EMS

Research Team POM



R&D Unit in Mechanical and Industrial Engineering



Ana P. Barroso

Assistant Professor at  
DEMI/FCT/UNL

2003: PhD in Systems  
Engineering

Main research areas:

- Supply Chain Management
- Logistics
- Management Support Systems

<http://www.demi.fct.unl.pt/pessoas/docentes>

## Objectives

**LARGeSCM** (MIT-Port/EDAM-IASC/0033/2008, 2008-2013): Supply chains (SC) are confronted with an increased number of management paradigms, such as **Lean**, **Agile**, **Resilient** and **Green** (LARG), that recognize new opportunities for **SC Management** improvement. The objective of this research is to develop a management integrator model to increase the SC competitiveness.

**EMS**: Companies' competitiveness is not only determined by the performance of their products and services, but also by the corresponding production processes. The principal aim of **European Manufacturing Survey** (EMS) is monitoring the technical and organisational modernisation of manufacturing industry via a written survey addressed to firms.

## Methodology

**LARGeSCM**: i) Identify the LARG management practices; ii) Define the influence of each management practice in each paradigm; iii) Define the contribution of each management practice in SC competitiveness; and iv) Determine the degree of implementation of each practice for each SC entity to maximize supply chain competitiveness.

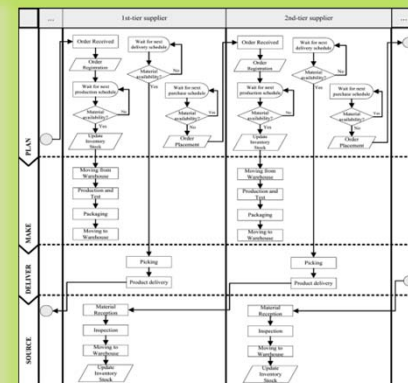
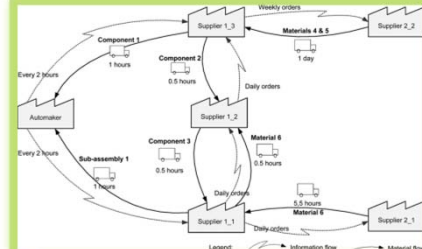
**EMS**: The focus of the survey is on technical, organisational, and managerial manufacturing innovation, their pre-requisites and consequences in manufacturing firms. The underlying philosophy is to keep a set of questions constant over time, change others according to changing issues in manufacturing innovation and leave some space for (related) new or customer-specific topics.

## Expected Results

**LARGeSCM**: A Management Integrator Model to help SC managers to react quickly and efficiently to the effects of disruptions that can occur in a SC, sustaining a high service level to customers and to merge the necessary information to mitigate plans if the disruption became repetitive.

**EMS**: i) To improve scientific state of knowledge and policy counseling for evaluating technological and economic measures, and information of associations and trade unions in the participating countries; ii) To execute multinational comparative analyses; iii) To constitute the basis for an informative performance benchmark offering companies the opportunity to benchmark themselves nationally as well as internationally with other companies.

Funding: 191.724,00 € (LARGeSCM)



### EMS network:

**Alemanha**: ISI, Karlsruhe; **Áustria**: AIT, Foresight & Policy Development Department, Vienna; **Brasil**: UFRGS, Porto Alegre; **Croácia**: University of Zagreb, Economic Faculty, University of Split, Technology Faculty; **Dinamarca**: University of Southern Denmark, Mads Clausen Institute and Institute for Marketing & Management, Sønderborg and Odense; **Eslovénia**: Maribor University, Faculty of Mechanical Engineering; **Espanha**: University of Girona, Polytechnics School, Department of Business Administration and Product Design; **Federação da Rússia**: State University - Higher School of Economics, ISEK, Moscow; **Finlândia**: VTT Technical Research Centre of Finland; **França**: IAE Lyon; **Holanda**: Nijmegen School of Management; **Itália**: ITIA-CNR, Milan; **Portugal**: UNIDEMI, FCT/UNL; **Reino Unido**: Leeds University Business School, University of Leeds; **República Checa**: CES, University of Economics and Management, Prague; **República Popular da China**: IPM, Division of S&T Policy, Beijing; **Suécia**: University of Gävle, Jönköping University, Chalmers and Luleå University; **Suiça**: Hochschule Luzern - Wirtschaft, IBR