

Logistics, concepts, definitions and reference classifications

Paper by Burkhart Sellin, 24 September 2008

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1. The origin of the term logistic

“The word logistics is derived from the Greek *logistikos* meaning skilled in calculating. The first administrative use of the word was in Roman and Byzantine times when there was a military administrative official with the title *Logista*. ... Research indicates that its first use in relation to an organized military administrative science was by the Swiss writer, Antoine-Henri Jomini, who, in 1838, devised a theory of war on the trinity of strategy, ground tactics, and logistics.

The French still use the words *logistique* and *loger* with the meaning "to quarter." (Wikipedia)

2. Current concept in use and definition

“Logistics is about ... the flow of goods, information and other resources, including energy and people, between the point of origin and the point of consumption ... Logistics involve the integration of information, transportation, inventory, warehousing, material-handling, and packaging.”

Sub- Concepts are:

Logistics management

Business logistics

**Production
logistics**

Tentative definition: the logistician professional as well as associate professional and/or clerks/skilled workers in logistics

“A Logistician is the profession in the logistics and transport sectors, including sea, air, land and rail modes.

May also be included energy transport by pipelines and

postal or telecommunication services. More sophisticated

organizations use definitions alongside the sub-categories Management, Business and Production Logistics, wherein highly specialized professional and associate professionals logisticians co-exist.”ⁱ

3. Logistics and Logisticians in International Reference Classifications

The recently updated NACE (rev2), the statistical classification of economic activities of the EU, does not explicitly use the term logistics, however has retained this implicitly as one of its main categories under the category H:

“Transportation and Storage which includes the passenger and freight transport by rail, road, water or pipeline and associated activities such as terminal and parking facilities, cargo handling and the renting or leasing of transport equipment with drivers or operators. Also included are postal and courier activities.”

International Classifications ISIC and CPC

International Classifications e.g. ISIC or CPC, the UN classifications for economic activities and product classifications, or other derived statistical classifications like ISCO (see hereunder) do not use the term neither. May be the term logistics is too wide and/or too ambivalent for statistical purposes: ISIC and CPC use as main category **‘Transport, storage and communications (Verkehr, Lagerhaltung und Nachrichtenwesen)’**, part of the latter - telecommunications – however was transferred recently by Nace (rev 2) into its new main category called Information and Communication.

International Standard Classification of Occupations (ISCO)

The ISCO–88, the International Standards Classification of Occupations being currently revised (ISCO-08 forthcoming), is not retaining as a specific category the logisticians neither. The many occupations to be linked to logistics are being dispersed between a wider range of different main or sub-categories (see draft structure of ISCO – 08).

The terms quoted in the paper are derived from the draft structure published for consultation on 02/03/2007 and envisaged by ILO, the International Labour Office in Geneva, for approval as the forthcoming ISCO-08 later in this year (see also ISCO@ilo.org).

4. Academic subjects taught under logistics

Logistics and Traffic can be studied via interdisciplinary bachelor and master programs in business administration, engineering or even physics! Three core master programs, Logistics Management (M.Sc.), Logistics Engineering (M.Eng.) and Public Transport Management (M.Sc.) are on offer. University Duisburg-Essen offers also bachelor and master programs where students may specialise on logistics and traffic: Physics of Transport and Traffic, Mechanical Engineering (M.Sc.), Industrial Engineering (B.Sc. + M.Sc.) and Technology and Operations Management (B.Sc. + M.Sc.).”

These programs cover

“Business Administration, Operations Research, Simulation, Supply Chain Management, Project Management, Planning and Control, Logistics and Material Flow, Geography, Product Engineering, Controlling, Traffic Engineering Logistics.”

It seems that these opportunities for academic studies and disciplines linked to logistics are typical for and compatible with those offered at many other European Universities and Technical Colleges. Most of these subjects are also typical for further or advanced training in the sector, see education scheme offered by the German Logistics Academy (www.dla.de) and reproduced in annex 2 of the paper.

5. Further education and training in logistics

Further or adult vocational education and training in logistics is taking place at specialized colleges and in commercial profit or non-profit - often state subsidized – organizations in many if not in all countries. The picture however seems to be rather confuse and a lack of transparency and coherence does exist in most European countries and even more so between these countries.

Quality problems of FE provisions

Eventually and despite high engagement of trainers and learners there may exist a problem of quality assurance of good training delivery for both clients i. the (often co-financing) companies and/or ii.the participants paying high attendance fees. Public or voluntary bodies responsible for checking quality and standards are not always available and if these exist they are often desperately under-staffed. Formally recognized skill training is in this segment of further and continuing training rather the exception than the rule.

6. Final remark and questions for discussion

A European initiative like the one in the focus at this conference on “Skills for the European Logistics Sector” certainly falls on good ground and if in the medium term quality training can be effectively promoted and improved the respective activities can become more attractive and the existing engagement of participants and professionals can be made more sustainable. The European prospects for skilled and highly skilled are very bright (see annex 1 of the paper).

Points for further discussion

- Are these definitions and concepts sufficient and clear?
- Could these definitions deliver an extended and improved conceptual basis for the proposed logistics skills forum on European level?
- Is there enough interest and space for an in-depth discussion on skills and qualification standards in both logistics skills/competences and/or respective education/training levels/frameworks?
- If yes how could the initiators take into account the European Qualifications Framework Recommendation (approved by the EU recently) and could they apply an approach similar to the CEN-ICT workshop leading to non-binding agreements on efforts for a certain voluntary standardization in this sector?

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