

INCREASING THE QUALITY OF RAILWAY EDUCATION ACCORDING TO THE DEMANDS OF EUROPEAN TRANSPORTATION

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REZUMAT. Lucrarea evidențiază importanța transportului feroviar și necesitatea alinierii la standardele europene. Acest lucru implică dezvoltarea unui învățământ de specialitate de cea mai mare calitate.

Cuvinte cheie: transport feroviar, piața de transport, factori de influență, învățământ feroviar.

ABSTRACT. This work points out the importance of the railway transport and the necessity to align it to the european standards. This involves the development of the highest quality specialized education system.

Keywords: railway transport, optimum, optimization, influence factors.

1. GENERAL THOUGHTS ABOUT THE MARKET ECONOMY AND TRANSPORTATION

The political changes in 1989 – 1990 have brought the Central and Eastern European countries to the difficult situation of having to deal with change. The tight relationship between the previous economical and political systems triggered a political revolution as well as major changes with economical and social impact. On a long term, the main goal of each government has been integration in the European Community, which led to the creation of institutions specific to the market economy.

Changing from socialism to capitalism in Central and Eastern European Countries created a strong recession, followed by an economical growth. There are several models for capitalism (America, Japanese, scandinavian) or of the social market economy. No matter what the model, the main institution is the *market*.

The capitalist economy is a free market economy and nothing or almost nothing can be conceived to

happen outside this perimeter. Next to the market, capitalism also needs the state, the social contract and consumers.

In the end, we can say that the economical market has as its own reflexion, the transportation market.

It can be noticed that practically there is no production activity which is not connected and conditioned by the transportation, one way or the other, to a smaller or a bigger extent.

Transport of goods is a key component of the production process and involves a movement of components and products inside the factory, from one unit to another, or from a unit to beneficiaries. In general, transport costs may rise to 40% of the total production costs.

To satisfy the requests for transport it is necessary to use different technical systems of transport, according to Figure 1.

Each of these systems have advantages and disadvantages, the most important advantages of railway transportation are (fig. 2):

- energy saving;

- low level of pollutants;
- low noise;
- it occupies a minimum area of land;
- safety of circulation.

Between the rail and the road transportation there is a tough competition in both freight and passengers transport.

A remark we need to make is that railway goods transportation is more appropriate for large distances while the road one is better for short distance (fig. 3).

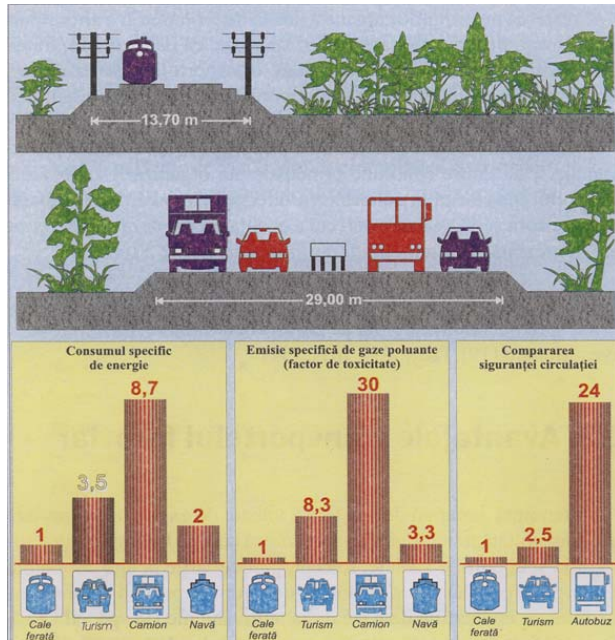


Fig. 1. Technical transportation systems, emphasizing some of the parameters.

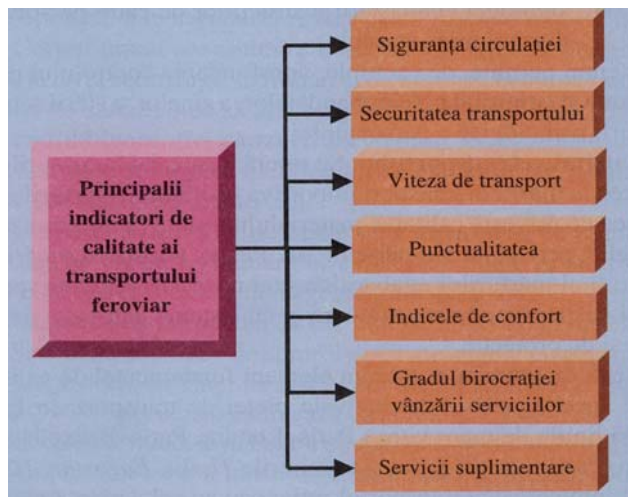


Fig. 2. Quality in railway people transport.

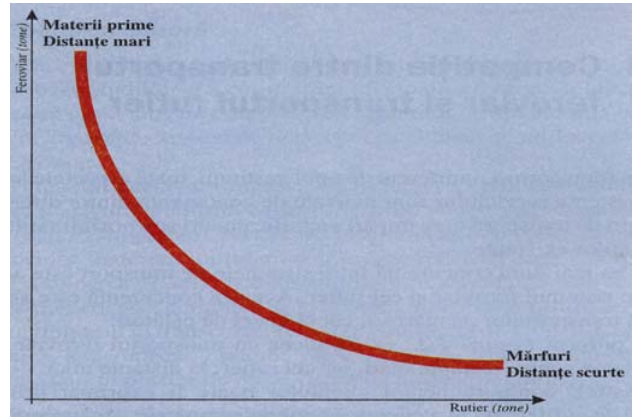


Fig. 3. Spreading of the goods transported with road and rail transport.

2. THE MAIN ACTIVITIES AND RESOURCES OF THE RAILWAY TRANSPORTATION ON ROMANIA

Railway transport is defined as any movement of persons and goods by railway vehicles with transport operators on the rail infrastructure.

The main activities of the railway transport are:

- maintenance and repair of infrastructure;
- commercial operation of passenger transport and freight;
- commercial exploitation of auxiliary assets.

The transition from socialist economy to market produced structural economic changes that have also dramatically reduced the work carried out by railways.

Decreasing industrial production decreased considerably the demand for freight.

One of the internal causes of the railway transportation decline is the excessive bureaucracy.

But the biggest enemy of the rail transport is the road one, especially considering the high development in recent years.

3. HIGHER EDUCATION IN ROMANIA IN RAIL TRANSPORT FIELD

Given the conditions imposed by the European Community for the transport market, it becomes necessary to prepare practitioners to be:

- good managers of establishments inside CFR;
- able to achieve high quality at conception, design, manufacturing, repair or upgrading of rolling stock;
- good organizers of operation of the railway.

Regarding the design, manufacturing and repair of vehicles for rail transport, the Department of Transportation Engineering of the Faculty of Mechanical Engineering, „Politehnica” University of Timișoara has been preparing for nearly 60 years, engineers specialised in *stock rail* (currently *vehicles for stock rail*).

Since 1995 the Department also promoted the specialization *Transport Engineering*, with first class of graduates in 2000. This specialization was created at the request of the railways, regional Timișoara, and developed with the help of specialized staff of CFR, with a rich professional experience.

These specialists have mostly been integrated into units of the railway and their main task is the management of transport traffic, commercial operation of freight and passengers, the technical means of transport by rail and the computerization and cybernetics operation of the railway.

All professors in the department engaged in teaching students in both specializations are very well trained

professionally, having the ultimate goal of preparing specialists for all sectors of the operating railway and units specializing in manufacturing and repair of rolling stock

4. CONCLUSION

Rail transport plays a major role in economic and social life and the quality of services is determined by the quality of specialised education, having the imperative need for support for its development from the empowered bodies.

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