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Project: Strategic VET development in Mechanical Engineering and Metalworking Industries

Strategic and Action Plan

Developed by

**Association of Mechanical Engineering
and Metalworking in Latvia, MASOC**



Tehnobuss Strategy and Action Plan by MASOC

1. Situation

Each year Latvia's Mechanical engineering and metalworking industry is increasing. However, the number of people who work in this industry is not increasing due to lack of specialists. Considering that modern industry need specialists with appropriate qualifications young people already at schools should be informed about learning and career opportunities. The main problems of specialists' shortage is caused by the following factors:

- Demographic changes - Latvian annually observation show decrease in the population, and young people is going to live in the cities, so that the regions of the lack of new specialists.
- Youth attitude towards engineering professions – Nowadays, young people in Latvian media environment do not see information about the engineering professions. Consequently, young people are not aware about engineer's profession and what are the opportunities for their future.
- Youngsters are not prepared enough for professional education in companies - Youngsters have very little practice during their studies and came to companies poorly prepared for real life situations and practical work, but companies are searching only workers with practical skills.
- Youth, teachers and parents have not enough knowledge about engineering professions and carrier possibilities in engineering industry - They usually don't have contact with production facilities, so they even cannot imagine a of engineer duties and possibilities.
- Gender – Traditionally has formed a stereotype that engineering is for men. Therefore, it is necessary to break the stereotypes that have strengthened people's thinking. And girls will try what they are truly interested, not only what they should traditionally do.
- Companies are not motivated to participate in the professional orientation and the whole field of education – Almost all companies in Latvia not interested in various society projects and activities enhancing the professional orientation and the whole field of education. They do not see the benefit of such activities, because they can plan work for next 2 years, but society projects are aimed to a long-term results.



In order to solve the situation, MASOC is trying to implement various measures, one of them is the Tehnobuss.

2. Aims and tasks

A strategy for development of VET system in Mechanical Engineering and Metalworking Industries has aims for the economy, aims for the image of the branch and aims for the support of the development of education system.

The main aims for the economy are to secure the economy with well skilled workers in current time and for the future and involve qualified people into industry. This will lead companies to produce more cost effective and with better quality.

The main aims for the image of the branch, is to increase CSR (corporate social responsibility) from the employers side for the society (for the employees and their families' future), inform, inspire and engage youth to choose engineering professions. Also, very important aim is to create better image of engineering industry for the society.

The main aims for the support the development of education system are to support and cooperate with the national education system from the economy side. Also it includes work with employers, to motivate them and to help find write way, to cooperate the national education system.

All the activities performed and methods used will be designated to those main target groups:

- Youngsters (starting from the kinder garden ending by the studies)
- Parents
- Companies
- Teachers

A strategy for development of VET system in Mechanical Engineering and Metalworking Industries has five main directions that it will be oriented to. The main directions are Pre-school education, General education, Professional education, Studies, HRD and training. Each with its own aims:

1. Pre-school education. Aims:

- To wake up interests in technical topics and connections in the early age
- To find experimental entrances to natural science and technology



- To activate the reading skills in the early age
- To sensitize teachers and educators
- To suggest advanced training to natural science and technology in schools and kinder gardens

2. General education. Aims:

- To help discover personal and individual potentials
- To inform about various activities in the engineering and metalworking industries
- To train and support the teachers
- To provide examples of economics-learning content
- To accompany and support school developments

3. Professional education. Aims:

- To foster the attractiveness of vocational training in engineering and metalworking companies
- To support enterprises with compound solutions
- To test new training concepts
- To guarantee a high-level-training level

4. Studies. Aims:

- To increase the attractiveness of natural science studies
- To secure and develop practical relevance of teaching contents
- To initiate new study models
- To ensure next generation of young academic employees on the demands of the companies

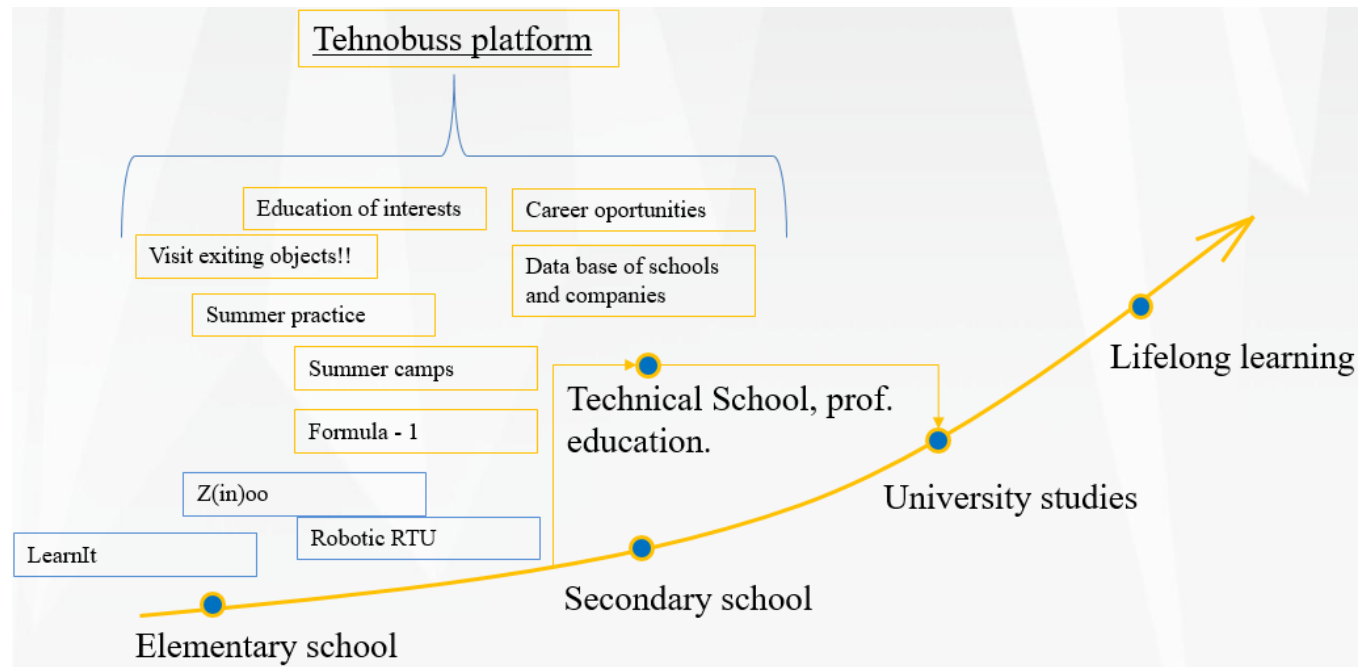
5. HRD and training. Aims:

- To offer and communicate high-quality training courses
- To identify and control the companies demand
- To assure and develop training quality
- To initiate actual topics



All those aims can be reached by Tehnobuss, which consist of two parts:

1. Database with information (platform). As it is showed in picture below, it will have wide range of information about career opportunities, and other engineering projects where to try or participate.



2. Tehnobuss for lectures and presentations on site. In live conversation with teachers of tehnobuss youngsters, parents, teachers and representatives of companies, will have opportunity to get introduced with engineering opportunities and try.



3. Partners

The strategy for development of VET system in Mechanical Engineering and Metalworking Industries will be implemented and followed by cooperation with the various partners:

- Companies and employers representatives as a practice orientated partners for feedback, developing innovative future orientated learning environment and prediction of future needs in education
- The actors of the education system such as Ministry of education, Ministry of the economy, universities, VET providers, afterschool activities and schools for creating a practice and needs orientated and integrated education system.
- Other branch associations for focusing the employers point of view towards education and for the exchanging of experiences
- Trade unions as a partner in his role as a social partner. For example, The Latvian Chamber of Commerce and Industry
- Media as partner for dissemination or informational support to the society.

4. Measures

To implement the strategy for development of VET system in Mechanical Engineering and Metalworking Industries, reach the aims, fulfill the tasks and satisfy the target groups needs specific measures are foreseen to be taken:

- To implement Technobuss as mobile info system about the industry and work possibilities in the metal, electronics and engineering industry
- Develop the network of education partners for collecting information, exchanging experience and resources for using and financing Infomobile
- Develop possibilities and directions for using Infomobile in schools, in companies and connecting with society events
- Improve a database about all the needed info in the field of education in metal and electronics industry
- Create monitoring system about labor market needs in the industry



- Initiative to motivate companies for participation in the education process (Sign of good place for education)

5. Action plan including the concrete data and responsible person

- Should include all the measures described in the project (meetings, workshops, conferences, meetings of the board)
- Creating ant printing materials for Tehnobuss
- Actions taken to prepare the transfer of Infobuss to Tehnobuss
- Technical work needed to run the Tehnobuss
- Creating the website and database of Tehnobuss
- Adaptation of the Infomobile practice and create methodology for Latvia
- Visits and meetings with stakeholders and partners
- Teaching of instructors/operators
- Communication with the society (articles)
- Working plan of the Tehnobuss