

# EDUCATION AND LIFELONG LEARNING IN LITHUANIA AND THE BICO PROJECT

Viktorija Aleksaitė

Project Manager of LINPRA, the Engineering Industries Association of Lithuania

Dr. Henrikas Mykolaitis

Director of LINPRA, the Engineering Industries Association of Lithuania

March 12, 2013

Bielefeld

# LITHUANIAN ENGINEERING INDUSTRY BASED ON ECONOMIC ACTIVITIES:

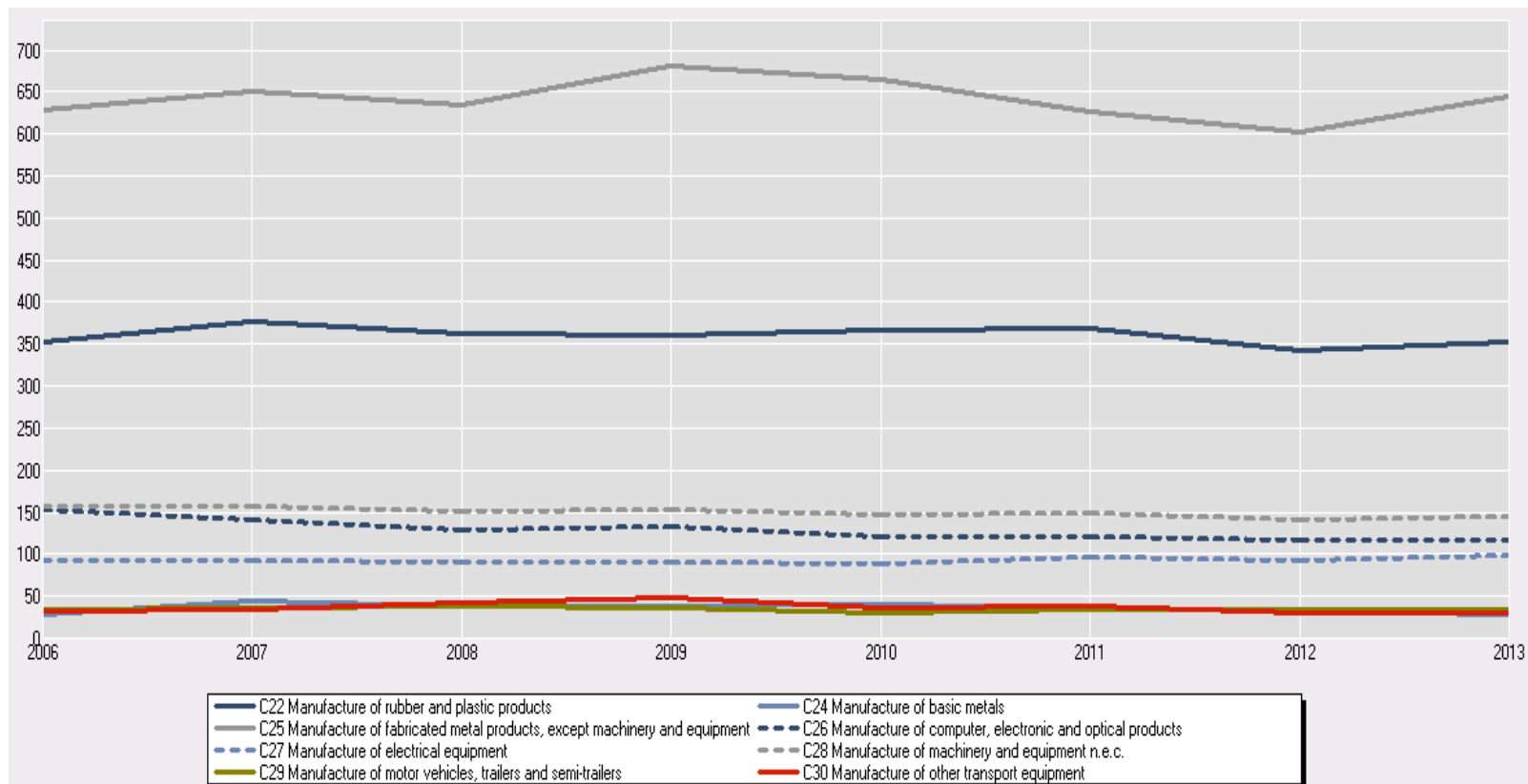
- NACE 22: Manufacture of rubber and plastic products;
- NACE 24: Manufacture of basic metals;
- NACE 25: Manufacture of fabricated metal products, except machinery and equipment;
- NACE 26: Manufacture of computer, electronic and optical products;
- NACE 27: Manufacture of electrical equipment;
- NACE 28: Manufacture of machinery and equipment n.e.c.;
- NACE 29: Manufacture of motor vehicles, trailers and semi-trailers;
- NACE 30: Manufacture of other transport equipment.

## **ALSO:**

- NACE 38: Waste collection, treatment and disposal activities; materials recovery;
- NACE 46: Wholesale trade, except of motor vehicles and motorcycles;
- NACE 47: Retail trade, except of motor vehicles and motorcycles;
- NACE 71: Architectural and engineering activities; technical testing and analysis;
- NACE 72: Scientific research and development;
- NECE 85: Education.

# ENTERPRISES IN OPERATION BY ECONOMIC ACTIVITY AND YEAR

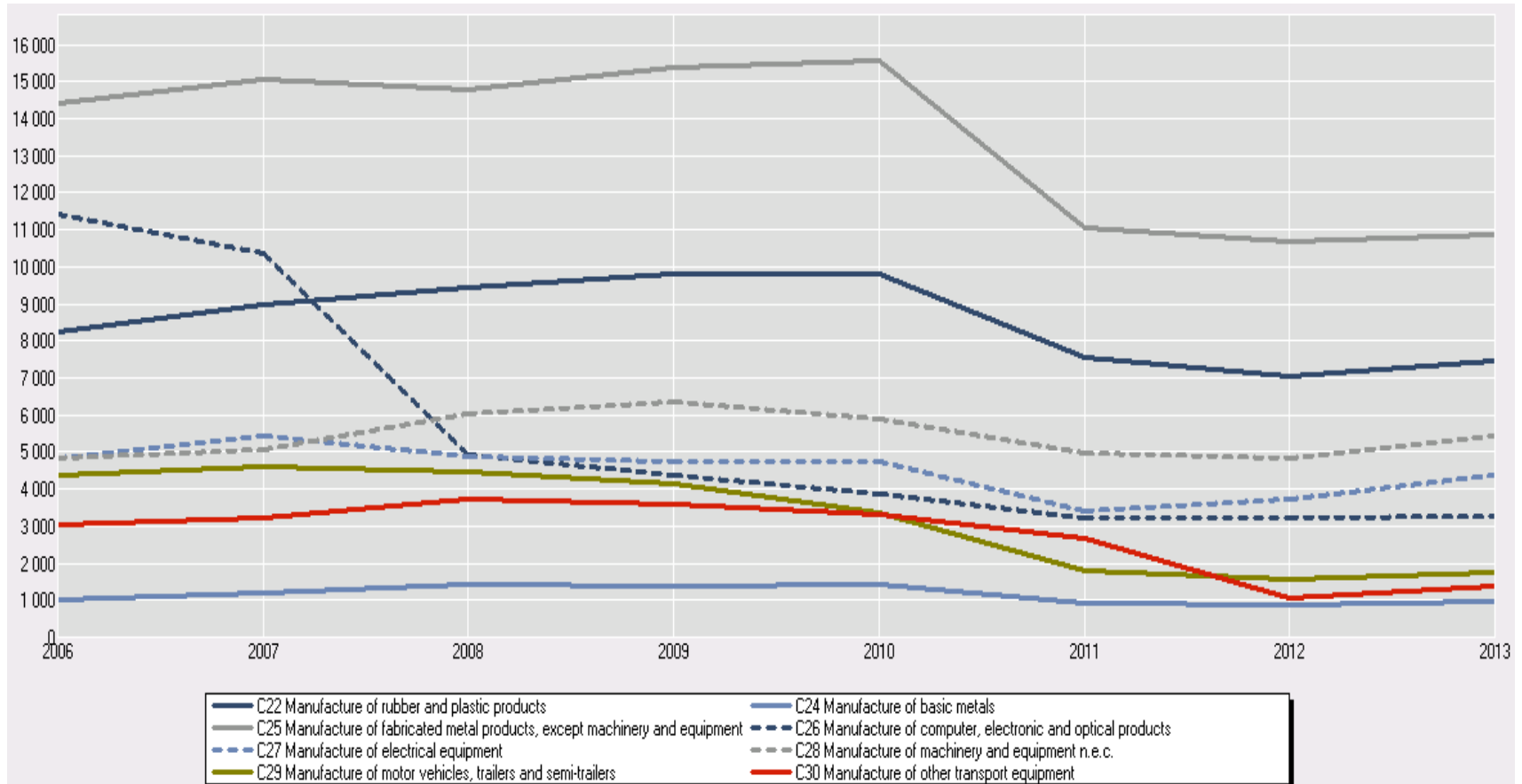
**Number of enterprises (without proprietorships) at the beginning of the year: 1451**



© Statistics Lithuania

# EMPLOYEES BY ECONOMIC ACTIVITY AND YEAR

Number of employees at the beginning of the year: 36 000



© Statistics Lithuania

# VOCATIONAL SCHOOL STUDENTS BY FIELD OF EDUCATION

Mokslo metų pradžioje  
Beginning of the academic year

Mokymo sritys (LŠK 1999)	Iš viso mokinių <i>Number of students</i>		iš jų moterų <i>of whom females</i>		Baigė mokyklą <i>Number of graduates</i>		Field of education (ISCED 97)
	2010–2011	2011–2012	2010–2011	2011–2012	2010	2011	
<b>Iš viso</b>	<b>49489</b>	<b>46530</b>	<b>18775</b>	<b>18147</b>	<b>13907</b>	<b>15479</b>	<b>Total</b>
Bendrosios programos	475	385	133	119	149	-	General programmes
Menas	1921	1957	1469	1541	467	663	Arts
Kompiuterija	345	423	95	108	77	124	Computing
Vadyba ir verslo administravimas	10838	9534	5914	5243	3172	3608	Business and administration
<b>Inžinerija ir inžinerinės profesijos</b>	<b>11782</b>	<b>11139</b>	<b>150</b>	<b>178</b>	<b>2862</b>	<b>3252</b>	<b>Engineering and engineering trades</b>
Gamyba ir perdirbimas	1972	1674	989	828	1171	790	Manufacturing and processing
Architektūra ir statyba	6916	6030	275	278	2831	2672	Architecture and building
Žemės ūkis, miškininkystė ir žuvininkystė	1325	1433	432	491	330	320	Agriculture, forestry and fishery
Sveikatos priežiūra	338	374	151	164	97	120	Health
Socialinės paslaugos	499	690	468	630	89	156	Social services
Paslaugos asmenims	11276	11213	8542	8436	2202	3110	Personal services
Transporto paslaugos	1242	1193	45	40	224	353	Transport services
Aplinkosauga	25	45	-	6	-	-	Environmental protection
Saugos paslaugos	535	440	112	85	236	311	Security service

# COLLEGE STUDENTS BY FIELD OF EDUCATION

Mokslo metų pradžioje  
Beginning of the academic year

Studijų sritys (LŠK 1999)	Iš viso studentų Number of students		iš jų moterų of whom females		įgiję profesinio bakalauro laipsnį Number of graduates		Field of education (ISCED 97)
	2010–2011	2011–2012	2010–2011	2011–2012	2010	2011	
<b>Iš viso</b>	<b>53297</b>	<b>49777</b>	<b>29934</b>	<b>27458</b>	<b>12672</b>	<b>13044</b>	<b>Total</b>
Mokytojų rengimas ir pedagogika	2772	2276	2565	2106	742	771	Teacher training and education
Menas	2167	2124	1356	1355	498	478	Arts
Humanitariniai mokslai	370	380	246	235	82	81	Humanities
Socialiniai ir elgsenos mokslai	103	469	73	323	-	65	Social and behavioural science
Žurnalistika ir informacija	43	89	32	63	34	-	Journalism and information
Verslas ir administravimas	23399	19973	15179	12916	5968	6277	Business and administration
Teisė	3374	2833	1958	1613	790	882	Law
Kompiuterija	664	624	50	36	138	133	Computing
<b>Inžinerija ir inžinerinės profesijos</b>	<b>5996</b>	<b>6294</b>	<b>206</b>	<b>228</b>	<b>1119</b>	<b>1140</b>	<b>Engineering and engineering trades</b>
Gamyba ir perdirbimas	1089	1145	616	687	247	207	Manufacturing and processing
Architektūra ir statyba	3310	3069	686	633	710	752	Architecture and building
Žemės ūkis, miškininkystė ir žuvininkystė	1263	1341	602	634	242	220	Agriculture, forestry and fishery
Veterinarija	26	138	19	115	18	22	Veterinary
Sveikatos priežiūra	4144	4471	3622	3877	1000	949	Health
Socialinės paslaugos	1822	1706	1661	1547	467	465	Social services
Paslaugos asmenims	942	918	767	760	258	243	Personal services
Transporto paslaugos	1332	1378	124	116	225	271	Transport services
Aplinkosauga	386	482	131	188	65	56	Environmental protection
Saugos paslaugos	95	67	41	26	69	32	Security services

# UNIVERSITY STUDENTS IN BACHELOR'S PROGRAMMES BY FIELD OF EDUCATION

Mokslo metų pradžioje  
Beginning of the academic year

Studijų sritys (LŠK 1999)	Iš viso studentų Number of students		Iš jų moterų of whom females		Įgijo bakalauro laipsnį Number of graduates		Field of education (ISCED 97)
	2010– 2011	2011– 2012	2010– 2011	2011– 2012	2010	2011	
<b>Iš viso</b>	<b>102887</b>	<b>95493</b>	<b>60364</b>	<b>55552</b>	<b>21062</b>	<b>20026</b>	<b>Total</b>
Mokytojų rengimas ir pedagogika	13267	11562	9480	8252	3370	3072	Teacher training and education science
Menas	3653	3367	2614	2395	819	784	Arts
Humanitariniai mokslai	5930	5613	4560	4267	1289	1230	Humanities
Socialiniai ir elgsenos mokslai	13248	12560	9339	8604	2687	2628	Social and behavioural science
Žurnalistika ir informacija	1778	2236	1349	1710	304	299	Journalism and information
Verslas ir administravimas	19471	17603	12765	11326	4196	4283	Business and administration
Teisė	9639	9620	6038	5705	1038	940	Law
Gyvosios gamtos mokslai	1115	1064	785	751	180	180	Life science
Fiziniai mokslai	1503	1490	693	682	312	302	Physical science
Matematika ir statistika	1151	1224	706	742	217	216	Mathematics and statistics
Kompiuterija	3314	2968	490	418	832	691	Computing
<b>Inžinerija ir inžinerinės profesijos</b>	<b>9439</b>	<b>8453</b>	<b>1080</b>	<b>969</b>	<b>2145</b>	<b>2001</b>	<b>Engineering and engineering trades</b>
Gamyba ir perdirbimas	977	751	622	480	302	260	Manufacturing and processing
Architektūra ir statyba	6608	5593	1741	1491	1360	1354	Architecture and building
Žemės ūkis, miškininkystė ir žuvininkystė	1246	1070	449	313	401	305	Agriculture, forestry and fishery
Veterinarija	548	583	413	429	-	-	Veterinary
Sveikatos priežiūra	5980	6026	4599	4577	630	656	Health
Socialinės paslaugos	1776	1647	1578	1471	479	355	Social services
Paslaugos asmenims	499	384	120	91	145	135	Personal services
Transporto paslaugos	126	204	7	37	22	14	Transport services
Aplinkosauga	1493	1352	914	813	317	308	Environmental protection
Saugos paslaugos	126	123	22	29	17	13	Security services

# HR DEVELOPMENT: STRUCTURE OF THE KEY COMPETENCES

**Competence of a nowadays specialist of the engineering industry must cover the following key areas:**

- basic professional competence (e.g. mechatronic systems)  
+
- product/technology competence (e.g. equipment for waste water treatment)  
+
- IT competence  
+
- competence in foreign languages  
+
- competence in manufacturing business management and social skills

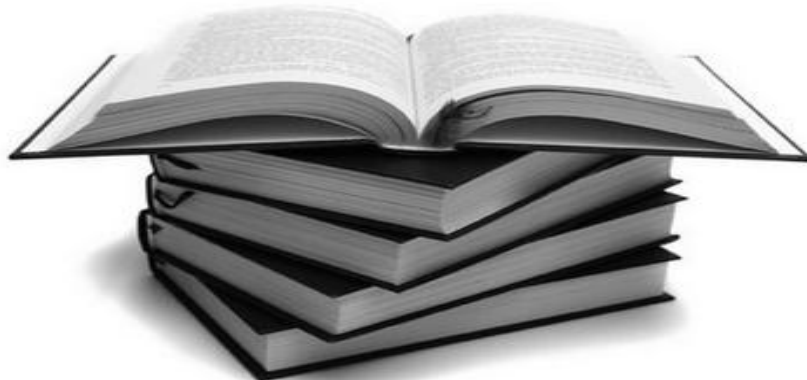


# EDUCATION AND LIFELONG LEARNING SITUATION

	2009	2010	2011	EU average, 2011
Share of the population aged 20-24 having attained upper secondary education level or above, %	86,9	86,9	86,9	79,5
Share of the population aged 25-64 participating in education and training over the four weeks prior to the survey, %	4,5	4,0	5,9	8,9

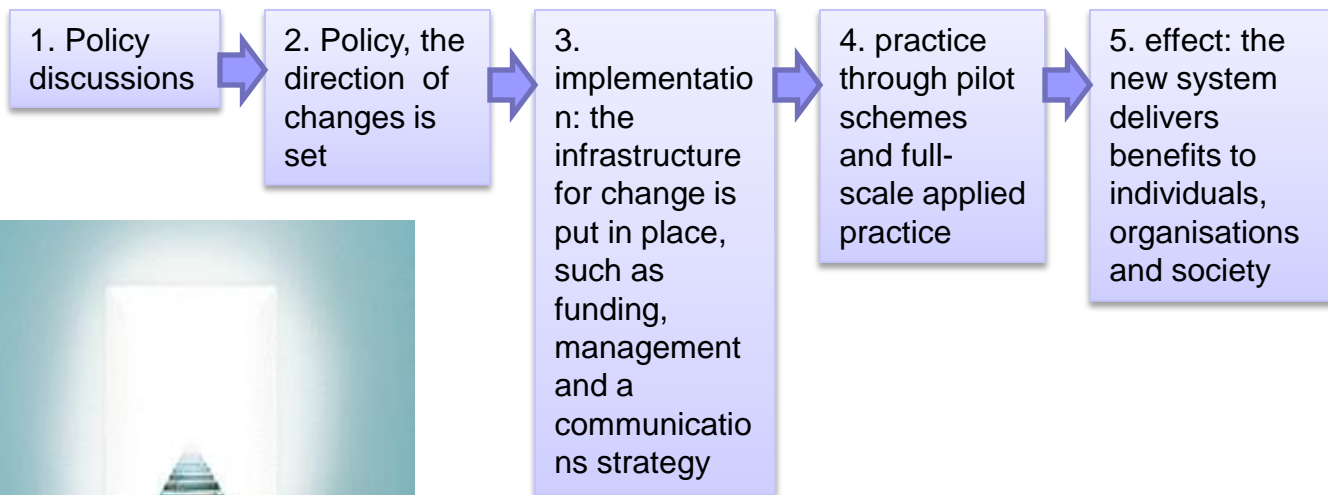
**One of the highest education attainment rates in Europe:**

In 2011 93% of the population aged 25-64 had attained at least upper secondary education and 34% the tertiary education attainment level.



# QUALIFICATION FRAMEWORK OF LITHUANIA

Five stages in the change process:



LTQS=EUQS:

8
7
6
5
4
3
2
1

# PROJECTS FOR IMPROVEMENT OF THE VET SYSTEM IN LITHUANIA

- Development of the Sectoral VET Centres
- Development of the system for improvement of the technological competences of vocational teachers and lecturers
- Formation of qualifications and development of the system of module-based vocational education and training
- Development of the vocational counseling and monitoring system in secondary and vocational education

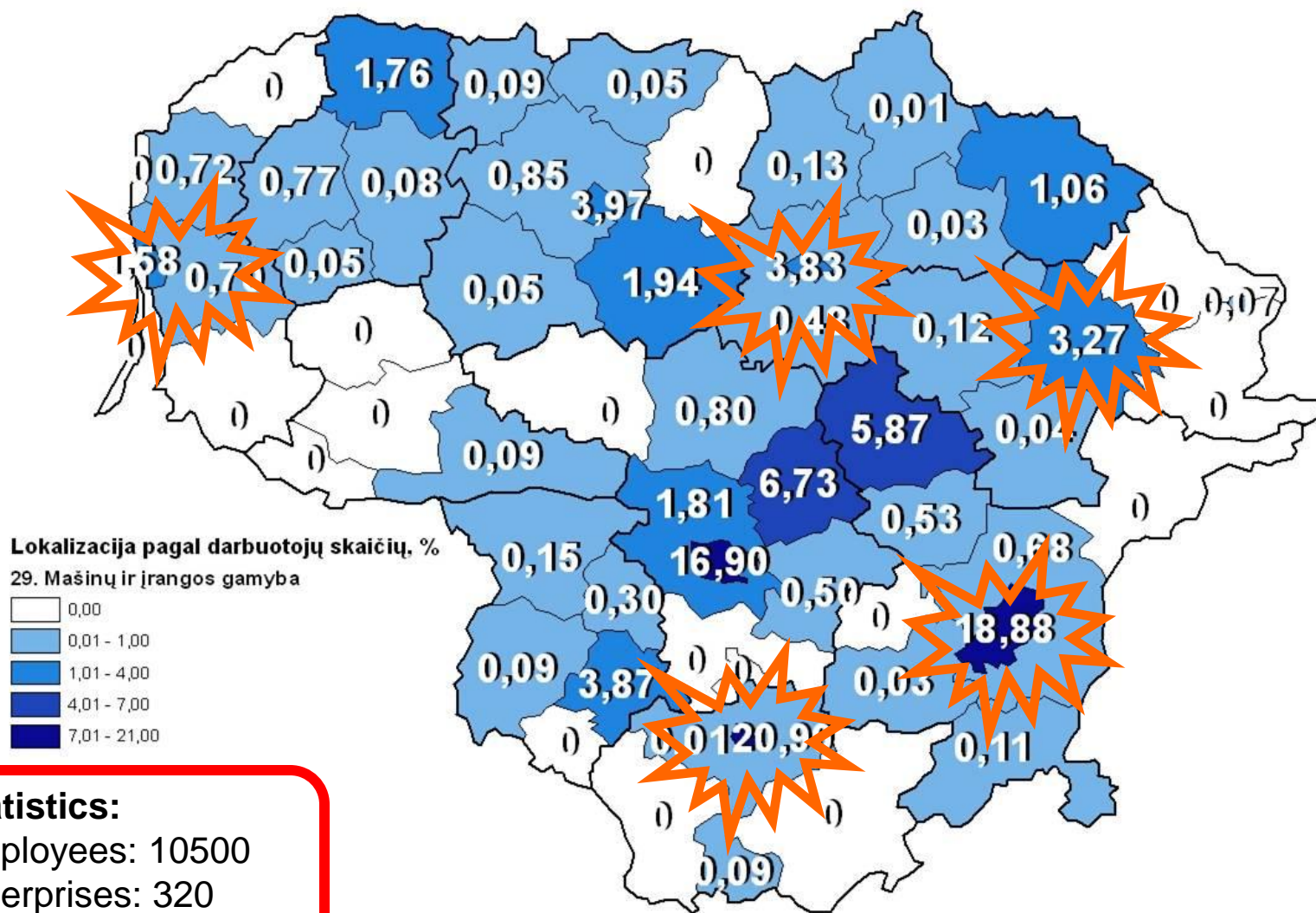
# LAW ON VOCATIONAL EDUCATION: SOCIAL PARTNERSHIP

## Article 28. Powers of Social Partners

### **Social partners shall:**

- 1) participate in the shaping of vocational education policy;
- 2) initiate the preparation of new qualifications, vocational standards, vocational training programmes, participate in composing their content;
- 3) participate in the evaluation of vocational training programmes according to their correspondence to the needs of the economy, and coordinate them within the limits of their competence;
- 4) participate in planning the enrolment of students in state-financed vocational training programmes;
- 5) participate in carrying-out of vocational counselling;
- 6) coordinate organisation of assessment of the competences acquired by a person and participate in assessment of the competences acquired by a person;
- 7) participate in organisation of practical vocational training at an enterprise, establishment, farmer's farm or with a freelance teacher and in performing of the supervision thereof;
- 8) participate in carrying out external assessment of the quality of activities of vocational training establishments;
- 9) participate in activities of the Vocational Education Council of Lithuania, the central and sectorial vocational committees of the qualifications management institution.

# METAWORKING AND MACHINERY SUB-SECTOR AND SECTORIAL VET CENTRES



## Statistics:

Employees: 10500

Enterprises: 320

Output: 600 MEUR

# PROJECT FOR IMPROVEMENT OF THE TECHNOLOGICAL COMPETENCES OF VOCATIONAL TEACHERS

The VET programmes and standards

1<sup>st</sup> survey of the teachers' needs

Summarised needs of teachers

**Basic requirements for the competence improvement**

2<sup>nd</sup> survey of the teachers needs

Terms of reference of the tender for providers' selection

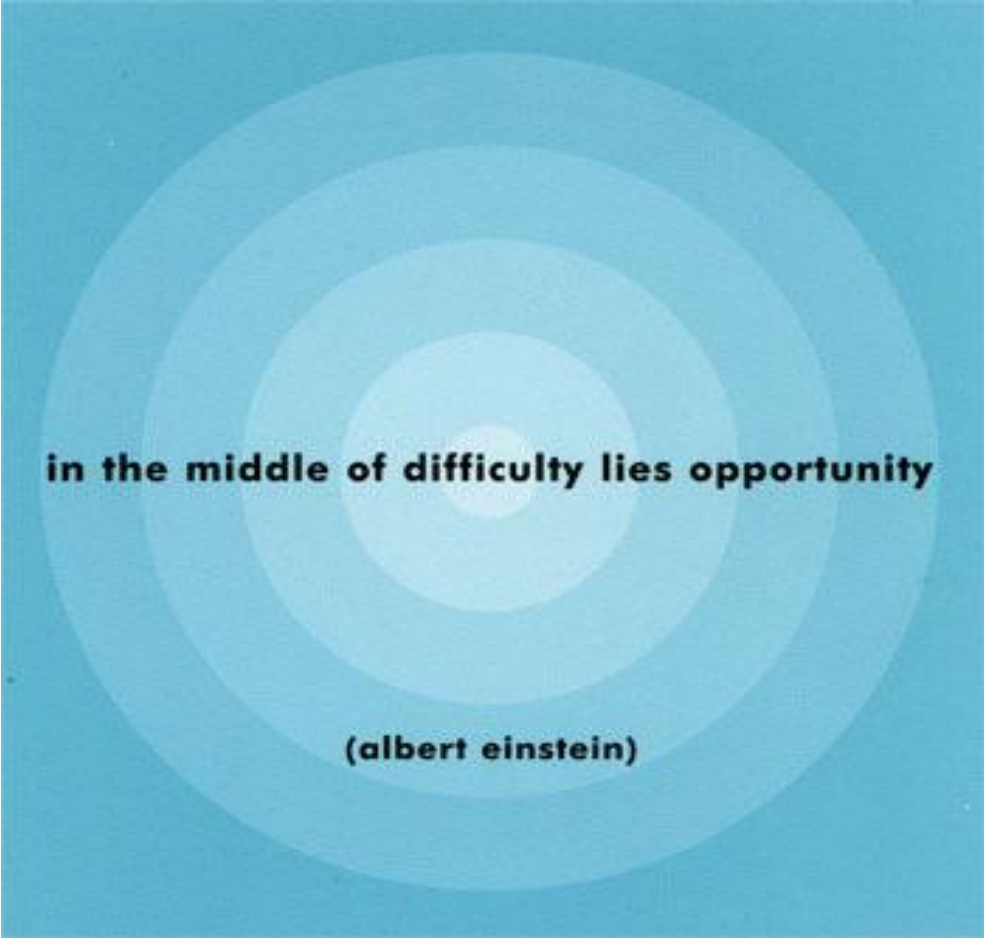
Individual training of teachers and lecturers

Summarised demands from industry and foreign experience

# CONCLUSIONS AND PROPOSALS FOR THE BICO PROJECT

- ❑ Formal education in Lithuania matches the sector demands in its quantity, but not in quality
- ❑ Competence development of employees in companies is performed for the own needs:
  - at company's expenses;
  - supported by the national or EU support schemes;
  - supported by strategic partner, supplier, etc.However resources in most cases are restricted.
- ❑ No special arguments are needed for a company to develop competence of its own employees, however, appropriate infrastructure (training facilities, incl. remote training centres), methodological (programmes, materials, methodology, etc.) and organisational (exchanges of vocational teachers, students, etc.) support is necessary
- ❑ Competence development for the labour market requires implementation of the EQS the framework which shall be developed and maintained by joint efforts of all interested EU members (involving CEEMET) with minor, if any, further adopting in each EU member country with appropriate infrastructure to be in place
- ❑ The BICO project is expected to contribute solution of the above-mentioned challenges, based on the experience of more advanced EU countries (DE, IT, FR, etc.)

**THANK YOU FOR YOUR ATTENTION!**



**in the middle of difficulty lies opportunity**

**(albert einstein)**

**CONTACTS:**

e-mail: [info@linpra.lt](mailto:info@linpra.lt);

tel./fax: +370 5 231 2520;

web-site: [www.linpra.lt](http://www.linpra.lt)