



Past - Present - Future



FINALISATION REPORT “School initiatives promoting Industrial Culture”

Report of action “School initiatives promoting Industrial Culture”

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T3.3.2.



Reporting Period 6



PP 8, Sisak-Moslavina County



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1. Abstract

Industrial culture has the potential to create modern image of Sisak-Moslavina County which is preserving strong traditional values by combining "old" and "new", it is possible to create preconditions for the development of a new industrial culture that will meet the cultural needs of all generations, especially young people.

During high school visits within the InduCult2.0 project the idea of launching a project with a focus on employment opportunities in the industrial sector of SMC appeared.

School principals confirmed the increasingly difficult situation in the industrial sector accompanied by a reduced interest of students with professions like electricians, locksmiths, engine fitters, plumbers, carpenters, etc.

Sisak-Moslavina County has organised educational programme for 42 students in Technical School Sisak with the aim to increase employment opportunities in the county's industrial sector.

The purpose of the programme is to skill the students with practical knowledge and to motivate students to be competitive on the industrial labor market after finishing vocational schools.

The intention of the County is to promote Industrial Labor Market Initiatives whereby strengthening education and the labor market and stimulating employment and self-employment in industrial occupations.

2. Project InduCult2.0

The project "A New Industrial Culture in Central Europe"- InduCult2.0 concerns the preservation of industrial heritage and its usage (www.inducult.eu). InduCult2.0 addresses Central European regions mono-focused on industrial production. The partnership sets out to discover the full industry-based culture of these regions for positioning them as appealing places for work, life, and recreation. InduCult2.0 is initiated by 8 long-standing industrial regions represented by:

- District of Zwickau (Germany);
- Municipality of Leoben (Austria);
- County association of Local Action Groups of Karlovy Vary Region (Czech Republic);
- Padova Chamber of Commerce, Industry, Craft and Agriculture (Italy);
- BSC, Business support centre, Kranj (Slovenia)
- Sisak-Moslavina County (Croatia);
- Opolskie Centre for Economy Development (Poland);
- Stebo Competence Centre Community Development (Belgium).

The project lifetime is from June 2016 till May 2019, with a total project value of EUR 3.000.295,16, of which EUR 163,548.04 is the project budget of Sisak-Moslavina County as a project partner. The project is financed through the European Regional Development Fund.

Within the project, Sisak-Moslavina County as project partner carried out the following activities:

- Create regional strategy and action plans for preservation/implementation of Industrial cultural heritage,
- Organize lectures for educational institution and institution in charge for protection of cultural heritage, strengthening the regional industrial identity and applying an innovative educational approach,
- Create an online map of industrial culture,
- Organize a transnational industrial culture exhibition and
- Establish an information centre of industrial culture and heritage

For a better understanding of the further text, it is worthwhile to start with a few sentences about distinguishing the definitions of industrial culture and industrial history/industrial heritage. Even if the whole project is concerning industrial culture in Croatian language, that is not a common way of expression.

Therefore, throughout the text we often use a phrase such as industrial heritage or industrial history. It implies on something that is the term of stagnation, disappearance, residues... that is tied up more with history - a time when it was at the peak of development. In the last few years, the importance of industrial heritage has increasingly be emphasized and that term has more frequently be used in public in a forward looking way. The importance of industrial culture has significance for the revitalization of industrial heritage facilities, which creates an added value of space for the purpose of developing cultural and creative industries.

3. Introduction & Objective

Industrial culture of the Sisak-Moslavina County (Croatia) makes an important, necessary component of cultural activity and development of the region. The perception of the County as old-industrial region is often still negatively connoted and at the same time, the region has a vast potential to use industrial heritage for promoting a positive regional image and as unique selling point related to pioneering spirit, traditions and innovation capability.

Industrial culture of the region can be used for new economic development, sustainable employment at the regional level as well as for touristic, cultural or museum purposes. Industrial sites can become extraordinary living space or working place for the creative industries given their affinity to the old-industrial spirit.

In order to contribute to above mentioned goals, Sisak-Moslavina County intents to organise education workshops focusing on industrial labour market of the Sisak-Moslavina County with the purpose to motivate students of industrial craft and vocational schools to stay in their field of profession and to find a job in the industrial sector either through self-employment or by working for other companies. This will be possible with additional education in order to become more competitive on the labor market.

4. Applied Approach

Sisak-Moslavina County has identified, in the framework of the activity T 3.3. "Testing measures for raising interest of youth in industrial culture and work options" activities directly affecting the way of managing an industrial culture with a view to promote innovative school initiatives.

With the start of InduCult2.0 the Sisak-Moslavina County initiated a regional focus group to support the establishment of the new concept of industrial culture as well to participate in InduCult2.0 activities. The members of the focus group are representatives of regional economy, administration, culture, education and tourism.

Regarding the pilot actions in implementation phase Sisak-Moslavina County has relied on external expertise for the elaboration of the concept “Education strategies in Sisak-Moslavina County” related activity T 3.3.1. The Development Agency of Sisak-Moslavina County SIMORA was chosen as supplier.

The purpose of the concept is to promote employment opportunities in the industrial sector of Sisak-Moslavina County, employment and self-employment of quality and educational workforce in industrial occupations in order to contribute to regional development and create added value for strengthening the competitiveness of the local economy.

The prepared concept has provided the guidelines for development of educational programme for the students of the final grades of primary schools in order to motivate students and to ensure jobs for them after finishing schools.

Based on developed concept, in the cooperation with the focus group, the County has prepared educational programme with Technical School Sisak which was chosen as supplier for implementation of the activity.

The programme has included 2 workshops for the students of the primary school Mate Lovraka Petrinja. Two professors has implemented two workshops for 42 students in Technical School Sisak.

5. Results



Lovraka Petrinja.

The programme has been done by 2 teacher from the Technical school Sisak.

The educational programme has been prepared in line with the information gained from partners of the InduCult2.0 project at workshops and meetings, as well as from good practices presented in the work package T3 “Deploying Industrial Culture for securing labour force and strengthening the regional ties of companies”.

The educational programme has included two implemented workshops on the following topics: Application of 3D technology in industry in the 21st century and CNC technology and robotics in the modern manufacturing process.

The educational programme has included 42 students from the primary school Mate

The workshop **“Application of 3D technology in industry in the 21st century “on the topic of modern information technology”**

The workshop was held for students of the final grades of primary schools on 8th of February 2019, in the period from 9:00 am to 11:00 am.

The aim of the workshop was to approach students in a practical way how to apply 3D technology that is the basis of industry 4.0.

The lecture was composed in three parts:

In the first part, the historical development of 3D modern technology based on manufacturing technology as well as the technical characteristics of three commercial and industrially acceptable 3D technologies were presented: plastic-thread printing, printing on the polymer base, and metal base.

In the second part of the workshop, computer tools for designing and making 3D models were presented as the first and very important step in modern industrial production.

In the third part of the workshop, the process of manufacturing of 3D printing based on plastic thread was presented, which includes the process of adjusting the parameter of the 3D printer, setting the printer in the starting position, adjusting the position of the object that we want to create and launching the 3D print program.



The workshop was held in a specialized 3D technology cabinet of Technical school Sisak.

The workshop **“CNC technology and robotics in the modern manufacturing process”**

The workshop was held for students of the final grades of primary schools on 8th of February 2019 from 9:00 am to 11:00 am.

The primary aim of the workshop is to provide students of elementary schools with a practical view on the technical capabilities of modern machines controlled by computers.

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The lecture consisted of two parts, the first part presented the historical development of CNC machines and their modernization and

connection with computers and robot systems. It was presented the computer tool CATIA which provides the possibility of designing a CNC machine directly from a computer.

In the second part of the workshop a CNC machine (CNC milling machine) was presented which is controlled by the computer and its technical characteristics. After the machine was ready for the preparation process, a programme for creating the planned item was started. The CNC machine's phases have been presented.

The workshop was held in a specialized CNC and CAM-CAD cabinet of the Technical school Sisak.

Study trip

The purpose of the study trip was to show students a positive picture of the profession in which they have been trained and the opportunities which are open to them. The intention of the study trip was to motivate them in their further progress and development.

Students have visited the following companies: Applied Ceramics, Entrepreneurial incubator PISAK, Culinary institute KULL.

Through additional fields of education, students have upgraded their knowledge to gain extra qualifications and skills.

6. Assessment and Transnational Added Value

Sisak-Moslavina County, in the framework of the activity T3.3.2 School initiatives promoting Industrial Culture has reached the objectives related the implemented educational programme with the promotion of revitalization cultural resources of industrial culture and to raise awareness of the wider public on cultural industrial assets.

Due to the positive experiences of the implemented activity, Sisak-Moslavina County has the intention in the future to stimulate a series of changes directly affecting the way of managing an industrial culture with a view to revitalizing valuable industrial culture for cultural purposes.

The project promotes industrial culture through lifelong learning as well as promoting employment opportunities and self-employment through industrial occupations.

The results of the activity will be disseminated to other project partners through project work groups in the purpose of exchange know-how and example of good practice.

The partnership on the transnational level will continue after the implementation of the project through a series of initiatives for the promotion and development of industrial culture, as well as applying for projects to EU source of funding (e.g. network of coordinators) which will also be based on the guidelines for improving vocational education and lifelong learning.

7. Outlook and sustainability

Sisak-Moslavina County within developed educational programme will strengthen regional cultural identity and apply an innovative approach to promote revitalization of industrial culture and sensitize the public on cultural industrial heritage.

After the implementation of the project, activities will continue in cross-linking cooperation with public, business and civil sector institutions in the form of joint initiatives, programmes and projects for the development of the regional identity of industrial culture. The County will provide support for initiatives, development and innovation of creativity in the regional cultural resources.

The County will continue to promote / encourage scholarships for industrial occupations in order to improve vocational education and increase the interest of young people in vocational education which will contribute to a more favorable environment for the development of the economy.

The County will continue to implement educational programme in the Technical School Sisak in the purpose to promote Industrial Labour Market Initiatives.

In the purpose of the further development of concrete projects related industrial culture, the financial resources have been secured by County budget in 2019.

The intention of the County is to implement proposed projects stated in the Action Plan and to increase awareness of the value and the results with the purpose of quality of using industrial culture as a potential for the development of the region.

The Sisak-Moslavina County is responsible for the sustainability of the project results, after the implementation of the project, the County will through its own resources and EU funds endeavour to implement the activity in order to provide examples of good industrial culture practice to other regions.

8. Annexes

The version of the assessment of pilot action "School initiatives promoting Industrial Culture" in Croatian language is provided in annex.