



Past - Present - Future



‘TEXTILES THOUGHT DIFFERENTLY. SCIENCE SLAM IN THE MUSEUM’ - SCHOOL INITIATIVE PROMOTING INDUSTRIAL CULTURE

Implementation report

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RP 5



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0. Abstract

Work Package T3 of INTERREG project InduCult2.0 tests the concept of Industrial Culture in its contextual capability to secure labour force and bind companies: On the one hand, focus is placed on raising interest of youth in industry by embedding cultural issues and work options in a regional story of industrial evolution. On the other hand, work force and companies are directly addressed. The following document summarizes the implementation of an innovative school initiative of the Museum of Textiles and Motorsports Hohenstein-Ernstthal. Their museum educational programme 'Textiles thought differently. Science slam in the museum' brings together an industrial museum, pupils and regional textile companies.

1. Project Context

InduCult2.0 defines the idea of *living industrial culture* in Central Europe. It aims to reveal, strengthen and utilize the unique cultural character of industrial regions. This project does not only deal with the preservation and utilization of cultural heritage, but it brings together past, present, future and creative assets in an innovative work package. Thus, museums, schools, companies and creative communities work together to create a successful cooperation. This is the key for *living industrial culture* as a vivid concept that reflects current transformations of industrial economy and shapes cultural perceptions of the regions.

In order to achieve these objectives, the project has a budget of 3 million euros. The ten participating partners, located in different countries in Central Europe, establish a concept with their stakeholders to realize the full potential of Industrial Culture in their regions.

These participating partners are in eight regions of Europe: Germany, Poland, Belgium, Czech Republic, Austria, Croatia, Slovenia and Italy.

Work Package T3 tests the concept of Industrial Culture in its contextual capability to secure labour force and bind companies: On the one hand, focus is placed on raising interest of youth in industry by embedding cultural issues and work options in a regional story of industrial evolution. On the other hand, work force and companies are directly addressed.

In T3.3.2 an innovative school initiative for the Museum of Textiles and Motorsports Hohenstein-Ernstthal is implemented to promote the attractive cultural/historic dimension of industrial work, joining an industrial museum, regional companies and schools.

2. Introduction

From 28th June to 29th October 2017 the Museum of Textiles and Motorsports Hohenstein-Ernstthal displayed a special exhibition on 'Technology in Textiles'. This exhibition was developed by InduCult2.0 in connection with WP T2.5.3 and T2.5.4. In the beginning of 2018 the special exhibition was transferred into the permanent exhibition and the opening of this new section was on 29th June 2018. This transfer was supported by InduCult2.0 in connection with T2.5.3 and T2.5.4 (for more information on the concept and the implementation see CE31_InduCult2-0_D_T2-5-4_PP1_Touristic Cooperation_30112018.pdf). In a tangible way the exhibition implements the aims of InduCult2.0: its objects and overall concept reflects the past, the present and the future of the textile industry of Hohenstein-Ernstthal. At the special exhibition 13 regional companies participated with exhibits and textiles, due to spatial reasons their number was reduced to 8 for the new section of the permanent exhibition.



Vernissage of the new section of the permanent exhibition, 29th June 2018.

(author: Museum of Textiles and Motorsports Hohenstein-Ernstthal)

Technical textiles today are part of high-performance materials. Especially in motorsports technical textiles were used, and they still are; for example in racing cars in form of fiberglass-/carbon fibre reinforced plastic. Saxony, specifically the region of Chemnitz-Zwickau, is a centre of this innovative branch of industry. The special exhibition displays a cross section of science, development and production.

The museum's educational programme 'Textiles thought differently. Science slam in the museum' is based on the results of the special exhibition. It is used as the basis for the museum educational programme for the new section of the museum.

The programme promotes the past, the present and the future of the textile industry of Hohenstein-Ernstthal targeting pupils and teachers. This school initiative is supported by InduCult2.0 under T3.3.2 to raise interest of youth in industrial culture and work options.

3. Objective

The Museum of Textiles and Motorsports understands itself as an extracurricular place for learning and wants to expand the cooperation with schools and companies in the future. The museum educational programme 'Textiles thought differently. Science slam in the museum' allows informal learning and enhances learning competences. It also increases the interest on the subject museum and museums' contents.

The museum's educational programme aims at the collaboration with grammar schools and secondary schools (especially 9th and 10th grade) as well as vocational training schools. The new section of the permanent exhibition 'Technology in Textiles' provides a good opportunity for that because it focuses on the development of textiles and their deployment in machine and automotive engineering, motorsports, medicine and environment engineering in history and present. The museum educational programme is developed in that way that it connects these topics to the life and interests of teenagers and young adults.

The title 'Textiles thought differently. Science slam in the museum' is meant to raise interest both in the teachers and the pupils and to encourage perceiving the topic 'textiles' from a different, innovative perspective.

By visiting the special exhibition and by working in the exhibition space the pupils learn about the past textile industry at Hohenstein-Ernstthal and connect this gained knowledge to what has

become of this industry in the present. They also learn practical job-related information on which firms are in the area, where they can apply for an apprenticeship or job after they finish school.

4. Structure

The museum's educational programme 'Textiles thought differently. Science slam in the museum' is structured in four phases: a preliminary lecture in school a week before the event, a short tour through the special exhibition, working in groups, presentation of the results; estimated duration of the event is two hours. The subject 'textiles' is the all connecting element. Supported by a staff member of the educational department at the museum the pupils work on the subjects in groups on their own and afterwards they present their results.

The preliminary lecture a week before the event introduces to the pupils the topics "technical textiles", "industrial culture", "science slam" and "museum". The short lecture is handed out to the pupils in PDF-format to prepare for the event one week later (see 8. Annex). Also, they are briefed on the course of the event as well as the tasks to be done.

On the day of the event a 45 min tour through the exhibition provides the pupils with an overview of the three exhibition sections weaving mill, race course "Ring of Saxony" and technical textiles, and patchwork. They also get to know the concept of the exhibition, and a few of the most important exhibition objects e.g. by using the example of glasfibre.

After the short tour the pupils can choose one of the following groups: 'Team History', 'Team Science', 'Team Racing' and 'Team Art'. The names of the groups are derived from motorsports where different teams are competing with each other to win the race. The group's name also reflects the thematic content of each group. For example, 'Team History' works on the historical development of technical textiles, whereas 'Team Racing' is concerned with the deployment of such textiles in the field of racing.

As a guideline the pupils are handed out a prepared work sheet with a catalogue of open questions for each team. The questions operate as an orientation through the topic, they do not need to be answered as a whole. The teams pick out what they are interested in and they decide what they want to teach their peers and how.

Each group also gets an exhibition object fitting to its subject. With this object the pupils can do their research and experiments: What is the object exactly? What is it made of? What is its purpose? Etc. In doing that, one object or one specific topic of the exhibition can be analyzed from different angles: For example, the object 'MT77', a racing car from the times of the GDR with a 'Malimo'-logo of the former VEB Malitex Hohenstein-Ernstthal, can be questioned on the background of its development/its use/its success/etc by 'Team History'; on its construction regarding the aspect of performance by 'Team Racing'; on the aspect of innovative materials by 'Team Science'; and on its design by 'Team Art'.

The group work takes about 60 min and it is followed by a 15 min break where the pupils can take a rest or prepare the presentation.

After the break each of the four groups presents the results of its work in a science slam of 45 min. This can take place in the museum educational room, which provides the common technical devices, or somewhere else in the museum, e.g. in the exhibition space. The presentations follow the method of science slam: there is no set structure, the pupils can be as creative as they want. They can present their results traditionally by using paper and pen on the flip chart or by using the performative arts.

The only restriction is to keep the duration of the presentation down to 10 min and to break the relevant information down in an interesting way with the means provided. The presentation of the results is moderated by the staff member of the educational department at the museum. At the end the other pupils decide which presentation, or 'performance', is the best and they declare the winner.

Regarding the job orientation element of the event, the pupils get to know regional textile companies during the exhibition tour and the science slam in the museum. The companies are presented in the exhibition through texts, images and exhibits/products. After the science slam in the museum the second part of the event, where the pupils visit a regional textile company, takes place. There, they get an insight into an example of current production, and they also get the chance to gain first hand information on which jobs are there in the textile industry, which job opportunities are there, what kind of apprenticeships etc.

The museum's educational programme 'Textiles thought differently. Science slam in the museum' is promoted with a flyer (see 8. Annex)

5. Implementation

The museum's educational programme 'Textiles thought differently. Science slam in the museum' wants to show that there is more to textiles than just regular clothing. It gives an insight into the exciting and innovative world of technical textiles. It also considers the use of technical textiles and their influence on functionality and safety in motorsports. The programme shows innovative products and developments, partly with a regional focus, and it allows analyzing them creatively.

By using different methods the pupils learn about interdisciplinary aspects of history, technology, economy, science, sports and arts. The concept of the museum educational programme takes into consideration content, layout and space of the special exhibition as well as the specific curriculums and interests of the different grades of school. The main aim of the programme is to foster creativity, learning and fun.

The museum's educational programme 'Textiles thought differently. Science slam in the museum' has been set into action at the beginning of the school year 2018/2019 on 13th September 2018 and 20th September 2018. Partner for programme was a 10th grade class from the grammar school "Gotthold Ephraim Lessing" in Hohenstein-Ernstthal. Their teacher Mrs Spindler (subjects math and geography) was very open and interested. The focus of the programme was on the curriculum for the subject "Geography - Grammar School of the Free State of Saxony", which deals in the 10th grade with the topic "Economic Area Saxony" (20 lessons).

On 13th September 2018 from 10:30 till 11:00 the educational programme started with Mr Randy Kämpf, staff member of the museum education, giving a short lecture on the topic 'Textiles thought differently. Science slam in the museum' at the participating grammar school „G. E. Lessing". There, also the catalogue of questions was handed out, organisational issues were solved, the four teams 'Team History', 'Team Science', 'Team Racing' and 'Team Art' were formed by the pupils themselves, and the lecture was handed out in PDF-format.

One week later, on 20th September 2018 at 9:00 the "Science Slam" was held at the Museum of Textiles and Motorsports. At 9:00 Mrs Spindler and 21 pupils arrived in the museum. First the schedule was communicated and questions were answered. The overall impression was that the pupils were very interested and motivated. They were happy with the pre-lecture and the handed out material they received the week before. They came well prepared to the science slam.

After the tour through the exhibition Mr Randy Kämpf and Mrs Marina Palm, director of the museum, each supported two of the four teams in preparing the science slams (Mr Kämpf: Teams "Science" and "Racing", Mrs Palm: Teams "Art" and "History").



Team “Racing” at work (author: Museum of Textiles and Motorsports Hohenstein-Ernstthal).



Team “History” at work (author: Museum of Textiles and Motorsports Hohenstein-Ernstthal).

After one hour of intensive preparation and a break of 15 min each group presented their results. It was very apparent that the pupils enjoyed the concept of the “Science Slam”. Some presentations were very quirky and funny. Only having an “old-fashioned” flip chart proved to be inspiring and a chance to be more creative.

The pupils chose the winning team themselves by applauding in different volumes (the loudest applause indicated the winner’s performance). To the winning team Mrs Palm presented small prizes that were founded by the museum. The atmosphere was really great. With a short delay the event ended at 12:30.

Because the responsible person was ill at the day of the event, the subsequent visit to a regional textile company is postponed to a not yet confirmed date in November 2018.



Everyone is a winner somehow (author: Museum of Textiles and Motorsports Hohenstein-Ernstthal).

6. Evaluation 'Textiles thought differently. Science slam in the museum'

The museum's educational programme 'Textiles thought differently' was tested first during the 'Days of Industrial Culture' from 22nd to 24th September 2017, to which the Museum of Textiles and Motorsports was an important contributor.

The second run-through on 13th and 20th September 2018, where the museum's educational programme was implemented after the special exhibition became part of the permanent exhibition, was a very positive experience for both the pupils as well as the museum staff. After the event, the teacher Mrs Spindler communicated that all the pupils were very positive about the event. They liked the pre-lecture and the preparation of the event that came with it. They also liked the structure of the event at the museum, the form of the presentation (flip chart, performance) and the support by the museum staff. They very much liked that they were able to touch the materials in the museum and to work with them haptically. The pupils criticized three points: They wished they would have had more time for preparing their presentations, they would like to work more with digital media, they would like the programme to expand its job orientation-factor.

The feedback from the pupils and their teacher shows that all the objectives (see 3. Objectives) could be reached: in an informal way and mainly by themselves the 10th grade pupils learned about the field of textile industry (content-wise and job-wise). Their interest in the subject and in the museum was definitely raised. The structure and the concept of the programme met their life and interests. Their teacher could also be reached by the programme.

Only the second part of the museum educational programme, the subsequent visit to the regional textile company, could not be implemented. Due to personal reasons of the responsible staff the event had to be rescheduled.

Based on the feedback of the pupils two elements could be improved: the phase for preparing the presentations could be expanded, and the media used could be expanded to digital media. (Point three of the criticism was due to the rescheduling).

Implementing the museum educational programme 'Textiles thought differently' made clear several aspects which could be interesting for partners as well as interested parties outside the partnership: The pupils have great interest in what happens in the (textile) industry of their region; their feedback was very positive. Also, the companies become more aware of their role in the region, i.e. their social responsibility. Because quite a lot of them participated in the exhibition 'Technology in Textiles' and it proved not difficult to find a company for the second part of the programme. Furthermore, the programme is ideal for bringing together actors who are usually not seated at the same table. For instance, a museum worked together with textile companies and school classes went into companies. So, the closer connection between industrial cultural actors, which is promoted by InduCult2.0, is gained through this programme.

7. Outlook and sustainability

The Museum of Textiles and Motorsports Hohenstein-Ernstthal wants to pick up the feedback of the pupils of the run-through in September 2018. It is to be determined to keep the second part of the museum's educational programme 'Textiles thought differently. Science slam in the museum', i.e. the visit of a regional textile company. The museum plans to expand the add-on with other regional companies that deal with textile industry (textile production, textile machine engineering). So, the job orientation element of the museum's educational programme, and thus the triangle school - museum - company, is strengthened. Further communications to other companies participating in this add-on are under way.

Generally, the museum's educational programme 'Textiles thought differently. Science slam in the museum' is working well, with its pre-lecture preparation and the networks to the schools / teachers. There is a lot of interest for the programme. The participating teacher Mrs Spindler is very well connected with other teachers of her subjects math and geography. The museum is positive to continue working with Mrs Spindler and, with her help, to expand its connections to other schools in the region (no concrete dates yet).

Because of the positive feedback and the future content orientation of the museum the programme 'Textiles thought differently. Science slam in the museum' has been officially included into the museum educational offer of the Museum of Textiles and Motorsports Hohenstein-Ernstthal.

8. Annexes incl. picture documentation

PDF of preliminary lecture a week before the event (file name: PP1_English Summary_T3.3.2_annex_preliminary lecture.pdf)

Flyer 'Textiles thought differently. Science slam in the museum' (file name: PP1_English Summary_T3.3.2_annex_flyer.pdf)