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TechLab – Vision of a learning laboratory for technology in Flensburg

Studies prove that technical education is often underrepresented with regard to young people, although our everyday lives as well as even more and more professions are characterized by technology to a high degree. However, at the same time, many companies attest school graduates a lack of competencies and little interest in technical fields, so that it is partly not possible to fill training places and permanent positions in technical professions with qualified employees.

In many schools, technology cannot be addressed to a satisfactory extent, as there is often a shortage in appropriate laboratories, technical equipment and/or qualified teachers. Thus, technical lessons are quite often restricted to the processing of materials (handicraft lessons). The training of any further technical skills is often left to chance. Against the backdrop of the well-known shortage of engineers the situation seems to be particularly precarious at academic high schools in Schleswig-Holstein where no technical lessons are provided like in many other federal states too.

We would like to counteract this problem and implement the "TechLab" learning center that can be used by classes from the surrounding area. This learning center should have a contemporary medial equipment available. Technical key topics, such as e.g. energy, mobility, construction or automation, should be presented in a student-friendly manner and imparted in an action-oriented way. For this purpose, we make our competencies available for the development, implementation and evaluation of learning objectives, contents, media and methods. An integration of our application-oriented research approach ensures didactically reasonable and contemporary learning arrangements. The involvement of our students allows an intensive supervision of the school students and not least the attainment of research-based studies for our students. For regional companies and institutions there is the possibility to present themselves and to contribute any topics relevant from their point of view to the learning center. These synergy effects pursued finally serve the objective to early and continuously introduce technology as an important cultural field of human existence to children and adolescents of the surrounding area and to recognize and develop their talent during the work with and on technical artefacts. In this process, not least a sensitization for technical professions can and should be achieved.

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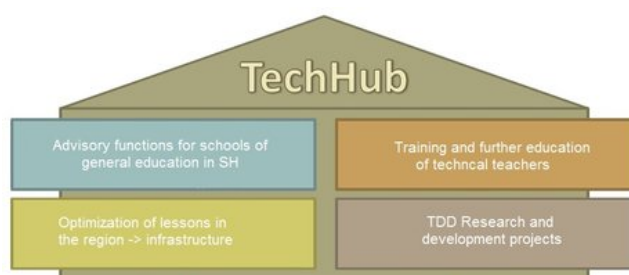
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We share experiences from similarly designed projects. As an example, in the school years 2010/2011 and 2011/2012, the technical student academy called "[Wheelie](#)" was offered in which students from a school in Flensburg regularly visited the university where they addressed electro mobility and mechatronics by means of a vehicle similar to a Segway.

In contrast to any other extracurricular places of learning, the TechLab should not be used once-only, but regularly by school classes and, thus, complement the technical lessons at school. In this way, latest scientific results are taken into account.

Nevertheless, for developing this idea further into any specific offers at schools and educational institutions we need the cooperative support in the form of any rooms, equipment, material, extracurricular expertise and/or financial means.

Should you be willing and able to contribute, we would be very pleased to hear from you.

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