

Action plan submitted by Arzu Erdoğan Alkan for Işıktepe Rüveyde Dörtçelik İlkokulu -  
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**By submitting your completed Assessment Form to the STEM School Label portal you have taken an important step towards analysing the status of your School's STEM Strategy. Congratulations! Please read through your Action Plan carefully to see what you can do to improve STEM activities further in your school. The Action Plan offers useful advice and comments, broken down into 7 key areas: Instruction, Curriculum implementation, Assessment, Professionalisation of staff, School leadership and culture, Connections, School infrastructure.**

## Instruction

### Personalisation of learning

Way to go! if you would like to further improve personalisation of learning concerning cultural backgrounds, you can also explore the Europeana collections to find digital content relevant for students from different cultural backgrounds to include in your instruction: <https://www.europeana.eu/>

### Problem and project based learning (PBL)

That's amazing! Please also consider sharing your experience at the STEM Discovery Week:  
<http://www.scientix.eu/stem-discovery-week>

### Inquiry Based Science Education (IBSE)

Well done! For methods and approaches that assist teachers and schools in adopting Inquiry-Based Learning in Science Education (IBSE), check this web platform developed by the SAILS project. More info under:  
<http://www.scientix.eu/news/news-all/news-detail?articleId=416095>

## Curriculum implementation

### Emphasis on STEM topics and competencies

You have good experience in STEM education. Maybe you can organise a STEM project with other schools and publish your results in the SCIENTIX portal. You could apply for funds for organising an Erasmus+ project. Check the information here: [http://ec.europa.eu/programmes/erasmus-plus/about\\_en](http://ec.europa.eu/programmes/erasmus-plus/about_en) or in your National Agencies website.

### Interdisciplinary instruction

Continue with this approach and remember to publish your projects. They can be a useful help to other teachers. Do you want to learn more or know what others are doing? Check this website with ideas about a "Full

STEM Curriculum". There they define some characteristics of a Fully Integrated STEM School and STEM Teachers (<https://stemrevolution.org/full-stem-curriculum/>).

## **Contextualization of STEM teaching**

The scientific projects incorporate the validity of the process they propose. STEM teachers should present these projects to their students, letting them self-develop creatively to find ways to approach knowledge by solving real problems and coping with situations of everyday life, focusing particularly on their daily routines. Remember to share your experiences at Scientix blog <http://blog.scientix.eu/>

## **Assessment**

### **Continuous assessment**

Congratulations! Consider sharing your experiences and good practices in a blog article! <http://blog.scientix.eu/>

### **Personalised assessment**

Great! You are implementing good practices in project-based learning. The next step can be to use video feedback. You can find out more of its benefits at: <https://www.educationdive.com/news/students-and-teachers-are-more-receptive-to-video-feedback/524242/>

## **Professionalisation of staff**

### **Highly qualified professionals**

Seminars and conferences are a great way of preparing a better STEM education. You should try "STEM Professionals Go Back To School"! This is a STEM Alliance scheme that encourages volunteers from STEM industries (technicians, scientists, engineers, researchers or employment and recruiting managers) and teachers to organise career talks and collaborative activities in schools. The programme runs all year long, and functions as a database of existing and new initiatives. There is a guide for schools here: <http://www.stemalliance.eu/documents/99712/452773/Booklet+schools+PGB2S/315d1227-837f-46ad-adc2-f259dd79f437>

### **Existence of supporting pedagogical staff**

Great! Effective teacher preparation, induction and development are key to producing quality teachers. Find out about advocating for equitable STEM education for all in this text here: [https://greatlakesequity.org/sites/default/files/20150101374\\_equity\\_tool.pdf](https://greatlakesequity.org/sites/default/files/20150101374_equity_tool.pdf).

### **Professional development**

Career counsellors for STEM jobs in the labour market should be informed at a local and national level. Let's take a look at the link: <https://www.schooleducationgateway.eu/en/pub/latest/practices/career-guidance-new-approche.htm>

## **School leadership and culture**

## School Leadership

It looks like you already have a lot of experience at the school level regarding leadership. To go further on this topic, take a look at this online course. As it says, "Every great teacher and every great school constantly work towards creating better learning conditions for students. Just as we hope our students become lifelong learners, we as educators should be constantly learning and improving": <https://www.edx.org/course/launching-innovation-schools-mitx-microsoft-education-11-154x-1>

## High level of cooperation among staff

Good work! Next step is to promote your school's experience with other schools at regional, local and international level. For example, you could promote sharing of teachers' experience in Scientix Social Media Community (<https://www.facebook.com/groups/ScienceTeachersEurope/>) or the Scientix Blog (<http://blog.scientix.eu/category/scientix>). You can even apply for an Erasmus+ Key Action 2 (KA2) project to share best practices with other European schools. For more information about how to apply to Erasmus+ funding follow "Erasmus+ funding opportunities for schools" online course on the School Education Gateway <http://academy.schooleducationgateway.eu/web/erasmus-funding-opportunities-for-schools-2018-edition>

## Inclusive culture

Very well done! You can still take part in an international campaign such as the Code Week (<https://codeweek.eu/>) or the Safer Internet Day (<https://www.saferinternetday.org/>) and the STEM Discovery Week (<http://www.stemalliance.eu/stem-week-2018>)

# Connections

## With industry

For instance, the TuWas project works with over 34 schools in Germany, and arranges factory visits as well: <https://www.youtube.com/watch?v=d1MV7pCX8gY>

## With parents/guardians

Congratulations! To go further on your level of activities at the school level regarding this criterion, the ESPRIT Project (Fostering Equitable Science through Parental Involvement and Technology) leverages a technology-based social learning environment, Flipgrid ([flipgrid.com](http://flipgrid.com)), to engage science teachers and student-parent pairs in activities to support parental involvement and increase student learning outcomes. Their research focuses on how participating in the project activities affects (1) teachers' science instruction practices, (2) middle school students' science learning, STEM attitudes, and science engagement, and (3) parents' attitudes about school involvement and supporting their students' science learning. <https://vimeo.com/266412430>

## With other schools and/or educational platforms

Why not organise joint STEM activities with other schools in your town? Reach out to Scientix national contact points, or see if there are Scientix ambassadors in your region: <http://www.scientix.eu/in-your-country>

## With universities and/or research centers

See how you can initiate this with a local university. This article might be an inspiration:

<https://www.edutopia.org/article/tips-partnering-university>

## With local communities

Good work! It would be nice if you can share the news about local community presentations at school on your webpage and/or social media. This would be useful to engage a higher number of local partners to present their activities to your students. To organise this presentation you can find some ideas in the "Professionals go back to school" scheme by the STEM Alliance project <http://www.stemalliance.eu/pgbs>

# School infrastructure

## Access to technology and equipment

Think about asking your teachers to register for MENTEP and use the TET-SAT self-assessment tool, with which they can evaluate and improve their IT skills: [https://www.youtube.com/watch?v=GtceTYZ7T\\_A](https://www.youtube.com/watch?v=GtceTYZ7T_A)

<https://www.youtube.com/watch?v=fkW1mNaGfko>

## High quality instruction classroom materials

It looks like your school is already creating high quality classroom materials. Share your experience at the European level and take part in the STEM Discovery Week campaign, which is a yearly campaign aiming to bring visibility at the European level for all initiatives related to STEM. More info about past campaigns under:

<http://www.scientix.eu/events/campaigns/sdw18>

**The Assessment Form you submitted is generated from a large pool of questions. It is also useful for us to know if you are improving your STEM strategy in areas not mentioned in the questionnaire. You can [upload School practice evidence](#) of such changes via the Upload School practice evidence on the [My school area](#) section of the STEM School Label Portal. Remember, the completion of the Assessment Form is just one part of the Accreditation Process, because the upload of School practice evidence, your exchanges with others via the [Forum](#), and your reporting of [case studies](#) on the template provided are all also taken into account.**