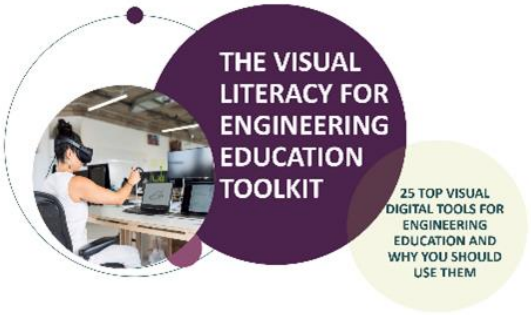
Launch of our VISUAL LITERACY FOR ENGINEERING EDUCATION TO TOOLKIT



Building on the success of the VLEE Competence Framework, our VLEE expert team of engineering educators and pedagogic designers are now pleased to announce the launch (in English) of our Visual Literacy for Engineering Education Toolkit.

WHO WILL BENEFIT FROM THIS TOOLKIT?

In VLEE Toolkit, the Partners provide practical guidance to engineering educators on incorporating 25 digital design tools into their day-to-day work, ultimately improving the quality and relevance of the education they provide to their engineering graduates.

For the student, the benefits are two-fold; they will increase their visual literacy and digital competencies while also further preparing themselves for entry into the smart digital Industry 4.0 world of work.

DID YOU KNOW?

The origin of the word Engineer

The word engineer is derived from the Latin words ingeniare ("to create, generate, contrive, devise") and ingenium ("cleverness").

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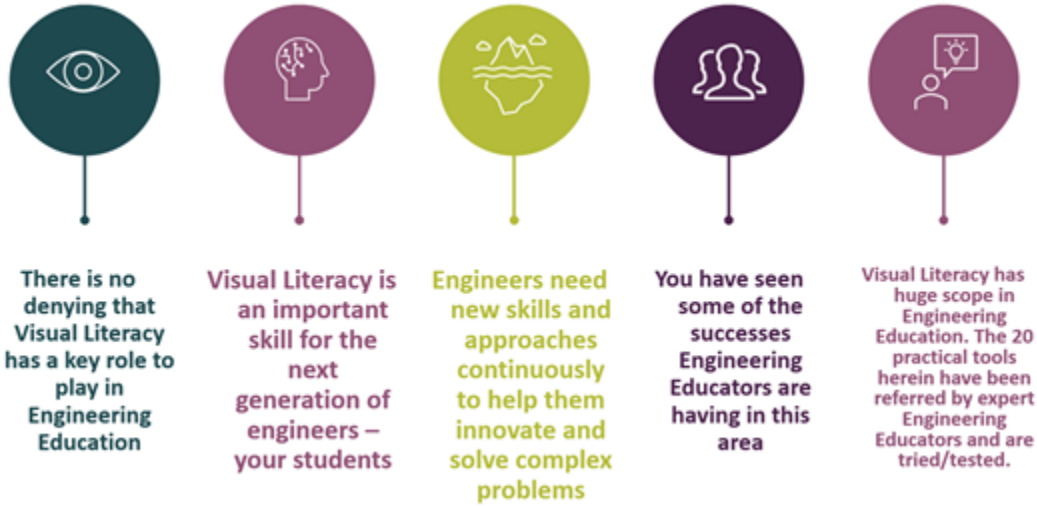
KEY REASONS "WHY?" YOU SHOULD READ ON



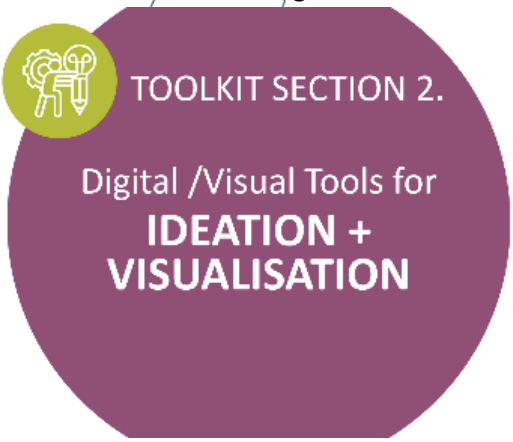
In recent years digital tools have transformed the process of visual communication, BUT they are not being widely used in Engineering Education and there is lack of understanding with regard to the importance of visual literacy and thinking in the field of engineering education. This toolkit is a practical resource which seeks to redress this.

The scope of visual literacy in education now extends beyond illustrative content, symbols, diagrams and charts to encompass drawing and painting, moving images, animations and multimodal media.

With regard to Engineering Education, there are many applications and ways that visual literacy can be used including: mind maps, infographics, technical sketching, 3D imaging, vlogging and video explainers.

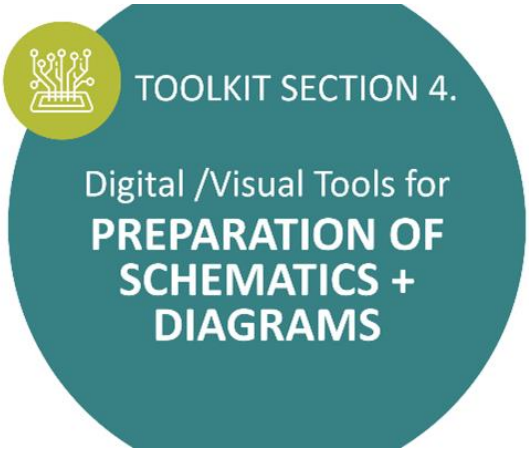
VLEE Toolkit explores 4 key areas where Visual Literacy comes into play:

Digital/Visual Tools for Ideation and Visualization. Visualization and Ideation are two key elements in the application of engineering and vocational education. The visualization process involves the creation of images, diagrams, or animations to communicate abstract and concrete ideas. Ideation is the creative process of generating, developing and communicating new ideas. With the assistance of 35 Engineering Educators, the project present three of the most practical and useful digital tools that engineering educators can use to help their students visualize and imagine new ideas.



Digital/Visual Tools for Research + Planning. For engineering and vocational education teachers and students alike, formatting and keeping your research organized can be a challenging task. In this section of Visual Literacy for Engineering Education Toolkit there are some digital/visual tools which teachers and students can use to research and plan projects.

Digital/Visual Tools for Preparation of Schematics & Diagrams. Schematics and Diagrams form a large component of some engineering and vocational education curriculum. Traditionally these would have been taught and practiced offline but now thanks to digital tools, more lifelike and animated schematics and diagrams can be created. In the section, The Partners present the VLEE's project's carefully curated list of Digital/Visual Tools for Preparation of Schematics & Diagrams.



Digital/Visual Tools for Communication, Presentation and Reporting. In today's online and visual world, any job or trade you train in will rely on visual communication.

From safety handbooks in the warehouse to infographic reports in the boardroom, being able to communicate effectively with visuals is something every engineering professional relies heavily upon. In this section, one can find the best selected tools, which facilitate communication, presentation and reporting.

DID YOU KNOW that Ideation is a key step in the increasingly popular DESIGN THINKING process?

The ideation process is all about coming up with solutions that are based on a problem statement. During ideation, the main concern is not about finding the best solution but about creating several innovative solutions through brainstorming and other techniques.

VLEE Toolkit is available and online in https://www.vleeproject.eu/ in English, with Polish Danish and Spanish versions coming soon.

Visual communication is a process which can help engineers to convey complex ideas more simply.

What is a Visually Literate person?

A Visually Literate person is anyone able to interpret, to think, to learn and to express using images, pictures, graphics or physical objects. He is proficient in understanding a message from an image, to reason with images as well as to express ideas by using a drawing or a physical model.

Creativity and Ideation

It has long been recognized that creativity and innovation are essential qualities of successful engineers. Creativity, as we know, is crucial to helps the generation of new ideas. Visual thinking activates the side of the brain which is associated with free ideation. This free ideation enables the creation of visual representations and the synthesis of solutions to problems. Visual expression is a key activity in the process of originating new product ideas in engineering. Engineering education must be aware of the need teach as well as to practice Visual Literacy being shown to its benefits for ideation and problem-solving skills and innovation competences.

VLEE PROJECT

VLEE is an EU **Erasmus+ Project** based on the collaboration of partners and experts from Poland, Spain, Denmark, Ireland and the United Kingdom.

For more useful insights please take a look at the other resources created by our project.

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