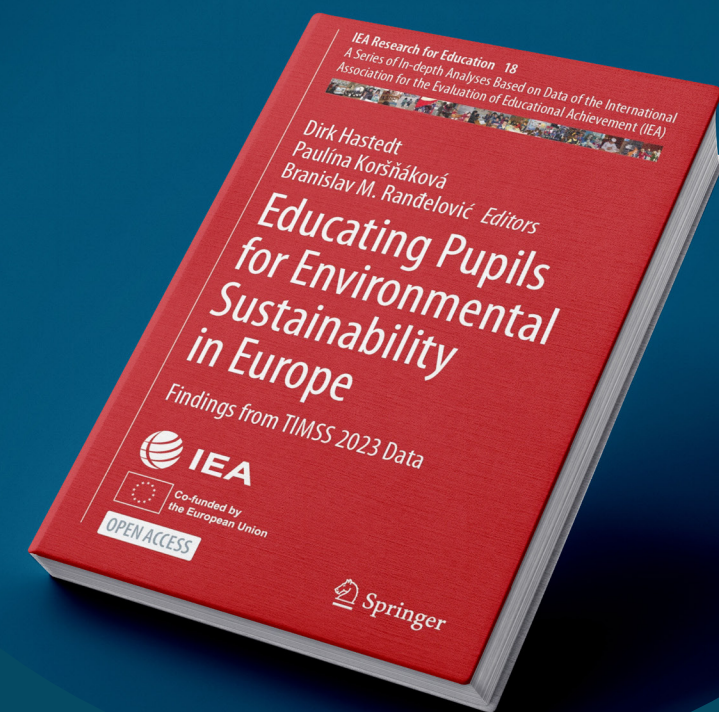




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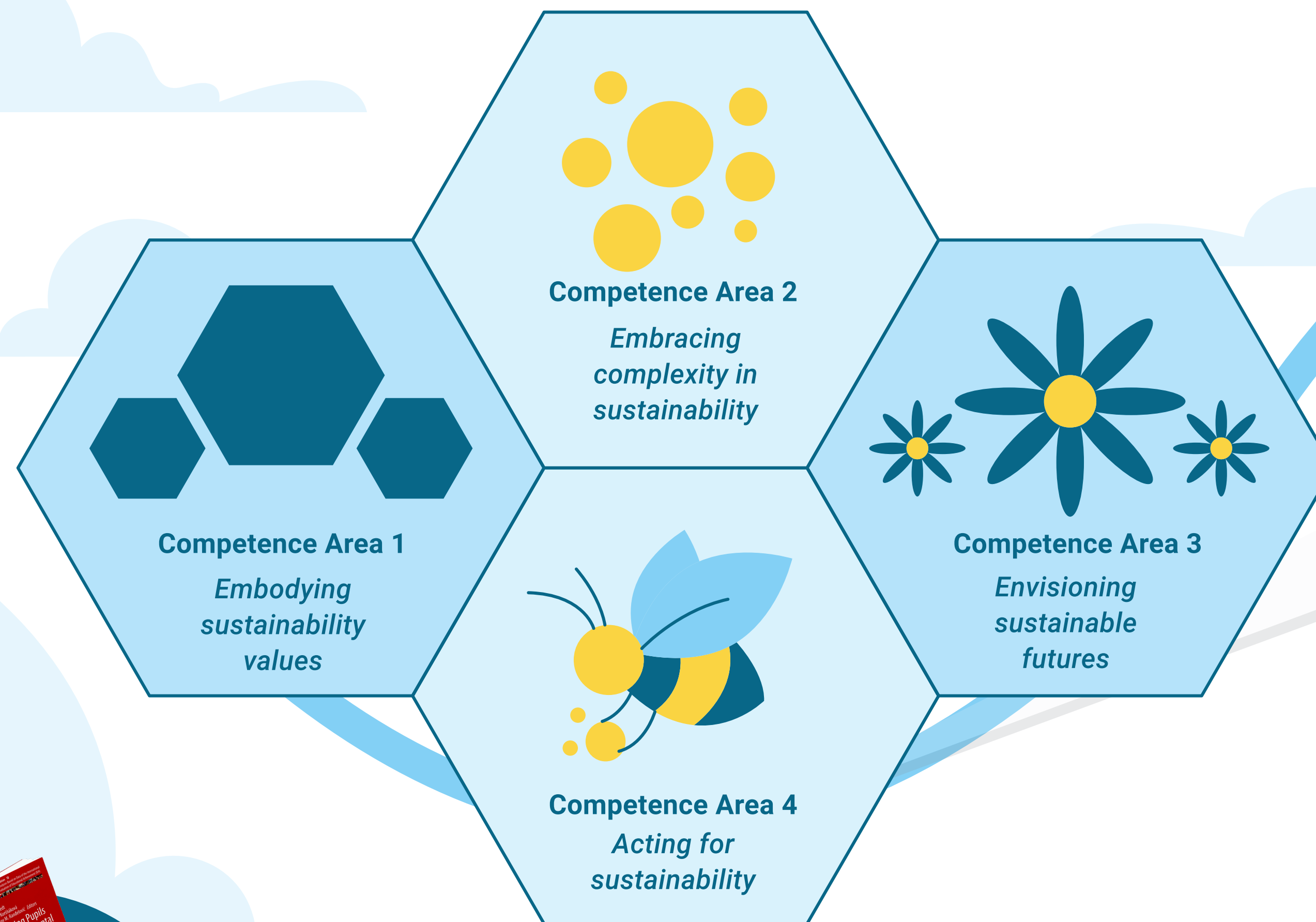
Educating Pupils for Environmental Sustainability in Europe:

Findings from TIMSS 2023 Data

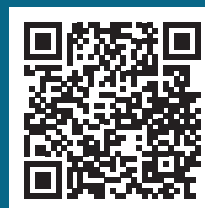


GreenComp: The European sustainability competence framework

It is the EU's reference framework for sustainability competences outlining the knowledge, skills and attitudes individuals need to support a sustainable future. It helps guide education and policy by structuring these competences into four key areas enabling learners to understand complex environmental challenges and take responsible action.



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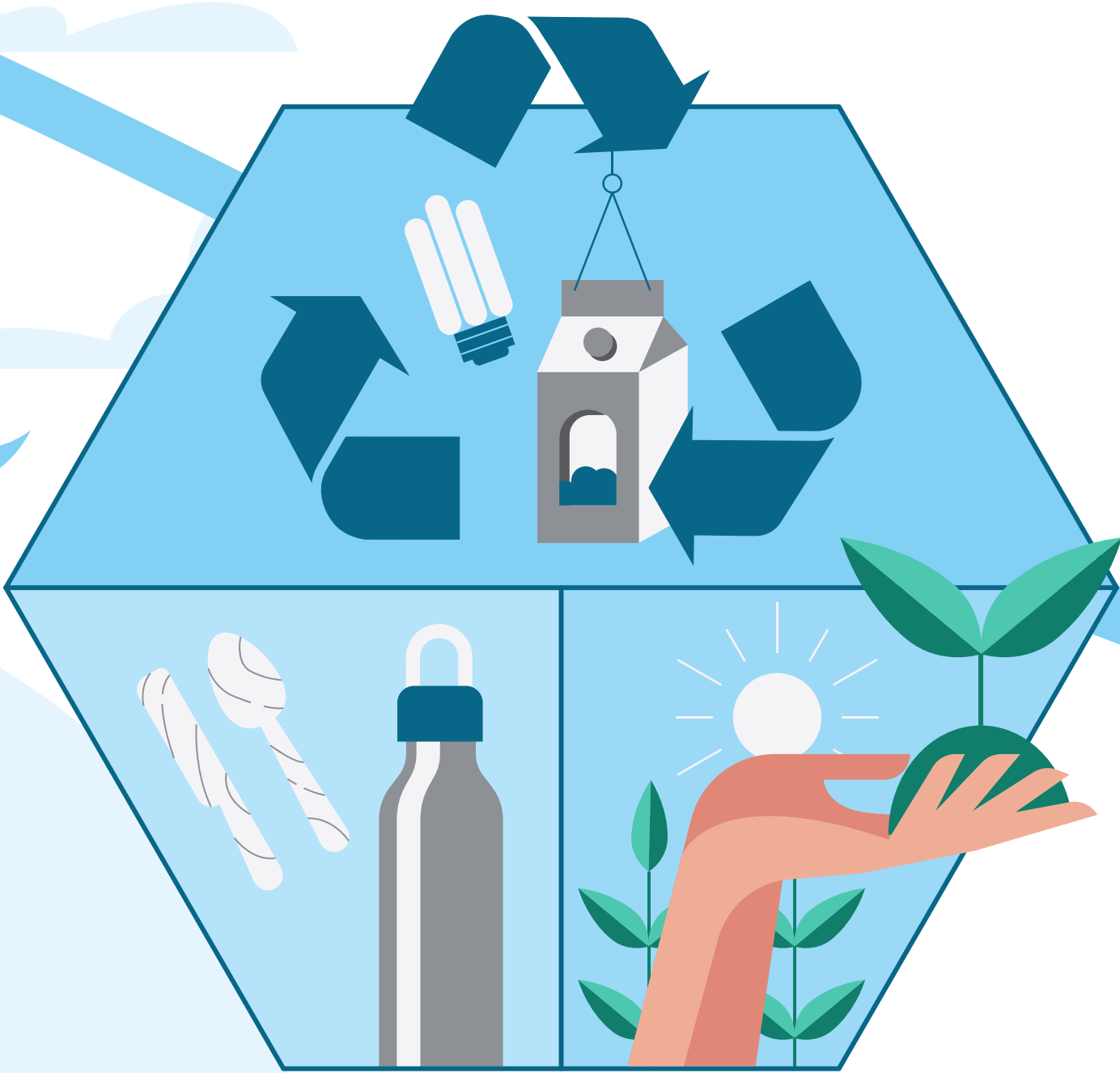
[Read the full book here](#)



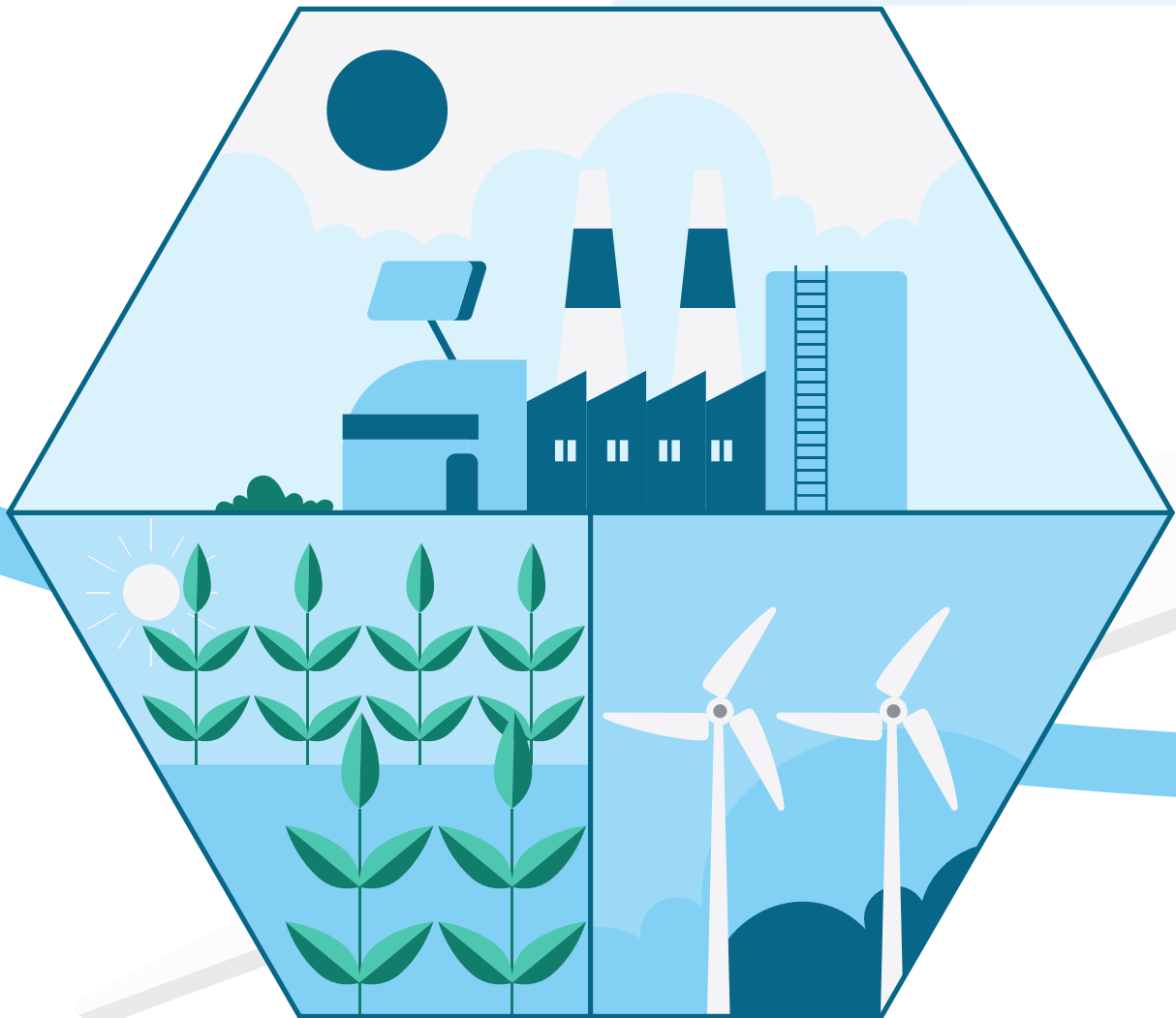
Trends in International Mathematics and Science Study (TIMSS), is the longest-running large-scale international assessment of mathematics and science

Introduced in the 2023 cycle of TIMSS, the TIMSS 2023 Environmental Attitudes and Behaviors Framework utilizes questionnaire responses to measure students' environmental attitudes in two dimensions:

PRESERVATION (Grade 4 and Grade 8)



UTILIZATION (Grade 8)



Present analysis focused on grade 4 population, with responses from students, their parents, and teachers

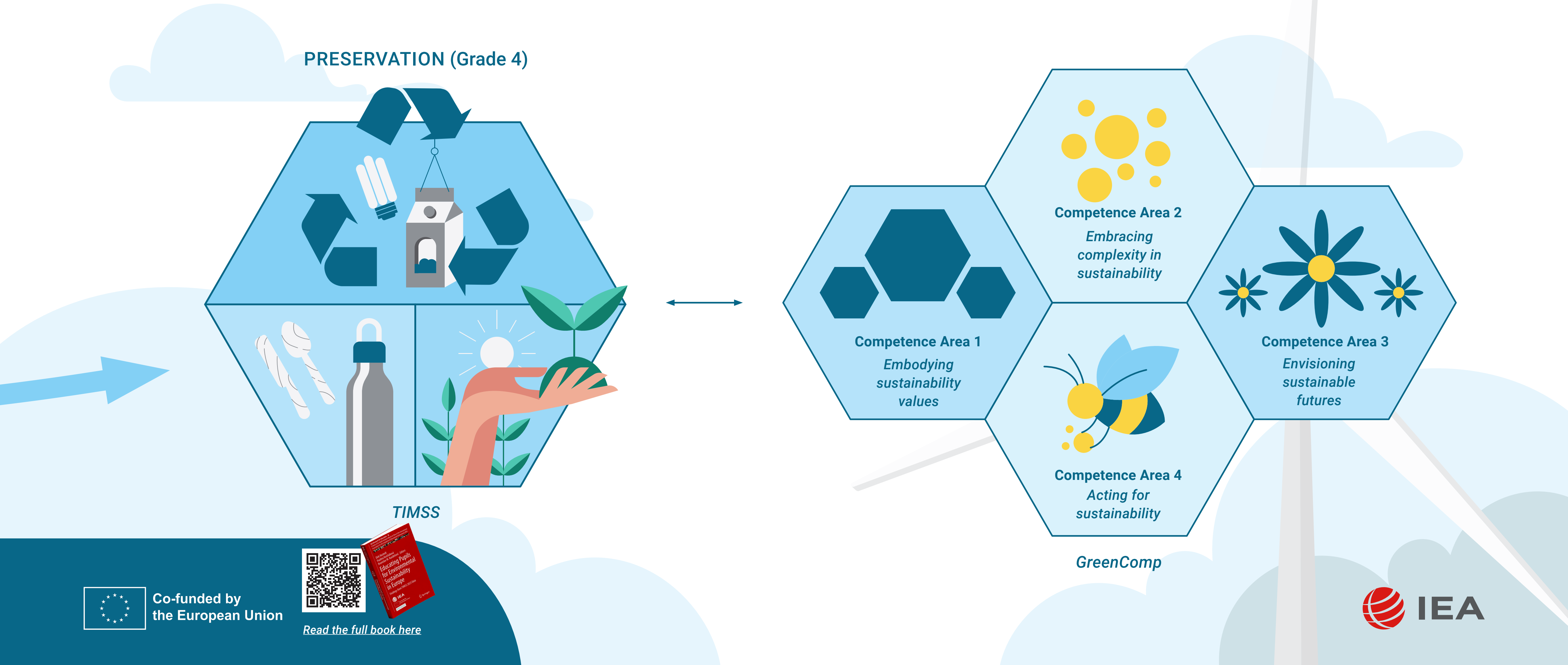
Students believe the environment should be protected and preserved.

Students believe natural resources should be used for human benefit.

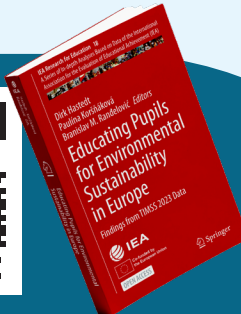
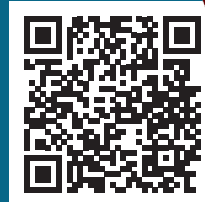


A systematic mapping process was undertaken to identify TIMSS 2023 grade four student, teacher and home questionnaire items that align with the GreenComp competence areas....

.... providing a clearer picture of what European grade four students are learning about the environment, and which factors are linked to their improved knowledge, skills and attitudes



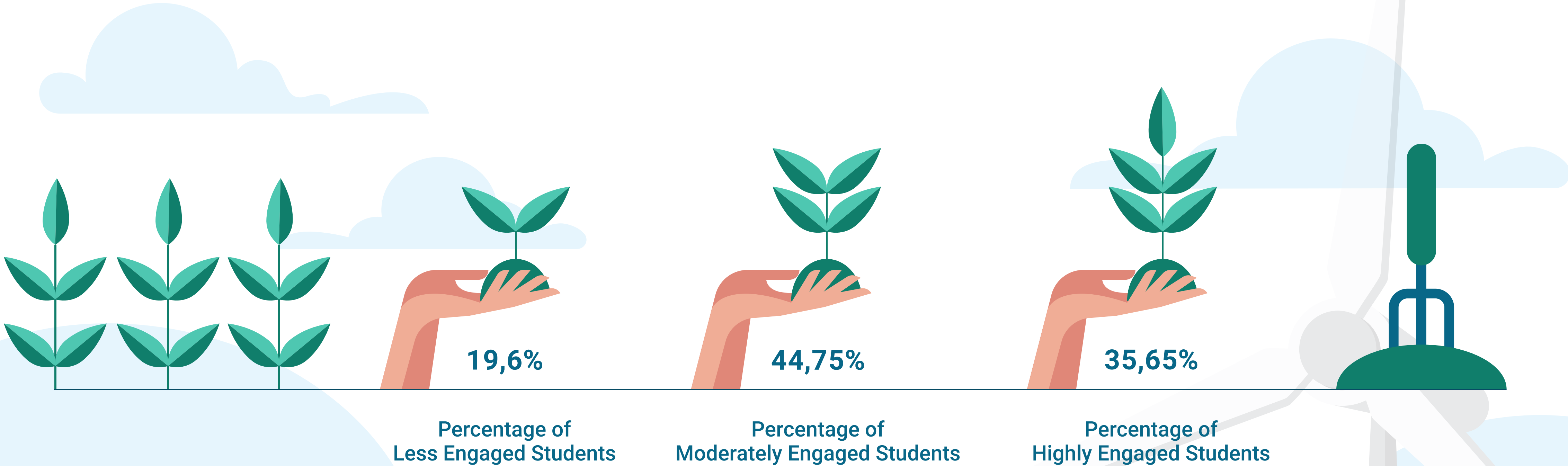
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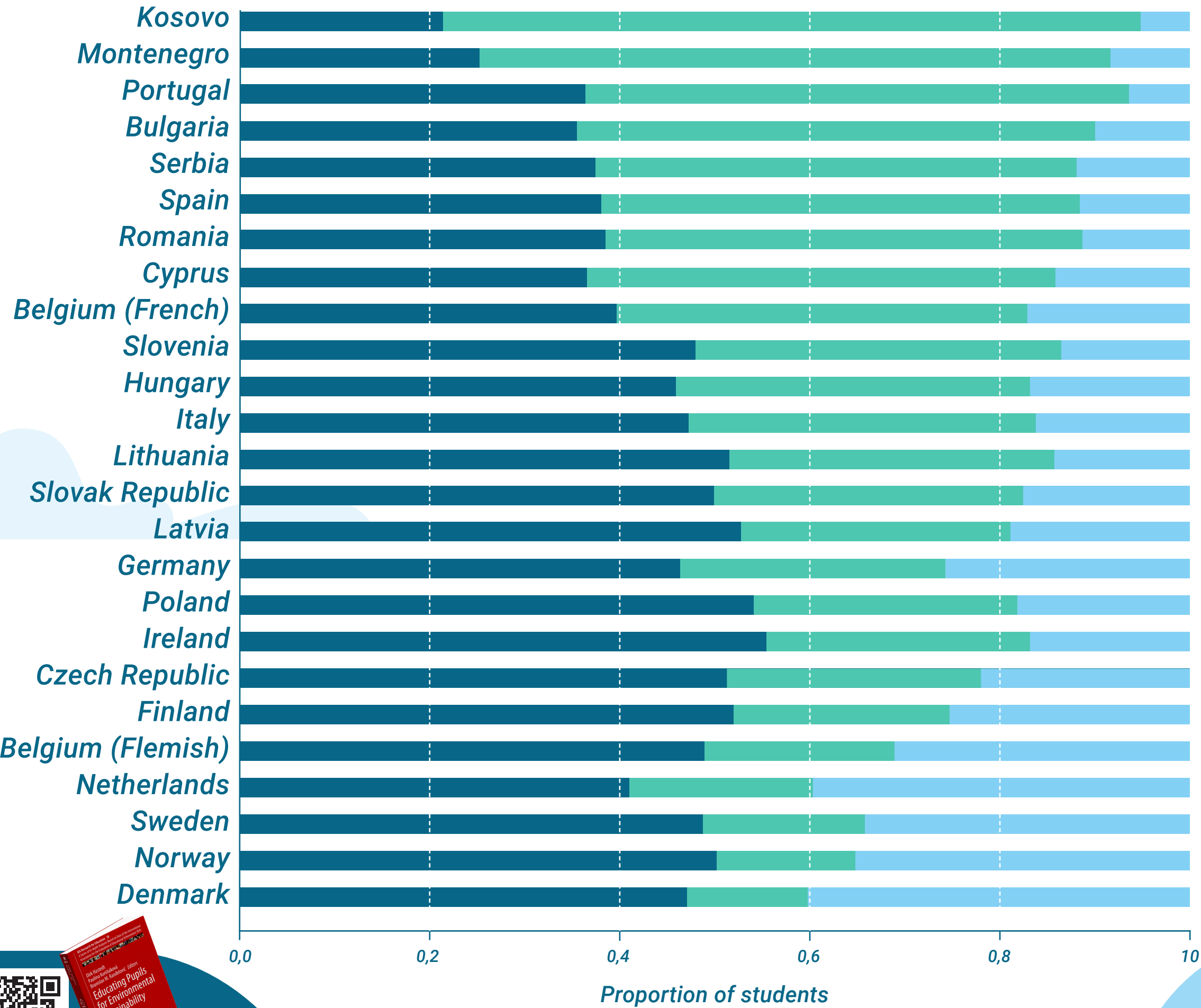


Grade four students' sustainability engagement level was classified based on TIMSS 2023 student questionnaire items mapped to GreenComp competence areas

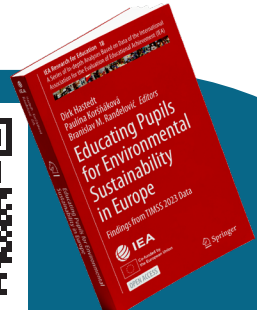
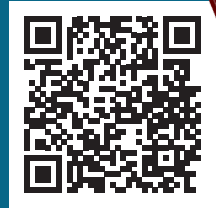


Some education systems have relatively low proportions of less engaged students, and relatively many highly engaged students, when it comes to environmental sustainability

- Proportion of moderately engaged students
- Proportion of highly engaged students
- Proportion of less engaged students

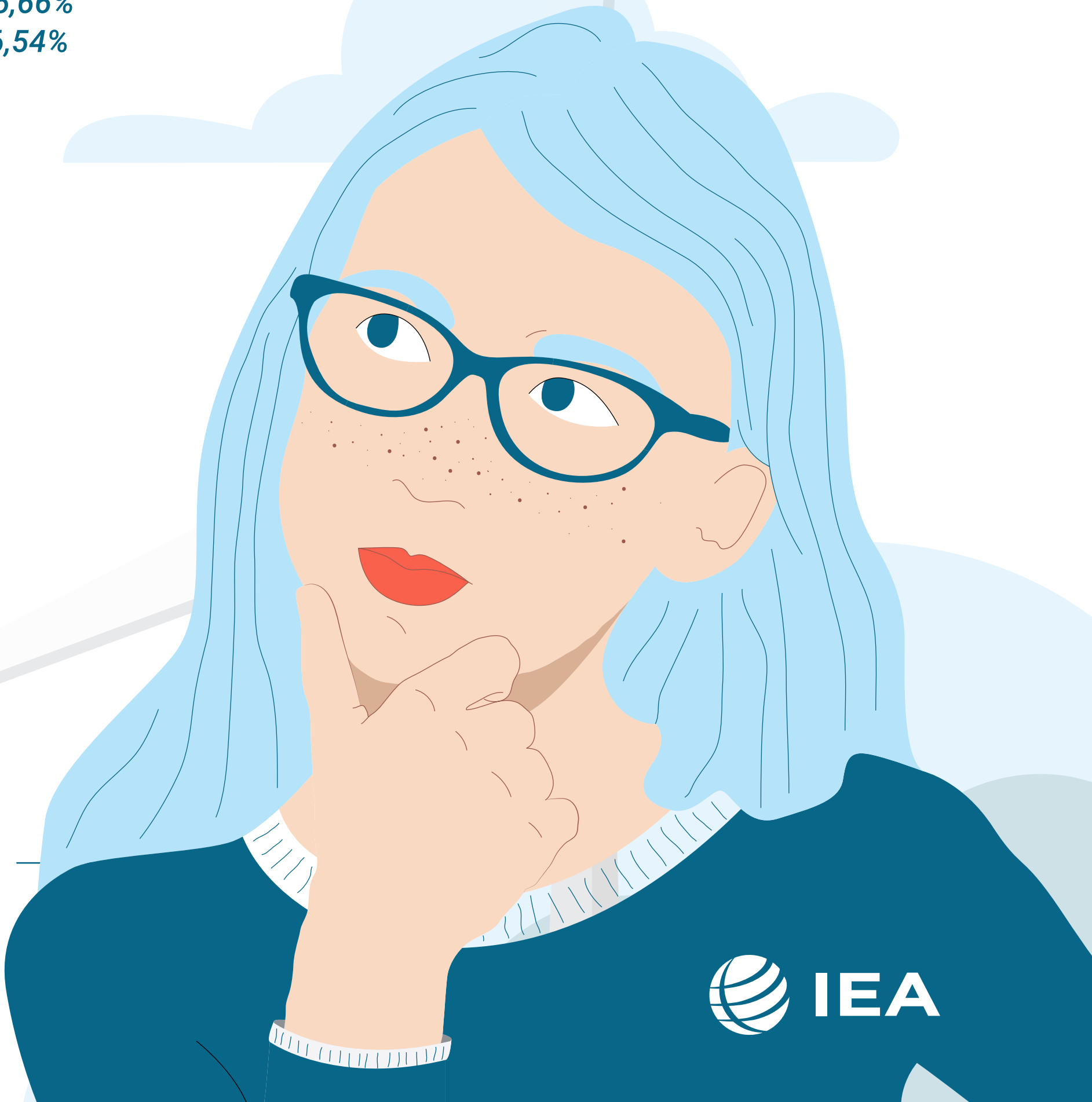
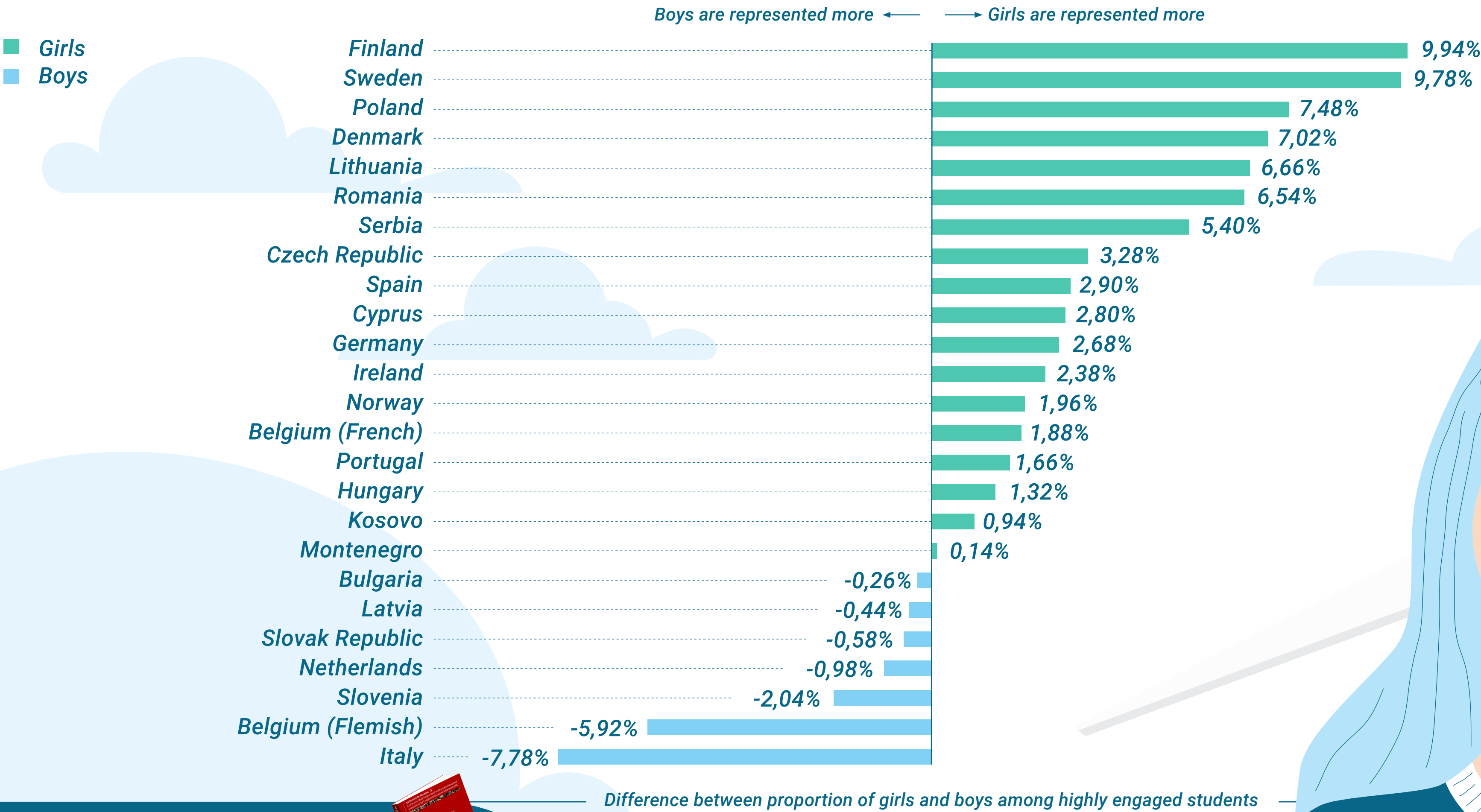


Education systems are ranked from highest to lowest proportion of students highly engaged with environmental sustainability

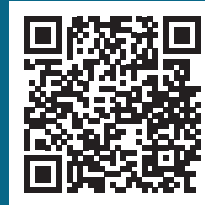


Across diverse national contexts, girls tend to show higher sustainability engagement than boys in Grade 4

In 18 of the 25 education systems studied, girls made up the majority of highly engaged students



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