

# Outer Space as a Key Element in Securing Civilizational Resilience

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Preservation of NATO Space Capabilities*

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# Securing Civilizational Resilience



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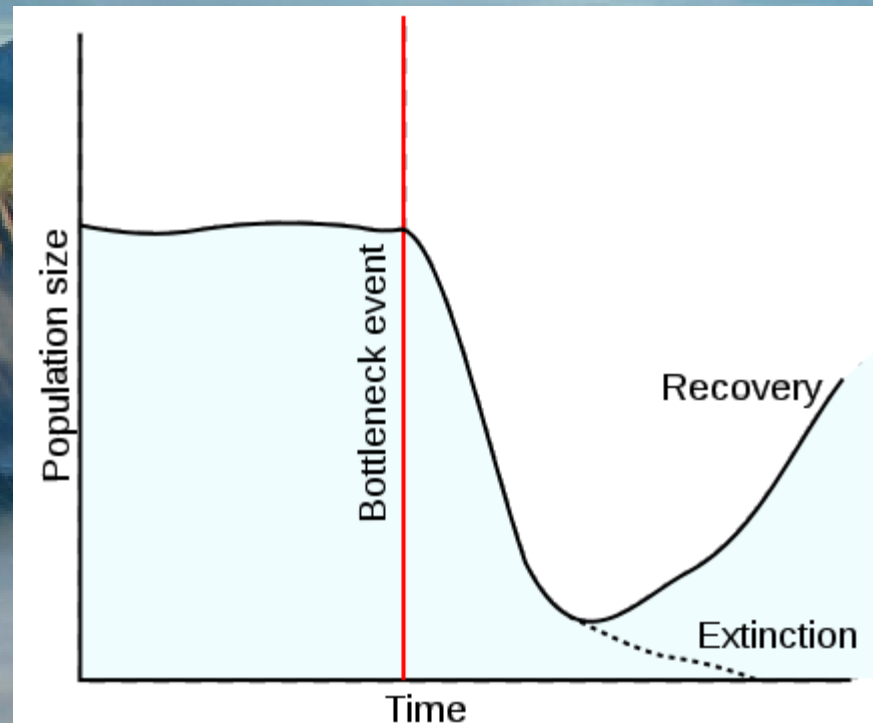
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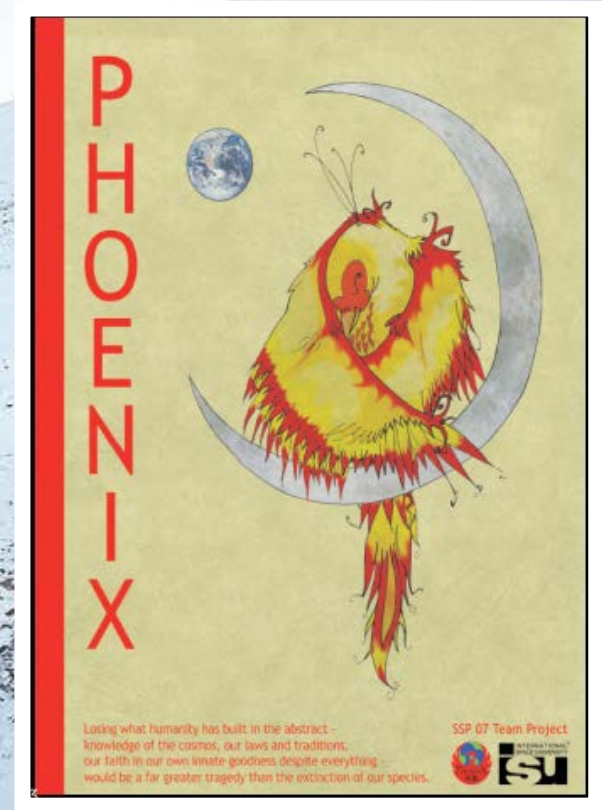
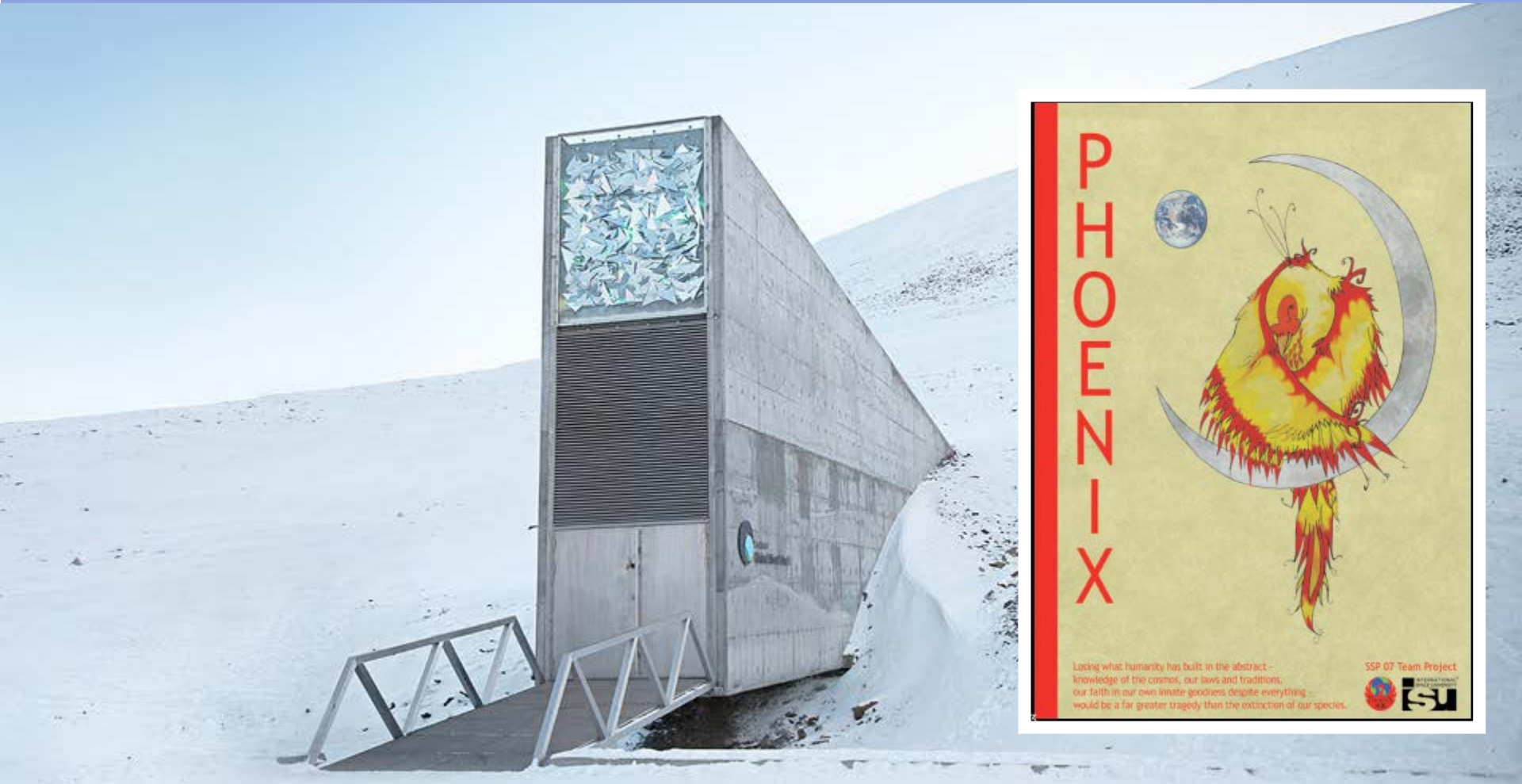
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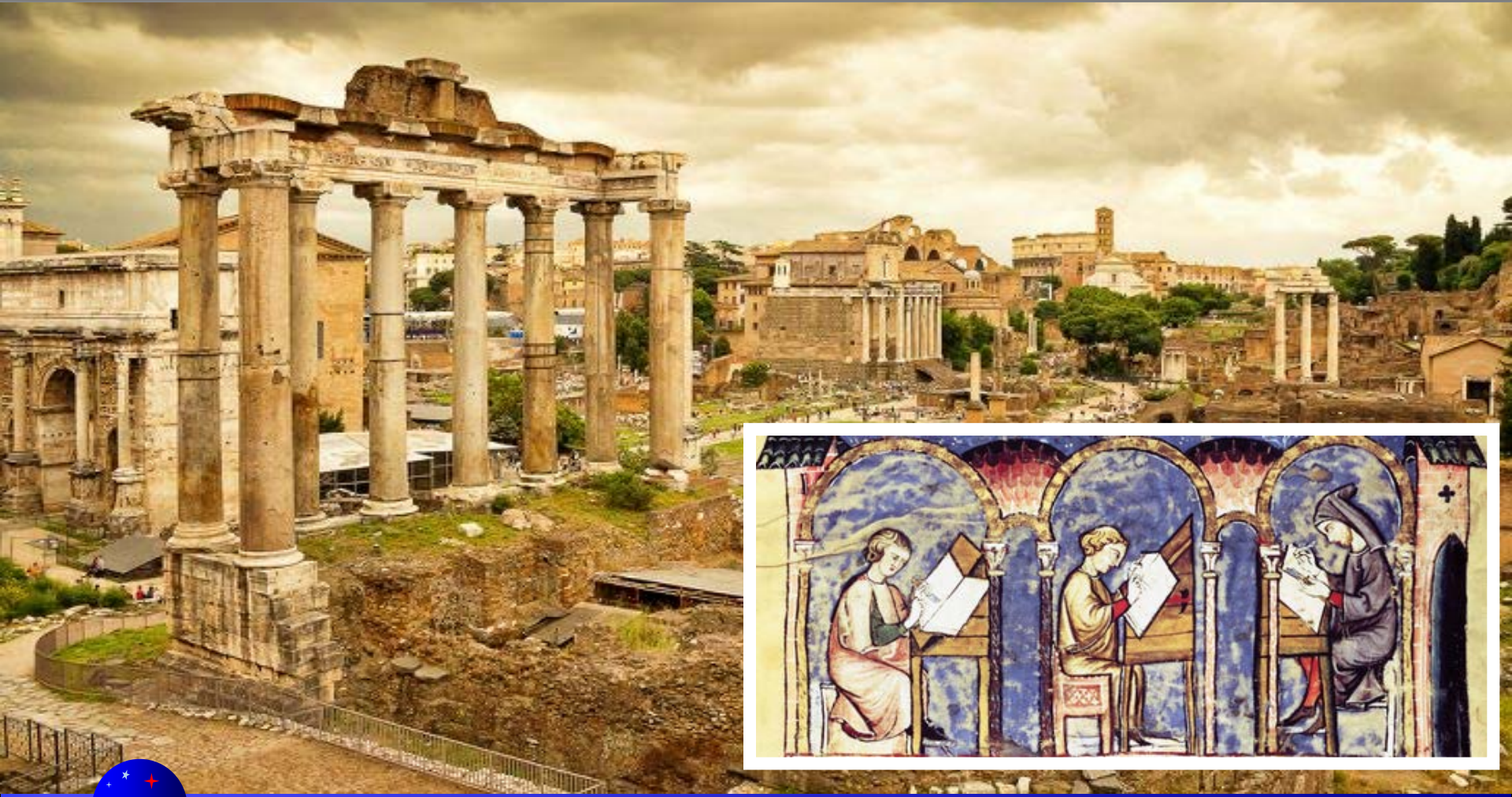
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# Resilience through Education

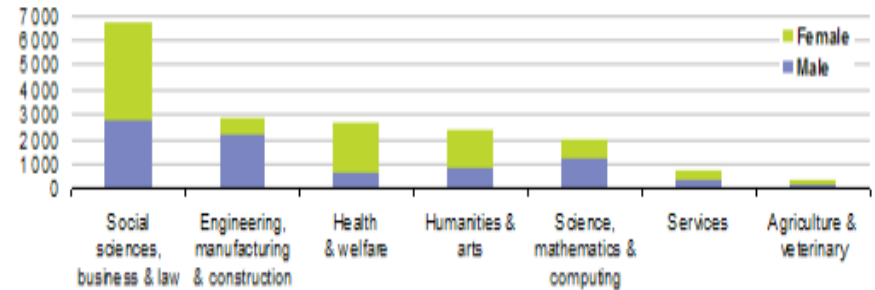
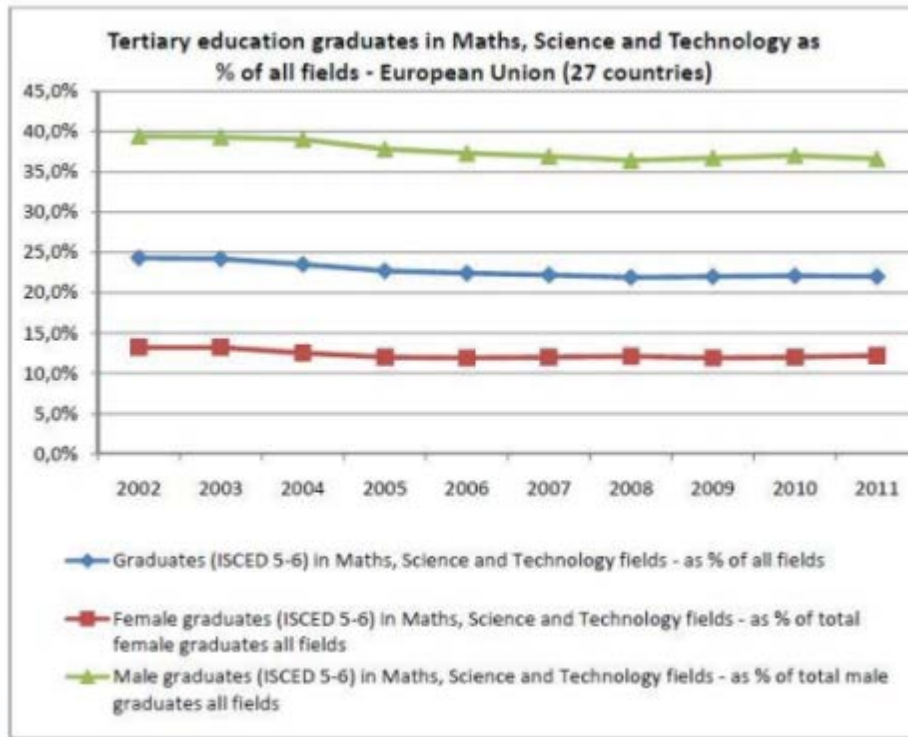




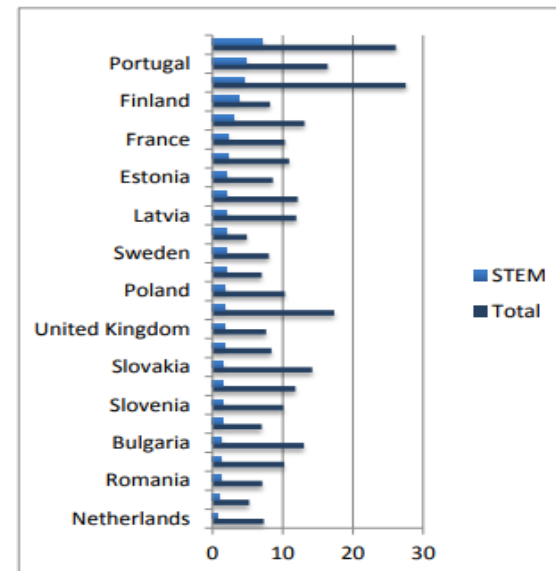
# Resilience through Education



# The importance of STEM

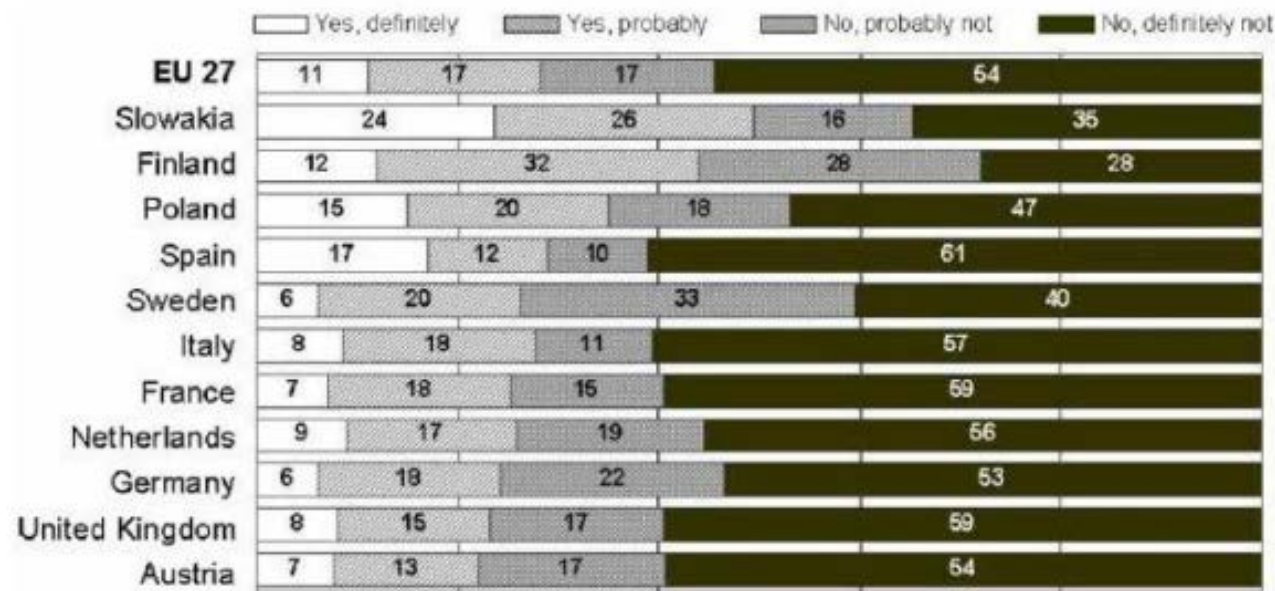


**STEM unemployment rate and total unemployment rate, 2013 (%)**



A decreasing number of young people in Europe take up Science, Technology, Engineering, Mathematics (STEM)-related studies and careers. This number is insufficient – there is a mismatch between demand and supply. [Graph sources: European Parliament , Eurostat]

# The (un)willingness to take up STEM careers



Willingness of young people to study engineering in selected European countries (EU 2008).

Source: Eurostat, Alexa Joyce (European Schoolnet)



# Space comes to the rescue!



# ESERO – the European Space Education Resource Office(s)



- The European Space Agency is helping reverse the negative trends through an Education programme which targets European students starting from an early age.
- ESA is addressing primary and secondary education in Europe through its European Space Education Resource Office (ESERO) project.
- The ESERO project is ESA's main way of supporting the primary and secondary education community in Europe.
- Kids like space (and dinosaurs)
- ESERO uses space related themes and the genuine fascination felt by youngsters for space to enhance school pupils' literacy and competence in STEM-related subjects. The ESERO project also raises awareness of the generous career prospects in the space field.



# The ESERO network



*“The activities of the Agency shall include mandatory activities, in which all Member States participate ... With respect to the mandatory activities, the Agency shall ensure the execution of basic activities, such as education” (ESA Convention, Article V)*

ESEROs are distributed across ESA Member States, and staffed by local experts who work in strong synergy and partnership with their national education authorities and networks

# ESERO Romania



# Back to the Future







**Thank you for your attention!**  
**romanian space agency**  
***Space tools for a better life***

- **Science**
- **Technology**
- **Enterprise**
- **Capacity building**
- **Security**