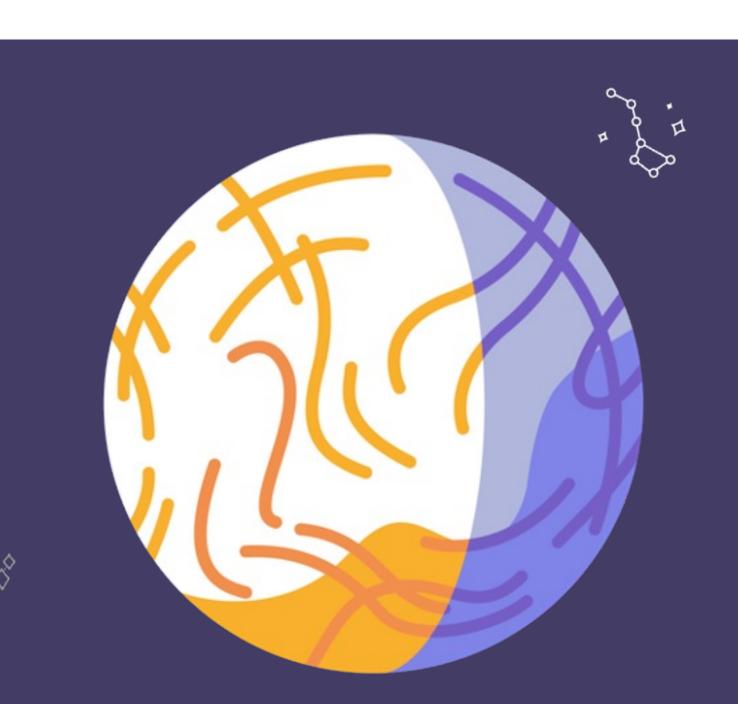
Europa Icy Moon of Jupiter

eur

Europlanet 2024 RI has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871149.





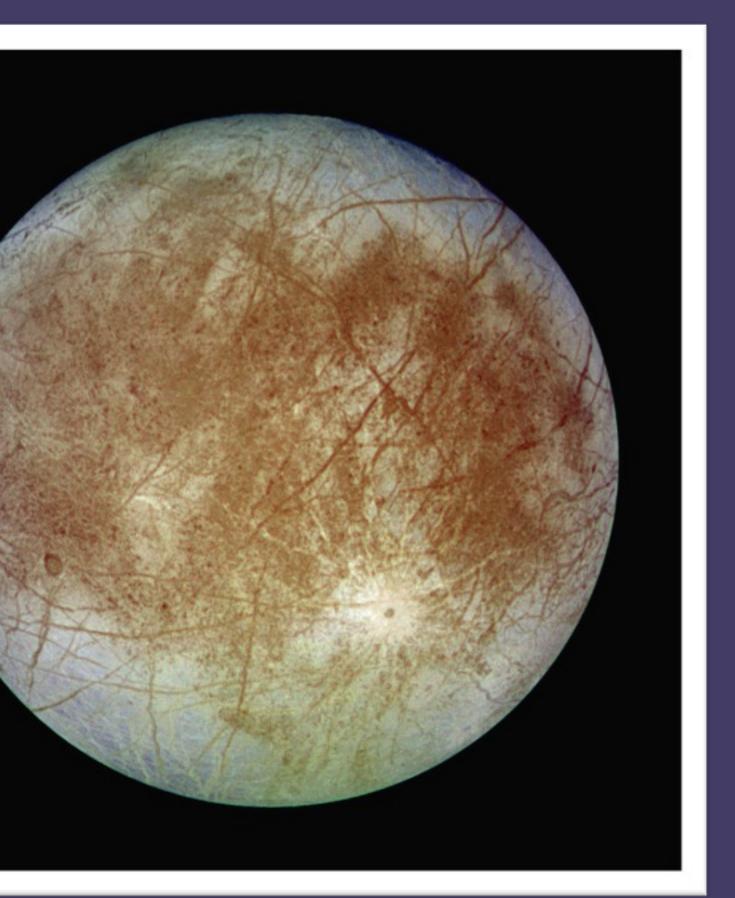


Objectives

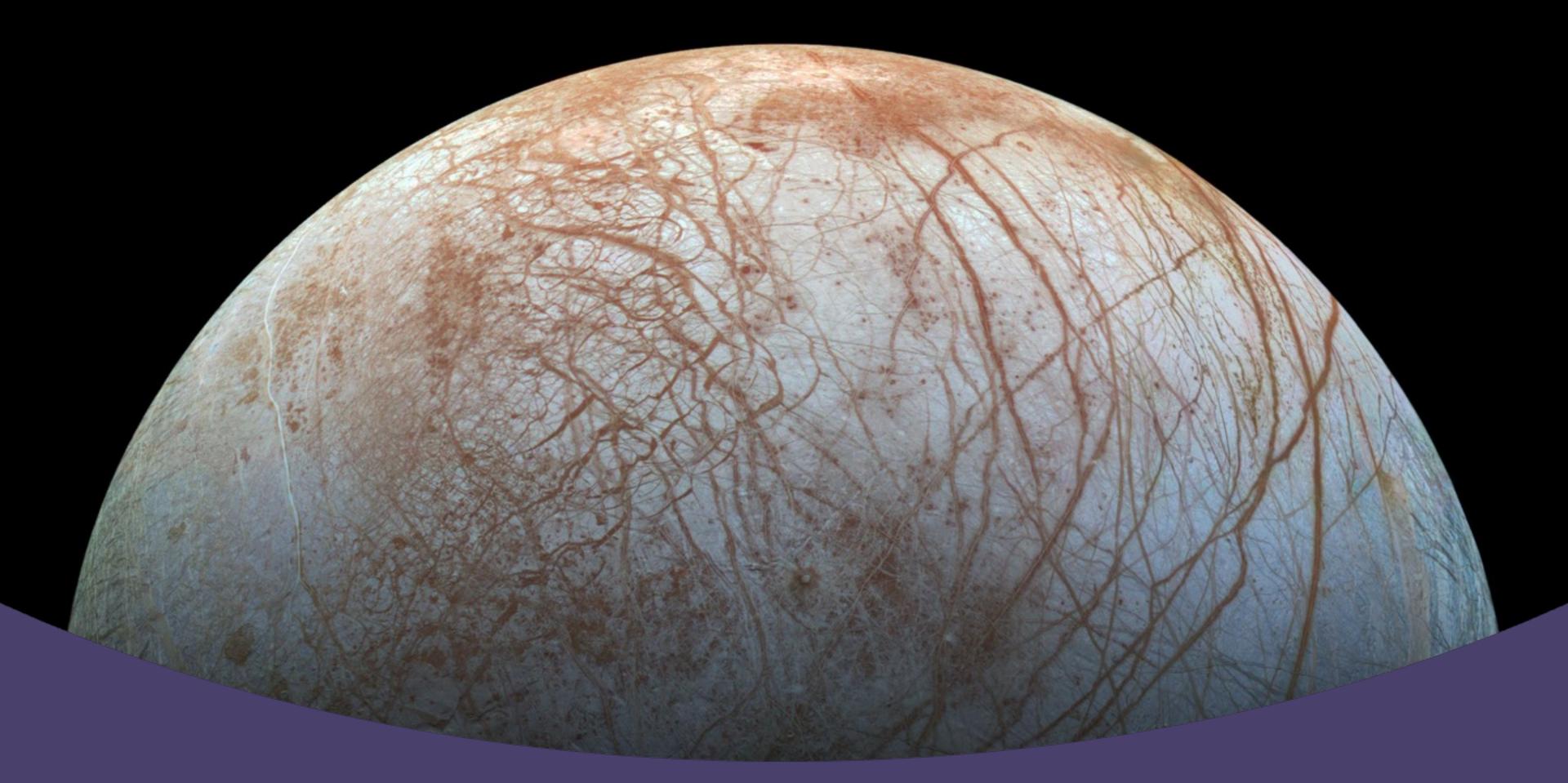
NET

By the end of this lesson you will be able to:

- Understand the composition of Europa
- Explain the formation of the cracks on Europa's surface
- Describe the nature of Europa's subsurface oceans
- Explore extremophiles and life in space







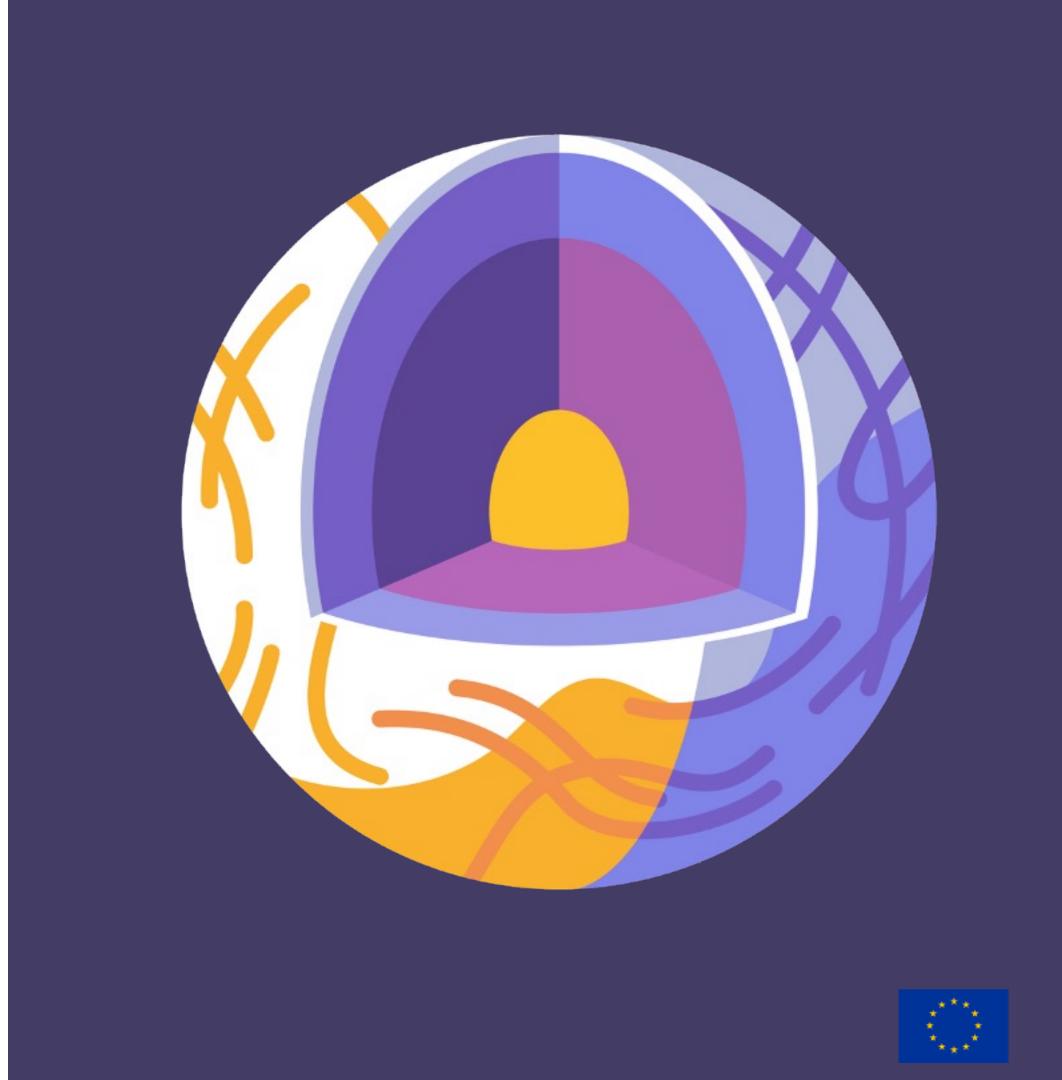


Europa captured by the Galileo mission (NASA/JPL-Caltech/Seti Institute, late 1990s)



Geology of Europa



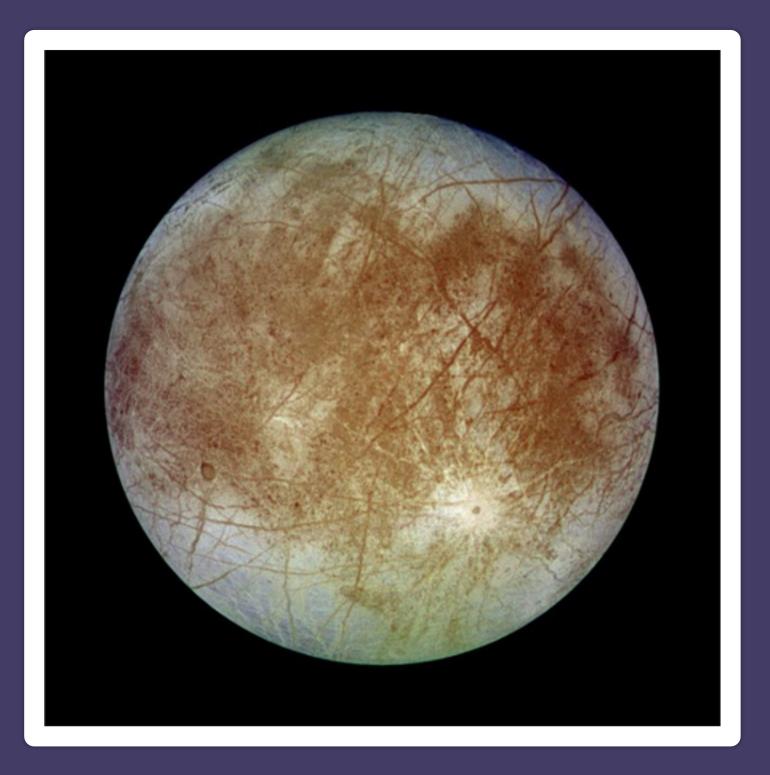


Europa's surface









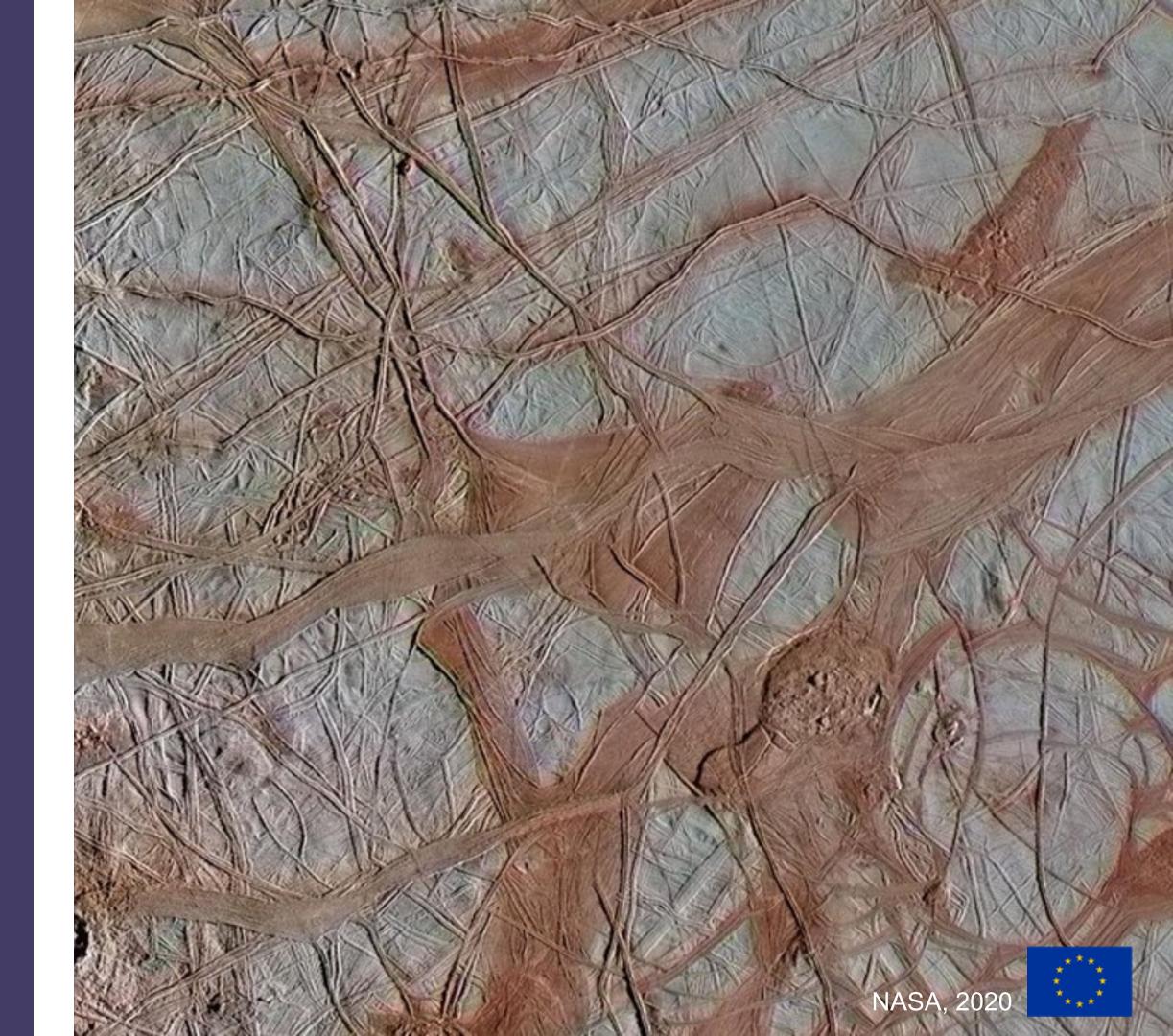






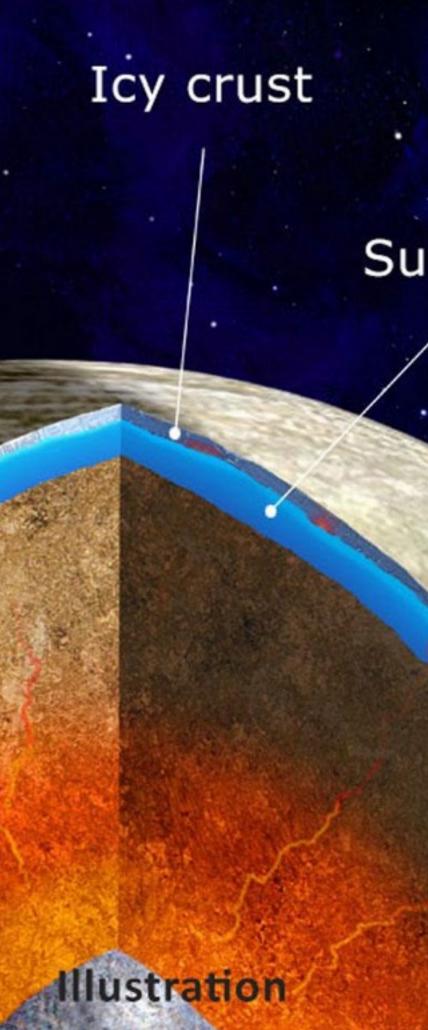
Europa's Chaos Terrain





Europa's Subsurface ocean





Subsurface / ocean

Volcanic seafloor



How salt lowers the freezing point of water

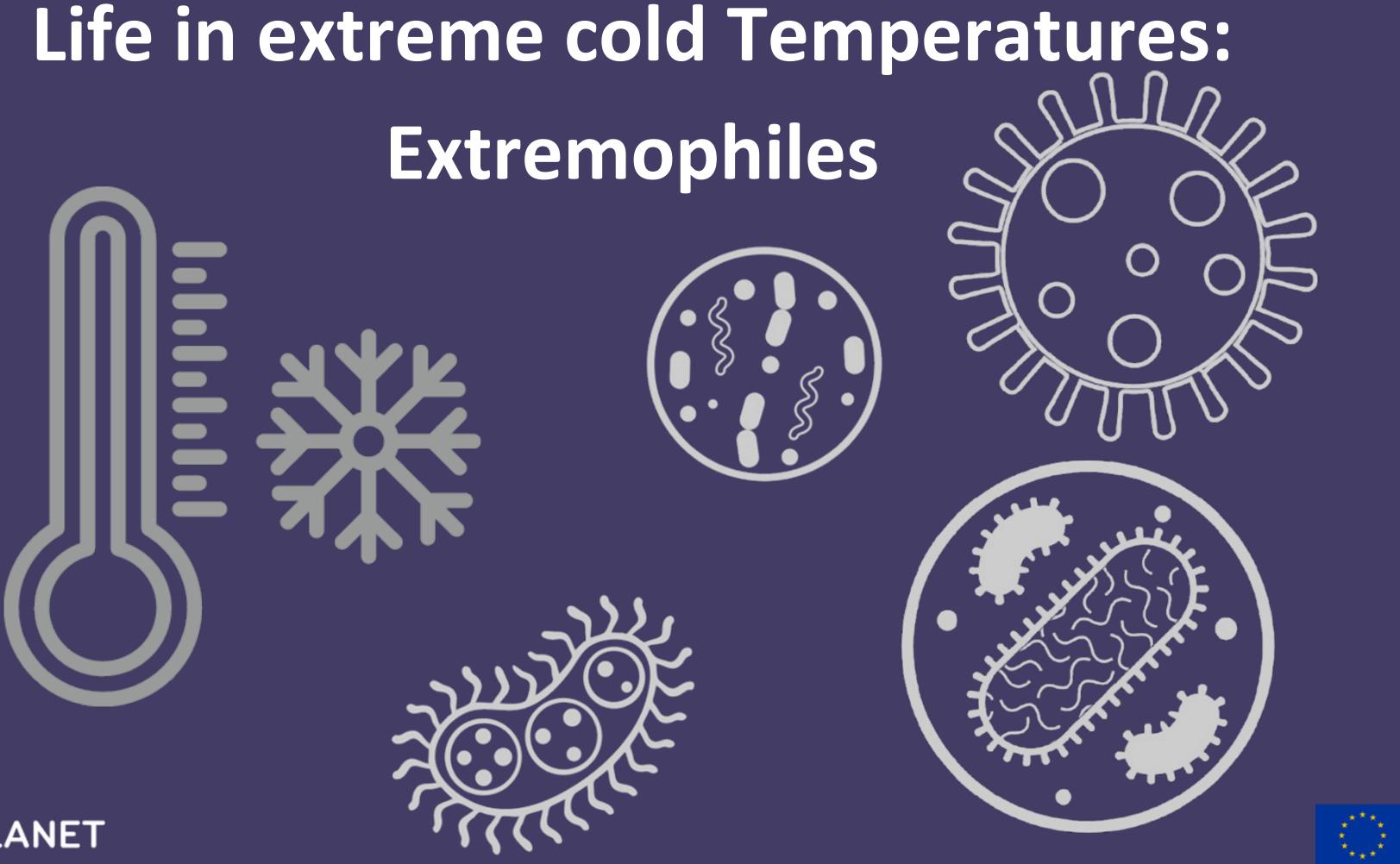




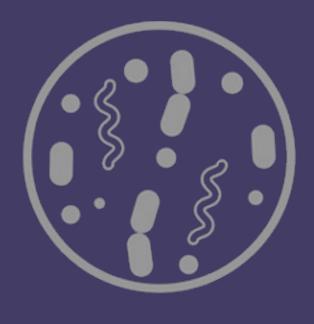


•

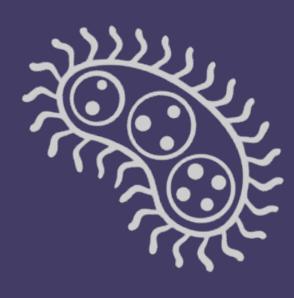




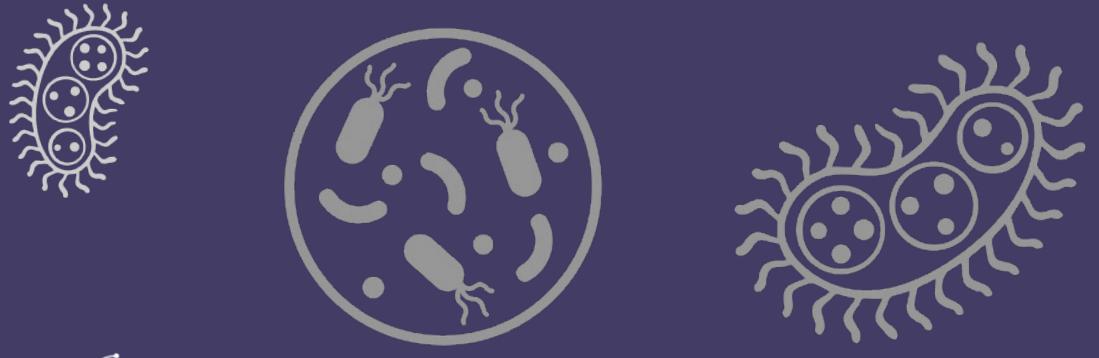




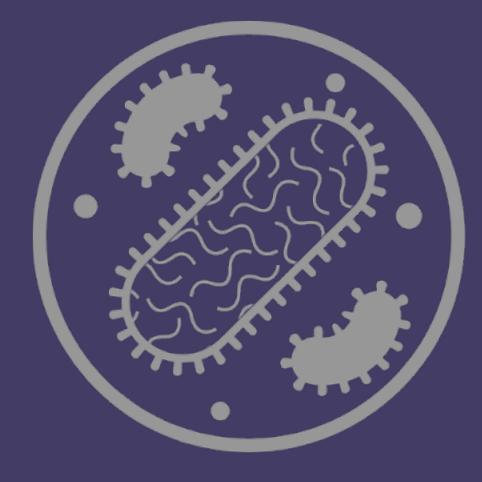




Do you think there could be life on Europa?



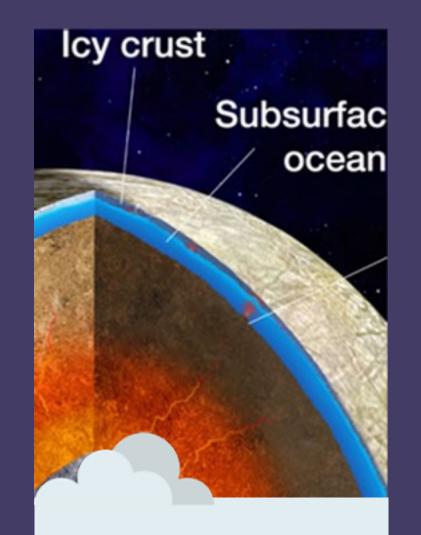






Recap

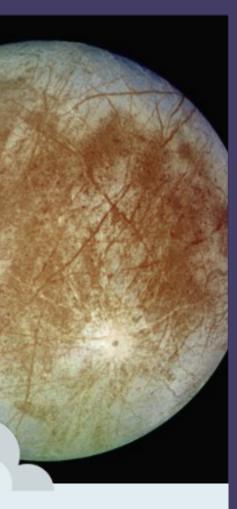
Now we can...



1

Describe the geology and composition of Europa Understand interactions between the subsurface ocean and crust





2



3

Understand extremophiles and the potential for life on Europa

