

# Oral Presentation

**Oral Presentation is a  
SCIENTIFIC presentation =  
DATA**

# Presentation, I

In English written slides and oral presentation:

- 20 minutes
- 15 slides + Title slide+ Roadmap slide+ Conclusion slide+ 2 Reference slides
- Reference slides: one with references/papers/review papers and the other with videos and websites links

**You need to show scientific data, you need to be focused and specific, you need to study more than what you are presenting to the class**

# Presentation, II

## STYLE:

- Use bullet points, avoid long sentence
- Do not read
- Avoid using green /red, red / (any) blue, magenta/baby blue side by side and yellow over white and careful with fluorescent colors if the background is not right
- Cite in the text always the source of the figures or tables
- Wikipedia is not acceptable as a literature source

# Presentation, III

- Cite primary literature and/or the Madigan text book
- Choose the font among Helvetica Neue, Arial or Verdana or Helvetica (as example this is font 26 pt)
- Spacing is important to let the text breath: check lines, before and after the paragraph
- Bullet list is useful
- Avoid animations since connectivity maybe an issue for some of us

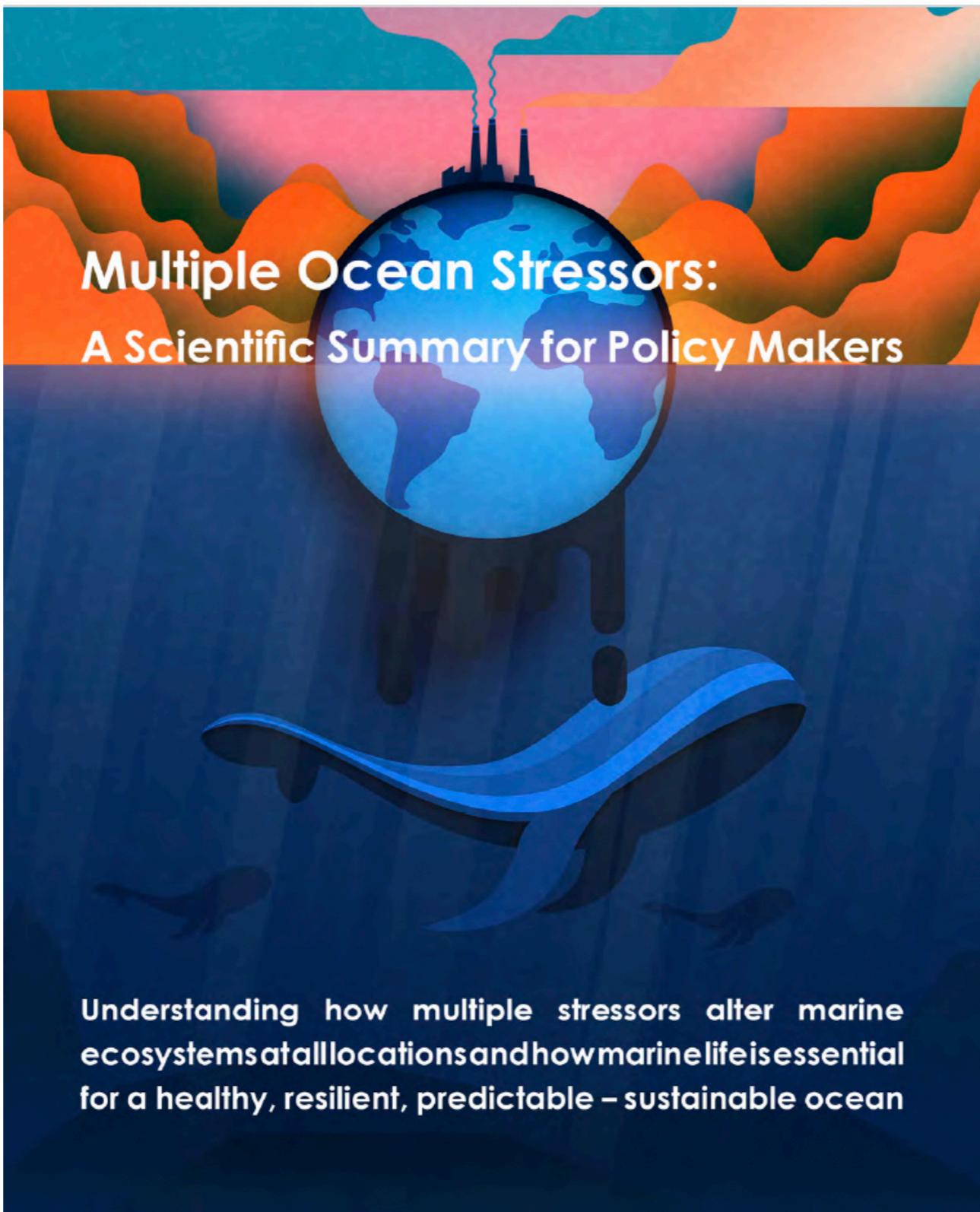
# Presentation, IV

- Read Multiple Ocean Stressors: A Scientific Summary for Policy Makers
- Choose one among the stressor
- Motivate your choice and its importance of the chosen stressor for ocean functioning
- Describe the trend and show **scientific data** about the **ocean stressor (what is the problem)**, possible causes and mitigation strategies and solutions if any
- **Connect the marine microbes** (marine Bacteria and Archaea only) to the selected **stressor** by **showing “microbial data”** (how are microbes affected by the trend in terms of numbers, diversity, metabolisms etc,....., are they influencing the trend? How? Are the part of the cause or of the solution)

# Testing the knowledge: presentation

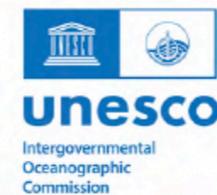
**Equal to 50% of the final grade: individual presentation on a specific topic related to the course, in English**

**Topic: “Multiple Ocean Stressors: A Scientific Summary for Policy Makers” and marine microbes (Bacteria and Archaea only)**



# Multiple Ocean Stressors: A Scientific Summary for Policy Makers

Understanding how multiple stressors alter marine ecosystems at all locations and how marine life is essential for a healthy, resilient, predictable – sustainable ocean





### Cataloguing stressors exposure

- Identification of key stressors at all locations
- Identification of temporal variability and their sources



### Understanding biological responses

- Taking into account local specific combinations of stressors over time and space



### Adaptation and mitigation strategies to combat the impact of multiple stressors

- Consider local specific human capacity

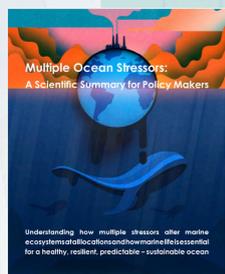


### Policy actions

- Implementation of adaptation and mitigation strategies addressing the effects of multiple ocean stressors



Healthy, resilient, productive, diverse sustainably managed, ocean, whose future we can predict

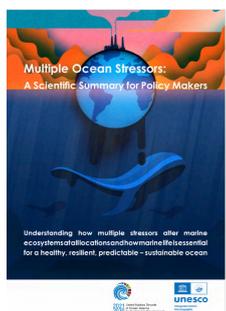


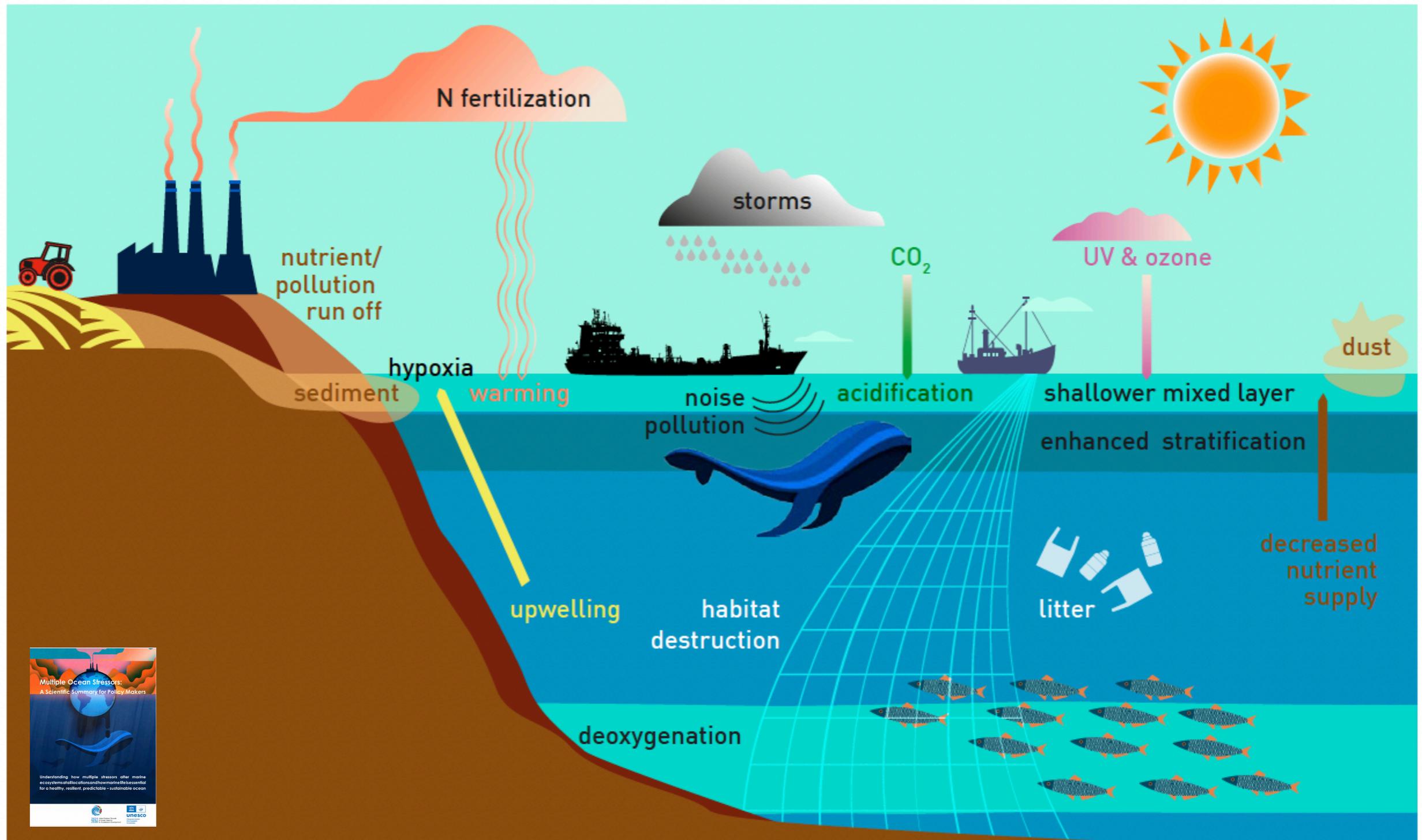
# Box 1. Definitions to remember

**Drivers:** Environmental properties (e.g. temperature) and ecological processes (e.g. grazing pressure) that influence marine life and its productivity and diversity. Drivers can be natural or anthropogenic forces that cause beneficial or detrimental effects. For example, temperature determines growth rates but excessive temperature causes stress and eventually mortality.

**Healthy ocean:** The ocean is healthy if and only if it is resilient, productive, and diverse.

**Stressors:** Environmental properties or ecological processes, which at a certain threshold (e.g. excess nutrient supply or over-harvesting) results in detrimental effects to marine life. Stressors, individually or collectively, are directly responsible for a range of significant harmful changes to the biological components, patterns, and relationships in natural systems.





**Figure 2.** Illustrative examples of global (warming, acidification), regional (ozone, litter, atmospheric pollutants) and local (sedimentation, pollution and nutrient runoff) stressors that can affect marine life (adapted from Boyd et al., 2018). Illustrative examples are used here since insertion of icons for all stressors would cover the ocean in this figure. Marine life at each location, from coastal areas to offshore waters, will encounter a unique combination of stressors, and ecosystems may be exposed to concurrent changes to multiple stressors simultaneously.