

# BATHING WATER QUALITY

## 浴水品質

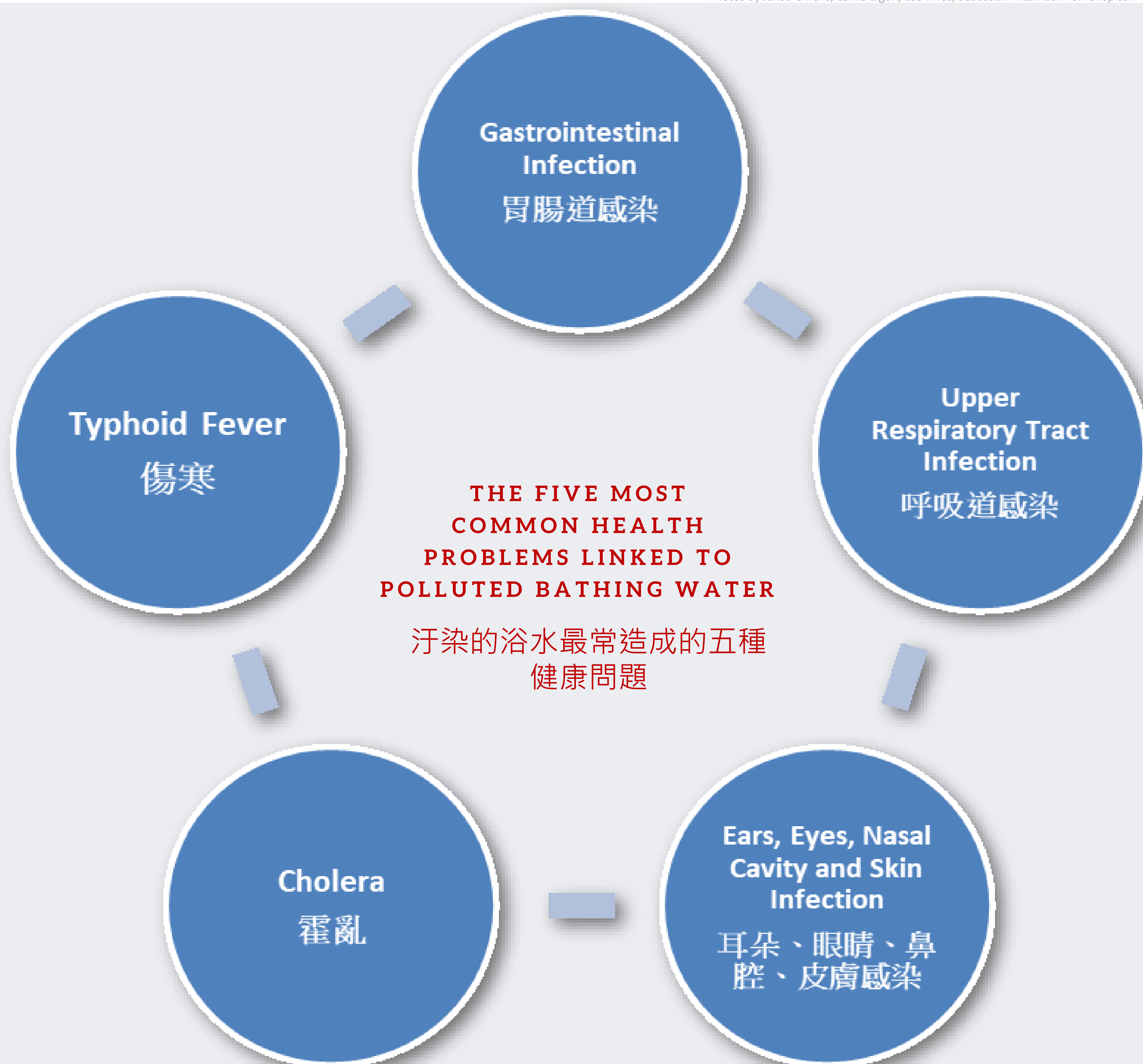
### DEFINITION 定義

According to EU's Bathing Water Directive (76/160/EEC) "bathing water" means all running or still fresh waters or parts thereof and sea water, in which: - bathing is explicitly authorized by the competent authorities of each member State, or - bathing is not prohibited and is traditionally practised by a large number of bathers.

根據歐盟的《浴水指令》，“浴水”是指所有自來水或靜止水域（湖、內陸濕地等）或部分淡水和海水，各成員國的主管機關明確授權該水域是否能進行洗浴，或者不禁止洗浴，且該水域通常擁有大批泳客。



Photos by Jakob Owens, Lenka Žigon, Leo Rivas, Sebastian P. Lambarri on Unsplash



# EU BATHING WATER DIRECTIVE

## 歐盟《浴水指令》

### The Evolution of EU BWD

#### 歐盟《浴水指令》發展

The first Bathing Water Directive (BWD) was published in 1976. It provides a legal framework to improve bathing water quality for public health reasons. The purpose of the directive was to let each Member State take the necessary steps to ensure the national quality of bathing water meets EU standards.

A new BWD published in 2006 continued the efforts by adding a series of specific methods for managing the quality of bathing water and to make the bathing water quality data more transparent.

第一個浴水指令(BWD)於1976年發佈。它為改善因公共衛生原因的浴水質提供了一個法律框架。該指令的目的是讓每個成員國採取必要步驟,確保浴水的國家品質符合歐盟標準。

2006年發布的新BWD延續了舊版本的內容,並增加了一系列管理浴水質量的特定方法,使浴水質量數據更加透明。

### EU's five measures to improve bathing water 歐盟五項改善浴水的措施

EU member states need to...  
各成員國必須...

#### 1. set monitoring calendar 設置監控日期

Identify all bathing waters locations and setting the monitoring calendar to examine the bathing water quality before each bathing season. 確定浴水監測之地點和監測之日期

#### 2. assess the quality of bathing water 浴池水質評估

To ensure that sets of bathing water quality data are compiled through the monitoring of the parameters set out in BWD

確保浴水質符合BWD之標準

#### 3. classify the quality status of bathing water 浴水分級

Based on the bathing water quality assessment, EU Member States shall classify bathing water into four levels: poor, sufficient, good, or excellent

根據浴池水質評估,會員國應按照BWD中之規定,將浴水分為四個等級:差、尚可、良好或優良。

#### 4. take action against Cyanobacteria proliferation 藍綠菌/其他因素檢測

When cyanobacterial proliferation occurs and health risk has been identified or presumed, adequate management measures shall be taken immediately to prevent exposure, including information to the public. 當藍綠細菌增值並確定有健康風險時,應立即採取適當的管理措施,防止大眾接觸並提供相關訊息

#### 5. encourage public participation and inform the public 鼓勵公眾參與,並確保資訊透明化



#### EU's bathing water classification



Excellent bathing water quality



Good bathing water quality



Sufficient bathing water quality



Poor bathing water quality



Advice against bathing

# EU BATHING WATER QUALITY

## 歐盟浴水品質

Over 85% of European bathing sites rated as excellent for water quality  
 超過 85% 的歐洲浴水場所被評為水質優良場所

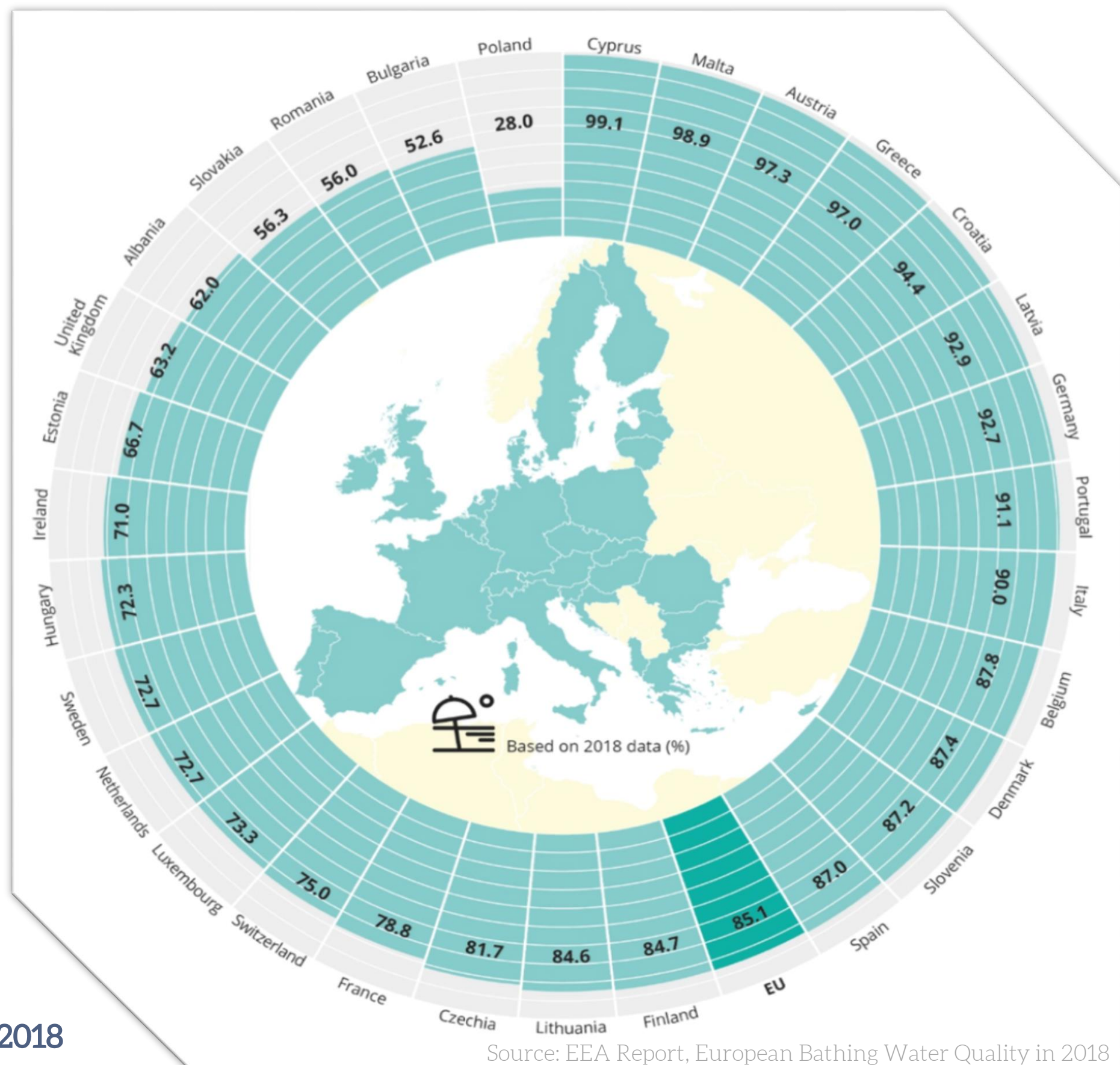
In 2018, over 85% of bathing water sites across Europe monitored met the European Union's highest 'excellent' and most stringent quality standards for water cleanliness, according to the annual European bathing water quality report.

根據2018年歐洲浴水質量報告，去年監測的浴水場所中，有超過85%的浴水地點達到了歐盟對浴水清潔度的最嚴格“優秀”水質量標準。



Scan QR code for more EU Bathing Water Quality information  
 如欲看更多EU資料，請掃QR Code

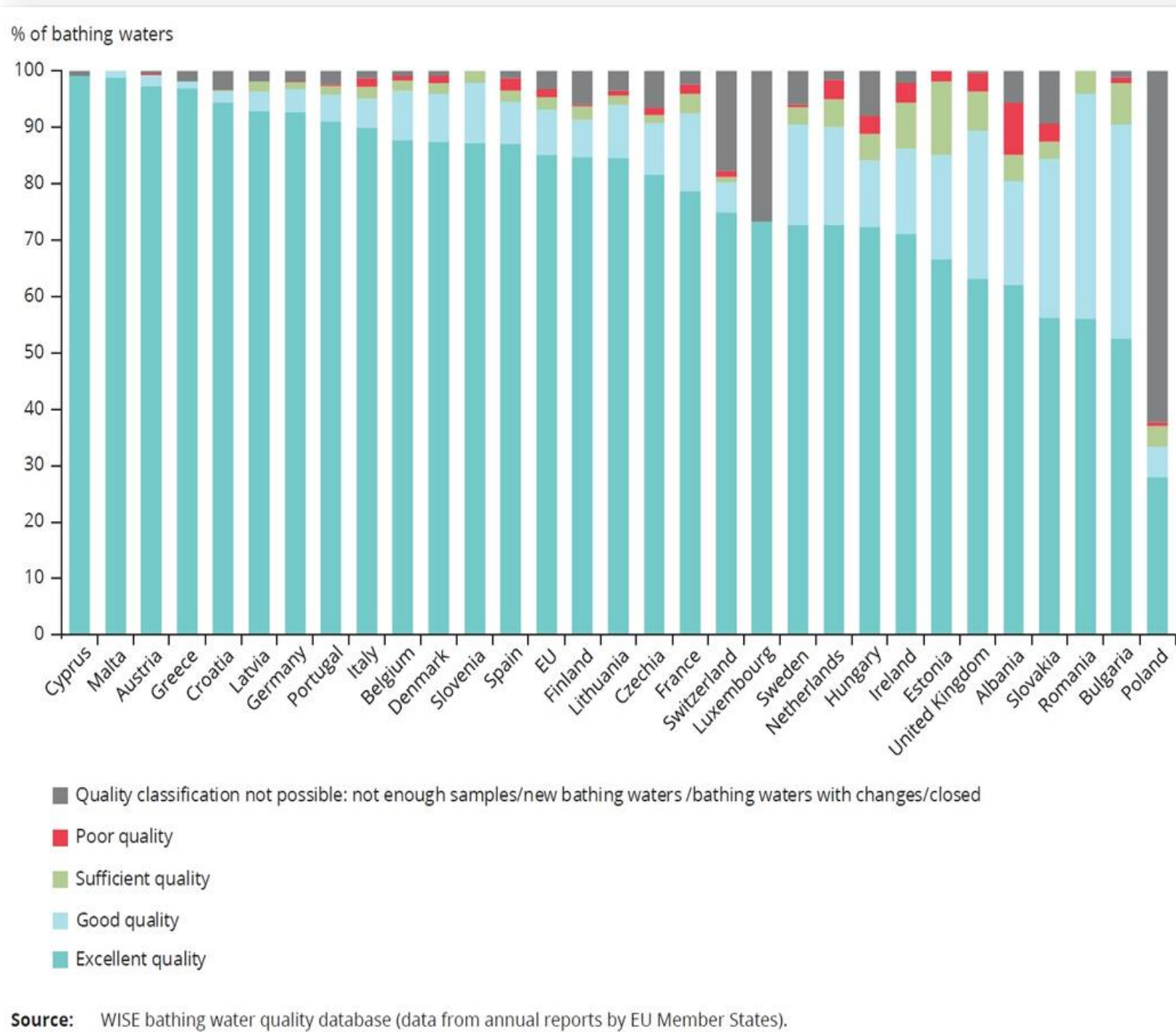
Overall EU Bathing Water Quality 整體歐盟浴水品質



Source: EEA Report, European Bathing Water Quality in 2018

EU Member States' Bathing Water Quality in 2018

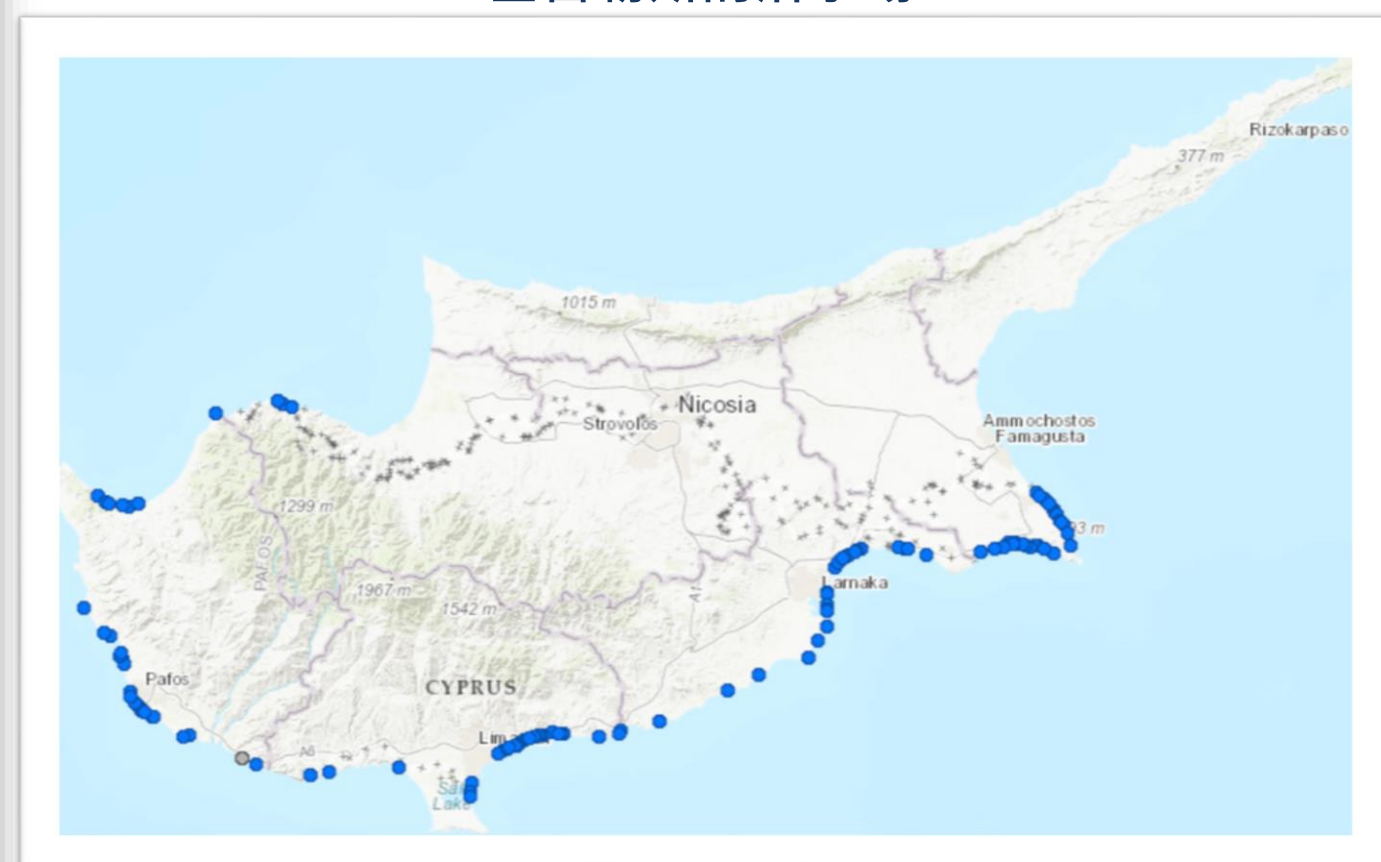
2018年歐盟成員國浴水品質



Source: WISE bathing water quality database (data from annual reports by EU Member States).

Bathing water sites in Cyprus

塞普勒斯的浴水場



Source: <https://www.eea.europa.eu/themes/water/interactive/bathing/state-of-bathing-waters>

# BATHING WATER QUALITY IN KAOHSIUNG (TAIWAN) 台灣浴水品質

In Taiwan, the Water Pollution Control Act (2018) is the legal framework “to control water pollution and ensure the cleanliness of water resources in order to maintain ecological systems, enhance the living environment and advance public health”.

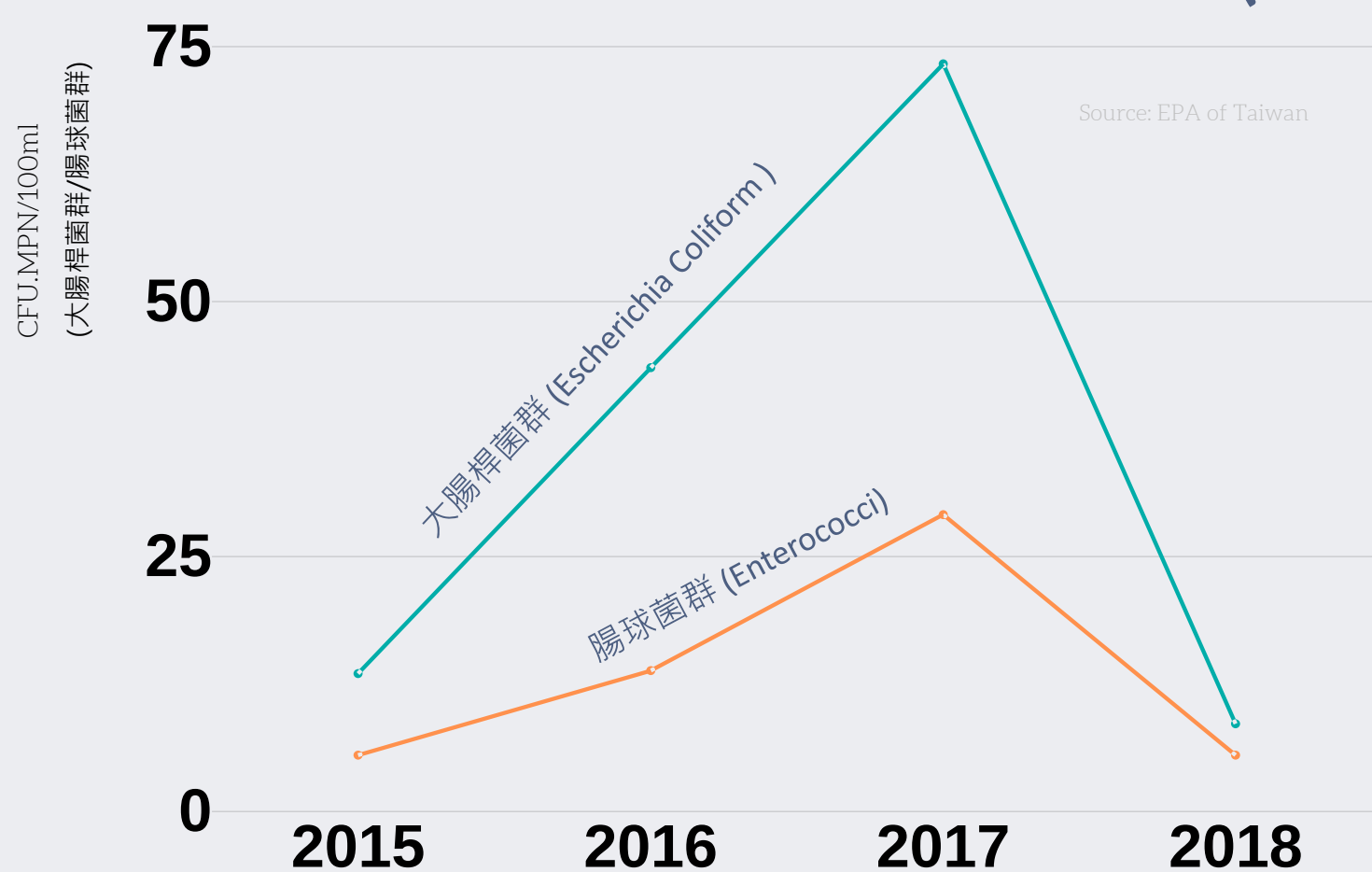
在台灣，環境水質監控是依據《水污防治法》，該法條提供了水質監測標準，包含水污染含量、大腸桿菌指數、腸球菌指數等，維持生態系發展及改善日常生活環境和促進公共衛生。



Cijin Peninsula is a sandy islet located west of Kaohsiung's port. It is about 11 km long from north to south and it is the most popular bathing water site in Kaohsiung.

旗津半島位於高雄港西面，是一個沙質小島。它從北到南長約11公里，寬20平方英尺，也是高雄最受歡迎的浴水站點。

## Cijin Bathing Water Quality 旗津浴水品質 (2015-2018)



According to the chart, bacteria levels of Cijin bathing water increased significantly between 2015 and 2017, worsening the bathing water quality. In 2018, bacteria levels dropped drastically and water quality improved again.

根據台灣海灘水質標準，該圖表顯示旗津2015年至2018年的水質。從圖表中，可以看出旗津市的水質在2017年最差。

### Escherichia coliform

A type of bacteria that usually lives in human intestines. It can cause diarrhea when swallowing polluted water during swimming.

### 大腸桿菌群

大腸桿菌是通常生活在腸道中的一種細菌，如果誤食受污染的食物或誤喝到污水，可能會引起腹瀉症狀。

### Enterococcus

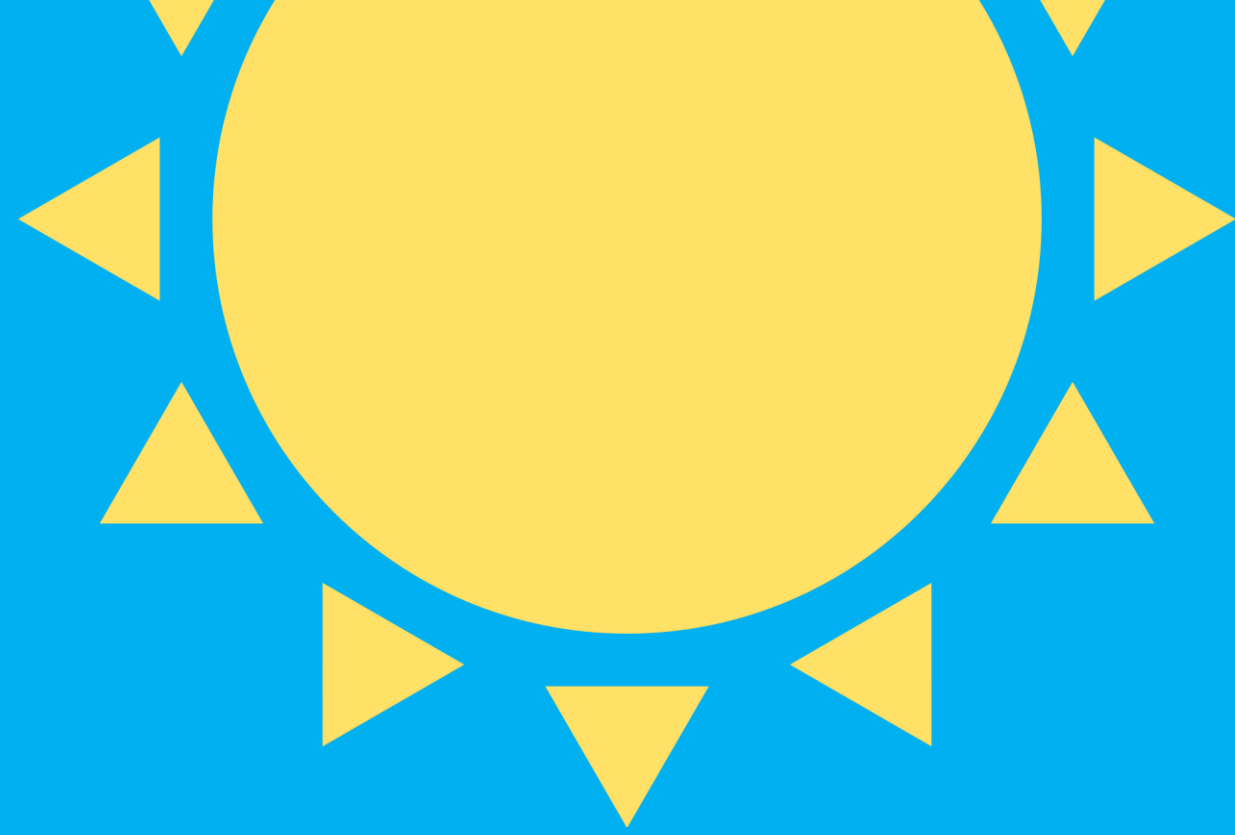
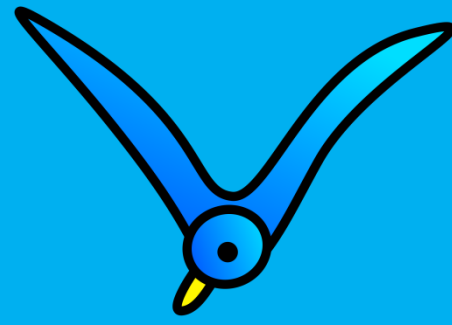
A bacterium causing a variety of infections, most common are urinary tract infections.

### 腸球菌群

腸球菌是一種細菌，可引起多種感染，其中最常見的是尿路感染。



Scan QR code for information from Taiwan EPA!  
請掃QR Code，連結到行政院環保署。



Please help to design

Bathing Water Quality Symbols for Taiwan!

請幫台灣設計一份浴水品質及分級標誌! 😊

Example from the EU 歐盟的範例:

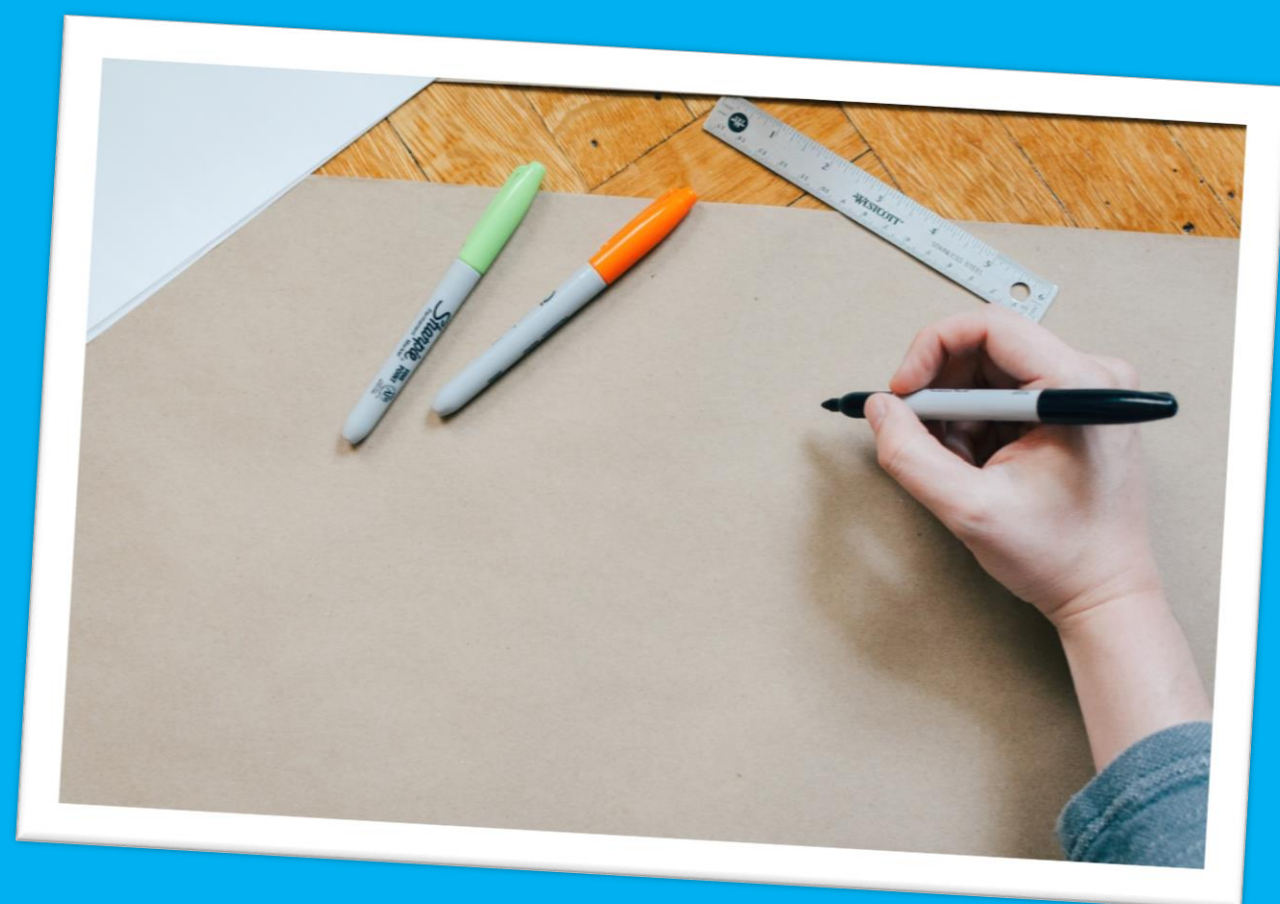
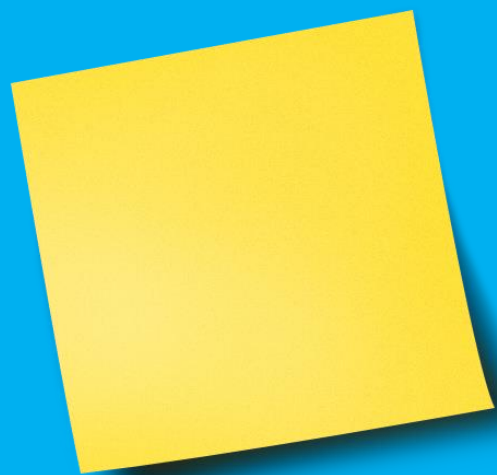


Photo by Kelly Sikkema on Unsplash

Made by Yeh Wan-en (葉宛恩) and Lu Kai-hsin (盧鑑莘) within the framework of the Jean Monnet Module on « EU & Environmental health : Policy, Achievements and main Challenges » (Wenzao Ursuline University of Languages, Kaohsiung, Taiwan).



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