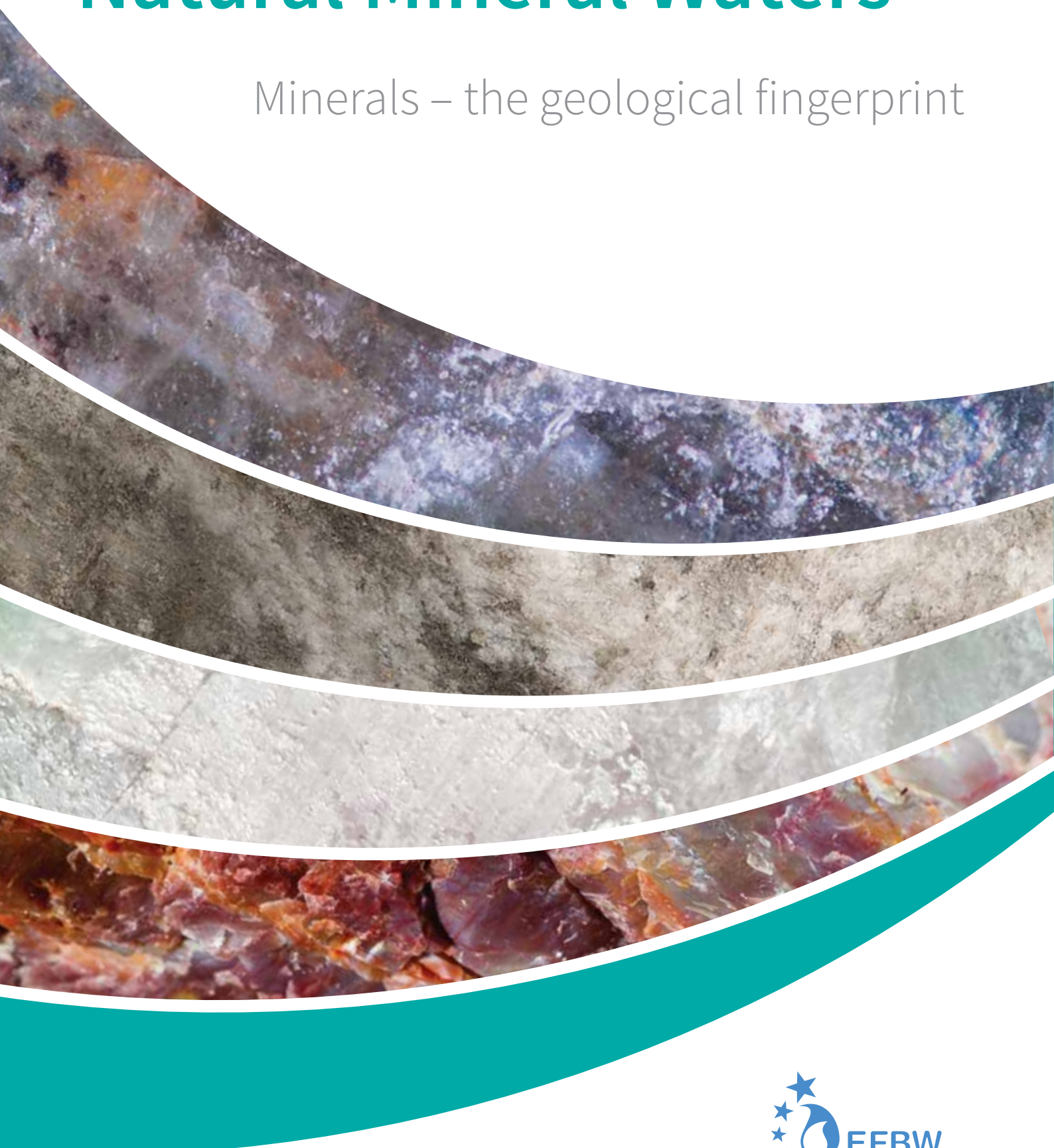


# The Diversity of European Natural Mineral Waters

Minerals – the geological fingerprint



# Minerals – the fingerprint of natural mineral waters

Each natural mineral water is different, with its own distinct taste, a unique set of properties and a specific mineral composition, derived from the geological conditions of the areas where the water is sourced.

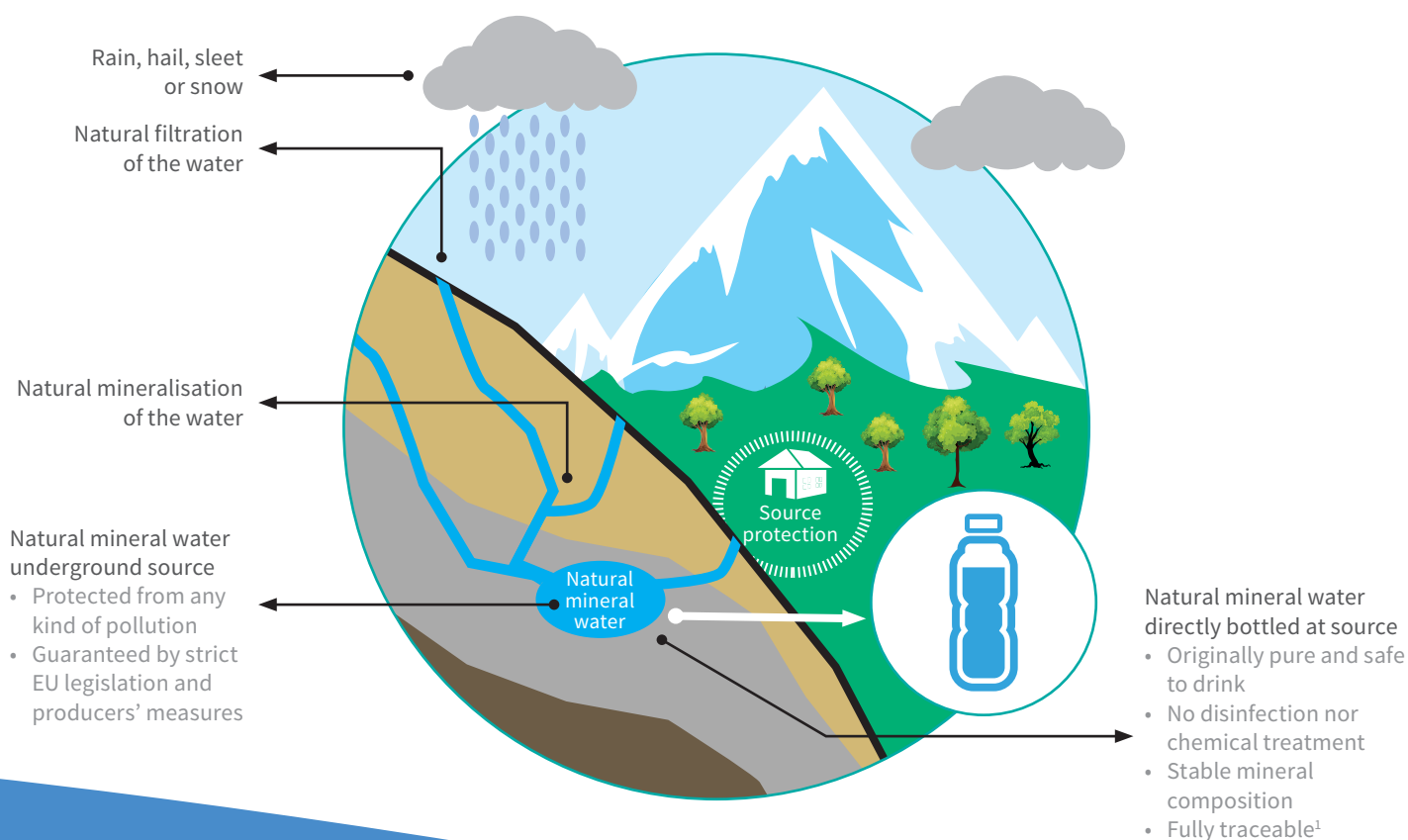
Consumers can choose their natural mineral water by taste, mineral content as indicated on the label and individual preference for still or sparkling.

## The origin of natural mineral waters – a natural process

When rain, hail, sleet or snow fall to earth, they seep through the soil, mountains and rocks to the lower layers of the ground until they accumulate in a secluded and protected catchment area. Over the course of sometimes thousands of years, the water is naturally filtered and reaches its natural purity. It gains its unique and stable

mineral composition which reflects the geological characteristics of the area from where it is drawn. The level of mineral concentration will depend on the depth and temperature of circulation, the minerals present in the rocks and the time the water spends underground.

**Originally pure as they pass through the geological structures of their protected underground sources, natural mineral waters are naturally enriched with minerals and reach their stable composition.**



<sup>1</sup> EU Directive 2009/54/EC of the European Parliament and of the Council of 18th June 2009 on the exploitation and marketing of natural mineral waters. Official Journal of the European Union. 26/6/2009.

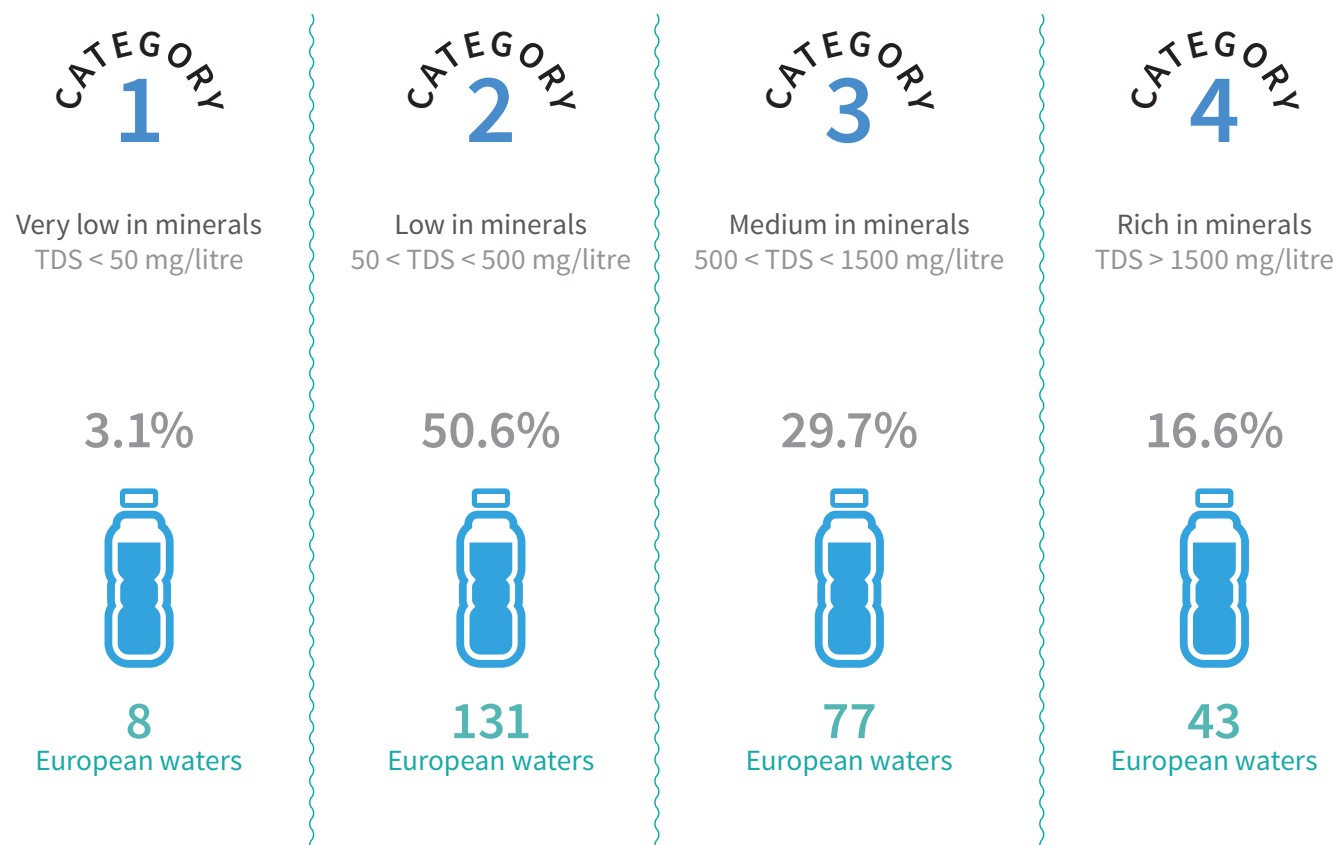
# Overview: Mineralization of natural mineral waters in Europe

Europe has a strict legal framework, ensuring that naturally sourced waters reach consumers in their original state. The Directive on the exploitation and marketing of natural mineral waters sets the criteria for most indications related to the mineral composition<sup>2</sup>. For example, the indication

“contains magnesium” may be used for natural mineral water if it contains over 50 mg of magnesium per litre. Four categories of waters can be distinguished according to their ‘Total Dry Solid’ (TDS) value, obtained from the evaporation and drying of one litre at 180°C.

## Four categories

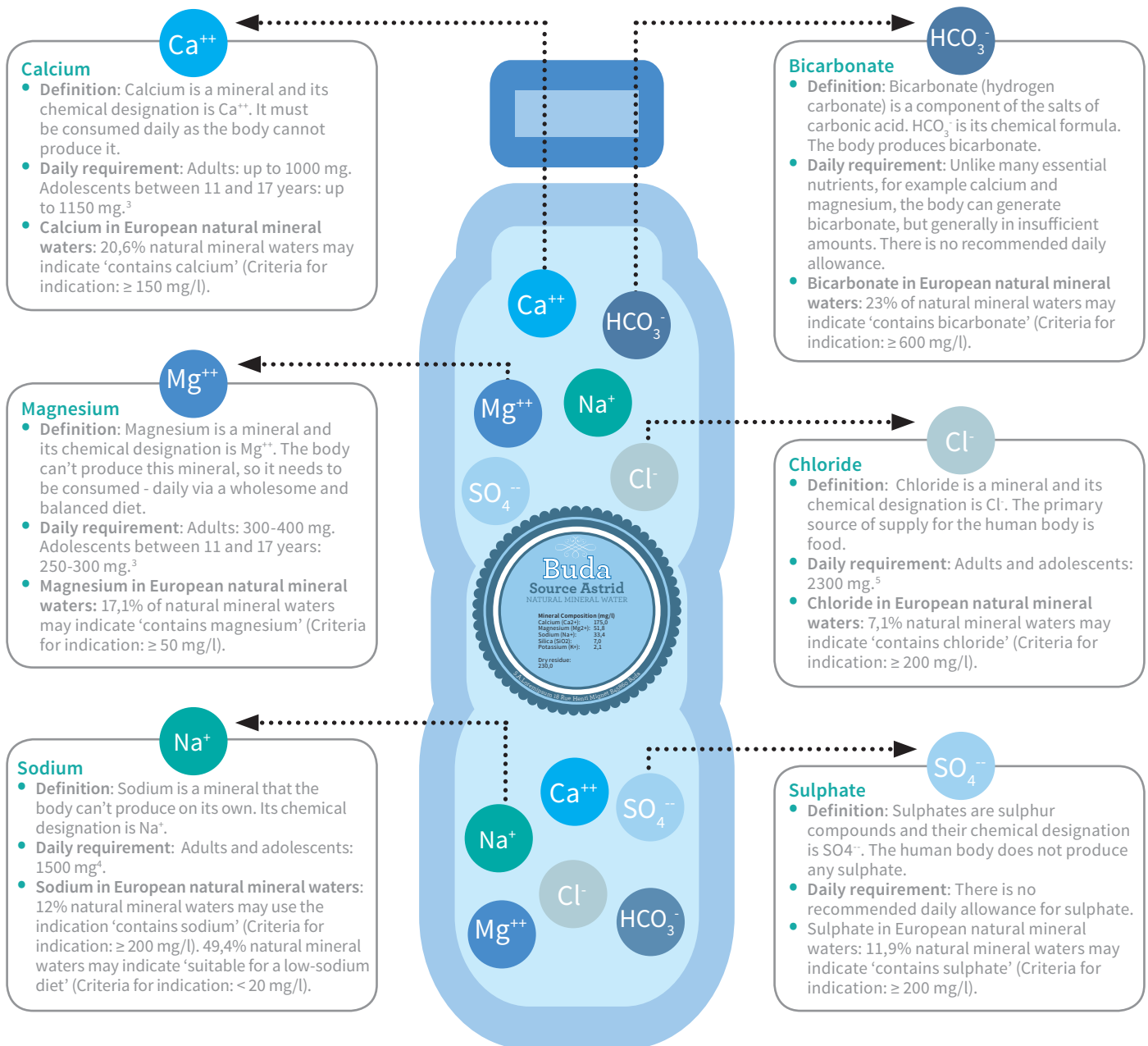
EFBW analysed the diversity of natural mineral waters in Europe, gathering the mineral composition information from the labels of 259 European waters.



<sup>2</sup> EU Directive 2009/54/EC of the European Parliament and of the Council of 18th June 2009 on the exploitation and marketing of natural mineral waters. Official Journal of the European Union. 26/6/2009. Annex III.

# Diversity of mineralization in Europe

Minerals are inorganic compounds (compounds without carbon). The body cannot produce minerals on its own but needs them for many bodily functions. It is thus essential to ingest these substances via food or drinks. Depending on the composition of the water, natural mineral waters may significantly contribute to the recommended daily intake of minerals and provides us with a natural source of healthy hydration.



<sup>3</sup> European Food Safety Authority (2017) Dietary Reference Values for nutrients, Summary Report, EFSA Supporting publication, doi: 10.2903/sp.efsa.2017.e15121

<sup>4</sup> Deutsche Gesellschaft für Ernährung (German Food Association): <https://www.dge.de/wissenschaft/referenzwerte/natrium-chlorid-kalium/>.

<sup>5</sup> Deutsche Gesellschaft für Ernährung (German Food Association): <https://www.dge.de/wissenschaft/referenzwerte/chlorid/>.

