

WEDNESDAY 19 APRIL
10:30 - 12:00

SUSTAINABLE USE OF GEOSYNTHETICS



Moderator: Marines Lagemaat, Scientific & Technical Affairs Director – EDANA

Presentation 1:

Sustainable use of geosynthetics in mega projects in civil and geo-environmental engineering

Daniele Cazzuffi, IGS Past President – CESI



Over the last 60 years the use of geosynthetics has increased in civil, geotechnical, and geo-environmental projects around the world for a variety of functions.

In more recent decades their use instead of, or in partial combination with, natural materials – such as gravel, sand, clay, and so forth – emphasized their crucial role in terms of sustainability, circular economy, and in the light of the dramatic climatic change issues.

Examples of the following applications from exceptional projects will be briefly shared:

- Dams and reservoirs
- Tunnels and underground structures
- Reduction of snow/ice melting in glaciers

Presentation 2:

Circular economy: opportunities and limitations presented by recycling nonwoven geotextiles

Francesco Fontana, Geosynthetics Consultant – A&B

The environmental impact of geosynthetics must be assessed according to their desired performance, rather than simply their weight. Using recycled polymers to produce nonwoven geotextiles can play an important role in ensuring a circular economy.



Key points to be addressed include:

- The contribution to the performance of the whole project
- The desired durability of the structure in which the geosynthetic is incorporated
- The probability of microplastics being released
- The limits imposed by the current compulsory rules