



# LIFE20 GIE FR 282 - RE-PLAN CITY LIFE

RElevant Audience Plan Leading to Awareness Network for Circular Economy Use of Recycled TYre materials in city LIFE

## Sustainable Solutions with Recycled Materials at the Building Exhibition "SAIE" in Bari

SAIE is the Italian exhibition that represents the largest community of companies, professionals and associations in the construction sector. This year SAIE recorded the highest numbers ever: 407 companies on display , +64% compared to 2021, and 25,527 visiting professionals (+35%).

SAIE is a strong commercial multiplier for the market, a moment of reflection and comparison for the sector and the reference appointment with the operators of the sector to discover the excellence of the entire construction supply chain, through paths dedicated to the key themes of sustainability, innovation, energy efficiency and digital transformation. The event garnered significant attention with 123 training conferences and 25 special initiatives, as well as the support of 75 trade associations.

In this context, ETRA, in collaboration with ANTEL, organized the workshop: "Circular Economy in Construction for environmental sustainability, research, strategies, innovations and experiences on the reuse of recycled materials". This national event addressed technicians of both the private and public sector.

The presentations were focused on building application of Recycled Tyre Materials (RTMs), spanning from rubber, steel, and textile ion concrete to thermal and noise insulating products and applications done with the rubber and textile. Also Urban and Sports applications were described as the Fair attracts a really wide spectrum of interests. The workshop was supported by some speakers and partners from the RE-PLAN CITY project.

One of the topics covered during the session was: The use of RTMs in cement-based mortars and in the precast concrete industry. In particular, it was also discussed how to manage new cement-based composites. Prof. Alessandro Fantilli from Politecnico of Turin (partner of Replan) provided insights into the process and revealed valuable findings, such as the increase in strength reduction factor with presence of recycled carbon fibers.

Prof. Dora Foti shared knowledge on the topic of Innovative and eco-sustainable concrete produced from the reuse of waste materials for circular construction. It addressed the challenges, explained also by Fantilli, of the depletion of natural aggregates and need to find replacement. She worked on plastic recycling, with a specific focus on Polyethylene Terephthalate (PET). An Experimental Campaign was conducted to discover best practices for incorporation PET recycled materials into construction products. The tests showed that the inclusion of PET fibers in concrete enhances its ductility. Moreover, PET bars can be employed as alternatives to welded or reinforcing steel links in conditions with high humidity and steel corrosion issues.

Prof Bruno Marabotto revealed the topic of the use of recycled rubber in sports facilities and artificial grass fields, potential and contradictions, which is a common concern. Dr. Ettore Musacchi continued the discussion with another promising application: panels for thermo-acoustic insulation with recycled textile fibers. The growing need for isolation presents new challenges, and using recycled textile fibers from tyres is one of the solutions. Various products and their technical characteristics were described, along with applications of rubber mortar for these purposes, accompanied by examples and works carried out.

This enlightening session provided a platform for specialists and manufacturers in the industry to not only share valuable knowledge but also to discuss practical experiments, tests, and working solutions while considering all the associated advantages and challenges.

Among the speakers there was also Dr. Sergio Saporetti, an Officer of the Italian Ministry of the Environment committed to the preparation of the Green Public Procurement for the building sector. They analyzed the mandatory criteria and contractual clauses of the Minimum Environmental Criteria for constructions.

The workshops allowed a lively interaction among speakers and participants who shared their experience and willingness to cooperate on expanding best practices. The RE-PLAN CITY project was also presented, as it combines many discussed topics revealed at SAIE and aims to use recycled tyre materials in diverse areas of the city's infrastructure.

More information about the event: <https://www.saiebari.it/en/>

