

Invitation to tender – May 2020

Investigating recycling technologies that can be used for the recycling of PVC floor coverings

About ERFMI

The European Resilient Flooring Manufacturers' Institute is the European trade association for resilient flooring representing the interests of 17 flooring manufacturers and distributors in Europe, who between them place around 370 million square meters of resilient floor coverings on the market in Europe each year.

Our members offer a wide variety of durable, flexible and impermeable flooring products made of both synthetic and natural material.

In 2019 ERFMI developed a new road map with a strong focus on developing a circular economy for our sector. ERFMI has a Circular Economy Platform which operates as part of the technical committee. We also have a Circular Economy Platform focusing particularly on Vinyl Flooring as 92% of the products placed on the market by ERFMI members are PVC. This platform is called Revinylfloor

The project

Revinylfloor, the circular economy platform for PVC flooring is managed under the umbrella of ERFMI. Revinylfloor has received co-funding from VinylPlus, the PVC industry voluntary commitment to sustainable development, to help develop a more circular economy for PVC flooring. To this end we are seeking to commission work to identify technologies, both existing and emerging that can be used to recycle post-consumer PVC flooring. PVC flooring is already recycled mechanically, but there are significant challenges with regard to extracting so called legacy additives and providing a high-grade PVC recyclate that can be used in new flooring products. The industry is seeking to increase the volumes of recyclate that can be used in new flooring products, as well as in other products and is therefore taking a strategic approach to identifying new technologies,

Scope

The project should focus on post-consumer vinyl flooring. Both feedstock recycling and mechanical recycling are in scope for this project.

We expect the selected contractor to carry out a thorough literature and patent search as well as to contact technology providers, university researchers and technology institutes. The research should cover:

- Technologies that have been developed but are currently not in use
- Technologies that are currently in use; and
- Technologies that are emerging

The research should consider technologies that are being developed or are in use in other sectors that could be adapted for use in PVC flooring recycling.

The research should also consider outlets for the resulting recyclate, either in PVC flooring products or in alternative applications.



Tasks

The selected contractor will be required to:

- Research and list recycling technologies both existing and emerging which could be applied to post consumer PVC flooring.
- Put together an inventory of available technologies. This should be based on a thorough literature and patent search as well as to contact technology providers, university researchers and technology institutes on technologies used for recycling in other sectors.
- Put together a matrix listing all the technologies and identifying the advantages and disadvantages of each technology and its likelihood for success with PVC flooring.
- Contact companies providing the most promising technologies and to put together costings for the most promising technologies
- Research outlets for the likely resulting recyclate.

Deliverables

- A kick-off meeting with the project team (possibly via web conferencing)
- Fortnightly progress updates by email or phone with the ERFMI project manager
- A mid-term conference call with the project team
- A presentation to the Revinylfloor members on findings to take place in Brussels.
- A final report to include a matrix listing all the technologies and outlets found including references and contact details

Expertise required

ERFMI is looking for a consultant with experience in investigating polymer and/or recycling technologies and a good track record of researching novel technologies. The proposal should be well structured and explain what approach will be taken to deliver the project.

Timeframe

Timeframe Work Programme Work to commence by: Work to be completed by

Tender Timetable

Deadline for receipt of submissions Receipt of written notification of ERFMI's decision 1st September 2020 15th December 2020

15th June 2020 30th July 2020