

## **Carnot institutes network**

Research and innovation for industry

Partnership with Cetim Carnot Institute - SFH

# SFH transforms machining sludge into valuable metal briquettes

Both SFH and Cetim develop a cost-effective and sustainable alternative to minimising, even eliminating, waste landfill for the industry sector.

#### **Supporting Innovation**

As far as SFH is concerned, waste management must translate into an immediate financial gain. This is the real origin of a wide range of specially designed filter presses dedicated to machining sludge. Inside factories processing high value materials, particularly those used in aerospace, sludge produced from surface grinding contains large amount of high-quality metal particles. The disposal of which is in effect a burdensome and costly process. Thanks to the ancillary filter presses supplied, SFH allows for significant onsite waste compaction for the industrial partner. The waste are turned into briquettes for re-integration into the production cycle or marketed as a product. Such innovation is not only important to industrial users but to service partners as well.

#### The client needs

Founded in 1981, **SFH** experienced a shrinking economic activity in 2010. The SME contemplates at once the redirection of its operations and gradually focuses on recycling, in particular the valuable re-use of manufacturing waste. The Saint-Etienne-based SME turns to Cetim to blend its expertise and know-how in ultra high-pressure hydraulics with substantial multi-disciplinary resources, including the technical, legal and commercial aspects necessary to complete the project. Much closer than a partnership, such co-development and structured gain / risk sharing mechanism have resulted in the production of a series of several waste compactors since 2011.



### Partnership

When SFH presents the idea, the Cetim Carnot Institute is already working toward the reprocessing of machining sludge. Cetim puts a proposal within the context of its 'Innovation' offer that focus on marketing and industrialisation studies by way of co-financing. Heavy investments to financing the venture are not required from SFH and the Cetim-managed project is progressing quickly. The range of machines manufactured by SFH for compacting sludge surface grinding, more generally manufacturing waste as well as sludge mixed with swarf, matches the various sectors of the industrial market segments. Sales increase dramatically, including through export, and hiring is on the rise for the start-up. In 2015, headcounts and revenue is double the 2009 figures.



