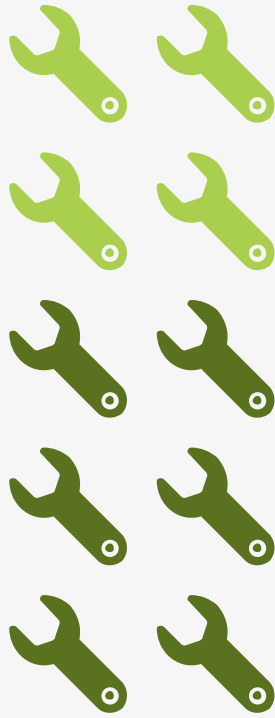


# Material Efficiency and Material Intensity

IN THE EUROPEAN COUNTRIES

## 1. Material Intensity

In empirical studies, material intensity values are generally used as a proxy to represent material efficiency.



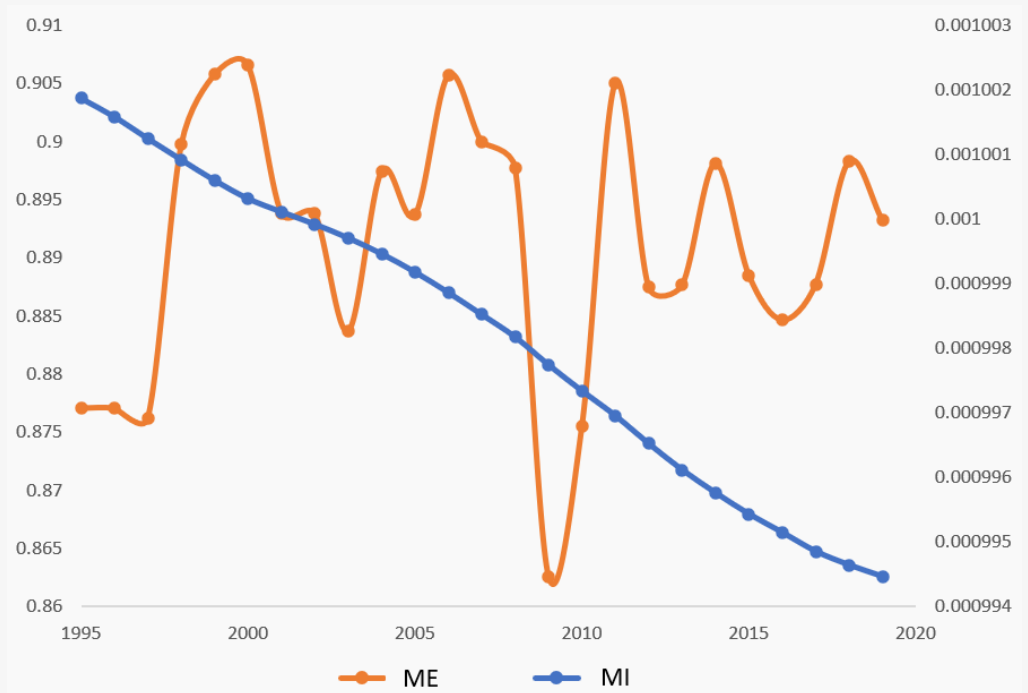
## 2. Material Efficiency

Material efficiency (ME) scores can be obtained using Stochastic Frontier Analysis (SFA).

### 3. What if we compare the ME and MI values?

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## COMPARISON OF ME AND MI



ME values are calculated using the SFA method.  
MI is defined as DMC/GDP.

<https://lessmaterial.ogu.edu.tr/>

## 4. ME and MI are quite different!

Average ME and MI values obtained for 26 EU countries have quite different results in terms of efficiency.



According to MI values, there is an extraordinary increase in efficiency during the relevant period. However, the ME values obtained by the SFA method show a more moderate improvement in efficiency.

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