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MINISTRY OF INDUSTRY
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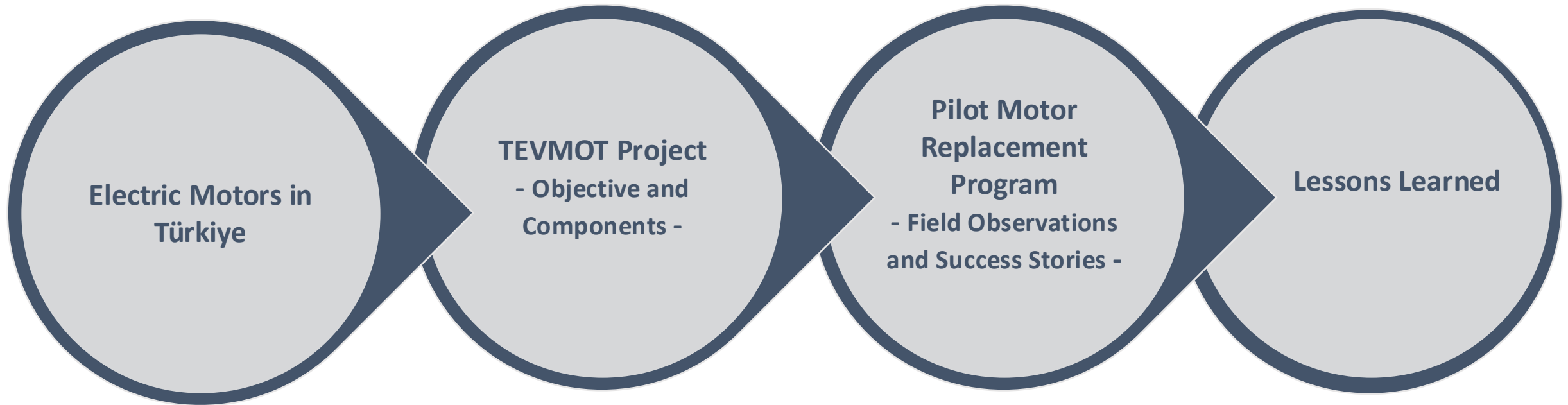
NATIONAL
TECHNOLOGY
INITIATIVE

PROMOTING ENERGY EFFICIENT MOTORS IN SMALL AND MEDIUM SIZED ENTERPRISES IN TÜRKİYE- TEVMOT

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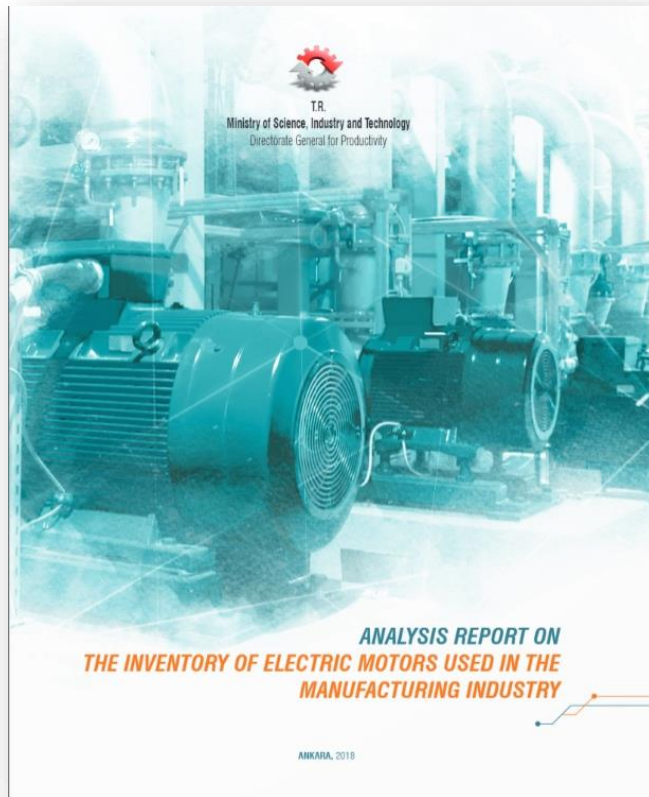


Content



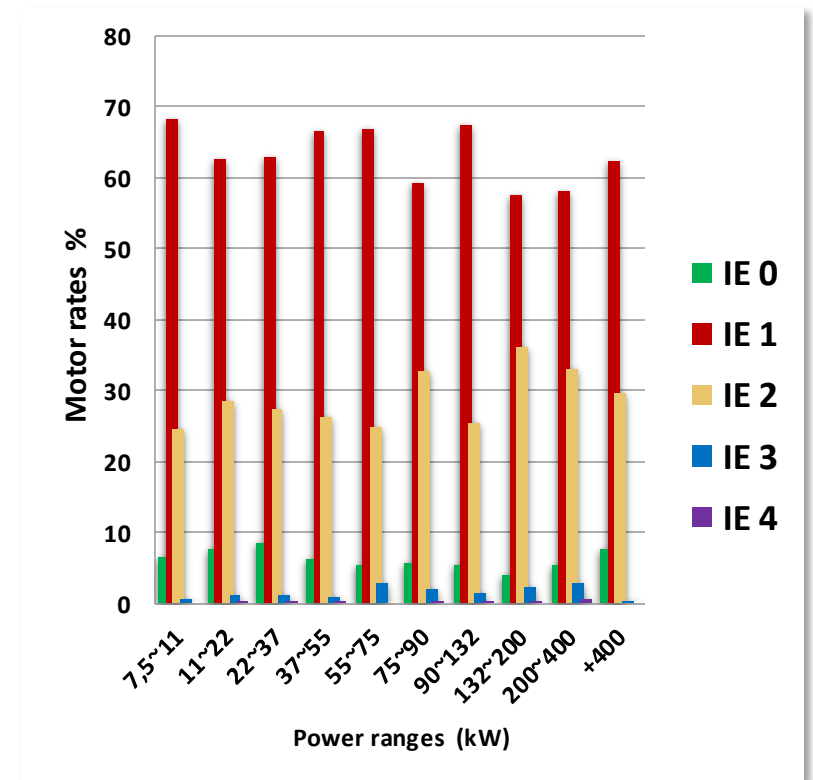
Electric Motors in Türkiye

Analysis Report on the Inventory of Electric Motors used in Turkish Manufacturing Industry- 2016



- There are a total of **3,783,694 AC motors with a power rating of 7.5 kW and above currently used in industry and are low efficient (IE0, IE1, IE2 without variable speed drive).**
- **34 billion kWh electricity (around USD 4 million) will be saved annually if all the 7.5 kW and above AC asynchronous low efficient motors (3,783,694) are replaced.**

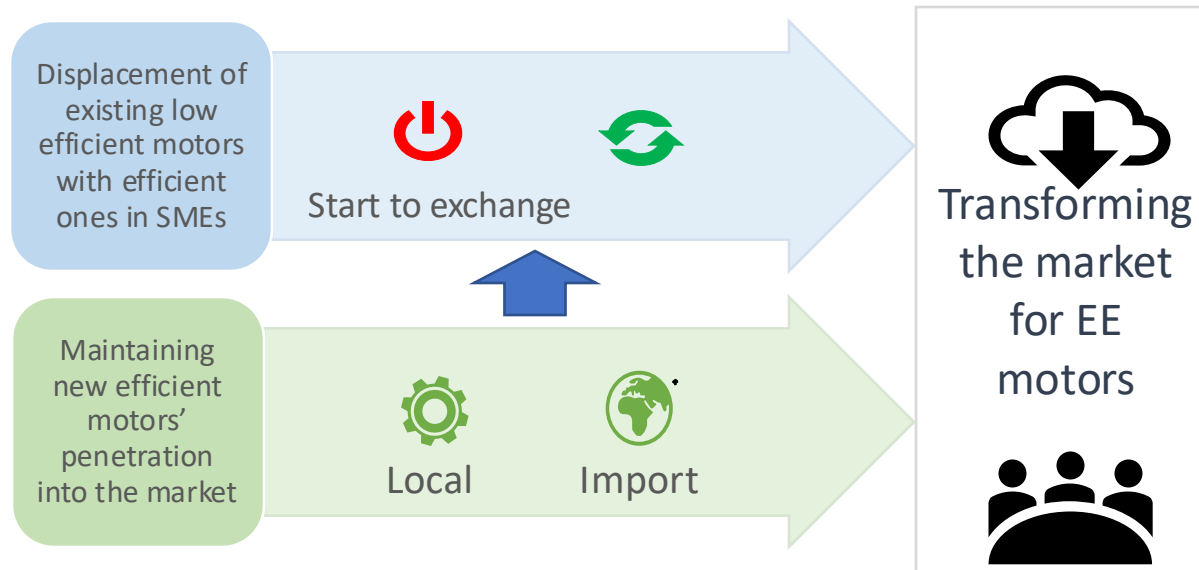
Electric motors according to their power range and efficiency class



Objective

The project aims to promote significant additional investment in industrial energy efficiency in Türkiye by **transforming the market** for energy efficient motors used in small and medium sized enterprises.

Market Transformation



DIRECT IMPACT



INDIRECT IMPACT



Pilot motor replacement

Strengthening regulatory framework for both existing and manufactured electric motors

Development of both management and information infrastructure

Improvement of the capacity of TSE (Turkish Standards Institute) Motor Test Laboratory

Development of Financial Support Mechanism

Awareness raising campaigns and training programs

Donor



Implementing Partners



Partners



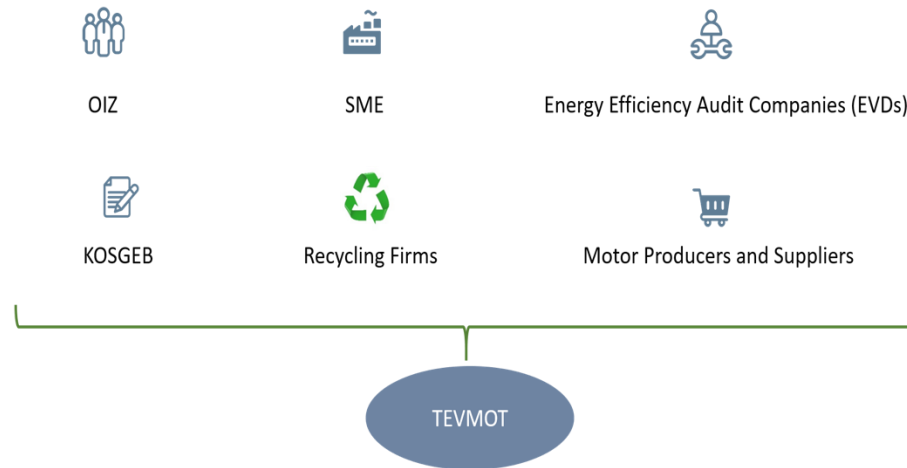
Financial mechanism to support SMEs for the motor replacement has been developed with KOSGEB (Small and Medium Enterprises Development Organization of Türkiye)

For the **2 years' time period** through **grant support for 7 pilot OIZ**

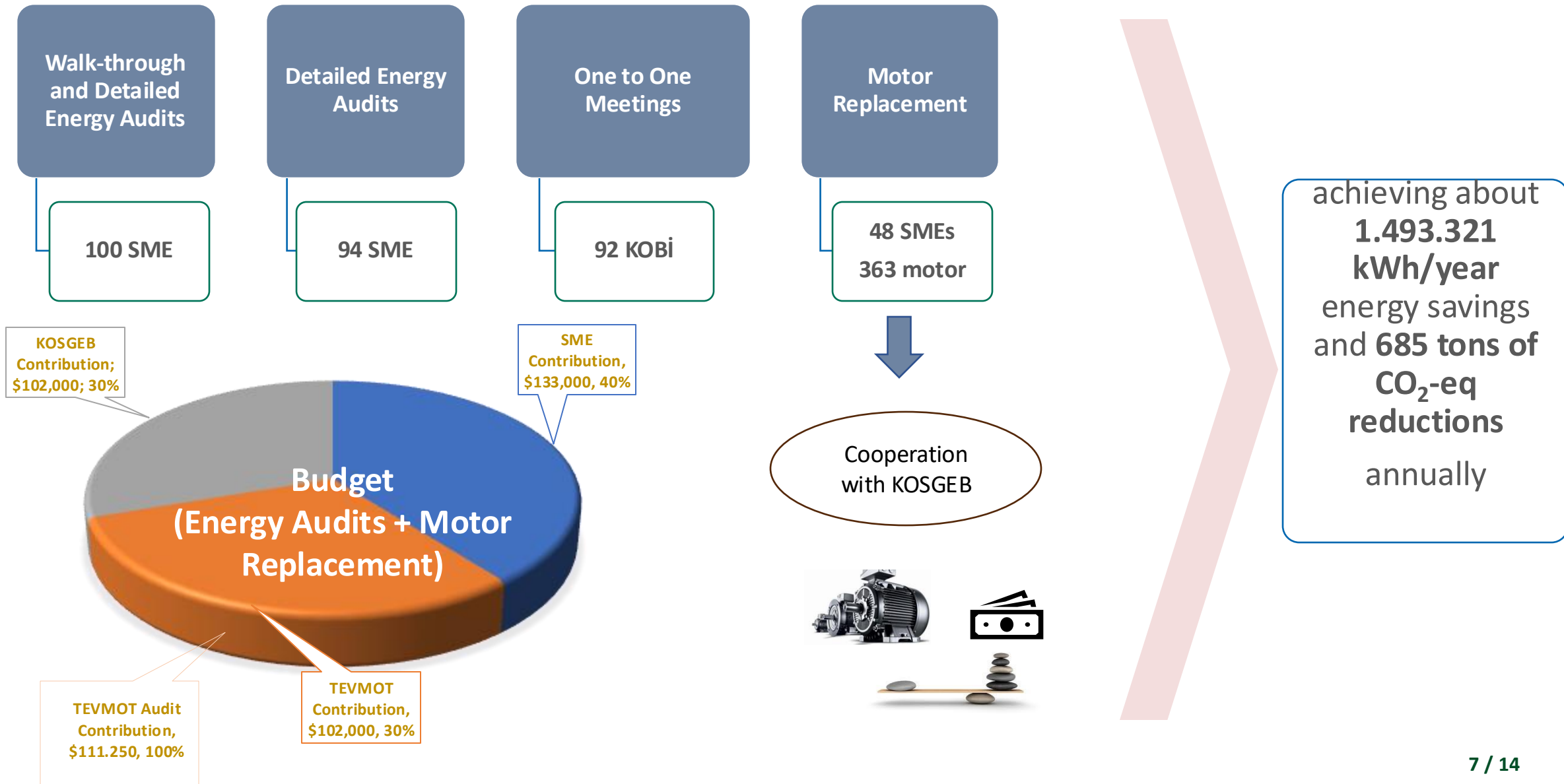
Upper limit per SME is about 10.000 US\$

The **recycling program for the inefficient electric motors replaced** was developed.

Partners in Pilot Program



Summary of the Pilot Motor Replacement Program



Primary Barriers Towards Expanding Energy-Efficient Electric Motors

- Low awareness level
 - Limited awareness of SMEs to the **benefits of EE motor** investments,
 - Limited **technical capacities** of SMEs to energy auditing and assessments
 - Industrialists are **more conservative against cost- increasing variables**
 - Reluctance to **change a working process.**
- Lack of **liquidity / financing**
 - Industrial SME **unwillingness to pay up front costs** of an EE motor investment,
 - **Lack of SME incentive** to access available financial products, and
- Inaccessible **EVD / ESCO** support
 - **Lack of available external experts** who can provide **cost effective motor replacement plan** for industrial SMEs.



Awareness Raising - Visibility

WEBİNAR
Enerji Verimli Motor Dönüşümü İyi Uygulama Örnekleri

Moderatör: Gül TASHIRAN BATTAL
T.C. Sanayi ve Teknoloji Bakanlığı

Konuşmacı: Faruk MULLA-AHMETOĞLU
Gürgenler A.Ş.

EE Motor Replacement Best Practices Webinar

Konuşmacı: Murat ŞAHİNKAYA
Has Alüminyum A.Ş.

Konuşmacı: Tamer TÜRKMEN
Senkaya Çelik Döküm A.Ş.

19 Ocak 2022 14:00 - 15:00

/tevmot /company/tevmot |tevmot.org.tr

Yayın No: e-16

Motor Tahrikli Sistemler için Enerji Etüdü Kılavuzu
Tavsiye Edilen Adımlar ve Araçlar

Nisan 2018

Turkish version of EMSA Guide

TEVMOT



SANAYİ TESİSLERİ İÇİN ELEKTRONİK ATIK YÖNETİM REHBERİ

Recycling Guide for Industrial SMEs

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TEVMOT Projesi E-Bülteni

SAYI:2 Ekim 2021

TEVMOT Projesi E-Bülteni

Ekim 2021

SAYI:1 Haziran 2021

Haziran 2021

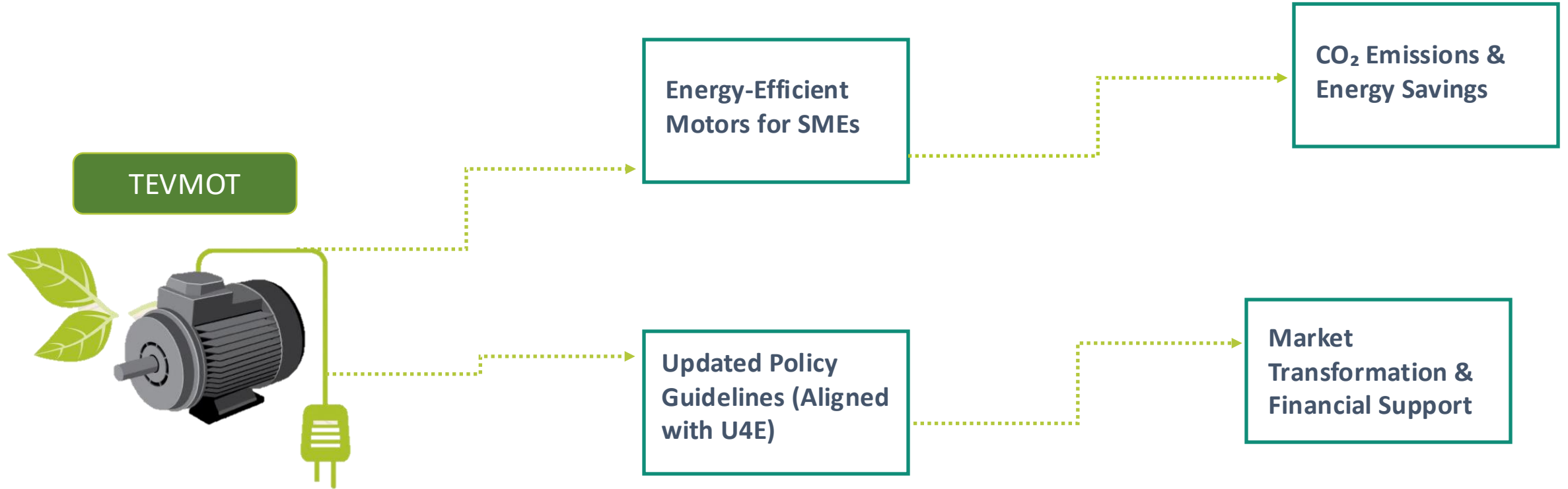
E-bulletins

Şubat 2022

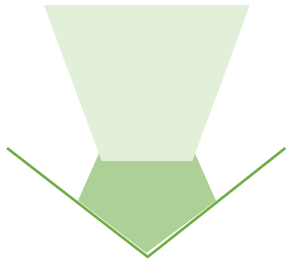


Award ceremony of beneficiary SMEs, December 2021

TEVMOT's Contribution to Global Energy Efficiency Efforts



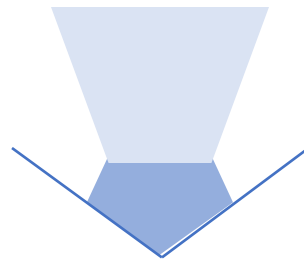
Overcoming Financial Barriers with KOSGEB Support



SMEs leveraged **grant support** from TEVMOT and KOSGEB to replace old motors, which accelerated investments they had previously postponed

Gebze «*The financial incentive **motivated us to replace motors, something we had delayed***»

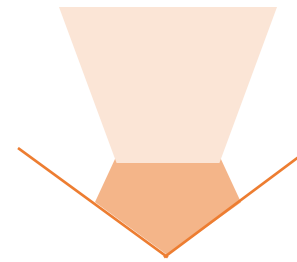
Energy Savings and Awareness Impact



Technical staff became **more aware of energy efficiency and sustainability**

Antalya «TEVMOT showed us that **efficiency should be part of our strategy**. After the project, we started re-evaluating all our processes»

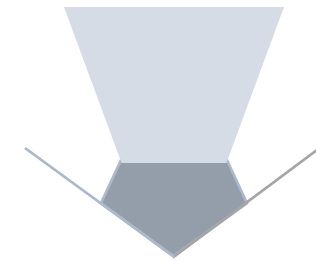
Quality and Cost Improvements



Motor replacements reduced **maintenance costs** and enhanced product quality.

İzmir «*We **improved both process quality and operational efficiency** through motor replacement*»

Enhanced SME Reputation and Environmental Responsibility



SMEs reported **positive public perception** as environmentally responsible companies, improving their brand image.

Ankara «*Participating in TEVMOT positioned us as a **high-value producer and enhanced our reputation within the sector***»

- 🎯 The market transformation requires
 - 🎯 **a major awareness raising campaign** conducting by all stakeholders in the industrial sector.
 - 🎯 **strengthening of the capacity of the members in the value chain.**
- 🎯 Not only motors but also all of each components in the motor driven systems contribute the energy efficiency therefore **integrated approach is necessary for higher efficiency.**



- 🎯 **Legislation and enforcement** will support the trends of energy efficiency investments positively.
- 🎯 **A sustainable and feasible financial mechanism designed in accordance with the needs and requirements** of the beneficiaries is essential and more encouraging for energy efficiency activities.
- 🎯 **A comprehensive database** is a valuable tool to monitor and evaluate the market as well as set and revise targets and policies.





Thank you

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