



Agricultural Machinery Industry in Turkey

10/05/2023

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About TARMAKBİR

Established
1978



**Turkey's
National
Manufacturers**

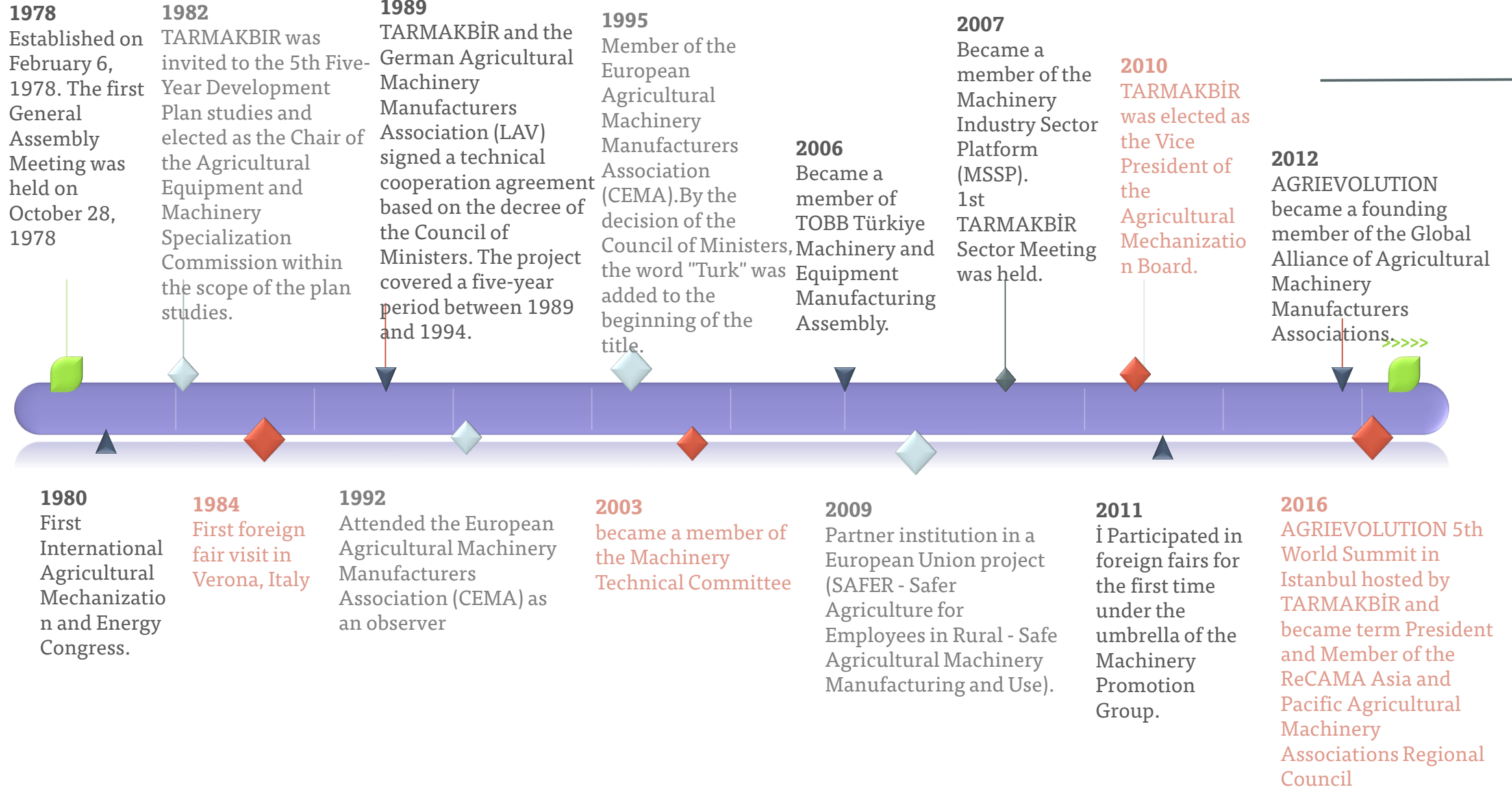
NGO
NON
GOVERNMENTAL
ORGANIZATION

Common Platform



Being in a continuous interaction with governmental bodies and national & international organizations, **TARMAKBİR serves as a common platform for the industry and supports its members through** regulations, technical and scientific improvements, commercial issues, and data providing. The Association today serves as a common communication platform for the stakeholders of the industry, i.e. private sector, public institutions, and academia

Milestones



Key figures in Turkey



Key figures in Turkey

Robust economy

The Turkish economy posted record growth and climbed from 18th place to 11th globally from 2003 to 2021.

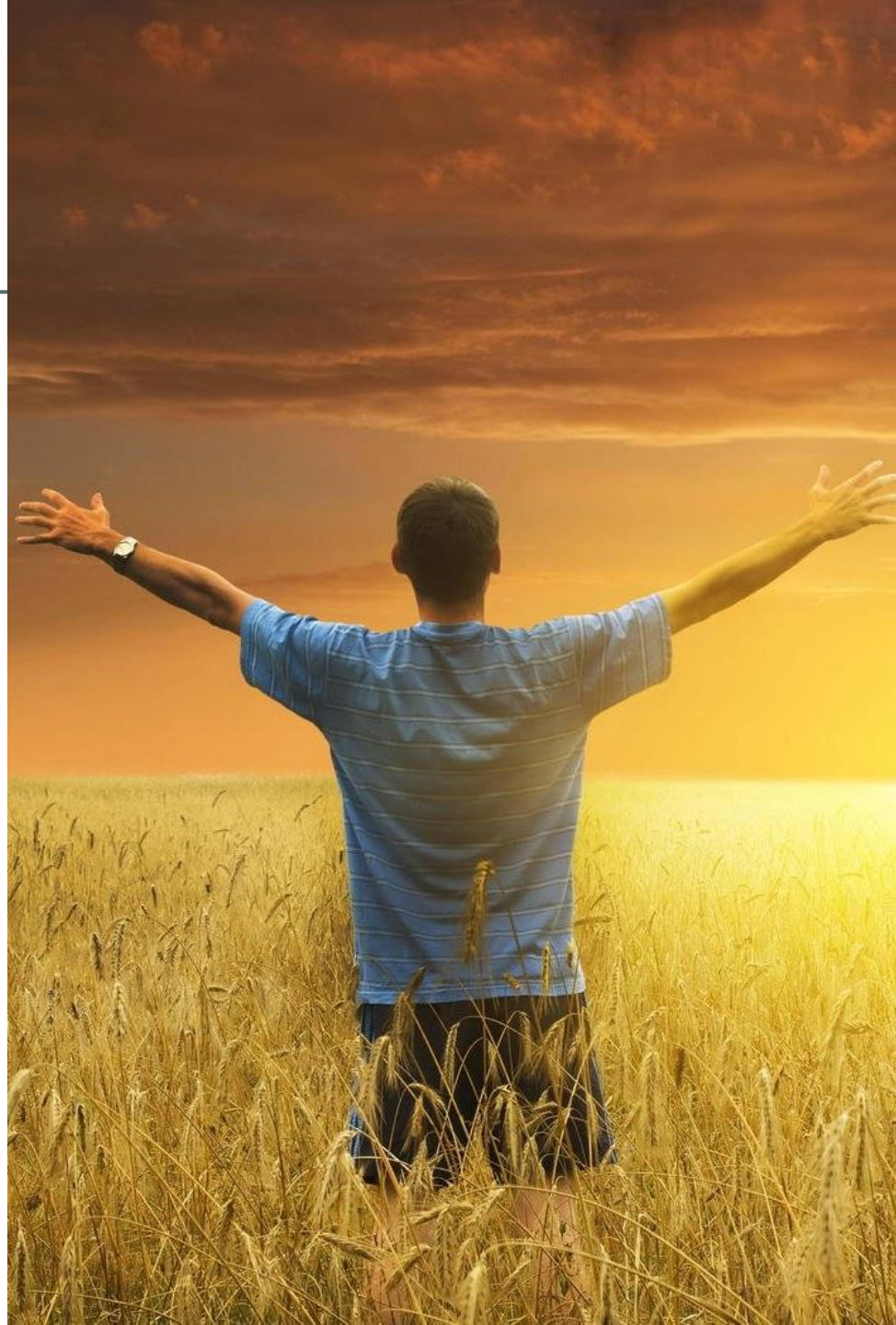
With an eye-catching 10.3% average annual growth in exports, Turkey has outpaced the world performance and increased its export volume from USD 36 billion to USD 254 billion over the past 20 years.

Favorable demographics

Turkey's population was registered as 84.7 million. Türkiye, with half of its population under the age of 32.7 in 2020, has the largest youth population among the EU member countries.

Strategic location

Türkiye offers easy access to 1.3 billion people and a combined market worth of USD 26 trillion GDP in Europe, MENA, and Central Asia within a 4-hour flight radius.



Skilled and competitive labor force

Turkey's overall labor force is around 33.3 million people, which makes the country the 3rd largest labor force in Europe.

Lucreative incentives

Turkey offers a comprehensive investment incentives program with a wide range of instruments that helps to minimize the upfront cost burden and accelerate the returns on investments.

The Turkish government provides generous support programs for R&D and innovation projects, employee training initiatives, and for exporters through various grants, incentives, and loans.



Key figures in Turkish Agriculture

Agricultural economy

Turkey, which is advantageous in terms of agricultural production with its climate and ecological characteristics that allow a wide range of products, ranks 2nd in Europe and 15th in the world in agricultural economy (45.4 billion dollars) with 2021 data and current prices (in 8th place at constant prices in the world.).

Total agricultural area

The total agricultural area (excluding meadow and pasture lands) is 23.84 million hectares.

Arable farming (excluding fallow areas), is carried out on an area of 20.17 million hectares.

According to the field research, approximately 61% of the farmers are engaged in vegetable production only, while 38% are engaged in vegetable + animal production.

The ratio of enterprises engaged in only animal husbandry is below 1%.





Vegetable and fruit production

In 2021, 31.8 million tons of vegetables and 24.9 million tons of fruit were produced in Turkey.

The largest vegetable production in the world is realized in China, India and the USA, and Turkey ranks 4th in the ranking.

In fruit, China, India, Brazil and the USA take the first place.

Turkey ranks 5th in fruit production with a production capacity of approximately 23 million tons and realizes 2.68% of the world's total fruit production.



Main problem: Farm scales

The fact that agricultural lands are generally composed of small parcels, and that these parcels are not together but scattered, considerably reduces the efficiency level in the use of agricultural mechanization tools.



The average farm size in Turkey is 10-11 ha and these areas are very fragmented, while this value is 17.4 ha in the EU, 63.2 ha in Germany and 69.6 ha in France.

Number of farmers

The number of farmers registered in the Farmer Registration System (approximately 300 thousand female farmers) is 2.18 million as of 2022.

According to a field study, the average age (arithmetic) in agriculture was calculated as 52.7.





Empowering Women Through Mechanisation

There are many programs available to women's co-operatives over the past ten years offered by organizations such as Ministry of Agriculture, regional directorates, İŞKUR and KOSGEB and also from outside Turkey (the EU, UNDP, embassies and consulates). The rest are offered by regional development agencies, the national government and national NGOs, such as KEDV.

Key figures in world agricultural machinery





World agricultural machinery market volume: \$171.4 billion

France: \$8.3 billion

Germany: \$8.2 billion

Turkey: \$3.3 billion

World agricultural machinery export value (2022): \$84.4 billion

Germany: \$15.5 billion

USA: \$ 10.6 billion

China: \$ 7.5 billion

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Turkey (#17): \$ 1.4 billion

Balance in value in 2022

Germany: \$ 9.7 billion

China: \$ 6.5 billion

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Turkey (#10): \$ 0.7 billion

Global ag. machinery exports by groups

Tractors: 29,1%

Landscape: 19%

Harvest: 17.2%

Tillage: 7.3%

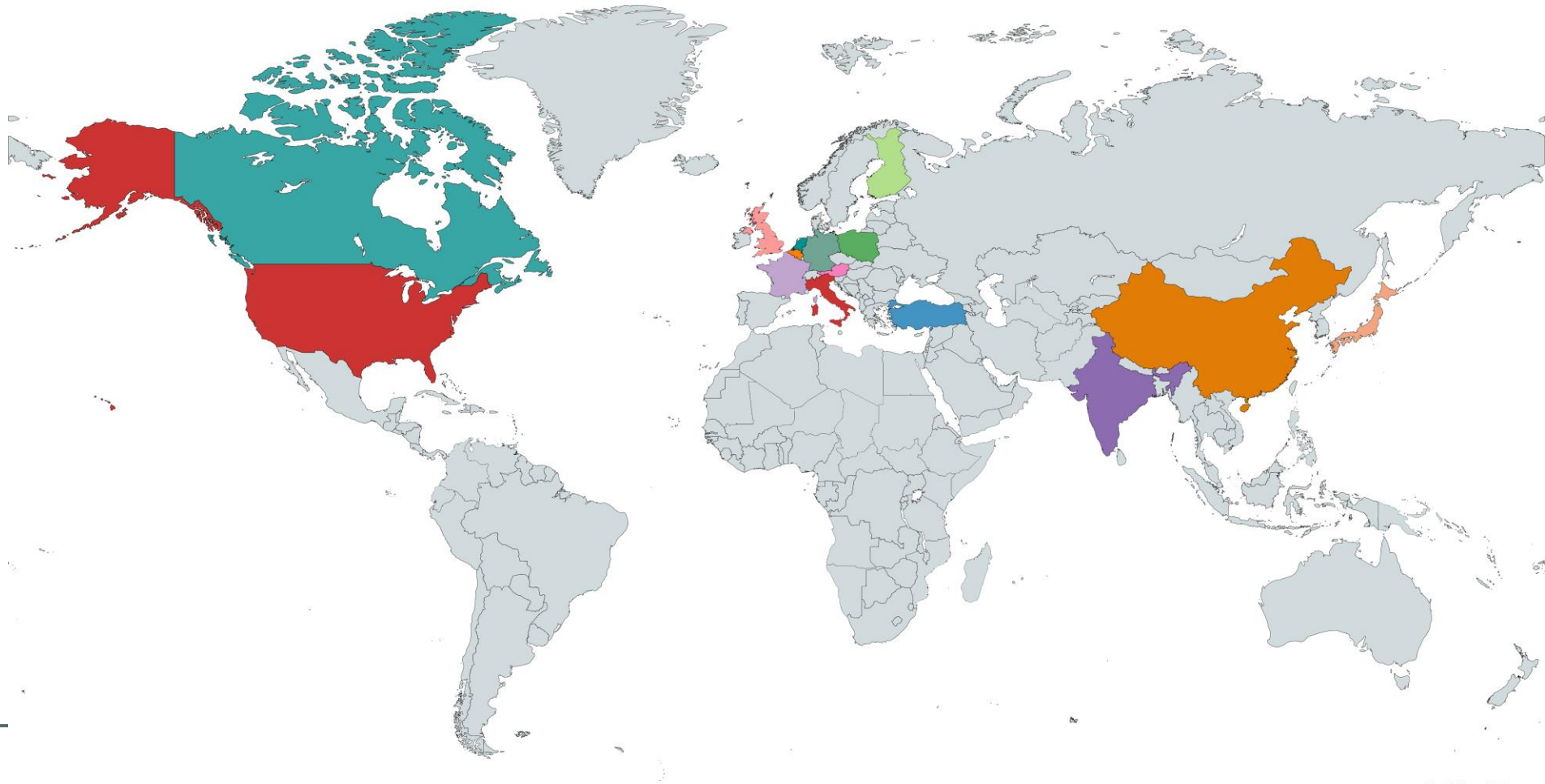
Storage, drying: 5.1%

Plant protection: 4.7%

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World agricultural machinery exports (Top 15)



According to historical data, almost all of the agricultural mechanization tools needed by the sector are manufactured in Turkey, which started to produce its first agricultural equipment (plough) in 1861 and its first tractor in 1955. However, there are exceptions to this.



Products whose production will not be rational in terms of sales (economy of scale, brand recognition)



Trailed or self-propelled machines (especially self-propelled harvesters) with a capacity suitable for very large agricultural lands and farms.



Machines with a very high level of engineering, especially smart agricultural equipment (engineering knowledge, technology and infrastructure requirements)



Turkish agricultural machinery market

Total manufacturers: 1.290 (2022)

592 of the firms are in the status of micro (59.6%),
293 of them are small (29.5%),
83 of them are medium (8.4%), and
26 of them are large (2.6%)*.

According to Eurostat's 2021 records, the average of manufacturing companies in the leading EU countries is 600., around 541 companies operate in Germany, 478 in France and 700 in Poland.

The production value in 2021 was 19.4 million € per unit company in Germany, 11.5 million € in France and 2.2 million € in Poland. In Turkey, this value is at the 1.7 million . According to 2021 data, a turnover (net sales from production) value per unit company was approximately 35.4 million € in Germany, 16.8 million € in France and 3.9 million € in Poland, while the value realized in Turkey is around 1.7 million €.

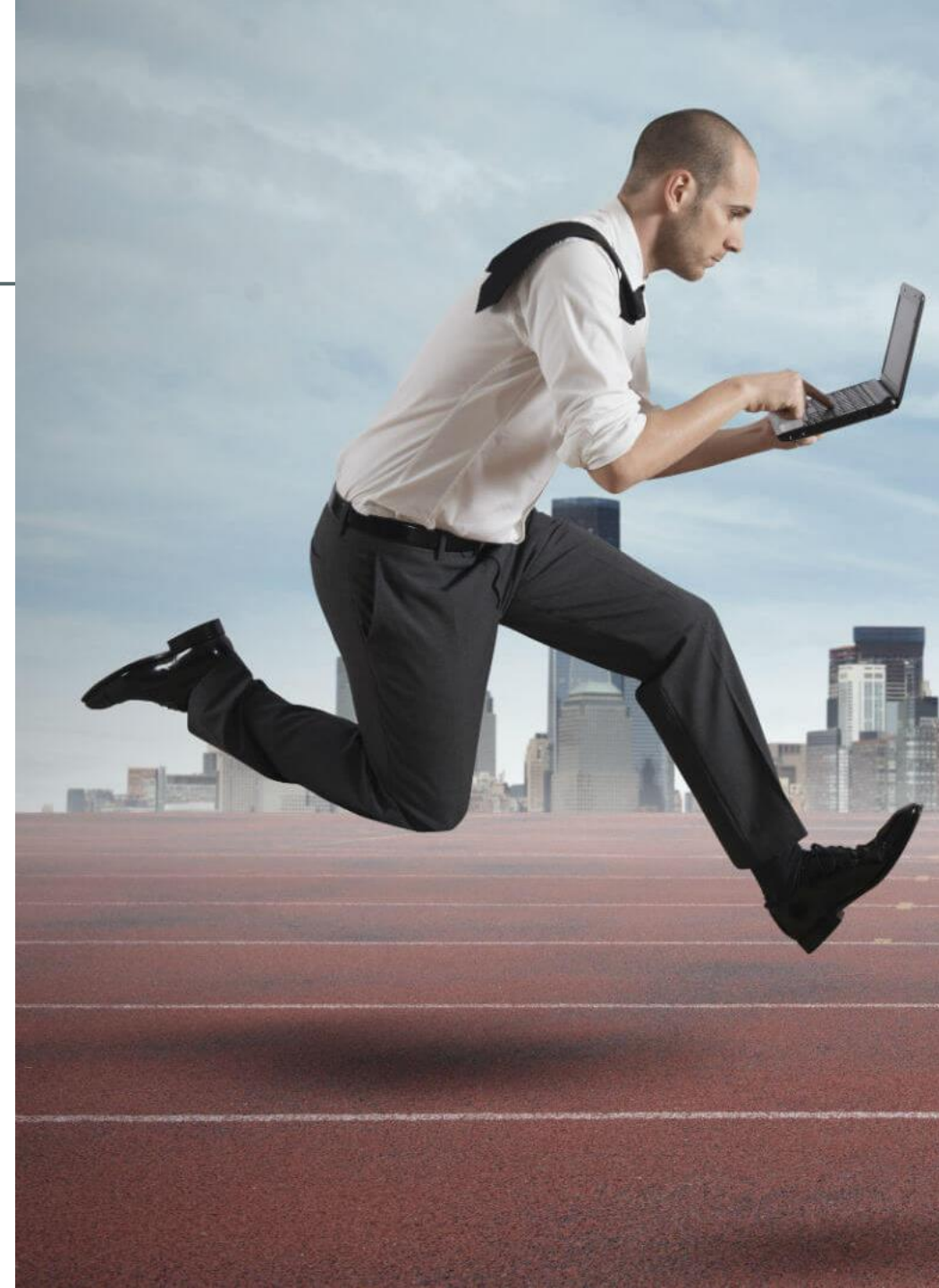
Micro: less than 10 employees per year
Small: Employees less than 50 people per year
Medium: Employees less than 250 people per year
Large: More than 250 employees per year

Obstacles to the Development of the Industry



Unfair Competition

Due to the scattered structure of the existing land scales and the low purchasing power of farmers, domestic demand is largely concentrated on cheap and low-tech machines, resulting in low value-added production. The fact that low value-added, low-technology production somehow finds buyers causes new companies to constantly enter the agricultural machinery manufacturing sector. Companies that produce the same machine in the same way and create a +1 difference in the sector only with the criterion of the number of companies enter the competition by taking a share from the market without offering any value from the existing ones. Even if it does not create unfair competition, in a market where micro and small businesses dominate in number, the dynamics of companies competing with each other on the same subject prevents the creation of a qualified business and is also a serious obstacle to branding.





Incentive and support systems

On the other hand, the uniform application of incentives and supports and the lack of regulatory impact and result analyzes of the supports not only prevent the supports from reaching their full purpose, but also prevent a competitive structure. Today, incentive requests have turned into an established order, not for the purpose of transformation, but only to maintain the existence of capitalists.

As long as incentive mechanisms continue to be designed to keep what exists alive, chaos will continue. The incentive system should be adapted to companies that work on a formal basis and produce efficient, value-added and high-quality products.

R&D Support Programs

Legislation on R&D should be simple, applicable and encouraging. Incentive mechanisms should be reduced and their efficiency should be measured.

State supports that continue without measuring their efficiency cause public resources not to be used profitably. **R&D supports should be prioritized for projects that are applicable to the industry and will create added value.**

Although it is understandable that the company wants to benefit from R&D supports to ease the burden of its expenses such as tax and insurance, employment, patents, and etc. it is not an acceptable method. In order not to create a basis for this environment, it is essential for the authorities to take measures to reduce the input costs of companies, and companies should ask for incentives for their projects that will ensure their competitiveness, instead of producing projects to get support, and regulations should be made to provide the necessary conditions.



A red Case IH tractor is shown from a front-three-quarter view, pulling a yellow and red trailer. The tractor is in a green field, and the sky is blue with scattered white clouds. The trailer has a yellow front section with 'POT' visible and a red rear section with white diagonal stripes.

Farmer Support Programs

State-aids can of course be a support model that can be designed by making a "regulatory impact and result analysis", but the issue of designing this program for high-tech agricultural machines, especially smart agricultural machines, should be evaluated first.

Within the scope of the program, a part of the vehicle (equipment) cost can be supported as a grant and a long-term (5-7 years) interest-free loan can be provided for the remaining part. Necessary measures (such as more grants and maturity for domestic machines) should be taken to ensure that domestic agricultural machinery is preferred in this special support program.

Joint Tenancy in Machinery Use

The methods applied so far in the use of shared machinery have not been successful due to the specific time constraints of agriculture, average land sizes and especially the social habits of our farmers. **Common machine use models in France and Germany should be examined and a "Common Machine Model or Models" specific to our country should be generated. The contracting system and the use of this system by farmers should be specifically encouraged and supported..**



Thank you!

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