

INDUSTRIAL ACTIVITIES IN MUREȘ COUNTY

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Abstract: This study sets out to "x-ray" all the industrial sectors currently operating in Mureș County, a topic generally „avoided” by most researchers due to the multiple transformations that have taken place during the postcommunist transition period. Thus, we tried to present the geographic distribution of existing industries, concentrated in the *Middle Section of Mureș* (Reghin, Târgu-Mureș, Ungheni, Iernut, and Luduș) and the *Târnave* (Târnăveni and Sighișoara), while rural areas experience low industrial input and output. In terms of industrial production, it is clear that *the light industry* is dominating (7,763 employees), especially in *textiles* (45.4%), followed by wood processing, with its furniture production subsector (62.1% of the 7,513 employees). Other major industries include *food industry* (16.8%, 7,129), *machinery* (16.5%, 6,989), *chemical industry* (8.8%, 3,739), *construction materials* (7%, 3,003) and the *extractive industry* (6.2%, 2,661). In 2005, Mureș County Council inaugurated its first *industrial park*, located in Ungheni, which now hosts 18 companies with over 1,700 employees.

Key words: methane gas, secondary sector, light industry, industrial park

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INTRODUCTION

The county's location in the central part of Romania and the existence of numerous natural resources enabled the emergence of several activities concentrated in the hand of different guilds. Commercial activities thrived, which led to the creation of trade fairs in the main towns. Guild continued until the second half of the 19th century, which marked the change from simple manufacturing to massive industrialization (Pop, 2007). It is at this moment that the *Chamber of Commerce and Industry* was established in Targu Mureș. Its members were workers in different wood, skin, shoe and food industries.

Later on, during the first half of the 20th century, new factories emerged, processing local resources. Most were located in Târgu-Mureș (furniture, sugar, beer, leather), Reghin (alcohol, timber, crates) and Sighișoara (bricks and ceramic tiles). Next, the county goes through a more

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significant industrial development compared to other areas due to the usage of *methane gas* as fuel and raw material for different industrial activities, plus its salt mines. After 1948, the economic and social environments changed drastically, the new political regime focusing in growing the secondary sector. The old industrial plants were upgraded and expanded, alongside with the creation of new industries. Forced urbanization processes were implemented, with long term effects. Thus, massive plants such as *Târnăveni Chemical Plant* and *Târgu-Mureș Chemical Fertilizer Plant* were created, requiring considerable energy input. Two new high capacity power stations were built, one in Fântânele and one in Iernut, using gas extracted from the Transilvaniei Plateau. Many more factories were built - steel, construction materials, as well as machinery, logging, textiles and food.

After 1990, as the economy transitioned to a market phenomenon, all industries suffered massive restructurings, complex and difficult privatizations, creating social problems and massive layoffs.

METHODOLOGICAL ASPECTS

We must emphasize that this scientific endeavour implied considerable research, especially the activity profiles of all current and former firms that had emerged after 1990. Therefore, the data and information provided by *Mureș Chamber of Commerce and Industry* were highly useful for this paper. Moreover, we consulted several studies which dealt with similar topics as our own (Pop, 1972, 2007, 2012; Pop & Mîrza, 2012; Claval, 1974; Bailly & Béguin, 1982; Bailly et al., 2017; Șoneriu & Mac, 1973; Bailly, 1991; Herman et al., 2017; Ilie et al., 2017; Max, 1991; Carles, 1998; Raboca et al., 2001; Păcurar, 2006; Cocean, et al., 2013; Tofan, 2013, 2014).

These were „reinforced” by the information found in the general urban plans and the development strategies of the 102 administrative-territorial units, and by the statistical data provided by the Mureș Statistical Department, as well as those from online sources and local media. The most important however has been the field research, which enabled the authors to have a better view of the analysed territory, with graphical and cartographic representations.

INDUSTRIAL SECTORS

In terms of number of employees, the secondary sector comprised a total of 42,427 people in 2015. This total number of distributed as follows: light industry (18.3%), logging and wood processing (17.7%), food industry (16.8%), machinery (16.5%), chemical and paper industry (8.8%), construction materials (7%), extractive industry (6.2%), other industries (4%), electricity (3.3%), and metallurgy (1.4%).

The extractive industry

It involves extracting *nonmetal resources*, mostly *methane gas*, one of the country's largest riches. The discovery of methane gas deposits took place in *Sărmășel*, in 1908, during prospecting works for potassium salts.

In 1914 the first gas pipe was finished, spanning from *Sărmășel-Turda-Ocna Mureș*, with a length of 55 km and 153 mm diameter (Pop, 2012, p. 201-202). The same year, the first gas extraction fields were created in Zau de Câmpie, Șincai and Delenii (Băgaciu), the former supplying *Târnăveni* and *Târgu-Mureș* with natural gas. The ever increasing usage of this resource, including for industrial purposes, required the installation of the first ever gas compression unit in Europe, built in 1927, at *Sărmășel*.

During the socialist period, new gas fields we discovered in the Transilvaniei Plain and Mureș Corridor, closer to the surface, such as the domes of Sânger, Bogata, Șăulia, Mădăraș, Luduș, Dumbrăvioara, Ernei, Ilioara, Teleac, Cristești etc. Thus, this is the oldest gas area which forms the *northwestern gas pipe*, supplying urban centers such as: Cluj-Napoca, Turda, Câmpia Turzii, Ocna Mureș, Dej, Baia Mare, Satu Mare, and numerous rural areas (Pop, 1972, p. 176).

Târnavelor Plateau contains the well-known domes of Corunca, Livezeni, Miercurea Nirajului, Sângeorgiu de Pădure (use to supply the former powerplant of Fântânele), Filitelnic and

Nadeș, acting as the starting point for the eastern gas line, towards Moldova. Nonmetal resources also comprise *construction materials*, such as andesites with pyroxenes from the Mureș Defile (Meștera-Ciobotani) and Sovata (Ilieși), used primarily for road and railway constructions.

The presence of the Pannonian sedimentary cover shows the existence of major accretment of sands and gravel, which are excavated as quarry products. Such mineral reserves can be found in the vicinity of: Răstolița, Petelea, Gornești, Cristești, Ernei, Sângeorgiu de Mureș, Ungheni, Ogra, Iernut, Chețani (Mureș River); Albești și Daneș; Târnava Mică la Chibed, Sângeorgiu de Pădure, Bălașeri, Suplac (on Târnava Mare); Ibănești and Hodac (on Gurghiu), and Eremitu and Miercurea Nirajului on Niraj. Clay is extracted in a quarry located at Dealul Viilor (Sighișoara), owned by Siceram Joint Company, used for producing tiles, bricks, ceramics and other construction materials.

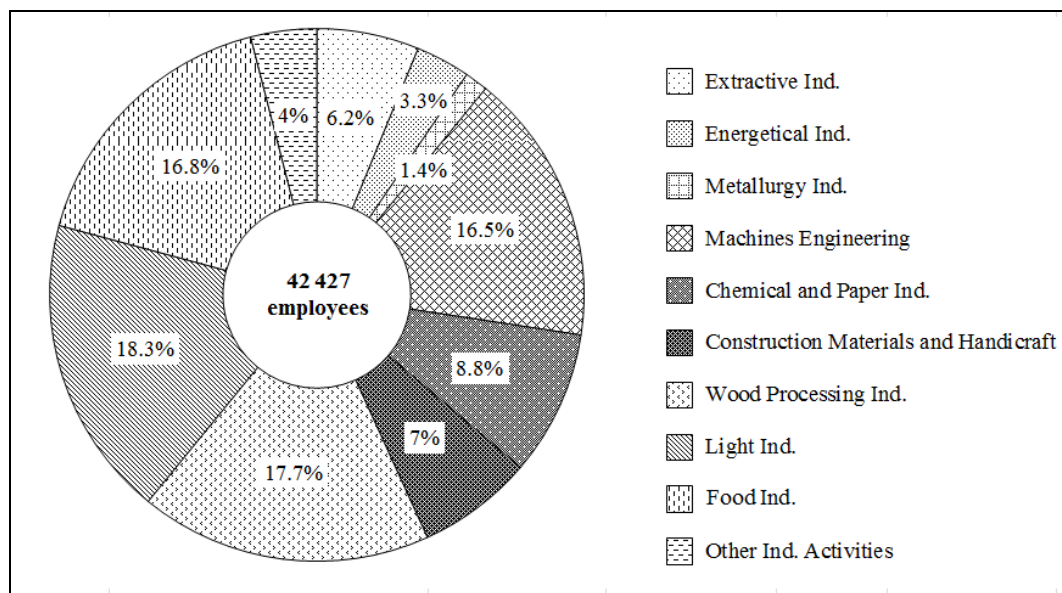


Figure 1. Industry structure in Mureș County, in 2015

Industry of electrical energy

Its origins date back to the end of the 19th century (1897), when a small powerplant was set up in Târgu-Mureș, using lamp oil, followed by the „*Turbina*” *hydroelectric plant*, built in 1914, on the Mureș River. The discovery of methane gas enabled the construction of a 30 MW powerplant at Târnăveni (1930-1940), located near the chemical works, closed in 1999 (Pop, 1972, p. 208; Pop, 2012, p. 234).

The large scale industrial development of the second half of the 20th century, by upgrading old units as well as by creating new ones, highly energy consuming, prompted the creation of the *Fântânele powerplant* in 1952, developed by specialists from the former USSR, and then by Germans, who added an extra 100 MW, reaching a full capacity of 250 MW. This unit was disassembled in 1996, as it was deemed too high maintenance.

During 1960-1967, between Iernut and Cuci, a new powerplant was erected, using the gas from the domes of the Transilvania Plateau. Water for cooling was redirected from the Mureș River, through a series of 8 high capacity pumps. *Iernut* powerplant has a capacity of 800 MW, with six energy groups, four at 100 MW, built in Czechoslovakia, and two at 200 MW, from the former U. S. S. R.

There is also a powerplant at *Răstolița* (35.2 MW and a production capacity of 117.5 GWh/year), currently under construction. North of Târgu Mureș, on the Mureș River, there is a hydroelectric node „*Nr. 1 Dam*”, built, among other things, to produce electricity (0.9 MW).

The continuous growth of the price of electricity in the last years led to an increasing usage of alternative sources for electricity. Thus, several solar parks were created, located in areas such as: Sânpaul, Chirileu village (3.6MW), linked to the national energy grid by a 20 kV powerline - Ungheni-Cipău; Sângeorgiu de Pădure (3.2MW); Râciu, Coasta Mare village (3 MW); Ideciul de Jos (3 MW); Vidrasău (part of the town of Ungheni), 2.8 MW; Ghindari (2.5MW); Sâncraiu de Mureș, Nazna village (2.2 MW); Cuci (1.9 MW); Reghin (1.8 MW); Bălăușeri, Agrișteu village (1.4 MW); Ernei, Iceland village (950 kW); Vărgata, Mitrești village (945 kW) and Miheșu de Câmpie (827 kW).

Metallurgy industry

The new social and economic conditions after 1989, and the new market economy had massive repercussions on this industrial sector, with disadvantages imposed by energy intensity, but also by the need for vast resources, leading to privatisations and restructurings, as well to significant decrease in production.

One of the oldest smelting plants in Mureș was *Nicovala Joint Company* from Sighișoara, built in the 50s, but dating back all the way to 1882. In the 1980s, it had more than 2500 employees, producing cast iron products and several drilling apparatuses. It was purchased by Nicovala Holdings LTD Lymassol from Cyprus, but filed for bankruptcy in 2012. From the same period dates the former iron cast works owned by the „*Republica*” *Agricultural Enterprise* of Reghin, with roughly 40 employees. The company changed its name in 1990 to *Metalurgica Reghin*, and was privatised in 2003 and bought by a local investor, later becoming *S.C. Simal Steel*. In 2003, it was relocated in the industrial part of the city, with an iron cast forge with a capacity of 1200 tonnes of cast pieces and 400 tonnes of pieces cast in iron and high alloys.

Several smaller forges date back from the last decade of the 20th century, such as: S. C. Cubi-Metal S. R. L. (1991), S. C. Topocent S. R. L. (1997), S. C. Turprod S. R. L. (1992), all in Târgu-Mureș; S. C. Turnef Transilvania S. A. from Sângeorgiu de Mureș (1991); S. C. Comaro S. R. L. (1993) and S. C. Onix Multiteh S. R. L., both located in Ludaș (2004). These units cast nonferrous metals (aluminium, lead, zinc, tin), creating bronze bells for churches, statues, bas-reliefs, commemorative plaques, garden furniture, aluminium fences etc). S. C. Agromec Reghin S. A. (1991) producing and selling cast iron pieces, ductile iron for subpieces and industrial equipment.

S. C. Irum S. A. from Reghin, after its privatisation of 1999, acquired a state of the art cast forge, providing iron and bronze subensembles, for the machines, autovehicles, and forestry and agricultural equipment made in this unit. S. C. *Plasmaterm* S. A. from Târgu-Mureș specialises in different types of steel and special alloys, thermal treatment and nitriding for the precision mechanics industry. It produces parts for the automotive, biomedical, and textile industries. It was created in 1993 by former employees of Întreprinderi Metalotehnica, a major factory during the socialist years, that used to manufacture knitting machines, with more than 5,000 workers.

Machines engineering

a) The machinery industry is characterised by a wide array of products such as: *tool-machines for metal processing*, tools for the cold processing of metals used in drilling, cutting, bending, stamping (S. C. Sumel Electromureș S. R. L.¹), machinery for sheeting reinforcing iron (Procam; Investech, Sângeorgiu de Mureș); *agricultural tools and machinery*, such as reversible plows, wood choppers, 2 to 15 tonne trailers, single or double trailers for dispersing manure, with loading capacities between 3.5 and 10 tonnes, independent disk harrows, with widths between 2 and 6 meters, grinders, tractors, front loaders; *logging equipment and machinery*, like wood cutting

¹ The industrial units without any mention of location are situated in the City of Târgu-Mureș.

and splitting machines, splitters for turning large logs into firewood, cable railways, winches, logging articulated wheeled tractors, front loaders (IFRON 2000), logging railers (5-14 t) etc.

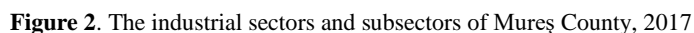
All of the above are manufactured by the *S. C. Maviprod S. R. L.* and *S. C. Irum S. A.* company group, the latter having been founded in 1953, initially specialized solely in creating forestry equipment. In 1998, it became a fully privately-owned company (Maviprod as main shareholder), being an important producer of logging machinery and equipment (mainly), as well as farming equipment; *machines and equipment for different industrial sectors*, such as radiators and gas boilers (Biodom Europe, Sighișoara), hydraulic cylinders (Mureș Hidraulici), hoisting and lifting equipment (Telog, Livezeni), equipment for extraction and constructions (Prime Dfm, Râciu), electrostatic treatment and painting, metallic surface decorations (Allcolors Serv, Ungheni; Seucolor), sandblasting technologies (Sablast), ventilation and air conditioning (Ruck Ventilatoare, Târnăveni), equipment of light industry (Imatex, part of the former Întreprindere de Utilaje pentru Industria Ușoară, which manufactured equipment of the textile industry), sowing machines, components, gadgets and parts for commercial and industrial sowing machines (Durkopp Adler, Sângeorgiu de Mureș), plastic ana drubber processing equipment (Vasilache Snc), medical equipment (Ortoprofil Prod; Donautal, Reghin), wood processing equipment (East European Trade, Vidrasău), tools and accessories for producing and bottling mineral water (Artezi, Cristești).

b) The electronics and electrotechnical industry is represented above all by *Electromureș*, founded in 1970 from the former „Ciocanul” Cooperative (1950), becoming the only supplier of PVC conductors and pipes for the entire machinery and energy industry, as well as of electrical cables for all sorts of vehicles built in Romania. Until 1985, the conductor and cable divisions of the plant also manufactured products intended for export (roughly 20-30% of the total production), with deliveries to the European, American, and Asian markets. New market conditions led to a three way split in 1995: *Romcab*, specialised in manufacturing three types of products (conductors, cables, and electrical cords), for vehicles, constructions, home appliances, and infrastructure; *Electromureș*, fully privatized in 1998, produces small home appliances, oil heaters, electrical convector, motorcycle lamps, illumination systems; and *Sumel*, which produces electrical appliances, audio appliances, tools, and special machinery.

This sub branch also contains companies manufacturing: different vehicle cables, by the Austrian company *Hirschmann Automotive*, which owns a production unit in Sânpaul, currently employing more than 2000 people, more than half women. The entire production is shipped to Daimler and BMW in Germany; electrical and electrotechnical equipment is manufactured in Sângeorgiu de Mureș, by Aages, Uno Electronics, and Top Electro; different electrical, auto and multimedia cables (Cableteam, Sighișoara); electrosecurity equipment (Nakita Prod Comimpex); pumps and electrical compressors (Euro Gas System). SVT Electronic produces equipment for industrial electronics: fingerprint/card readers, automated gates and doors, bracelets and readers for SPA, auto access equipment, etc.

c) Spare parts, metallic constructions and other metal products is currently experiencing a major upswing due the reorientation of clients towards compatible spare parts (non original), manufactured in specialised units, with little production costs. There is a large range of spare parts for agricultural and logging equipment, trucks and other industrial tools (Maviprod and Irum, Reghin), spare parts for internal combustion engines (Foris Company Impex), tools, devices, plastic molds (Sumel, Electromureș) and molds for nonferous products (Eurosystem, Luduș).

S. C. C. I. E. Matricon S. A. is part of the *C. I. E. Automotive Spania Groups*, and was created in 1991, for the production of aluminium parts for machinery and vehicles - Ford, Volkswagen, Audi, Renault, Dacia, etc, the products being exported to Germany, Poland, and Hungary. It also produces chisels, drill bits, precision molds, planing machines, manual broaches, and other similar tools.



The construction sector includes the processes of manufacturing, processing and setting aluminium profiles, curtain walls, exterior plating with composite panels (Big Aluminium, Protelcon - Reghin), manufacture of metallic constructions and parts of metallic structures (Allstar, Sid Steel Industrie), components, accessories and parts for window blinds, steel components processed through chipping (Romprodus), wire fences (Sumel, Rom Olsena Company), different types of screws, nuts, bolts, chains, steel cables, hooks, different assembly parts for assembly (Surub Trade), metal wire parts (Kern Liebers Carpatia, Sâncraiu de Mureș), metalwork for furniture (Sziferon, Sângeorgiu de Mureș), enameled vessels, coal grills, teflon disks, fireplaces, stoves, gas convectors, drainpipes etc, all by Ves from Sighisoara.

d) Machine and equipment repair, maintenance and installation is a highly diversified industry, mostly for road vehicles, with numerous service shops, located in the main cities and towns. Smaller shops can be found in large rural areas, situated in the proximity of urban zones. There are also several small repair and maintenance companies for electronic and optical equipment, transport equipment, machinery etc. S. C. I. R. L. U. C. F. R. S. A. („Întreținere și Reparații Locomotive și Utilaje”), division of C. F. R. Marfă, has a work station in Târgu-Mureș, which repairs DE (diesel-electrical) and DH (diesel-hydraulic) locomotives.

Chemical and paper industry

It emerged in the second and third decades of the 20th century, being a „creation” of methane gas, used as basis for the production of war materials (explosives and combat gas), manufactured by *Nitrogen* from Târnăveni (1916). We must also point out that, in 1942, this unit manufactured the first aluminium block in Romania.

Moreover, the rich salt deposits also contributed to the development of this industrial sector, astfel că with the construction of the *Mica chemical-metallurgical plant*, in 1920. This unit later merged with the previously mentioned plant, forming the *Târnăveni Chemical aggregate works*, a symbol of the Romanian chemical industry for its manufacture of calcium carbide. 1989 was a crucial year for the entire plant, as it was divided in two companies, *Bicapa* and *Carbid Fox*.

The former is specialized in inorganic chemistry, producing chrome compounds, pesticides, barium salts, tiles etc. Between 2002 and 2007, it went through two unsuccessful privatizations, filing for bankruptcy later on. The plant was bought, at an auction, by Wastes Ecotech from București. Carbid Fox is the only carbide producer in Romania, and, between 2002-2003, it employed 2000 people. Most of its production was exported. Its bankruptcy was filed in 2006, when the company had only a quarter of its former employees, and three years later it was sold to S.C. Terra Holdings from Ilfov County.

Another chemical giant was *Azomureș*, founded in 1962 as the *Târgu-Mureș Nitrogen Fertilizer Works*. In 1966 it began producing fertilizers based on: ammonia, nitric acid, and ammonium nitrate. Transformed into a stock company (1990), owned by the Romanian State, under the name *Azomureș*, it suffered several restructurings as the old installations were scrapped. Eight years later, it was acquired by Transworld Fertilizers Holding from Turcia, a move that failed due to investor noncompliance. In 2012, the aggregate works of Târgu-Mureș was bought by the Swiss company Ameropa Holding, which introduced new technologies.

Currently, Azomureș produces: complex chemical fertilizers, nitrogen chemical fertilizers, granulated urea (unique in southeastern Europe), melamine (sole producer in Romania), URAN/UAN liquid fertilizer, anhydrous ammonia, dry calcium carbonate, a part of the production being shipped to Europe, Asia, Africa, the US, and Latin America. In 2014, the plant had 1,600 employees compared to 4,782, in 1990.

Armedica, created in 1985, specialises in *pharmaceuticals* and started its production in 1989 (tablets and ointment tubes), with more than 300 employees. In 1998, it was purchased by Gedeon Richter Plc, which became the majority shareholder. In 2003, it changed its name to *S. C. Gedeon Richter România S. A.* A series of distribution companies was purchased,

grouped under the name *Pharmafarm*, while the retail part is supervised by *Gedeon Richter Farmacia*, now at more than 120 pharmacies, with good national coverage.

Among its most well known nonprescription drugs: Aspirine, Amraxol, Fasconal, Magnesix, Panangin, Postinor, Symphoral, Iodosept etc., many exported to the EU, Russia or Moldova. S. C. Gedeon Richter România S. A., currently employs over 600 workers, almost half with tertiary education.

There are several other pharmaceutical companies operating in Târgu-Mureș such as: *Bioeel* (1992), initially producing cosmetics, the current portfolio containing over 100 products (prescription and non-prescription drugs, food supplements, cosmetics etc); *Sandoz* (1994), production and distribution of antibiotics (Eritromicine, Claritromicine, Azitromicine), part of one of the largest pharmaceutical companies in the world, Novartis; *Farmaceutica Aesculap*, a former state company, the Pharma Office, currently part of *Ropharma*, a company which produces food supplements (vitamins), with a distribution division that supplies products to clients from seven different counties; *Vim Spectrum* (1998), based in Corunca, producing drugs for: the cardiovascular and central nervous systems, systemic antimycosis, the digestive tract, anti-inflammatory, as well as dietary supplements.

With more than 50 years experience in processing plastic materials, as well as rubber and fiber glass poliesters etc., „*Prodcomplex*” *Medical Enterprise* became S.C. Prodcomplex S. A.

Specialised in cleaning products, cosmetics, medical disinfectants and several other professional products (detergents and cleaners), *Romchim* was founded in 1998 and now has its own distribution network spread in nine counties. Different plastic home products (bathroom and kitchen) are manufactured through plastic injection by several companies headquartered in Târgu-Mureș (Intersonic and Allbright).

Vitafoam is a company that focuses on producing polyurethane foam for upholstery, chairs and mattresses and has a plant in Luduș. In 2001, the *Daw* conglomerate opened a paint producing installation for the *Caparol brand* in the county capital, later becoming a producer of fire resistant expanded polystyrene for buildings (*EPS Thermopor*).

Last but not least, several companies produce paper and cellulose, such as *Giant Prodimpex* Ungheni, created in 1994, one of the most important processors of microondulated cardboard, as well as boxes and stationery; *Rupack* Reghin, with more than 20 years experience, produces high quality cardboard boxes, while *Lacroix Ambalaje* from Sighișoara focuses on cardboard boxes for the food industry (especially cheese products).

Construction materials and handicraft

It owes its presence to considerable nonmental resources, mostly clay and quartz sands, as well as to methane gas. This enabled the creation of three major industrial centers, in Sighișoara, Târnăveni, and Târgu-Mureș. This industrial sector is represented in Mureș by the following industries: *prefabricated concrete, glass, and ceramics*.

a) Concrete prefabricates began being manufactured in the 1960s at „7 Noiembrie” *Brick and Tile Factory* from Sighișoara (later Production Workshop nr. 3), when a platform for making light concrete blocks was installed, the equivalent of normal format bricks. Large panels for housing or for cultivating hops were manufactured in Luduș (until 1978), as well as in Fântânele and Ungheni, factories closed after 1990. Today, there are a series of small companies that make products for exterior design and construction: drain, kerbs or pavement (*Valpet*, Ideciu de Jos), concrete elements for walls (*Betas*), ornamental pavement, handrails, concrete fences, cinder blocks, concrete lids (*Viking*) etc.

b) The glass industry first emerged as basic workshops, some historians mentioning the existence of a small workshop in the village of Larga, later relocated in Glăjerie (Gurghiu Commune). Glassmakers created different bottles and ornaments, as well as window glass. In the

second decade of the 20th century (1918), there was a shift to factory manufacturing, when the Ardeleana glass plant was built in Târnăveni, which manufactured: bottles, reinforced and ornamental glass, heat resistant glass, mirrors, TV screens, jars, and glass ceramics. In 1991, the factory changed its name to *Geccsat*, becoming a joint company, eventually being privatized in 1995. A decade later, the unit was upgraded with three new production lines, one for expanded polystyrene, one for quartz sand based dry mortar and one for the production of mineral wool.

In 1992, a new company emerged from the larger unit - *Omega Prodcum*, a fully private endeavour, with a single shareholder who completely modernised the production line. It now produces different types of window glass. *Pimer Electro*, from Târgu Mureș, also known as „*The Glass Center*”, makes similar products to the ones created in Târnăveni, with the exception of some products such as glass doors and furniture.

c) The ceramics industry holds a very long tradition in the county, the most representative factory being *S. C. Siceram S. A.* from Sighișoara, founded in 1907. It was initially a small temporary plant, belonging to John and Carol Letz, located in the northwestern part of the city, at the foot of Viilor Hill, where clay deposits were excavated. Close to the factory, between 1913-1914, a new brick and tile plant was built, operating a circular 18 chamber Hoffman oven, with a capacity of 120,000 bricks and tiles (the current nr. 2 workshop), owned by Wilhelm Löw. Several temporary shutdowns occurred, caused by: lack of markets, the First World War, loans that could not be paid, floods, fires etc.

In 1948, both factories became State property under the name „*7 Noiembrie*” *First Brick and Tile factory* Sighișoara, with 167 employees. A new organisational change took place in 1973, when the Sighișoara factory merged with the *Mureșeni* factory from Târgu-Mureș (including the Sângeorgiu de Mureș plant, which operated until 1976), and the *Hercules* factory from Târnăveni, the new unit operating under the name „*Întreprinderea de Produse Ceramice Sighișoara*”.

On 2nd November 1990, the factory was registered as *S. C. Siceram S. A.* and was split in two - Târgu-Mureș and Târnăveni. In order to diversify its production, two mixed companies were created, one for ornamental ceramics, and one that produces ceramic elements for ceilings, the latter shortly shutdown. Two years later (1995), the company was privatized, the share portfolio going to the employees and management representatives, which eventually founded *Decoplant*, specialized in *fine ceramics*. A decade later it was bought by its mother company, becoming nr. 4 production workshop, which also manufactures packaging foil and new types of ceramic coating - *Smalto* (glazed coloured tiles) and *Terra Antiqua* (rustic tiles).

Due to raising fuel and employee costs, nr. 1 workshop was upgraded with new technologies in 2005, the unit becoming the most modern ceramic block plant in the country, with a capacity 5.5 times greater than the old factory, currently at 800 t/day. It also launched its own brand of masonry systems - *Termobloc*. The ceramic coating facility of Workshop nr. 3 was also modernized, the raw material provided by the newly opened quarry of Bodoc (Covasna), and it now manufactures both the older tile formats (scale, drain), and new types (sharp scale, „swallow tail”, Baltica, Carpathia, and Francia). These last three models are larger than regular ones, Siceram being the only producer of such tiles, branded as *Terra Rosa*. *Mureșeni* Brick Factory of Târgu-Mureș is more than 100 years old, and used to belong to the Sighișoara Ceramic Products Enterprise, later *S. C. Siceram S. A.* After 2000, it became a member of Kronberger Group, one of the largest brick (*Termokom*) and ceramic block producers in Romania.

The refracting ceramics industry is represented by the *Hercules Plant* in Târnăveni, located in the industrial, northeastern part of the city, using the same source materials as in the 19th century. 1927 saw the installation of the first circular Hoffman oven and the production of the first tiles, dried above the oven on wooden beams. In 1977, it merged with the other ceramic plant from Târnăveni, section II Dâmbău, which belonged to *Sighișoara Ceramic Products Enterprise*. Immediately after the 1989 Coup, it became a joint stock company (the Romanian State as

majority shareholder), changing its name to *S. C. Cars S. A.* Following an unsuccessful privatization, its management team filed for bankruptcy in 2012.

In 1990, the former „*Întreprindere de Sticlărie și Faianță Sighișoara*” (1957) was divided in three smaller units: *Stimet* (production of glass cases), *Artfil* (phosphatic porcelain products), both closed shortly after privatization, and *Cesiro* (privatized in 1995 and the only one still standing), specialized in household items (plates, platters, cups, and bowls), table accessories (coffee makers, egg, napkin, and butter holders, ashtrays etc.) and decorative objects (vases, flower pots), more than 85% of the entire production being shipped to other EU members, Russia, US, and Canada.

Forestry and logging

Forestry comprises those operations involving the planting and upkeep of forests for the entirety of their biological life (silviculture) on one hand, and the logging and wood processing, viewed as industrial activities, on the other. The latter encompasses primary and secondary activities, with 17.7% (second most important industrial activity in the county).

a) The forestry economy follows the topography of the county quite faithfully, wooded areas and other areas with forest vegetation reaching a total of 209,451 hectares (31.2% of the county's surface area, 2014). The largest forests are located in the northeast, in the mountain area, as well as in the hilly area at the edge of the Transilvania Plateau. Here, there are four communes where forests register above 50% of the entire administrative territory: Chiheru de Jos (54.6%), Vătava (55.2%), Stânceni, (67.7%), and Sovata (68.2%). Values above 70% are found in: Răstolița (77%), Lunca Bradului (78.8%), and Ibănești (82.5%, the highest percentage in the entire county).

In the rural areas from Sângeorgiu de Pădure-Sovata Hills, Târnava Mare Corridor and Hills as well as Hârtibaciul de Nord Plateau, forests occupy roughly 30-40%, while in some rural settlements from Reghin Hills, Mureș Corridor, Târnava Mică Corridor and Hills, forests slowly disappear, with values around the county average (20-30%), while the Mureșană Plain has less than 20% (Ceușu de Câmpie), with values dropping even below 5%: Cozma (4.6%), Papiu Ilarian (4.2%), Band (4%), Crăiești, and Pogăceaua (both with 3.2%), Șăulia (3%), Miheșu de Câmpie (2.7%), Valea Largă (2.2%), and Tăureni (1.3%, the lowest forest coverage in the county).

In 2014, 38.2% of the total surface area covered by forests was privately owned, belonging to individuals, compossessorates, town halls, or other types of associations. Out of a total of 209451 ha of forests, 2/4 are overseen by the „Romsilva” National Forest Agency and its Mureș Forestry Department, through 10 forest districts, as well as by three private forest districts, one of the three headquartered in Harghita County and managing „Defileul Mureșului Superior” Natural Park.

b) Wood processing industry has made important steps since the 1960s due to considerable investment in the sector. The old units were reorganised and equipped with high yield equipment, thus creating large wood processing centres for a full capitalization of wood, as high value products. Some can be found in urban areas, such as: Târgu-Mureș, Reghin, Sovata, and Luduș, manufacturing a wide range of wood products for domestic as well as international markets. Mills found in rural areas, closer to the mountains (Lunca Bradului, Răstolița, Deda, Gurghiu), are mostly specialized in primary wood processing (timber, mostly from fir and spruce).

One of the largest furniture factories in Romania is *Mobex*, in Târgu Mureș, the former Logging and Wood Processing Aggregate Works, concentrating ¾ of the total wood production of the county. Its name was changed, during the socialist period, to „23 August” Wood Processing Enterprise. It is currently a private capital company, with approximately 700 employees, producing art, classic and modern furniture. The most widely used essences are sycamore, beech, oak, lyme, and poplar. For veneer, cherry, walnut, and mahogany wood is used. The plant expanded its services with design, production, and assembly in hotels, restaurants, bars, and other interiors. The furniture is sold nationally, but also exported to Hungary, Ukraine, Moldavia, Russia, and

Kazakhstan. Târgu-Mureș is also the location of several smaller plants such as: *Mob Design* (custom-made furniture), *Cioata Furniture* (timber and solid wood furniture), *Robex* (Romanian-German company), *Fortis* (TV stands, mirror frames, desks, wardrobes, beds etc).

Târgu-Mureș Aggregate Works also administered two units located in Reghin (Logging Enterprise and the Logging and Wood Processing Plant). The former was renamed *Prolemn S. A.* and privatized in 1998, being sold to the largest Turkish wood conglomerate, *Kastamonu*. It owns two ancillary production units (800 employees), manufacturing wooden floors (high density panels for cellular doors, door sheets, as well as different types of wooden fiberboards, 8 to 40 mm thick.

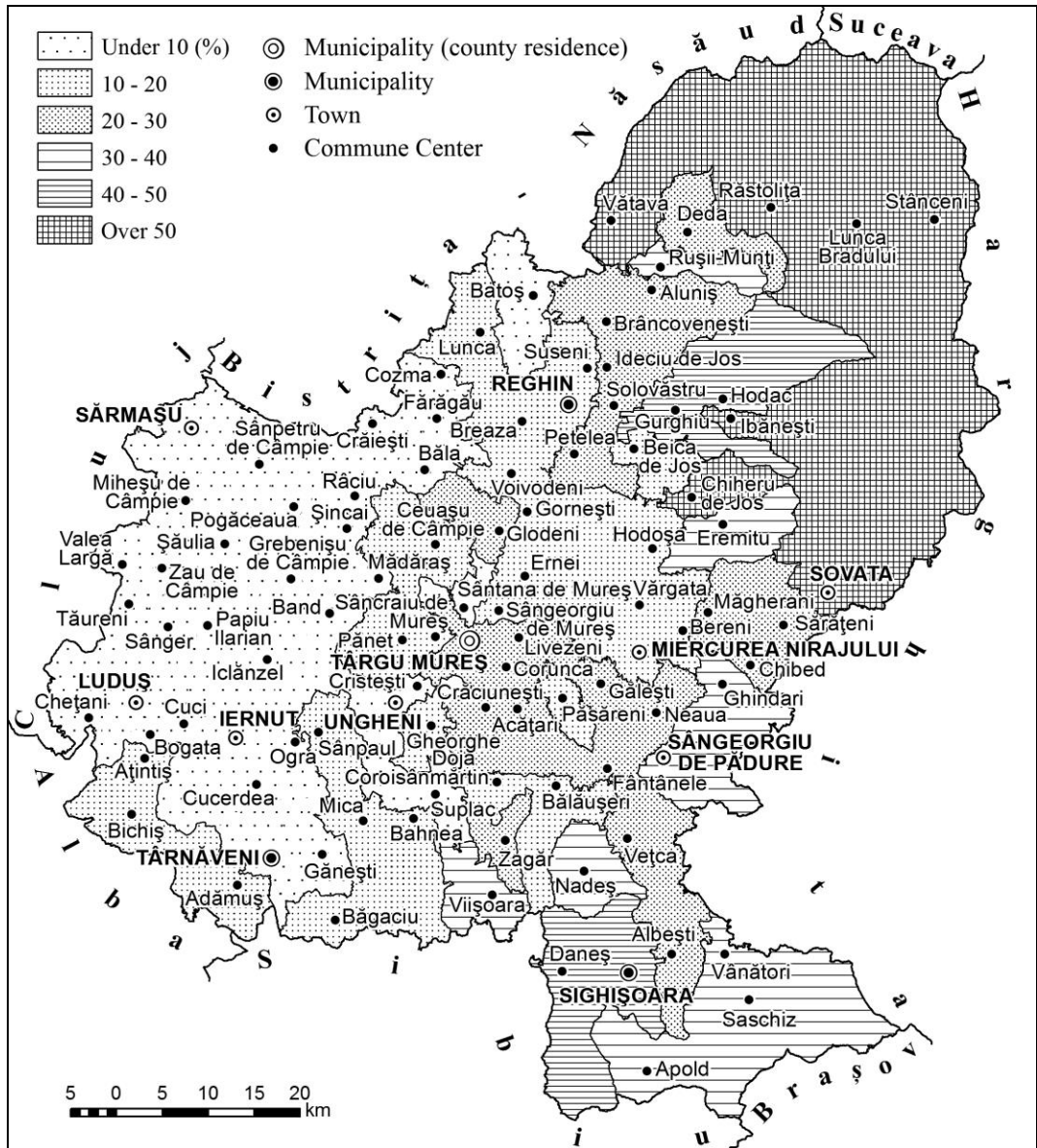


Figure 3. Mureș County. Frequency of forests and of other fields with forestry vegetation, in 2014

The second large unit, C. E. P. L. Reghin, had the same fate, as it split in two companies: *Amismob*, rustic furniture manufacturer, and *Hora*, producing musical instruments (violins, violas, cellos, contrabasses, guitars, mandolins) and accessories (boxes, strings, cases).

After 1990, the same type of products began being manufactured by new factories and workshops, such as the well known *Gluga* (1991), using spruce (for the front) and sycamore (for the back, neck and strap), from the forests of Gurghiu Mountains. It is currently the largest producer of string musical instruments in Europe (over 30,000 pieces/year), with exports to China, US, Australia, Russia, Japan, Canada.

At Reghin, *the furniture and woodwork industry* is represented by a series of medium and large companies, emerged after 1990, like: *Mobila Dalin*, *Larix Mobila*, *Remex*, *Bucin Mob* and *Oltean Prodlemn*. The last of them is a logging company, processing timber. The first four however produce furniture from solid wood or high quality veneer (sofas, chairs and beds, alongside accessories and other furniture products, garden wood furniture, windows, blinds, interior and exterior doors etc), some shipped to Moldavia, Germany, Austria, Italy, Hungary, France, and Finland.

Other producers of furniture are located in Sovata (*Mobilă Sovata*, 550 employees), Târnăveni (*Artemob*, 150 employees), both owned by the French consortium, *Parisot Group*. The two specialise in solid wood furniture (all products are exported); Ungheni (*Grange Eastern Europe*, finishing services for classic custom-made furniture); Sighișoara (*Xilomob*), Gurghiu (*Naiade Comexim*), Vidrasău (*Nett Front*, producer of furniture doors), Petelea (*Austrowood*, beer sets and other wooden products for gardens); as well as some small shops in Aluniș, Sângeorgiu de Pădure, Sărmașu etc.

The industry of miscellaneous wood products includes the production of wooden boxes and crates, in Sighișoara, Deda, Gurghiu, Reghin, Ernei; wooden toys and educational tools, in Acățari (panels for writing and drawing, labyrinth wood table, shoes etc) and furniture for children (small chairs, tables, stools etc); pellets from wood waste (sawdust, bark etc.) in Deda and Reghin; different wood constructions for gardens (gazebos, toy houses), made by Bucin Mob from Reghin; beech wood plugs (*Mobex*, workshop in Reghin); wooden coffins and crosses (*Sefar International*, Luduș), different types of statues (*Gluga*).

Light industry

In terms of industrial production value, the light industry is the most substantial in the county (18.3%), encompassing two major sectors: 1. *textiles* and 2. *leather, shoes, and furs*, with a long lasting tradition.

a) Textiles are represented by *Textor Company* of Târgu-Mureș, with a long activity in textile production, dating back before 1990 through the Silk Mill. It currently produces table cloths, furniture upholstery, drapes, bed linen, priest clothes etc. Its participation at international fairs allowed this company to engage clients from Northern and Western Europe. Three other textile companies are located in Sighișoara, *Sefar & Monosuisse*, which create polyethylene monofilament and synthetic fibers for filtration equipment used in the chemical, food, mining, and refining industries, and *Global Safety Textiles*, which focuses on complex cutting and sowing processes for airbags, employing roughly 1,000 people (with Albești workshop). In Pănet commune, there is a small unit which produces cotton fibers and cotton-flax blends (*Kelev-Trans*). The final products are used for making shirts, blouses, table cloths, curtains, bed linen etc.

Knitwear is produced at *Larom* (1992) in Reghin, one of the most modern Romanian factories, with computerized knitting and sowing machines. It manufactures cotton, wool and acrylic socks, stockings, sportswear.

Târnava Company from Sighișoara, created in 1949, is one of the first shirt factories in the country. Privatized in 1996, the company mass-produces men and women's shirts (long and short sleeved), as well as blouses (for pregnant women as well), skirts, dresses, jackets, pijamas (for

men and women), handkerchieves and men's underwear (boxer shorts). Its products are sold in shops found in Sighișoara and Brașov, and since 2006 it has been selling in Germany as well. Sighișoara is the location of *Transtex* (cotton shirts), *Castle Fashion* (shirts and blouses), *BP Conf* (shirts for men, women, and children), while close by, at Albești, *Casamoda* produces and sells men's shirts.

In Târgu-Mureș, after 1990, several SMEs were set up: *Narves*, an Italian private company, which produces sport accessories (hiking gloves, motorcycle gloves), trekking and riding clothes (vests, blouses, hats and scarves); *Dekotex* makes protection gear against chemical and biological agents (suits); *Lisatex* (protection clothes from artificial fibers, nurse uniforms); *Lehel* (women jackets, suits, skirts and dresses); *Redytex* (underwear).

Other such factories can be found in Târnăveni (*Cotton Textil* and *Lhorindes*), which create shirts, bed linen, textiles for kitchens, bath slippers, kimonos, covers etc; Luduș (*Ademis 2000*); *Rusancom*, a 30 year old Romanian company, whose Lohn-type activity Lohn employs mostly women that produce clothes (pants, jackets, T-shirts, protective covers for cars). Its actual production takes place in Sâncraiu de Mureș (Nazna village) and in Iernut.

b) The leather, footwear, and fur industry is represented by the prestigious *Manpel* of Târgu-Mureș, manufacturer of leather gloves, founded in 1925, as a raw hide processing unit. The unit has been upgraded over time, the raw hides being processed and turned into leather for making mens and womens gloves (with and without wool, silk, and natural or artificial fur inner lining). Furthermore, the company adapted to market demands and began manufacturing leather jackets for men as well as classic womens shoes. Its products are highly appreciated nationally as well as in Russia, Sweden, Norway, UK, Denmark, The Netherlands, Germany, Italy, US, and Canada. Similar products are also made by *Erma Prod Com* company from Miercurea Nirajului. Since 1992, the county capital hosts *Ilcompel* company, experienced in *processing leather and producing leather and fur products*, such as: jackets, vests, pants, skirts.

Some footwear companies are located in Reghin, the largest being *Alpina Shoe Production*, emerged in 1959 as „Întreprinderea de Piele și Marochinărie Sport”. In 1998 it was sold to Modapel Group BV, a Dutch footwear company. The factory annually produces approximately 1 million pairs of high performance, casual, and sports shoes, with its own models (Ravalle, Hinson, Omnio, Viking), but also has contracts with international brands like Zara, Aldo, Deichmann, Puma și Decathlon; *Regsan* creates high quality hand-made shoes for men, women and children (shoes, sandals, boots). Other footwear companies include *Nimar* (boots, protective footwear) and *Shoes Top* (sandals, shoes, military and civilian boots).

Other leather goods are produced in Reghin by *Com Impex Dalin*, created in 1992, now part of the Dalin Group. It was once specialized in furniture and wood element production. The company changed its profile completely in 2007, and now makes briefcases and purses under different brand names such as Marocco and Anna Fellini.

Food industry

a) The food production industry contains: miller's trade, bread and pasta making, meat, tin cans, dairy and sugar.

Miller trade and breadmaking take place in numerous SMEs in rural as well as in urban areas. The county capital has two better known mills: *GoodMills*, producing since 2007, formerly known as *Mopan*. It has a massive mill and a high capacity bakery, enabling it to diversify its portofolio (white and dark flour, rusk, semolina, corn flour, pasta, bread, buns, frozen dough). The second largest unit is *TimKo Brut*, created in 1993 as a small family business specialised in home delivery products only, using the client's flour. It currently has 38 shops in the entire county. Besides bread, it also produces different types of pastries, sponge cakes and, since 2009, other types of cakes as well. Another important producer is *Eldi*, headquartered in Agrișteu, Bălăușeri Commune, with 49 shops in five counties, currently employing approximately 400 people. Its best sold product is

potato bread. Other large bakeries are found in Târnăveni (*Hermanns*), Reghin (*Sabău, Vera*), Luduș (*Dactylis*, with 150 employees, *Panem*), Voiniceni (*Dona Bakery*, which has been making bread products for 15 years: white and dark bread, rye bread, cakes, bagels, croissants, pies, rolls, pizza etc.); Valea Largă (*Daghemama*, which delivers products for PROFI stores in Târgu-Mureș and Luduș). Mill products from grains are produced in several mills in Beica de Jos, Corunca, Cipău (Iernut) etc. There is also *Promark Trade* from Târgu-Mureș, which produces *combined grain fodder* for poultry, rabbits, horses, pigs, and sheep.

The meat industry is mainly located in Târgu-Mureș, such as *Primacom* which owns the *Petry brand*, founded in 1879. It has the largest slaughterhouse in the county, as well as a meat processing unit, a shop and a small museum depicting the history of the butchers guild and Petry family. It also has stores in Reghin, Sovata, Luduș, Miercurea Nirajului, Sângeorgiu de Mureș, Cristești, Cluj-Napoca, Miercurea-Ciuc, Odorheiu Secuiesc, and Toplița. The company produces over 80 types of lunch meats, made of fresh Romanian meat. The pork is supplied by three Romanian farms while the beef is provided by producers from Mureș County; *Maris Prod Carm* (smoked meat, salami, sausages, blood pudding, pork parts, as well as a series of specialties (country ribs, sausages, and ham); *Panderosa* (pork, beef, poultry and other meat products) etc.

In Sighișoara, *Carnicom* (with a capacity of 5 tonnes/day) is specialized in traditional products: home sausages, home lebăr, caltabos. Smaller slaughterhouses were also built in Luduș, Reghin, Gurghiu, and Chibed. *Oprea Avicom* Company from Crăiești processes poultry, owning a slaughterhouse with a capacity of 1,000 heads/hour, providing a mix of products (over 50 types), under the name *Puiul de Crăiești*.

One of the largest producers of shell snails is Egan Prod from Fântânele, which processes three types of eatable snails: *Helix pomatia* or the Roman snail, *Helix lucorum* or the forest snail, and *Helix persa* or the garden snail. The company's main products are eviscerated meat and snail shells.

The can industry was once represented by the Târgu-Mureș Fruit and Vegetables Industrialization Enterprise, known after 1990 as *Conserve Mureșeni*, with over 1000 employees. Since 2005, at Breaza, close to Reghin, there has been a refrigerating unit (*AgroSprint*) which packages and sells leguminous plants (peas, beans, vegetable mix) and refrigerated fruits, for a series of hypermarkets (Auchan, Carrefour, and Cora).

In Idicel Pădure (Brâncovenești Commune), a small unit was set up for producing fruit jams (strawberry, cherry, raspberry, cranberry etc.), under the name *Dulceața lui Răzvan*. Based on local providers, this unit also produces forest fruit syrup, zacusca, plum jam. Similar products are made by *Ses Frulenco HNV* and *Transylvania Food Company* from Saschiz (near Sighișoara), the latter producing rubarb jam, paprika jam, hot sauces, marmelade, plum ketchup, and apple sauce, under the brand name *Pivnița Bunicii*.

The dairy industry has a long tradition in this county, developing based on cattle raising. There are many units that process milk. The largest and best known is *Hochland*, officially born in 1998 with the acquisition of the milk processing plant from Sighișoara, producing melted cheese. One year later, it bought the Sovata unit as well, which started producing different types of cheese (*Dalia* and *Brădet*). It provides the base material for the melted cheese unit mentioned before, that, for the first time in Romania, produced the *Mixtett* variety (as triangles) and square melted cheese (in 2000), as well as two types of *Almette* cheese cream (with sour cream and herbs).

Between 2002-2003, the Sovata unit starts producing block and sliced cheese, then cream cheese, and other types of cheese products: *Cheddar*, *Praid* (matured in the salt mine), fresh *Cottage cheese*, *Cheese*, *Brânză Făgăraș*, rolled melted cheese, cheese for hot appetizers (*Bruschetta Rustica* and *Bruscheta Pizza*, *Cașcava Pane* and cheese for *Pasta* and *Pizza*). In 2014 it launched new types of triangle-shaped melted - *Mixtett con Carni*, *Mixtett Picanterie* and *Gusturi Proaspete* (fresh cheese with vegetables). The base material (milk) is collected from the countryside, as well as from the northern part of Harghita County.

There are also small and medium sized enterprises, created after 1990: *Mirdatod Prod*, founded in 1994 in Ibănești, which collects milk from Gurghiului Valley (35,000 liters / day), and

employs 100 people. 39 types of dairy products are produced: block and triangular cheese, certified by the Ministry of Agriculture, telemea, with a protected designation of origin, „brânză de burduf”, urda, sour cream, melted cheeses, spreadable or sliced (sour cream melted cheese, ham, mushroom or dill), spiced smoked cheese, butter; *Therezia* from Pănet, one of the most important cheese makers in Romania, managed to make a foothold on the EU market (cheese, melted cheese, butter cream, „brânză de burduf”, urda, sour cream, telemea, butter); *Sanlacta* from Sântana de Mureș (cheese, simple and fruit yoghurt, sour cream, milk, butter); in Târgu-Mureș, there is a Romanian-Italian company named *Indlacto*, producing several mozzarella products (unrefined fresh cheese) and mascarpone (spreadable cheese from coagulated sour cream); the county capital also hosts *FrieslandCampina*, which acquired the Mureș Milk Industrialization Company, and now produces solely yoghurts and milk; *Heliantus*, Reghin (cheese, telemea, sour cream); *Lințuca Prodcom* milk processing plant from Breaza produces „brânză de burduf”, sour cream, telemea, different types of cheeses, all sold to Selgros and in two shops from Reghin and Târgu-Mureș.

The sugar industry is again quite old, the Târgu-Mureș Sugar Beet Industrialization Plant (*Zamur* after 1990) being a symbol of the county's industry. It had its own railroad for receiving the sugar beet produced in the Transilvaniei Plain, Mureș Corridor (around Luduș) and Târnavelor Plateau (Niraj Valley). Currently, the sugar producing company is *Tereos* in Luduș, with a processing capacity of 4000 tonnes/day. It was acquired from the *Zahărul Luduș* Company, which was founded in 1959.

Among its products - white sugar (34,000 tonnes in 2015), and as subproducts - molasses, wet and dry pulp (used in zootechny) and mineral fertilizers for soil structure improvement. In Reghin, *Alcisa* produces different types of *Teddy chocolate bars* (chocolate, vanilla, and coconut chocolate) and peanut and coconut wafers. Specialized in producing different types of feedstock for pastry and cake shops, ice cream, candy, wafer and biscuit producers, the Romanian-Dutch *Milkpact Company* was founded in 1994 in Livezeni. It produces chocolate and fruit glazing as well as white glazing for ice creams (*Icepact*), cocoa glazing for biscuits and wafers, glazing for chocolate candy (*Patipact*), spreadable cocoa creams, peanut butter (*Paticrem*), the last ones for croissant makers.

b) The beverages industry of Mureș County is comprised of the beer, soda and juice, and mineral water bottling industries.

Beer production first emerged in Reghin with the Beer Company, managed by the "Centrala Berii, Spirtului și Amidonului" from București. It had two sections, one for beer production (1974) and one for malt (inaugurated one year later). It is the first Romanian unit which exported beer (1976), to Italy.

After the events of 1989, the company was reorganized, changed its name to *S. C. Silva S. A.*, expanded its production line and began producing 10 ten types of beer: Mureșana, Lăpușna, Bucegi, Fortuna, Regun, Tain (for employees only) etc. In 1995, it was privatized (share were bought by employees), and three years later was sold to *Brau Union*, an Austrian company, which shut down all production in 2004. In 2007, the share majority of Brau Union was bought by Heineken. Currently, Silva (blonde, dark, and pale ale varieties) is produced in Constanța, Craiova, and Miercurea-Ciuc.

Another beer producer is *Bere Mureș* from Ungheni, which created its first beer in 1995 (*Jazz* and *Mureș brands*), while in 1998 it introduced plastic bottle technology in Romania, for a beer brand called *Neumarkt*, its best seller to date (blonde beer in 1.5 liter bottles). It also introduced *Dracula* dark beer and *Sovata* blonde beer. The plant was founded in 1992, and, in 2008, it became the youngest member of the Heineken Romania Group, presently bottling Neumarkt in 0.5 liter plastic and glass bottles (25,000 per hour), 1 liter plastic bottles (17,200 per hour), 2 liter plastic bottles (10,500 per hour) and 0.5 liter aluminum cans (13,000 per hour).

The refreshments industry is based in Reghin where *Sucmerom*, created in 1992, with the help of Swiss specialists, has production line for concentrated juice, from apples, or apple flavored, its products exported to other EU countries. Nationally, its products are distributed by Parmalat

România. The feedstock is supplied by the orchards surrounding Reghin, Socol (Cozma) and Uila (Batoș). Natural apple juice, made from „Batoș apples”, under the *Din Livadă* brand name, is made by *Natur Agrofar*, which runs a production line in Dedrad, Batoș Commune. Other products include *vinegar*, made of apple concentrate by double alcoholic and acetic fermentation, in wooden tubs, at Batoș (*Aceto*) and Eremitu (*Vitaplant*, which also produces medicinal teas).

In Sovata, *Larix* also produces medicinal, herbal, and aroma teas. Near Sighișoara, at Saschiz, *Transylvania Food Company* produces syrups from locust tree flowers, elder flowers, forest fruit etc. It then delivers said products to Bottlegreen, UK, which processes and transforms them into different drinks.

The bottling of mineral water takes place at *Romaqua Stânceni*, launched and promoted at national level by *Romaqua Group*. In 1975, at Ciobotani, on the Mermezeu Valley (right tributary of Mureș), the Local Industry Group of Mureș County built a bottling installation, and later handed it over to the Reghin Beer Enterprise. It used a German BF-36 production line, with a capacity of 36,000 liters/day (G. B. Tofan, 2014, page 107). In 1990, the installation was taken over by the Borsec Mineral Water Extraction Company, the Stânceni unit becoming one of its subsidiaries. Due to wear and tear, a new plant was built in 2006, close to the E578 motorway, where the SIG Simonazzi production line from Borsec was installed, reaching a capacity of 300,000 liters/day (sparkling water in 0.5 liter and 2 liter plastic bottles).

c) The supply of drinkable and industrial water for most settlements is done from above-ground sources, such as Mureș, Târnava Mică, Târnava Mare, Gurghiu, and Sebeș rivers. Water purification is performed by different installations located in the main urban areas. Underground water sources have limited flows and high mineralization, and are mostly not potable. In order to overcome said issue, authorities decided to supplement the supply of quality drinkable water from Răstolița Lake, which will then be distributed towards the Mureș Corridor and the periphery of the Transylvanian Plain. *Aquaserv Târgu-Mureș* is the regional operator for water provision and sewage system management in the county, providing services for approximately 300,000 people. Despite the fact that significant efforts have been made to expand and improve water and sewage systems, there are still large discrepancies between rural and urban areas.

Other industrial activities

This category contains at least two sectors, among which typography and recycling, mostly found in the county capital. The first category contains several printing presses: *Tipomur*, one of the oldest in the county, producing several prints (books, university courses), fliers, stickers, catalogues, magazines, having also bookbinding services; *Cromatic Tipo* (wedding invitations, calendars, notebooks etc.); *Global Art Production* (printing on canvases), exporting in eight European countries as well as in Japan and the US; *Centrografic* (posters, business cards, envelopes, stickers, other prints); *Cominfo* (printing on plastic panels for road works or other types of constructions etc.).

The reuse of plastic materials is done by *Professional Recycle*, which produces PET flakes of different colors (transparent, blue, green, mixed, brown) for different uses in the automobile, chemical and food industries, as well as *Remat Mureș*, which collects ferrous and nonferrous waste, glass, electronics, paper and cardboard, used tyres etc, sorted and then shipped to specialised units for the recovery of basic materials.

Mureș Industrial Park (Ungheni-Vidrasău Platform)

After winning a 6 million euro PHARE project in 2002, Mureș County Council started developing an *industrial park* located in Ungheni (Vidrasău), in the vicinity of the E60 European motorway and the Transilvania International Airport Târgu-Mureș, with the future Transilvania Highway in close proximity. This project was inaugurated in November 2005. Most tracts of land have been leased and plans have been made to extend this park in the area of Sânpaul Commune.

The total surface area is 41 ha and comprises an administrative building, plots of land for office buildings, utilities and a road network.

The main shareholder is the county council, the remaining stockholders being the councils of Ungheni, Iernut and Luduș, as well as Sânpaul. Currently, Mureș Industrial Park has contracts with 18 companies: automotive, wood processing, constructions and utilities, special waste management, distribution of gas and electricity, light industry etc, the total number of employees reaching 1,700.

CONCLUSIONS

At the end of this scientific endeavour, we would like to draw some conclusions on the topic at hand:

- the activities of the secondary sector in Mureș are part of the Transylvanian industrial region, of great complexity, represented by almost all industries, from natural resource extraction all the way to industrial processing, with its subsectors;

- in terms of the industrial production value of the county, the light industry holds the number one spot with 18.3%, while metallurgy is last, with only 1.4%;

- Mureș County has two main industrial areas: *one on the middle section of Mureș*, with high industrial concentrations in Târgu-Mureș (metallurgy, machinery, chemical industry, wood processing, light and food industries), followed by other centres such as: Reghin (metallurgy, machinery, furniture and musical instruments, textiles, shoes, beverages etc); Ungheni (construction materials, machinery, furniture, beer etc), Iernut (construction materials, energy and textiles) and Luduș (sugar), while the second lies on *the Târnave* (Târnăveni, Sighișoara, Sângeorgiu de Pădure), with a concentration of industries producing machinery, electronics, glass and ceramics, furniture, textiles, dairy products etc;

- positioned in the metropolitan area of the county capital, the commune of Sângeorgiu de Mureș is the most industrialized rural area (metallurgy, machinery, other metal products etc), there are also a series of communes specialized in food industries: Agrișteu, Voiniceni, Valea Largă (bakery and pastry), Crăiești, Fântânele (meat), Breaza, Brâncovenești, Saschiz (cans), Ibănești, Pănet, Sântana de Mureș, Breaza (dairy), Batoș (beverages), Stânceni (mineral water bottling);

- the most important industrial units are the following: *Iernut Powerplant* (energy), *Plasmaterm* (metallurgy), *Maviprod & Irum* (machinery), *Electromureș*, *Hirschmann Automotive* (electrotechnics and electronics), *Azomureș* (chemical fertilizers), *Gedeon Richter*, *Bioeel*, *Sandoz* (medicine and pharmaceuticals), *Romchim* (other chemical products), *Gecsat* (glass), *Siceram* (ceramics), *Mobex*, *Mobila Dalin*, *Mobilă Sovata*, *Artemob*, *Kastamonu* (furniture), *Hora*, *Gliga* (musical instruments), *Textor*, *Larom*, *Târnava* (textile industry), *Manpel*, *Alpina Shoe Production* (shoe and leather), *Eldi*, *TimKo Brut* (bakery and pastry), *Primacom*, *Oprea Avicom*, *Egan Prod* (meat); *AgroSprint* (can industry), *Hocland*, *Mirdatod Prod*, *Therezia*, *Indlacto* (cheese), *Tereos* (sugar), *Neumarkt* (beer industry), *Natur Agrofara* (beverages), *Romaqua Stânceni* (mineral water bottling) etc.

- the most significant changes took place in Târnăveni (Bicapa, Carbid Fox, and Cars), which led to depopulation and poverty;

- the existence of single industrial park, at Ungheni-Vidrasău, currently hosting with 18 firms and 1,700 employees.

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Submitted:
December 14, 2017

Revised:
January 22, 2018

Accepted and published online
February 15, 2018