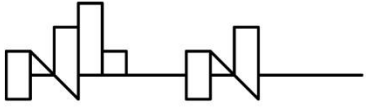


Iceland
Liechtenstein
Norway grants



PROIECTUL

The potential for starting and developing a business for integrated technology based on heat pumps, thermal energy storage and smart control systems in order to enable the decarbonization in Romania

FINANȚATOR

EEA and Norway Grants 2014-2021, Fondul pentru relații bilaterale 2014-2021, Contract: 132.477/ 16.12.2022

PROMOTOR

Academia de Studii Economice din București

RAPORT DE CERCETARE

Activity 9. Financial analysis and database with main companies interested in promoting and implementing new business ideas and technologies based on heat pumps, thermal energy storage and smart control systems in the Romanian energy market

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BUCUREȘTI

2023

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1. Introduction

The current study evaluates the financial performance of companies active in the production and distribution of heat pumps, thermal energy storage and smart control systems, both with potential large impact in the decarbonisation process in Romania.

The analysis is done based on the financial statements for 2020-2022 period, using data available when the current research is issued.

Since the appraised sectors are not comprised by any specific NACE code, the pool of companies evaluated is determined by real business activity. Out of the selected companies active in the specific business, 5 are no longer active (radiated) and 3 have zero turnover or didn't submit financials. Therefore, the current research is based on the most important 15 production companies and 5 distribution firms active in the selected sectors.

The study has the following appendixes:

- "Anexa_1_Financials.xls" – extended financial data for 2010-2021 exercises, information about companies past and current administrators and shareholders, trade register status and working points
- Complete financial analysis report for every company, including all relevant liquidity, working capital, cash flow, profitability and cash flow indicators, computed for 2020-2023 period in benchmark with NACE average indicators. The financial analysis reports include extended balance sheet and P&L report, together with legend to detail formulas and interpretation for all financial indicators
- Competition watch to compare financial indicators for the selected companies during the past 5 years.

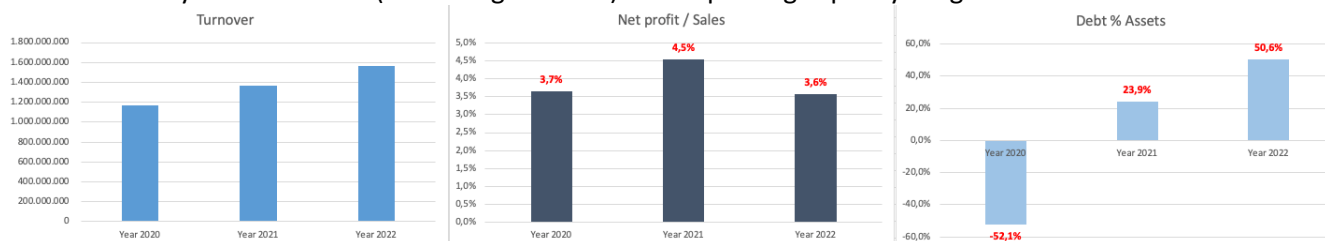
A. Financial standing of companies active in production segment

Companies active in the production of heat pumps reveal strong recovery after Covid-19 negative impact, from both revenues and profitability perspective. The trend is supported by increasing tensions in the energy, fuel and gas market starting second half of 2021, all culminating during 2022 inflationary crisis fueled by Russian invasion to Ukraine. The financial data related to 2022 financial exercise indicate exponential growth of the selected companies, boosted by the regional geopolitical tensioned context. Looking at the most recent available data on the P&L, we observe that:

- Revenues¹¹ for the selected companies are up by 14% during 2023, after 18% increase during 2021 and 11% growth in 2020. Most of the companies show sales growth, with the most significant increase by Daikin in both absolute terms (+42 mil lei) and percentage (+22%). All companies indicate double digit growth of revenues during 2022, excepting Viessmann (-3%),
- Profitability is also improving, with final net margin +3,4% in 2022, +4,5% during 2021, vs 3,7% in 2020 but still under 2019 result of 6,7%.
- Gross margin is stable at 18%, remaining constant given the inflationary environment.
- Cost with wages increase by 7%-8% in line with workforce volume, with lower share in sales (down to 5,2% in 2022 and 2021 vs 5,7% in 2020) given increasing productivity (sales / employee / month back again to 270k lei during 2021)

¹¹ Figures exclude data for SAMSUNG ELECTRONICS ROMANIA SRL, company active in multiple products and services with large turnover (~ 1bn eur) and weighting almost 80% of the pool of companies in both balance sheet and P&L figures.

- EBIT and net profit margins are not back to pre-pandemic levels mostly due to increasing depreciation costs, increasing from 10% in 2019 up to almost 20% during 2021-2022, but decreasing by 10% mainly triggered by the drop from Ariston Thermo Romania SRL. In 2021 most likely, the exponential increase is due to a mix of impairment and depreciation of existing asset base, and capex investments relative to fixed assets are decreasing year over year, from 11% in 2019, down to -11% in 2021. Therefore, sales growth is not boosted internally from new production capacities or investments in fixed asset base, but rather by market inertia (increasing demand) and improving capacity usage.



Despite partial recovery in added value (EBITDA for selected companies average only to 6,1% during 2021, vs 5.3% in 2020 and 8,6% in 2019), return on equity is very attractive for investments, averaging 20% in 2022 vs. 5.3% in 2020. This is significantly above national average in the private business sector in Romania, respective 14% during 2022. The attractive returns for investors are generated despite increasing equity base, with lower debt to assets, from 55% in 2019, down to 51% in 2020 and 49% in 2021. The trend is clearly not drive by leverage (as debt to assets decrease), operations efficiency (as EBITDA margin is recovering slowly and capex was negative during 2021), lower financial or fiscal burden (as interest rates are high starting second half of 2021 and no taxes were lowered lately). The principal pillar to support improving return on equity rates is clearly external, due to higher sales relative to asset base, considering increasing demand of heat pumps, thermal energy storage and smart control systems.

$$ROE = \frac{EAT}{Equity} = \frac{EAT}{EBT} \times \frac{EBT}{EBIT} \times \frac{EBIT}{Sales} \times \frac{Sales}{A} \times \frac{A}{Equity}$$



Financial indicators for production companies of heat pumps and thermal energy storage:

YEAR / INDICATOR (*)	Year 2020	Year 2021	Year 2022
Turnover	1.165.564.929	1.370.907.807	1.561.338.051
Net Profit	42.703.866	62.327.142	56.001.914
Net profit / Sales	3,7%	4,5%	3,6%
EBITDA	61.430.825	83.890.087	75.252.770
EBITDA / Sales	5,3%	6,1%	4,8%
Nr. Employees	402	430	449
Productivity (sales / empl/ month)	241.618	265.680	289.781
Wages / employee / Month	13.652	13.929	820
Wages / Sales	5,7%	5,2%	0,3%
Gross Margin	18,6%	18,8%	18,3%
Depreciation % Fixed assets	22%	18%	23%
CAPEX % Fixed assets	-739%	-11%	-15%
Debt %	-52,1%	23,9%	50,6%
Equity %	152,1%	76,1%	49,4%
ROE	5,3%	15,0%	19,7%

(*) after excluding SAMSUNG ELECTRONICS ROMANIA (80% weight in most of indicators)

Key conclusions:

- Demand recovery and sales growth by 17-18% during 2022 and 2021, after -5% drop during 2020 (pandemic year) and 11% growth in 2019
- Partial recover of profitability (earning after tax, operating margin and EBITDA), amid stable gross margin, lower impact of wages but increasing depreciation
- Negative capex relative to fixed assets during 2021 (-11%), so growth is fueled by demand and increasing usage of existing production capacities, which became positive in 2022 amid crisis in the fuel, gas and energy sector)
- Very attractive return on capital for investors, 22,5% during 2022, boosted by commercial growth.

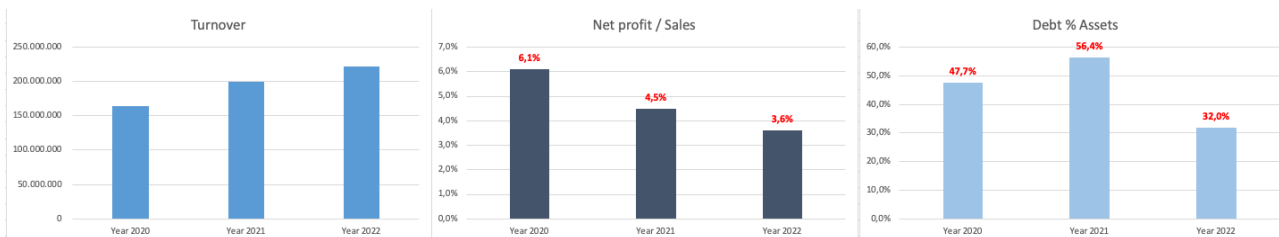
B. Financial standing of companies active in distribution segment

Distribution channel is capturing the same advantages that production segment illustrates, but with different trend of financial standing in terms of margins and capital structure. Some of the differences are specific to distribution level in the business logistic chain, others are due to current economic context.

- First important observation to consider is that distribution volumes are only 10% of the production figures. For instance, during 2022 sales from production segment amounted to aprox. 2 bn lei, whereas distribution revenues reached only 211 mil lei. Of course, we don't know for sure the exact overall between domestic production and distribution segments, as many of the production companies have a wide range of products (not only heat pumps, thermal energy storage and smart control systems) and distribution is also related to import activity. Nevertheless, the clearly low overlap between production and domestic distribution shows a strong orientation of production towards exports. This might be caused by modest industrial activity in Romania and poor demand for related products. At the same time, the potential upside growth is huge, amid increasing need for energy efficiency and decarbonization process in Romania and all over the world.
- As compared to production, distribution sales constantly increased every year, including in the pandemic year. Cumulated sales of selected companies increased by 11% in 2022, by 22% during 2021

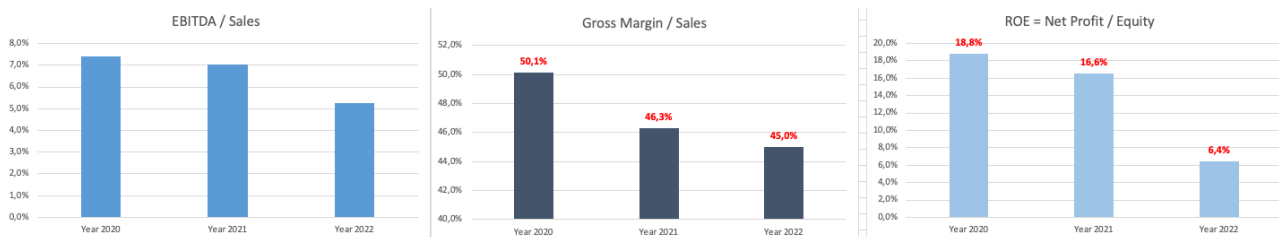
and 11% in 2020 vs the previous year. Frigotehnica, the most important distribution company in the sector, reported the highest growth in sales in both absolute (+25 mil lei) and percentage terms (+17%)

- Despite constant double-digit growth in sales, net margin continued to drop, from 8% in 2019 down to 6,1% in 2020, 4,5% during 2021 and 3,6% in 2022. Even if net margin is satisfactory for generic distribution activity, constant drop in profits is visible and must be researched further. As observed, main causes from lower profits are not related to gross margin, neither pressure in wages, but increasing capex and depreciation expenditures relative to higher fixed asset base.
- After a speculative hike during 2020 of gross margin up to 50%, ratio returned to normal historical trend of 45% in average. Nevertheless, EBITDA margin continued to drop to 5% in 2022 vs 10,7% in 2019 due to increasing depreciation relative to sales.
- Workforce productivity continued to improve in terms of monthly sales / employee, from 35k lei in 2019 up to 41k during 2022.



Lower profit margins brought significant changes into the capital structure and return rates. Hence, debt ratio so assets soared up to 56% ending of 2021 but decreased to 32% in 2022. The challenge is twofold, as most of the debt is contracted in short term, with all companies reporting more than 90% from total debt borrowed in less than one year. Despite the lower equity values, faster decrease of net profits caused return on equity to decelerate down to 6,4% in 2022 vs 18,8% in 2020 and 24,3% in 2019.

In the same time, financing requirements increased due to large working capital values. In average, current assets exceed by 3-4 times short term debt for the selected pool of companies. This is due to larger receivables and inventories base, compared to short term debt (especially payables to suppliers). The mix of higher debt and lower net profit, combined with large working capital, expose the appraised companies to increasing interest rates amid inflationary context. Considering the abovementioned elements, it is no surprise that capex (long term investments in capital expenditures to extend asset base) decelerated, from 5,7 mil lei (2019) down to 3,5 mil lei (2020) and 2,5 mil lei (2021); however in 2022 there was an extraordinary one-time investment of 65 mil LEI from ICPE SA. Relative to existing asset base, long term investments decreased from 34% (2019) down to 19% (2020) and 13% (2021). On one had side, there is large upside potential identified from the production chain of heat pumps, thermal energy storage and smart control systems. On the other hand, the limited domestic market and fragile financial structure for most of the appraised companies, clearly requires new / additional financing schemes with government guarantees to enable access to capital under competitive conditions.



In this challenging context, the only company continuing to expand the network of working points was Frigotehnica, the market leader, with 3 new locations started between 2021-2022, and other 3 during 2019-2020. The aggressive strategy is visible in the accelerated commercial development and competitive return on equity for investors, amounting up to 43% during 2021 and 18% in 2022. All other companies report no other working points launched in the past 5 years.

Financial indicators for production companies of heat pumps and thermal energy storage:

YEAR / INDICATOR	Year 2020	Year 2021	Year 2022
Turnover	163.640.745	199.012.421	221.915.431
Net Profit	9.961.401	8.954.855	7.997.678
Net profit / Sales	6,1%	4,5%	3,6%
EBITDA	12.105.366	14.019.834	11.685.489
EBITDA / Sales	7,4%	7,0%	5,3%
Nr. Employees	356	375	399
Productivity (sales / empl/ month)	38.305	44.225	46.348
Wages / employee / Month	7.332	7.052	8.136
Wages / Sales	19,1%	15,9%	17,6%
Gross Margin	50,1%	46,3%	45,0%
Depreciation %	9%	10%	3%
CAPEX %	-209%	13%	80%
Debt %	47,7%	56,4%	32,0%
Equity %	52,3%	43,6%	68,0%
ROE	18,8%	16,6%	6,4%

Key conclusions:

- Good inertia for demand, supporting double digit sales growth 5 years in a row for the selected companies
- Most of the profitability indicators deteriorated, including net profit down to 3,6% during 2022, lower EBITDA of 5% and gross margin
- Depreciation was stable, but capex (long term investments) relative to fixed asset base decelerated from 34% in 2019 down to 13% in 2021
- Workforce productivity decreased to 41k lei / month in sales, lowering overheads to revenue down from 44k in 2022 vs 16% in 2021 and 19% in 2020.
- Higher debt and working capital, coupled with lower profits, increase risk and financing needs. This requires new / additional financing schemes with government guarantees to enable access to capital under competitive conditions.

Limitations of the study:

The study was performed for a selected list of companies selected by the authors, as resulted from the qualitative research. It doesn't support information regarding other companies that might play a role in this area. This could lead to an incomplete representation of the sector.

Some of the selected companies sell a wide range of services and products beyond heating pumps.. This diversity could mask significant differences in financial performance and dynamics among subcategories. Treating them as a single entity may not provide detailed insights into the individual components.

Availability of historical financial data could be limited, especially for smaller or newer businesses. This could make it challenging to conduct robust trend analysis or assess long-term financial stability.

Access to financial data for private companies, especially smaller enterprises, might be restricted. This could lead to a skewed representation of the sector, as smaller businesses may not be as well-represented in publicly available datasets.

Appendix 1: Distributors and producers list and their detailed financials

1. Manufacturers of heat pumps (apartment, thermal points and industrial) – selected companies:

Fiscal Code	Company name
11075840	VISSMANN SRL
13123501	AIRMEC ROMANIA SRL
13521523	ASTON COM SA
14390493	ARISTON THERMO ROMANIA SRL
14958861	YORK FARM SRL
15555719	VAILLANT GROUP ROMANIA SRL
15928982	TRANE ROMANIA SRL
22694272	SAMSUNG ELECTRONICS ROMANIA SRL
30451720	AHI CARRIER ROMANIA SRL
38133730	mitsubishi electric europe bv amsterdam sucursală bucurești
39314424	AI HEATING SOLUTIONS S.R.L.
41462082	BOSCH SERVICII TERMOTEHNICA S.R.L.
5575204	DAIKIN AIRCONDITIONING CENTRAL EUROPE - ROMANIA SRL
5951163	ABB POWER GRIDS S.R.L.
8127710	DANFOSS SRL

2. The main distributors of heat pumps in Romania (selected companies):

Fiscal Code	Company name
159	FRIGOTEHNICA SRL
19061378	ECO THERM SERVICES SRL
38340859	HEAT TEHNO SERVICE SRL
423140	I C P E SA
9094041	DELTA TECH COMPANY SRL

Denumire societate	DANFOSS SRL	8127219	140/253/2020
CAEN	46.74	Comert cu ridicata al echipamentelor si furnizorilor de servicii pentru instalatii sanitare si de incalzire	
INDICATOR	31-12-2022	31-12-2021	31-12-2020
A. Sumar preliminar			
Total Active	25.805.509	25.119.183	22.567.585
din care:			
Active imobilizate	25.836	317.557	4.684.303
Active circulante	25.779.973	24.791.734	18.204.278
Total Datorii	3.572.294	4.086.293	2.906.022
din care:			
Termen Scurt	3.572.294	4.086.293	2.906.022
Termen Lung	-	-	-
Total Capitaluri Proprii	21.664.943	20.472.578	18.875.357
Cifra de afaceri	70.869.808	61.965.406	53.580.549
Total Venituri din Exploatare	75.516.875	70.432.952	57.438.346
Total Cheltuieli din Exploatare	72.253.076	68.792.911	60.907.886
EBIT	3.263.799	1.640.041	3.469.540
Rezultat Financiar	181.428	40.100	687.658
Rezultat Net	2.664.165	1.197.311	7.883.263
B. Indicatori de Liquiditate			
Lichiditate Curenta	7.13	6.05	6.13
Lichiditate Imediata (QR, T Acid)	7.08	6.08	6.07
Lichiditate Numerar (Cash R)	0.00	0.00	0.01
Defensive Interval Ratio (DIR)	126.10	129.48	108.88
Estimare Medie Incasari Zilnice (D.C.C.)	100.665	151.578	160.778
Estimare Medie Cheltuieli Zilnice (D.C.E)	200.610	190.766	182.022
Incasari / Cheltuieli (C.C.R. Cash Coverage Ratio)	98%	79%	93%
C. Indicatori de Activitate Financiară			
DSO (Durata Medie Incasare Creante)	130	145	120
DIIH (Durata Medie Rotatie Stocuri)	1	0	1
DSPO (Durata Medie Plata DTS)	4	0	3
Ciclu Operational (B. Business Cycle)	130	146	123
CCC (Cash Conversion Cycle)	126	142	118
DRA (Durata de Rotatie a Activelor)	133	148	154
DRC (Durata de Rotatie a Cap. Lucrului)	113	122	102
FR	21.413.107	20.155.021	14.191.064
NFR	21.477.392	20.379.562	14.303.514
Verificare (FR - NFR + NFR - O)	1.00	1.01	1.01
D. Fluxul de Numerar (M. Indirecta)			
CIF - Fluxul de Numerar Operativ (I1 - I2 + I3)	2.283.781	5.420.072	19.491
- Investitii (I1)	-2.632.251	-1.706.911	-859.424
- Finantare (I2)	616.994	6.916.619	396.545
- DTS (I3)	268.524	210.364	443.388
VERIFICARE			
- Investitii	-2.632.251	-1.706.911	-859.424
- Finantare	616.994	6.916.619	396.545
- DTS	268.524	210.364	443.388
- Rezultat din Activitate Financiară	181.428	40.100	687.658
- DTS	181.428	40.100	687.658
- DTS	181.428	40.100	687.658

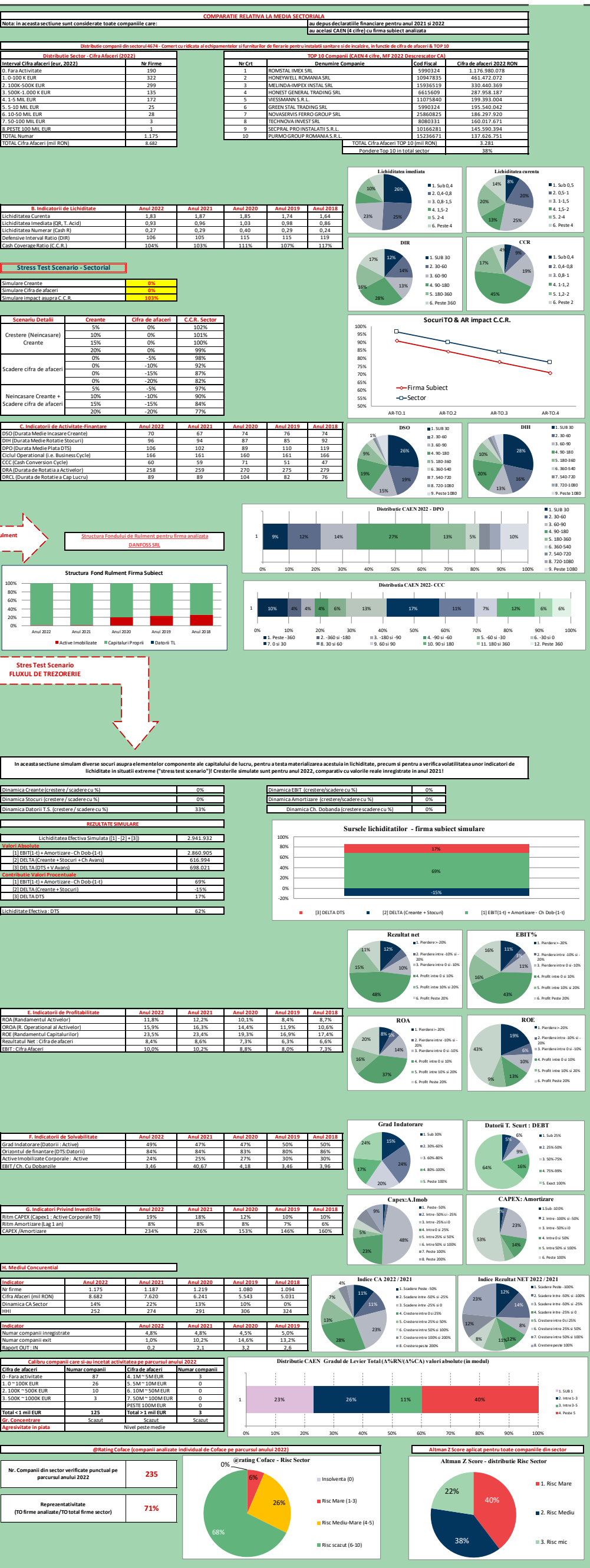


Table with columns: Indicator, 31-12-2022, 31-12-2021, 31-12-2020, 31-12-2019, 31-12-2018. Rows include: A. Sumar preliminar, B. Indicatori de Liquiditate, C. Indicatori de Activitate Financiară, D. Fluxul de Numerar (M. Indirectă), E. Indicatori de Profitabilitate, F. Indicatori de Solvabilitate, G. Indicatori privind Investitiile, H. Mediuul Concurrential.

COMPARATIE RELATIVA LA MEDIA SECTORIALA

NOTA: In aceasta sectiune sunt considerate toate companiile care...

Distributie Sector - Cifra Afaceri (2022)

Interval Cifra Afaceri (eur, 2022) - Nr Firme

TOP 10 Companii CAEN 4 cifre - MF 2022 Descractor CA

Lichiditate imediata

Lichiditate curenta

DRR

CCR

ScourIT & AR Impact C.C.R.

DPO

DHH

Distributie CAEN 2022 - DPO

Distributie CAEN 2022 - CCC

Stres Test Scenario - Sectorial

Scenariu Detalii

Indicatori de Activitate Financiară

Structura Fondul de Rulment pentru Firma Analizata

Stres Test Scenario - Fluxul de Trezorerie

In aceasta sectiune simulam diverse surse de incalzire...

REZULTATE SIMULARE

Sursele lichiditatilor - firma subiect simulare

Interpretare

Indicatori de Profitabilitate

Indicatori de Solvabilitate

Indicatori privind Investitiile

Mediuul Concurrential

Grind Indatorare

Datorii T. Scurt : DEBT

Capex:Amortizare

CAPEX:Amortizare

Indice CA 2022/2021

Indice Rezultat NET 2022/2021

Calitativa companii care si-au incetat activitatea pe parcursul anului 2022

@Rating Colfoc (companii analizate individual de Colfoc pe parcursul anului 2022)

Altman Z Score aplicat pentru toate companiile din sector

TRANE ROMANIA SRL - 2022. Summary table with columns for indicators (e.g., Total Active, Total Datorii), values for years 2020-2022, and various financial metrics. Includes sections for 'A. Sumar preliminar', 'B. Indicatori de Liquiditate', 'C. Indicatori de Activitate Financiară', 'D. Fluxul de Numerar', 'E. Indicatori de Profitabilitate', 'F. Indicatori de Solvabilitate', and 'H. Mediu Concurrential'.

COMPARATIE RELATIVA LA MEDIA SECTORIALA. Includes pie charts for 'Lichiditate imediată', 'Lichiditate curentă', 'DRR', 'CCR', 'DPO', 'DIH', 'Distributie CAEN 2022 - DPO', and 'Distributie CAEN 2022 - CCC'. Contains a 'Stress Test Scenario - Sectorial' section with bar charts for 'Structura Fondul de Rulment Firms Subject' and 'Stres Test Scenario FLUXUL DE TREZORERIE'. Includes a 'Distributie CAEN Gradul de Levier Total' pie chart and 'Altman Z Score' chart.

Table with 5 columns: Denumire societate, CAEN, Indicator, 31-12-2022, 31-12-2021, 31-12-2020, 31-12-2019, 31-12-2018. Includes sections for A. Sumar preliminar, B. Indicatori de Lichiditate, C. Indicatori de Activitate Financiară, D. Fluxul de Numerar, F. Indicatori de Solvabilitate, G. Indicatori privind Investițiile, H. Medii Concurențiale.

COMPARATIE RELATIVA LA MEDIA SECTORIALA. Includes sections for Distributie Sector - Cifra Afaceri, B. Indicatori de Lichiditate, Stress Test Scenario - Sectorial, C. Indicatori de Activitate Financiară, Distributie CAEN 2022 - DPO, Distributie CAEN 2022 - CCC, Sursa lichiditatilor pentru firma subiect, Sursa lichiditatilor - firma subiect simulare, E. Indicatori de Profitabilitate, F. Indicatori de Solvabilitate, G. Indicatori privind Investițiile, H. Medii Concurențiale, @Rating CoFacc, and Altman Z Score aplicat pentru toate companiile din sector.

Table with financial data for ICPE S.A. including sections for Denumiri societate, Indicatori, A. Sumar preliminar, B. Indicatori de Liquiditate, C. Indicatori de Activitate Financiară, D. Fluxul de Numerar (M. Indirectă), E. Indicatori de Profitabilitate, F. Indicatori de Solvabilitate, G. Indicatori Privind Investitiile, H. Mediiul Concurential, and I. Distribuție CAEN.

Comparative analysis section titled 'COMPARATIE RELATIVA LA MEDIA SECTORIALA' for ICPE S.A. Includes 'Distributie Sector - Cifra Afaceri (2022)', 'TOP 10 Companii CAEN 4 cifre - MF 2022', 'Lichiditate imediata', 'Lichiditate curenta', 'DRR', 'CCR', 'Scoruri TO & AR impact C.C.R.', 'DPO', 'DHI', 'Distributie CAEN 2022 - DPO', 'Distributie CAEN 2022 - CCC', 'Structura Fondul de Rulment Firms Subject', 'Stres Test Scenario - Sectorial', 'Stres Test Scenario - Fluxul de Trezorerie', 'Sursele lichiditatilor pentru firma subject', 'Sursele lichiditatilor - firma subject simulare', 'Rezultate Simulare', 'Indicatori de Profitabilitate', 'Indicatori de Solvabilitate', 'Indicatori Privind Investitiile', 'Mediiul Concurential', 'Indice CA 2022/2021', 'Indice Rezultat NET 2022/2021', 'Distributie CAEN - Gradul de Levier Total', 'Rating Colfex', and 'Altman Z Score'.