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ANALYSIS OF SNTGN TRANSGAZ SA
RISK MANAGEMENT

Contents

1. BACKGROUND

Risk Management, an integral part of the management process, secures Transgaz' ability to meet its strategic, general and operational objectives in an efficient and effective way by managing the risks to which the company is exposed.

SNTGN TRANSGAZ SA seeks to optimize its risk profile so as to achieve its strategic objectives with the least possible impact in terms of the risks to which it is exposed.

SNTGN TRANSGAZ SA is perceived as a **broad** organization in which all factors related to the company's mission are included in the scope of interest (from a risk perspective).

2. THE ORGANIZATIONAL FRAMEWORK OF SNTGN TRANSGAZ SA RISK MANAGEMENT PROCESS

SNTGN Transgaz SA risk management process is integrated into the company's business and the entire personnel is responsible for identifying and reporting risks.

There are five **responsibility** levels within SNTGN Transgaz SA organized as a pyramid, as shown in Figure 1:

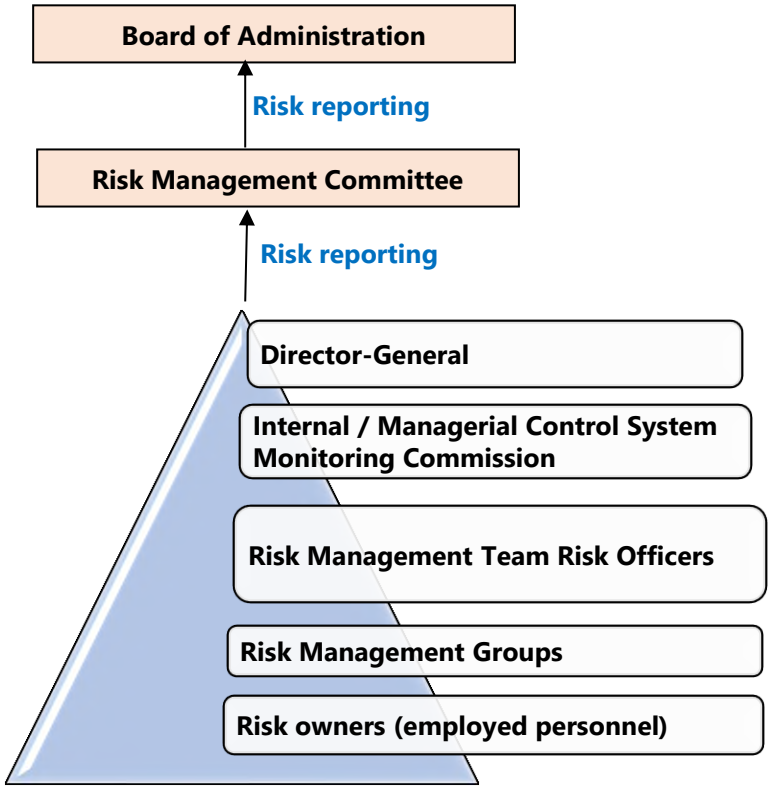

Figure 1 - Organization of Transgaz' risk management system

- **The first level** comprises the persons responsible for carrying out the activities according to the job descriptions and the risks associated with them (identified risks or new risks). These are the risk owners who are present in all areas and sectors of activity.

- **The second level** is represented by the Risk Management Groups of the Divisions/Units/Independent Departments/Mediaș Subsidiary/Regional Operating Centres. The Heads of Departments within the Divisions/Regional Operating Centres/Mediaș Subsidiary are members of the Risk Management Groups.

- **The third level** refers to the **Risk Management Team** (EGR) at company level; it supports the Monitoring Commission in managing the entire risk management process. The risk management team is established based on internal decision, with the Rules on Organization and Functioning code REG DJ 01 approved by the Director General.
  Within each division /unit/independent department/Mediaş Subsidiary/Regional Operating Centres, a Risk Officer is appointed with risk management responsibilities. Risk Officers are Members of the **Risk Management Team**.

- **The fourth level** refers to the **Monitoring Commission (MC),** which analyzes and approves the Risk Profile, the Risk Tolerance Limit and the Information regarding the development of the risk management process at the company level. The Monitoring Commission is established by internal decision, with the Rules on Organization and Functioning code REG DJ 02, approved by the Director General.
  The directors of the divisions /units/independent departments/Mediaş Subsidiary/Regional Operating Centres are Members of **the Monitoring Commission**.

- **The fifth** and highest level is represented by the Director General. The Director General approves the Risk Profile and Risk Tolerance Limit; the Risk Register and the Risk Minimization Action Plan. Through regular reporting, the Director General ensures that risks are identified, assessed, monitored and properly mitigated.

- **The Board of Administration** has overall responsibility for ensuring that risks are adequately managed by ensuring that the risk management process facilitates the achievement of objectives economically, efficiently and effectively and that significant risks are managed to an acceptable level.

- **The Risk Management Committee** assists the Board of Administration in fulfilling its responsibilities in managing the risks the company faces.

- **The Directors of the divisions/independent units/independent departments/ / Mediaș Subsidiary/Regional Operating Centres** provide the organizational and procedural framework for the preparation of Risk Registers and Risk Mitigation Action Plans.

- **The Directors of the divisions/independent units/independent departments/Mediaș Subsidiary/Regional Operating Centres** and the entire personnel have the overall responsibility to identify and report risks affecting the achievement of the set objectives.

3. SNTGN TRANSGAZ SA RISK MANAGEMENT POLICIES

3.1 The Risk Management Strategy, approved by the Resolution of the Board of Administration no.25/2021, for which the time frame is 2021-2025, sets out both the actions needed to optimize the risk management process and the framework for identifying, assessing, monitoring and controlling significant risks with a view to keeping them at acceptable levels within the *risk tolerance limit*.

3.2 Statement – Commitment *of the Director General regarding Risk Management* for the period 2021-2025.

3.3 System Procedure „Risk Management" code PS 05 SMI
The System Procedure PS 05 SMI establishes a uniform set of rules for risk management and monitoring, for the establishment and updating of the Risk Register.

The evolution of the System Procedure "Risk Management" is as follows:

- ed. 1 rev.0, applicable in the years 2021, 2022, 2023. Sets the tolerance limit in the 3-step matrix;
- ed.1 rev.1, applicable as of 03.01.2024. Establishes the tolerance limit in the 5-step matrix and introduces the notion "risk category".

4. RISK CLASSIFICATION. RISK REGISTERS

The Risk Register is the integrating document of risk management, summarizing the information and decisions taken as a result of risk analysis.

In order for all identified risks to be quantified and categorized, there are **three levels** of ***Risk Registers*** as follows:

a) *The Risk Register* at department/office level within the divisions/independent units and at compartment/department/office level within the Regional Operating Centre/Mediaș Subsidiary, hereinafter referred to as ***RegR-RR***;

b) *Risk Register at the level of the division* hereinafter referred to as ***RegR-RD***, includes **operational risks** within division/unit/independent department/Regional Operating Centre/ Mediaş subsidiary.
It is carried out by the **centralization** of the RegR-RR risk registers of the subordinate departments;

c) *Risk Register at the level of TRANSGAZ,* hereinafter referred to as ***RegR-RS*** includes significant risks, namely:
   - **significant operational risks**, escalated from the registers in point b;
   - **strategic risks** which may have an internal or external source; they are directly related to the development strategy of SNTGN Transgaz SA and are associated with strategic (general) objectives.

5. PLANNING RISK MANAGEMENT ACTIVITIES

The key concepts in risk management are: **Risk Profile, Risk Appetite and Risk Tolerance Limit.**

From 2023 onwards, in order to provide a picture of the level of risk at company level, in relation to the approved Tolerance Limit, **the parameter "Global Risk" (GR)** calculated as a weighted average of the exposure value of the risk **has been introduced**.

Risk tolerance limit is approved and disseminated annually.
The tolerance limit shall be set on the basis of risk appetite and the previous year's performance in terms of risk profile and overall risk.

The risk management process implemented within SNTGN Transgaz SA has been considerably improved by the adoption of the tolerance limit in the 5-step risk matrix as of 03.01.2024.

The Board of Administration is informed on risk management according to the schedule set by Transgaz' internal policies.

The reports present a comprehensive analysis both for the current year and the evolution of risk management over a 4-year period.

6. STAGES OF THE RISK MANAGEMENT PROCESS

The risk management within Transgaz is carried out through the successive stages described in figure no. 2, annually:

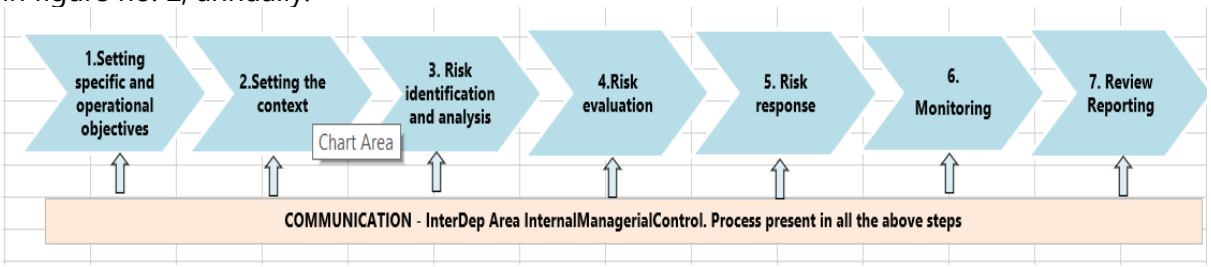

Figure 2 - The steps of the risk management process

Risk identification always takes into account objectives and the activities that contribute to their achievement.

The risk analysis for the specific activity of SNTGN Transgaz SA is a particularly important stage and aims to establish a perspective on the company's weaknesses and vulnerabilities, thus identifying risks as soon as possible in order to reduce their impact or to transform them into business opportunities. The aim is to identify and analyse the main risks and threats that are occurring or may occur in the near future, in the specific field of the company's activity.

Based on the results of the **SWOT analysis** carried out, both by top management (strategic objectives) and by each organizational structure (operational objectives), threats and vulnerabilities are perceived as risk factors.

The objective of the SWOT analysis: capitalizing on strengths**, minimizing vulnerabilities, avoiding threats** and identifying opportunities in order to create a manageable environment.

Taking the above into account, measures to minimize risks are also identified in the following matrix:

SO- activities to be carried out in order to use strengths to increase societal capabilities;
WO- steps to be taken to overcome vulnerabilities and utilize the opportunities presented;
ST- activities that use the company's strengths to avoid threats;
WT- measures that minimize vulnerabilities to avoid threats.

As a result of the SWOT analysis at company level and at the level of each organizational structure, the main risk factors were identified:

THREATS

- The geopolitical and macroeconomic framework in which Transgaz operates;
- Geopolitical instability;
- The State plays an important role as legislator, regulator and implementer of energy policies, on the one hand, and as a significant shareholder, on the other hand;
- Russia's invasion of Ukraine has raised the level of geopolitical risk; Russia's continued aggression in Ukraine calls for rethinking the EU's gas infrastructure architecture;
- The actual interconnection capacity depends on the state of the transmission networks in neighbouring countries;
- Difficulties in adapting the technical parameters for high-pressure transmission to the operating level of neighbouring countries;
- Legislative unpredictability;
- Restrictive legislation (90% dividends, price caps, price controls, taxes, and any other restrictions;
- The regulated nature of the natural gas transmission activity;
- Uncertainty of the development of natural gas fields in the Black Sea;
- Romania's hydrogen strategy;
- Natural gas price increase;
- The natural gas infrastructure, after the transition period ending on 31 December 2029, will be dedicated exclusively to hydrogen;
- Increase in inflation;
- Increased frequency and severity of extreme weather events caused by the effects of global warming - the pricing methodology requires that any unforeseen operating expenses that are not under the control of the company be recognized and returned to the company through the following year's regulated revenue. However, there is a possibility that ANRE may not recognize these expenses if the effects of natural calamities could have been mitigated through investment and maintenance programs;
- Poor cadastre records at local/county level.

VULNERABILITIES

- Long development cycle of investment projects;
- Lack of expertise in the development of renewable gas transportation through natural gas pipelines;
- Infrastructure unprepared for dual transportation: of natural gas and unconventional/environmental fuels;
- Limited number of research-focused projects;
- Insufficient expertise in specific vulnerability scanning of IT systems;
- Lack of landowner agreements;
- Soil conditions not forecasted;
- Failure to obtain the required permits and landowner agreements required to obtain Building Authorization within the required timeframe;
- Lack of information or late submission of information reflecting the actual situation on the ground;
- Provision of incomplete/inaccurate data on landowner identification by authorized bodies;
- Temporary cessation of land use due to discovery of archaeological remains.

Following the establishment of the context (risk factors), strategic and operational risks are identified following the identification rules established by the "Risk Management" System Procedure.

7. OPERATIONAL RISKS AT THE LEVEL OF SNTGN TRANSGAZ SA

The risk factors identified by the organizational structures are centralized and classified into the following risk categories:

- **human resources category -** human errors in the current activity, difficulty in recruiting certain positions in specific areas of activity, lack of specialized training programs offered / adapted to the specific activities of the company, low awareness of employees about the general / specific objectives of the company.
- **information/communication category -** poor quality (incorrect information) or lack of necessary input data for the work flow, provided in the process chain; delays in providing information/data; information deficit; deficiencies in the information flow.
- **activity control category** - outdated operational/process procedures; weaknesses in planning of activities; lack of consultation within and between departments to achieve set objectives; poor planning of material resource requirements.
- **site availability -** temporary cessation of land use due to the discovery of remains; delays in obtaining the necessary authorizations to start work; lack of landowner agreements; landowner restricting access to the site.
- **technological:** risk factors are triggered by re-engineering, inappropriate technical solutions, IT/communication system malfunctions; maintenance works.
- **suppliers/contractors:** risk factors are triggered by non-compliance with contractual terms on deadlines and quality; delayed delivery; unexpected price increases; difficulties in identifying the supplier/ bankruptcy of suppliers (including natural gas suppliers, external training supplier, supplier for calibration of measuring instruments, etc); lack of spare parts for NTS equipment; organizational changes at suppliers; poor communication with subcontractors; price increases for service contracts.

The main operational risks identified are:

- failure to carry out on time and within the scheduled parameters the works foreseen in the Maintenance and Technical Overhaul Program of the MRSs and pipelines, or the SCADA system;
- inability to perform maintenance due to external factors such as adverse weather conditions;
- increased maintenance and repair expenses in the NTS caused by extreme weather events;
- non-performance of the contract as a result of the Contractor's reduced ability to perform the contract in accordance with the terms of the contract;
- lack of materials and spare parts for the execution of preventive and corrective maintenance works at the main NTS objectives;
- failure to apply environmental legal requirements in carrying out the main works at the company;
- difficulty in recruiting certain positions in specific areas of activity;
- lack of offers of specialized vocational training programs/adapted to the company's specific activities.

8. COMPANY RISK REGISTER

a) a) The Risk Register at SNTGN Transgaz SA, year 2024 includes significant risks, namely:
- **significant operational risks** escalated from organizational structures;
- **strategic risks** which may have internal or external sources; they are directly linked to the development strategy of SNTGN Transgaz SA and are associated with strategic (general) objectives.

b) The significant risks at company level are set out in Table no. 1.

STRATEGIC RISKS	
Category: Politics	
1. Macroeconomic and geopolitical changes;	**12**
2. Changes in the architecture of interconnections in the European gas network;	**12**
3. Government intervention in the industry;	**12**
Category: Regulations/Legislative	
4. Gas price changes in Romania;	**9**
5. Non-recognition by ANRE of certain assets included in Transgaz' assets as part of the regulated assets base (BAR);	**12**
6. Low possibility of achieving a higher than regulated profit within a regulatory period;	**16**
Category: Trade	
7. Changes in the price of gas purchased by SNTGN Transgaz SA;	**12**
Category: Sustainability	
8. Restricting funding for natural gas projects;	**12**
9. Delays in the development of new technologies to transport green hydrogen at a competitive level;	**12**
10. Decrease in natural gas consumption due to increased access to wind, solar and nuclear energy;	**6**

STRATEGIC RISKS	
11. The NTS may be exposed to a number of natural climatic and geological hazards: earthquakes, floods, landslides, extreme temperatures, heavy snowfalls;	**8**
Category: Financial	
12. Crediting;	**12**
13. Exchange rate;	**12**
14. Interest rate;	**12**
15. Liquidities;	**12**
16. Failure to comply with the limits set in the financing contracts for the financial indicators;	**12**
17. Capital market.	**6**
OPERATIONAL RISKS	
CYBER SECURITY CATEGORY	
Failure to identify cyber vulnerabilities in a timely, complete or inadequate manner	**12**
FINANCIAL CATEGORY	
Misstatement of royalty amount	**12**

Tabel 1- Significant risks contained in the company Risk Register

STRATEGIC RISKS: risks directly related to Transgaz' development strategy and associated with the company's strategic objectives:

1. **Changes in the macroeconomic and geopolitical environment:** Romania may experience rapid and unforeseen political, legal, social and economic changes, including economic downturns, significant fluctuations in inflation and exchange rates, major market imbalances and significant changes in legislation, which may affect the operation of the company.
2. **Changes in the interconnection architecture of the European gas network** - Russia's invasion of Ukraine has increased the level of geopolitical risk; Russia's continued aggression in Ukraine calls for a rethinking of the EU's gas infrastructure architecture.
3. **Government intervention in the industry** - the Romanian State's shareholdings in companies in the Romanian energy sector are significant or controlling and, although the European legislation is continuously being transposed into national legislation, the risk of imposing restrictive measures in the energy sector such as price caps, price controls, taxes and any other restrictions cannot be excluded.
4. **Changes in natural gas prices in Romania** – the increase of the price of natural gas in Romania may have the effect of decreasing natural gas consumption and implicitly may generate an unfavourable impact on the financial performance of SNTGN Transgaz SA.
5. **The non-recognition by ANRE of some assets included in Transgaz' assets as part of the regulated assets base (BAR);** - investments made in the absence of the agreement of the competent authorities and which exceed the budgeted investment plan, will not be accepted by ANRE in the RAB, the profitability of SNTGN Transgaz SA being reduced.

6. **Low possibility of obtaining a higher profit than the regulated one, within a regulatory period** - SNTGN Transgaz SA operates in a regulated framework. The laws, regulations and policies adopted by the European Union, the Romanian Government, as well as by ANRE, may significantly affect the company's current activity, financial situation and operating results.
7. **Variations in the price of gas purchased by SNTGN Transgaz SA** - variations in the price of gas purchased by SNTGN Transgaz SA for gas consumption in NTS will have an immediate impact, positive or negative, on the company's profit. In the event of a negative impact, the unachieved revenue should be included in the regulated revenue for the following year. The late or incomplete inclusion of this additional expense in the following year's regulated revenue will have an impact on the company's profitability and share price.
8. **Restricting the financing granted for natural gas projects** - implementing the Green Deal and the directives that will ensure climate neutrality by 2050 (climate change; Measures set out in the National Recovery and Resilience Plan).
9. **Delays in the development of new technologies for the transport of green hydrogen at a competitive level** - primary and secondary legislation on hydrogen is not updated; there is no National Hydrogen Strategy yet; the approval of the hydrogen regulatory framework is planned for 2023, correlated with the Strategy that will be created in this regard; hydrogen is considered at European level as the fuel of the future – it is a clean gas with zero CO2 emissions.
10. **Decrease in natural gas consumption due to increased share of wind, solar and nuclear energy** - The National Integrated Plan for Energy and Climate Change 2021-2030, has established as a support measure the promotion of investments in new low-carbon electricity generation capacity; in view of the indicative RES trajectory to be achieved by 2030, RES-E projects will be prioritized as well, aiming at the installation of additional wind and solar capacity; the cost of producing electricity from wind and solar has become increasingly competitive with the cost of electricity produced by burning fossil fuels.
11. **NTS can be exposed to a number of natural climatic and geological hazards: earthquakes, floods, landslides, extreme temperatures, massive snowfalls** - climate change manifested by prolonged droughts, rainfall with unusual frequencies and intensities, tornadoes, etc., are determined by human action, through greenhouse gas emissions; increasing the frequency and severity of extreme climatic events caused by the effects of global warming; methodology provides that any unforeseen operational expense that is not under the control of the company is to be recognized and returned to it through the regulated revenue of the following year. However, there is a risk that ANRE will not recognize these expenses, if the effects of natural disasters could have been limited by investment and maintenance programs.

Capital market – the capital market is sensitive to the risk factors influencing the neighbouring capital markets and to the information made available by the company.

Cyber security – cyber-attacks, security of the company's information.

FINANCIAL RISKS: - generated by the way in which the company's activity is financed, given the sensitivity of the result to changes in financing conditions (lending, exchange rate fluctuations, interest rate variations, liquidity).

OPERATIONAL RISKS: they are directly related to the activity carried out at the level of departments/offices and are associated with operational objectives.

9. RISK RESPONSE. CONTROLLING RISKS

For the risks that have an exposure level above the approved risk tolerance limit, *the Measures Plans for risk minimization have been drawn up*, both at the level of the company and at the level of each organizational structure.

The most appropriate risk minimization measures are identified in accordance with risk management responsibilities, so as to result in the lowest possible risk exposure values, among which we mention: strengthening cooperation relations with Natural Gas Transmission System Operators from neighbouring countries, as well as with natural gas companies and other Natural Gas Transmission System Operators from the European Union and non-EU countries, with particular impact on the Balkan area and the Southern Gas Transmission Corridor for forecasting changes in the interconnection architecture at European level; analysing and preparing the necessary studies for the development of new natural gas transmission corridors; selecting the route of pipeline projects following the principle of minimum environmental impact; Implement the biodiversity management framework during the construction phase; develop and implement a biodiversity action plan to ensure that there is no net loss of biodiversity features but a net gain for critical habitats; achieve savings in operational costs recognized by the authorities by accurately determining the technological consumption at the NTS level and the quantities of natural gas transported; optimizing the expenses incurred at the level of the organizational structures and keeping within the approved annual amounts for ongoing investment programs; professional training of staff; planning of cyber vulnerability scanning activities; development or revision of procedures.

The measures established to minimize the risks shall be reviewed for effectiveness.

Figure 3 shows **the Percentage effectiveness** of risk minimization measures.

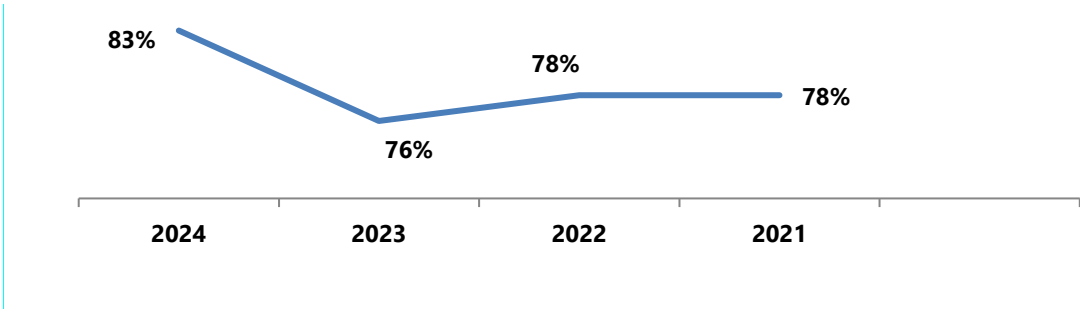

Figure 3 - Percentage of effectiveness of operational risk minimization measures, year 2024 compared to 2023, 2022, 2021

10. THE RISK PROFILE AND THE OVERALL RISK AT THE COMPANY LEVEL

10.1 The evolution of the number of risks at the level of the company, for the years 2024, 2023, 2022, 2021 is presented in Figure no. 4.

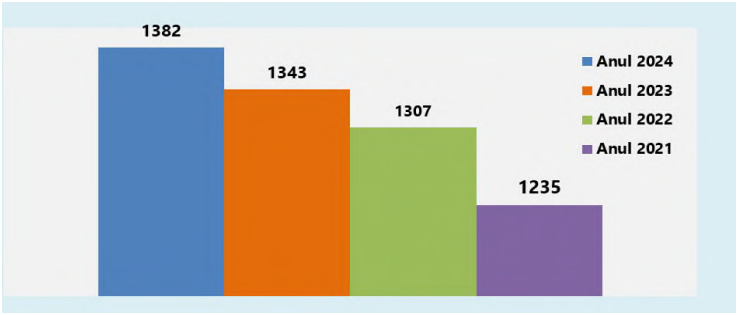

Figure 4 -The evolution of the number of risks at company level, for the years 2024, 2023, 2022, 2021

10.2 The evolution of the risks according to the level of tolerance, at company level, for the years 2024, 2023, 2022, 2021 is presented in Figure no. 5

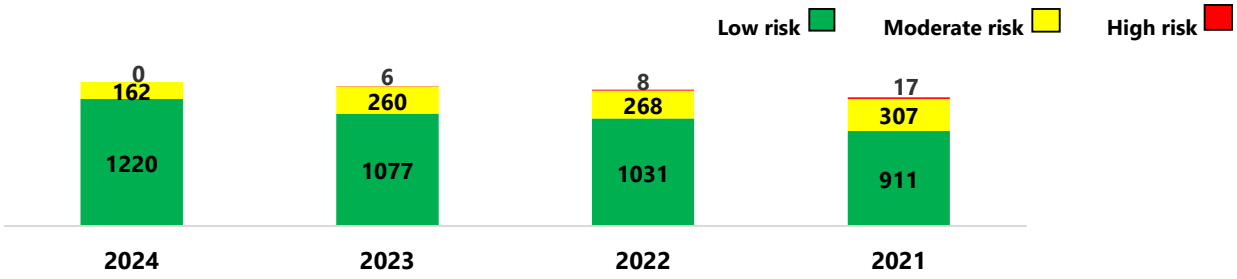

Figure 5 - The evolution of risks according to tolerance level, for the years 2024, 2023, 2022, 2021

CONCLUSIONS:

- although the number of risks in 2024 has increased compared to 2023, 2022, 2021, the risk profile at the level of the company has improved.
- There are no risks assessed as 'high risk' in 2024

10.3 The company's overall risk for the year 2024 using the 5-step matrix is presented in the Table 2.

Year	No. of risks	No of risks by exposure/ Year 2024 - 5-step matrix													
		1	2	3	4	5	6	8	9	10	12	15	16	20	25
2024	1382	72	273	96	219	44	516	110	24	5	17	4	2	0	0
		of which:													
		strategic													
	17	0	0	0	0	0	2	1	1	0	12	0	1	0	0
		operational													
	1365	72	273	96	219	44	514	109	23	5	5	4	1	0	0
GR= (72x1+273x2+96x3+219x4+44x5+516x6+110x8+ 24x9+5x10+17x12+4x15+2x16) /1382 = **4,73**															

Table 2- Overall risk of Transgaz, the year 2024

The company's overall risk for the years 2023, 2022, 2021 using the 3-step matrix is presented in the Table 3.

The years 2023, 2022, 2021 - 3-step matrix									
Year	Total number of risks	Number of risks within exposure E=P x I						Global Risk (GR)	
		E=1	E=2	E=3	E=4	E=6	E=9	The calculation formula	GR Value
2023	**1343**	**147**	**930**	**169**	**91**	**6**	**0**	**GR**=(1x147+2x930+3x169+4x91+6x6+9x0)/1343	**2,17**
	of which:								
	strategic								
	17	0	2	1	12	2	0		
	operational								
	1326	147	928	168	79	4	0		
2022	**1307**	**137**	**894**	**167**	**101**	**7**	**1**	**GR**=(1x137+2x894+3x167+4x101+6x7+9x1)/1307	**2,20**
	of which:								
	strategic								
	18	0	2	2	10	3	1		
	operational								
	1289	137	892	165	91	4	0		
2021	**1235**	154	757	199	108	15	2	**GR**=(1x154+2x757+3x199+4x108+6x15+9x2)/1235	**2,27**
	of which:								
	strategic								
	19	0	2	1	10	4	2		
	operational								
	1216	154	755	198	98	11	0		

Table 3 - The overall risk of Transgaz, the years 2021-2023

The positioning of the overall risk at the level of the company in relation to the level of exposure established by the risk matrix, for the years 2024, 2023, 2022 and 2021, is presented in the Figure 6**.**

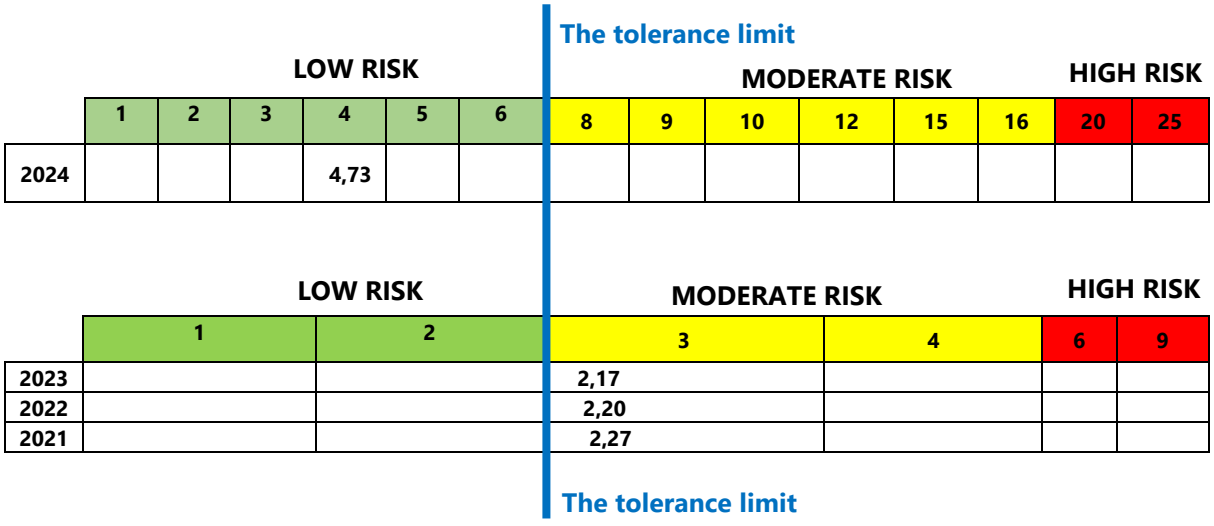

Figure 6 - The global risk for the years 2024, 2023, 2022, 2021; risk positioning in relation to exposure level

Conclusions:

- In 2024**, the risk profile has improved** compared to the years 2023, 2022, 2021 using the 5-step matrix. Thus, the risks in the high (intolerable) category decreased to 0.
- **The overall risk of the company is at a low level,** compared to the tolerance limit, with a constant downward trend, which demonstrates the approach within SNTGN Transgaz SA, a forward-looking management approach that allows anticipation of the possible events that may occur.
- The risk management awareness, understanding of the company's risk profile and risk assessment skills have improved considerably throughout the company.

Ion Sterian
Director General