

APPROVED
by the decision of the Board
of Directors NPJS “Abylkas
Saginov Karaganda
Technical University”
dated April 16, 2026.
(Minutes No.3)

RISK MAP FOR 2026

A Risk Map is a graphical representation of risks, based on their potential impact and likelihood of occurrence, arranged in a rectangular table. The vertical axis indicates the magnitude of the risk damage, and the horizontal axis indicates the probability of its occurrence.

Risk assessment is ranked using a Probability and Impact Matrix.¹

In the first stage of matrix construction, input data was determined and consequence and probability scales were identified. The proposed scale covers a range of types of consequences under study and takes into account the likelihood of their occurrence and impact, from the most likely to the least likely. The risk assessment ranking is presented in Table 2.

Table 2 – Risk assessment ranking

Level	Risk assessment by consequences	Risk assessment by probability of occurrence
5 – critical	A sharp, significant decline in the Company's performance indicators (more than 50%) Emergence of problems with interaction processes within the Company Discontinuation of one or more internal processes Severity of disruption: severe	Fundamental differences from the existing situation Introduction of new components or processes High level of process complexity Insufficient or lack of analysis and management tools
4 – increased	A sharp, significant decline in the Company's performance indicators (more than 40%) Short-term process interruptions Significant difficulties in implementing internal processes Severity of disruption: severe	Significant differences from the existing situation Introduction of changes during process implementation High level of process complexity Insufficient number of analysis and management tools
3 – medium	A significant decline in the Company's performance indicators (less than 40%) Emergence of problems with the implementation and management of interaction processes within the Company Lack of resources to continue one or more processes Severity of disruption: significant	Minor differences from the existing situation The processes, despite their complexity, are controllable and manageable Analysis and management tools have been developed
2 – low	Minor decline in performance indicators (<15%) of the Company	The components involved in the interaction processes have already been used previously.

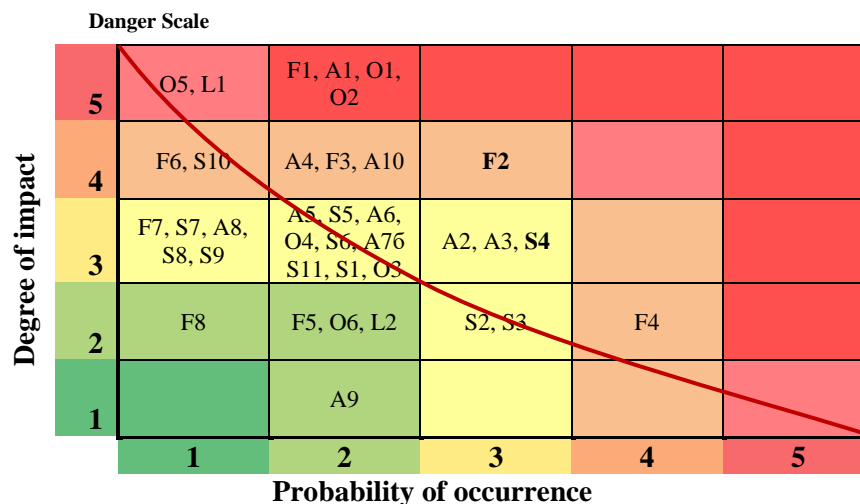
¹ The matrix is a grid where one axis represents the probability of a risk occurring, and the other represents its impact on the Company's objectives. Each risk is assigned a score on both axes, allowing for a visual display and classification of risks by priority level. This facilitates the effective allocation of resources to manage the most critical risks.

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	Short-term process slowdowns Restoration of interaction processes within the model Additional resources required Strengthening control required Severity of disruption: minor	Medium level of process complexity. Efficient tools for analysis and management.
1 – insignificant	Minor decline in performance indicators (<15%) of the Company Short-term process slowdowns Self-healing of interaction processes within the model Strengthening control required Severity of disruption: minor	The components involved in the interaction processes have already been used previously. Low process complexity Efficient analysis and management tools

The vertical axis of the risk map represents the increasing level of consequences (from 1 to 5), while the horizontal axis indicates the increasing probability of each consequence (risk increases from the lower left to the upper right corner of Table 3). To represent the degree of risk, the map is divided into green, yellow, and red zones. The maximum impact and maximum probability of risk occurrence represent the key points on the Danger Scale.

Risk Map



Based on the completed risk map, key risks are identified, and a list of preventive and reactive measures is compiled.

The Company's key risks include those located on the Risk Map in the zone above the Hazard Scale, or in zones intersected by it (Table 4).

Table 4 – Key risks of the Company

No.	Risk name	Risk code	Impact	Probability
1.	Risk of reduced university income	F1	5	2
2.	Risk of decreased quality of students' practical skills	A1	5	2
3.	Risk of non-compliance with information security requirements	O1	5	2
4.	Risk of providing false information to external information systems and databases	O2	5	2

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No.	Risk name	Risk code	Impact	Probability
5.	Risk of a decline in the quality of the faculty	S1	3	2
6.	Risk of a decline in the focus of scientific research on the needs of industry and business	A2	3	3
7.	Risk of a decline in international collaborations and publication activity of the university's faculty	A3	3	3
8.	Risk of a mismatch between the digital competencies of staff and the demands of the times	O3	3	2
9.	Risk of a decline in the quality of teaching	A4	4	2
10.	Risk of a decline in employee productivity	F2	4	3
11.	Risk of obsolescence of the material and technical resources and their inadequacy for conducting research focused on the needs of modern industries	F3	4	2
12.	Risk of a decline in student engagement in social and educational activities	S2	2	3
13.	Risk of a non-compliance of the internal quality assurance system with international standards	S3	2	3
14.	Risk of a lack of growth in additional income for the faculty from various types of academic activities	F4	2	4
15.	Risk of a decline in the number of sold research and development materials of TRL 7-9 levels	A5	3	2
16.	Risk of declining positions in the international QS ranking	S4	3	3
17.	Risk of declining positions in the national institutional ranking among technical universities	S5	3	2
18.	Risk of a decline in the number of graduates in technical and vocational education programs, bachelor's, master's, and doctoral programs	A6	3	2
19.	Risk of non-compliance with internal regulations and work discipline by faculty and staff	O4	3	2
20.	Risk of insufficient centralized management of innovation projects	S6	3	2
21.	Risk of a decrease in the number of students in continuing education programs	A7	3	2
22.	Risk of violation of qualification requirements	O5	5	1
23.	Risk of administrative, corrupt, and criminal violations by students and staff	L1	5	1
24.	Risk of a decrease in the profitability of the university's research activities	F6	4	1
25.	Risk of inconsistency between developed AI agents and actual management and educational tasks*	S10	4	1
26.	Risk of formal AI implementation without managerial and educational impact*	S11	2	3
27.	Risk of uncontrolled use of AI by students and faculty*	A10	4	2