IMBC
International Machine Building Center

LOCAL MACHINE BUILDING SECTOR ANALYSIS

2024

SCOPE OF ACTIVITIES

MAJOR OPERATORS

CONSOLIDATION OF EFFORTS
PROVISION OF QUANTITATIVE AND TECHNICAL DATA

NCOC NORTH CASPIAN OPERATING COMPANY

ТЕНІЗШЕВРОЙЛ

Karachaganak

DATA PROCESSING & CONSOLIDATION

ADVOCACY ISSUES

IMBC International Machine Building Center

LOCAL MARKET ANALYSIS & CAPACITY DEVELOPMENT

LOCALIZATION & TECHNOLOGY TRANSFER

GOVERNMENT

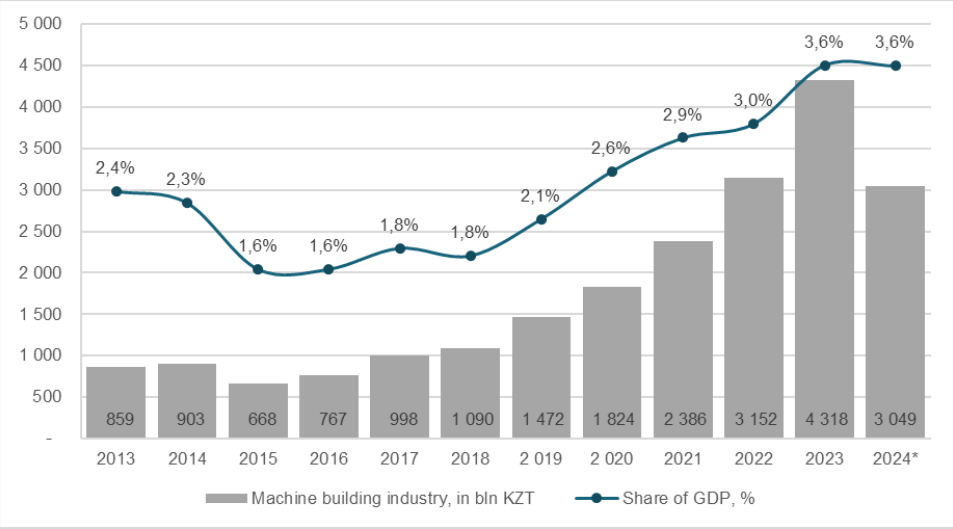
FACILITATION AND STIMULATION
PREFERENCES & SUBSIDIES

MACHINE BUILDING INDUSTRY

CAPACITY DEVELOPMENT, INTERNATIONAL STANDARDS, TECHNOLOGY TRANSFER

RoK MACHINE BUILDING INDUSTRY ANALYSIS

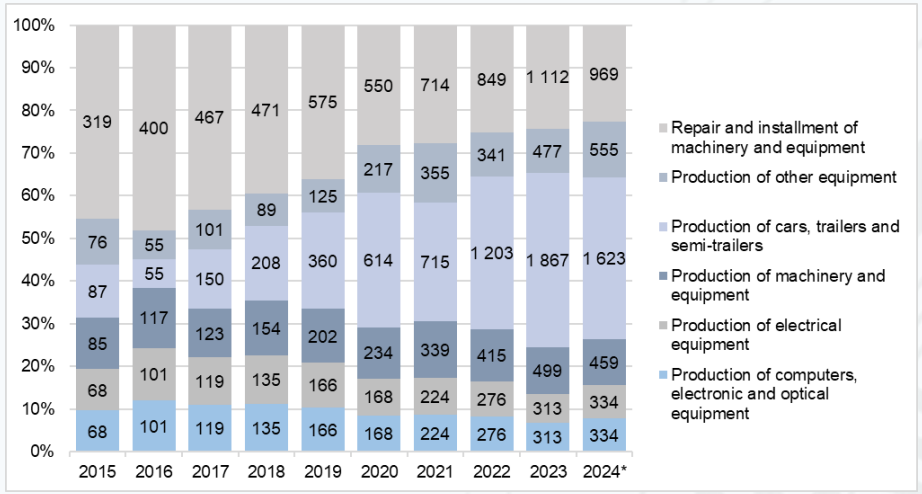
Kazakhstan **machine building industry encompasses various sectors**, including the production of automobiles, agricultural machinery, mining equipment, construction machinery, equipment and parts for the oil and gas industry.



RoK Machine building industry Gross value added / Output, bln KZT

Source: Bureau of National Statistics (BNS) ASPIRE RoK
Note: 9 months of 2024

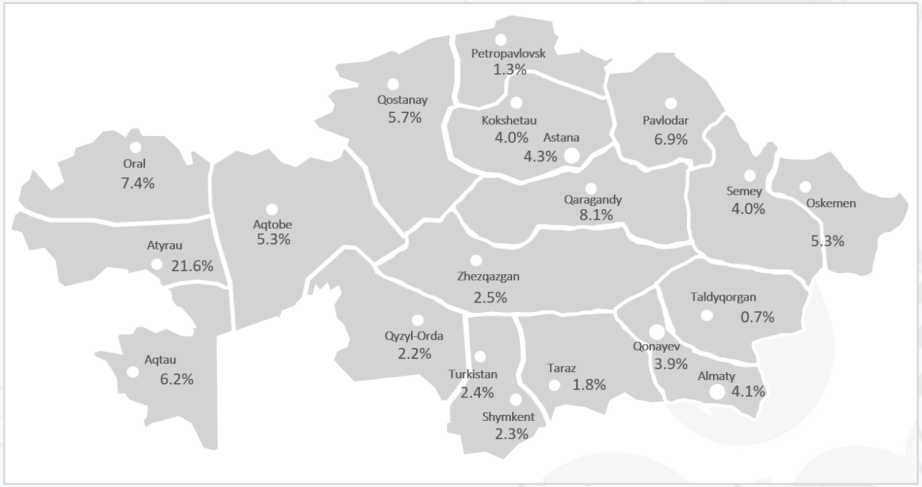
Machine building output is structured by **6 production streams**. During the last decade, in average, the shares of these streams in the industry's output structure were as follows: manufacturing of computers; electronic and optical equipment (2.1%); manufacturing of electrical equipment (9.2%); manufacturing of machinery and equipment (12.7%); manufacturing of cars, trailers and semi-trailers (33.3%); manufacturing of other equipment (11.6%); repair and installation of machinery and equipment (31.1%).



In the first 11 months of 2024, **the volume of industrial production** (goods and services) in monetary terms across the regions of Kazakhstan amounted to **44.9 trillion tenge**.

Figure 2-2. RoK Machine building industry Output by structure, %

Source: Bureau of National Statistics (BNS) ASPIRE RoK
Note: 11 months of 2024



Atyrau region leads with 9.7 trillion tenge (21.6%), followed by Qaragandy region with 3.6 trillion tenge (8.1%) and West Kazakhstan region with 3.3 trillion tenge (7.4%).

Figure 2-3. The share of industrial production (goods, services) for January-November 2024 by regions, %

Source: Bureau of National Statistics (BNS) ASPIRE RoK

As of October 1, 2024, the Machine building industry **comprises 4,076 active registered enterprises**, **employing a total of 66,300 people**. Among these, 3,910 (96%) are small businesses, 98 are medium-sized, and 68 are large enterprises. As of 2024, **labor productivity in the sector stands at 42.1 thousand USD per person**, which is three times higher than the 2018 level of 14.3 thousand USD per person

COMMODITIES OF INTEREST

In our analyses of demands and identifying localization priorities, we utilize the FPAL coding system

FPAL Commodity Codes

1.01
Drilling Equipment

1.02
Material and Product Handling Equipment

2.99
Other Products / Equipment and Materials

Commodity Group A	Commodity Group B	Commodity Group C	Commodity Group D
1.09 Electrical Equipment and Materials	**1.04** Pumps and Seals	**1.02** Material and Product Handling Equipment	**1.03** Compressors / Expanders / Blowers and Accessories
1.10 Instrumentation / Process Control Equipment / Materials	**1.11** Process Filters	**1.07** Heat Exchangers / Heat Transfer Equipment	**1.05** Drivers and Accessories
2.02 Valves and Accessories	**1.12** HVAC	**1.16** Firefighting Equipment	**2.03** Steel / Metal Materials
	2.01 Line pipe	**2.07** Chemical / Oils / Paints	**2.11** Workshop and Handtools
		2.08 Insulation / Refractory Materials	

Procurement in above commodity groups accounts for **over 75% of all procurement of goods** by three Operators **

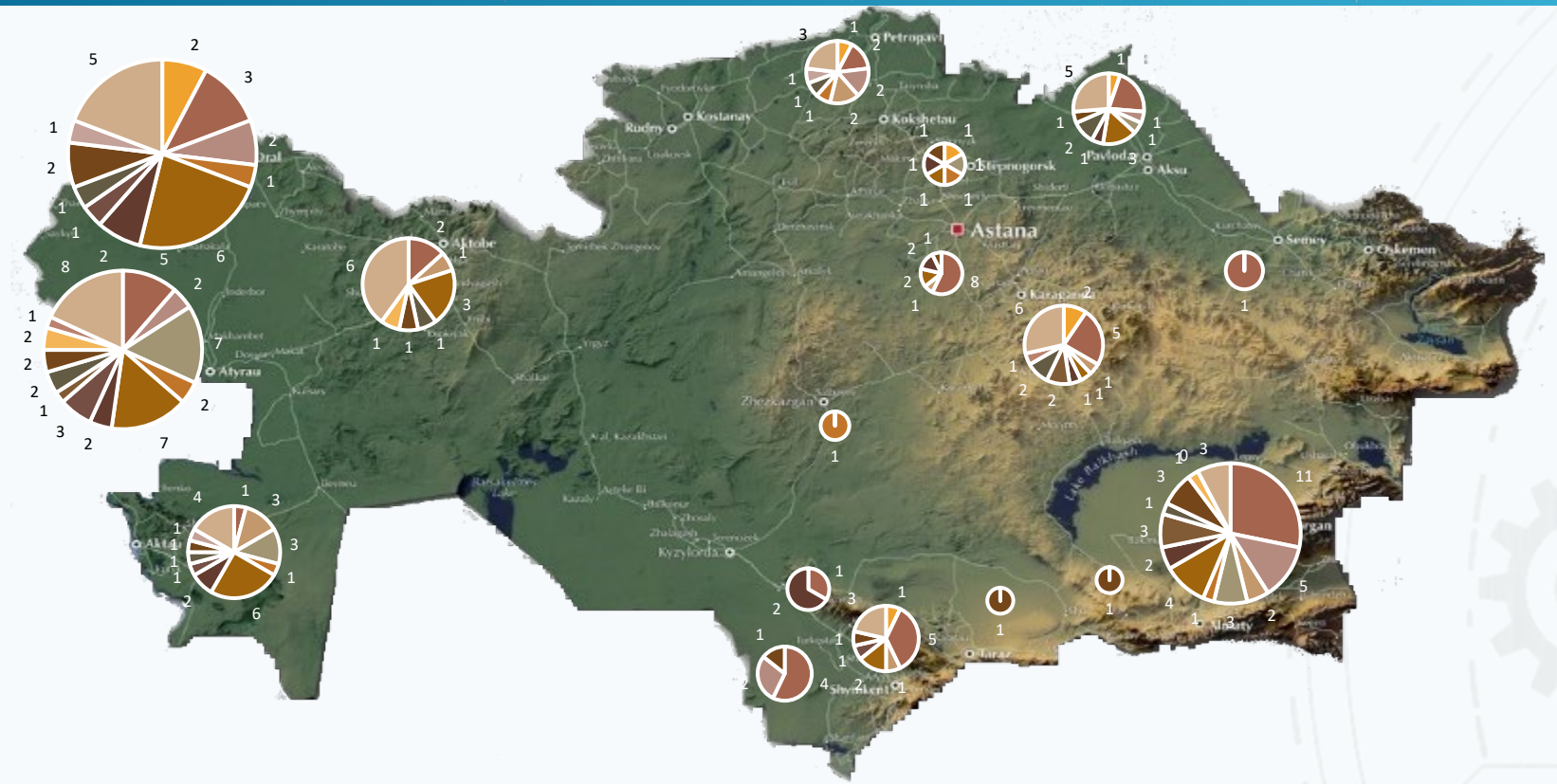
* According to the statistical data of Situational-analytical center of the Fuel and Energy complex of the Republic of Kazakhstan

IMBC PERFORMANCE

	 Commodity Group A	 Commodity Group B	 Commodity Group C	 Commodity Group D
Demands analysis	35 000 items analyzed	55 000 items analyzed	7 000 items analyzed	12 000 items analyzed
High demand goods identified	22 types of goods	19 types of goods	27 types of goods	39 types of goods
Market analysis, longlist from available resources	more than 90 manufacturers identified	more than 100 manufacturers identified	more than 80 manufacturers identified	more than 150 manufacturers identified
Site surveys, manufacturers who expressed interest	81 site surveys conducted	73 site surveys conducted	50 site surveys conducted	55 site surveys conducted
Shortlisting, manufacturers producing types of goods with high demands	23 manufacturers shortlisted	16 manufacturers shortlisted	In process	TBC
Summarized Technical Requirements	12 STRs developed	8 STRs developed	In process	TBC
Capacity development	10 CDPs developed	4 CDPs developed	TBC	TBC
Implementation of capacity development	3 recommended manufacturers	2 recommended manufacturers	TBC	TBC
Localization Cases	13 LC cases developed with investors	5 LC cases developed with investors	4 LC cases developed with investors	1 LC cases developed with investors

Recommendations to Operators

MARKET ANALYSIS: VISITED MANUFACTURERS UNDER COMMODITY GROUPS



- Valves
- Electrical
- Instrumentation
- Pumps
- HVAC
- Filters
- Linepipes & piping
- Firefighting equipment
- Insulation materials
- Material handling equipment
- Heat exchangers
- Chemicals, Oils, Paints
- Compressors & spares
- Drives & spares
- Workshop & Handtools
- Steel & metal materials

According to the conducted analyses based on site-visits, Center classified manufactures by their readiness level:

27% low	46% medium	27% high

- Readiness level was assessed in terms of QMS, HSE, EDD, financial stability, industrialization, engineering, production personnel, manufacturing experience and availability of mandatory certifications.
- Most of the manufacturers classified with low readiness level have issues related to availability of required certifications, financial stability, limited manufacturing experience, etc.

WHITE PAPER 2024: EXECUTIVE SUMMARY

The 2024 Local Machine Building Sector Analysis and Recommendations report has been developed by IMB Center based on the study of the RoK machine building sector and addresses the oil & gas machine building in particular, provides a status update on IMB Center's activities with regard to the Commodity Groups A, B,C and identifies types of goods with relatively higher demands within the Commodity Group D goods amongst the Major Operators as well as defines relevant local manufacturers that may be able to localize the manufacturing of such goods in the territory of RoK, with which to potentially pursue capacity development.

Demand data & Market analyses:
- IMBC has received and analyzed more than 12,500 line-items of data pertaining to forecasted demands from all Operators on Commodity Group D.
- 39 types of goods were identified that display relatively high forecasted demands.
- Demand analysis results under Commodity Groups A & B have been updated based on the 156,360 line-items of data on forecasted demands under Commodity Groups A and B that have been shared by Operators, considering the additional historical consumption of the Operators for the years 2021-2023.
- 26 manufacturers that expressed interest in engaging with IMBC as part of the work conducted under Commodity Group D have been visited in 8 regions and 3 cities (Astana, Almaty, Shymkent) of RoK.

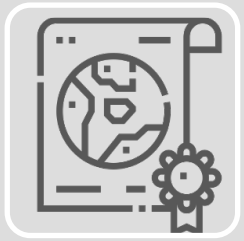
Capacity Development:
- Summarised Technical Requirements (STR) checklists based on Operators' technical specifications for required types of goods had been prepared and shared with potential local manufacturers of Commodity Groups A and B goods. Currently, IMBC developed 20 STRs.
- By year-end 2024, 3 Capacity development plans (CDP) and recommendations for local manufactures have been prepared and agreed with them for further implementation.
- As of today, there are 14 CDPs prepared and agreed with the manufacturers. 5 of the manufacturers have been recommended as meeting the Operators' requirements, remaining 9 are in process of CDP recommendations' implementation.

Localization & Technology transfer:
- As of year-end 2024, 2 additional MoUs with potential investors and OEMs were signed, as well as 3-party MoUs with 37 local and international companies that were signed during the Open Door Day event in Atyrau in July, all of whom have expressed their interest in further developing their local capabilities and localizing production of oil & gas goods in RoK.
- 10 Localization Cases have been obtained from the potential investors and OEMs and have been shared with Operators for feedback. As of now, a total of 27 Localization Cases have been developed together with investors / OEMs.

Advocacy:
- IMBC has engaged with stakeholders such as RoK Ministry of Industry and Construction, RoK Ministry of Finance and QazIndustry in order to facilitate the increase of the reimbursement threshold of the QazIndustry's international certification reimbursement program.
- IMBC was involved in the implementation of the governmental complex plan, namely "Comprehensive plan for the development of the machine–building industry of the Republic of Kazakhstan for 2024-2028".

Way Forward:
- Practical implementation of CDPs and preparation of CDPs under Commodity Groups A, B, C, & D where all conditions are met.
- Define Commodity Group E and carry out the analysis of the demands thereof.
- Implement the expansion of the IMBC Mandate.
- Develop the IMBC Platform, a one-stop solution to IMBC's optimal engagements with all of its key stakeholders.
- Review of Operators' Local Content Development Programs and defining synergies to allow for focused support by IMBC and consolidation of efforts.

RECOMMENDATIONS TO THE LOCAL MANUFACTURERS

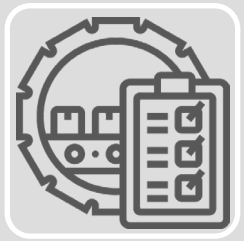


Pursue the implementation of international certification

–In conjunction with the recommendations given to the Government with regard to the gradual transition away from GOST standards, local manufacturers are encouraged to pursue international certifications and implementation of international standards in their manufacturing processes.

–International standards and certifications required by Operators are required by their shareholder companies, transnational conglomerates whose projects worldwide are zero-tolerance to safety and integrity indicents, the successful supply to which gives the manufacturer a competitive edge.

–IMB Center's work on advocating imporvements to QazIndustry's international certifications reimbursement program (budget increase and reimbursement threshold increase) is an effective measure in supporting manufacturers pursuing international certification.



Pursue qualification in Operators' projects

–Obtain early foothold into the IMBC platform as well as Operators' procurement systems by completing all the required registrations in Operators' vendor databases, being proactive with regard to the qualification activities that Operators conduct amongst new manufacturers as well as being reactive and timely to any and all requests from Operators.

–View the opportunity to supply directly to Operators as a way to demonstrate the manufacturing and the utilization of the manufactured goods at world-class oil & gas projects, paving way to international partnerships and breaking into Global Value Chains.

–Seek higher Tier qualification within the IMBC platform, enabling greater confidence and visibility to potential scopes.

Implementation and active utilization of staff development & retention programmes

–Lacking staff development and retention inititatives, both intrinsic and extrinsic-wise contribute to the high labor turnover that is observed in the machine building sector. Management of the manufacturing enterprises should invest in the people that drive the actual manufacturing by implementing trainings, employee recognition & praise initiatives, HSE contribution awards and clarify the promotion, mentorship and career growth paths.

–Staff that feel valued and appreciated align the company goals and objectives with their own and improve the overall ouput and quality aspects of the end produce.

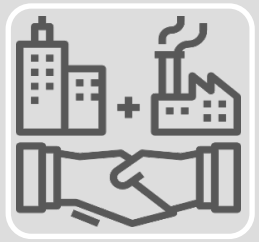
Proactive and sustainable approach to development of capacity and capabilities

–IMB Center offers development steer by leading Subject Matter Experts, which, upon successful implementation lead to a recommendation of the manufacturer as fully compliant with the 3 Operators' quality, HSE and technical requirements.

–Local manufacturers should be proactive in their use of available support measures, the likes of what IMB Center offers in order to improve their capabilities and competitiveness in the market.

–Understanding that no commitments are made available to the manufacturers that passed Capacity Development initiatives offered by IMB Center, as per minimum such manufacturers are registered as fully compliant with the requirements of the Operators and are given more confidence in their capabilities.

RECOMMENDATIONS TO OEMS AND POTENTIAL INVESTORS



Localize through local partners, manufacturers, yards

–Increase the attractiveness of LC proposal and utilize the experience and supply chains of the local partners.
–The use of the existing facilities and potentially the machinery of the local partner allows to decrease the CAPEX of the localization project.
–The exit strategies may be simplified and cost thereof decreased as opposed to, for example, starting from scratch via constructing facilities or committing to long-term rent arrangements.
–Some Operators' procurement have requirements in terms of the LC in workforce as well as the minimum level of Kazakhstani citizens' equity ownership of the contractor company.

Consider localization in Kazakhstan as a regional hub of operations

–The convenient geolocation in the heart of Central Asia, stable geopolitical climate, the wide availability of state preferences, support offered by some Operators as well as sufficient raw materials base at its disposal offers the investors favorable conditions for localizing the manufacturing of oil & gas equipment in Kazakhstan and use the localized entity as a production and logistics hub in the region, in particular the vast EAEU.

Phased localization approach

–It is understood that localization rarely means a full-scale manufacturing process is to be allocated in Kazakhstan. It is recommended for investors and OEMs to carefully size up the market both in Kazakhstan as well as the region and come forward with a phased localization plan, one that starts with simple assemblies and growing the localization agenda with greater local value added.
–Phased localization approach allows the investor to localize as per certain milestones meanwhile arranging and leveraging for a stronger commitment and scopes with key clients and other stakeholders, for example negotiating for Contracts in Exchange for Localization.

Engage with local universities, colleges, technical institutions

–Localization alone without the involvement of stakeholders that can compliment the localization with the skilled workers and knowledge to sustain and add towards a lasting legacy of the localization project is unlikely to gain much traction.
–Many higher education institutions have state support in terms of dual education, internships and traineeships which minimizes the cost of bringing on students and fresh graduates into the localization project should such option be pursued.
–Joint projects and initiatives with local universities, colleges and technical institutions have a positive effect on the local community and contributes to the investor's ESG agenda.