

# **Inland waterways transport in Poland in 2021**

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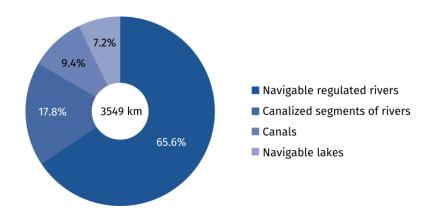
The layout and length of Poland's inland waterways have remained at a similar levels for years. The condition of waterways is a factor that has a direct impact on the volume of cargo transport and transport performance in inland navigation. Adverse navigational conditions determine the basic design parameters of the fleet, i.e. the relatively low load capacity

of barges. This is directly reflected in the volume of the cargo carried. The quantity of the cargo carried by Polish fleet owners by inland waterways is regularly decreasing year by year. It concerns both the domestic and international carriages.

### **Inland waterwarways**

The main factors determining the efficiency of inland waterway transport are the navigability of waterways and the adaptation of their navigational conditions to a level appropriate for waterways of international importance.

Chart 1. Breakdown of inland waterways in use in Poland in 2021



The inland waterways in Poland were 3768 km long in 2021 (and remained unchanged in comparison to 2020), of which 2523 km represented navigable regulated rivers, 655 km – canalized segments of rivers, 335 km – canals, and 255 km – navigable lakes. 3549 km (94.2%) of the waterways were in use. The requirements for roads of international importance (classes IV and V) in 2021 were met by 5.5% of the length of waterways (206 km) in Poland. The rest of the waterway network consisted of waterways of regional importance (classes I, II and III), whose total length in 2021 was 3562 kilometers.

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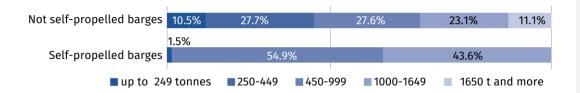
<sup>&</sup>lt;sup>1</sup> Classification of inland waterways accepted by the European Economic Commission of the UN and ECMT in 1992.

### Inland waterway transport fleet

The number of pushers and tugboats belonging to the inland waterway towing fleet in Poland in 2021 amounted to 124, i.e. 6 more than in the previous year. The passenger fleet consisted of 120 vessels, i.e. 7 less than in the previous year. The number of self-propelled barges increased by 2 vessels (to the level of 71). However, the number of non-self-propelled barges (push barges) decreased by 8 vessels (to the level of 174). Push vessels prevailed in the structure of the barges by type (71.0% of the barges), and they carried 2272.5 thousand tonnes of cargo (65.6% of total cargo transported with the inland waterways navigation) in 2021. The barge fleet group was dominated by vessels of poorer construction parameters, requiring lower technical standards of water infrastructure.

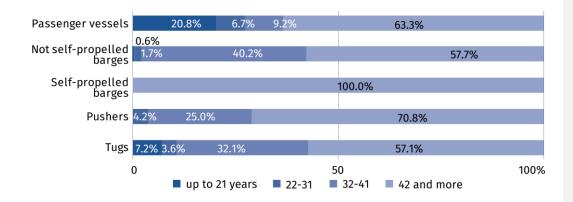
71% of barges is represented by non-self-propelled vessels, and over half of them was manufactured in the years 1949-1979

Chart 2. Breakdown of inland waterway barges by load capacity groups in 2021



The majority of the inland waterway fleet has been decapitalized and needs to be replaced. Its age significantly exceeds its normative service life, and the fleet might continue its operation only thanks to regular repairs. According to 2021 data, the majority of used pushers (70.8%), over half of push barges (57.5%) and all self-propelled barges were manufactured during the years 1949–1979.

Chart 3. Breakdown of inland waterway fleet by age in 2021

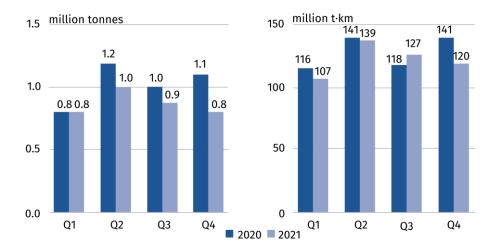


## **Inland waterway carriages**

Inadequate development of navigable waterways in Poland, both in terms of their character (canalized rivers, free-flowing rivers, canals) and navigational parameters (dimensions of locks, depth and width of the route, heights of bridges) affect the specificity of inland navigation and cause it to play a minor role in the Polish transport system. Transportation volume carried by inland waterways in 2021 amounted to 3164.6 thousand tonnes of cargo and performance of 493.0 million tonne-kilometers. In comparison to the previous year these values were lower by 13.2% and 4.5%, respectively. The largest annual declines in the freight volume and transport performance were recorded in the fourth quarter by 24.6% and 15.3% respectively.

In 2021, the share of inland waterways transport in the total cargo transport volume decreased from 0.18% to 0.15% on an annual basis

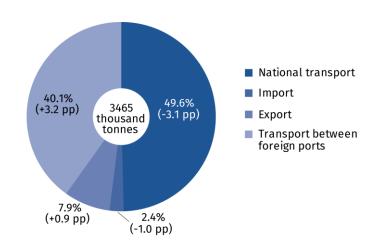
Chart 4. Cargo carried with inland waterway transport, quarterly



In 2021, the average distance of 1 tonne of cargo carried in international transport amounted to 259.7 km (241.4 km in the previous year), and 22.8 km in domestic transport (28.8 km, respectively). In comparison to 2020, the domestic carriages volume decreased by 18.4% (to the level of 1716.7 thousand tonnes) and transport performance – by 35.4% (to 39.1 million tonne-kilometres). Declines in the freight were recorded in almost all cargo groups, with the most severe ones in the groups of: coke and refined petroleum products; basic metals, fabricated metal products, except machinery and equipment; other non-metallic mineral products. Growths concerned only the groups of: wood and products of wood and cork (except furniture); machinery and equipment n.e.c. as well as products of agriculture, hunting, and forestry; fish and other fishing products.

In 2021 more than half of the freight carried by inland waterway transport by Polish fleet owners was carried in international transport (50.4%). The carriages between foreign ports decreased by 5.7% comparing to previous year. Nevertheless, their share in total international transport was still dominant and amounted to 79.5% in 2021 (increased by 1.5 percentage points). Exported and imported cargo declined by 2.8% and 37.4% respectively. Exports accounted to 15.6% of total international freight, with Germany as the main direction. The contribution of carriages on this route amounted to 81.4% of all exports of goods by inland waterways.

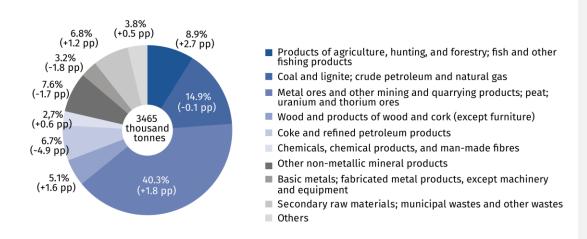
Chart 5. Breakdown of inland waterway carriages of cargo by directions 2021 and their developments against the previous year



The average distance of 1 tonne of cargo carried in international transport slightly increased, while in domestic transport was lower than in the previous year

Similarly to the previous years, the breakdown of the freight in 2021 was dominated by metal ores and other mining and quarrying products, peat; uranium and thorium ores (40.3%).

Chart 6. Breakdown of inland waterway freight by main cargo groups in 2021 and their developments against the previous year



As part of tourist traffic, 120 inland waterway passenger vessels carried a total volume of 986.4 thousand persons, and transport performance of 12926.6 thousand passenger-kilometres in 2021, i.e. 33.5% more than last year.

The number of persons carried by inland waterway fleet grew 44.6% on an annual basis

Table 1. Inland waterway transport of passengers

Specification	2020	2021
Number of passenger seats	12 058	11 436
Number of passengers	681 933	986 415
Number of passenger-kilometres	9 686 441	12 926 572
Average distance travelled by 1 passenger in km	14	13

Inland transportation remains one of the safest modes of transport. In 2021, navigation accident registers, kept by the competent inland waterway transport offices, recorded 4 accidents, none of which were related to the transportation of hazardous cargo.

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## **Related information**

Inland water transport in Poland in 2020

Inland waterways transport in Poland in 2018-2019

Transport - activity results in 2020

### Data available in databases

**Domain Knowledge Base Transport and Communications** 

## **Terms used inn official statistics**

**Inland waterways** 

Inland waterways transport fleet

Tugs fleet

Barges fleet

Inland waterways transport of goods

International inland waterways transport of goods

Inland waterways transport of passengers

Tonne-kilometresby inland waterways

Passenger-kilometresby inland waterways