size, color, etc. Creating the right range in the warehouse contributes to the effective execution of consumer orders and more frequent deliveries and to the extent required by the customer;

- warehousing and storage allows to equalize the temporary difference between production and consumption and makes it possible to carry out continuous production and supply on the basis of inventories. Storage of goods in the distribution system is also necessary in connection with the seasonal consumption of some goods;

- unitization and transportation of goods. Many consumers order from warehouses "less than a car" or "less than a trailer", which significantly increases the costs Associate with the delivery of such goods. To reduce transport costs, the warehouse can perform the function of combining (uniting) small consignments for several customers until the vehicle is fully loaded.

Conclusion. Thus, we can conclude that a high result can be achieved by solving only a few tasks performed step by step: determining the number of required warehouses, choosing a company to rent and organizing their own storage, selecting the optimal location, organizing an efficient warehousing system, business analysis.

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## INFORMATION TECHNOLOGIES IN TRANSPORT SYSTEMS

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Of all the e-logistic areas developed by GS1, coding, which provides automatic cargo identification, is the most widely used. According to the method of coding, there are bar and radio frequency.

The strategic goal of coding is to minimize human participation in supply chains. This will be achieved by replacing all transactions with codes (shipment, invoice, return of goods, etc.). Coding means provide marking, which means the

application of special signs, inscriptions on vehicles, cargo or containers. The choice of means for marking depends on its purpose, place of application and means of reading. Marking comes in several types:

- commodity (affixed by the manufacturer to indicate the type of product and the name of the manufacturer);
- freight (which indicates the name of the points of departure and destination, sender and consignee. The weight or volume of the load can be specified);
- transport (which indicates the number of seats in the consignment and the number of the goods transport document);
- special marking (where special instructions are given regarding the requirements for transportation, storage of goods using international symbols) [1].

The most common bar coding consists of a series of parallel strokes of different thickness and with different intervals between them. This provides encoding of data in digital characters. The electronic scanning device performs automatic or semi-automatic scanning, in the process of which the encoded data is decoded in a format that is perceived by the computer system. Bar coding provides high speed processing of documents on the cargo. The use of barcodes is a mandatory element of logistics and reflects modern methods and technologies of delivery of goods. The integration of supply and production-distribution systems, storage on the basis of computerized accounting systems and management of information on material flows. All these information tools and technologies increase the efficiency of transport process management at all technological stages. On transport for wide introduction of the specified information technologies it is required:

- to build a database of regulatory and operational and operational information needed to solve problems of automation of cargo and commercial operations, tracking and tracing of goods;
- to develop common standards for on-board monitoring and telecommunications; - to introduce a unified system of coding of goods, all types of transport, shippers and consignees and apply them to the transport unit in a readable way;
- to introduce technical means of removing information from rolling stock and its automated entry into databases [2].

At the same time, the development of information technology opens the possibility of transition to a new, more technological means of coding - radio frequency. With this technology, the coding is performed on a microchip (chip), which is attached to the product, container or vehicle. Recording and reading of information from microprocessors of the microchip is contactless at a considerable distance and at high speed, automated. The capabilities of the microchip are much wider in terms of the volume and content of the information encoded in it compared to bar coding. Modern flash methods of reprogramming microprocessors allow you to repeatedly overwrite part of the information when moving and processing products, while maintaining a constant [3].

The current trend of transition to digital methods of creating, transmitting, processing and storing information leads to the widespread introduction of static and

dynamic databases, the organization of telecommunications for access to information through terrestrial and satellite information channels. Accordingly, in logistics systems there is a transition to digital technology in all areas of document management, including the replacement of paper transport documents with electronic ones. The integration of information flows and communication support in the transportation of goods has received a general name – telematics.

As a result of the introduction of these technologies we will have the ability to interact with different types of technical and software components of information systems, elimination of intermediate links through integration of information flows, globalization of logistics systems, gradual merging of different flow processes within the global system of material, energy, financial and information flows.

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## EFFECT OF POPULATION STRUCTUAL CHANGES ON TRAFFIC TRAVEL NEEDS

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The transportation industry and the national economy are in a difficult transition period. Analysis of which factors are affecting the changes in traffic demand, grasp the trend of change, helping to build a transportation system that meets the development needs of the times. As the most important object in the transportation service system - people, with the changes in population, age structures, and family structure, it is bound to produce a series of new traffic travel needs. Therefore, analyzing the characteristics of demographic structural changes is very practical for developing transportation development strategies and improving the satisfaction of the masses.

The seventh national census results show that 2020 Chinese households separated by 492.76 million, of which the human households were separated by 116.94 million, with a floating population of 375.82 million, of which cross-provincial flows, the population is 124.84 million. Compared with 2010, the human households have increased by 88.52%, and the population of people in the city's jurisdiction increased by 192.66%, and the floating population increased by 69.73%. Our country's economic and social development has created conditions for the migration flow of population.