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Structurally-Functional Model of the Information System for Gas Transportation Company

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Abstract— **In article is considered the problem of formalization and optimization of activity, business processes according to grocery lines and functional divisions and their coordination in the through processes of the enterprise aimed at creation of products and rendering of services to clients are alocated. Justification of methodological bases of creation of structurally functional model of the organization of economic entity is carried out, are described and scientifically requirements to all types of economic account (financial, accounting, nomencla-ture) economic entity are proved and also, the basic principles of functioning and reengineering of structure of economic entity are defined upon transition to use of new technologies.**

Keywords— intellectual information technologies, information systems, management of the enterprises.

1. INTRODUCTION

Now the tendency of integration of various methods of modeling which is shown in the form of creation of the integrated simulars is observed. One of such means is the software product carrying the name ARIS (Architecture of Integrated Information Systems), developed by IDS Scheer.

The problem of formalization and optimization of activity comes down to allocation of business processes according to grocery lines and functional divisions, and their coordination in the through processes of the company aimed first of all at creation of products and rendering of services to clients.

2. STATEMENT AND SOLUTION OF A TASK

Originally at the enterprise inventory of Business processes on a state "is carried out as is" on the introduced area.

The list of the surveyed jobs is as a result received. Then on each workplace the list of the functions, documents and reference books necessary for performance of objectives is made.

Further each branch is described to departments (services). The structure of departments (services) and their organizational heads is shown. Then the description of structure of branches and administration is carried out, on the basis of results of inventory in ARIS the tree of structure of branches is created. The tree included branches; departments (services); positions in departments; obligations of employees for each position.

Classification of documentation of Society is as a result received. On the basis of the data obtained as a result of activity inventory also the card of processes of the top level of the enterprise was created.

Further each department (service) is detailed to positions, the regular structure of department (service), communication with the organizational head (on this example the head of department) and with the technical (methodological) lead is shown (on this example the chief engineer).

Then each position has to be described to structure of duties (business roles). Besides, communications with the direct head (the chief ON EX-) and with the replacing (replaced) position have to be shown.

After the description of processes, structure of duties (business roles) are grouped in standard positions. Standard positions have to be grouped in standard departments (services).

The structure of standard departments (services) have to be shown on one scheme of standard branch.

Standard branches have to be created in a tree of standard structure of Society.

All primary, reporting and normative documents have to be classified (fig. 4).

Then formation of processes of the following levels is carried out (with specification before operations).

Definition of data sources for formation of reports (on this step, at the level of attributes documents of the reporting, primary documents and NSI have to be compared).

According to each electronic document of system the document model defining structure of its attributes is formed and the structure of functions of system on each module is modelled.

Models of business processes and regulations of activity of Society are as a result created, the functions supported by system are defined, samples of primary and reporting documents are optimized, the database of interconnected indicators of the reporting and attributes of documents is created and also information sources for their formation are specified. On the basis of the obtained data the card of processes of the top level is formed (see. **Ошибка! Источник ссылки не найден.**).

By each process of the top level it has to be determined responsible for process, risks, the purposes and key indicators of effectiveness. The duty (business role) responsible for process contacts his position on the chart of the description of a position.

Then formation of cards of functions of standard positions and departments of Society is carried out.

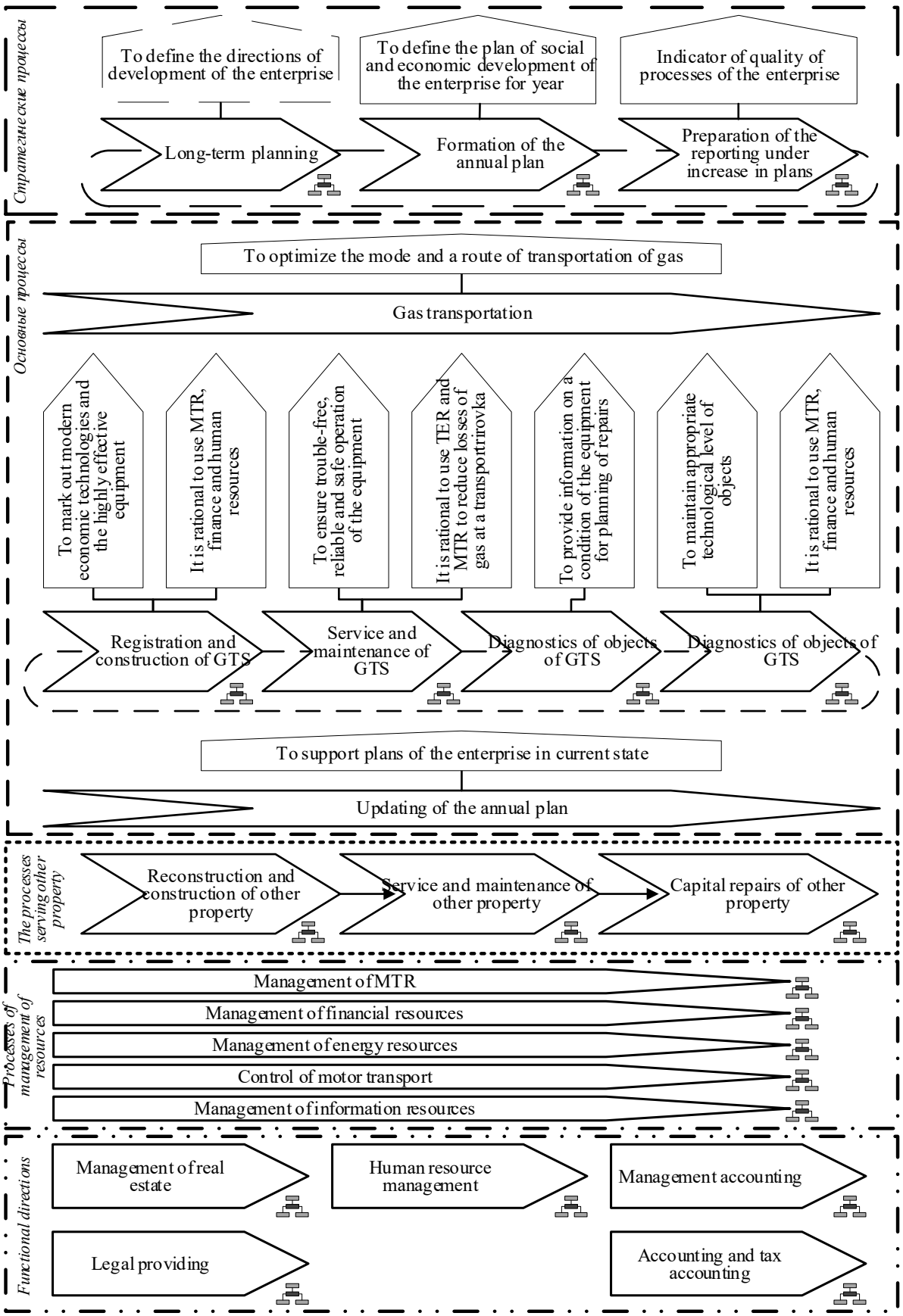

Fig. 1. Chart of the main processes

On this step coordination of models of processes with key experts and the management of Society is made. Exactly there is an opportunity to receive concrete and measurable consulting from third-party consultants. There is no need of long and uncertain inspection of processes, it is enough to submit consultants to model of processes and to receive recommendations about their change. In result business processes are optimized and coordinated from the point of view of business logic.

The last level of specification - the chart of an environment of function. Here requirements to performance of function are modelled in it qualification requirements, powers are specified in system, the reference books and normative documents necessary for function performance, entrance and output documents [1-22].

3. CONCLUSION

The tree of organizational structure of the enterprise, the reference book of standard jobs, regulations of business processes, classification of documentation of Society, album of samples of documents of Society, document flow according to each document, duty regulations, provisions on departments (services), qualification requirements to positions, the system of admissions to information (on each position the specification of admissions to system), techniques of filling of primary documents, techniques of formation of the reporting, a berator of economic operations in coordination with conductings (accounting and tax accounting), instructions of users of systems, the list of the functions which are subject to automation are as a result received.

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