Enterprise planning

1) Essence of planning and planning types on an enterprise
2) Informative and normative bases of planning
3) Enterprise production program

Essence of planning

1 Goal definition of enterprise development
on the whole and partially
on the defined period;

2 determination of economic tasks and facilities
of their achievement, terms and sequence
of its realization;

3 exposure of financial, labour and financial
resources, which are necessary
for the decision.

Planning process:
It is ability to develop and apply new and the best, as compared to traditional, planned decisions, here implementing new and original ideas in them.

Essence of planning:

based on the scientific ground of development enterprise aims and forms of economic activity;

choice of the best realization methods on the basis of the most complete exposure of market necessities in commodities, services, implementation of works;

establishment of such productions indexes which can result in achievement of the expected at the complete use of production resources in the future high-quality and quantitative results.

The modern planning is folded in determination of the future state of all of enterprise, economic indicators and end-point which must be achieved.

A planning mechanism consists on intercommunication of processes of microeconomic research of enterprise actual state and design of prognosis level of its development in the future.

A planning method is characterizes composition of methods, facilities and ground receptions of the concrete planned indexes, and also maintenance, form, structure and order of development of plans, in the middle of firm.

Planning methods
methods of realization of planning, methods of the planned idea realization.

Methods of scientific researches: inductive and deductive.

Inductive method of economic processes study goes out from facts to the theory, from the partial phenomenon to the general.

Deductive – vice versa, from general to partial.

There are 3 directions of planning on practice

Progressive – planning is carried out from a lower link to higher *(structural subdivisions make the detailed plans of its activity, which are integrated then on overhead links are forming, as a result, the plan of enterprise)*

Retrograde – structural subdivisions must convert plans which are given from higher positions, in the plans of the subsections.

Circle – development of plan in two stages.
1st stage: *current planning based on a main aims*.
2nd stage: create an *eventual plan*

Plan *– ultimate goal of firm activity, general line of interaction with personnel, list of basic works types and services which are executed, production organization, necessary facilities and economic resources.*

se production plan

possibilities of products number depends on production capacity
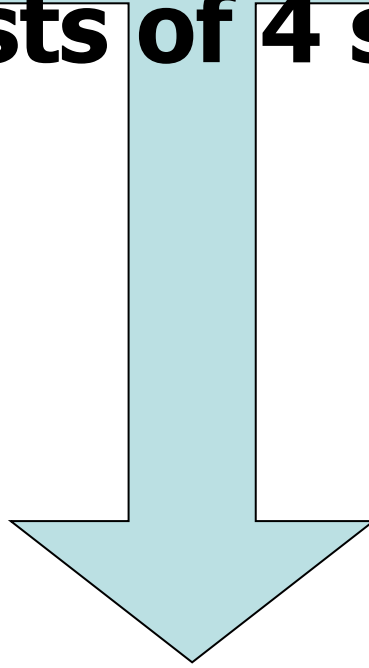
combined demand on products which is produced

Indexes of planning

Natural

Conditional -natural

Cost

As a rule planning process consists of 4 stages

- development of general purpose
- determination of actual tasks
- choice of basic ways and facilities of its achievement
- control on their implementation

Principles of planning

• fullness,
•accuracy,
•economy,
•continuousness,
•flexibleness,
•accumulation.

Depending on planning period duration, goals and conditions of planning **there are 3 planning types:**

strategic (perspective)**;**

tactical (middle term)**;**

current (operative)**.**

Depending on economic activity:

- *inside planning;*

- *Outside planning.*

Inside planning divided by composition on:

- *Technical-economic*
- *operative;*
- *social development of stuff .*

System of production activity plans :

1. Plan of production and sale of products.
2. Plan of increase of enterprise technical level, its modernization and reconstruction:
- *plan of research and design works;*
- *plan of new types products (commodities, works, services);*
- *plan of technical re-equipment, mastering of new technologies;*
- *improvement of organization and planning of logistical support;*
- *plan of labour productivity increase.*

3. Plan of enterprise organizational structure improvement :

• administration of personnel;
• internal workers training;
• improvement of work payment system and financial stimulation;
• social development.

4. Plan of unit cost.

5. Plan of external economic connections.

6. Financial and investment plan.

7. Plan of separate subsections economic activity, ventures company and other components.
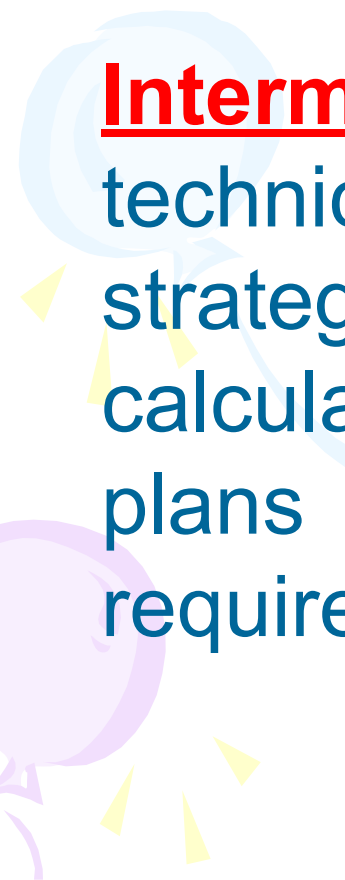
8. Plan of nature protection actions.

9. Estimation of enterprise activity possible risks.
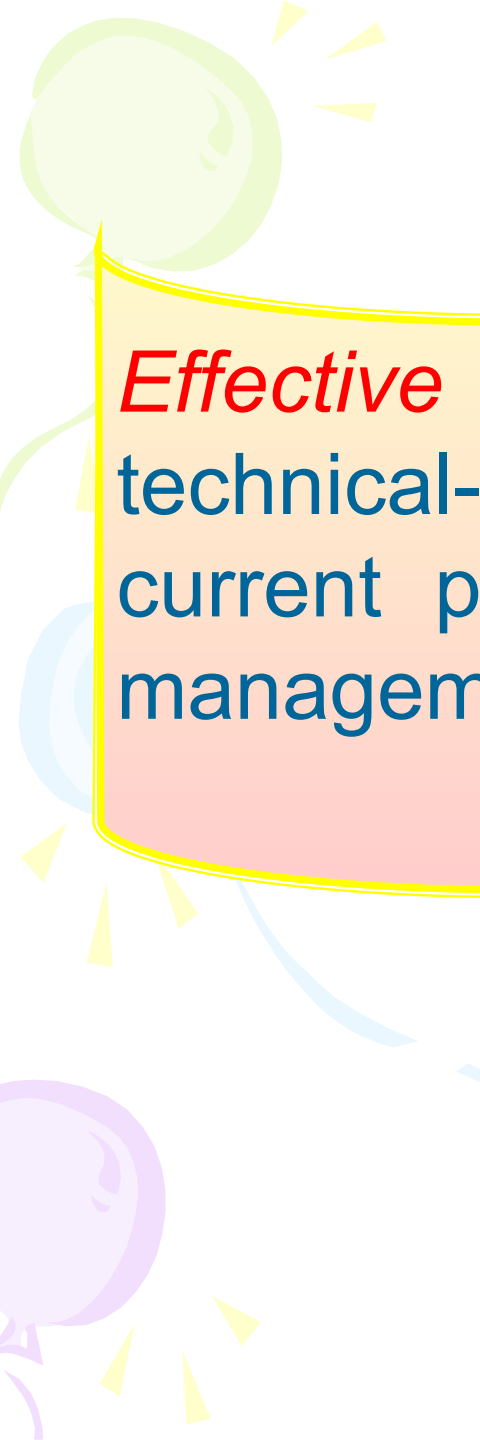
An informative base of planning – an aggregate of systematized information, which are utilized for plans development on the different levels of management an enterprise.
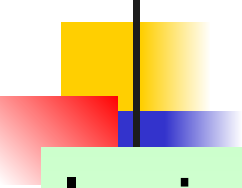
Intermediate information - indexes and technical-economic projects, norms of strategic and current plans, and also calculation indexes, intended for balanced plans providing and calculation of requirement in resources.

Effective information - indexes and technical-economic norms, strategic and current plans, set by the highest link of management of an enterprise.

In informative base components the special place occupied ***normative documentation***, which shows the aggregate of normative information and certificate character, resources and functional tasks systematized after kinds, and, exactly, base of technical-economic norms.

Norm – maximum possible size of certain resource charges on products unit, works implementation, services grant, in concrete productive-technical conditions

Norm – calculation size which is used in norms setting and planning and determines the charges of resources in relation to a certain base size

Norms and normatives, in accordance with the methods of their establishment, are divided into *two large groups*:

scientifically grounded

statistical

experimentally statistical.

By normatives setting object of norms which are utillized in a national economy is possible to delimit on the followings groups:

- **norms of expenditures of resources;**

- **norms of the time (work and rest);**

- **norms of efficiency.**

The norms of expenditures play an especially important role in the inside planning, as directly relate to the size of used resources.

The time norms regulates the use and terms of labour (work time and rest), equipment (office hours, temperature, pressure, rate of movement), floor spaces (м2 into 1 working place, illumination), and also organizational curriculum of production and its service.

Efficiency group take such norms which characterize development of one or a few enterprise activity sides in absolute and relative values:

- **norms of charges are on 1 Uah;**

- **norms of leftovers and its changes;**

- **norms of income deductions.**

Efficiency of the planning system is determined, largely, including the followings components the level of its organization which is directed on systematic unity of planning system basic elements:
a) planned personnel;
b) planning mechanism;
c) process of ground, acceptance and realization of the planned decisions;
d) facilities which provide process of planning

Planning and management of enterprise economic activity is closely contents between itself the followings **production management functions**:

- choice of purpose
- resources allocation
- Processes of organization
- labour co-ordination
- implementation control
- payment of labour etc.

In modern terms on domestic enterprises most widespread is an arcwise functional structure of the planned services, which is built on the sign of functional specialization

Enterprise headmaster

Functional planning-economy services

Production services. Planned-economy office
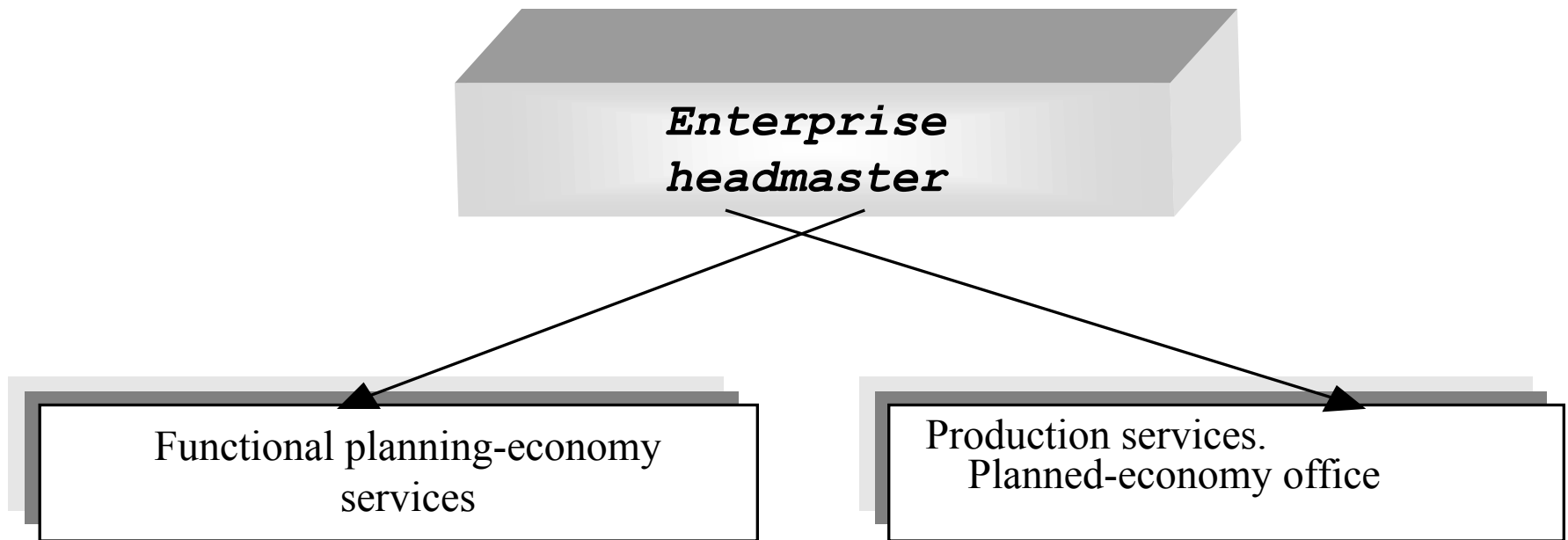
Line-functional structure of planned services

Work on planning is distributed between many performers **after the followings functions, stages and terms:**
1. The central planned department forms a purpose. A top management examines the question of income, capital investments and development of sale.
2. Further production subsections and functional services get the prognosis indexes of production and sale volumes for an orientation, profit and charges margins on the planned period.

3. <u>Production subsections, functional services</u> form own indexes and throw out suggestions in relation to their achievement or develop new plans. The representatives of central subsection carry out control after motion of implementation of works.
4. <u>The central department of planning</u> examines the presented plans and suggestions, corrects them and passes on agreed, with budgets, by the top management.

Organization of planning is carried out on implementation of the followings important tasks:

1. Market, determination of kinds and production powers of commodities, works and services which have high demand research;

2. Prognostication of demand and supply dynamics, market standard prices, on products which is produced, taking into account the changes of internal and external environment;

3. Creation of progressive normatives and norms of economic resources charges on the production of goods and services;

4. Development of short-term aims, development strategic plans of enterprise, and its structural subdivisions;

5. Choice of optimum methods, forms and systems of planning, organization and management of operations

6. An analysis and control of results of production and organization activity, acceptance of operative decisions, in relation to their improvement;

7. Grounding of important scientific researches directions, development of new technologies, forms of production and enterprise organization;

8. Realization of investment projects, determination of volumes and sources of necessary financial resources;

9. Preparation of analytical reviews and reports on the finance-economical state of enterprise, and also suggestions, in relation to its improvement.

3

The production program of enterprise (plan of production of goods) determines complication and quality of products, which is subject making and delivery users in the planned period in obedience to the deliveries agreements.

A basic production and products realization plan task is maximal satisfaction of users and national economy on the whole necessities in high-quality, competitive products at the best use of resources with the purpose of receipt of income.

In the process of planning it is necessary to adhere to the followings requirements:

1. Users orders define volumes production and reliable account of products demand;

2. Complete co-ordination of natural and cost production, supply and realization of products volumes;

3. Providing of enterprise production plan possibilities and, above all things, by its production capacity.

The annual production program is determined by formula:

$$\Pi = \sum_{i=1}^{n} \frac{T_{шт} \cdot N}{360}$$

where, Π – *production program*,
п – products nomenclature ;
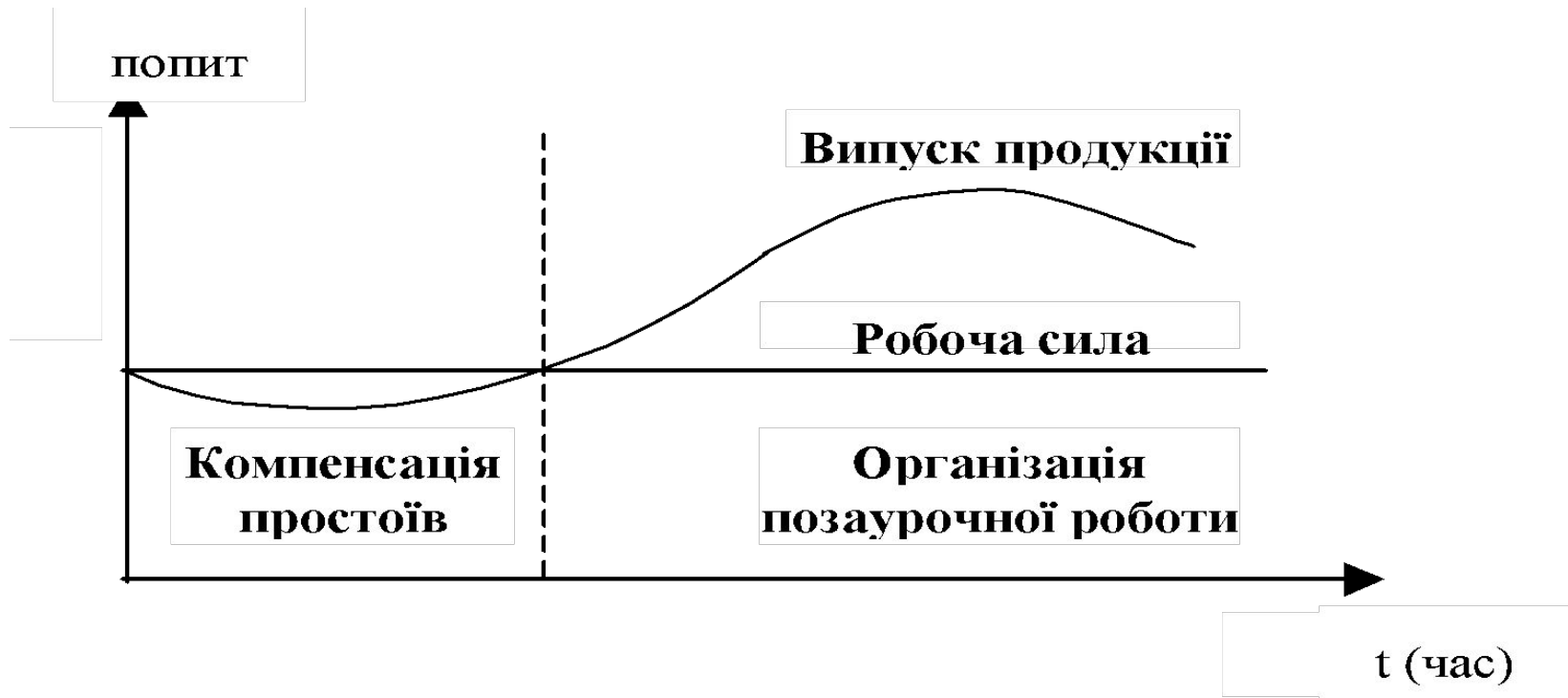$T_{шт}$ *– products unit labour intensiveness* ,
N – annual volume of products output (demand).

First. Permanent volume productions are at the permanent quantity of manufacturing staff regardless of vibrations of demand. Difference between volumes of demand and production, as a rule, regulate by an increase or diminishing of products supplies


попит

Запаси продукції

Обсяги виробництва

Чисельність робочої сили

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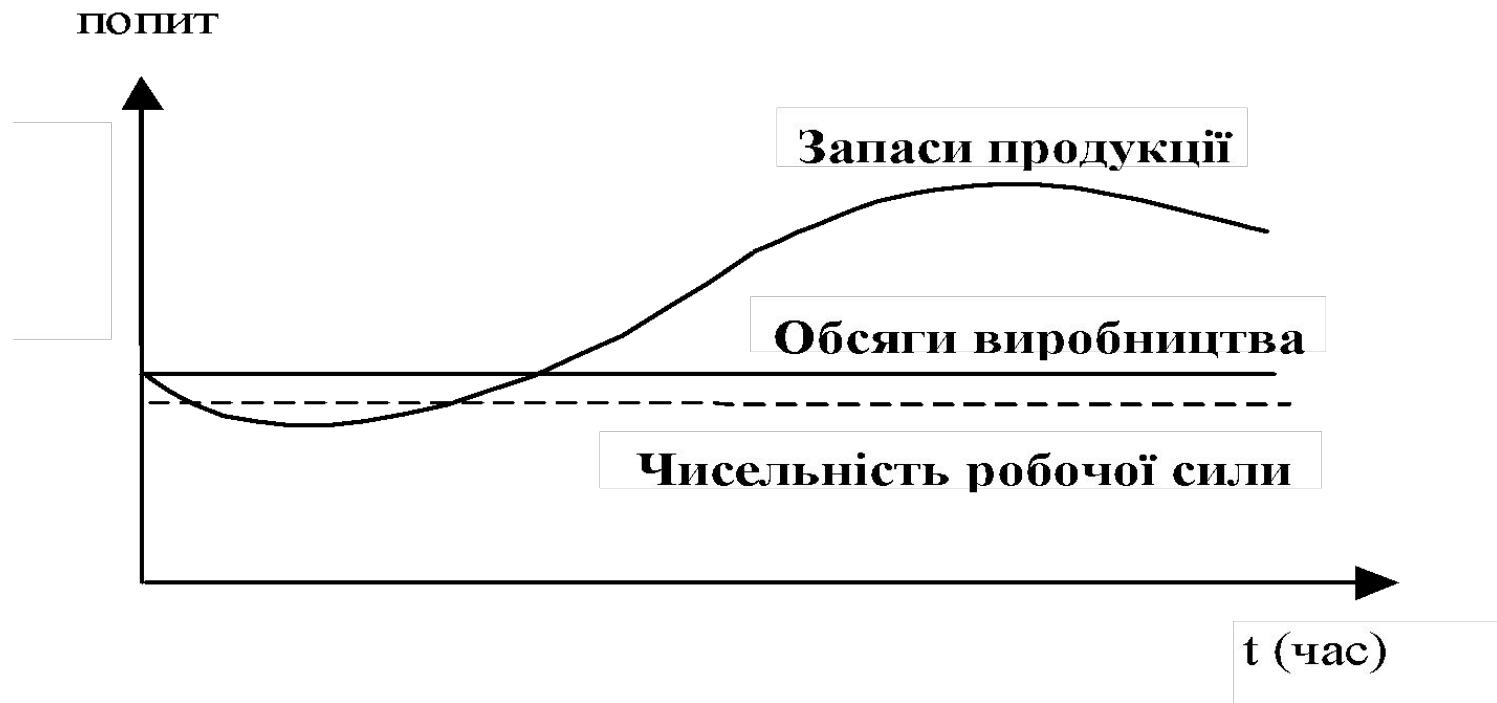
The graph of products supplies changes at permanent production volumes

Second. Variable production at the permanent quantity of labour force volumes.

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Випуск продукції

Робоча сила

Компенсація простоїв

Організація позаурочної роботи

t (час)

Graph of changes of production at the permanent labour force volumes quantity

Third. Products variable issue at the variable quantity of labour force, that reception and liberations workings takes a place accordingly volumes of production which characteristically for enterprises with seasonal work character with the use of labour force not very much high qualification

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Випуск продукції

Рух робочої сили

Звільнення | Прийом | Звільнення

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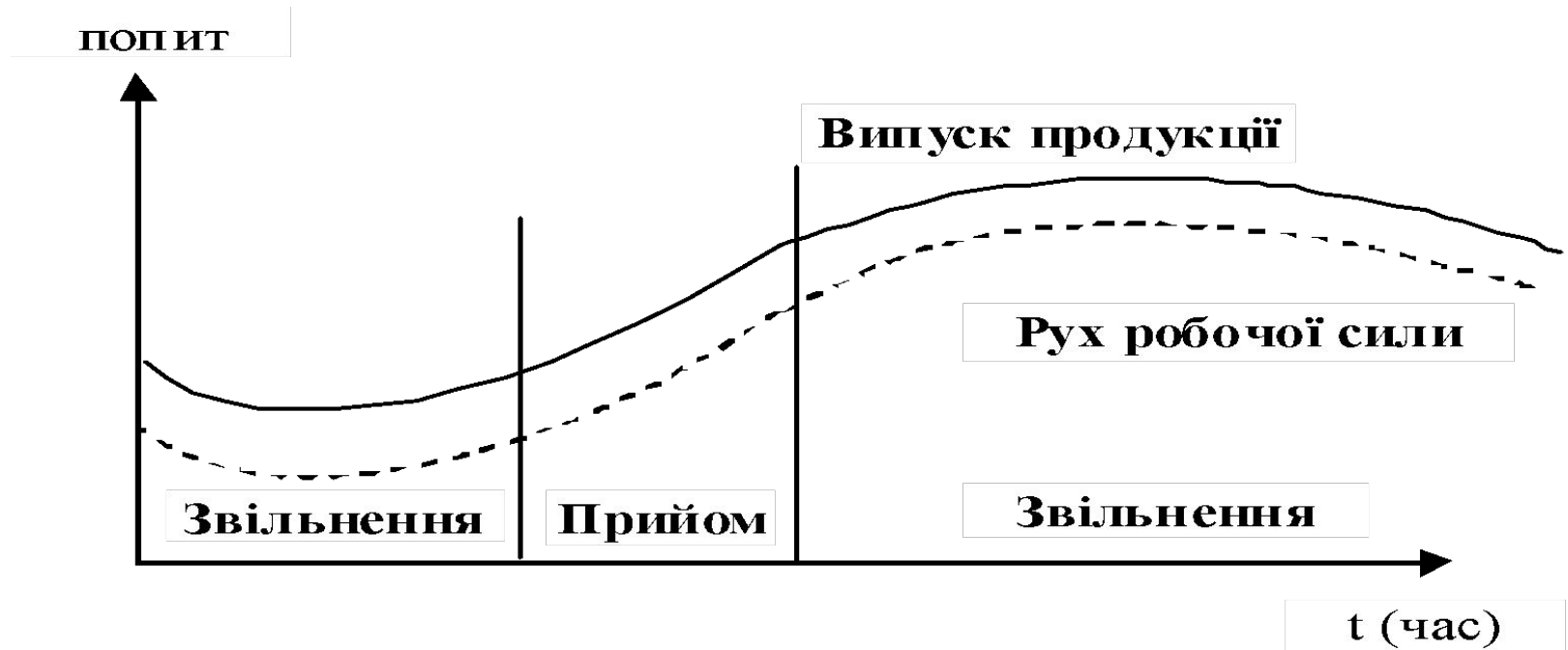
The graph of changes of products issues at the variable quantity of labour force

The plan of production of goods is made after a certain nomenclature, range and qualities.

Nomenclature – it is large-sized list of types of products (equipment, awaiting-parts, furnitures, etc.).

Assortiment of products – it is the list of products nomenclature depending on setting, type, quality and other signs of products.

Goods volume production in natural indexes is set on the basis of deliveries volume:

$$ОВ = ОП \pm \Delta ЗГП$$

where ОВ – goods volume production in natural units;
ОП – volume deliveries in natural units;
ΔЗГП – change of prepared products supplies, accordingly on an end and beginning of the planned period in natural units.

In the cases of productions with the inevitable technological losses of products (inevitable technological shortage) a production volume in natural indexes is corrected on the coefficient of these losses (β) by the formula:

$$OB' = OB \, (1 + \beta)$$

The cost indexes of the production program are volumes of the gross commodity production, net products and factory turnover, normative cost of treatment, volume of the uncompleted production.

Volume of commodity determines by the formula:

$$T\Pi = \sum_{i=1}^{n} Ni \; \text{Ц}i + BP$$

де, Ni – <u>an issue of n kind products in natural units</u>;

Цi – <u>a wholesale price of enterprise of n kind good unit, hrn.</u>

n – <u>amount of products types which is made on an enterprise</u>;

BP – <u>cost of works and services on a side, Uah</u>.

To the gross products (GP) take the cost of all of industrial products, mined-out an enterprise regardless of readiness degree and determine by the formula:

ВП = ТП ± ΔНВ

∂е, ΔНВ – <u>change of uncompleted production tailings in a value term accordingly on an end and beginning of the planned period, Uah.</u>

An factory turnover (IFT) – an amount of products which is utilized into an enterprise for the subsequent processing

Gross turn of enterprise (GT) – volume of gross products regardless of where it will be utilized, – within the limits of enterprise or outside.
A gross turn can be expected be the formula:

$$BO = B\Pi + B3O$$

***Realized Products** (RP)* – products which is shipped an user, for which facilities acted on the clearing account of enterprise-supplier or must enter the indicated term. Obem of the realized products calculate by the formula:

$$РП = ТП + ΔЗГП + ΔЗВП$$

де, ΔЗГП – change of prepared unrealized products tailings accordingly on beginning and end of the planned period, hrn.*;* *ΔЗВП* – change of the shipped products tailings which the term of payment didn't come yet, accordingly on beginning and end of the planned period, Uah*.*

Estimation of fulfilling the plan of realization of products taking into account the plan of supply and products assortment is possible to carry out by the coefficient of implementation of plan:

$$K = \frac{\sum N_{i\phi} \, Ц_{iпл}}{\sum N_{iпл} \, Ц_{iпл}}$$

де, $N_{i\phi}$ – actual issue of n kind products within the limits of plan, natural units.

Net products volume (NP), calculated by the formula:

$$ЧП = ТП – (М + А)$$

where, *M* – cost of inputs, Uah.
A – sum of depreciation for period, Uah.

Volume of sub-net products is determined by the formula:

УЧП = ЧП + А

Calculation of uncompleted production is made by formula:

$$HB = Ni *C_i *Тцi *Кнвi$$

where: Ni – average production for day of i-type of products,

C_i – cost of one item, hrv.;

$Тцi$ – length of production cycle of one item of i-type, working days;

$Кнвi$ – **coefficient of charges growth in the uncompleted production**.

The coefficient of charges growth in the uncompleted production is determined the relation of middle prime price of wares in the uncompleted production to the prime price of wares, coming from that current outlays grow evenly during a production cycle

$$K_{HBi} = \frac{C_{cep}}{C} = \frac{C_M + 0,5(C - C_M)}{C} = \frac{C_M + 0,5C - 0,5C_M}{C} = \frac{0,5(C_M + C)}{C} = 0,5(1 + J_M)$$

де, C_M – sum of financial charges on beginning of production cycle, hrn.;

J_M – specific gravity of initial financial charges in the prime price of n kind wares.

For the estimation of uncompleted production volumes in the wholesale prices of volume enterprise's uncompleted production, expected for prime prices, multiplied on the coefficient of count which settles accounts by the formula:

$$К_{перерах} = \frac{ТПф}{Сф}$$

де, *ТПф* – commodity products for the last quarter of base year, hrn.;
Сф – unit cost for the last quarter of base year, hrn.

Production program which in a most measure answers the structure of resources and provides the best results after a prime criterion named ***optimum.***

General estimation of fulfilling the issue plan and realization of products

The absolute sale of commodity and realized products as compared to a previous year is determined by:

$\triangle T\Pi = T\Pi_1 - T\Pi_0$

$\triangle P\Pi = P\Pi_1 - P\Pi_0$

де $T\Pi_1$, $P\Pi_1$ - actual values of commodity and realized products for analyzed period;

$T\Pi_0$, $P\Pi_0$ - actual values of commodity and realized products for a previous year.

The relative rejection of analyzed indexes can be calculated by:

$$\Delta T\text{Потн} = \frac{T}{\Pi_0} \cdot 100\%$$

$$\Delta P\text{Потн} = \frac{P\Pi}{P\Pi_0} \cdot 100\%$$

Influence each of the transferred factors on changing of volume of realization is possible to define with the use of formulas:

- influence of commodity products change, %

$$\triangle P\Pi_{T\Pi} = \frac{\triangle T\Pi}{P\Pi_0} \cdot 100\%$$

influence of change of prepared products leftovers on composition, %

$$\Delta P\Pi_{O_{скл}} = \frac{\Delta O^{НГ}_{скл} - \Delta O^{КГ}_{скл}}{P\Pi_0} \cdot 100\%$$

influence of change of products shipped leftovers not prepaid in time , %

$$\Delta РП_{0_{неопл}} = \frac{\Delta O^{НГ}_{неопл} - \Delta O^{КГ}_{неопл}}{РП_0} \cdot 100\%$$

influence of change of products leftovers, which payments are overdue

$$\Delta P\Pi_{O_{срок}} = \frac{\Delta O_{срок}^{HГ} - \Delta O_{срок}^{KГ}}{P\Pi_0} \cdot 100\%$$

Total influence of factors on relative change of the realized products for analyzed period

$$\Delta P\Pi_{OTH} = \frac{\Delta P\Pi}{P\Pi_0} \cdot 100\%$$