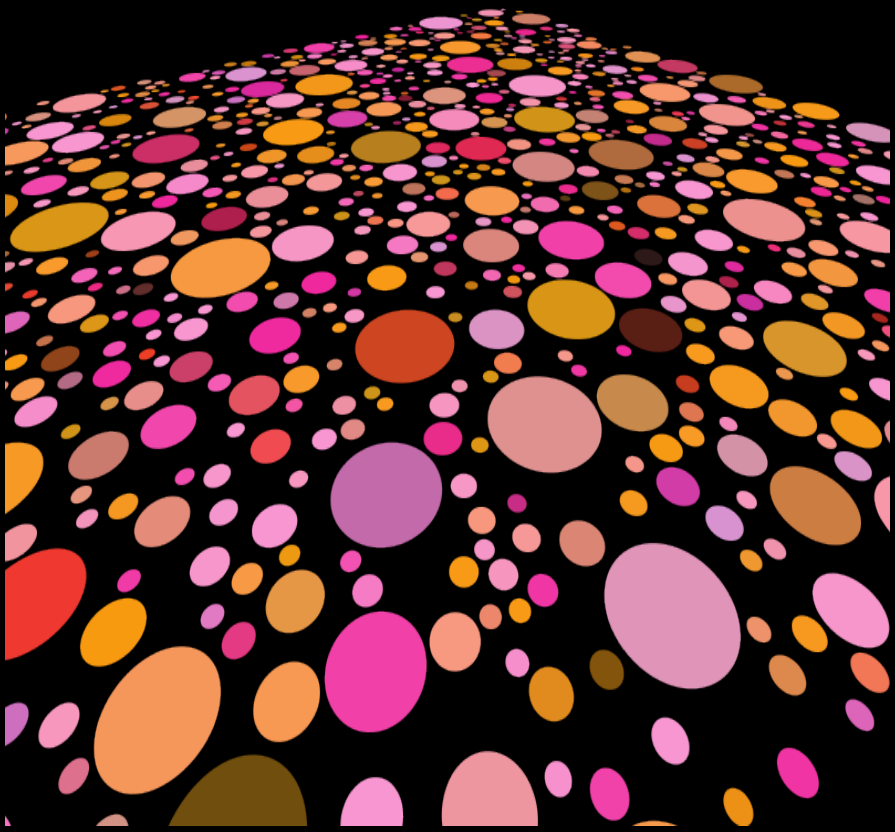
Guenther Sandleben

LABOR-TIME, NOT MONEY



How Companies Can Calculate with Labor-Time

LABOR-TIME, NOT MONEY

How Companies Can Calculate with Labor-Time

transcript of a presentation from May, 4 2023 in Berlin | Guenther Sandleben[1]

edited by

V.i.S.d.P.
Initiative demokratische Arbeitszeitrechnung e.V.
Berlin (address on request)
gruppe_arbeitszeit@riseup.net
arbeitszeit.noblogs.org

graphics from openclipart.org:
cover graphics by liftarn
pizza graphics by Gerald_G
bike graphics by oksmith

[1] The presentation was organized and translated from German into English by IDA (Initiative demokratische Arbeitszeitrechnung). It is based on my book »Gesellschaft nach dem Geld. Arbeitszeitrechnung als Alternative« from 2022 (free translation: »Society after Money. Labor-Time Accounting as the Alternative«).

Contents

Introduction

As you all know, large and small companies, the self-employed etc. calculate in terms of money and prices. They try to figure out what their cost price [Selbstkosten] is when they produce a particular good (or service) and offer it on the market. The difference between the market price realized (the proceeds of selling the good) and the cost price is the profit. Costs are nothing but the price of the production elements used and consumed. Personnel costs [Personalkosten] and material costs [Sachkosten] are the main components.

Price or cost accounting already contains a lot of labor-time accounting, which one might not think of easily. In **section 1** (*Labor-Time Accounting: a Utopia?*), I provide some evidence that labor-time has long been calculated, both directly and indirectly. To illustrate this, I will take you to a pizzeria. Let me surprise you!

The production of pizzas, like the production of bicycles or other commodities, incurs costs, and all commodities have a price that is somehow formed on the market. What do prices have to do with labour-hours? What are markets? Such questions lead to the character of the commodity, its value, and the specifically social form of labor, which has a great deal to do with prices. Such questions will concern us in **section 2** (*Why Do Markets Exist?*) and **section 3** (*Accounting of Labor-Time Instead of Money*).

Perhaps some think that market socialism could be an alternative to capitalism because it seems to aim at a free association of producers. In **section 4** (*Market Socialism?*), I would like to outline my critique of this. For me, market socialism is a sham in which old market relations and dominion continue to exist.

At the company and operational level, there is intensive planning. And the more work is divided up within a company and

the more partial functions and intermediate products have to be combined to produce saleable commodities, the more precise and comprehensive the planning will be. This is why business economists rave about planned business economics. The national economist who deals with markets, however, smells the abolition of markets and capitalist ownership – and panics. In **section 5** (*Company Planning as Part of a Planned Economy*), I would like to contrast these two views. I would also like to show that intercompany linkages of production can be planned and organized in the same way as intracompany ones are already today.

In **section 6** (*Cost Accounting and Labor-Time Accounting Compared*), I examine the relationship between cost accounting and general labor-time accounting. One focus is to illustrate the difficulties and shortcomings of cost accounting. The practice of cost accounting involves some bogus costs that serve to enrich the asset owner. Without working himself, he receives property income, including interest, lease, rental income, license fees. In addition, he receives high incomes from consulting contracts, management and entrepreneurial activities, which cannot be justified by work.

In **section 7** (*The Problem of Allocating Joint Expenses*), there will be no more pizza, but lots of shoes, coats, bags, footballs. How to deal with common expenses in multi-product companies? I think this issue is overlooked in the whole debate on labor-time accounting.

In **section 8** (*Example: Cost Accounting / Cost-Plus Pricing*), we will put on some nice summer shoes and go through the procedures of cost accounting to see how useful they are for the calculation of labor-time. We can learn a lot, I conclude.

Finally, in **section 9** (*Advantages of Labor-Time Accounting*), I will recapitulate the benefits of calculating labor-time instead of money.

Labor-Time Accounting: a Utopia?

Labor-time accounting exists...

...directly: Companies record labor-time and calculate the average labor-time (»normal time«) for the production of a service.

Normal time = normal performance, normal work pace
»According to experience, the normal time can be performed by any worker who is adequately suited, skilled, and fully trained, for the duration and on the average of the shift time.«
(free translation)

Gabler Wirtschaftslexikon

The pizza example

1

Let's begin with the question of how real the calculation of labor-time is and take our trip to the pizzeria. Is labor-time accounting – a utopia? (**slide 1**) No, it is not. It has been practiced for a long time. A company records labor-time very precisely. It needs to know how much work is required to complete the various tasks. It calculates the average labor-time required to produce a good. The following definition has usually been adopted for this normal time [Normalzeit]:

»According to experience, the normal time can be performed by

any worker who is adequately suited, skilled, and fully trained, for the duration and on the average of the shift time.«
(free translation)

Let's take a pizza maker who is »adequately suited, skilled, and fully trained« as an example. As **slide 2** will show, the annual labour-hours are recorded first. Our pizza maker has a normal employment contract: 52 weeks x 5 days per week x 8 hours equals 2,080 hours per year. Subtracting the holidays, the estimated average sick days, the exemptions under the collective agreement assumed here, and the vacation days, the attendance hours are calculated to be 1,664 hours. You can take all these hours from the slide directly.

Example: The Pizza Maker (Normal Time)
Number of annual hours (hrs) e.g. 2,080 (52 × 5 days × 8 hrs)
-legal holidays (e.g. 10 days × 8 hrs = 80 hrs)
-estimated sick days (e.g. 10 days × 8 hrs = 80 hrs)
-legal holidays (e.g. 2 days × 8 hrs = 16 hrs)
-collectively agreed vacation days (e.g. 30 vacation days × 8 hrs = 240 hrs)

= 1,664 attendance hours per year (2,080 - 416 hrs)
- unproductive time (e.g. 90 hrs)

= **number of productive hours** (1,664 - 90 = 1,574)

Assumption: Annually, the pizza maker produces 15,740 pizzas.
Average output per hour: 10 pizzas or 6 minutes per pizza

Cost Reference: Calculation of Labor Costs per Hour
Wage expenditure per year: 30,000 € / 1574 hrs = 19 € per hour
With 10 pizzas per hour: 1.90 € wage cost per pizza

2

The term »unproductive times« may need some explanation:

Unproductive time means that this time is not available for the actual process of making the pizza. This includes work interruptions of any kind: extraneous activities such as customer acquisition or sales, meetings, missing materials, missing tools (due to insufficient work preparation), breaks to promote communication, short private interruptions, etc. The direct labor-time calculation ends with the recording of the average number of productive hours, in the example 1,574 hours per year. If the pizza maker produces an average of 15,740 pizzas per year, the working time objectified in one pizza or objectified there on average is 6 minutes.

Without a cost reference, labor-time calculation would make no sense for price calculation. This is because the restaurant operator wants to know as precisely as possible what he can expect to earn on average from a pizza. For this, he needs the cost price [Selbstkosten]. The wage costs [Lohnkosten] are a part of this, along with the material costs [Sachkosten].

All data for calculating the normal wage costs per pizza are at hand: The entrepreneur knows the total wage cost he has to pay his pizza bakers annually. The annual wage expense per pizza baker may be 30,000 euros. And the entrepreneur knows the number of productive hours, amounting to 1,574, that the pizza baker needs on average to make the dough, knead it, top it, bake the pizza and make it available. Now he divides the annual wage expense by the number of productive hours worked. The result is the hourly production rate of 19 euros. From intracompany labor-time accounting we already know that the pizza maker needs an average of 6 minutes per pizza, so he produces 10 pizzas per hour. The average wage cost per pizza is therefore 1.90 euros. In other words, the 6 minutes of productive time spent cost the restaurant owner 1.90 euros. In industry, and especially in the trades, the calculation of the hourly production rate [Fertigungsstundensatz] is an important business cost figure

and calculation indicator. If you order a painter, for example, the painting company calculates the labor-time required to paint the walls and multiplies this »number of productive hours« by the hourly production rate. If, for example, the entrepreneur needs 10 hours and the hourly production rate is 19 euros per hour, as for the pizza baker, then he calculates an internal wage cost of 190 euos for painting the walls. On the invoice may be 500 euros for the painting work. In addition to a profit markup that is planned into it, the hourly production rate also serves as a key for allocating other manufacturing costs that are incurred in the painting company. I will come back to this point later. (**slide 16**)

Determining the normal time to make a pizza is not important only for cost calculation. It also serves as a tool for planning and organizing personnel requirements. It is of particular importance as soon as the individual work steps of the pizza baker are divided up, performed in specialized work areas and combined with each other. Without the calculation of the normal times for the various tasks, the proportionalities of the interrelated sub-activities would not be balanced.

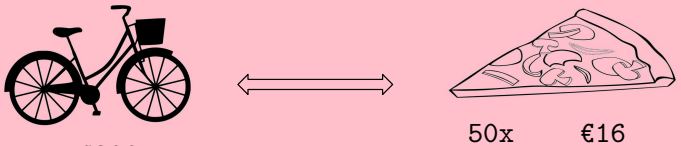
Slide 3 deals with another form of labor-time accounting. In contrast to direct labor-time accounting just presented, this is now the indirect form of labor-time accounting that exists behind the prices. At first glance, one does not recognize any quantities of labor behind such prices. Many factors seem to influence prices, all of which determine supply and demand. But what happens when supply and demand coincide, i.e. when they no longer have any particular effect? What determines this market price, which is usually called the equilibrium price or the »natural price«? For a long time there has been research on this question. The classics of economics, Adam Smith and David Ricardo, found that the average labor-time spent determines the »natural price« around which market prices fluctuate.

Labor-time accounting exists...

...indirectly: It is objectively hidden in price calculation.

Law of exchange:
Two commodities exchange in proportion to the average labor-time they contain.

Prices express a number of labour-hours in objectively twisted form.



3

They established the following law of exchange, which Marx adopted:

»Two commodities exchange in proportion to the average labor-time they contain.«

The law of exchange is the elementary form of the law of value. It is enforced by force in competition behind the backs of the commoditiy owners, i.e. it escapes their action. If a bicycle costs 800 euros, then this amount of money represents a certain number of hours. We do not know how many hours are at stake. The pizza is maybe 16 euros. The price also does not tell us how much labor-time is hidden in it. We will assume that there is a considerably larger average amount of labor in the bicycle. From the price ratio, we can see that in 50 pizzas, on average,

there is about as much labor as in a bicycle. I'll come back to these proportions later. (**slide 11**)

Why do quantities of labor hide behind quantities of value and price? In other words: Why do markets exist? What character do they have? Do we need them at all? Adam Smith said that exchange is a natural inclination of man and only of man. No one has ever seen a dog honestly and prudently exchange a bone with another dog for another bone. In Smith's view, commodity exchange and markets belong to the human division of labor, as does money as a facilitator of exchange. Capital is regarded by him as a material quantity, as a produced means of production. Such ideas are still very widespread today. Who can imagine a society without a market, without money, without profit, without wages and prices?

Why Do Markets Exist?

The Character of Commodities

»Only such products can become commodities with regard to each other, as result from different kinds of labor, each kind being carried on independently and for the account of private individuals.«
(Marx, Capital, Volume 1, [MEW 23, p. 57])

From this follows:

If the production of bicycles and pizzas were planned and organized collectively instead of privately, the commodity character would disappear.

»Within the co-operative society based on common ownership of the means of production, the producers do not exchange their products.«
(Marx, Critique of the Gotha Programm, [MEW 19, p. 19])

4

In **slide 4**, I would like to reveal the secret of markets. The secret lies in the peculiar social character of labor that produces commodities. The social form of labor, the way it is spent, is crucial to the existence of markets. This discovery came quite late, completed only by Marx. His central thesis is:

»Only such products can become commodities with regard to each other, as result from different kinds of labor, each kind being carried on independently and for the account of private individuals.« (MEW 23, p. 57)

It is worth thinking about this statement very carefully. And

if you want to do it with Marx directly, you should take to hand the 4th subsection from the first chapter of Capital: »The Fetishism of Commodities and the Secret thereof«.

Production is organized as a private affair when products are produced »independently and for the account of private individuals.« That is, the social character of labor – labor for others – is a property of such private labor. Therefore, the social character cannot appear during production. The producers do not enter into an immediate social relation with each other if they produce »independently and for the account of private individuals«.

Only later, after the producers have finished the product, the social character of their private work becomes apparent. Just here lies the crux for an objective twist [sachliche Verdrehung]. For the social character associated with the private labor acquires its social form only when the producers no longer work for each other. This is paradoxical, but this paradox is the core of commodity-producing labor. At that later point in time, however, labor has long been united with the object, it has become objectified in it. The social character of labor must therefore express itself as something objective.

And where does it show itself? It shows itself in the exchange relation of produced commodities, i.e. in the social relation of commodities. The body of the commodity, the objectivity of a particular commodity ultimately serves the other commodities as a mirror of their values. The consequence of this is money. Money is the general commodity, in whose material nature the value of commodities is plainly and uniformly represented. On this basis, states define their respective currency, the euro, the dollar, etc.

Instead of producers consciously building their relationships, associating, coordinating their production with each other and, if necessary, planning and organizing it together, they are under the control of the movements of commodities. This heteron-

omy becomes apparent particularly in cyclical economic crises, where their own social bond confronts them as an alien, uncontrollable force. If, by contrast, the production of bicycles, pizzas, etc. were colaborative instead of private, the commodity character would disappear. The social form of labor would now be directly and immediately present, already during production. Thus, there would no longer be economic prices. Labor-time accounting would have to take the place of price accounting. This was also Marx's conclusion in his Critique of the Gotha Program (MEW 19, p. 19):

»Within the cooperative society based on common ownership of the means of production, the producers do not exchange their products.«

We now know why commodities must exist with prices. Labor as a private affair is the reason, or a specific relation of production, precisely that of a commodity-producing society.

What characterizes markets is summarized in **slide 5**: The elementary form of the market is the commodity. The commodity form itself is based on a specific social form of labor. The historically specific production-relation of labor carried out independently and for the account of private individuals constitutes the basis for this. As a commodity producer, our manufacturer of bicycles must offer and sell the bicycles. For he has not produced them for himself, but for customers. The sale is compelling in order to get money and buy the goods needed. The change of form of a commodity therefore includes sale and purchase: commodity (bicycle) - money - commodity (consumer good).

Such metamorphoses of the commodity occur *en masse*. The mass interaction of supply and demand, however, is nothing other than the market. Markets, prices cost accounting there-

fore rest on a historically specific relation of production, that of commodity-producing labor. The market is not a technical instrument, it is a relation of production.

Accounting of Labor-Time Instead of Money

Fundamental Change Through Labor-Time Accounting

~~800 euros~~ 8 hours

No private relation of production
-instead of capitalist ownership:
common ownership of means of production and manufactured products
-instead of private production of commodities:
public production of goods

The direct social character of labor and market/prices are mutually exclusive.

6

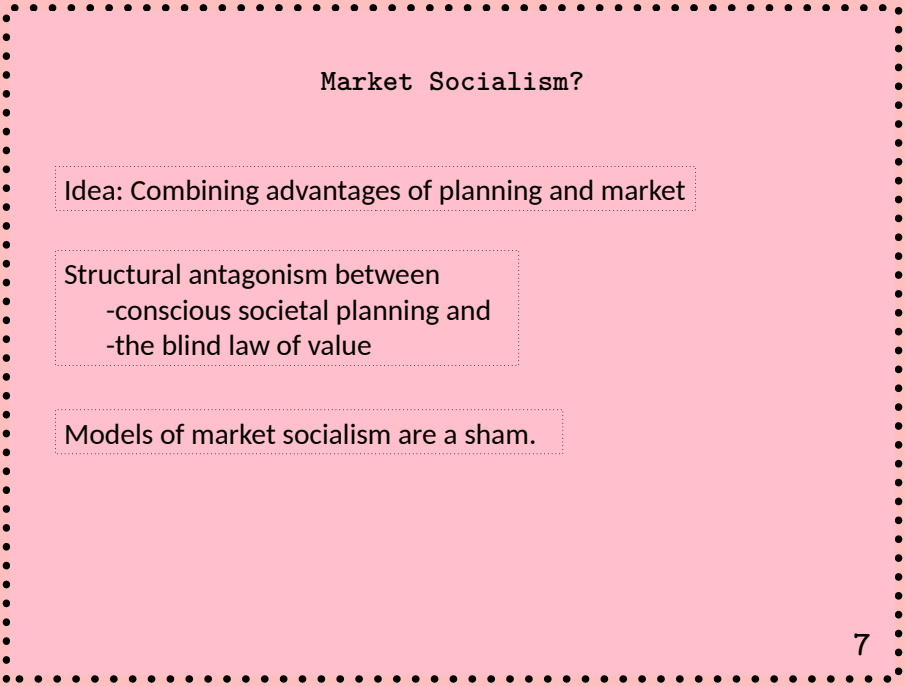
The general accounting of labor-time has exactly the opposite precondition: it is based on common ownership. As **slide 6** indicates, prices no longer exist within a collaborative economy. The socially necessary labor-time for producing the bicycle can now be expressed directly and immediately: the objectively twisted 800 euros give way to 8 hours, for example. Such general labor-time accounting implies a fundamental change in the relation of production: The private society must be replaced by a co-operative society based on collective ownership of the means of production. Instead of capitalist ownership, there must be

collective ownership of the means of production and products. Instead of private commodity production, there must be public production of goods. The immediate social character of labor and market/prices exclude each other.

Advocates of market socialism believe that they can combine the advantages of planning and the market. For them, the market and planning are just different technical instruments for the distribution of goods. In my view, this fundamental assumption is not correct. A planned economy and the market represent two fundamentally different relations of production. (**slide 7**) There is a structural antagonism between conscious social planning and the blindly operating law of value. Planning is based on direct social labor, whereas commodity production and markets rest on the indirect social character of labor expressed in the relation of commodities.

Market Socialism?

A combination of planned-economy and market-economy is likely to lead to a mutual blockade: On the one hand, the market mechanisms still operating under market socialism would undermine macroeconomic planning. On the other hand, planning would be an obstacle to the formation of prices. Instead of advantages, disadvantages would be combined. And that's not all: Macroeconomic planning and persisting market mechanisms would fight for supremacy and generate considerable losses of efficiency in this conflict. Misplanning and political pricing instead of economic pricing would be the consequences.



The models of market socialism are fraud. They assume the supremacy of the market, i.e. the continued existence of the

commodity form, the money form and the capital form. Planning is subordinated to the law of value. Market socialism would therefore not be a step towards extending or completing labor-time calculation. The old economic accounting would continue to be practiced as in »normal« capitalism. The old constraints and relations would continue to exist. The normal capitalist enterprises would not change at all; their power of domination over the producers would remain.

Company Planning as Part of a Planned Economy

Two bourgeois views on planning:

business economist:	»Planned action is the opposite of chaos.« companies = »planned economic units« »Planned action is the prerequisite for entrepreneurial success. This makes planning the most important sub-function of corporate management.« (free translation) (Wöhe, Einführung in die Allgemeine Betriebswirtschaftslehre, 2020:70)
national economist:	horrified by planning! planned economy = »command economy« = »dictatorship« = »gulag«

8

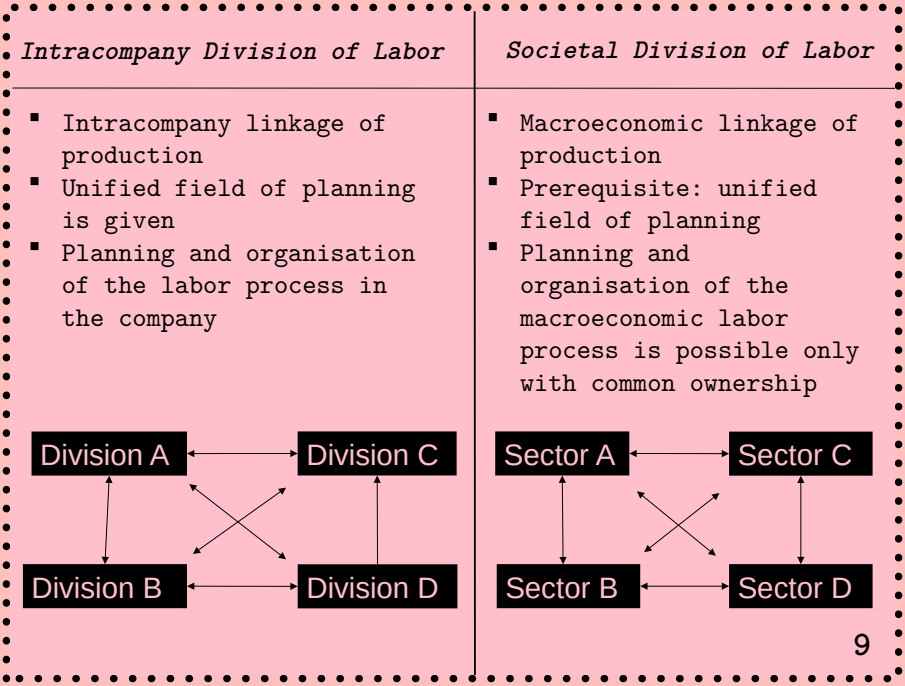
Our current market economy involves a lot of planning. The state plans its expenditures and revenues, organizations plan their activities and, of course, their finances, and each of us somehow plans and organizes her lives. The companies I would like to talk about now practice extensive planning and organization. And the more labor is divided within the company and the more sub-functions and preliminary products have to be combined to produce saleable commodities, the more precise and comprehensive the planning will be. Large corporations and trading houses, whose sales are equivalent to the gross domes-

tic product of smaller countries, plan and organize their supply chains. In this way, the capitalist mode of production paves the way for the future planned economy, comparable to labor-time accounting, which is already beginning to develop even under old conditions.

The need for business planning is fully recognized by business economics [Betriebswirtschaftslehre]. On **slide 8**, I quote a well-established textbook for students of business economics. There, »planned action« is described as »the opposite of chaos.« Quite from the viewpoint of a planned economy, the authors define companies as »planned economic units«. The national economist [Volkswirt] is different. He is horrified by planning. He immediately thinks of intercompany planning, of the elimination of independent enterprises, of the elimination of capitalist ownership and of the entire market system. Against this he wages his ideological battle. Planned economy, he says, is »command economy«, »dictatorship«, »gulag«.

Slide 9 distinguishes two types of division of labor: First, the division of labor within the company (intracompany division of labor), and second, the division of labor within society (societal division of labor). Under the conditions of commodity production, there is an essential difference between these two types: While intracompany division of labor is planned and organized by the entrepreneur, who owns the production elements, the intercompany or societal division of labor assumes fragmented elements of production among many independent producers of commodities. Here, the division of labor is not consciously designed, it is mediated by the buying and selling of commodities.

Today's intracompany planning therefore reaches only to the boundaries of private property. The commander is the owner himself or the representative of capital. Within the narrow boundaries of property, he has a unified field of planning which he organizes and shapes according to his purposes.



Macroeconomic planning also requires a unified field of planning, but related to the economy as a whole. What would be necessary is the elimination of private ownership of the means of production. This is because private ownership fragments the economy into private units. Common ownership would have to take its place. Only on this new basis could the hitherto independent private labor be socially connected in a direct way. The producers would be associated from the outset, they could plan, organize and carry out their labor collectively.

However, it is precisely the upheaval of property that is likely to meet the fierce resistance of capitalist owners. Since the state is closely connected with private property and therein has its basis, the state is likely to support the cause of private owners. It can be expected that establishing a unified planning field will be the great and difficult task.

By contrast, the establishment of macroeconomic planning and organization would be easy to handle technically. The intracompany division of labor with its interlinked production has long been planned and organized. It shows great parallels to macroeconomic interlinking of production. The macroeconomic sectors would be analogous to intracompany divisions and would have to be interlinked in a comparable way.

Planning depends on the state of the productive forces. As the productive forces change, so do their techniques and procedures. Therefore, caution is required when it comes to designing generally valid planning models for the future already today.

Similarly, the relation between decentralized and centralized planning depends, within certain limits, on the state of the productive forces. A limit would be given where intracompany planning forms a unity with intercompany planning, and local and regional planning with central planning. This unity of planning must not be broken. On the contrary, it would have to be organized and implemented.

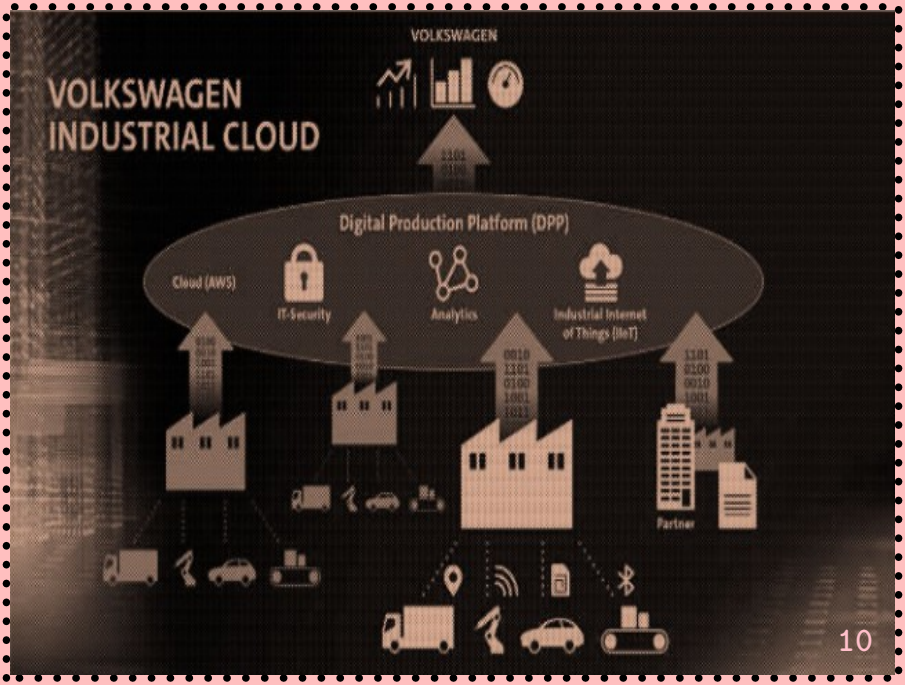
Slide 10 illustrates how today's company planning is pushing in the direction of macroeconomic planning, despite private-sector limitations. I choose the «Volkswagen Industrial Cloud« as an example. The home page reads:

»With its Industrial Cloud, Volkswagen intends to open up new possibilities for further improving the efficiency and flexibility of production. The combination of data from all plants will provide new prospects for process optimization. These include more efficient control of material flow, the early detection and elimination of supply bottlenecks and process disruptions, and the optimized operation of machinery and equipment in all plants.«

The data of all machines, plants and systems from all 122 factories of the Volkswagen Group would be brought together

in the Industrial Cloud. In the long term, Volkswagen wants to integrate its global supply chains with over 30,000 locations of more than 1,500 suppliers and partner companies.

Technical development itself is pushing in the direction of overall global planning, including all supply chains. But the existing commodity form interrupts this chain. The technically possible and economically necessary socialization of labor reaches a point where it becomes incompatible with the production of goods by mutually independent enterprises.



Cost Accounting and Labor-Time Accounting Compared

We have already become acquainted with cost accounting as a certain kind of labor-time accounting, which, however, is objectively twisted in such a way that it is hard to see labor-time behind the cost quantities. Despite this twisting, the law of exchange assumes a certain correspondence when it claims that the prices of two commodities express the ratio of the average labor-time contained in them: 1 bicycle contains about 50 times the amount of work of a pizza. Along the next three slides, I want to examine in more detail where prices and the units of labor-time expressed in them diverge more and how such divergences should be judged. My comparison leads to the thesis that labor-time accounting has significant advantages.

Slide 11 is intended to provide an overview of possible deviations and disruptions. With the phrase »price (cost) accounting« I would like to point out that the prices of the commodities used and consumed in production also constitute the costs required to produce a new commodity. The price expresses the value of the commodity and the magnitude of value is determined by the quantity of labor required to produce that commodity. For various reasons, prices deviate from their values and thus from the quantities of labor contained therein, with the consequence that such deviations necessarily also enter into cost accounting. Deviations in production thus necessarily also lead to deviations of costs and the labor-times expressed therein.

First of all: Market prices [Marktpreise] fluctuate around the value of commodities, i.e. around the quantity of labor contained in them, depending on the constellation of supply and demand. Such deviations become the cause of a countermovement with a constantly recurring tendency to equalization. The

law of exchange in principle retains its significance, since it fixes the center of oscillation for the market price movement: The average labor-time spent on production determines both the price level of a commodity and the longer-term price movement. These more random deviations are supplemented by systematic ones.

COST ACCOUNTING	LABOR-TIME ACCOUNTING
Quantitative deviations Qualitative deviations	Deviation is not possible No labor, no labor-time
Disturbance variables -only relative representation of value -inflation	No disturbance variables
Problem of wage costs: only partial recording of labor-time (without surplus labor-time)	Recording of the total-time, not only of »paid« necessary labor-time

11

Production prices [Produktionspreise] with the average profits contained therein usually deviate from the magnitudes of value. They fall short of the corresponding value in the case of commodities produced with a relatively large amount of living labor. Conversely, the production price is above the corresponding value quantity when relatively much constant capital is employed. Since such deviations are limited to the difference between surplus value produced and the average profit contained

in the price of production, the correspondence between prices and the quantities of labor contained in commodities remains by and large the same. If the production price of a commodity falls relative to the production price of another, then it can be assumed that productivity has risen in relative terms, i.e. that a proportionally smaller amount of labor is spent to produce the same type and quantity of commodity. For industries with intermediate capital composition, production prices and magnitudes of value coincide. The level and general direction of movement coincide for these commodities produced under average conditions.

The price expression becomes very skewed in the case of commodities which are not mediated by labor at all or only to a small extent. In extreme cases, prices do not express labor; hence the term »qualitative deviation«. The price of land would be such an example. It is determined primarily by the ground rent (e.g., rent payments) and the interest rate. For us, the price of land is very important because it drives up the price of houses, commercial space, etc., and causes high rents. But other goods, including oil, fruit, vegetable and grain prices, as well as the price of other land products, also become more expensive due to private ownership of land. Compared to the actual labor-time spent, the prices of land products turn out to be far too high, since the supplier with the least favorable production conditions determines the respective production price. The cost differences to other suppliers turn into ground rents, which the land owners pocket without labor. Conversion to common ownership would be a particular relief here: Without private ownership, a labor-time-based, collectively organized economy would acquire the land products much more cheaply, so that the immediate consumer would be relieved and the entire land production would become cheaper overall.

The direction of movement of value and price is considerably

disturbed by the relative representation of value. This means that the quantity of labor contained in value is always represented only in relation to another commodity. Since the values of both commodities are expressed in monetary units, the relative value can be derived from the relation of their prices. If, for example, the price of one commodity rises in relation to the price of another, the value of the commodity, i.e. the quantity of labor contained in it, does not necessarily have to have risen. It would also be possible that the value of the other commodity and therefore its price has fallen.

Another disturbance comes in the form of inflation. It consists in a general bloating of the money expression, without values having changed. A particular disadvantage of cost accounting is associated with the calculation of wage costs. I have already addressed this drawback in the pizza maker example: The wage cost was divided by the productive labour-hours to calculate the hourly production rate. In this example, we assumed that the labour-hours would be paid in full. However, if this is not the case, there is surplus labor-time which is not included in the hourly production rate. This rate would therefore indicate a much too low quantity of labor. Instead of a full record of labor-time, there would be only a partial record of it, which of course only occurs behind the price form.

It is almost superfluous to point out that all these disturbances and deviations have no significance for labor-time accounting. Here, the total labor-time is reported for each product and the relations to labor-times of other products can be determined directly. The fact that only labor-time counts is a great advantage, since labor-time is life time and only labor-time »costs« humans something. And the tools and machines used to produce an object have »cost« them as much as there is labor in it. Scarcity cannot be an additional quantity because it only expresses the increased labor-time that would be necessary to

produce more of the good that is considered particularly scarce. What counts is the actual labor-time spent, and only labor-time. External variables should not be smuggled into labor-time accounting.

Some of you may associate scarcity with ecological problems and want to relate them to labor-time calculation. Perhaps a note on this: The liberated society is not subject to market constraints. People can arrange their production as they wish. When choosing the processes of production and products to be produced, the economy of time would be only one part of the decision. It is obvious that a liberated society would pay great attention to the remote effects of its own actions. It should not only avoid those actions that undermine the productive forces of nature or even turn them into destructive forces, but also strive to promote the productive forces of nature through purposeful action. Instead of endangering its future, the liberated society will do its utmost to leave to later generations a well-shaped nature. Perhaps it would be advisable not to allow production and products that disturb the metabolism between humans and external nature in the first place. Such a decision would also be obvious from the point of view of an economy of time. For alone by strengthening the productivity of nature, the associated producers could increase the productive force of their labor, since they would now be able to complete their social production in a shorter time with the help of intact and fostered springs of nature.

I will now go into the methods and procedures of cost accounting to see to what extent they are useful for labor-time calculation: What cost-type accounting [Kostenartenrechnung] does is record the quantities and prices of the means of production used in production. Labor-time calculation, too, faces the problem of accurately recording the goods used and consumed in production, both by type, grade, and quantity, and along the

units of labor-time reported. However, a more detailed analysis of the existing types of costs is worthwhile, for not everything that is called »cost« actually contributes to production.

What Can Labor-Time Accounting Adopt?

(The Problem of Bogus Costs)

Types of Consumption	Cost types
1. Consumption of Material Goods	
a. Raw materials and Supplies	Material costs (€)
b. Use of Fixed Assets	Depreciation (€)
2. Consumption of Intangible Goods	
a. Consumption of Company labor!	Wage costs! (€)
b. Consumption of External Services	Service costs (€)
c. Consumption of Rights Granted by Third Parties	*Rent, lease, license costs*
3. Compulsory Consumption by the State	*Taxes and contributions*
4. Use of Capital	*Imputed interest*

12

Slide 12 mentions costs of rent, leases, licenses, interest, taxes and contributions. Such items contain mainly or exclusively modes of appropriation without any actual contribution to production. I have italicized such bogus costs on the slide. They may also include high manager salaries and consulting costs, which are usually not justified by own labor and inflate the reported costs for personnel or services.

As can be seen from the next **slide 13**, such bogus costs will have no equivalent in labor-time accounting. Labor-time accountants[2] will immediately expose them as appropriation of other people's labor, as a kind of theft or as dilution of their

economic account. However, removing bogus costs from cost accounting reveals significant items that are also useful in labor-time calculation.

Modified Cost Accounting (in price units)	*Labor-Time Accounting* (in labor-time units)
1. consumption: material goods	1. consumption: means of production
a) material costs: consumption of raw materials and supplies b) depreciation through use of means of labour-hour	a) consumption of intermediate products: raw materials, auxiliaries, consumables b) depreciation due to the use of work equipment
2. costs for wages and services	2. newly spent, living labor
a) consumption of intracompany labor! b) consumption of external services	Total labor-time instead of »necessary labor-time«!

13

Such modified cost accounting captures more or less the components of the value of commodity: First, the part of the value of machinery, buildings, etc., consumed in production and transferred to the commodity produced is reported under the figure for depreciation as cost of materials. Second, the consumption of raw materials [Rohstoffe], auxiliaries [Hilfsstoffe] and consumables [Betriebsstoffe] is recorded as another significant component of the material costs [Sachkosten]. The methods

[2] Labor-time »accountant« here in no way implies a »managerial task«, a separate department, an institution, much less a supra-company planning authority. Labor-time accounting is a public matter. Each of the associated producers becomes a labor-time accountant as soon as she contributes anything to the calculation of labor-time or is even interested in it, and would like to follow the calculation or give additional hints.

and calculation procedures developed by the cost accountant to record and allocate such costs are also relevant to labor-time accounting. The difference is rather a formal one: Calculation is now done with labor-time units instead of price quantities in which the material costs are expressed.

As the third component of the value of commodity, the cost accountant takes personnel costs into account. But be careful here: Only the value of the productive means used and consumed in production is a component of the value of the commodity produced. The wages paid out cannot form a component of value because they are spent by the wage earners to buy their consumer goods. With the consumption of these commodities, their value disappears at the same time. A value that no longer exists cannot be transferred to the commodity to be produced. With labor power, the employer has bought a special use value, labor as a source of new commodity values. By working for the employer, the workers create new values that are high enough not only to replace the value of the wages paid to the employer, but also to serve as a source of profit for him. The fourth component of the value of commodity is therefore profit, calculated as a markup on the cost price [Selbstkosten]. In the cost price, the difference between material costs, which contain only the transferred value, and personnel costs, which are replaced by the value-adding labor, has disappeared. From the viewpoint of the cost accountant, all that is returned in the cost price of the commodity is the price of the consumed means of production, just as in the wage the consumed days of labor.

For the cost accountant, the profit markup bears no particular relation to labor. The particular value-creating power of labor does not interest him. Therefore, he relates profit to all components of the cost price and to all buying and selling efforts to achieve favorable prices on the markets. What seems to be crucial for success is the special business skill of the entrepreneur.

The Problem of Allocating Joint Expenses

Joint Expenses in Multi-Product Companies

(p	+	r)	+	l	=	product
machines, buildings	+	raw materials, auxiliaries, consumables	+	living labour	=	40,000 pair of shoes
1,250 labour-hours	+	61,250 labour-hours	+	62,500 labour-hours	=	125,000 labour-hours

= results in 3.125 labour-hours per pair

Source: Group of International Communists, Fundamental Principles of Communist Production and Distribution, 2nd edition, 2020, p. 112

14

Slide 14 illustrates the basic structure of a labor-time calculation for shoe production. The units of labor-time for the use of fixed means of production, including machines and buildings, were already referred to as depreciation on slide 13. In the production equation, they are given the letter »p« , the units of labor-time for the consumed intermediate products (raw materials, auxiliaries and consumables) are given the letter »r« and the newly spent, living labor-time is given the letter »l«. The sum of dead, already objectified labor (p + r) plus newly added living labor (l) gives the total labor-time, in our example 125,000

labour-hours. The example cites 40,000 pair of shoes produced in total, yielding 3.125 labour-hours per pair.

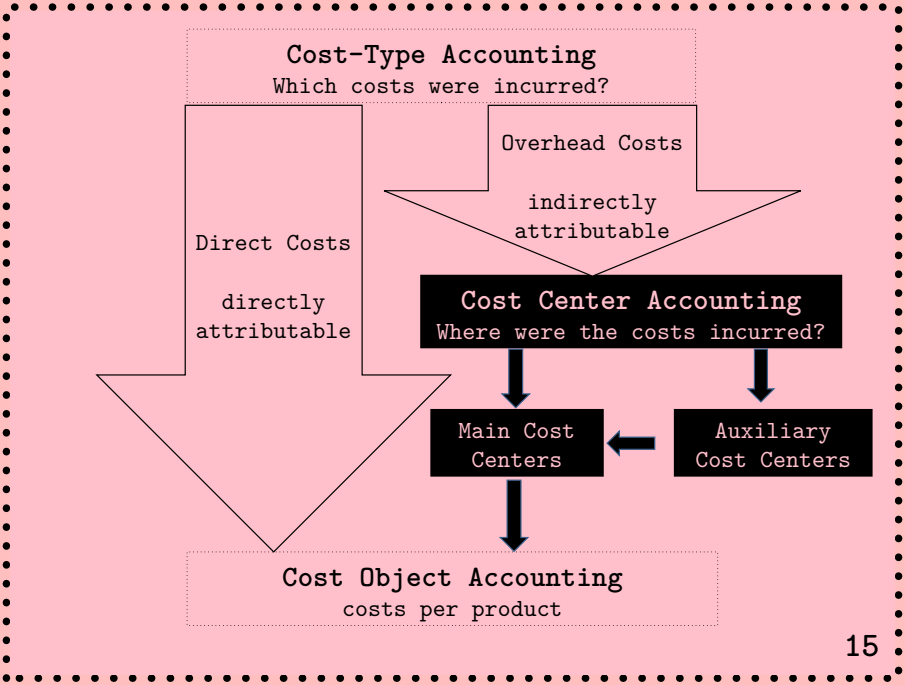
I would like to draw attention to a difficulty which is ignored here and in the entire discussion on labor-time accounting, although the problem has great practical significance. The shoe example avoids this difficulty by assuming the rather rare case that only one type of product is produced. For such a single-product company, this simple calculation certainly serves its purpose. But how is labor-time allocated when not only shoes but also coats, bags and footballs are produced? In such a multi-product company, how can the joint labor expense [gemeinschaftliche Arbeitsaufwendung] in particular be allocated to the different types of products?

Joint expenses usually include depreciation on buildings, current labor for the operation of general-use production halls and warehouses, general administrative work, etc. Such labor expenses are necessary not only for the production of shoes, but also for the production of coats, bags, footballs, and to a different extent. At this point, it is worth asking cost accountants and business economists how they allocate overheads [Gemeinkosten] to the various goods. We should use their wealth of experience to examine which procedures could also be helpful for labor-time accounting.

Slide 15 outlines the problem and suggests a practical solution, which has a number of special features depending on the type and size of the company. I cannot go into this here and will limit myself to outlining the general solution to the problem. The cost accountants assign their cost types to two groups: Direct costs [Einzelkosten] can be directly allocated to the commodities produced. These include direct labor costs [Fertigungslöhne], raw materials, some machines and tools.

The second large block of costs is made up of costs that cannot be directly allocated, also known as overhead costs [Gemeinkos-

ten]. These can only be indirectly allocated to the commodities produced, the so-called cost objects [Kostenträger], via so-called cost centers [Kostenstellen]. This is the place or functional area where the costs are incurred. If you know where the costs are incurred, then you only need to know the extent to which the cost object has used the cost center in order to correctly allocate the costs incurred here to it. Immediately attributable direct costs are used for this allocation.



The cost accountants consider which direct costs are approximately proportional to the overhead costs of a cost center. Once the appropriate direct cost item has been identified, it serves as the key to also piggyback the proportional overhead costs onto the produced goods. Assume that the overhead costs of a cost center account for 10% of the selected direct cost item.

The cost accountant assumes that 10% of the overhead costs must be allocated to the produced goods in addition to the corresponding direct cost item. The problem of allocating the overhead costs would be solved pragmatically.

Cost Allocation Sheet of Kitchen Equipment Ltd.		MAIN COST CENTERS			
selected overhead costs	Amount in thousand €	Material	Manu-facturing	Administration	Sales
wage payments	290,000	73,000	94,000	45,000	78,000
social insurance	127,000	32,000	37,500	24,500	33,000
auxiliaries	400,000	45,000	225,000	none	130,000
consumables	52,000	3,000	40,000	3,000	6,000
office costs	40,000	none	4,000	20,000	16,000
interest	110,000	25,000	63,000	10,000	12,000
marketing	180,000	none	50,000	30,000	100,000
sum of overheads	1,199,000	178,000	513,500	132,500	375,000
	Cost-Plus Basis:	Production Material	Direct Labor Costs	Production Costs	Production Costs
		1,490,000	1,400,000	3,581,500	3,581,500
	Cost-Plus Rate:	11.90%	36.70%	3.70%	10.50%

16

Slide 16 contains a straightforward cost allocation sheet. It allocates the types of overhead costs to the cost centers. From this, the sum of the overhead costs per cost center can be calculated. As key for the calculation of the proportionate overhead costs you select the suitable direct costs: In my example I selected the direct cost item production material for the cost center material, direct labor costs [Fertigungslöhne] for the cost center production, and production costs [Herstellkosten] for the cost centers administration and sales. The corresponding cost-plus rates [Zuschlagssätze] are shown in the bottom

line. They are calculated from the ratio of the overhead costs [Gemeinkosten] and the respective cost-plus basis(manufacturing material, direct labor costs, production costs).

The italicized items (wage payments, social insurance, interest, marketing) are meant to recall that such types of overhead costs are specific to the capitalist production of commodities and have no equivalent in labor-time accounting. As a reminder, payroll and social security contributions would be replaced by the actual labour-hours of the producers. Everything else would be the same as in conventional cost center accounting, except that labour-hours would be used instead of wage costs. The business procedures for allocating overhead costs could also be used by labor-time accountants. Interest would no longer exist, so that there would be nothing to distribute at this point. General marketing expenses would be limited to the labour-hours absolutely necessary to bring the products to consumption. If general labour-hours that cannot be directly attributed have been incurred here, they must be allocated in a comparable manner.

Example: Cost Accounting / Cost-Plus Pricing

Cost-Plus Pricing for One Pair of Sommer Shoes

Cost Price Accounting (in €)		*Labor-Time per Product*
manufacturing material	15.90	consumed material in production
+ 11.9% MOC	1.89	+ material overhead expense
= material costs (I)	17.79	= material expense (I) p+r+l
direct labor costs	19.50	directly attributable manuf. time
+ 36.7% production overheads	7.16	+ general manufacturing time
= manufacturing costs (II)	26.66	= manufacturing time (II) p+r+l
(I)+(II): production costs	44.45	(I)+(II): production expense
+ 3.7% administrative costs	1.65	Administrative expense
+ 10.5% costs for sales	4.66	Expense of delivering products for consumption
= cost price!	50.76	
+ 20% profit!	10.15	
= market price per pair	60.91	= total labor-time per pair

17

Slide 17 shows a cost-plus pricing [Zuschlagskalkulation] for one pair of summer shoes, whereby I assumed that the leather processing company also manufactures other products, including coats, bags, footballs. Their direct costs and overhead costs differ from each other, because for the production of these products in part different intermediate products [Vorprodukte] or the same intermediate products in different proportions are used. Also, different production facilities are used and the production methods are also likely to differ, so that different overheads are incurred by the various cost objects.

By calculating the cost-plus rates [Zuschlagssätze] for the overhead costs, the cost center accounting has set the stage for calculating the cost price [Selbstkosten] of the cost objects. First, the directly attributable costs are attributed to the cost object, including manufacturing material and direct labor. In our example »cost-plus pricing for one pair of summer shoes«, the cost of manufacturing material for the pair is 15.90 euros. Now we assume that the material overhead costs (MOC) are proportional to this. From the cost center accounting we take the general cost-plus rate [allgemeiner Zuschlagssatz] for the material overhead of 11.9%, which we transfer to the cost price accounting for the summer shoes. This results in material overheads of 1.89 euro (= 15.90 x 0.119).

Using the same calculation method, the manufacturing costs are 26.66 euros (direct labor costs: 19.50 euros, manufacturing overhead: 7.16 euros). The production costs [Herstellkosten] consist of the sum of direct materials costs [Materialkosten] plus manufacturing costs [Fertigungskosten]. Adding the costs of administration and sales finally results in a cost price [Selbstkosten] of 50.76 euros. This quantity is measured by the prices that the entrepreneur had paid for the purchase of all production elements to produce his commodity. Since he did not pay anything for his profit, it does not belong to the costs from his point of view.

Under certain limitations, cost-plus pricing [Zuschlagskalkulation] could serve labor-time accountants as a model for calculating the labor-time per product. In the area of »material costs« [»Sachkosten«], the correspondences are greatest. Instead of calculating with prices, the cost accountants would take the labor-time units contained in the means of production. Depending on the level of consumption, the labor-time units of the means of production consumed by labor would be distributed to the »labor-time centers« corresponding to the cost

centers, precisely differentiated into the directly attributable labor-time units and the only indirectly attributable general labor-time units. Analogous to the direct costs [Einzelkosten] in cost accounting, the directly attributable labor-time units would serve here as the key for allocating the general labor-time units. From this, it would also be possible to calculate cost-plus rates [Zuschläge] for the general labor-time units.

At this point, I have to come back to a central topic: As a total-time calculation, labor-time calculation records the entire living labor-time spent and by no means only »necessary labor-time« which corresponds to the amount of wages. A comparable approach would be possible for labor-time that cannot be directly allocated: The labor-times of the respective producers would replace the wage overhead costs [Lohngemeinkosten].

Taking these essential modifications into account, the material expense [Materialaufwand], expressed in labor-time units, and the manufacturing time [Fertigungszeit] could be calculated. Both add up to the production expense [Produktionsaufwand], expressed in labor-time units. With the inserted letters p + r + l, I refer to the corresponding labor-time units of slide 15 to indicate that the production expense contains both living and objectified labor-time units.

Costs for administration and sales [Verwaltungskosten und Vertriebskosten] would be replaced by administrative expenses [Verwaltungsaufwand] and the expenses of delivering products for consumption, expressed in labor-time units. This item is likely to become significantly smaller. For in an economy based on labor-time - which is designed to satisfy needs and not to make profit, where the struggle for sales markets is completely eliminated and general overproduction crises no longer occur - the expense of delivering products shrinks to a minimum. Administrative costs, nowadays pushed by manifold commercial activities, by legal safeguards related to private property and, last

but not least, by internal struggles for positions within the company, would have a considerably smaller extent on the basis of labor-time.

When considering wage costs [Lohnkosten] in cost-type accounting, I emphasized the important point that labor-time accounting records the average labor-time spent on production as a whole. For with the category of wages, the division of total labor-time into necessary labor-time corresponding to wages and surplus labor-time corresponding to profit has disappeared as well. The former opposition of two parts of the working day, necessary labor-time and surplus labor-time, would no longer have any basis. The cost price [Selbstkosten] would also no longer be calculated, since the external juxtaposition to profit would no longer exist. Surplus labor-time once contained in profit would have dissolved into total-time. The two variables «cost price« and «profit« would no longer have any significance for labor-time accounting, so I have not even mentioned them in slide 17.

Advantages of Labor-Time Accounting

Advantages of Labor-Time Accounting

- ✓ common ownership of the means of production, direct social labor, labor-time accounting and planned economy as an inner unity
- ✓ law of value no longer applies: greater freedom in shaping the economy
- ✓ transparency: kleptocracy is uncovered
- ✓ only real expenses are recorded (no bogus costs)
- ✓ total-time accounting instead of wage accounting
- ✓ technical progress is facilitated
  - previously: new machine saves costs
  - now: new machine saves labor-time
- ✓ no necessary misallocation by economic calculation

18

Slide 18 summarizes some of the advantages of labor-time accounting. Perhaps the most important merit of labor-time accounting is its consistency and that it allows for intercompany planning and organization. This is due to common ownership and direct social labor. Economic accounting is possible without the existence of prices and markets. Moreover, economy can be planned and organized without markets interfering with the process of planning. The blind law of value ceases to exist as soon as common ownership of the means of production makes direct social labor possible. Without the law of value, there is no

competitive pressure, no coercion of producers to harm others (for example to protect one's own survival or advantage). A new space of possibility with hitherto unknown degrees of freedom can emerge.

In a society freed from the law of value, work becomes a public matter. In principle, everyone has insight into accounting books and labor-time calculations. This transparency prevents even minor fraud. The appropriation of other people's labor would be immediately uncovered. The previous principle of the rich: those who receive a lot of income, especially from entrepreneurial activity and assets, have made a correspondingly high contribution to production, is abolished. Bogus costs such as ground rents and interest disappear. Labor-time is lifetime and the only thing that »costs« a person something. Only the labor-time spent counts. Only necessary labor-time is included in the economic calculation.

Wage and profit no longer exist, nor does the division of the working day into neces sary labor-time (for the reproduction of wages) and surplus labor-time (for the production of profit). Total-time is recorded and not, as in cost accounting, only a part of it in the form of wages. Recording the total-time fosters technical progress. It avoids misallocation.