

Comparative Mapping of Production Process

**Workers' knowledge as an
instrument of union action at the workplace**

www.tie-brasil.org



TIE-Brasil



Mapping of the Production Process

To investigate the production system from the workers' point of view, and to identify problems caused by the organization of the production process and by the ways of production



The production process is formed by

Organization of work

- Administration and allocation of human resources
- Stimulation and motivation of the workers
- Human productivity

Organization of production

- Organization of material
- Machinery, equipments and production flows
- Lay-out and design of the factory
- Mechanical productivity

Mapping of the Productive Process

Form base groups of workers

- **support groups/union staff**
- **factory groups**
- **union delegates**
- **activists**

collect as much as possible
information about the production process

Information about production process and production chain to be collected:

- **number of employees**
- **volume of production**
 - **productivity**
- **quantity of extra work / overtime**
- **breaks, holidays, days off and absenteeism**
 - **suppliers and clients**

**An easy way to collect
data is to draw a**

Calendar of Productivity

M	T	W	T	F	S	S
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

where each worker lists his/her daily production and hours of work



Construction of Collective Knowledge

**The information needs to be systematized
and analyzed by the workers themselves**

This means:

draw a map of the factory, create a map of the production process and
identify where the main problems for the workers are found

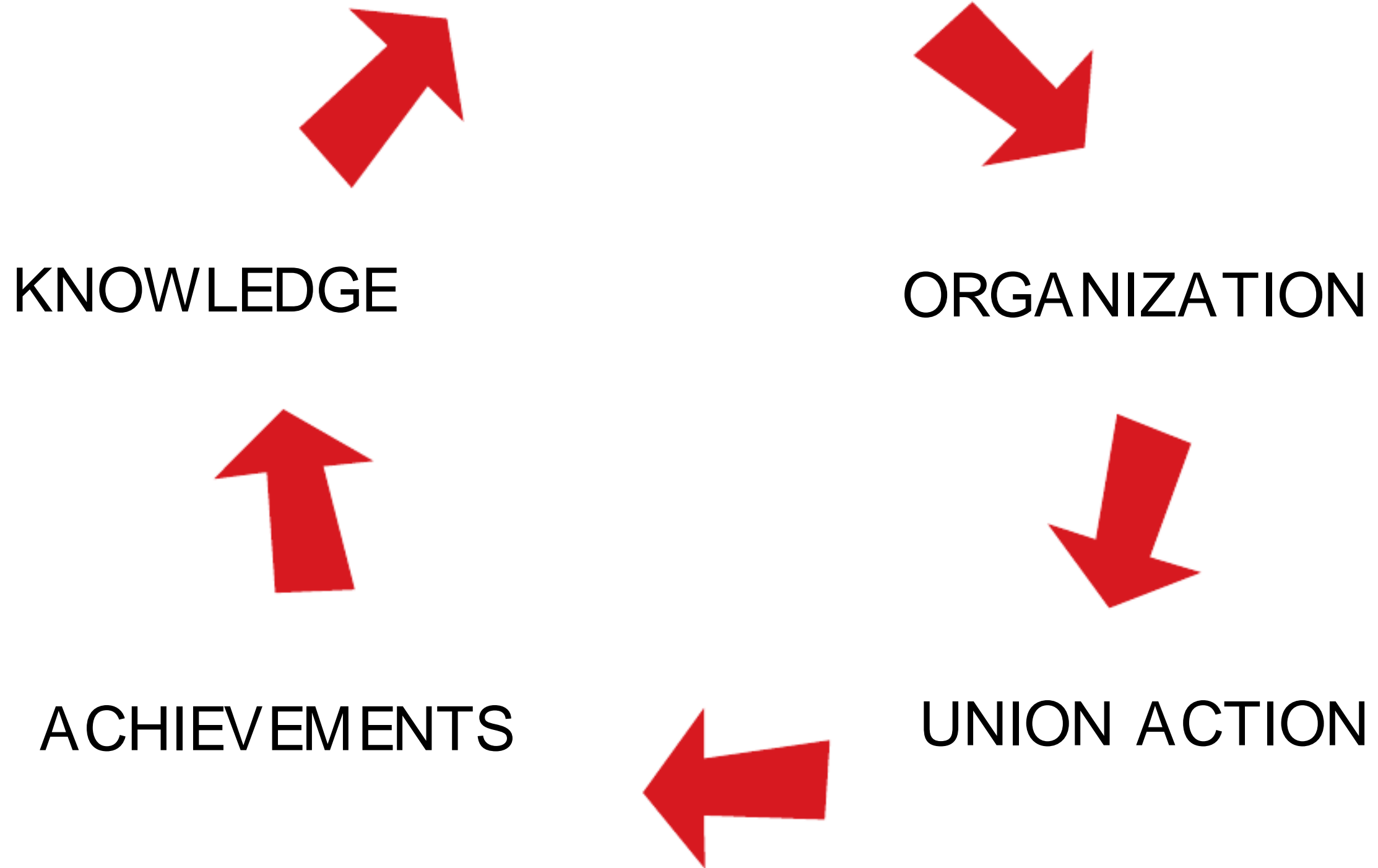
Construction of Collective Knowledge

It permits us to reconstruct the production process and the production chain in which we are involved.

In this way we can discover the reality and the logic of the production system, we work in.

The map and the design of the factory enables us to visualize all of the production process, which gives us a general image of the organization of production. This enables us to link detected problems to the way the production is organized at our work.

MAPPING



With this information at hand we are able to develop consistent and well-planned strategies and actions, which lead to more control over the production process by the workers.

Information and control over the process enables us to start negotiations and if necessary, conflict, in order to change effectively the workers' reality.

Calculation of the necessary working power

Serves to determine the number of people
needed
to realize certain production tasks

It is possible to calculate, because every worker knows:

- **what is produced**
- **how many units**
- **how**

And the most
important:

- **WHO is the PRODUCER**

Therefore, this work demands the cooperation of each and every worker, each individual who is part of the production process.

With help of the production mapping method we collect the data that tell us about the productivity of each workplace.

Calendar of Productivity

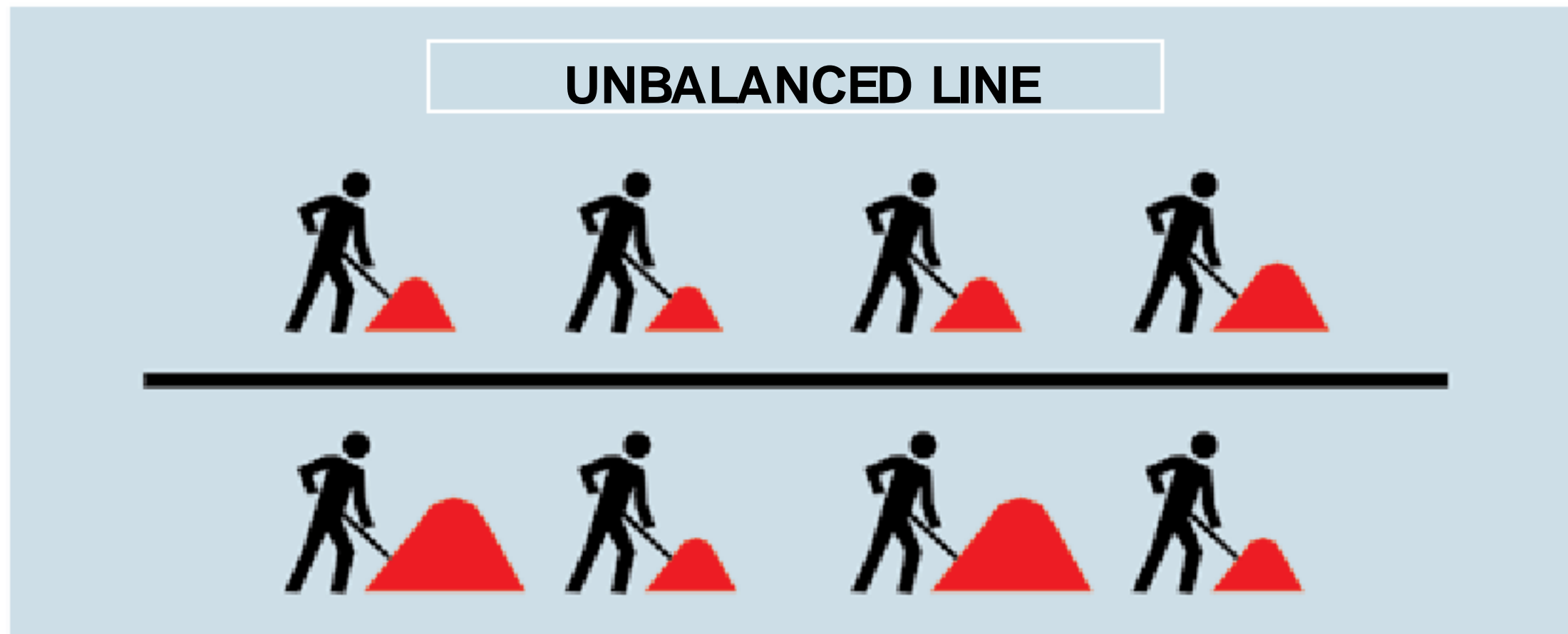
M	T	W	T	F	S	S
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

In which each worker writes down the number of produced units and working hours

$$\frac{\text{units}}{\text{workers}} = \text{work load}$$

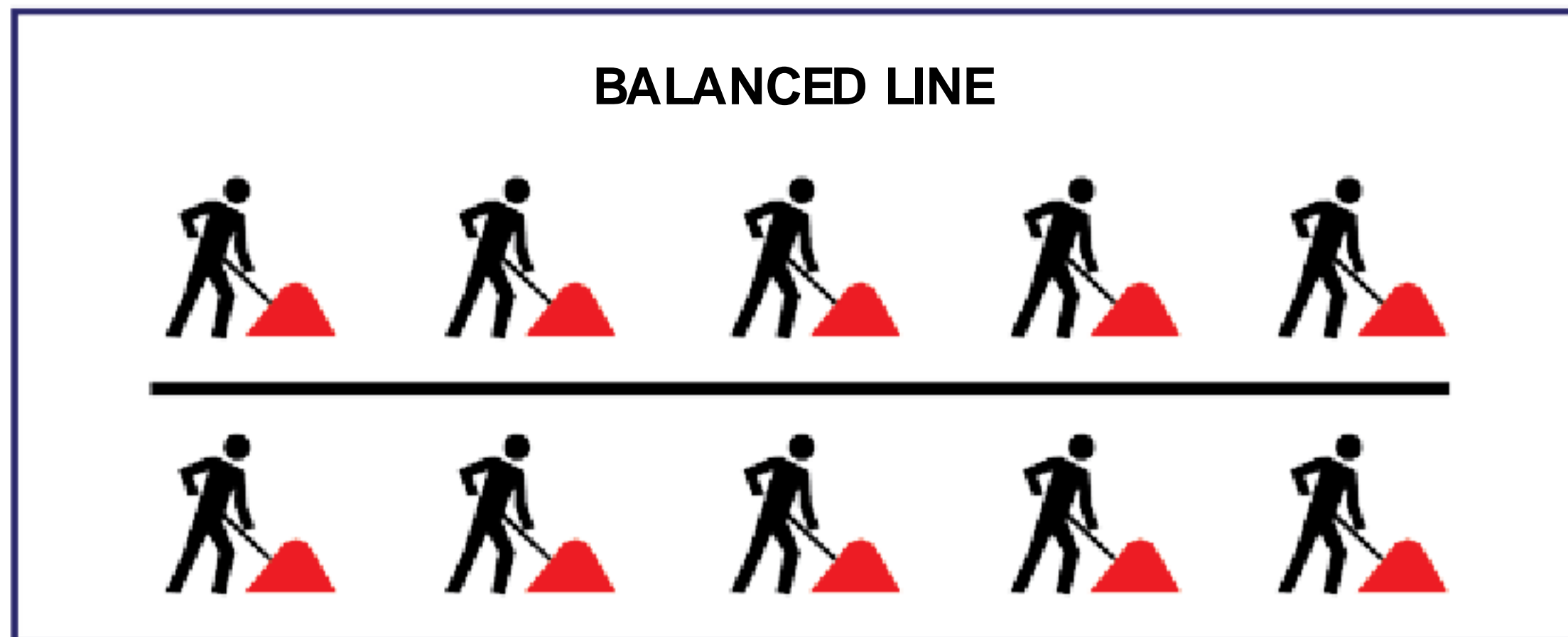
$$\frac{\text{units}}{\text{sum of human and material resources}} = \text{productivity}$$

With the collected data we are able to identify in which part of the company the worker is able to produce more units in less time and what is the link between the different work places.



Based on the collected data,
we can now look into:

- the balance of the production line
 - the balance of the work places
- the calculation and control of working hours



Therefore we need:

- ongoing contacts between workers and union activists
- the official company information, to be able to compare these to the information supplied by the workers



Once the information is possessed, we can:

- **visualize the production process as one,**
 - **detect “evolving” tendencies,**
- **negotiate process changes, that we find necessary,**
- **oppose process changes which the company tries to impose upon us.**

Comparative mapping

**A method for trade union
action in the workplace and
in the world**

Comparative Mapping

Mapping the production system from the point of view of the workers and comparing the drawings/mapping results with other shops, sectors, enterprises, branches in different countries, etc

Comparative Mapping

consists of
3 elements
of the same method
of trade union action:

mapping of the production process



comparison
of
processes



calculation of
the necessary
work force



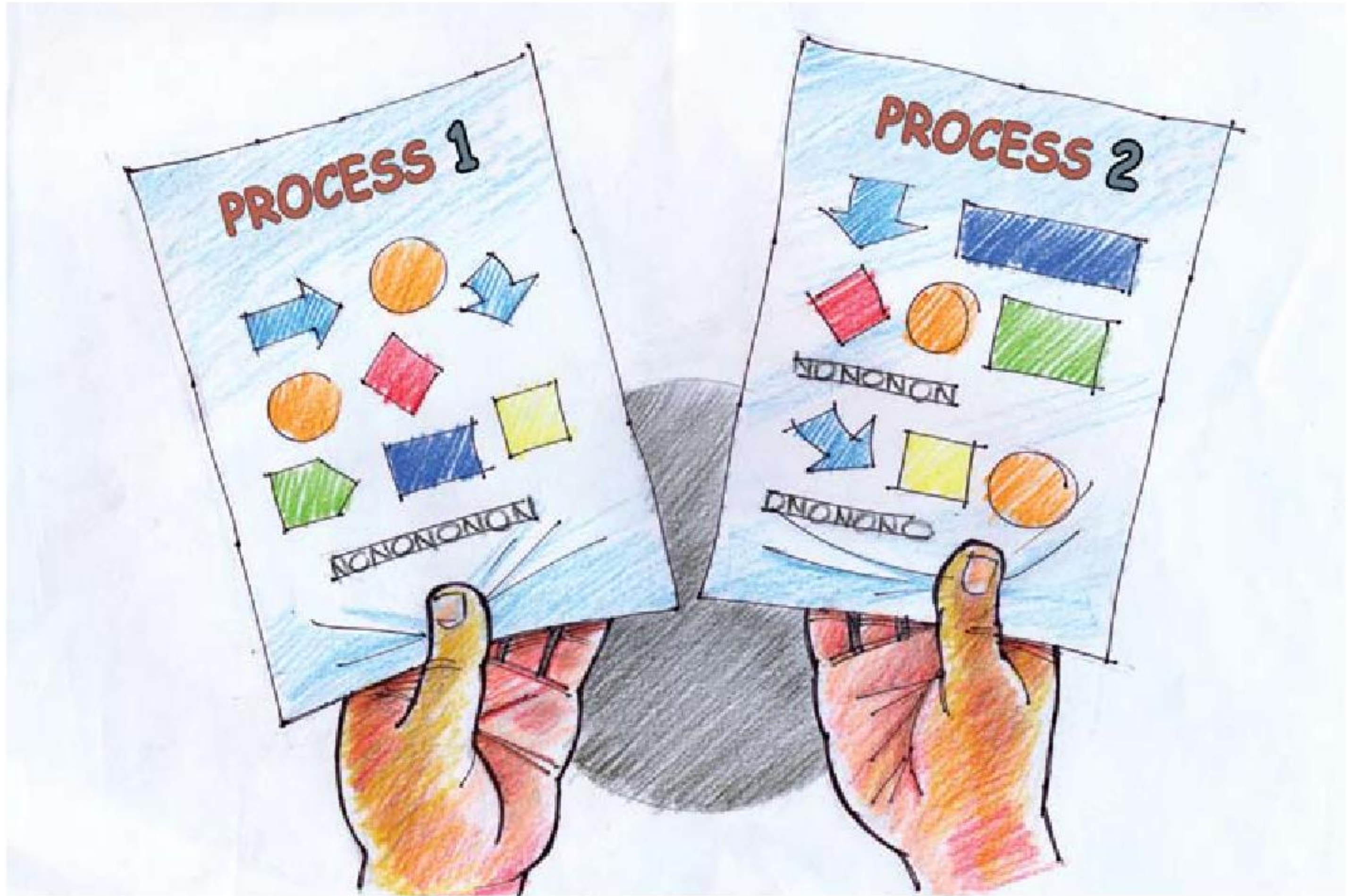
Comparative Mapping

Until now we have studied two of the three elements. Let's look into the third one:

comparing the processes

Comparison of production processes

is the third element in the trade union method that provides workers with an understanding of the production chain they work in, and the competition among different companies



Comparison of processes

leads to the identification of existing differences in various companies concerning:

- **working conditions and rhythm of work**
- **working hours**
- **wage levels**
- **productivity**
- **quality**
- **prices and costs of production**
- **others**

By understanding the differences, union and workers can discover:

- **potential strategies for production re-structuring**
- **planned outsourcing**
- **costs reductions**
- **planned dismissals**
- **the more competitive companies**
- **critical issues and potential conflicts**

It allows us to:

- develop strategies and conditions for union action that would fit the historical moment as well as the juncture, seeking to attack the nerve of entrepreneurial initiative.
- develop viable and pro-active solutions and autonomous alternatives to defend class interests.
- increase workers' control of production, economic and social processes

The elements of comparative mapping

Aim at obtaining knowledge of a constantly changing reality through the comparative analysis of working places and of the production process from the point of view of the workers' interests, taking into consideration:

- **the number of workers employed and necessary per operational unit at the each enterprise.**
- **the work load and speed of work**
- **the organization and management of production**

Out of the empirical knowledge of workers three elements were developed. When joined together, they create favorable conditions for strengthening the workers' organizations and its fighting power.

Summary

Comparative Mapping

step by step

First step

Mapping collectively

- Base groups
- Working place

Second step

Systematize collectively

- Base group
- Union activists and leadership
- Working place

Third step

Calculate the necessary workforce

- Base group
- Union activists and leadership
- Working place

Fourth step

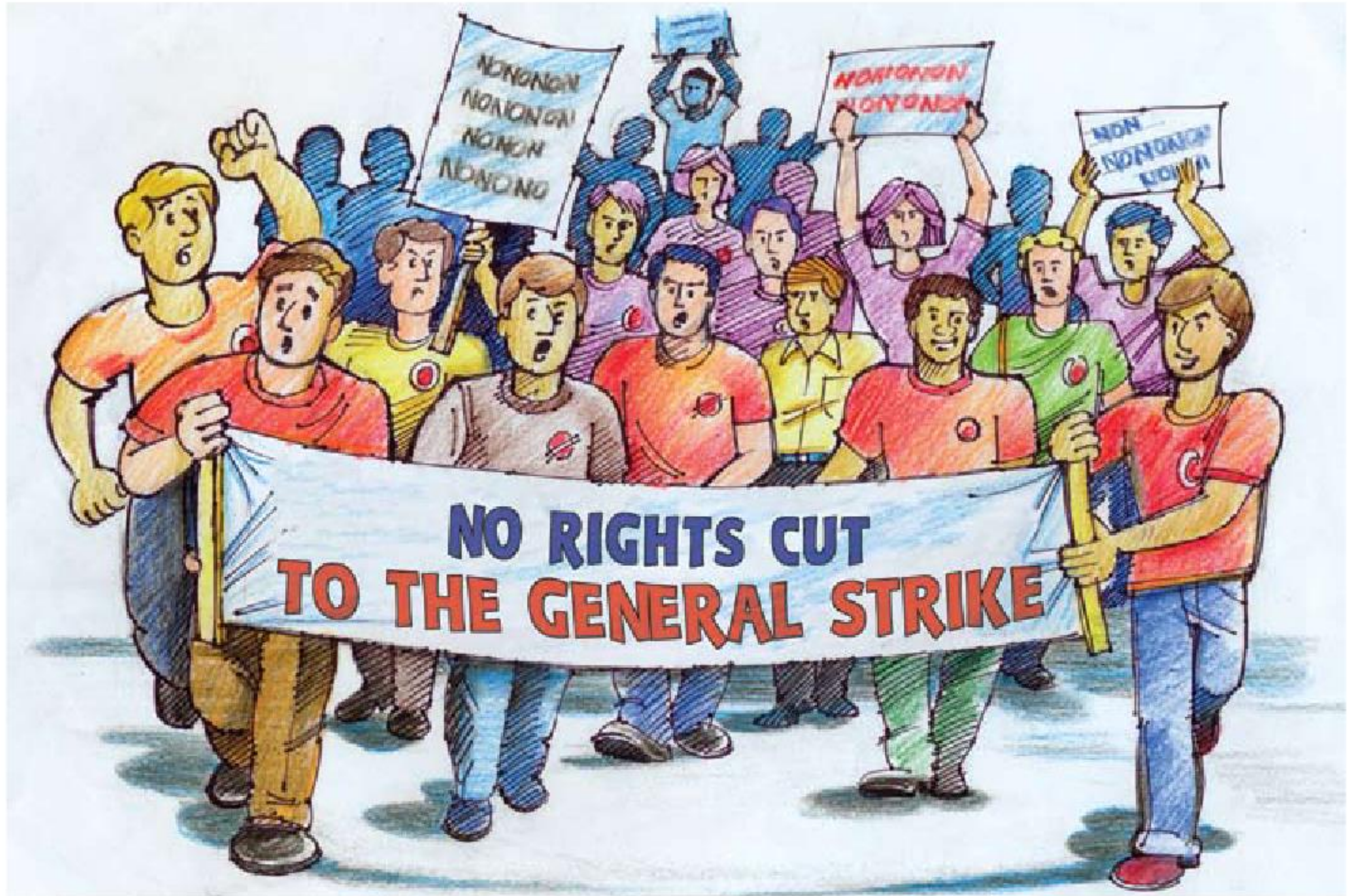
To compare the different:

factories – sectors – regions – countries

Fifth step

To focus union action collectively

- To establish priorities and methods of action
- Strategical planning



Sixth step

Union action itself:

- at the workplace
- in a sector
- in a region
- in a country
- in the world

“COMPARATIVE MAPPING OF PRODUCTION PROCESSES - Workers’ Knowledge as an Instrument of Union Action”
Is a TIE-Brasil publication qualified for discussions in groups at the seminars of workers and union activists.



TIE-Transnationals Information Exchange, Curitiba, Paraná, Brasil, 2008

TIE is an international network of workers and union activists. Its goal is to promote information and experience exchange between workers, unionists, groups of workers and similar organizations, promoting debates about union strategy and actions, focusing creation of alternatives that can permit social-economic transformations.

The present content can be reproduced by unions, workers’ commissions and other union and social non-profitable organizations as far as the source is mentioned.

Copy of this and of other materials can be requested by fax, mail or e-mail:

TIE-Brasil

Rua Padre Anchieta, 1692 – Conjunto 1208 – CEP 80730.000 – Curitiba – PR – Brasil – Phone/Fax: (00.55.41) 3339

5019

tie@tie-brasil.org

www.tie-brasil.org

Illustration and design: Binho