

S03.02-IS-01-R112-I.4-Standard costing

Standard costing (applicable to WP1 companies)

The "Standard" notion doesn't apply to the costing of PF1 companies.

Standard fixed cost

The "standard fixed cost budget" has to be calculated in a consistent manner with the yearly "normal capacity".

Semi-standard principle for the Net Cost of Production

Non-proportional costs and depreciation can in general be analyzed as follows per unit produced:

number of work units
multiplied by
cost per work unit

The product information sheet / formula specifies the nature of the work unit, the number of work units per unit of measure produced. As with proportional costs, the information sheet is reviewed by the production department as improvements are made.

The unit cost of the work unit is an annual standard. It is defined in December on the basis of the actual data from the current year (or 11 actual months plus an estimate for December) and is applicable from January 1, the following year. This unit cost should be reviewed during the year in the event of a major change to the structure or activity (for example the sale of part of the entity).

Unit costs (standards) should be based on a standardized production, which is the maximum daily production multiplied by net OEE (See [WCM procedure for the calculation of the maximum daily production and net OEE](#)).

OEE = Overall Equipment Effectiveness ... see [more on Internet](#). Ratio of good production (products of the specified quality) to the maximum production that could have been achieved during the same period.

WCM = World Class Manufacturing ... see [more on Internet](#).

Inclusion of non-proportional costs and depreciation actual/standard differences in inventories

For non-proportional costs and depreciation, any structural differences have the same impact as for proportional costs.

At least once a year, **the standard cost per unit** given to calculate, **in the cost centers**, non-proportional costs and depreciation of products should be confronted with actual cost.

However, the actual rate can't be calculated by dividing accounted charges by the actual production level: this formula would lead to overestimate the hourly rate. Indeed, the rate would take into consideration the under activity. It would be incompatible with validated principles.

Moreover, the actual rate can't be calculated by dividing actually recorded charges by the optimum production volume (i.e. in "saturated capacity"). Indeed, it would underestimate abnormally the unit rate.

The overall difference between the actual non-proportional costs/depreciation and semi-standard non-proportional costs/depreciation should be examined (after deducting the structural difference) as a **performance** and a **price** difference, which is in turn subdivided into a sub-activity difference and a price difference excluding sub-activity.

The total non-proportional costs and depreciation can be broken down into:

- Cost per work unit (CUO) known in standard, obtained by dividing into actual,
- Multiplied by the number of work units (NUO) known in standard and actual,
- Multiplied by a quantity produced (N) known in standard and actual.

By comparing the standard (s index) with the actual (r index), the following three differences can be found:

- The **performance** difference, which is a variation resulting from the number of work units consumed, is mathematically equal to: $(CUOs \times NUOs \times Nr) \text{ less } (CUOs \times NUOr \times Nr)$.
- The **price** difference, which is a variation resulting from the work unit cost or $(\Delta CUO) \times NUOr \times Nr$ breaks down into:
 - Price difference excluding sub-activity which is mathematically equal to: $(CUOs \times NUOs \times Ns) \text{ less the actual or } (CUOr \times NUOr \times Nr)$, and
 - Sub-activity difference: $(CUOs \times NUOr \times Nr) \text{ less } (CUOs \times NUOs \times Ns)$.

If no work unit has been defined, no performance difference can be calculated.