

EFNMS KPIs Benchmarking Survey 2020

[About the survey.](#)

This survey is being conducted by the **EFNMS Maintenance Assessment Committee (EMAC)** and has as main target to identify best practices and standard values for typical **Key Performance Indicators (KPIs)** related with maintenance function.

The survey is initially addressed to Maintenance Managers in companies established on countries members of the EFNMS and specific sectors: Oil & Gas, Energy Production, Pharmaceutical and Chemical. The survey results will be presented and discussed on the workshops arranged by EMAC at the EuroMaintenance 2021.

All the people taking part on that survey will receive the conclusions obtained after the workshop related on EuroMaintenance 2021.

The survey should **take around 15-20 minutes**. We really appreciate your input!

Welcome and thank you in advance for your collaboration.

There are 31 questions in this survey.

A Company & facility data

Data regarding facility and company.

1 [A1]Company name: *

Please write your answer here:

2 [A2]Facility location: *

Please write your answer here:

3 [A3]Country: *

Please write your answer here:

4 [A4]Sector: *

ⓘ Please select at most one answer

Please choose **all** that apply:

- Chemical. (Petrochemical included)
- Energy Production
- Oil & Gas (Oil products)
- Pharmaceutical Industries
- Pulp & Paper

5 [A4a1]As you selected "Energy Production" as your sector, please, specify the type of plant:

Please choose **all** that apply:

Nuclear Power Plant

Hydropower

Thermal Plant

Wind power

Other:

6 [A4a2]As you selected "Pharmaceutical Industries", please specify if your company:

Please choose **all** that apply:

Process

Packaging

Other:

7 [A4a3]

As you selected "Oil & Gas" as your sector, please, specify the type of operation:

Please choose **all** that apply:

Upstream

Downstream

Other:

Ab- Respondent's data

8 [Ab1]Job position:

Please choose **all** that apply:

Maintenance Manager

Production Manager

Maintenance Technician

Other:

9 [Ab2]Experience as Maintenance Manager: *

Please choose **all** that apply:

Less than 1 year

1 to 3 years

4 to 7 years

8 to 12 years

12 to 20 years

More than 20 years

B General information

10 [B1]Total number of employees (own employees, not external) *

Please write your answer here:

11 [B2]
And how many of them are considered Maintenance personnel? (Own employees, not external).
The number must be lower or equal to the previous one. *

Please write your answer here:

12 [B3]Age of the production facilities. (Indicate % of your equipments per category; e.g: 10% is 0-5 years old; 20% is 6-10 years old and 70% is 16-25 years old)

Please write your answer(s) here:

0-5 years

6-10 years

11-15 years

16-25 years

more than 25 years

C Maintenance Organization

13 [C1]Who is responsible for Maintenance functions? *

Please choose **all** that apply:

Plant Director

Production Manager

Technical Services Chief or Engineering Head

Other:

14 [C2]Mark the functions assigned to Maintenance Department:

Please choose **all** that apply:

- Maintenance of production and auxiliary activities
- Study/design and implementation of small improvements
- Study/design of major improvements and new facilities
- Running great improvements and new facilities
- Consultation during procurement of new equipment and facilities
- Operation of power generation of steam or electricity
- Construction / installation of production systems/ tools
- Fleet services work centre
- Security and safety of the workplace
- Cleaning and care office, gardens, etc.

Other:

15 [C3]Indicate the working groups, defined, staffed and established within the maintenance organization:

Please choose **all** that apply:

- Mechanical Maintenance
- Electrical Maintenance
- Instrumentation Maintenance
- Construction
- Painting
- Carpentry
- Electronics
- Purchasing
- Warehouse
- Planning Office
- Inspection of equipment

Other:

D Maintenance Costs

16 [D1]Is there an annual budget for maintenance costs? *

Please choose **all** that apply:

- Yes
- No

17 [D2]Who prepares the budget?

Please choose **all** that apply:

- Company Director / Manager
- Maintenance Manager
- Production Manager
- Administration Department
- Finance / Accounting Department

Other:

18 [D3]Give an estimation of last approved budget: (In €)

Please write your answer here:

€

19 [D4]Which is the distribution for your maintenance costs?

	Percentage
Spare parts and materials (it should include parts and materials supplied by own company and/or by contractor, if exists)	<input type="text"/>
External Services	<input type="text"/>
Personnel costs (own staff)	<input type="text"/>

Total: {sum(D4_SQ001_SQ001,D4_SQ002_SQ001,D4_SQ003_SQ001)} %

E Maintenance Contract

20 [E1]Quantify your contracts of maintenance (external services) by type in terms of cost percentage distribution: (Give data regarding last available year).

Preventive Maintenance (%)	<input type="text"/>
Corrective Maintenance (%)	<input type="text"/>
Turnarounds (%)	<input type="text"/>

21 [E2]Which is the cost distribution in % between external maintenance manpower vs own maintenance manpower. For instance: 30%/70% or 50%/50% or 0%/100%

Please write your answer(s) here:

Outsourcing.

Own staff.

Total: {sum(E2_SQ001,E2_SQ002)} %

F Control of Maintenance work

22 [F1]Indicate the percentage (%) of work requests received in Maintenance defined as immediate or urgent corrective maintenance.

Please choose **all** that apply:

- 0 to 5%
- 6 to 15%
- 16 to 30%
- 31 to 50%
- more than 50%

23 [F2]Maintenance workload assessment. Select the estimated time that it would take to complete the work in progress and backlog.

Please choose **all** that apply:

- Less than a week
- Between one and two weeks
- Less than a month
- More than a month

Other:

24 [F3]How often are maintenance costs reports produced or updated?

Please choose **all** that apply:

- On line / diary
- Weekly
- Every 15 days
- Every month

Other:

25 [F4]Until which level can be obtained maintenance costs breakdown?

Please choose **all** that apply:

- Work order
- Equipment or machine
- Systems
- Plant
- Preventive / Corrective
- Costs nature (parts / services / own staff)
- Responsible function, area or trade

26 [F5]Do you use, in a systematic way, Key Performance Indicators (KPIs) for following up strategy and potential improvements identification? *

Please choose **all** that apply:

- Yes
- No

27 [F6]

Please provide your present KPIs values:

EN 15341:2007 KPI Code	EN 15341:2019 KPI Code
E1	A&S1
E3	PHA15
E8	A&S7
E10	A&S10
E11	A&S8
T1	PHA8
T2	M10
T5	HSE 10
O1	O&S1
O6	HSE 4
O23	P19

	Valor
[A&S1] Total Maintenance Cost x 100/ Assets Replacement Value	<input type="text"/>
[PHA15] Annual maintenance cost / Annual standard technical output	<input type="text"/>
[A&S7] Internal maintenance personnel cost x 100/ Total Maintenance cost	<input type="text"/>
[A&S10] Cost of outsourced maintenance x 100/ Total Maintenance cost	<input type="text"/>
[A&S8] Total cost of maintenance materials Total costs of spare parts + materials used x 100/ Total Maintenance cost	<input type="text"/>
[PHA8] Total Operating time x100/ Total Operating time + Downtime	<input type="text"/>
[M10] Achieved uptime during required time x100/ Required time	<input type="text"/>
[HSE10] Number of failures causing injuries (including fatalities) to people / Actual working time	<input type="text"/>
[O&S1] Number of internal maintenance personnel x 100/ Total site personnel	<input type="text"/>
[HSE4] Number of injuries of maintenance personnel / Total maintenance personnel Total man-hours worked by maintenance people	<input type="text"/>
[P19] Total man-hours of training and education x 100/ Total man-hours	<input type="text"/>

28 [F6a]

Please provide the values for the following specific KPIs:

EN 15341:2007 KPI Code	EN 15341:2019 KPI Code
E7	A&S15
E15	A&S12
E16	A&S13
E20	A&S20
T21	O&S16
T17	E5
T19	O&S21
O22	O&S28

	Valor
[A&S15] Annual average inventory value of spare parts and materials x 100/ Asset Replacement Value Physical asset replacement value	<input type="text"/>
[A&S12] Corrective maintenance cost x 100 / Total Maintenance cost	<input type="text"/>
[A&S13] Preventive Maintenance cost x100 / Total Maintenance cost	<input type="text"/>
[A&S20] Total full services cost x 100 / Total cost of contract services	<input type="text"/>
[O&S16] (MTTR) Total time to restoration/ Number of failures	<input type="text"/>
[E5] (MTBF) Total operating time / Number of failures	<input type="text"/>
[O&S21] Planned maintenance man-hours x 100/ Total available maintenance man-hours	<input type="text"/>
[O&S28] Works orders effectively delivered on time x 100/ Total required work orders to be delivered	<input type="text"/>

29 [F7] If you use other KPIs that you think that are similar or even more important for your organization, please list them. If they are not included in EN-15341:2019 please provide also its definition.

	Acronym	Indicator ratio explanation	Value
Indicator 1	<input type="text"/>	<input type="text"/>	<input type="text"/>
Indicator 2	<input type="text"/>	<input type="text"/>	<input type="text"/>
Indicator 3	<input type="text"/>	<input type="text"/>	<input type="text"/>

30 [G1]Do you use a Computerized Maintenance Management System (CMMS)? *

Please choose **all** that apply:

Yes

No

31 [G2]Specify in which areas or activities are used:

Please choose **all** that apply:

Cost control

Inventory Management

Work orders scheduling

Preventive Maintenance

Planning

Equipment inventory data

Technical history

Condition Monitoring

Other:

Thank you very for your collaboration.

Regards,

Submit your survey.

Thank you for completing this survey.