

## EU 20-20-20

### How much do IT professionals know about the EU 20-20-20 directive? And what actions have they taken to become more energy efficient?

#### Introduction

With increasing global pressure to act in an environmentally responsible manner, the EU has issued a directive, aiming to reduce greenhouse gas emissions by at least 20%, increase the share of renewables in final energy consumption to 20% and a 20% increase in energy efficiency by 2020.

But how are European companies with large data centres coping with the directive? Have any actions been taken? Are they even aware of it?

This study explores the transition of IT companies and their employees towards greener and more environmentally-friendly operations and facilities. Here is a summary of what 341 IT professionals from the top data centre industries within Europe have to say.

#### Awareness and Familiarity of Policy

More than half of survey respondents (57%) are aware of EU 20-20-20. But only a few IT Professionals (22%) say they are familiar with the nature of the directive and what it entails.

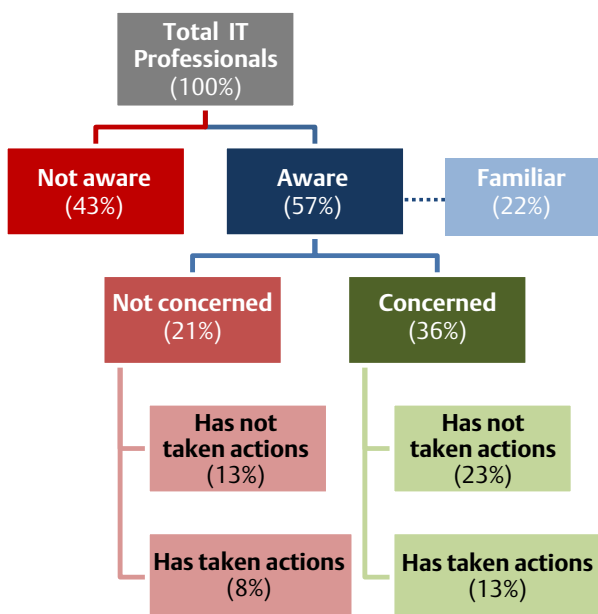


Figure 1: Flow chart of awareness to action; % of total respondents, n=341

\*Percentages are based on distribution. Actual frequency count will vary due to drop outs in the survey.

Among those aware of EU 20-20-20, 63% register concern at the effect the directive will have on their data centre operations, but 37% remain unconcerned, perceiving that their operations will not be hampered by the regulation.

#### Taking Action

What is noteworthy is that regardless of concern, actions are being taken to meet the requirements of EU 20-20-20: 21% of IT professionals have already taken action to address the requirements of the directive. However 36% are aware but have not yet done anything.

#### What about the 36% who are aware, but have not yet taken action?

Much of this cohort has no plans at the moment (57%), but 35% plans to roll out some initiatives to reduce energy consumption within the next 3 years.

#### No actions taken: status update

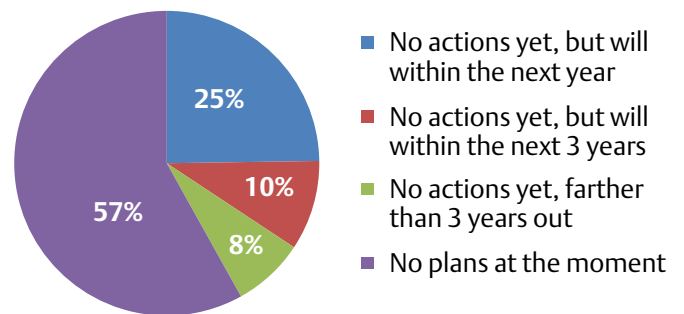


Figure 2: Current standing of those who have not taken any action

#### How far have these actions gone?

A divided house, half of those who have taken action say they have done so extensively, while the other half says they have done so minimally.

#### Level of Concern

As one might expect, this varies widely. But interestingly, within economic blocks where one would expect to see a convergence of views, such as DACH, there is wide variance: in Austria & Switzerland 0% are concerned, while in Germany 46% are concerned.

#### Impact of EU 20-20-20

There are varied views with regards to the impact of the directive. Respondents expect to see an impact in terms of changes in processes (29%), rules and goals of the company (15%), and some in acquisition of facility (11%).

**“[we are] very intensively affected... climate protection is our day-to-day goal. But [we] go beyond 20-20-20, so that activities undertaken [still meet] the EU regulation.”**

*Engineering, Germany*

The policy is perceived to mostly affect IT/Technical Operations and Engineering/Product Development.

Department Affected by EU 20-20-20	% of Companies
IT / Technical Operations	35%
Engineering / Product Development	22%
Manufacturing	12%
Procurement	8%
Logistics	8%
Customer Service	7%
Marketing & Sales	4%
Human Resources & Administration	3%
Finance & Accounts	2%
No departments have been affected	7%
Other Departments	5%
Don't Know	28%

Figure 3: Departments affected by EU 20-20-20. Select all that apply.

Note that only 7% of IT Professionals mention no department in their company has been affected.

**“These measures are already part of the plan of the company prior the directive.”**

*Executive Management, Spain*

### Impact on Equipment Purchases

The energy efficiency mandate of EU 20-20-20 has impacted the way some companies buy data centre equipment. 72% of IT Professionals indicate that energy efficiency is one of, or the most important consideration when purchasing data centre equipment.

Has EU 20-20-20 affected the way you purchase data centre equipment?	% of IT Professionals
Yes, energy efficient products are more important to my purchasing decision but not the only attribute I consider	58%
Yes, I only consider the most energy efficient products	14%
No, the new regulations have not changed my purchasing behavior	19%
Don't know	9%

Figure 4: The impact of EU 20-20-20 on equipment purchases

### Compliance Actions Considered, Taken

Companies have considered and implemented various options to comply with EU 20-20-20. Purchasing more energy-efficient equipment and increased monitoring of data centre equipment are the two most-implemented actions taken to comply with the requirements.

### Consideration on Actions

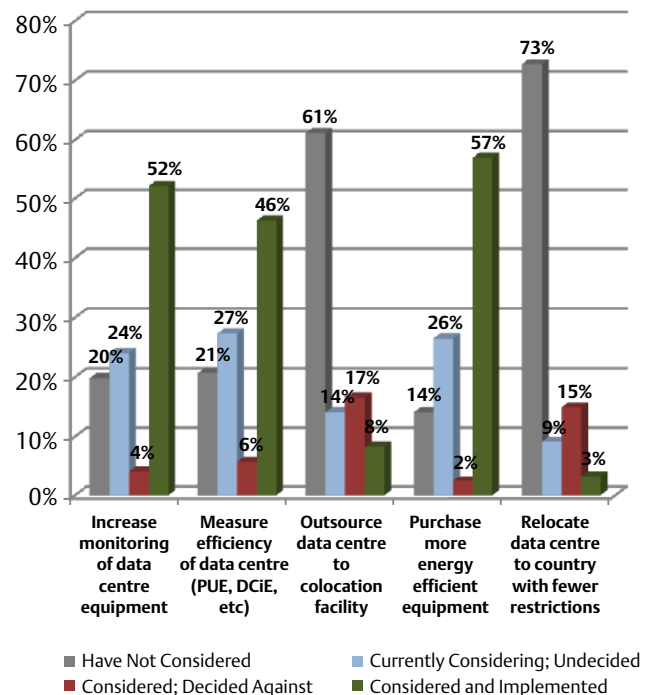


Figure 5: Compliance Actions, among those aware of EU 20-20-20

The overall trend is to improve their facilities, rather than move facilities to countries with less stringent policies, or outsourcing operations to colocation facilities.

The trend of taking action reinforces a shift in attitudes towards ‘going green’ and many IT professionals are consequently ... meeting the policy requirements.

**“[We want to know] specific obligations applicable to our sector (IT).”**

*Executive Management, Spain*

So far, IT professionals have basic information about the policy. But they would like greater disclosure on what the policy is and how it will affect their companies.

## Measuring Efficiency

IT professionals use various efficiency measurements in their data centres. Among those that are commonly used are cooling and power utilization.

Efficiency Metrics in Data Centres	% of IT Professionals
Cooling Utilisation	74%
Power Utilisation	71%
Temperature & Humidity	68%
Absolute Power / Energy	62%
PUE and/or DCIE	56%
CPU Utilisation	48%
Storage Utilisation	41%
Network Utilisation	41%
None of These	4%

Figure 6: Efficiency Metrics. Among those aware of EU 20-20-20. Select all that apply.

But in the measurement of Power Usage Effectiveness (PUE), respondents revealed that they have different interpretations from that outlined by the Green Grid.

PUE in Data Centers	% of IT Professionals
Measure data centre input power less shared HVAC, building lighting and security	10%
Measure data centre input power	6%
Measure data centre input power less shared HVAC	2%
Some other measure	76%
Don't measure PUE	5%
Don't know	1%

Figure 7: PUE Measurement Methods. Among those aware of EU 20-20-20.

This push for more efficiency is driven by increasing power cost (39%) and own company's initiative to go 'green' (28%). Improving facilities is not only an adherence to environmental regulations, but it also increases productivity of the data centres by increasing the capacity of data centres.

Knowing now what has been done and how it is being monitored, how do European companies see themselves moving in the future?

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## Alternative Energies?

Companies have expressed interest in using alternative sources of energy to help meet the requirements on EU 20-20-20. Among these sources, solar energy seems to be the most widely considered for data centres. There is also interest in using hydropower, wind, and geothermal heat.

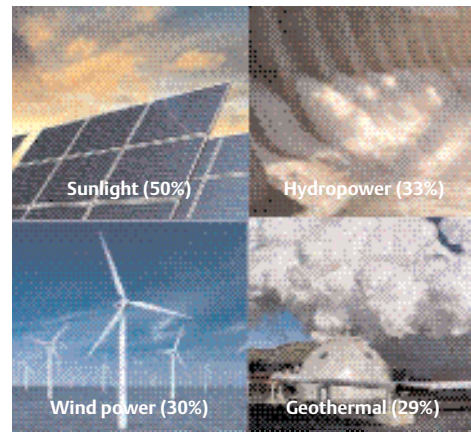


Figure 8: Alternative power choices, among those aware of EU 20-20-20.

But there is still hesitation among some in moving towards alternative energy sources. Cost implication (48%) and complexity of the process (38%) are barriers in the use of alternative energy sources among IT professionals.

## A Greener Future?

Generally, IT Professionals are responding positively to EU 20-20-20 directive, and it seems that the future may look greener for European companies. However, it is hard to determine which lever is pushing the energy efficiency agenda harder in an organisation - rising costs or corporate responsibility. Whichever might be the more powerful, alignment with the EU 20-20-20 directive is forcing businesses to consider and taken a stance on energy consumption and environmental responsibilities.

## Respondent Profile

Here is some additional information about the respondents:

- Most of the respondents for the survey belong to the private sector (72%).
- Most are from the telecommunication (18%), and computer/data industry (10%). The rest are from various industries.
- Most companies in the sample are large, 200+ employees.
- Many in the sample manage smaller data centres, <500 sq m and less than 150 racks.
- Most of the respondents are from Germany and Spain.
- Most of the respondents work for Engineering (design, development, test), Data Centre Management (IT and Facilities responsibility), and Executive management (CIO, CTO, CFO).