

# ECO DESIGN MEMO CARDS

# BiVWAK!

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2022 Dec.



**BNP PARIBAS**

The bank for a changing world

### 1. Respect the main principles of Green UX/UI



Optimise the user journey to display only the essential elements



Promote the "mobile first" approach to limit busy screens. Be careful, however, do not neglect the desktop experience



Use only two fonts maximum: one for titles and another for texts



Establish a simple and refined graphics for a minimalist design

### 2. Optimise video media



Prefer .mp4 formats



If possible do not embed the videos but prefer links



Otherwise, do not autoplay them

### 3. Optimise the images of the website



Compress images



Prefer .jpg formats



Choose icons over images



Use SVGs for logos and icons

### 4. Simplify the interface



Remove complexity as much as possible



Consider the speeds of lower internet connections



Propose simple resources so as not to weigh down the HTML



Use only what is strictly necessary



Optimise information architecture



Optimising each stage of the production

### 1. Optimise the loading time of the pages

① A green website is not a fast website



Do not load files unnecessarily



Perform the necessary queries on the viewed page only



Promote Lazy Loading



Use cache rules



Only load specific content from the device used (computer, tablet, mobile)

### 2. Optimise the code



Avoid JavaScript animations

**CSS**

Prioritise CSS effects



Avoid repeating DIVS and CSS in HTML



Avoid plugin overuse

### 3. Optimise the configuration



Set configuration with an exact size to automatically resize images



Use less demanding alternatives to Google Analytics such as Matomo



Pay attention to the assets included in the projects

### 4. Respect the 3 pillars of Green IT



Reduce the number of queries



Decrease the level of exchanges



Limit information processing



GreenIT-Analysis

[Chrome extension](#)

**C**

Minimum acceptable  
EcoIndex result

### 1. Measure the web site eco index

① This tool checks the application of good eco-design practices



Clear computer cache



Enable analysis of good practices



Launch analysis



The tool indicates in the form of a list is the site complies with the best practices

### 2. Measure the site performance with development tools

① Improving site performance makes it more eco-friendly



Check the number of requests



Check the level of exchanges



Check the information process



Check the website images



Check the weight of the code



Lighthouse

[chrome.google.com/lighthouse](https://chrome.google.com/lighthouse)



Google PageSpeed Insights

[pagespeed](https://pagespeed)

### 1. Perform regular reviews of infrastructure resources

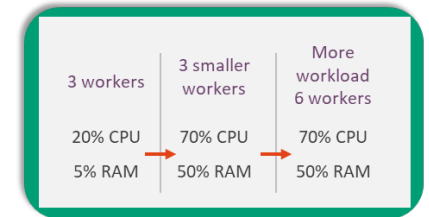
Regularly decommission unused environments & resources



### 2. Properly size resources in line with business needs

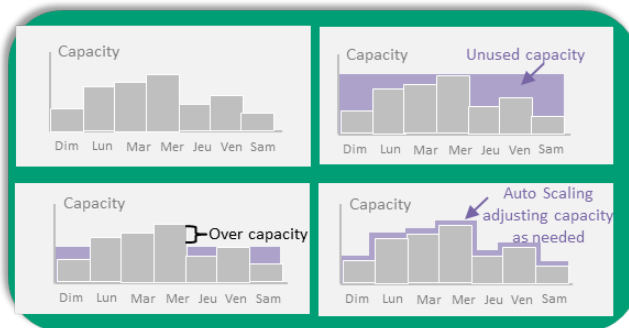
Adapt storage capacity, and server size

Adapt data duplication and redundancy to business continuity needs



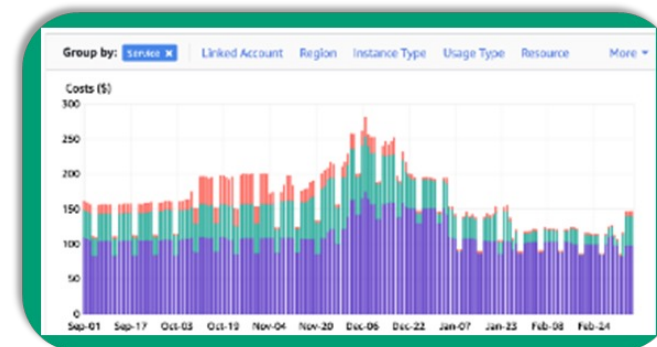
### 3. Implement auto-scaling policies

Adapt the amount of resources according to the consumption of the service



### 4. Stop non production environments when not used

Implement a START/STOP policy for non-production instances to stop them during night and week-ends



### 1. Enabled simplified navigation using a screen reader and a keyboard



The site must be functional with the keyboard



The focus must be visible and move gradually and consistently



Links and buttons names should be understandable even without context



Allow element animation control (pause, stop, hide)



Add avoidance links allowing direct access to content on the page



Make non-displayed elements vocalisable by screen reader

Make displayed elements non-vocalisable by the screen reader



Inform when opening new windows

### 2. The content must be accessible in any layout



All content remains displayed and no element is cut off up to a 200% zoom



There is no loss of information and all features are available when switching into responsive



Prefer relative units EM, REM and %

### 3. Add *aria* attributes to improve vocalisation

#### To indicate that the item is disabled

```
<button type="button" disabled>Delete</a>
```

#### To indicate that the element is required

```
<input type="number" id="telephone" required>
```

#### To indicate an input error

```
<input type="text" id="email" required aria-invalid="true">
```

#### To have the screen reader announce an important message

```
<span role="alert">Incomplete field</div>
```

#### To add a description to the item

```
<label for="search">Search</label>  
<input id="search" aria-describedby="Recherche" type="text">  
<span id="search">Mandatory search</span>
```

#### To add a label to the element

```
<button type="button" aria-label="home"></button>  
<button type="button" aria-labelledby="home"></button>
```

#### To indicate a drop-down menu and that it is open

```
<button type="button" aria-expanded="true" aria-haspopup="true"> </button>
```

### 1. Structure the content of the page

Add the main language of the page

```
<html lang="en">
```

Add a title to the page

```
<title>Title of the page</title>
```

Add structure titles

```
<h1>Main title</h1>  
<h2>Secondary title</h2>
```

### 2. Give caption to the images

Inform of the action behind the image

```

```

If the image does not contain any

```

```

### 3. Respect HTML semantics



All elements have start tag and end tag

Button

Links point to another page



Buttons trigger an action

### 4. Label the form fields

With a *label* tag (*for* and *id* attributes)

```
<label for="email">Your email address</label>  
<input id="email" type="text">
```

With *title* and *aria-label* attributes

```
<input type="text"  
title="Search" aria-label=  
"Search">
```

### 5. Correctly code the structure of the table



Do not use the table for layout purposes



Use *scope*, *headers* and *id* attributes



Use *<table>* *<tr>* *<th>* and *<td>* tags to code the table



Add a summary in the *<caption>* tag

### 6. Create enough contrast between the colors



Color should not be the only way to communicate information



Minimum acceptable contrast between background color and text

### 1. The navigation using a keyboard is possible

i Actions available with the mouse must also be available with the keyboard

+ The focus moves forward or backward

Activation of a checkbox

Activation of a button or access to a link

The display scrolls through a menu or change of radio buttons

### 2. The content is accessible in any layout



200%

All content remains displayed and no element is cut off up to a 200% zoom



There is no loss of information and all features are available when switching into responsive

### 3. Test the website navigation and vocalisation with a screen reader

i A screen reader is a text-to-speech software capable of reading a web page. Screen readers are often used by people with visual impairments.

#### NVDA FOR PC

+ + Start or restart NVDA

+ Access the NVDA menu

Move forward or backward in reading the page

+ Move from one title to another

+ Move directly to the top of the page

+ Move directly to the bottom of the page

+ Display all the titles, links, buttons, form fields and sections

Mute the vocalisation of NVDA

#### VOICE OVER FOR MAC

+ + Move forward in reading the page

+ + Move backward in reading the page

+ + Display all the titles, links, buttons, form fields and sections

Mute the vocalisation of Voice Over



nvda

[www.nvda-fr.org](http://www.nvda-fr.org)



voice over  
Native app on Mac

### 1. Test the code of the page using development tools

① Development tools allow to measure the accessibility of the site by scanning the page

Verify that the page contains a title introducing the page

```
<title>Title of the page</title>
```

Verify that the page contains the *lang* attribute

```
<html lang="en">
```

Verify that the page contains structure headings

```
<h1>Main title</h1>  
<h2>Secondary title</h2>
```

Verify that images contain *alt* attributes

```
  

```



wave

[bit.ly/aXe-Chrome](https://bit.ly/aXe-Chrome)



axe dev tool

[wave.webaim.org/extension](https://wave.webaim.org/extension)



a11y.css

[flood.github.io/a11y.css](https://flood.github.io/a11y.css)



colour contrast analyser

[www.tpgi.com/color-contrast-checker](https://www.tpgi.com/color-contrast-checker)



Color should not be the only way to communicate information

### 2. Check that the contrast between colors is important enough

① Existing tools automate the verification of contrast shades



Choose the text color

AAA The contrast level is displayed



Choose the background color



The tool indicates if it is compliant or not

## AA

Minimum acceptable contrast between background color and text

## 7.11

Minimum acceptable ratio