

Tooling om de duurzaamheid van jouw website te meten

WP Meetup Zwolle 8 okt 2024

Hoi, ik ben Charlotte!



🌱 Duurzaam webdesigner @
Digihobbit

🌱 Co-founder & CEO van
ENNOR Toolbox for Online
Sustainability



De milieu-impact van het internet



Any sufficiently advanced
technology is indistinguishable
from magic.

~ Arthur C. Clarke



Milieu-impact van het internet


ICT in 2020 verantwoordelijk voor 7% van de wereldwijde energieconsumptie



Milieu-impact van het internet





 Crypto

 AI

 ... maar ook 2 miljard websites



Milieu-impact van het internet

-  Energieverbruik tijdens gebruik
-  Waterverbruik
-  Energie & resources productie hardware
-  E-waste



Waarom website verduurzamen?

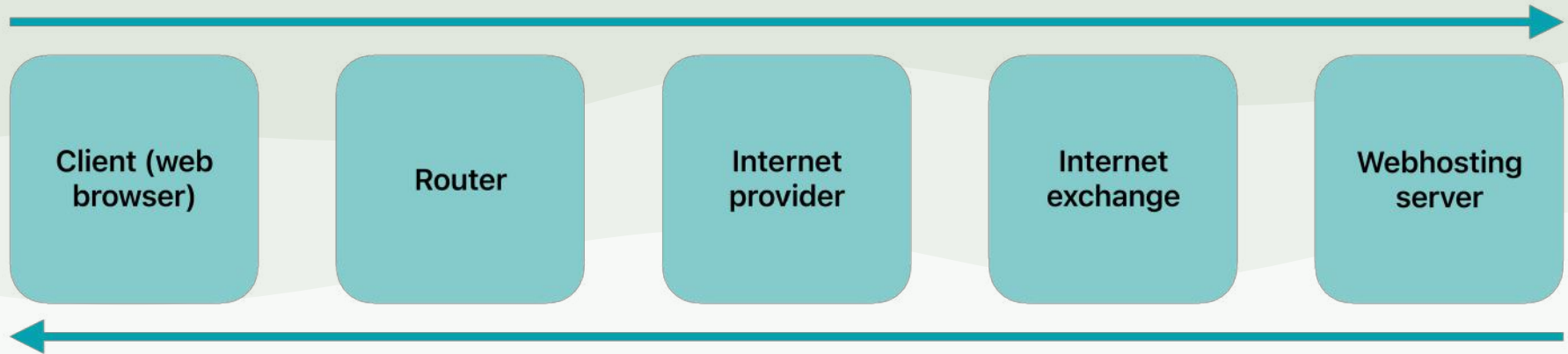
-  Digitale voorkeur
-  Aansluiten bij duurzame waarden
-  Geloofwaardigheid & imago



Meten = weten



Hoe werkt een websitebezoek?



Wat valt er te meten?

-  Energiemix webhosting
-  Dataverkeer
-  Client side processing
-  Server side processing *



Tooling



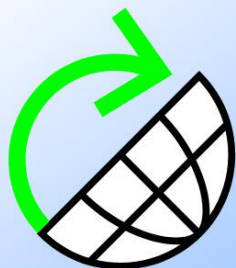
Thegreenwebfoundation.org



GREEN WEB
FOUNDATION

TOOLS ▾ INSIGHTS ▾ GET VERIFIED ABOUT ▾ DONATE

PROVIDER PORTAL



DOES YOUR WEBSITE RUN ON GREEN ENERGY?

The internet is the world's largest coal-powered machine. Check if your website runs on green energy — and help make the internet fossil-free.

CHECK

WE WORK TOWARDS A

FOSSIL-FREE



Thegreenwebfoundation.org



GREEN WEB
FOUNDATION

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[PROVIDER PORTAL](#)

RESULT OF GREEN WEB CHECK

[How does it work?](#)



WE'VE FOUND EVIDENCE

digihobbit.nl

IS HOSTED GREEN

We found evidence that this website runs on green energy. Using data submitted to our [Green Web Dataset](#), we can match this website's IP address to a [verified green hosting provider](#).

Hosted by: [Previder BV](#)

► [View supporting evidence for this hoster's claims](#)

Our take on [why green hosting matters](#).

IS THIS YOUR WEBSITE?

Display this badge on your website to show you're using a [verified green hosting provider](#), and support the transition to a fossil-free internet.



Websitecarbon.com

Website Carbon Calculator

[How does it work?](#) [FAQ](#) [Get the badge!](#) [API](#) [Consultancy](#)

The original Website Carbon calculator

Estimate your web page carbon footprint:

Your web page address

Calculate

By using this carbon calculator, you agree to the information that you submit being stored and published in our public database.




Websitecarbon.com

Website Carbon Calculator [How does it work?](#) [FAQ](#) [Get the badge!](#) [API](#) [Consultancy](#)

Website carbon results for: [dighobbit.nl](#)

A+ Hurrah! This web page achieves a carbon rating of **A+**


This is cleaner than **96%** of all web pages globally




Learn about our rating system

This page was last tested on 22 Nov, 2023. [Test again](#)

[Copy URL](#)

 Only **0.03g of CO2** is produced every time someone visits this web page.

[How do we calculate this?](#)

 This web page appears to be running on **sustainable energy**

[How do we find this out?](#)



Digitalbeacon.co

Beacon

Calculate the environmental impact of a web page, see the breakdown and learn what measures can be taken to improve it.

You can use this bookmarklet to generate a report for the page you're visiting, whatever the browser.

GENERATE A BEACON REPORT

WEBSITE URL

https://

SUBMIT



Digitalbeacon.co

Beacon



<https://dighobbit.nl/>

First visit

CO2

0.063g

SIZE

201.74 KB


Return visit

CO2

0.014g

SIZE

44.25 KB

 Overall this web page has been graded A+ when it comes to its carbon footprint

This website is hosted using renewable energy or carbon offsets.

[Find out more about grades](#)

EMISSIONS CALCULATOR

Monthly visits

10000

New / Returning (%)

40%

60%

Total: 332.79g PER MONTH



Digitalbeacon.co

Beacon

PAGE BREAKDOWN

TYPE	REQUESTS	SIZE	CO2
Document	1	31.65 KB	0.010g
Stylesheet	12	41.76 KB	0.013g
Image	6	93.94 KB	0.029g
Script	5	34.4 KB	0.011g
Total		201.74 KB	0.063g

HISTORY

DATE	CO2	SIZE
04.Oct.2024	0.063g	201.74 KB
29.Sep.2024	0.063g	201.69 KB
05.Sep.2024	0.060g	192.87 KB
08.Jul.2024	0.034g	108.61 KB
01.Jul.2024	0.034g	108.53 KB
22.May.2024	0.057g	185.25 KB
18.Apr.2024	0.057g	185.13 KB
02.Feb.2024	0.048g	154.55 KB
02.Feb.2024	0.048g	154.62 KB
31.Jan.2024	0.048g	154.54 KB
31.Jan.2024	0.048g	154.56 KB

This website has been tested 23 times**

PREVIOUS 10 TEST RESULTS ARE DISPLAYED ABOVE.



Withcabin.com/inspect

Cabin.

How green is your website?

Pricing

Docs

News

Sign In

Get Started Free →

How green is your website?

Enter a URL

Inspect

Inspect a website to estimate its carbon and energy impact.

The internet is responsible for around 1 billion tonnes of greenhouse gas emissions a year. Cabin Analytics automatically monitors your website's CO₂ usage for each page and tracks changes over time, helping you to improve your website's performance. [Learn more about Cabin](#)

CO₂ emissions of popular homepages

	Website	Green hosted	MB	gCO ₂ /visit
1	live.com		25.0	7.8
2	zoom.us	-	16.2	5.8
3	nytimes.com	-	15.9	5.7
4	hulu.com		18.0	5.6




Withcabin.com/inspect

← Popular websites

https://dighobbit.nl/

Inspect



Home Dighobbit

This is a cached result from 7/10/2023, 6:34:01 PM
[Check again](#)

Cleaner than 98% of websites

EMISSIONS

0.2g

of CO₂ per visit.

GREEN ENERGY



This site uses sustainable energy

REQUESTS

12req

files loaded on first visit

TOTAL SIZE

506kB

downloaded on initial visit

BLOCKED

1req

Usually blocked by ad/tracker blockers like AdBlock

COOKIES SET

0

These are set without the user's permission and are not blocked by ad blockers



Withcabin.com/inspect

Files

Loaded on the first unique visit to the page

images (6)	96.1 kB
IMG_3483-vierkant.webp dighobbit.nl	64.9 kB
Dighobbit-logo-def_DIGIHOBBIT-logo-turkoois.svg dighobbit.nl	16.4 kB
HPP-certificaat-2023-wit.svg dighobbit.nl	9.4 kB
layered-waves-haikei.svg dighobbit.nl	2 kB
Dighobbit-logo-def_Beeldelement-groen.svg dighobbit.nl	1.7 kB
Dighobbit-logo-def_Beeldelement-turkoois.svg dighobbit.nl	1.69 kB
scripts (3)	71 kB
wpo-minify-footer-c8a914e6.min.js dighobbit.nl	67.6 kB
badge.min.js digitalbeacon.co	3.34 kB
matomo.js dighobbit.nl	0 B



Ecograder.com

Ecograder



**Reduce emissions,
improve
performance, meet
your website goals
faster.**

Enter a URL below to see how it performs:

Ecograder.com

Ecograder

Scanned 10/4/2024, 1:51:24 PM GMT+2

RESCAN PAGE

TRY ANOTHER PAGE

Your Impact Report

Performance Impact

Ecograder Score

94

Out of 100 ⓘ

Emissions per Pageload

0.06

grams of carbon dioxide ⓘ

This page scores better than 88% of all URLs crawled by Ecograder

Report for:
<https://dighobbit.nl/>

Ecograder scores pages based on a variety of performance, efficiency, and user experience factors as well as emissions estimates and green hosting powered by renewable energy.

Page Weight



UX Design



Green Hosting



Ecograder.com

Climate Impact

Digital Carbon Rating ⓘ

A+ 

Ecograder's digital carbon rating system gives this URL an "A+" on a scale of A to E.

Page Emissions ⓘ

0.06 g

Assuming your page gets

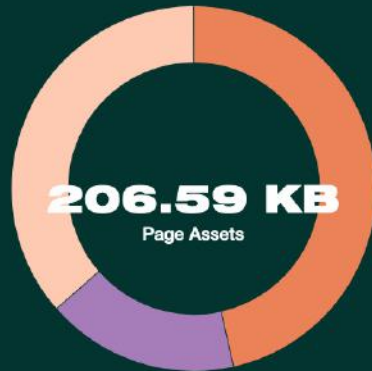
1000 

pageviews, you're emitting **60.00 grams** of carbon dioxide.

Page Weight ⓘ

**206.59
KB**

This page is 165.66% smaller than the average web page.



Scripts and media assets contribute to your page's emissions estimate but they aren't the only factor. The chart below breaks down estimated emissions impact per page view of individual asset types at this URL.

 **Images:** 96.20 KB, 0.0299 g of CO2e

 **Scripts:** 35.22 KB, 0.0109 g of CO2e

 **HTML/CSS:** 75.17 KB, 0.0233 g of CO2e

 **Other:** 0 bytes, 0.0000 g of CO2e



Ecograder.com

How to Improve Your Site

[HOW IT WORKS](#)[SHARE REPORT](#)

Use the list below to improve your website and reduce emissions in three key areas: performance, user experience, and green hosting.

1

Page Weight

By compressing image file size and removing unused items from a page you'll not only reduce emissions but faster-downloading pages make users happier as well. Below are some things you can do to reduce the size of this page.



Optimize Media

100 OUT OF 100



Reduce Overall Page Weight

100 OUT OF 100



Remove Unused Code

100 OUT OF 100



Properly size images

80 OUT OF 100



Remove duplicate modules in JavaScript bundles

100 OUT OF 100



Are my third parties green.com

[Are my third parties green?](#)

[Directory](#)

[Extensions](#)

[Test a web page](#)

Are my third parties green?

Check the third party resources used by a website.

Enter a URL

Test

[Advanced settings](#)

All test data is anonymously saved and stored privately. Test results pages are not indexed, but are publicly accessible to anyone with the right URL.

What does this test check for?



Aremythirdpartiesgreen.com

[Are my third parties green?](#)

[Directory](#)

[Extensions](#)

[Test a web page](#)



Results

<https://digihoobit.nl/>

Tested on: October 4, 2024 | Region: United States

Summary

Third-party requests

1 requests

1.8 KB

Green third-party requests

1 requests

1.8 KB

Estimated CO₂e

0.0495 g per

100 pageviews.



Share results

Copy this test's URL to share the results with others.



Aremythirdpartiesgreen.com

Requests by Category

Categories

Legend

● Uses a green web host ■ Does not use a green web host

CDNs

Google Fonts

● <https://fonts.googleapis.com/css?family=Roboto:100,100i,300,300i,400,400i,500,500i,700,700i,900,900i>

Green host

Yes

Caching

Effective

Transfer size

1.8 KB

Estimated CO₂e

0.0495 g / 100 visits

Resource type

Stylesheet

Test another page



Ecotool.digihobbit.nl

Reports

Nieuw rapport starten

internet.nl

4 Oct 2024 - Sitemap Parsing



www.vestingbar.nl

2 Oct 2024 - Done



www.onderderadarfestival.nl

1 Oct 2024 - Done



1 Oct 2024 - Done



30 Sep 2024 - Done



28 Sep 2024 - Done



biosphere.solar

26 Sep 2024 - Done



www.vananaarbeter.nl

11 Sep 2024 - Done



10 Sep 2024 - Done



www.rijkswaterstaat.nl

10 Sep 2024 - Done



6 Sep 2024 - Done



3 Sep 2024 - Done



Ecotool.digihobbit.nl

Rapport voor digihobbit.nl

← digihobbit.nl - 23 Jan 2024



Paginas 1 - 100 van 137

< 1 2 >

.../		A+	159.69 kB	0.053 g CO ₂
.../4-dingen-om-bij-stil-te-staan-als-je-online-duurzamer-wilt-zijn/		A	482.69 kB	0.161 g CO ₂
.../6-verschillende-manieren-om-een-wordpress-blog-te-gebruiken/		B	587.44 kB	0.196 g CO ₂
.../afbeeldingen-verkleinen-voor-je-website/		A	378.21 kB	0.126 g CO ₂
.../allereerste-doen-website-maken/		B	587.03 kB	0.196 g CO ₂
.../alles-over-groene-webhosting/		A	400.18 kB	0.133 g CO ₂
.../alles-over-webp-afbeeldingen/		A	356.38 kB	0.119 g CO ₂
.../alles-wat-je-moet-weten-over-het-verduurzamen-van-jouw-website/		A	344.25 kB	0.115 g CO ₂
.../alternatieven-voor-google-analytics/		A	393.78 kB	0.131 g CO ₂
.../basispaginas-website/		A	500.88 kB	0.167 g CO ₂
.../blog-uitmesten-zo-doe-je-dat-echt-goed/		A	361.45 kB	0.120 g CO ₂
.../blog/		B	644.65 kB	0.215 g CO ₂
.../blogpost-checklist-voor-publicatie/		A	483.03 kB	0.161 g CO ₂
.../blogpost-lezersvriendelijk-seo-proof/		A	332.76 kB	0.111 g CO ₂
.../boeken-duurzaam-webdesign/		A+	268.41 kB	0.089 g CO ₂
.../boeken-over-technologie/		A	262.22 kB	0.101 g CO ₂



Ecotool.digihobbit.nl

Rapport voor biosphere.solar

← biosphere.solar - 26 Sep 2024



6 paginas























.../www.biosphere.solar		F	5,630.06 kB	2.011 g CO ₂
.../www.biosphere.solar/contact		F	3,551.92 kB	1.269 g CO ₂
.../www.biosphere.solar/industry		F	9,612.46 kB	3.433 g CO ₂
.../www.biosphere.solar/open-development		F	9,534.02 kB	3.405 g CO ₂
.../www.biosphere.solar/product		F	3,740.17 kB	1.336 g CO ₂
.../www.biosphere.solar/purpose-and-people		F	22,796.03 kB	8.141 g CO ₂



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Paginarapport voor <https://www.biosphere.solar>

← <https://www.biosphere.solar> - 26 Sep 2024

Document		8.50 kB	0.003 g CO ₂
/https://www.biosphere.solar	 	8.50 kB	0.003 g CO ₂
Image		3,900.70 kB	1.393 g CO₂
...d.website-files.com/648875b1a5f994c874cf8479/660943b6a9a1ca9e3d4f6eb5_vlcsnap-2024-03-13-11h04m58s961.png	 	2,314.75 kB	0.827 g CO ₂
...875b1a5f994c874cf8479/6684ff55da6527676a09b8b9_1%20V1.1%20Hero%20Shot%20Close-Up-4%20compressed.jpg	 	1,521.51 kB	0.543 g CO ₂
...vlc-record-2024-03-31-12h22m43s-Biosphere%20Solar%20_%20Mission%20Statement%20v2mp4--poster-00001.jpg	 	50.68 kB	0.018 g CO ₂
...website-files.com/648875b1a5f994c874cf8479/66f0ae3f1a69df1fee1c6561_Biosphere%20Solar%20icon%20white.png	 	11.76 kB	0.004 g CO ₂
.../cdn.prod.website-files.com/648875b1a5f994c874cf8479/6577466b06da219224093550_BS%20Logo%20Favicon.png	 	2.00 kB	0.001 g CO ₂
Script		111.84 kB	0.040 g CO₂
https://cdn.prod.website-files.com/648875b1a5f994c874cf8479/js/webflow.fd38df8c7.js	 	72.28 kB	0.026 g CO ₂
https://d3e54v103j8qbb.cloudfront.net/js/jquery-3.5.1.min.dc5e7f18c8.js?site=648875b1a5f994c874cf8479	 	32.28 kB	0.012 g CO ₂
https://ajax.googleapis.com/ajax/libs/webfont/1.6.26/webfont.js	 	7.27 kB	0.003 g CO ₂
Stylesheet		31.55 kB	0.011 g CO₂
...website-files.com/648875b1a5f994c874cf8479/css/biosphere-landing-page-f948145b48d7927b.webflow.19a18e89b.css	 	27.49 kB	0.010 g CO ₂
...0,300,regular,500,600,700,800,900,200italic,300italic,italic,500italic,600italic,700italic,800italic,900italic%7CExo+2:regular	 	4.06 kB	0.001 g CO ₂
Font		668.03 kB	0.239 g CO₂



ENNOR.earth

-  Interactie doormeten
-  Dataverkeer én client side processing
-  Geautomatiseerde adviezen



Even the smallest person can
change the course of the future.

~ Gandalf

